opentext™

ZENworks Service Desk 24.2

Administration Guide

April 2024

1 Administrator Guide

1.1 Welcome

Thank you for choosing our service management solution. Your decision guarantees your service organization’s ability to deliver a comprehensive customer support service that meets, and even exceeds, your customer expectations.

Easy to configure and customize, our service management solution has been developed to offer the very best experience to users via the Web. This all-in-one support solution enables service issues to be readily created, managed, monitored and solved, with minimal impact to your customer's organization, allowing them to focus on their core business.

Your customers have access to a user-friendly portal that offers an easy-to-use Knowledge Base and request tracking system. Your technicians are provided with the tools that allow them to offer effective and efficient service. Supervisors have access to comprehensive management and reporting of the service desk, its technicians and all support issues.

For assistance with set-up and configuration of the application, access the Configuration Steps section of this guide. The configuration process requires the User to switch between the Administrator Role and Supervisor Role, so in the first instance it is advisable that the person customizing the application have both User Roles and this can be set for their account within the User tab of the Administrator screen.

The User Guides have sections relevant to the various User Roles within the application, including:

- Administrator
- Supervisor
- Technician
- Partner
- Finance User
- Manager
- Customer

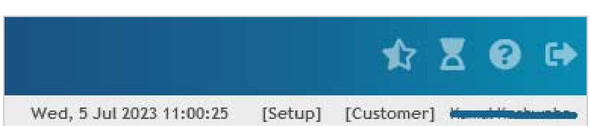
To start using this User Guide, click on the User Guide link within the Contents tab. Or, to use the step-by-step guide to assist with the application set-up, see Configuration Steps.

Use single clicks within the guide to open topic information.

1.2 Online Help

To assist Users when using the system, online help is available throughout the application.

To access information relevant to an opened screen, click the Help button located in the top right corner of the screen, next to the Logout button.



A Help Page is displayed containing information related to the application page that is open. Navigate through the help information as necessary, or click Show to view the entire User Guide.

1.3 Configuration Steps

These configuration steps are recommended as a guide to assist with customizing the application to suit the service environment. These steps are what is required at a minimum to enable your system. It should be noted that these steps require access to the Administrator and Supervisor views.

The following procedure covers editing the logged in User account details and ensuring this User has all the relevant privileges to achieve what is required to configure the system. It then details the steps to enable the system to work with email, setting the privileges for how Customers and Technicians can interact with the system, and how requests and the system will behave. This is defined within the Setup>Privileges tabs.

The User then has the option to customize the look and feel of the system, although this can be done later, if preferred. The next step is to create Customers and Users in the system.

Moving to the Supervisor Role, the User then configures the day-to-day elements within the application, which are part of creating and managing requests. This includes setting the time frames for managing requests and defining trigger points for escalations by configuring SLAs; detailing the steps a request will move through, by customizing Workflows, which includes setting the stages of the Workflow where timers will trigger automatic warnings and escalations; defining the Team(s) of Technicians who will be associated with the customized Workflows and SLAs.

With the basic elements in the system now in place, the User then moves to the Configuration tab to customize the Configuration Management Database (CMDB). This part is often considered the most complex part of configuring the system, as this is where the service environment, including physical and service Items, is mapped into the system with associated relationships. When designing the CMDB, first the templates for all the different Item Categories are created. These are refined as Item Type templates, with these two templates used to define the information recorded against each Item and classification of issues that can be associated with each Item when requests are logged by Customers.

After the CMDB structure is defined, Items are imported via AMIE or.csv file. This is when the Items are associated with Customers or Organizational Units, who can log requests against the assigned Items.

In the *Administrator* (Setup) view:

1. Customize the default Supervisor access

   Include Incident, Service Level Management and if applicable, Request Fulfillment, Problem and Change Management. Adjust the User Timezone, if applicable.

2. Configure Email Setup and Email Messages(See:Setup>Email)

   This step allows the system to manage requests via email. After completing the information in the Server and Setup tabs, the content for automated emails sent by this system can be customized. This does not have to be all done at this point, however, it is suggested that within the last page of the Templates tab, the Signature be updated to reflect the service organization name.

3. Enable System Privileges(Setup>Privileges)

   At this stage, it is suggested that each option be reviewed in the User, Customer, Request and System tabs within the Privileges sub-menu option. Although it should be noted, these can be adjusted in the future. If you are unsure about what an option refers to, select the Help button on the system UI, to display the relevant page of the User Guide. Be sure to set the appropriate

Time Zone within the Customers Privilege tab, as this needs to be set before importing Customers and Users via an authentication server to ensure it is set correctly on all newly created accounts.

4. Customize Banners and Welcome Page Message(Setup>Customize)

   This can be done now if the images are available. Alternatively, return to this step at a later stage.

5. Create Customers and Users, which include Supervisor, Technician and Partner accounts

   Note, to associate Organizational Unit information with Customers or Users, this can be configured at this point within the Supervisor>User>Organizational Unit tab. Should the import include the name of the Org Unit that matches what is recorded in the system, the details from the information recorded internally will be applied to the Customer or User.

   If using an authentication server, move to the Setup>Authentication tab.(See:Setup>Authentication;Active Directory Integration or LDAP Integration)

   If creating accounts directly in the system (i.e., using internal authentication), go to the User tab. (See:Customers and Users.)

6. Set up Service Level Agreements (See:Service Level Management)

   Move to the *Supervisor view* by clicking the User link, next to the logged in User Name.

   If these are unknown at this time, the system includes a default SLA that can be used.

7. If applicable, create Operational Level Agreements and/or Underpinning Contracts (See: OLAs or UCs)

   This is more than likely an advanced system configuration step at this point, or may not be relevant to the service organization. However, if OLAs or UCs are in place in the service organization, they can be mapped into the system now. Alternatively, they may be added later.

8. Customize or create Workflows (See: Incident & Problem Workflows and Service Request & Change Workflows)

   The system includes default Workflows across all Processes. At this point, the default Workflows may be sufficient, or they can be customized to suit the service organization requirements. Alternatively, new Workflows can be created from scratch.

9. Create Teams(See:Teams)

   By default the system includes one Process Team and the Unknown Team. Edit the existing Process Team, including defining the way it works, assigning the relevant Technicians, associating the Workflows that the Team will support, and setting the Technicians to work in the appropriate Escalation Layer(s). Teams are to be created for all Processes that are to be managed by the system (i.e., Incident, Problem, Change, Service Request.), although it may be relevant to finish one Process first, and return to do the other Processes at a later date.

10. Assign Default Teams and SLAs within Request Privileges (See:Setup>Privileges>Requests)

    Move to *Adminstrator view* by clicking the Setup link, next to the logged in User Name

    These settings will be applied to all newly created Items and Item Types that result from an AMIE import.

11. Configure the CMDB, by first customizing Configuration Categories:

    Return to the *Supervisor view* by clicking the User link, next to the logged in User Name.

The system includes a number of default Categories, which should be more than enough for most organizations. Within the Category, the attributes of an Item that are to be recorded in the system, are defined by customizing the field labels. The stages that an Item can move through in its lifecycle are defined within the Life Cycle tab (i.e., Installed>Pending Configuration>Pending Test,etc). The types of issues reported against an Item are then created in the Classifications tab.

Configure the Category Details Fields (See:Configuration Categories)

Define the Category's Life Cycle (See:Category Life Cycle)

Create Category Classifications (See:Category Classifications)

12. Create Service Type templates and Service Items

    For service organizations wanting to fast-track the capability to manage requests in the system, it is advised to create Service Items in the Service Catalog to allow Customers and Technicians to log and manage requests within the application. Create a Type using the Service Category for each Service being offered, then create the Service Item with the newly created Type template. For the Service to be available in the Catalog, be sure the Service Item status is set to an Active, non Pre-production State. If the Customers are to access a Service on the Customer Portal, the Service Item Lifecycle State should also be set to Customer Visible.

13. Create Item Types (See: Item Types)

    If the Types are not to be automatically created as part of an AMIE or .csv import, this is done in the Configuration>Types tab. This is where the Category template is associated with the Type template, the default Teams and SLA are set, and the Classifications for issues reported against Items are refined.

    If Items are to be imported via a .csv file or AMIE proceed to Step 14.

14. Within the *Admin>Setup tab*, complete the Item Import (See:AMIE Import or CSV Import).

    After the Items are successfully imported, a Supervisor User will need to refine the Type templates created as part of the import, if the default settings do not apply to a newly created Item Type. This task does not need to be completed immediately, and can be done on an ad hoc basis (i.e., whenever a Type template is opened in Edit mode, before saving, the system will prompt the User to set any required information.)

15. Within the *Supervisor>Configuration tab*, create Items.(See:Items)

    If Items are to be created directly within the system, this is completed in the Configuration>Items tab. An Item Type template is selected for the new Item, which applies all the default information set within the Categories and Types tabs, then ownership of the Item is assigned to the new Item. Ownership can be Everyone (i.e., a Global Item), one or more specific Customers or Organizational Units. The specific attributes of the Item are recorded in the Details tab, and any relationships with other Items in the system can be created within the Relationships tab, now or at some point in the future.

    Items can be mapped to Services, if required.(See:Service Catalog.)

1.3.1 Implementing the Processes

For information and steps for implementing for the following Processes, refer to:

- Request Fulfillment
- Incident Management
- Problem Management

- Change Management
- Release & Deployment Management

1.4 Users

Users within the service management system that are assigned to support Teams must be allocated one of the following Roles:

- Technician
- Supervisor
- Partner.

The above User Roles can work on requests, relevant to the Processes they have been allocated (i.e., Incident, Problem, Change or Service Requests). The About Roles section of the User Guide provides more information regarding specific User Roles in the system.

1.4.1 User Availability

The User List View includes the User Availability status by default, this is based on work hours configured in the Schedule tab of the User and their Vacation Status.

The following icons may be displayed in the List View:

Available	
	The User is not on leave and is available for request assignment based on their assigned work hours.
	The User is not on leave but is not available for request assignment based on their assigned work hours. Or, if no hours are set within the Schedule tab when the "Define Works Hours" is enabled within Admin>Setup>Privileges>User screen and the User is not on vacation, the system will consider Users to be unavailable.
	The User is On Vacation. If the User logs into the system when assigned this status, they will not have to the User Portal. However, if they are also have Customer Web Access, when they log in to the system they default to the Customer Portal.

1.4.2 Creating a User Account

When creating a new User, the following tabs are available:

- Information
- Aliases
- Team

- Skills
- Types

1.4.3 Information Tab

Within the User Information tab, User details can be created, viewed and edited. User Roles, Process assignment and default Login credentials can all be customized within this tab.

NOTE: If Custom Fields are to be created for User Information, it is recommended that the Administrator complete the customization prior to creating Users.

To create a new User:

1. Select User>Users
2. Click New

   The User Information screen appears.
3.

User Information Fields	
Title	Select a title from the drop-down menu options. (This field is displayed if the Enable Titles option is set to Yes in the Admin>Setup>Setup>Privileges>Customer tab.)
First Name*	Enter the User's First Name.
Last Name*	Enter the User's Last Name.
User Name*	Enter a User Name (unique).
Password*	Enter a User Password. Note: Passwords can be changed under the Users Tab or reset by the User under their My Account tab.
Roles*	Assign a Role for the User. Each Role has associated permissions. See Roles. Every Technician Role assigned also needs a Supervisor assigned. **NOTE:** Note: More than one Role can be assigned but only one of Supervisor, Partner or Technician can be allocated per User.
Default Portal*	The Default Portal is the User Interface accessed by default when a User with multiple Roles logs into the system. **NOTE:** If the Users Default Portal is set to Customer, the User details will not be accessible in the Users list, but included in the list within the User>Customer tab.

User Information Fields	
Assignment Template	This option is visible in a new User Information screen if Job Assignment Templates are configured in the User> Assignments tab. Select a template to assign the new User to multiple Teams, Escalation layers and Processes.
Operations Processes	Assign the licensed access for Request Fulfilment, Incident and Problem Management. Assigning Processes to the User gives them access to support those Processes and enables them to be assigned as Team members for those Processes' Teams. See User Processes.
Change Processes	Assign the licensed access for Change, Release and Deployment Management. Note, Users assigned Release are automatically assigned Deployment.
Internal Processes	Enable the Users privilege to maintain Service Level, Configuration and Knowledge Management. Selecting the Configuration and Knowledge options displays the relevant fields that enable granular controls to be set for those processes. **NOTE:** The Finance Role is limited to the processes of Configuration and Service Level Management.
Knowledge	If the User is assigned the Knowledge Management process, their privilege to create, edit, delete and/ or publish KBAs can be configured.
Configuration	If the User is assigned the Configuration Management process, their privilege to create, edit and/or delete Items within the CMDB can be configured on a per task basis.
Customer Org Unit	If the User is also allocated a Customer Role within the system, this field is displayed. Enter Company or Department details that apply to the User in their Customer Role.
Line Manager	(This field is visible if the User is also assign a Customer Role within the system. The information can not be edited if the line manager details are set by the LDAP synch.) If relevant, assign a system user with the Customer Role who can approve/reject requests made by this Customer.
Primary Email*	Enter the User's email address. System messages are sent to this address.

User Information Fields	
Send To	This field becomes available for Users that have the Customer Role and have alternate email addresses entered on the Aliases tab. Select the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.
Phone	Enter telephone details.
Mobile	A mobile number can be entered as a contact number or for use with SMS (Short Mail Service message). An SMS can be sent to notify the assigned Technician when a Service Request is raised. SMS Messaging options: ◆ From the drop down list, select the SMS service provider. ◆ Override SMS Address. If your service provider does not appear in the list, click this checkbox and enter an alternate Service Provider.
SMS Override	Enter SMS Gateway override details for the User, if a number other than the one entered in the Mobile field is to be used to send/receive updates via SMS. Enter the complete SMS details in email address format, i.e., 000777891@smsgateway.provider.com.
Fax	Enter known fax details.
Pager	Enter pager details.
Salary	An annual salary can be entered. This value is used for reporting.
Forum Moderator	Select this checkbox to designate this User as a forum moderator. See Forums.
Survey Manager	Select this checkbox to enable this User to create and manage surveys in the system.
Supervisor*	Select a Supervisor, if the User has a technician role. Users with the Technician Role must be allocated a Supervisor.
Partner For	When a User is assigned the Partner Role, their associated Partner Organization must be assigned within this field.

User Information Fields	
Partner	If the User is also assigned a Customer Role, this field allows the Customer to be associated with a Partner Organization who will handle their requests when they are logged in the system.
Available	Shows if the User is available for requests to be assigned to them. This is based on work hours configured in the Schedule tab of the User and their Vacation Status. If no hours are set within the Schedule tab when the "Define Works Hours" is enabled within Admin>Setup>Privileges>User screen and the User is not on vacation, the system will consider them to be unavailable.
Assignment	**Visible when the Assignment Control is enabled in Admin>Setup>Privileges>User. Set to Off if the User is not to be assigned new requests, irrespective of their Availability status.
On Vacation	Placing a Technician on vacation excludes them from being assigned new requests automatically. When On Vacation is activated a Technician's existing requests are not reassigned.
Training	This option is only visible for Technician Users, and when enabled allows the User to be included in Teams to view requests but does not allow them to put the request in edit mode or add Notes.
Email Locale	Adjust the default language for email correspondence, if required.
Country	The User automatically adopts the default Country set for the system. However, the Country can be manually adjusted here for the specific User.
State	Set the State information based on the Country selected, if required.
Timezone	The User automatically adopts the default Timezone set for the system. However, the Timezone can be manually adjusted for the specific User.
GPS	The GPS coordinates of the last known address.

* Denotes Mandatory Fields

1. Complete the User detail information.
2. Click Done.

Emailing User Details

To email a User regarding their system log in credentials, click the Email button within the User Information screen. If Random Passwords is enabled, selecting Email will reset the Password and forward the details to the User. If Password Questions is enabled in Setup>Privileges>System, selecting Email will send a link to the User directing them to a page that includes the security questions set for their account and reset the password based on the answers provided. Customers must complete this process within an hour of the email being sent.

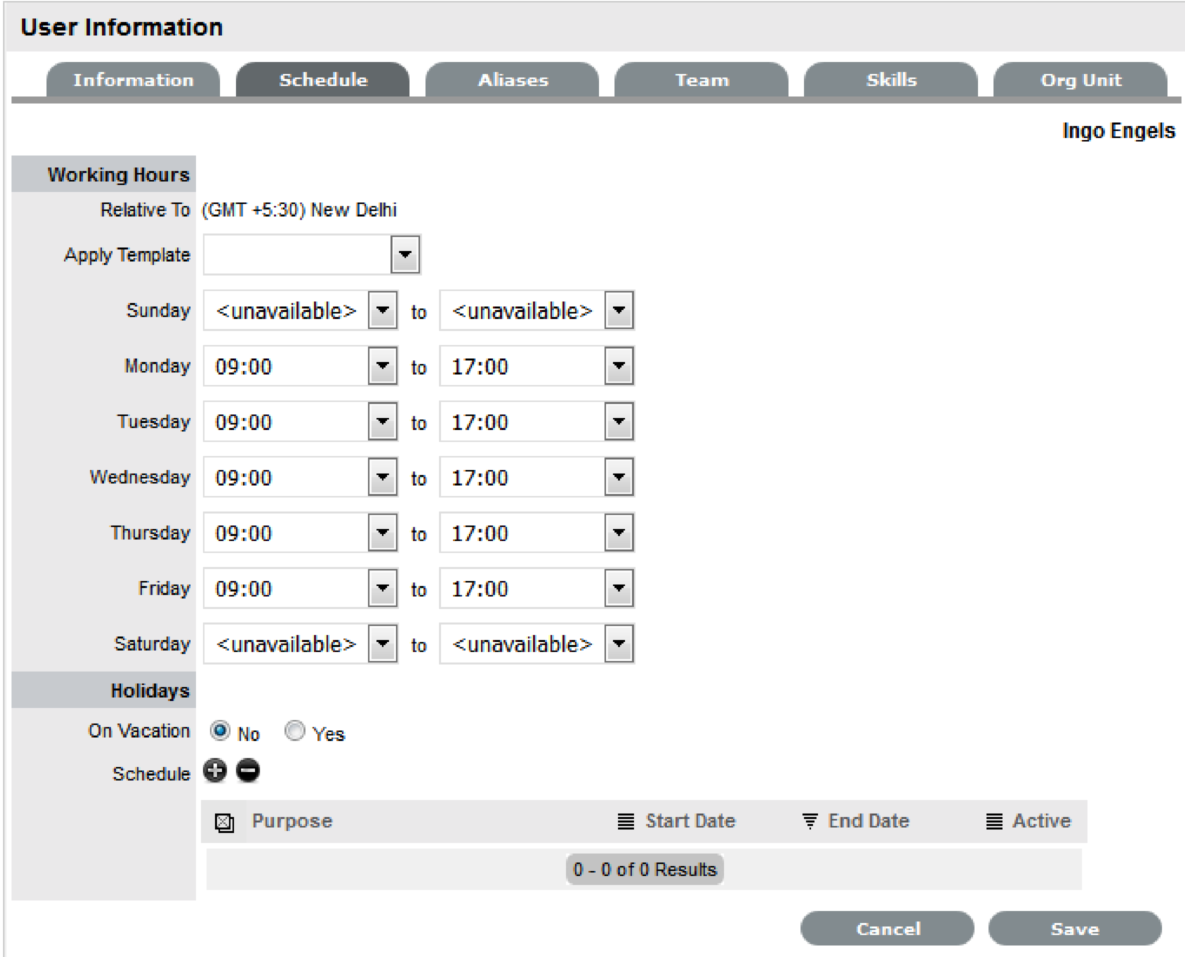
vCard Button

Select this option to download and open the User's information in an electronic business card format, to email or save outside the system.

1.4.4 Schedule Tab

By default the Schedule tab includes the On Vacation option, which can be set to Yes when the User takes leave. The system will automatically re-assign the User's active requests, if the Vacation Reassign option has been enabled in the Admin>Setup>Privileges>User tab. If this option has not been enabled, a Supervisor User will need to manually re-assign the requests, if required.

If the system Setup has been configured to Define Work Hours and Schedule Vacations, this additional functionality is available within the Schedule tab.



Define Work Hours

Use the drop-down lists to set the hours of work the User is available for the week. Based on what is set here, the system will assign requests to the User during their available hours. However, if no other Technician is available for requests based on their defined work hours, the system will assign the User new requests outside of their set work hours.

NOTE: If the Technician Define Work Hours option has been enabled, the hours of work MUST be defined, otherwise the system will ignore the Technician Assignment logic and automatically allocate new requests to the Team Lead.

Schedule Holidays

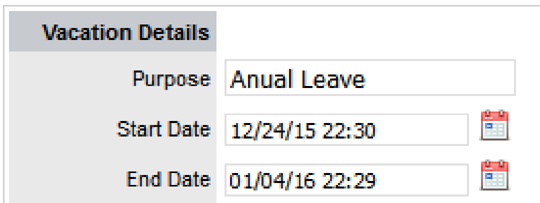
The Schedule Holidays functionality allows the Supervisor to pre-book leave in the system for Users. There are no restrictions on the number of days that can be set, and based on the configuration, when a leave period is activated, the system will automatically re-assign active requests to other available Users applying theTechnician Assignment logic. If the request was initially drawn from an Incident Queue, it will not return to the Queue but be reassigned to the most relevant Technician based on the Technician Assignment logic.

As a Supervisor User, to schedule User leave:

1. Go to the Users>User option

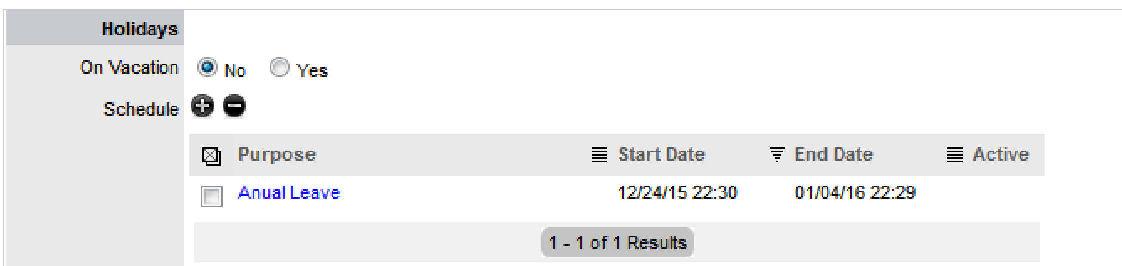
2. Select the hyperlink name of the User
3. Move to the Schedule tab
4. Click Edit, to activate edit mode
5. In the Schedule field, select

   The Vacation Details window is expanded.
6. Enter the reason for leave in the Purpose box



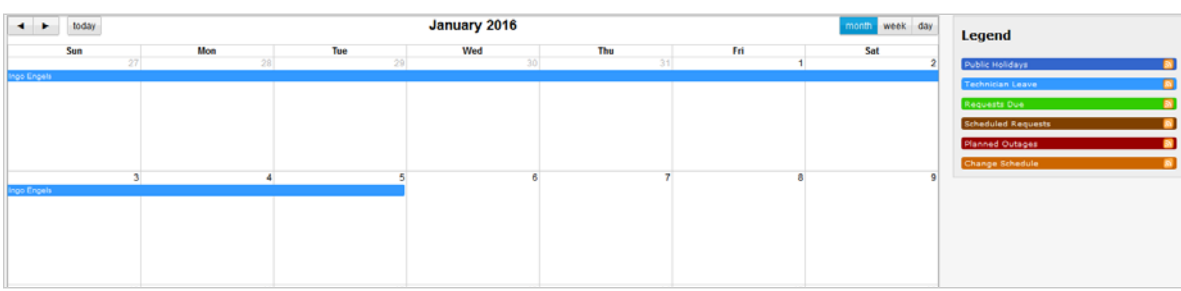
7. Complete the Start and End date details
8. Click Save.

   The details are recorded in the database and when the Start Date is reached, new requests will not be assigned to the User. After the scheduled End Date, the User account will be automatically re-activated.



NOTE: It should be noted that if the User on vacation is a Team Lead for any Teams where there are no Technicians available for new request assignment, the system will allocate new requests to the Team Lead, regardless of their vacation status.

The Supervisor Events calendar in the Home tab shows when Users are on Vacation:



Request Subject in the Calendar: Technician will able to view the Request Subject in the calendar only for Request Due and Scheduled Request.

Subject of the Request is displayed in the calendar. In case of lengthier subject, only a part of subject is displayed and tool tip displays the entire subject.

In case if there is no subject, “no subject” is displayed.

1.4.5 Aliases Tab

NOTE: This is only applicable if the User has the Customer Role.

Use the Aliases tab to enter additional email addresses. The system creates requests from emails sent to the system account from a valid email address. Email addresses in the Aliases tab allow the User to send emails to the system account from more than one address. Notifications for requests created using an address in the Aliases tab, are sent to the main email address and cc'd to the alias address that was used to create the request.

When one or more alias email addresses have been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.

To add an alias email address:

1. Select User>Users.
2. Click on the User name

   The User Information screen appears.
3. Select the Aliases tab
4. Click Edit to access the Add button
5. Click Add
6. Enter an alias email address
7. Click Save.

   When an alias email address has been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the alias email address to be set as the default address applied to Customer correspondence.

NOTE: An alias will only be used if the User has a Customer Role.

To remove an Alias Email Address, in Edit mode, tick the checkbox next to the Email Address and click the Remove button.

1.4.6 Team Tab

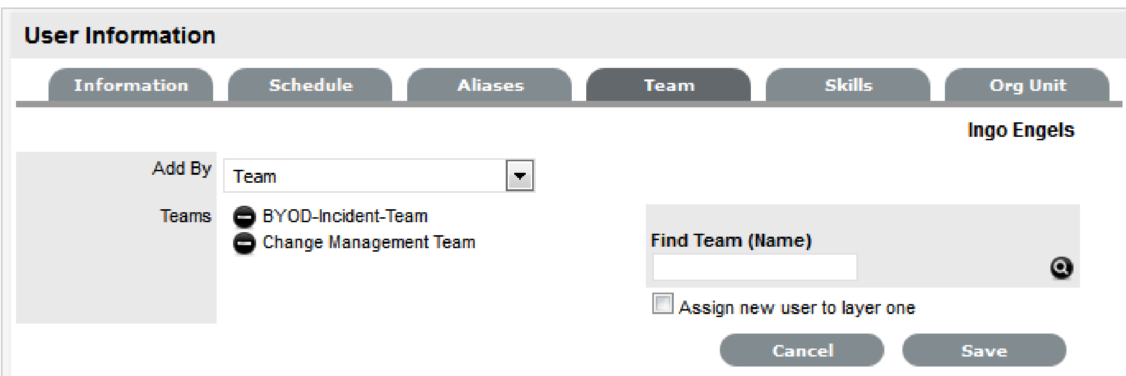
The User Team tab lists Teams associated with the selected User. Use this section to assign the User to one or more support Teams, making the additions by Team or job Assignment templates that have been configured in the system. Processes selected in the Information tab for the User determine the Teams available in the Team tab.

Once a User is assigned to the Team, the Supervisor must configure the escalation layers for the Team to include the new User. However, the User can easily be added to Layer One of escalation when associated with a new Team by ticking the Assign new users to layer one option when assigning the Team within this tab. Also, if Assignment templates are created in the system, by selecting Team Template, the User will automatically be added to Teams, Escalation Layers and Work Groups configured within the selected Template.

NOTE: The User must be assigned the relevant Processes for Support Teams to be shown in Team search results. If an Assignment template is selected and includes Teams for Processes the current User is not allocated, those Teams will not be included on the Template.

To add a User to a Team within the Team tab:

1. Click Edit



2. Using Add By Team, enter a Team Name in the Find Team field and click or leave the field empty and click

   The Teams for Processes that the User is assigned are displayed in the search results.
3. Tick "Assign new user to layer one", if relevant
4. Select a Support Team link

   The User is assigned to the Team and layer one of escalation if appropriate.
5. Click Save.

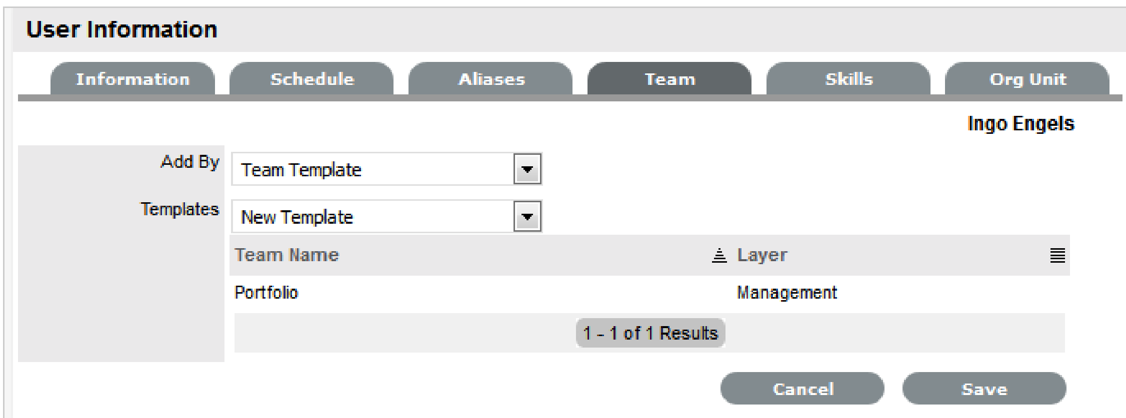
To add a User to a Team within the Team tab using Assignment templates:

1. Click Edit
2. Within the Add By field, select Team Template

   Job Assignment Templates that have been configured in the User>Assignments tab are displayed, but only including Teams consistent with the Processes assigned to the User

3. Select one or more Template options
4. Click Save

   The User is automatically included in the Teams, Escalation Layers and Work Groups configured in the Template.



To remove a User from a Team:

1. Select User>Users

   The User Information screen appears.
2. Click on the name of the User
3. Select the Team tab
4. Click Edit
5. Select to remove a Team assignment
6. Click Save
7. Click Done.

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8. **NOTE:** If a User is the Team Lead or the only person assigned to an escalation layer they cannot be removed from a Team under this tab.

1.4.7 Skills Tab

Use this section to assign any specific Classifications that are to be handled by a Supervisor, Technician or Partner. This assignment assumes areas of expertise for Users assigned to these Classifications. This allows the system to automatically route requests logged against these Classifications to the most appropriate User.

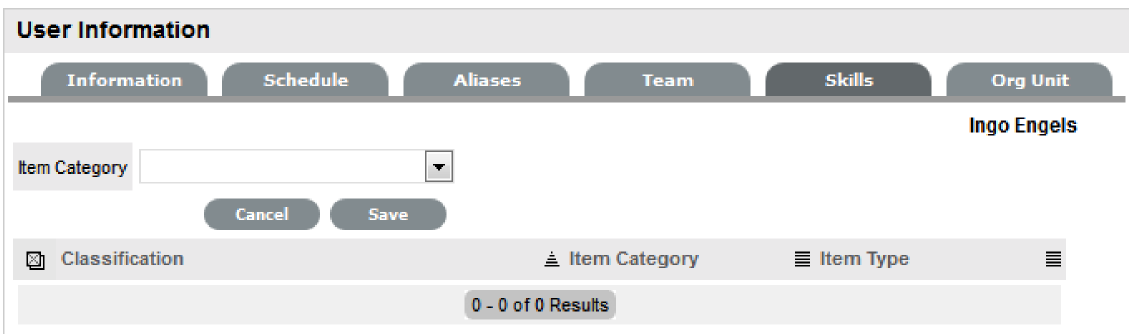
NOTE: Prior to using the Skills tab, Items and Classifications should be configured.

Assigning a Classification

To assign a Classification:

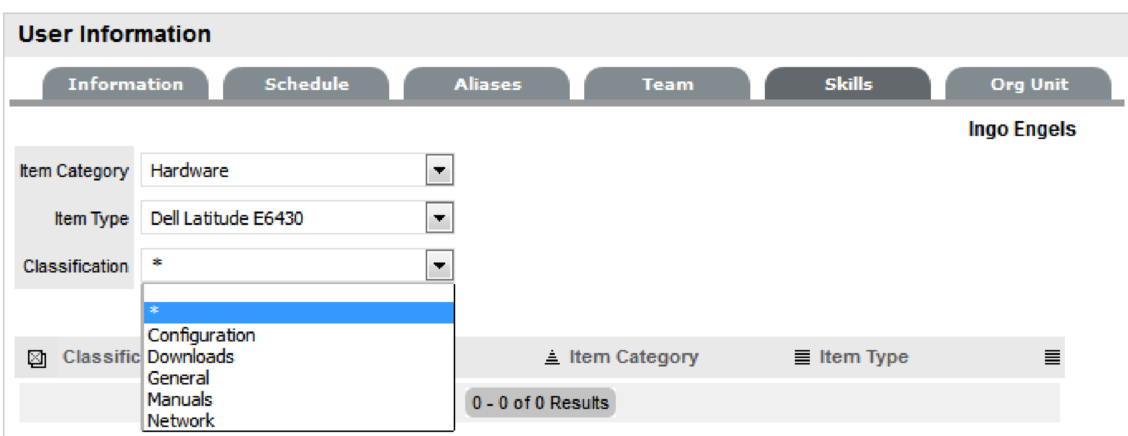
1. Select User>Users>Skills
2. Click Edit to display the Add button
3. Click Add
4. Select the Item Category

   The Item Type and Classification Type drop-down list is displayed.



5. Choose an Item Type, if relevant
6. Select * to assign all Classifications as Skills or choose a specific Classification

   The list displayed will include all Classifications configured for the Item Category and the Item Type, if an Item Type is selected.



7. Click Save
8. Click Done.

NOTE: The Classification assigned to the User is either based on the Classifications of an Item Category or Item Type, hence displaying two columns. However, the Item Type column will only include information when the Classification selected is specific to that Item Type, and not directly related to the Item Category.

To remove a Classification:

1. Select User>Users

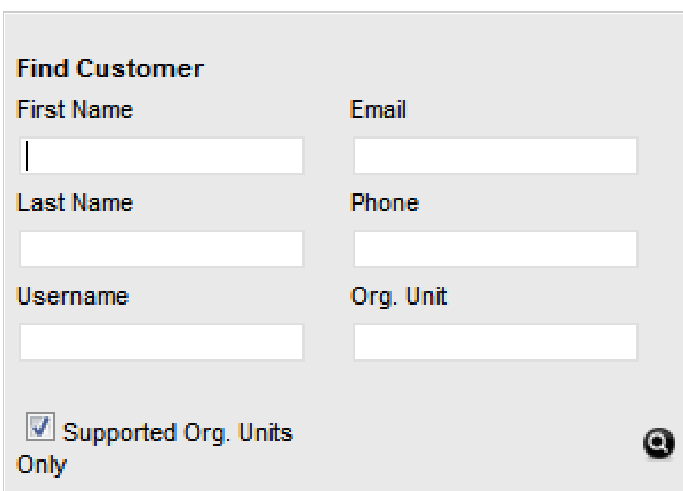
   The User Information screen appears.
2. Click on the name of the User
3. In the Skills tab, click Edit

   The Delete button appears at the bottom right.
4. Click the checkbox next to the Classification. Multiple Classifications can be checked
5. Click Remove
6. Click Done.

NOTE: The Classification assigned to the User is either based on the Classifications of an Item Category or Item Type, hence displaying two columns. However, the Item Type column will only include information when the Classification selected is specific to that Item Type, and not directly related to the Item Category.

1.4.8 Org Units

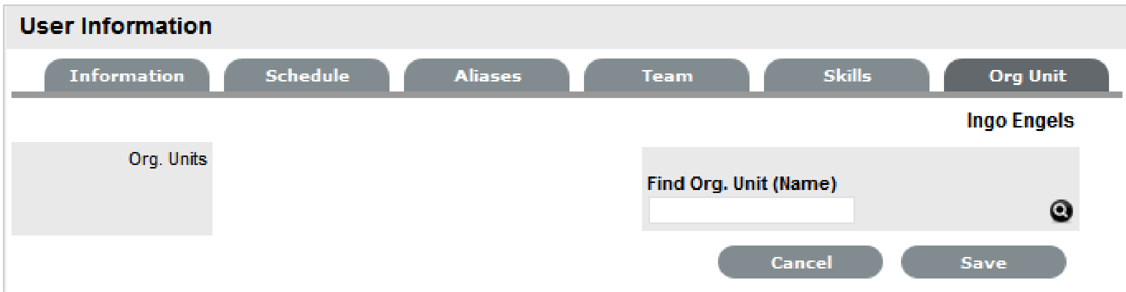
Use this section to assign one or more Org Units to a Supervisor, Technician or Partner, which will result in requests that are logged by these Org Units being routed to the assigned Users. When Users are assigned to support Organizational Units, the Find Customer option during the request creation process, displays the Supported Org. Units Only option. This limits the Customer search results to those Customers who belong to the Org. Units the logged in Technician is assigned to support.



Assigning an Org Unit

To assign an Org Unit:

1. Select User>Users>Org Units
2. Click Edit to display the Find Org. Unit search field
3. Enter any known Org Unit details or leave the field blank to return the full list of Org Units recorded in the system



4. Click
5. Click on the Org Unit name hyperlink to associate it with the User

   Multiple selections may be made, if required.
6. Click Save.

Removing an Org Unit

To remove the association between a User and an Org Unit:

1. Select User>Users

   The User Information screen appears.
2. Click on the name of the User
3. In the Org Unit tab, click Edit
4. Select next to the relevant Org Unit

   The Org Unit details are removed from the tab.
5. Click Save
6. Click Done.

Delegate

Use this section to assign this user as delegate for one or more Org Units or customers. Depending on requirements, you can assign or remove the Org Units or customers. To assign, click the search icon, and select the required Org Units or customers.

To Remove, click the icon next to the relevant Org Units or customers.

For more information about the delegate role, see “Delegate” on page 319

1.5 Technician Assignment

The logic behind Technician Assignment within the system is more than the application basing the allocation on the Technician location, load or skill set, as more extensive parameters are considered when routing requests to Technicians. By understanding the variables within the assignment process, Users can configure the system to better reflect the workflow of its service support Team environment.

When a request is logged with the service desk, the Team is selected based on the SLA and Workflow State of the request.

Figure 1: Request assignment logic

After the Team has been assigned to the request, the application:

1. Checks if the Team has escalation layers, and validates the capability of Technicians in Layer or Group associated with the request
2. To make an assignment within the layer or group, the system checks if Technicians are assigned areas of specialty - Skills or Classifications. If so, the system matches the Classification of the request with the Classifications supported by the Technician
3. If multiple Technicians are assigned the relevant Classification, or if specific Classifications are not assigned to the Technicians within the Team, then the system verifies if Team members have been assigned to support specific Organizational Units. If so, the application will match the Organizational Unit of the Customer to the Technician
4. If the Team "Live Priority" feature has been enabled, the system checks for Team Technicians logged into the application. If multiple matches have been made between the Technician Skills and the request's Classification, and the Org Unit of the Customer and Technician, the system checks for technicians logged into the application. However, if no match is made between the Skills and Organizational Unit, it will still check for the logged in User if the Live Priority Team functionality is active
5. If there are multiple valid Technicians based on Skill, Org Unit and/or Logged In User, the application will allocate the request to a Technician with the lightest request load.

NOTE: It should be noted that if the Technician Define Work Hours option has been enabled in the Admin>Setup>Privileges>User, the hours of work MUST be defined within the Super>User>Users>Schedule tab, otherwise the system will ignore the Technician Assignment logic and automatically allocate new requests to the Team Lead.

Please note that these are not only the forces that govern request assignment. Other factors that determine the routing of requests include the Team assigned to Workflow State, the Technician assignment privilege and if request Queues are enabled.

1.5.1 Service Manager and Workflow States

Within Service Manager the pool of Technicians that can be assigned to a request is increased by the OLA or Underpinning Contract assigned to the Workflow State of the request.

Service Manager allows Workflow States to be governed by internal or external contracts, known as OLAs or Underpinning Contracts, respectively. OLAs can be assigned to different support Teams, which means if the Team changes as a result of the Workflow State change, the request may be routed to a whole new pool of Technicians.

If the Workflow is supported by an Underpinning Contract, the request is assigned internally to the responsibility of the Service Level Manager.

1.5.2 Self Assign Option

The Self Assign functionality allows the application to override the business logic of request assignment. This feature enables the automatic allocation of requests to the Technician who creates the request. A Supervisor User can activate Self Assign for requests on a per Team basis, within the Team Information screen.

1.5.3 Request Queues

That about covers the automated routing of requests, but support Teams who prefer to create a queue or holding bay for newly created requests, are also catered for within the system.

Queues are activated on a per Team basis. This means, where one support Team may use the automated routing process, another can create a holding bay. The holding bay allows Technicians to choose their jobs from the Queue, as opposed to having requests automatically assigned by the system.

The Administrator User can activate the Queues feature in the application Setup>Privileges>Requests tab. The Supervisor User then enables the option within the Team Information screen, as required. New requests assigned to a Team with this preference enabled, are assigned to the System User. To access requests held in the Queue, Technicians use the Request Queue Filter within the Home Tab.

The request can then be re-assigned to a specific Technician within the Summary Tab of the request. See: Queues.

1.6 Organizational Units

Customers can be assigned to a Company within the system. This can be refined by allocating the Customer to a Department, and if relevant, to a specific Room. This information is stored within the Organizational Unit details.

NOTE: Companies can exist without Departments, but Departments and Rooms can only be created as part of Company information.

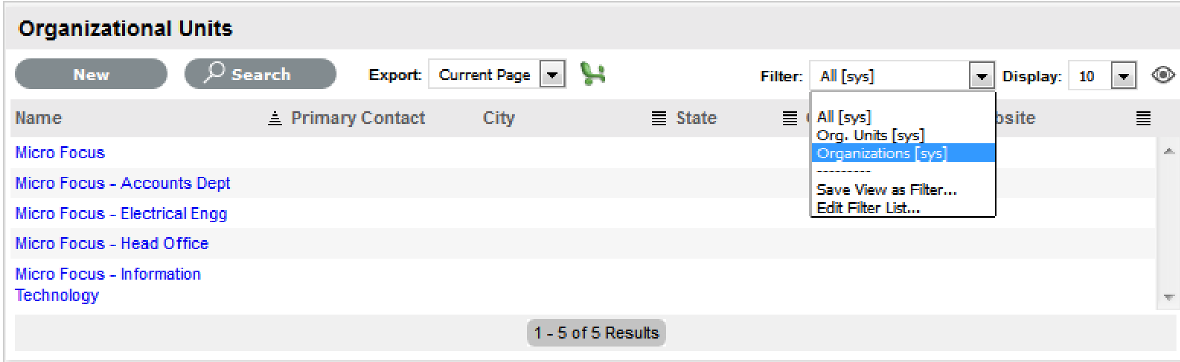
Technicians can also be assigned to service specific Organizational Units.

1.6.1 Organizational Unit Filters

The Organizational Unit list can be filtered to display the following views:

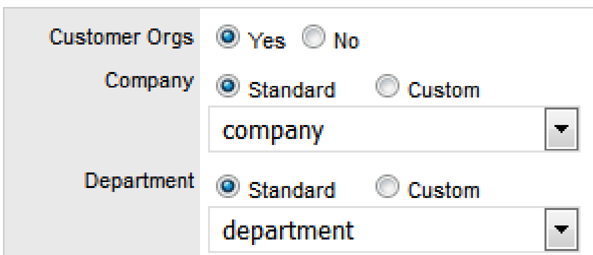
System List Filters	Description
Organizations	Shows the Companies supported by the service desk.
Org. Units	Lists all Departments included within Companies.
All	Lists complete Org Units, with Company and Department names.

To change the List View, select the relevant option from the Filter list.



1.6.2 Organizational Units and External Authentication

Organizational Unit relationships can also be mapped from an authentication server. By default this is not enabled. To activate Customer Organizational Unit mapping, as an Administrator go to the Advanced tab for the selected authentication server within Admin>Setup>Authentication. Select Yes for the Import Customer Organizational Units option.



NOTE: The details of the Org. Units are not populated upon this synch, only the Org Unit names. For the Org Unit details to be assigned to Customer or User Information, create the Org Unit in the Supervisor>User>Org Units tab and ensure the Org Unit name is identical to what is stored in the authentication server. If the details are not identical, the system will create another Org. Unit.

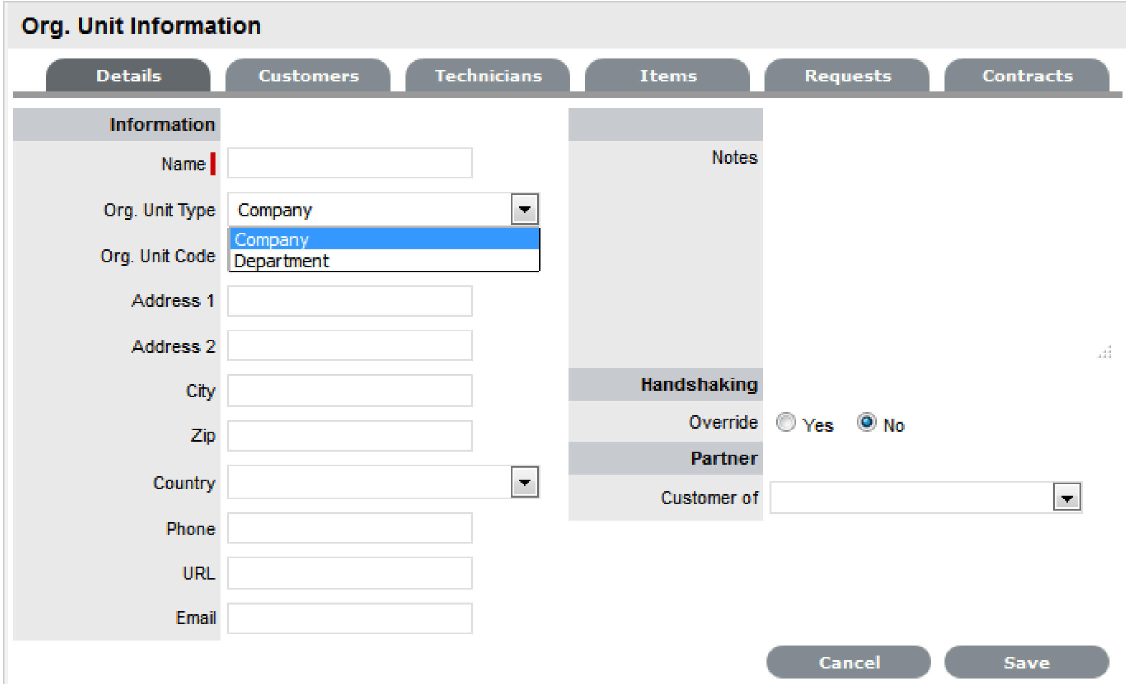
1.6.3 Details Tab

Use the Details tab to create an Organizational Unit.

Creating an Organizational Unit

To create an Organizational Unit:

1. Select User>Organizational Units
2. Click New
3. Complete the Organizational Unit Name
4. Select Organizations or Org. Units within the Filter drop-down list



5. Enter other details, if required
6. Select Handshaking override option, if relevant

   If the System Default Handshaking Close Action days is to be adjusted for the Org. Unit, select Yes in the Handshaking Override field. Enter the number of Days to lapse before a request will close if the Customer does not respond to the handshake email notification.
7. If appropriate, set the Partner Organization

   (The Partner Organization is an external service provider that includes Partner Users who can manage requests logged with the system for Customers associated with the Company or Department being created.)
8. Click Save.

Primary Contact

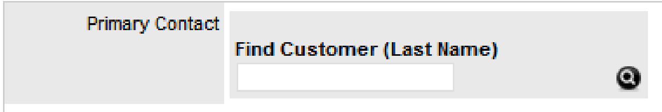
When multiple Customers are assigned to an Organizational Unit, a Primary Contact person can be allocated for the Org Unit. This is the preferred person the Service Desk will contact for issues relating to the Org Unit.

To assign a Primary Contact:

1. Select User>Organizational Units
2. Select an Org Unit Name

   The Details tab is displayed. If Customers have been assigned to the Org Unit a Primary Contact field will be visible.
3. Within the Details tab, click Edit

   The Find Customer box is displayed. (Note that this search is only visible when Customers have been assigned to the Org. Unit)



4. Search for the Customer

   To view all available Customers click Search without entering a Customer last name in the search field.
5. Click the Customer name to assign them as the Primary Contact
6. Click Save.

Default Item

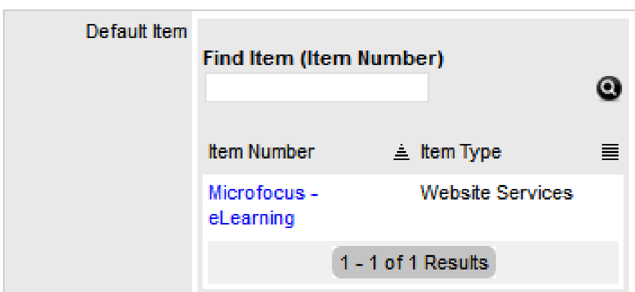
When an Organizational Unit owns multiple Items, within the Default Item field an Item can be used as the one to be automatically applied to all requests created via email for the Organizational Unit.

To assign a Default Item:

1. Select User>Organizational Units
2. Select an Org Unit Name

   The Details tab is displayed with the Default Item visible at the bottom of the first column.
3. Within the Details tab, click Edit

   The Find Item box is displayed.



4. Search for the Item

   To view all available Items click without entering an Item Number in the search field.
5. Click the Item Number link to assign it as the Default Item
6. Click Save.

1.6.4 Customers Tab

This tab displays all Customers assigned to the Organizational Unit. Customers cannot be added within this screen, as they are allocated to Org. Units when they are created or through the User>Customer>Customer Information screen. The list can be filtered based on Customers directly assigned to the Org. Unit, or all Customers associated with Company Org. Units including those associated with related Departments.

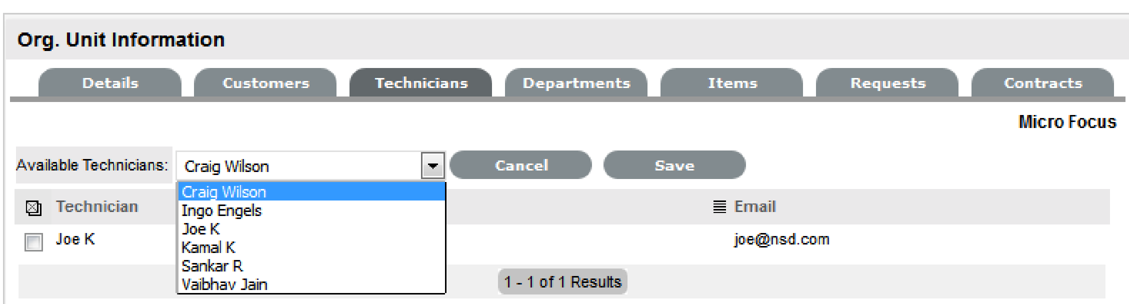
1.6.5 Technicians Tab

The Technicians tab allows support technicians to be assigned as key support staff for an Org. Unit. This means when requests are created, the system checks if the Item's Organizational Unit has Technicians assigned to service its request. If so, the request is routed to a Technician assigned to the Org. Unit.

Assigning a Technician to an Organizational Unit

To assign a Technician to an Organizational Unit:

1. Select User>Organizational Units
2. Select Org Unit Name
3. Move to the Technicians tab
4. Click Edit
5. Click New

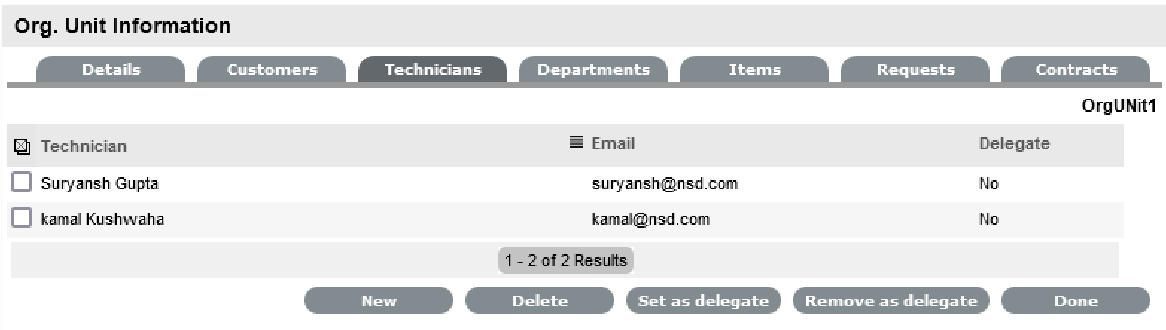


6. Select a Technician name from the drop-down list

7. Click Save
8. Select Done.

After adding the technicians, You can select one or more technicians and click Set as Delegate to assign delegates for the customer of this Org. Unit.

To remove technicians as Delegate, select the technicians and then click Remove as Delegate.



For more information about the delegate role, see "Delegate" on page 319

Deleting a Technician Assignment

To delete a Technician assignment:

1. Select User>Organizational Units
2. Select the Org Unit Name
3. Move to the Technicians tab
4. Click Edit
5. Tick the checkbox next to the Technician name
6. Click Delete
7. Click Done.

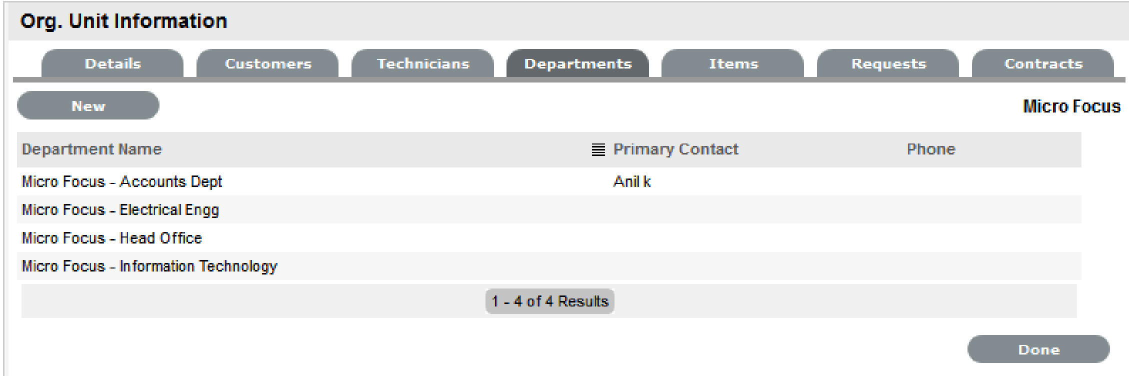
1.6.6 Departments Tab

The Departments tab allows Company group information to be refined. Departments are created for a Company within the Departments Tab.

Creating a Department

To create a Department:

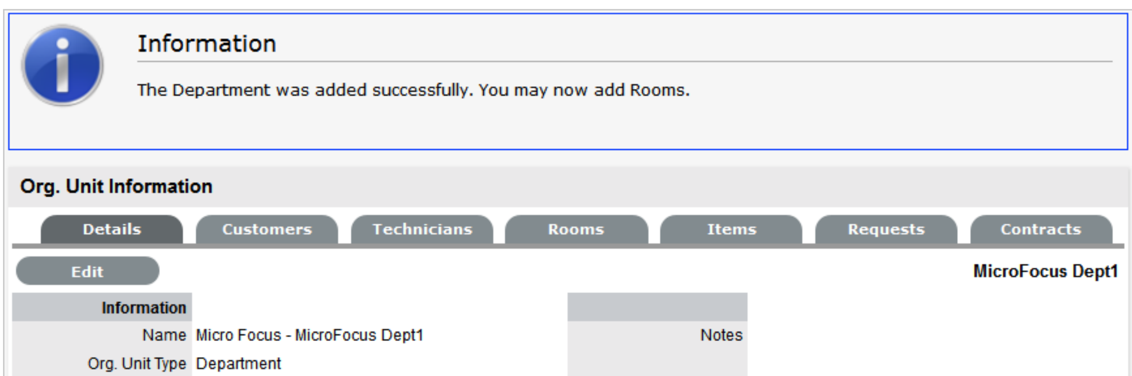
1. Select User>Organizational Units
2. Select Org Unit Company Name
3. Move to the Departments tab



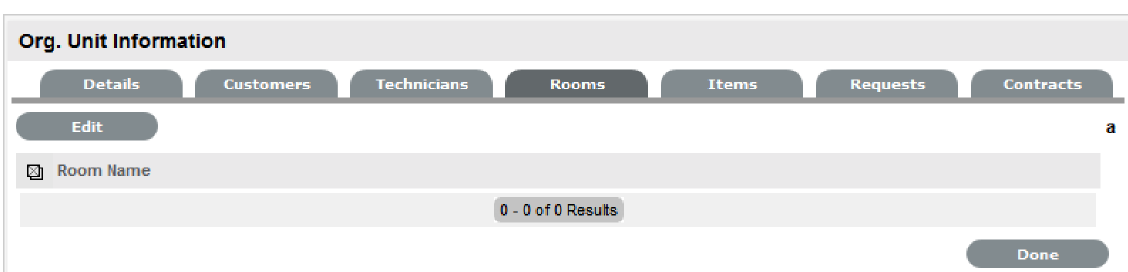
4. Click New
5. Enter the Department Name
6. Enter other details, if required
7. Select Handshaking override option, if relevant

   If the System Default Handshaking Close Action days is to be adjusted for the Org. Unit, select Yes in the Handshaking Override field. Enter the number of Days to lapse before a request will close if the Customer does not respond to the handshake email notification.
8. Click Done

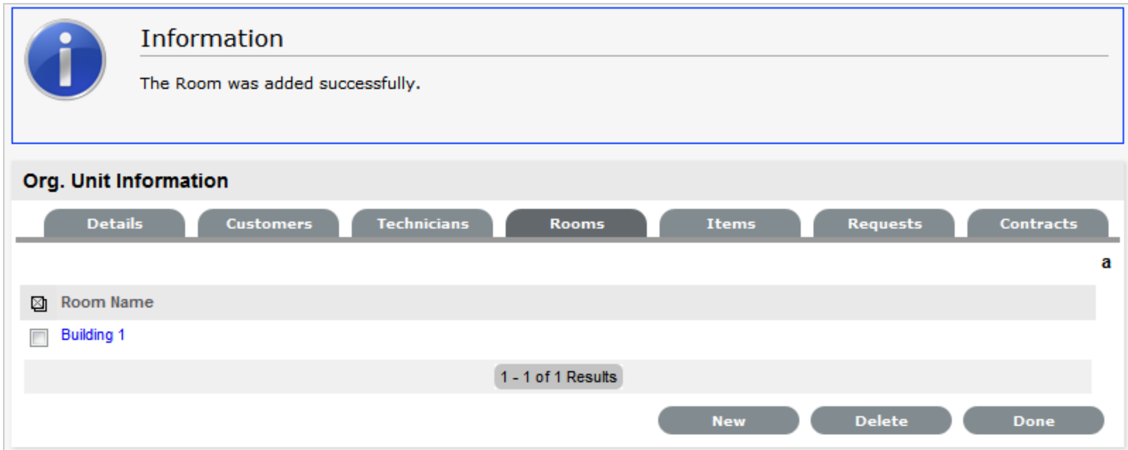
   The system will move to the Department Editor, to allow Rooms to be added to the Department.



9. Select the Rooms tab if Rooms are to be added immediately
10. Click Edit
11. Select New



12. Enter the Room details
13. Click Save
14. Click New to add another Room or select Done.



Edit a Department

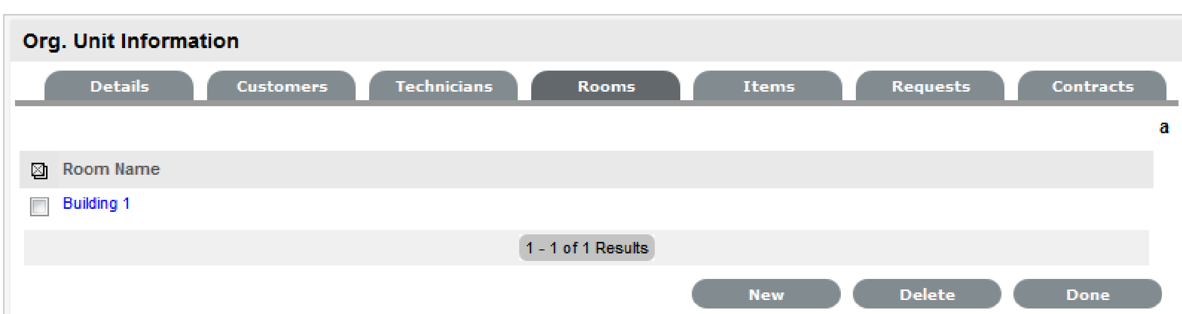
Department details are edited through the*Org. Units Filter of the Organizational Unit list*.

To edit a Department:

1. Go to User > Org Units
2. Select the filter option Org.Units (sys)
3. Select a Department from the list provided
4. Click Edit
5. Modify the details as necessary
6. Select Save

1.6.7 Rooms Tab

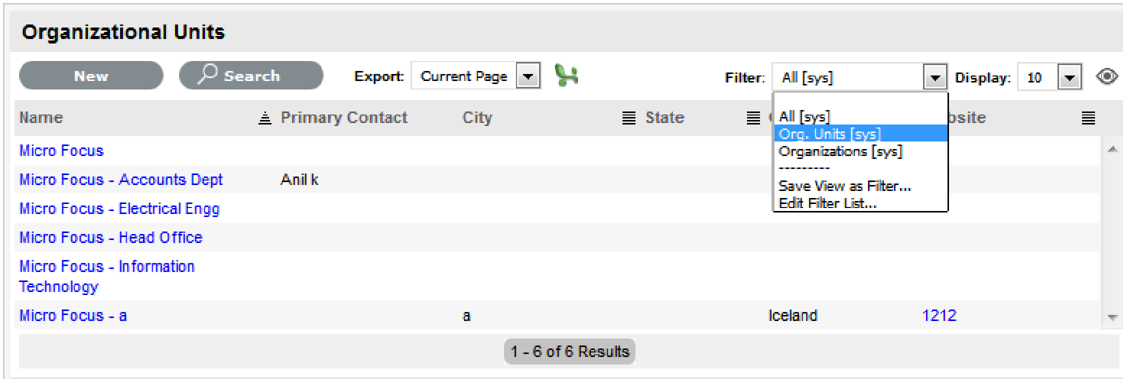
To expand Department details, Room locations can be created. This allows Customers to be assigned to specific locations within an Organizational Unit. The Rooms tab is only visible for Department Org Units that are accessed through the *Org.Unit filter of the Org Unit list*.



Adding a Room to a Department

To add a Room to a Department:

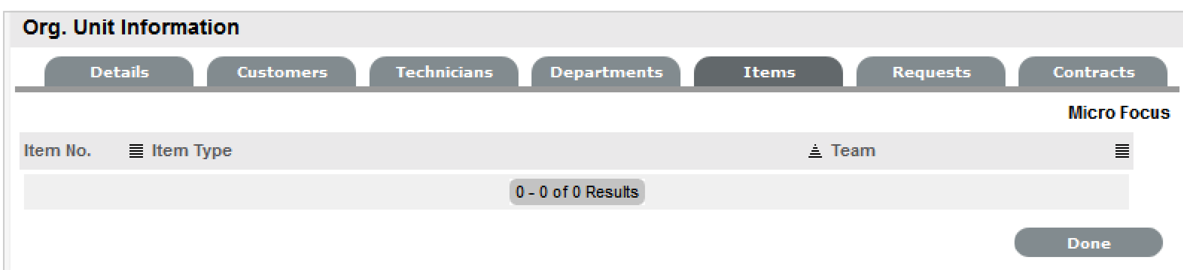
1. Within the Organizational Units list select the Org.Units filter



2. Select the relevant Department/Org.Unit link
3. Move to the Rooms tab
4. Click Edit
5. Click New
6. Enter the Room Name
7. Click Save

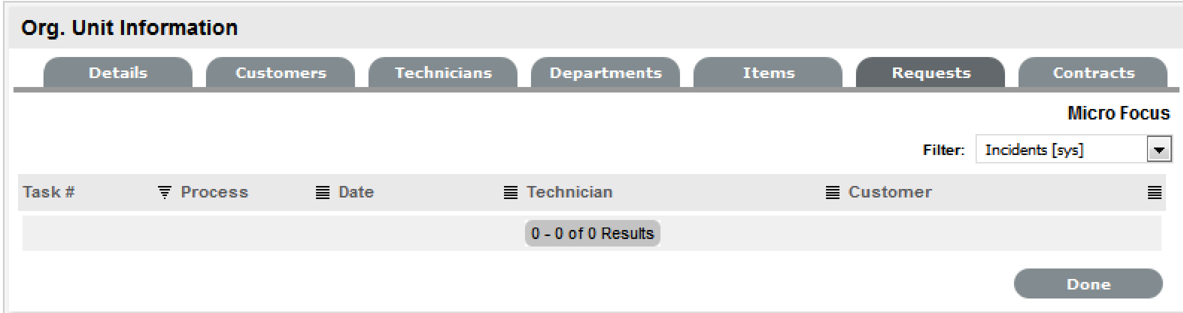
1.6.8 Items Tab

This tab lists all the Items that have been assigned to the Organizational Unit.



1.6.9 Requests Tab

This tab lists all requests generated by the Organizational Unit. To view or modify a request, select the Task# hyperlink.



1.6.10 Contracts Tab

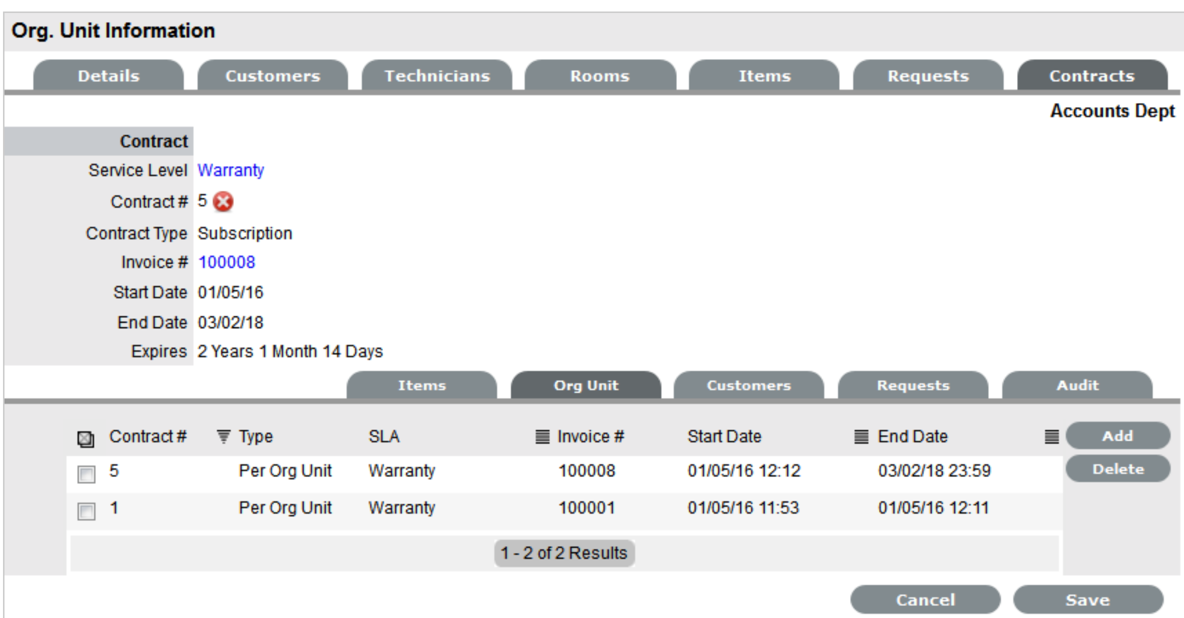
The Contracts tab displays an Organizational Unit's current contract status. An Organizational Unit can be assigned an SLA or, when Billing is enabled, a Contract that manages the period of time the SLA applies to the Org Unit. When Contracts are enabled, an Organizational Unit can have only one active Contract in the system at any one time and must have an assigned Primary Contact.

To update the Service Level assignment when Contracts are disabled:

1. User>Organization Units
2. Select the required Org Unit

   The Org Unit Information screen will open.
3. Select the Contracts tab, click Edit
4. In SLA Details, using the drop-down menu, select the SLA
5. Select Save

When Contracts are in use throughout the application, timeframes are set for Service Levels and Contract history is displayed within the Contracts tab. It is also possible to assign a Service Level and/or Contract within the Contracts tab.



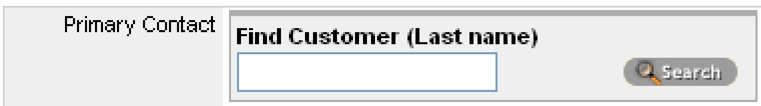
To create a new Contract for an Organizational Unit:

NOTE: To assign a Contract to an Org Unit, a Primary Contact must be nominated for the Org Unit or the system will prompt the User to assign a Primary Contact during the Contract assignment process. This means, prior to creating the Contract assign at least one Customer to the Org Unit and then designate a Customer as the Primary Contact. To assign a primary contact:

1. Select User>Organizational Units
2. Select an Org Unit Name

   The Details tab is displayed. If Customers have been assigned to the Org Unit a Primary Contact field will be visible.
3. Within the Details tab, click Edit

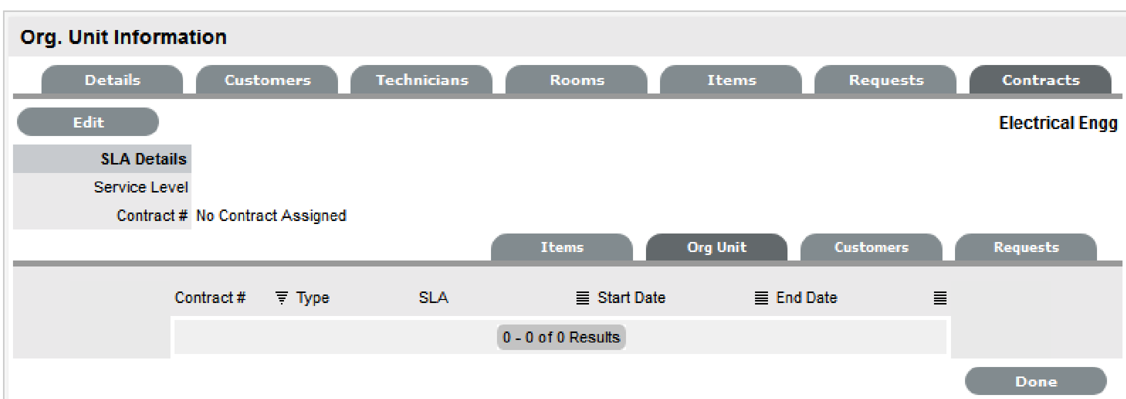
   The Find Customer box is displayed. (Note that this search is only visible when customers have been assigned to the org unit)



4. Search for the Customer. To view all available customers click Search without entering a customer last name in the search field
5. Click the Customer name to assign them as the Primary Contact
6. Click Save

To create a new Contract for an Organizational Unit:

1. Select User> Organizational Units
2. Select the Organizational Unit's Name
3. Move to the Contracts tab



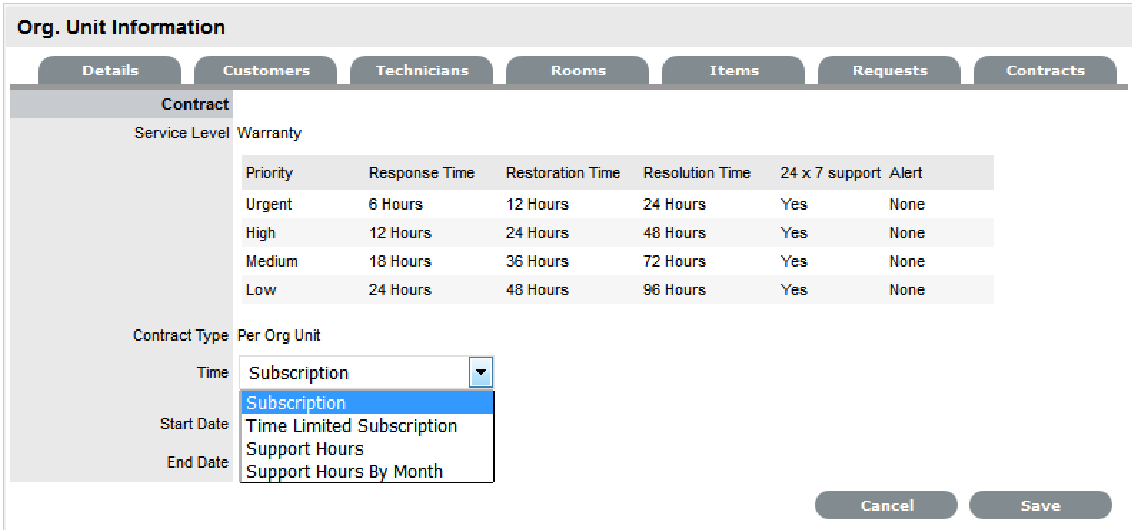
4. Click Edit

   The Add and Delete buttons become available with the Contracts>Org Unit tab.
5. Click Add

   If a Primary Contact has not been assigned to the Org Unit a system prompt will notify the User to create a Primary Contact. See: Primary Contact.

6. Select a Service Level from the list

   When selected, the screen expands to display start and end date fields.



7. For the Per Org Unit Contract Type the Time Period for the Contract can be defined as one of the following:

   Subscription if selected, the Start and End Dates are automatically set to a year from the date of creation, but can be edited if required.

   Time Limited Subscription if selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually by entering the length of time for the subscription period, or the system will default to entering a year from the date of creation.

   Support Hours if selected, the number of support hours purchased by the Customers should be entered.

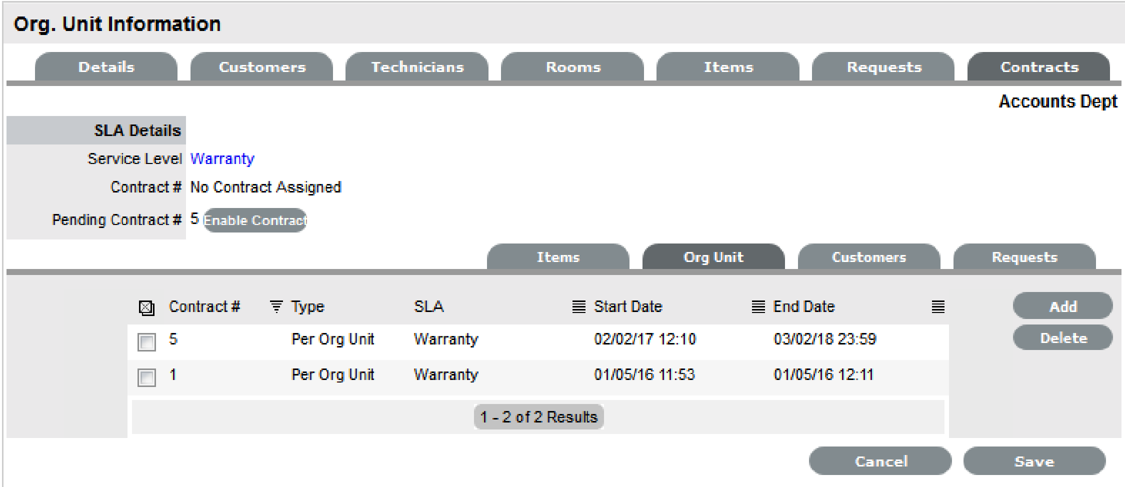
   Support Hours by Month if selected, set the number of hours purchased per month and define which day of the month contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

   (If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)

8. Click Save

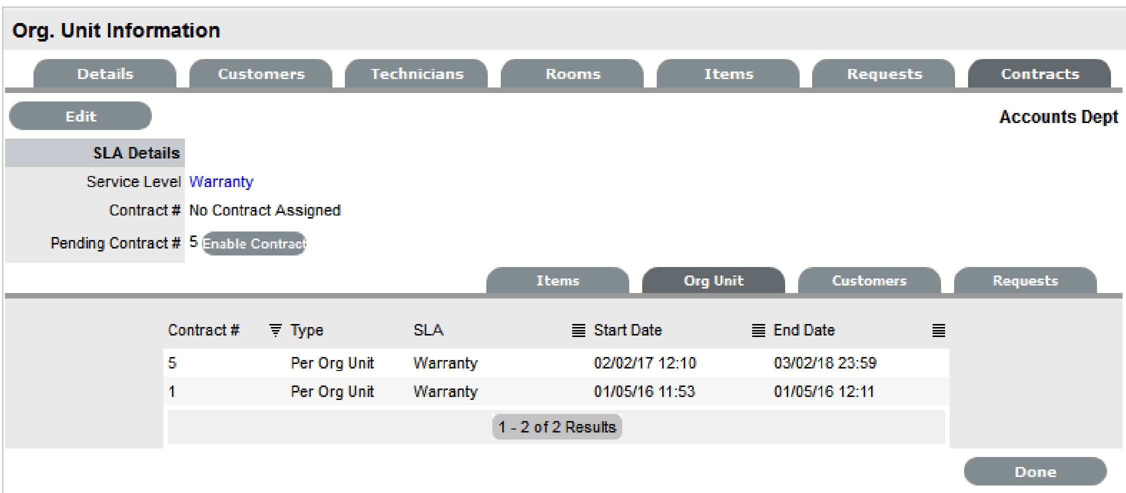
9. Click Next to continue

   The system reverts to the Contracts summary screen, if the contract is forward dated and another contract is not already active, the Enable Contract option button will be available. Select this button if the contract is to commence prior to the set Start Date. Alternatively, other contracts can be queued for the Org Unit by selecting the Add button.



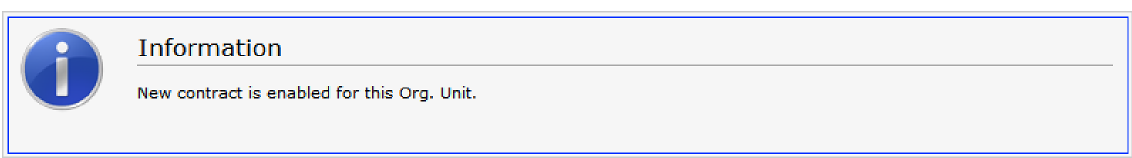
10. Click Save

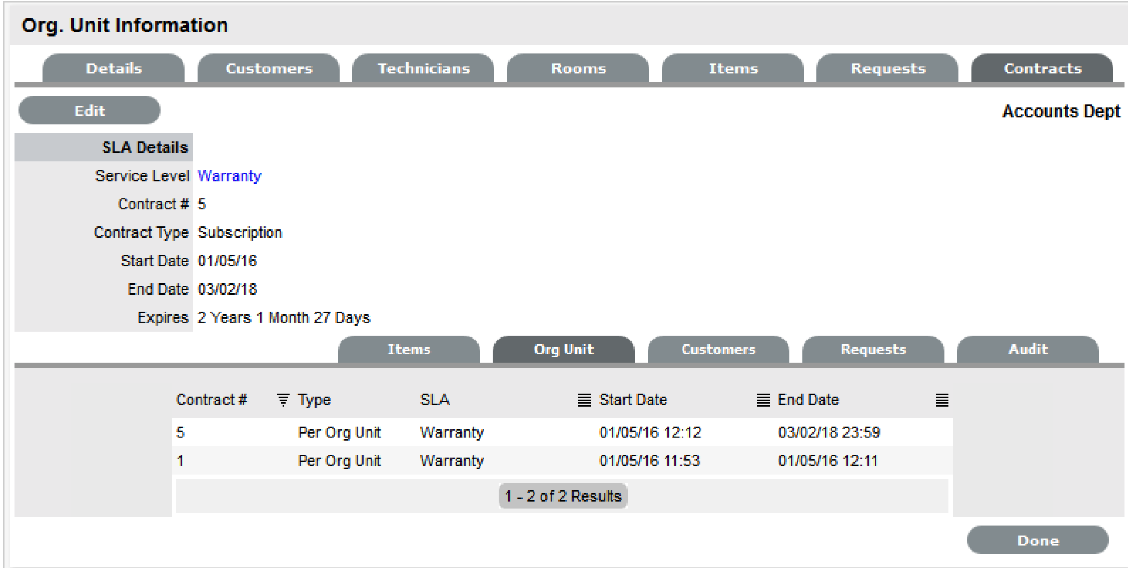
    To process the contract before the set Start Date select the Enable button.



11. Click Done.

    A success message is displayed.





12. **NOTE:** If Invoices are enabled, a new invoice is automatically saved within the Finance>Invoices screen for the newly created Contract. If payment is required, a Pending Invoice Number is displayed and once processed, the Contract will be listed in the Org.Unit Information>Contracts>Org.Unit tab.

To delete a current Contract, as a Supervisor User, select 

next to the Contract Number. Alternatively, to delete a current or queued Contract, within the Contract>Org Unit tab check the field next to the relevant Contract # and select the Delete button.

The Items and Customers tab within the Org Unit>Contracts screen is used to list all the Items and Customers Contracts that are associated with the selected Org Unit.

1.7 Primary Contact

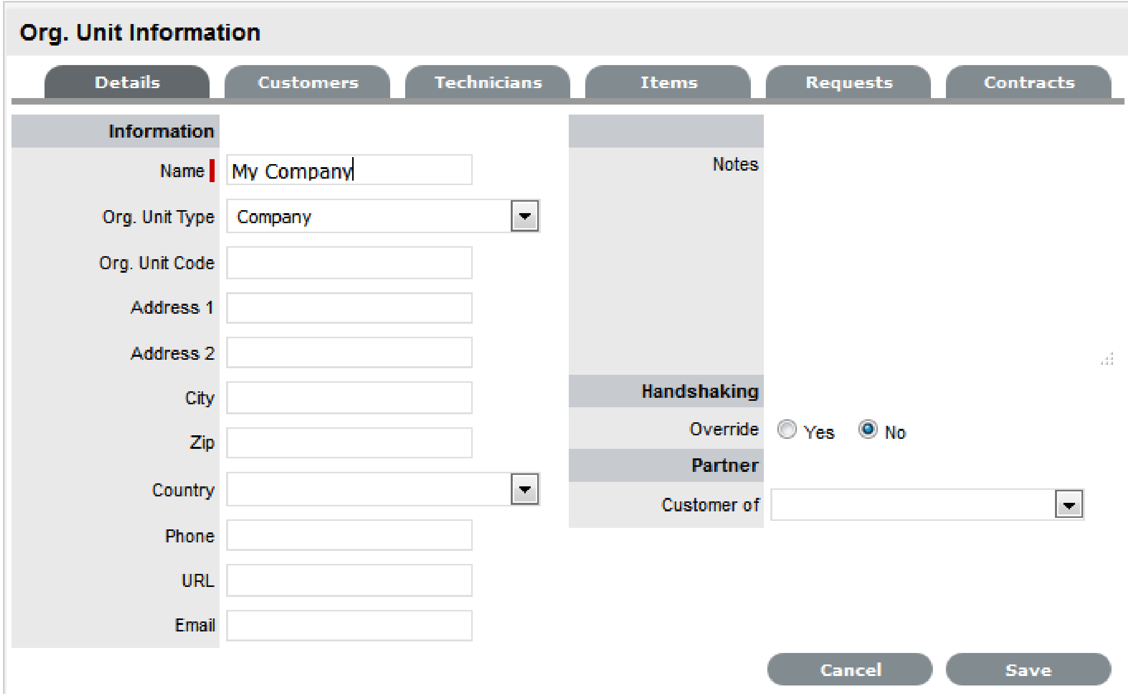
When multiple Customers are assigned to an Organizational Unit, a Primary Contact person can be assigned to the Org Unit. This is the preferred person that will be contacted regarding issues related to the Org Unit.

NOTE: When Billing is enabled, a Primary Contact must be assigned to the Org Unit if the Org Unit is to be allocated to an Item. If a Primary Contact has not been assigned to an Org Unit, the Org Unit will not be displayed as an option in Org Unit search results of the Item Information screen.

To assign a Primary Contact:

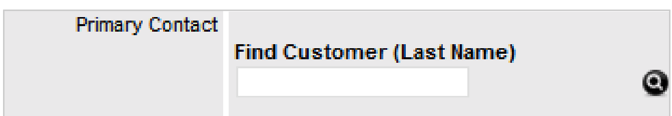
1. Select User>Organizational Units
2. Select an Org Unit Name

   The Details tab is displayed. If Customers have been assigned to the Org Unit a Primary Contact field will be visible.



3. Within the Details tab, click Edit

   The Find Customer box is displayed. (Note that this search is only visible when Customers have been assigned to the Org Unit



4. Search for the Customer

   To view all available customers click Search without entering a customer last name in the search field
5. Click the Customer name to assign them as the Primary Contact
6. Click Save.

1.8 Customers

The Customers tab is used to create, modify and delete Customer Accounts.

A Customer is a User assigned the Customer Role. They can be internal or external to the organization and can raise Incidents through the Customer Portal or via email. Service Desk staff can also generate requests on behalf of the Customer.

Service Desk Customers can be created within this tab. The Administrator can also import Customers from a .CSV file, or synchronize the system with a directory server.

NOTE: If Customers are imported using a directory server and the mixed mode authentication method is disabled, the option to create Customers within the Users tab is not available.

1.8.1 Creating a Customer Account

Customer Information includes the following tabs:

- Information
- Aliases
- Items
- Requests
- Contracts

1.8.2 Information Tab

This tab is used to enter contact information about a Customer, creating a new Customer account.

NOTE: If Custom Fields are to be created for Customer Information, it is recommended the Administrator complete the customization prior to creating Users. (See Administrator: Custom Fields.)

To create a Customer account using Internal Authentication:

1. Select User>Customers
2. Select New
3. The Customer Information screen appears with the following fields:
4.

Customer Information Fields	
Access	
Title	If enabled, select the appropriate title from the drop-down options. (This field is displayed if the Enable Titles option is set to Yes in the Admin>Setup>Setup>Privileges>Customer tab.)
First Name*	Customer's First Name.
Last Name*	Customer's Last Name.
User Name*	The login User name credentials for the User. If this is imported via LDAP or Active Directory, it can not be edited. Otherwise, enter a Username. Note that the value must be unique.
Password/ Confirm Password	The Default Password is set to the Customer's email address or a random string can be enabled by the Administrator in Setup>Privileges>System. See Authentication. Customers can reset their password from the Customer Portal, or a Service Desk User can reset it in the customer account details using the Reset Password button through the Customer> Information tab.

Customer Information Fields	
Web Access	Web Access allows Customers to view their account information and Incidents via the Customer Portal.
Contact	
Primary Email*	The Customer's Email address. System messages are sent to this address.
Send To	This field becomes when alternate email addresses are entered on the Aliases tab. Select the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address, the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.
Org. Unit	The Organizational Unit, be it a Company or Department with which the Customer is associated. (Organizational Units are created by the Supervisor, in Users >Organizational Units.)
Delegates	To assign a delegate for customer, click the search icon and select the required technicians. For more information about the delegate role, see "Delegate" on page 319
Line Manager	If relevant, assign a system user with the Customer Role who can approve/reject requests made by this Customer, as part of the Change Management or Service Request approval process. (This information can not be edited if the line manager details are set by the LDAP synch.)
Room	This field is visible if the Display Rooms option is set to Yes in the Setup>Privileges>Customer screen and there are Room details configured in Organizational Units.
Address 1	First line of Customer's address.
Address 2	Second line of Customer's address.
City	Customer's city details
State	Customer's State details. Options will be displayed for the State, once the Country is selected, if Regions are configured for the Country in the system.
Zip/Postcode	Customer's area code.

Customer Information Fields	
Country	Customer's country. The country selected will determine the time zone and state options for the Customer.
Email Locale	Set the default language for email correspondence.
Phone	Enter Phone details.
Fax	Enter the Customer's fax number, if relevant.
Pager	Enter the Customer's pager details, if relevant.
Mobile	A mobile number can be entered as a contact number or for use with SMS (Short Mail Service message). An SMS can be sent to notify the assigned Technician when a request is created. SMS Messaging options: 1. From the drop-down list, select the SMS Service Provider. 2. Override SMS Address. If your service provider does not appear in the list, click this checkbox and enter an alternate Service Provider.
SMS Override	Enter SMS Gateway override details for the Customer, if a number other than the one entered in the Mobile field is to be used to send/receive updates via SMS. Enter the complete SMS details in email address format, i.e., 000777891@smsgateway.provider.com.
Partner	
Customer of	Nominate the Partner Organization associate with the Customer. This is an external service provider who manages the Customer's request. (The option is enabled by the Administrator in Setup Privileges> Use >Edit Customer Partner. The Partner Organizations are defined by the Supervisor in the User>Partner Organizations tab.)
Locale	
Time zone	The Customer automatically adopts the default Timezone set for the system. However, the Timezone can be manually adjusted here for the specific Customer.
Last Login	Auto-populated with the date the Customer last logged into the system.
Host	The IP address of the last login for the Customer

Customer Information Fields	
GPS	The GPS coordinates of the last known address for the Customer. (This field is displayed when the Record GPS option is enabled in Admin>Setup>Setup>Privileges>Customer tab.)
Roles	
Current*	Multiple Roles can be assigned to a User. Select other Roles the Customer will use, by ticking the check boxes. Note: If the Technician Role is selected, a Supervisor must be allocated.
Default Portal	The Default Portal is the user interface a Customer, who is assigned multiple Roles, accesses by default when they log into the system. **NOTE:** If the Users Default Portal is set to Customer, the User details will not be accessible in the Users list, but included in the list within the User>Customer tab.
Details	
Notes	Click on the field to enter any Customer relevant information.

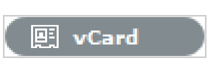
* Denotes mandatory fields

1. Click Done.

Emailing Customers Credentials

To email a newly created Customer details regarding their system log in details, click the Email button within the Customer Information screen. If Random Passwords is enabled, selecting Email will reset the Password and forward the details to the Customer. If Password Questions is enabled in Setup>Privileges>System, selecting Email will send a link to the Customer directing them to a page that includes the security questions set for their account and reset the password based on the answers provided. Customers must complete this process within an hour of the email being sent.

vCard Button



Select this option to download and open the Customer's information in an electronic business card format, to email or save outside the system.

1.8.3 Aliases Tab

The Aliases tab is used to enter additional email addresses. Email addresses in the Aliases tab allow the Customer to send emails to the System or Team support addresses from more than one address. The system creates requests from these emails. Notifications for requests created using an address in the Aliases tab, are sent to the main email address and cc'd to the alias address that was used to create the request.

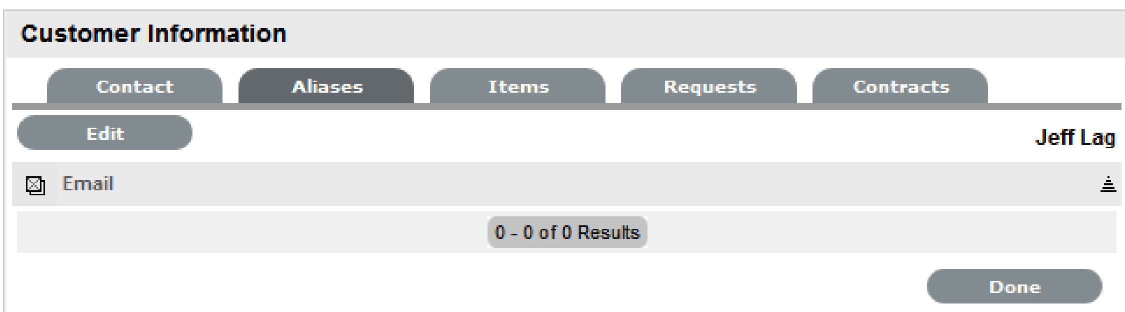
When one or more alias email addresses have been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.

To add an alias email address:

1. Select User>Customers
2. Click on the Customer name

   The Customer Information screen appears.
3. In the Aliases tab click Edit
4. Click Add
5. Enter an alias email address
6. Click Save.

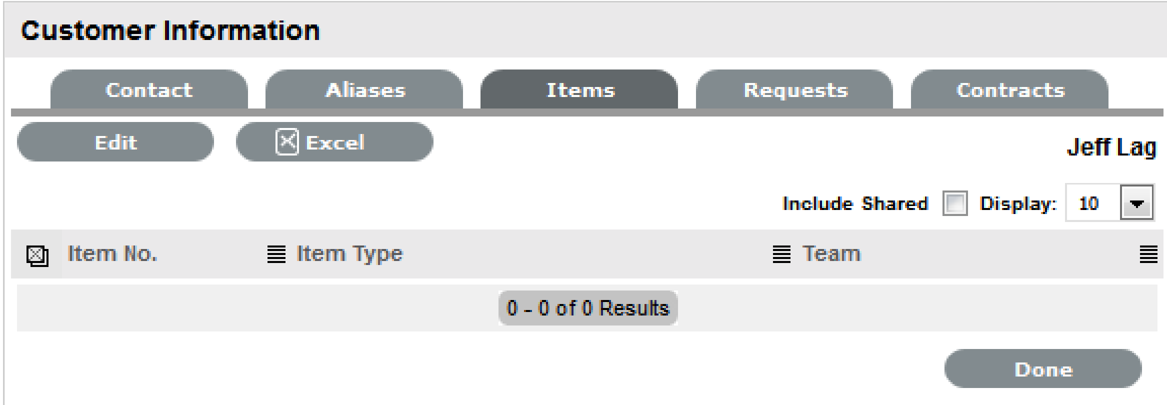
   When an alias email address has been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the alias email address to be set as the default address applied to Customer correspondence.



To remove an alias email address, in Edit mode, tick the checkbox next to the relevant email address and then click Remove.

1.8.4 Items Tab

The Items tab lists the Items owned by the Customer. To access Shared Items, tick the Include Shared option. To view or edit the Item details, select the Item Number hyperlink. Select the Excel button to output the Item List to Excel format.



To add an Item:

1. Select User>Customers
2. Click on the Customer name

   The Customer Information screen appears.
3. In the Information tab, click Edit
4. In the Item tab, click Add

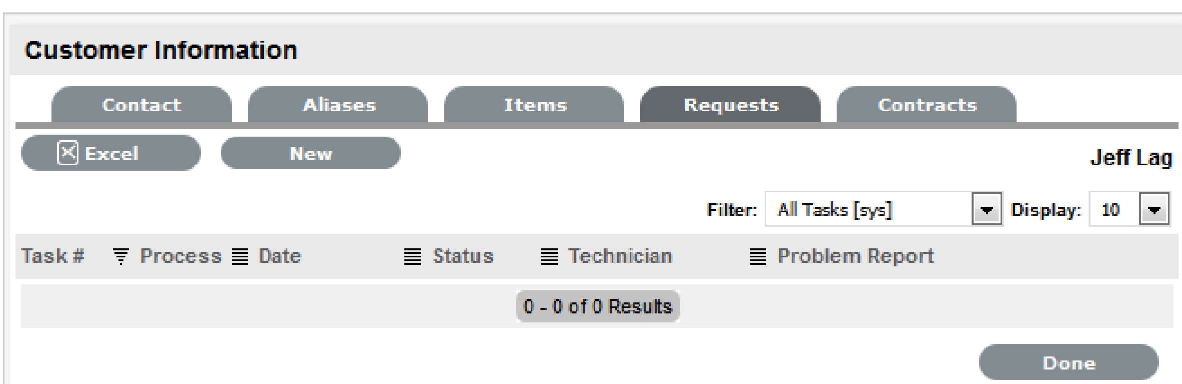
   The Find Item editor is displayed.
5. Search for the relevant Item

   For details regarding an advanced Item search see: Advanced Search.
6. Select the Item # hyperlink

   The selected Item will be associated with the Customer.
7. Click Save
8. Select Done

1.8.5 Requests Tab

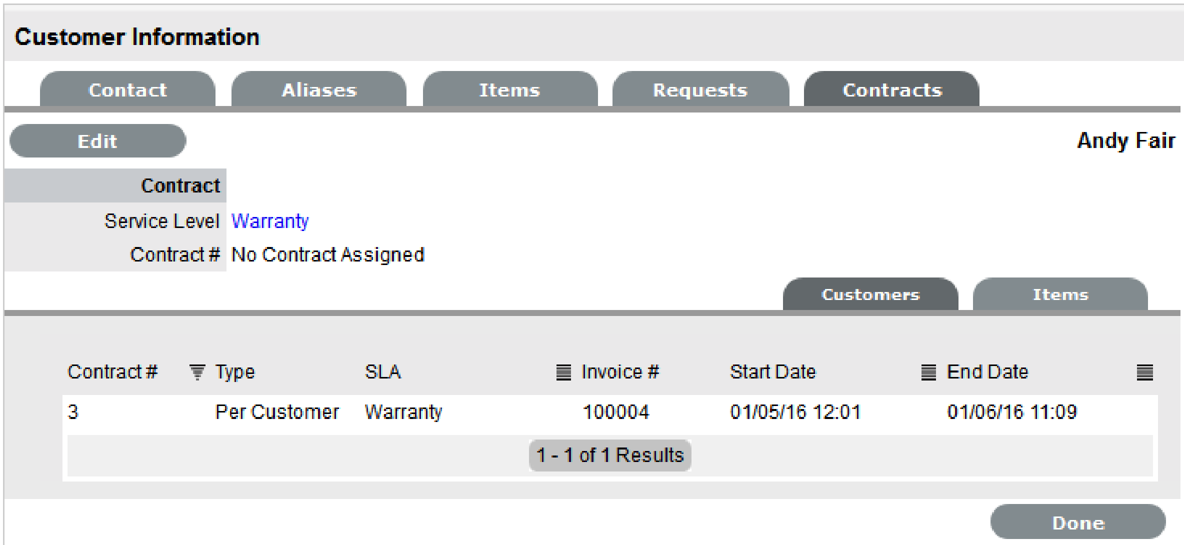
The Requests tab is visible after the Customer has been created. It lists all requests related to the Customer and allows the User to create new requests for the Customer. To view details of a request, select the Task # or Problem Report hyperlink. To create a request for the Customer, select the New button.



1.8.6 Contracts Tab

The Contracts tab displays a Customer's current contract status. A Customer can be assigned an SLA or, when Billing is enabled, a Contract. A Customer can only have one active Contract, but contracts can be queued within the Contract >Customer tab, as required.

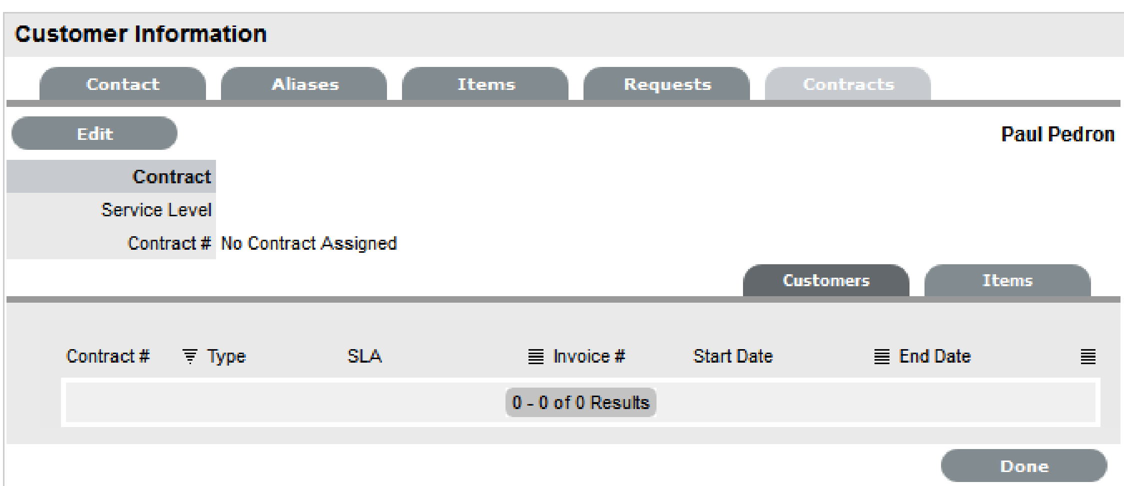
When Contracts are in use throughout the application, the timeframe set for Service Levels and Contract history are displayed within the Contracts tab. It is also possible to assign a Service Level and/or Contract within the Contracts tab.



To create a new Contract for a Customer:

1. Select User>Customers
2. Select the Customer Name
3. Move to the Contracts tab
4. Click Edit

   The system will display the Add button in the Customers tab

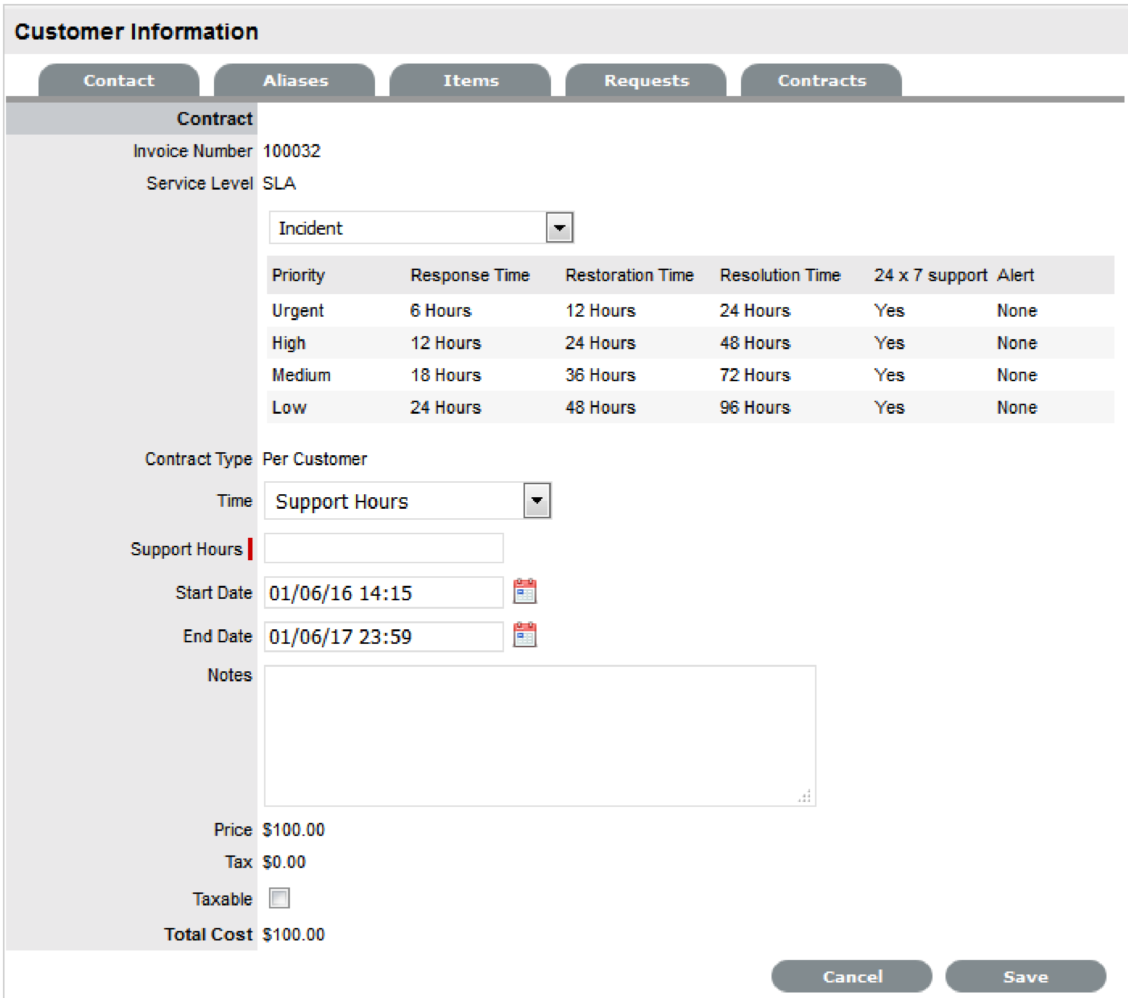


5. Click Add

   The SLA options are displayed.

6. Select a Service Level from the list

   When selected, the screen expands to display the Time, Start and End date fields.



7. Define the Contract Time period

   For the Per Customer Contract Type the Time Period for the Contract can be defined:

   If *Subscription* is selected, the Start and End Dates are automatically completed by the system, but can be edited if required.

   If *Time Limited Subscription* is selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually, entering the length of time for the subscription period.

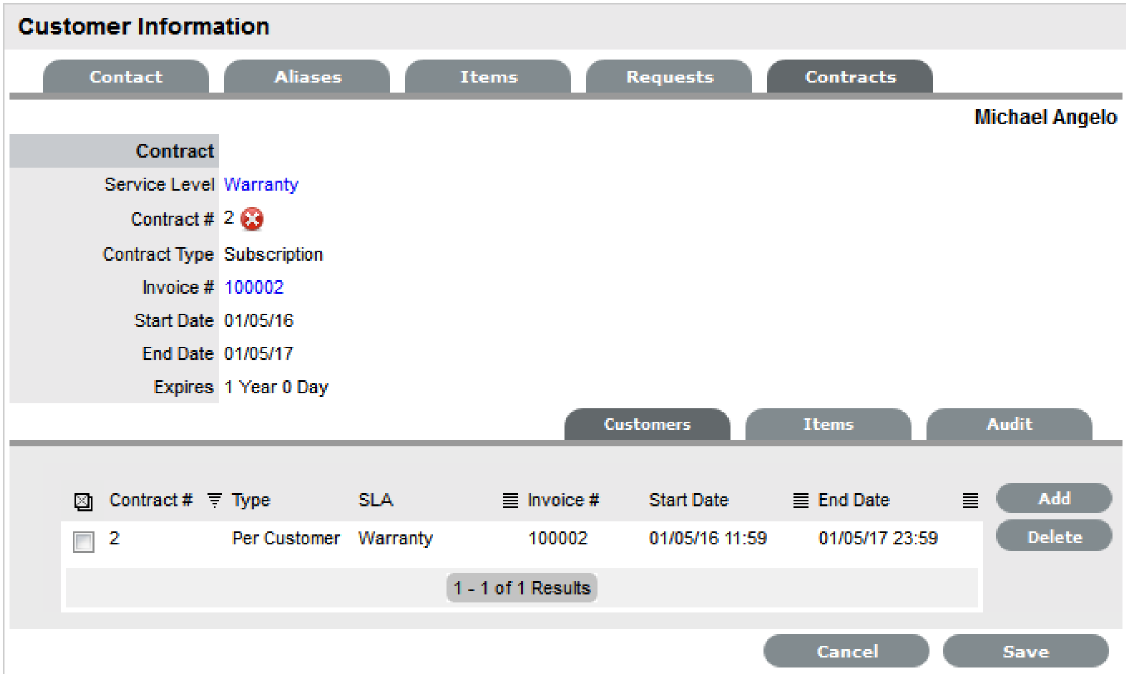
   If *Support Hours* is selected, the number of support hours purchased by the Customers should be entered

   If *Support Hours By Month* is selected, define the number of Support Hours covered per month and on which day of the month the Contract is designated as the Rollover Day. The Start Date and End Date fields are automatically completed as an annual contract subscription but can be edited, as required.

If the Start Date is set as a future date, the Pending Contract status is assigned. See Pending Contracts.

8. Click Save
9. Click Next to continue

   The system reverts to the Contracts summary screen.



10. Click Save. Click Done.

To delete a current Contract, as a Supervisor User, select 

next to the Contract Number. Alternatively, to delete a current or queued Contract, within the Contract>Customers tab check the field next to the relevant Contract # and select the Delete button.

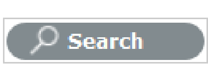
The Items tab within the Customer>Contracts screen is used to list all the Items with a Contract that are owned by a Customer.

The list of requests with the time recorded against the Contract is displayed within the Audit tab. The Summary view displays the list of requests with total number of Notes and Time allocated to the Contract, while the Detail view includes a breakdown of all Notes and the associated time related to each request.

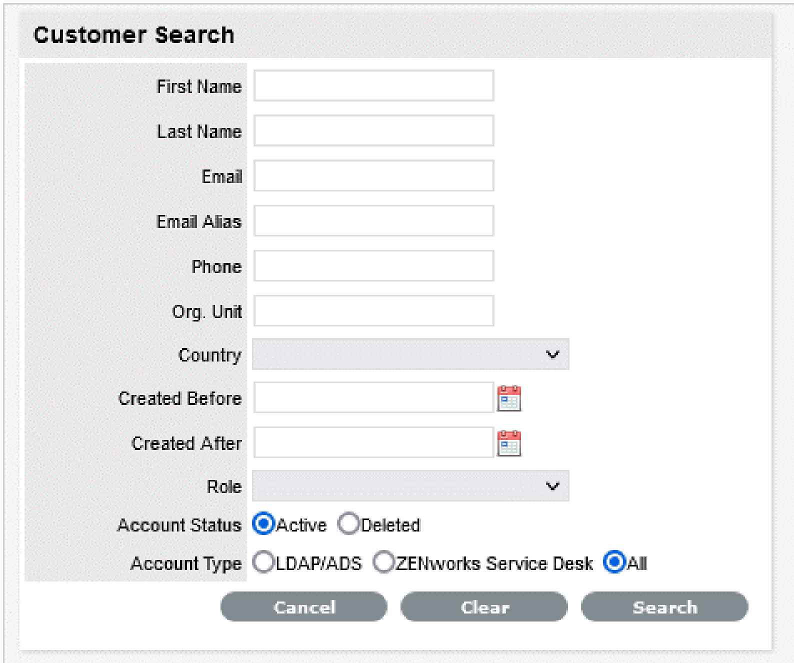
Searching for Customers

To search for Customers within the Users>Customers tab:

1. Go to Users>Customer
2. Select



3. Enter any known Customer details to find a specific Customer or to generate a Customer List based on date of creation, enter a Before or After creation date for the Customer.



4. Click Search.

   The results will be displayed in a table with the Customer Name and contact information.

5. Click on the Customer Name to open the Customer Information module or select the Email Address to send an email.

NOTE: To search for a Customer who has been deleted in the system, conduct the search within the Administrator Portal.

1.9 Service Level Management

The goal of Service Level Management is to maintain and improve the alignment between business activities and IT service quality. This is achieved through the cycle of:

1. *Agree* on service level expectations and record them in Service Level Agreements (SLAs)
2. *Monitor* the service provided
3. *Report* actual service delivery results
4. *Review* IT service delivery results in relation to the SLA, and adjust accordingly.

A Service Level Agreement (SLA) is a formal, negotiated contract that outlines service level expectations and clarifies responsibilities between the Service Desk and its Customers. When unacceptable levels of service are noted throughout the service cycle, action can be taken to re-align expectations with actual service delivery results.

Within the system, SLAs are specific and time-based in order to help monitor and report on performance. They can be applied to any of the following elements within the application:

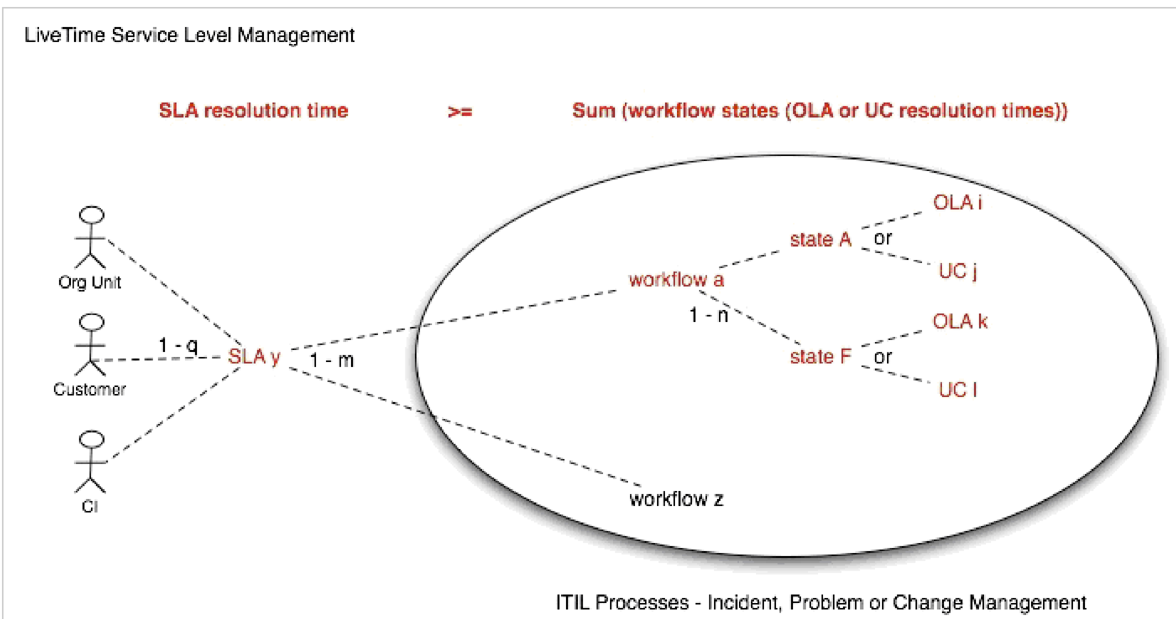
- Customers
- Organizational Units
- Items.

NOTE: Only Users assigned with the Service Level Management Role can create or modify SLAs.

SLAs are incorporated in the support process when a new Workflow is created. An SLA is assigned to a Workflow and specifies the expected resolution time for a request. To successfully meet SLA expectations, the system allows the Service Desk to associate each Workflow State of a request with an Operational Level Agreement (OLA) or Underpinning Contract (UC).

An OLA is an internally negotiated document that identifies the service level expectations between the Service Desk and the Technical Support Teams. An Underpinning Contract enables the Service Desk to monitor and maintain control of requests that are forwarded to external service and support providers.

To ensure an SLA resolution time is met, the sum of the resolution times for each of the OLAs or Underpinning Contracts assigned to a Workflow Lifecycle must be less than or equal to the SLA resolution time.



1.9.1 SLAs in Action

When a request is logged with the Service Desk, the request adopts the SLA that has been assigned to either the Item, Customer or Organizational Unit. If an SLA has not been allocated to any of these elements, the SLA assigned as the system default within the Admin>Setup>Privileges>Requests tab will be automatically applied to the request.

The SLA allocated to the request determines the Workflow options made available for the lifecycle of the request. The Workflows listed are assigned the same SLA as the request. Before saving the request, the User can adjust the system assigned Workflow if more than one option exists.

Refer to SLM Configuration for more detailed information.

1.9.2 Service Tab

Use this section to create and modify SLAs to provide request lifecycle management capabilities. This section can also be used to create and customize OLAs and UCs. After the individual components of the SLAs have been configured, Workflows can be created and assigned the service level management functionality.

The system also provides SLA-compliance reporting, allowing Managers to define and track availability and performance objectives that reflect business goals. SLAs are used across all processes, and are assigned when requests are created.

Within the Service Tab Users can:

- Create SLAs
- Create OLAs
- Create Underpinning Contracts
- Define Workflows
- Define Breach Codes
- Maintain Contracts (when enabled)

1.10 Service Level Management Configuration

1.10.1 Introduction

A Service Level Agreement (SLA) is a business contract that specifies service level expectations around critical infrastructure and business services. Typically, they refer to response, restoration and resolution targets that the Service Desk needs to meet.

1.10.2 OLAs and UCs

Operational level agreements (OLAs) are similar to SLAs, except they communicate internal team-based expectations within specific stages of the Workflow process. Similarly, the obligations of external service providers are specified using Underpinning Contracts (UCs). Unlike an OLA where an appropriate Team Technician is assigned responsibility for servicing a request, it is the responsibility of a Service Level Manager to monitor the performance of the external service provider in relation to the business's expectations as defined in UC Workflow States.

1.10.3 Workflows and Workflow States

Workflows consist of an Entry State, one or more Transitional States and Exit States. They define the sequence of steps that Service Desk staff can follow when managing customer requests. Within the system, any number of Workflows can be customized for the Incident, Problem, Change, Release and Service Request Management Processes. Each step, or Workflow State, defines the activity, and if relevant the OLA, with Default Team, or UC required to successfully process the request at that step. Only after the nominated Team Technician has successfully concluded the activity does the request get routed to the next appropriate Workflow State. The Workflow is deemed complete once the request enters an Exit Workflow State.

1.10.4 Escalation

When a request is created it is assigned an SLA, and based on the assigned SLA, a Workflow and Team. Based on the configuration of the assigned Team, a Technician or System User is allocated the responsibility of the task. Within Teams, escalation layers are configured for manual or automated routing of requests. Manual routing through the escalation layers is triggered by a Technician in the request Information screen. Automatic routing through escalation layers is driven by the request's assigned priority relative to the associated SLA response, restoration and resolution targets. For each target one or more percentage triggers can be created for automated reminders, warnings or escalations. When the request is in a Service Level active stage of the Workflow the system monitors the percentage of time elapsed relative the SLA triggers, and when percentage targets are met the triggers are activated. If the SLA response, restoration or resolution time is breached, the request is automatically escalated.

1.10.5 SLAs and Workflow

The Service Level Management module allows service level expectations to be mapped to end-to-end business processes. In so doing, the system performs the following Service Level Management validation:

SLA resolution time >= Sum (Workflow States (OLA or UC resolution times)

When validating Workflows, the system disallows adding States to a Workflow that will force the sum of the Workflow State resolution timers for OLAs and UCs to breach the SLAs resolution timers. In such situations, the system will warn the service level manager to either increase the SLA resolution targets or select a more appropriate UC or OLA that will fall within the SLA targets.

1.10.6 Creating a Custom Workflow

User Portal

1. Log into Service Desk as a supervisor.
2. Click Service > Workflows > New.

3 Edit the newly created workflow to include entry, exit, and intermediate steps and save the information.

4 Create a new SLA by navigating to Service > SLA > New. Or, you can modify the existing SLA and add the newly created workflow.

1.10.7 Configuring SLM in the system

Before requests can be processed using SLM, a Supervisor typically needs to perform the following sequence of configuration steps:

1. Define Technicians. Set Roles & Process permissions (Users > Users)
2. Define service level managers (Users > Users)

   To become a service level manager a User must be assigned the Service Level Management Process
3. Establish business SLAs

a. Specify service level manager

b. Availability %

c. Warning and breach notifications

d. Set priority targets

e. Specify blackout periods

1. Setup OLAs

a. Specify service level manager

b. Set service targets

1. Setup Underpinning Contracts (UCs)

a. Specify service level manager

b. Specify Vendor

c. Set service targets

1. Define Workflows

a. Name the process and associate it with one of the ITIL processes

b. Optionally modify default open and close states { you might need to come back to this once all states have been defined}

c. Specify SLA for the Workflow from Step 3.

d. For each Workflow State, specify:

i. Is the Workflow State active?

ii. Is the State an entry or exit state?

iii. The Contract Type: None / OLA / UC

1. Specify an OLA if the OLA Contract Type is set.
2. Select a default Team, that has been assigned the OLA.
3. Specify a UC, if the UC contract type has been selected.

iv. Should the SLA timer continue counting time when the request has entered this State?

v. Should the State be used to measure SLA restoration or resolution time (for reporting purposes only)

vi. Specify relevant next / previous States to define the end-to-end Workflow.

1. To prevent the SLA target from being breached, the contract time will be calculated when an OLA or UC is assigned to a State.

e. Update 6b, if required.

1. Define the Teams

a. Specify Technicians

b. Specify OLAs

c. Specify Workflows

d. Define escalation layers or work groups

1. Make any modifications to the Workflow State

a. Specify a default Team to provide support for specific States {review 6diii 1a)

1.10.8 Applying SLM to request creation and management

After SLAs, Workflows and Teams have been defined, the Service Desk is able to use the system to efficiently process Incident, Problem, RFC and Service Requests according to organizational standards and procedures.

The following steps outline the process of generating and managing an Incident in the system:

1. Within the Operations > Incident tab select the New button:

a. Assign a Customer

b. Select an Item, which include Services within Service Catalog

c. Profile the request

i. Select a Classification

ii. Enter Description of the request

iii. Complete any custom fields

d. If the proactive analysis option is enabled, proposed solutions will be available within the Analysis Tab. If a relevant Solution is proposed, apply the Solution to close the request. Otherwise, click 'Next' to move to the Summary tab of the request screen.

1. In the Summary Information screen, confirm:

a. SLA

b. Workflow

i. A list of Workflows options is derived based on the SLA selected

ii. If a Workflow has not been assigned to the SLA, then the system default Workflow is assigned to the Incident

c. Team

i. A list of Team options will be derived based on the Workflow selected

ii. If a Team has not been assigned to the Workflow, then the CI's default Team is assigned to manage the Incident

d. Technician

e. Request Urgency / Impact / Priority

f. Notifications

g. Workflow State (= Status)

h. Add Note(s), and apply private/public visibility and Customer email distribution options

i. Upload attachments

j. Access Audit trail details

k. Access Impact information (i.e., Service Targets, SLA breaches, Item Relationships, Planned Outages, Contract Monitor)

1. Perform analysis within the Analysis tab

a. Allows the system to recommend a proposed Workaround or Solution

b. Search Workarounds / Solutions

c. Raise new Workaround / Solution

d. Raise a new Problem and link it to the request

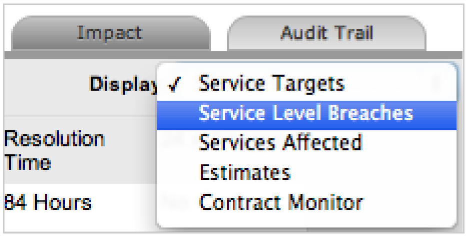
e. Raise a new RFC and link it to the request

f. If the request is related to other Incidents, Problems, Change or Service Requests, view all related requests within the Related sidebar in the Summary screen.

1. Save the request
2. Group similar or related requests using the Link option and manage the collective from the Group tab or selecting the Group # link in the List View, if this option has been defined for the customized view.

1.11 Breach Codes

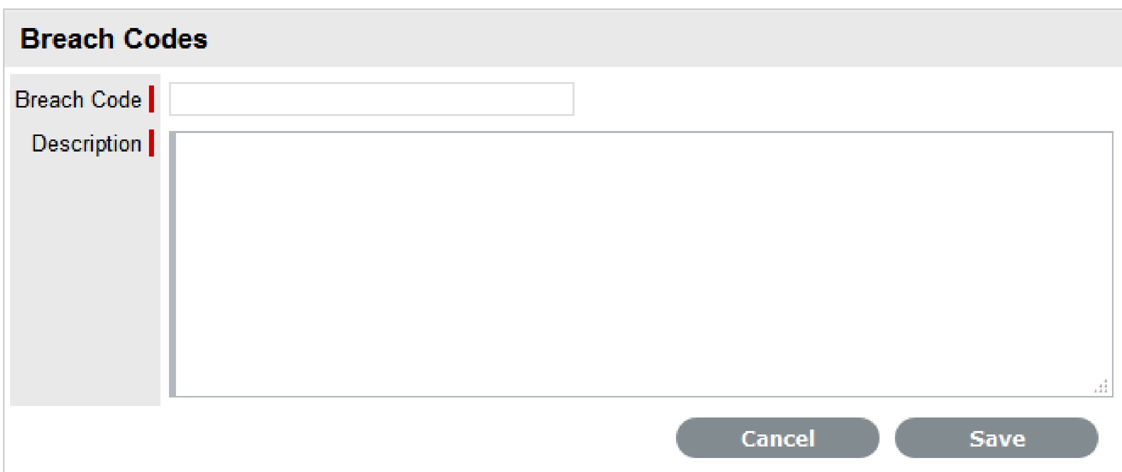
An SLA breach occurs when a User fails to meet service level targets. When a breach occurs, the User assigned to the request receives an Alert, prompting them to explain the cause of the breach. The User is given the option to select a breach code and provide an explanation for the breach within the Service Level Breach filter view of the Impact tab of the breached request.



Breach codes are defined by a Supervisor User within the Service > Breach Codes tab.

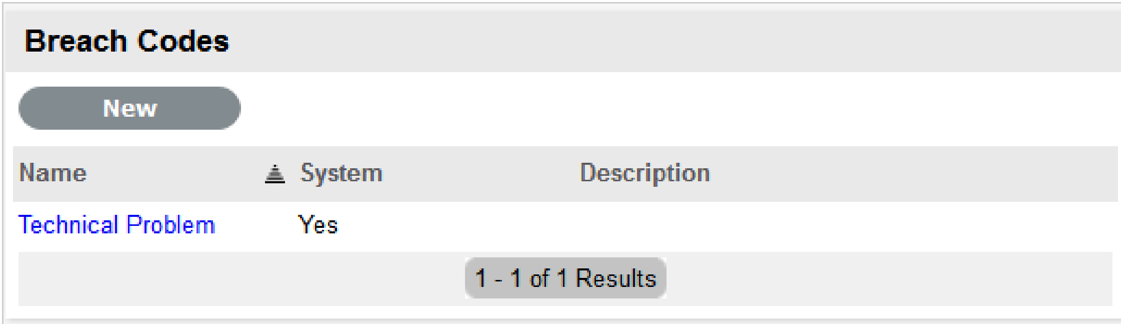
To create a breach code:

1. Go to Service> Breach Codes
2. Select New



3. Enter a Breach Code label
4. Enter a Description of the breach
5. Click Save.

The System column in the List View includes Yes to indicate a Code that can be edited.



1.12 Contracts

(Contracts menu option is available when Enable Contracts is set to Yes in Admin>Setup>Billing>Setup.)

Contracts within the system allow service and support organizations to manage their Customer support subscriptions relative to the type of service they provide.

For Customer requests to be addressed, all requests must be associated with a valid contract. A Contract consists of a Service Level Agreement (SLA) and a Service Delivery Period (start and end date). A Service Delivery Period is the duration of the contract, such as a month or a year. In the case of individual request Contracts, the Service Delivery Period terminates when the request is closed.

Contracts can be used as a stand-alone function or with the Invoices facility. Service Desks that charge Customers for the service and support they provide, can enable the Contracts and Invoices functionality. Invoice creation within the system is on a per Contract basis.

1.12.1 Contract Types

The Contract Types available within the system include:

- Per Request - covers the period of time for which the request is open and worked undertaken
- Per Item, Customer or Org. Unit - covers the Item, Customer or Org.Unit regardless of the number of requests logged against the Item or by the Customer or Org. Unit but can be created on the following basis:
  - Subscription - a contract that covers a specified period of time
  - Time Limited Subscription - a contract that covers either a specified period of time or number of support hours, whichever limit is reached first
  - Support Hours - a contract that defines the number of support hours covered
  - Support Hours by Month - a contract that covers a total number of support hours purchased for a defined timeframe and allocated on a per month basis.

1.12.2 Contracts Option

Users must also be assigned the Service Level Management Process within their User account, in order to view the Service Level tab. The Contracts option within the Service tab is visible when Billing>Contracts is enabled by the Administrator. A list of all Contracts generated in the system is listed here and can be viewed through a selection of Filter options.

The following filter list views are provided:

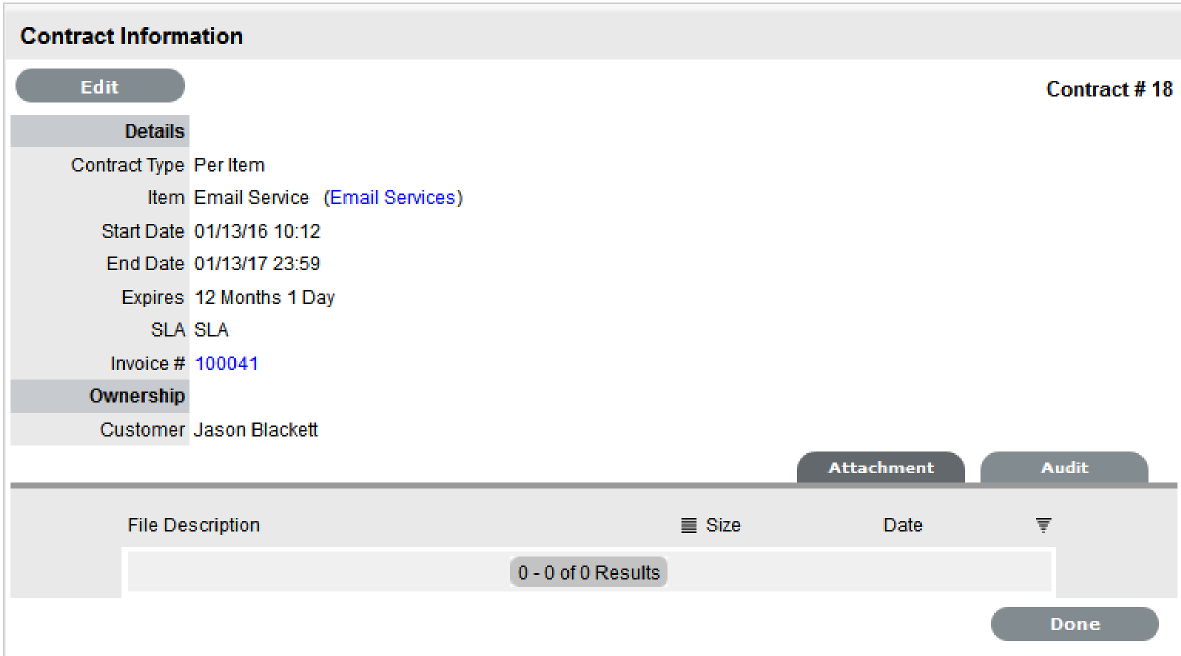
Contracts Filter Views	Description
Active Customer Contracts	Displays a list of all valid contracts for Customers.
Active Item Contracts	Lists all valid Item Contracts.
Active Organization Unit Contracts	Displays all valid Organizational Unit Contracts.
All Agreements	Lists all Contracts in the system regardless of status.
All Customer Contracts	Lists all Customer Contracts in the system regardless of status.
All Item Contracts	Displays all Item Contracts in the system regardless of status.
All Organizational Units	Lists all Organizational Unit Contracts in the system regardless of status.
All Pending Contracts	Displays all Contracts with a Pending Status that are waiting to be processed.
Request Contracts	Lists all Contracts created on a Per Request basis.

1.12.3 Contract Creation

The Contracts option within the Service tab only provides the list view of Contracts generated in the system. Contracts are created in any of the following screens:

- Item >Costs >Contracts tab (See: Costs Tab and Create a Contract.)
- Customer>Contacts tab (See:Create a Contract.)
- Organizational Unit >Contracts tab (See:Create a Contract.)
- Finance>Invoices tab (See: Contracts and Invoices)
- Request >Contract tab for requests with a Pending - No Contract status. (See: Create a Contract.)

1.12.4 Contract Fields



A Contract in the system includes the following fields in the Contract Information screen:

Contract Details	Description
Contract Type	Subscription or a contract that just covers the current request.
Item, Customer or Org. Unit	For Subscription contracts, this is the Item, Customer or Org. Unit covered by the Contract. For Per Incident contracts this is replaced by a request ID number.
Start and End Date	Subscription Contracts default to a one year contract but can be amended.
Expires	The number of days until the Contract expires.
Hours Purchased	The number of hours purchased for a Time Limited Subscription or Support Hours Contract.
Time Remaining	The amount of time remaining for the Time Limited Subscription or Support Hours Contract.
SLA	The SLA applied to the Contract.
Invoice #	The Invoice number used to create the Contract. (This is displayed when Invoices are enabled in the system.)
Ownership	
Customer	The Customer covered by the Contract.

1.12.5 Attachment Tab

The Attachment tab allows the User to upload documentation related to the Contract. This facility provides a centralized repository for storing information and obligation details related to the Contract.

1.12.6 Audit Tab

The list of requests with the time recorded against the Contract is displayed within the Audit tab. The Summary view displays the list of requests with total number of Notes and Time allocated to the Contract, while the Detail view includes a breakdown of all Notes and the associated time related to each request.

1.12.7 Contract Validation Process

When a request is created and Contracts are enabled, the system validates the contract status for the Customer, Organizational Unit or Item. As part of the contract validation process, the system selects the first element found on this list:

1. Customer (with a valid contract)
2. Org Unit (with a valid contract)
3. Item (with a valid contract)
4. No contract found, then either a Per Request or Per Item Contract can be created by selecting the Pending - No Contract hyperlink and adding a Per Request or Per Item Contract.

1.13 Contract Assignment

Contracts can be assigned to an Item, Customer, Organizational Unit or on a per Incident basis. The following content regarding creating a Contract, assumes that within the system Setup, the Billing>Contracts option is enabled.

When a request is created, the system will check if the Customer has a valid contract. If the Customer is not under contract, the system will check if the Org. Unit is covered, and if not, it will assess the Item contract status. If no contract is in place, the request will be assigned a "Pending - No Contract" Status and locked down until a Contract is created. See: Create a Contract.

An Item, Customer and Organizational Unit can only have one active contract in place at a time but multiple contracts can be queued by assigning a Start Date that falls after an existing Contract's end date. Queued Contracts are visible within the Item, Customer or Org Unit's Contract tab identified by the contract number generated at the point of creation, if Invoicing is not enabled in the system. If Invoicing is enabled in the system and an SLA cost is associated with the contract, a contract number is generated when the invoice payment is processed by a Finance User.

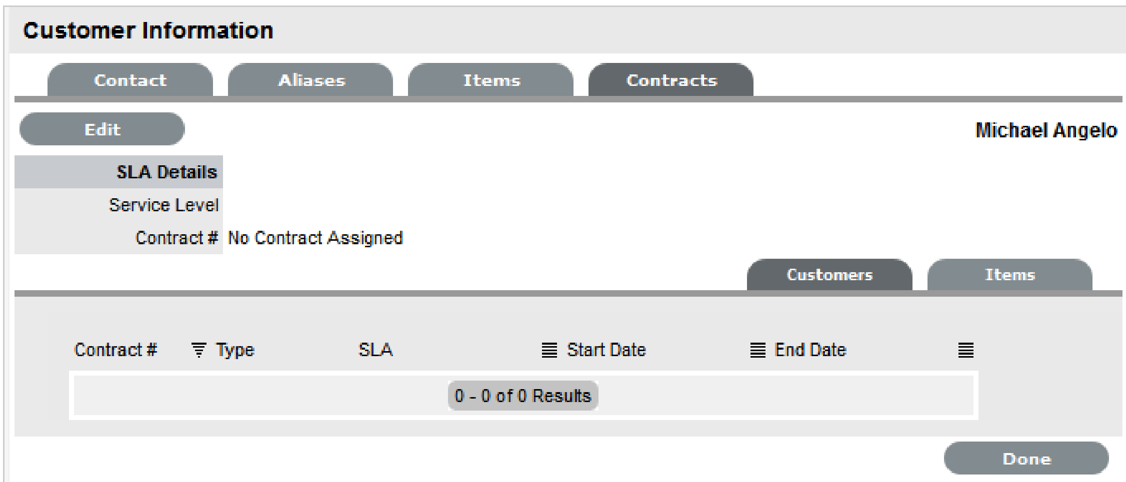
1.13.1 Customer Contracts

Customer contract history is stored within the Contracts tab of the Customer Information screen. All contracts, valid and expired, are listed within the Customer and Items tab of the Contracts screen.

To create a new contract for a Customer:

1. Select User>Customers
2. Select the Customer Name
3. Move to the Contracts tab
4. Click Edit

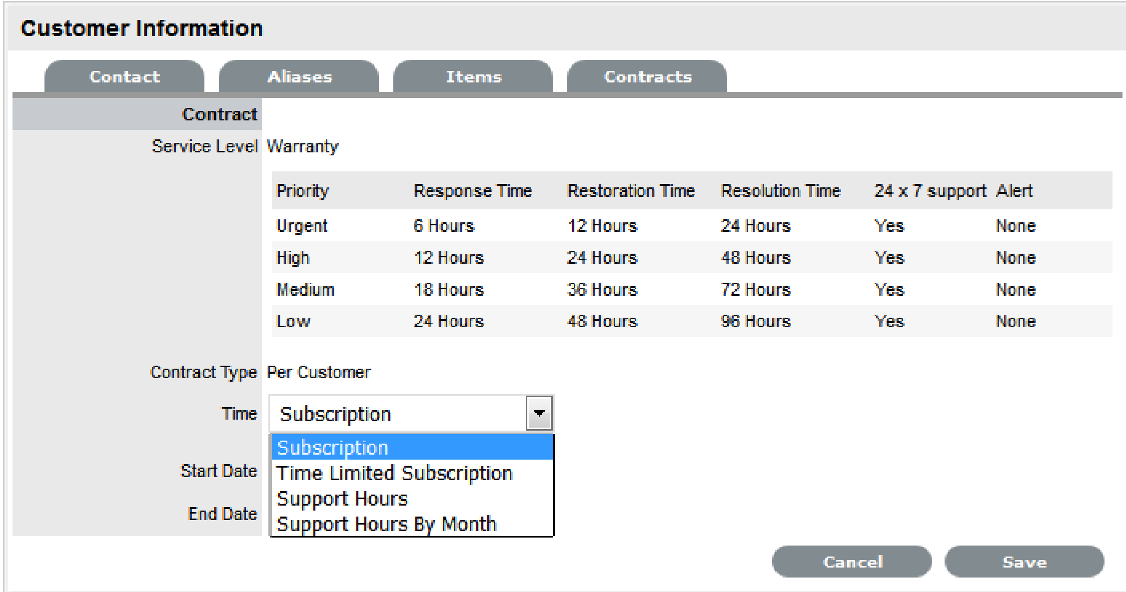
   The Add and Delete buttons become available with the Contracts>Customer tab.



5. Click Add

   (If Invoices are enabled in the system, an Invoice number will be automatically generated and assigned to the Contract).
6. Select a Service Level from the list

   When selected, the screen expands to display start and end date fields.



7. Define the Contract Time period

   For the Per Customer Contract Type the Time Period for the Contract can be defined as one of the following:

   Subscription if selected, the Start and End Dates are automatically set to year from the date of creation, but can be edited if required.

   Time Limited Subscription if selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually by entering the length of time for the subscription period, or the system will default to entering a year from the date of creation.

   Support Hours if selected, the number of support hours purchased by the Customers should be entered.

   Support Hours by Month if selected, set the number of hours purchased per month and define which day of the month contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

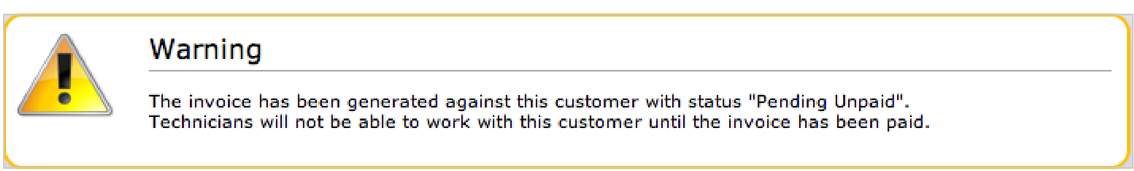
   (If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)

8. Add any relevant Invoice Notes

9. Check the Taxable box, if the Contract is to be taxed

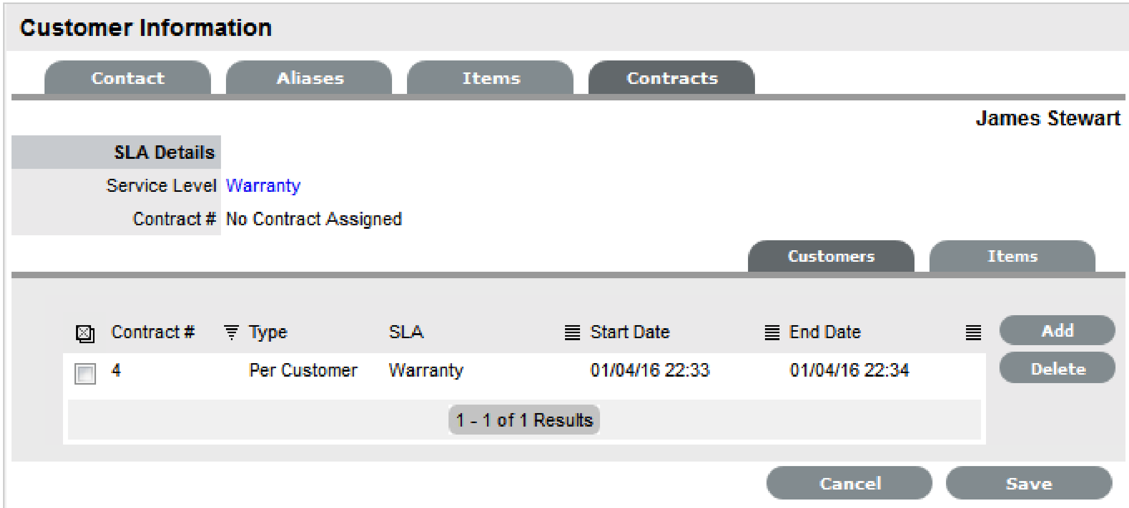
10. Click Save

    If invoices are enabled and a cost is associated with the SLA, a Warning message is displayed prompting that the invoice needs to be processed by a Finance User before the contract will become available in the system. The invoice can be processed in the Finance >Invoices tab.

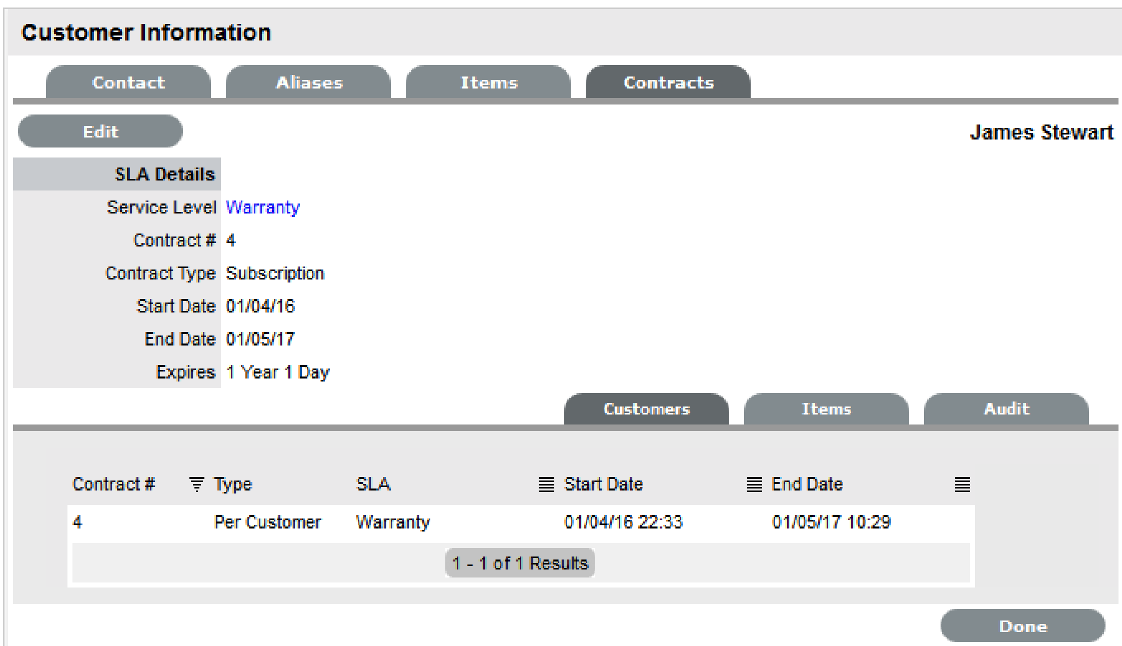


11. Click Next to continue

    The system reverts to the Contracts summary screen



12. Click Save. Click Done.



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13. NOTE: If Invoices are enabled, a new invoice is automatically saved within the Finance>Invoices screen for the newly created Contract. If payment is required, a Pending Invoice Number is displayed and once processed, the Contract details will be included in the Customer Information>Contracts>Customer tab.

The Items tab within the Customer>Contracts screen is used to list all the Items with a Contract that are owned by a Customer.

To delete a current Contract, as a Supervisor User, select 

next to the Contract Number. Alternatively, to delete a current or queued Contract, within the Contract>Customers tab check the field next to the relevant Contract # and select the Delete button.

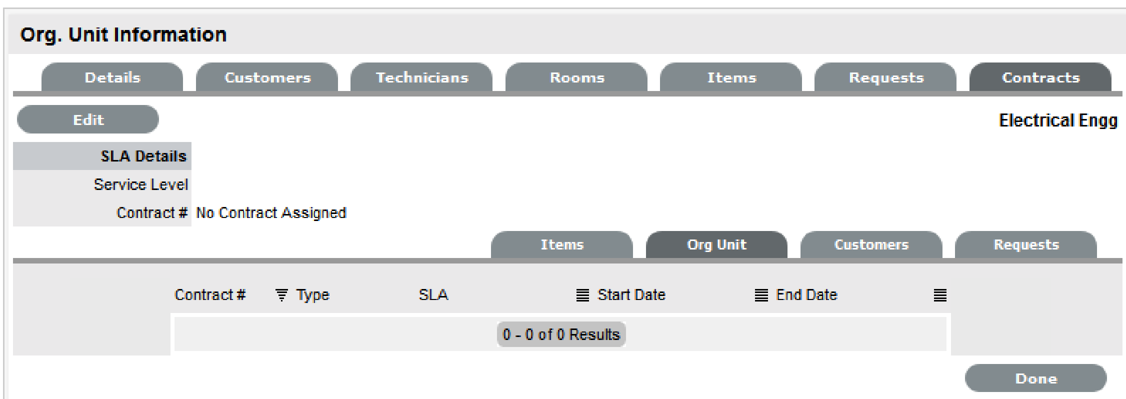
1.13.2 Organizational Units Contracts

Organizational Units' Contract history is stored within the Contracts tab of the Org. Unit Information screen. All Contracts, valid and expired, are listed within the Org. Unit, Customer and Items tab of the Contracts tab.

NOTE: To assign a Contract to an Org Unit, a Primary Contact must be nominated for the Org Unit or the system will prompt the User to assign a Primary Contact during the Contract assignment process. This means, prior to creating the Contract assign at least one Customer to the Org Unit and then designate a Customer as the Primary Contact.

To create a new Contract for an Organizational Unit:

1. Select User> Organizational Units
2. Select the Organizational Unit's Name
3. Move to the Contracts tab

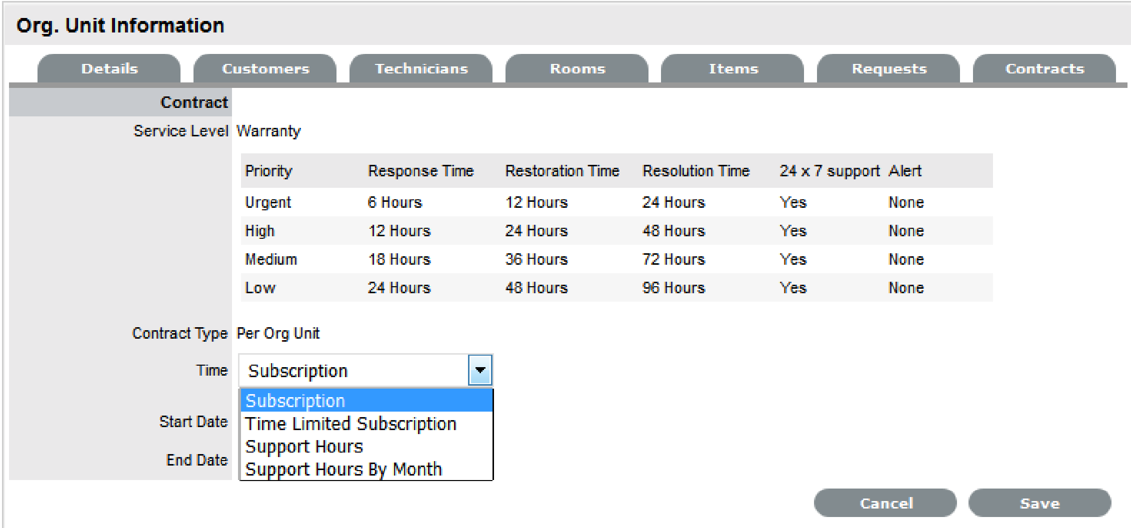


4. Click Edit

   The Add and Delete buttons become available with the Contracts>Org Unit tab.
5. Click Add

   If a Primary Contact has not been assigned to the Org Unit a system prompt will notify the User to create a Primary Contact. See: Primary Contact.
6. Select a Service Level from the list

   When selected, the screen expands to display start and end date fields.



7. For the Per Org Unit Contract Type the Time Period for the Contract can be defined as one of the following:

   Subscription if selected, the Start and End Dates are automatically set to year from the date of creation, but can be edited if required.

   Time Limited Subscription if selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually by entering the length of time for the subscription period, or the system will default to entering a year from the date of creation.

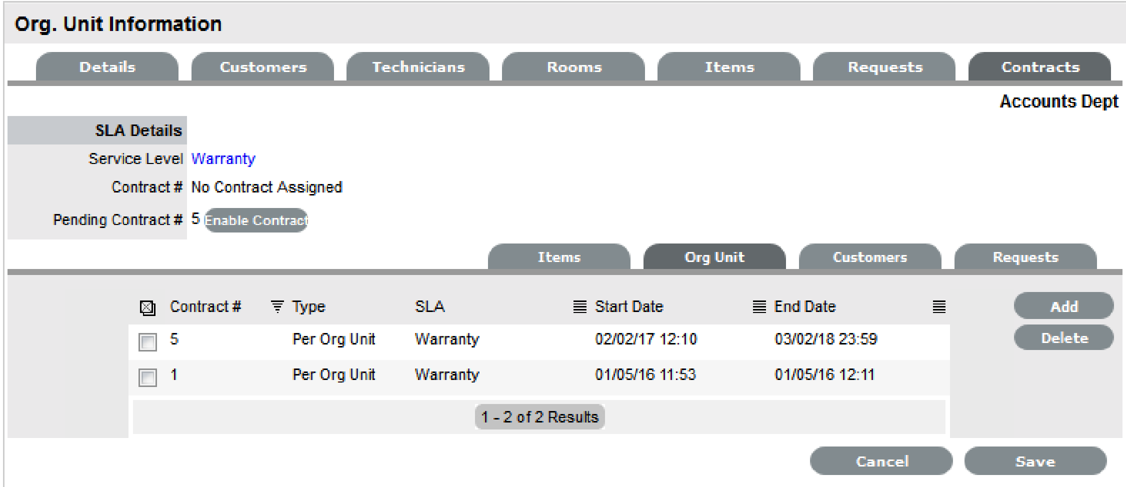
   Support Hours if selected, the number of support hours purchased by the Customers should be entered.

   Support Hours by Month if selected, set the number of hours purchased per month and define which day of the month contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

   (If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)

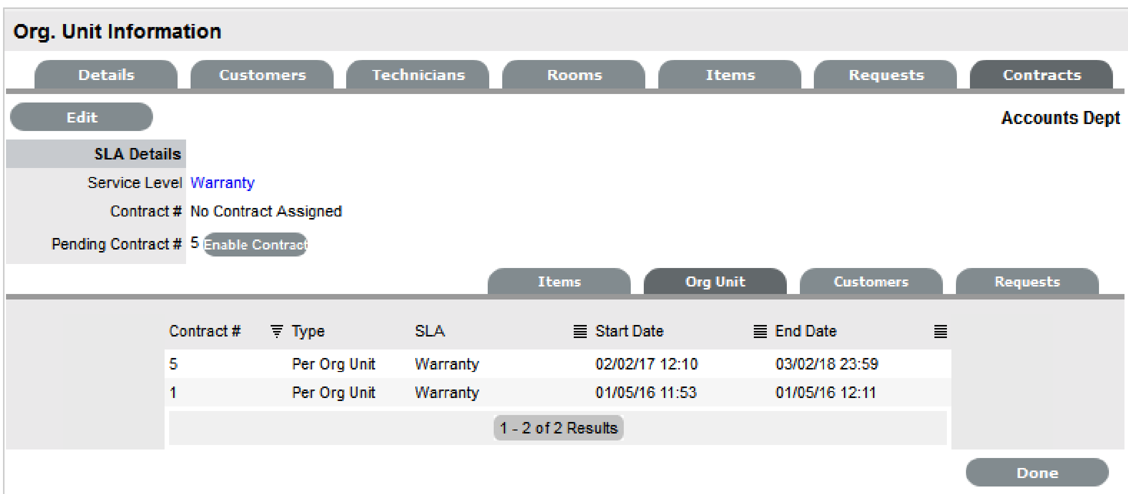
8. Click Save
9. Click Next to continue

   The system reverts to the Contracts summary screen, if the contract is forward dated and another contract is not already active, the Enable Contract option button will be available. Select this button if the contract is to commence prior to the set Start Date. Alternatively, other contracts can be queued for the Org Unit by selecting the Add button.



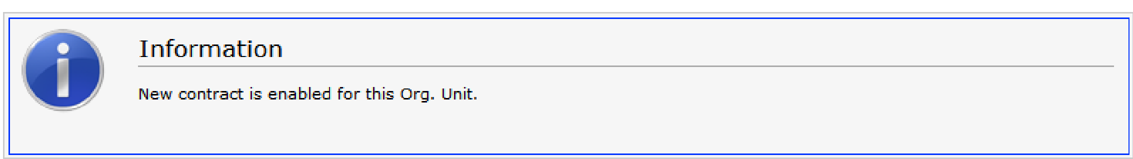
10. Click Save

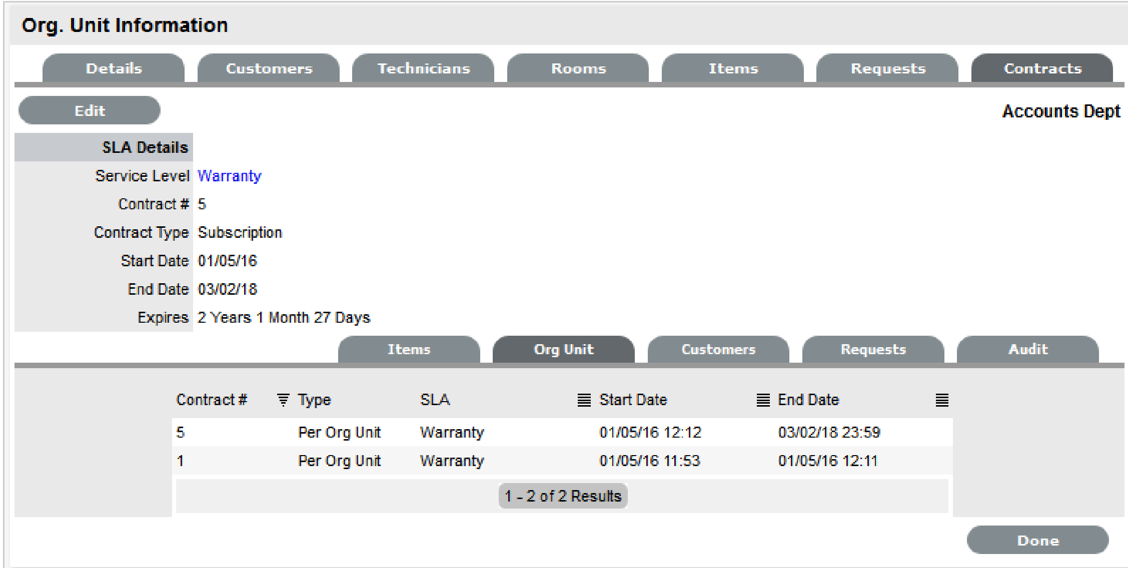
    To process the contract before the set Start Date select the Enable button.



11. Click Done.

    A success message is displayed.





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12. **NOTE:** If Invoices are enabled, a new invoice is automatically saved within the Finance>Invoices screen for the newly created Contract. If payment is required, a Pending Invoice Number is displayed and once processed, the Contract will be listed in the Org.Unit Information>Contracts>Org.Unit tab.

To delete a current Contract, as a Supervisor User, select 

next to the Contract Number. Alternatively, to delete a current or queued Contract, within the Contract>Org Unit tab check the field next to the relevant Contract # and select the Delete button.

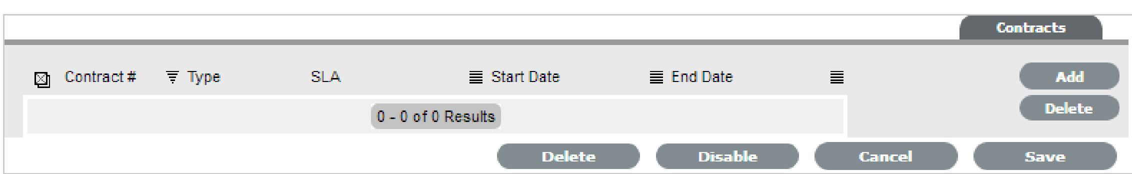
The Items and Customers tab within the Org Unit>Contracts screen is used to list all the Items and Customers with a Contract that belong to the selected Org Unit.

1.13.3 Item Contracts

1. Select the Item Number within the Configuration>Item screen
2. Move to the Costs tab

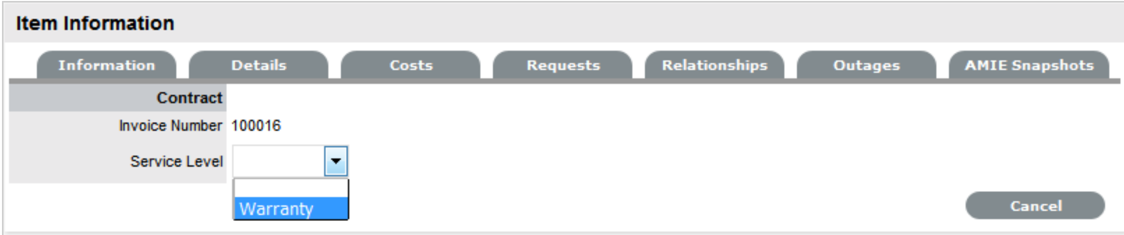
   The Contracts tab is visible in the bottom right corner of the screen
3. Click Edit

   The Add and Delete buttons are made available within the Contracts tab



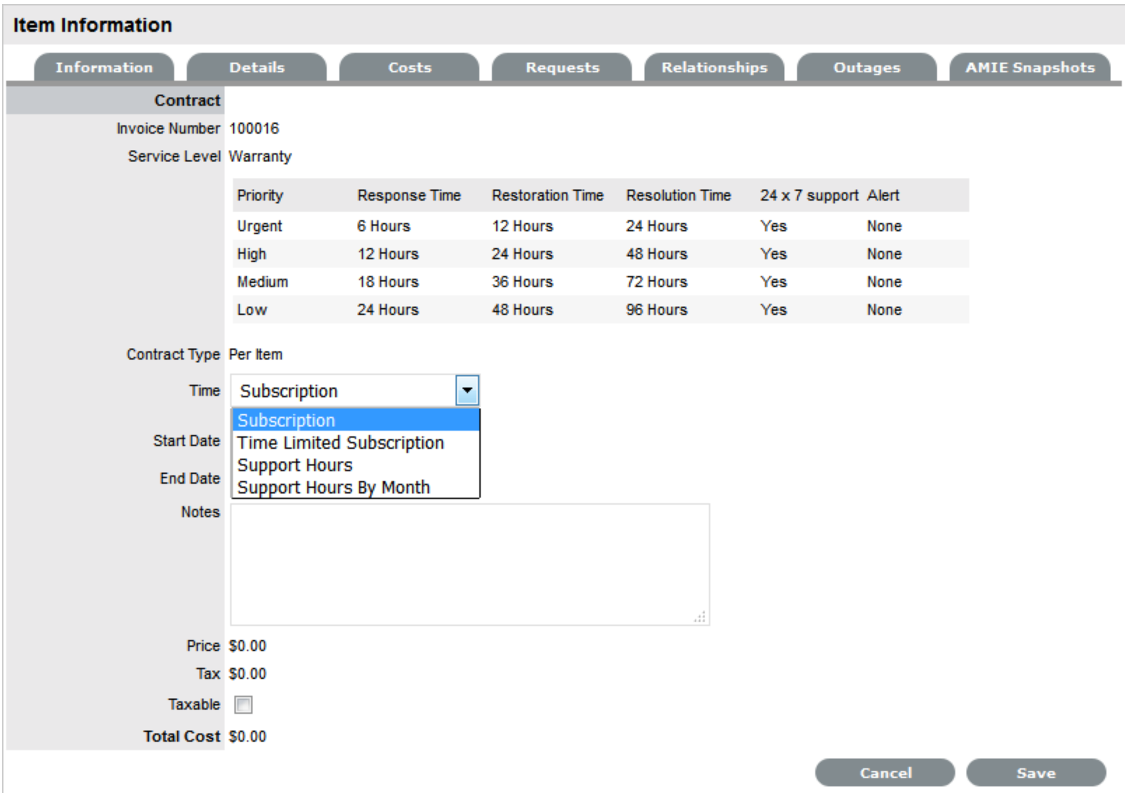
4. Click Add

   (If Invoices are enabled in the system, an Invoice number will be automatically generated and assigned to the Contract).



5. Select an SLA from the drop-down option

   The screen will display the SLA details and the Contract Type locked to Per Item.



6. Assign the Time period to be covered by the Contract:

   If *Subscription* is selected, the Start and End Dates are automatically completed by the system, but can be edited if required.

   If *Time Limited Subscription* is selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually, entering the length of time for the subscription period.

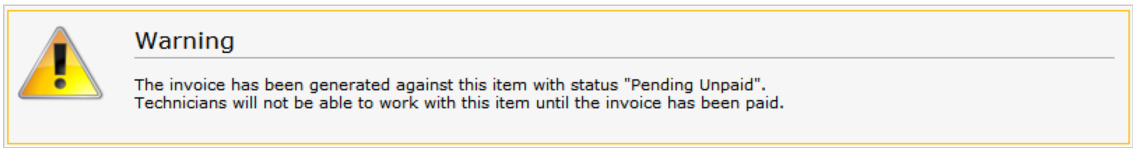
   If *Support Hours* is selected, the number of support hours purchased by the Customers should be entered.

   If *Support Hours by Month* is selected, set the number of hours purchased per month and define which day of the month contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

   (If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)

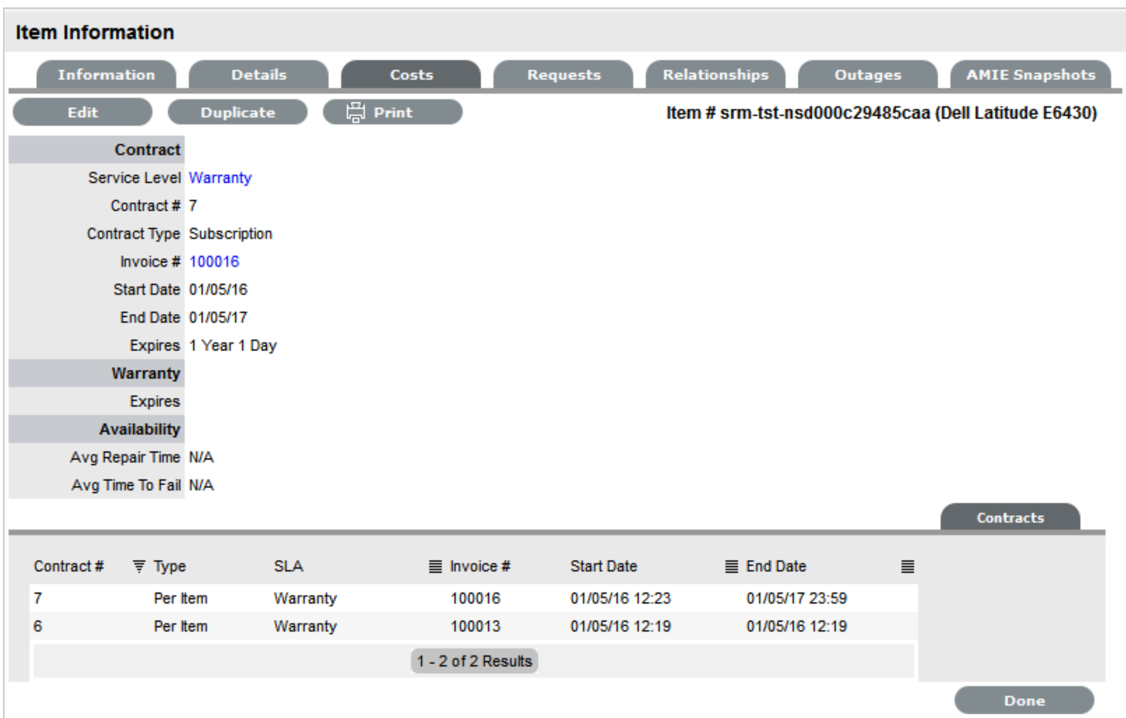
7. Add any relevant Invoice Notes
8. Check the Taxable box, if the Contract is to be taxed
9. Click Save.

   If Invoices are enabled in the system, an Invoice number will be automatically generated for the Contract and made available within Finance>Invoices. Payment will need to be processed by a Finance User before the Contract can be enabled in the system. If invoice payment is required before the contract can be enabled in the system the following Warning message is displayed:



10. Click Next

    The Contracts information is only populated after the Invoice has been processed. To process the invoice, as a Finance User move to the Finance>Invoices tab. Once the relevant invoice payment has been processed the Contract details will be visible in the Costs >Contracts tab.



The Costs tab provides a summary of the current Contract details. The Contracts tab within the Costs screen, lists all contracts that have been assigned to this Item.

To delete a current Contract, as a Supervisor User, select 

next to the Contract Number. Alternatively, to delete a current or queued Contract, within the Costs>Contract tab check the field next to the relevant Contract # and select the Delete button.

1.13.4 Per Request Contracts

When a request is created without a valid contract, the system automatically assigns the request a status of Pending - No Contract. The User can associate a contract to either the Item or request within the Contract tab of the request Information screen. A Request Contract is only valid for the life of the request. See: Create a Contract.

1.13.5 Contracts with Invoices Enabled

When the Invoices option is enabled within the application's setup and a Contract is being created, the system automatically generates a Contract Invoice. For the contract to become active in the system, a Finance User must process the invoice. If no cost is assigned to the Service Level (i.e., Warranty), the invoice is automatically processed and the contract is active in the system.

1.13.6 Canceling Contracts

If a Contract is no longer valid, it can be cancelled at any time during the contract period. A Supervisor can cancel the Contract within the Customer, Org, Unit or Item Contracts screen, by selecting 

next to the Contract Number. Contracts that are canceled using this option will record the Reason for cancellation as the Supervisor User name who triggered the cancel action.

A User with the *Finance Role* can delete a Contract within the list view of the Service>Contracts tab.

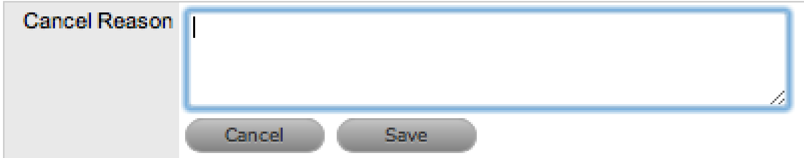
To cancel a Contract, as a User with the Finance Role:

1. Go to Service > Contracts
2. Select a Contract ID to be canceled

   The Contract Information screen will appear.

3. Click the Cancel Contract hyperlink

   A Cancel Reason text box is displayed.
4. Enter an explanation for canceling the Contract



5. Click Save

   The Cancel Reason is assigned to the Contract and the Contract Expiry date will be marked Expired.

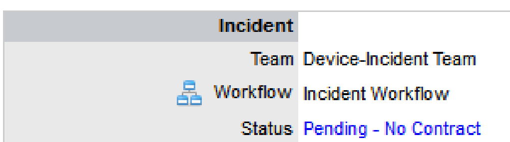
6. Click Done.

NOTE: When a Customer Contract is cancelled and the Customer's associated Org Unit has an active contract in place, the Org Unit Contract details will be displayed within the Contracts>Service Level field of the Customer Information screen.

1.14 Create & Process a Request with Contracts enabled

When the Contracts or Invoices functionality is enabled and a request is created, the system will verify the service entitlement status of the Customer and if a valid contract is not in place, the new request is assigned a status of Pending - No Contract and locked until a valid contract is associated with the request.

In a Request Group where the Customer and Organizational Unit does not have a Contract, if an Item applied to a request has a Contract and another does not, a relevant status will be applied to each request. The User will be able to edit the request with a valid Contract, but the request without a Contract will be locked down to a Pending - No Contract status, until a valid Contract is applied to the request.



The Customer is automatically sent the NoContractCreateRequestSummary email when the request is saved with the Status. A reminder email can be sent to the assigned Customer by the Technician from within the Summary tab by clicking .

Two types of Contracts are used by the system, these include Per Item or Per Request Contracts. They are defined as follows:

- Per Request - covers the period of time for which the request is open and work is done
- Per Item - covers the Item, regardless of the number of requests logged against the Item and can be defined as:

Subscription - a contract that covers a specified period of time

Time Limited Subscription - a contract that covers either a specified period of time or number of support hours, whichever limit is reached first

Support Hours - a contract that defines the number of support hours covered

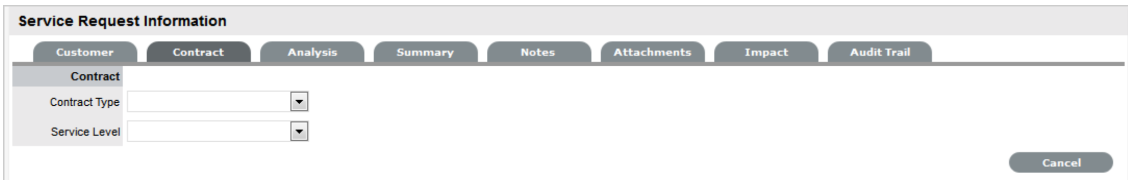
Support Hours by Month - a contract that covers a total number of support hours purchased for a defined timeframe and allocated on a per month basis.

1.14.1 Request with Per Item Contract

To create a *Per Item* Contract for a request within the Summary tab of the request:

1. Click the Pending - No Contract link

   The Contract tab is displayed with Contract Type and Service Level drop-down options.



2. Select the Contract Type of Per Item

   For the Per Item Contract Type the Time Period for the Contract can be defined as one of the following:

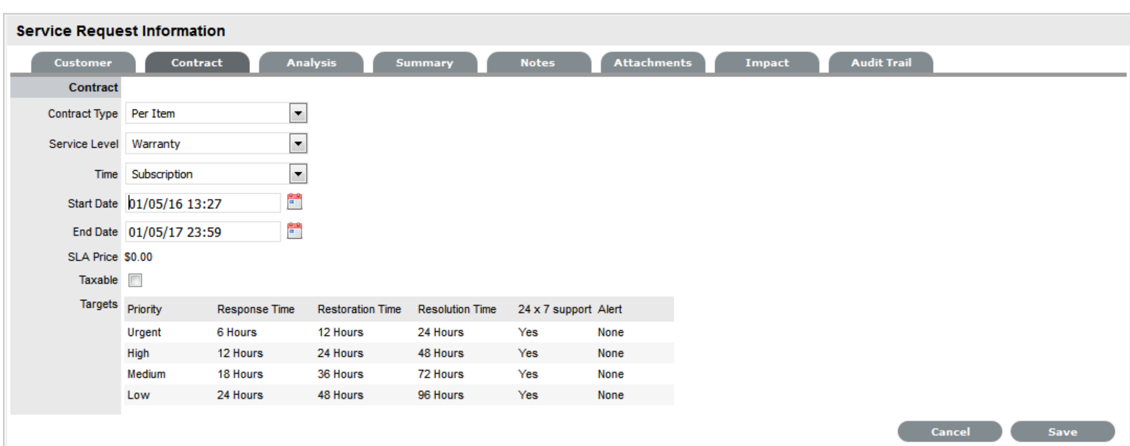
   Subscription if selected, the Start and End Dates are automatically set to a year from the date of creation, but can be edited if required

   Time Limited Subscription if selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually by entering the length of time for the subscription period, or the system will default to entering a year from the date of creation

   Support Hours if selected, the number of support hours purchased by the Customers should be entered

   Support Hours by Month if selected, set the number of hours purchased per month and define which day of the month the contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

   (If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)



3. Click Save

The maintenance contract is created.

4. Click Next to continue to create the request by defining the Classification and Description.

---

5. **NOTE:** If Invoices are enabled, a new invoice is automatically saved within the Finance>Invoices screen for the newly created Contract.

1.14.2 Request with Per Request Contract

To create a *Per Request* Contract for a request within the Summary tab of the request:

1. Click the Pending - No Contract link

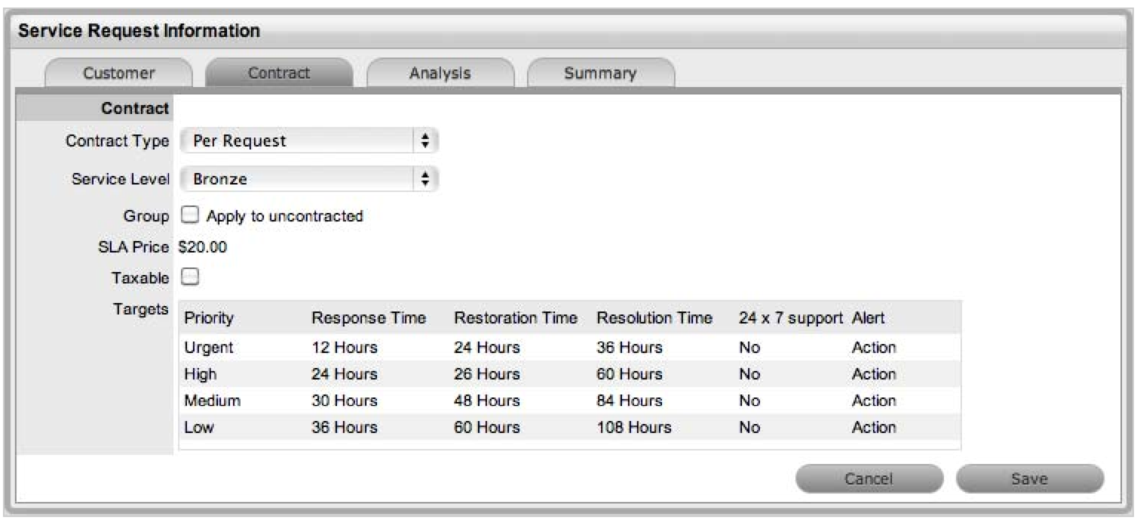
   The Contract tab is displayed with Contract Type and Service Level drop-down options.

2. Select the Per Request Contract Type

   (The SLA Price and Tax option box is displayed, if Invoices are enabled for the system.)

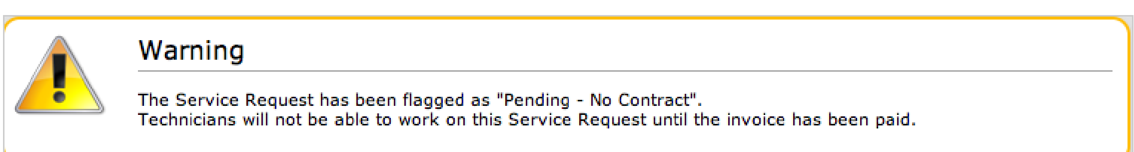
3. Select the SLA

   (If required, check the box to indicate if tax is to be applied to the Invoice, which will be applied to the Invoice that is automatically saved within the Finance>Invoices screen when the newly created Contract is saved.)



4. Click Save

   (If the Service Level selected for the request has a cost associated with it, the request will be assigned with the status Pending - No Contract. Work cannot commence on the request until payment for the invoice is received.)



5. If the Service Level has no cost i.e., Warranty, the maintenance contract is created and work can commence on the request immediately

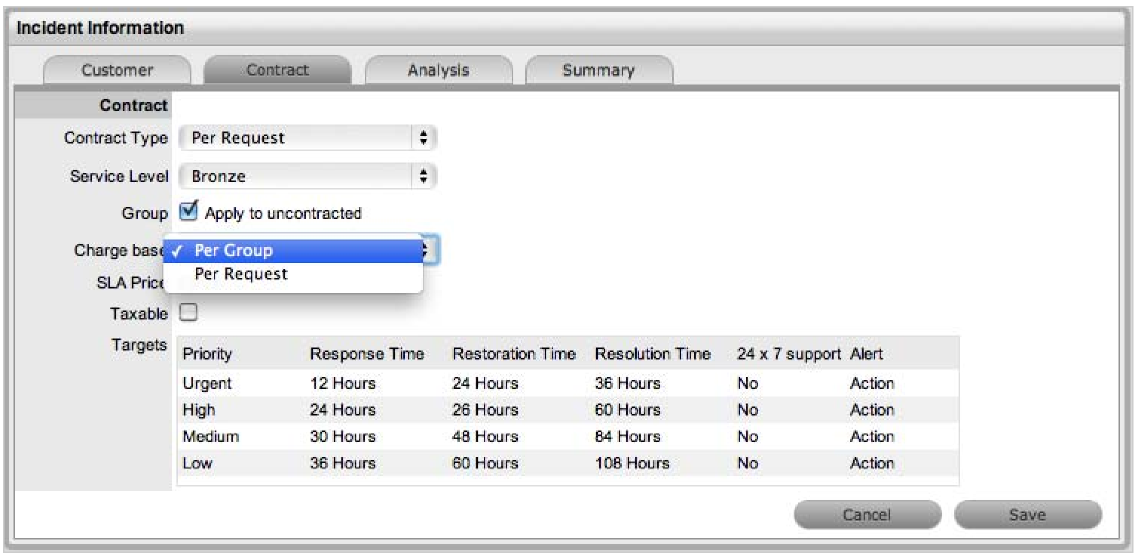
6. Click Done.

   The screen defaults to the Summary tab.

1.14.3 Grouped Requests and Contracts

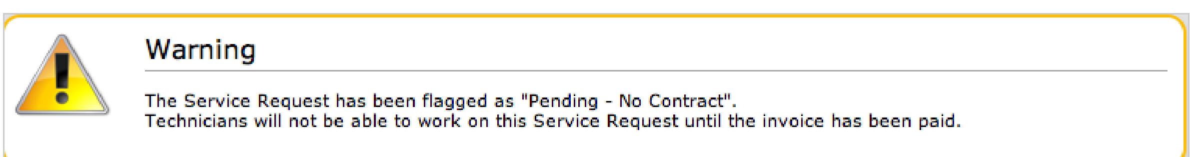
Contracts can be applied to all requests within an Incident Group when a *Per Request* contract is created within the Contract tab of a grouped request. The following options are available:

- Per Group - applies the Contract to the Request Group as a whole and assigns a single charge for the Contract. On the associated Invoice, if relevant, the SLA Price is distributed evenly across each Request line-item
- Per Request - applies the Contract to the Request Group but assigns the SLA Price as an individual charge to each request within the Group. On the associated Invoice, if relevant, the SLA Price is applied to each request line-item.



1.14.4 Processing an Invoice

If invoice payment for the SLA contract is required before the User can commence work on the request, the following system message is displayed:



When a request is flagged with this status, the Edit button will not be available within the Summary tab and a User assigned the Finance Role must process invoice payment before the request can be edited.

To process payment for an invoice see: Invoice Payment and Delivery

1.14.5 Invoice Cancellation

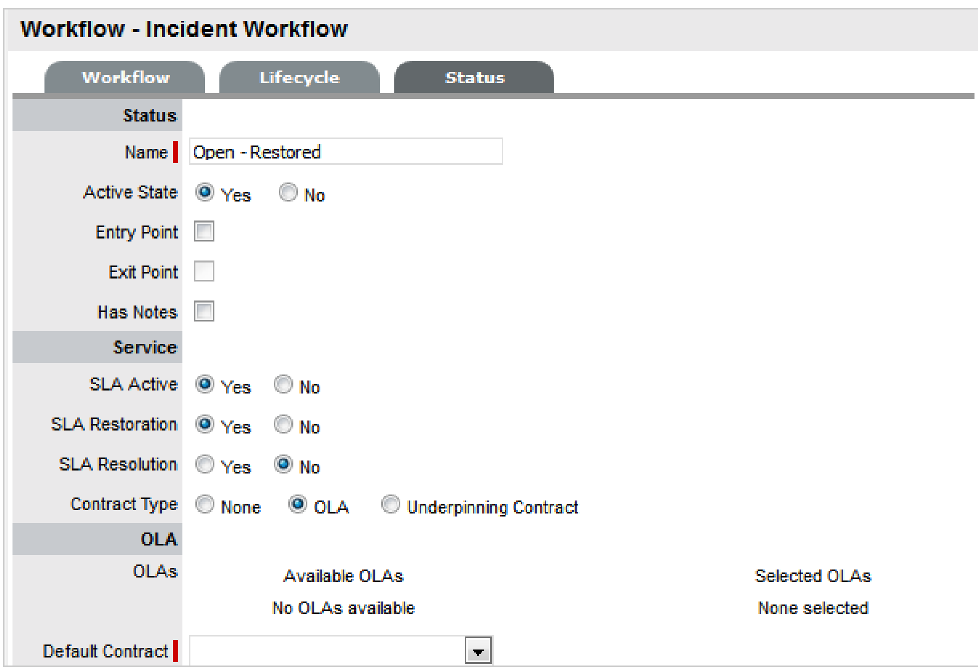
To cancel an Invoice for a request:

1. Select the Request # id
2. Select the Request with the Status Pending - No Contract
3. Click the Cancel hyperlink in the Summary tab.

   This will cancel the Invoice and change the request Status to Cancelled - Unpaid.

1.15 Operational Level Agreements (OLAs)

An OLA is an internally negotiated agreement that identifies the service level expectations between the Service Desk and the Technical Support Teams. OLAs are applied to Workflow States and allow the Service Desk to successfully meet service level expectations. This is achieved by associating an SLA to a Workflow and then assigning, where relevant, OLAs or Underpinning Contracts to separate stages of that Workflow. It should be noted that SLA targets for Response, Restoration and Resolution time must be greater than or equal to the combined OLA and UPC times for each of these targets, to ensure that service level breaches do not occur.

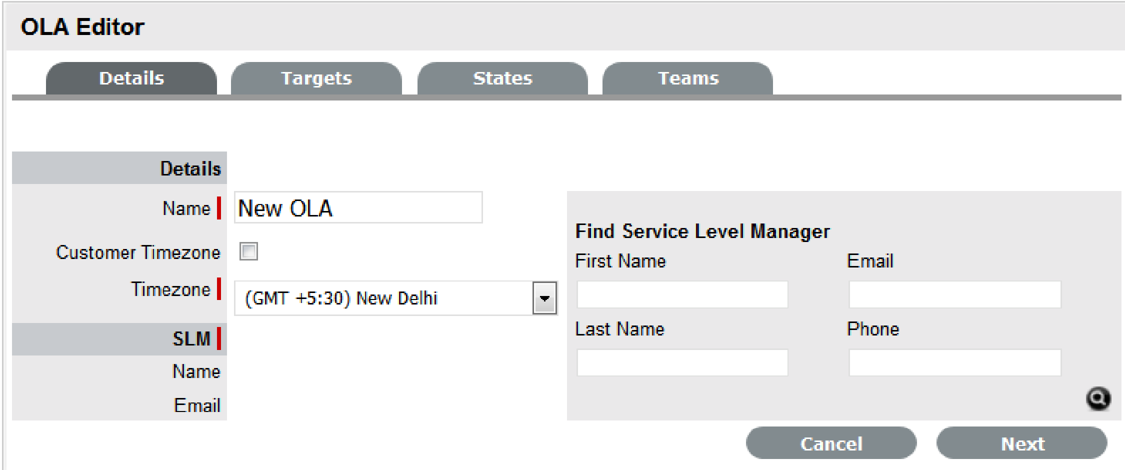


1.15.1 Details Tab

Creating an OLA

To create a new OLA:

1. Select Service >OLAs
2. Click New



3. Enter a Name for the OLA
4.

OLA Editor	
Details	
Name*	The name to identify the OLA.
Review Date	Details are completed based on the Admin default settings but can be edited by the User. An Alert is sent based on the default days set in the Review SLA Alert field in Admin>Setup>Privileges>Requests.
Pause on SLA Holiday	**This option is only displayed if the 'Public Holidays' option has been enabled within the Administrator>Setup>Privileges>Technician tab. Enable this option, if the OLA is to be adjusted on designated Public Holidays, when an associated SLA has the Pause on Holiday option enabled. The Public Holidays are defined within the Administrator>Setup>Public Holidays screen and associated with requests via the assigned Technician and their associated Country.
Customer Timezone	When enabled, OLA times displayed within the Technician request view uses the Customer timezone.
Timezone	This is visible when Customer Timezone is not set and all SLA dates are calculated based on the Timezone set within this field. This is especially applicable for User Work Hours, Blackouts, which also impacts the SLA Reports.
SLM (Service Level Manager)	
Name Email	Use the Find Service Level Manager search option, to enter the contact details of the Manager who will monitor the performance of the OLA.

5. Adjust the Review Date, if necessary

   (A reminder Alert will be sent to the SLM, based on the default days set in Admin>Setup>Privileges>Request.)

6. Tick the Customer Timezone option, if relevant

   Apply this option if the User is to view OLA due dates using the Customer Timezone or complete the Timezone option.

7. Search and select a Service Level Manager.

   A Service Level Manager (SLM) is a User that has been assigned with the Service Level Management Process.

8. Move to the Targets tab
9. Complete the following information:

10.

SLA Editor	
Targets	
Targets	*Common*: Select Common if the OLA is to apply across Incidents, Requests, Problems and Change Management. *Per Process*: If the OLA is specific to a Process, select Per Process and choose a Process displayed in the drop-down list.
Interval	Define if the time is to be calculated in Hours or Minutes.
Service Time	
Priority	Urgent, High, Medium and Low
Milestones	
Initial Response	The maximum time the Customer would wait from the point of request creation before receiving a Note update for a Technician. The Response trigger is stopped when a Note has been added to the request by the assigned Technician and an email is sent to the Customer. If the Response Time is reached, without a Note being added, the request will be escalated.
Restoration Time	The maximum time the Customer would wait from the time the request was created until a workaround or temporary fix has been implemented. The Restoration trigger stops by assigning the request a Workflow State that has to the OLA Restoration option set to Yes. By default, this Workflow State is Open - Restored.
Resolution Time	The taken time from the point of request creation until it the request is moved to a Workflow State with the OLA Resolution option set to Yes. Any of the default Workflow Exit States stop the Resolution Timer.
Notify Override	If the system is to override the default notification method set for a request when the Priority being edited is assigned to a request, check this option.
Notification Type	Set Email or SMS as the type of notification when the override action is applied to a Priority.
Alerts	
Reminder	Sends a reminder email to the Technician when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the OLA. Note, Alert intervals are not cumulative.

SLA Editor	
Warning	Sends a warning email to the Technician when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the OLA.
Escalation	Escalates the request to a higher escalation layer when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the OLA. It should be noted that the Service Level Manager is also notified when an OLA is breached.
Support	
24 x 7	Do not amend if the OLA is to apply 24 hours a day, 7 days a week.
Normal Support	Select if service hours are to be defined for the OLA. When checked, define the service hours by either selecting a template (Templates are configured by the Administrator in the Setup>Localization>Hours tab) or manually define the days and time by making selections within the drop-down lists.

11. Add one or multiple Warning Alerts, if required

NOTE: Trigger intervals are not cumulative

In the default OLA for Warranty, the Urgent default times of 6, 12 and 24, mean 6 hours for the Response stage, 12 hours for Restoration from initial creation, and 24 hours to reach the Resolution from initial creation.

---

1. Define the support hours

   Within 24 X 7, if the OLA's urgent Initial Response field is set to six hours, and an urgent request that uses the OLA is created at midnight in the assigned Technician's time zone, those six hours will expire by 6:00 AM. This is the option to use if your support is staffed 24 hours a day.

   Normal support ensure request timers do not run when Technicians are not available. For instance, if the support hours are 9:00 AM to 5:00 PM and the SLAs are as such, the urgent requests' timer would not start ticking until 9:00 AM the following business day and would expire at 3:00 PM.
2. Click Save
3. Click Done.

   Now associate the OLA with a Team within the Service tab of the Team Information screen.

   The OLA will also be available within the OLA options displayed when OLA is selected as a Contract Type option within the Workflow Status editor screen.

1.15.2 States Tab

The OLA States tab lists the Workflow stages that are assigned to the OLA.

1.15.3 Teams Tab

The Teams tab displays the Team Names and Processes that are assigned to the OLA.

Assigning an OLA to a Team

OLAs are assigned to Teams within the Service Tab of the Team Information screen, when Teams are created or edited. For more information about assigning OLAs to Teams, see Teams. To view OLAs associated with Teams, sort the User>Team List View using the OLA column header. The Lead Technician and ITIL Process supported by the Team are also displayed.

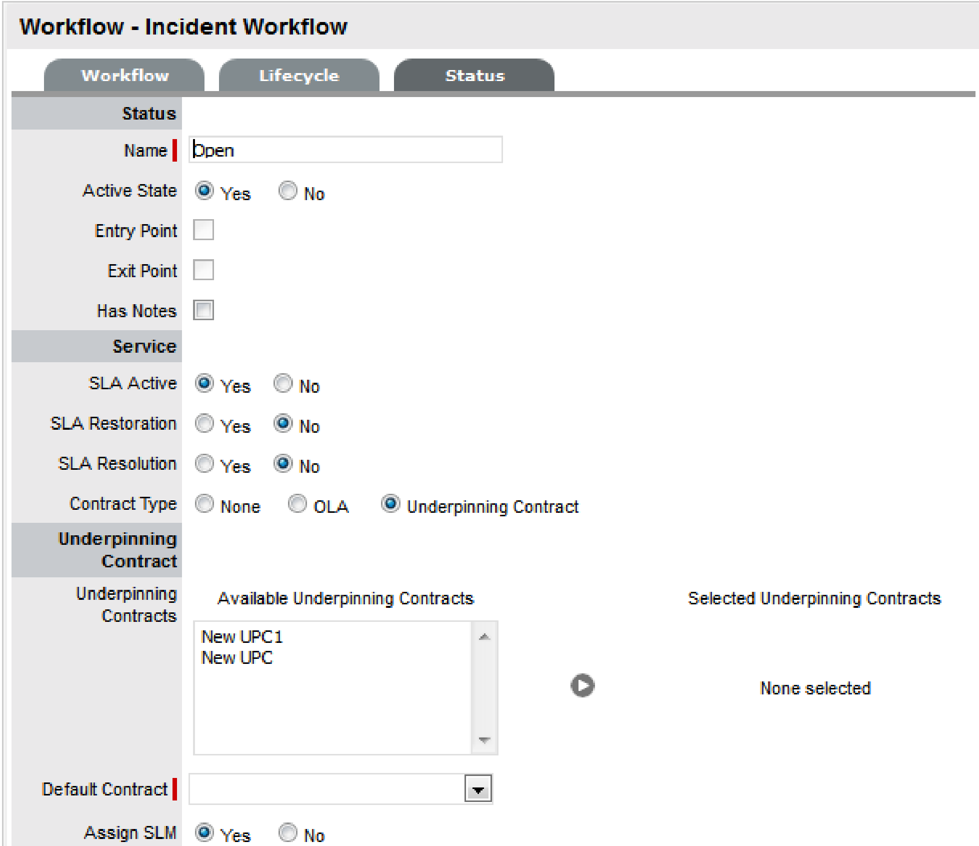
OLAs and Blackout Periods

If a request is assigned an OLA State and the request's SLA is in a Blackout Period, the OLA will adopt the SLA Blackout Period. This means that the OLA timers will stop until the Blackout Period has elapsed.

1.16 Underpinning Contracts

Underpinning Contracts (UCs) are used to manage support services provided to the Service Desk by external service providers. These Contracts ensure the external parties maintain their service obligations to the Service Desk, which ensures the Service Desk meets the SLA expectations of its Customers.

To successfully meet SLA expectations, the system allows the Service Desk to associate each Workflow State of a request with an Operational Level Agreement (OLA) or Underpinning Contract. It should be noted that SLA targets for Response, Restoration and Resolution time must be greater than or equal to the combined OLA and UC times for each of these targets, to ensure that service level breaches do not occur.



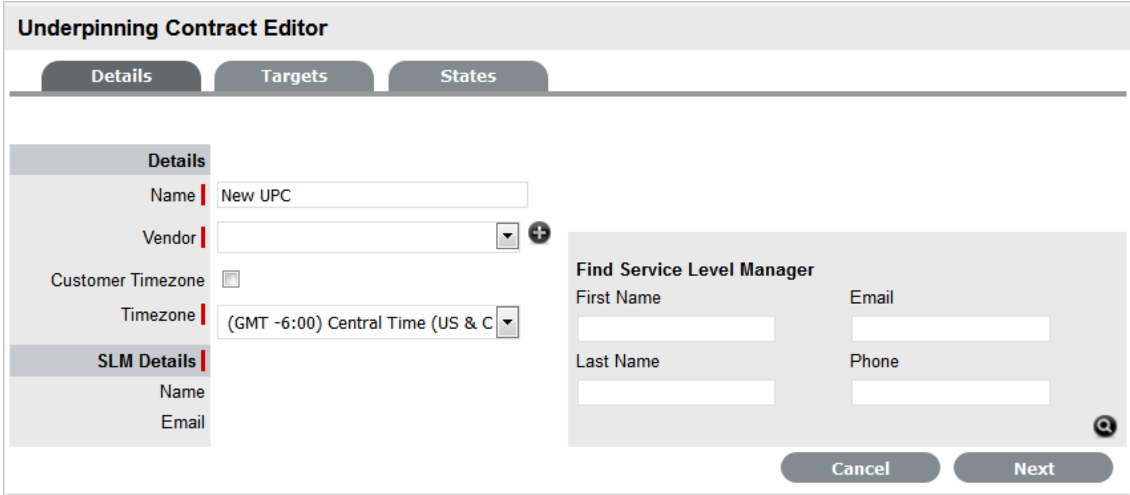
When a request moves into a State that is governed by an Underpinning Contract, for internal contract monitoring, the request can be assigned to a Service Level Manager. This allows the Manager to maintain control of the request and to easily follow up with the external service provider, if required.

1.16.1 Details Tab

Creating an Underpinning Contract:

To create an Underpinning Contract for use within a Workflow State:

1. Select Service>Underpinning Contracts
2. Click New



3. Enter the Contract Name
4.

UPC Editor	
Details	
Name*	The name to identify the UC.
Vendor	The name of the service provider supporting the contract. Select from the list or create a new Vendor.
Review Date	Details are completed based on the Admin default settings but can be edited by the User. An Alert is sent based on the default days set in the Review SLA Alert field in Admin>Setup>Privileges>Requests.
Customer Timezone	When enabled, UPC times displayed within the Technician request view using the Customer timezone.
Timezone	This is visible when Customer Timezone is not set and all UPC dates are calculated based on the Timezone set within this field. This is especially applicable for User Work Hours, Blackouts, which also impacts the UPC Reports.
SLM (Service Level Manager)	
Name Email	Use the Find Service Level Manager search option, to enter the contact details of the Manager who will monitor the service provider's ability to meet their contractual obligations .

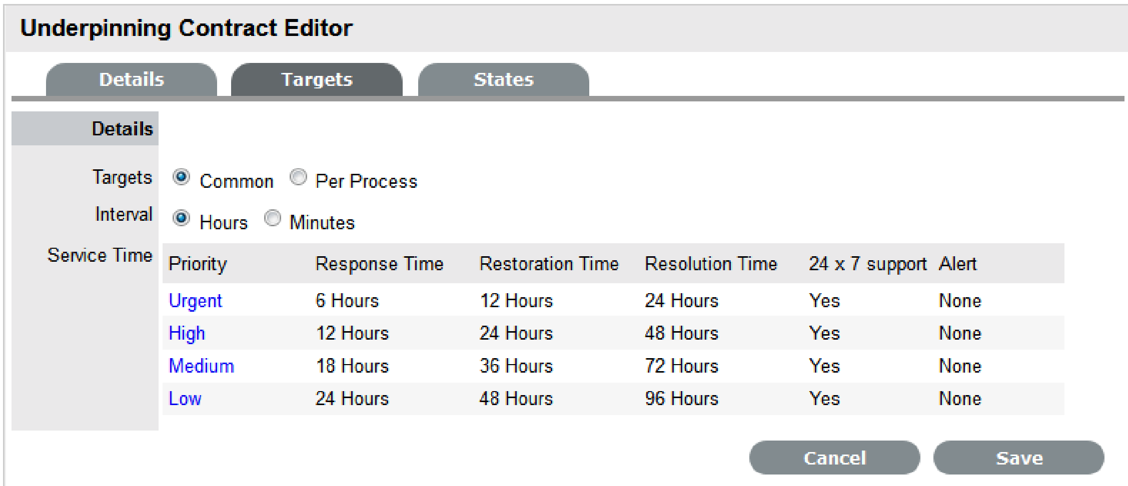
5. Select a Vendor from the drop-down list or click  to enter new vendor details
6. Adjust the Review Date, if necessary

(A reminder Alert will be sent to the SLM based on the default days set in Admin>Setup>Privileges>Requests.)

7. Tick the Customer Timezone option, if relevant

   Apply this option if the User is to view UC due dates using the Customer Timezone or define the UC Timezone.

8. Search and Select a Service Level Manager using the Find Service Level Manager field
9. Move to the Targets tab



10. Complete the following information:
11.

SLA Editor	
Targets	
Targets	*Common*: Select Common if the UC is to apply across Incidents, Requests, Problems and Change Management. *Per Process*: If the UC is specific to a Process, select Per Process and choose a Process displayed in the drop-down list.
Interval	Define if the time is to be calculated in Hours or Minutes.
Service Time	
Priority	Urgent, High, Medium and Low
Milestones	
Initial Response	The maximum time the Customer would wait from the point of request creation before receiving a Note update for a Technician. The Response trigger is stopped when a Note has been added to the request by the assigned Technician and an email is sent to the Customer. If the Response Time is reached, without a Note being added, the request will be escalated.

SLA Editor	
Restoration Time	The maximum time the Customer would wait from the time the request was created until a workaround or temporary fix has been implemented. The Restoration trigger stops by assigning the request a Workflow State that has to the UC Restoration option set to Yes. By default, this Workflow State is Open - Restored.
Resolution Time	The taken time from the point of request creation until it the request is moved to a Workflow State with the UC Resolution option set to Yes. Any of the default Workflow Exit States stop the Resolution Timer.
Notify Override	If the system is to override the default notification method set for a request when the Priority being edited is assigned to a request, check this option.
Notification Type	Set Email or SMS as the type of notification when the override action is applied to a Priority.
Alerts	
Reminder	Sends a reminder email to the Technician when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the UC. Note, Alert intervals are not cumulative.
Warning	Sends a warning email to the Technician when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the UC.
Escalation	Escalates the request to a higher escalation layer when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the UC. It should be noted that the Service Level Manager is also notified when an OLA is breached.
Support	
24 x 7	Do not amend if the UC is to apply 24 hours a day, 7 days a week.
Normal Support	Select if service hours are to be defined for the UC. When checked, define the service hours by either selecting a template (Templates are configured by the Administrator in the Setup>Localization>Hours tab) or manually define the days and time by making selections within the drop-down lists.

12. Add one or multiple Warning Alerts, if required.

    Enter the percentage of time to elapse for each interval, which will trigger a Warning to be sent via email to the Service Level Manager when the specified percentage is reached.

NOTE: Trigger intervals are not cumulative

For example, the Urgent default times of 6, 12 and 24, mean 6 hours for the Response stage, 12 hours for Restoration from initial creation, and 24 hours to reach the Resolution from initial service request creation.

1. Define the support hours

   Within the Targets tab of the Underpinning Contracts Editor screen the default support hours are set to 24x7.

   For 24 X 7, if the UC's urgent Initial Response field is set to six hours, and an urgent request that uses the UC is created at midnight in the assigned Technician's time zone, those six hours will expire by 6:00 AM. This is the option to use if your support is staffed 24 hours a day. Normal support ensures request timers do not run when Technicians are not available. For instance, if the support hours are 9:00 AM to 5:00 PM and the SLAs are as such, the urgent requests' timer would not start ticking until 9:00 AM the following business day and would expire at 3:00 PM.
2. Click Save
3. Click Done.

1.16.2 States Tab

The Underpinning Contract States tab lists the Workflow stages that are associated with the Underpinning Contract. This association is made within the relevant States of the Workflow and cannot be edited within this screen. See: Workflows.

1.17 Incident and Problem Workflows

Workflows define the sequence of States to be followed by requests logged with the application. Within the system an unlimited number of Workflows can be configured for Incident and Problem Management.

When deployed, the system includes one fully customizable Workflow for each of the Incident and Problem Management Processes. These can be used immediately, or can be edited to reflect more comprehensively your support service requirements.

1.17.1 SLAs and Workflows

Each Workflow can be associated with one or more SLAs. The SLA provides the contract time that must be met by requests using the Workflow.

For example, if the Service Desk uses one Incident Workflow, which has multiple SLAs assigned to it, logged Incidents follow the same Lifecycle but the time allowed within each stage is based on the SLA contract requirements. The SLA assigned to either the Item, Customer, Organizational Unit or Incident determines which Workflow is selected for the Incident.

1.17.2 Editing default Incident and Problem Workflows

Incident and Problem Workflows can be configured to reflect the organizational Service Desk requirements for these processes. The default Workflows include States that are used by the business logic of the application to maintain control of the request Lifecycle.

It is recommended that the Selected States used by the application, as indicated by an asterisk, not be removed from the Workflow Lifecycle. However, other Available States can be added to the Selected States list.

The following table contains the default Incident and Problem Workflow States.

The * denotes the system-used States.

Default State	Description
Cancelled	Used to cancel a request when it is no longer to be worked on.
Cancelled Unpaid*	Used by the system from the Pending - No Contract State when Contracts and Invoices are enabled. See Billing.
Closed Resolved	Used when the request has been resolved. This is the Default Closed State for the Incident and Problem Workflows. This start marks the end of SLA timing and is used when measuring SLA times for Reports.
Closed Restored	Used when the request has been closed and the service restored for the Customer. This start marks the end of SLA timing and is used when measuring SLA times for Reports.
On Hold	Used when the request is on hold. By default this State stops SLA timing.
On Hold - Client Action	Awaiting a response from the Customer. When a Note is added to the request by the Customer, the system will change the status to Open.
On Hold - Pending Approval*	An Incident automatically moves to this State when the "Propose" button is used for sending an Incident Note. This means the CloseRequest email is sent to the Customer asking them to verify the proposed Solution. If the Customer does not respond to the email, the request is automatically closed by the number of days set within the Handshaking Privilege. (The email handshaking option is set by the Administrator in Setup>Privileges> Requests.) By clicking on the URL provided in the email, the Customer ensures the request retains an open and active state.

Default State	Description
On Hold - Process Escalated*	A request moves into this state when a Problem or Change has been created within the Analysis tab of the request. The timer stops and there are no future States as the request will be closed when the related Problem or Change is closed.
Open	Used to indicate that the request is currently open.
Open Restored	Used to identify that initial service to the Customer has been restored, or a Workaround is in place but the request is not resolved. This State stops the initial Response Timer if a Note has not been added to the request by a Technician.
Pending	The default first State for new requests.
Pending - No Contract*	Used when a request is created but there is no active Contract. A Contract needs to be created for either the Customer, Incident/Problem, Item or Organizational Unit. **NOTE:** Do not use this State as the Default Open State for a Workflow.

1.17.3 Editing Template Workflows

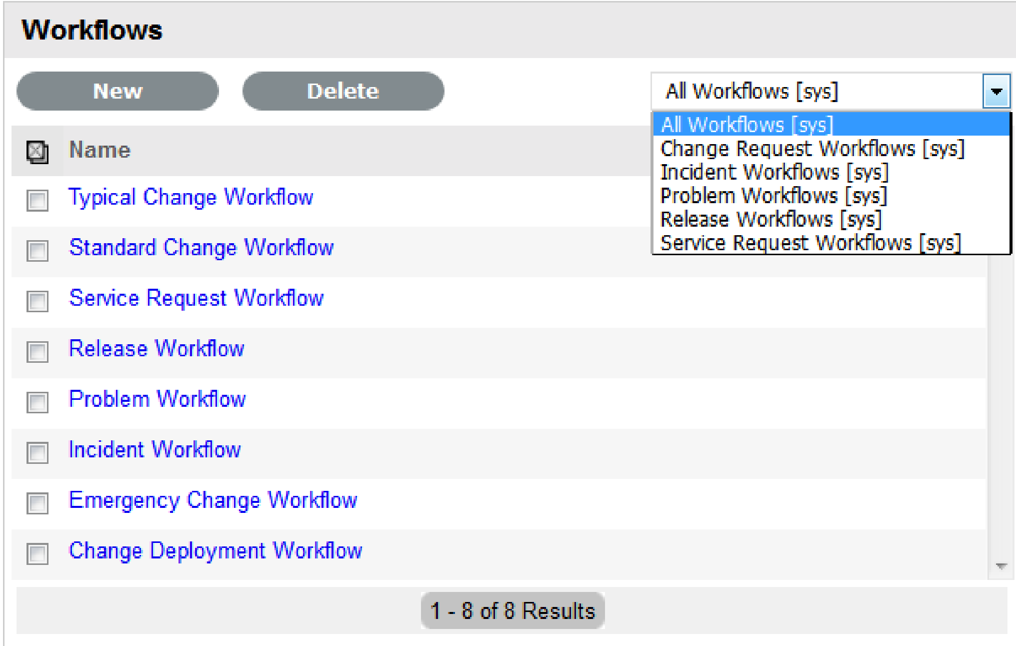
Prior to creating or editing existing Workflows, it is suggested that the preferred Workflow Lifecycle be mapped externally to the application.

If States are to be added or removed from the Workflow, it is recommended that all changes be made to the Current States list within a Workflow's Lifecycle tab, prior to mapping the Lifecycle. This ensures that all relevant status options exist in the Available States field, for allocation to the Previous and Next Workflow States.

Once the Workflow Lifecycle has been defined, edit an existing Workflow by:

1. Select Service>Workflows

   The Workflows screen appears.

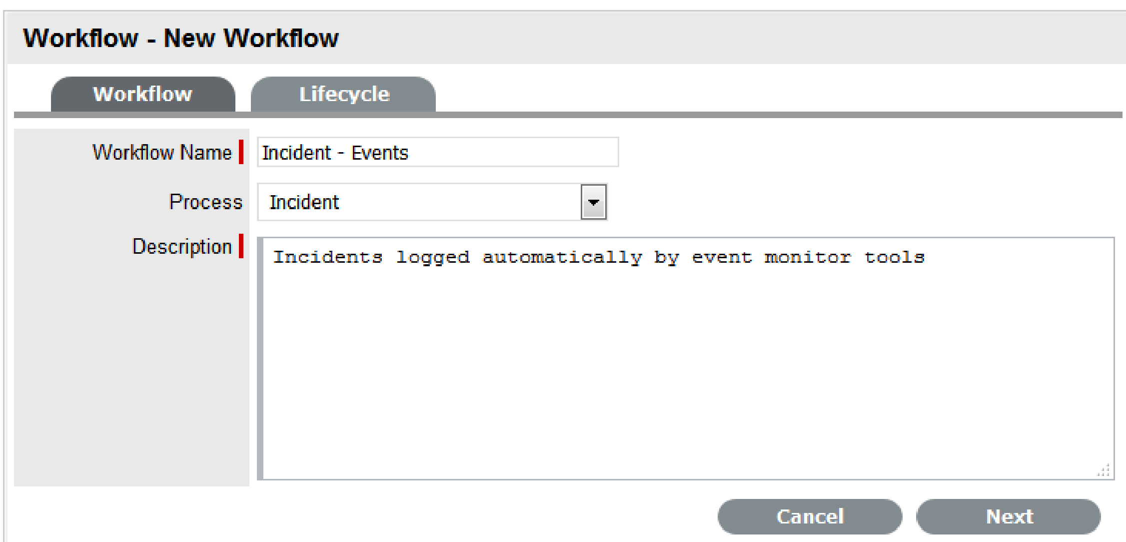


2. Click the Workflow name hyperlink to modify or duplicate an existing template

   Or, select New to create an entirely new Workflow. The Workflow tab appears and is used to define the Name, select the Process, set the default Open and Closed States for the Workflow. The States available within these lists are all those marked as an Entry or Exit point in the Lifecycle tab
3. Click Edit

   The Duplicate button is displayed, select if relevant.
4. Complete the details of a new Workflow

   Enter the Name, select the Process and enter a Description and click Next.



5. In Edit mode amend relevant details within the Workflows tab:

6.

Field Name	Description
Workflow Name	Enter a relevant name for the Workflow.
Process	Select from the drop-down options the process type of Incident or Problem Workflow.
Default Open Status	The open State that a request adopts when it is assigned the Workflow.
Default Closed Status	The closed State that indicates the request has reached the end of the Workflow Lifecycle.
Email Note Action	This applies to requests that are in an non-active SLA State (i.e., where the SLA Active option is set to No). The option selected here determines the system behavior, regarding an SLA inactive request, when an email is received from a Customer. ◆ Do Nothing: Means the status of the request remains the same and the SLA timers are not re-activated. The email is added as a Note and also sent to the Technician. ◆ Update Status: Means the status of the request is changed to an SLA Timer Active state, the email is added as a Note and it also sent to the Technician.
Update Status to	This field is displayed when the Update Status option is selected for the Email Note Action field. It allows the User to set a Next State, which is defined as an SLA Timer Active State, where a request will move to after an email has been received from a Customer regarding a request in an inactive SLA State.
SLA	Allows the User to assign an SLA to govern the lifecycle period of the Workflow.(See SLAs & Workflows above, for more information.) One or more SLAs can be associated with the Workflow.
Description	Defines the purpose of the Workflow

7. Use the Find SLA option to change or add SLAs assigned to the Workflow

   Click to access the complete list of SLAs in the system. Refer to the above section for more information regarding SLAs and Workflows.

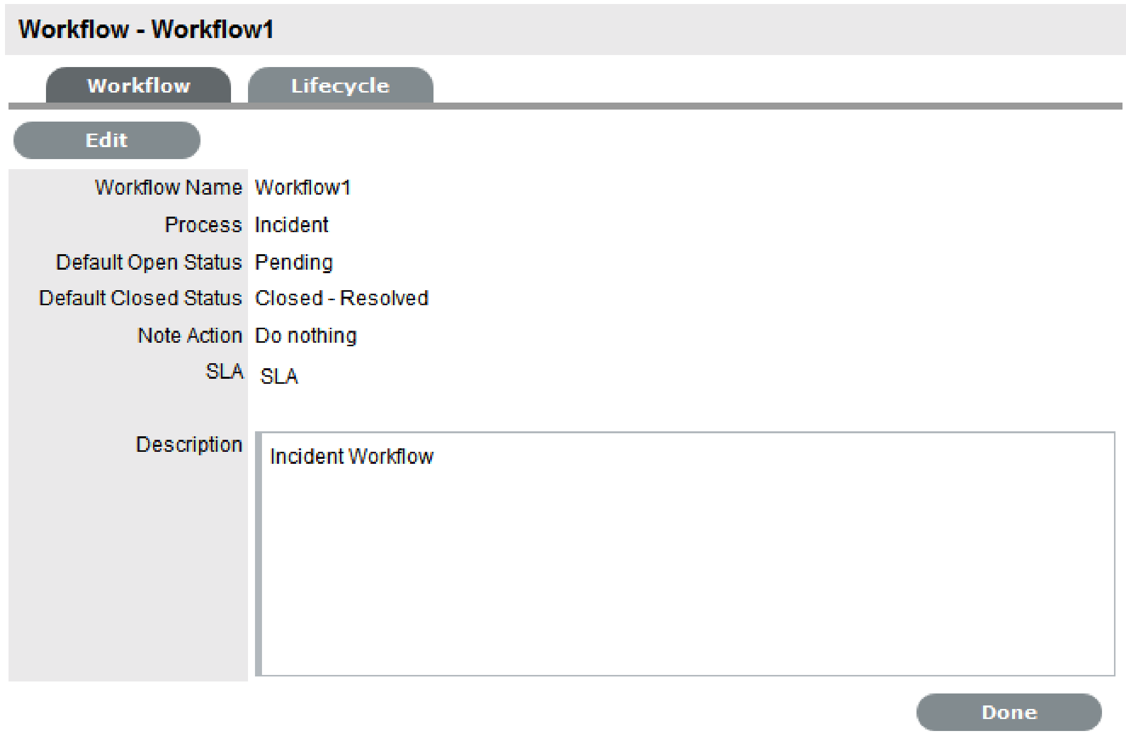
8. Edit the brief description that explains the purpose of the Workflow, if required

---

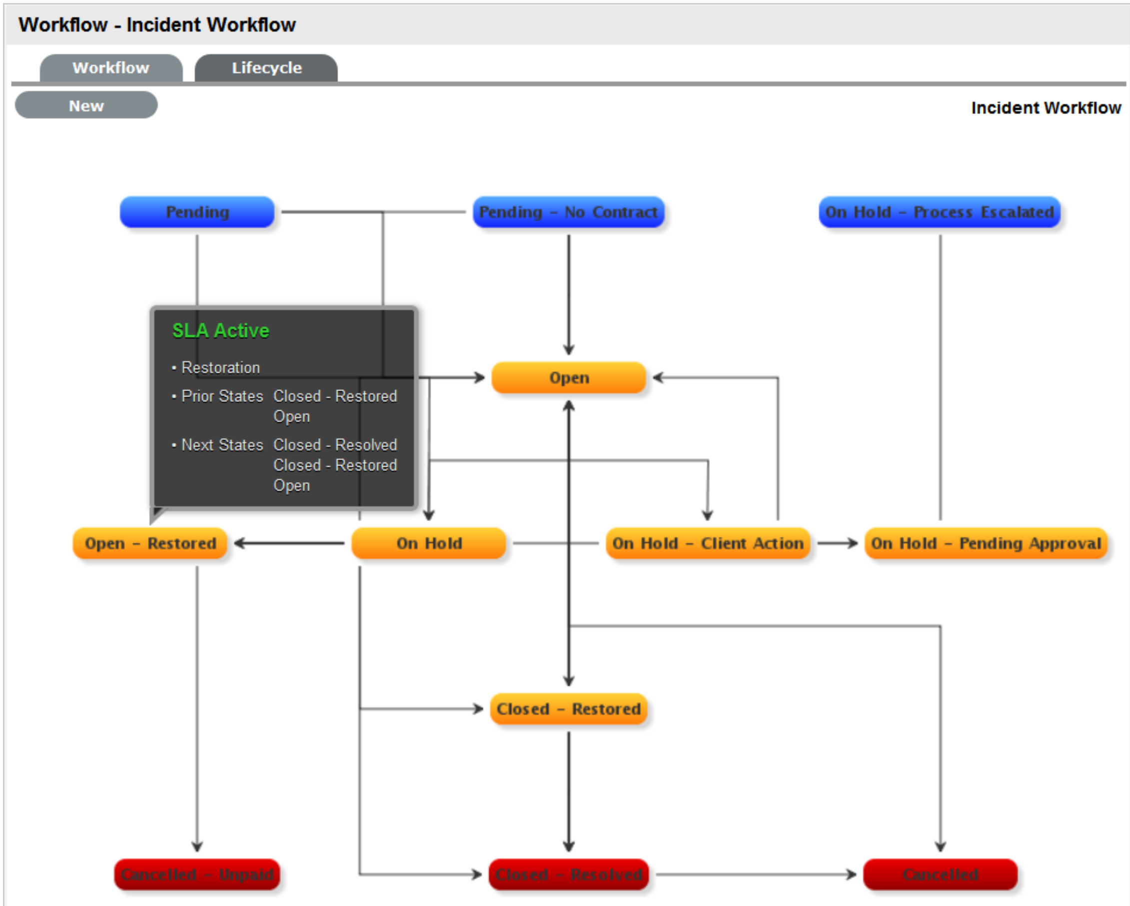
NOTE: The Contract Time field is visible when OLAs and/or Underpinning Contracts are associated with the Workflow States

It displays the accumulated amount of time of the OLAs and/or Underpinning Contract associated with the stages of the Workflow. This contract time cannot exceed the resolution time of the SLA assigned to the Workflow.

1. Click Save



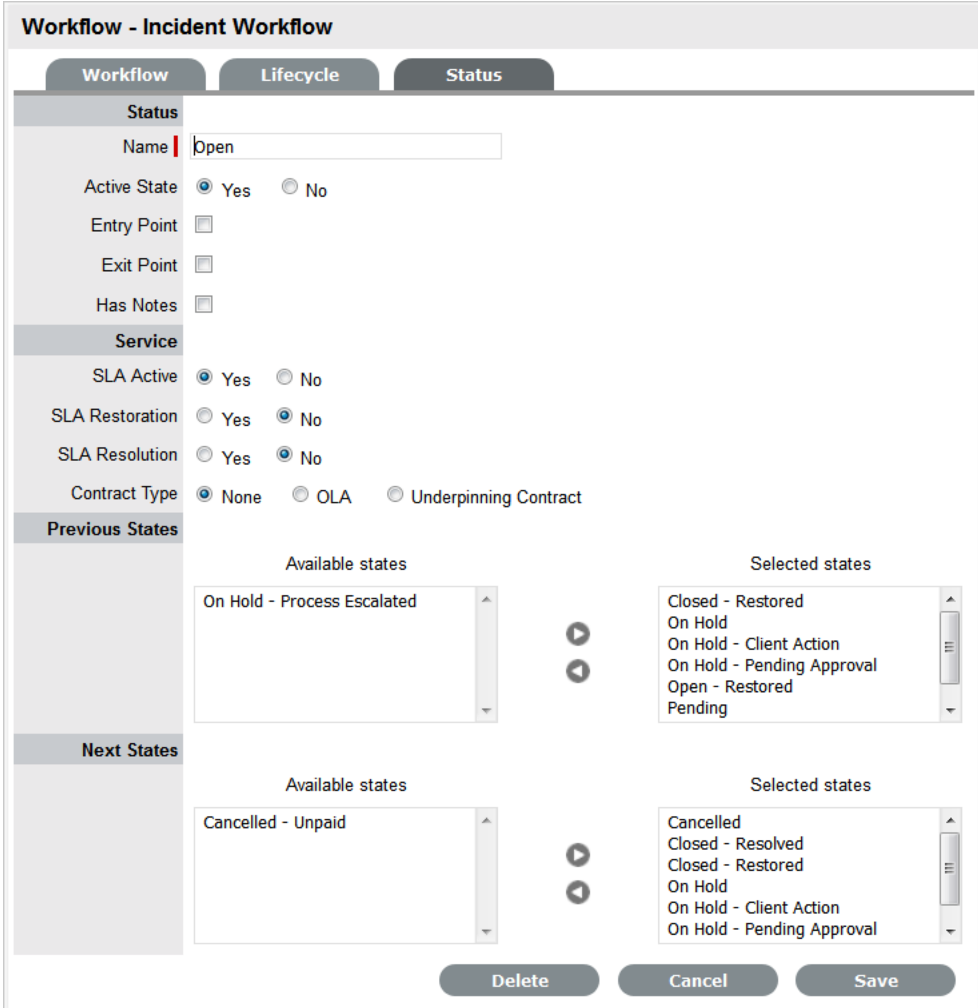
2. Select the Lifecycle tab to define Workflow States



1.17.4 Adding or editing Workflow States:

1. Edit the State details

   Click the State name hyperlink in the Workflow map or in the table of States, to display the Status information screen. Or, click New to create a new Workflow State.



Status	
Name	System Required States, the States marked with an asterisk in the States Table, can be re-named if desired. For newly created States, enter a name.
Active State	Assign Yes for requests to be available in the Home tab by default, when assigned to this stage of the Workflow. Yes should be used for States where the User is actively working on the request or waiting for updates."No" generally applies to Workflow exit points and will only be available by default within the relevant Process tab list view.

Status	
Entry Point	An Entry Point is used to indicate the start of a Lifecycle. To make the state a Workflow Entry Point, select the Entry Point checkbox. As the Entry Point is the first state, the Previous States field will be removed.
Exit Point	Select whether the State will be an Exit Point. An Exit Point is used to indicate the end of a Lifecycle. **NOTE:** A Workflow can have only one Entry Point but multiple Exit Points.
Has Notes	Allows the Supervisor to include instructions or add relevant details for requests that move into this State. The information is configured within the Articles tab that is displayed when this option is enabled.
Listener Class	This field is visible if the Outbound Web Services option is enabled in the Admin>Setup>Privileges>System tab. Complete this field, if assigning this State to a request is to trigger an event in an external system. This field should contain the name of a Java class that implements the interface.
SLA Active	Links the status with timing set within SLAs and OLAs. When the option is set to No, the SLA/OLA timers stop and the triggers for escalations and warnings do not fire.
SLA Restoration	When timing is set using SLAs and OLAs, the SLA Restoration Time trigger is disabled when the request is moved to this state. Restoration Time indicates a Customer has access restored or a temporary workaround. Reports on Restoration Time are measured from when the Restoration Time trigger is disabled.
SLA Resolution	Allows the State selected to be used to mark the SLA Resolution Time. This will be used in SLA reporting.
Contract Type	Defines if the Workflow State will be managed by an internal (OLA) or external (Underpinning Contract) support agreement. If OLAs or Underpinning Contracts are assigned to a Workflow Lifecycle, the Workflow SLA Resolution Time cannot be exceeded by the sum of Resolution Times for all Contract Types assigned to the Workflow Lifecycle.

Status	
Assign SLM	This field is displayed when an UC is associated with the Workflow State. Use this field to define if the request ownership is to be maintained by the Assigned Technician or moved to the Manager of the SLA associated with the request.
Previous States	If the State is not an Entry Point, use the arrow button to select Previous States from the Available States and choose when this State will appear as a drop-down menu option in the Next Action field.
Next States	If the State is not an Exit Point, use the arrow button to select the Next States. A request can move to, in the Next Action field of a request Information Summary tab.

2. Delete the State if required, or Name/Rename the State
3. Enter all State information up to the SLA Resolution field
4. Save the updated State details

NOTE: It is recommended all States that are to be included in the Workflow be added or re-named now

After all States have been entered in the system, the mapping of the Workflow can be more easily achieved.

---

1. Continue to edit, add or delete States until all relevant States exist for the Workflow
2. To create the Workflow Lifecycle, States need to be assigned to the transitional states of Previous and/or Next

   To move Available States to the Previous State or Next State field, open the Status Details screen by clicking the State object in the Workflow map or select the State hyperlink in the table beneath the Workflow map.
3. Assign States to be Next and/or Previous States

   For the Current Status highlight an option in the Available State list and click the right-pointing arrow to move it to the Selected States field.

---

4. NOTE: When a State is used as a Previous and a Next State, it allows a request to move forward and backward in a Lifecycle

An Open State cannot have any previous States and a Closed State cannot have any Next States.

---

5. Click Save to return to the Workflow map and to access other States to build on the Workflow Lifecycle
6. Repeat Steps 14 to 16 until all transitional stages of the Workflow have been mapped

NOTE: To successfully save a Workflow, the sum Resolution Time of the individual Contract Types assigned to each transitional state of the Workflow Lifecycle, must be less than or equal to the Workflow's SLA Resolution Time

1. Click Save.

   The visual representation of the Workflow is displayed.

1.17.5 Workflow Map

The Workflow Map is a visual representation of the Workflow Lifecycle. The map displays the relationship between each Lifecycle State by using different colors to represent the type of Lifecycle State.

Color	
Blue	Indicates the Entry point of the Lifecycle.
Orange	Is a Transitional stage of the Lifecycle.
Red	Indicates the Exit point of the Lifecycle.

Detailed information about a Lifecycle State can be accessed by clicking on the State field within the map.

1.17.6 Deleting a Workflow State

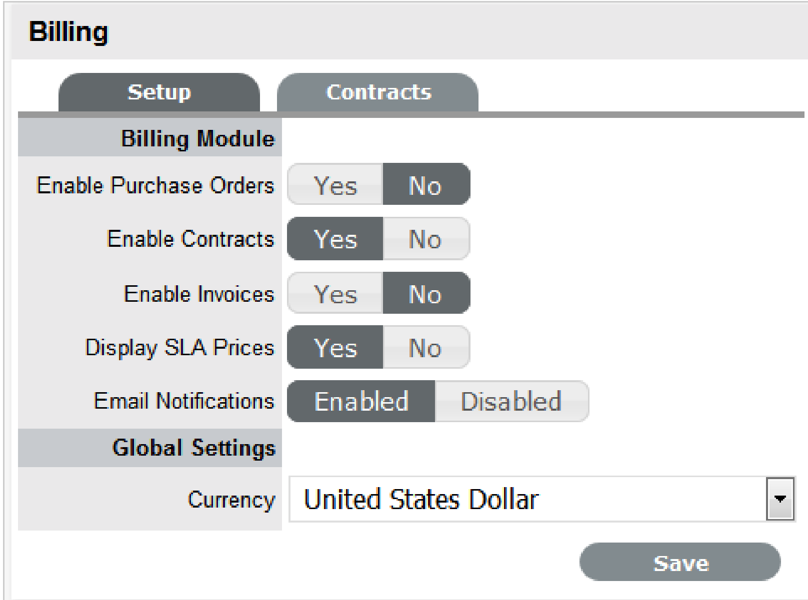
It may be necessary to delete a default State or a State that is no longer in use. Note that a State cannot be deleted if it has been assigned to a request.

To delete an unused State:

1. Select Service>Workflows
2. Click on the Workflow Name hyperlink
3. Click on the State Name hyperlink in the States Table beneath the Workflow Map
4. Click Delete
5. Select Save.
   The State will be erased from the States list.

1.18 Billing: Contracts and Invoices

Billing within the system allows support organizations to manage their Customers' service and support contracts. This can be achieved by the system Administrator enabling the preferences of Contracts, with or without the preference of Invoices, within the Billing option of the Setup tab.



When Contracts are enabled without Invoices, system contracts can be created without the need for charging Customers for the support provided. Whereas, the Contracts option combined with Invoices allows the application to manage service contracts and process payment within the one facility.

There are a number of Contract Types available within the system, and these include:

- Per Request - covers the period of time for which the request is open and work completed
- Per Item - covers the Item, regardless of the number of requests logged against the Item but can be created for the following:

Subscription - a contract that covers a specified period of time

Time Limited Subscription - a contract that covers either a specific time period or number of support hours, whichever limit is reached first

Support Hours - a contract that defines the number of support hours covered

Support Hours by Month - a contract that covers a total number of support hours purchased for a defined timeframe and allocated on a per month basis.

When Billing is enabled in the application's Setup, a maintenance contract must exist for either a Customer, Organizational Unit or Item, before a request can be processed. For more information on creating a maintenance contract see Contracts.

1.18.1 Contract Validation Process

When a request is created and Contracts are enabled with Invoices, the system validates the contract status for a Customer, Organizational Unit or Item. As part of the contract validation process, the application selects the first element found on this list:

1. Customer (with a valid contract)
2. Org. Unit (with a valid contract)

3. Item (with a valid contract)
4. Customer (with a pending contract)
5. Org. Unit (with a pending contract)
6. Item (with a pending contract)
7. No contract found, then either a Per Request or Per Item contract is created through the request.

NOTE: When a Pending Contract is selected, the Contract must be processed before work can be undertaken on the request.

1.19 Service Request and Change Management Workflows

Service Request and Change Management Workflows define the sequence of States to be followed by Service Requests and Change Requests (RFC) logged with the Service Desk. These Workflows are unlimited and fully configurable, to cover the diverse range of business change implementations required by an organization.

1.19.1 SLAs and Workflows

Each Workflow can be associated with one or more SLAs. The SLA provides the contract time that a Workflow must adhere to.

For example, if the Service Desk uses a Change Workflow, which has multiple SLAs assigned to it, Change Requests that use that Workflow follow the same Lifecycle but the time allowed within each stage is based on the SLA contract requirements. The SLA assigned to either the Item, Customer, Organizational Unit or Request determines which Workflow is selected for the Change Request.

1.19.2 Approval States

Approval States in Service Request and Change Workflows provide the facility for Customers, Line Managers and Manager Users to accept or reject Request activity. If a State has the Approval State option enabled, the type of Approval determines who, be it a Manager or Customer User, is assigned to the State and it is not possible for other User Roles to also be assigned to the State.

Requests assigned a Customer or Line Manager Approval State can be processed through the Customer Portal or through Email. A request can only be assigned a Line Manager Approval State if the Customer associated with the Request is assigned with a Line Manager within their Customer Information screen. The system will validate this association prior to saving the Request and the User assigned to the Request when moved into the Line Manager Approval State will be the Line Manager defined in the Customer Information screen. When Requests are in a Customer or Line Manager Approval State, the only User who can edit the Request is the Team Lead.

Team Manager Approval States only allow Users with the Manager Role to be assigned to the State. It should be noted that a Technician, Supervisor or Partner User can also be assigned a Manager Role within their User Information screen, which will allow them to be assigned as Managers in the Team and then to Manager Only Approval States. The Managers are associated with an Approval State within the Team Information screen. First, define the Manager Group within the Group tab of the Team Information screen, and then assign that Group to the relevant Workflow State in the States tab of the Team Information screen.

IMPORTANT: Workflow behavior will be the same if you approve the request from Customer Portal, User Portal, or Email.

For more information about Manager assignment to Approval States, see:Service & Change Teams.

1.19.3 Editing a Default Workflow

To edit a Service Request or Change Workflow:

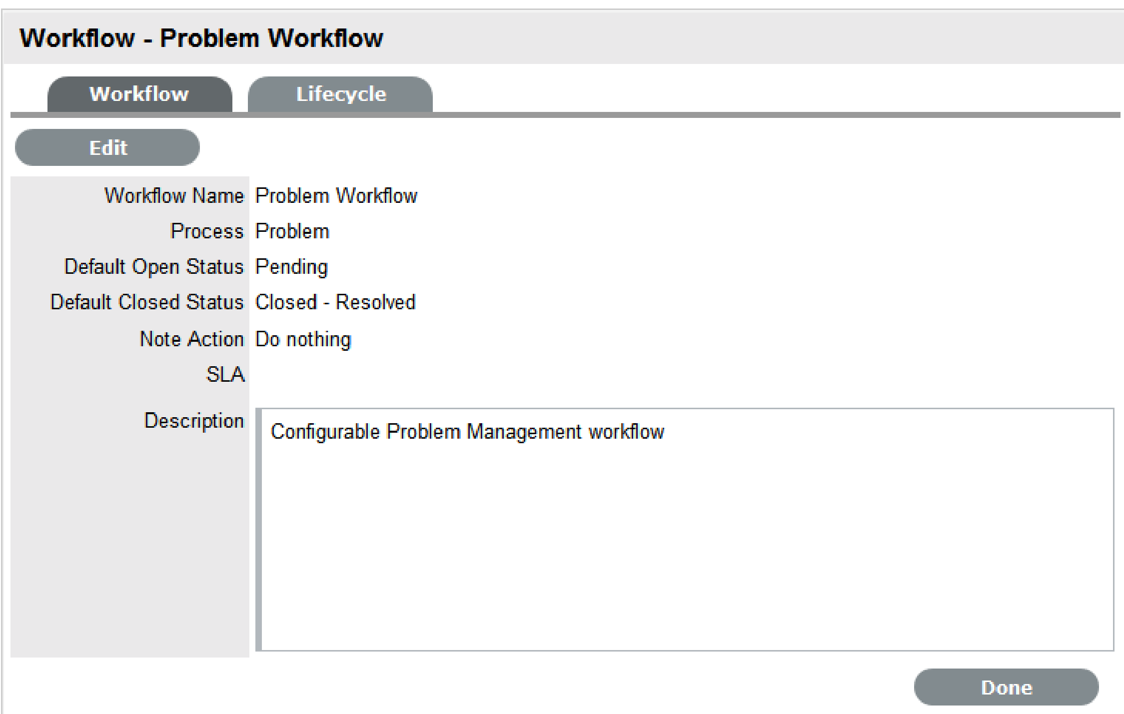
1. Select Service>Workflows

   The Workflows screen appears.
2. Click the Workflow name hyperlink to modify or duplicate an existing template

   Or, select New to create an entirely new Workflow. The Workflow tab appears and is used to select the Process, set the default Open and Closed States for the Workflow. The States available within these lists are all those marked as an Entry or Exit point in the Lifecycle tab.
3. Click Edit

   The Duplicate button becomes available, select if relevant.
4. Complete the details for a new Workflow

   Enter the Name, select the Process and enter a Description and click Next.



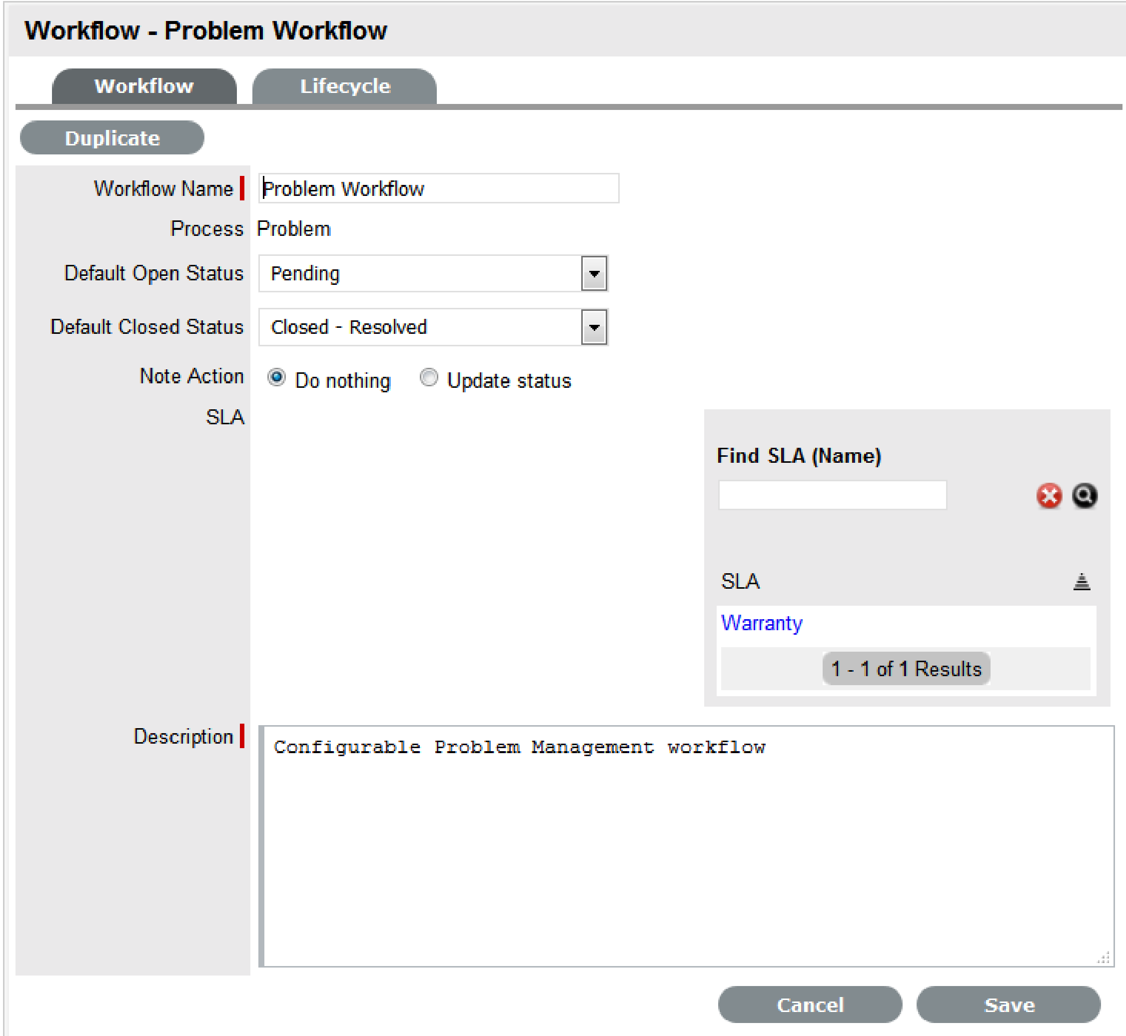
5. In Edit mode amend relevant details within the Workflows tab:

6.

Field Name	Description
Workflow Name	Enter a relevant name for the Workflow.
Process	Select from the drop-down options the process type of Change or Service Request Workflow.
Default Open Status	The open state that a Request adopts when it is assigned the Workflow.
Default Closed Status	The closed state that indicates the Request has reached the end of the Workflow Lifecycle.
Email Note Action	This applies to Requests that are in a non-active SLA State (i.e., where the SLA Active option is set to No). The option selected here determines the system behavior, regarding an SLA inactive Request, when an email is received from a Customer. ◆ Do Nothing: Means the status of the Request remains the same and the SLA timers are not re-activated. The email is added as a Note and also sent to the Technician. ◆ Update Status: Means the status of the Request is changed to an SLA Timer Active State, the email is added as a Note and it also sent to the Technician.
Update Status to	This field is displayed when the Update Status option is selected for the Email Note Action field. It allows the User to set a Next State, which is defined as an SLA Timer Active State, where a request will move to after an email has been received from a Customer regarding a Request in an inactive SLA State.
SLA	Allows the User to assign a SLA to govern the lifecycle period of the Workflow.(See SLAs & Workflows above, for more information.)
Description	Defines the purpose of the Workflow

7. Use the Find SLA option to change or add SLAs assigned to the Workflow

   Click to access the complete list of SLAs in the system. Refer to the above section for more information regarding SLAs and Workflows.

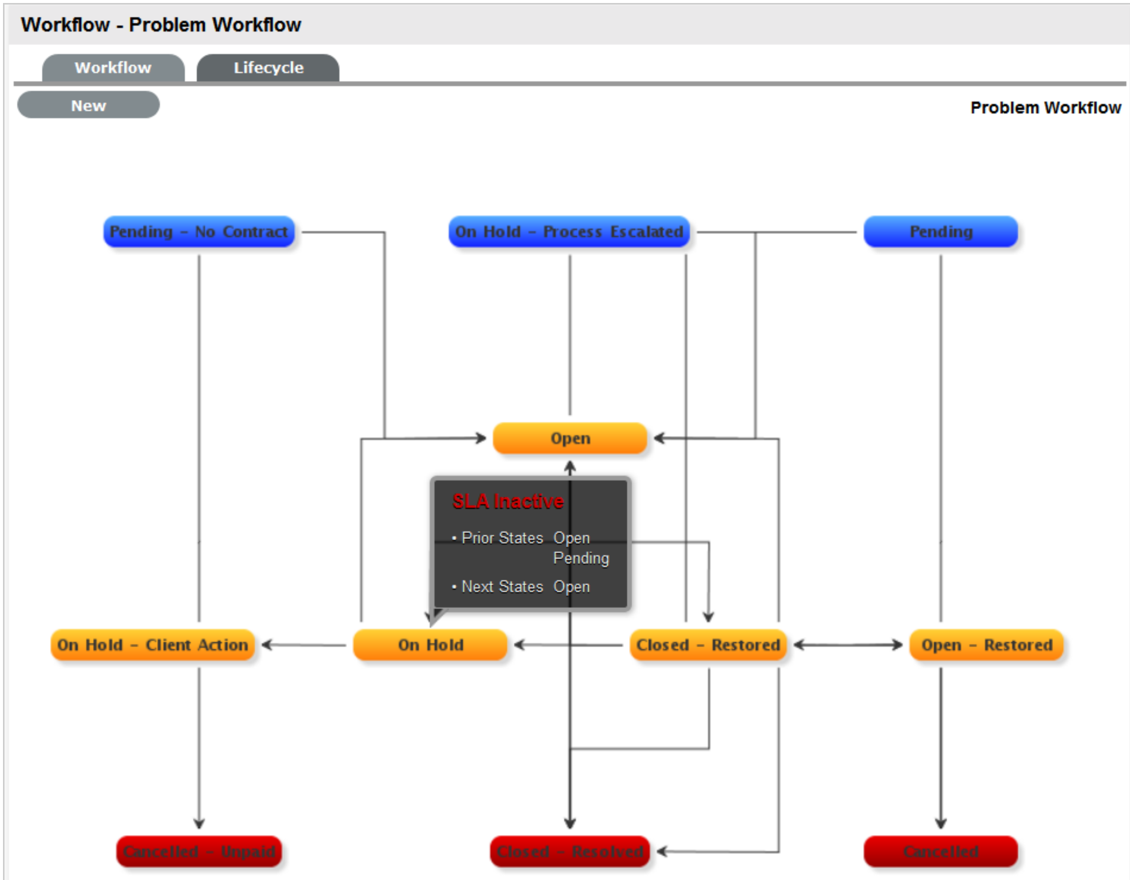


8. **NOTE:** The Contract Time field is visible when OLAs and/or Underpinning Contracts are associated with the Workflow States

   It displays the accumulated amount of time of the OLAs and/or Underpinning Contract associated with the stages of the Workflow. This contract time cannot exceed the resolution time of the SLA assigned to the Workflow.

9. Edit the brief description that explains the purpose of the Workflow, if required
10. Click Save

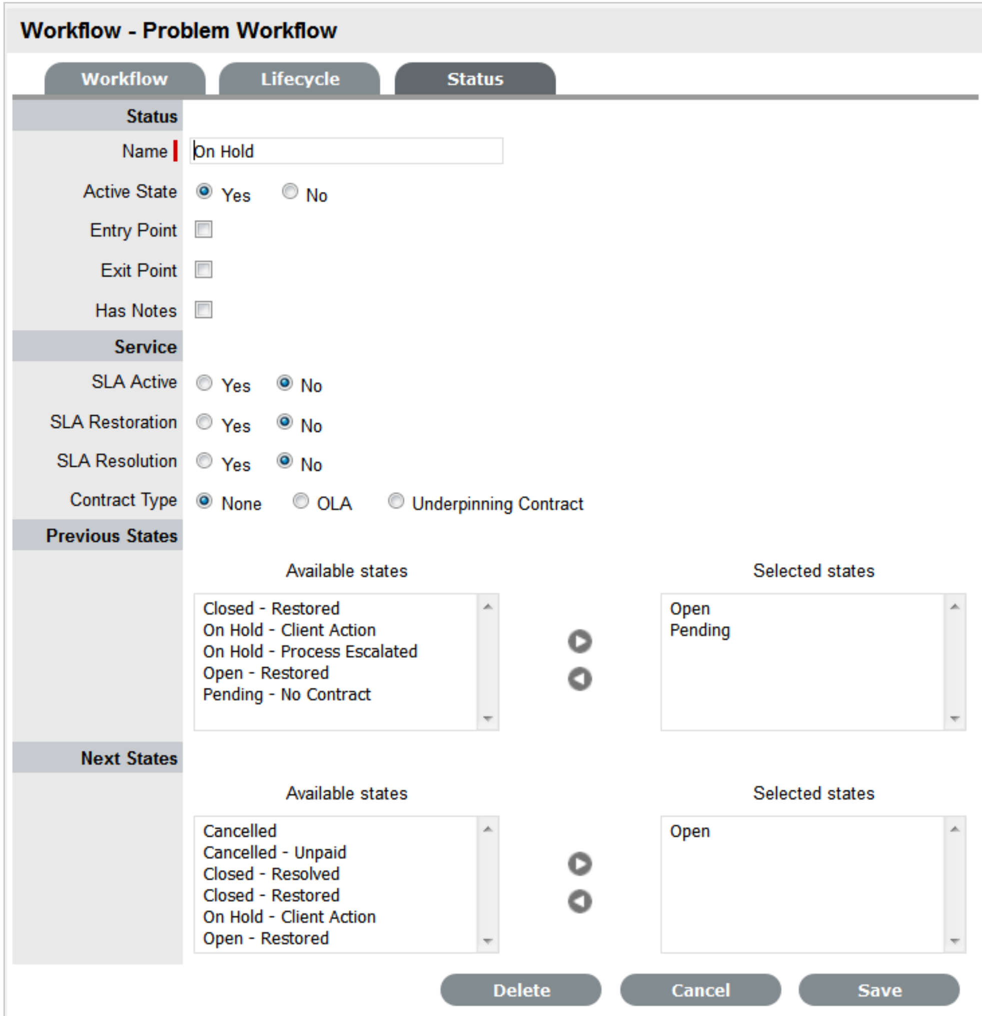
11. Select the Lifecycle tab to create or modify Workflow States



1.19.4 Adding or editing Workflow States:

1. Click the State field in the Workflow map or State name hyperlink to display the Status information screen

Or, click New to create a new Workflow



State.

2.

Status	
Name	System Required States, the States marked with an asterisk in the States Table, can be re-named if desired. For newly created States, enter a name.
Active State	Assign Yes for requests to be available in the Home tab by default, when assigned to this stage of the Workflow. Yes should be used for States where the User is actively working on the request or waiting for updates. No generally applies to Workflow exit points and will only be available by default within the relevant Process tab list view.

Status	
Approval State	Sets the Status as an Approval State. This allows a Manager User to be assigned to this State, which enables them to approve or reject a Request when it moves into this stage of the Workflow. **NOTE:** An Entry/Exit status cannot be an Approval State.
Item Editable	Select this option to allow the details of an Item to be edited when a Request is moved into this State . When this option is enabled for a Workflow State, is visible next to the Item Type link in the Summary tab of the Request.
KBA Approval	Enable this option as part of the KBA Approval process, which displays the Accept, Revise and Reject buttons for the User to publish, advise content revision or reject content. Enabling this option, removes the Next States fields and requires the User to define where the request will move to if the Accept and Reject buttons are selected. If the Revise button is selected, the Request will move to the "On Hold - KBA Rework" system state. See:KBA Content Approval.
Entry Point	An Entry Point is used to indicate the start of a Lifecycle. To make the state Workflow Entry Point, select the Entry Point checkbox. As the Entry Point is the first state, the Previous States field will be removed.
Exit Point	Select whether the state will be an Exit Point. An Entry Point is used to indicate the end of a Lifecycle. **NOTE:** A Workflow can have only one Entry Point but multiple Exit Points.
Has Notes	Allows the Supervisor to include instructions or add relevant details for Requests that move into this State. The information is configured within the Notes tab that is displayed when this option is enabled. Information and attachments included on the Notes tab, are displayed as a scroll-over when the Request moves into the State.

Status	
Listener Class	This field is visible if the Outbound Web Services option is enabled in the Admin>Setup>Privileges>System tab. Complete this field, if assigning this State to a request is to trigger an event in an external system. This field should contain the name of a Java class that implements the interface com.livetime.ws.listenWorkflowListener that has been compiled into a jar file and added to the LiveTime classpath. Please contact support for further details.
SLA Active	Links the Status with timing set within SLAs and OLAs. When the option is set to No, the SLA/OLA timers stop and the triggers for reminders, escalations and warnings do not fire.
SLA Restoration	If the 'Yes' option is selected for SLA Restoration, it means that Requests that move into this Stage of the Workflow have met the SLA Restoration Time.
SLA Resolution	If the Yes option is selected for SLA Resolution, it means that Requests that move into this Stage of the Workflow have met the SLA Resolution Time.
Contract Type	Defines if the Workflow State will be managed by an internal (OLA) or external (Underpinning Contract) support agreement. If OLA's or Underpinning Contracts are assigned to a Workflow Lifecycle, the Workflow SLA Resolution Time cannot be exceeded by the sum of Resolution Times for all Contract Types assigned to the Workflow Lifecycle.
Assign SLM	This field is displayed when an UPC is associated with the Workflow State. Use this field to define if the request ownership is to be maintained by the Assigned Technician or moved to the Manager of the SLA associated with the request.
Previous States	If the State is not an Entry Point, Previous States can be assigned to the Workflow stage. Highlight the relevant State and use the arrow button to move Available States to the Previous States field. These options designate the Workflow stages a Request can come from, before it arrives in this Workflow State.
Next States	If the State is not an Exit Point, Next States can be assigned to the Workflow state. Use the arrow button to select the Next States from the Available States. These options are included in the Next Action drop-down menu of a Request.

Status	
Accept State Approval	(Visible when the Approval State or KBA Approval option is Yes.) Displays the States that a Request can move to when a Request action is Accepted. Select the appropriate State, for the system to automatically route the Request when the Accept option is selected. ◆ *Customer* when selected, means the request will be assigned to the Customer associated with the request to accept/reject request activity. The Customer will be able to access the accept/reject icons in the Customer Portal to process the request. ◆ Line Manager, select if the request is to be forwarded to a system user with the Customer Role, who will process the approval in relation to the Customer associated with the request. The Customer/Line Manager will be able to access the accept/reject icons in the Customer Portal to process the request. ◆ Team Manager select if a single Manager User assigned to the Team is to process the Request. ◆ *Team Managers#* if selected, set the number of Managers that are required to Approve the Request before the system will automatically apply the defined Accept or Reject State. ◆ *Team Managers%* if selected, set the percentage weighting that must be achieved by Managers voting before the system will automatically apply the defined Accept or Reject State. When selected, define the percentage weighting.
Reject State	(Visible when the Approval State or KBA Approval option is Yes.) Displays the States that a Request can move to when a Request action is Rejected. Select the appropriate State, for the system to automatically route the Request when the Reject option is selected.

3. Delete the State if required, or Name/Rename the State
4. Enter all State information up to the SLA Resolution field
5. Save the updated State details

NOTE: It is recommended that all States that are to be included in the Workflow be added or re-named now

After all States have been entered in the system, the mapping of the Workflow can be more easily achieved.

1. Continue to edit, add or delete States until all relevant States exist for the Workflow
2. To create the Workflow Lifecycle, States need to be assigned to the transitional states of Previous and/or Next

   To move Available states to the Previous State or Next State field, open the Status details screen by clicking the State field in the Workflow map or select the State hyperlink in the table beneath the Workflow map.
3. Assign States to be Next and/or Previous States

   For the Current Status highlight an option in the Available State list and click the right-pointing arrow to move it to the Selected States field.

NOTE: When a State is used as a Previous and a Next State, it allows a request to move forward and backward in a Lifecycle

An Open State cannot have any previous States and a Closed State cannot have any Next States.

1. Click Save to return to the Workflow map and to access other States to build on the Workflow lifecycle.
2. Repeat Steps 13 to 16 until all transitional stages of the Workflow have been mapped.

NOTE: To successfully save a Workflow, the sum Resolution Time of the individual Contract Types assigned to each transitional state of the Workflow Lifecycle, must be less than or equal to the Workflow's SLA Resolution Time.

1. Click Save.

   The visual representation of the Workflow is displayed.

1.19.5 Workflow Map

The Workflow Map is a visual representation of the Workflow Lifecycle. The map displays the relationship between each Lifecycle State by using different colors to represent the type of Lifecycle State.

Color	
Blue	Indicates the Entry point of the Lifecycle.
Orange	Is a Transitional stage of the Lifecycle.
Red	Indicates the Exit point of the Lifecycle.

Detailed information about a Lifecycle State can be accessed by clicking on the State field within the Map.

1.19.6 Deleting an Unassigned Workflow

To delete an unassigned Service Request or Change Workflow:

1. Select Service>Workflow

   The Workflows screen appears.
2. Select the checkbox to the left of the Workflow to be deleted
3. Click Delete

   The checked Workflow is no longer visible.

NOTE: A Workflow that belongs to a Team cannot be deleted.

1.19.7 Deleting a Workflow State

It may be necessary to delete a system default State or a State that is no longer in use. Note that a State cannot be deleted if it has been assigned to a Request.

NOTE: It is recommended that any States listed in the table of States included on the Life Cycle tab that are not included in the Workflow or used by the system, be removed from the table as all States included here are listed in the States tab when Workflow Technician assignment is being configured. By removing unused States from the table, assigning Technicians to the relevant stages of the Workflow becomes an easier task.

To delete an unused State:

1. Select Service>Workflows
2. Click on the Workflow hyperlink
3. Move to the Lifecycle tab
4. Select the State name link in the table of States included in the Lifecycle tab.
5. Click Delete
6. Click Done.

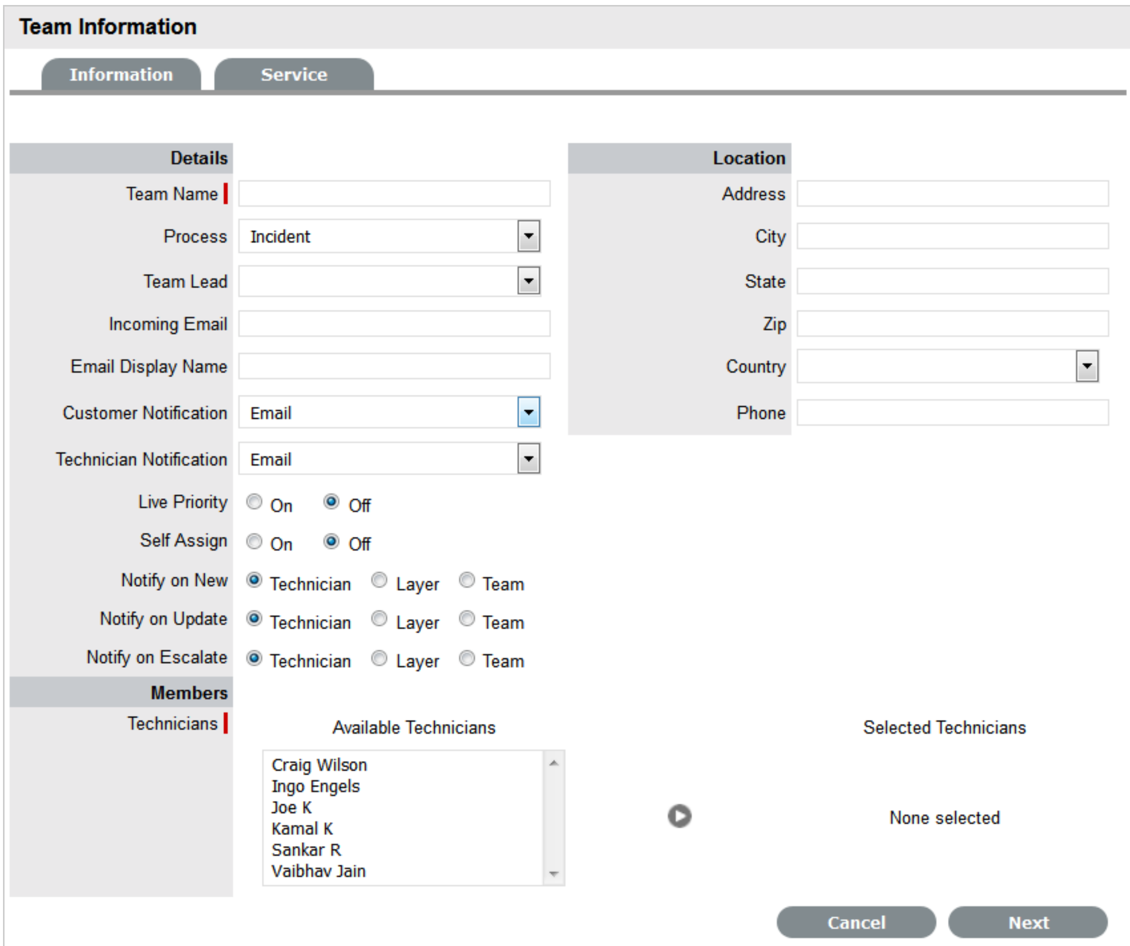
1.20 Creating a Service or Change Request Team

Service and Change Request Teams are built around the selected Workflow. Technicians and Managers are assigned to work groups and each State of the Workflow Lifecycle is associated with a selected work group. When a request moves to a next State, it is assigned to a Technician or Manager within the work group associated with that Workflow State. One or multiple levels of escalation can also be configured for the Workflow, which span the lifecycle of the Workflow the Service or Change Team are assigned.

1.20.1 Creating a Service Request or Change Team

To create a Service Request or Change Management Support Team:

1. Select User>Teams
2. Click New
3. Enter the Team Name
4. Select the Service or Change Request Process
5. Enter the Team email address, if relevant



6. Define the Team options:
7.

Options	Description
Process	Indicates if the Team is to manage Change or Service Requests.
Team Lead	The Technician assigned to supervise the Team and its activities. Options are visible when the Technicians have been assigned to the Team.

Options	Description
Incoming Email	Enter a specific Email Address for the Team,which allows Customers to use directly. This address will need to be configured as an alias to the system support address on the Email Server. See: Email Polling & Request Creation.
Email Display Name	If desired, enter a name for the Team that will be used in the From address for email responses sent by members of the Team.
Customer Notification	Sets the default notification method applied to requests for Customer correspondence, when requests are assigned to this Team. The Customer Defined option, derives the method of notification from the setting within the Customer's Profile or Account Information tab.
Technician Notification	Sets the default notification method applied to requests for Technician correspondence, when requests are assigned to this Team.
Self Assign	When enabled, Requests created by a Technician will automatically be assigned to that Technician.
Notify on New	Determines who is informed about the creation of a new Request. *Technician* - notifies only the Technician assigned to the request. (This is the default setting.) *Layer* - notifies all members in Layer One of the Team assigned to the request. *Select Team* - notifies all members of the Team.
Notify on Update	Determines who is informed when a Request is updated. *Technician* - notifies only the Technician assigned to the request. (This is the default setting.) *Layer* - notifies all members in Layer One of the Team assigned to the request. *Select Team* - notifies all members of the Team.
Notify on Escalate	Determines who is informed when a Request is escalated. *Technician* - notifies only the Technician assigned to the request. (This is the default setting.) *Layer* - notifies all members in Layer One of the Team assigned to the request. *Select Team* - notifies all members of the Team.

Options	Description
Request Queue (Service Request Teams only)	Allows the Team to use a holding bay for Requests that are received via email or the Customer Portal. (This option is visible if it has been enabled by the Administrator.) If the Team has only one Technician assigned to the work group associated with the Workflow Default Entry State, new Requests are automatically assigned to that Technician and that Technician is notified of the new Request assignment. If the Team has multiple Technicians assigned to the work group associated with the Workflow Default Entry State, the new Request is placed in the Queue (i.e., it is assigned to the System User) and all members of the Team are notified that a new Request has been assigned to the Request Queue. See: Queues.
Queue Visibility (Service Request Teams only)	When the Request Queue is enabled, the option can be refined to allow the Queue to be available for assigned Workflow entry points, or all stages of the assigned Workflow. If All States is enabled Users can move Requests back to the Queue throughout the Request lifecycle. See:Queues.
Edit Assign (Service Request Teams only)	When set to Yes and a request assigned to the System User (i.e., Queue) is opened in Edit Mode, the system will automatically assign the request to the User editing the request if they are in the Escalation Layer associated with the request.
Close Assign (Service Request Teams only)	When set to Yes and a request assigned to the System User (i.e., Queue) is moved to an Exit State of the Workflow, the system will automatically assign the request to the User who prompted the close action.
Strong Authentication	If the Manager User Name and Password is required to be re-entered during the processing of a Request in an Approval State, set this option to Yes.

8. Complete the Team Location details, if required
9. Select Technicians from the Available Technicians list

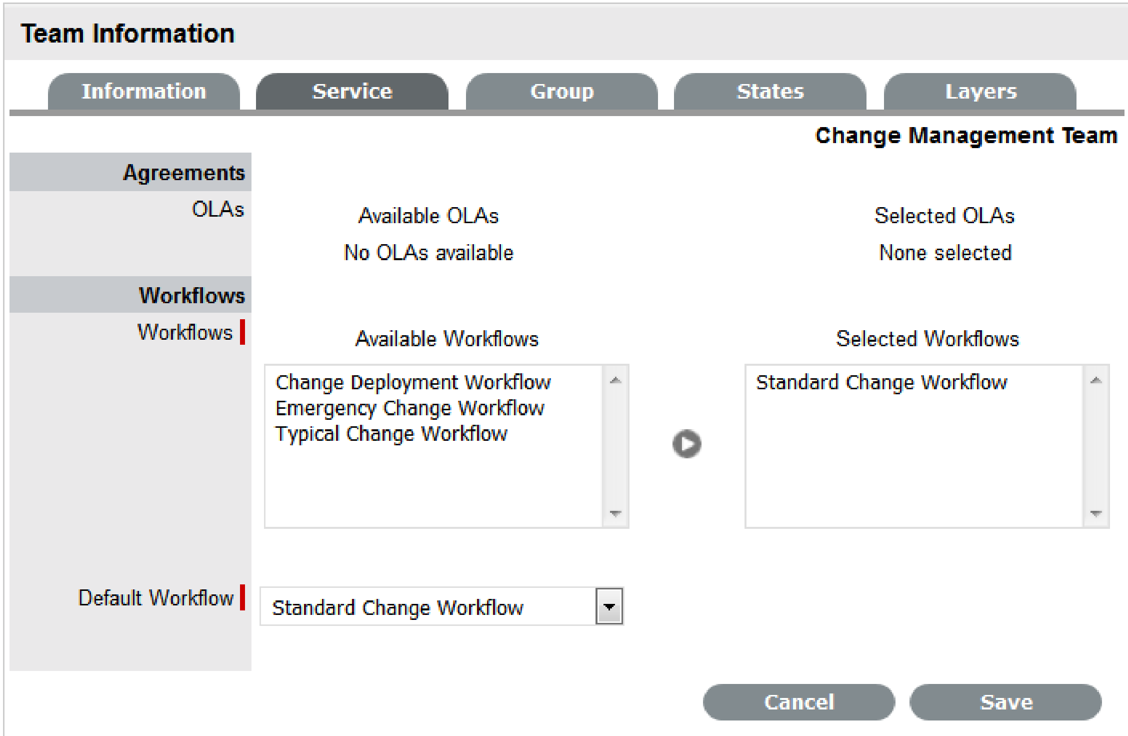
   Highlight Technician names within the Available Technicians list and click the arrow icon to move the Users to the Selected Technicians list.
10. Select Managers from the Available Managers list

    This is required if a Manager is to be assigned to a Workflow Approval State.

    Highlight Manager names within the Available Managers list and click the arrow icon to move the Users to the Selected Manager list.

11. Click Next

    The Service Screen displays all Available OLAs and Workflows



12. Assign the relevant OLAs within Available OLAs list (Optional)

    Highlight the OLA and click the arrow icon to move an OLA to Selected OLAs list. Assigning an OLA to the Team ensures the Team's details will be selectable when the assigned OLA is associated with a Workflow State.

13. Assign the relevant Workflows within the Available Workflow list

    Highlight the Workflow and click the arrow icon to move the Workflow into the Selected Workflows list. Assigning Workflows to the Team ensures the Team is displayed as an option within the Request Summary tab when the associated Workflows are assigned to a Request.

14. Select a Default Workflow from the drop-down list

    This is relevant if more than one Workflow is assigned to the Change Team. The Default Workflow is automatically applied to an RFC that has been allocated to this Change Team.

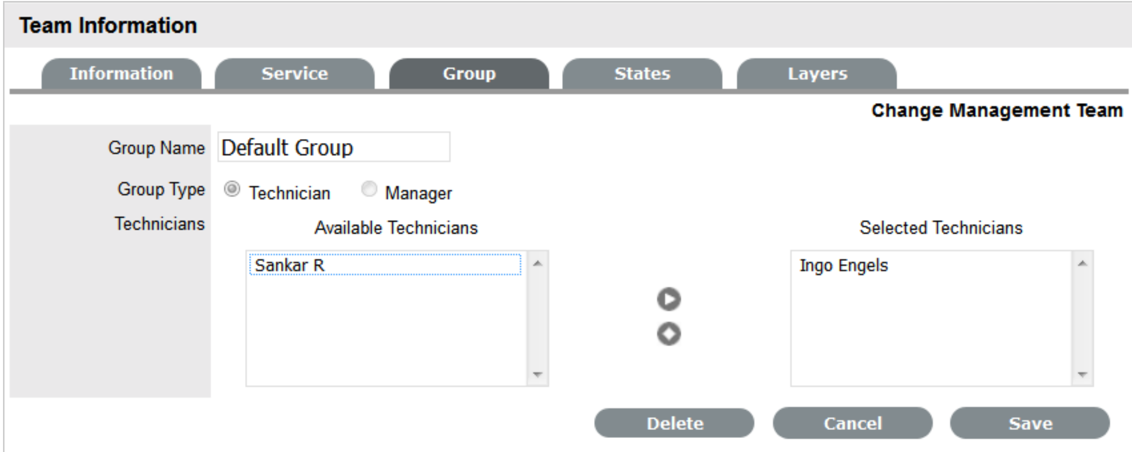
15. Select Next

    The Group tab displays the Default Technician Group and Default Manager Group. Within this tab multiple groups of Technicians and Managers can be created that are then associated with the relevant stages of the Workflow.

16. Click on the Default Group link

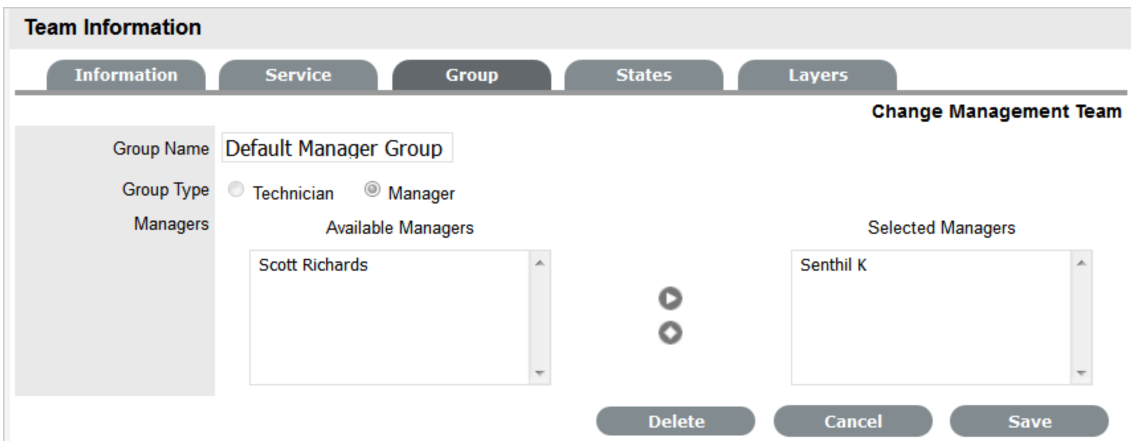
    The Team Lead will automatically be applied to the Group. Rename the Work Group, if relevant. Highlight Technician names within the Available Technicians list and

    click the arrow to allocate the Technician to the Selected Technicians field.

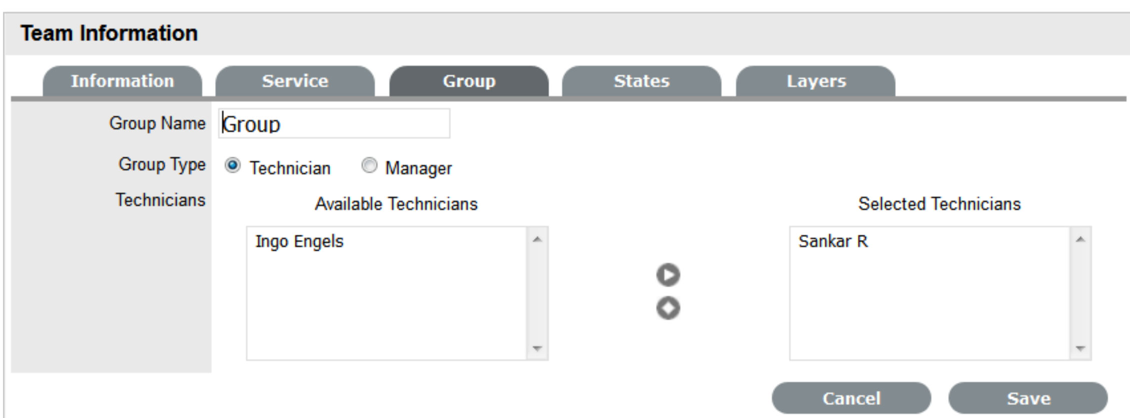


17. Click Save

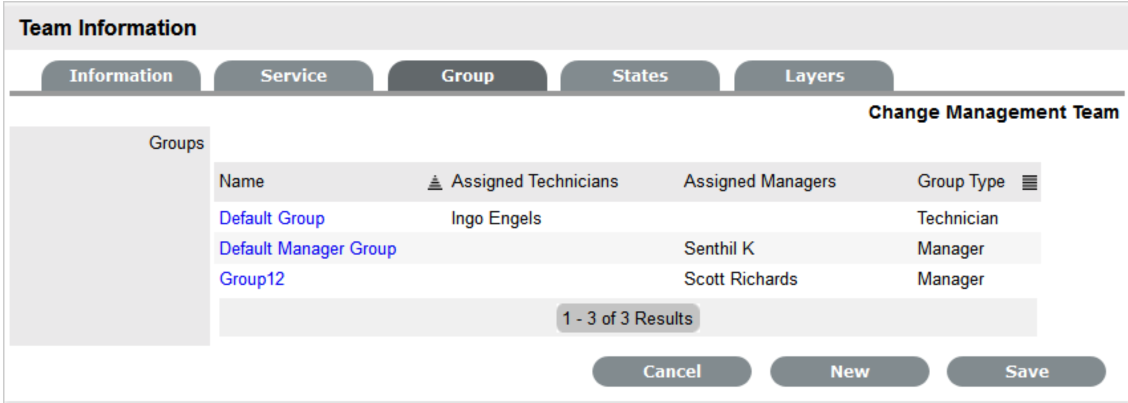
 Repeat the process for the Default Managers Group.



18. Click New to create any additional Technician or Manager Groups

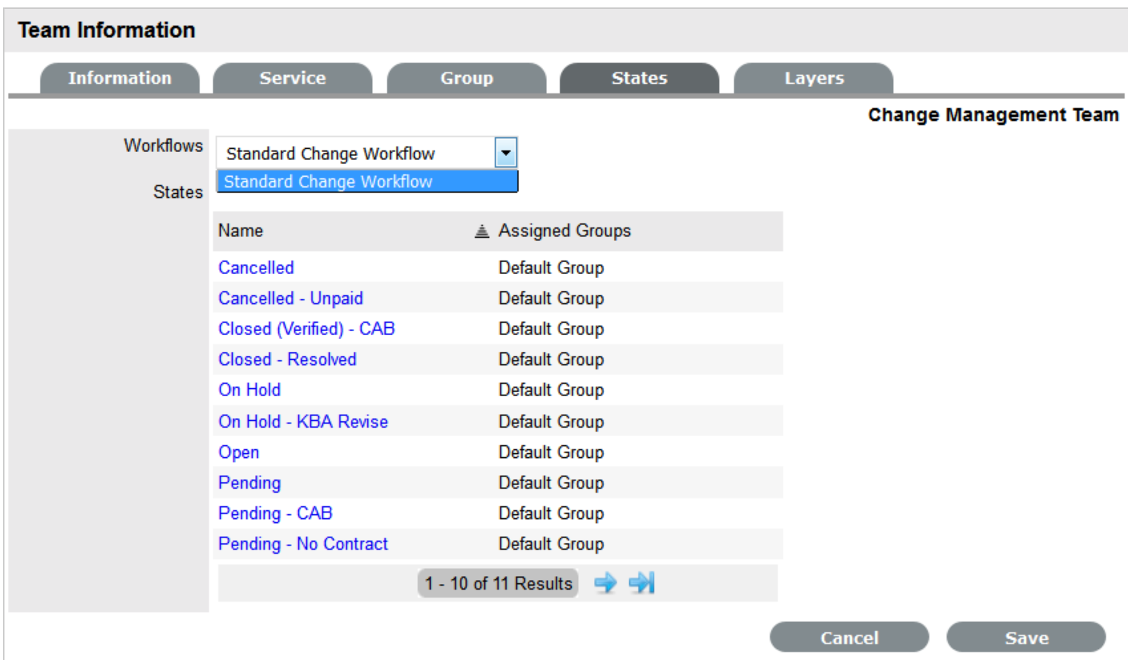


19. Click Save to save the details of a newly created Technician or Manager Group

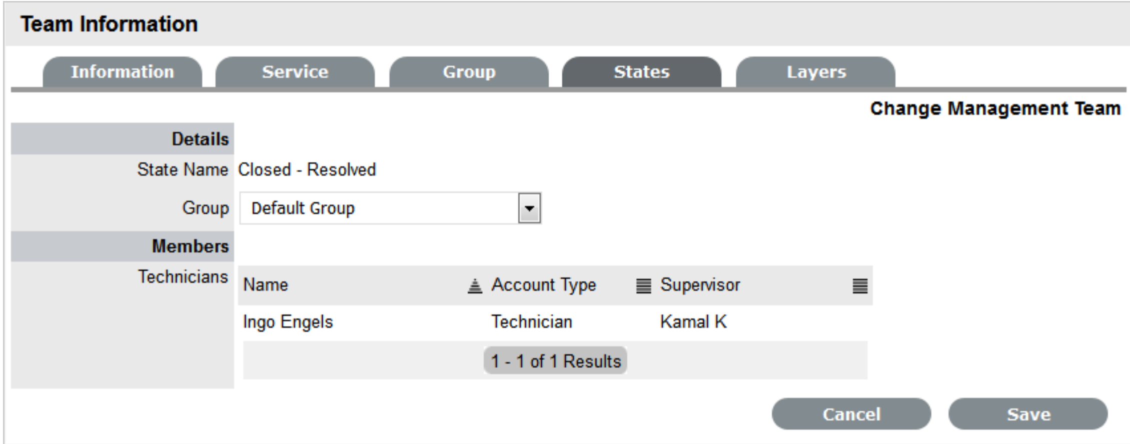


20. Click Next, when all Groups that are required for the Workflow have been created

    The Workflows/States of the Workflow Lifecycle are displayed with the system Default Group assigned to each State. The default Manager Group will be assigned to any Manager Approval States.



21. To assign a different Work Group to a Workflow State, click the state Name link



22. Select the relevant Group from the drop-down list
23. Select Save

    Repeat the Work Group assignment for each State, where relevant.
24. Click Next

    The Layers tab is displayed, where one or more overarching layers of escalation can be applied to the Workflow.
25. Click on the Layer link to assign the relevant Users to the escalation layer and save
26. Click Save and Done.

To remove a User from a Team:

1. In the User tab, click Users

   The User Information screen appears.
2. Click on the name of the User
3. Select the Team tab
4. Click on Edit.

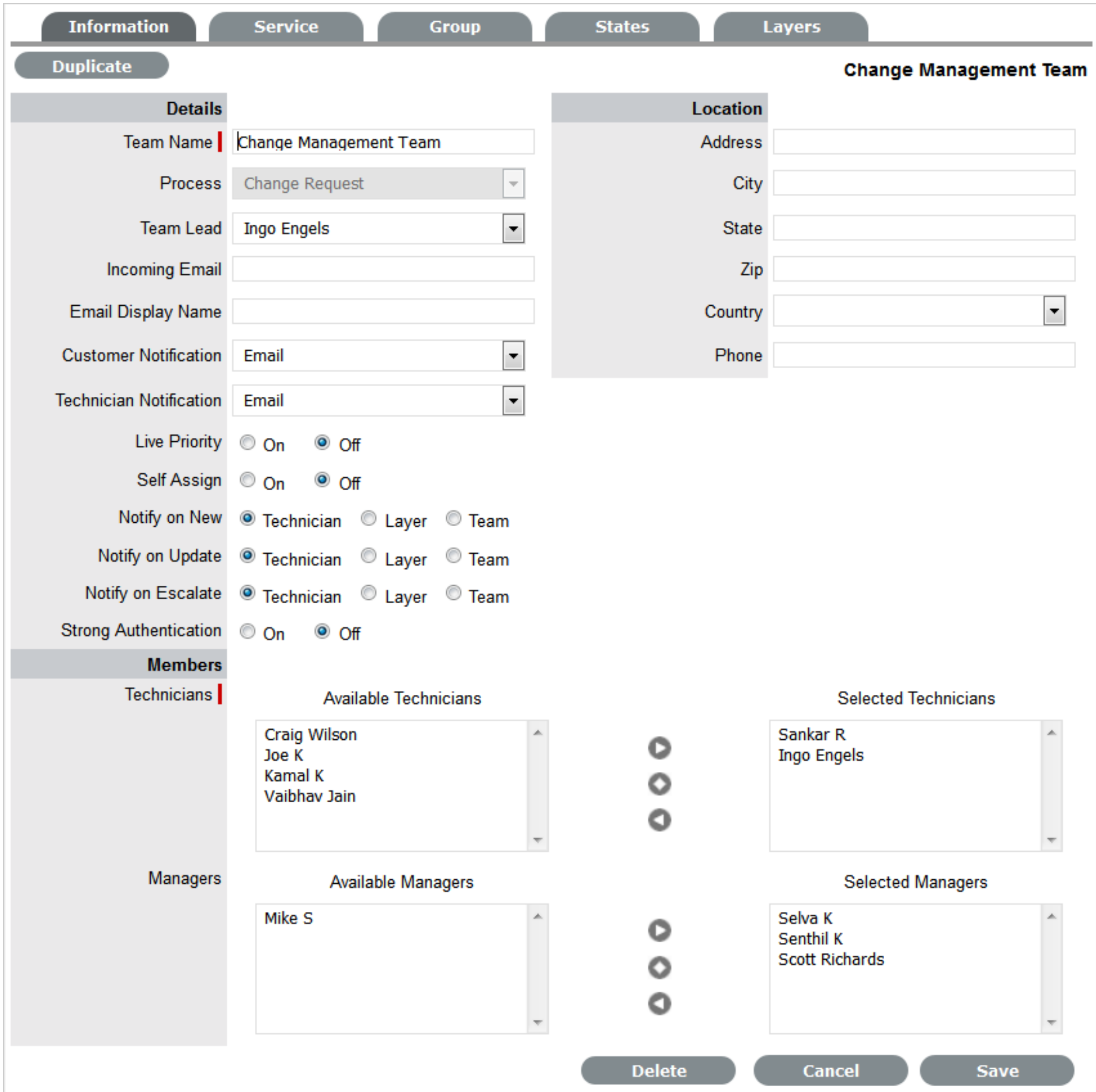
   The Remove button is visible.

1.20.2 Manager Approval State assignment

For a Manager User to be allocated the privilege of approving a Change or Service Request they must be assigned to a Change or Service Request Team and an Approval State of the relevant Change or Service Request Workflow. Change Workflows must include Approval States (i.e., States where activities are accepted or rejected) before the option to assign a Manager to a Change Team becomes available. See: Service or Change Request Workflows for more information.

To assign a Manager to a Workflow Approval State:

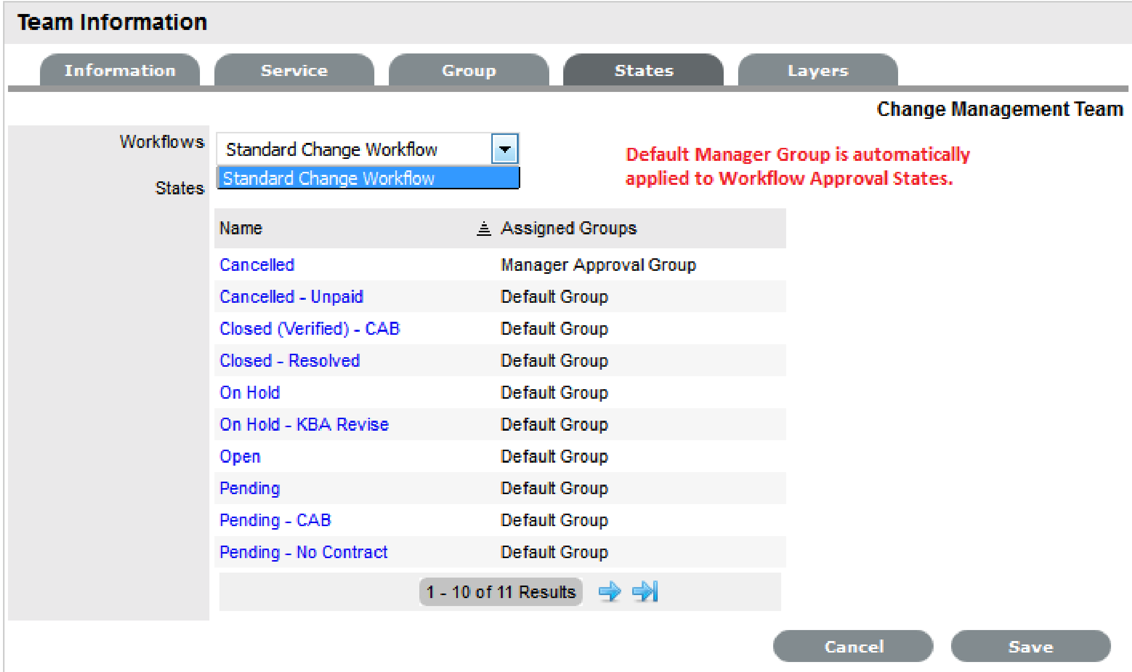
1. Go to User > Teams
2. Select a Service or Change Request Team



3. In Edit mode, assign relevant Managers from the Available Managers list

   Highlight Manager names within the Available Managers list and click the arrow icon to move the Users to the Selected Manager list.

4. Go to the States tab



5. Select a Workflow

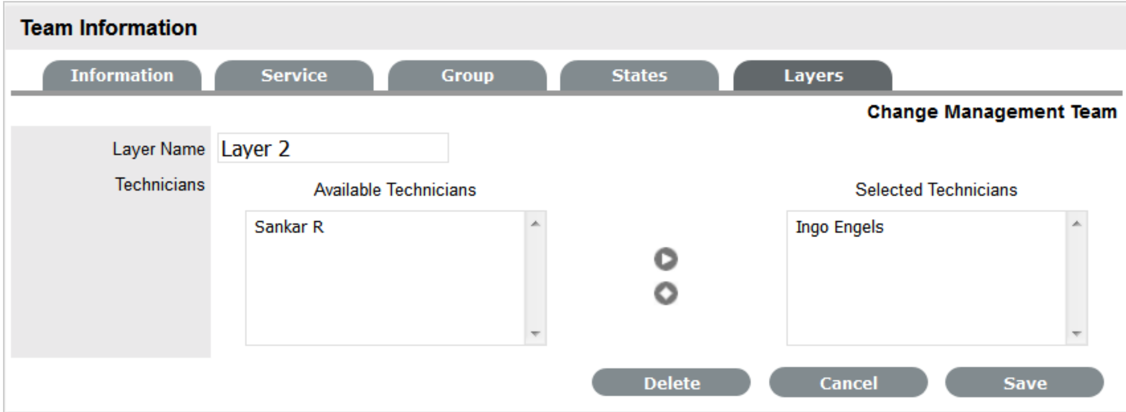
   The Default Manager Group, which may have been re-named, is automatically assigned to all Approval States of the selected Workflow.
6. To adjust the assigned Manager Group, select the Approval Workflow State link
7. Select the Manager Group from the drop-down list and save
8. Click Save and Done.

1.20.3 Layers Tab

Requests moving through Service or Change Request Workflows can be escalated to the Team Lead or Supervisor User at any stage of the Workflow that is configured as a Manager Approval State. This action can be achieved by using the Escalate button within the Summary tab of the Request.

By default escalation layers are created with the Team Lead assigned. To amend or add to the assignment:

1. Go to User > Teams
2. Select a Service or Change Request Team
3. Click Edit
4. Select the Layers tab
5. Click on the Layer hyperlink



6. Amend the assignment, as required
7. Click Save

   If additional escalation layers are required, select New and repeat steps 5 to 7.
8. Click Done when all required escalation layers are configured.

1.21 KBA Content Approval

When the Control KBA via Request option is enabled in the Setup>Privileges>Request tab, Knowledge Base content with a Pending Publication status automatically generates a Request that requires approval by Users with publishing privileges, before the content is accessible in the Knowledge Base.

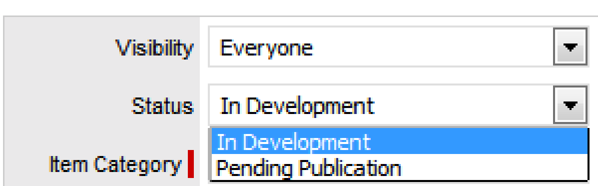
When the User has completed the content and the Article is ready for publication and moved to the Article Status of Pending Publication, a Request is automatically created. When the KBA is assigned the Pending Publication state, the content of the Article can no longer be edited.

Published KBA content that is edited, also results in generating a Request for approval but the Article retains its published state and displays the pre-edited content. Upon approval of the new content, the Article is updated.

1.21.1 Creating KBA Approval Requests

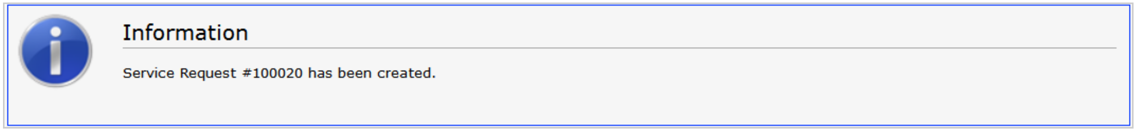
New KB content is initially saved with a status of In Development. When this content is ready to be published and if the Control KBA via Request is enabled, the following steps should be followed:

1. Go to the Knowledge > Articles tab
2. Select the Article No. link
3. Click Edit
4. Move the Status to Pending Publication



5. Click Save

   The Request Number that was generated is displayed and the KBA moves can no longer be edited.

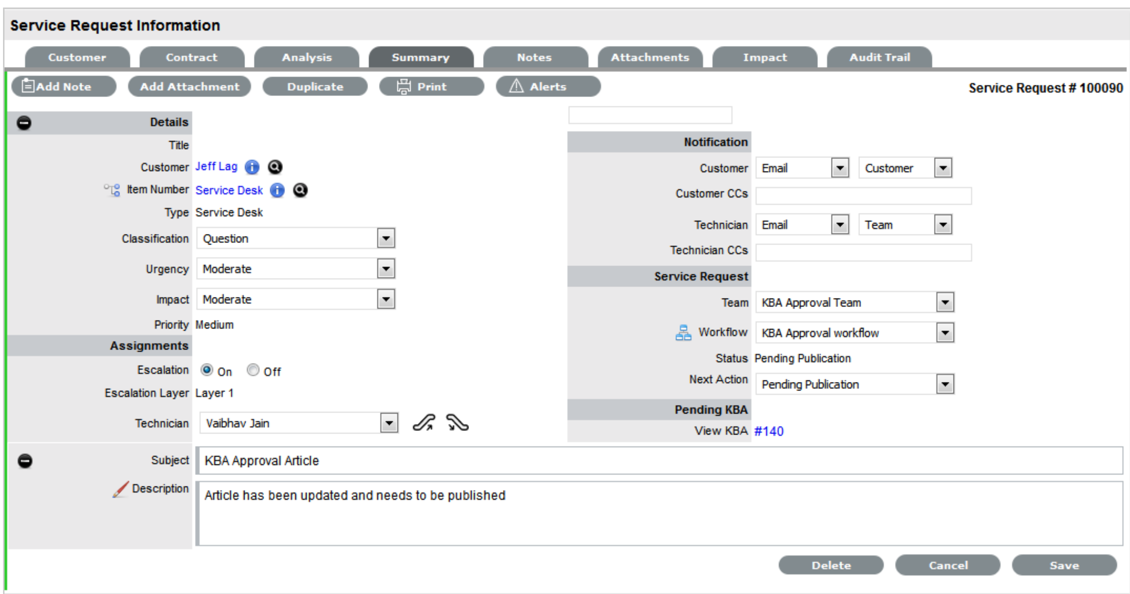


6. Click Done.

1.21.2 Managing KBA Approval Requests

KBA Approval Requests are found within the Request or Change tab, as defined in the Control KBA via Request customization. To approve new content within the relevant tab:

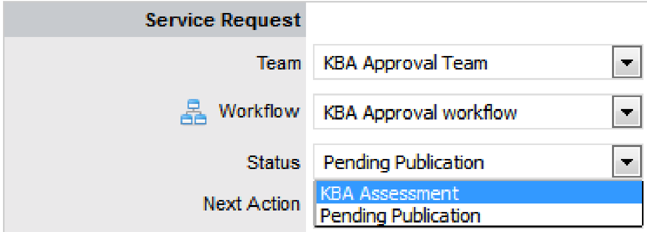
1. Select the Request # hyperlink



2. Click Edit
3. Select the View KBA link

   The contents of the KBA is displayed.
4. Click Done

   The screen returns to the Summary tab.
5. Move the Request to the Approval State



6. Click Save
7. Click Edit

   The Accept, Revise and Reject buttons are displayed.

Status	Description
	When selected the new content is approved for publication and the Request is moved to the Accept State. An Alert is sent to the KBA author informing them of the successful publication.
	When selected, the Request Summary screen displays the Notes field to allow the User to add comments and the Request is moved to the "On Hold - KBA Revise" State. The KBA is returned to the "In Development" State. The KBA author is sent an Alert, notifying them that the KBA requires revision. When the edits have been made and the KBA is returned to the "Pending Publication" Status, the Request is re-activated and set to the Approval State.
	This option is to be selected when it is decided that the KBA Content is not suitable for the KB. The Request moves to the configured Reject State and a Notes field is displayed allowing the User to record the reason for the decision. The KBA returns to the" In Development" State, which allows the author to delete the KBA, if desired. The KBA author is sent an Alert, notifying them that the content has been rejected.

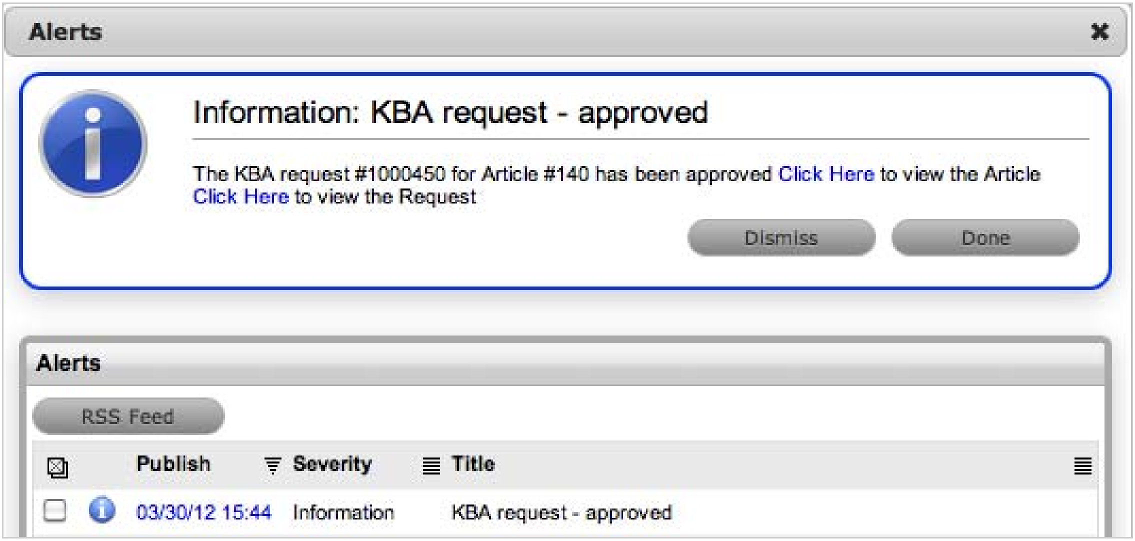
8. Select the appropriate Operations button

   A warning message is displayed, select OK. The system will move the Request to the appropriate State defined in the Workflow.
9. Add Note Content, if relevant

Select Add Note button to save Note Content.

10. Click Done.

    An alert is sent to the author of the KBA Article, notifying them if their KBA has been approved, rejected or requires revision. The Alert includes links to the related Article and Request.



NOTE: If a KBA Approval Request is deleted, the associated content reverts to the In Development status and the relationship between the Request and KBA is removed.

If a KBA is deleted when the associated Request is in the On Hold - KBA Rework system state, the Request moves to the Default Closed State for the assigned Workflow and the relationship between the two elements is deleted.

1.22 Teams

Technicians are allocated to Teams for the various support processes. For each Process (i.e., Incident, Problem, Change and Service Request) there must be at least one support Team.

Default Teams are assigned to specific Item Types. Support requests generated against an Item Type are then assigned to a Technician within the default support Team for that Process. The Team may be reassigned based on other options provided through the associated SLA(s) and Workflow(s).

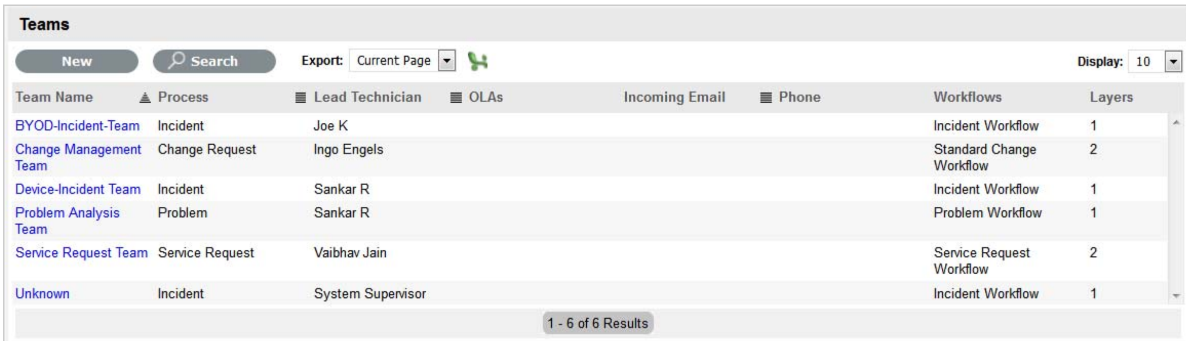
Support Teams for Incident and Problem Management include escalation layers, and Technicians are assigned to each of these layers. Incidents and Problems follow the escalation path determined by the service level triggers assigned to the request. For a Technician to be able to edit a request, they must be a member of the assigned Team, although they do not need to be included in an escalation layer.

Service and Change Request Teams are built around the selected Workflow. Technicians are assigned to work groups and each State of the Workflow Lifecycle is associated with a selected work group. When a request moves to a next State, it is assigned to a Technician within the work group associated with that Workflow State. One or multiple levels of escalation can also be configured for the Workflow, which span the lifecycle of the Workflow the Service or Change Team are assigned.

A Service Portfolio Team can be configured in the system, assigning the Users who will manage the development, production and discontinuation of services offered to the organization.

Use this section to:

- Create new Incident and Problem Teams with escalation layers
- Create Service and Change Request Teams with workflow assignments
- Create a Service Portfolio Team
- Create a Release and Deployment Team



1.22.1 Unknown Team

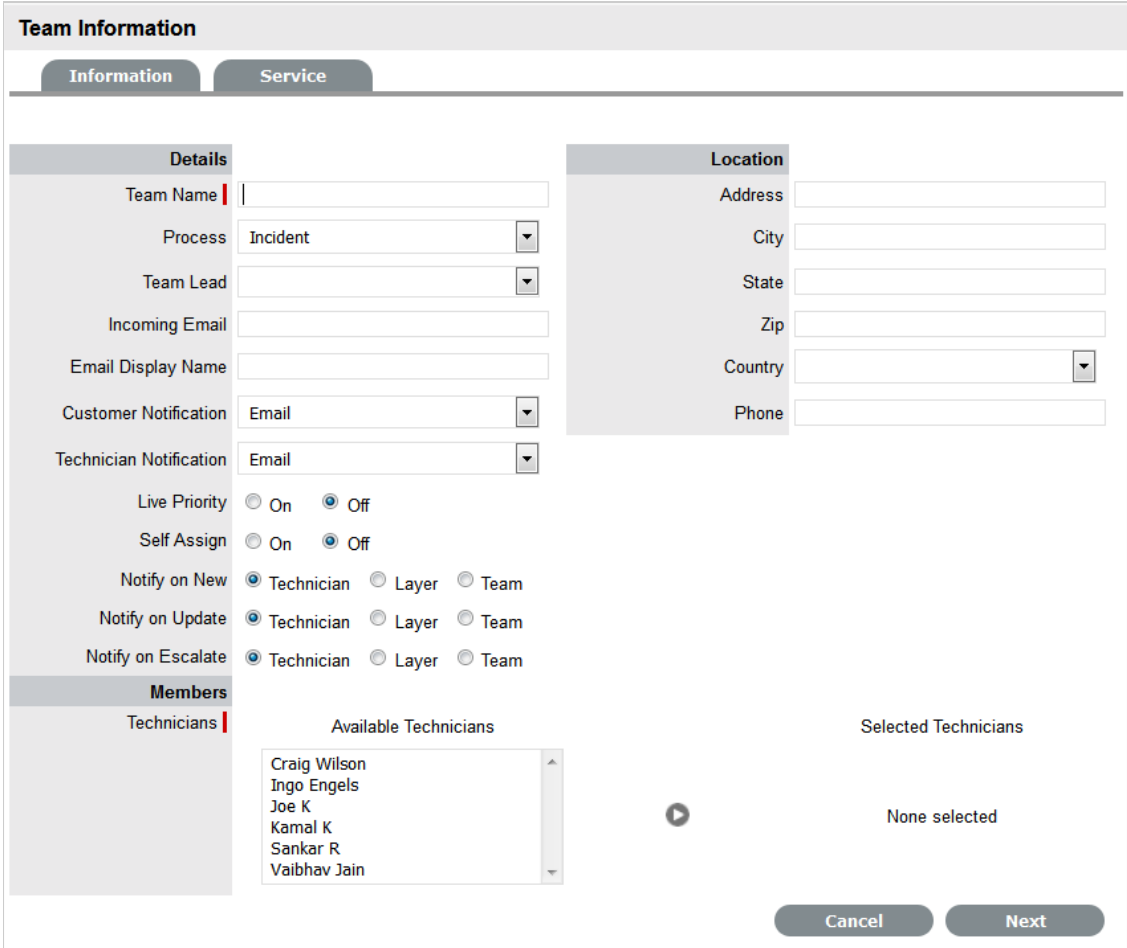
By default the system includes the system Team, Unknown, within the Teams List. This is the Team used by the application for Incidents created via email. It can be configured to use the system email address or an email account that is an alias for the main system account and Technicians can be assigned like any other Incident Team.

NOTE: The Unknown Team should *NOT* be re-named and will *NOT* appear in any other Teams lists throughout the application, i.e., when assigning a Team to an Item or Item Type.

1.22.2 Creating an Incident or Problem Team

To create an Incident or Problem Team:

1. Select User>Teams
2. Click New
3. Enter the Team Name



4. Select Incident or Problem Process
5. Enter the Team email address, if relevant
6. Define the Team options
7.

Options	Description
Team	Enter the Team Name. (Required.)
Process	Indicates if the Team is to manage Incidents or Problems.
Team Lead	The Technician assigned to supervise the Team and its activities. Options are visible when the Technicians have been assigned to the Team.
Incoming Email	Enter a specific Email Address for the Team,which allows Customers to use directly. This address will need to be configured as an alias to the system support address on the Email Server. See: Email Polling & Request Creation.

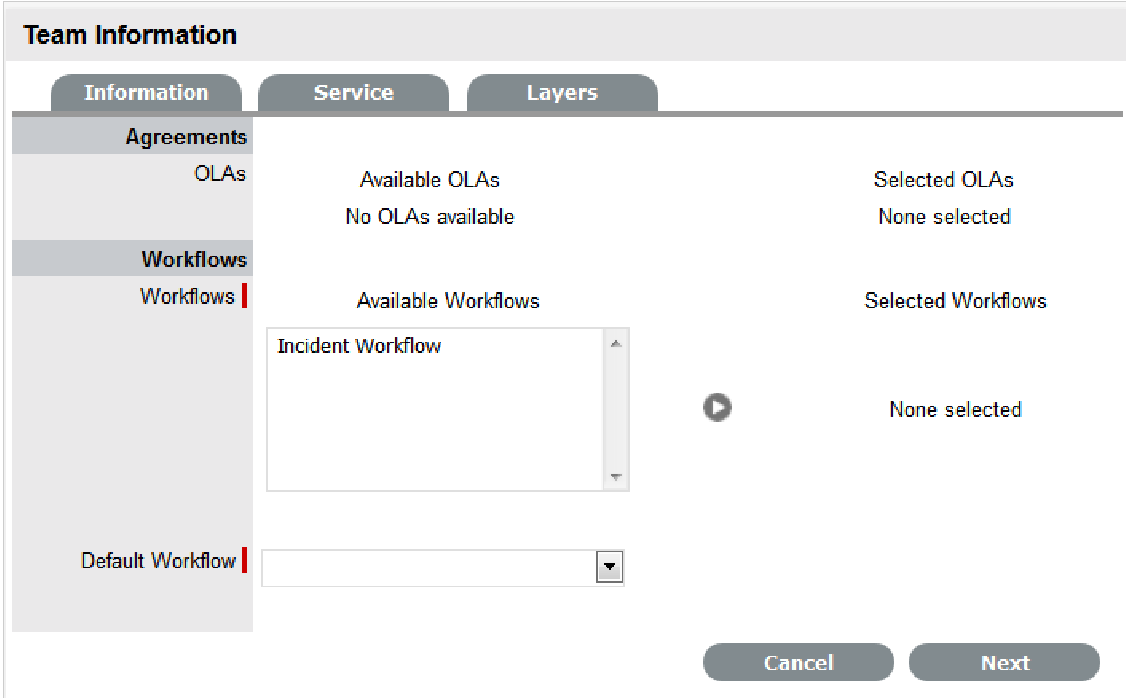
Options	Description
Email Display Name	If desired, enter a name for the Team that will be used in the From address for email responses sent by members of the Team.
Customer Notification	Sets the default notification method applied to requests for Customer correspondence, when requests are assigned to this Team. The Customer Defined option, derives the method of notification from the setting within the Customer's Profile or Account Information tab.
Technician Notification	Sets the default notification method applied to requests for Technician correspondence, when requests are assigned to this Team.
Live Priority	Routes requests to Technicians who belong to the Team and logged into the system.
Self Assign	When enabled, requests created by a Technician will automatically be assigned to that Technician.
Notify on New	Determines who is informed about the creation of a new request. *Technician* - notifies only the Technician assigned to the request.(This is the default setting.) *Layer* - notifies all members in Layer One of the Team assigned to the request. *Select Team* - notifies all members of the Team.
Notify on Update	Determines who is informed when a request is updated. *Technician* - notifies only the Technician assigned to the request.(This is the default setting.) *Layer* - notifies all members in Layer One of the Team assigned to the request. *Select Team* - notifies all members of the Team.
Notify on Escalate	Determines who is informed when a request is escalated. *Technician* - notifies only the Technician assigned to the request.(This is the default setting.) *Layer* - notifies all members in Layer One of the Team assigned to the request. *Select Team* - notifies all members of the Team.

Options	Description
Incident/Problem Queue	Allows the Team to use a holding bay for Incidents/ Problems that are received via email or the Customer Portal. (This option is visible if it has been enabled by the Administrator.) If the Team has only one Technician assigned to Layer One of Escalation, new Incidents are automatically assigned to that Technician and that Technician is notified of the new Incident assignment. If the Team has multiple Technicians assigned to Layer One of Escalation, the new Incident is placed in the Queue (i.e., it is assigned to the System User) and all members of the Team are notified that a new Incident has been assigned to the Incident Queue. See: Queues.
Queue Visibility	When the Incident Queue is enabled, the option can be refined to allow the Queue to be available for assigned Workflow entry points, or all stages of the assigned Workflow. If All States is enabled, Users can move requests back to the Queue throughout the request lifecycle. See: Queues.
Edit Assign	When set to Yes and a request assigned to the System User (i.e., Queue) is opened in Edit Mode, the system will automatically assign the request to the User editing the request if they are in the Escalation Layer associated with the request.
Close Assign	When set to Yes and a request assigned to the System User (i.e., Queue) is moved to an Exit State of the Workflow, the system will automatically assign the request to the User who prompted the close action.

8. Complete the Team Location details, if required
9. Select Technicians from the Available Technicians list

   Highlight Technician names within the Available Technicians list and click the arrow icon to move the Users to the Selected Technicians list.
10. Click Next

    The Service Screen displays all Available OLAs and Workflows



11. Assign the relevant OLAs within Available OLAs list (Optional)

    HIghlight the Team Name and click the arrow icon to move an OLA to Selected OLAs list. Assigning an OLA to the Team ensures the Team's details will be selectable when the assigned OLA is associated with a Workflow State.

12. Assign the relevant Workflows within the Available Workflow list

    Highlight the Workflow Name and click the arrow icon to move the Workflow into the Selected Workflows list. Assigning Workflows to the Team ensures the Team is displayed as an option within the request Summary tab when the associated Workflows are assigned to a request.

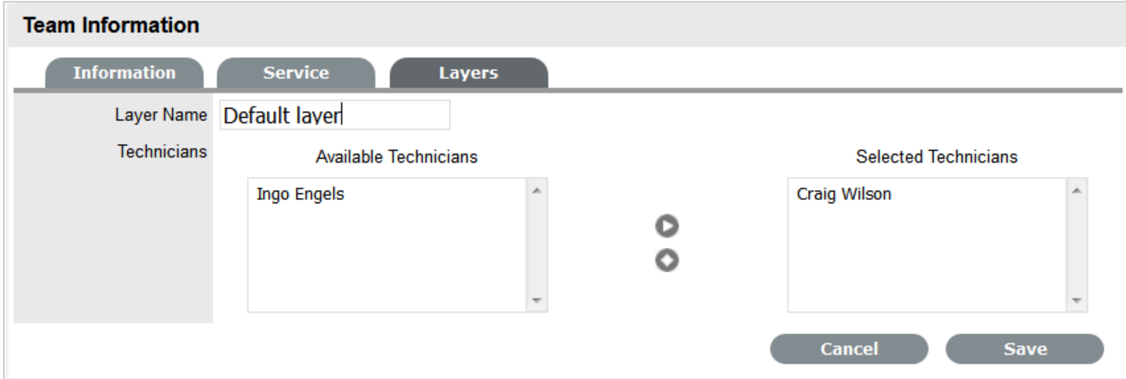
13. If more than one Workflow is assigned, select a Default Workflow form the drop-down list

14. Select Next

    The Escalation screen appears. This allows Escalation Layers and Technician assignment to be configured.

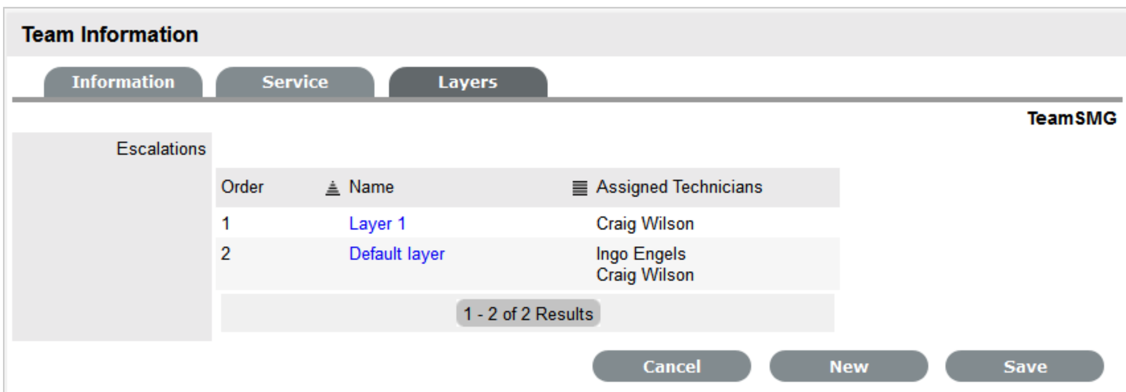
15. To edit the Default Layer, select the link

16. Move Technicians between the Available and Selected boxes and amend the Layer Name, if required



17. Click Save
18. To create additional Escalation Layers, select New

    By default the Team Lead will always be assigned to the Escalation Layer upon creation.
19. Click on the Layer link to edit the Technician assignment and Save



20. To delete a Layer, select the Layer Name
21. Click the Delete button and Save.

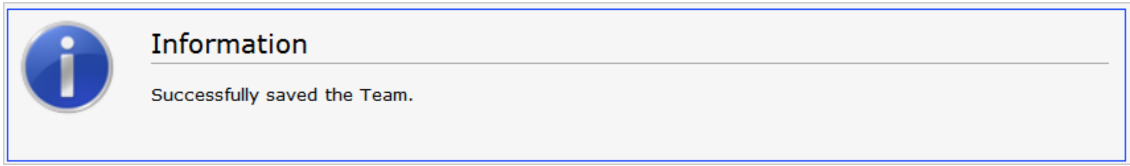
1.22.3 Creating and Configuring Additional Escalation Layers

Additional escalation levels can be created, if required. The order of the escalation pathway is determined by the order of creation. That is, layer one is entry level support, layer two is the next level of support and so on.

1. Select Team Information>Layers
2. Click Edit to display the New button

   The Technicians who are assigned to the Team are displayed in the Available Technicians list
3. Add and/or remove Technicians from the Escalation Layer Members list

4. Click Save.



1.22.4 Editing an Escalation Layer

To edit an Escalation Layer with the Team Information screen in Edit mode:

1. Select the Layers tab
2. Click on the Layer name hyperlink

   The list of available and assigned Technicians is displayed.
3. Remove and add Technicians, as required

   Highlight the User Names within the relevant list and click the arrow to move the User to the required list.

4. Select Save.

1.22.5 Configuration of Escalation Layers

The following process is recommended for configuring Escalation Layers. Level one should contain the majority of Available Technicians who have been assigned to the Team. A smaller but more experienced group should be assigned to the second level. An even smaller and more experienced group should be assigned to the third level and so on until the final level of escalation. Ideally, the last layer should contain only the Team's Lead Technician.

There are no constraints to prevent individual Technicians from being assigned to more than one level. However, for a Technician to be able to edit a request they must be a member of the assigned Team, although they do not need to be included in an escalation layer.

To remove a User from a Team:

1. In the User tab, click Users

   The User Information screen appears.

2. Click on the name of the User
3. Select the Team tab
4. Click on Edit

   The Remove button is displayed.
5. Select the checkbox to the left of the Team Name

   Multiple check boxes can be selected.
6. Select Remove to delete the User from a Team

   The User Name is removed from the Team.
7. Click Done.

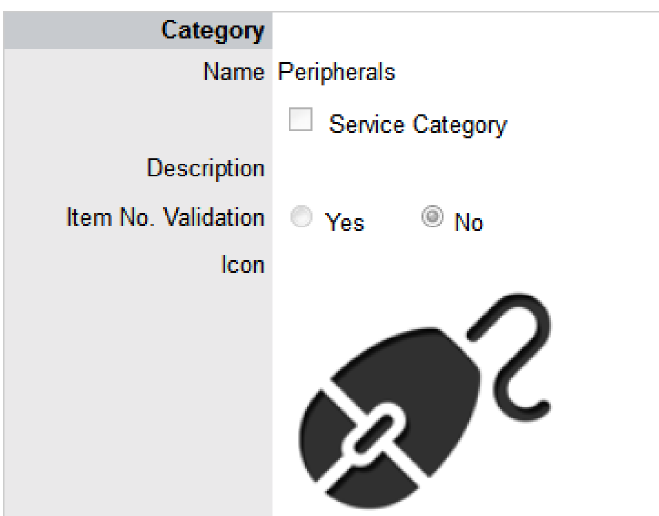
1.23 Service Portfolio Team

The Service Portfolio Team is responsible for overseeing the creation and publication of all service offerings in the Service Portfolio, which include:

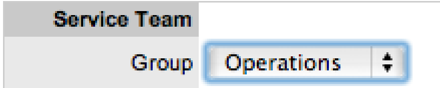
- Services under development
- Services in production and operation, stored in the Service Catalog
- Retired and discontinued services.

1.23.1 Working with Service Portfolio Teams

To maintain control of the creation, editing and deletion of Service Items within the CMDB, Service Portfolio Teams can be assigned to Service Category templates. Included within these Teams are Groups of Users who are responsible for managing Item information at the various stages of the Service Lifecycle.



When Service Portfolio Teams are configured within the application, the option to assign a Service Portfolio Team is displayed within Service Category templates in the Configuration>Categories tab. This allows for the Groups that are created within the Team, to be assigned to the different Category Lifecycle States included in the Lifecycle Map displayed in the Item Categories>Life Cycle tab.



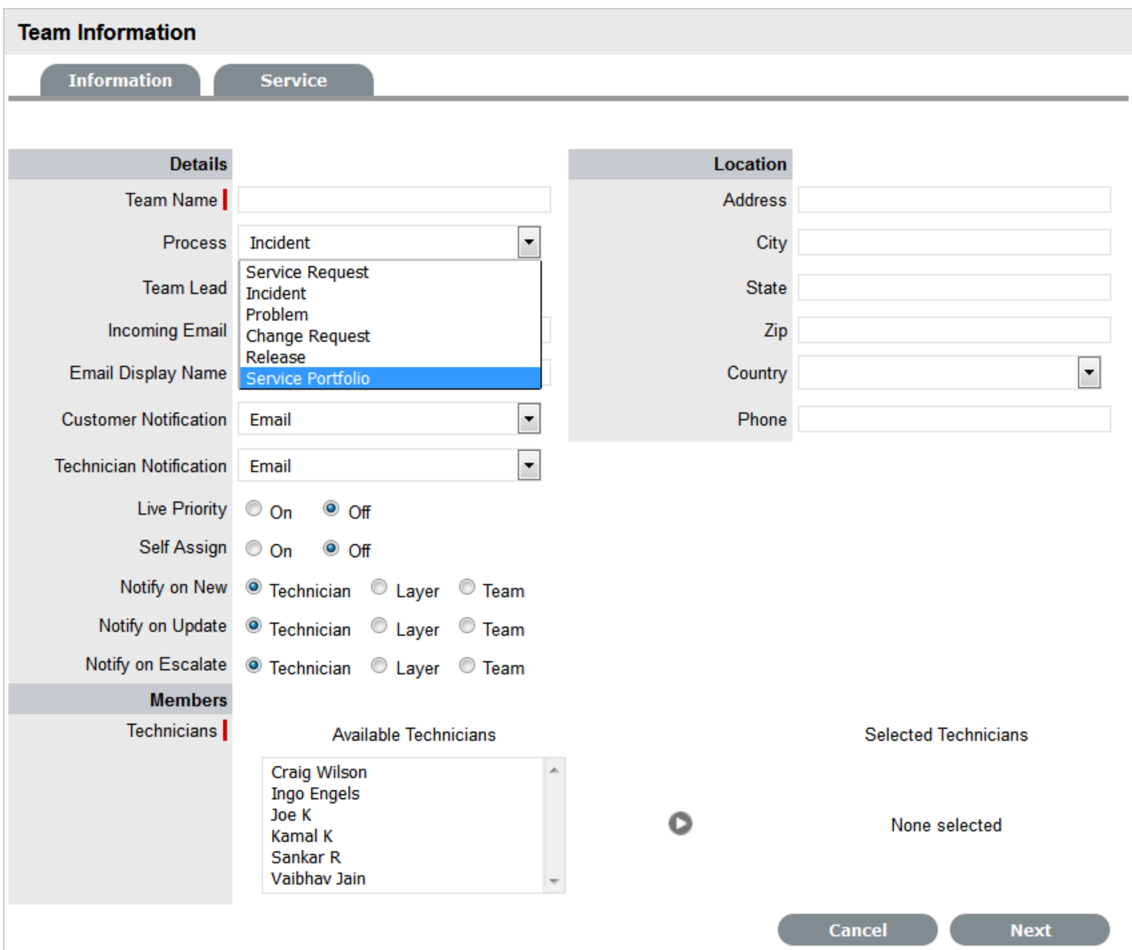
Assigning Groups to Category Lifecycle States allows the Users within the Group to edit the details of an Item when it is assigned that stage of the Category Lifecycle.

NOTE: When creating the Teams, it is suggested that the Group names reflect the stage of the Service Lifecycle, for instance Service Design, Service Implementation, Service Operation, Service Quality Control and Catalog Management.

1.23.2 Creating a Service Portfolio Team

To create a Service Portfolio Team:

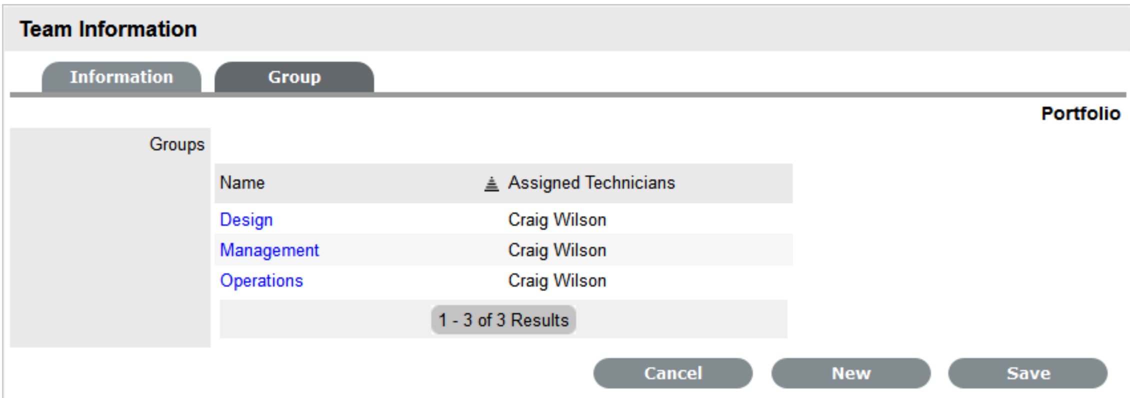
1. Select User>Teams
2. Click New
3. Enter the Team Name
4. Select the Service Portfolio Process



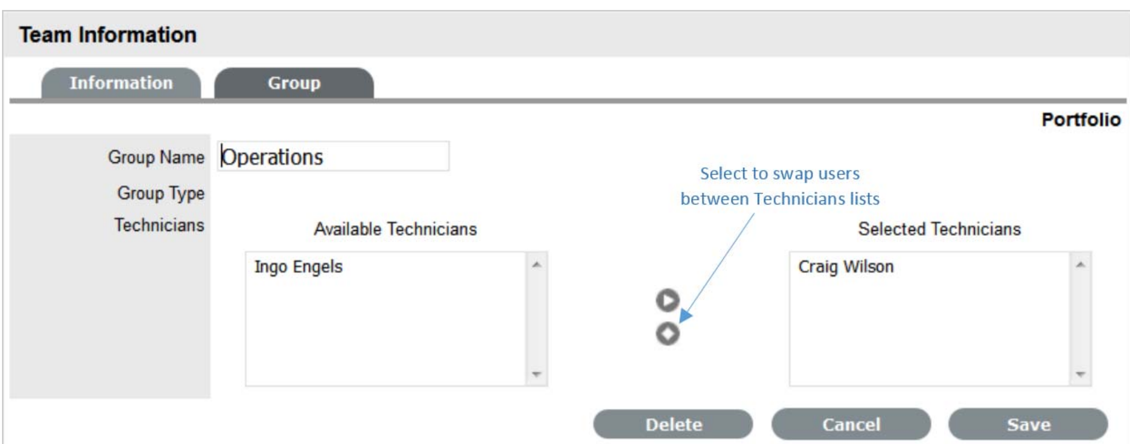
5. Complete the Team Location details, if required
6. Select Technicians from the Available Technicians list

   Highlight Technician names within the Available Technicians list and click the arrow icon to move the Users to the Selected Technicians list.
7. Set the Team Lead
8. Click Next

   The Service Screen moves to the Group tab where the Users are assigned the various Groups that are provided the privilege of managing Item information and lifecyle status as part of managing the Service Portfolio. Some suggested Groups include Service Design, Service Implementation, Service Operation, Service Quality Control and Catalog Management.



9. For each Group link, click to assign Users to the Team
10. Move Technicians between the Available and Selected boxes



11. Select Save
12. Click New, to add other Groups to the Team

    Assign Users as required and Save.
13. Click Done.

1.23.3 Removing Team Members from a Group

To remove a User from a Group, with the Team Information screen in Edit mode:

1. Click on the Group Name hyperlink

   The lists of Available and Selected Technicians are displayed.
2. Remove and add Technicians, as required
3. Select Save.

1.23.4 Removing a User from a Team

To remove a User from a Team:

1. In the User tab, click Users

   The User Information screen appears.
2. Click on the name of the User
3. Select the Team tab
4. Click on Edit

   The Remove button is displayed.
5. Select the checkbox to the left of the Team
6. Click Remove.

   If the User is not the only person assigned to an escalation layer of the selected Team, the User will be successfully removed from the Team.

1.24 Release & Deployment Team

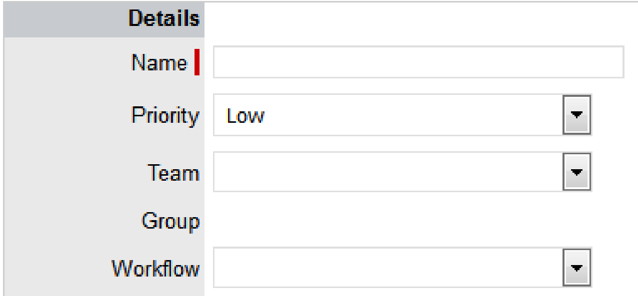
The Release & Deployment Team is responsible for the planning, scheduling and controlling of changes and updates from Test to Live environments.

Release Managers, as part of a Release Team, direct the process using all information presented to help assess release readiness, and to efficiently identify deployment targets for the deployment phases of a release. This level of control guarantees the Release Manager can deliver updates to the live environment successfully, to all relevant parties, on time.

The Deployment component of the Release Team covers the activities or tasks responsible for moving new or changed hardware, software, documentation and process to the Live Environment.

1.24.1 Working with Release Management Teams

To plan, schedule and control changes and updates from Test to Live environments, Release Management Teams are assigned to Releases within the Change>Releases tab. Included within these Teams are Groups of Users who are responsible for managing the various stages of the Release Lifecycle.

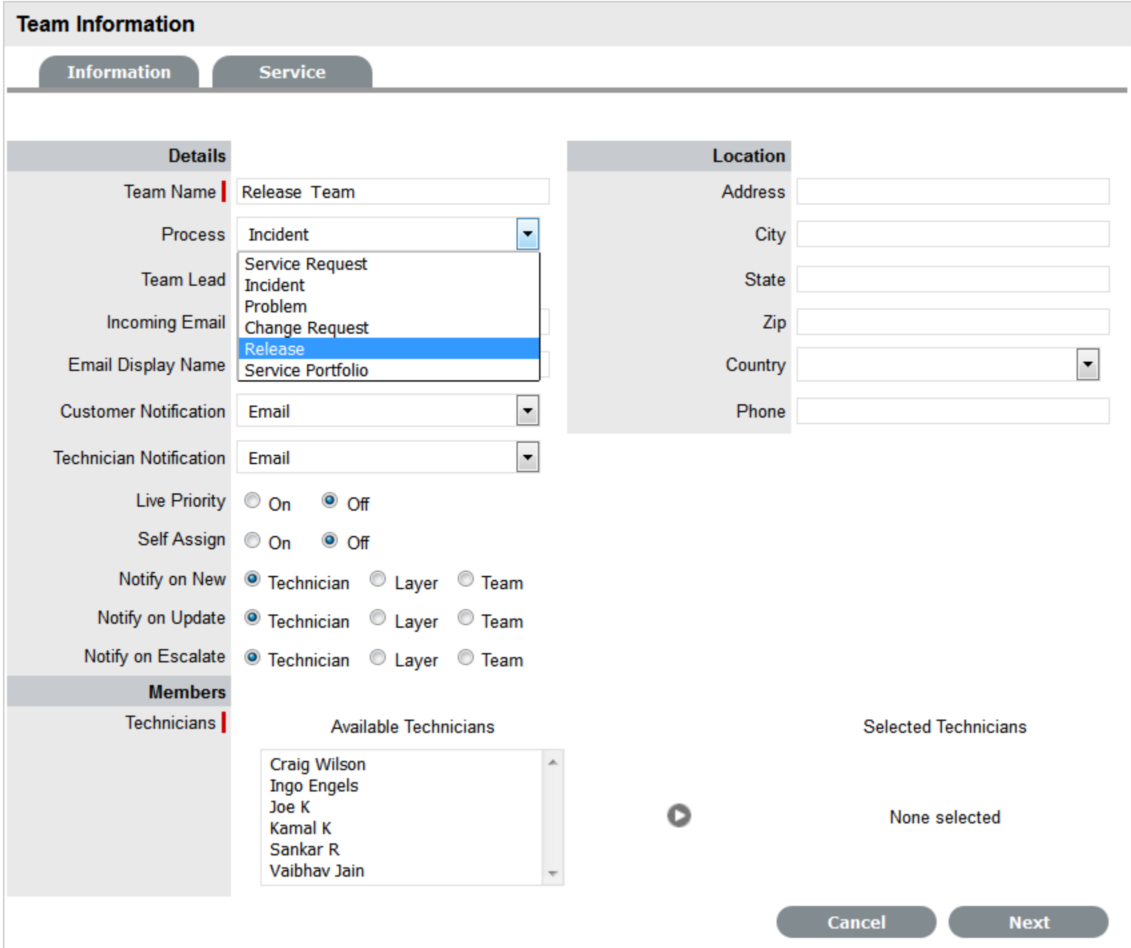


When Release Teams are configured within the application, Technicians with the Release and/or Deployment Process are associated with the Team. Managers with the Release Process are assigned to the Approval States of the Release Workflow. Technicians assigned the Release Process can be assigned to States of the Release Workflow, while Technicians only assigned the Deployment Process are placed in the Deployment Group and are responsible for completing the Deployment Tasks created for a Release.

1.24.2 Creating a Release & Deployment Team

To create a Release and Deployment Team:

1. Select User>Teams
2. Click New
3. Enter the Team Name
4. Select the Release Process



5. Complete the Team Location details, if required
6. Select Technicians from the Available Technicians list

   The Technician List consists of Users assigned the Release and/or Deployment Process in their User Information screen.

   Highlight Technician names within the Available Technicians list and click the arrow icon to move the Users to the Selected Technicians list.

NOTE: Technicians with the Release Process will be available for assignment within the Release Workflow States in the Team Information>States tab

Technicians only assigned the Deployment Process will be available for assignment to the Deployment Group, who will complete the Deployment Tasks generated as part of the Release.

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1. Set the Team Lead

   The Team Lead options are drawn from the Assigned Technicians who are assigned the Release Process.

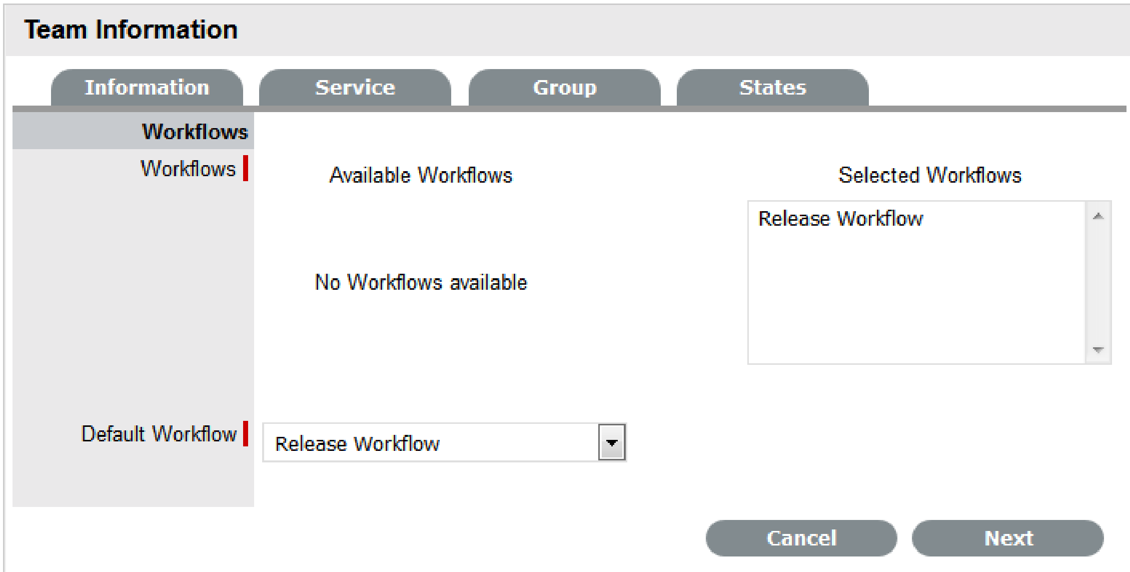
2. Select Managers from the Available Managers list

   The Manager List consists of Users assigned the Release Process in their User Information screen.

Highlight Manager names within the Available Managers list and click the arrow icon to move the Users to the Selected Managers list.

3. Click Next

   The Information screen moves to the Service tab where the Release Workflows are associated with the Team.



4. Move the relevant Available Workflows to the Selected Workflows field
5. Set the Default Workflow

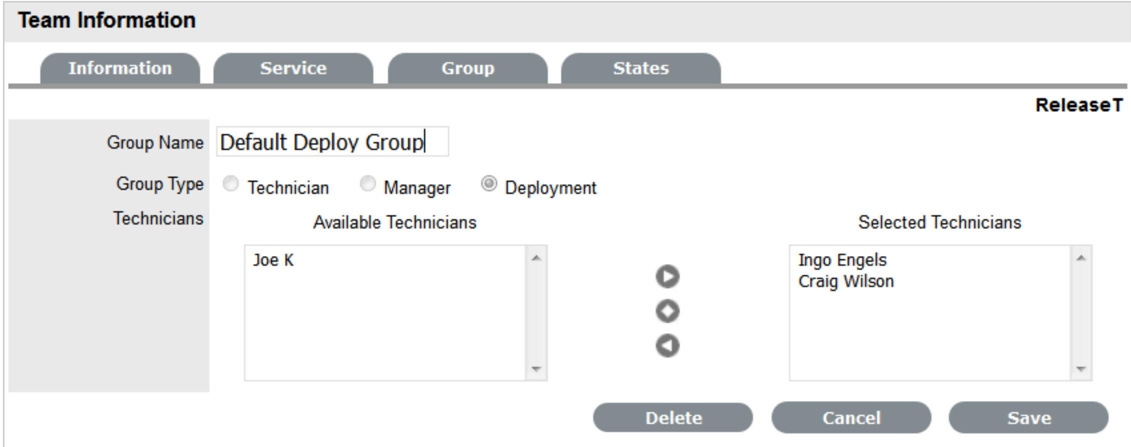
   If a single Workflow is assigned to the Team it is automatically applied as the Default Workflow.

   Assigning Workflows to the Team ensures the Team is displayed as an option within the Deployment Summary tab when the associated Workflows are assigned to a Task.
6. Click Next

   The screen defaults to the Groups tab that lists the default deployment, manager and release Groups. The Groups automatically apply the Team Lead to the Groups and require additional Technician and User assignments.
7. Select the Default Deploy Group

   The Group Name can be edited and the Available Technicians and Selected Technicians fields are now accessible. As a Deployment Group Type, this group of Users will be available for assignment for Deployment Tasks created as part of a Release Workflow.
8. Rename the Group, if relevant
9. Move the relevant Users between the Available and Selected boxes

   The Users displayed in the Available Technicians list have been assigned the Deployment Process in their User Information screen.

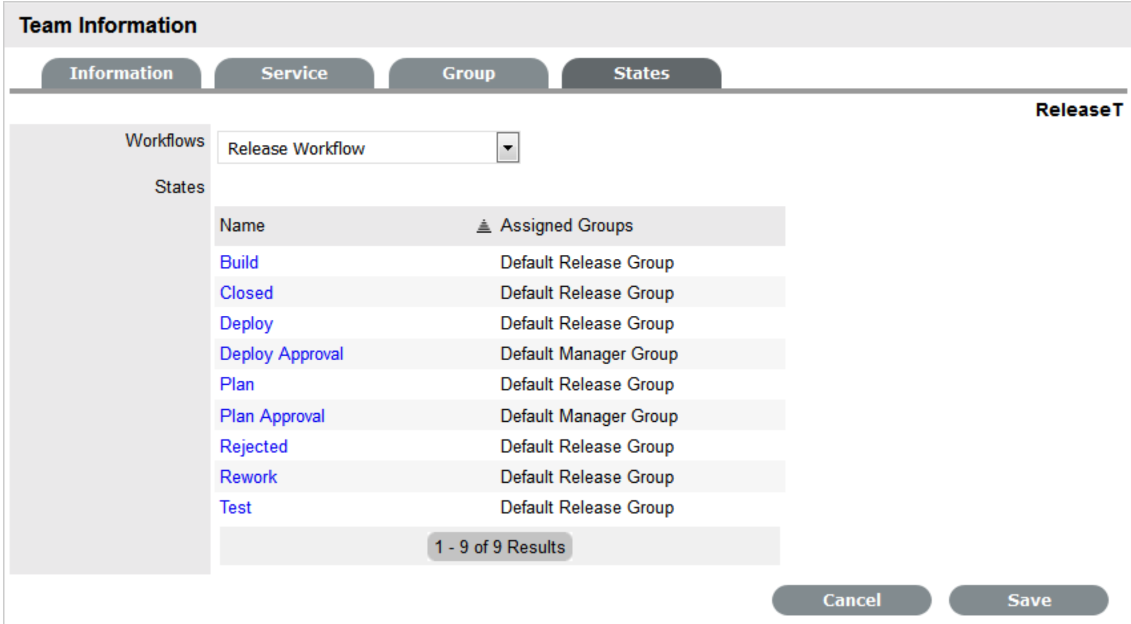


10. Select Save
11. Edit the assigned Users in the Manager and Release Groups

    The default Manager Group will be automatically applied to all Approval States of the Release Workflow. The Release Group of Technician Users will be automatically applied to all non-approval States of associated Release Workflows. These assignments can be edited within the States tab.
12. Create additional Manager, Release or Deployment Groups, if relevant

13. Click Next

    The system moves to the States tab to display the list of Workflows associated with the Team, and the list of States included in the selected Workflow.
14. Select a State link to amend the assigned Work Group
15. Assign the relevant Group of Users to the Workflow State



16. Click Save and continue to adjust all the relevant assignments
17. Click Save
18. Click Done.

    The Release & Deployment Team is fully configured.

1.24.3 Removing Team Members from a Group

To remove a User from a State or Group, with the tab in Edit mode:

1. Click on the State or Group Name hyperlink to display the list of available and assigned Technicians
2. Remove and add Technicians, as required
3. Select Save.

1.24.4 Removing a User from a Team

To remove a User from a Team:

1. In the User tab, click Users

   The User Information screen appears.
2. Click on the name of the User
3. Select the Team tab
4. Click on Edit

   The Remove button is displayed.
5. Select the checkbox to the left of the Team

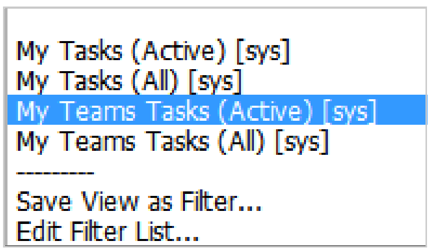
6. Click Remove.

   If the User is not the only person assigned to an escalation layer of the selected Team, the User will be successfully removed from the Team.

1.25 Queues for requests

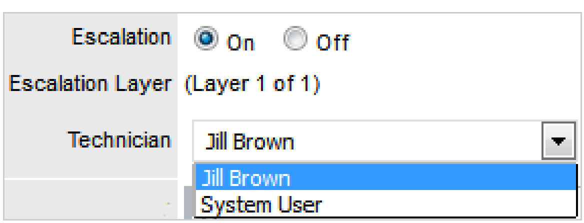
The Queues functionality allows for requests, Incidents, Service Requests or Problems, to be assigned to the System User as part of a Team holding bay. Users within the Team with the Queue option enabled can select relevant requests they decide to work on, or manually assign the System User assigned requests to an appropriate User.

Requests that are assigned to the Queue are allocated to the System User, until they are manually reassigned to a specific User. The unassigned requests are located within the Home tab My Teams Queued Tasks, or the Operations>Incidents tab Filter option called Incident Queue for new Incidents, the Service Requests within the Service Request Queue in the Operations>Service Requests tab and the Operations>Problems tab Filter option called Problem Queue for new Problems .



When the Queue feature is enabled for the application, it can be applied on a Team by Team basis. This means some Teams can be configured to use the business logic of the application for assigning requests to specific Users. While other Teams can use the Queue to select the requests they want to work on, or allows other Users to manually assign the request to a relevant User.

When the Self Assign and Queue options are enabled for a Team and a request is created by a Technician User, the Self Assign option will override the Queue assignment and allocate the request to the User creating the request, if they are in the first layer of escalation. The User can assign the request to the Queue by selecting the System User in the Technician list.



1.25.1 Enabling the Queue

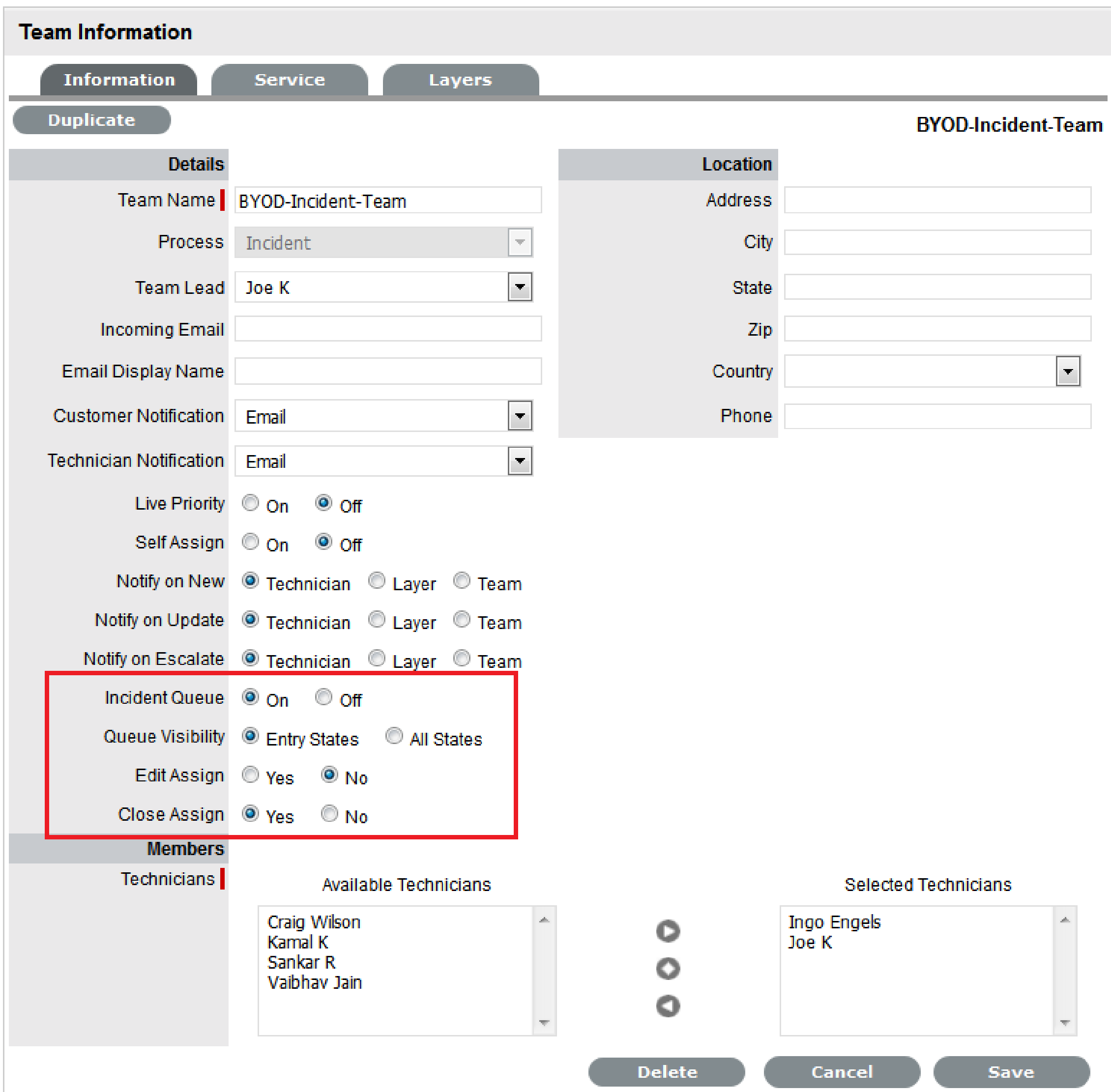
By default, the Queue functionality is disabled in the application Setup. To enable the Queue:

1. Log in as an Administrator
2. Select Setup>Privileges
3. Select the Request tab

4. Enable the Queues option
5. Click Save.

To enable the Queue for a Team:

1. Log in as a Supervisor
2. Select the User>Teams option
3. Select the relevant Team link



4. Click Edit
5. Enable the Queue option

   The following options can then be applied to the Queue:
6.

Options	Description
Service Request /Incident/Problem Queue	Allows the Team to use a holding bay for Incidents that are received via email or the Customer Portal. (This option is visible if it has been enabled by the Administrator.) If the Team has only one Technician assigned to Layer One of Escalation, new Incidents are automatically assigned to that Technician and that Technician is notified of the new Incident assignment. If the Team has multiple Technicians assigned to Layer One of Escalation, the new Incident is placed in the Queue (i.e., it is assigned to the System User) and all members of the Team are notified that a new Incident has been assigned to the Incident Queue. See: Queues.
Queue Visibility	When the Incident Queue is enabled, the option can be refined to allow the Queue to be available for assigned Workflow entry points, or all stages of the assigned Workflow. If All States is enabled, Users can move requests back to the Queue throughout the request lifecycle. See: Queues.
Edit Assign	When set to Yes and a request assigned to the System User (i.e., Queue) is opened in Edit Mode, the system will automatically assign the request to the User editing the request if they are in the Escalation Layer associated with the request.
Close Assign	When set to Yes and a request assigned to the System User (i.e., Queue) is moved to an Exit State of the Workflow, the system will automatically assign the request to the User who prompted the close action.

7. Set the Queue Visibility

   Select All States if Team members are to be allowed to return a request to the Queue regardless of the assigned Workflow State.
8. Set the Edit Assign option

   Select Yes, if a request that is assigned to the System User/Queue is to be automatically assigned to a User in the first layer of escalation who opens the request in Edit mode.
9. Set the Close Assign option

Select Yes, if a request that is assigned to the System User/Queue is to be automatically assigned to the User who initiates an action that results in the request being moved to an Exit State.

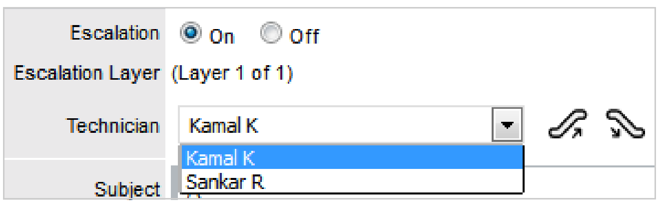
10. Select Save.

1.25.2 Assigning requests from a Queue

All requests displayed within a Queue list are assigned to the System User. To reassign the request to an appropriate User:

1. Select the Request # hyperlink
2. Click Edit
3. Select an appropriate User from the Technician list

   The request will now be assigned to the new User and removed from the Queue.



4. Click Save.

1.25.3 Reassign a request to the Queue

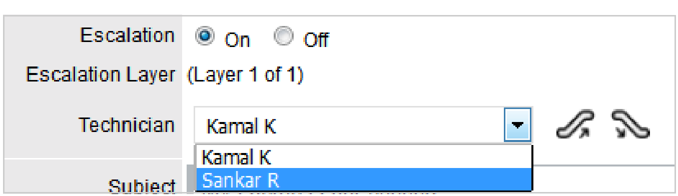
When the All States option has been enabled for the Queue within the Team Information screen, the System User will be retained in the Technician drop-down list for the first layer of escalation after it has been assigned to a User. This allows the assigned User to re-assign the request back to the Queue.

To reassign the request to the Queue/System User:

1. Select the Request # hyperlink

   The request should be at layer one of escalation within the assigned Team.
2. Click Edit
3. Select System User within the Technician drop-down list

   The request will now be assigned to the System User and returned to the Queue.



4. Click Save
5. Click Done.

   The system returns to the request list view.

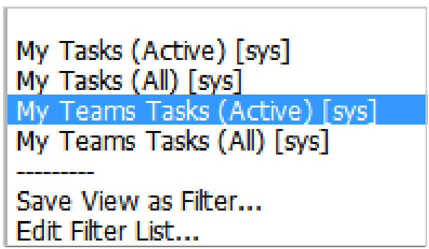
1.25.4 Queue Filter

Teams that use the Queue method for request assignment can view and allocate requests using the My Teams Queued Tasks within the Home tab list filter, or within the Service Request, Incidents or Problems tab Queue list filter. They can also see Queued Tasks within the My Teams Tasks filters.

To view all types of requests assigned to the Queue within one list, use the My Teams Queued Tasks within the Home tab:

1. Select the Home tab
2. Go to the Filter List
3. Select the My Teams Queued Tasks option from the drop down list.

   The screen will list all of the Service Requests, Incidents and Problems that are currently assigned to the System User.



To view the Queue within the Service Requests tab:

1. Select the Operations>Service Requests tab
2. Go to the Filter List
3. Select the Service Request Queue option from the drop down list.

   The screen will list all of the Service Requests that are currently assigned to the System User.

To view the Queue within the Incidents tab:

1. Select the Operations>Incidents tab
2. Go to the Filter List
3. Select the Incident Queue option from the drop down list.

   The screen will list all of the Incidents that are currently assigned to the System User.

To view the Queue within the Problems tab:

1. Select the Operations>Problems tab
2. Go to the Filter List
3. Select the Problem Queue option from the drop down list.

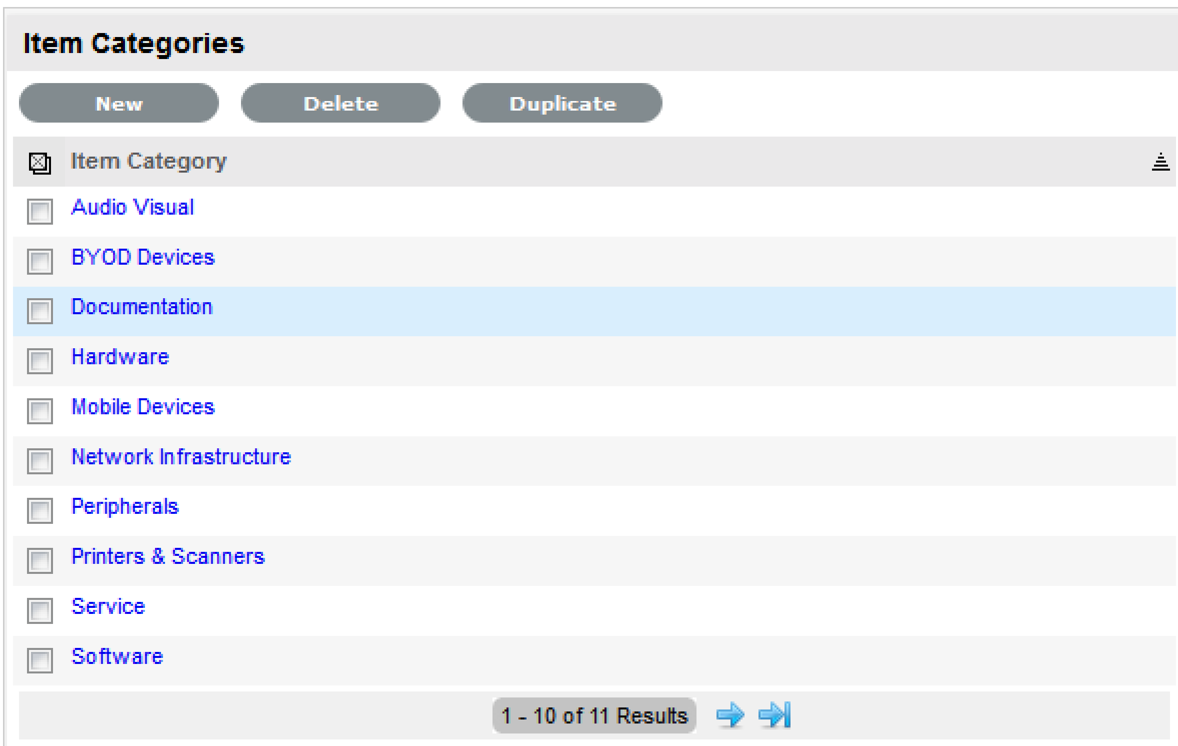
   The screen will list all of the Problems that are currently assigned to the System User.

1.26 Configuration Categories

Within the application the number of Item Categories that can be defined is unlimited. By default the following Categories are included:

- Audio Visual
- Documentation
- Hardware
- Mobile Devices
- Network Infrastructure
- Peripherals
- Printers & Scanners
- Software
- Service.

Within each Category the Lifecycle and Classifications associated with the Category can be defined.



1.26.1 Categories Tab

The default templates set at the Category level are used to cover a broad range of Item Types. Within each default Category the following have been configured, but can be customized as required:

- The Field Labels that will be available on the Details tab of Items using the Category
- The broadest level of Classifications that are assigned as part of the request creation process.

- The Lifecycle stages an Item will move through from being proposed or ordered to decommissioned
- Template responses that Technicians can use when entering a Note for a request that is assigned an Item that uses a Category.

The following table illustrates how Categories can be represented as Manufacturer Models within the Configuration>Types tab:

Category	Proposed Item Type
Hardware	PCs, Servers, Notebooks
Networking Infrastructure	Routers/Switches, UPS, Cabinets, Racks
Mobile Devices	iPhones, PDAs, Windows MDs
Peripherals	Monitors, External Storage Devices, Docking Stations, Barcode Scanners
Audio Visual	Projectors, Electronic Whiteboards
Printers/Scanners	Printer, Scanner
Digital Cameras	Digital Still, Digital Video, Thermal Image
Software	Operating Systems, Databases, Applications
Service	Email, Website.

The easiest way to create additional Categories, is to duplicate a default Category and tailor it to the organizational requirements.

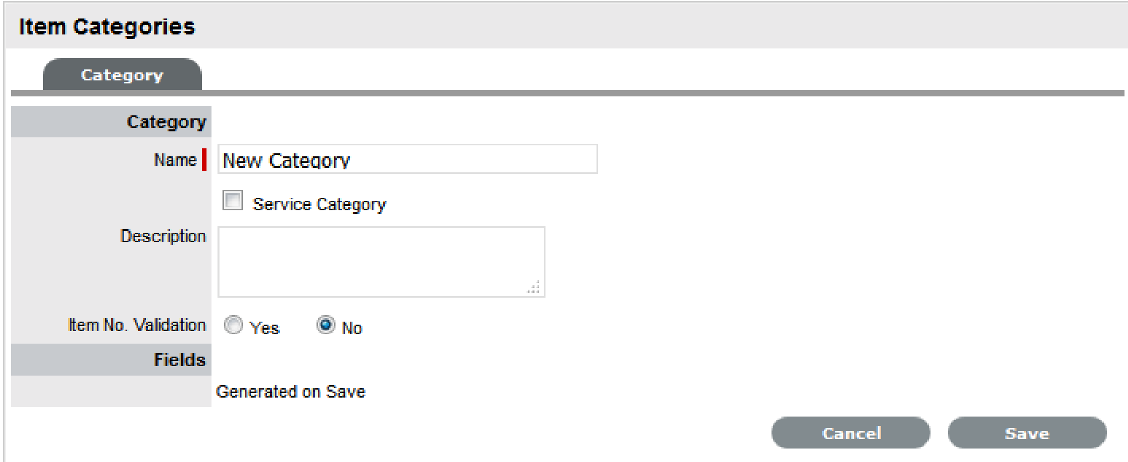
A Service Portfolio Team can be assigned to the default Service Category by creating the Team within the User>Teams screen, then selecting Edit within the Categories tab of the Service Item Category.

NOTE: The **Reconcile Based On** option is available only for the hardware category. You can select any unique field as the reconciliation field so that the configuration management system ensures and maintains it as a unique hardware item.

Creating a Category

1. Select Configuration>Categories

   The Item Categories screen appears.
2. Click New



3. Enter the name of the new Category
4. Complete the Description

   Content entered in this field is visible when the User scrolls over the Category Name in the Item Category list.
5. Click Save

   The Item Categories screen expands to display the options to upload an Item Category icon and customize Field labels.

NOTE: The Item No. Validation option is displayed, if the Admin>Setup>Privileges>System> Edit Item Numbers is set to Yes

This displays the Input Mask and User Mask fields, which are explained in the Categories Fields table below.

---

1. Check the Service Category field if the template is to be used for a Service Item

   Ticking this option displays the Portfolio Team drop-down list, ifService Portfolio Teams have been created within the application. This allows Groups within the Service Portfolio Teams to be assigned to the different stages of the Item Lifecycle, and activates Service Catalog Management functionality within the Cost Tabs of Types and Items that use the template.

NOTE: Customers cannot create Items using Item Categories that have the Service Category option enabled

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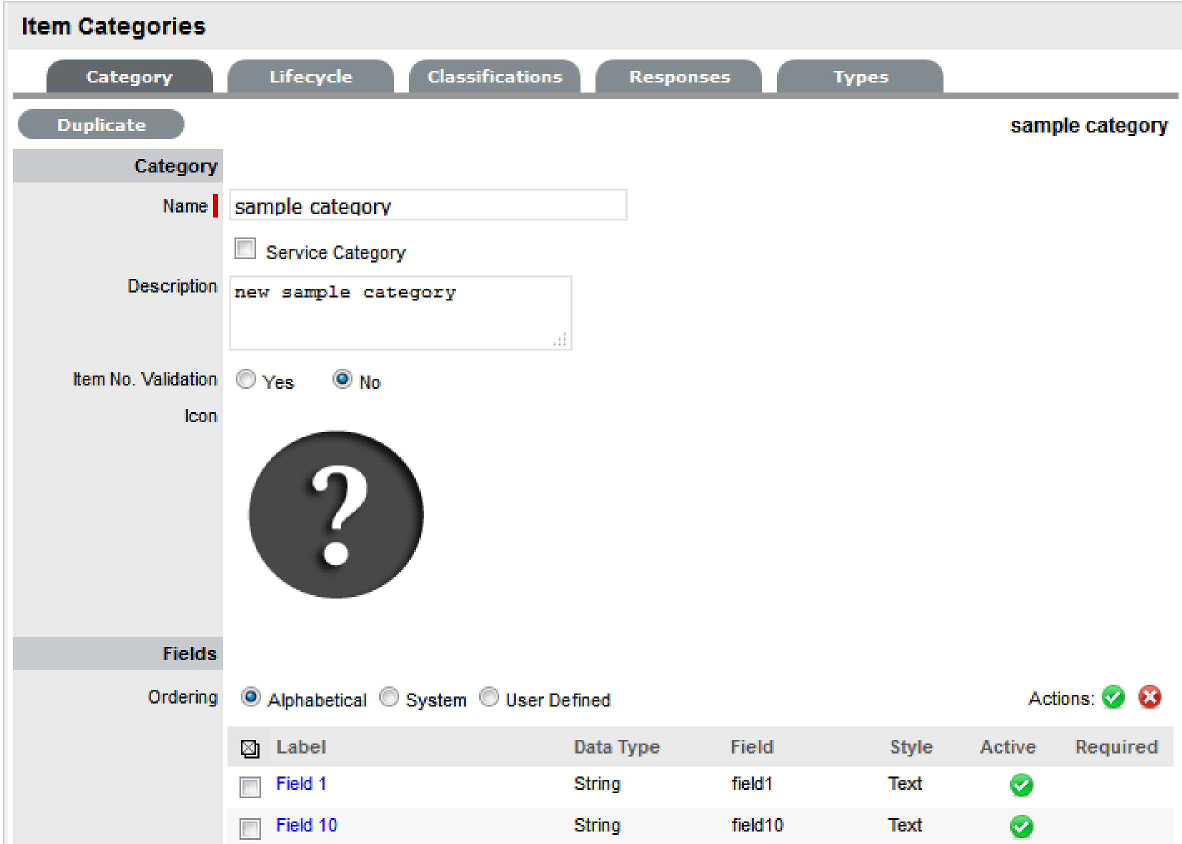
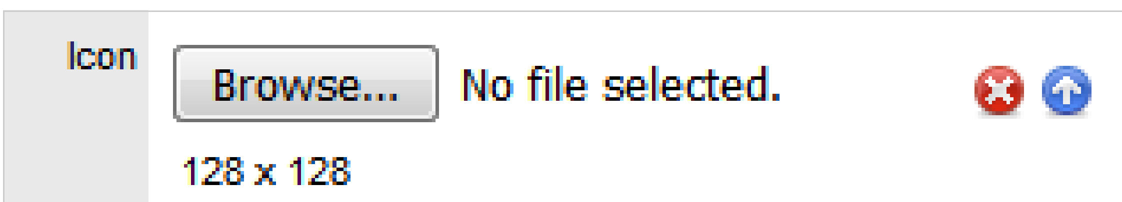


1. Select the icon to be replaced, to change the Icon image for the Item Category

   This icon is used as the generic visual representation of the Item Category in the Relationship Map. This can also be refined at the Item Type level.

   Use the  to upload a new image or  to cancel the upload.

   NOTE: The dimensions of the uploaded icon must be exactly 128 x 128 pixels

2. Customize the Field Labels

   Custom fields are visible in the Details tab of Items that use the Category.

   Click the Field Label link to open it in Edit mode and display the following options:

3.

Categories Fields	Description
Category	

Categories Fields	Description
Field Label	The name defines what attribute information is to be recorded in the field.
Active	Indicates if the field will be visible in the Details tab of an Item.
Required	Indicates if the field is required or mandatory field.
Customer Visible	Defines if the Customer can see the field within the Customer Portal. If Yes is selected, define if the Customer can edit the field information on the Customer Portal.
Data Type	Dictates the field's Data Type. The options available include : ◆ String - List or Free Text ◆ Number ◆ Boolean - radio buttons for Yes/No and True/ False ◆ Date - creates a date field ◆ Currency- creates a currency field ◆ Hyperlink.
Style	States the style of the field. eg. String- List or Free Text field. SeeLists for more information on creating a list field type.
Unique Value	When active, the system prevents the duplication of data within the customized field.
Default Value	Value entered is the default system entry for the field, when the field is not completed manually.
Input Validation	When enabled the Input Mask and User Mask can be defined. *Input Mask* : A regular expression to use for data validation of values entered by a User (i.e., Zip/ Post Code, telephone no.) *User Mask*: A "User Friendly" representation of the Input Mask that Customers can understand should it appear in a validation error message.
Enable Description	When enabled a Description field appears, allowing the User to enter details of what information is the field is expected to capture. These details are accessible next to the custom field on the relevant screen.

4. Click Save to complete the field label configuration

Continue to customize all fields as required.

5. Define the ordering preference

   The option defined here dictates how the fields appear on the Item Details tab.

   To move a field, select the checkbox beside the field label followed by the to move the label up and down the list. To multi-select fields, tick the checkboxes beside the label name and click to activate or to deactivate the fields.

   The field order can be set to:

   - Alphabetical - the fields will be presented according to the alphabet order of the first letter.
   - System - the fields will appear in the order they are entered into the system.
   - User Defined - the fields can be manually adjusted by the User using the system buttons.

6. Click Save.

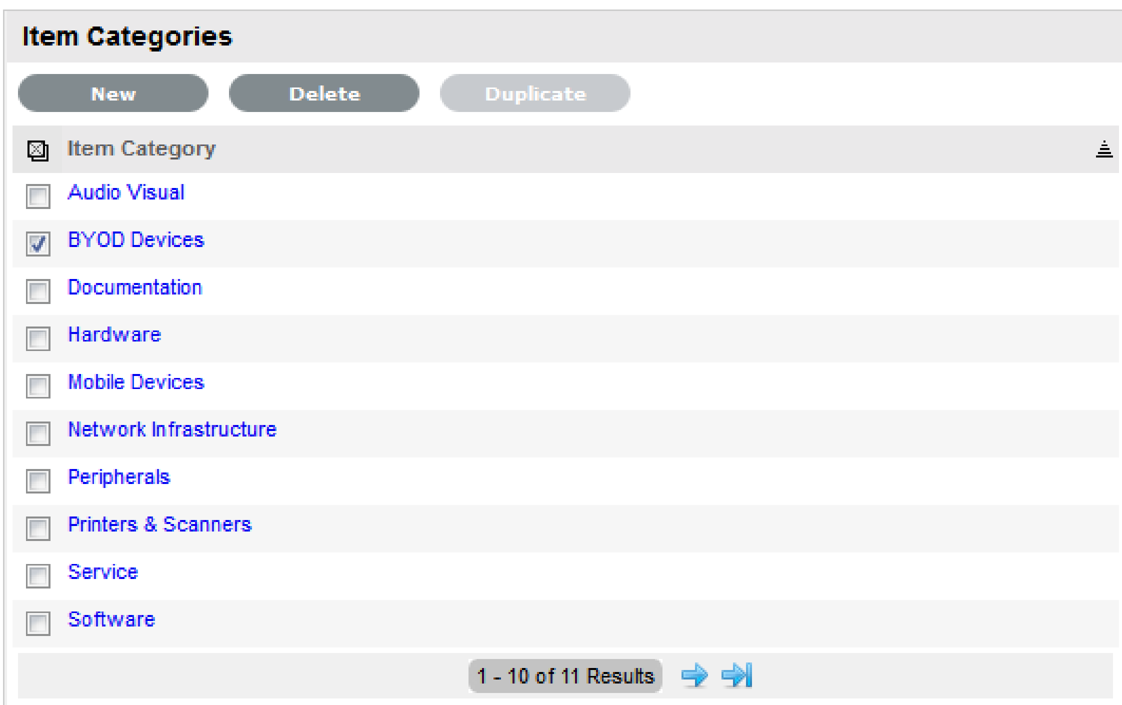
   Modify the Category Lifecycle,Classifications, Responses and, if the system is synched with more than one asset management discovery tool the Federated templates, if necessary.

Duplicating a Category

To fast track the creation of an Item Category, each can be duplicated.

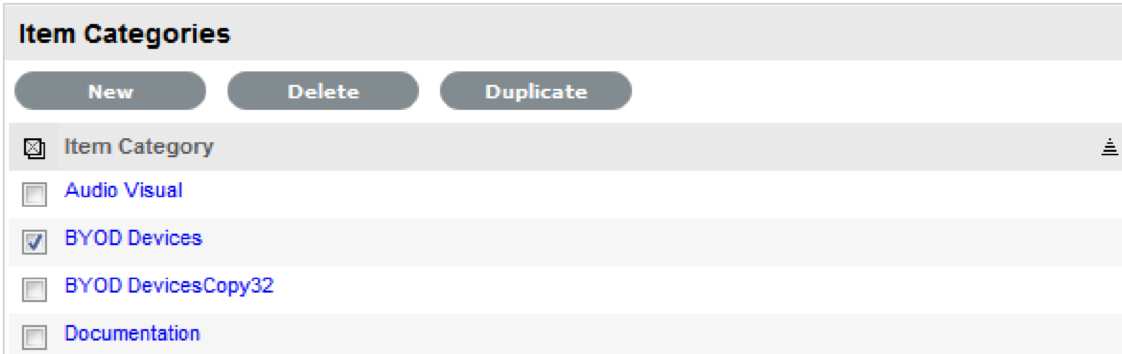
To duplicate an existing Category:

1. Select Configuration>Categories
2. Tick the box to the left of the Category name



3. Click Duplicate

A new Category hyperlink is added to the Category list. The new Category will contain the same custom fields, lifecycle and classifications of the original Item Category.



4. Modify the new Category as required.

Editing and Configuring an Item Category Template

After an Item Category has been duplicated it can be modified to represent the new Item Category.

To edit a Category:

1. Select Configuration>Categories
2. Click on the appropriate hyperlink

   The screen defaults to the Categories>Categories tab.
3. Click Edit
4. Enter the name of the new Category
5. Complete the Description

   Content entered in this field is visible when the User scrolls over the Category Name in the Item Category list.
6. Click Save

   The Item Categories screen expands to display the options to upload an Item Category icon and customize Field labels.

NOTE: The Item No. Validation option is displayed, if the Admin>Setup>Privileges>System> Edit Item Numbers is set to Yes. This displays the Input Mask and User Mask fields, which are explained in the Categories Fields table at Point 9.

---

1. Check the Service Category field if the template is to be used for a Service Item

   Ticking this option, displays the Portfolio Team drop-down list, ifService Portfolio Teams have been created within the application. This allows Groups within the Service Portfolio Team to be assigned to the different stages of the Item Lifecycle, and activates Service Catalog Management functionality within the Cost Tabs of Types and Items that use the template.

NOTE: Customers cannot create Items using Item Categories that have the Service Category option enabled

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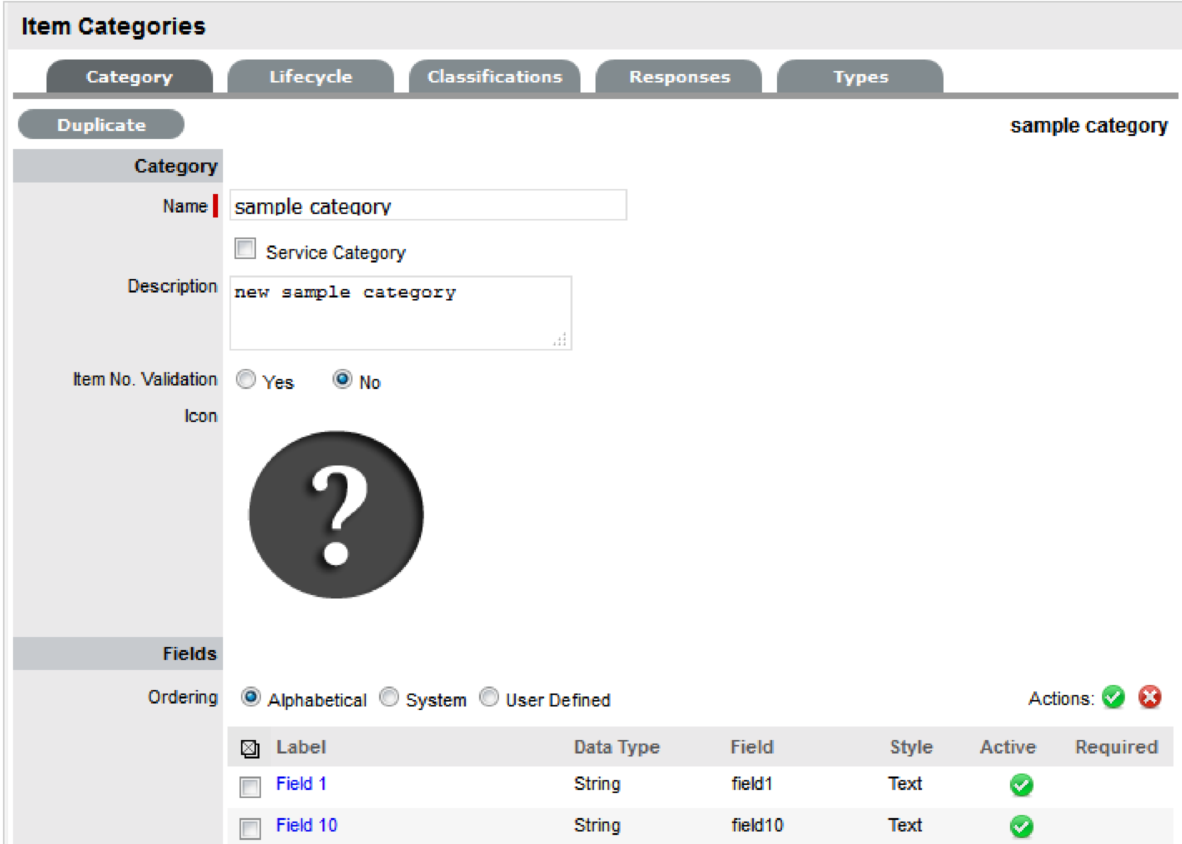
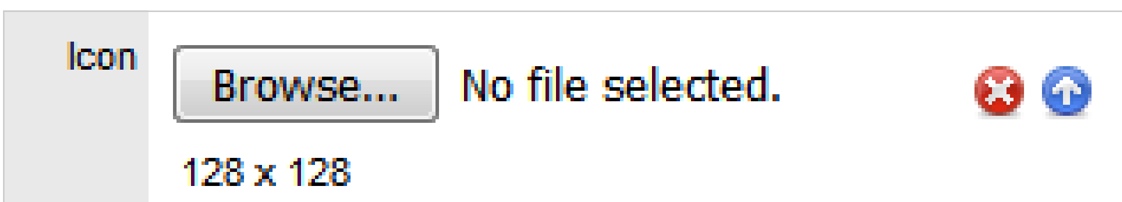


1. Select the icon to be replaced, to change the icon image for the Item Category

   This icon is used as the generic visual representation of the Item Category in the Relationship Map. This can be refined at the Item Type level.

   Use the Upload to upload a new image or Cancel to cancel the upload.

NOTE: The dimensions of the uploaded icon must be exactly 128x128 pixels

Version 7.0 will not apply these icons in the Relationship Map, but they will be used in a future release

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1. Customize the Field Labels

   Custom fields are visible in the Details tab of Items that use the Category.

   Click the Field Label link to open it in Edit mode and display the following options:

2.

Categories Fields	Description
Category	
Field Label	The name of the field.
Active	Indicates if the field is active.
Required	Indicates if the field is required or mandatory field.
Customer Visible	Defines if the Customer can see the field within the Customer Portal. For a Service Category, if it is relevant to display costs or other specific details regarding a Service on offer in the Services Tab of the Customer Portal, then set relevant attribute fields to being Customer Visible.
Data Type	Dictates the field's Data Type. The options available include : ◆ String - List or Free Text ◆ Number ◆ Boolean - radio buttons for Yes/No and True/ False ◆ Date - creates a date field ◆ Currency- creates a currency field ◆ Hyperlink.
Style	States the style of the field. eg. String- List or Free Text field. SeeLists for more information on creating a list field type.
Unique Value	When active, the system prevents the duplication of data within the customized field.
Default Value	Value entered is the default system entry for the field, when the field is not completed manually.
Input Validation	When enabled the Input Mask and User Mask can be defined. *Input Mask* : A regular expression to use for data validation of values entered by a User (i.e., Zip/ Post Code, telephone no.) *User Mask*: A "User Friendly" representation of the Input Mask that Customers can understand should it appear in a validation error message.

Categories Fields	Description
Enable Description	When enabled a Description field appears, allowing the User to enter details of what information is the field is expected to capture. These details are accessible next to the custom field on the relevant screen.

3. Click Save to complete the field label configuration

   Continue to customize all fields as required.

4. Define the ordering preference

   The option defined here dictates how the fields appear on the Item Details tab.

   To move a field, select the checkbox beside the field label followed by the to move the label up and down the list. To multi-select fields, tick the checkboxes beside the label name and click to activate or to deactivate the fields.

   The field order can be set to:

   - Alphabetical - the fields will be presented according to the alphabet order of the first letter.
   - System - the fields will appear in the order they are entered into the system.
   - User Defined - the fields can be manually adjusted by the User using the system buttons.

5. Click Save.

   Modify the Category Lifecycle,Classifications, Responses and, if the system is synched with more than one asset management discovery tool, the Federated templates, if necessary.

1.26.2 Item Reconciliation

The Reconcile Based On option is available only for the mobile devices and hardware. You can select any unique field as the reconciliation field so that the configuration management system ensures and maintains it as a unique item.

- Select any unique field as the reconciliation field in the Reconcile Based On drop-down.

To make a field unique, select any field (Example: MAC Address, IMEI Number or Serial Number) on which you want to reconcile the item and make it unique by selecting the Unique Value checkbox.

NOTE:
- Item Reconciliation is applicable only for Item Import through ZENworks Import.
- If the Service Desk already has duplicate items, then those items will not be reconciled.

1.27 Service Item Costs Tab

The Costs Tab of a Service Item includes information related to the financial and contractual details associated with the Item. The information more specifically related to the Service Item is recorded in the Charges and Revenue fields, as this information allows service and support organizations to calculate the costs of offering a service and if appropriate, recover the costs from the relevant parties.

As with other Item Types, the screen includes general Item details such as:

- Base cost
- Purchase date and related information
- Depreciation data
- SLA and Contract details.

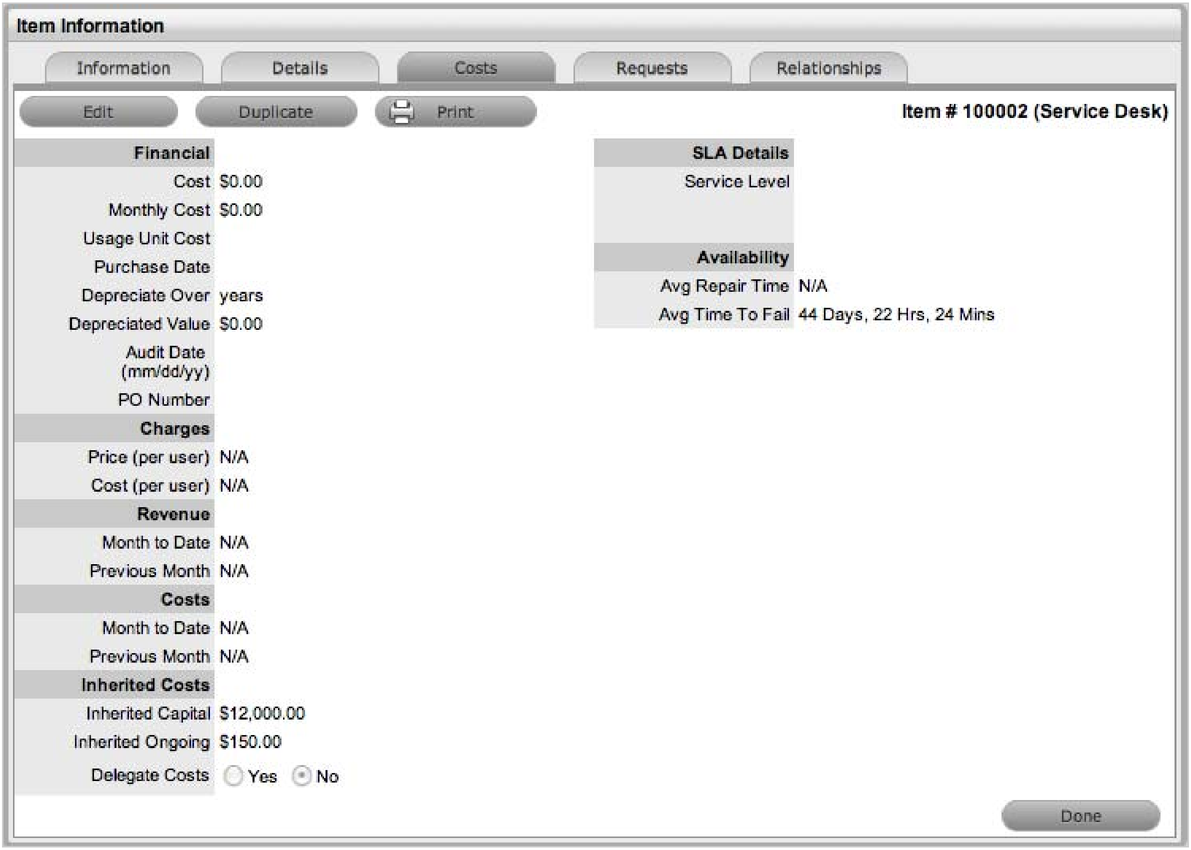
The Information recorded on the Costs Tab includes:

Financial	Description
Cost	The financial investment made to purchase the Item. This figure is also used when the Delegate Costs is enabled for allocating costs across related Items. **NOTE:** Typically for Service Items, the infrastructure costs would be zero as this would be derived from the associated Parent Items.
Monthly Cost	The amount invested on a monthly basis to maintain the running of an Item. This figure is also used when the Delegate Costs option is enabled for allocating costs across related Items.
Usage Unit Cost	This is used as a reference field, where the User can enter base unit cost, for example per Megabyte data charge, which can be used for calculating costs in custom reports.
Purchase Date	The date the Item was purchased.
Depreciate Over	Enter the number of years the Item is to be depreciated over, if required.
Depreciated Value	The system calculates the current value of the Item based on the Purchase Date and the number of years the Item is to be Depreciated Over.
Audit Date	Set the date the Item is next to be audited.
PO Number	If Purchase Orders are enabled for the system, the field is visible and automatically populated with the PO number generated by a User within the Finance>Purchase Orders tab, when the Item order was recorded in the system.
Charges	

Financial	Description
Price (per user)	Draws the figure from the Service Item Type Costs tab and displays this as a daily amount. This figure is then multiplied with the number of Users/Customers assigned to the Item, to calculate the forecasted Revenue.
Cost (per user)	Draws the figure from the Inherited Costs and displays this as a daily amount. This figure is then multiplied with the number of Users/Customers assigned to the Item, to calculate the actual Costs.
Revenue	
Month to Date	Uses the Charges Price figure, multiplied by the number of Users and days of month passed, to calculate the month to date figure.
Previous Month	A reference figure for an average monthly revenue figure, based on the previous month's revenue for the Service Item.
Costs	
Month to Date	Uses the Charges Cost figure, multiplied by the number of Users and days of month passed, to calculate the month to date Cost.
Previous Month	A reference figure for an average monthly cost, based on the previous month's cost for the Service Item.
Inherited Costs	
Inherited Capital	Total infrastructure costs of parent CI's that directly contribute to the cost of the Service Item. This figure is derived from all the Cost fields within the Item Information>Costs tab of related Parent Items.
Inherited Ongoing	Running costs of all associated Items that enable the Service Item to continue to function. This figure is derived from all the Monthly Cost fields within the Item Information>Costs tab of related Parent Items.

Financial	Description
Delegate Costs	To enable cost delegation across the relationship map allowing associated Items to inherit the costs of the current CI, select Yes. This will take the figures from the Cost and Monthly Cost fields for the Item and apply them across related Child Items. Define the technique to be used to evaluate the cost split: *Child Count*:Costs are split by percentage based on the number of child CI's the costs are being delegated across. *User Count*:Costs are split proportionally based on the number of users of the child CI's the costs are being delegated across. *Custom %*: The relationship itself allows for the % cost to be assigned
Availability	
Avg Repair Time	Entries displayed here are automatically calculated based on the average length of time an Item is offline.
Avg Time To Fail	Figures displayed here are automatically calculated based on the average time between an Item being moved to an offline State.

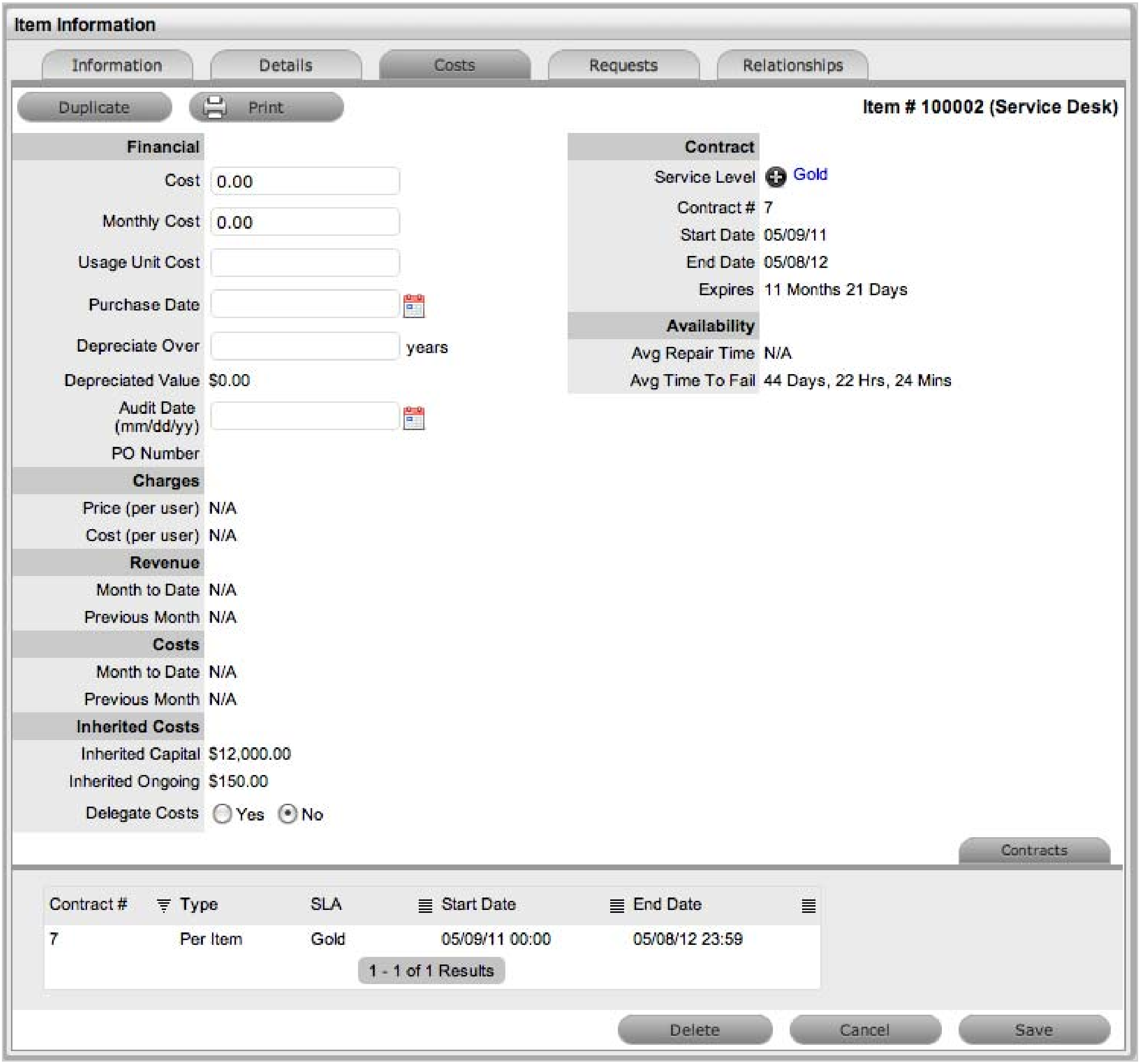
The figures displayed within the Availability fields are automatically calculated by the application, using the Item Lifecycle as it moves between online and offline States.



Completing the Depreciate Over field allows the application to automatically keep track of the Item depreciation over the specified number of years. The current value of the Item after depreciation is displayed at Depreciated Value. The Audit Date field is used to record the date when the Item was last audited.

1.27.1 Billing Enabled

When Billing is enabled, a Service Level hyperlink is available within the Costs screen. This provides access to the Service Level Agreement details that govern the lifecycle for Requests logged against the Item.



If Invoices are also enabled, an Invoice Number hyperlink is available and when selected, will display the invoice details for the Contract that covers the Item. The Start Date and End Dates stipulate the contract length covered for the Item. It is summarized by the days or hours recorded in the Expires field.

The Contract tab within the Item Information Costs tab summarizes the contract details that cover the Item. Further Contract details can be found within the relevant Contract Number within the Finance>Invoices screen.

1.27.2 Create a Contract

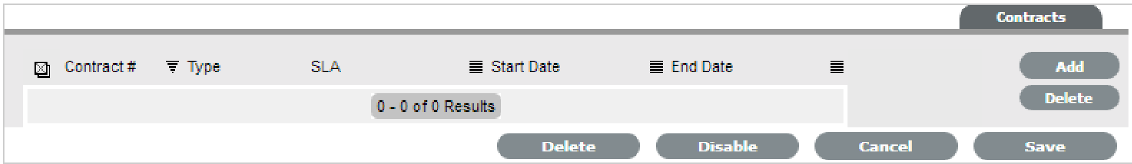
Through the Item Costs tab, Contracts with an associated Invoice Number (if relevant) can be generated for an Item, after it has been logged in the system.

To add a Contract to an Item, within the Configuration>Item screen:

1. Select the Item Number
2. Move to the Costs tab

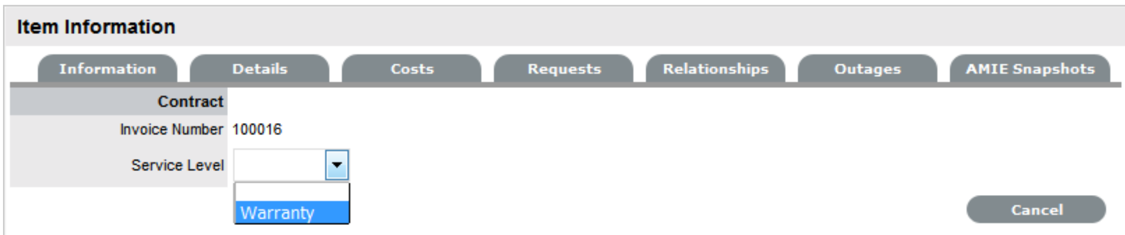
3. Click Edit

   The Add and Delete button are made available within the Contracts tab



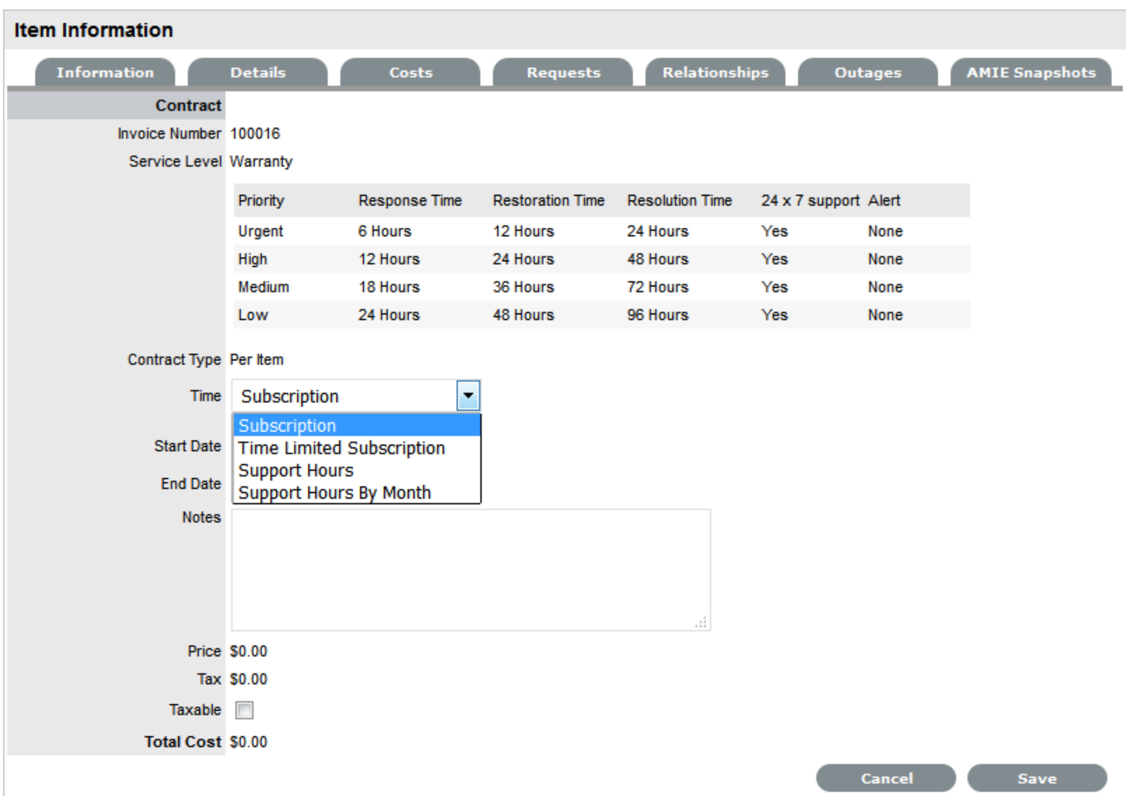
4. Click Add

   (If Invoices are enabled in the system, an Invoice number will be automatically generated and assigned to the Contract).



5. Select an SLA from the drop-down option

   The screen will display the SLA details and the Contract Type locked to Per Item.



6. Assign the Time period to be covered by the Contract

If *Subscription* is selected, the Start and End Dates are automatically completed by the system, but can be edited if required.

If *Time Limited Subscription* is selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually, entering the length of time for the subscription period.

If *Support Hours* is selected, the number of support hours purchased by the Customers should be entered.

If *Support Hours by Month* is selected, set the number of hours purchased per month and define which day of the month contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

(If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)

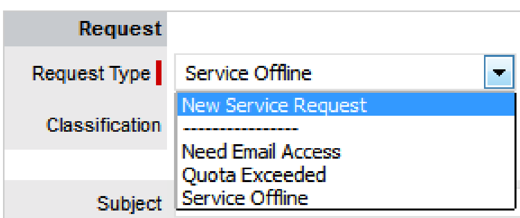
- Subscription - a contract that covers a specified period of time
- Time Limited Subscription - a contract that covers either a specified period of time or number of support hours, whichever limit is reached first
- Support Hours - a contract that defines the number of support hours covered.

7. Add any relevant Invoice Notes
8. Check the Taxable box, if the Contract is to be taxed
9. Click Save.

   (If Invoices are enabled in the system, an Invoice number will be automatically recorded for the Contract and made available within Finance>Invoices.)

1.28 Creating Custom Field Lists

Lists can be created as a data type option within custom fields across the application. The can be created for Item Category and Item Type custom fields, Classifications for requests and system-wide custom fields activated by an Administrator. Lists allow a User to create a series of entries for a custom field that will appear as a drop-down option list.

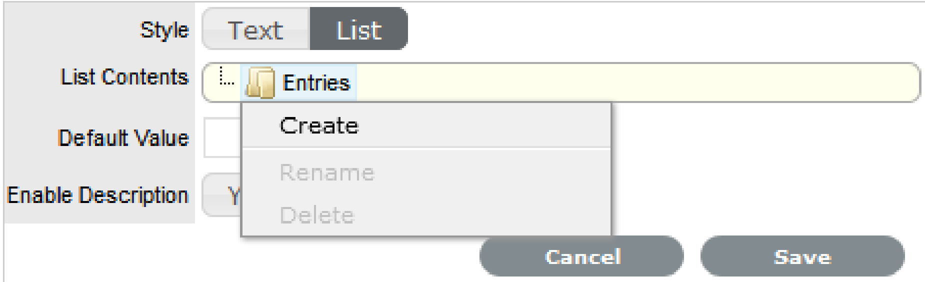


1.28.1 Creating a New List Entry

To create a new list entry within the List Contents field:

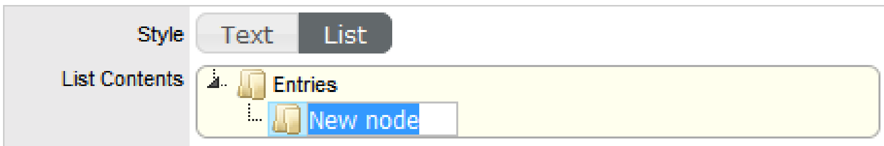
1. Right click the Entries link

   The Create option is displayed

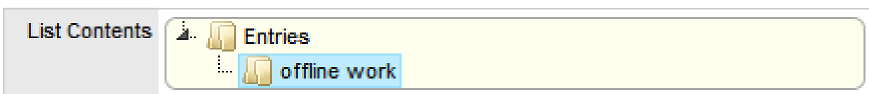


2. Click Create

   A New node link displayed

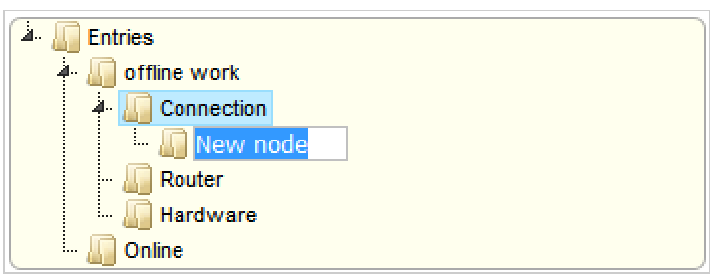


3. Enter the name of the field
4. Click outside the field to save the entry

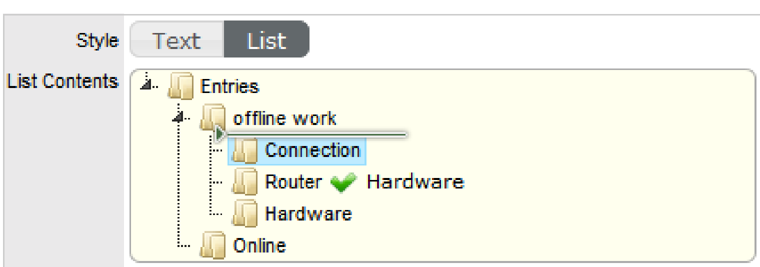


5. Repeat this process until all list entries have been added

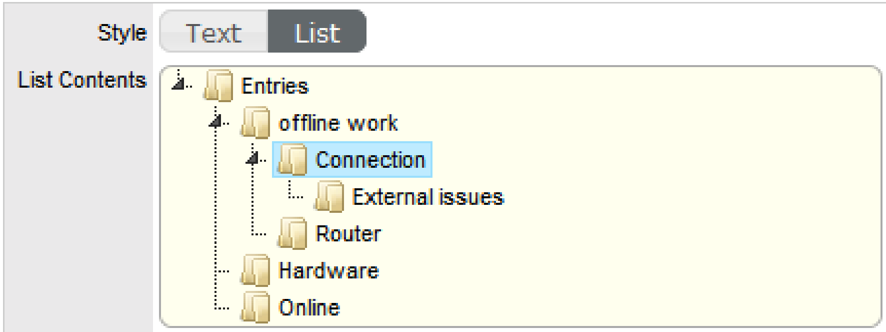
   To create a nested list, right click on the relevant list entry and repeat the above process.



6. To move an existing entry to a new position, select the entry, then drag and drop the entry into its new location



7. When all the relevant details have been defined for the custom field, click Save.



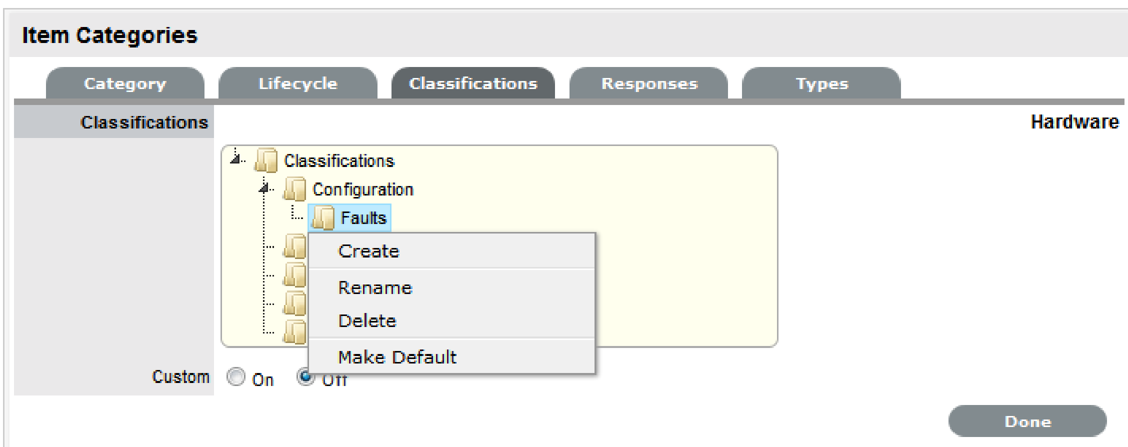
1.28.2 Creating Nested List Entries

List entries can be expanded to include nested options.

To create a nested list:

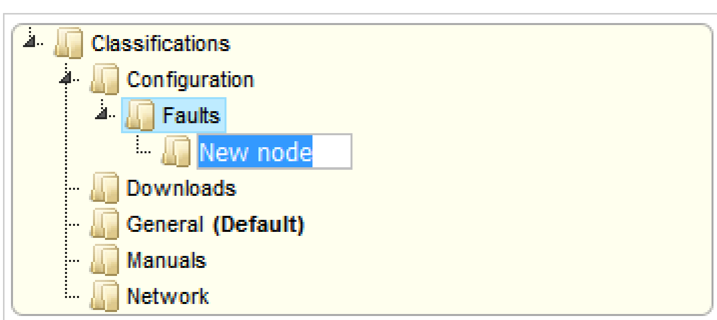
1. Right-click the relevant list entry header

   The Create, Rename, Delete and Make Default options are displayed.



2. Select Create

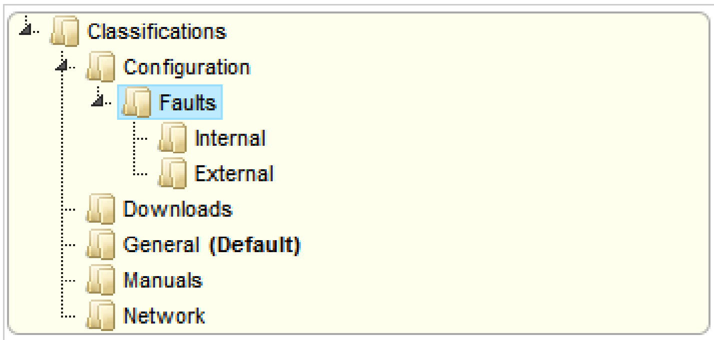
   A text box will appear under the list entry.



3. Enter the name for the list entry

4. Click away from the text box to commit and save the change
5. Move an existing list entry to a new position, if required

   Select the entry, then drag and drop the entry into its new location
6. The above steps can be repeated until the nested list is complete.

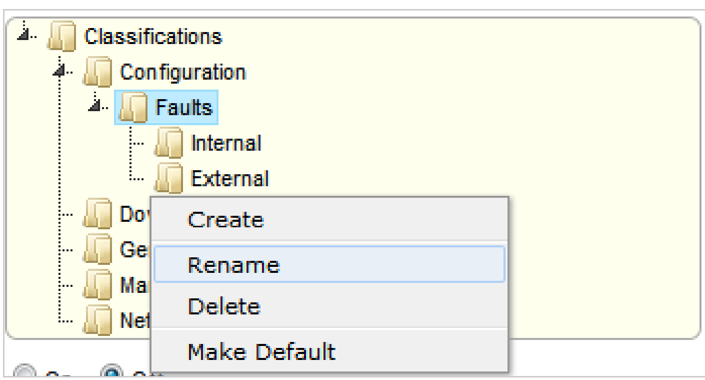


1.28.3 Renaming a List Entry

Any list entry can be renamed.

To rename a list entry:

1. Right-click the list entry link



2. Click Rename
3. Edit the field content
4. Click away from the text field to save the change.

1.28.4 Deleting a List Entry

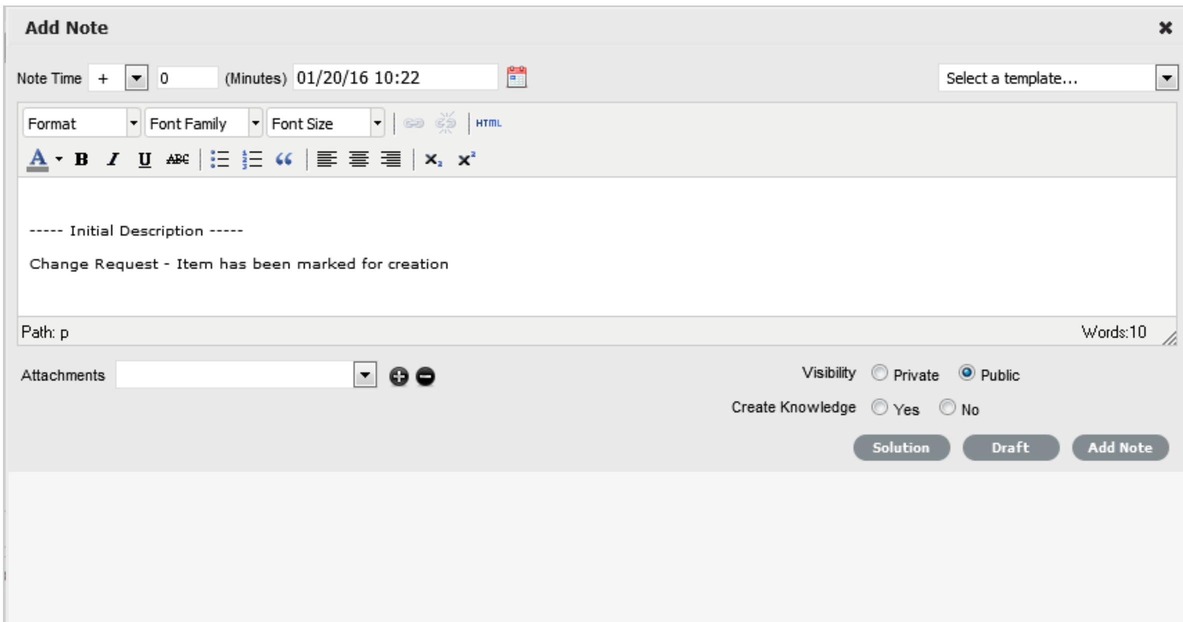
To delete a list entry:

1. Right-click the relevant list entry
2. Click Delete
3. Click Done when the list is complete.

1.29 Responses Templates

The Responses tab within an Item Category allows the Supervisor to define template replies for Notes sent related to requests received against the Item Category. This ensures the service desk responds to issues in a consistent manner, and in line with the support organization's policies and protocol. Additional templates can be configured within the Item Type>Responses tab. These templates are only available for requests related to the Item Type.

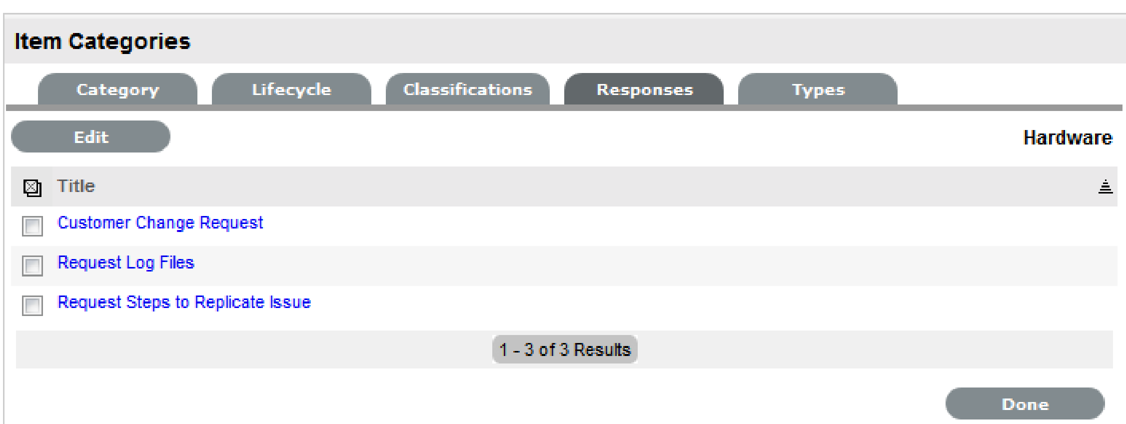
The following screen displays a list of default template options available within the Notes tab of a request:



1.29.1 Editing a Template

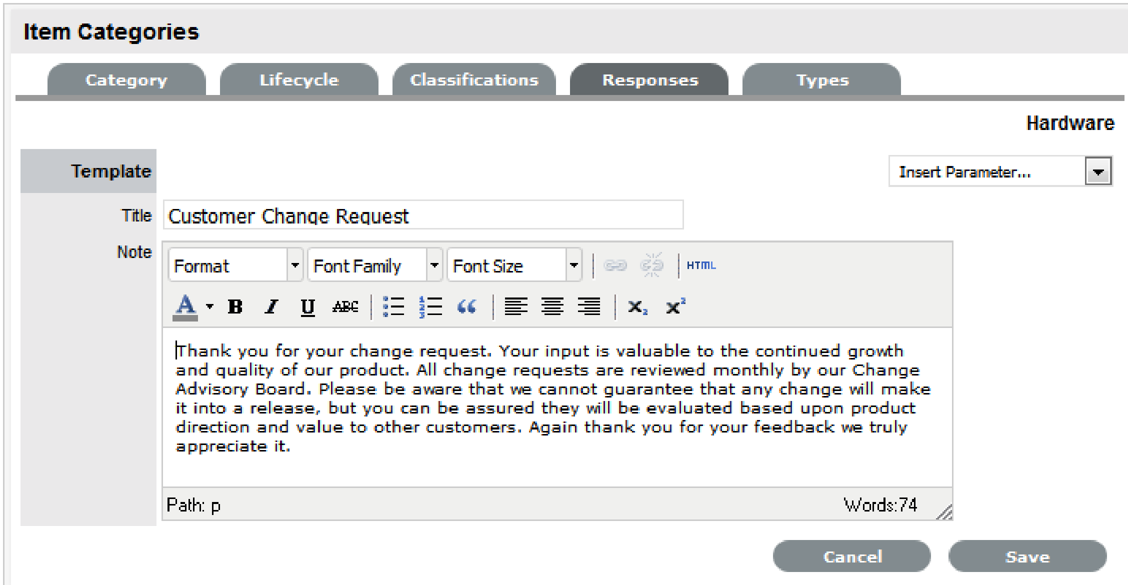
To edit a Response template:

1. Go to Configuration>Categories
2. Select the hyperlink for the relevant Category



3. Move to the Responses tab
4. Click Edit
5. Select the relevant Title hyperlink

   The template contents are displayed.

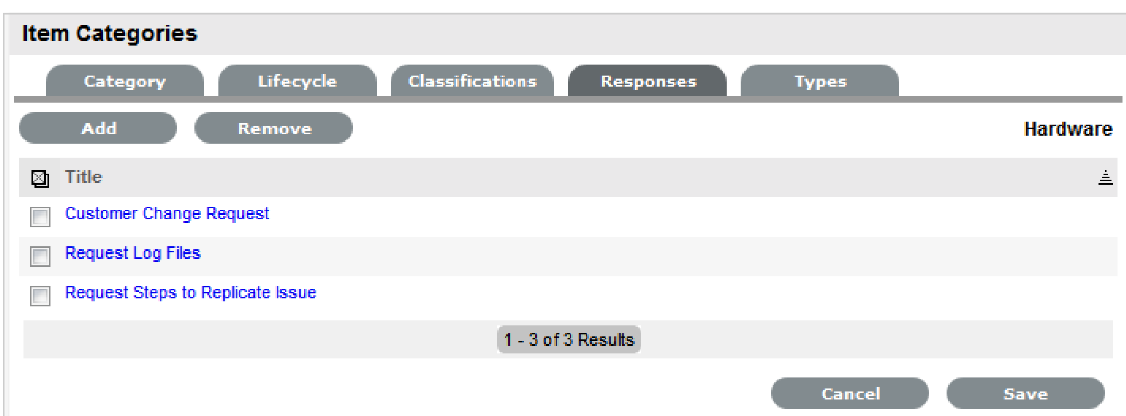


6. Amend the Note template and insert any relevant parameters
7. Click Save.

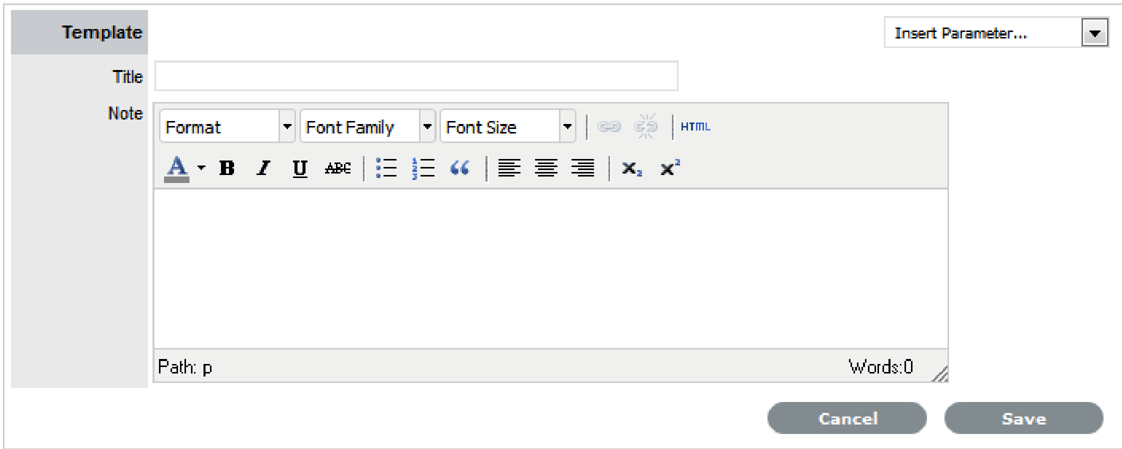
1.29.2 Adding a Template

To add a Note template:

1. Go to Configuration>Categories
2. Select the hyperlink for the relevant Category
3. Move to the Responses tab
4. Click Edit



5. Click the Add button
6. Enter the template Title

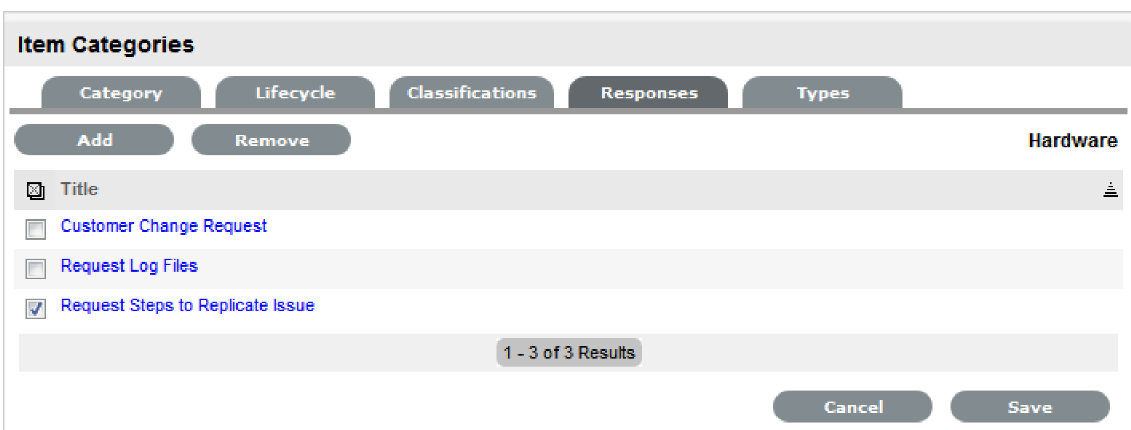


7. Complete the content for the Note and Save.

1.29.3 Deleting a Template

To delete a template:

1. Go to Configuration>Categories
2. Select the hyperlink for the relevant Category
3. Move to the Responses tab
4. Click Edit



5. Check the box in the column next to the template Title
6. Click the Remove button.

1.30 Federation Tab

(This tab is only visible when two or more asset management tools are synched within AMIE as configured in Admin>Setup> AMIE tab.)

The Federation tab is used to build the Category Map, which allows for information sourced from multiple asset management systems for a single asset to be recorded against one Item in the CMDB. Based on the map built here, fields within the Item Details tab are populated when AMIE snapshots are applied to new or updated Items.

1.30.1 Creating a Category Map

Within the relevant Category:

1. Go to the Federation tab
2. Click Edit

   The system will open each field to display the asset management tools that are configured within AMIE, in the Admin>Setup>AMIE tab.
3. Assign the asset tool source from the pop-up options for each field

   The Item Number, Item Type and Manufacturer are included for Categories.

NOTE: Defining a source for the Item Type and Manufacturer is mandatory

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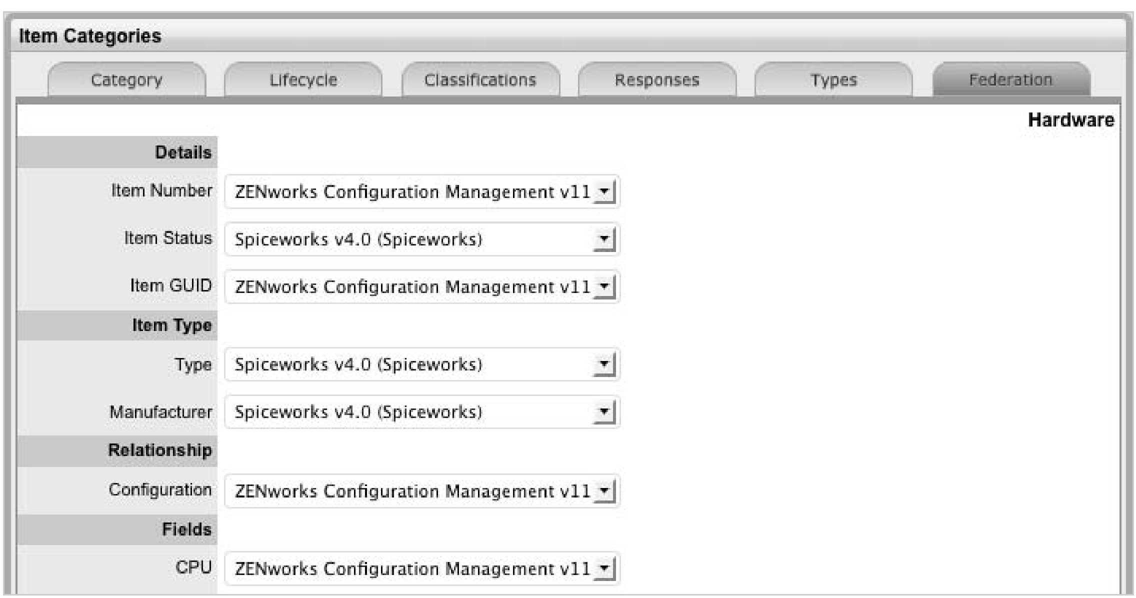
4. Complete one or two of the Snapshot Merge fields

   The Snapshot Merge fields are used by the system to verify the identity of an Item across the asset management tools configured in AMIE, when synchronizing Item Details from multiple sources.
5. Click Done.



1.31 AMIE Snapshots

The AMIE Snapshots submenu option is visible when at least one asset management tool is configured to be synched within AMIE as defined in the following:

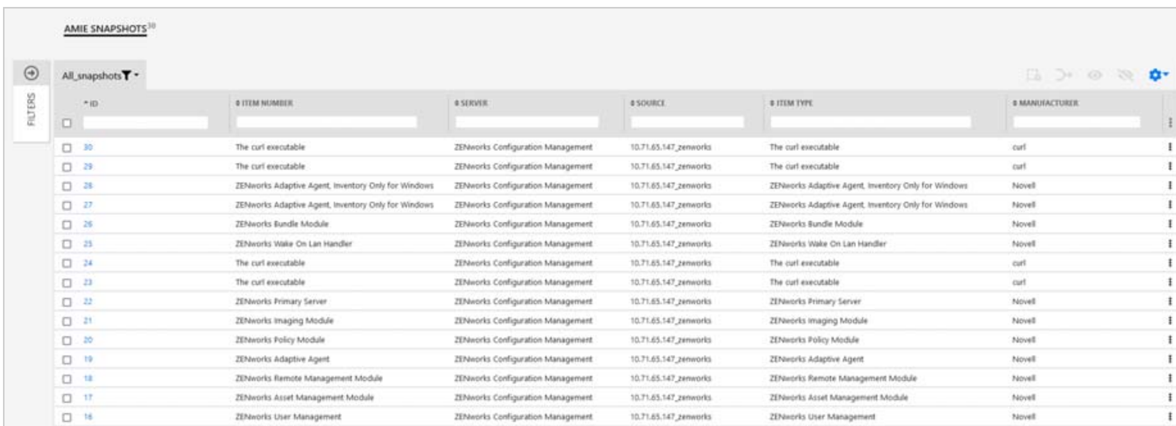
- Admin > Setup > AMIE > Setup tab

  OR

- Admin > Setup > ZENworks > ZENworks Import

The AMIE Snapshot submenu is also known as the staging area for building a federated CMDB, which is a CMDB that uses information sourced from multiple asset management repositories.

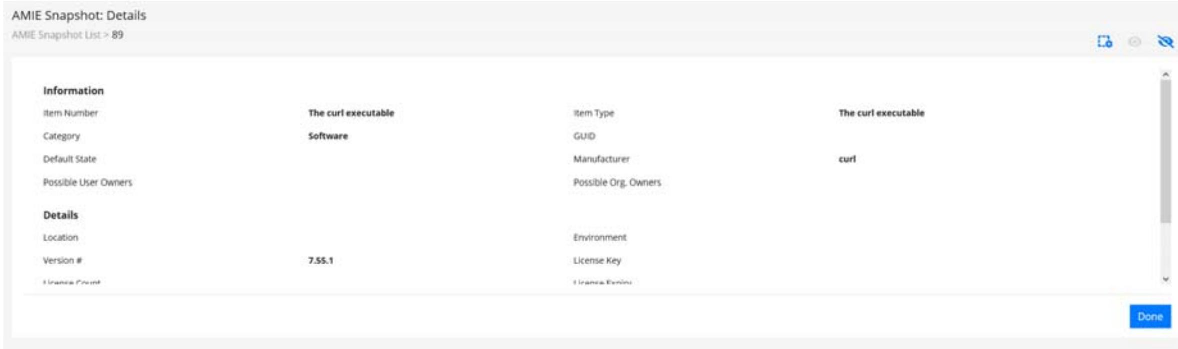
When the application is synchronized with multiple asset management tools and the automatic Item creation option is disabled in AMIE Import or ZENworks Import, the system creates an image or Snapshot of the asset information which is made available within the AMIE Snapshot tab. As different asset management tools may not record the same information for an Item, the Supervisor can combine the most relevant information from the different sources into the one Item within the CMDB, by merging snapshots created by the different tools using the Category Map configured for the Item Category. (See: Federation Tab.)



1.31.1 AMIE Snapshot Details

In the AMIE Snapshots list page, click any of the AMIE Snapshot IDs to view the snapshot details.

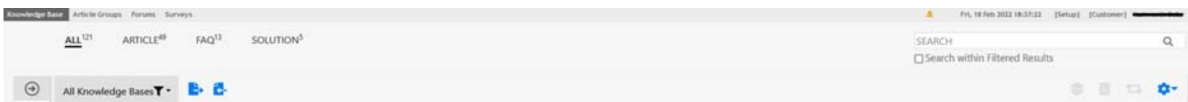
- Create a snapshot
- Hide the snapshot
- Unhide the snapshot

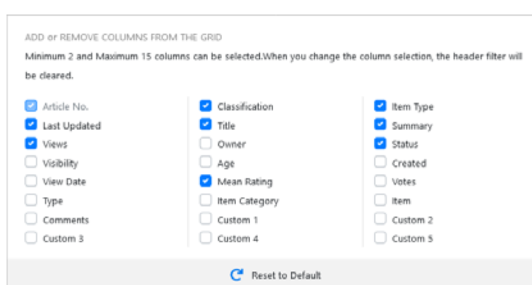


In the AMIE snapshot details page include actions that can be performed on the snapshot. Following are the actions that can be performed:

Actions

The following are the actions that can be performed in this page:



Actions	Description
Managing Columns	The columns displayed in the AMIE page can be rearranged, reordered and resized. ◆ To Rearrange the columns, drag and drop the column to the required position. ◆ To reorder the columns, click the column header. ◆ To resize the column width, position the cursor and hover over the column line so the cross becomes a double arrow, click, hold, and drag the mouse to increase or decrease the column width. ◆ To add or remove columns, click the icon, and then select the required field that should be displayed. Ensure that a minimum of 2 and maximum 15 columns can be selected. If you are adding or removing any columns, then the header filter will be cleared. 

Actions	Description
Row Actions	Each row in this page has its own set of actions. To view the actions, Click the kebab menu icon (vertical three dots). Following are some of the actions displayed: ◆ Create ◆ Enable ◆ Hide
Bulk Operations	Following are some of the bulk operations that can be performed in this page. Select one or more than one Knowledge Base, and then perform any of the following actions: ◆ Create: Use the Create button to convert a single Snapshot into an Item record in the CMDB. If the Item already exists in the CMDB, the pre-existing details will be updated. If it is a new Item, a new Item record will be created. To promote a single Snapshot into an Item in the CMDB, check the box next to the Id Number, and click the Promote button. ◆ Merge: Use the Merge button when multiple Snapshots of an Item are to be stored against a single Item record in the CMDB. Select the related Snapshots by checking the relevant boxes next to the Id Number, and click the Merge button. ◆ Enable: Use the Enable button to re-enable multiple snapshots that were hidden. Select the related snapshots by checking the relevant boxes next to the Id Number, and click the Enable button. ◆ Hide: Use the Hide button to hide multiple snapshots. Select the related snapshots by checking the relevant boxes next to the Id Number, and click the Hide button.

1.31.2 Item creation in the CMDB

When Item information is recorded in multiple AMIE Snapshots, the Supervisor can merge images into one Item within the CMDB by first conducting a search on key fields such as MAC Address or Network Name for Hardware, or Version Number and Parent Id for Software Items. To maintain relationship data between the Hardware and Software Items (i.e., Parent/Child relationships), the order of Item creation is important. Always create parents first, then children, or in other words, Hardware first then the Software.

After identifying and selecting the relevant Snapshots, by ticking the fields next to the Id#, click the Merge button to display a synthesized Snapshot Detail screen. The information displayed on the Snapshot Detail, and recorded against the Item, is based on the Category Map configured for the Item Category.

If the Control CMS via RFC is enabled in Admin>Setup>Privileges>System, merged or promoted Snapshots are not automatically created as Items in the CMDB, but generate a Change Request that will require approval before the Item is saved in the CMDB. If the option is disabled, when the Save button is selected, the Item is automatically created in the CMDB.

All AMIE Snapshots applied to an Item are removed from the AMIE Snapshot List View, when the list filter is set to display Unassigned Snapshots.

1.31.3 Searching and Filtering AMIE Snapshots

To search and filter the Knowledge Base, refer to the following sections:

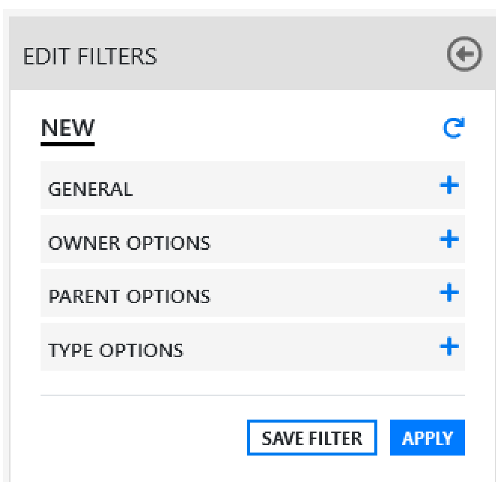
- “Column Header Level Search” on page 179
- “AMIE Snapshot Filter” on page 179

Column Header Level Search

Use the column header level search to search the data within the column to narrow down the result. This option is available for many columns.

AMIE Snapshot Filter

On the left-hand side of the Request page, the Filters panel is displayed. Using the options available in this panel, you can filter the unrelated data so that only the required data is displayed in the grid.

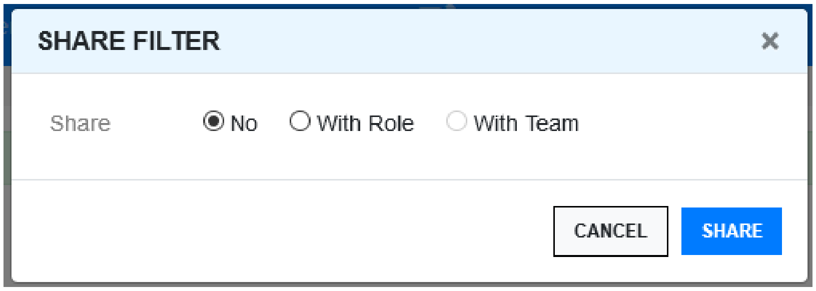


Search Parameter Options
Global Options

Search Parameter Options	
Snapshot Status	*All*: searches assigned and unassigned AMIE Snapshots. *Unassigned*: searches AMIE Snapshots that are not assigned to an Item. *Assigned*: searches AMIE Snapshots that have been assigned to an Item, and therefore not displayed in the List View. *Hidden*: searches through hidden AMIE Snapshots that have never been applied to an Item.
Server	Select a single server option to refine the search, or leave blank to search through all systems configured in AMIE.
Manufacturer	Enter Manufacturer details of the Item. This field supports partial text search.
Owner Options	
Username	Often the last logged in User for the Item. This field supports partial text search.
Org Unit	The Org. Unit owner for the Item. This field supports partial text search.
Type Options	
Item Category	Select a Category from the popup list to restrict AMIE Snapshots by the Item Category. A selection will display the custom fields for the chosen Category, which can be completed to refine the search.
Item Type	The Item Type of the Item. This field supports partial text search.
Parent Options	
AMIE Snapshot Id	Search on a parent AMIE Snapshot Id. This information is useful when merging children Items, such as Software.

Following are some of the actions that can be performed in this Filters panel:

- Apply Filters: After making the required modifications to the filter panel, click Apply to view the results.
- Reset Filter: To reset the data displayed in the grid and clear the filter fields, click the icon.
- Save Filter: After modifying the filters, if required, you can save the filter for future use. To save the filter, click the Save Filter button.
- Load Saved Filters: To load or apply the saved filters, click the filter list panel, and then select the required filter.
- Share Filter: To share the filter, click the share icon, and then select the required option in the displayed pop-up.



The available options are:

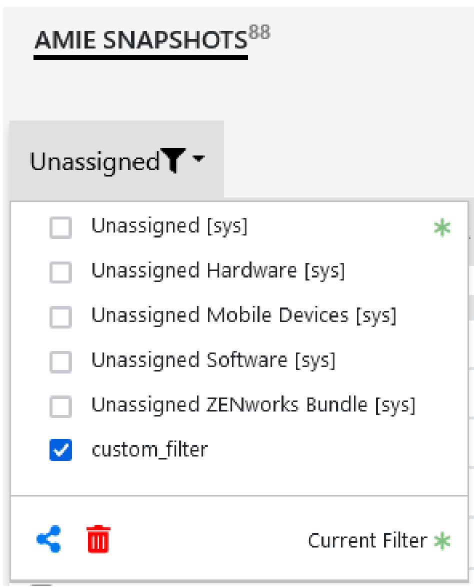
— No: Select this option to stop sharing the filters that was shared earlier.

— With Role: Select this option to share the filter with those who have same roles.

— With Team: Select this option to share the filter with your team.

- Delete Filter: Click the Delete button to delete the filter.

NOTE: Only the custom filters can be shared and deleted.



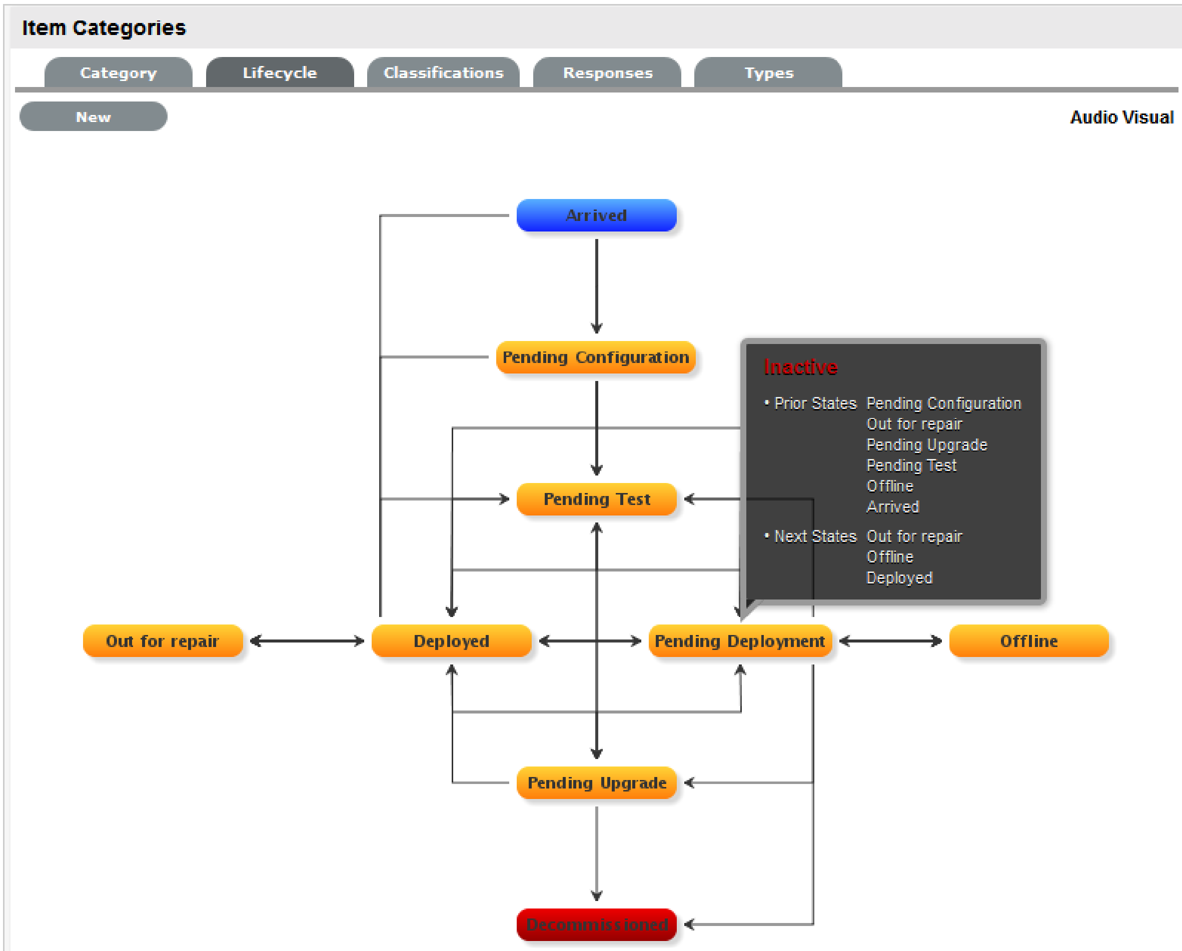
1.32 Category Lifecycle

The Lifecycle details the stages of life for a Configuration Item. This allows Items to be tracked from the conceptualization/purchase stage through to being decommissioned/discarded, and can be used to indicate availability levels throughout the Lifecycle.

The States configured here are used within the Item information screen and allow the User to easily see if an Item is at a start or end point of its life, whilst also indicating if the Item is available or not. If an Item is moved to an Offline state, this information is also used on the Outage pages, for easy reference.

By default, the system is installed with some pre-defined Lifecycles, which are displayed with the three types of States:- Previous, Current and Next. Based on the configuration of the Current State, the listings displayed in the Previous or Next column show where an Item can move to from the Current State.

If the default Lifecycles do not match the requirements of the service and support organization, they can be customized. To avoid confusion, it is suggested that the default Lifecycle States be erased completely if they are not relevant to your organization.



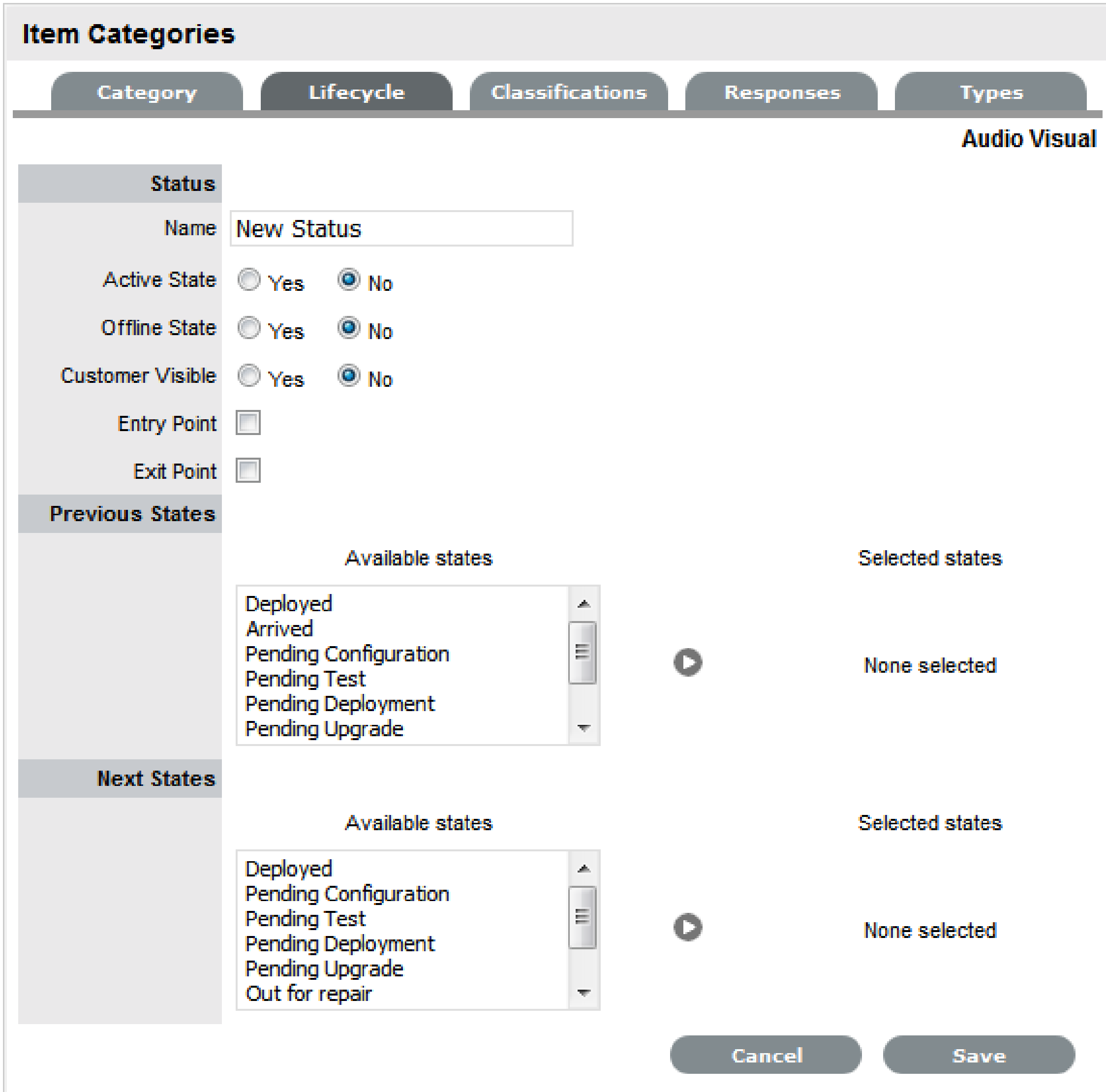
1.32.1 Creating a Lifecycle

NOTE: It is recommended that all Lifecycle States be written down and mapped before this process is started.

---

1. Select Configuration>Categories
2. Click on the Item Category hyperlink
3. Move to the Lifecycle tab
4. Click the Current State hyperlink to edit the State, or, click New to create a new transitional State

The States/Status screen appears.



5. Rename the State as required
6. Complete the State configuration:
7.

	Description
Status	
Name	Enter the name of the Lifecycle State.
Active State	Stipulates if the Item is Active, when assigned this State.
Offline State	Only visible when Active is set to No. Indicates if the Item is offline and inactive. Items moved into states where this is enabled, have availability metrics calculated.

	Description
Customer Visible	When selected, Items in this State are visible in the Customer Portal
Pre-production State	Only visible for Service Category lifecycle states. Items that use this state are available within the Service Pipeline filter view of the Configuration>Items tab.
Entry Point	An Entry Point is used to indicate the start of a Lifecycle. To make the state a Workflow Entry Point, select the Entry Point checkbox. As the Entry Point is the first state, the Previous States field will be removed.
Exit Point	Select whether the state will be an Exit Point. An Exit Point is used to indicate the end of a Lifecycle.
Listener Class	This field is visible if the Outbound Webservices option is enabled in the Admin>Setup>Privileges>System tab. Complete this field, if assigning an Item to this State is to trigger an event in an external system. This field should contain the name of a Java class that implements the interface com.livetime.ws.listen.LifecycleListener that has been compiled into a jar file and added to the LiveTime classpath. Please contact support for further details.

NOTE: It is advised Users enter the list of all States, before defining any relationships to Previous or Next States

1. To return to the Lifecycle Current State list, save the updated State information
2. Continue editing, adding or deleting States until all relevant transitional States exist within the Lifecycle

   After each Lifecycle State has been configured, the Lifecycle itself should be mapped.
3. Select a Current State hyperlink to configure the Previous State or Next State options,

Using all Available States entered in the Lifecycle, define the status direction options of an Item that uses this Item Category template.

4.

	Description
Status	
Previous States	If the State is not an Entry Point, use the arrow button to select Previous States from the Available States.
Next States	If the State is not an Exit Point, use the arrow button to select the Next States.
Available States	Lists all the possible States that can be included in the Lifecycle.
Selected States	Lists the states that have been included as a Next or Previous State of the Lifecycle.

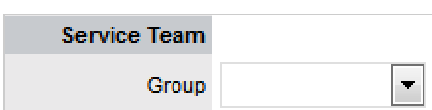
NOTE: When a State is used as a Previous or Next State, it allows an Item to move forward and backward in a Lifecycle

An Entry Point State cannot have any previous States and an Exit Point State cannot have any Next States.

1. Highlight the relevant States in the Available States box
2. Click the arrow pointing towards the Selected States box

3. When all States have been allocated, click Save
4. Save the assignment, and complete the process for all stages of the Item Lifecycle
5. Customise settings if editing a Service Category

   Assign a Group within the associated Service Portfolio Team, this will allow these Users to edit the Item details when assigned this stage of the Category Lifecycl



6. Click Save.

   Move to the Classifications tab, to define request Classifications for the Item.

1.32.2 Deleting a State

It may be necessary to delete a system default State or a State that is no longer in use. Note that a State cannot be deleted if it has been assigned to an Item.

To delete an unused State:

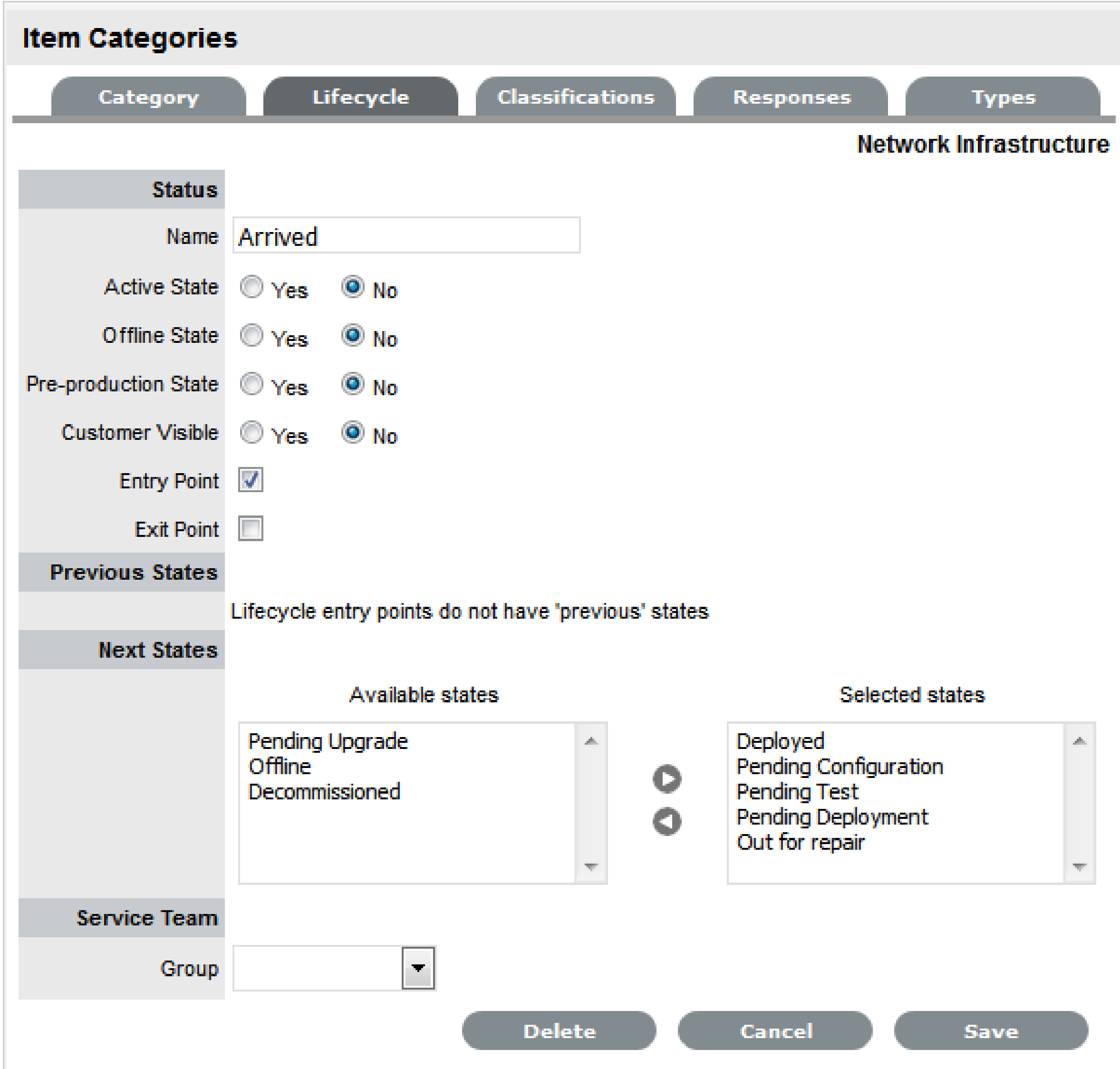
1. Select Configuration>Categories
2. Click on the Item Category hyperlink
3. Move to the Lifecycle tab
4. Select the Current State link
5. Click Delete.

Item Lifecycle Example

In this example the Item Category Hardware has a Lifecycle State of Arrived. This State is inactive and an entry point. Items assigned this State would not be visible on the Customer Portal.

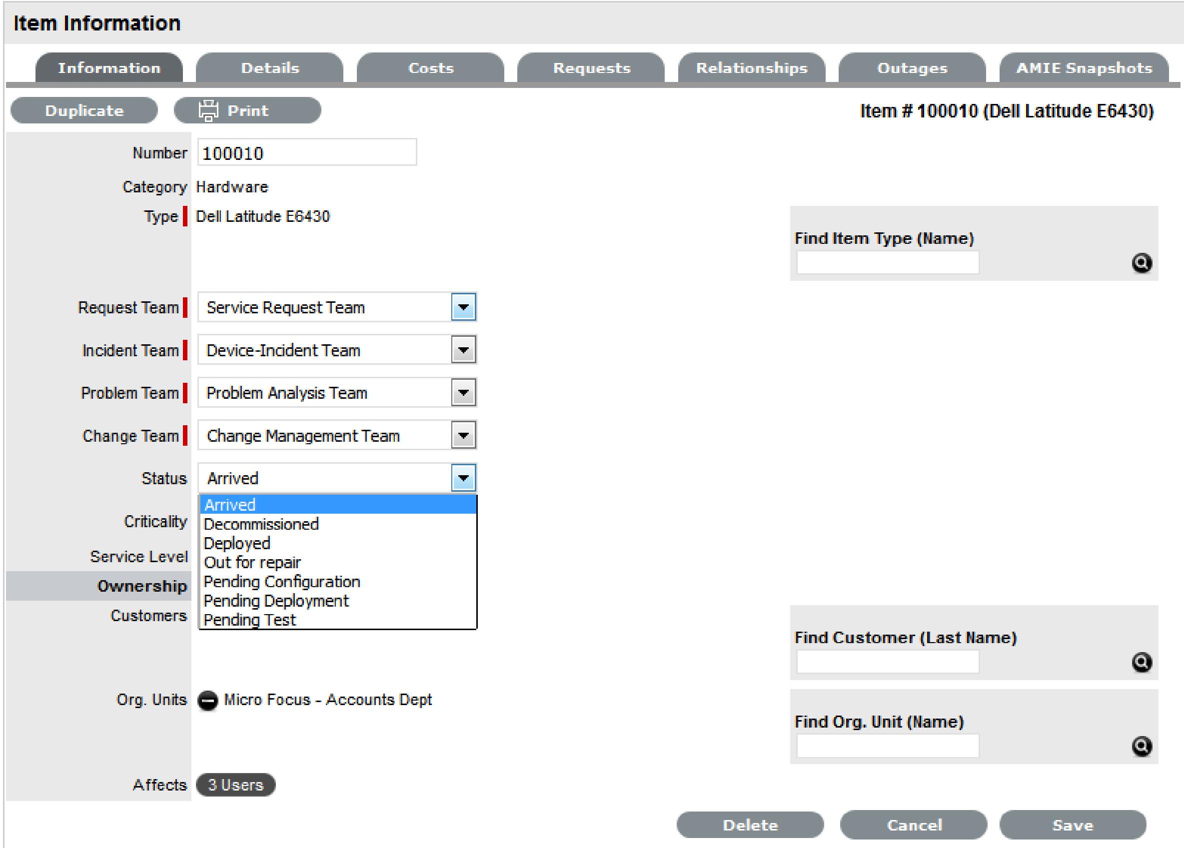
After this State is assigned to an Item, the next State that the Item can move to is any of the States listed within the Selected States list (i.e., Deployed, Pending Configuration, Pending Test, Pending Deployment or Out for Repair).

Setting up the Lifecycle Status "Arrived"



1.32.3 Assigning the Lifecycle Status of Arrived to an Item with the Category Hardware

NOTE: The Item Status list contains all the States defined as Next States for the Arrived Status.



1.33 Category Classifications

A list of Classifications used to define issues are created within this tab and used as the generic Classification for requests logged against Items that apply the Item Type Category being configured. The Classifications are also used by the system for proactive Incident analysis and Problem groups.

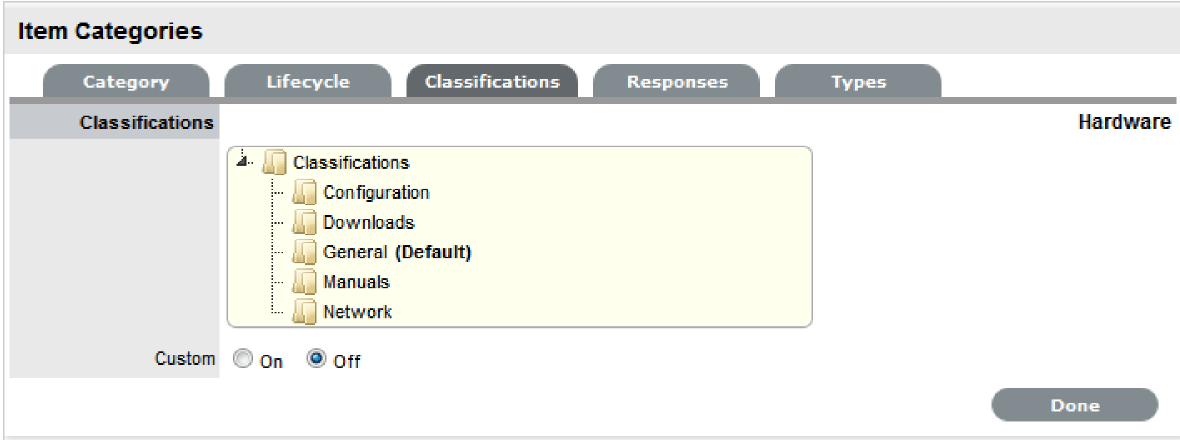
Supervisor Users can define additional Classifications for specific Item Types, within the Configuration>Categories>Item Categories>Classification tab.

The system is installed with several default Classification Type Categories, which can be edited if required.

NOTE: The General Classification is owned and used by the system and cannot be deleted. It is also advised that this Classification not be renamed, as this is the Classification assigned to requests when they are created via email.

1.33.1 Classification Tab

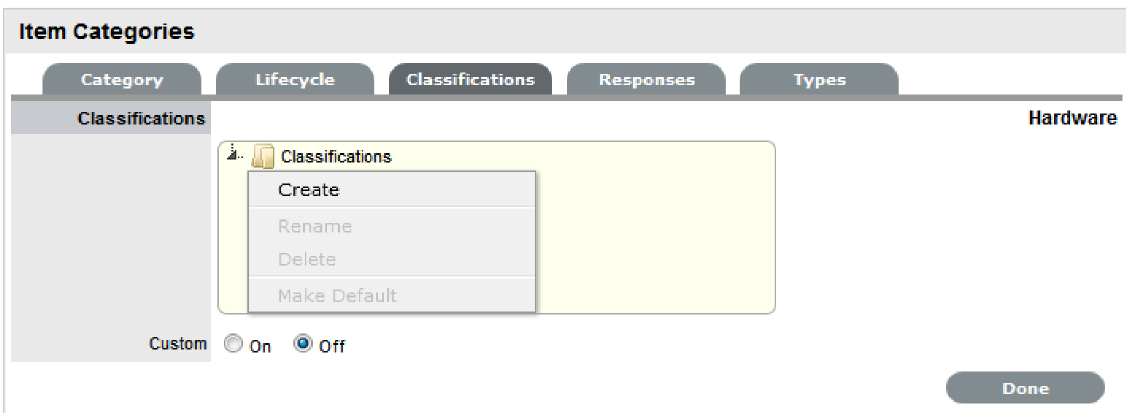
Additional Classifications can be created for each Item Category, while the system provided Classifications can be renamed or deleted. The Custom facility, when enabled, allows Users to add Classifications during the request creation process.



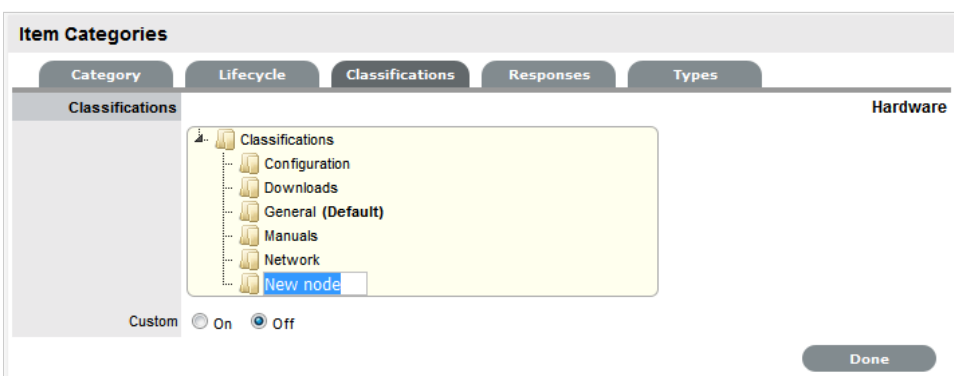
Creating a New Item Category Classification

To add a new Classification:

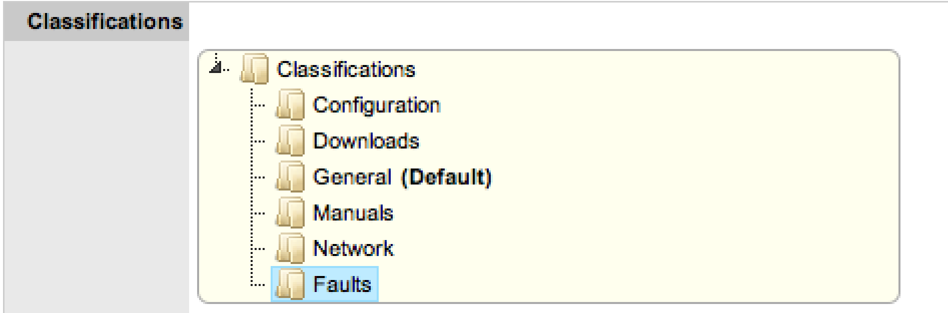
1. Select the Classification tab of an Item Category
2. Right-click on the Classifications header
3. Select Create



4. Enter the details in the newly created node

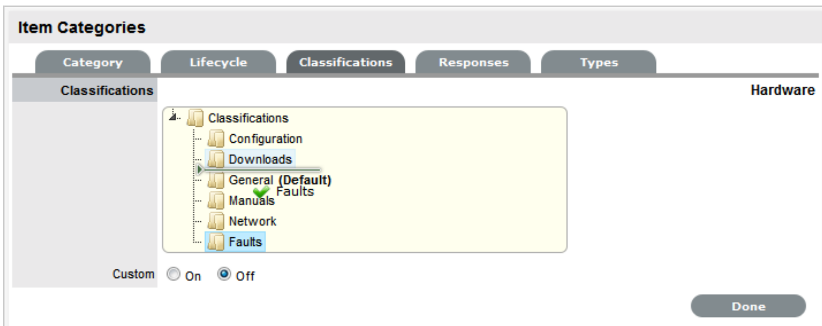


5. Click outside the text box to commit the entry listing



6. Repeat the above process to create all required list entries
7. Move an existing Classification to a new position, if required

   Select the entry, then drag and drop the entry into its new location.



8. Click Save.

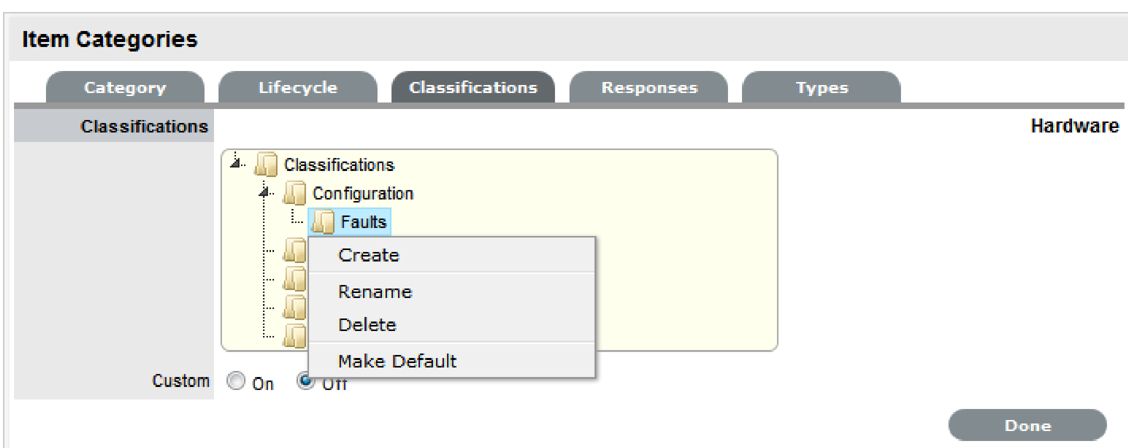
Creating Sub-Classifications

Classifications can be expanded to include nested Classifications.

To create Sub-Classifications:

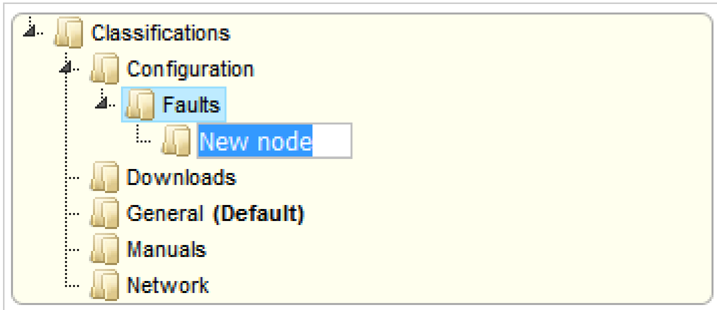
1. Right-click the relevant Classification header

   The Create, Rename, Delete and Make Default options are displayed.



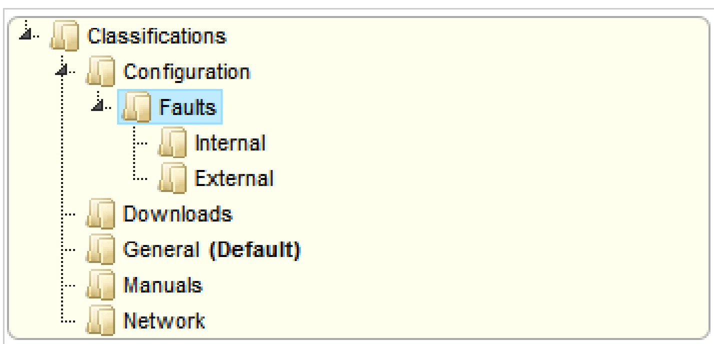
2. Select Create

   A text box will appear under the Classification.



3. Enter the name for the list entry
4. Click away from the text box to commit and save the change
5. Move an existing Classification to a new position, if required

   Select the entry, then drag and drop the entry into its new location
6. The above steps can be repeated until the sub-category list is completed.

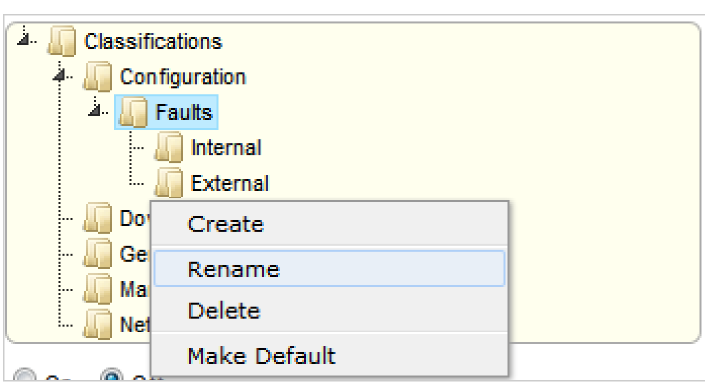


Renaming a Classification

Any Item Category classification can be renamed.

To rename a Classification:

1. Right-click the Classification



2. Click Rename
3. Edit the field content
4. Click away from the text field to save the change.

Making a Classification Default

To make a classification default:

1. Right-click the required classification and then click **Make Default**.

Deleting a Classification

To delete a Classification:

1. Right-click the relevant list entry
2. Click Delete
3. Click Done when the Classification Categories are complete.

1.34 Service Catalog

The Service Catalog can be accessed as a filter view within the Items sub-menu screen of the Configuration tab. It is part of the Service Portfolio made available to Customers, displaying information regarding Live IT Services. The Service Catalog may include information about service deliverables, any associated costs, contact points, ordering and request procedures.

For an IT service organization, the Service Catalog may include the following options:

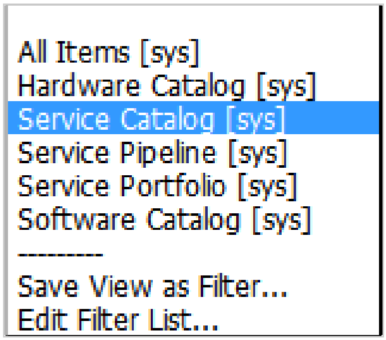
- Email
- Network Monitoring
- Security
- Video Conference
- Remote Access
- Mobile Communications (Cell Phones/PDAs)
- Wireless
- Laptop Computing
- Desktop Computing
- File Sharing
- Printing/Scanning.

Items included in the Service Catalog can be included as standalone Items or underpinned by physical Items stored within the Configuration Management Database (CMDB). Within the CMDB, relationships can be mapped between Configuration Items (Items) in the Relationships tab of an Item. This map is then available within the Impact tab of a request, to allow for the impact of a request on the Organization to be assessed.

Service Catalog Relationships are defined and visible within the Relationships tab of an Item.

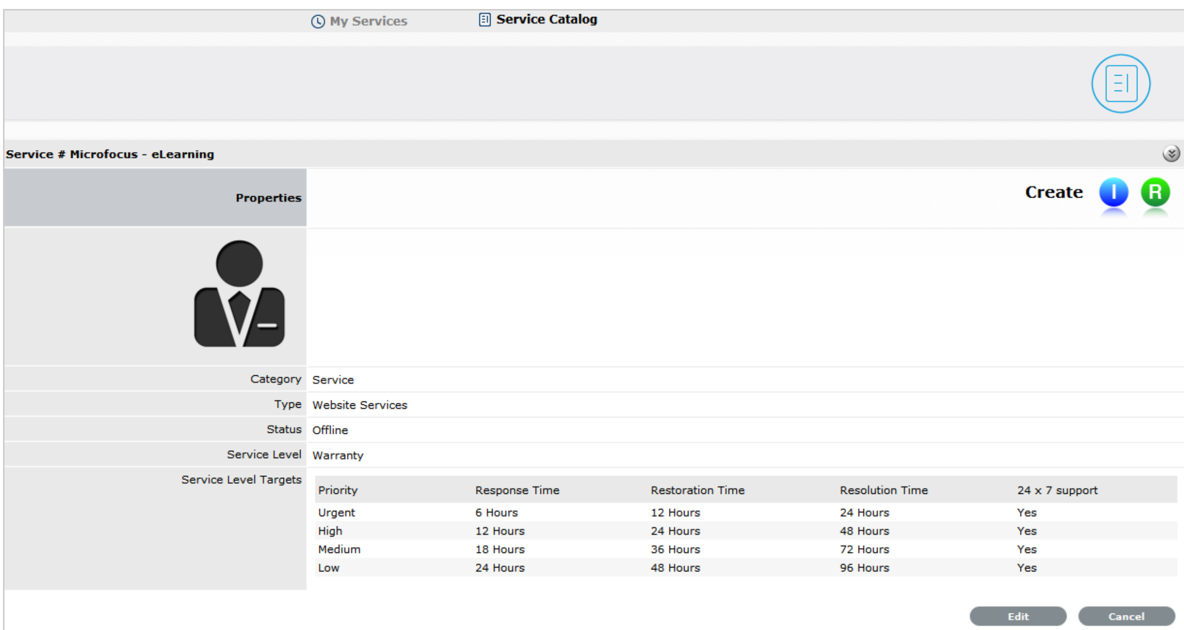
To view the Service Catalog:

1. Within the Configuration>Items tab
2. Select the Service Catalog (sys) filter

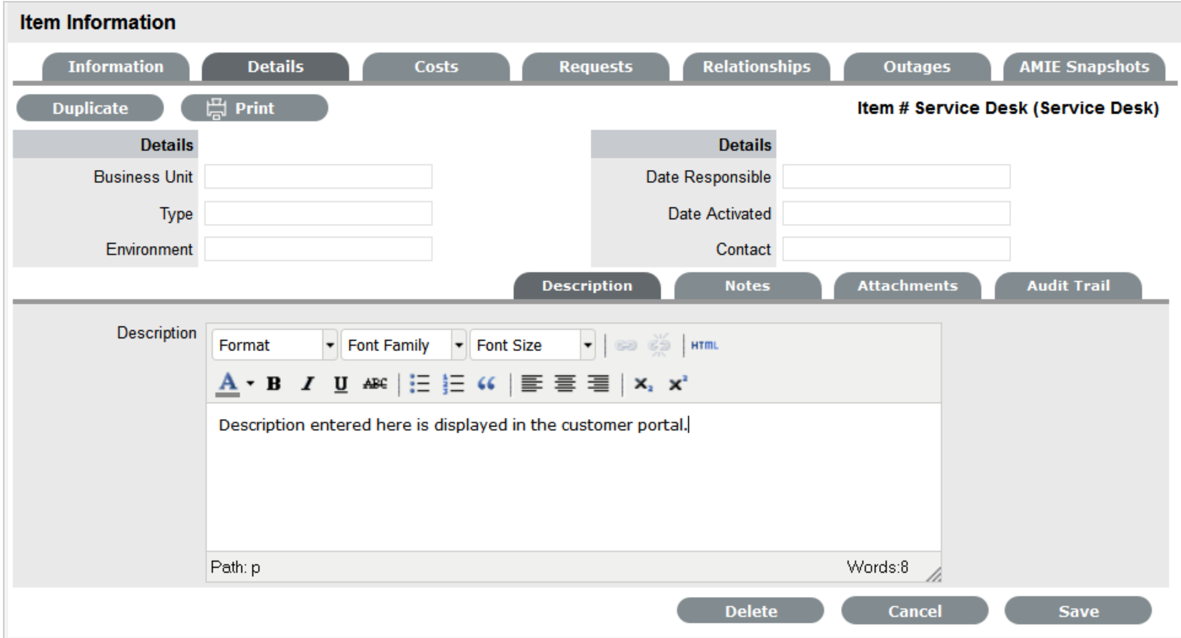


1.34.1 Create a Service

To create a new Service, such as Email or Printing, create an Item Type template using the Service Category Template, which has the Service Category option enabled within the Categories tab (See: Category). As part of the Service Category template, define relevant attribute fields as being Customer Visible, which will display information recorded on the Details tab of the Service within the expanded view of a Service in the Customer Portal.



Then create an Item using the newly created Type template. Within the Details tab of the Service Item, complete the Description to provide information about the Service within the Customer Portal Services tab. (See: Item Details)



Within the Item Relationship tab, define the underpinning infrastructure of the new Service Item, if relevant. (See: Relationships.)

1.34.2 Managing Service Costs

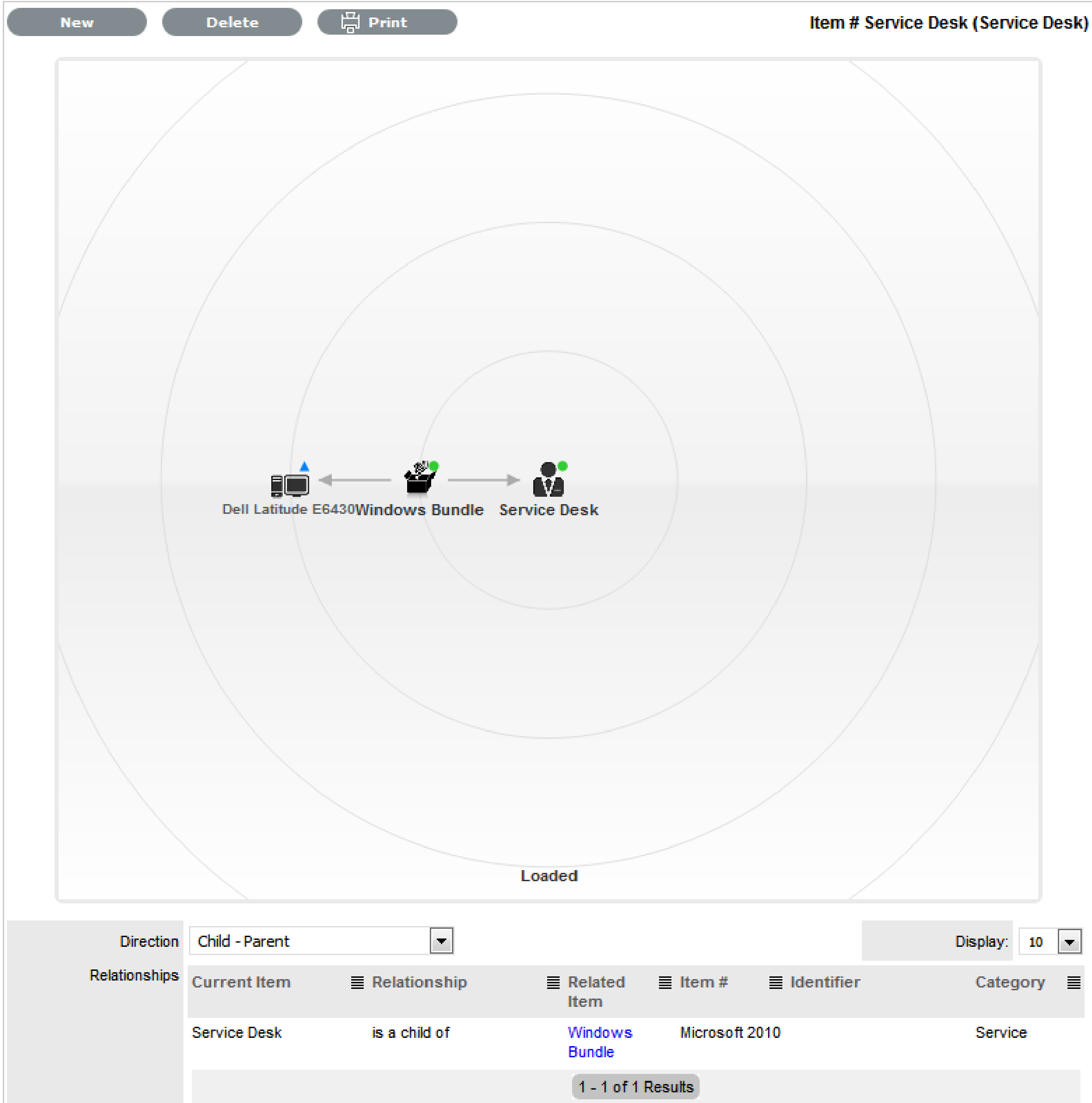
Users with the Finance Role are able to manage the information related to Service Item Costs. Items created with the Category Template that have the Service Category option enabled, allow organizations to calculate and recover costs for offering services. At the Item Type level, the costs for offering a service can be calculated against multiple service level agreements. (See: Item Types.) Within the Cost Tab of a Service Item, figures based on the Item Type associated with the Item are provided, to allow the support organization to recover costs for providing the Service. (See: Service Item Cost Tab.)

1.34.3 View Service Relationships

Within the Relationships tab of the Item Information screen, a Relationship Map visually displays the connections that have been defined for an Item. All Item Relationships are listed in the Relationships Table beneath the Map. The Relationship Map can display up to 48 Child Items and 16 Parent Items in the one diagram.

The central icon of a Map is a visual representation of the selected Item. Scroll over an Item label to view any information recorded on the Information and Details tabs of the Item. To drill-down through the relationships, click on an Item icon label. To change the focus of the Relationship Map to another Item, click on the Item icon label and the system will request that OK be selected before updating the central node of the Map.

The Relationship Table data displayed at the base of the map can be filtered using the Direction filter view of Parent-Child or Child-Parent.



The map displays the relationship between each Lifecycle State by using different colors to represent the type of Lifecycle State.

Color	
Green Circle	CI is assigned an online status.
Red Square	CI is assigned an offline status.
Blue Triangle	Service CI is assigned a pre-production status.

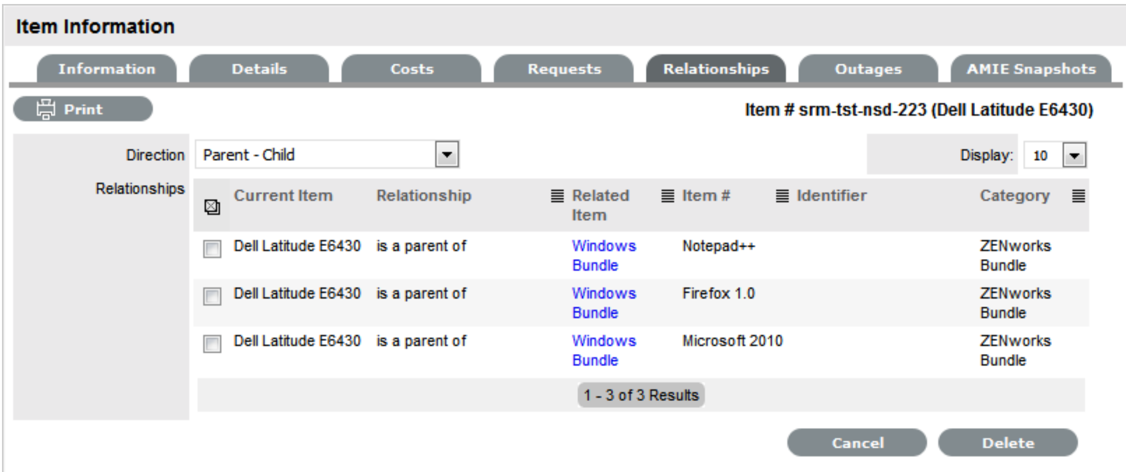
The Lifecycle State name can be accessed by scrolling over the Item icon within the Map.

1.34.4 Delete a Relationship:

To remove the Relationship between Items:

1. Select the relevant Item within the Configuration tab
2. Move to the Relationships tab
3. Click Edit
4. Select Delete

   A table with the Relationship details is displayed



5. Select the Relationship Direction to display the relevant Relationship table
6. Mark the checkbox next to the Relationship that is to be removed
7. Select Delete
8. Click Done to return to the Item list.

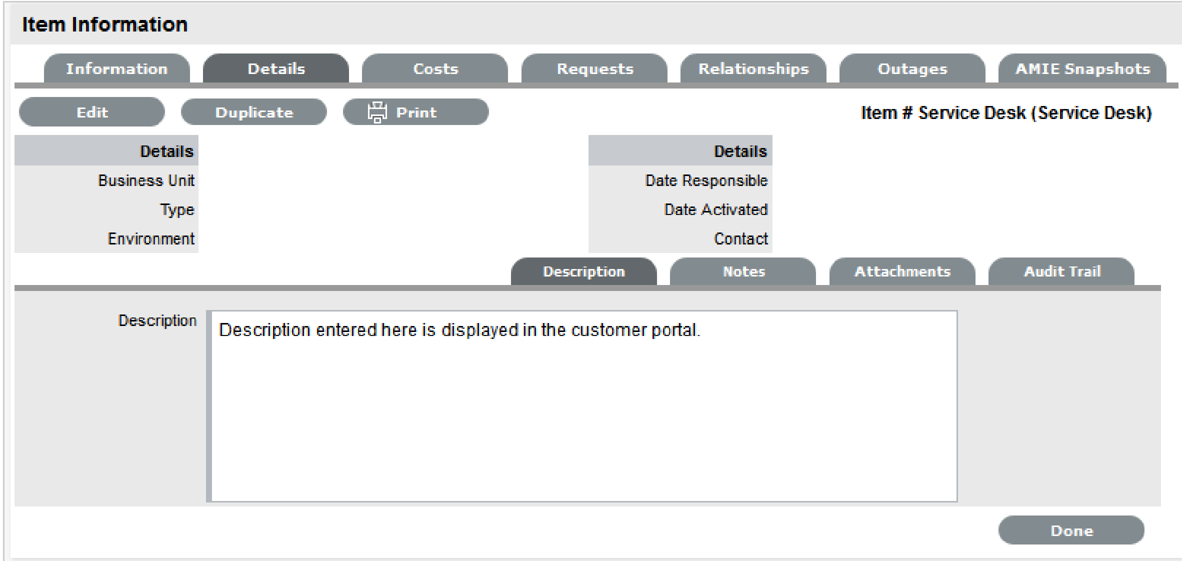
1.34.5 Managing the Service Catalog

The portfolio of services offered within an organization can be managed by the Service Portfolio Team. See: Service Portfolio Team.

1.35 Details Tab

Once the basic information for an Item has been completed, additional details can be defined for the Item. The Details tab displays a list of custom fields set for the Item's Category. The information to be completed within this section is configured by the Supervisor when customizing the Item Type templates in Configuration > Categories. Fields marked as Required, must be completed for the Item Details of the Item to be saved successfully.

For more information about Item custom fields, see: Categories.



Clicking Save at the far bottom of the page after the Details tab has been completed, will create the Item and save it to the database.

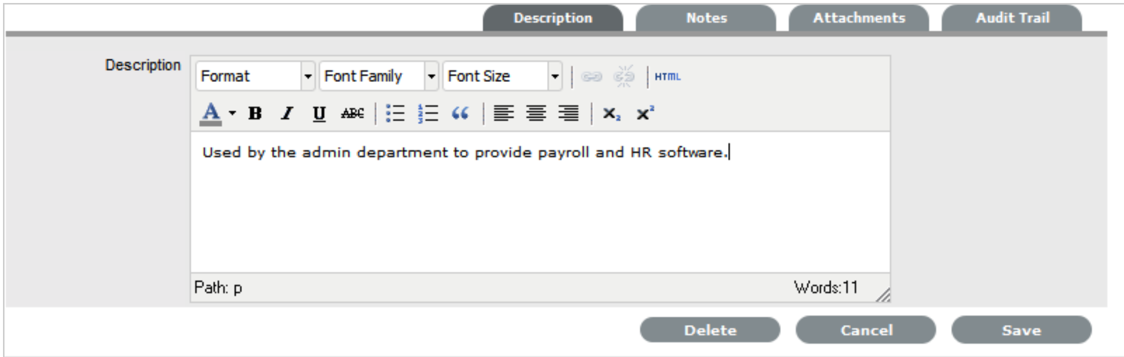
NOTE: Items can be duplicated at any time by clicking the Duplicate button. A new Item is created with properties that are identical to the original Item (with the exception of the Item Number, as this must be unique and is generated automatically).

1.35.1 Item Description

Content entered in the Description field is made available on the Customer Portal in the expanded information window of an Item. For Service Items included in the Service Catalog tab of the Customer Portal, information about the Service can be included within the Item Description field. The Service Item information can be further defined by completing Item attribute fields that are configured as Customer Visible within the Category Information screen, and therefore also displayed in the Customer Portal.

To add an Item Description, within the Item's Details tab:

1. Click Edit
2. Move to the Description tab
3. Add information in the Description field

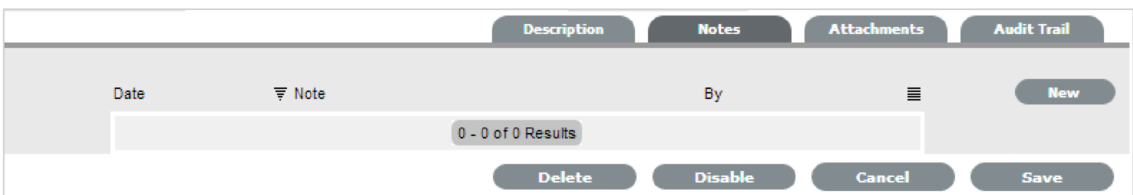


4. Click Save.

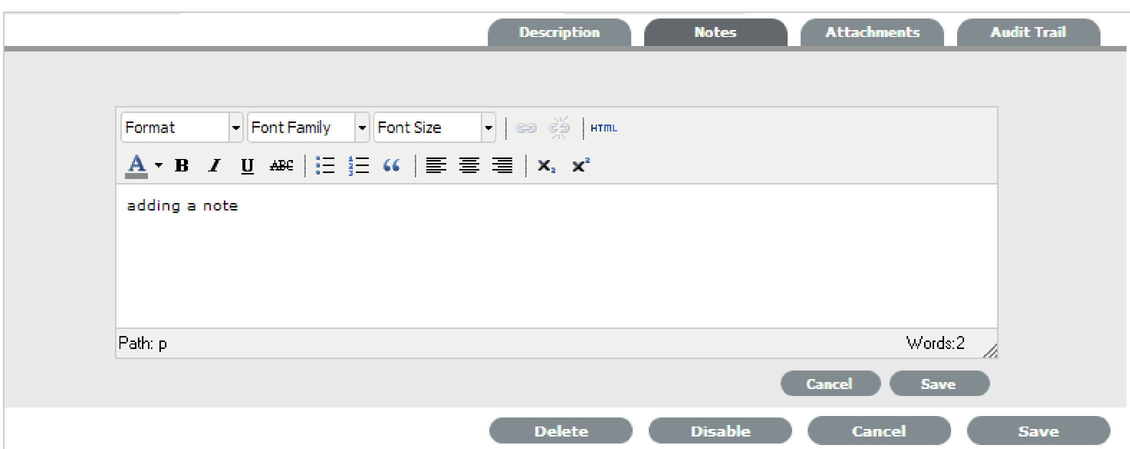
1.35.2 Item Notes

To add Notes to an Item, under the Item's Details tab:

1. Click Edit
2. Select the Notes tab



3. Click New
4. Enter details in the Notes field



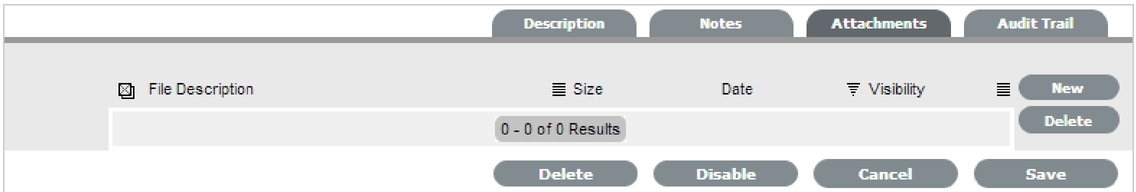
5. Click Save.

   The Note will be allocated an identification number hyperlink for access. It will also be time- and date-stamped.

1.35.3 Item Attachments

To add Attachments to an Item, within the Item's Details tab:

1. Click Edit to display the Attachment tab New button
2. Click New



3. Browse and select a file
4. Enter a Description, if required
5. Adjust Private and Public option, if relevant

   Selecting Public will make it accessible on the Customer Portal, when the Item is in a Customer Visible state.

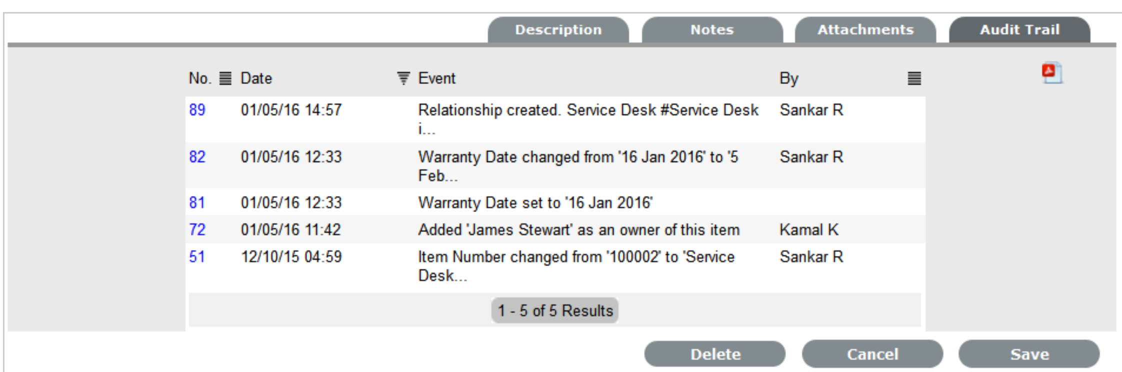
6. Click .

1.35.4 Item Audit Trail

The Audit Trail tab records all changes that are made to fields within the Item Information and Details screens. These entries are made to record all the alterations made to Items and the CMDB.

To view an audit trail entry, under the Item Details tab:

1. Select the Audit Trail tab
2. Click on the identification number hyperlink to display the entry details.



1.35.5 Rollback Option

All changes recorded in the Audit Trail can be rolled back to reinstate information recorded against an Item.

To return Item details to previously saved information:

1. Click Edit
2. Select the identification number hyperlink of the entry to be reversed
3. Click the Rollback button
4. Save the Item.

   The Item details will revert to information recorded before an update was made.

1.36 Relationships Tab

The Relationship Tab allows Users to view and/or create a Relationship Map for the current Item, with other Items within the CMDB.

The Relationship direction can be defined as:

- Service Oriented - Parent-Child Relationship
- Component Oriented - Child-Parent Relationship.

Within each view the Relationship Class can be defined as:

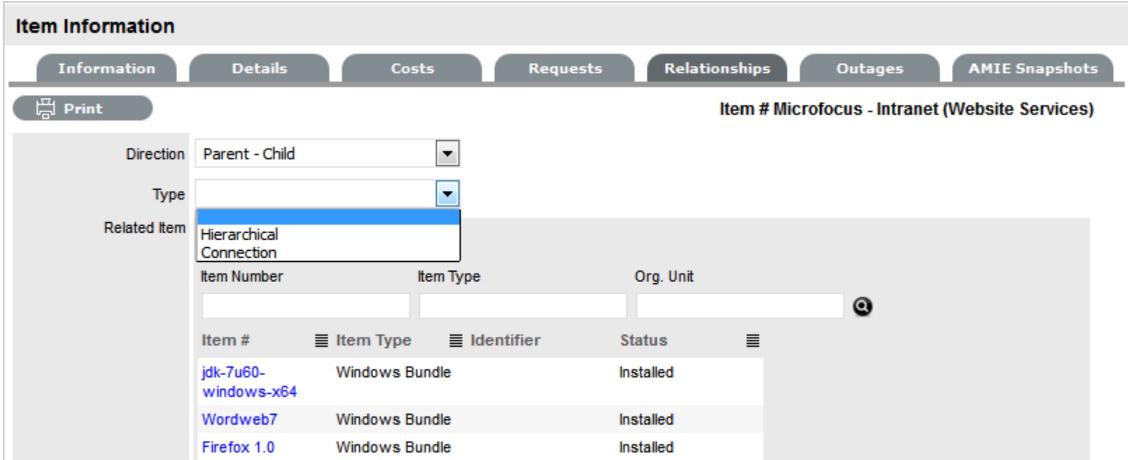
- Hierarchical Relationship
- Connection - an association between the selected Items.

For a Service, such as the Email or Web Site Service, it is recommended that the Hardware be defined as the Parent for the Software Items and the Software be defined as the Parent of the Email or Web Site Service.

1.36.1 Create a Relationship

To create a new Item Relationship:

1. Select Configuration>Items
2. Select an Item
3. Select the Item's Relationship tab
4. Click Edit
5. Click New
6. Select the Relationship Direction and Class from the drop-down menus
7. Define the Relationship by selecting a description from the drop-down list



NOTE: If the Relationship Type has the Inherit Parent Ownership option enabled, Child Items that use this relationship will inherit the Parent Item's owners. The ownership will not be editable and no other Parent Item can be assigned to the Child Item. A warning will be displayed if a relationship type has the Inherit Parent Ownership option enabled.

---

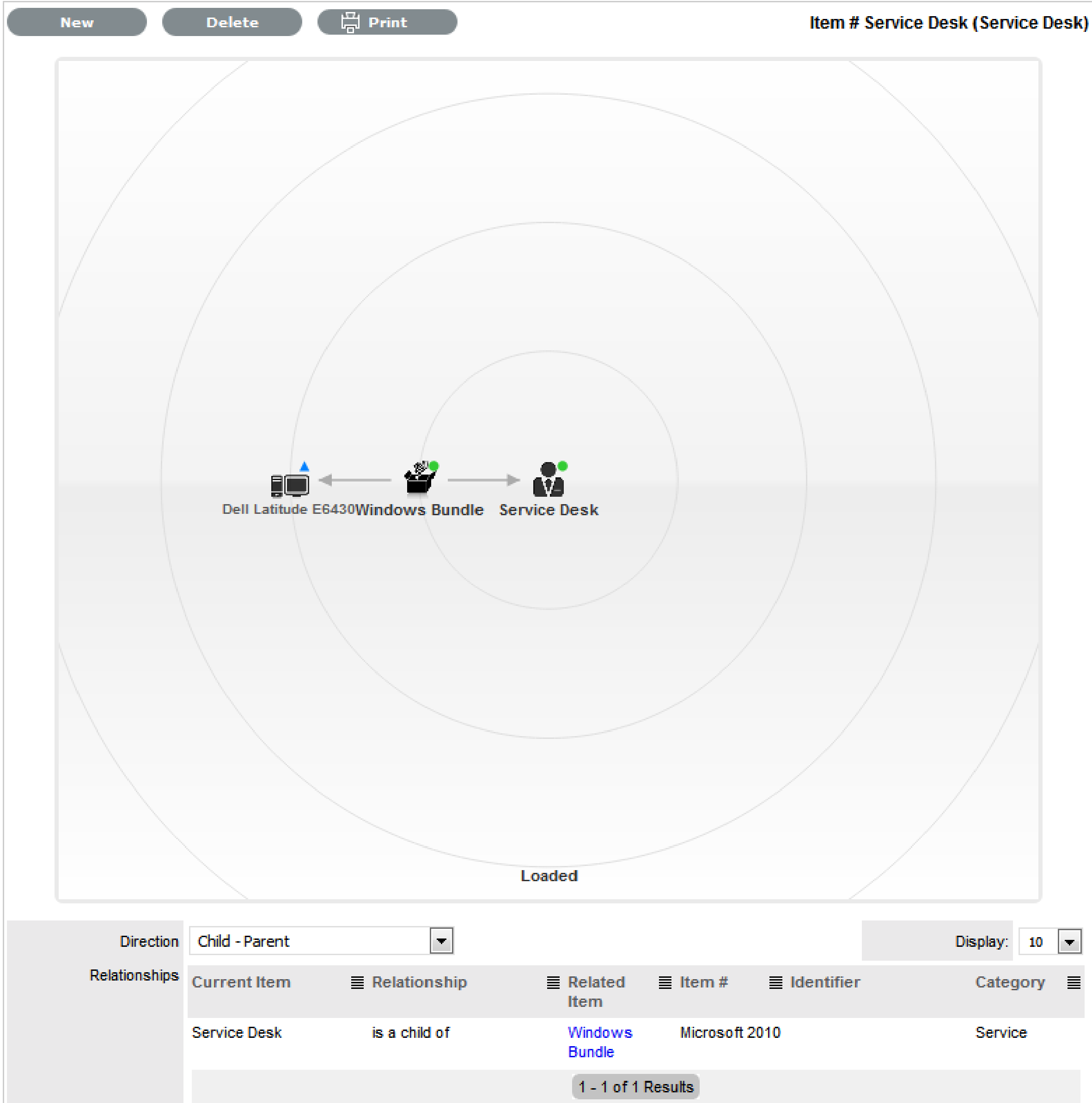
8. Use the Find Item field to locate the relevant Item
9. Click on the Item Number hyperlink to create the Relationship
10. Click Save to default to the Relationship Map view.

1.36.2 Relationship Map

Within the Relationships tab of the Item Information screen, a Relationship Map visually displays the connections that have been defined for an Item. All Item Relationships are listed in the Relationships Table beneath the Map. The Relationship Map can display up to 48 Child Items and 16 Parent Items in the one diagram.

The central icon of a Map is a visual representation of the selected Item. Scroll over an Item label to view any information recorded on the Information and Details tabs of the Item. To drill-down through the relationships, click on an Item icon label. To change the focus of the Relationship Map to another Item, click on the Item icon label and the system will request that OK be selected before updating the central node of the Map.

The Relationship Table data displayed at the base of the map can be filtered using the Direction filter view of Parent-Child or Child-Parent.



The map displays the relationship between each Lifecycle State by using different colors to represent the type of Lifecycle State.

Color	
Green Circle	CI is assigned an online status.
Red Square	CI is assigned an offline status.
Blue Triangle	Service CI is assigned a pre-production status.

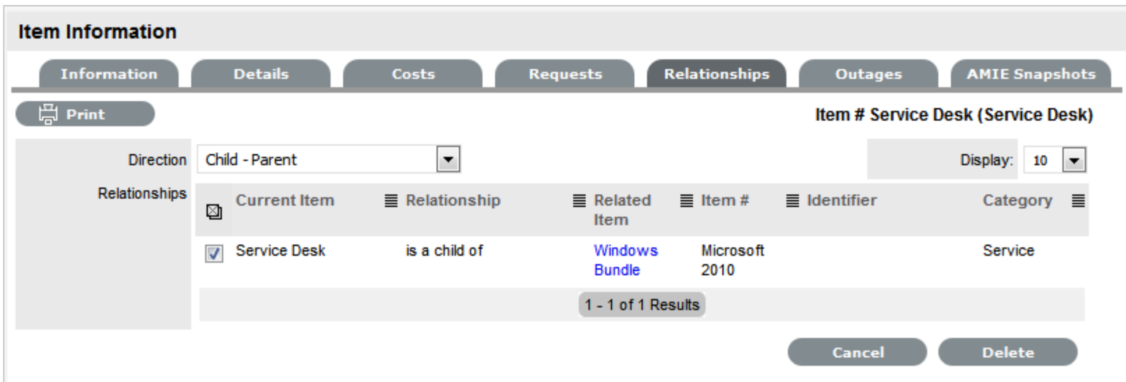
The Lifecycle State name can be accessed by scrolling over the Item icon within the Map.

1.36.3 To delete a Relationship:

To remove the Relationship between Items:

1. Select the relevant Item within the Configuration tab
2. Move to the Relationships tab
3. Click Edit
4. Select Delete

   A table with the Relationship details is displayed.



5. Select the Relationship Direction to display the relevant Relationship table
6. Mark the checkbox next to the Relationship that is to be removed
7. Select Delete
8. Click Done to return to the Item list.

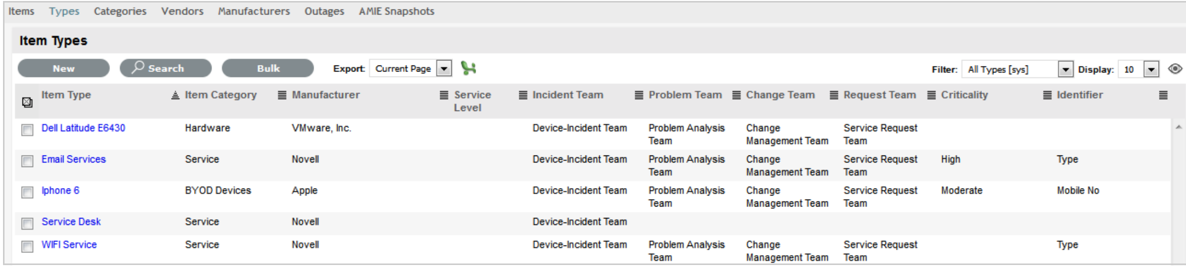
1.36.4 AMIE Item Imports and Relationships

Items with Item relationships that have been imported using the AMIE engine, retain the relationships that exist within the Asset Management Tool. A visible map of the relationships is recorded within the Relationships tab.

1.37 Item Types

Item Types are templates used to create Items. Items are specific instances of Item Types with individual asset detail information.

In this section, Item Types and their manufacturers can be created and edited. The Item Types default support Team is assigned here, as well as Criticality, service level and other default information.



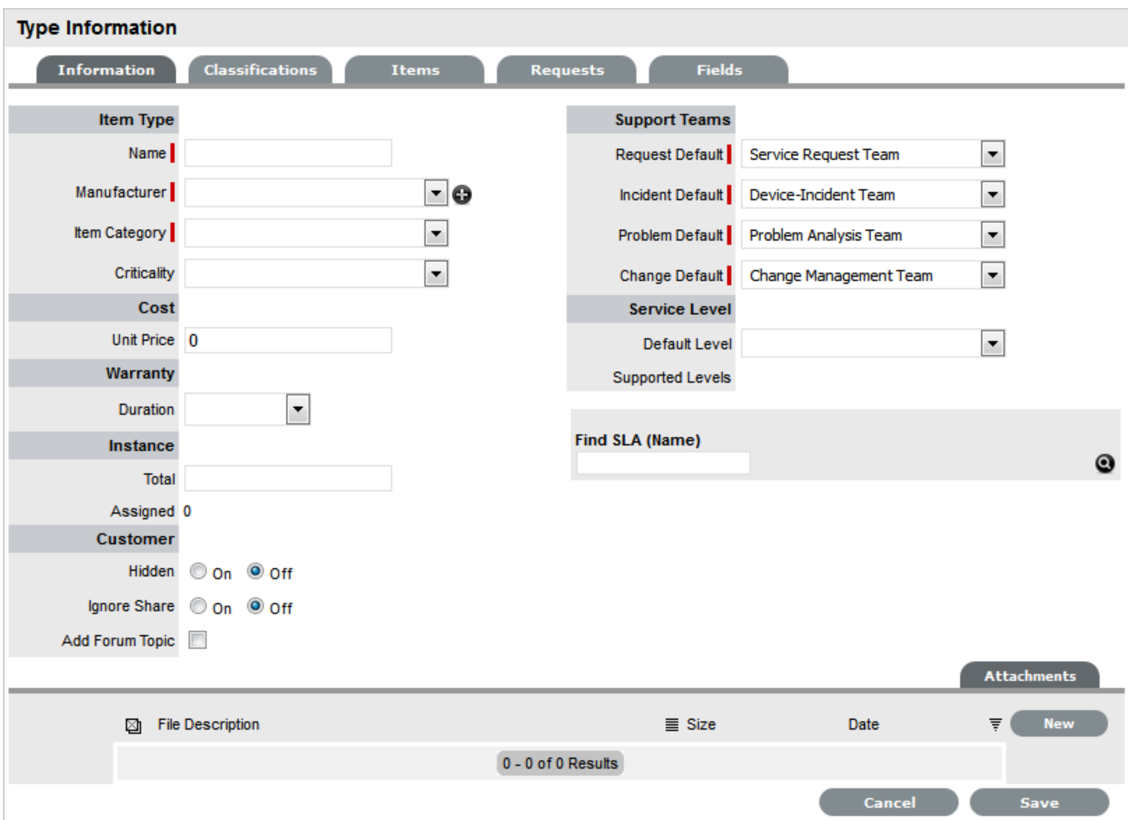
For Item Types that use a Category with the Service Category functionality enabled, a Costs tab is also displayed that allows a User with the Finance Role to forecast the costs for offering the Service Item that applies the Item Type.

1.37.1 Create a New Item Type

To enter a new Item Type:

1. Select Configuration>Types
2. Click New

   The Type Information screen appears.



3. Enter the Name of the Item Type
4. Enter a Manufacturer using the drop-down list

Or, select ⊕ to add a Manufacturer. The Manufacturer screen appears. See: Create a Manufacturer

5.

Type Information	
Name	Name of the Item Type.
Manufacturer	The manufacturer of the Item Type. New manufacturers can be created and existing manufacturers can be edited and deleted by using the Edit and New buttons that appear beside the drop-down menu of manufacturers.

6. Using the drop-down list, select the relevant Item Category
7. Select the Criticality for the Item Type
8.

Item Type	
Item Category	This signifies the type of Item. (Hardware, Software or Service are the default Types, but Users with the Supervisor Role can create more if required).
Identifier	The drop-down list that appears is drawn from the fields defined for the Item Category selected. Although this information is not required, the Identifier is used to differentiate similar Items that may be in use throughout an organization. For example, if an organization uses the same printers for all departments, an Item Category field of "Location" could be configured for the Item Details and this could also be used as a secondary Identifier for Printer Item.
Criticality	Rates the degree of importance of an Item Type within an organization, which can be adjusted on a per Item basis. The 'Impact' of a Request is initially pulled from the Criticality of the Item, but can be adjusted within the request Information screen if required. Requests logged through the Customer Portal, use the Criticality of the Item to set the Priority of the request. The Incident Analyzer, if enabled by the Administrator in Setup>CMS>Incident Analyzer, can apply the Criticality to automatically detect Problems. The minimum Criticality level can also be used to determine the off-line Items that appear on Outages pages, if the Outages pages are enabled by the Administrator in Setup>Privileges>System.

Item Type	
Icon	When the Type details are saved, the Icon selected for the Item Category will be displayed. To customize the icon for the specific Item Type, select the Icon to access the Upload  or Cancel  options. The icon must be 128 x 128 pixels.
Unit Price	The per-unit price of the Item Type.
Instance Total	Number of instances owned by the organization.
Assigned	Number of instances assigned to Customers as Items.
Hidden	Select 'On' to ensure Customers cannot view this Item Type within the list in the Customer Portal. If all Item Types use this selection, the Item Type list will be completely removed from the Portal. Items created using Item Types with Hidden enabled, will not allow Customers to generate requests against them in the Customer Portal, nor will they be able to view or receive updates about requests logged by the User against Items with this functionality enabled.
Creation	Enabling this option gives Customers using the portal the ability to create new Items using this Item Type (if they have been granted the ability to create Items by the Administrator in Setup>Privileges>Customer>Create Item. (This option is not displayed when the Hidden option is enabled.)
Ignore Share	Enabling this option overrides the system level option for sharing requests raised against Items of this Type. Requests raised against Items of this Type will not appear in the customer portal when viewing shared requests is enabled.
Add Forum Topic	Create a forum topic using the Item Type Name. This option is only displayed when a new Type is being created.
Incident Default	The Team of Technicians assigned to support Incidents received related to the Item Type. See: Teams
Problem Default	The Team of Technicians assigned to support Problems received related to the Item Type. See: Teams
Change Default	The Team of Technicians assigned to support Change Requests received related to the Item Type. See: Teams

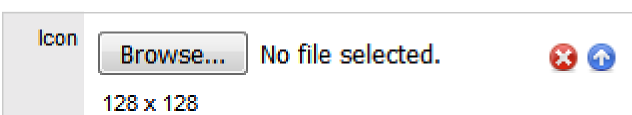
Item Type	
Request Default	The Team of Technicians assigned to support Service Requests received related to the Item Type. See: Teams
Service Level Default	The default service level for the Item Type. When Billing is enabled, service levels without a cost are listed as an option. The service level with an associated cost can be applied when the Item created, this ensures Item contract payment is processed.
Support Levels	All Service Level Agreements assigned to the Item Type, which will be displayed as options when a request is created applying Item that uses this Type template. SLAs listed here, are used within the Costs tab of Service Types to forecast break even points on the Service relative to the number of Users.
Find SLA (Name)	To assign multiple SLAs use this option. Click to view all SLAs or refine the search by entering a specific name. Select the SLA hyperlink to assign the SLA to the Type Information. Click Cancel to clear the search field.

9. Enter the Unit Price for the Item Type. This is an optional field that is used for asset management

   See Finance Role.
10. Set the Customer options
11. Assign the default support Teams
12. Assign one or multiple SLAs, as required
13. Click Save

    The Type Screen moves out of Edit mode.
14. Click the icon if the generic Item Category icon image is to be changed for the Item Type

    This icon is used as the visual representation of the Item Type in the Relationship Map.



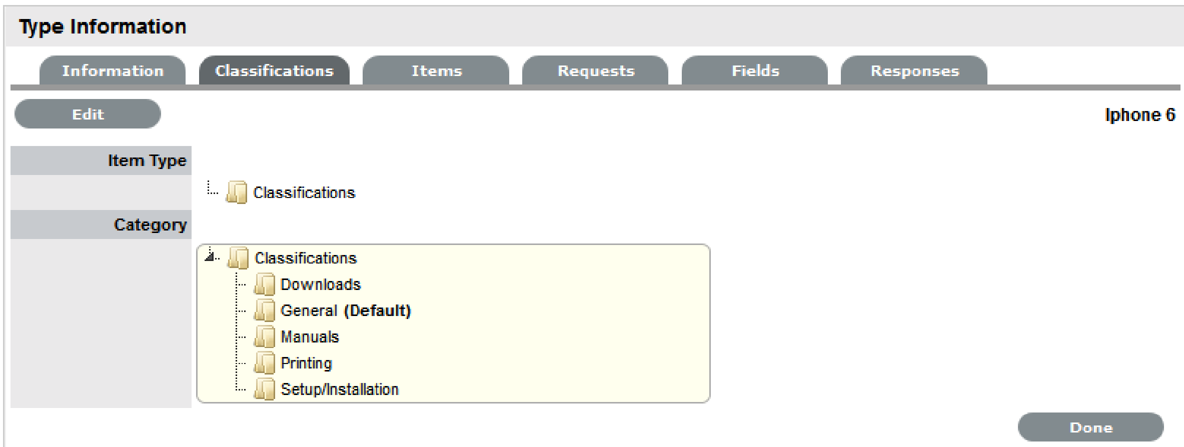
15. **NOTE:** The dimensions of the uploaded icon must be exactly 128 x 128 pixels
16. Move to the Classification tab to create classifications for issues related to Item of this Item Type.

1.37.2 SLAs and Item Types

When an Item Type is created with a defined SLA, any Item created using this Item Type automatically inherits the SLA. The lifecycle of a request raised against this Item is determined by the SLA milestones. However, it should be noted that the SLA can be adjusted within the Item if it is relevant to do so.

1.37.3 Classification

Category Classifications are used as generic problem classification for sorting requests. These are refined within the Item Type Classification to make them more relevant to the actual Item Type. For example, the Item Type category Hardware needs the Category Classification to be refined differently for hardware Item Types such as desktops and servers. To refine the problem types, Item Type Classifications are used.



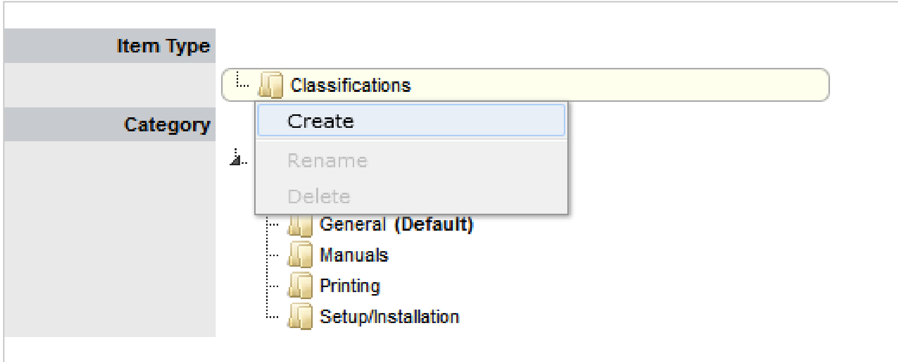
Editing an Item Type Classification listing

To edit the Item Type Classification entry:

1. Within the Item Type>Classification tab
2. Select Edit

   A New button is displayed within the Item Type Classification section.
3. Right-click on the Classifications link

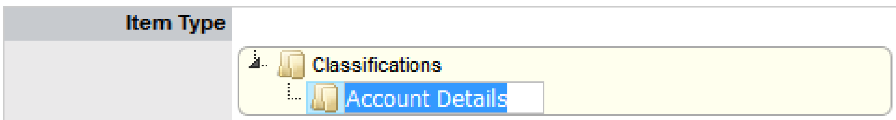
   The Create option is displayed.



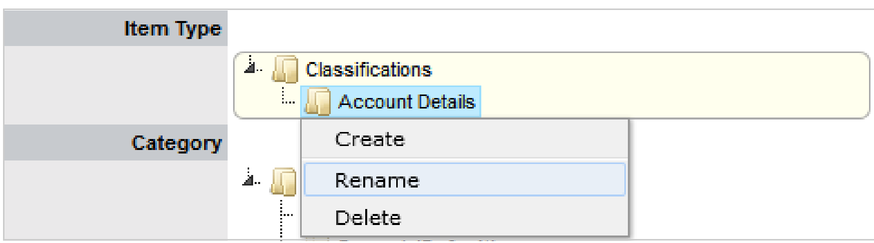
4. Select Create

   A New node field is displayed in Edit mode.

5. Complete the details of the new list entry



6. Click outside the text field to save the entry
7. To re-name an entry, highlight the field



8. Select the Rename option

   The field opens in edit mode

9. Change the details
10. Click outside the text field to save the changes
11. Repeat the above process to create all required list entries
12. Move existing Classifications to a new position, if required

    Highlight the entry, then drag and drop the entry into its new location.

13. Click Save.

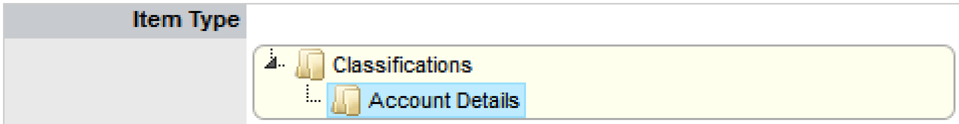
Creating Sub-Classifications

Classifications can be expanded to include sub-categories.

To create sub-classifications:

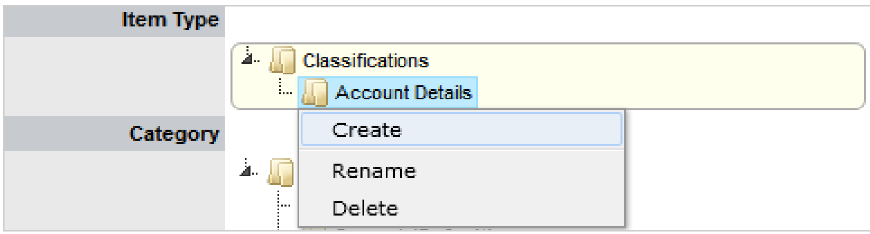
1. Select the relevant Classification header

The Classification header is highlighted.

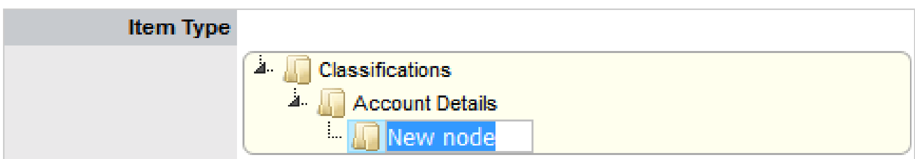


2. Right-click the Classification Entry

   The Create, Rename and Delete options are displayed



3. Click Create
4. Complete the details of the new node

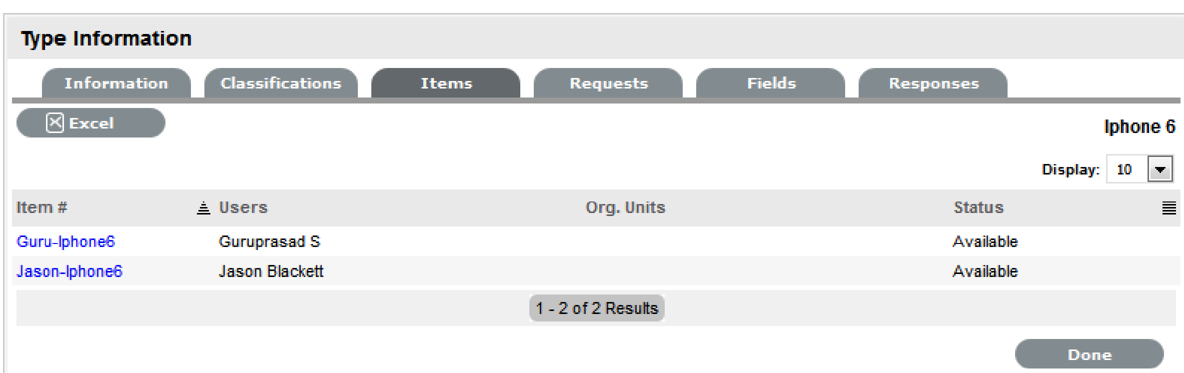


5. Click away from the text field to save the change
6. The above steps can be repeated until the Sub-Classification list is completed.

   To move an existing entry to a new position, select the entry, then drag and drop the entry into its new location

1.37.4 Items

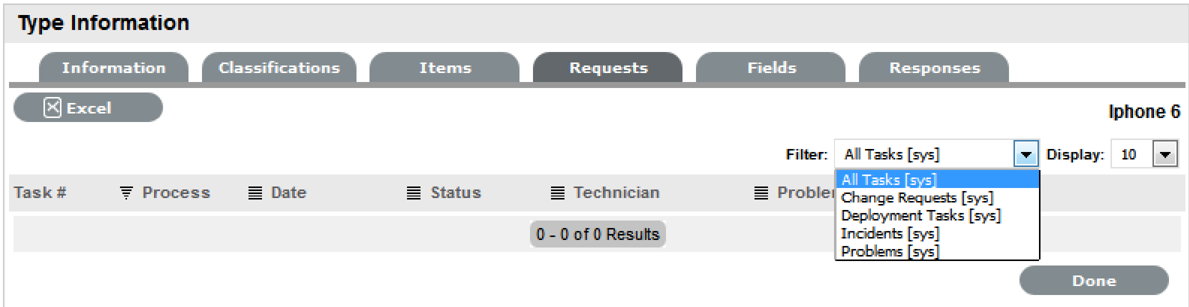
The Items tab lists the Items created using this Item Type. Individual Item details can be viewed by clicking on an Item Number. The list of Items can be exported using the Excel button.



1.37.5 Requests

The Requests tab lists all requests that have been created for this Item Type.

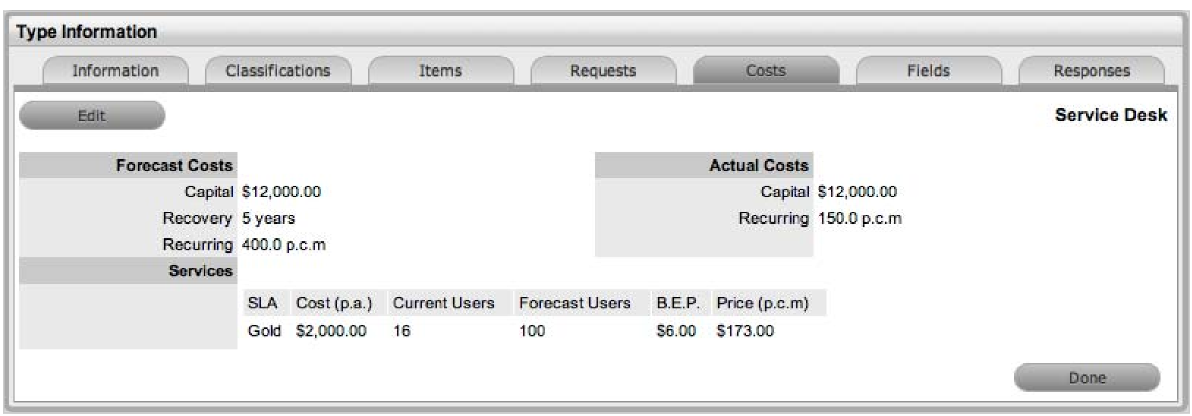
Use the Filter to switch between Incident, Problem, Change and Service Requests views. Requests can be viewed from this screen by clicking on the Task# or Problem Report hyperlink. The list of Requests can be exported using the Excel button.



1.37.6 Costs

NOTE: This is only visible to Users with the Finance Role.

The Costs tab is only available within the Service Type Information screens and allows organizations to calculate the Break-Even Point (BEP) of a service based on forecasting the number of Customers of that Service. This allows the service organization to account for the per calendar month price of the Service, which is used to calculate the ongoing revenue figures within the Item Costs tab that uses the Service Type template.



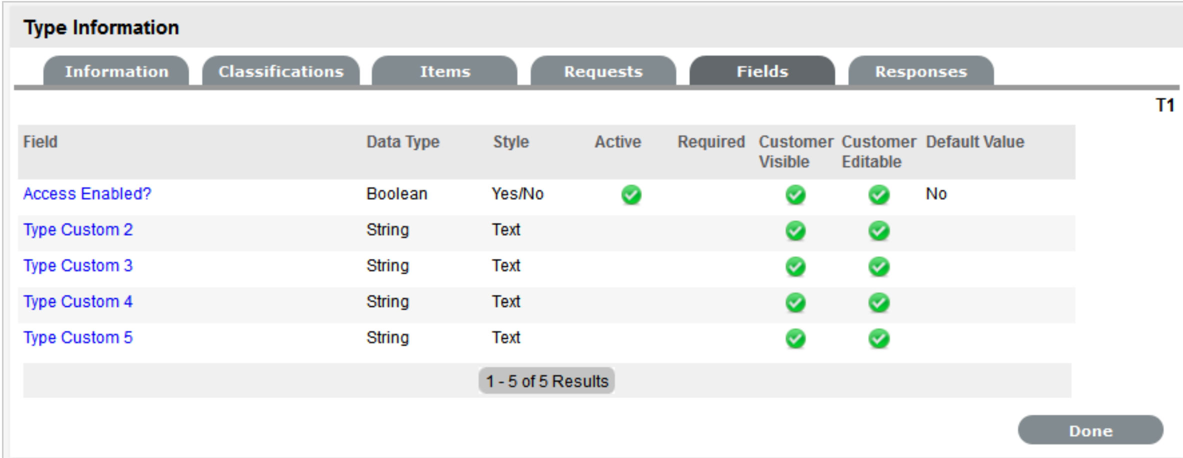
Forecast Costs	
Capital	Enter the sum total to be invested in hardware and software infrastructure that will underpin the Service.
Recovery	Complete the field with the expected number of years designated to recover the costs of implementing the Service.

Forecast Costs	
Recurring	Enter the proposed ongoing cost, on a per calendar month basis, for offering the Service.
Services	Using the details entered in the Costs fields and the cost per annum of the SLA, enter the forecast number of Customers/Users to calculate the break even point (B.E.P) of the Service. Using the auto-calculated B.E.P., enter a per calendar month Price for the Service to recover costs. This figure is used in the Service Item Costs tab to calculate the ongoing Revenue figures. **NOTE:** If an SLA with an Internal Cost is assigned to the Type, the B.E.P will be the SLA cost divided by 12 plus the cost of recovering the Capital expenditure over the number of years defined for the Capital to be recovered. For example, where the SLA cost is $240 for the year, the B.E.P will never be less than $20 per month.
Actual Costs	
Capital	Content for this field is derived from the Cost field within then Costs tab of the Item created using this Type.
Recurring	Content for this field is derived from the Monthly Cost field within the Costs tab of the Item created using this Type.

1.37.7 Fields

Within the system, service organizations can refine custom fields made available during the request creation process based on the Item assigned to the request. In the Fields tab a User can create custom fields that apply to the Item Type. Therefore, when a request is logged against an Item that uses an Item Type with custom fields configured within the Fields tab, the Fields are made available within the Details tab of the request creation process.

These fields are in addition to the fields created by the Administrator within the Admin>Setup>Custom Fields, which are created for the specific Process, such as Incident, Problem, Change and Service Requests.



To create Field labels within the Type Information screen:

1. Click the Fields tab
2. Click Edit
3. Select a Field hyperlink

   The Custom Field screen is displayed

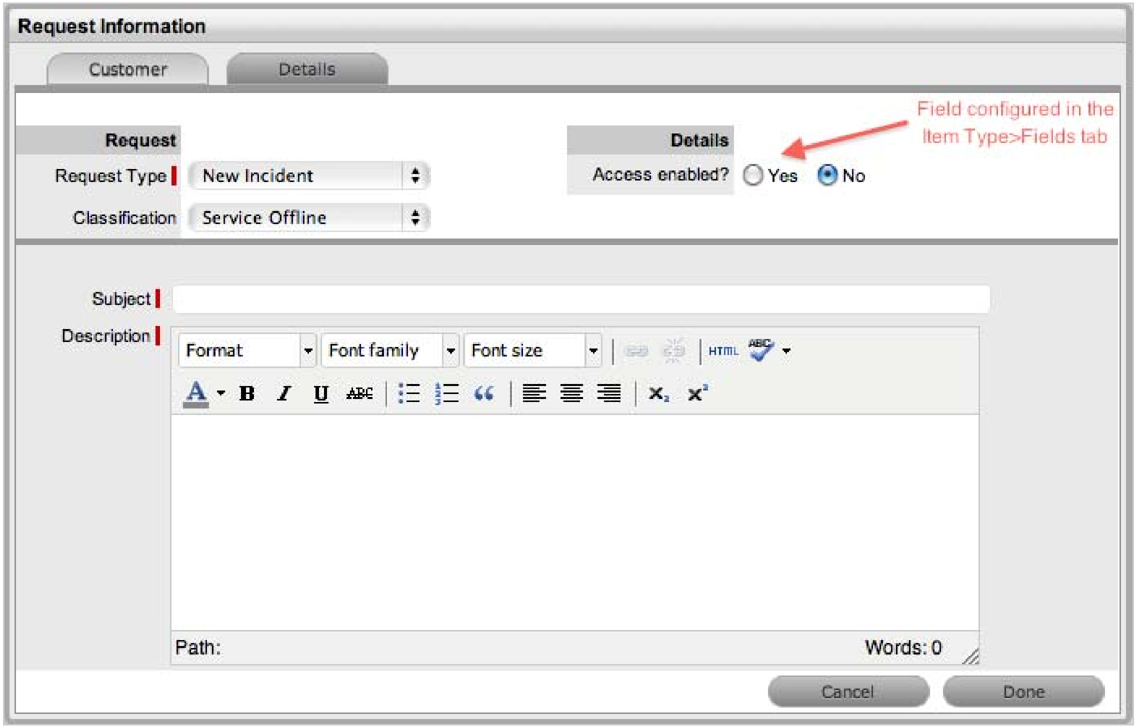
4. Click Yes to activate the Field
5. Complete the following details:
6.

Categories Fields	Description
Category	
Field Label	The name of the field.
Active	Indicates if the field is active.
Required	Indicates if the field is required or mandatory field.
Customer Visible	Defines if the Customer can see the field within the Customer Portal.
	If Yes is selected, define if the Customer can edit the field information on the Customer Portal.

Categories Fields	Description
Data Type	Dictates the field's Data Type. The options available include : ◆ String - List or Free Text ◆ Number ◆ Boolean - radio buttons for Yes/No and True/ False ◆ Date - creates a date field ◆ Currency- creates a currency field ◆ Hyperlink.
Style	States the style of the field. eg. String- List or Free Text field. SeeLists for more information on creating a list field type.
Unique Value	When active, the system prevents the duplication of data within the customized field.
Default Value	Value entered is the default system entry for the field, when the field is not completed manually.
Input Validation	When enabled the Input Mask and User Mask can be defined. *Input Mask* : A regular expression to use for data validation of values entered by a User (i.e., Zip/ Post Code, telephone no.) *User Mask*: A User Friendly representation of the Input Mask that Customers can understand should it appear in a validation error message.
Enable Description	When enabled a Description field appears, allowing the User to enter details of what information is the field is expected to capture. These details are accessible next to the custom field on the relevant screen.

7. Click Save.

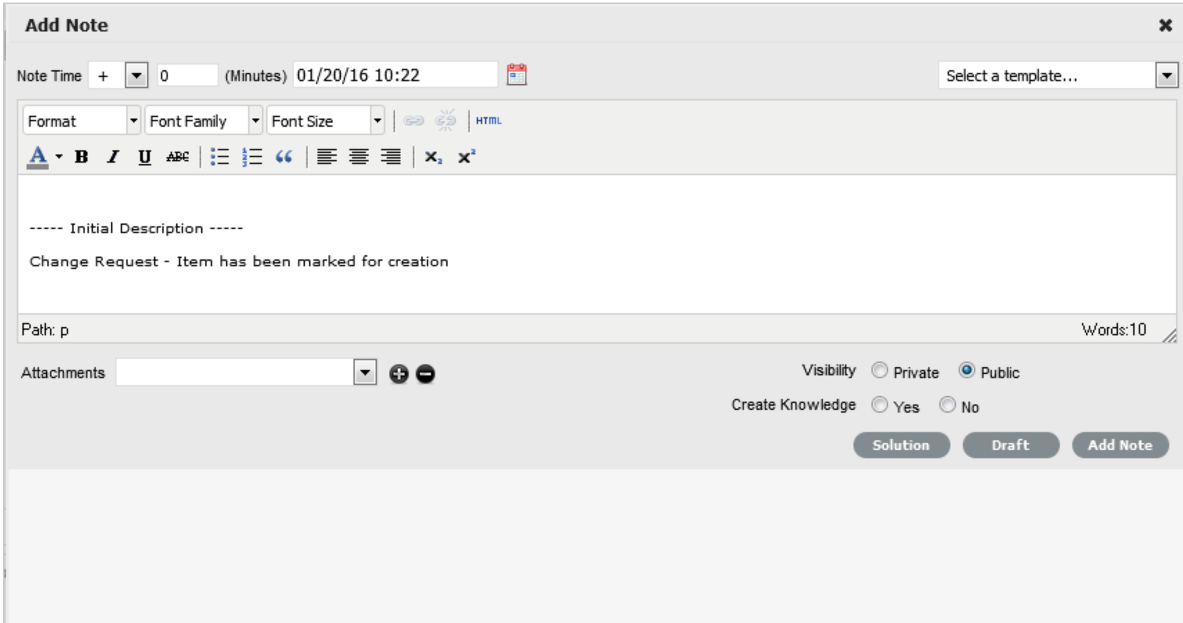
The active Field will now be available during the request creation process, for all Items that use the Item Type.



1.37.8 Responses

The Responses tab within an Item Type displays the templates configured within the Item Category>Response tab, which can be used as content for Notes sent for requests received against the Item Category. In addition to saving time for customer responses that are sent on a regular basis, these ensure the service desk responds to issues in a consistent manner, in line with the support organization's policies and protocol. Within the Types>Responses tab, additional Note templates can be configured, that will only be available for requests logged against that Item Type.

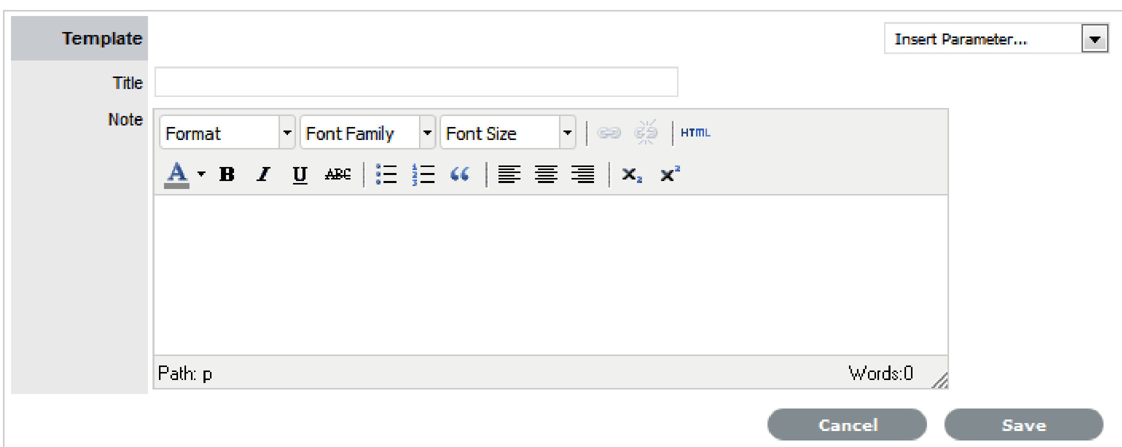
The following screen displays a list of default template options available within the Notes tab of a request:



Adding a Template for Item Types

To add a Note template:

1. Go to the Responses tab
2. Click Edit
3. Click Add



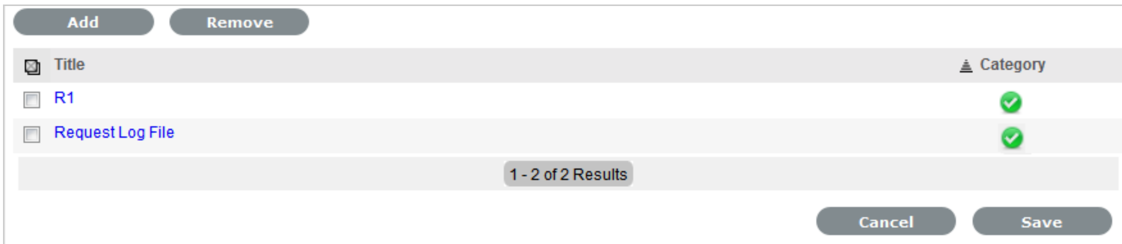
4. Enter the Template Title
5. Complete the content for the Note, inserting any relevant parameters
6. Click Save.

Removing a Template

Within the Types>Response tab, only templates created for the Item Type can be deleted. Templates created at the Category level must be deleted within the Category>Responses tab.

To delete a template within an Item Type:

1. Go to the Responses tab
2. Click Edit
3. Check the box in the column next to the template Title



4. Click

5. Click Save.

1.38 Create a Manufacturer

Manufacturers are created and assigned to an Item Type to establish the distributor of the Type.

1.38.1 Creating a New Manufacturer

To create a new Manufacturer when creating a new Item Type:

1. Leave the Manufacturer field blank
2. Click the button
3. Enter the Manufacturer name as well as any other details
4. Click Save.

   The screen will return back to the Item Type Information window and display a confirmation that the Manufacturer has been created successfully.

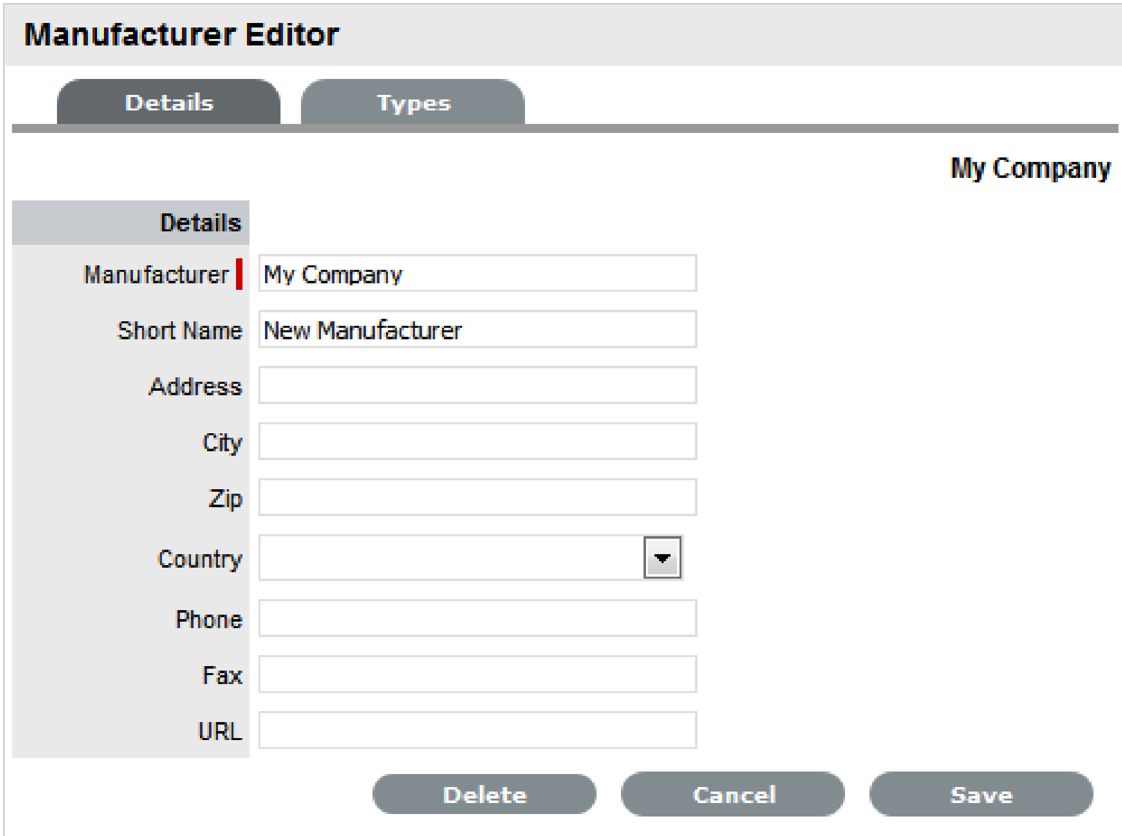
1.38.2 Editing a Manufacturer

Existing Manufacturers can be modified within the Item Type screen.

To edit a Manufacturer:

1. Select the Manufacturer from the list provided
2. Select to open the Manufacturer information screen in Edit mode

The system will inform the User that any changes made to the Manufacturer will undo any unsaved Item Type changes. Click OK to continue.



3. Make the required changes
4. Click Save

   The screen returns to the Item Type screen.
5. Click Save and Done.

   The screen reverts to the Item Type list view.

1.39 Items

Configuration Items within the system are referred to as Items. Items have multiple connections with other elements throughout the application, these may include Customers, Organizational Units and Service Level Agreements. The table below outlines how Items interact with other system elements:

Element	Relationship
Customers	Each Item must be assigned to one or more Customers who are the Owners of the Item. This Customer may be Everyone, making the Item a Global Item. Only Item Owners are able to raise requests against an Item. See Creating Items.
Service Level Agreements (SLAs)	Service Level Agreements can be linked as follows: ◆ Per Item ◆ Per Customer ◆ Per Request ◆ Per Organizational Unit.
Teams	Within Item Types, Default Teams are assigned to Items. When requests are raised for an Item, they will be assigned to the Default Team.
Technicians	Technicians can be associated with Skills based on Items, Item Types and Classifications. When a request is raised with the combination of Item Type and issue Classification, it is assigned to that Technician. SeeClassification Tab.
Outages	Where states in the Lifecycle of an Item Type are defined as Off-line, when an Item is in an Off-line state, it will appear in the Outages page. See Categories LifeCycle.

An Item record consists of the following attributes:

- Information Tab
- Details Tab
- Costs Tab
- Requests Tab
- Relationships Tab
- Outages.

Options available within the Items screen include:

- New - Create an Item
- Search - Search for an Item
- Bulk - Allows the User to update details of multiple Items in a single screen.

Filter views that are available within the Configuration>Items screen include:

Filter	Relationship
All Items	All Items stored within the CMDB, regardless of the assigned Lifecycle State.

Filter	Relationship
Hardware Catalog	All Items that use the Hardware Category Template stored within the CMDB, regardless of the assigned Lifecycle State.
Service Catalog	All Items that use the Service Category Template stored within the CMDB that are in an active Lifecycle State.
Service Pipeline	All Items that use the Service Category Template stored within the CMDB that are assigned a Pre-production Lifecycle State.
Service Portfolio	All Items that use the Service Category Template stored within the CMDB, regardless of the assigned Lifecycle State.
Software Catalog	All Items that use the Software Category Template stored within the CMDB, regardless of the assigned Lifecycle State.

1.39.1 View an Item

Within the Item sub-menu option, Users can view a list of Items created within the system. To view the details of an Item, select the Item Number hyperlink and the Item Information screen is displayed. The Item Information screen includes tabs for the following information:

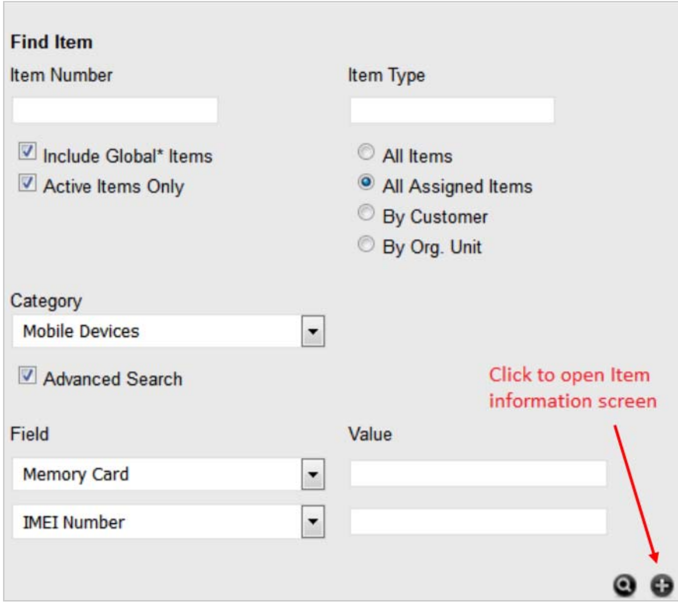
- Attribute details
- Relevant costs
- Requests created against the Item
- Relationships associated with the Item
- Planned Outages associated with the Item..

1.40 Creating an Item

1.40.1 Creating an Item during request creation

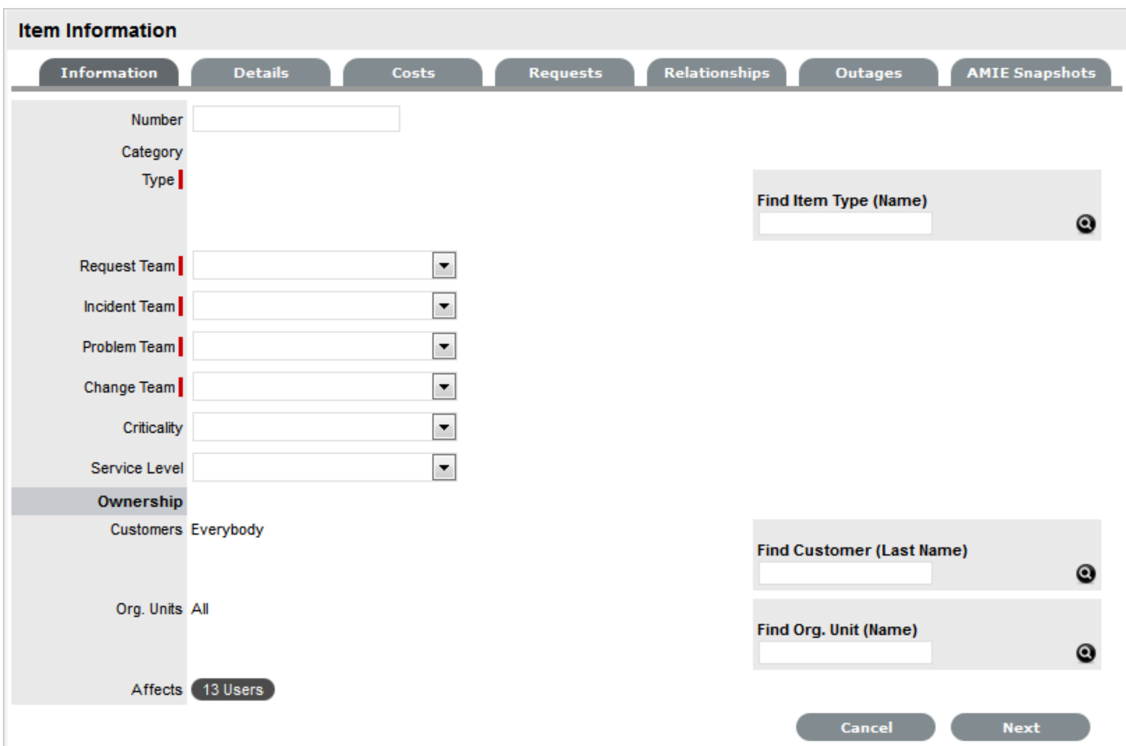
To create a new Item for the Customer after they have been assigned to the request:

1. Move to the Find Item field



2. Click to add a new Item using the Find Item Type field

   An expanded Item information screen appears, with the Item number field completed.



3. Enter the Item Type Name in the Find field, or leave empty and click
4. Select the Item Type hyperlink to assign the details to the new Item
5. Enter other required information
6. Click Next

The Item Details tab is displayed.

7. Enter any known Item details
8. Select Save.

   The Item details are saved, select Next to complete the request creation process.

NOTE: This option is only available to Technicians if the system Administrator has enabled the Create Items option within the Setup>Privileges>User screen of the application.

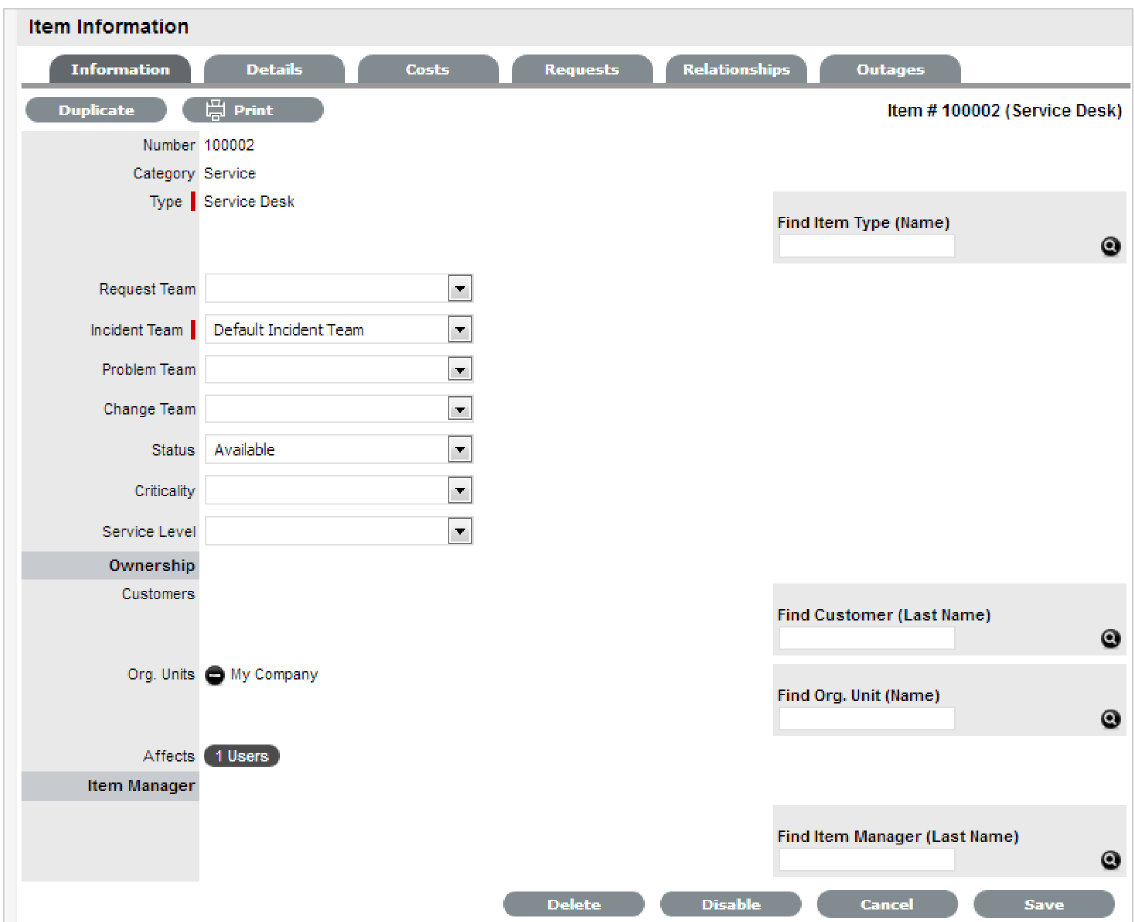
1.40.2 Item Information

Item information allows the User to configure the basic information for the Item, most of which is pre-populated based on the Item Type selected for the Item. Within this screen the owners of the Item are also assigned.

To create an Item:

1. Select Configuration > Items
2. Click New

   The Item Information screen appears.



Item	Description
Item Number*	If the Administrator has set the Item Numbers Editable option in Setup> Privileges> System to Yes, the User will have the option of entering a customized Item number. It may contain numbers and/or letters, and be between 1 and 64 characters in length. As no two Item Numbers can be the same, the User will be prompted to change the value they have entered if it is already in use. If the Item Number field is left blank, the system will automatically create an Item Number. If the Administrator has set the Item Numbers Editable option to No, an Item Number will be generated automatically and cannot be edited.
Category*	This is auto-filled, based on the assigned Item Type.
Type*	This is the Item Type that the Item represents. Click the Search button to view the list of available Item Types.
Team*	This is the Technician Team that will be assigned to support the Item.
Status*	Select the status from the drop-down options displayed after the Item Type has been assigned.
Criticality*	Rates the degree of importance of an Item Type within an organization. The 'Impact' of a request is initially pulled from the Criticality of the Item, but can be adjusted within the request Information screen if required. Requests logged through the Customer Portal, use the Criticality of the Item to determine the Priority of the request. (See additional information below.)
Service Level	Select the Service Level Agreement from the drop-down list, if required.
Ownership	

Item	Description
Customers	These are the Customers who own the Item. A single Customer, a group of Customers or all Customers in the application can be assigned to an Item. 1. Enter a Customer last name, or leave blank then click the Search button to view a list of all available Customers. 2. Click on the hyperlink for the relevant Customer name or names to assign them to the Item. If no specific Customer is allocated to the Item, it becomes a Global Item and is assigned to Everyone.
Org Units	These are the Org Units who own the Item. The Item can be assigned to one or multiple Organizational Units. To assign an Org Unit: 1. Enter an Org Unit name, or leave blank then click the Search button to view a list of available Org Units. 2. Click on the hyperlink for the relevant Org Unit name or names to assign them to the Item. **3. NOTE:** If Billing is enabled an owner must be assigned to the Item. The owner can be either a Customer or an Org Unit, but only Org Units that have a Primary Contact, will be displayed in the Org Unit Search list. (See: Primary Contact.)
Notification	
Method	This field is visible when an active Item moves into an offline State and allows the User to define who (Primary Contact or All Owners of the Item) and how (Email or SMS), Customers will be notified that the Item is not available.

*Denotes mandatory fields

4. Search and select an Item Type
5. Select a support Team for each process
6. Select the Item's Status and Criticality
7. Assign a Service Level

   If Contracts are enabled for the system, the assignment of an SLA will result in an annual service contract automatically being applied to the Item. If an SLA is not assigned, a Contract can be created for the Item within the Costs tab.

8. Search and select a Customer and/or an Organizational Unit owner
9. Click Next to view the Details tab.

Item Criticality

The Item Criticality is used to identify the degree of importance of an Item to an Organization.

When the Incident Priority is set to Derived in the Administrator Setup, the Impact of a request is mapped from the Criticality of the Item associated with the request and then combined with the selected Urgency, which derives the Priority of the request. If required, the Impact can be manually adjusted within the request Information screen. Requests logged through the Customer Portal, use the Criticality of the Item to determine the Priority of the request, which can be manually adjusted by the Technician User.

The following table displays the calculations applied by the system to the Item Criticality, which is mapped to a request's Impact to determine a request's Priority:

Impact / Urgency	Urgent	High	Moderate	Low	Very Low
Critical	1.000	0.850	0.700	0.550	0.410
High	0.850	0.723	0.595	0.468	0.349
Moderate	0.700	0.595	0.490	0.385	0.287
Low	0.550	0.468	0.385	0.303	0.226
Very Low	0.410	0.349	0.287	0.226	0.168

The above calculations result in the following Priorities:

Priority	Upper	Lower
Urgent	1	0.83
High	0.83	0.58
Medium	0.58	0.34
Low	0.34	0

The Incident Analyzer, if enabled by the Administrator in Setup>CMS>Incident Analyzer, can apply the Criticality to automatically detect Problems. The minimum Criticality level can also be used to determine the off-line Items that appear on Outages pages, if the Outages pages are enabled by the Administrator in Setup>Privileges>System.

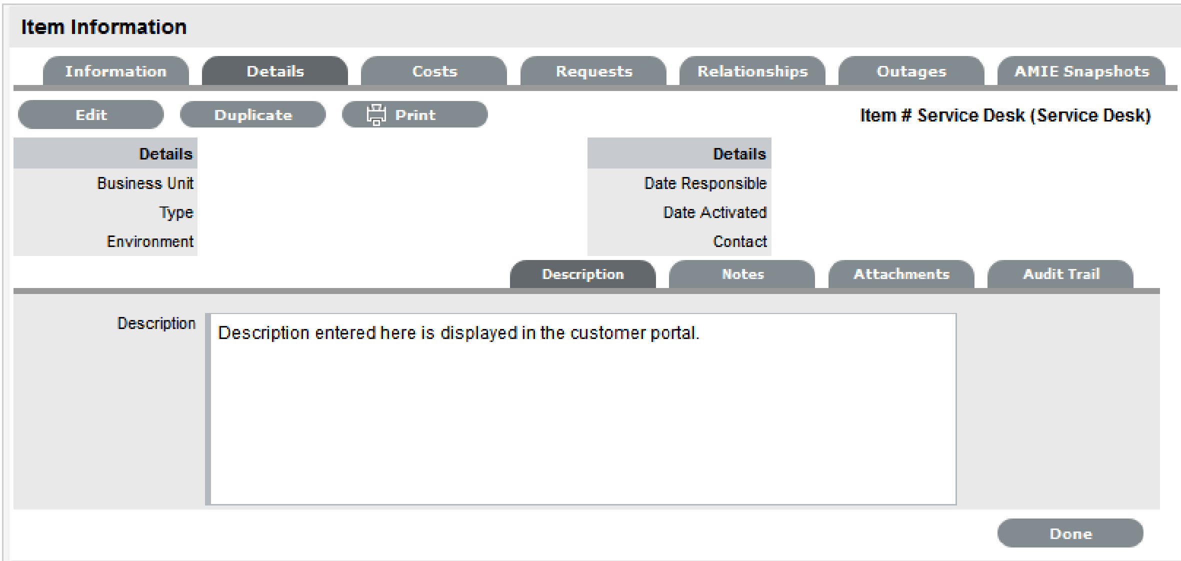
Create an Item with Contracts Enabled

When Contracts are enabled with Billing, Items, Customers and Organizational Units can be linked together using a service contract. To automatically apply the system default support contract when creating an Item, simply select an SLA and an annual contract is applied. However, if an SLA is not required but a service contract is, the contract can be created within the Costs tab of the Item. See:Costs Tab.

1.40.3 Details

Once the basic information for an Item has been completed, additional details can be defined for the Item. The Details tab displays a list of custom fields set for the Item's Category. The information to be completed within this section is configured by the Supervisor when customizing the Item Type templates in Configuration > Categories. Fields marked as Required, must be completed for the Item Details of the Item to be saved successfully.

For more information about Item custom fields, see: Categories.



Clicking Save at the far bottom of the page after the Details tab has been completed, will create the Item and save it to the database.

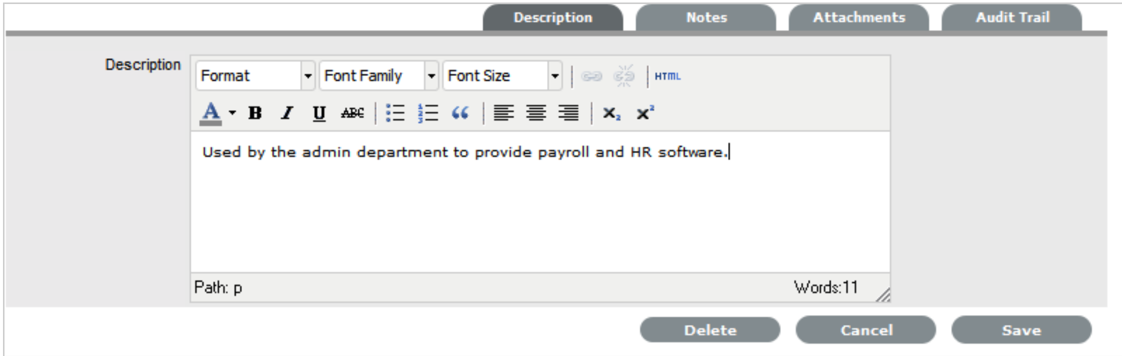
NOTE: Items can be duplicated at any time by clicking the Duplicate button. A new Item is created with properties that are identical to the original Item (with the exception of the Item Number, as this must be unique and is generated automatically).

Item Description

Content entered in the Description field is made available on the Customer Portal in the expanded information window for an Item. For Service Items, where a description of the Service may be required within the Customer Portal, details about the Service can be completed within the Item Description field. The Item and Service information can be expanded by completing Item attribute fields that are marked as Customer Visible and therefore displayed in the Customer Portal.

To add an Item Description, within the Item's Details tab:

1. Click Edit
2. Move to the Description tab
3. Add information in the Description field

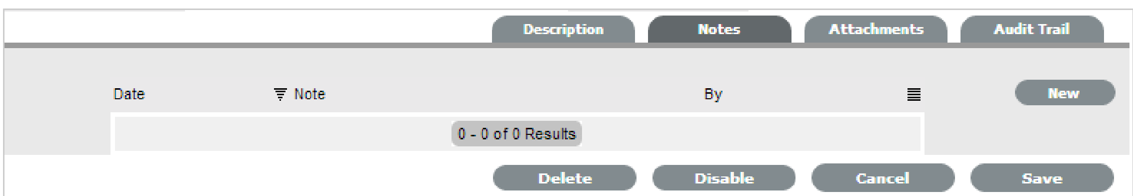


4. Click Save.

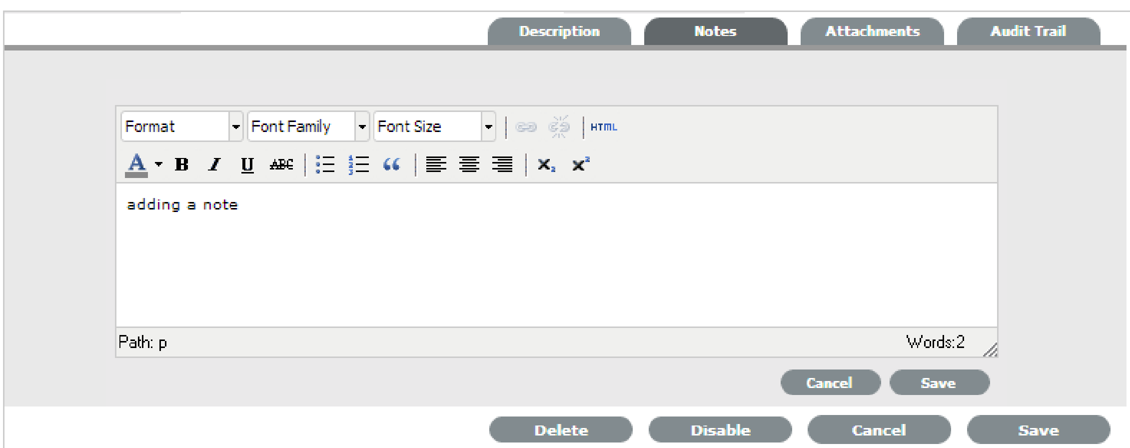
Item Notes

To add Notes to an Item, under the Item's Details tab:

1. Click Edit
2. Select the Notes tab



3. Click New
4. Enter details in the Notes field



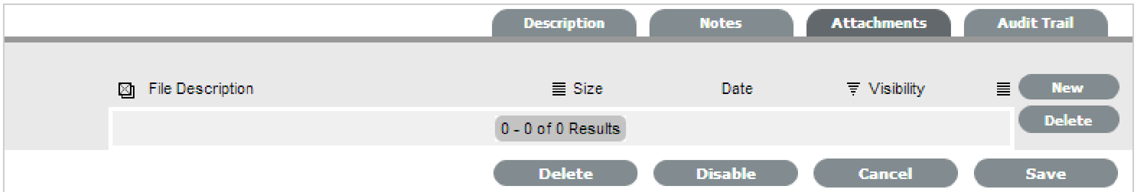
5. Click Save.

   The Note will be allocated an identification number hyperlink for access. It will also be time and date-stamped.

Item Attachments

To add Attachments to an Item, within the Item's Details tab:

1. Click Edit to display the Attachment tab New button
2. Click New



3. Browse and select a file
4. Enter a Description, if required
5. Adjust Private and Public option, if relevant

   Selecting Public will make it accessible on the Customer Portal, when the Item is in a Customer Visible state.

6. Click .

Item Outages

Planned outages can be created for an Item under the Outages tab. This is a period of time an Item will not be available for a Customer's use.

If an Item has an SLA with a specified Blackout Period, Outages should be planned to fall within this time. The Blackout Period is an agreement between the Customer and the Service Desk regarding a period of time when the Customer has no service expectations. This can also be the preferred time for Item upgrades and maintenance without affecting service availability.

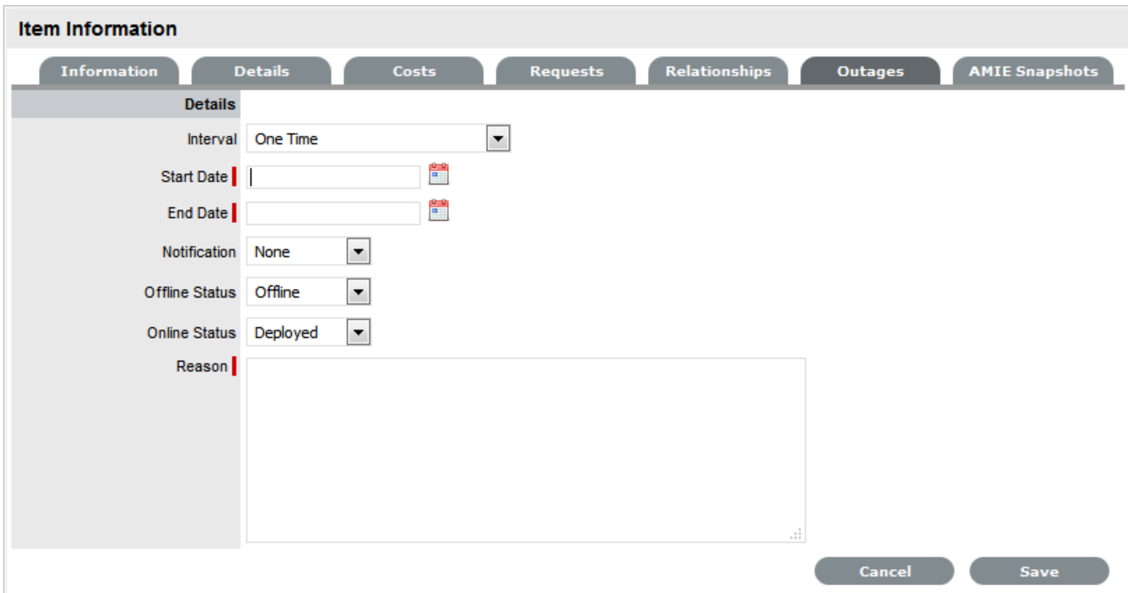
When an Outage is being created, the Blackout Periods times are displayed to ensure the User creates a new Outage that does not breach the Item's SLA.

Creating an Outage

To create an Outage:

1. Select Configuration > Items
2. Select the Item Number
3. Go to the Details tab
4. Click Edit
5. Go to the Outages tab

6. Click New



The screen will expand to display the Outage Editor screen including the Blackout Period, if defined for the Item associated SLA. Within the table the start and end time is displayed as Local Time and Actual Time:

- Local Time is based on the time zone of the logged in User
- Actual Time is based on the SLA time zone.

7. Define the Interval for the Outage

   Select One Time if the Outage is a one off, or set regular outages based on a weekly or monthly basis.

8. Enter the Outage details

   Select the Start/End Date within the calendar, and modify the Time accordingly inside the calendar pop-up.

9. Set the Notification method and recipients, for when the Outage is saved.
10. Tick the Reminder Email field, if a reminder is to be emailed to defined recipients prior to the Outage time
11. Define the length of time before the Outage occurs that the reminder is to be sent

12. Complete the Reason for the Outage
13. Click Save.

    The Outage notification is sent to the defined recipients upon save.

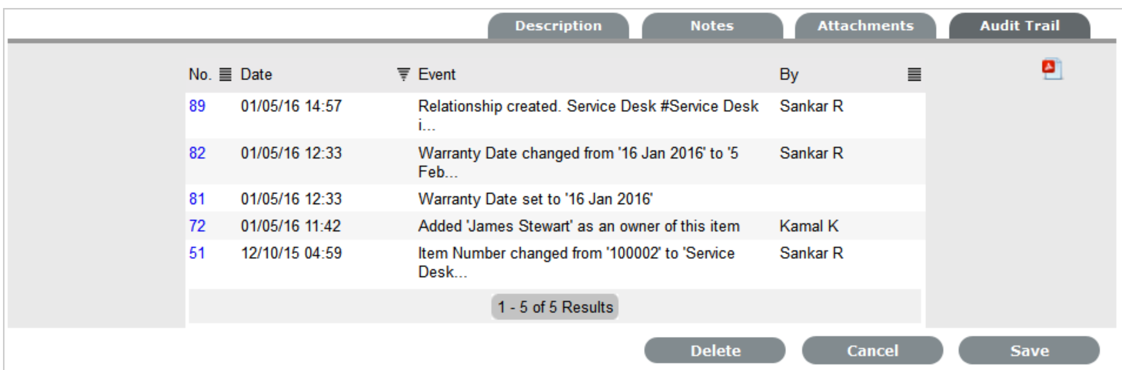
See Outages for more information on setting up and viewing Item Outages.

Item Audit Trail

The Audit Trail tab records all changes that are made to fields within the Item Information and Details screens. These entries are made to record all the alterations made to Items and the CMDB.

To view an audit trail entry, under the Item Details tab:

1. Select the Audit Trail tab
2. Click on the identification number hyperlink to display the entry details.



Rollback Option

All changes recorded in the Audit Trail can be rolled back to reinstate information recorded against an Item.

To return to Item details to previously saved information:

1. Click Edit
2. Select the identification number hyperlink of the entry to be reversed
3. Click the Rollback button
4. Save the Item.

   The Item details will revert to information recorded before an update was made.

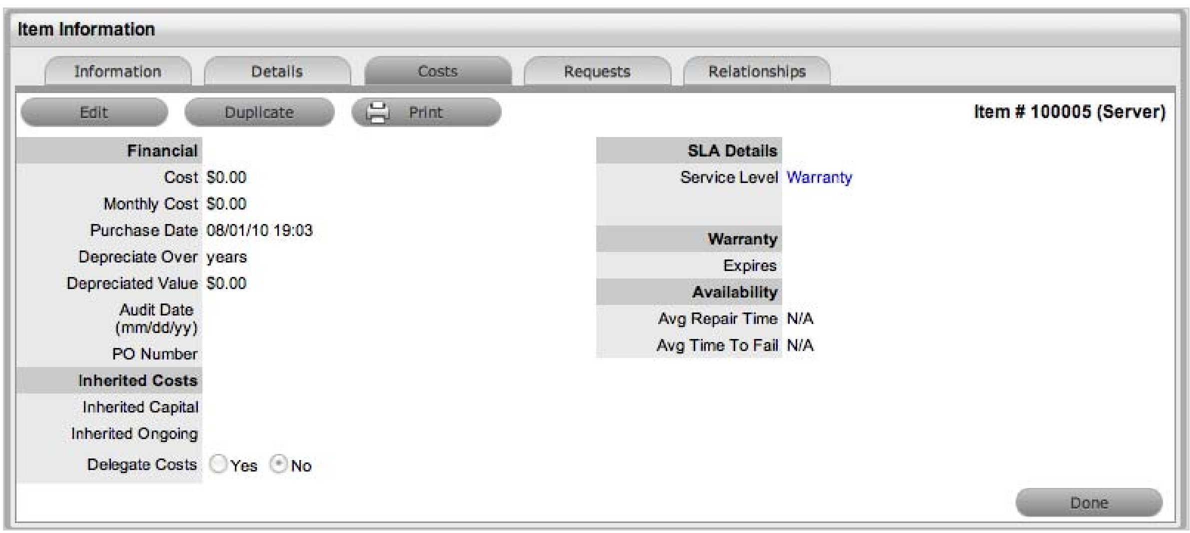
1.40.4 Costs

For Users who are not assigned the Finance Role, the Costs Tab displays SLA Details and Item Availability information. Users who are assigned the Finance Role, also have access to the Item's financial and contractual details. The following Item Costs details include:

- Base cost
- Purchase date and related information
- Depreciation data
- Inherited costs
- SLA and Contract details
- Availability statistics.

Completing the Depreciate Over field causes the application to automatically keep track of the Item depreciation over the specified number of years. The current value of the Item after depreciation is displayed at Depreciated Value. The Audit Date field is used to record the date when the Item was last audited.

For Service Items see: Service Item Costs Tab



The Financial Costs and Inherited Costs fields allow the support organization to assign costs across related Items and charge Users and/or Organizational Units appropriately.

Financial	Description
Cost	The financial investment made to purchase the Item. This figure is also used when the Delegate Costs is enabled for allocating costs across related Items.
Monthly Cost	The amount invested on a monthly basis to maintain the running of an Item. This figure is also used when the Delegate Costs option is enabled for allocating costs across related Items.
Purchase Date	The date the Item was purchased.

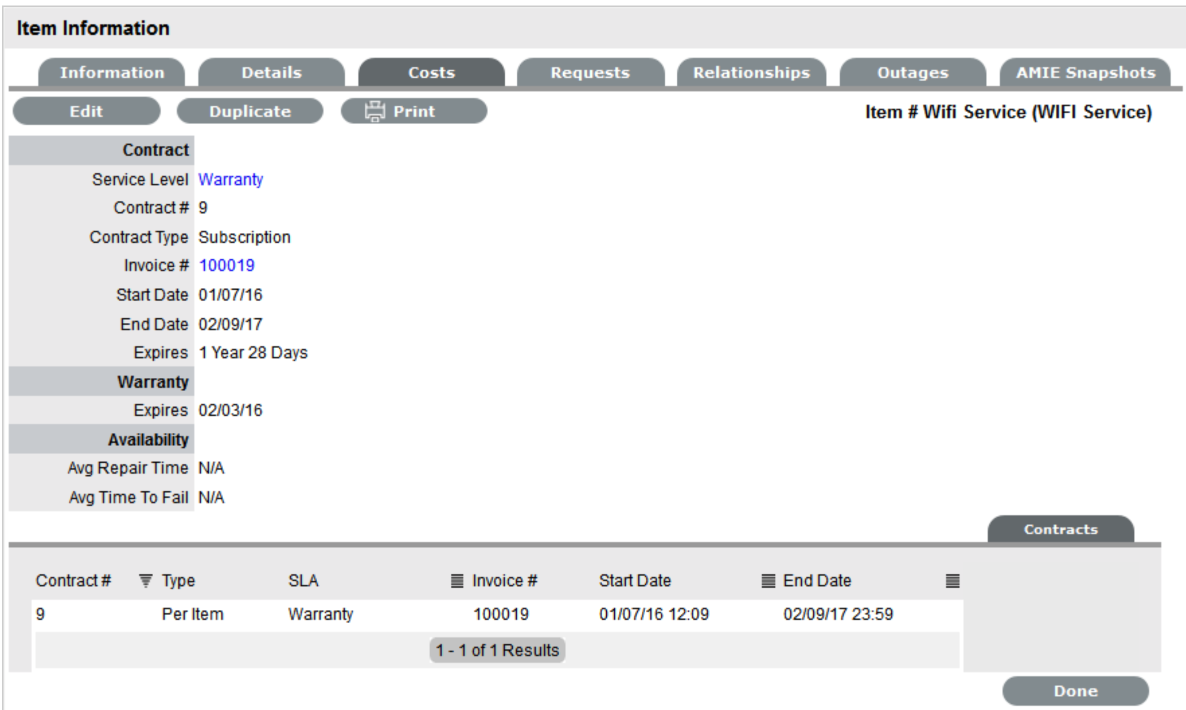
Financial	Description
Depreciate Over	Enter the number of years the Item is to be depreciated over, if required.
Depreciated Value	The system calculates the current value of the Item based on the Purchase Date and the number of years the Item is to be Depreciated Over.
Audit Date	Set the date the Item is next to be audited.
PO Number	If Purchase Orders are enabled for the system, the field is visible and automatically populated with the PO number generated by a User within the Finance>Purchase Orders tab, when the Item order was recorded in the system.
Inherited Costs	
Inherited Capital	Total infrastructure costs of parent CI's that directly contribute to the cost of the current CI. This figure is derived from all the Cost fields within the Item Information>Costs tab of related Parent Items.
Inherited Ongoing	Running costs of all associated Items that enable the current CI to continue to function. This figure is derived from all the Monthly Cost fields within the Item Information>Costs tab of related Parent Items.
Delegate Costs	To enable cost delegation across the relationship map allowing associated Items to inherit the costs of the current CI, select Yes. This will take the figures from the Cost and Monthly Cost fields for the Item and spread them across related Child Items. Define the technique to be used to evaluate the cost split: *Child Count*:Costs are split by percentage based on the number of child CI's the costs are being delegated across. *User Count*:Costs are split proportionally based on the number of users of the child CI's the costs are being delegated across. *Custom %*: The relationship itself allows for the % cost to be assigned

The figures displayed within the Availability fields are automatically calculated by the application, using the Item Lifecycle as it moves between online and offline States:

Availability	
Avg Repair Time	Entries displayed here are automatically calculated based on the average length of time an Item is offline.
Avg Time To Fail	Figures displayed here are automatically calculated based on the average time between an Item being offline.

Billing Enabled

When Billing is enabled, a Service Level hyperlink is available within the Costs screen. This provides access to the Service Level Agreement details that govern the lifecycle for Requests logged against the Item.



If Invoices are also enabled, an Invoice Number hyperlink is available and when selected, will display the invoice details for the Contract that covers the Item. The Start Date and End Dates stipulate the contract length covered for the Item. It is summarized by the days or hours recorded in the Expires field.

The Contract tab within the Item Information Costs tab summarizes the contract details that cover the Item. Further Contract details can be found within the relevant Contract Number within the Finance>Invoices screen.

Create a Contract

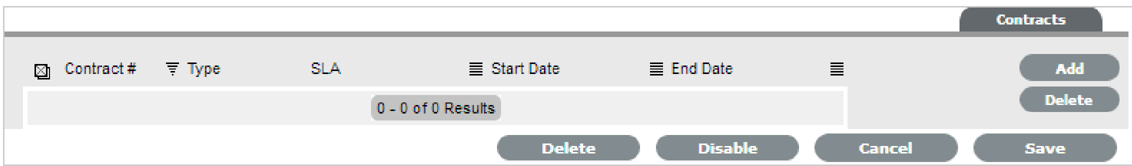
Through the Item Costs tab, Contracts with an associated Invoice Number (if relevant) can be generated for an Item, after it has been logged in the system.

To add a Contract to an Item, within the Configuration>Item screen:

1. Select the Item Number
2. Move to the Costs tab

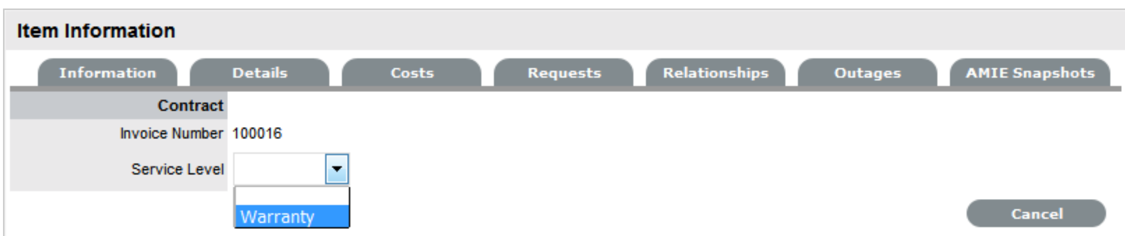
   The Contracts tab is visible in the bottom right corner of the screen
3. Click Edit

   The Add and Delete buttons are made available within the Contracts tab



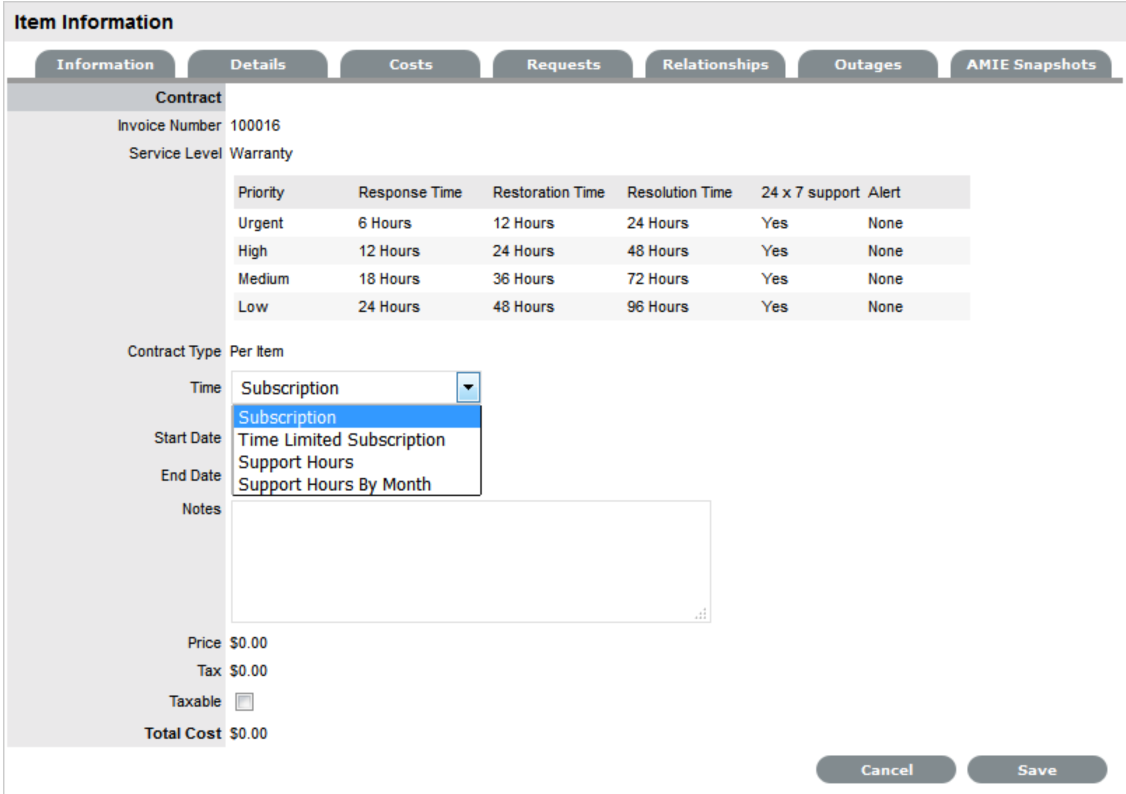
4. Click Add

   (If Invoices are enabled in the system, an Invoice number will be automatically generated and assigned to the Contract).



5. Select an SLA from the drop-down option

   The screen will display the SLA details and the Contract Type locked to Per Item.



6. Assign the Time period to be covered by the Contract:

   If *Subscription* is selected, the Start and End Dates are automatically completed by the system, but can be edited if required.

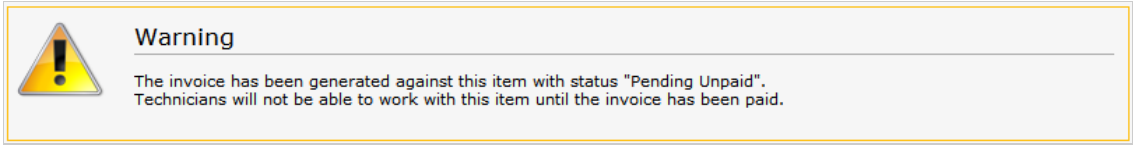
   If *Time Limited Subscription* is selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually, entering the length of time for the subscription period.

   If *Support Hours* is selected, the number of support hours purchased by the Customers should be entered.

   If *Support Hours by Month* is selected, set the number of hours purchased per month and define which day of the month contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

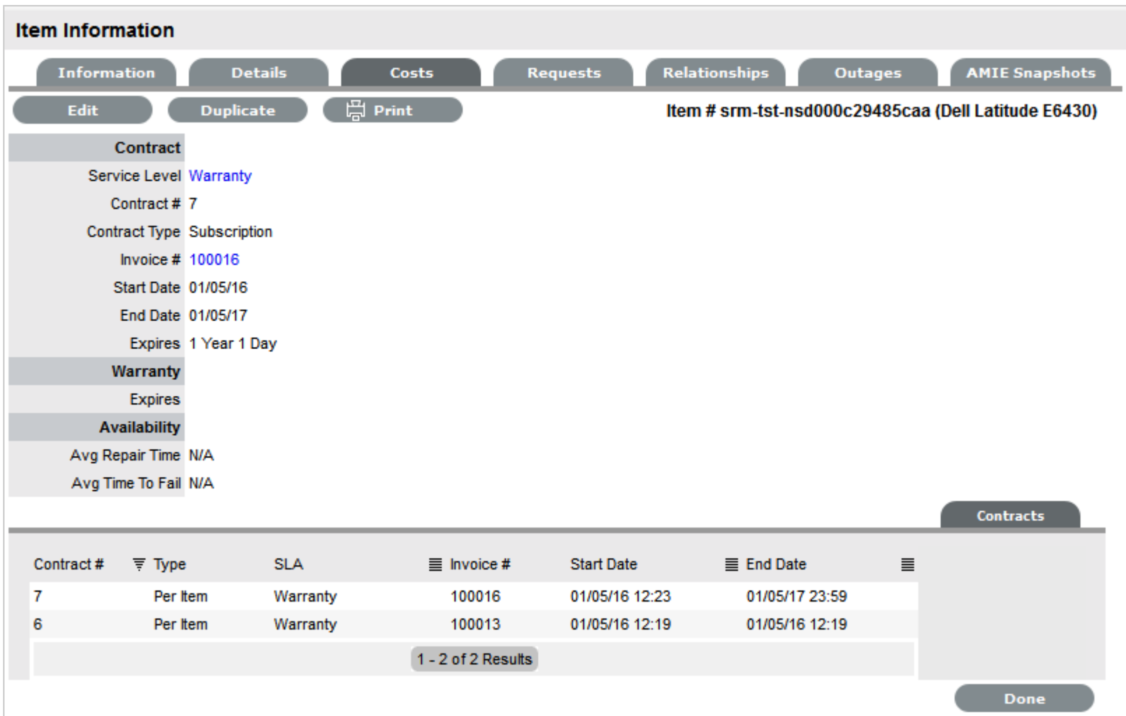
   (If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)
7. Add any relevant Invoice Notes
8. Check the Taxable box, if the Contract is to be taxed
9. Click Save.

   If Invoices are enabled in the system, an Invoice number will be automatically generated for the Contract and made available within Finance>Invoices. Payment will need to be processed by a Finance User before the Contract can be enabled in the system. If invoice payment is required before the contract can be enabled in the system the following Warning message is displayed:



10. Click Next

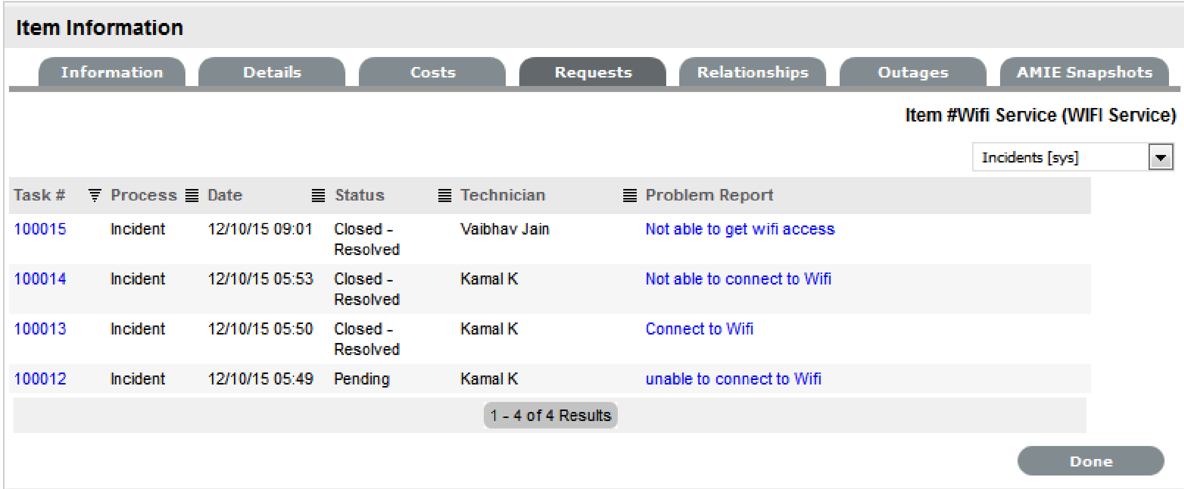
    The Contracts information is only populated after the Invoice has been processed. To process the Invoice, as a Finance User move to the Finance>Invoices tab. Once the relevant Invoice payment has been processed the Contract details will be visible in the Costs >Contracts tab.



1.40.5 Requests

This section lists all the requests that have been logged against an Item. For Technician Users, this tab is only visible to when the View All Requests option is enabled in the Setup>Privileges>User tab.

Use the system list filter to display the relevant type of request or task. To expand and view the request in full, select the Task # or Problem Report hyperlink.



1.40.6 Item Relationships

This Relationship Tab allows Users to view and/or create a Relationship Map for the current Item, with other Items within the CMDB.

The Relationship direction can be defined as:

- Service Oriented - Parent-Child Relationship
- Component Oriented - Child-Parent Relationship.

Within each view the Relationship Class can be defined as:

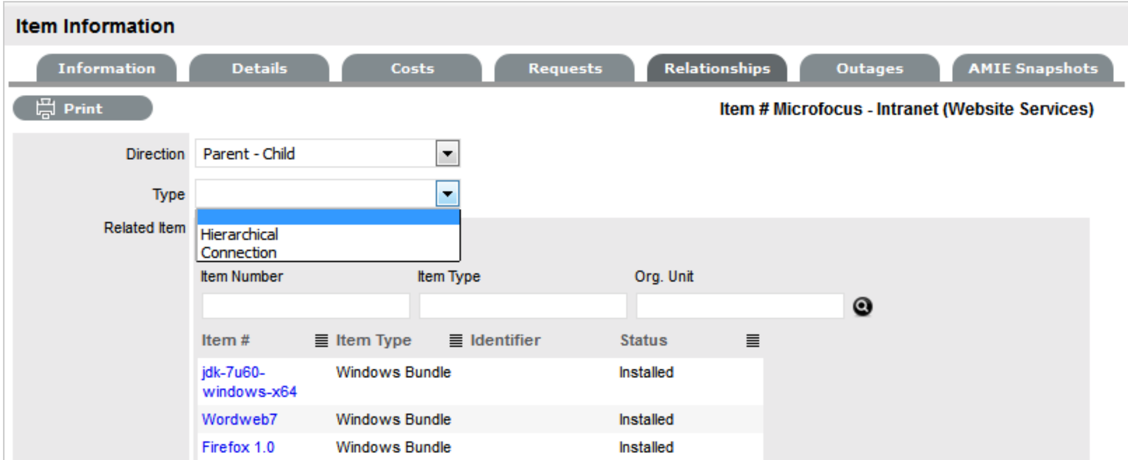
- Hierarchical Relationship
- Connection - an association between the selected Items.

For a Service, such as the Email or Web Site Service, it is recommended that the Hardware be defined as the Parent for the Software Items and the Software be defined as the Parent of the Email or Web Site Service.

Create a Relationship

To create a new Item Relationship:

1. Select Configuration>Items
2. Select an Item
3. Select the Item's Relationship tab
4. Click Edit
5. Click New
6. Select the Relationship Direction and Class from the drop-down menus
7. Define the Relationship by selecting a description from the drop-down list



8. **NOTE:** If the Relationship Type has the Inherit Parent Ownership option enabled, Child Items that use this relationship will inherit the Parent Item's owners. The ownership will not be editable and no other Parent Item can be assigned to the Child Item. A warning will be displayed if a relationship type has the Inherit Parent Ownership option enabled.

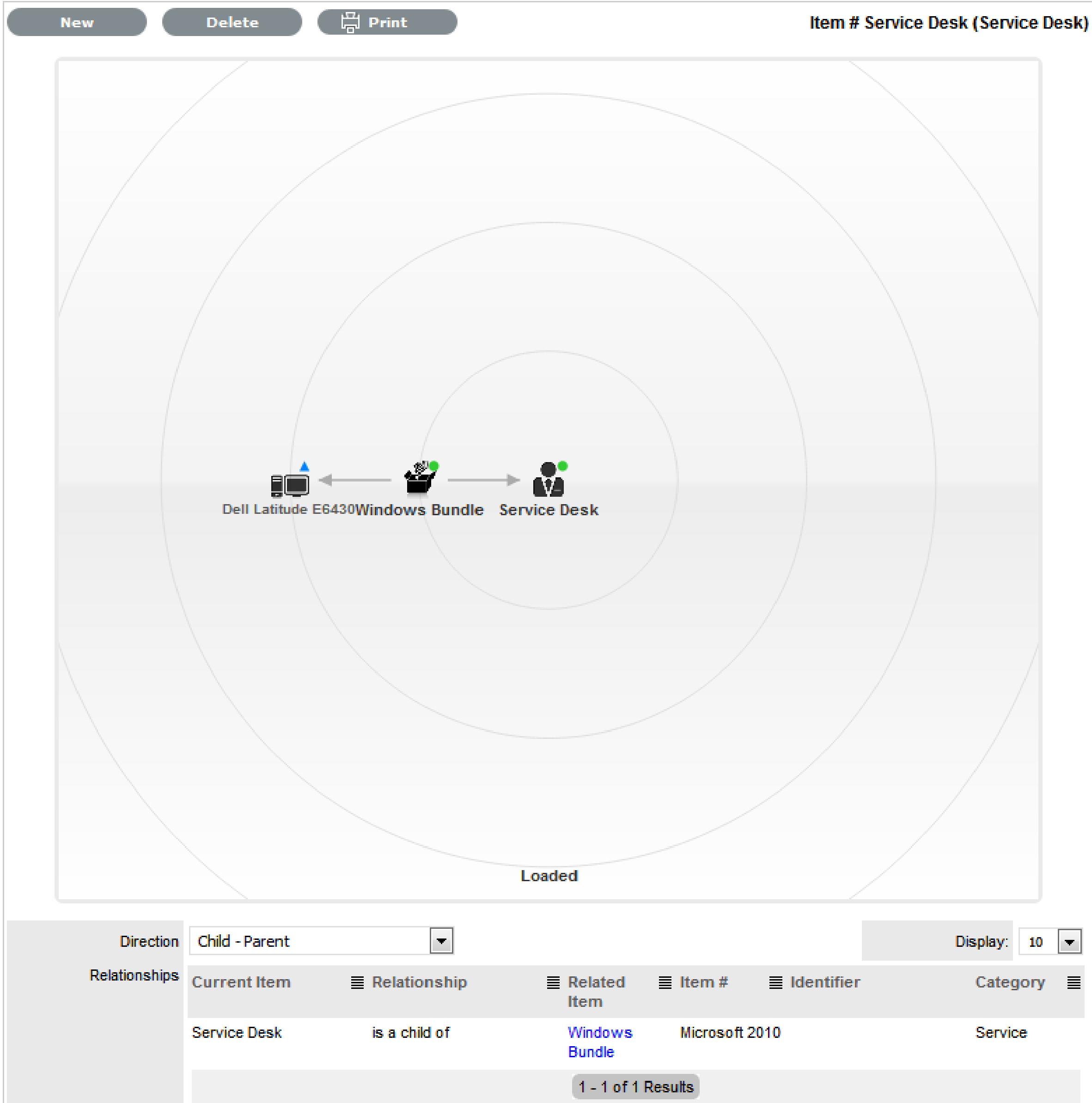
9. Use the Find Item field to locate the relevant Item
10. Click on the Item Number hyperlink to create the Relationship
11. Click Save to default to the Relationship Map view.

Relationship Map

Within the Relationships tab of the Item Information screen, a Relationship Map visually displays the connections that have been defined for an Item. All Item Relationships are listed in the Relationships Table beneath the Map. The Relationship Map can display up to 48 Child Items and 16 Parent Items in the one diagram.

The central icon of a Map is a visual representation of the selected Item. Scroll over an Item label to view any information recorded on the Information and Details tabs of the Item. To drill-down through the relationships, click on an Item label. To change the focus of the Relationship Map to another Item, click on the Item label and the system will request that OK be selected before updating the central node of the Map.

The Relationship Table data displayed at the base of the map can be filtered using the Direction filter view of Parent-Child or Child-Parent.



The map displays the relationship between each Lifecycle State by using different colors to represent the type of Lifecycle State.

Color	
Green Circle	CI is assigned an online status.
Red Square	CI is assigned an offline status.
Blue Triangle	Service CI is assigned a pre-production status.

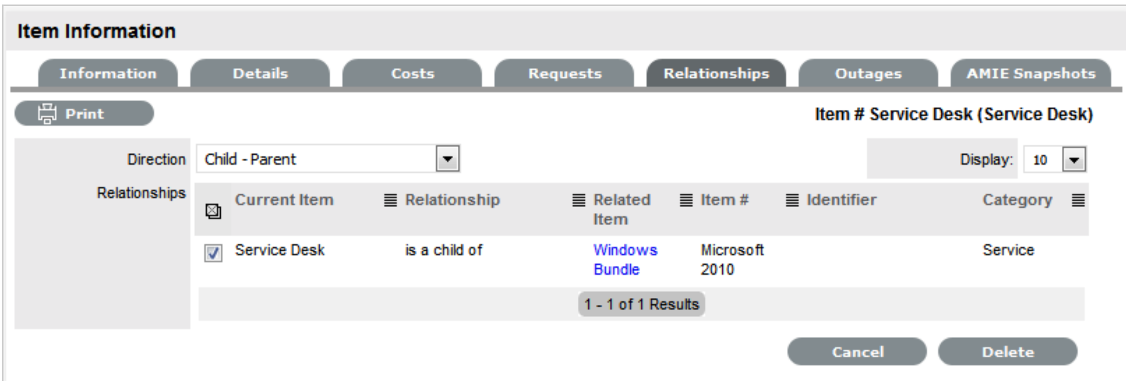
The Lifecycle State name can be accessed by scrolling over the Item icon within the Map.

To delete a Relationship:

To remove the Relationship between Items:

1. Select the relevant Item within the Configuration tab
2. Move to the Relationships tab
3. Click Edit
4. Select Delete

   A table with the Relationship details is displayed.



5. Select the Relationship Direction to display the relevant Relationship table
6. Mark the checkbox next to the Relationship that is to be removed
7. Select Delete
8. Click Done to return to the Item list.

Users can view and create relationship maps for current Item with other Items within the CMDB within the Relationships tab to define the infrastructure that underpins Services within the Service Catalog. For more information about creating a Service catalog and relationship mapping, see: Service catalog.

AMIE Item Imports and Relationships

Items with Item relationships that have been imported using the AMIE engine, retain the relationships that exist within the Asset Management Tool. A visible map of the relationships is recorded within the Relationships tab.

1.41 Create an Item

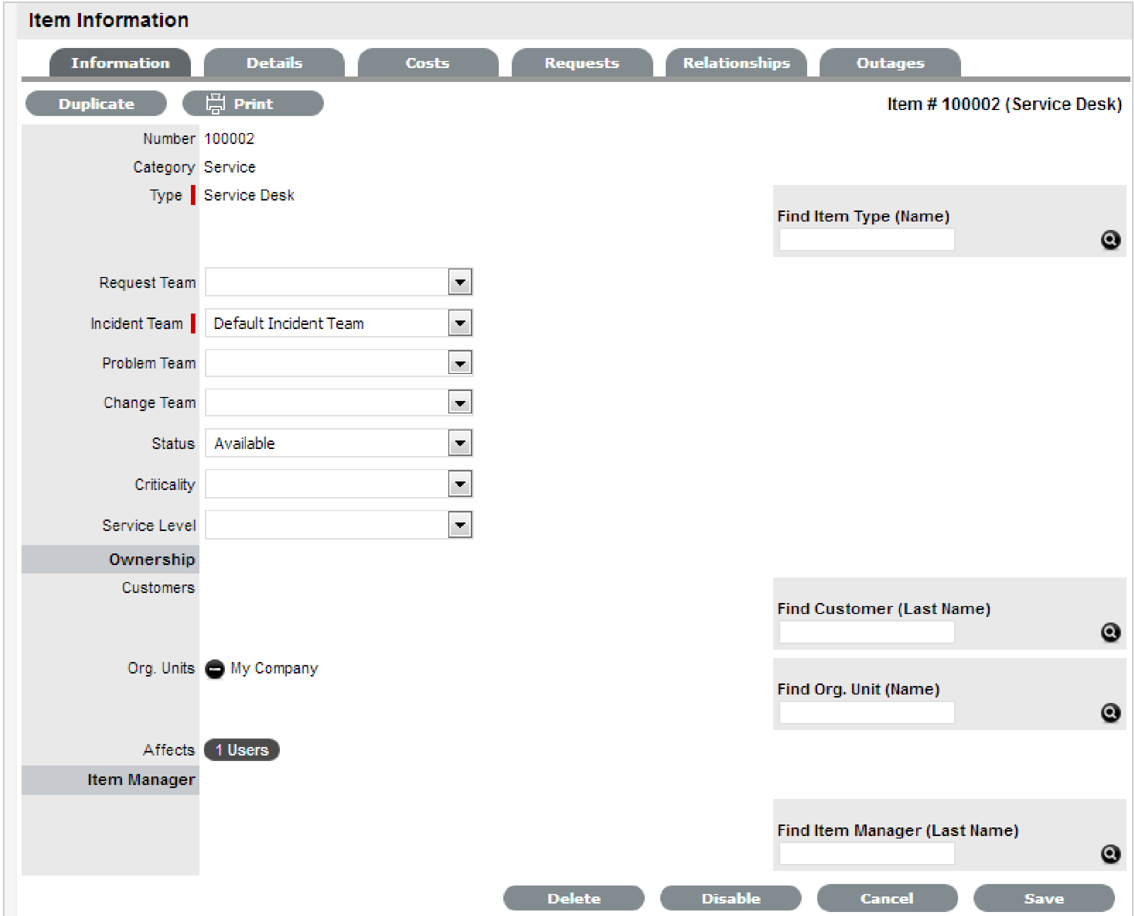
When an Item is created within the system it takes the generic settings of an Item Type and binds them to a Customer or Customers and/or Organizational Unit. The Item information uses the details defined in the Item Type template, however these can be adjusted to suit the requirements of the specific Item.

To create an Item:

1. Select Configuration > Items

2. Click New

The Item Information screen appears



*Denotes mandatory fields.

3.

Item	Description
Item Number*	If the Administrator has set the Item Numbers Editable option in Setup> Privileges> System to Yes, the User will have the option of entering a customized Item number. It may contain numbers and/or letters, and be between 1 and 64 characters in length. As no two Item Numbers can be the same, the User will be prompted to change the value they have entered if it is already in use. If the Item Number field is left blank, the system will automatically create an Item Number. If the Administrator has set the Item Numbers Editable option to No, an Item Number will be generated automatically and cannot be edited.
Category*	This is auto-filled, based on the assigned Item Type.

Item	Description
Type*	This is the Item Type that the Item represents. Click the Search button to view the list of available Item Types.
Team*	This is the Technician Team that will be assigned to support the Item.
Status*	Select the status from the drop-down options displayed after the Item Type has been assigned.
Criticality*	Rates the degree of importance of an Item Type within an organization. The 'Impact' of a request is initially pulled from the Criticality of the Item, but can be adjusted within the request Information screen if required. Requests logged through the Customer Portal, use the Criticality of the Item to determine the Priority of the request. (See additional information below.)
Service Level	Select the Service Level Agreement from the drop-down list, if required.
Ownership	
Customers	These are the Customers who own the Item. A single Customer, a group of Customers or all Customers in the application can be assigned to an Item. 1. Enter a Customer last name, or leave blank then click the Search button to view a list of all available Customers. 2. Click on the hyperlink for the relevant Customer name or names to assign them to the Item. If no specific Customer is allocated to the Item, it becomes a Global Item and is assigned to Everyone.

Item	Description
Org Units	These are the Org Units who own the Item. The Item can be assigned to one or multiple Organizational Units. To assign an Org Unit: 1. Enter an Org Unit name, or leave blank then click the Search button to view a list of available Org Units. 2. Click on the hyperlink for the relevant Org Unit name or names to assign them to the Item. **3. NOTE:** If Billing is enabled an owner must be assigned to the Item. The owner can be either a Customer or an Org Unit, but only Org Units that have a Primary Contact, will be displayed in the Org Unit Search list. (See: Primary Contact.)
Notification	
Method	This field is visible when an active Item moves into an offline State and allows the User to define who (Primary Contact or All Owners of the Item) and how (Email or SMS), Customers will be notified that the Item is not available.

4. Search and select an Item Type
5. Define a support Team for each process
6. Select the Item's Status and Criticality

   (Refer below for further details about Item Criticality.)
7. Assign a Service Level

   If Contracts are enabled for the system, the assignment of an SLA will result in an annual service contract automatically being applied to the Item. If an SLA is not assigned, a Contract can be created for the Item within the Costs tab.
8. Search and select a Customer and/or an Organizational Unit owner
9. Click Next to view the Details tab

1.41.1 Item Criticality

The Item Criticality is used to identify the degree of importance of an Item to an Organization.

When the Incident Priority is set to Derived in the Administrator Setup, the Impact of a request is mapped from the Criticality of the Item associated with the request and then combined with the selected Urgency, which derives the Priority of the request. If required, the Impact can be manually adjusted within the request Information screen. Requests logged through the Customer Portal, use the Criticality of the Item to determine the Priority of the request, which can be manually adjusted by the Technician User.

The following table displays the calculations applied by the system to the Item Criticality, which is mapped to a request's Impact to determine a request's Priority:

Impact / Urgency	Urgent	High	Moderate	Low	Very Low
Critical	1.000	0.850	0.700	0.550	0.410
High	0.850	0.723	0.595	0.468	0.349
Moderate	0.700	0.595	0.490	0.385	0.287
Low	0.550	0.468	0.385	0.303	0.226
Very Low	0.410	0.349	0.287	0.226	0.168

The above calculations result in the following Priorities:

Priority	Upper	Lower
Urgent	1	0.83
High	0.83	0.58
Medium	0.58	0.34
Low	0.34	0

The Incident Analyzer, if enabled by the Administrator in Setup>CMS>Incident Analyzer, can apply the Criticality to automatically detect Problems. The minimum Criticality level can also be used to determine which off-line Items are displayed on the Outages pages, when the Outages pages are enabled by the Administrator in Setup>Privileges>System.

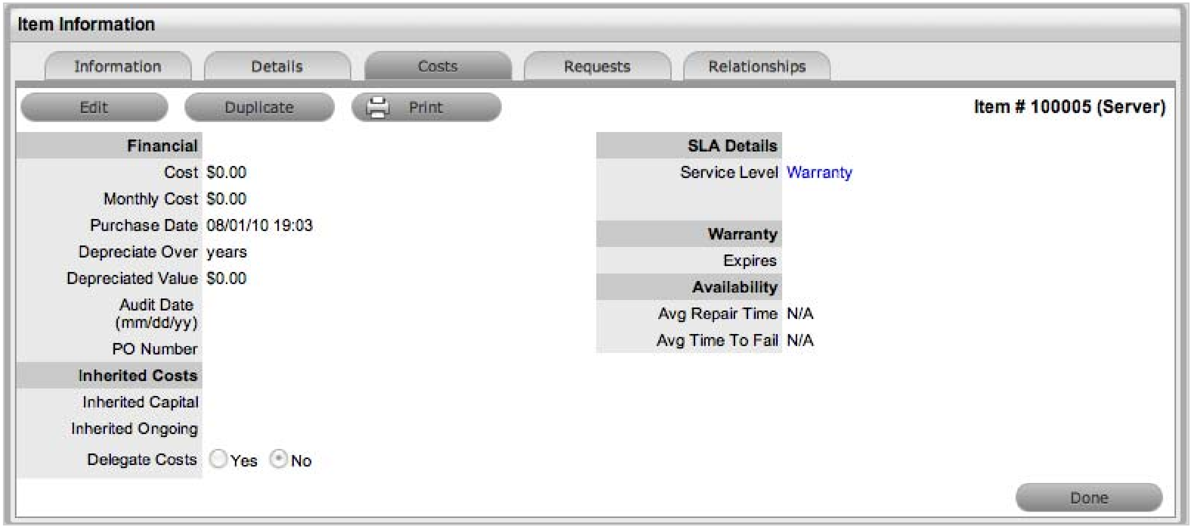
1.42 Costs Tab

For Users who are not assigned the Finance Role, the Costs Tab displays SLA Details and Item Availability information. Users who are assigned the Finance Role, also have access to the Item's financial and contractual details. The following Item Costs details include:

- Base cost
- Purchase date and related information
- Depreciation data
- Inherited costs
- SLA and Contract details
- Availability statistics.

Completing the Depreciate Over field causes the application to automatically keep track of the Item depreciation over the specified number of years. The current value of the Item after depreciation is displayed at Depreciated Value. The Audit Date field is used to record the date when the Item was last audited.

For Service Items see: Service Item Costs Tab



The Financial Costs and Inherited Costs fields allow the support organization to assign costs across related Items and charge Users and/or Organizational Units appropriately.

Financial	Description
Cost	The financial investment made to purchase the Item. This figure is also used when the Delegate Costs is enabled for allocating costs across related Items.
Monthly Cost	The amount invested on a monthly basis to maintain the running of an Item. This figure is also used when the Delegate Costs option is enabled for allocating costs across related Items.
Purchase Date	The date the Item was purchased.
Depreciate Over	Enter the number of years the Item is to be depreciated over, if required.
Depreciated Value	The system calculates the current value of the Item based on the Purchase Date and the number of years the Item is to be Depreciated Over.
Audit Date	Set the date the Item is next to be audited.
PO Number	If Purchase Orders are enabled for the system, the field is visible and automatically populated with the PO number generated by a User within the Finance>Purchase Orders tab, when the Item order was recorded in the system.
Inherited Costs	
Inherited Capital	Total infrastructure costs of parent CI's that directly contribute to the cost of the current CI. This figure is derived from all the Cost fields within the Item Information>Costs tab of related Parent Items.

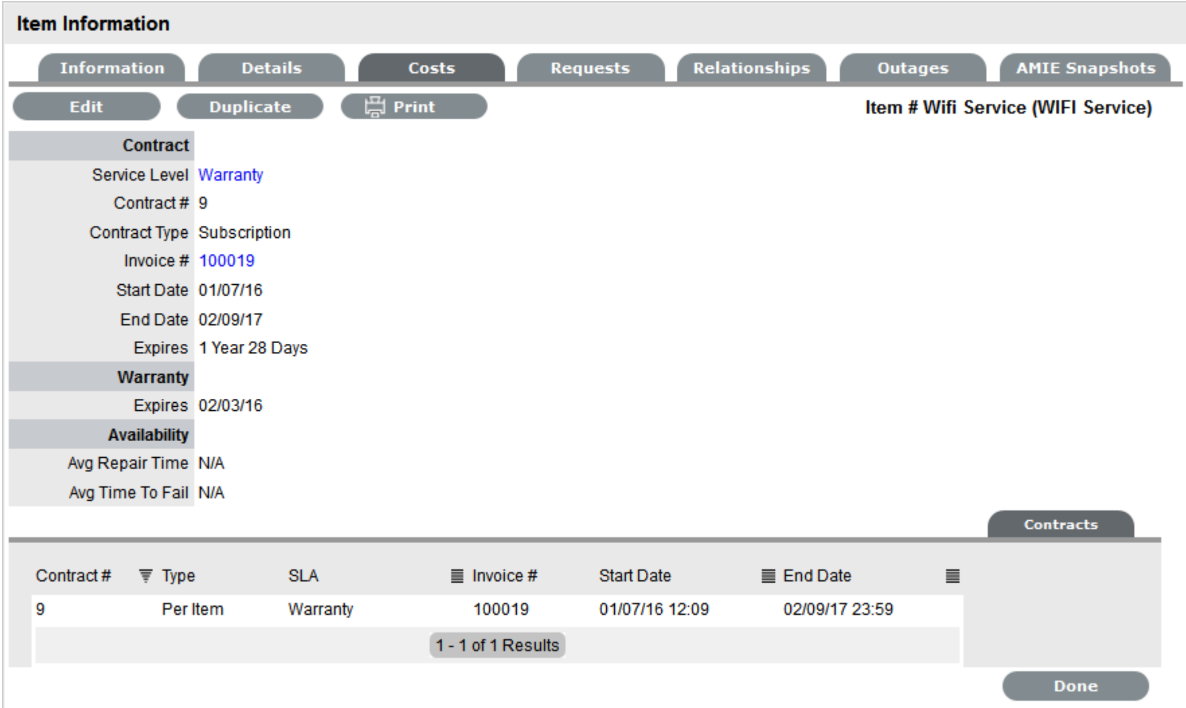
Financial	Description
Inherited Ongoing	Running costs of all associated Items that enable the current CI to continue to function. This figure is derived from all the Monthly Cost fields within the Item Information>Costs tab of related Parent Items.
Delegate Costs	To enable cost delegation across the relationship map allowing associated Items to inherit the costs of the current CI, select Yes. This will take the figures from the Cost and Monthly Cost fields for the Item and spread them across related Child Items. Define the technique to be used to evaluate the cost split: *Child Count*:Costs are split by percentage based on the number of child CI's the costs are being delegated across. *User Count*:Costs are split proportionally based on the number of users of the child CI's the costs are being delegated across. *Custom %*: The relationship itself allows for the % cost to be assigned

The figures displayed within the Availability fields are automatically calculated by the application, using the Item Lifecycle as it moves between online and offline States:

Availability	
Avg Repair Time	Entries displayed here are automatically calculated based on the average length of time an Item is offline.
Avg Time To Fail	Figures displayed here are automatically calculated based on the average time between an Item being offline.

1.42.1 Billing Enabled

When Billing is enabled, a Service Level hyperlink is available within the Costs screen. This provides access to the Service Level Agreement details that govern the lifecycle for Requests logged against the Item.



If Invoices are also enabled, an Invoice Number hyperlink is available and when selected, will display the invoice details for the Contract that covers the Item. The Start Date and End Dates stipulate the contract length covered for the Item. It is summarized by the days or hours recorded in the Expires field.

The Contract tab within the Item Information Costs tab summarizes the contract details that cover the Item. Further Contract details can be found within the relevant Contract Number within the Finance>Invoices screen.

1.42.2 Create a Contract

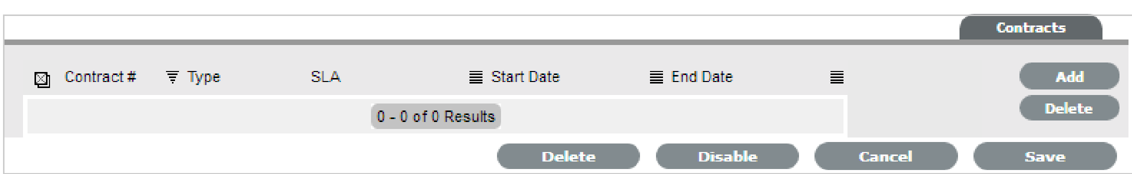
Through the Item Costs tab, Contracts with an associated Invoice Number (if relevant) can be generated for an Item, after it has been logged in the system.

To add a Contract to an Item, within the Configuration>Item screen:

1. Select the Item Number
2. Move to the Costs tab

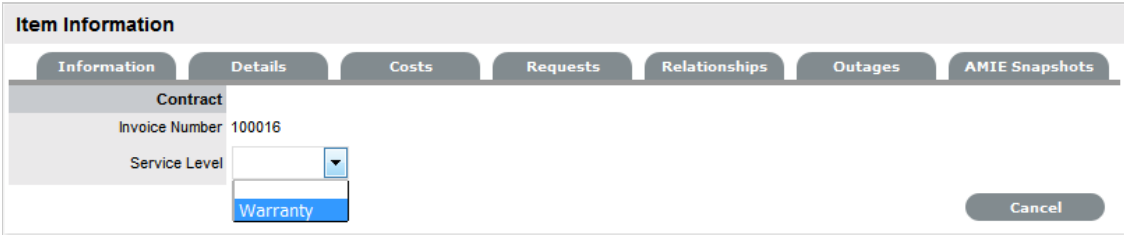
   The Contracts tab is visible in the bottom right corner of the screen
3. Click Edit

   The Add and Delete buttons are made available within the Contracts tab



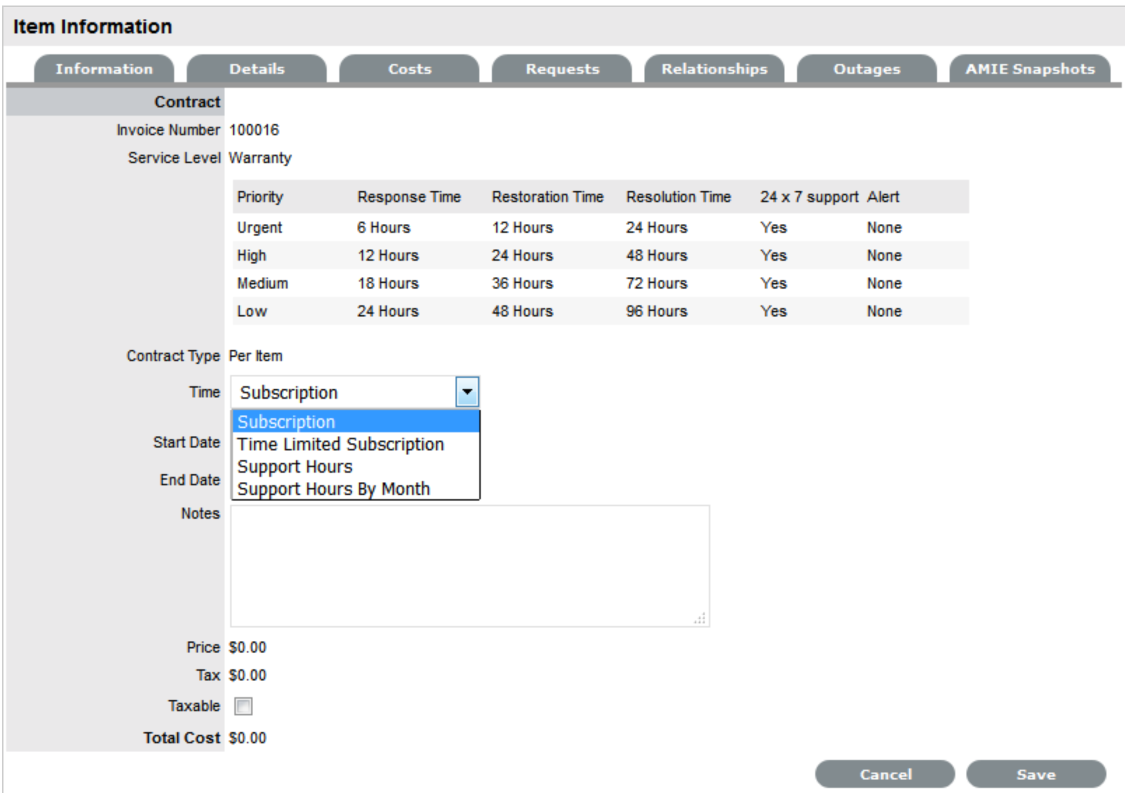
4. Click Add

   (If Invoices are enabled in the system, an Invoice number will be automatically generated and assigned to the Contract).



5. Select an SLA from the drop-down option

   The screen will display the SLA details and the Contract Type locked to Per Item.



6. Assign the Time period to be covered by the Contract:

   If *Subscription* is selected, the Start and End Dates are automatically completed by the system, but can be edited if required.

   If *Time Limited Subscription* is selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually, entering the length of time for the subscription period.

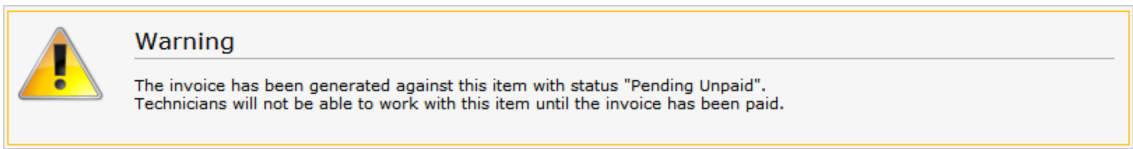
   If *Support Hours* is selected, the number of support hours purchased by the Customers should be entered.

If *Support Hours by Month* is selected, set the number of hours purchased per month and define which day of the month contract is to rollover to start the new month. The Total Support Hours will automatically be calculated based on the Start and End Dates set for the Contract.

(If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)

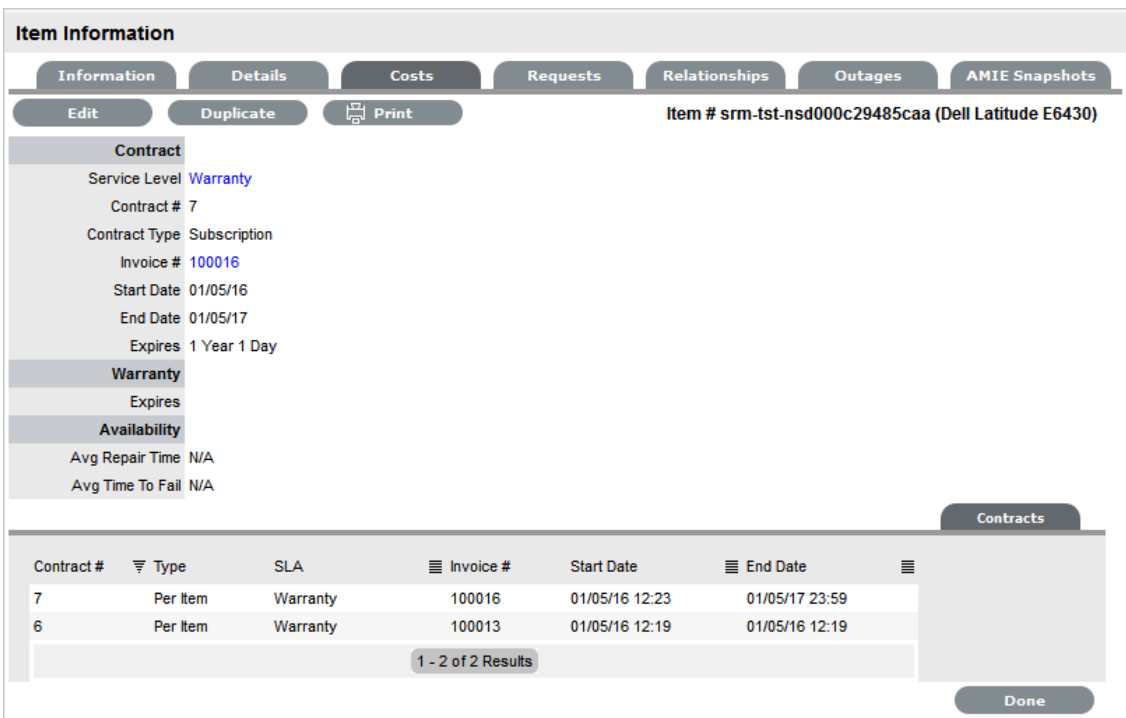
7. Add any relevant Invoice Notes
8. Check the Taxable box, if the Contract is to be taxed
9. Click Save.

   If Invoices are enabled in the system, an Invoice number will be automatically generated for the Contract and made available within Finance>Invoices. Payment will need to be processed by a Finance User before the Contract can be enabled in the system. If invoice payment is required before the contract can be enabled in the system the following Warning message is displayed:



10. Click Next

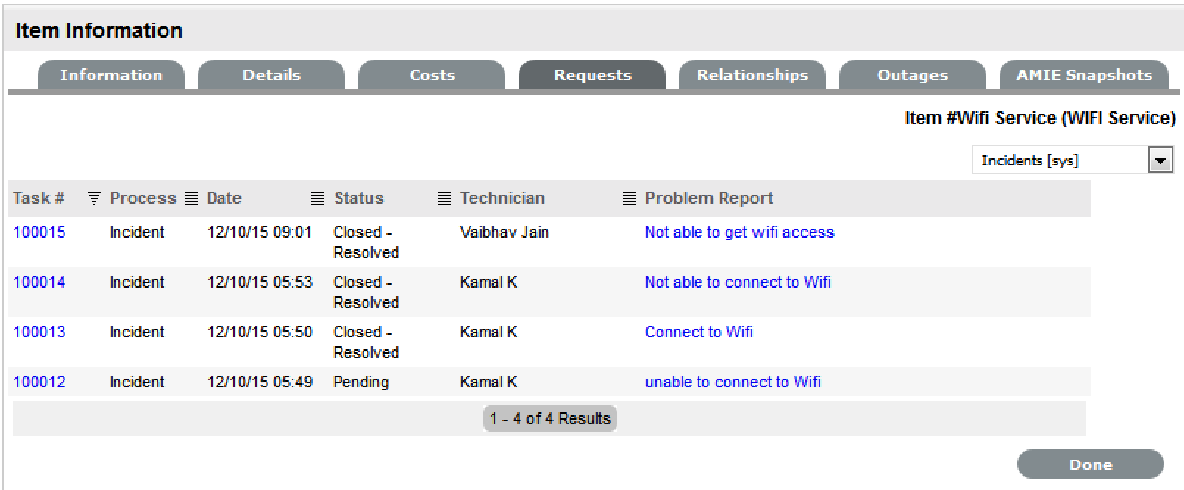
   The Contracts information is only populated after the Invoice has been processed. To process the Invoice, as a Finance User move to the Finance>Invoices tab. Once the relevant Invoice payment has been processed the Contract details will be visible in the Costs >Contracts tab.



1.43 Requests Tab

This section lists all the requests that have been logged against an Item.

Use the system list filter to display the relevant type of request or task. To expand and view the request in full, select the Task # or Problem Report hyperlink.



1.44 Outages Tab

Planned outages can be created for an Item under the Outages tab. This is a period of time an Item will not be available for a Customer's use.

If an Item has an SLA with a specified Blackout Period, Outages should be planned to fall within this time. The Blackout Period is an agreement between the Customer and the Service Desk regarding a period of time when the Customer has no service expectations. This can also be the preferred time for Item upgrades and maintenance without affecting service availability.

When an Outage is being created, the Blackout Periods times are displayed to ensure the User creates a new Outage that does not breach the Item's SLA.

NOTE: To display the Outages tile, Planned Outages Page and Outages Page should be set to Yes in **Setup** > **Privileges** > **System** | **Outage Options**.

The Outage will be displayed only when the Minimum Criticality for an Item Category is set to equal or higher criticality, and the Item must be deployed.

For Item, Criticality must be equal to or higher than the Item Category Minimum Criticality setting.

To view the Outages Offline, go to the “Item Category” and ensure that the Offline State and Customer Visible are set to Yes.

1.44.1 Outages List View

This page lists all the outages. Using the filter option, you can view planned, current, and concluded outages.

You can perform the following actions in this page:

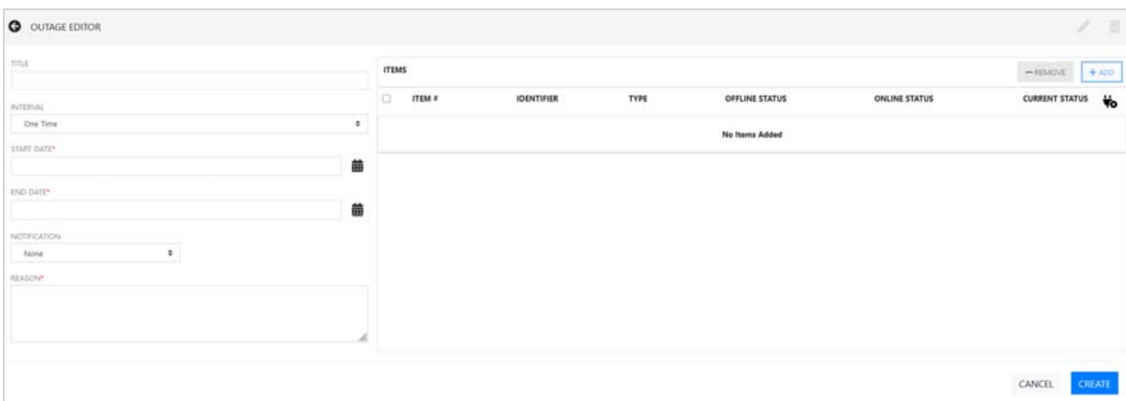
- Using the column headers, you can sort or search the outages at the header level.
- To view an outage, click the required outage tab.
- To edit an outage, click the required outage tab, and then click the icon.
- To delete an outage, select the required outage, and then click the icon.

1.44.2 Creating an Outage

To create an Outage, perform the following steps:

1. In ZENworks Service Desk portal, click Configuration > Outages.
2. In the Outages page, Click the icon at the bottom of the page.

   The changes are applied only you save the Outage.



Planned Outages	
Details	Description
Interval	Select One Time if the Outage is a one off, or set regular outages based on a weekly or monthly basis.
Start Date	Select the Start Date within the calendar, and modify the Time accordingly inside the calendar pop-up.
End Date	Select the End Date within the calendar, and modify the Time accordingly inside the calendar pop-up.

Planned Outages	
Notification	Select Email or SMS Notification about the Outage is to be sent to the Primary Contact of the Org. Unit and All Owners associated with the Item, or All members of the Org Unit and All Owners associated with the Item.
Reminder	This option is displayed when a Notification is set for the Outage. If a Reminder notification is to be applied to the Outage, check the box and define the period of time prior to the Planned Outage period that the reminder is to be issued.
Reason	Enter a description that details why a Planned Outage is being scheduled.

3. To associate an item to outage, perform the following:
   a. In the Items section, click Add.
   b. In the Advanced Item Search, specify the required keywords to search the required items.
   c. Select the required items, and then click Select Item.
   d. Define the Offline Status and Online Status for the Item

      These are the States the Item will be automatically assigned in the CMDB when the Planned Outage commences and ends.
   e. To view the blackout window, click the icon.
4. Click Create.

   To view the details of the Outage, select the Outage No. link in the Outage List View.

See: Outages for more information on setting up and viewing Item Outages.

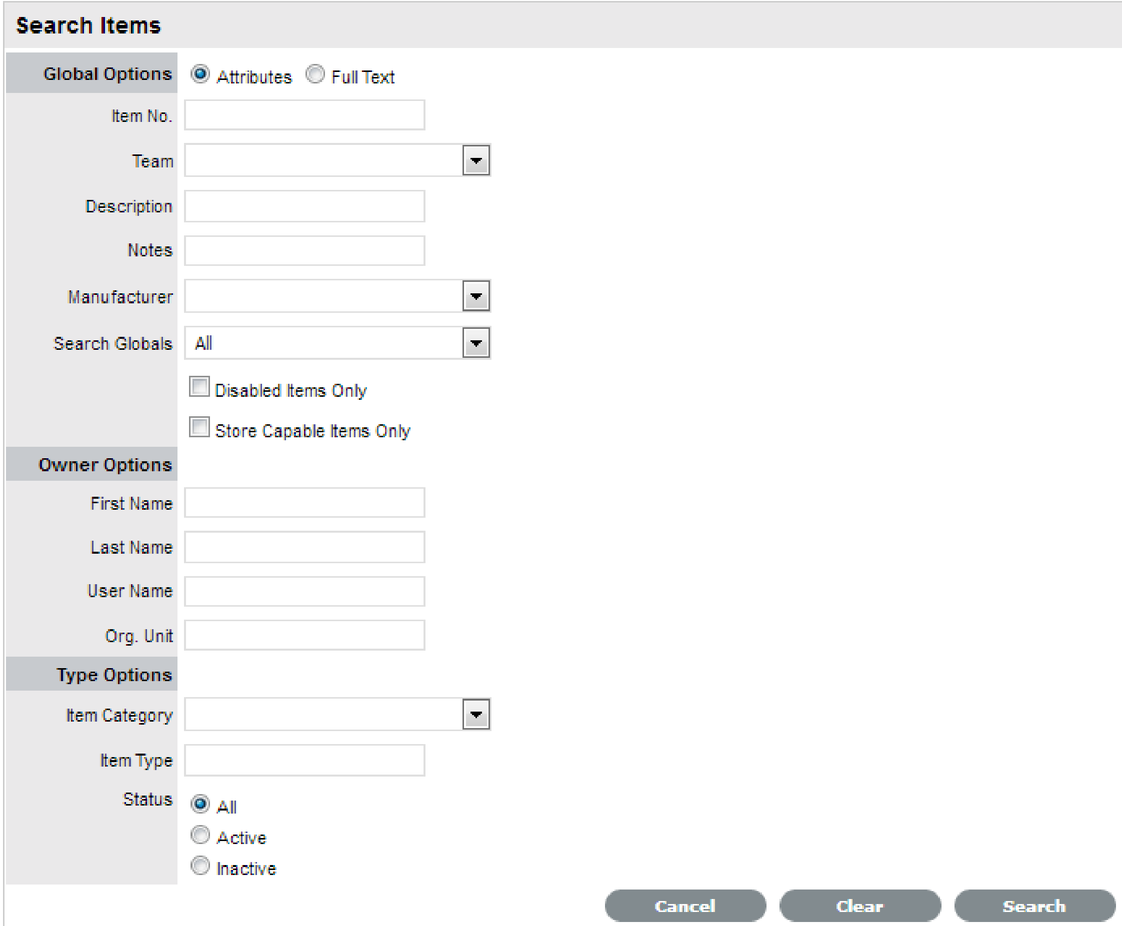
1.45 Searching for an Item

To search for Items in the CMDB use the Search button on the Configuration>Items screen.

To search for an Item:

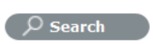
1. Click Search

   A search page is displayed with the options to search across the Team, Item Status, Manufacturers, Global Items, Item Ownership, Item Categories and Types. There is also the option for the search results to return deleted Item information.



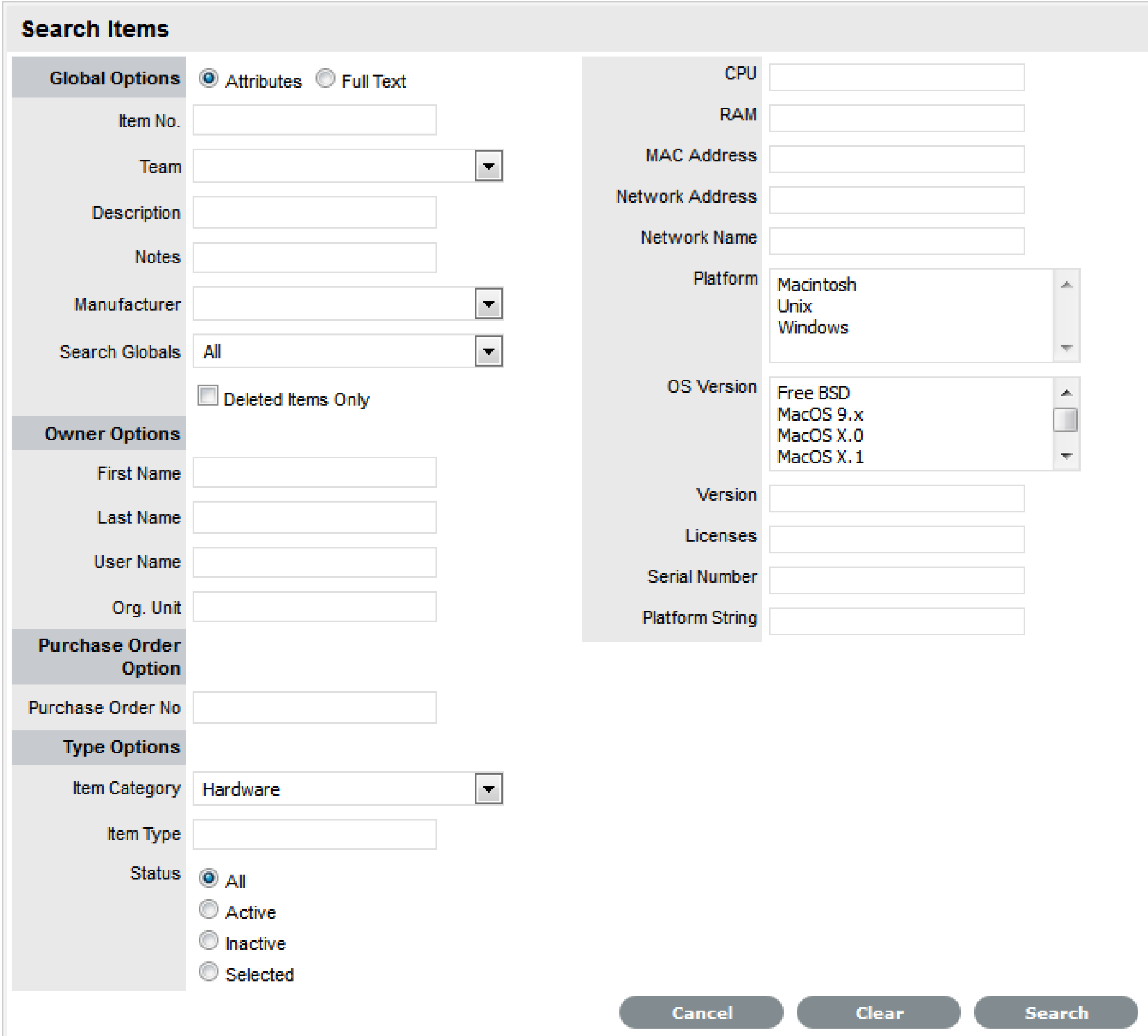
2. Define any Item Attributes

   To complete a Full Text search select that option and then enter relevant text in the Term field. (See: Full text searches.)

3. Click 

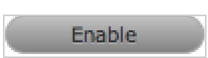
   A list of Items will be displayed.

For an advanced search on specific Item details, it is necessary to enter the Item Category. When this is selected the Item search page will expand:



1.45.1 Tips on searching for an Item:

- Select the Deleted Items Only option to return a list of all Items that have been deleted in the system. To re-enable these deleted Items, once the search is executed, select the Item ID# followed by



- To search on an Item's Status, first select the Item Category
- To search on attribute fields of an Item, first select the Item Category
- To return a list of Items that are allocated to Customers or Org Units, select the Assigned Only option from the Search Globals drop-down list.

1.46 Full Text Search Options

A variety of search options, including the ability to search using terms or phrases, can be used to find information in the Knowledge Base or using any full text search fields included in system search screens. Search options include:

- A single character wildcard search using the ? symbol
- A multiple character wildcard search using the * symbol
- A fuzzy search using the tilde, ~, symbol at the end of a single word. For example, to find words similar to roam, enter roam~ and this will return terms like foam and roams.

When searching using a phrase, the group of words need to be entered in the Text field within double quotation marks, for example, "user account access". Complex searches can be conducted using a combination of phrases or terms with boolean operators and all search results are relative to the Team assignment of the User or Item ownership for a Customer.

The boolean operators (i.e., AND, NOT, OR, +) must be entered as uppercase letters. For example:

- "user" OR "account" returns results related to either word
- "user" AND "account" returns results with both words
- "user" NOT "account" returns results including "user" but not "account"
- +user account returns results that must contain "user" and may contain "account"

To further control the boolean logic, more complex searches can be conducted. For example, to search for either "user" or "account" and "access", the search words would be entered as: (user OR account) AND access. This will return results where "access" must be included, while either term of "user" or "account" is found.

Wildcards can be used to replace single character '?' and multiple characters '*' in search terms. For example, te?t, test* or te*t. Wildcards can not be used as the first character of a search.

Escape character searches are also supported in the system and include: + - & || ! ( ) { } [ ] ^ " ~ * ? : \

NOTE: Search with ( ) { } [ ] : ^ characters might not display proper results.

1.46.1 Field Searches

Within the system full text searches can be conducted on specific fields, these include:

Search Screen	Fields
Request	Subject, description, notes, attachments and solution.
Item	Number, itemtype, category, attachments and notes.
Knowledge Base	Title, summary, body, attachments, itemtype, classification, and custom1-5.
Forum	Title, content and author (last name).

To search on a specific field, within the Term or All Text field enter the name of the field to be searched on followed by a colon and the term or text. For example, if searching for a specific Title, the Term or All Text search field would be completed as follows for the various search types:

- single word search - title:canceled
- phrase search - title:"canceled ticket"
- multiple word search - title:canceled OR title:ticket.

1.47 Bulk Item Update

The new ownership details for multiple Items can be added using the Bulk button within the Items list view. This functionality allows Users to add one or more Customers or Organizational Units to multiple Items within one screen. If the Items have mixed ownership before the update, and these details are no longer relevant, the current ownership details need to be adjusted within each individual Item.

If Parent/Child Relationships are configured for the Items, only the Parent Items' ownership details can be updated. The related Child Items will automatically adopt the amended Parent ownership details.

Multiple Items can also be deleted using the Bulk Item button.

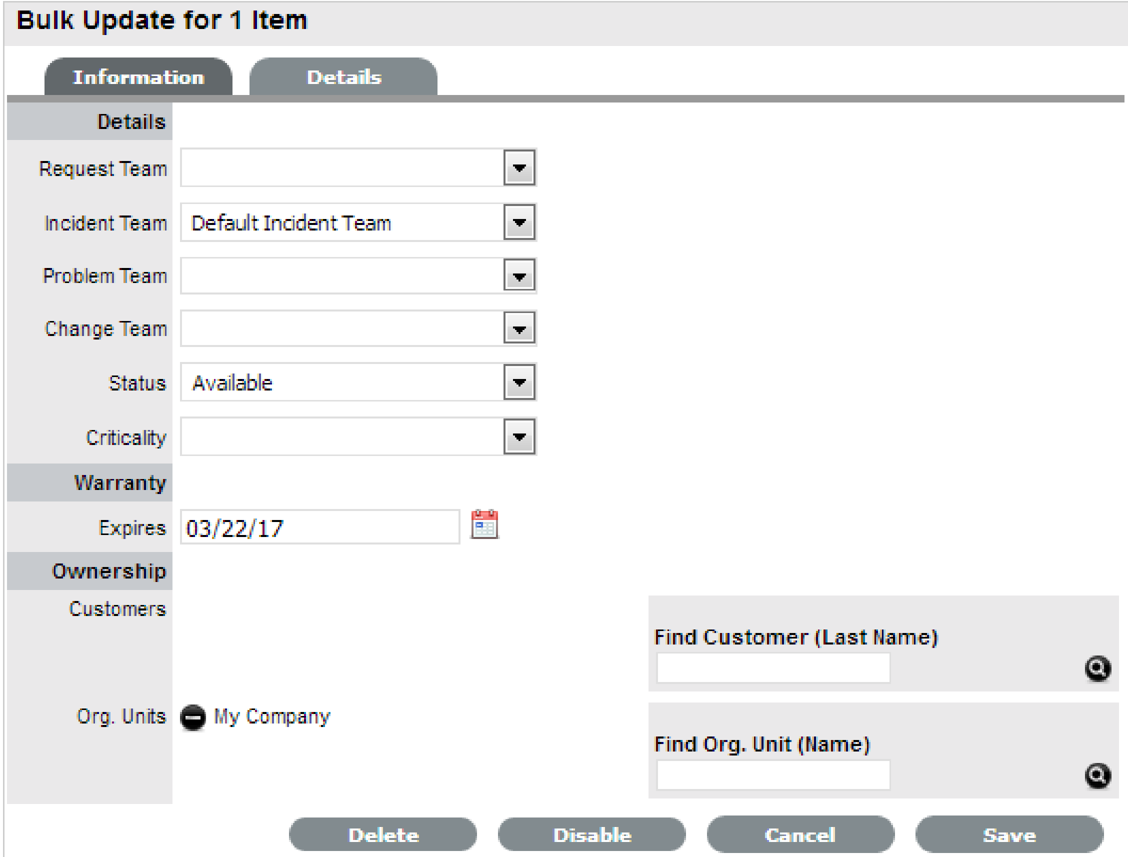
To update multiple Items:

1. Go to Configuration > Items

   The Items List View is displayed.
2. Check the boxes next to the Items numbers that need to be updated

3. Click 

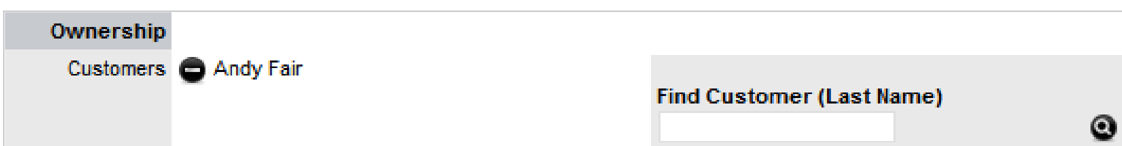
   The Bulk Update screen is displayed with the Details and Ownership fields available for amending. The only Owners displayed within the Ownership field, are those who are assigned ownership to all Items included in the bulk update.



4. Amend the relevant Details

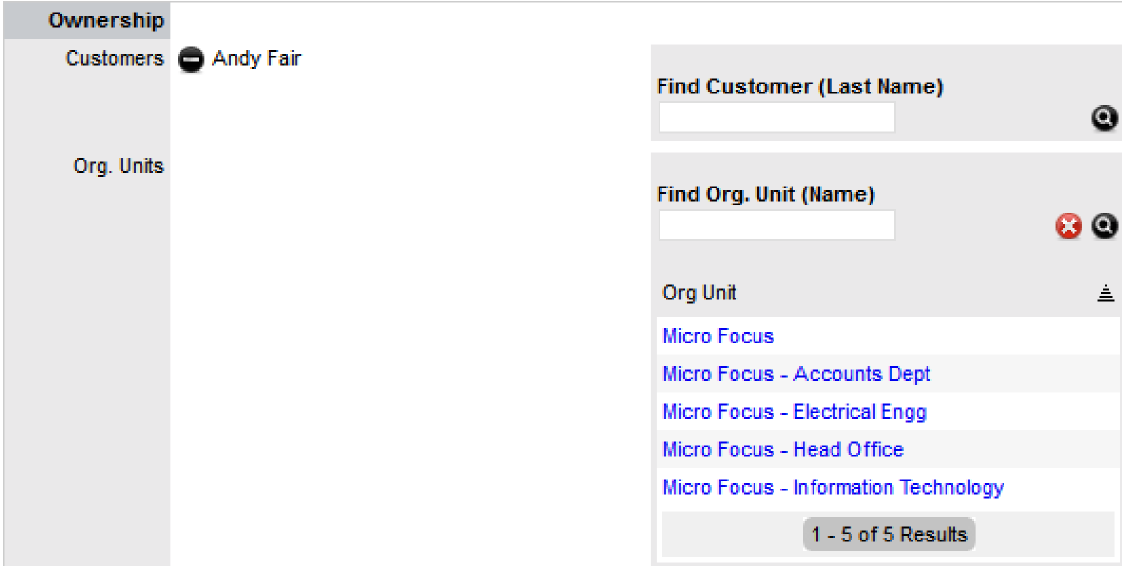
   The options include Team, Status, Criticality, Warranty or Ownership for the Items, as required, or select the Delete option to remove the Items from the Items List.

5. For Items that require Ownership adjustments, click next to the Owner details if the relationship is to be deleted



6. Use the Find options for the Customer and Organizational Unit owner information to be added

   Click without entering names in the Search Fields to return a complete list of Customers or Org Units.



7. Click on the relevant new owner link within the Find box to add the owner
8. Select Save.

   The Details and Ownership information of all Items are updated.

1.48 Request Fulfilment Overview

The goal of Request Fulfilment is to manage the lifecycle of all Service Requests.

A Service Request is a generic term that describes the numerous and varied demands placed on the service and support organization. Many are small changes, which are considered to be low risk, frequently occurring and low cost in nature, such as change a password or install a software application request. Alternatively, it may simply be a Customer asking for information. It is the scale, frequency and low-risk nature of the Service Requests that require that they be handled by the Request Fulfilment process, and not Incident or Change Management.

The frequent recurrence of Service Requests requires a predefined process Workflow be set with the support Technicians, service targets and escalation paths in place. To cater for the diverse nature of Service Requests, at minimum two Workflows should be customized for Request Fulfilment, one to handle simple requests for information and the other to deal with standard changes.

In the system, Service Requests are logged against Service Items in the Service Catalog and follow Workflows that ensure that each Request is handled with consistency. The Workflows define the actions required to correctly implement any changes to the Service and define the responsibilities, authorization and timeframe expected to manage the changes that may result from a Service Request.

Once a Workflow is assigned to a Service Request, it is routed to an appropriate Technician based on Service Request Workflow State. After a Technician completes their assignment, the Request is forwarded to the next User based on the configuration of the next State for a standard change or closed, if it is a simple request for information.

When Service Requests are raised for Service Item breakdowns, the system allows them to be easily associated with an Incident within the Analysis tab of the Request. Or, if the Service Request results in a change to an Item that is not in the Service Catalog, a Change Request can easily be generated within the Service Request.

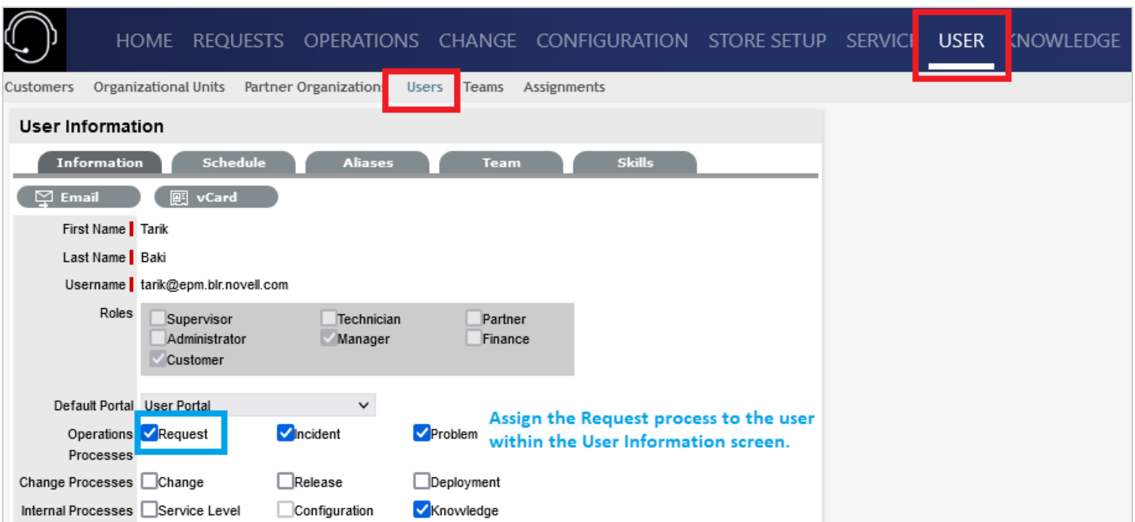
If a Service Request is related to an Incident, Problem or Change Request and that related request in the other Process is closed, the Service Request is automatically closed. The system views the request hierarchy from low to high as Service Request, Incident, Problem and Change Request, and if a related request of a higher type is closed, all the lesser type requests are automatically closed,or if the handshaking facility is enabled for the system, moved to the Pending-Approval State.

See: Service Catalog.

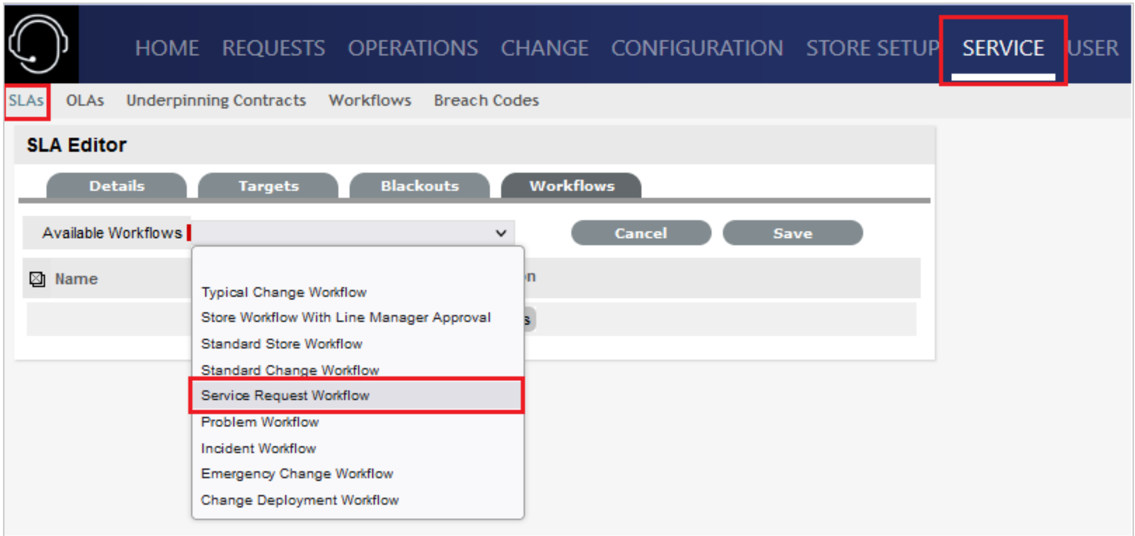
1.48.1 Implementing Request Fulfillment

To set up the Request Fulfillment Process in the system, the following steps are to be completed:

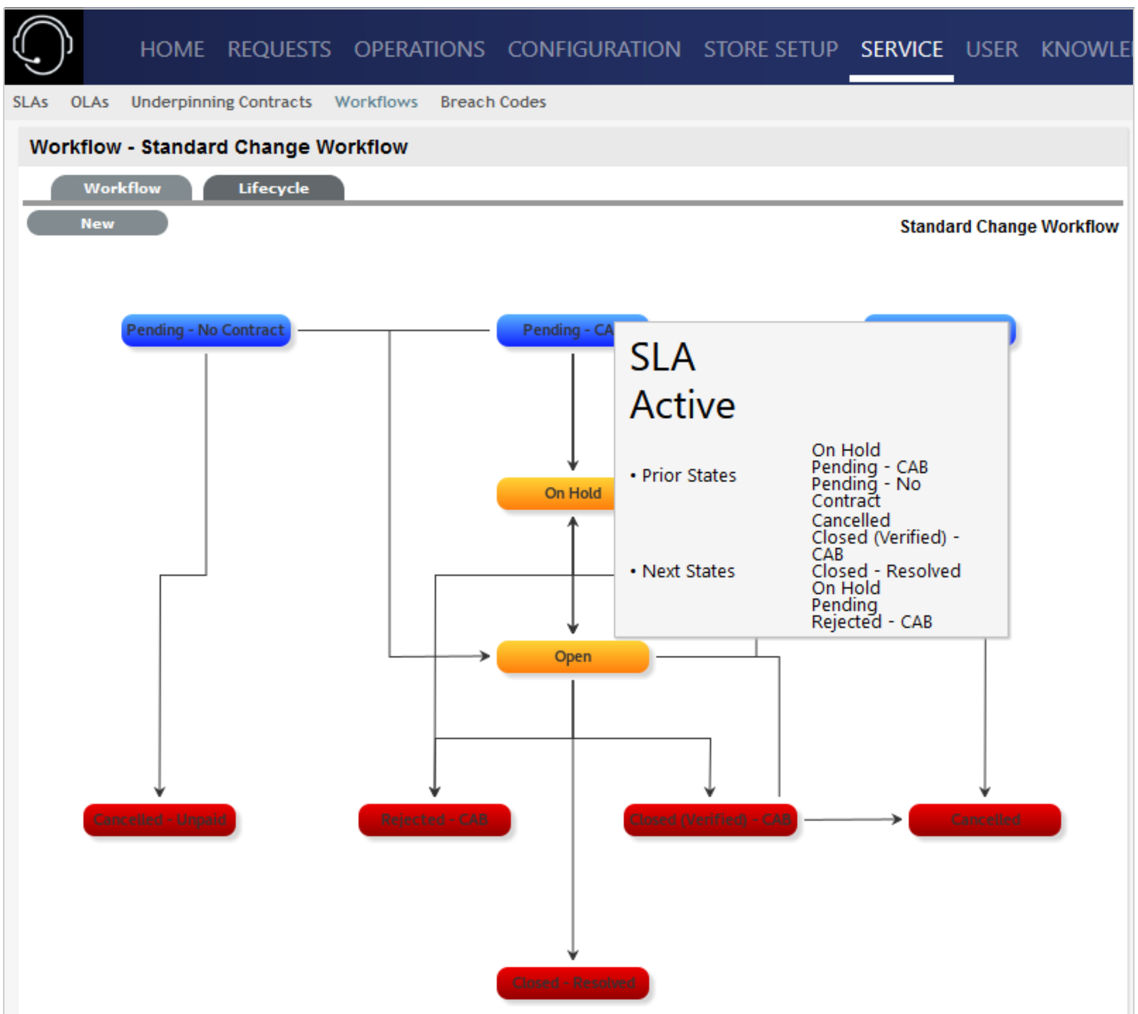
1. Assign the Request Process to the relevant Users within the User Information screen under the User > Users tab. (See: Create a User.)



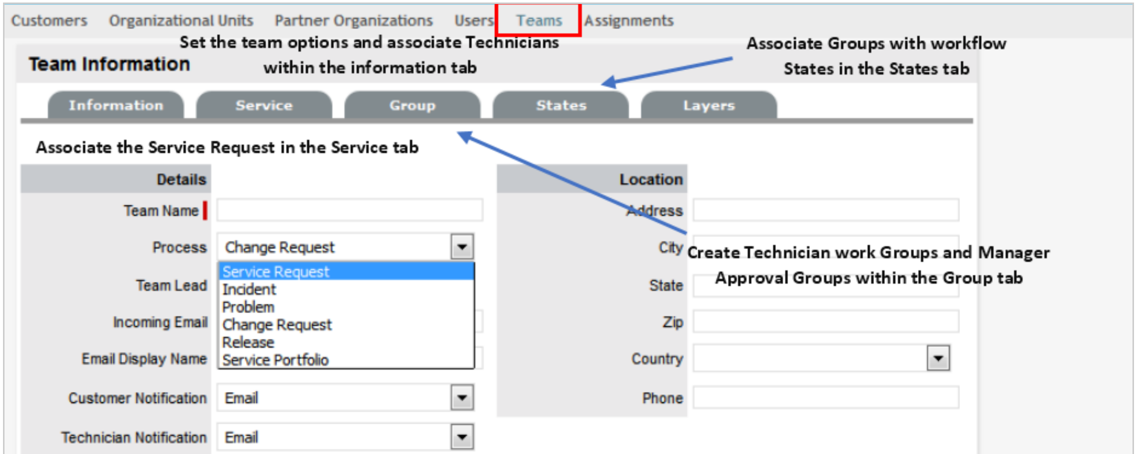
2. Create or review the SLA within the Service>SLAs tab, and associate the Incident Service Request Workflow to the SLA in the SLAs Workflow tab. (NB: The Supervisor User setting up the SLA must be assigned the Internal Process of Service Level in their User Information screen to complete this action.)



3. Review the Service Request Workflow within the Service>Workflows tab. (See: Service Request Workflow.)



4. Create a Service Request Team within the User>Teams screen. (See: Service Request Team.)



5. Associate the SLA to an Item or Customer or Org Unit. This final step ties all the elements together when a Service Request is created, as the SLA associated with the Item, Customer or Org Unit assigned to the Request determines the Workflow, Team and Technicians that are made available within the Service Request Information screen.

1.49 Assigning an SLA

Within the system a Service Level Agreement (SLA) can be assigned to a Customer, Organizational Unit, Item or a request. When a request is created, the system checks if any of these elements have an SLA. The business logic applied to assign an SLA to a request is as follows:

1. If the Customer has an SLA then assign this to the request
2. If the Customer does not have an SLA but the Organizational Unit does, assign this to the request
3. If the Customer or Organizational Unit does not have an SLA but the Item does, then assign this to the request
4. If none of the above elements have an SLA, the system Default SLA as defined by Admin in Setup>Privileges>Requests tab, is assigned to the request.

When Billing is enabled, the system checks that a maintenance contract is in place during the request creation process and assigns a Status of Pending - No Contract when an SLA contract is non-existent or expired. To assign an SLA in this situation, the Technician creates a Per Item or Per Request SLA Contract within the Contract tab of the request Information screen. (See: Create a Contract.)

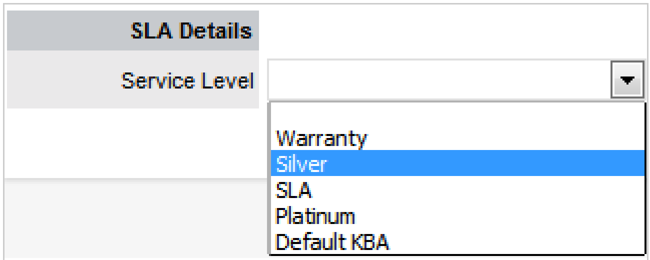
1.49.1 Assigning an SLA to a Customer

To assign an SLA to a Customer when Contracts are disabled:

1. Select User>Customers
2. Select the required Customer name link

The Customer Information screen opens.

3. Move to the Contracts tab
4. Click Edit
5. In SLA Details, use the drop-down menu to select the SLA for this Customer



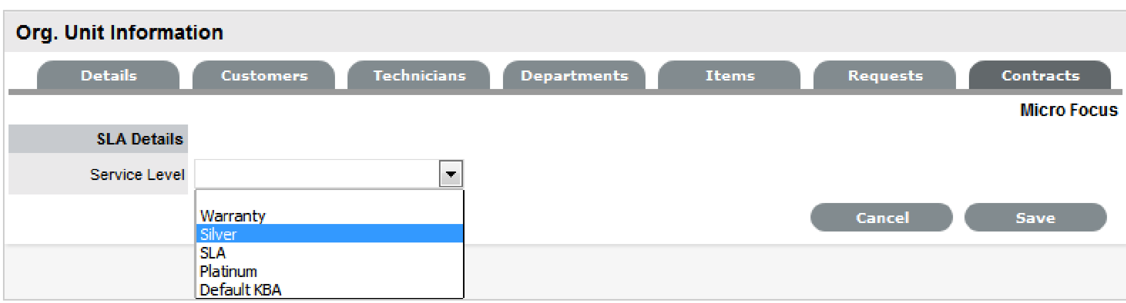
6. Click Save.

1.49.2 Assigning an SLA to an Organizational Unit

To assign an SLA to an Organizational Unit when Contracts are disabled:

1. User>Organizational Units
2. Select the required Org Unit Name

   The Org Unit Information screen will open.
3. Select the Contracts tab
4. Click Edit
5. In SLA Details, using the drop-down menu, select the SLA for this Customer



6. Select Save.

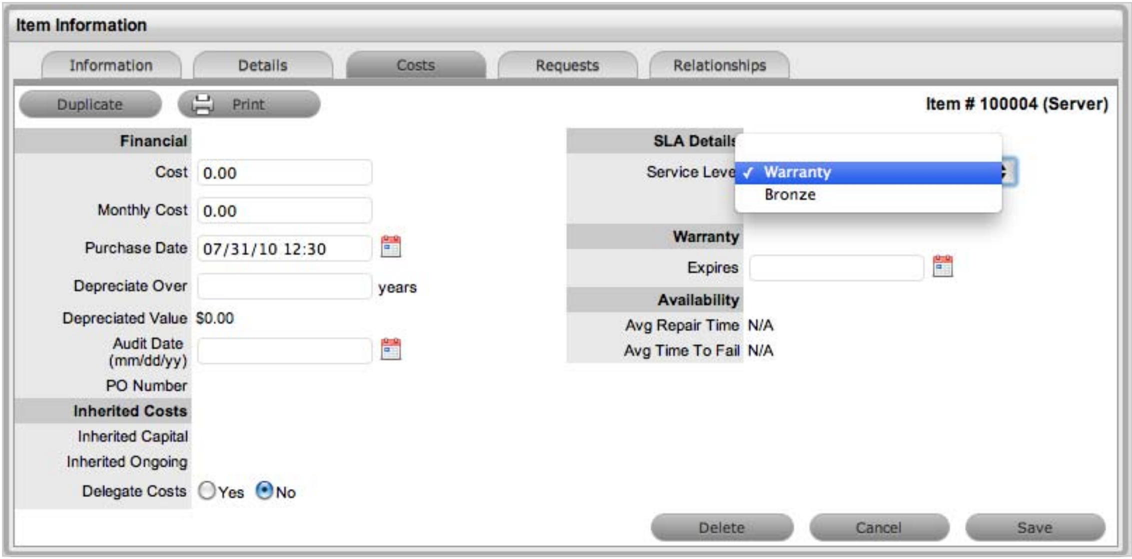
1.49.3 Assigning an SLA to an Item

To assign an SLA to an Item when Contracts are disabled:

1. Select Configuration>Items
2. Select the required Item number hyperlink

   The Item Information screen will open.
3. Select the Costs tab
4. Click Edit

5. In SLA Details, using the drop-down menu, select the SLA for this Item



6. Select Save.

1.49.4 Assigning an SLA to a Request - Only when Billing is enabled

When a request is created without a valid contract, the system assigns the request a Pending - No Contract Status. The request is locked and cannot be edited by a Technician until a valid Contract is in place. See:Create a Contract.

1.50 Incident Management

The function of the Service Desk is to act as the point of contact between customers of IT services (end users) and the IT service provider (IT department). Its role is to handle all requests for service, including Incidents, and provide an interface for other activities such as Request Fulfillment, Change, Problem and Configuration Management.

An Incident is defined as any event that is not part of the standard operation of a service, and causes, or may cause, an interruption to, or a reduction in the quality of service. The goal of Incident Management is to restore normal service as quickly as possible, with minimal disruption to the business. This ensures that the highest achievable levels of availability and service are maintained.

Incident Management objectives include:

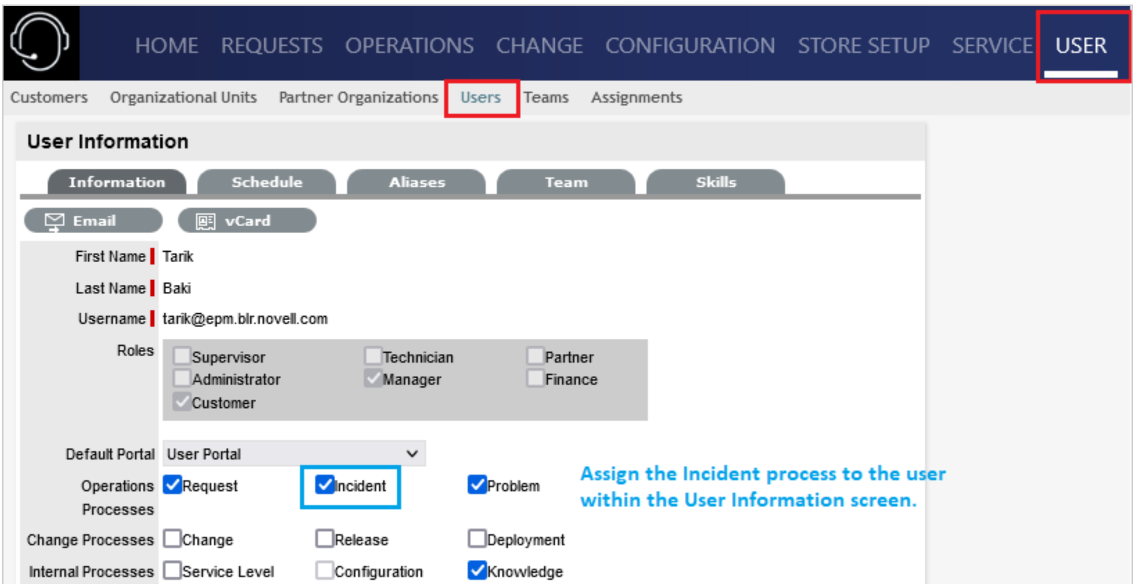
- Incident detection and recording
- Classification of all Incidents and initial support
- Investigation and diagnosis
- Escalation
- Resolution and recovery
- Incident closure
- Incident ownership, monitoring, tracking and communication.

As part of the Incident Management Process, if an Incident is related to a Problem or Change Request and that related request in the other Process is closed, the Incident will be automatically closed. The system views the request hierarchy from low to high as Service Request, Incident, Problem and Change Request, and if a related request of a higher type is closed, all the lesser type requests are automatically closed

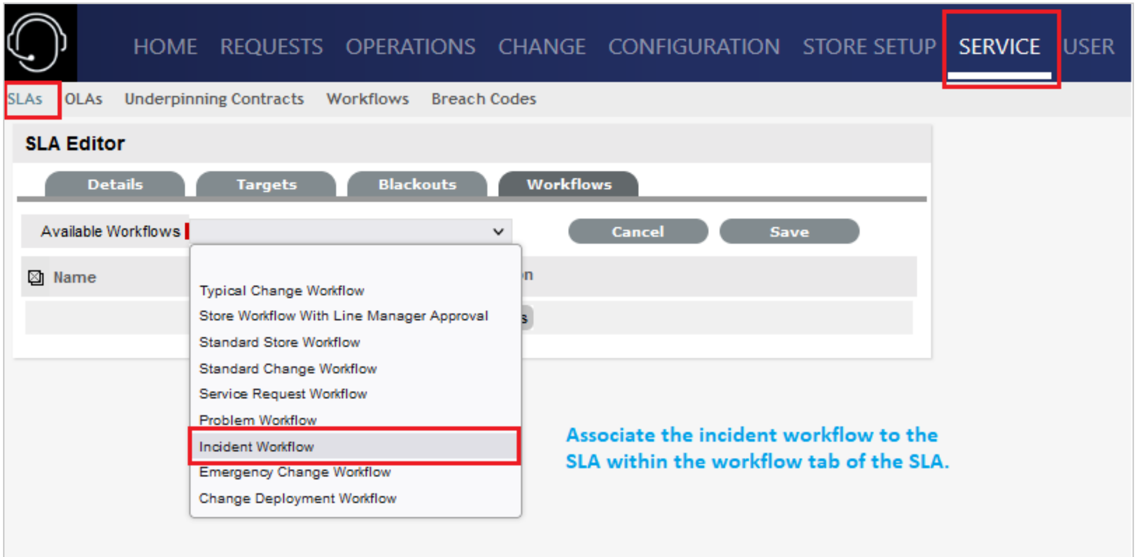
1.50.1 Implementing Incident Management

To set up the Incident Management Process in the system, the following steps are to be completed:

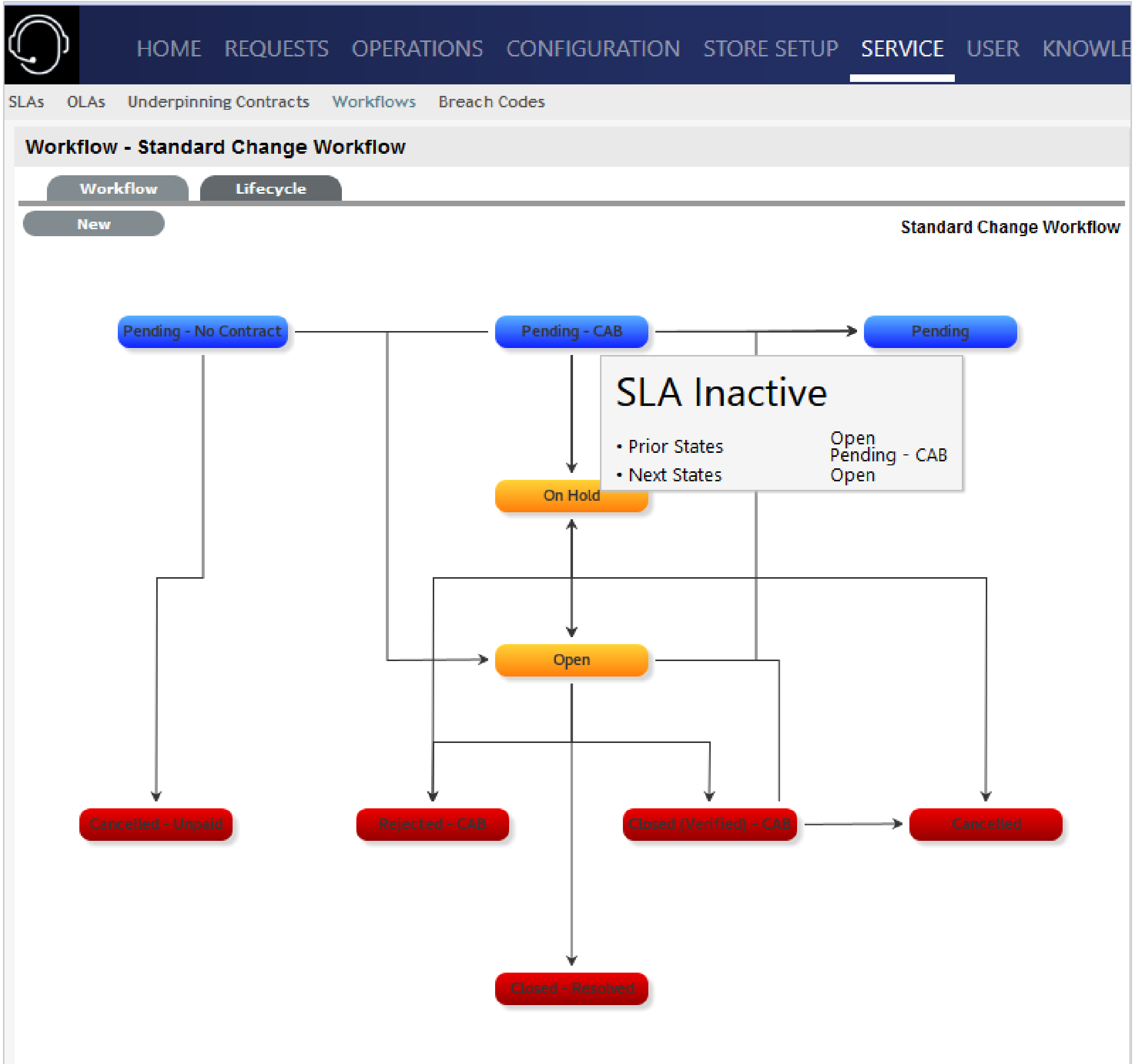
1. Assign the Incident Management Process to the relevant Users within the User Information screen under the User>Users tab. (See:Create a User.)



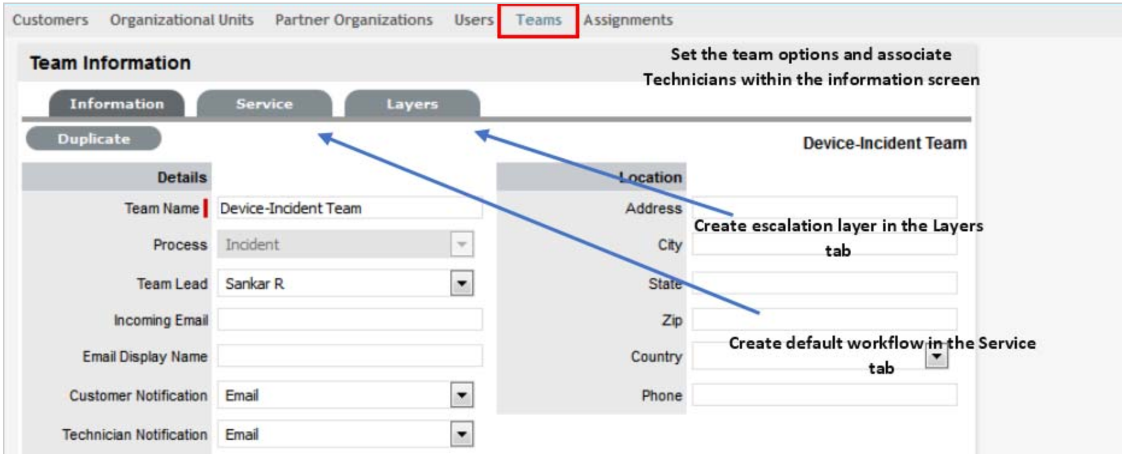
2. Create or review the SLA within the Service>SLAs tab, and associate the Incident Management Workflow to the SLA in the SLAs Workflow tab. (NB: The Supervisor User setting up the SLA must be assigned the Internal Process of Service Level in their User Information screen to complete this action.)



3. Review the Incident Management Workflow within the Service>Workflows tab. (See: Incident Management Workflow.)



4. Edit the Default Incident Management Team within the User>Teams screen. (See: Incident Management Team.)



5. Associate the SLA to an Item or Customer or Org Unit. This final step ties all the elements together when an Incident is created, as the SLA associated with the Item, Customer or Org Unit assigned to the Incident determines the Workflow, Team and Technicians that are made available within the Incident Information screen.

1.51 Problem Management

Problem Management extends the process of Incident Management. An Incident is a non-standard operational event with the potential to harm the quality of an IT service. Incidents are reported by end-Users, encountered by technicians and system/database Administrators, or automatically detected by system management tools. In all instances, Incidents should be reported to the Service Desk.

A Problem describes the underlying cause of one or more Incidents that are being investigated. However, not all Incidents are investigated as Problems. For example, if the power-supply in a desktop computer blew up, it should be treated as an Incident, and the power-supply replaced. (Although if the power-supply is controlled by Change Management, it would need to be treated as a minor change request.) However, if there was a spate of burnt-out power-supplies in the same model desktop, then an underlying Problem with the desktop may possibly exist and further investigation into the cause and potential solutions may be required.

For Incidents to be correctly categorized as a Problem, organizations must define the evaluation criteria. For example, raise a Problem if more than 10 Incidents are logged in the space of three hours that refer to the same Configuration Item.

After the underlying cause of a Problem has been diagnosed, it is referred to as a Known Error. At this point, the root cause of the Problem is known, and the most appropriate course of action is to be determined. This may take the form of a structural resolution by raising a request for change (RFC). Alternatively, it may be decided, after consultation with Users and Customers, to implement a workaround or recovery action.

In the case of the above example:

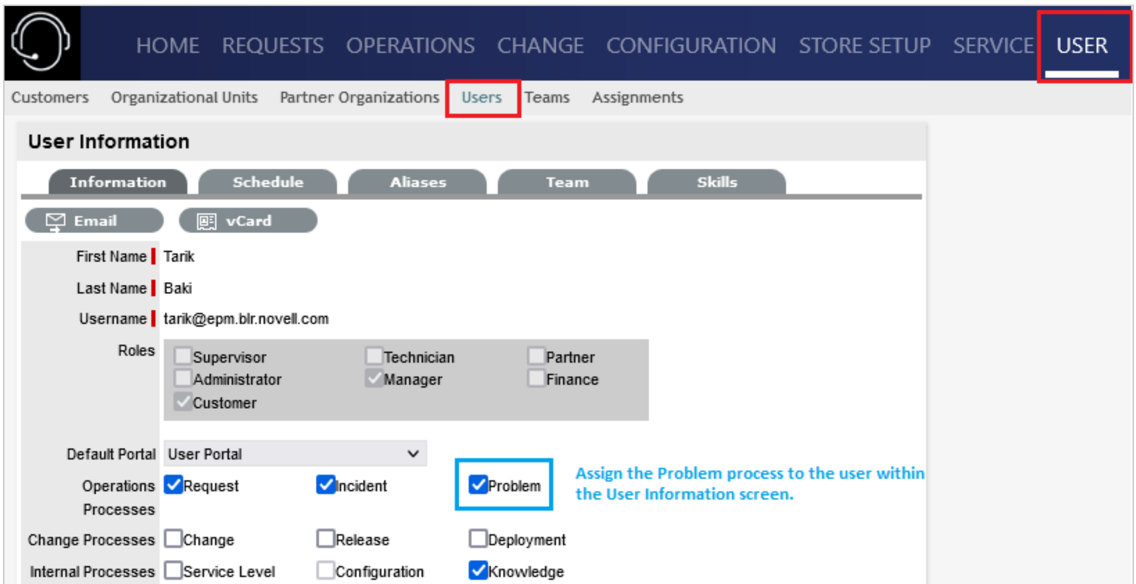
- *Problem*: Brand X Desktops no longer operating
- *Root Cause*: Faulty power-supply in July ’09 models
- *Known Error*: Warranty - replace with new power-supply.

As part of the Problem Management Process, if a Problem is related to a Change Request and that related Change Request is closed, the Problem will be automatically closed. The system views the request hierarchy from low to high as Service Request, Incident, Problem and Change Request, and if a related request of a higher type is closed, all the lesser type requests are automatically closed.

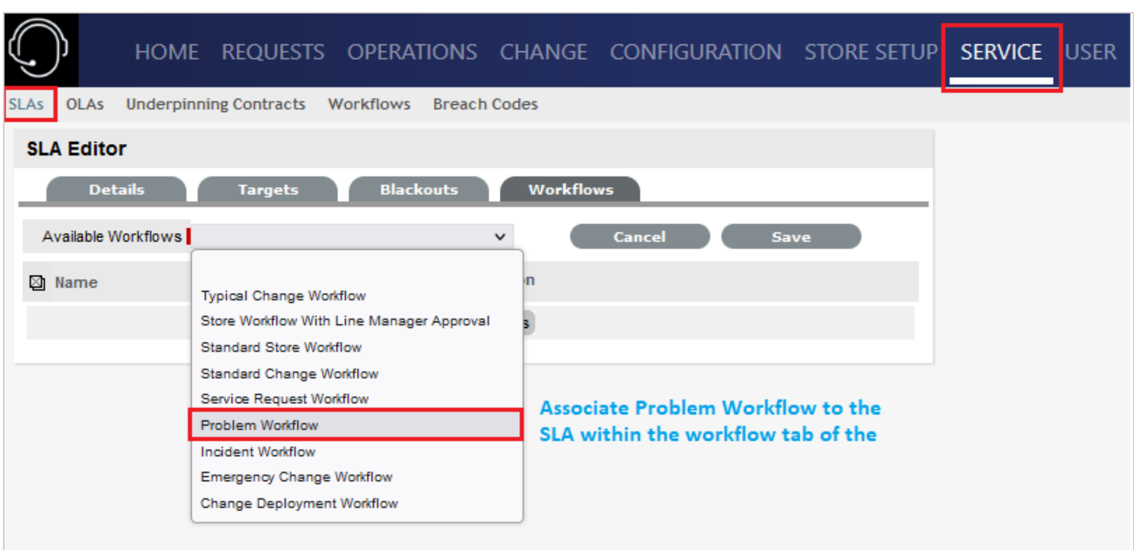
1.51.1 Implementing Problem Management

To set up the Problem Management Process in the system, the following steps are to be completed:

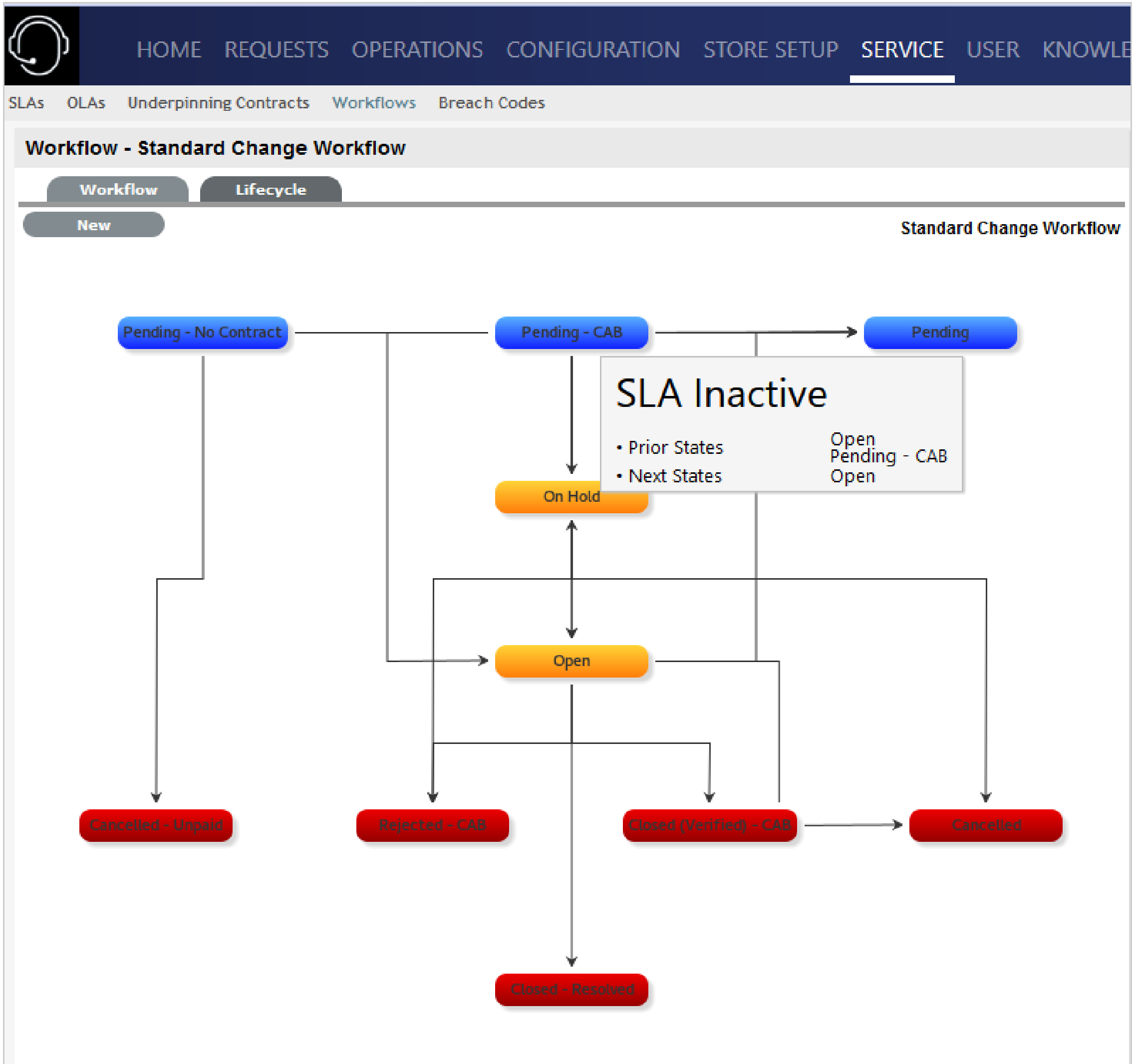
1. Assign the Problem Management Process to the relevant Users within the User Information screen under the User>Users tab. (See:Create a User.)



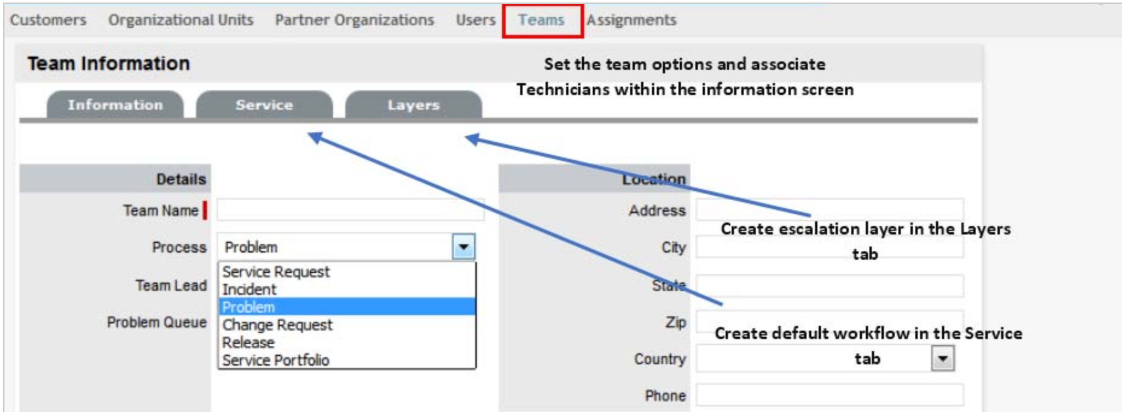
2. Create or review the SLA within the Service>SLAs tab, and associate the Problem Management Workflow to the SLA in the SLAs Workflow tab. (NB: The Supervisor User setting up the SLA must be assigned the Internal Process of Service Level in their User Information screen to complete this action.)



3. Review the Problem Management Workflow within the Service>Workflows tab. (See: Problem Management Workflow.)



4. Create a Problem Management Team within the User>Teams screen. (See: Problem Management Team.)



5. Associate the SLA to an Item or Customer or Org Unit. This final step ties all the elements together when a Problem is created, as the SLA associated with the Item, Customer or Org Unit assigned to the Problem determines the Workflow, Team and Technicians that are made available within the Problem Information screen.

1.52 Change Management

The goal of Change Management is to ensure that standardized procedures are used to efficiently handle all changes, and minimize the impact of any related Incidents upon a service. The Change Management process prevents unauthorized CMDB modifications and reduces disruption to Customers. It does this by coordinating the build, test and implementation of any change that impacts the CMDB.

Changes may arise reactively in response to Problems or externally imposed requirements, for example a new or changed regulatory situation. They may also be proactive, instigated by management to improve an organization's efficiency and effectiveness, or to enable or reflect new service improvement initiatives.

The Change Advisory Board (CAB) is responsible for approving any Request for Change (RFC). This involves assessing the impact, resources and priority of the RFC. The CAB then advises the Change Manager of their assessment and assigns an appropriate Workflow.

Change Workflows within the system ensure that each RFC is handled with consistency, based on the risk and impact assessment of the CAB. Change Workflows define the actions required to correctly implement the change, and define the responsibilities, authorization and timescale expected to manage the change.

Once a Workflow is assigned to an RFC, it is routed to an appropriate Technician based on the Change Workflow State. After a Technician completes their assignment, the RFC is forwarded to the next Technician based on the next state of the Change Workflow.

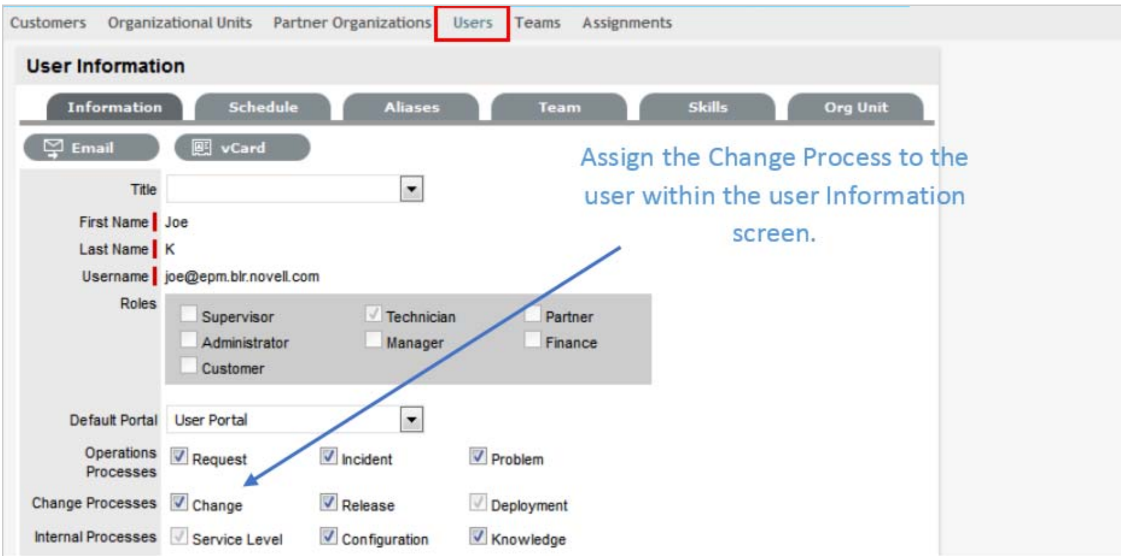
When the RFC has progressed through all of the required Workflow States, a change review is undertaken to verify that the RFC has achieved its objectives. If the change objectives are not met, the RFC's associated back-out procedure is implemented to rollback the change and restore the CMDB to a valid state.

As part of the Change Management Process, all requests related to a Change Request are automatically closed when the related RFC is closed. The system views the request hierarchy from low to high as Service Request, Incident, Problem and Change Request, and if a related request of a higher type is closed, all the lesser type requests are automatically closed.

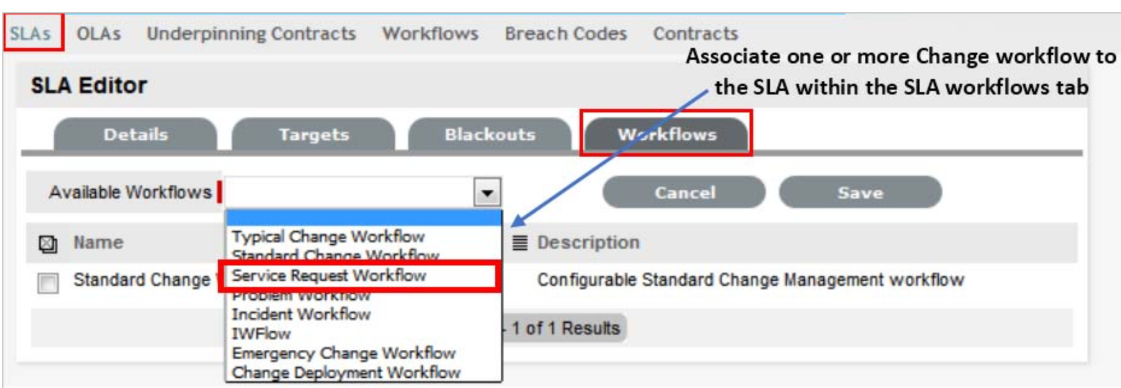
1.52.1 Implementing Change Management

To set up the Change Management Process in the system, the following steps are to be completed:

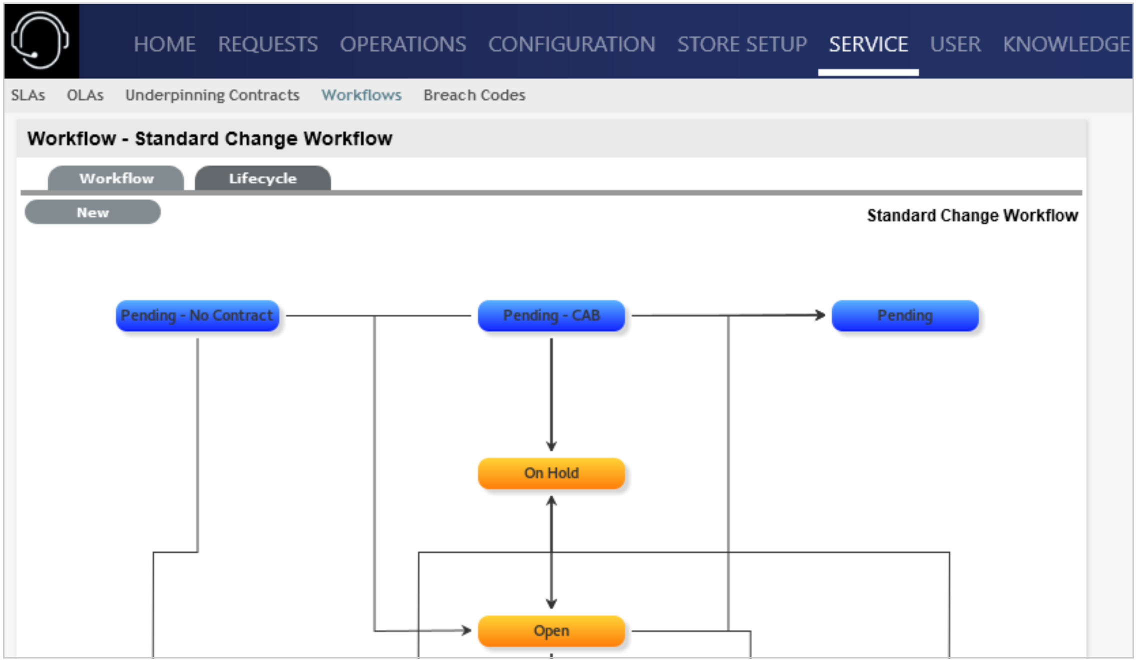
1. Assign the Change Process to the relevant Users within the User Information screen under the User>Users tab. (See:Create a User.)



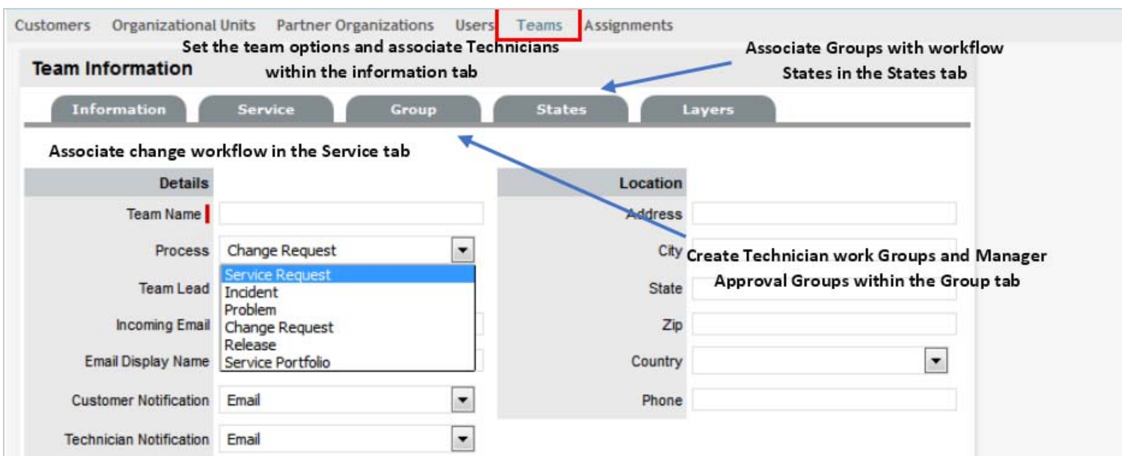
2. Create or review the SLA within the Service>SLAs tab, and associate the Incident Service Request Workflow to the SLA in the SLAs Workflow tab. (NB: The Supervisor User setting up the SLA must be assigned the Internal Process of Service Level in their User Information screen to complete this action.)



3. Review on or more Change Management Workflows within the Service>Workflows tab. (See: Change Management Workflows.)



4. Create a Change Management Team within the User>Teams screen. (See: Change Management Team.)



5. Associate the SLA to an Item or Customer or Org Unit. This final step ties all the elements together when a Change Request is created, as the SLA associated with the Item, Customer or Org Unit assigned to the Request determines the Workflow, Team and Technicians that are made available within the Service Request Information screen.

1.53 Release and Deployment Management

The purpose of Release and Deployment Management is to maintain the integrity of an organization's production environment when deploying releases. Effective Release and Deployment processes allow your service organization to deliver change faster and with minimal risk to the business. It provides consistency in implementation approach and assures customers that they can use a new or changed service in line with business requirements.

Part of the Service Transition phase of the Service Lifecycle, Release is responsible for planning, scheduling and controlling changes and updates from Test to Live environments. It ensures the integrity of the Live Environment is protected and that the correct components are released. While Deployment includes the activities or tasks responsible for moving new or changed hardware, software, documentation and process to the Live Environment.

This process is overseen by the Release Manager, whose role is paramount to the success of a release and a required member of a Release Team. The Release Manager directs the process using all information presented to help assess release readiness, and to efficiently identify deployment targets for the deployment phases of a release. This level of control guarantees the Release Manager can deliver updates to the live environment successfully, to all relevant parties, on time.

The capability to leverage relationship maps defined within the embedded CMDB allows the Release Manager to assess the impact of a release, as all related Items can be easily associated with a release package. The extensive use of CIs to represent all aspects of a release and the capability to directly associate any category of CI with the release itself provides a complete picture of how a release will impact the organization before any tasks are undertaken. The Release Manager can identify CI Types impacted by the deployment and CMDB information details users, organizational units and specific infrastructure affected by a release.

Complex and generally a lengthy process, large scale deployments require project management to ensure success. To this end, Release Management includes related activities that require scheduling in and around the internal activities of the service desk. The Release Manager can readily achieve this by exporting release package information to Microsoft Project and administering the full process using a dedicated project management tool.

Exported project files contain all related Change Requests for a Release, providing all relevant parties with an end-to-end schedule of change. The export can also be filtered to include deployment activities that can be merged into the final schedule once the Implementation of all Changes is completed, resulting in a full historical account of the release cycle.

Within the system, the Release Manager creates and manages the Release within the Change>Release tab. Within the Deploy tab of a Release, the Deployment Tasks are generated and made available as groups within the Change>Deployment tab, while the individual activities are available within the Change>Deployment Tasks tab.

To review examples of Release and Deployments, refer to Release Management Applied.

1.54 Release Management Applied

Release Management in the system provides Release and Deployment Managers with a centralized repository for managing the introduction of changes, regardless of size or risk, to the environment. Two examples for rolling out a Release are detailed below, as Releases can potentially be very complex, which requires great flexibility in the system.

The first example illustrates a software rollout, with software being upgraded, replaced and a couple of new installations. Although this Release may be considered a little complicated, the nature of the Release is low risk. Due to the minimal business criticality level of the Release, it has been decided that this deployment will not be controlled by Change Management. The second example that manages the update of Microsoft Exchange, a higher risk Release, controls the Deployment with Change Management.

Before commencing the examples, the system needs to be configured to handle Release Management and the following elements must be in place:

Users assigned the Release & Deployment Process

Create a Release & Deployment Team

Build or Edit the Release Workflow.

1.54.1 Example 1: Install, upgrade and replace Office packages

Release Objective: To rollout the latest update of Office 2008 to customers. Replacing existing software for customers that have Open Office, and installing new software for customers without access to any Office applications.

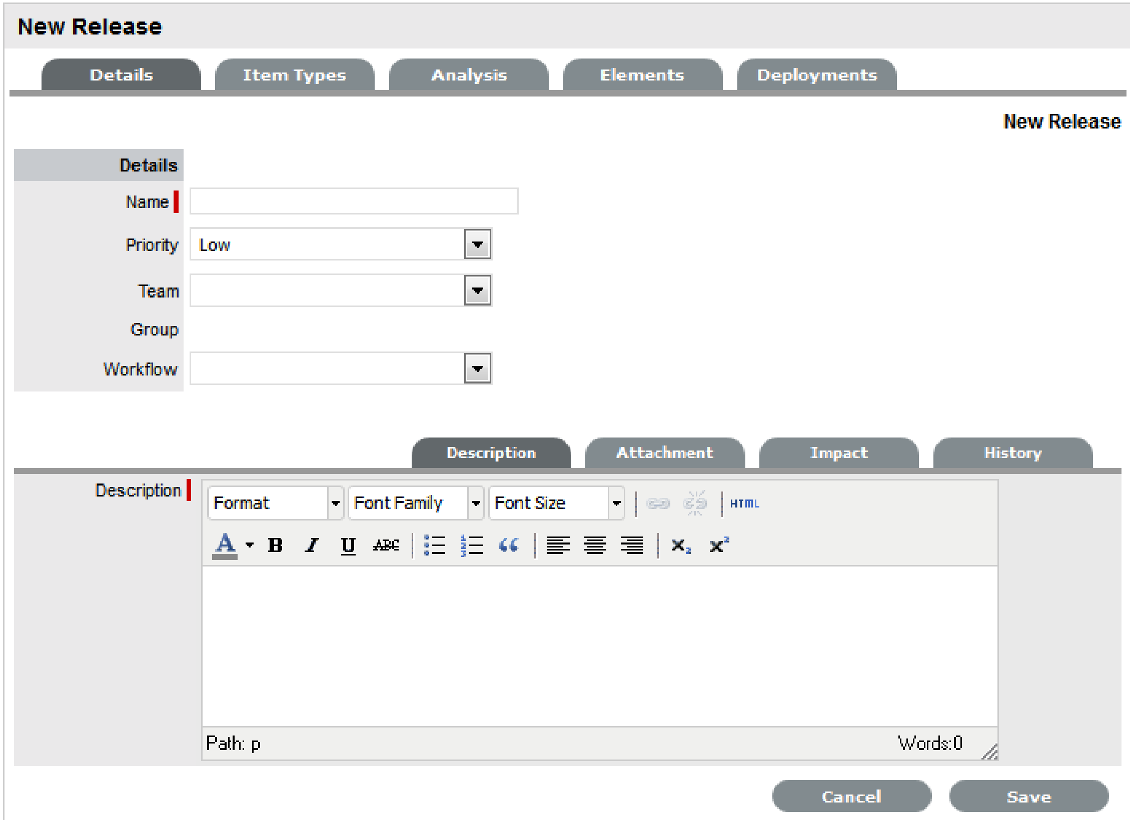
The example will apply the system default Release Workflow that includes an added Workflow State of Trial Deploy and also has a number of Approval States. It includes Deploy and Trial Deploy States as the Workflow stages for creating the related Deployment Tasks in the system.

The Release Team that will action the Deployment Tasks has also been divided into three Groups: Software, Hardware and all Deployment Technicians.

To create the Release:

1. Go to Change>Releases

2. Click New
3. Complete the Release information



Release Fields	Description
Name	Enter a Name that reflects the objective of the Release.
Priority	Set the Priority, which will correspond to the target timeframes for the SLAs associated with the Release via the RFCs.
Team	Select the Release Team who will oversee all part of the Release.
Workflow	Set the Workflow that includes the relevant stages to manage the Release. The Release Manager moves the Release through the stages of the Workflow, relevant to the events being undertaken and completed.
Status	This is set to the Default Entry State of the selected Workflow.

Release Fields	Description
Next Action	Based on the assigned Workflow, select the next Workflow State for the Release, as required by the next Release activity. Some States are Approval States, when the Release moves to an Approval State the Approve and Reject options are visible. The Release Manager selects the appropriate option and the system automatically moves the Release to the pre-configured next State, relative to the option applied.
Manager	From the drop-down list of Managers assigned to the default Entry Point of the assigned Release Workflow, select the Release Manager to manage the project when it is initially created. The User defined here, is the Manager who can edit the Release after it is saved and then move it to the next State.
RFC Control	If the Control Deployments via RFC option is enabled in Admin>Setp>Privileges>Requests, this field will be displayed. Select Yes if the Deployment is to be routed through Change Management, to enable the scheduling of Deployment Tasks. Select the RFC Workflow to manage the Change Request associated with the Deployment, and set the default open State or Deployment State for the Tasks.
Description	Enter information that describes the goal of the Release.

4. Select Save.

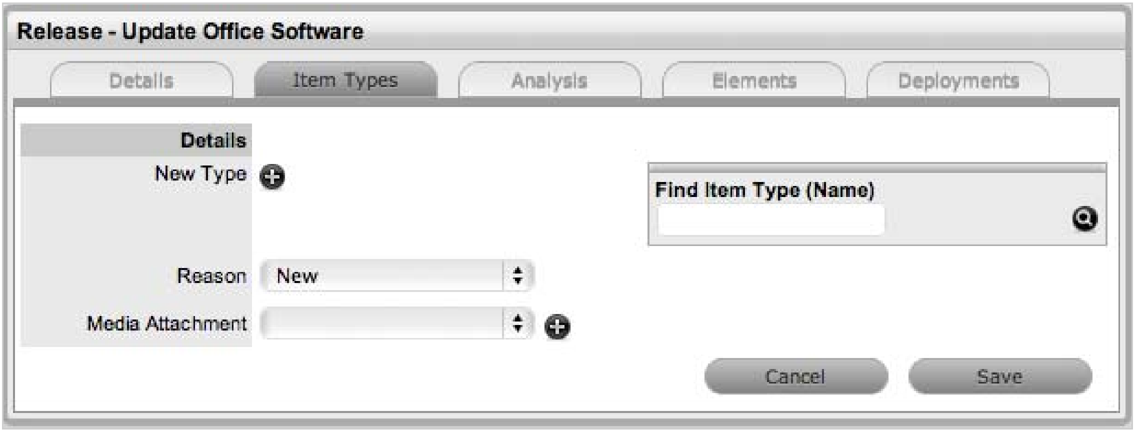
   From the above screen snap, we can see that Simone Supervisor is the Release Manager assigned to the Release and that the Release is of low Priority, will be handled by the Release Team and managed using the Release Workflow. The Release is currently in the default entry point of the Release, the Plan State. It should be noted that moving through the Release Workflow is determined by your organization's business processes and the defined Workflow. The system is to be used as a central repository to manage Releases and a point of reference to keep all relevant parties updated regarding a Release.

1.54.2 Assign Item Types

To associate the Items that are to be created or updated as part of the Release, the Release Manager has to define the reason for the Release and assign the relevant Item Type to the Release. This is achieved within the Item Types tab of the Release. For our example, there will be three reasons for the Release:- Upgrade existing software, replacing existing software and installing new software.

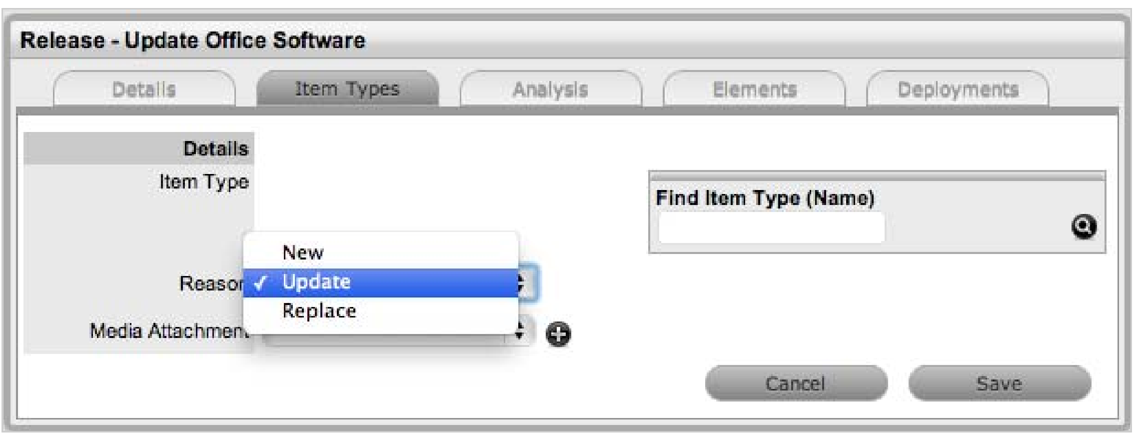
As a Release Manager, to assign Item Types to the Release:

1. Select the Item Types tab inside the Release information screen
2. Click Edit
3. Click Add



4. Assign the Reason of Update

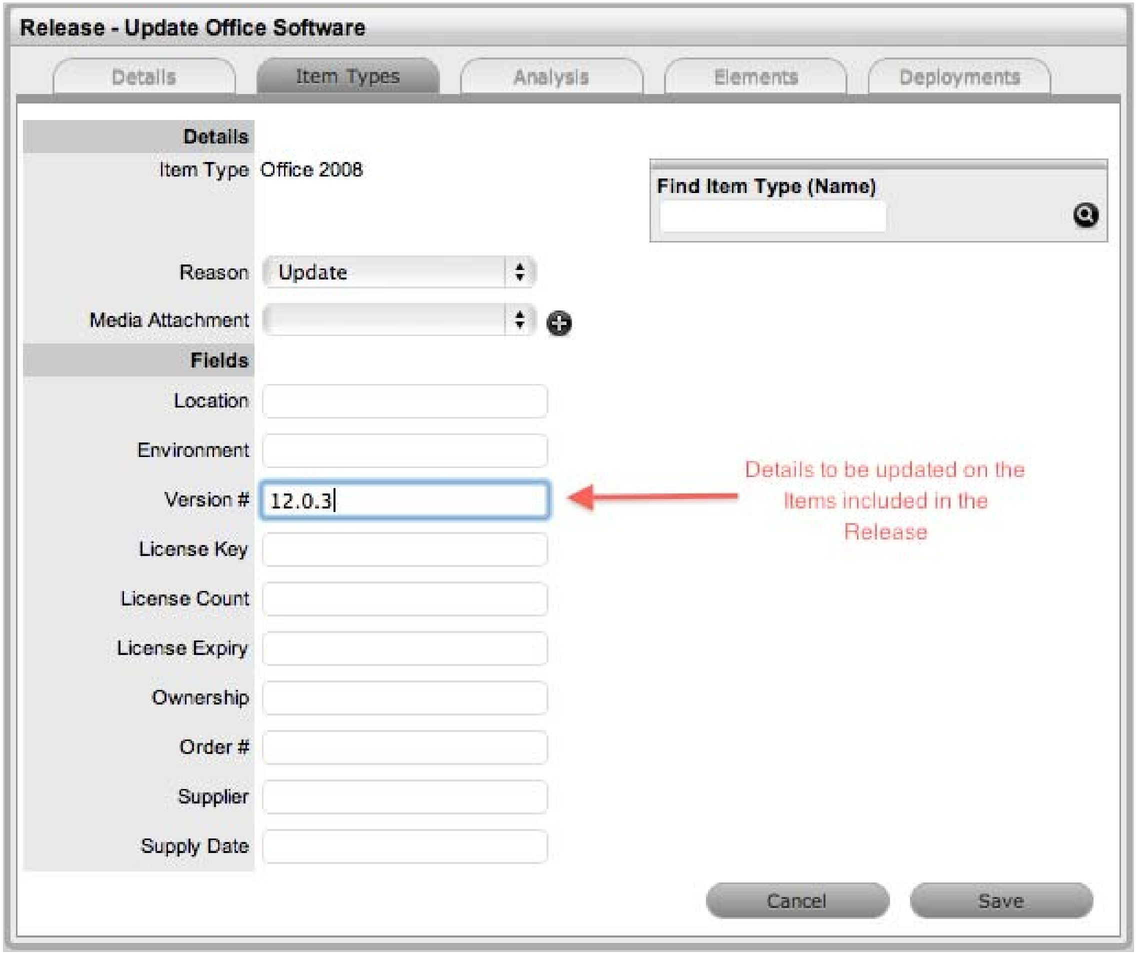
   For customers with Office 2008, based on the system configuration within the CMDB Item Type of Office 2008, we will just be updating the software version number in the Item Details tab.



5. Search and select the Item Type Office 2008 in the Find Item Type field

   When the Item Type is associated with the Release, the fields available on the Details Tab of Items using the Type are displayed.
6. Enter the information that is to be updated against the Item in the CMDB and Save

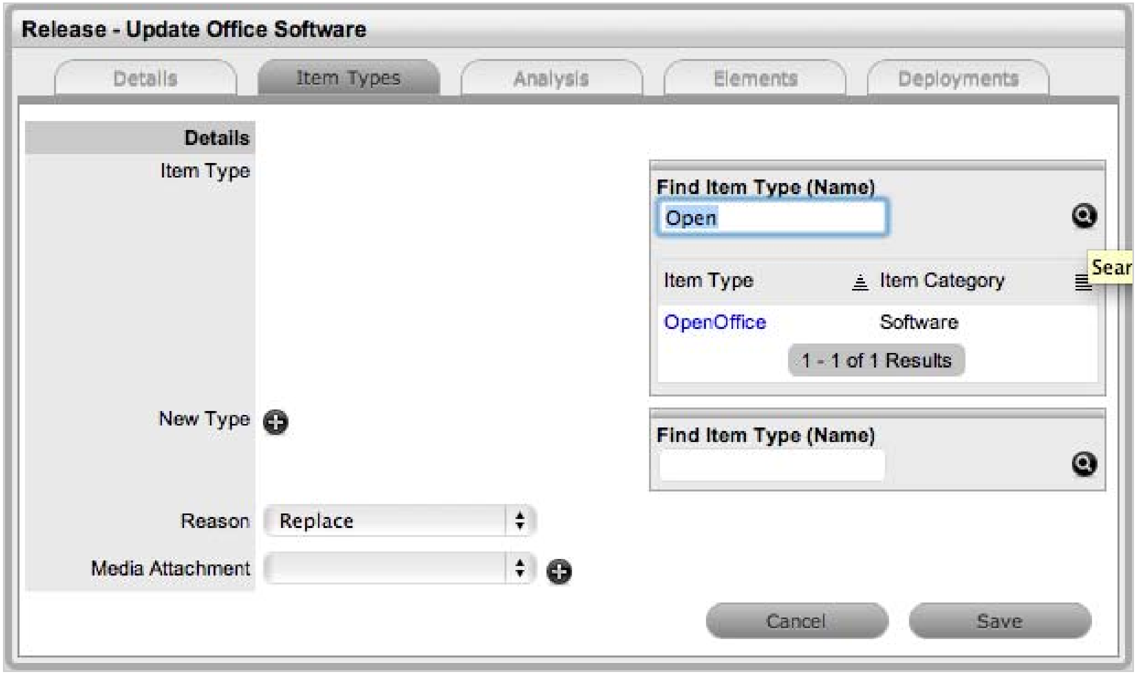
   For our example 2011 will be entered in the Version # field.



7. To *replace* Open Office with Microsoft Office 2008, click Add
8. Select the Reason of Replace

   The Find Item Type field is displayed next to the New Type field.
9. Search and Select the Item Type to be replaced within the Item Type field

   For this example it is Open Office.

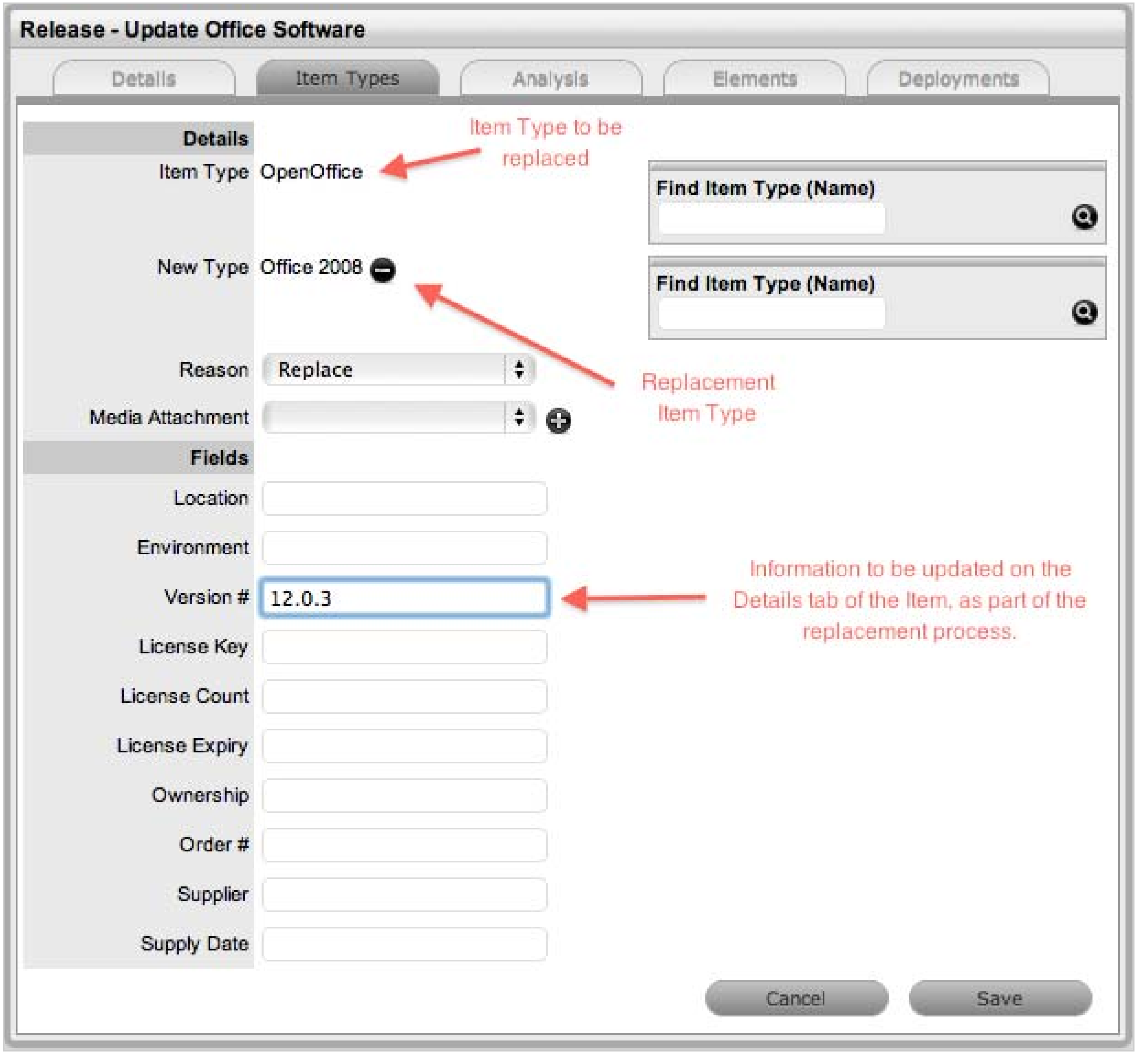


10. Select the Item Type link for the Item Type to be replaced
11. Search and Select the Item Type that is to replace the existing Item Type

    For this example, Office 2008 is the replacing Item Type.
12. Select the Item Type link for the Item Type information to be replaced

    The fields contained on the Details tab of Items applying the Item Type are automatically displayed.
13. Enter information into the fields that are to be updated on the Items in the CMDB

    For this example, the Version # details is updated to include 12.0.3.

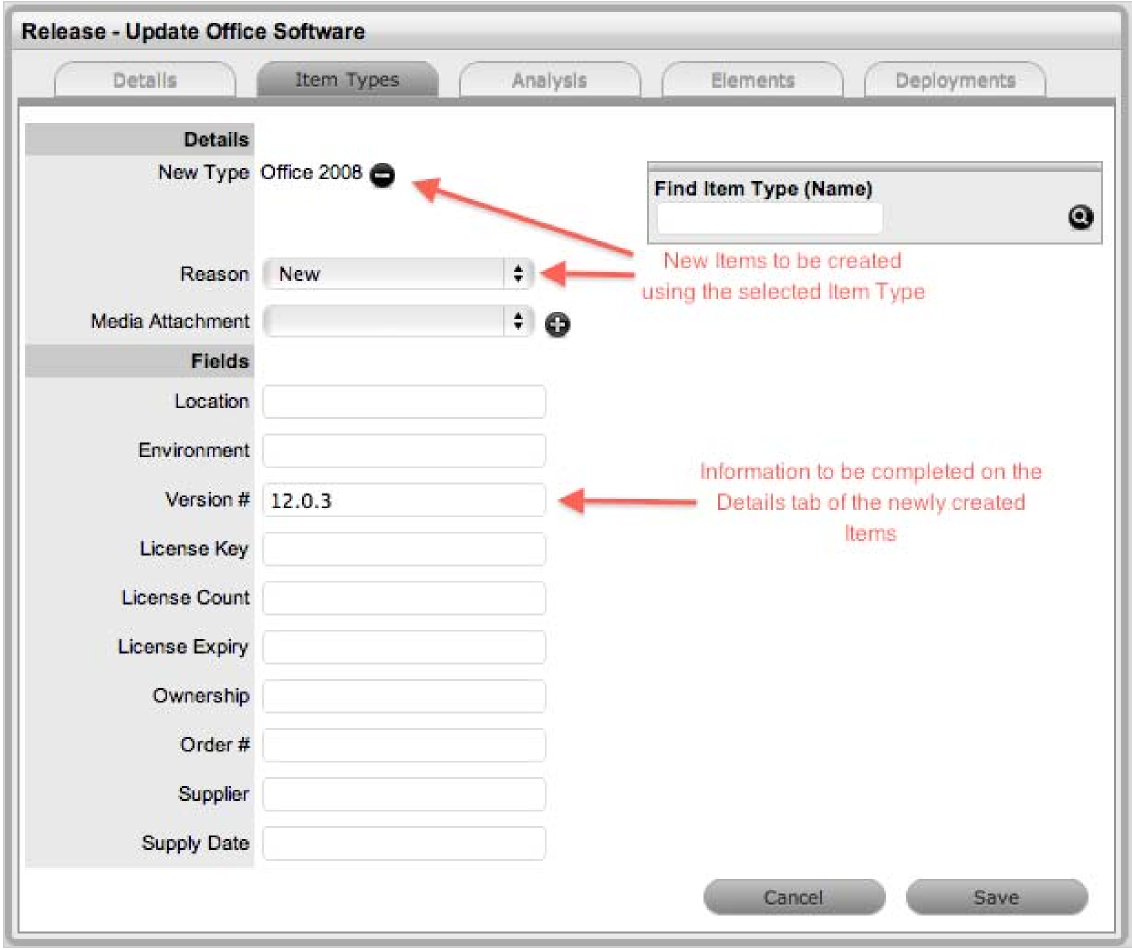


14. Click Save
15. To create new Items in the system, click Add

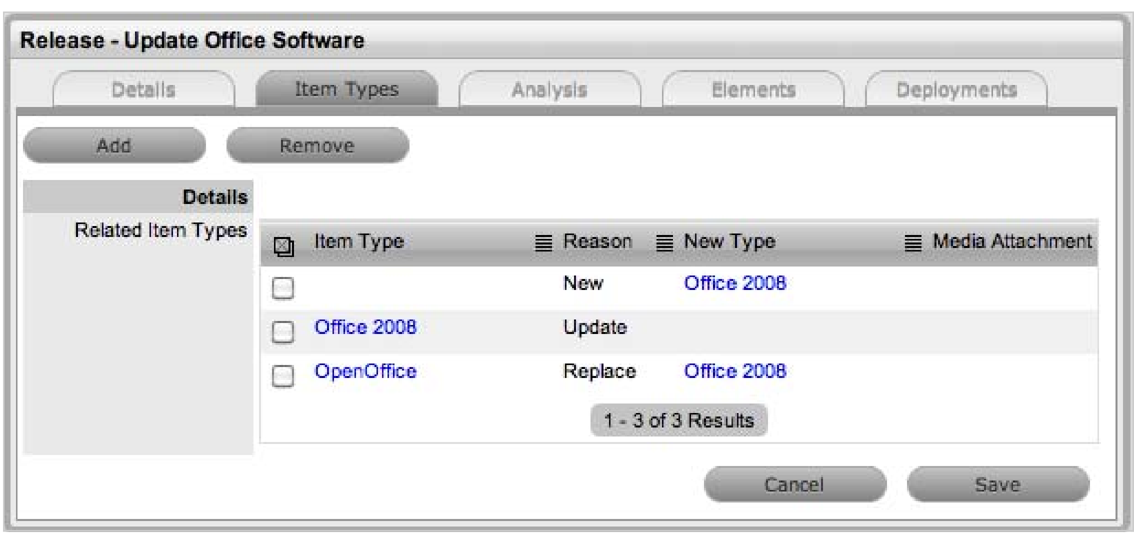
    The Reason of New is assigned by default.
16. Search and select the Item Type to be applied to newly created Items in the CMDB

    For this example, new Items using Office 2008 are being created.
17. Assign the Item Type to the Release

    The fields available on the Details tab of Items using the Type are displayed.

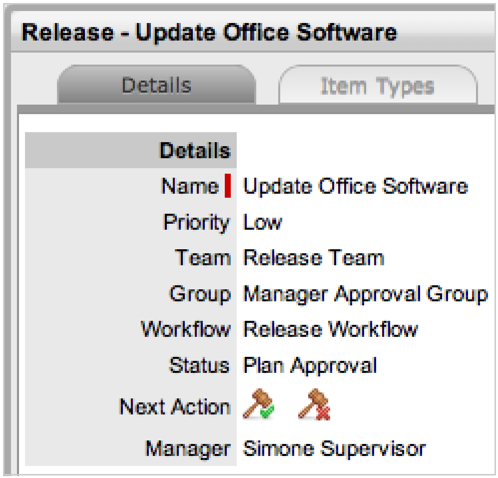


18. Enter the information that is to be updated against the Item in the CMDB
    For our example 12.0.3 will be entered in the Version # field.
19. Click Save



20. After all Types have been assigned to the Release, move the Release to the next relevant State.

For this example, the Release moves to Plan Approval and approval is given. The system automatically moves the Release to Build.



As the Release is not to be managed using Change Management, the Release Manager can move directly to the Deploy tab to create the Deployment Tasks.

1.54.3 Create Deployment Activities

Deployment Tasks, the activities completed by Technicians included in the Release Team Groups, are created in the system by considering the physical location of the Customer or Organizational Unit. That is, when grouping the tasks that are to be completed as part of a Release, the system presents the information based on Customer location so Technicians can be deployed to specific locations to complete jobs.

Tasks can be created on a per Customer Deployment basis for Items that are assigned specifically to Customers. Or, for Items that are shared across Org. Units or by an Org. Unit, the Create option of Deployment per Org. Unit can be used for creating the Deployment. The Global Deployment option allows the Tasks to be created for the whole Organization as the Item being updated, created or replaced is owned/accessed by all Customers in the system.

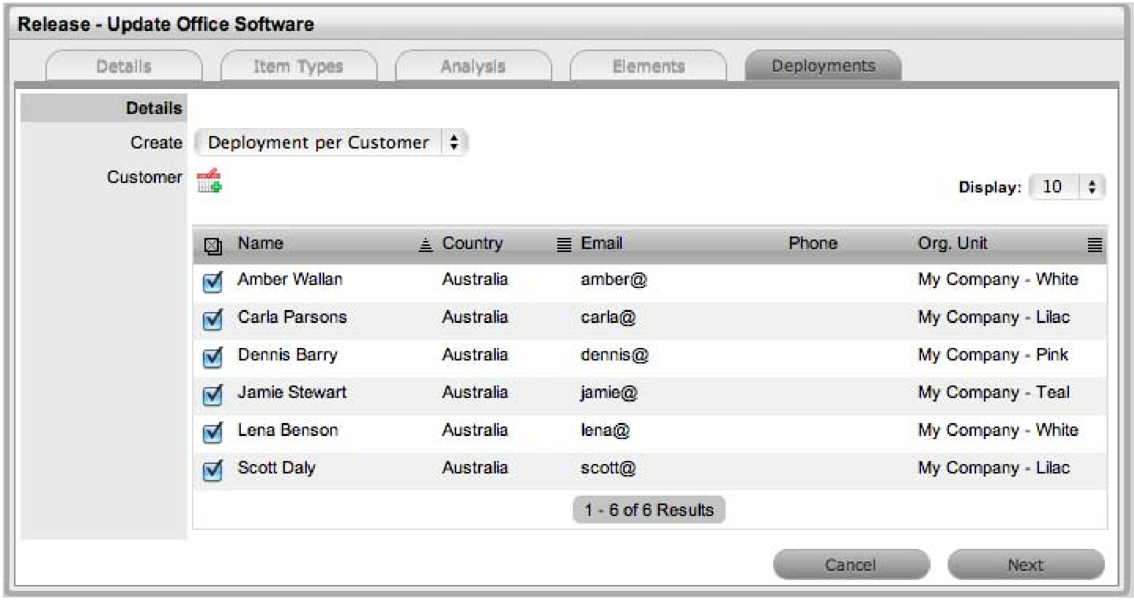
Once the Customers are assigned to the Deployment, either directly or via an Organizational Unit the Release Manager must define the Group of Technicians within the Release Management Team who will action the Tasks and set the stage of the Release Workflow for the Deployment Tasks to move into an Active State ready to be completed by Technicians.

To create the group of Deployment Tasks:

1. Select the Deployments tab inside the Release information screen
2. Click New

   The screen expands to show the options for the type of deployment to be created, the list of Customers who own an Item associated with the Item Types included in the Release Types tab and the Search Options box.
3. Select the type of Deployment that is to be created

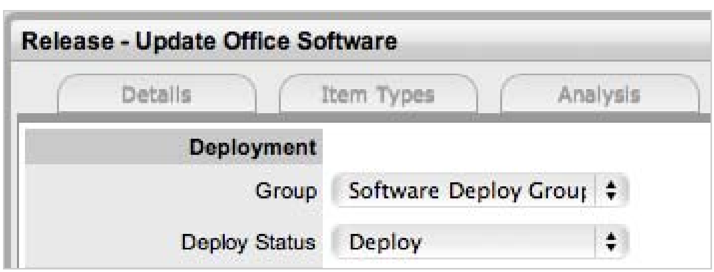
   For this example, per Customer Deployments will be created as all Items associated with the Release are owned directly by Customers. The list of Customers can be sorted into Org. Unit groups by clicking the toggle in the Org. Unit Column Header.



4. Assign the Customer(s) to the per Customer Deployment by selecting the field next to the Customer name and clicking

   The selection is included in a Selected Customers window to the right of the main window. When all Customers are assigned to the Deployment, the group of Technicians who will action the Tasks and the Workflow State where the Tasks will become active in the system must be defined.
5. Click Next
6. Select the Group of Technicians who will work on the Deployment Tasks from the Group drop-down list

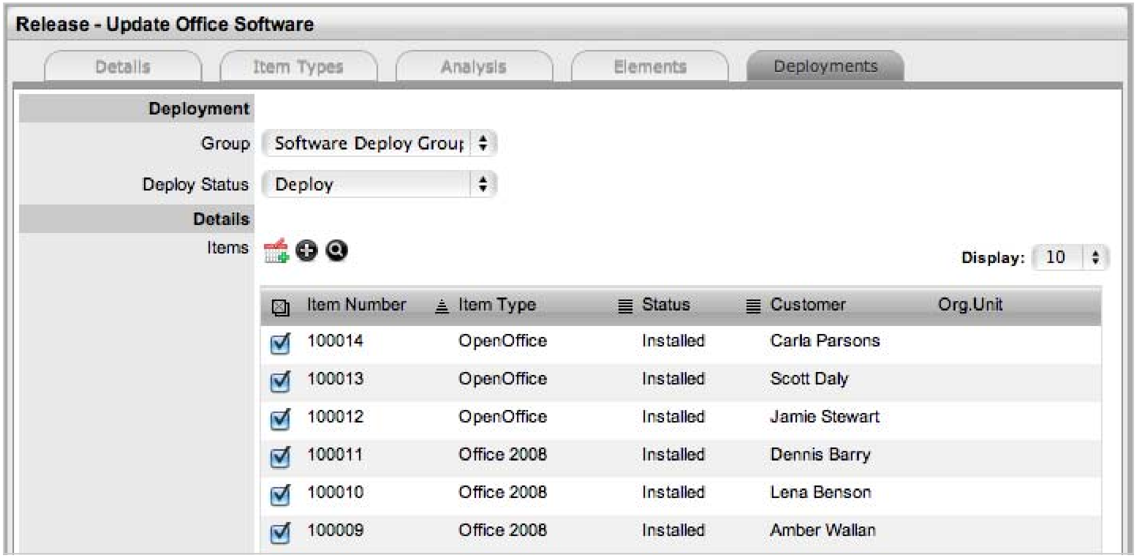
   For this example the Software Technicians will be assigned.



7. Assign the stage of the Workflow where the Deployment Tasks will become active in the system

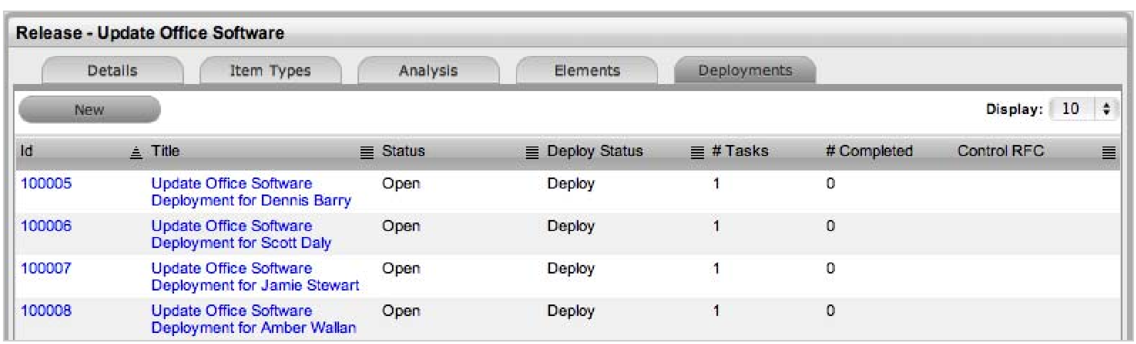
   As the Release is related to simply upgrading or installing Office 2008, the Deploy State will be assigned as the action State.
8. Select the Items to be included in the Deployment

   For this example, as the replacement and upgrade of Items is simple software, all Items will be created as one Deployment that will result in individual Tasks being created.



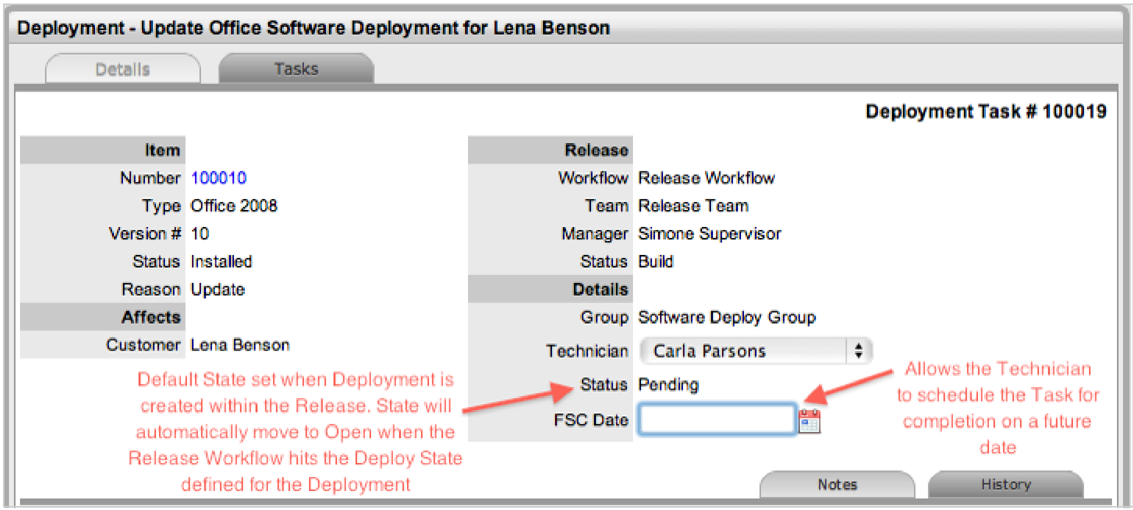
9. Click
10. Click

11. For the new installations of Office for customers select within the Items field
12. Tick the relevant Item Type and define if the Item is to be shared or one created for each Customer
13. Click



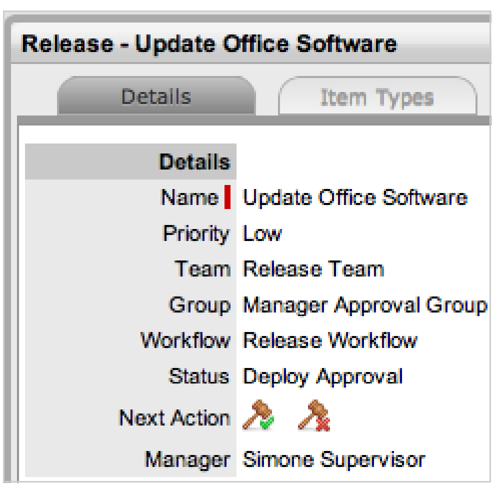
14. Click Done.

All Tasks are now saved with a Status of Pending assigned. When the Release Workflow moves to the Deploy State, the Tasks' Status will automatically by updated to Open, prompting Technicians to complete the Deployment Tasks and move their State to Closed - Resolved. When all Tasks are completed and moved to Closed - Resolved, the Release will be automatically Closed.

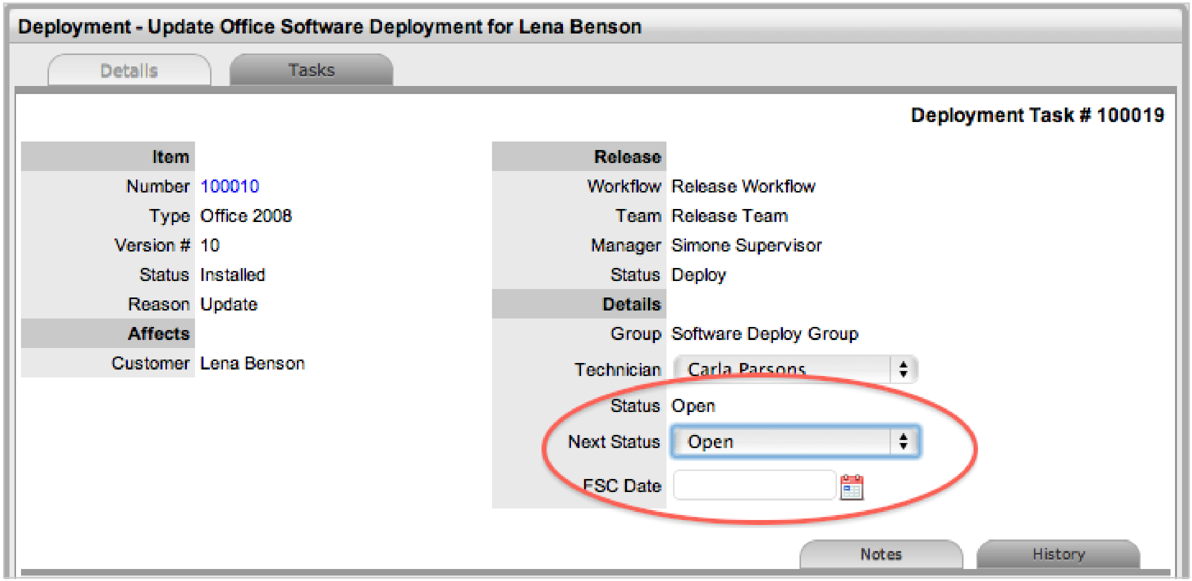


1.54.4 Action Deployment Tasks

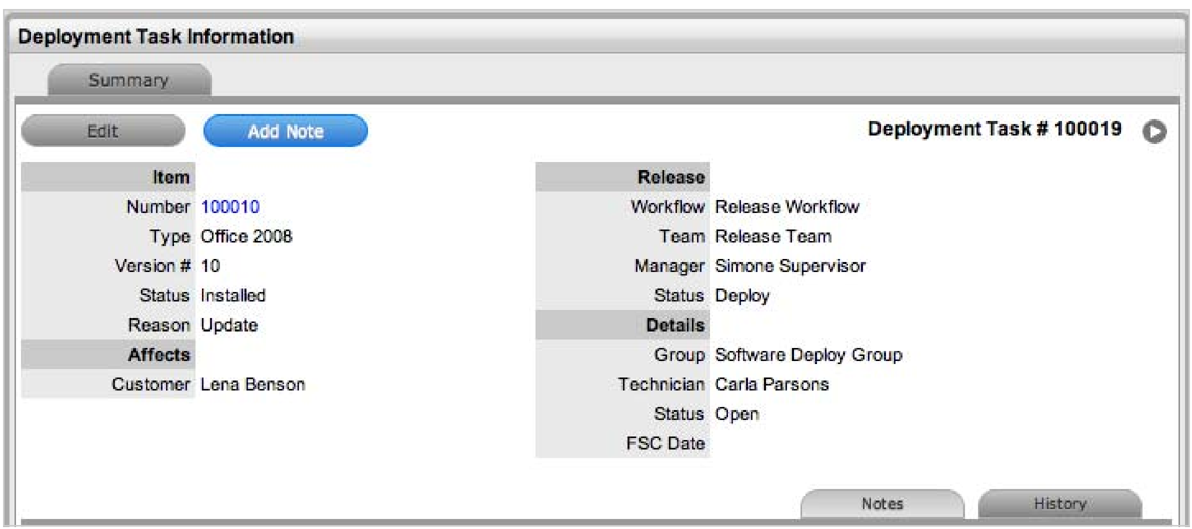
The Deployment activities created within the Deploy tab of the Release are listed in the Deployments and Deployment Tasks tabs of Change in the system. The Release Manager works the Release through the assigned workflow within the Details tab of the Release. When the Status of the Workflow is set to the Deploy State defined within the Deployment, the Tasks will move from Pending to Open.



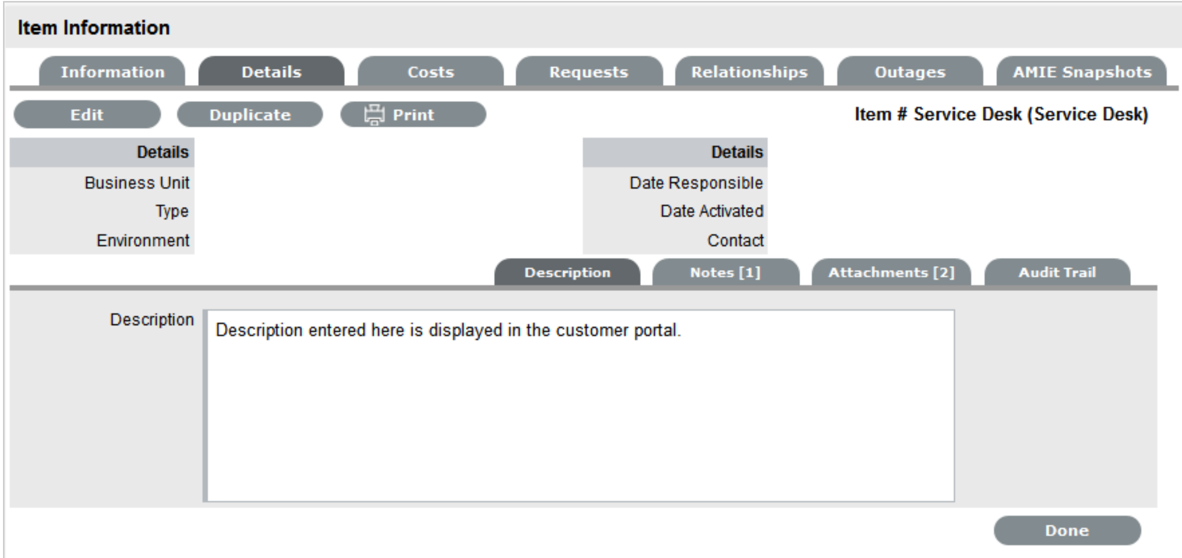
For this example, within the Releases>Release#>Details tab the Release Manager has moved the Release through the Workflow States of Plan, Plan Approval, Build, Test and is currently assigned the State of Deploy Approval. Selecting Accept will move the Release to Deploy, and the associated Tasks will automatically move to Open.



Within the Change > Deployment Tasks tab, Technicians can edit Deployment Tasks by adding Notes using the New Note button, which are stored in the Notes tab, or update the Status of the Task to Closed-Resolved. When all Deployment Tasks are completed, the Deployment is automatically closed by the system. When all Deployments are closed for a Release, the Release Manager can close the Release within the Details tab, by moving the Release Workflow Status to the Exit State.



Item details in the CMDB are also automatically updated, based on the information included in the Release.



1.54.5 Example 2: Update Microsoft Exchange

Although this is considered a less complex activity as it involves only one Item, due to the business critical nature of Exchange the risk is higher. Therefore, as a Release Manager, it has been decided to manage this Release using Change Control. To manage Deployments using Change Management, ensure the Administrator has enabled the Control Deployments via RFC option in the Setup>Privileges>Requests Tab.

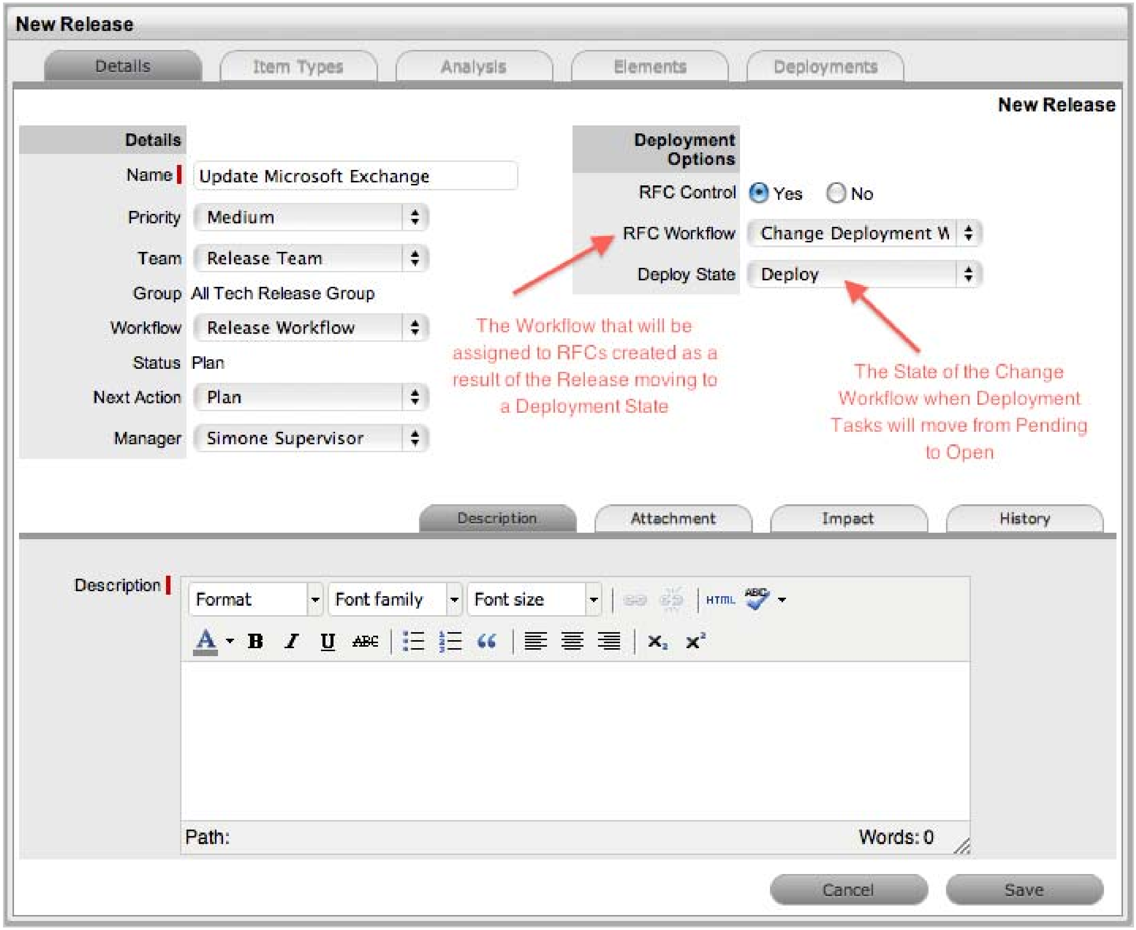
Release Objective: To update Exchange to Microsoft Exchange 2010

The example will apply the system default Release Workflow that includes an added Workflow State of Trial Deploy and also has a number of Approval States. It includes Deploy and Trial Deploy States, as the stages of the Workflow where the related Change Requests (RFCs) are automatically created for the Deployment, and only when the RFCs hit the Deploy State configured for the RFC Control within the Details tab of the Release do the Deployment Tasks become active. The Change Manager can view all Deployment Tasks related to the RFC within the RFC Summary screen, and when all Tasks are moved to Closed-Resolved the Change Manager can close the related RFC.

The Release Team that will action the Deployment Tasks has also been broken down into three groups, Software, Hardware and all Deployment Technicians.

To create a Release with the Deployment Control managed by Change Management:

1. Define the settings within the Details Tab and set the RFC Control option to Yes



2. Click Save

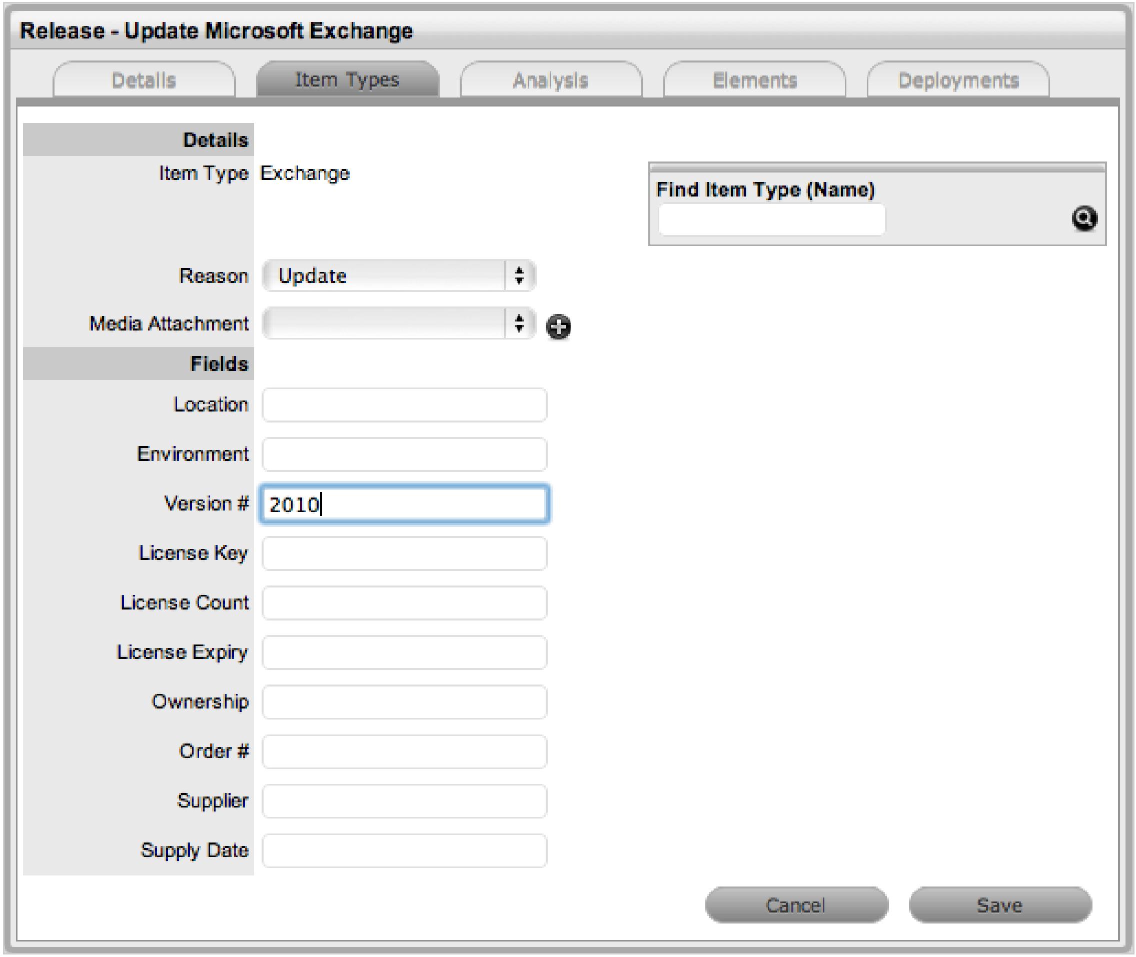
   From the above screen snap, we can see that Simone Supervisor is the Release Manager assigned to the Release and that the Release is of low Priority, will be handled by the Release Team and managed using the Release Workflow. The Release is currently in the default entry point of the Release, the Plan State. It should be noted that moving through the Release Workflow is determined by your organization's business processes and the defined Workflow. The system is to be used as a central repository to manage Releases and a point of reference to keep all relevant parties updated regarding a Release.

3. Move to the Item Types tab
4. Click Edit
5. Select Add and set the Reason to Update
6. Within the Find Item Type field, search for Exchange
7. Click on the Exchange link to add it to the Release
8. Upload Media Attachments, if relevant

   If an electronic upgrade file is to be used for the upgrade, it can be uploaded within the Media Attachment field. This would then be made available within the Deployment Task associated with the Release.

9. Enter information that is to be updated on the Details tab of the Item being updated

These will automatically be updated in the CMDB when the Deployment Task moves from Open to Closed-Resolved.



10. Click Save and Save again.

    Move to the Analysis Tab.

1.54.6 Associating RFCs with the Release

Within the Analysis tab, the Release Manager can access a list of existing RFCs that are yet to be associated with the Release. To add an existing RFC to the Release, the checkbox is marked next to the Request # link, and the Add button is clicked. The RFC no longer appears in the Analysis tab, and is now visible in the Elements tab, where it can be removed if the association was made in error.

For this example, it is assumed no relevant RFCs exist in the system, so we move to the Deployments tab where the RFC will be created as a result of the Deployment.

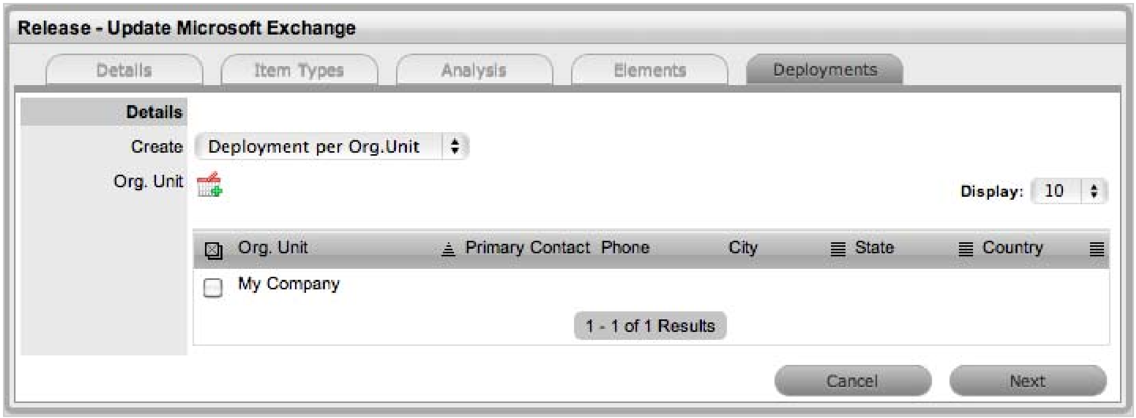
To create the Deployment:

1. Select the Deployments tab inside the Release information screen
2. Click New

The screen expands to show the options for the type of deployment to be created, the list of Customers who own an Item associated with the Item Types included in the Release Types tab and the Search Options box.

3. Select the type of Deployment that is to be created

   For this example, a per Org. Unit Deployment will be created as the Item associated with the Release has shared ownership. When selected, the Organizational Unit associated with the Item that uses the Item Type associated with the Release is displayed in the Org. Unit. list.

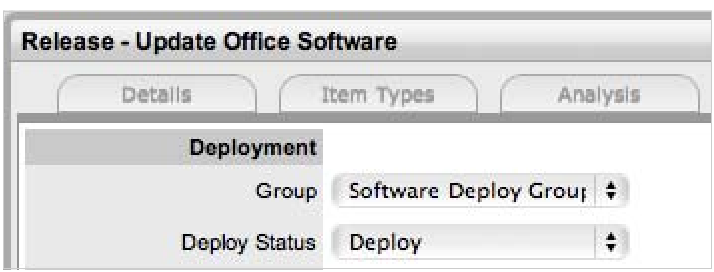
4. Assign the Org. Unit by selecting the field next to the Org. Unit name and clicking

   The selection is included in a Selected Org. Units window to the right of the main window. The group of Technicians who will action the Tasks and the Workflow State where the RFC will be created to manage the Deployment must be defined.

5. Click Next

6. Select the Group of Technicians who will work on the Deployment Tasks from the Group drop-down list

   For this example the Software Deploy Group of Technicians will be assigned.

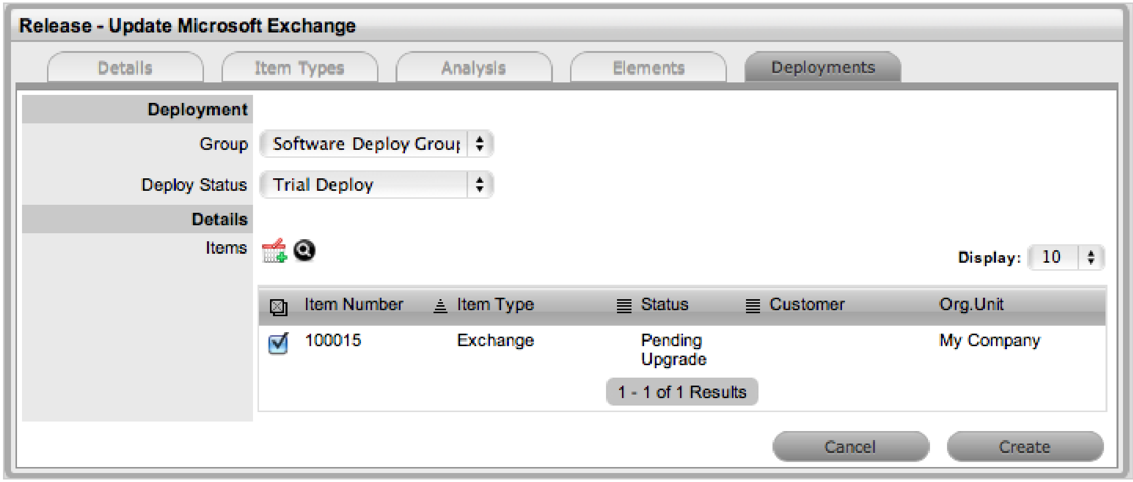
   

7. Assign the stage of the Workflow where the RFC will be created for the Deployment

   When the Release Workflow moves into the Deploy State, for this example, an RFC will be generated. This RFC will be assigned the Change Deployment Workflow and be assigned to the Change Team. When the RFC is assigned the Status of Deployed the Deployment Task will move from Pending to Open, allowing the Team member from within the Software Deploy Group of the Release Team to action the Deployment Task.

8. Select the Item Type to be upgraded in the Deployment

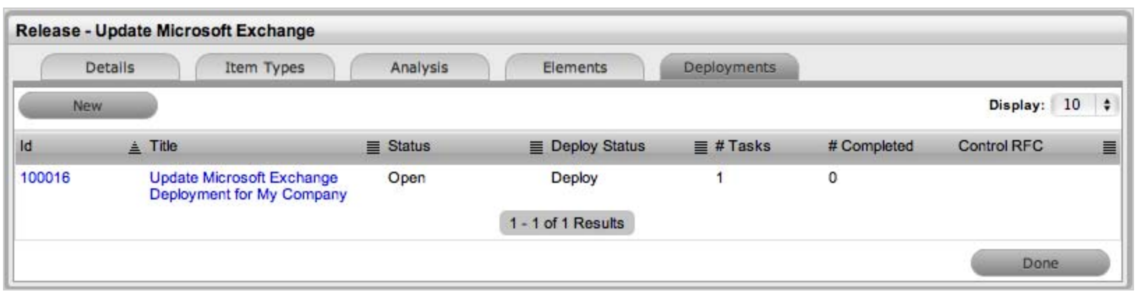
   If an Item Type is not displayed in the list, click to search the CMDB.



9. Click

   The selection is displayed in the Select Items window to the right of the main window. If an incorrect assignment has been made, click.

10. Click Create

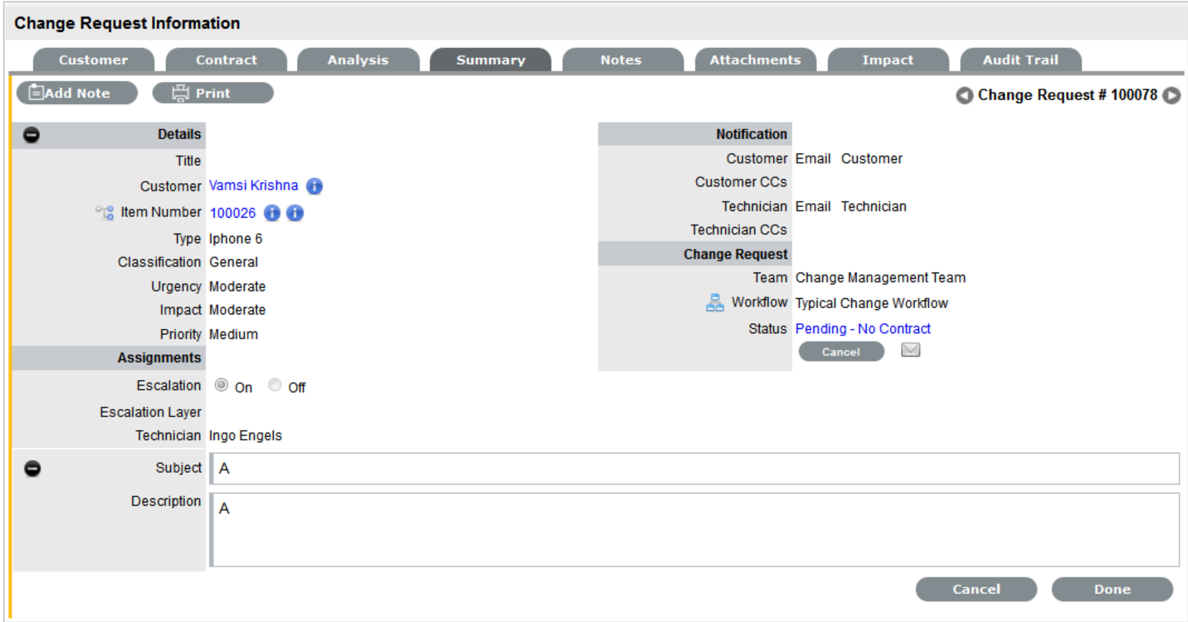


11. Click Done.

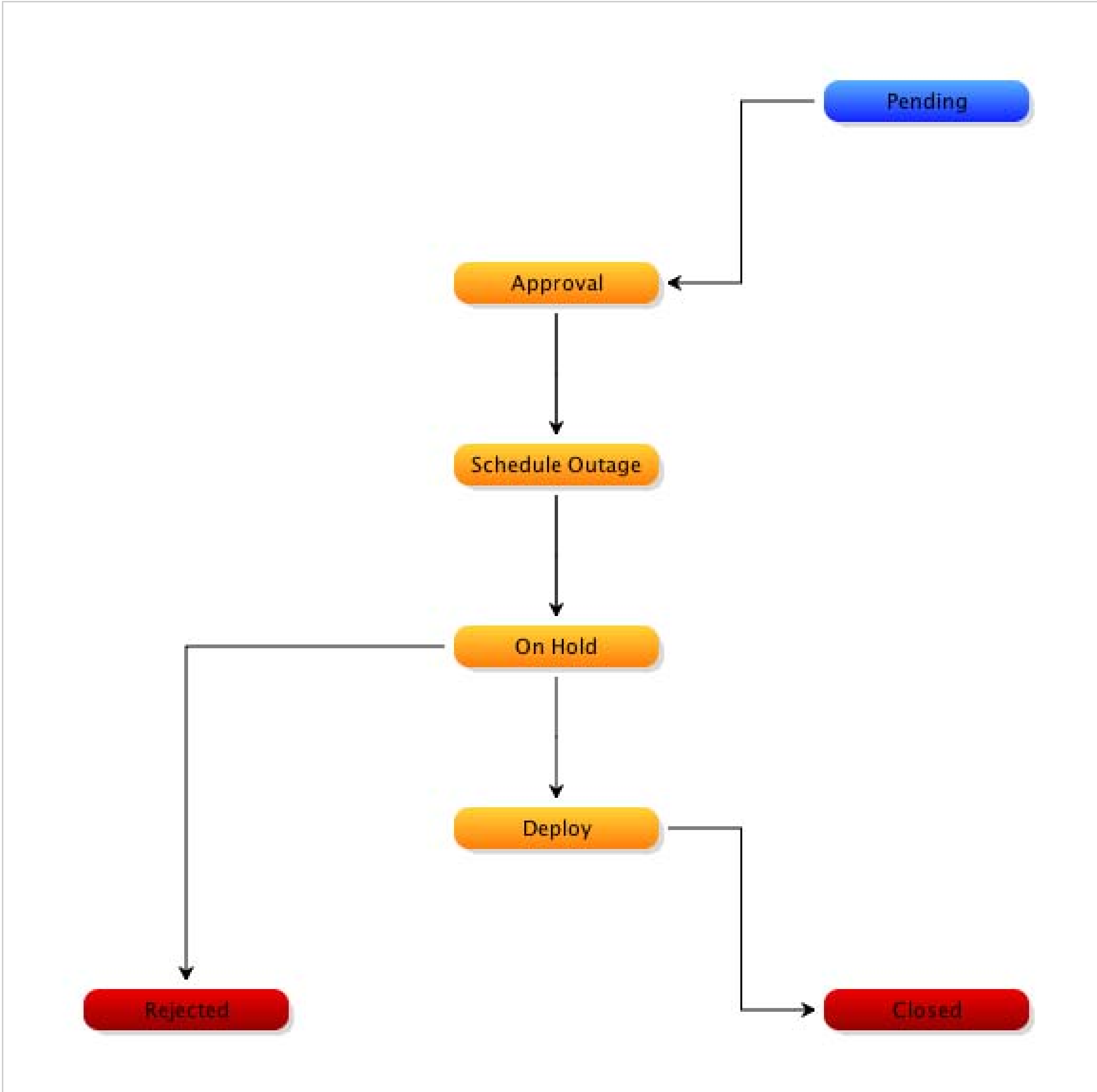
    All Tasks are now saved with a Status of Pending assigned. When the Release Workflow moves to the Deploy State an RFC will be created. When the RFC hits the Release's RFC Control Deploy State the Tasks' Status will automatically be updated to Open, prompting Technicians to complete the Deployment Tasks and move the State to Closed-Resolved. When all Tasks are completed and moved to Closed - Resolved, the Release will be automatically Closed.

1.54.7 RFC Creation and Management

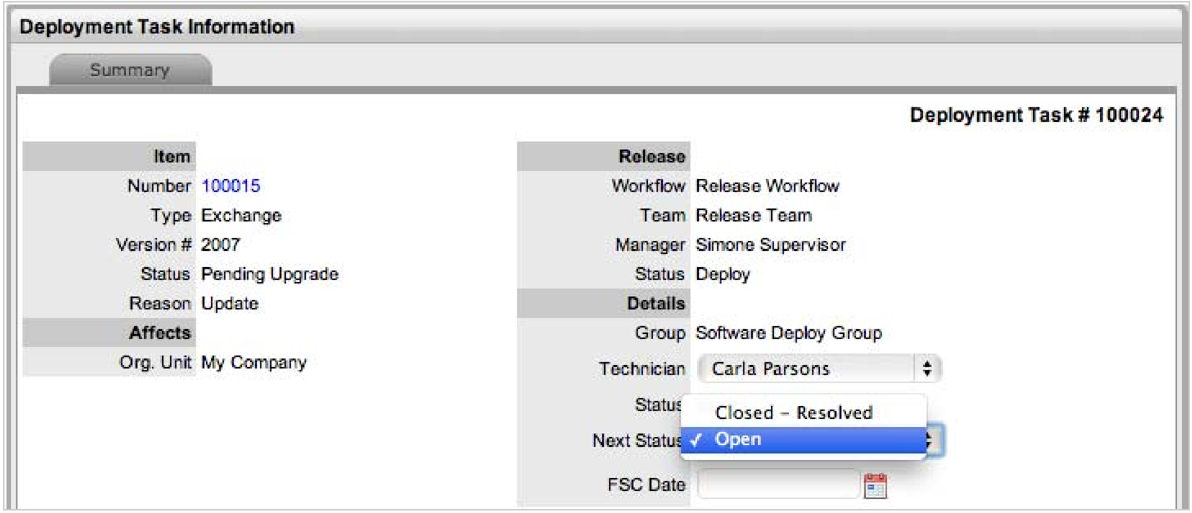
The Release Manager moves the Release through the lifecycle of the Workflow as activities are completed. For this example, within the Releases>Release#>Details tab the Release Manager has moved the Release through the Workflow States of Plan, Plan Approval, Build, Test and is currently assigned the State of Deploy Approval. Selecting Accept will move the Release to Deploy, and an RFC will automatically be created.



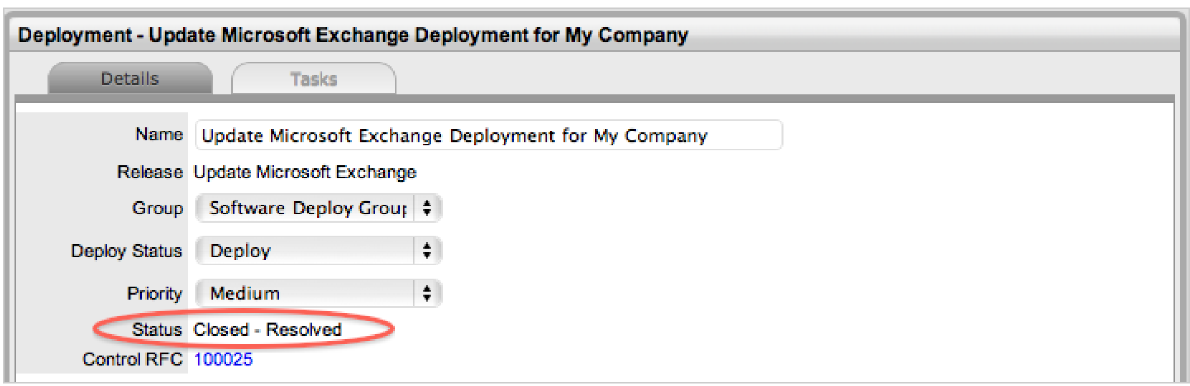
From the above RFC, we can see that the Change Team has been assigned the RFC, and they will move the Request through the Change Deployment Workflow.



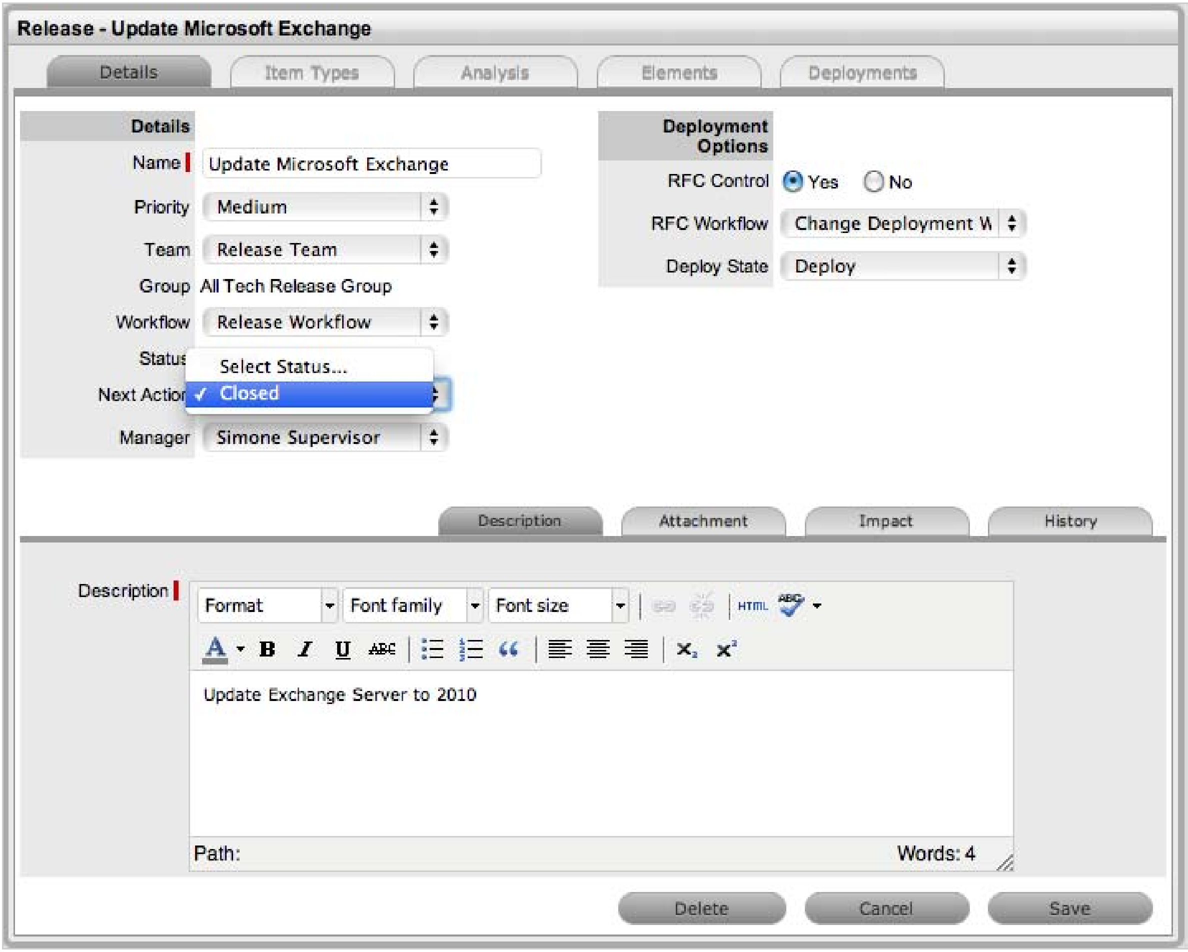
This Workflow includes the stages of Pending>Approval>Schedule Outage>On Hold>Deploy>Closed. When the RFC is assigned the Deploy State, the Deployment Tasks created in the Release, and now available in the Change>Deployment Tasks tab, will move automatically move from Pending to Open, and the assigned Technician can action the Task before moving the Deployment Task State to Closed - Resolved.



When the Task Status is set to Closed-Resolved, the updated Details contained in the Release will automatically be updated on the relevant Item in the CMDB. The Change Manager can view all Deployment Tasks related to the RFC within the RFC Summary screen, and when all Tasks are moved to Closed-Resolved the Change Manager can close the related RFC. When the Deployment Task is completed, the Deployment within the Change > Deployments tab is automatically closed by the system.



When the Deployment is closed for a Release, the Release Manager can close the Release within the Details Tab, by moving the Release Workflow Status to the Exit State.



1.55 Release Workflow

Release Workflows define the sequence of States to be followed for Releases logged within the Change>Release tab. By default the system includes one Release Workflow that can be adjusted to suit the service organization's requirements. There is no limit to the number of fully configurable Release Workflows that can be created in the system, so the diverse range of business release implementations required by an organization can be covered by the service and support organization.

1.55.1 Approval States

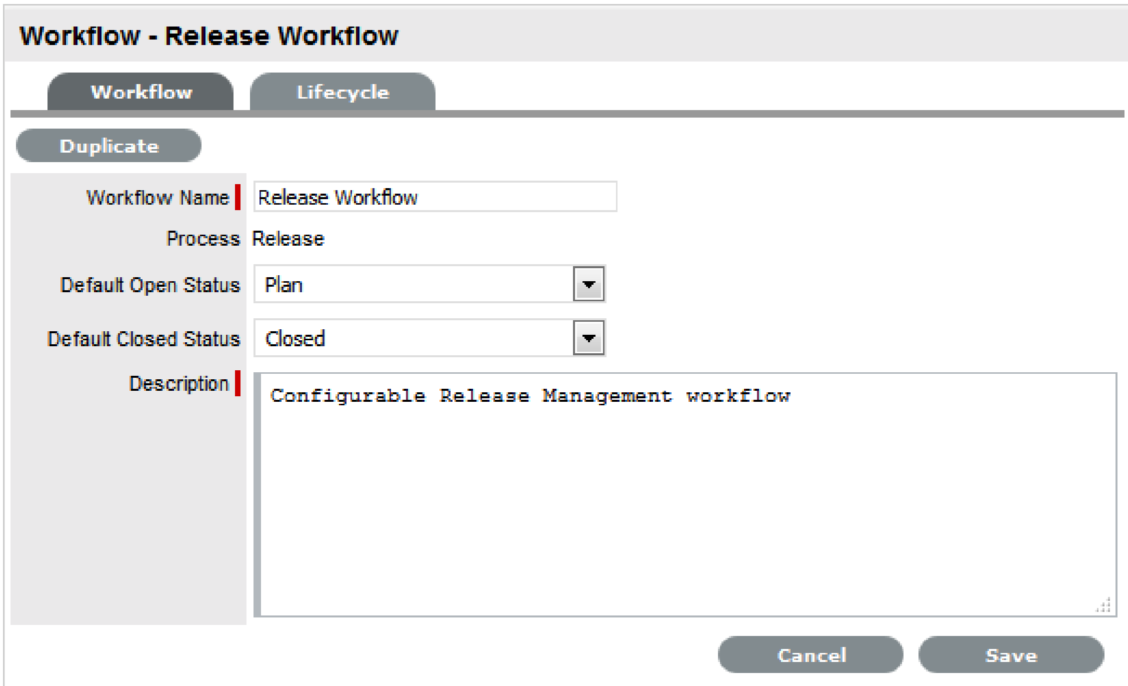
Approval States in Release Workflows provide the facility for Release Managers that have been assigned to the Approval State, to accept or reject Release activity. If Release Managers are to be assigned to an Approval State, then it is not possible for other User Roles to also be assigned to that State. It should be noted that a Technician, Supervisor or Partner user can also be assigned a Manager Role, which will allow them to be assigned to Manager Only Approval States.

For more information about Manager assignment to Approval States, see:Release Teams.

1.55.2 Editing the Default Workflow

To edit or duplicate the default Release Workflow:

1. Select Service>Workflows
2. Click the Release Workflow hyperlink to modify the template details or copy the Workflow



3. Click Edit, to amend or duplicate the Workflow

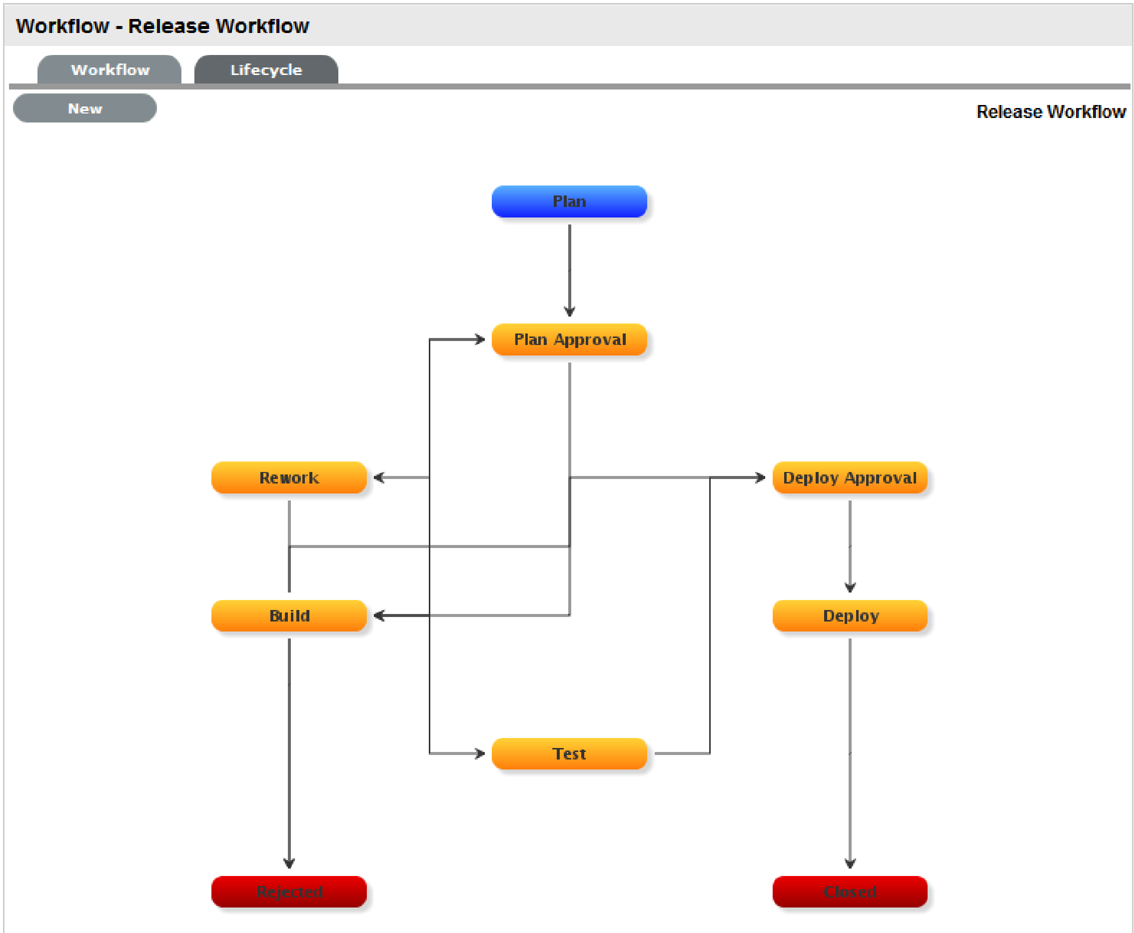
   Fields in the following table are now editable

4.

Field Name	Description
Workflow Name	Enter a relevant name for the Workflow.
Process	Release Management is assigned as the Workflow Process.
Default Open Status	The open State that a Release automatically applies when it is assigned the Workflow.
Default Closed Status	The Exit State that indicates the Release has reached the end of the Workflow Lifecycle.
Description	Defines the purpose of the Workflow.

5. Click Duplicate, if the default Workflow is to be copied
6. Amend the Release Workflow details as required
7. Click Save

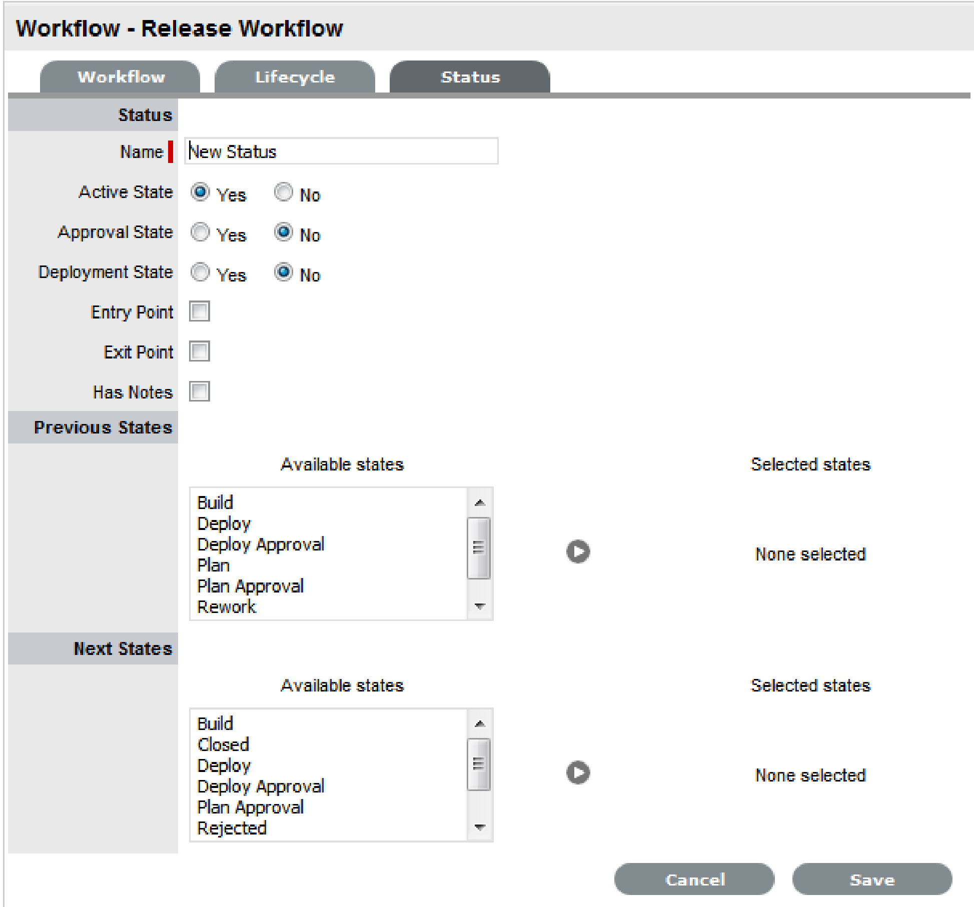
8. Select the Lifecycle tab to create or modify Workflow States



1.55.3 Adding or editing Workflow States:

1. Click the State field in the Workflow map or State name hyperlink to display the Status information screen

   Or, click New to create a new Workflow State.



Status	
Name	System Default States can be re-named if desired. For newly created States, enter a name.
Active State	Assign Yes for requests to be available in the Home tab by default, when assigned to this stage of the Workflow. Yes should be used for States where the User is actively working on the request or waiting for updates." No" generally applies to Workflow exit points and will only be available by default within the Release tab list view.
Approval State	Sets the Status as an Approval State. This allows a Release Manager to be assigned to this State and enables them to approve or reject Release Activity when it moves into this stage of the Workflow. **NOTE:** An Entry/Exit status cannot be an Approval State.

Status	
Deployment State	If enabled for a State, when a Release is assigned this State the Deployment Tasks associated with the Release can be actioned by the Technician Users.
Entry Point	An Entry Point is used to indicate the start of a Lifecycle. To make the State a Workflow Entry Point, select the Entry Point checkbox. As the Entry Point is the first State, the Previous States field will be removed.
Exit Point	Select if the State will be an Exit Point. An Entry Point is used to indicate the end of a Lifecycle. **NOTE:** A Workflow can have only one Entry Point but multiple Exit Points.
Has Notes	Allows the Supervisor to include instructions or add relevant details to the Workflow that is made available when the Release moves into the State. The information is configured within the Notes tab that is displayed when this option is enabled. Information and attachments included on the Notes tab, are displayed as a scroll-over when the Release moves into the State.
Listener Class	This field is visible if the Outbound Webservices option is enabled in the Admin>Setup>Privileges>System tab. Complete this field, if assigning this State to a request is to trigger an event in an external system. This field should contain the name of a Java class that implements the interface com.livetime.ws.listenWorkflowListener that has been compiled into a jar file and added to the LiveTime classpath. Please contact support for further details.
Previous States	If the State is not an Entry Point, Previous States can be assigned to the Workflow stage. Highlight the relevant State and use the arrow button to move Available States to the Previous States field. These options designate the Workflow stages a Release can come from, before it arrives in this Workflow State.
Next States	If the State is not an Exit Point, Next States can be assigned to the Workflow state. Use the arrow button to select the Next States from the Available States. These options are included in the Next Action drop-down menu of a Request.

Status	
Accept State	(Visible when the Approval State option is Yes.) Displays the States that a Request can move to when a Release action is Accepted. Select the appropriate State, for the system to automatically route the Release when the Accept option is selected.
Approval	(Visible when the Approval State or KBA Approval option is Yes.) Displays the States that a Request can move to when a Request action is Accepted. Select the appropriate State, for the system to automatically route the Request when the Accept option is selected. ◆ *Team Manager,* select if a single Manager User assigned to the Team is to process the Request. ◆ *Team Managers#* if selected, set the number of Managers that are required to Approve the Request before the system will automatically apply the defined Accept or Reject State. ◆ *Team Managers%* if selected, set the percentage weighting that must be achieved by Managers voting before the system will automatically apply the defined Accept or Reject State. When selected, define the percentage weighting.
Reject State	(Visible when the Approval State option is Yes.) Displays the States that a Release can move to when a Release activity is Rejected. Select the appropriate State, for the system to automatically route the Release when the Reject option is selected.

2. Configure the State details, as required
3. Save the updated State details

NOTE: It is recommended that all States that are to be included in the Workflow be added or re-named now

After all States have been entered in the system, the mapping of the Workflow can be more easily achieved.

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4. Continue to edit, add or delete States until all relevant States exist for the Workflow
5. To create the Workflow Lifecycle, States need to be assigned to the transitional states of Previous and/or Next

To move Available States to the Previous State or Next State field, open the Status Details screen by clicking the State object in the Workflow map or select the State hyperlink in the table beneath the Workflow map.

6. Assign States to be Next and/or Previous States

   For the Current Status highlight an option in the Available State list and click the right-pointing arrow to move it to the Selected States field.

NOTE: When a State is used as a Previous and a Next State, it allows a request to move forward and backward in a Lifecycle

An Open State cannot have any previous States and a Closed State cannot have any Next States.

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7. Click Save to return to the Workflow map and to access other States to build on the Workflow lifecycle.
8. Repeat Steps 12 to 14 until all transitional stages of the Workflow have been mapped.

NOTE: To successfully save a Workflow, the sum Resolution Time of the individual Contract Types assigned to each transitional state of the Workflow Lifecycle, must be less than or equal to the Workflow's SLA Resolution Time

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9. Click Save.

   The visual representation of the Workflow is displayed.

1.55.4 Workflow Map

The Workflow Map is a visual representation of the Workflow Lifecycle. The map displays the relationship between each Lifecycle State by using different colors to represent the type of Lifecycle State.

Color	
Blue	Indicates the Entry point of the Lifecycle.
Orange	Is a Transitional stage of the Lifecycle.
Red	Indicates the Exit point of the Lifecycle.

Detailed information about a Lifecycle State can be accessed by clicking on the State field within the Map.

1.55.5 Deleting the default Release Workflow

To delete the default Release Workflow:

1. Select Service>Workflow

   The Workflows screen appears.
2. Select the checkbox to the left of the Release Workflow
3. Click Delete

   The checked Workflow is no longer visible.

NOTE: A Workflow that belongs to a Team cannot be deleted.

1.55.6 Deleting a Workflow State

It may be necessary to delete a system default State or a State that is no longer in use. Note that a State cannot be deleted if it has been assigned to a Release.

NOTE: It is recommended that any States listed in the table of States included on the Life Cycle tab that are not included in the Workflow or used by the system, be removed from the table as all States included here are listed in the States tab when Workflow Manager assignment is being configured. By removing unused States from the table, assigning Technicians to the relevant stages of the Workflow becomes an easier task.

To delete an unused State:

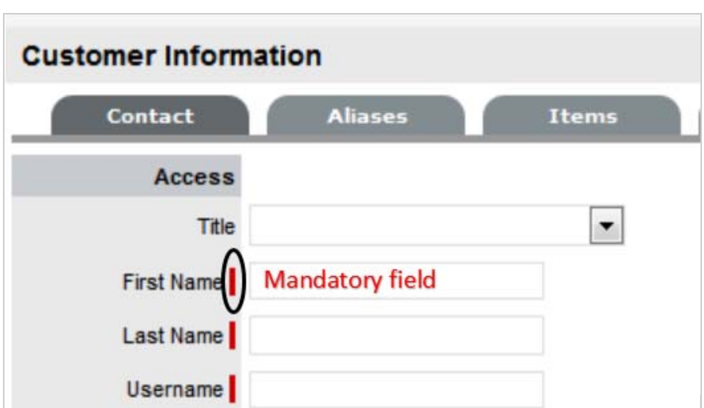
1. Select Service>Workflows
2. Click on the Workflow hyperlink
3. Move to the Lifecycle tab
4. Select the State name link in the table of States included in the Lifecycle tab
5. Click Delete
6. Click Done.

1.56 Basic Procedures

All sections throughout the application use a uniform system for creating, editing and deleting elements. Whether you are working with requests, Customers, Items or Item Types, the procedure for creating, editing or deleting existing elements is the same.

1.56.1 Mandatory Fields

When entering details relating to any element throughout the system, required information is marked with a *I*.



I Denotes Mandatory fields

1.56.2 Creating an Element

To create an element:

1. Navigate to the appropriate section

   For example, if you want to create a Customer, navigate to the User>Customers section.

2. Click New in the upper left-hand corner of the list of Customers

   This will open a new Customer window.

3. Fill in the appropriate details
4. Click Save.

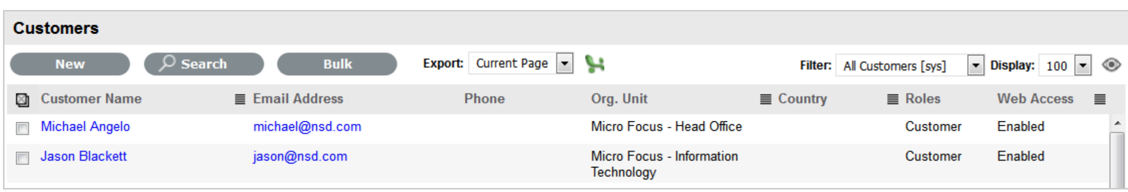
The new Customer now exists in the system and will appear in the list of Customers.

1.56.3 Editing an Element

To edit an element:

1. Navigate to the appropriate section
2. Click the Entry link in the list

   For instance, to edit a Customer, navigate to the User>Customers section and click on the Customer name hyperlink. This will open up the Customer's details screen.

3. Click Edit in the upper-left corner of the window to enter Edit mode
4. Update the necessary information
5. Click Save.

   The changes will now take effect and the User will be returned to the list.

1.56.4 Deleting an Entry

To delete an entry:

1. Navigate to the appropriate section

NOTE: Technicians do not have the ability to delete requests or Customers

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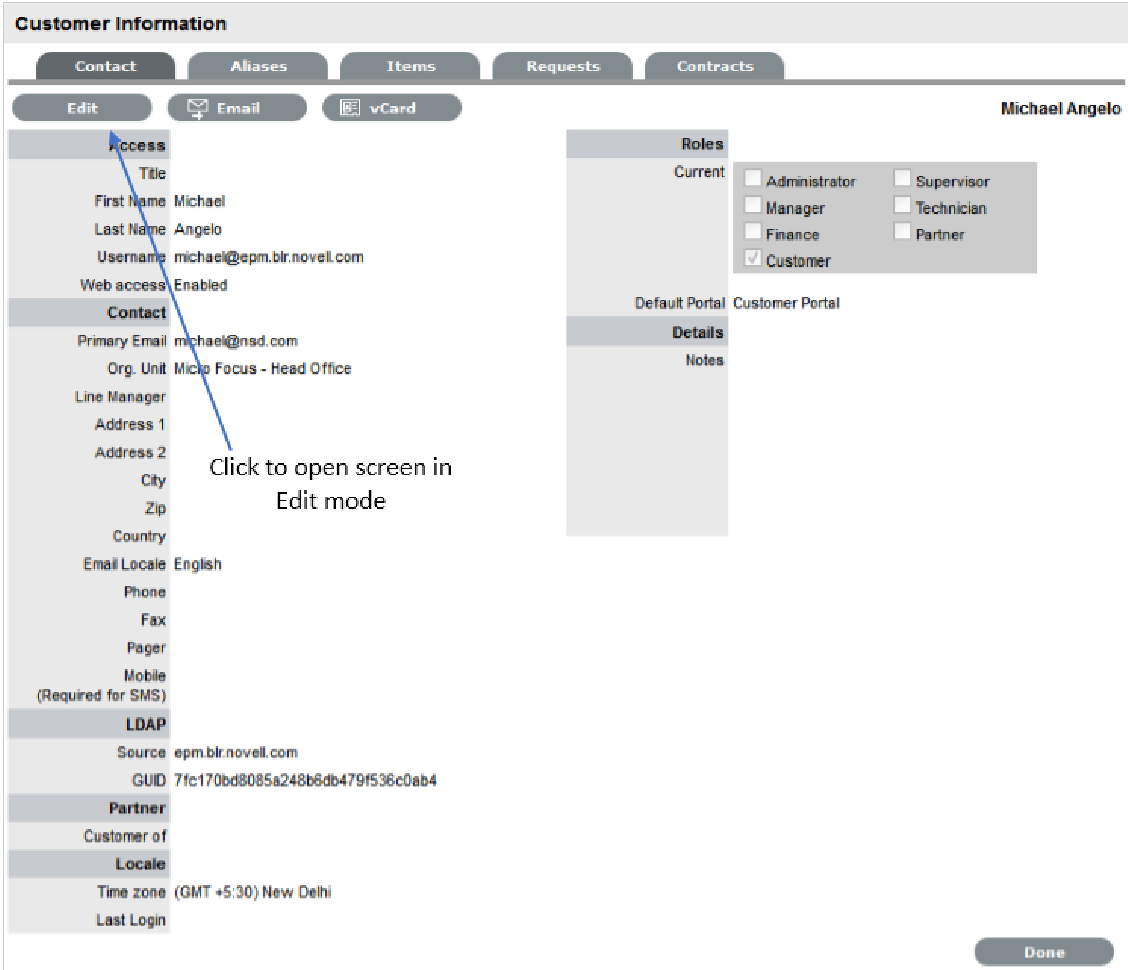
1. Click the link in the list corresponding to the entry to be deleted

For instance, to delete a Customer, navigate to the User>Customers section and click on the Customer you want to delete. The Information screen opens.



2. Click Edit in the upper-left corner of the window to enter Edit mode

3. Click Delete at the bottom of the section.

   The entry is now deleted and the User will be returned to the list.

1.56.5 Exporting to PDF and Excel

Most lists within the system can be exported to PDF and/or Excel. This functionality is available wherever the PDF and/or Excel buttons are visible.

NOTE: To customize the view of an Excel export, create a list view with the preferred columns, use the view and select the Excel button. See List Views for more information on customizing a list.

1.56.6 Formatting Print Views

Enable the print background setting on your web browser for better formatted and more User-friendly hard copies of request summary screens print views. Using Internet Explorer this setting is found in: Tools>Internet Options>Advanced>Printing>Print background colors and images.

1.57 List Views

Application List Views are pre-sorted by ID #, and default to display ten Incidents per batch. A List can be re-sorted by clicking on a column header, and the number of elements displayed per batch can be changed using the Display pop-up option.

List Views allow Users to customize the list displayed for each screen within the application. When a List View is created, the screen editor will display only the relevant columns for the module being customized. For example, when creating an Item List View, the available columns will include only Item information.

The system includes at least one default List View for each screen within the application. These Views cannot be edited, however additional Views can be created.

To access details regarding the List View field options throughout the application, refer to:

- Home, Operations and Change tab
- Configuration tab
- Users tab
- Knowledge tab.

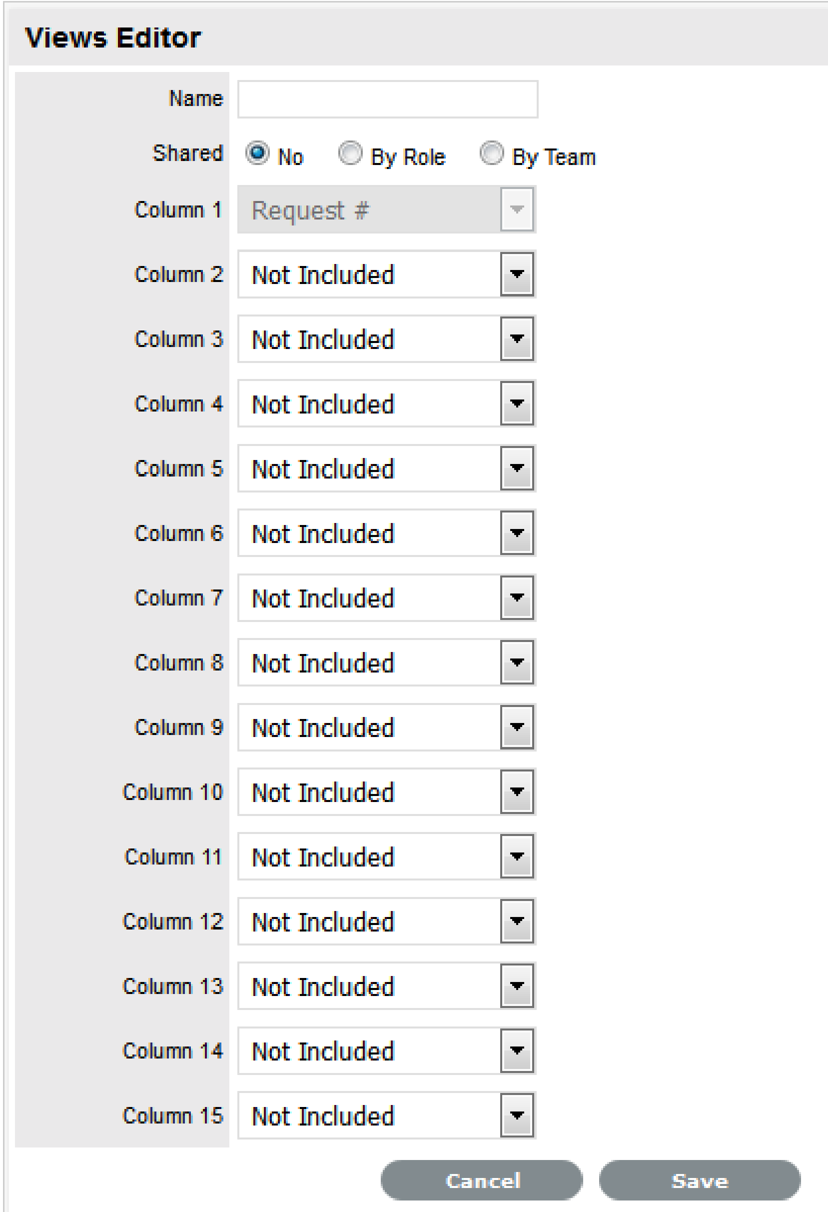
1.57.1 Create a List View:

As an example we will create a List View for the Incident screen.

1. Select Operations>Incident

   The Incidents screen appears

2. Select  available on the far right of the screen
3. Click New



4. Enter the View Name and specify if the View is to be shared by other Users or between Team members

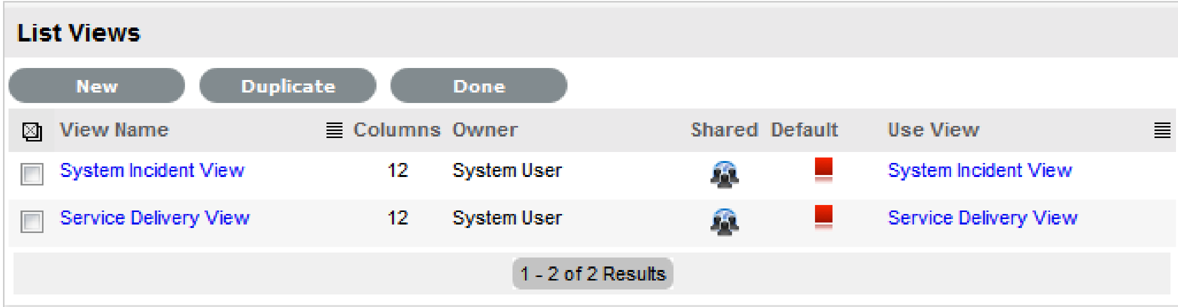
   Shared Views allow other Users to apply the List View to their screen but does not permit them to edit it.

5. Select at least 8 columns

   This only applies to the request list screens, all other screens require at least 6 columns.

6. Click Save.

NOTE: Create a List View that includes New Tasks and New Notes to use as the default request screen in order to have a visual cue when new Notes and requests are created.



1.57.2 Selecting a List View as the Default View

To use the same List View each time a screen is displayed, select the List View to be the default view. To do this:

1. Select , displayed on the far right of the screen
2. Click the button in the Default column
3. The icon will then change to a , indicating that it has become the default
4. Select Done to view this List.

   From this point, this will be the default List View for the selected screen.

1.57.3 Displaying a Different List View

To use a different List View:

1. Select , displayed on the far right of the screen
2. Select the link in the Use View column.

1.57.4 Editing a List View Column

To edit a List View, and change the columns:

1. Select , displayed on the far right of the screen
2. Select the link in the View Name column
3. Make the required changes
4. Click Save.

1.57.5 Duplicating a List View

To fast-track the creation of similar List Views, a List View can be duplicated. To duplicate a List View:

1. Select , available on the far right of the screen
2. Click the checkbox beside the View Name to duplicate
3. Click the Duplicate button

   The List View Editor appears with the columns of the original List View.

4. Complete the List View name
5. Modify the columns as required
6. Click Save.

To access details regarding the List View information options throughout the application, refer to:

- Home, Operations and Change tab
- Configuration tab
- User tab
- Knowledge tab.

1.58 List View Options for all Request Types

The List View options are derived from the database fields and can be customized by selecting  within the My Tasks Home tab, Service Request, Incident or Problems screens within the Operations tab and the Change tab list view.

The options within the Home, Operations and Change tabs are detailed in the following table:

	Description
# Attachments	Displays the total number of Attachments assigned to the request.
# Notes	Displays the total number of Notes assigned to the request.
% SLA Remaining	Displays the percentage of time available before the SLA expires.
Classification	Shows the Classification assigned to the request.
Client Room	Displays the Room where the Customer can be located.
Close Date	Specifies when the request was moved first moved into an Exit State of the Workflow.
Created	The date when the request was first logged with the system.
Customer	The name of the person for whom the request was logged in the system.
Customer Item	The identification number of the Configuration Item associated with the Customer. (This is especially relevant when Item Shadowing is enabled for the Customer Portal and a request is logged against an Item that is different to the Customer's Item.)
Customer Item Type	The Item Type associated with the Customer Item.
Customer Solution	Shows the Customer Note when they use the Close option on the Customer Portal.

	Description
Description	Displays the initial information logged for the Customer's request.
Due Date	Typically based in the SLA and Priority assigned to the request, but in some cases may be manually overwritten.
Escalation	is visible when the Escalation option is On for the request.
Group	Displays the Group identification number, if the request is assigned to a request group.
IP	Shows the ITIL process that the request belongs to: Incident Management; Problem Management; Change Management; Request Fulfillment
Identifier	Shows the Identifier field information of the Item assigned to the request.
Impact	Shows the Impact associated with the request. This is usually derived from the Criticality of the Item, but can be adjusted manually on a request.
Item	Shows the identifying number of the Item assigned to the request.
Item Category	Shows the Category name of the Item assigned to the request.
Item Criticality	States the Criticality of the Item as defined in the CMDB.
Item Room	Displays the Room details to which the Item is assigned.
Item Status	Displays the stage of the Item Lifecycle that the Item is assigned.
Item Type	Shows the Type name of the Item assigned to the request.
Last Action	Details the date that action was last recorded against the request.
Layer	Details the Escalation Layer/level or work group assigned to the request.
Logged Time (mins)	Shows the total time recorded against the request.

	Description
Logged by	Shows the name of the person logged the request with the system.
New Note	 is visible when a new Note is added to a request and has not been opened by the assigned Technician.
New Task	 is displayed when a new request is added to the List View.
Number of Affected Users	Displays the number of Customers associated with the Item assigned to the request.
Open Date	Details the date the request was first logged in the system.
Open Time	Details the time the request was first logged in the system.
Org. Unit	The name of the Organizational Unit to which the Customer is assigned.
Priority	Shows the Priority setting for the request.
Request#	The identifying number for the request.
Restore Date	Shows the date the request was moved into a Workflow State where the SLA Restoration option is set to Yes.
SLA	Displays the Service Level Agreement assigned to the request.
Source	Displays if the request was created via Email, Portal, Widget, Phone (Technician) or Web Service.
Status	Shows the stage of the request Workflow that the request is assigned.
Subject	Shows content entered in the Subject field of a request. Usually derived for the Subject line of requests created via email, if not populated manually.
Team	Shows the Team assigned to the request.
Technician	Displays the name of the Technicians assigned to the request.
Urgency	Shows the Urgency associated with the request.
Warning Sent	 is visible if an SLA Warning has been sent to the Technician assigned to the request.
Workflow	Details the Workflow assigned to the request.

If Custom Fields have been enabled for a Request Type in Admin>Setup>Custom Fields, they will also be available in the Views Editor drop-down list options.

1.59 List View Options: Configuration Tab

The List View displays the default columns, if required, click and add or remove the columns.

Ensure that a minimum of 2 and maximum 15 columns can be selected.

NOTE: If you are adding or removing any columns, then the header filter will be cleared.

The options within the Configuration Tab are outlined in the following table.

	Description
# Users	Displays the number of Users assigned to the Item.
% SLA Uptime	Displays the percentage uptime expectation of the SLA assigned to the Item.
% Uptime	Shows the actual uptime of the Item, based on the time the Item is associated with Active Lifecycle States.
Avg Repair Time	Entries displayed here are automatically calculated based on the average length of time an Item is offline.
Avg Time to Fail	Figures displayed here are automatically calculated based on the average time between an Item being offline.
Change Team	Shows the Change Team assigned to the Item.
Child R'Ships	Displays the number of Child Relationships associated with the Item.
Contract	Displays the Contract Number associated with the Item.
Contract End Date	Displays the date a Service Contract period ended.
Contract Expiry	Shows the date that a Service Contract is due to expire.
Cost	Displays the value entered in the Costs field.
Criticality	States the Criticality of the Item as defined in the CMDB.
Current Month Costs	Uses the Charges figure within the Service Item Costs tab, multiplied by the number of Users and days of month passed, to calculate the month to date cost figure.
Current Month Revenue	Uses the Revenues figure within the Service Item Costs tab, multiplied by the number of Users and days of month passed, to calculate the month to date revenue figure.
Customers	Lists Customers assigned to the Item.

	Description
Deleted Date	Shows the date the Item was deleted from the CMDB.
Depreciated Value	Displays the figure entered in the Depreciated Value.
Identifier	Shows the Identifier field information of the Item assigned to the request.
Incident Team	Shows the Incident Team assigned to the Item.
Item Category	Shows the Category associated with the Item.
Item No.	Displays the identifying number for the Item.
Item Type	Shows the Item Type associated with the Item.
Manufacturer	Displays the Manufacturer name.
Open Requests	Shows the number of requests assigned an Active Status, associated with the Item.
Org. Units	Lists the Org. Units associated to the Item.
Parent R'Ships	Displays the number of Parent Relationships associated with the Item.
Previous Month Costs	A reference figure for an average monthly cost, based on the previous months costs for the Service Item.
Previous Month Revenue	A reference figure for an average monthly revenues, based on the previous months revenue for the Service Item.
Problem Team	Shows the Problem Team assigned to the Item.
Purchased	Displays the date entered in the Purchased field.
Request Team	Shows the Service Request Team assigned to the Item.
Room	Displays the Room associated with the Item.
Service Components	For Service Items, the Item Number and Type is displayed for other Service Items related as Children for this Item.
Service Level	Shows the Service Level Agreement assigned to the Item.
Status	Displays the stage of the Item Lifecycle that the Item is assigned.

1.60 List View Options: Users Tab

The List View options are derived from the database fields and can be customized by selecting within the Customers, Organizational Units, Partner Organizations and Users tab.

The options within the Users Tab are outlined in the following tables:

1.60.1 Customers List View options:

Customers	Description
Contract #	Displays the Contract Number associated with the Customer.
Country	Shows the Country assigned to the Customer's account.
Custom 1 to 5	Shows the Custom Fields that have been configured in the Admin>Setup>Custom Fields tab for Customer Information.
Customer Name	Displays the Customer's name.
Date Added	Displays the date the Customer account was first created.
Email Address	Shows the Customer's email address as a link that can be clicked to open a New Message email window.
Email Locale	Displays the language file associated with the Customer for automated system correspondence.
FAX	Includes the Customer's facsimile number.
Last Login	States the time and date when the Customer last logged into the system.
Last Logout	States the time and date when the Customer last logged out of the system.
Ldap Source	When multiple LDAP servers are synchronized with the system, this will display the LDAP details from where the Customer information is sourced.
Line Manager	Shows the name of Manager User associated with the Customer, which maybe relevant when seeking approvals for Service or Change Requests.
Local Time	Displays the local time for the Customer.
Mobile	Includes the Customer's mobile number.
Notes	Displays information recorded in the Notes field of the Customer Information screen.
Open Requests	Shows the number of requests assigned an Active Status, logged by the Customer.
Org. Unit	Displays the Organizational Unit assigned to the Customer.
Owned Items	Lists the Item's assigned to the Customer by showing the Item Numbers.
Pager	Includes the Customer's pager details.

Customers	Description
Phone	Includes the Customer's telephone number.
Roles	Lists the Roles the Customer has been assigned within the system
Room	Displays the Room assigned to the Customer.
User Name	Displays the User Name access credentials for the Customer's account.
Web Access	Shows the Customer setting for the Web Access option.

1.60.2 Organizational Units and Partner Organizations List View options:

Org. Units	Description
# Customers	Shows the number of Customers associated with the Org. Unit.
City	Shows the City details for the Org. Unit.
Contract #	Displays the Contract Number associated with the Org. Unit.
Country	Shows the contact telephone number for the Org. Unit.
Custom 1 to 5	Shows the Custom Fields that have been configured in the Admin>Setup>Custom Fields tab for Org. Unit Information.
Name	Details the Organizational Unit's name.
Org Unit Email	Shows the Org Unit's email address as a link that can be clicked to open a New Message email window.
Phone	Shows the contact telephone number for the Org. Unit.
Primary Contact	Shows the name of the Customer who has been assigned as the point of contact for the Organizational Unit.
Primary Contact Email	Shows the Primary Contact's email address as a link that can be clicked to open a New Message email window.
Service Level	Displays the Service Level Agreement assigned to the Org. Unit.
State	Displays the State information for the Org. Unit.

Org. Units	Description
Website	Displays the Org. Unit's Website details.
Zip	Shows the contact telephone number for the Org. Unit.

1.60.3 Users List View options:

Users	Description
Active Requests	Shows the number of requests assigned an Active Status, allocated to the User.
Available	Includes a visual icon to easily identify if the User is available within the system for request allocation: : The User is not on leave and is available for request assignment based on their assigned work hours. : The User is not on leave but is not available for request assignment based on their assigned work hours. : The User has the On Vacation option enabled.
Classifications	Lists any Item Classifications that have been assigned to the User within the Skills tab.
Custom 1 to 5	Shows the Custom Fields that have been configured in the Admin>Setup>Custom Fields tab for User Information.
Date Added	Displays the date the Customer account was first created.
Default Items	Lists any Items that have been assigned to the User within the Skills tab.
Default Portal	For Users assigned multiple Roles within the system, this field will display which Portal the User accesses by default when they log into the system.
Email Address	Shows the User's email address as a link that can be clicked to open a New Message email window.
FAX	Includes the User's facsimile number.
Last Login	States the time and date when the User last logged into the system.
Last Logout	States the time and date when the User last logged out of the system.

Users	Description
Ldap Source	When multiple LDAP servers are synchronized with the system, this will display the LDAP details from where the User information is sourced.
Line Manager	Shows the name of Manager User associated with the User, which maybe relevant when seeking approvals for Service or Change Requests.
Mobile	Includes the User's mobile number.
Name	Shows the User's name.
Pager	Includes the User's pager details.
Phone	Shows the contact telephone number for the User.
Processes	Lists the ITIL Processes the User has access to within the system.
Roles	List the Roles the User has been assigned within the system.
Supervisor	Shows the assigned Supervisor for Users assigned a Technician or Partner Role.
Teams	Lists the service Teams the User has been assigned to.
Username	Displays the User Name access credentials for the User's account.

1.61 List View Options: Knowledge Tab

The List View options are derived from the database fields and can be customized by selecting within the Knowledge Tab.

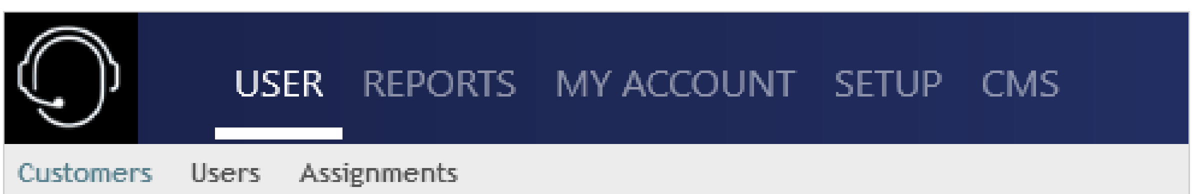
The options within the Knowledge Tab are outlined in the following table:

	Description
Age	Based on when the content was created, shows the age of the Article or FAQ.
Article No.	The identifying number for the Article or FAQ.
Classification	Shows the Item Classification assigned to the Article or FAQ.
Created	Displays the date when the Article or FAQ was created.
Custom 1 to 5	Shows the Custom Fields that have been configured in the Admin>Setup>Custom Fields tab for Customer Information.
Item Type	Shows the Item Type assigned to the Article or FAQ.
Last Updated	Displays when the Article or FAQ was last updated.

	Description
Mean Rating	Displays the mean score rating for helpfulness of the Article or FAQ.
Owner	The User who created the Article or FAQ.
Status	Details the stage of publication the Article or FAQ is assigned (i.e., In Development, Pending Publication, Published or Archived.)
Summary	Shows the information recorded in the Summary field of the Article, or the Question field of an FAQ.
Title	Displays the Article Title.
Type	Shows the Item Type assigned to the Article or FAQ.
View Date	Displays when the Article or FAQ was last viewed.
Views	Details the number of times the Article or FAQ has been viewed by a Customer.
Visibility	Shows who can access the Article or FAQ in the Knowledge Base.
Votes	Shows the total number of votes recorded against an Article or FAQ.

If Custom Fields have been enabled for a Articles in Admin>Setup>Custom Fields, they will also be available in the Views Editor drop-down list options.

1.62 Administrator View



Users with the Administrator Role can configure the customized settings within the application, enable or disable privileges and control the synchronization with third party tools.

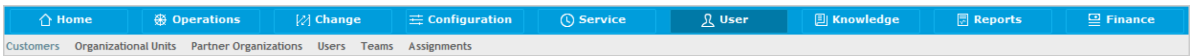
The Administrator view has five tabs:

- User - Allows the User to create accounts for Users and Customers, and also define User assignment templates for adding Users to multiple Teams and Escalation layers within the User Information screen
- Reports - Provides the Administrator with real time System and Login reports. System logs can also be downloaded in the screen
- My Account - The Administrator can view and configure their account details or create Alerts

- Setup - Allows the Administrator to define how Customers and Users can interact with the system, customize the application and synchronize it with third party tools
- Request - Provides configuration access to Relationship Types, Warranty Durations and the Incident Analyzer, for Problem Management.

If an Administrator is assigned other User Roles within the system, they can access the Admin Portal when logged in using the different Role, by selecting the Setup link within the sub-menu bar of the User login screen or the Customer Portal Menu options.

1.63 User



The User tab is used to create, modify and view accounts for:

- Customers
- Organizational Units
- Users
- Teams.

Users within the service management system can have one of the following Roles:

- Technician
- Supervisor
- Partner.

and one or more of:

- Administrator
- Finance
- Manager
- Customer.

If a User is assigned multiple Roles, the User Roles of Supervisor or Technician, Finance and Manager are consolidated within one User view. Therefore, if a User is assigned Finance, Manager and Supervisor/Technician access, they can view all functionality related to these Roles within the User view. If the User is also assigned Admin and Customer access, next to their login name, the options of Setup and Customer will be displayed. See Changing Roles.

The Supervisor can create User accounts within the User >Users tab.

The system Administrator can synchronize the system with a Directory Server to import Customer and User details. Imported Users can only be modified through the appropriate server console, not via the application. For further details about this topic refer to the Authorization section within the Administrator Guide.

Alternatively, the Administrator can also import Customers via a .CSV file.

1.64 Delegate

A specific technician can act as a delegate for a defined set of end users so that they can assist customers regardless of team or technicians the request is assigned. Delegates have access to their customer requests in the user portal throughout the request's life cycle. A delegate can also approve request on behalf of customers.

Delegates can be assigned to Org. Units or Customers. Delegate assignments can be managed from following places:

- Organizational Units
- Customers
- User

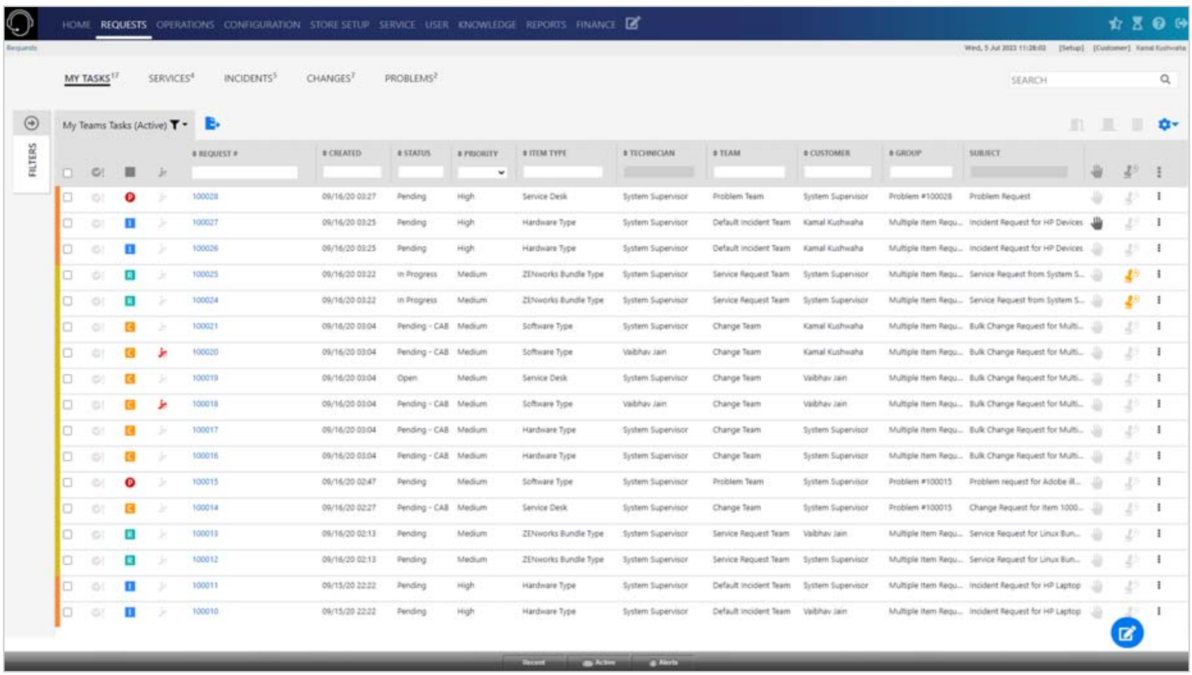
Once the user is assigned as a Delegate, additional filters for My Delegate Tasks will be available in the Requests list page.

If you are assigned as a delegate, an alert message will be displayed.

2 Request

The Requests tab provides Enhanced request listing with modern look and feel, with added features and advance Search and Filtering capabilities.

This Request page offers various actions that can be performed to make this page more user friendly.



Based on requirements, you can refer to any of the following links:

- Request List
  - Table 2-1 on page 329
  - Filters
  - Customizing Columns
  - Full Text Search Options
- Request Summary
- Create Quick Request
- Create Request

2.1 Request List

The Request List page displays all the requests. The requests can be identified based on the associated icon:

- R Service Request
- I Incident
- C Change Request
- P Problem

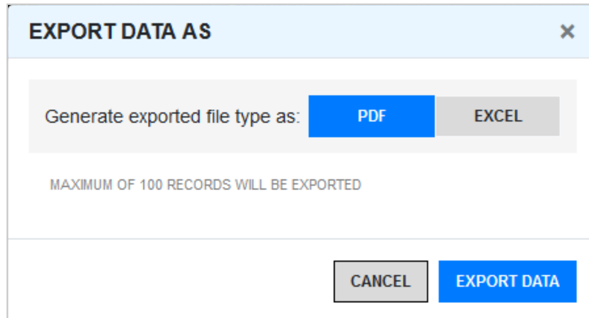
The following table provides information on various actions that can be performed in all the requests pages:

Actions	Description
Create Requests	- You can create a request by clicking the icon in the Menu bar. In the newly designed ZENworks Service Desk, you will be able to create request from anywhere in the portal. For more information, see the Section 2.9, “Create Request,” on page 358 section. - To create a quick request in the Request tab, click the icon displayed at the bottom of the screen. For more information, see the Section 2.8, “Create Quick Request,” on page 357 section.

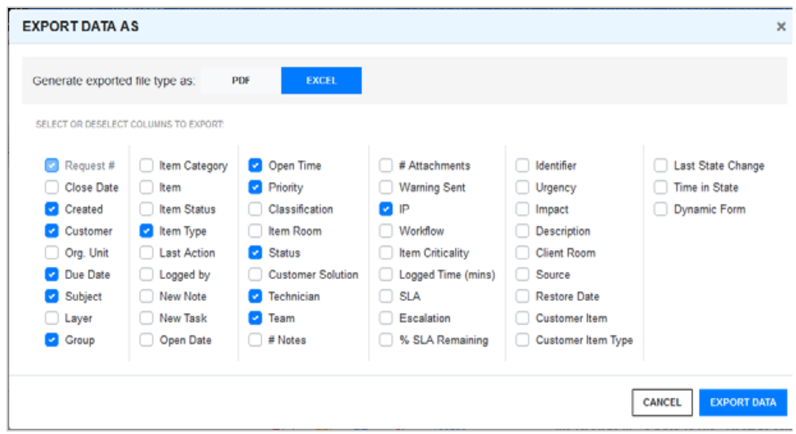
<table>
<tr><th>Actions</th><th>Description</th></tr>
<tr><td>Export Data</td><td>

The list can be exported into a PDF or Excel by clicking .

After clicking the icon, the following pop-up will be displayed.



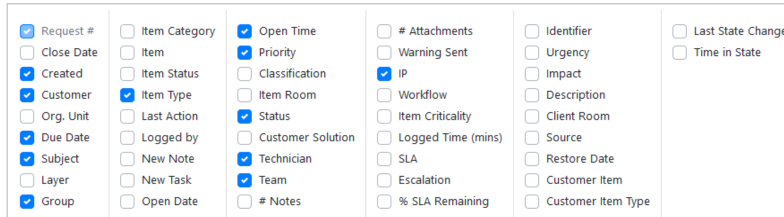
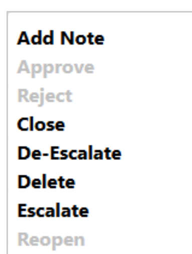
While exporting to excel, you have an option to select the columns that should be included in excel.



NOTE: By default, the displayed column in the list view will be selected while exporting the data.

</td></tr>
</table>

Actions	Description
Link	To link (Group) requests, select the required requests, Click . A Group Number will be automatically assigned and an hyperlink will be displayed in the Group column. This is a bulk operator, you can select multiple request to link. However, If any selected request is part of an existing group, then the remaining requests will be added to the same group. The linking (grouping) fails, if you have selected requests that are part of more than one group. For instance, if you have two Groups (A and B) each with two requests (A1, A2, B1 and B2), and you want to add two unlinked requests to Group A, select the check boxes for the unlinked requests and either A1 or A2 or both. If B1 or B2 is also clicked, the linking process will fail as the system cannot decide to which group the two new requests should be added. The link icon is not displayed in the Problems tab. However, you can link the Problem Requests with other type of non-grouped requests in the My Tasks tab.
Close	Click to close requests. Only the supervisor can perform this action. This is a bulk operator, you can select multiple request to close. However, if you have selected multiple requests, then the operation will be performed only on the requests that are applicable.
Reopen	Click to reopen requests. Only the supervisor can perform this action. This is a bulk operator, you can select multiple request to reopen. However, if you have selected multiple requests, then the operation will be performed only on the requests that are applicable.
Delete	Click to delete request. Only the supervisor can perform this action. This is a bulk operator, you can select multiple request to delete. However, if you have selected multiple requests, then the operation will be performed only on the requests that are applicable.

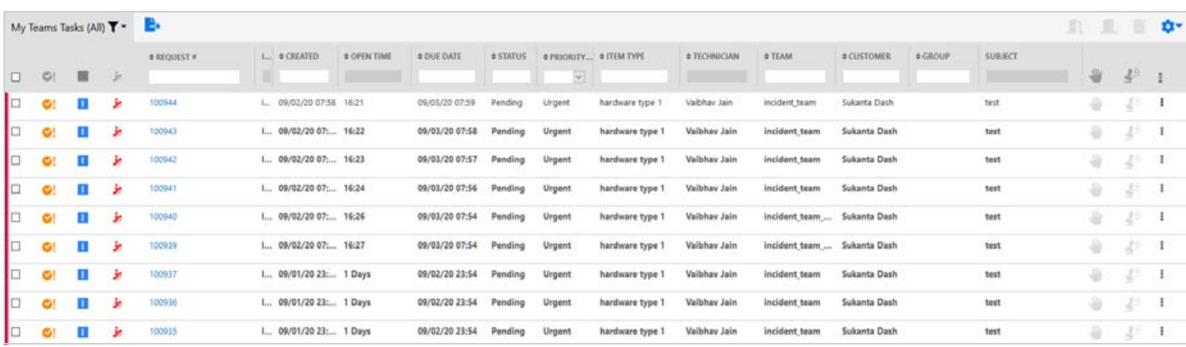
Actions	Description
Customizing Columns	To customize the displayed columns, you can drag or drop the column in the required place. To add more columns, click the icon, and then select the required field that should be displayed.  **NOTE:** For older request, Time in State and Last State Change columns will not display any data. After modify the requests, the data will be displayed in these two columns. For more information, see the Section 2.7.12, “Customizing Columns,” on page 353 section.
Awaiting Inputs	The icon represents that the request is awaiting inputs from the customer.
Awaiting Approval	The icon represents Awaiting My Approval.
SLA Breached	The icon represents the request has breached the SLA.
Escalated	The icon represents that the request is escalated.
More Actions	Click the icon to view actions that can be performed on the request. Depending on the privileges, the option enabled might vary. 
Search	On the top-right corner of the Request list page, you can find the search field. Using this field, you can search for Requests.  For more information, see Full Text Search Options

Actions	Description
Filters	Click the arrow icon to view filter panel. Using this panel, you can filter requests based on various available options.  For more information on the available filter options, see the Section 2.7.13, “Filters,” on page 354 section.
Messages	If user adds a note to the technician in the request, then the message will be displayed along with the request, as shown in below image 

2.2 My Tasks

My Tasks displays current active requests allocated to the logged in User. They can also view a list of active or all tasks assigned to the Team(s) the User is associated with, by selecting the relevant My Teams Tasks Filter.

To view a request details, select the Request #hyperlink.



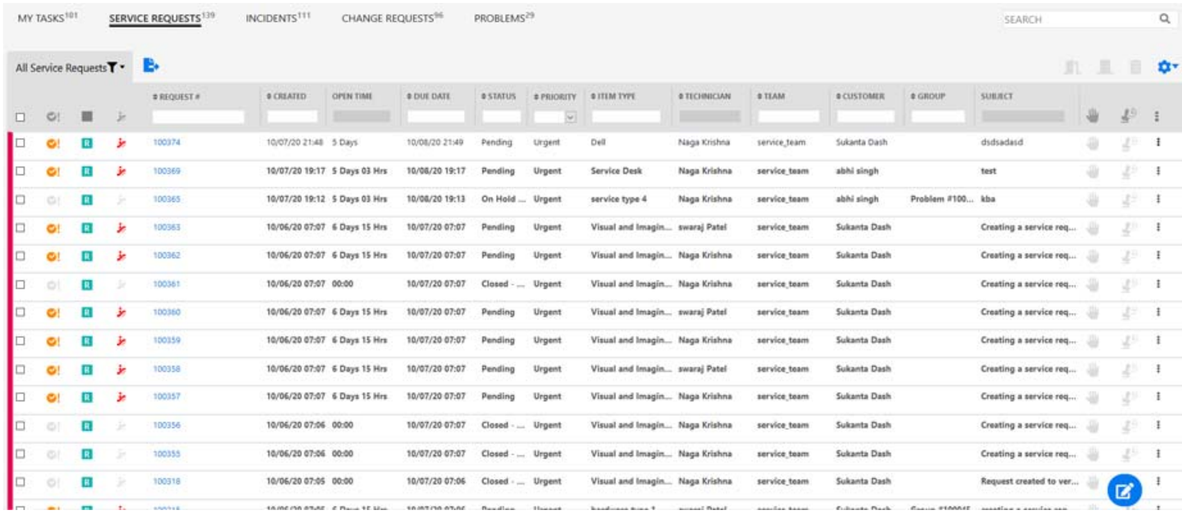
For more information on the tasks that can be performed in this page, see Table 2-1 on page 329

2.3 Service Requests

This page lists all the associated service requests.

To view a request details, select the Request #hyperlink.

If a request row is in bold, then the request has not been viewed by the technician.



For more information on Service Request, see Service Requests

For more information on the tasks that can be performed in this page, see Table 2-1 on page 329

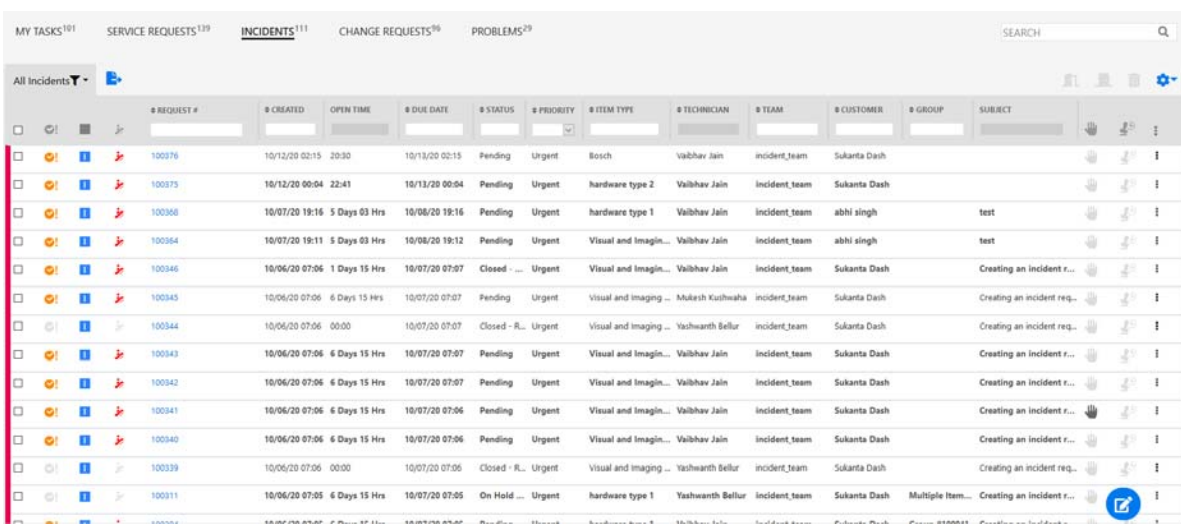
For more information on the Request Summary page, see Request Summary.

2.4 Incident Requests

This page lists all the associated incident requests.

To view a request details, select the Request #hyperlink.

If a request row is in bold, then the request has not been viewed by the technician.



For more information on Service Request, see Incidents

For more information on the tasks that can be performed in this page, see Table 2-1 on page 329

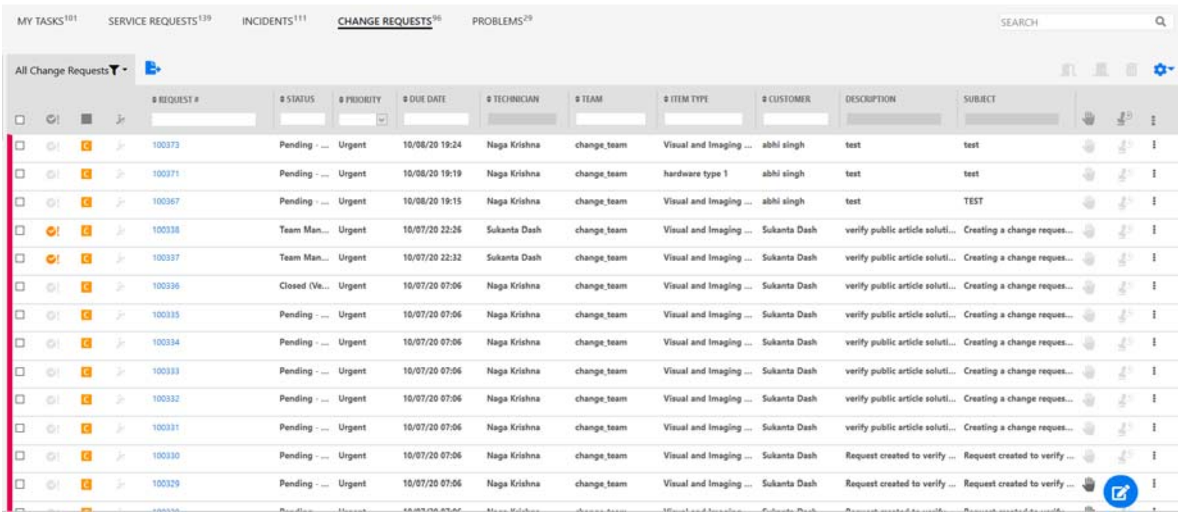
For more information on the Request Summary page, see Request Summary.

2.5 Change Requests

This page lists all the associated change requests.

To view a request details, select the Request #hyperlink.

If a request row is in bold, then the request has not been viewed by the technician.



For more information on Service Request, see Change

For more information on the tasks that can be performed in this page, see Table 2-1 on page 329

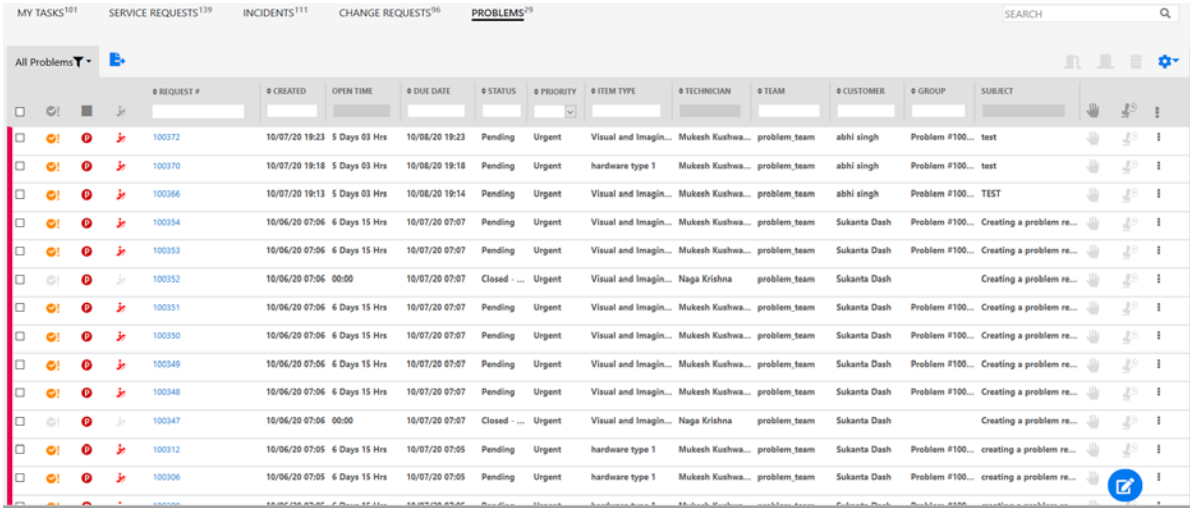
For more information on the Request Summary page, see Request Summary.

2.6 Problems

This page lists all the associated problems logged with the system.

To view a request details, select the Request #hyperlink.

If a request row is in bold, then the request has not been viewed by the technician.



For more information on Service Request, see Problems Tab

For more information on the tasks that can be performed in this page, see Table 2-1 on page 329

For more information on the Request Summary page, see Request Summary.

2.7 Request Summary

The Request Information page section provides comprehensive details related to a Request.

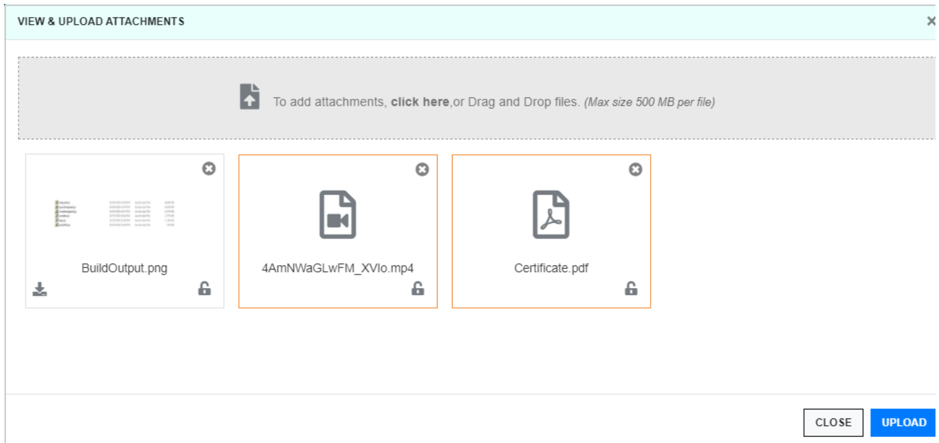
The Following table provides a brief introduction on the information displayed in the Request Information page:

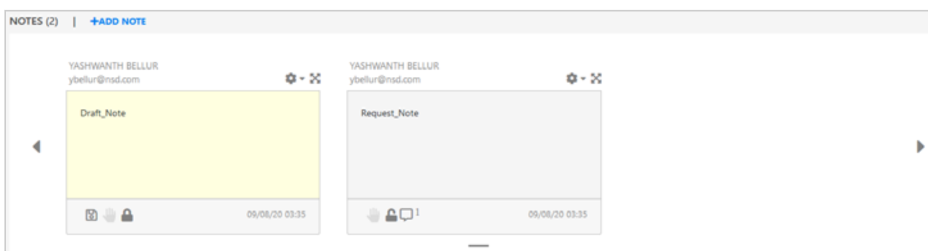
Table 2-1

Field/Section	Description
Subject	Displays the priority of the request, Request Priority, Request Number and Request Title. **NOTE:** The priority is always derived and cannot be added manually selected. The available priorities are U-Urgent (highlighted in Red), H-High (highlighted in Orange), M-Medium ((highlighted in Yellow) and L-Low (highlighted in Green).  **Request Title:** Displays the title of the request. If required, you can click the to edit the title of the request. You can edit only Requests that are assigned to you.

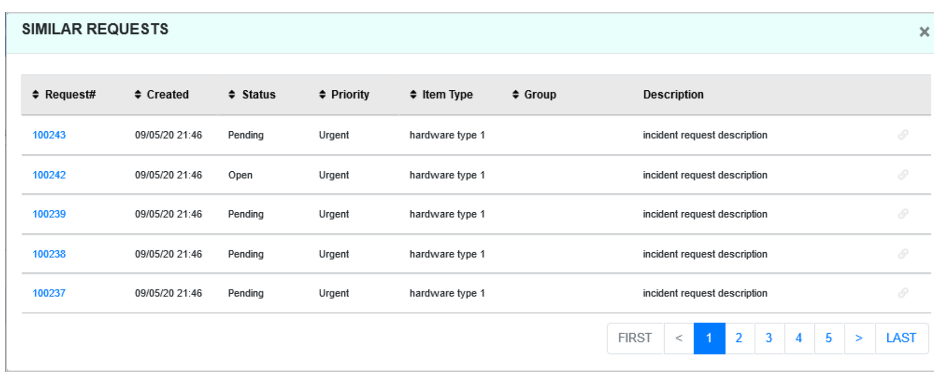
<table>
<tr><th>Field/Section</th><th>Description</th></tr>
<tr><td>Description</td><td>Description: Displays the description that was specified while creating a request. If required, you can click the icon to edit the description.

Attachments: Displays the number of attachments associated with this request. To view or add attachments, click the Attachment link. To add an attachment, you can either click or drag and drop the file in the field.


</td></tr>
<tr><td>Notes</td><td>Displays the Note associated with this request.

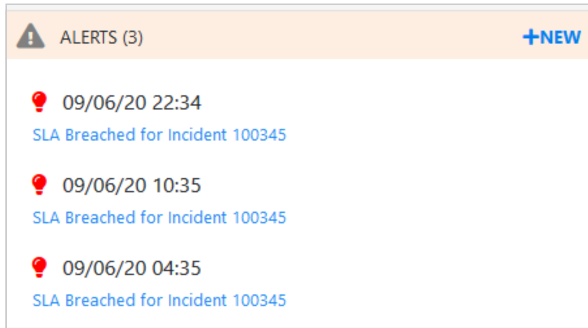


For more information on Adding Note, see the Section 2.7.5, “Add Note,” on page 343 section.</td></tr>
<tr><td>General</td><td>n the General panel, generic information about the request is displayed. For more information that is displayed in this panel, see the Section 2.7.1, “General,” on page 334 section.</td></tr>
<tr><td>Impact</td><td>In the Impact panel, generic information about the request is displayed. For more information that is displayed in this panel, see the Section 2.7.3, “Impact,” on page 338 section.</td></tr>
<tr><td>Audit</td><td>In the Audit panel, generic information about the request is displayed. For more information that is displayed in this panel, see the Section 2.7.4, “Audit,” on page 342 section.</td></tr>
<tr><td>Delete</td><td>Click to delete the Request.</td></tr>
</table>

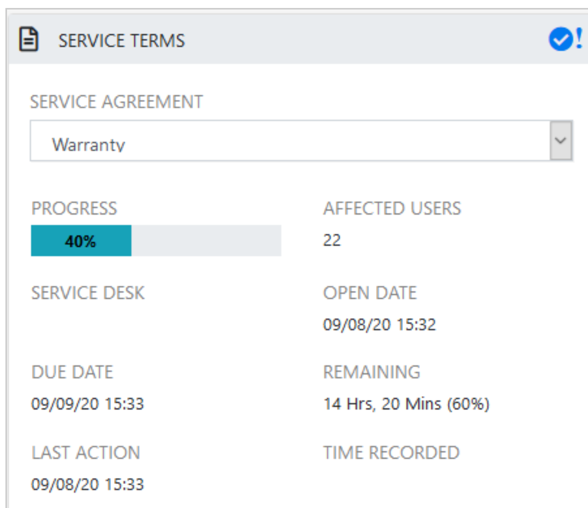
Field/Section	Description
Duplicate	Click to create a duplicate of a Request. When a request is duplicated, the new request is linked with the original request creating a request group. Requests can be unlinked in the Group's Elements tab.
Assign to Me	Click to assign the request to yourself.
Convert To	Click to convert the request. Only the following requests can be converted: ◆ Incident to Service Request: To convert Incident to Service Request, Item should not be unknown, item should belong to the service category, incident should not have solution/ workaround applied, there is at least one user in ZSD with "Service Request" process assigned. ◆ Service Request to Incident: To convert Service Request to Incident, Item should not be unknown.
Export as PDF	Click to export the Request details into a PDF file. After clicking the icon, a pop-up is displayed. In the pop-up, you can select the options to include all notes or last note associated with this request, and to include Private Notes associated with this request.
Print Preview	Click to preview the Request for printing. A preview of the request will be displayed. In the preview pop-up, Click the Print button to print the request.
Similar Requests	Click to view Requests similar to this request. After clicking the icon, a pop-up is displayed. In the pop-up, you can select any required request and the request opens in a new browser tab. 

<table>
<tr><th>Field/Section</th><th>Description</th></tr>
<tr><td>Alerts</td><td>
Alerts are used by Administrators, Supervisors and Technicians to notify Users and Customers about important issues relevant to them or their environment.

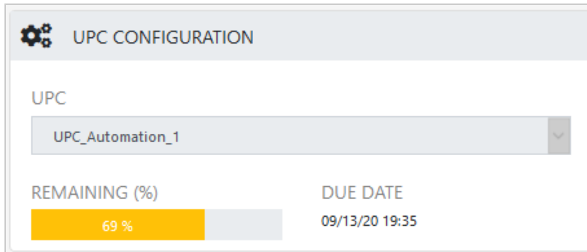
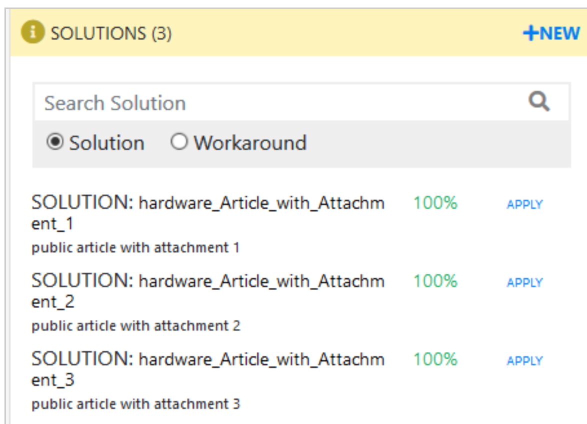
This panel displays the alerts associated with this request.

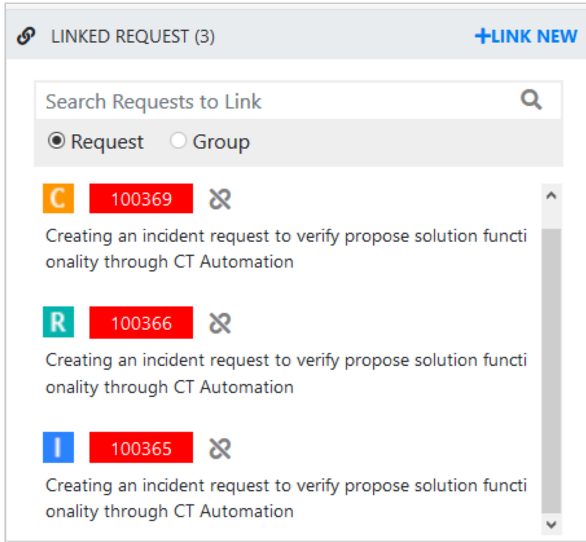
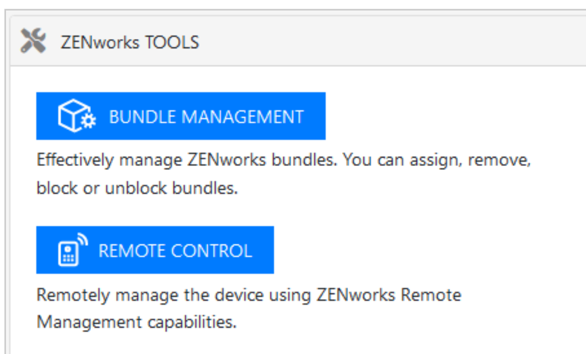


For more information, see the Section 2.7.6, “Alerts,” on page 345 section.
</td></tr>
<tr><td>Service Terms</td><td>
The Service Terms sidebar displays the Service Level Agreement (SLA) assigned to the Service Request and provides details of key dates.



For more information, see the Section 2.7.7, “Service Terms,” on page 347 section.
</td></tr>
</table>

Field/Section	Description
OLA/UPC Configuration	The UPC panel displays the support services provided to the Service Desk by external service providers.  For more information, see the Section 2.7.8, "OLA/UPC Configuration," on page 348 section.
Solutions	The Solutions panel displays the relevant solutions and workarounds that are applicable to the request.  For more information, see the Section 2.7.9, "Solutions," on page 349 section.

Field/Section	Description
Linked Requests	In the Linked Requests panel, you can link requests with the request.  For more information, see the Section 2.7.10, "Linked Requests," on page 351 section.
ZENworks Tools	The ZENworks Tools panel enables you to perform Bundle Management and Remote Control operations.  For more information, see the Section 2.7.11, "ZENworks Tools," on page 352 section.

Following are the list of panels available in the Request Summary page:

- General
- Impact
- Audit

2.7.1 General

The General panel displays the following information:

Section	Description
Details	The following details are displayed: ◆ **Customer**: The customer assigned to the Incident. Click the icon, and specify the customer name or email ID to modify the field. Scroll over the information icon new_info_icon.png next to the Customer for quick information such as Username, Org.Unit, Phone and Local Time. ◆ **Item Number:** An item assigned to the Request. Click the , and specify the item name to modify the field. To modify the status of the Item, click the , and then select the required status. Depending on the selected item, the options displayed might vary. ◆ **Reported By**: Displays the name of the user who reported this issue. ◆ **Item Type**: Displays the item type associated with the request. ◆ **Classification:** Displays the Classification of the category to which the item belongs. This field can be updated, if required. ◆ **Urgency:** Displays the urgency of the request. ◆ **Target Device**: Displays the device that is associated with this request. ◆ **Team**: Displays the support Team assigned to the Request. This can be changed by selecting another option within the drop-down list. ◆ **Workflow**: Displays the Workflow assigned to the Request. This can be changed by selecting another option within the drop-down list. ◆ **Status**: Displays the current Workflow State of the Request. For more information, See Status. ◆ **Next Action**: Lists all the States available after the current Request State. This is based on the Workflow assigned to the Request. To move the Service Request through the Workflow, select a Status included in the list displayed. By assigning a different Workflow State, the Work or Manager Group assigned to the Request may also be automatically updated, based on the Workflow and Team Configuration. Refer to the Escalation Layer and Technician Fields to view if an assignment change is made as part of the Status update.

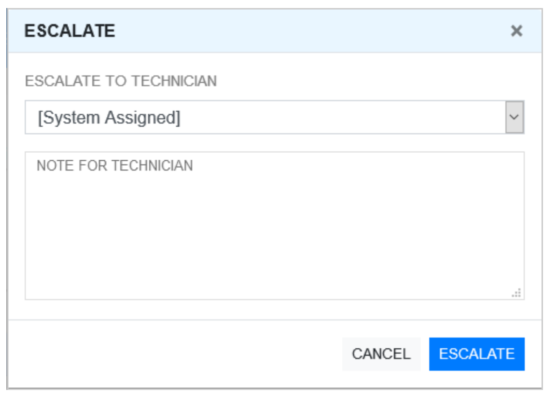
<table>
<tr><th>Section</th><th>Description</th></tr>
<tr><td>Escalation</td><td>
The following details are displayed:

Status: Displays whether the escalation is enabled or disabled. Based on requirements, you can enable or disable the status.

To enable or disable the Status field, go to Setup > Privileges> Requests. In this page, enable or disable the Enable Escalation Control field. Only the Supervisor can modify this setting.
Layer: Displays the number of levels of Escalation that exist in the Team assigned to the request, and at which level the request is currently assigned.
Technician: The name of the Technician assigned to the request.

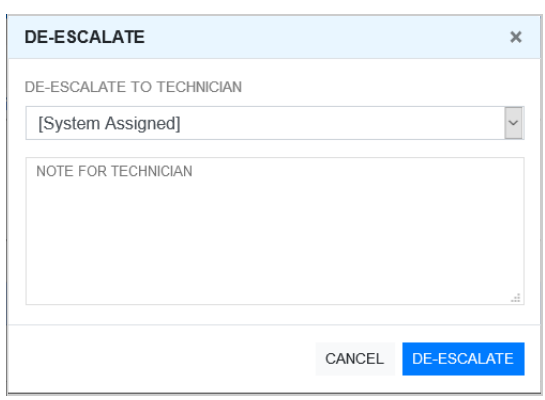
When an request is assigned to the Queue, the name applied in the Technician field is System User.
Escalate Now: Click the icon to escalate the request. After clicking the icon, a pop-up is displayed as shown below.

In the pop-up window, select the technician to whom the request should be escalated and a note for the technician. Selection of technician is an optional field. If a technician is not selected, then the system-assigned technician will be assigned.



De-Escalate: Click the icon to de-escalate the request. After clicking the icon, a pop-up is displayed as shown below.

In the pop-up window, select the technician from whom the request should be de-escalated and a note for the technician. Selection of technician is an optional field. If a technician is not selected, then the system-assigned technician will be assigned.



</td></tr>
</table>

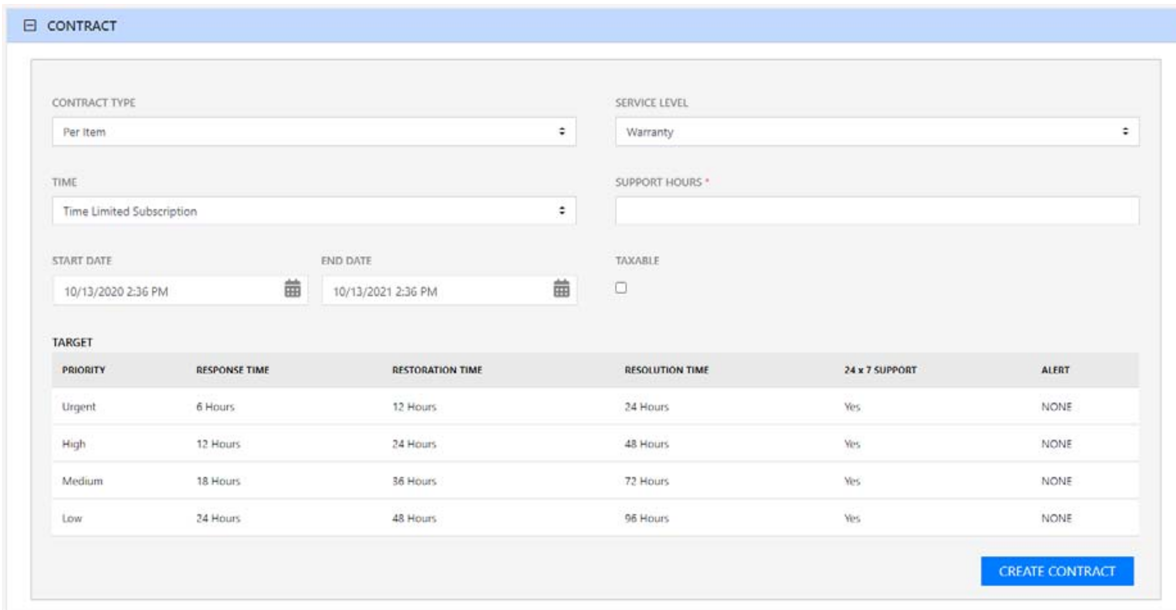
Section	Description
Notification	The following details are displayed: ◆ **Customer**: **Via**: Select how you want to send the update notifications. The available options are: ◆ **None**: Select this option, if you do not want to send any notifications. ◆ **Email**: Select this option, if you want to send notifications via Email. ◆ **SMS**: Select this option, if you want to send notifications via SMS. ◆ **To**: Select whether the incident update notification should be sent to the Customer who logged the Incident, or to all Owners of the Item associated with the Request. ◆ **Customer CCs**: Customer CCs is a free text field for any additional notification recipients. ◆ **Technicians**: ◆ **Via**: Select how you want to send the update notifications. The available options are: ◆ **None**: Select this option, if you do not want to send any notifications. ◆ **Email**: Select this option, if you want to send notifications via Email. ◆ **SMS**: Select this option, if you want to send notifications via SMS. ◆ **To**: Select whether the update notification should be sent to the default Technician, or to all Technicians in the Team or Layer of Escalation assigned to the Incident. ◆ **Technician CCs**: Technician CCs is a free text field for any additional notification recipients.
Additional Information	The following details are displayed: ◆ **Line Manager:** Displays the name of manager user associated with the customer, which maybe relevant when seeking approvals for Service or Change Requests. ◆ **Location**: Location from where this request is created. ◆ **Preferred Contact Type:** The preferred contact type. This field includes Phone and Email. ◆ **Email**: If you select Email as the Preferred Contact Type, then specify email address in the adjacent field. ◆ **Phone**: If you select Phone as the Preferred Contact Type, then specify contact details and Preferred Contact Time in the respective fields.

2.7.2 Contract

f the Contracts are enabled for the system, the Contract tab is displayed in the Request Summary page.

When Contract is enabled, the request is in non-edit mode. To change the request to edit mode, you need to create contract - per Item base or Per request base.

If the Contract panel is not enabled, then go to Setup > Billing > Setup > Enable Contracts to enable the Contracts panel.

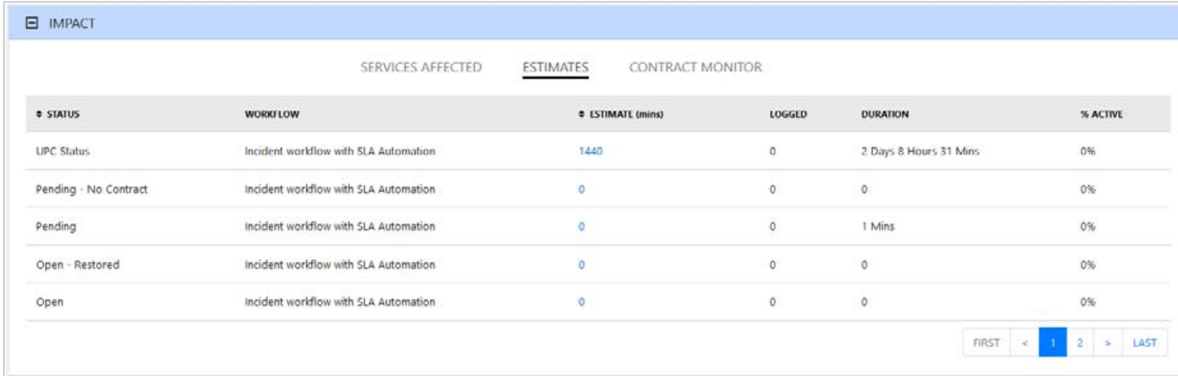


For more information, see Contracts.

2.7.3 Impact

The Impact tab provides the capability to measure the progress of a Service Request relative to agreed Service Level targets and Workflow time estimates. It also includes a quick reference for identifying other Services or Items affected by the Request. This tab displays a summary of the following:

- Service targets
- Workflow estimates
- The impact of the current Service Request on related infrastructure.



The drop-down filter options within the Impact tab include:

Options	Description
Service Targets	Displays the target response, restoration and resolution times based on the Service Level Agreement/OLA assigned to the Request.
Service Level Breaches	Displays service level breaches that have occurred and allows Users to assign a breach code and explanation for the breach.
Services Affected	Displays the Service Item Number, the Service SLA and number of Affected Users for any Services related to the Item associated with the Request.
Estimates	Provides a summary of the time estimated for each state of the Workflow based on the OLA assigned to the Request.
Planned Outages	Provides a list of all the Planned Outages for the Item assigned to the Request. Click New to create planned outages.
Contract Monitor	If the current Service Request Workflow State is assigned an Underpinning Contract or OLA, a table is displayed outlining the response, restoration and resolution milestones. When a milestone is met, the User is required to check the relevant checkbox. The application will automatically calculate the actual time accrued to achieve the milestone. The value displayed here is used for the Contract reports.
Purchases	When Purchase Orders are enabled in the system, any Purchase Orders associated with Items assigned to the Request are accessible through this option.

Service Targets

The details displayed here are drawn from the Service Level assigned to the Request. These include the target Response, Restoration and Resolution times for a Request, based on the Priority assigned. If an Underpinning contract or OLA has been assigned to the Request's current state then the targets for that contract will also be listed.

Service Level Breaches

When a Request Service Level Agreement is violated, a service level breach is recorded against the Request. The User assigned to the Request will be notified and asked to provide a reason for the breach, and assign a Breach Code.

To assign a Breach Code:

1. Click the Request number
2. Click Edit
3. Select Impact > Service Level Breaches
4. Select the Phase of the SLA that was breached

   If more than one SLA Phase has been breached, multiple options will be available in the Phase breached field.
5. Click Edit

   The breached Phase is locked down and the Additional Info field is opened in Edit mode.
6. Assign a Breach Code

   (The available codes are created by the Supervisor within the Service tab.)
7. Add any additional information, if required.
8. Click Save.

All breach information is used for reporting on Service Level Agreements.

Services Affected

When the request is logged against an Item that is associated with Services within the Item Relationships tab, the Services Affected option displays the following:

- Service Item Number
- Service SLA
- Number of affected Users

Estimates

The Estimates option allows Users to view an indication of the approximate time a Request should remain in each State of the Service Request Workflow, the amount of time logged in each State and the length of time the Request resided in each State.

Options	Description
Estimate	Indicates the approximate length of time the Request will spend in the Workflow State. This field is automatically completed if an OLA or UC is assigned to the Workflow State.
Logged	Is a combination of time accrued against the Request when in edit mode with the automatic timers enabled, and the sum total of Note Times manually entered by Users.
Total	The total time a Request has resided in the Workflow State.
% Active	The percentage of the Total time that the Request was actively worked on when in the State. The calculation is, (Logged Time divided by Total Time) x 100.

The Estimate Times are drawn from the OLA and Underpinning Contract assigned to the current State. However, these can also be adjusted manually for each Request. To manually adjust the estimated time for a Workflow State:

1. Select a Request number ID
2. Click Edit
3. Move to the Impact tab, select Estimates from the drop-down list
4. Select the State hyperlink within the Status column of the Estimate Time to be adjusted

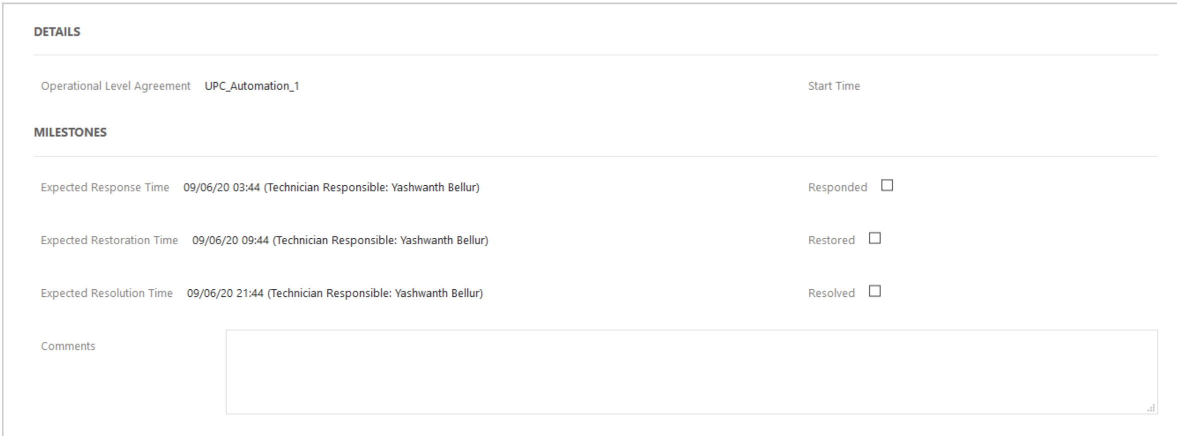
   An editor box is displayed.
5. Enter the adjusted time in the available field
6. Click Save within the editor box
7. Make any other time adjustments, if required
8. Select Save to record all manually entered time adjustments against the Service Request.

Contract Monitor

When a Workflow State with an OLA or Underpinning Contract is assigned to the Request, the Contract Monitor displays the details of the Contract. The information is used for reporting purposes and includes:

Details	Description
Contract Type	Specifies if the Contract Type is an OLA or Underpinning Contract.
Start Time	Auto-generated time the request moved to the current Workflow State.
Milestones	
Expected Response Time	Response Time calculated using the Contract target parameters.
Responded	Actual Response Time auto-calculated when the User checks the box.
Expected Restoration Time	Restoration Time calculated using the Contract target parameters.
Restored	Actual Restoration Time auto-calculated when the User checks the box.

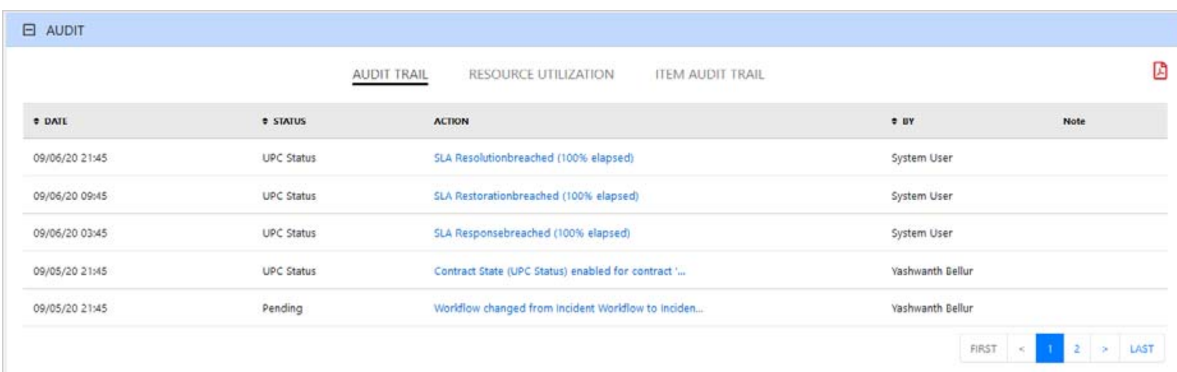
Details	Description
Expected Resolution Time	Resolution Time calculated using the Contract target parameters.
Resolved	Actual Resolution Time auto-calculated when the User checks the box.
Comments	Allows for additional comments, if required.



NOTE: If Milestones are breached the Response, Restoration and Resolution times are assigned a red marking.

2.7.4 Audit

The Audit tab lists all activities that occur within the lifetime of a Request, the resources used and the history of the Request's Item. It provides access to information relating to Approval activities that are logged against the Request.



The logged changes can be exported to a PDF by clicking the  icon.

Audit Trail

The Audit Trail option records all the activity related to a Request. The recorded activity, which can be exported to PDF includes:

- Date and time the Request was assigned and/or reassigned to Users
- When the Request moved to a new state, or had its Priority or Due Date changed
- Details of Notes added
- Attachments activity
- Classification change
- Logged time

Resource Utilization

The Resource Utilization option displays a breakdown of the time a Request was worked on at each level of support. It details the User's name, the escalation layer they belong to, and the amount of time they spent on the Request.

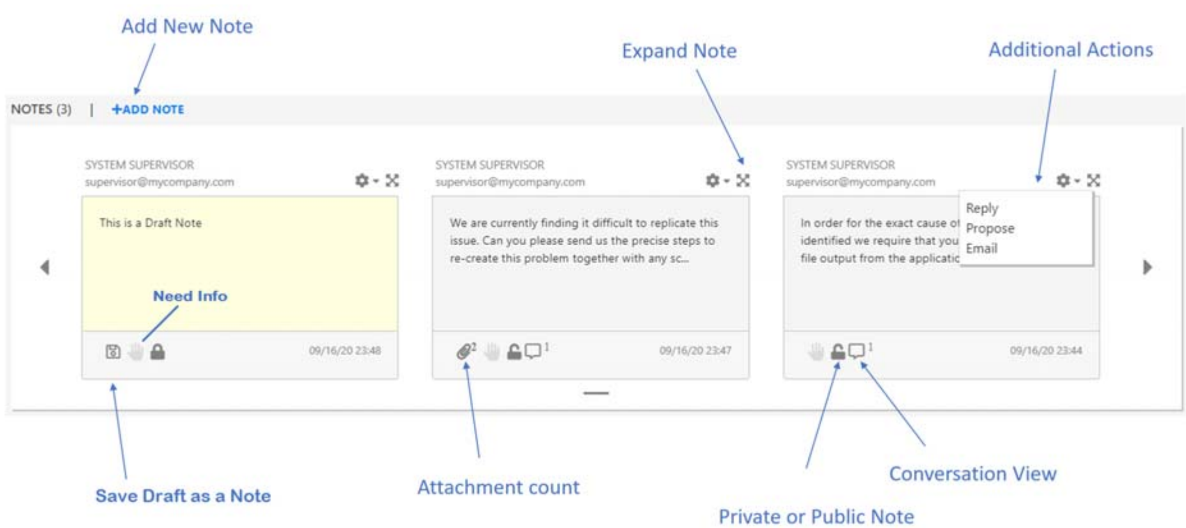
Item Audit Trail

The history of the Item associated with the Request is detailed within Item Audit Trail. To access more information regarding an Item Audit Trail entry, select the Action name hyperlink.

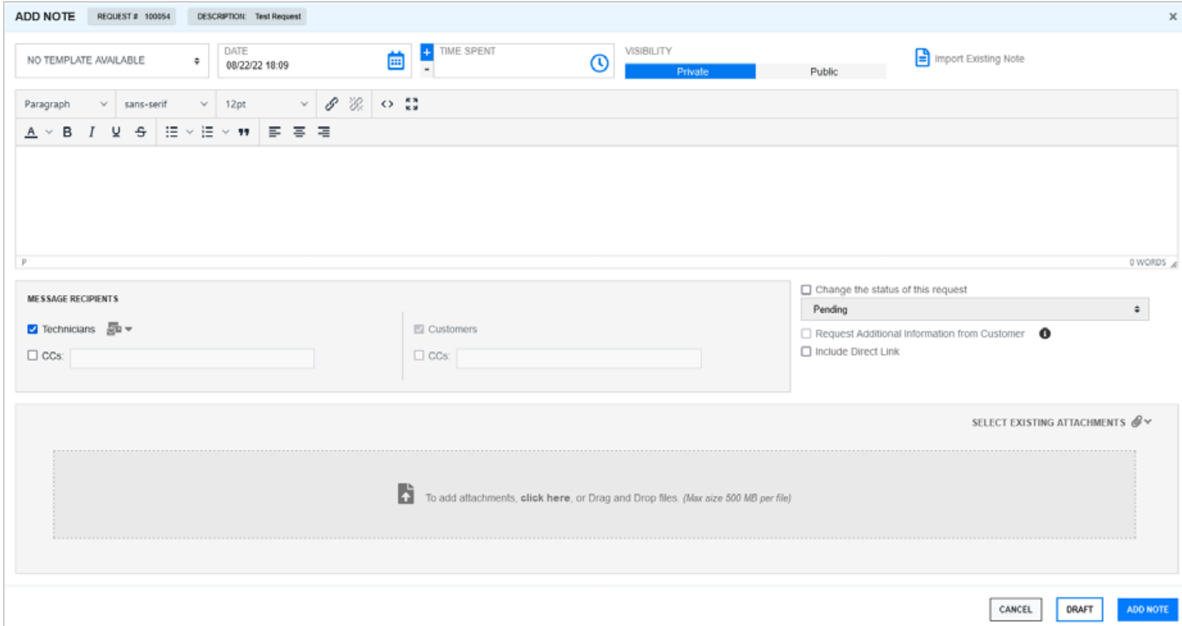
NOTE: Click the  icon at the end of the request page to copy the link to the request.

2.7.5 Add Note

The Request Information page displays all the notes associated with the request.



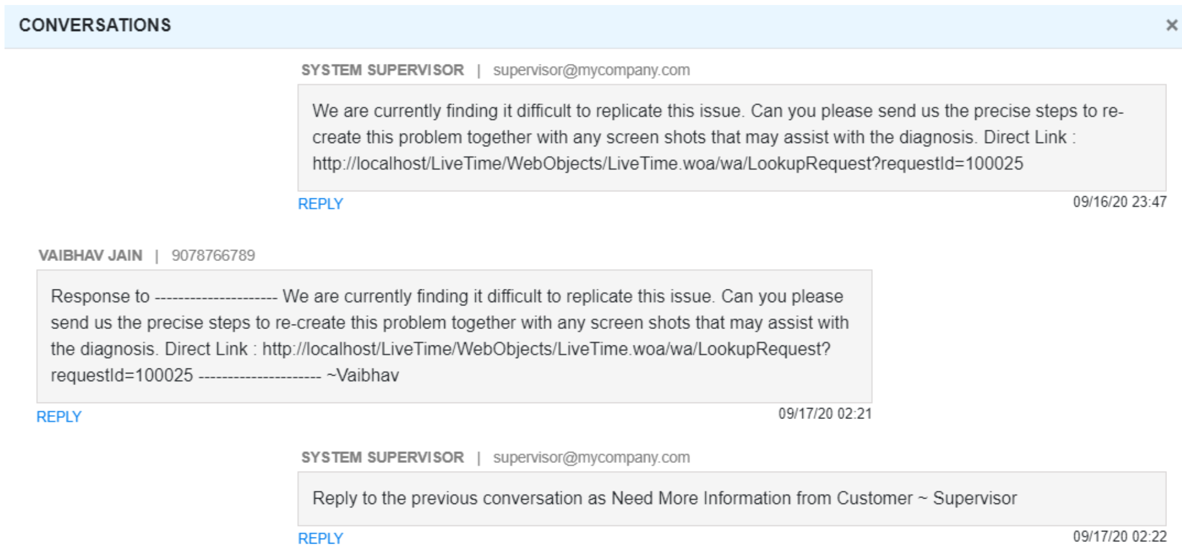
To add a new note, click +ADD NOTE. After clicking the +ADD NOTE, an Add Note pop-up is displayed. Depending on the privileges, following fields will be displayed.



Update the following required information and then you can either add the note or save the note as a draft.

- Select Template: In this drop-down, select a predefined template that should be added as a note description.
- Time Spent: In this field, specify the time spent on the request. The specified time will be included in the overall time spent on the request.
- Visibility: Select if the note should be Private or Public.
- Import Existing Note: In this field, you can view other notes added to this request.
- Description: In this field, specify the description for the note.
- Message Recipient: In this field, select or specify email IDs to whom the addition of note should be notified.
- Request Additional Information from Customer: Select this option, if you need any additional information from the customer.
- Include Direct Link: Select this option, if you want to include the direct link of the request in the Note.
- Create Knowledge Base: Click this option, if you want to convert this Note as a Knowledge Base.
- Select Existing Attachments: If required, you can add an attachment associated with the Request to the note. To add an attachment, click the attachment icon, and then select the available attachment.

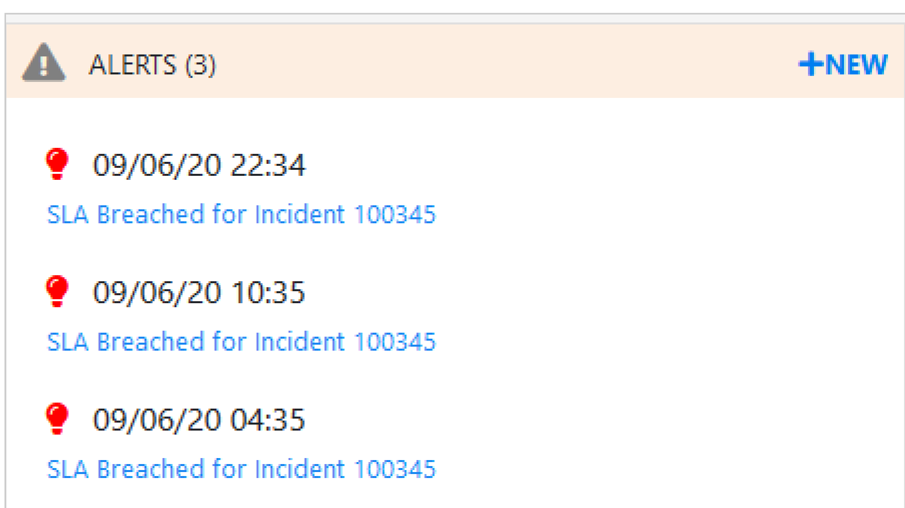
The conversational view of the notes will be displayed as shown in the following image:



2.7.6 Alerts

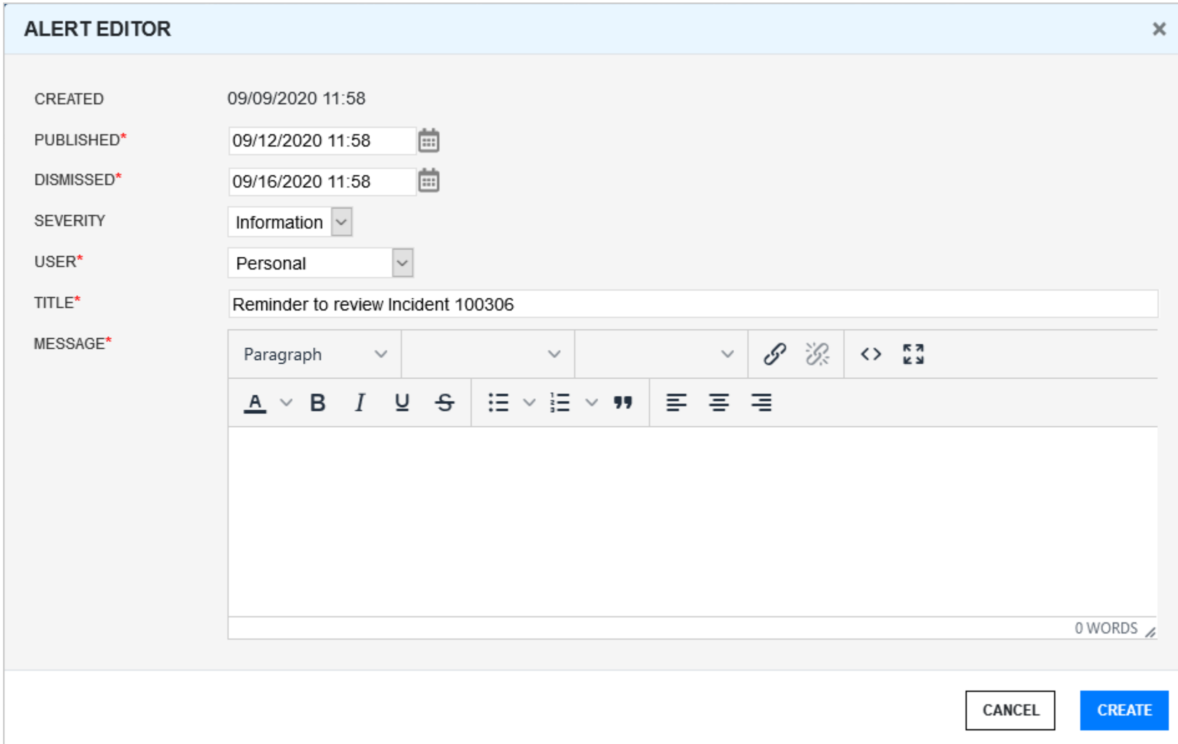
Alerts are an internal mechanism used by Administrators, Supervisors and Technicians to notify Users and Customers about important issues relevant to them or their environment.

This panel displays the alerts associated with this request.



If required, you can create a new Alert by clicking the Add button.

After clicking the Add button, a pop-up is displayed as shown below:



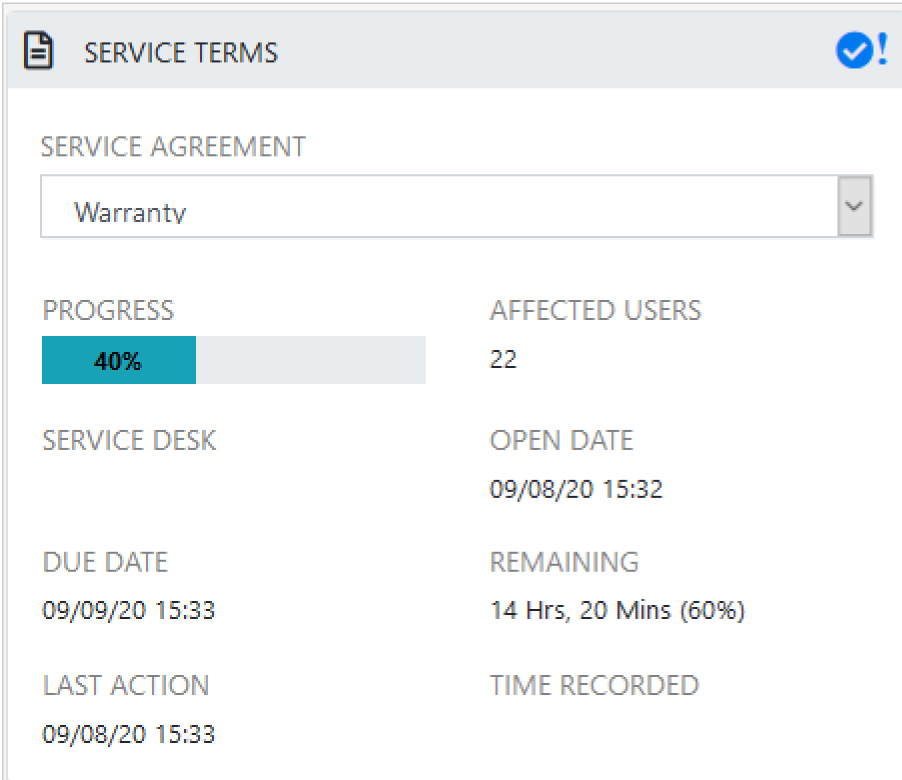
Specify the following information, and then click Create:

- Created: The current date and time.
- Published: The date the Alert is published. Use the calendar icon to the right of the field, to select a Publish date.

  Set to a date in the future, or use the default to publish the Alert immediately.
- Dismissed: The date the Alert ceases to be available. Use the calendar icon to the right of the field, to select a Publish date. On this date, the Alert will disappear from a User's Alert list.
- Severity: The type of Alert to be published. The choices are:
  - Information – for general Alerts
  - Warning – to warn Users of potential issues.
  - Urgent – to publish an urgent actionable message.
- User: The User type to receive the Alert, which include:
  - Specific Customer or User - In the Find User or Customer list, click search to select the recipient from the drop-down list.
  - User Role - An Alert sent to a User Role will go to all Users with that Role.
  - Personal - A personal Alert appears on the User's own screen at the Publish date.
  - Organizational Units - In the Find Org. Unit field, search and select the recipients.
  - Public - A Public Alert appears when the Public Alert link is selected on the Login Page.
- Title: Specify a title for the Alert
- Message: Enter a main content of the Alert.

2.7.7 Service Terms

The Service Terms sidebar displays the Service Level Agreement (SLA) assigned to the Service Request and provides details of key dates.



By default the application calculates the Due Date based on the Priority of the SLA assigned to the Customer, Organizational Unit or Item. The email reminders and escalations are then managed accordingly. If an SLA is not associated with the Service Request via the Customer, Org Unit or Item, the system default SLA will be automatically assigned to the Service Request but can be manually adjusted by the Technician. Once the Workflow is moved from the default Open State, the SLA can no longer be edited.

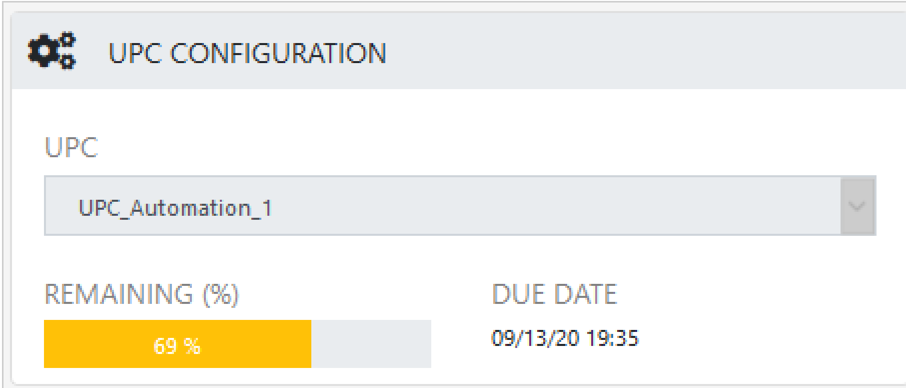
Service Terms	
Agreement	Displays the Service Level Agreement assigned to the Request. The service level is derived from either the Customer, Organizational Unit or Item. When Contracts are not enabled, the Agreement field can be edited, when the Request is in edit mode.
Progress	Visually displays how the Request is tracking against the assigned SLA. The grey progress bar is gradually filled in based on the status of the SLA: - Workflow is in an SLA paused State. Triggers will not fire. - Workflow is in an SLA timers on State. Triggers will fire. - Workflow is in an Exit State and the SLA has been successfully maintained. - Assigned SLA has been breached and Workflow is in an Exit State.

Service Terms	
Open Date	The open date field is automatically populated when the Request is created.
Due Date	By default the application calculates the Due Date based on the SLA Target for the Priority assigned to the Request, and email reminders are sent accordingly.
Fix Date	Auto-filled when the Request moves into a Workflow State that is defined as meeting the SLA Resolution Time.
Remaining	Auto-filled and visible when there is SLA time remaining.
Time Overdue	Auto-filled and visible when the SLA is overdue.
Close Date	Auto-filled when the status of a Request is set to Closed. This date is fixed.
Resolution Time	Auto-filled with the number of minutes it took for the Request to move from the first SLA active state to a Workflow State that is defined as meeting the SLA Resolution Time.
Last Action Date	Auto-filled when Done or Save is selected after the Request has been modified or opened in edit mode. As changes may be made to a Request after it has been Closed, this date may fall after the Close Date.
Time Recorded	Displays the total time spent on a request that is specified by a technician. **NOTE:** The Automatic timer is not applicable for the redesigned request page.
Affected Users	Number of Customers assigned to the Item associated with the Request.

NOTE: Each User can customize the date format within the My Account sub-menu option. To change the date format go to Home > My Account, click Edit and select the preferred format.

2.7.8 OLA/UPC Configuration

Underpinning Contracts (UPC/UC) are used to manage support services provided to the Service Desk by external service providers. These Contracts ensure the external parties maintain their service obligations to the Service Desk, which ensures the Service Desk meets the SLA expectations of its Customers.



- UPC: Displays the UPC assigned to the Request. The UPC is derived from either the Customer, Organizational Unit or Item.

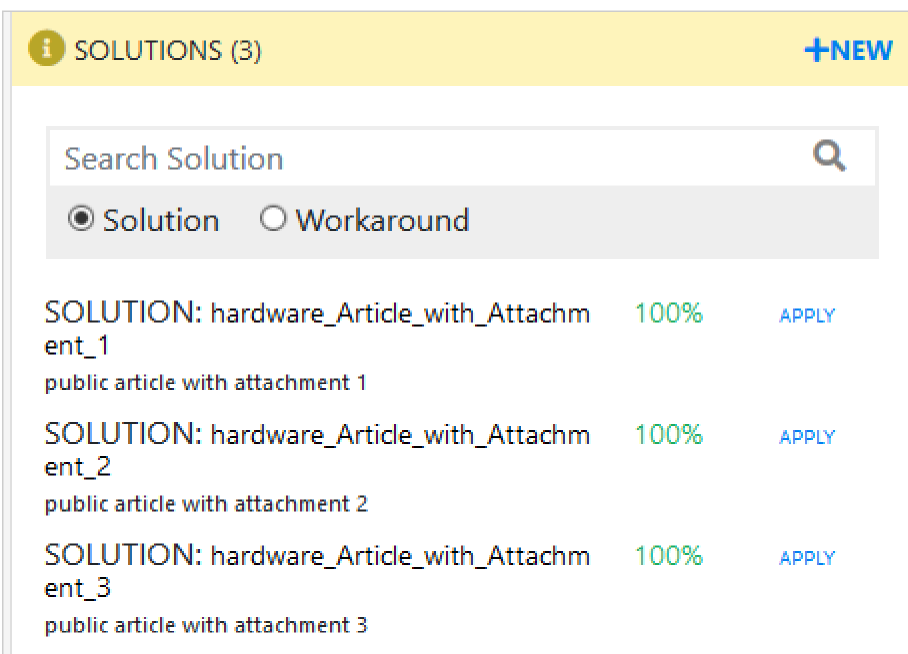
  When Contracts are not enabled, the Agreement field can be edited, when the Request is in edit mode.
- Remaining: Auto-filled and visible when there is UPC time remaining.
- Due Date: By default the application calculates the Due Date based on the SLA Target for the Priority assigned to the Request, and email reminders are sent accordingly.

2.7.9 Solutions

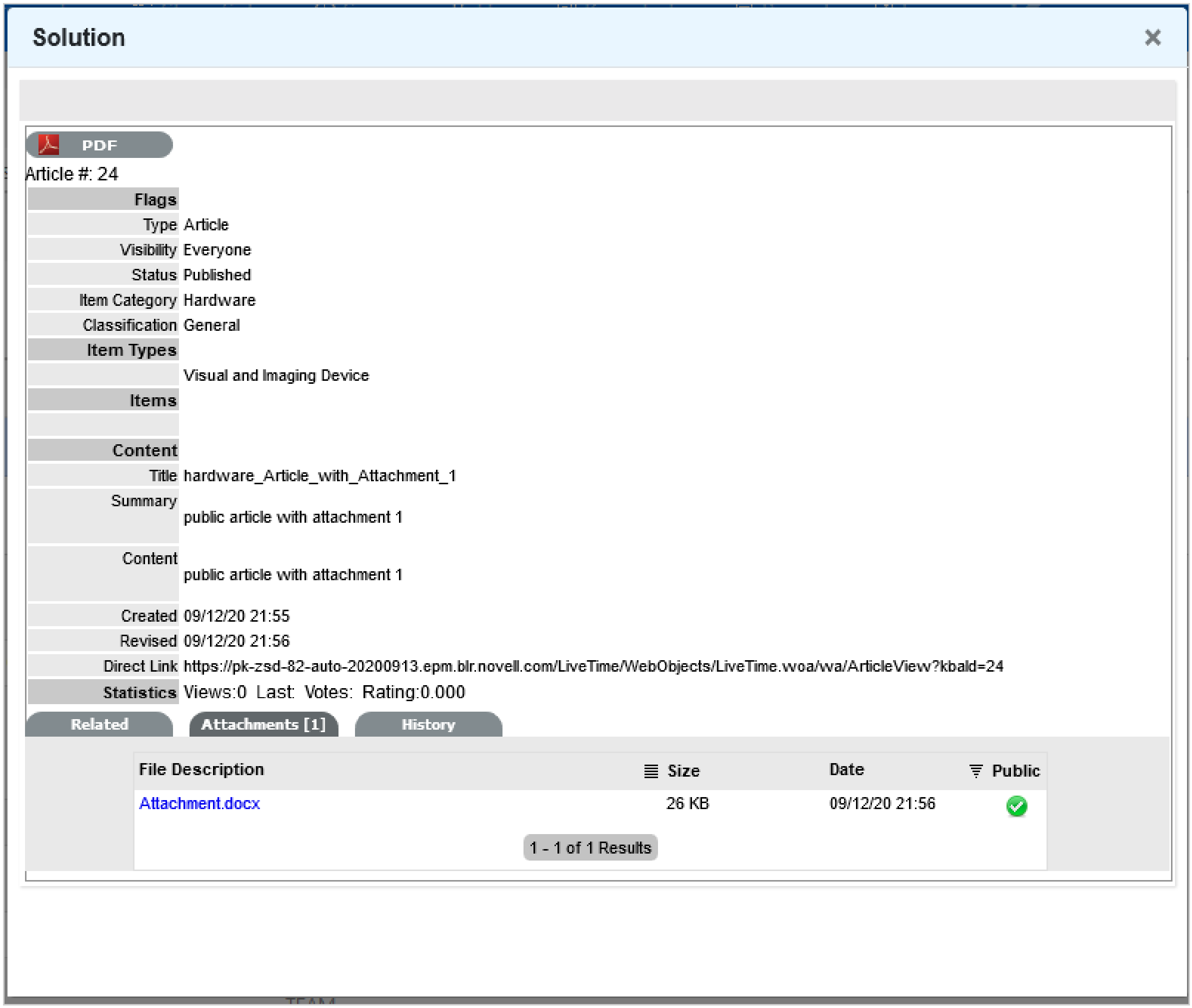
The Solutions panel displays the proposed solutions and workarounds that are applicable to the request. It also displays the applied solution, workaround or backout procedure.

Solutions are Knowledge Base Articles that could be existing in the Knowledge Base or that could have been generated as fixes for the request.

Workarounds are temporary fixes applied to a request.



To view the details, you can click the Solution, Workaround or backout procedure. The article will be displayed in a pop-up window.



In the Solutions panel, you can perform the following actions:

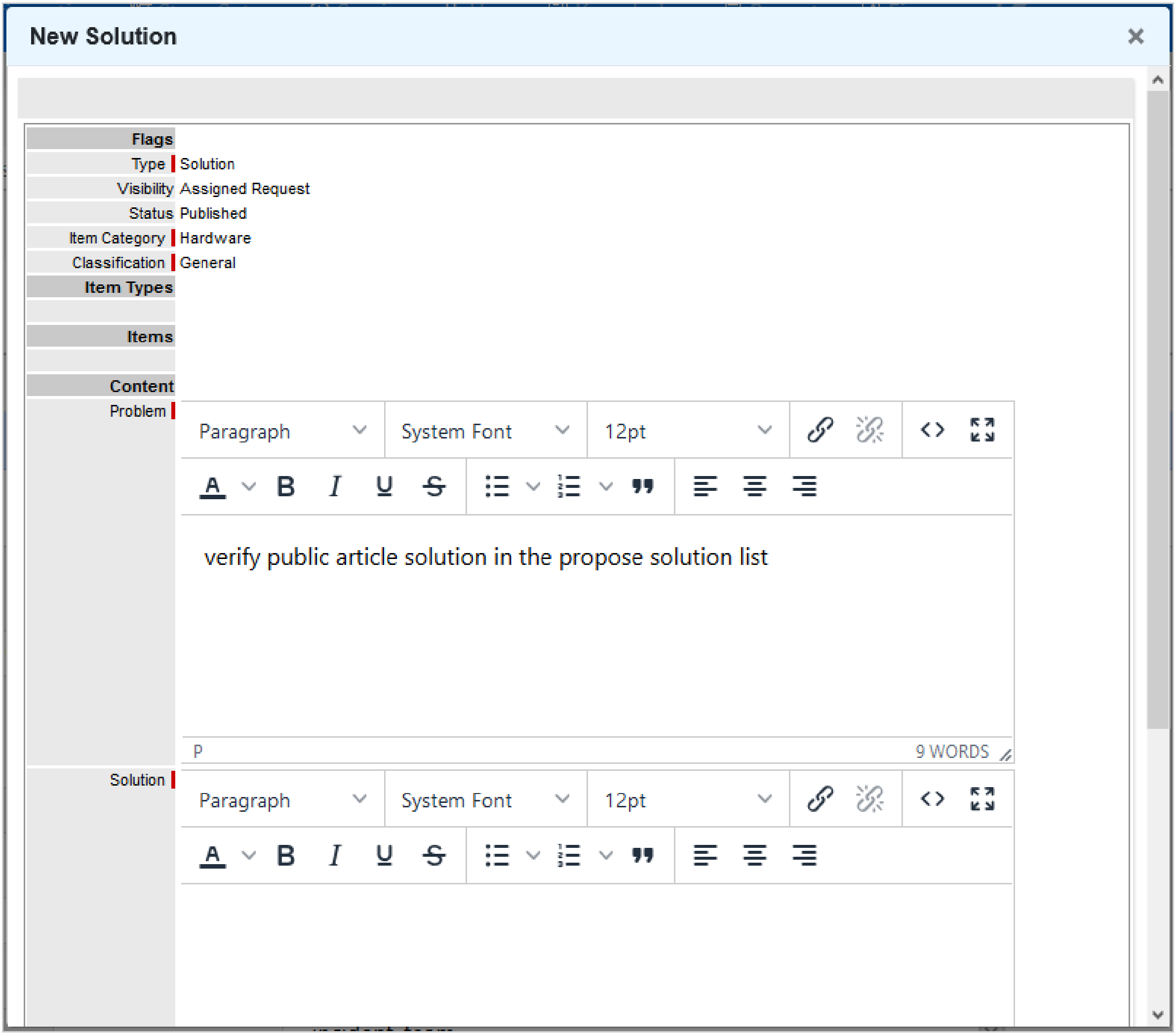
- Search: In the Search field, specify any keyword. Depending on the specified keyword, results will be displayed.
- Apply Solution or Workaround: To apply a solution or workaround, click the Apply button.

  Relevance is displayed along with All Solutions and Workarounds. Based on requirements and relevance, you can apply the solution or workaround.
- Create Solution, Workaround or Backout procedure: To create a Solution, Workaround or a Backout procedure, click the New button in the panel, and then select the required option.

  Specify all the required details in the new pop-up window and then click Save.

  You have an option to remove the applied Solution, Workaround or Backout procedure. To remove, click the  icon.

  If you have already applied a solution, workaround or Backout procedure, then you will not be able to link other solution, workaround or backout procedure. To add new solution, workaround or backout procedure, remove the existing solution, workaround or backout procedure.

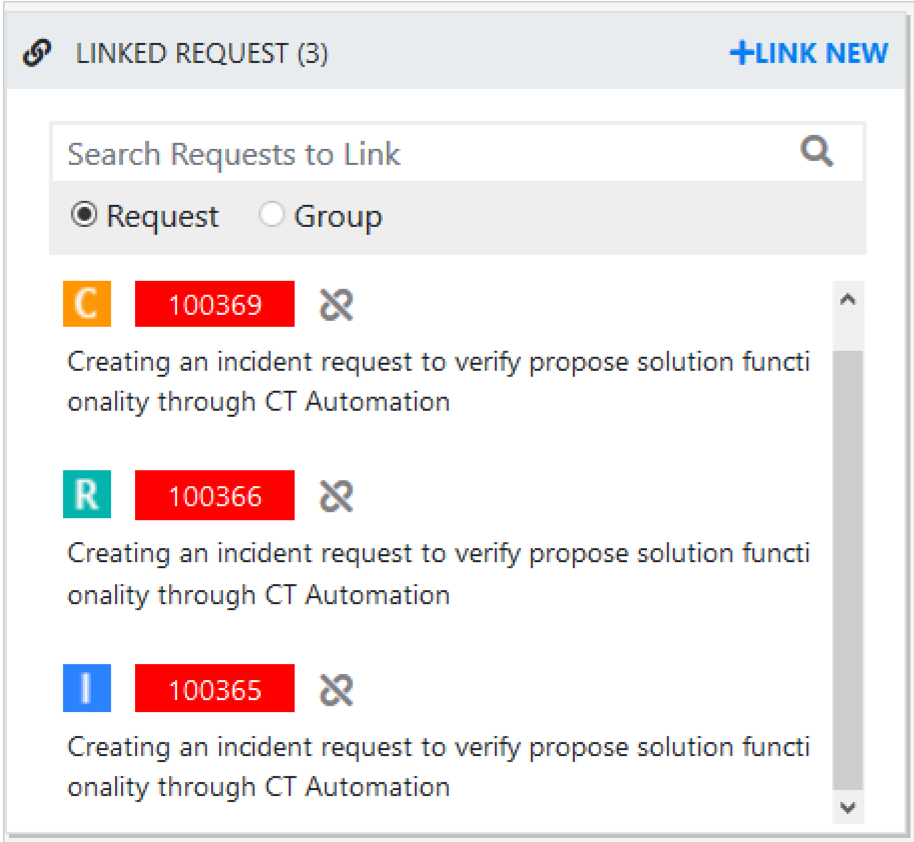


The note saved as a solution will also be displayed here. You also have an option to create a Knowledge Base out of that by clicking on that solution and selecting “Create Article”.

Some of the options might not be applicable based on certain criteria.

2.7.10 Linked Requests

The Linked Requests panel lists the requests that are linked to the request. In the Linked Request panel, you can link requests or group with the current request. The requests that are already linked with the request will also be displayed in this panel.



In the Linked Request panel, you can perform the following actions:

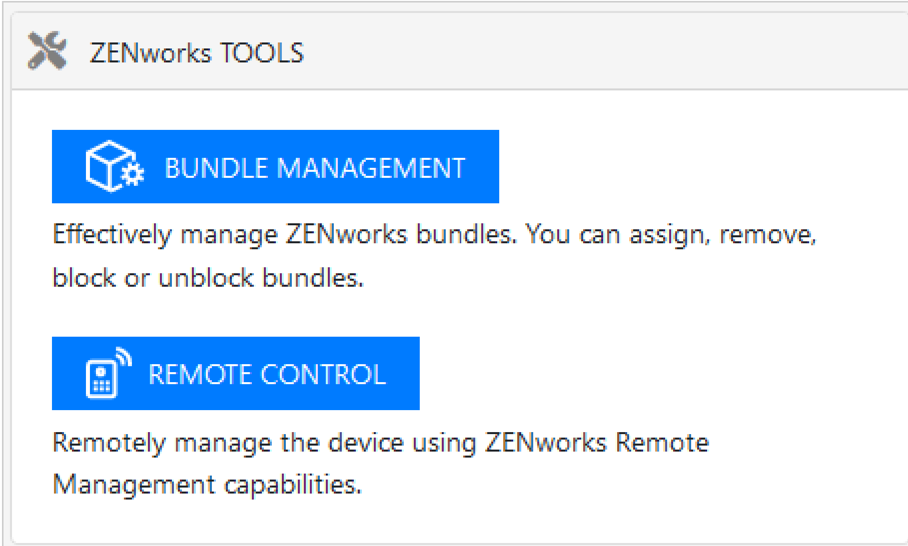
- To link a new request, click Link New and then select the required request type. This will create a new request of selected type, using the information for the current request, and will link with the current request.
- To link with an existing request or group, specify the respective ID in the search field and then click the link icon.

  Similarly, you can link groups with the request. If the request is not part of the group, the after linking the request, the request will be added to the group.
- To unlink a request, click the unlink icon associated with the request.

NOTE: If the current requests is part of a group, then linking with group, or with existing request that is part of another group is not applicable.

2.7.11 ZENworks Tools

The ZENworks Tools panel enables you to perform Bundle Management and Remote Control operations. Depending on the privileges, the tools will be displayed.

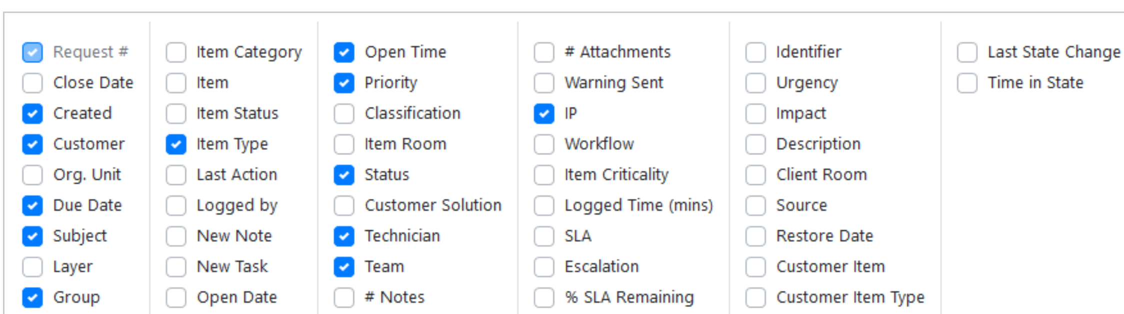


- Bundle Management: Using this option, you can assign, remove, block and unblock bundles.
- Remote Control: Using this option, you can remote control devices associated with the request.

2.7.12 Customizing Columns

To customize the displayed columns, you can perform any of the following actions:

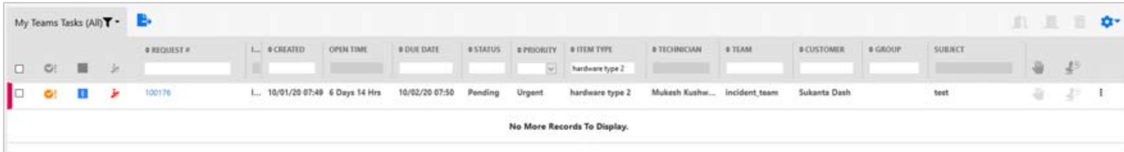
- Reorder Columns: To reorder columns, you can drag and drop the required column to the required position. The reordered column changes will be saved and displayed when you revisit the page.
- Resizing Columns: To resize the column width, you can drag the required column edge left of right. The resized column changes will not be retained.
- Add or Remove Columns: To add or remove columns, click the  icon, and then select the required field that should be displayed.



NOTE: Minimum 8 and maximum 15 columns can be added in the display grid. The added or removed column changes will be saved and displayed when you revisit the page.

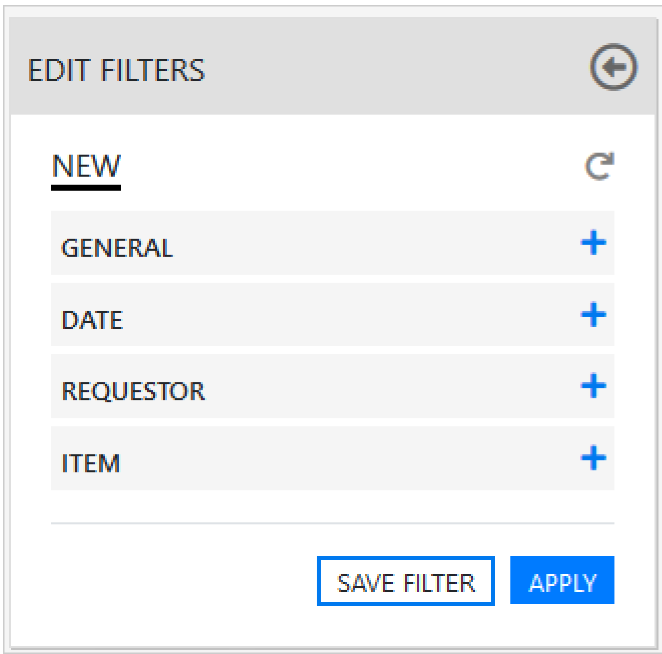
From ZENworks Service Desk 8.3.1 onwards, minimum 2 and maximum 15 columns can be added in the display grid.

- Search: To search an item within a column, specify the keyword in the search field provided below the field name.



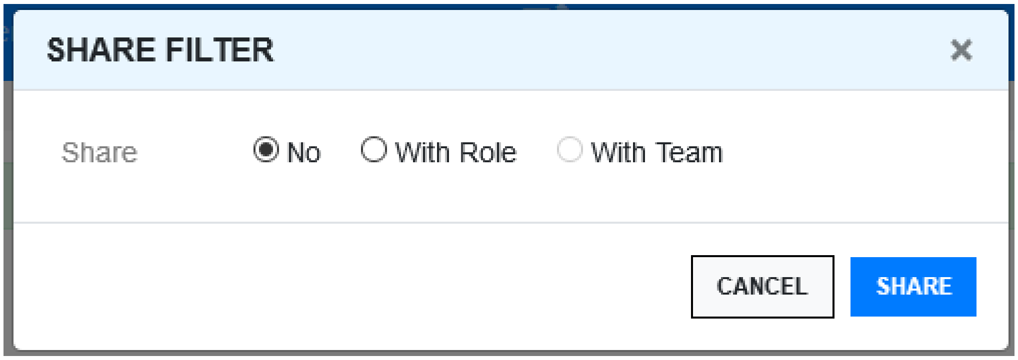
2.7.13 Filters

On the left-hand side of the Request page, the Filters panel is displayed. Using the options available in this panel, you can filter the unrelated data so that only the required data is displayed in the grid.



Following are some of the actions that can be performed in this Filters panel:

- Apply Filters: After making the required modifications to the filter panel, click Apply to view the results.
- Reset Filter: To reset the data displayed in the grid and clear the filter fields, click the icon.
- Save Filter: After modifying the filters, if required, you can save the filter for future use. To save the filter, click the Save Filter button.
- Load Saved Filters: To load or apply the saved filters, click the filter list panel, and then select the required filter.
- Share Filter: To share the filter, click the share icon, and then select the required option in the displayed pop-up.

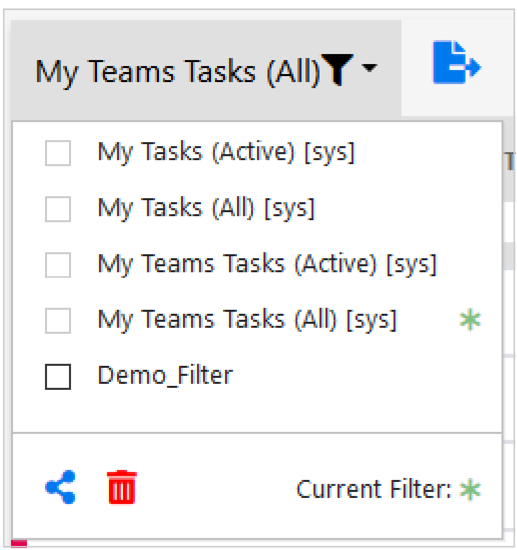


The available options are:

- No: Select this option to stop sharing the filters that was shared earlier.
- With Role: Select this option to share the filter with those who have same roles
- With Team: Select this option to share the filter with your team.

- Delete Filter: Click the Delete button to delete the filter.

NOTE: Only the custom filters can be shared and deleted.



This section of the filter includes the following options:

- "General Filters" on page 355
- "Date Filter" on page 356
- "Requester or Requestor Filter" on page 356
- "ITEM Filter" on page 356

General Filters

- Type: In this field, select the type of the request. The available options are Service, Incident, Problem and Change.

- Scope: In this field, select if you want to view My Tasks or My Team's Tasks.
- Request#: In this field, specify the request number.
- Group Name: In this field, specify the name of the group.
- Logged By: In this field, specify the a name who logged the request.
- Team: In this field, select the required team. To select multiple teams, press and hold the Ctrl key, and select the required options.
- Status: In this field, select the status of the request. The available options are Active, Inactive and All.
- Priority: In this field, select the priority of the request. The available options are Urgent, High, Medium and Low.

Date Filter

- Action: In this field, select the required action. The available options are Reported Date, Closed Date and Reported & Closed Date.
- Range: In this field, select a date range. Following are the available options.

  Start Date

  End Date
- Recent: In this field, select how recent requests should be displayed. The available options are Last Week, Last 2 Weeks, Last 30 days and Last 3 Months.
- No. Of days Since Last Status Change: In this field, select a date to view the request since their last status changed.

  This option will not provide accurate result, if the status was changed before upgrading to ZENworks Service Desk 8.2.

Requester or Requestor Filter

- First Name: In this field, specify the first name of the requester or Requestor.
- Last Name: In this field, specify the last name of the requester or Requestor.
- Email: In this field, specify the email ID of the requester or Requestor.
- Org. Unit: In this field, specify the name the Organizational Unit, be it a Company or Department with which the Customer is associated.
- Room: In this field, specify the location of the request.
- City: In this field, specify the name of the city.
- Location: In this field, specify the location details of the requester or requestor.

ITEM Filter

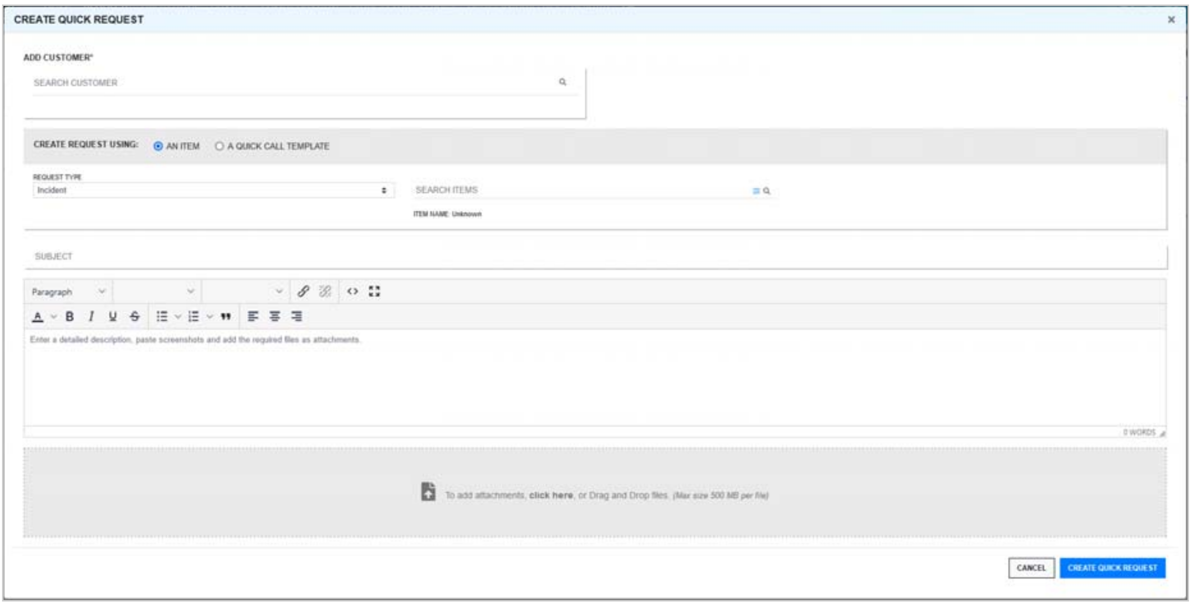
- Selected By: In this field, select an option, who had selected the item. The available options are Technician or Customer.
- Item Number: In this field, specify the item number.
- Room: In this field, specify the room to which the request belongs.
- Category: In this field, select the category to which the request belongs.

2.8 Create Quick Request

The Create Quick Request icon is displayed in pages of the Requests tab.

To create a quick request, click the icon displayed at the bottom of the page.

The Create Quick Request window is displayed as shown below.



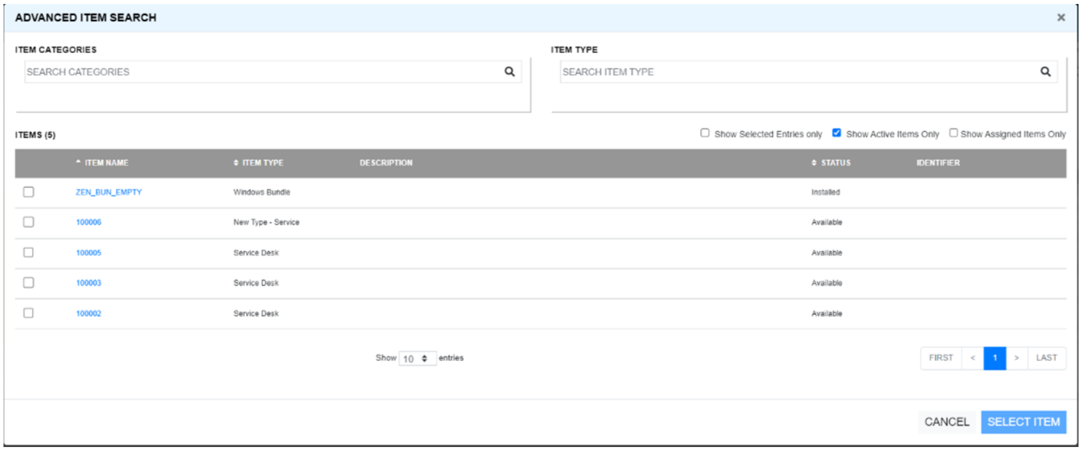
In the Create Quick Request window specify the following information:

- Search Customer: In the Search Customer field, specify the customer name and then select the required customer from the displayed result.

  Only one customer can be added for the request. If you try to add one more customer, then the previously added customer will be replaced with the new customer.
- Create Request Using: You can create a request either using an Item or a Quick Call Template.

  Based on requirements, select An Item or A Quick Call Request:

  If you select An Item, then following options are displayed:
  - Request Type: In this field, select the relevant request type. The available options are: Incident, Service, Problem and Change.
  - In this field, specify the required category of the item. Click to view Advanced Item Search. In the Advanced Item Search pop-up, you can search items based on various parameters.



Only one item can be added for the request. If you try to add one more items, then the previously added item will be replaced with the new item.

- Description: In this field, specify a description for the request.
- Subject: In this field, specify a subject for the request.
- Attachment: If you want to provide any attachments with this request, you can either drag and drop the attachment or click the Attachment field, and then upload the required fields.

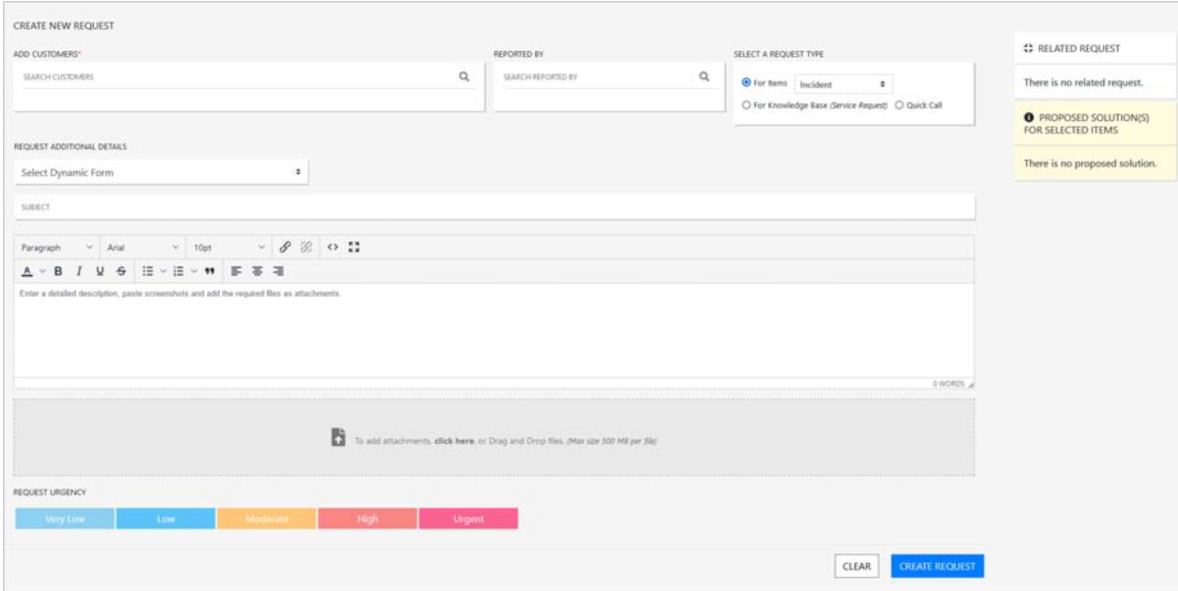
If you select the A Quick Call Request option, then a list of Quick Task templates (Quick Calls and Group Templates) will be displayed. In the search field, you can search for the required quick call template.

To create a request using a quick call or group quick call temple, click the required quick call or group quick call. Specify the required information, and then click CREATE QUICK REQUEST.

2.9 Create Request

To create a Request, click the icon that is displayed in the menu bar.

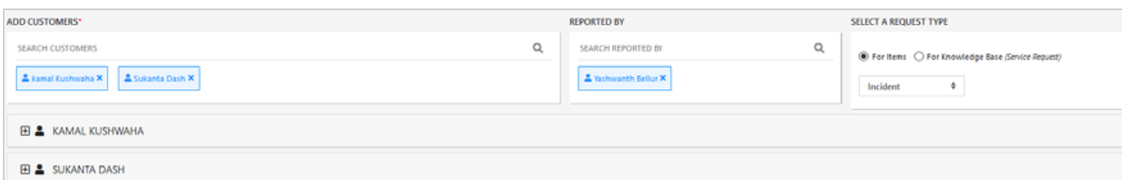
The create request page is displayed as shown in the following image.



In the Create New Request page specify the following information, and then click Create Request:

- Add Customer: In this field, specify the customer name and then select the required customer from the displayed result.

  More than one customer can be added in this field, specify the name and from the displayed results select the required name.

- Reported By: In this field, specify the name and then select the required name who has reported the issue.

  Only one name can be added. If you try to add one more entry, then the previous entry will be replaced with the new one.

- Select A Request Type: In this field, you can either select For Items or For Knowledge Base (Service Request)
  - For Items: Select this option to create a request on an Item. From the below drop-down, select the required request type. The available options are Incident, Service, Problem and Change.
  - For Knowledge Base (Service Request): Select this option to create a service request on a knowledge base.

NOTE: If you have updated any customer field, and when you change request type in For Items or change the option For Items to For Knowledge Base (Service Request) and vice versa, then the updated data will be cleared from the customer field. Hence, it is recommended that you do not make any change to the Select A Request Type field after updating the customer information. However, the select Customer and Reported By fields will be retained.

To view the customer information, click the + icon. Depending on the option selected in the Select A Request Type option, the items or knowledge base articles will be listed.

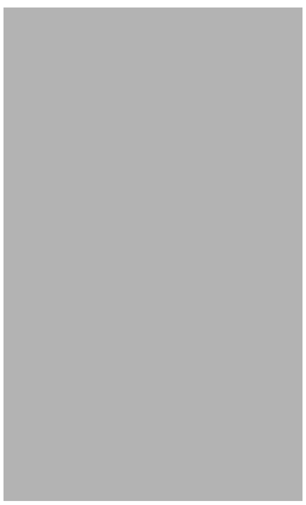
In the customer information panel, you can either use Item Search, or Select Categories and Select Item Types fields to search for the required item.

- Select Categories: In this field, you can specify the categories to search for the item categories that you want to add to the request. After selecting categories, list of active category custom fields will be displayed. These fields can be used to further filter the items list.

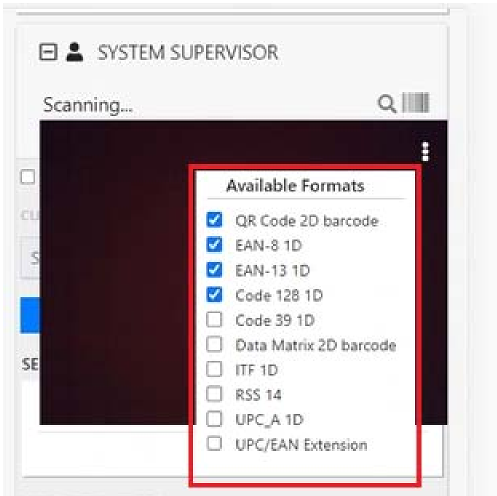
NOTE: You can select multiple categories. For each selected category, the active category custom field section will be displayed.

- Select Item Types: In this field, specify and search for the Item type. If one or more categories are selected, then you can search item types associated with the selected categories.
- Item Search: In this field, search for the required item. This field is displayed on the right-top of the customer information panel. After selecting, if items are available in the list, then the item will be selected automatically. If the items are not selected, then the item will be selected and added to the top of the list.

  On the mobile devices, a barcode will be displayed. Click the barcode to view the list of supported scanner formats, select the required format check-box.



The following image displays the supported barcode formats:



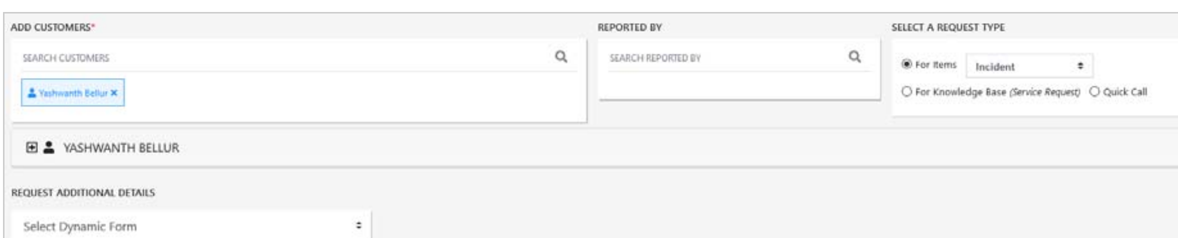
Depending on the search criteria, the items will be listed. However, using the following fields, you can further minimize the number of item displayed.

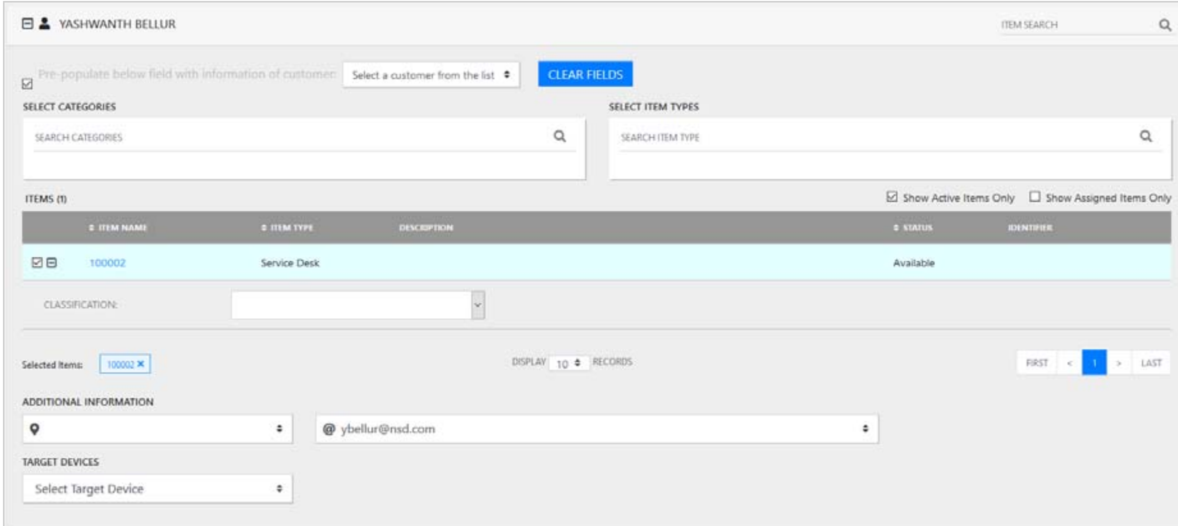
- Show Active Items only: Select this check-box to list all the active items. By default, this option will be selected.
- Show Assigned Items only: Select this check box to list all the items assigned to the logged in user.

After selecting the required items, on the right-hand Related Requests and Proposed Solution for Selected Items are displayed.

Clear Fields: Click this button to reset the customer request data.

Pre-populate below field with information of customer: If you have selected more than one customer, and if you want to copy the information from one customer to another, select this check box and from the drop-down, select customer from whom you want to copy the information.





After selecting the Items from the search results, select the Classification field, custom fields, if any, and then specify the following fields.

If the classification field is not selected, then the default option will be selected.

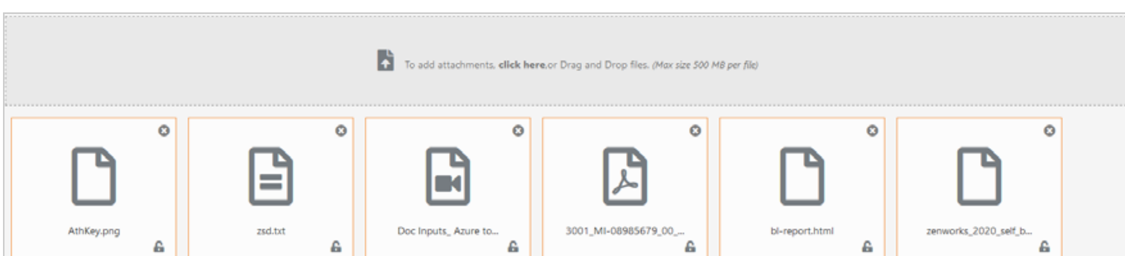
- Additional Information: In this field, select the location and email ID or phone number of the customer.
- Target Devices In this field, select the target devices.

If you do not want to use the same customer information from other selected customers, then manually update the customer information and then specify the following information:

Request Additional Details

- Subject: In this field, specify a subject for the request.
- Description: In this field, specify a description for the request.
- Attachment: In this field, to add attachments, you can either drag and drop files or click the field to upload the files.

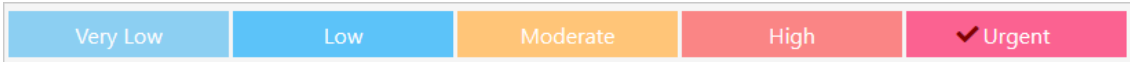
  After adding the attachment, depending on the type of file, icon will be associated with the attachment.

- Request Urgency: In this field, select the request urgency. Depending on the urgency, the priority will be assigned to the request.

NOTE: Depending on the selected Urgency level, the priority for the request will be assigned. The priority for a request is always derived and cannot be added manually selected.

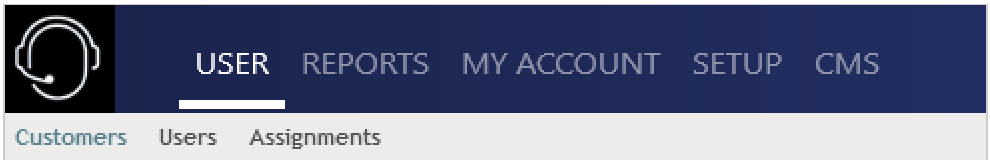
If Request Urgency is not selected, then the default urgency will be selected.



After specifying all the details, click Create Request.

3 Users

3.1 User Tab



The User tab is used to create, modify details for:

- Customers
- Users
- Assignments

Users can be assigned one of the following Roles:

- Technician
- Supervisor
- Partner

and one or more of:

- Administrator
- Customer
- Finance
- Manager

When a User has more than one Role, they can switch between Roles easily by selecting the Setup, User or Customer link displayed in the sub-menu bar next to their login Name. See Changing Roles.

3.1.1 User Availability

The User List View includes the User Availability status by default, this is based on work hours configured in the Schedule tab of the User and their Vacation Status.

The following icons may be displayed in the List View:

Available	
	The User is not on leave and is available for request assignment based on their assigned work hours.

Available	
	The User is not on leave but is not available for request assignment based on their assigned work hours. Or, if no hours are set within the Schedule tab when the "Define Work Hours" is enabled within Admin>Setup>Privileges>User screen and the User is not on vacation, the system will consider Users to be unavailable.
	The User has the On Vacation option enabled.

An Administrator can synchronize the system with a Directory Server to import User details. Imported Users can only be modified through the appropriate server console, not via the application. See Authentication.

Alternatively, the Administrator can also import Customers via a .CSV file.

NOTE: If new User accounts are to be created directly in the system, new Administrator Users can only be created within the User tab of the Administrator Portal.

3.2 Customers

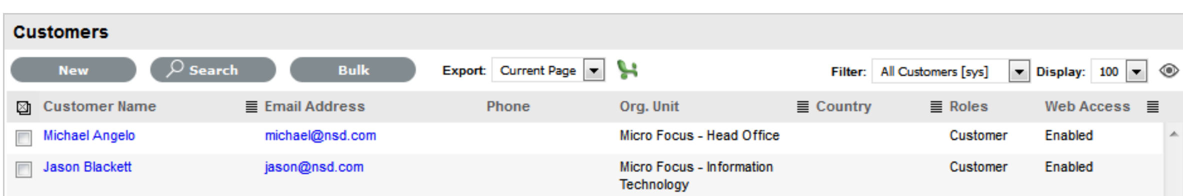
3.2.1 Customers

The Customers tab is used to create, modify and delete Customer Accounts within the system.

A Customer is a User assigned the Customer Role. They can be internal or external to the organization. Customers can raise requests, update, and if relevant approve requests, through the Customer Portal or via email. Service Desk staff can also generate requests on behalf of the Customer.

Customers can be created within this tab, imported from a CSV file, or imported and synchronized using a directory server. See Authentication.

NOTE: If Customers are imported using a directory server and the mixed mode authentication method is disabled, the option to create Customers within the Users tab is not available.



If using Organizational Units (configured by a Supervisor User) or Customer Custom fields (configured by an Administrator User), it is recommended that these be configured prior to creating Customers.

See: Creating a Customer Account (Internal Authentication)

See: Importing Customers Using a CSV File

See: Importing Customers using LDAP/Active Directory Server.

3.2.2 Creating a Customer (Internal Authentication)

Use the Customer Information Tab to view and edit Customer details. It is also possible to set Customer Roles, line managers and default login details.

Creating a Customer Account

When creating a Customer, the following four tabs are available:

- Contact
- Aliases
- Items
- Contracts

Information Tab

This tab is used to enter contact information for a Customer, when creating a new customer account.

NOTE: If Custom Fields are to be created for Customer Information it is recommended that the Administrator complete the configuration prior to creating Users. See Custom Fields.

To create a Customer account using internal system authentication:

1. Select User>Customers
2. Select New
3. The Customer Information screen appears, with the following fields:
4.

Customer Information Fields	
Access	
Title	If enabled, select the appropriate title from the drop-down options. (This field is displayed if the Enable Titles option is set to Yes in the Admin>Setup>Setup>Privileges>Customer tab.)
First Name*	Customer's First Name.
Last Name*	Customer's Last Name.
User Name*	The login User name credentials for the User. If this is imported via LDAP or Active Directory, it can not be edited. Otherwise, enter a Username. Note that the value must be unique.

Customer Information Fields	
Password/ Confirm Password	The Default Password is set to the Customer's email address or a random string can be enabled by the Administrator in Setup>Privileges>System. See Authentication. Customers can reset their password from the Customer Portal, or a Service Desk User can reset it in the customer account details using the Reset Password button through the Customer> Information tab.
Web Access	Web Access allows Customers to view their account information and Incidents via the Customer Portal.
Contact	
Primary Email*	The Customer's Email address. System messages are sent to this address.
Send To	This field becomes when alternate email addresses are entered on the Aliases tab. Select the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address, the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.
Org. Unit	The Organizational Unit, be it a Company or Department with which the Customer is associated. (Organizational Units are created by the Supervisor, in Users >Organizational Units.)
Line Manager	If relevant, assign a system user with the Customer Role who can approve/reject requests made by this Customer, as part of the Change Management or Service Request approval process. (This information can not be edited if the line manager details are set by the LDAP synch.)
Room	This field is visible if the Display Rooms option is set to Yes in the Setup>Privileges>Customer screen and there are Room details configured in Organizational Units.
Address 1	First line of Customer's address.
Address 2	Second line of Customer's address.
City	Customer's city details

Customer Information Fields	
State	Customer's State details. Options will be displayed for the State, once the Country is selected, if Regions are configured for the Country in the system.
Zip/Postcode	Customer's area code.
Country	Customer's country. The country selected will determine the time zone and state options for the Customer.
Email Locale	Set the default language for email correspondence.
Phone	Enter Phone details.
Fax	Enter the Customer's fax number, if relevant.
Pager	Enter the Customer's pager details, if relevant.
Mobile	A mobile number can be entered as a contact number or for use with SMS (Short Mail Service message). An SMS can be sent to notify the assigned Technician when a request is created. SMS Messaging options: 1. From the drop-down list, select the SMS Service Provider. 2. Override SMS Address. If your service provider does not appear in the list, click this checkbox and enter an alternate Service Provider.
SMS Override	Enter SMS Gateway override details for the Customer, if a number other than the one entered in the Mobile field is to be used to send/receive updates via SMS. Enter the complete SMS details in email address format, i.e., 000777891@smsgateway.provider.com.
Partner	
Customer of	Nominate the Partner Organization associate with the Customer. This is an external service provider who manages the Customer's request. (The option is enabled by the Administrator in Setup Privileges> Use >Edit Customer Partner. The Partner Organizations are defined by the Supervisor in the User>Partner Organizations tab.)
Locale	

Customer Information Fields	
Time zone	The Customer automatically adopts the default Timezone set for the system. However, the Timezone can be manually adjusted here for the specific Customer.
Last Login	Auto-populated with the date the Customer last logged into the system.
Host	The IP address of the last login for the Customer
GPS	The GPS coordinates of the last known address for the Customer. (This field is displayed when the Record GPS option is enabled in Admin>Setup>Setup>Privileges>Customer tab.)
Roles	
Current*	Multiple Roles can be assigned to a User. Select other Roles the Customer will use, by ticking the check boxes. Note: If the Technician Role is selected, a Supervisor must be allocated.
Default Portal	The Default Portal is the user interface a Customer, who is assigned multiple Roles, accesses by default when they log into the system. **NOTE:** If the Users Default Portal is set to Customer, the User details will not be accessible in the Users list, but included in the list within the User>Customer tab.
Details	
Notes	Click on the field to enter any Customer relevant information.

* Denotes mandatory fields

1. Click Done.

Emailing Customers Credentials

To email a newly created Customer details regarding their system log in details, click the Email button within the Customer Information screen. If Random Passwords is enabled, selecting Email will reset the Password and forward the details to the Customer. If Password Questions is enabled in Setup>Privileges>System, selecting Email will send a link to the Customer directing them to a page that includes the security questions set for their account and reset the password based on the answers provided. Customers must complete this process within an hour of the email being sent.

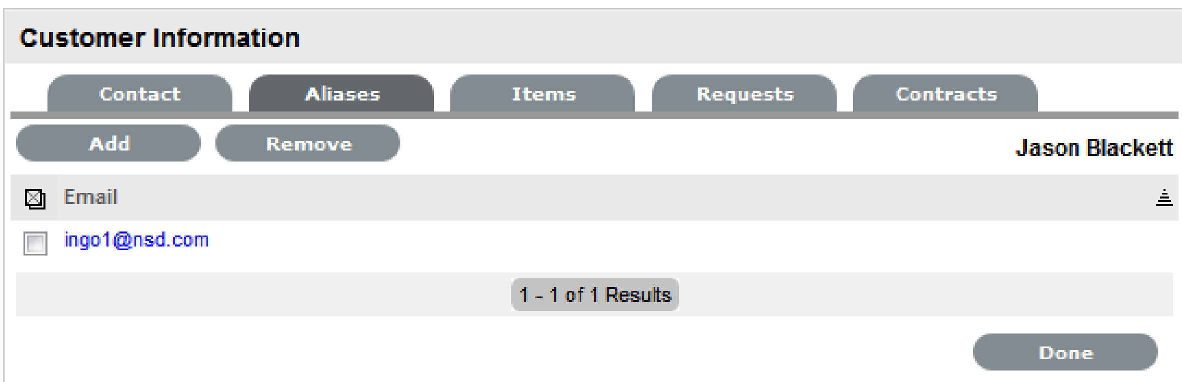
vCard Button

Select this option to download and open the Customer's information in an electronic business card format, to email or save outside the system.

Aliases Tab

The Aliases tab is used to enter additional email addresses. Email addresses in the Aliases tab allow the Customer to send emails to the System or Team support addresses from more than one address. The system creates requests from these emails. Notifications for requests created using an address in the Aliases tab, are sent to the main email address and cc'd to the alias address that was used to create the request.

When one or more alias email addresses have been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.



To add an alias email address:

1. Select User>Customers
2. Click on the Customer name

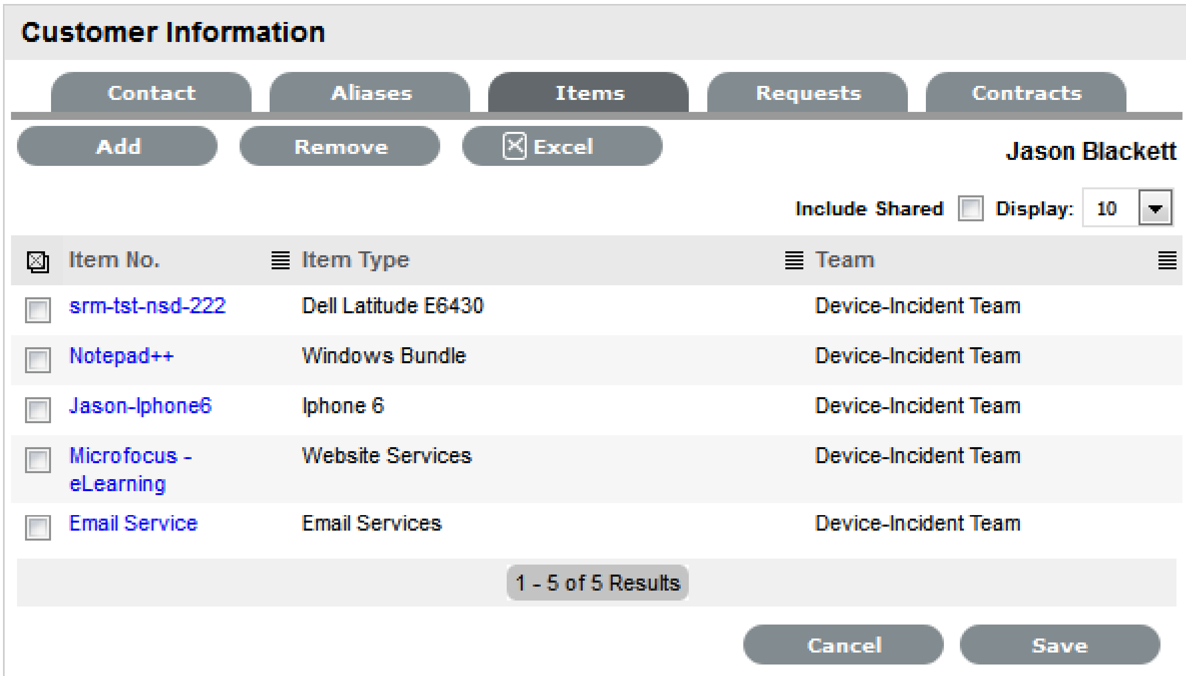
   The Customer Information screen appears.
3. In the Information tab, click Edit
4. In the Aliases tab, click Add
5. Enter an alias email address
6. Click Save
7. Select Done

   When an alias email address has been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the alias email address to be set as the default address applied to Customer correspondence.

To remove an alias email address, in Edit mode, tick the checkbox next to the relevant email address and then click Remove.

Items Tab

The Items tab defaults to list of Items assigned to the Customer. To view Shared Items, tick the Include Shared option. To view the Item details, select the Item Number hyperlink. Select the Excel button to output the Item List to Excel format.



To add an Item:

1. Select User>Customers
2. Click on the Customer name

   The Customer Information screen appears.
3. In the Information tab, click Edit
4. In the Item tab, click Add

   The Find Item editor is displayed.
5. Search for the relevant Item

   For details regarding an advanced Item search see: Advanced Search.
6. Select the Item # hyperlink

   The selected Item will be associated with the Customer.
7. Click Save
8. Select Done

To remove an Item, in Edit mode, tick the checkbox next to the relevant Item and then click Remove.

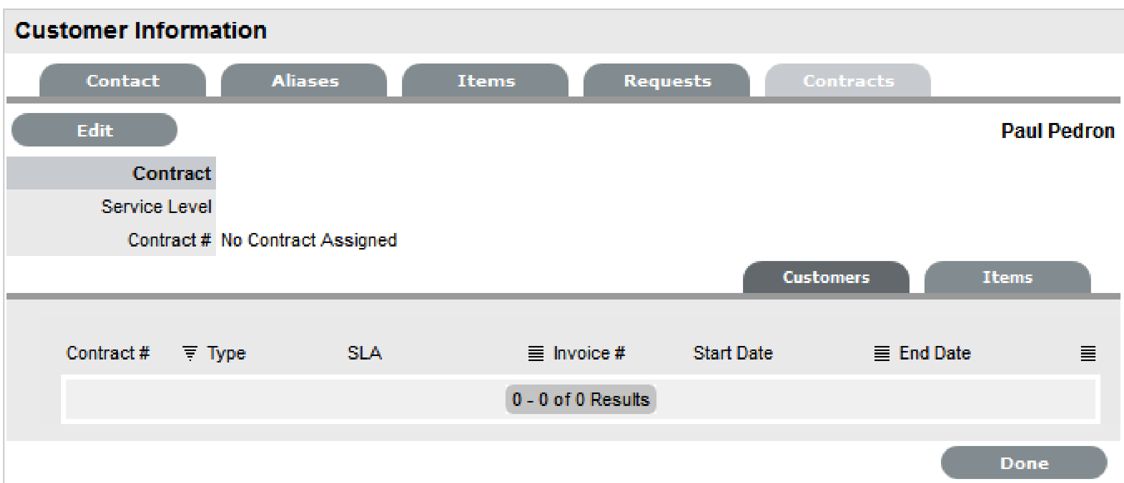
Contracts Tab

The Contracts tab displays a Customer's current contract status. A Customer can be assigned an SLA or Contract when Billing>Contracts is enabled. A Customer can only have one active Contract.

To create a new Contract for a Customer:

1. Select User>Customers
2. Select the Customer Name
3. Move to the Contracts tab
4. Click Edit

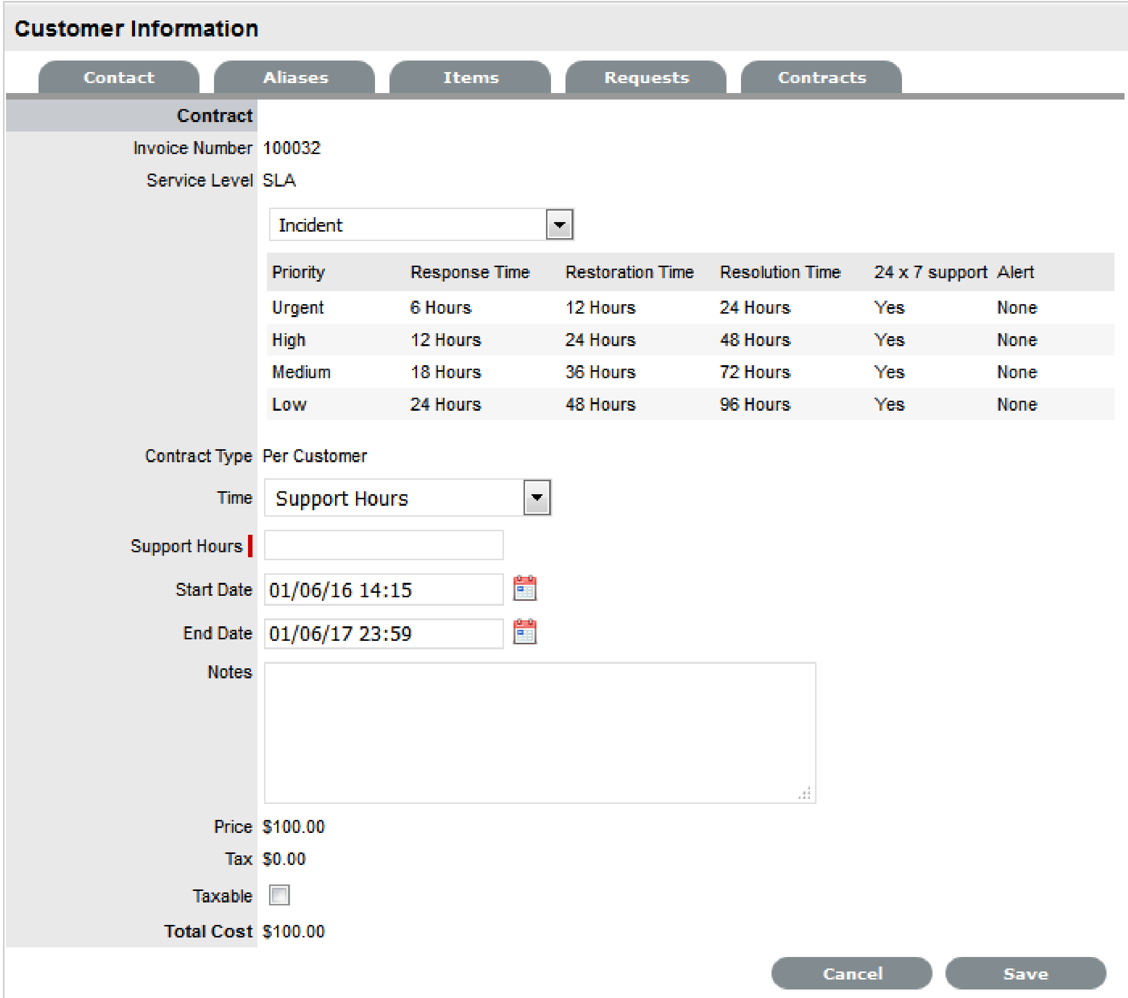
   The system will display the Add button in the Customers tab



5. Click Add

   The SLA options are displayed.
6. Select a Service Level from the list

   When selected, the screen expands to display the Time, Start and End date fields.



7. Define the Contract Time period

   For the Per Customer Contract Type the Time Period for the Contract can be defined:

   If *Subscription* is selected, the Start and End Dates are automatically completed by the system, but can be edited if required.

   If *Time Limited Subscription* is selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually, entering the length of time for the subscription period.

   If *Support Hours* is selected, the number of support hours purchased by the Customers should be entered

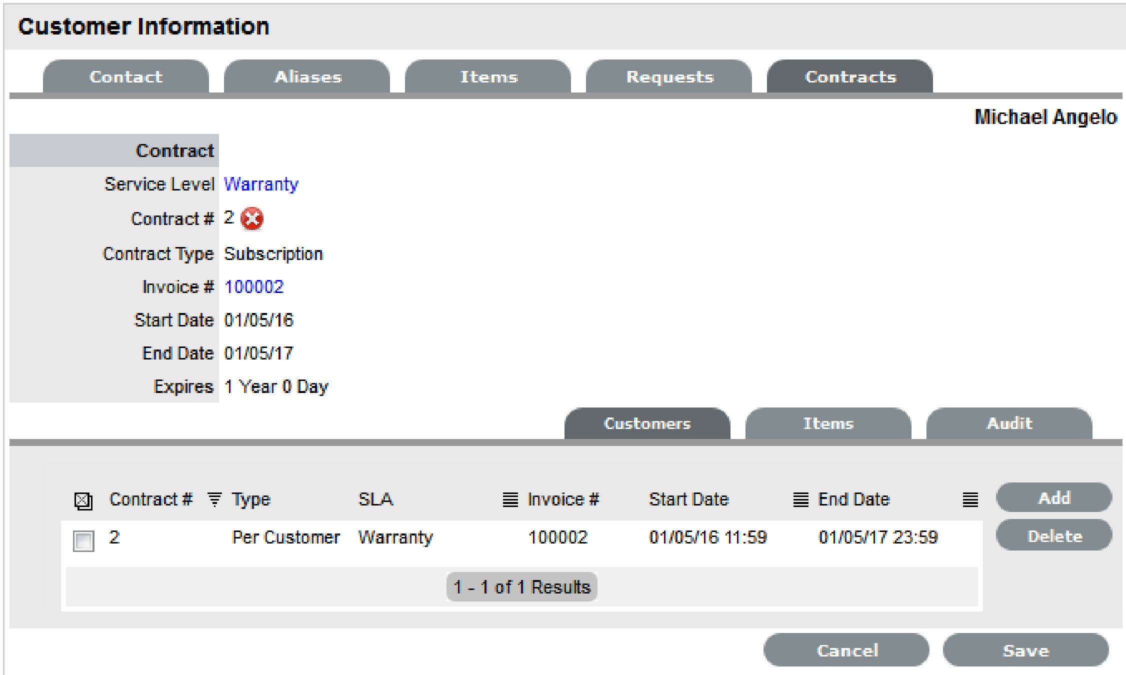
   If *Support Hours By Month* is selected, define the number of Support Hours covered per month and on which day of the month the Contract is designated as the Rollover Day. The Start Date and End Date fields are automatically completed as an annual contract subscription but can be edited, as required.

   If the Start Date is set as a future date, the Pending Contract status is assigned. See Pending Contracts.

8. Click Save

9. Click Next to continue

The system reverts to the Contracts summary screen.



10. Click Save. Click Done.

To delete a current Contract select next to the Contract Number. Alternatively, to delete a current or queued Contract, within the Contract>Customers tab check the field next to the relevant Contract # and select the Delete button.

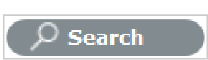
The Items tab within the Customer>Contracts screen is used to list all the Items with a Contract that are owned by a Customer.

The list of requests with the time recorded against the Contract is displayed within the Audit tab. The Summary view displays the list of requests with total number of Notes and Time allocated to the Contract, while the Detail view includes a breakdown of all Notes and the associated time related to each request.v

Searching for Customers

To search for Customers within the Users>Customers tab:

1. Go to Users>Customer
2. Click



3. Enter any known Customer details

   Or, for a complete Customer list enter a before or after date for Customer creation
4. Click Search

The results will be displayed in a table with the Customer Name and contact information.

5. Click on the Customer Name to open the Customer Information module or select the Email Address to send an email.

Re-enabling Deleted Accounts

Administrators have the ability to reactivate deleted Customer accounts.

To enable a deleted account:

1. Within the User > Customers tab select

2. Toggle the Account Status option to Deleted
3. Click Search

   A list of deleted Customers is displayed.
4. Select a Customer to re-enable

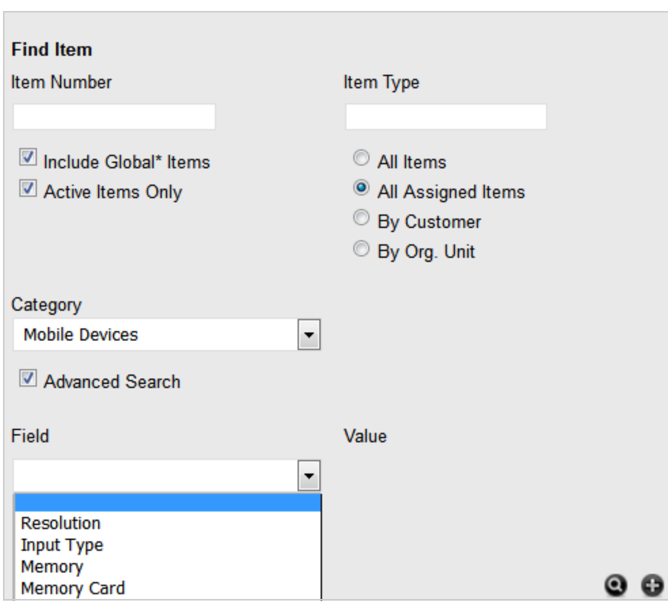
   The Customer information page appears.
5. Click the Enable button, to reactivate the account.

   The Customer account becomes active and is available within the system.

3.2.3 Advanced Search Option

To search for a Customer or an Item based on custom field information, use the Advanced Search option. The Advanced Search enables the User to search on Customer or Item custom fields, if they have been enabled.

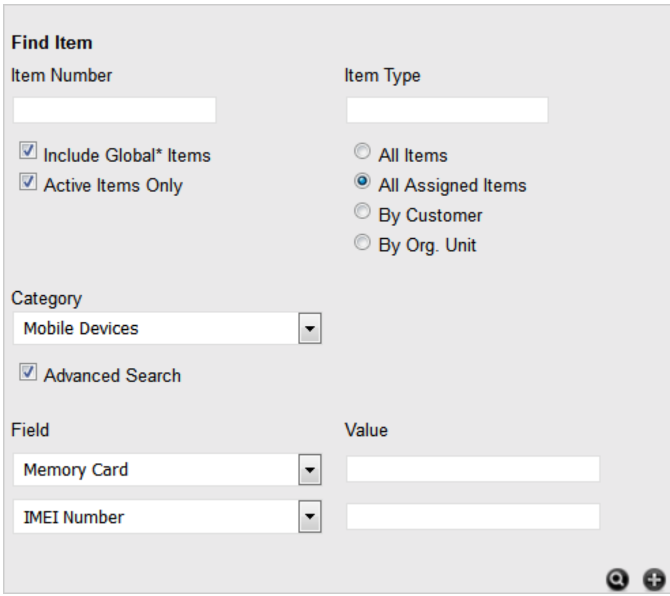
During request creation the option Advanced Search will be visible within the Find Customer and Find Item screens.



To use the search option:

1. Tick the Advanced Search option

   For the Find Customer, a custom field list will appear. For Find Item, an Item Category drop-down list is displayed.
2. For Find Item, select the Category. Two custom field lists appear
3. Select the custom field/s to search on



4. In the Value field, enter the details to be searched
5. Click to return a list of Customers/Items based on the custom field value entered
6. Click the relevant Customer Name or Item number to assign it to the request.

3.2.4 Pending Contracts

Contracts that have been forward dated on creation or that require invoice payment before they can become active in the system, are recorded as Pending Contracts. The list of Pending Contracts can be viewed in the All Agreements filter within the Service Level > Contracts screen.

A Pending Contract will automatically become active in the system on the start date assigned to the contract, if an invoice is not associated with the contract.

To enable a Contract before the start date:

1. Go to the Costs tab of the Item or Contracts tab of the Org Unit or Customer

   The tab is available relative to where the contract is being activated. It will be Costs within the Item screen, or Contracts within the Customer or Org Unit Information screen.
2. Select Edit

   The Enable button is displayed next to the Pending Contract Field

3. Click Enable

   The system prompts that the start date will be updated.

4. Click OK

   The Contract is created with the new start date.

5. Click Save.

6. **NOTE:** Requests raised against a Customer/Org Unit/Item with a Pending Contract, are assigned a Pending-No Contracts status. The Item/Customer/Org Unit's Contract needs to be activated before a Technician can work on the request.

3.2.5 Importing Customers using a CSV File

Using a .CSV file (comma-delimited text file), Customers can be imported instantly.

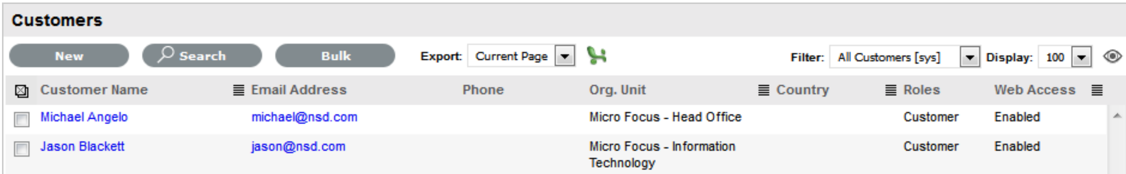
The fields that are required within the text file for Customers to be imported are:

- First Name
- Last Name
- Email address
- Username (unique)
- Password

To import Customers using a .CSV File:

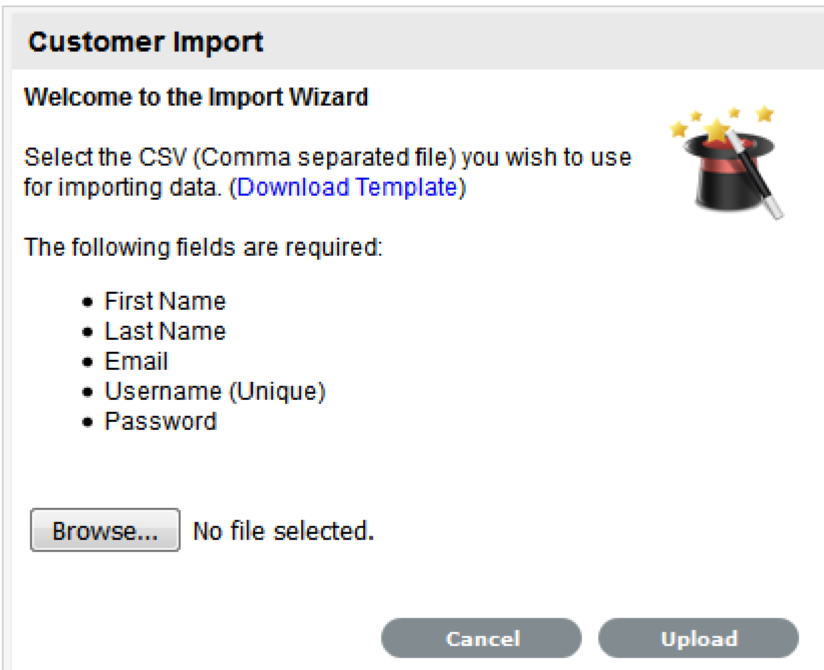
1. Select User>Customers

   The Customers screen is displayed.



2. Click

   The Customer Import Wizard appears.



To view a template that illustrates the fields the application is looking for and the data types (see below), click the Download Template link on the Customer Import Wizard screen.

The following fields should be visible:

Title (char 128),First Name(char 64), Last Name(char 64), Email Address(char 64), Company(char 64), Department (char 64),Primary Company Contact (int 1), Primary Department Contact (int 1),Address 1(char 128), Address 2(char 128), City(char 64), State(char 32), Postcode/ Zip (char 20), Country(char 64), Phone(char 20), Mobile(char 20), Fax (char 20), Pager (char 32),Username (Unique char 64), Password (char 64), Partners Email (char 64), Custom1(char 256), Custom2(char 256), Custom3(char 256), Custom4(char 256), Custom5(char 256), Notes (clob), Locale (char 5), Line Manager Username (char 128)

The ‘char ###’ designation in parentheses after each field name signifies what type of data the import utility expects to see in each field. For instance:

- ’First Name (char 64)’ means that the first name field cannot exceed 64 characters.
- 'Company Contact (int 1)' means that a 1 in the field will assume the Customer is the Primary Contact for the Company, if the field is left empty or completed with a zero, it is assumed the Customer is not a Primary Contact.
- Fields marked as ‘Unique’ must be unique in the system
- Locale is the Email Locale for the Customer and will be set to the option applied in the Setup>Email>Setup>Default Locale field if the column is empty
- Line Manager Username is the Customer's Username as recorded in the system or to be created as part of the .CSV import.

If the Partner option has been enabled in the application Setup, a Partner can be assigned to a Customer by defining the Partner email within the .CSV file.

NOTE: The Country specified must be the same as what is found within the application

If the spelling is different in the .CSV file, a Customer's Country details will not be imported.

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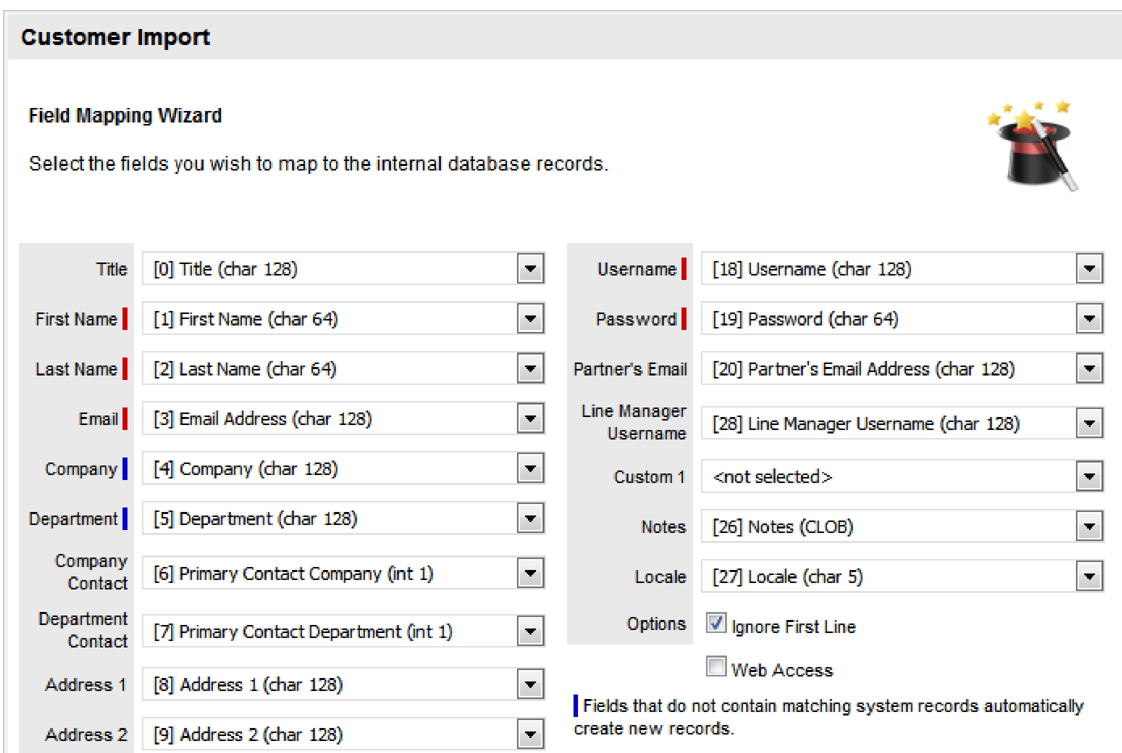
1. Click Choose File

   Select a .CSV file to be imported
2. Click Upload

   Displayed are lists of fields that are mapped to the corresponding fields in the .CSV file that is to be imported.



*Fields marked with a *I* are mandatory.

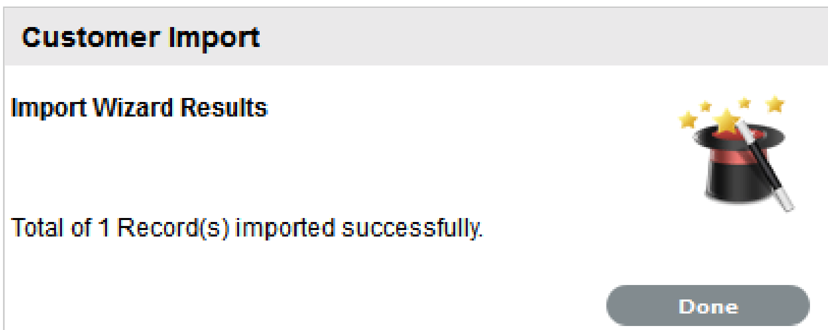
*Fields marked with a *I* that do not contain matching system records automatically create new records in system.

1. Adjust mapped fields, if relevant
2. Check Ignore First Line if the imported .CSV file uses its first line as a header to define the field information

   Leave the box unchecked if the .CSV file begins with usable data.
3. Check Web Access if the imported Customers are to have immediate access to the Customer Portal

   If this option is not selected, Customers will not be able to log into the application until they have been designated web access within the Customer Information>Contact tab.
4. Click Import

   The results of the import attempt will be displayed. If the import was successful, the new Customer details can now be accessed in the system.



5. Click Done.

After the Customer has been imported, other fields require manual configuration, including:

- Room (if relevant)
- User Roles

3.2.6 Importing Customers using LDAP/Active Directory Server

Administrators can connect the application to a Directory Server for Customer and User authentication purposes. This removes the need to create Customer and User accounts as it allows the system to synchronize accounts and access levels with an existing Directory Server. It has the added benefit of allowing the Administrator to work with existing infrastructure.

As part of the mapping process, if no values exist on the authentication server for a mapped field, no drop-down menu will appear and Users cannot edit the field.

When the authentication server is used, the Customer’s password is not visible within the service management tool, regardless of whether the Customer is new or existing in the system. This is due to the Customer’s account being validated against an authentication server account rather than an internally authenticated account. The password is stored in the authentication server’s database and it is not accessible through the service management system.

Also, Customers using LDAP or Active Directory authentication are not able to edit their first name, last name, LDAP/ADS username or email address. These fields are stored on the authentication server, and cannot be modified within the service management system.

To import Customers using a directory server, see Authentication.

3.3 Users

3.3.1 Users

The User menu allows an Administrator to create accounts for other Users. The tab gives Administrators and Supervisors control over all User accounts in the system. User accounts can be created, modified and deleted.

Users can have *one* of the following Roles:

- Technician
- Supervisor
- Partner

and one or more of:

- Administrator
- Customer
- Finance
- Manager

It is possible for any User to have multiple Roles. (For example, a Technician may also be assigned a Customer Role so they can log requests related to their own equipment. When a User has more than one Role, they can switch between interfaces easily.) See: Changing Roles

User Accounts can be created within the application or imported from one or more authentication servers.

If using User Custom fields, we recommend these be configured prior to creating Users. See: Custom Fields.

See: Creating a User Account (Internal Authentication)

See: Importing a User Account (External Authentication)

3.3.2 Creating a User Account (Internal Authentication)

Users within the system that are to be assigned to support Teams must be allocated one of the following Roles:

- Technician
- Supervisor
- Partner

The above User Roles can work on requests. The About Roles section of the User Guide provides more information regarding specific User Roles in the system.

Creating a User Account

When creating a new User, the following four tabs are available:

- Information
- Schedule
- Aliases
- Team
- Skills
- Types.

Information Tab

Within the User Information tab, User details can be created, viewed and edited. User Roles, Process assignment and default logins can all be customized within this tab.

To create a new User:

1. Select User>Users
2. Click New

   The User Information screen appears.
3.

User Information Fields	
Title	Select a title from the drop-down menu options. (This field is displayed if the Enable Titles option is set to Yes in the Admin>Setup>Setup>Privileges>Customer tab.)
First Name*	Enter the User's First Name.
Last Name*	Enter the User's Last Name.
User Name*	Enter a LiveTime User Name (unique).
Password*	Enter a User Password. Note: Passwords can be changed under the Users Tab or reset by the User under their My Account tab.
Roles*	Assign a Role for the User. Each Role has associated permissions. See Roles. Every Technician Role assigned also needs a Supervisor assigned. **NOTE:** Note: More than one Role can be assigned but only one of Supervisor, Partner or Technician can be allocated per User.

User Information Fields	
Default Portal*	The Default Portal is the User Interface accessed by default when a User with multiple Roles logs into the system. **NOTE:** If the Users Default Portal is set to Customer, the User details will not be accessible in the Users list, but included in the list within the User>Customer tab.
Assignment Template	This option is visible in a new User Information screen if Job Assignment Templates are configured in the User> Assignments tab. Select a template to assign the new User to multiple Teams, Escalation layers and Processes.
Operations Processes	Assign the licensed access for Request Fulfilment, Incident and Problem Management. Assigning Processes to the User gives them access to support those Processes and enables them to be assigned as Team members for those Processes' Teams. See User Processes.
Change Processes	Assign the licensed access for Change, Release and Deployment Management. Note, Users assigned Release are automatically assigned Deployment.
Internal Processes	Enable the Users privilege to maintain Service Level, Configuration and Knowledge Management. Selecting the Configuration and Knowledge options displays the relevant fields that enable granular controls to be set for those processes. **NOTE:** The Finance Role is limited to the processes of Configuration and Service Level Management.
Knowledge	If the User is assigned the Knowledge Management process, their privilege to create, edit, delete and/or publish KBAs can be configured.
Configuration	If the User is assigned the Configuration Management process, their privilege to create, edit and/or delete Items within the CMDB can be configured on a per task basis.
Customer Org Unit	If the User is also allocated a Customer Role within the system, this field is displayed. Enter Company or Department details that apply to the User in their Customer Role.

User Information Fields	
Line Manager	(This field is visible if the User is also assign a Customer Role within the system. The information can not be edited if the line manager details are set by the LDAP synch.) If relevant, assign a system user with the Customer Role who can approve/reject requests made by this Customer.
Primary Email*	Enter the User's email address. System messages are sent to this address.
Send To	This field becomes available for Users that have the Customer Role and have alternate email addresses entered on the Aliases tab. Select the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.
Phone	Enter telephone details.
Mobile	A mobile number can be entered as a contact number or for use with SMS (Short Mail Service message). An SMS can be sent to notify the assigned Technician when a Service Request is raised. SMS Messaging options: ◆ From the drop down list, select the SMS service provider. ◆ Override SMS Address. If your service provider does not appear in the list, click this checkbox and enter an alternate Service Provider.
SMS Override	Enter SMS Gateway override details for the User, if a number other than the one entered in the Mobile field is to be used to send/receive updates via SMS. Enter the complete SMS details in email address format, i.e., 000777891@smsgateway.provider.com.
Fax	Enter known fax details.
Pager	Enter pager details.
Salary	An annual salary can be entered. This value is used for reporting.
Forum Moderator	Select this checkbox to designate this User as a forum moderator. See Forums.

User Information Fields	
Survey Manager	Select this checkbox to enable this User to create and manage surveys in the system.
Supervisor*	Select a Supervisor, if the User has a technician role. Users with the Technician Role must be allocated a Supervisor.
Partner For	When a User is assigned the Partner Role, their associated Partner Organization must be assigned within this field.
Partner	If the User is also assigned a Customer Role, this field allows the Customer to be associated with a Partner Organization who will handle their requests when they are logged in the system.
Available	Shows if the User is available for requests to be assigned to them. This is based on work hours configured in the Schedule tab of the User and their Vacation Status. If no hours are set within the Schedule tab when the "Define Works Hours" is enabled within Admin>Setup>Privileges>User screen and the User is not on vacation, the system will consider them to be unavailable.
Assignment	**Visible when the Assignment Control is enabled in Admin>Setup>Privileges>User. Set to Off if the User is not to be assigned new requests, irrespective of their Availability status.
On Vacation	Placing a Technician on vacation excludes them from being assigned new requests automatically. When On Vacation is activated a Technician's existing requests are not reassigned.
Training	This option is only visible for Technician Users, and when enabled allows the User to be included in Teams to view requests but does not allow them to put the request in edit mode or add Notes.
Email Locale	Adjust the default language for email correspondence, if required.
Country	The User automatically adopts the default Country set for the system. However, the Country can be manually adjusted here for the specific User.
State	Set the State information based on the Country selected, if required.
Timezone	The User automatically adopts the default Timezone set for the system. However, the Timezone can be manually adjusted for the specific User.
GPS	The GPS coordinates of the last known address.

* Denotes Mandatory Fields

1. Complete the User detail information
2. Click Done

Emailing User Details

To email a User regarding their system log in credentials, click the Email button within the User Information screen. If Random Passwords is enabled, selecting Email will reset the Password and forward the details to the User. If Password Questions is enabled in Setup>Privileges>System, selecting Email will send a link to the User directing them to a page that includes the security questions set for their account and reset the password based on the answers provided. Customers must complete this process within an hour of the email being sent.

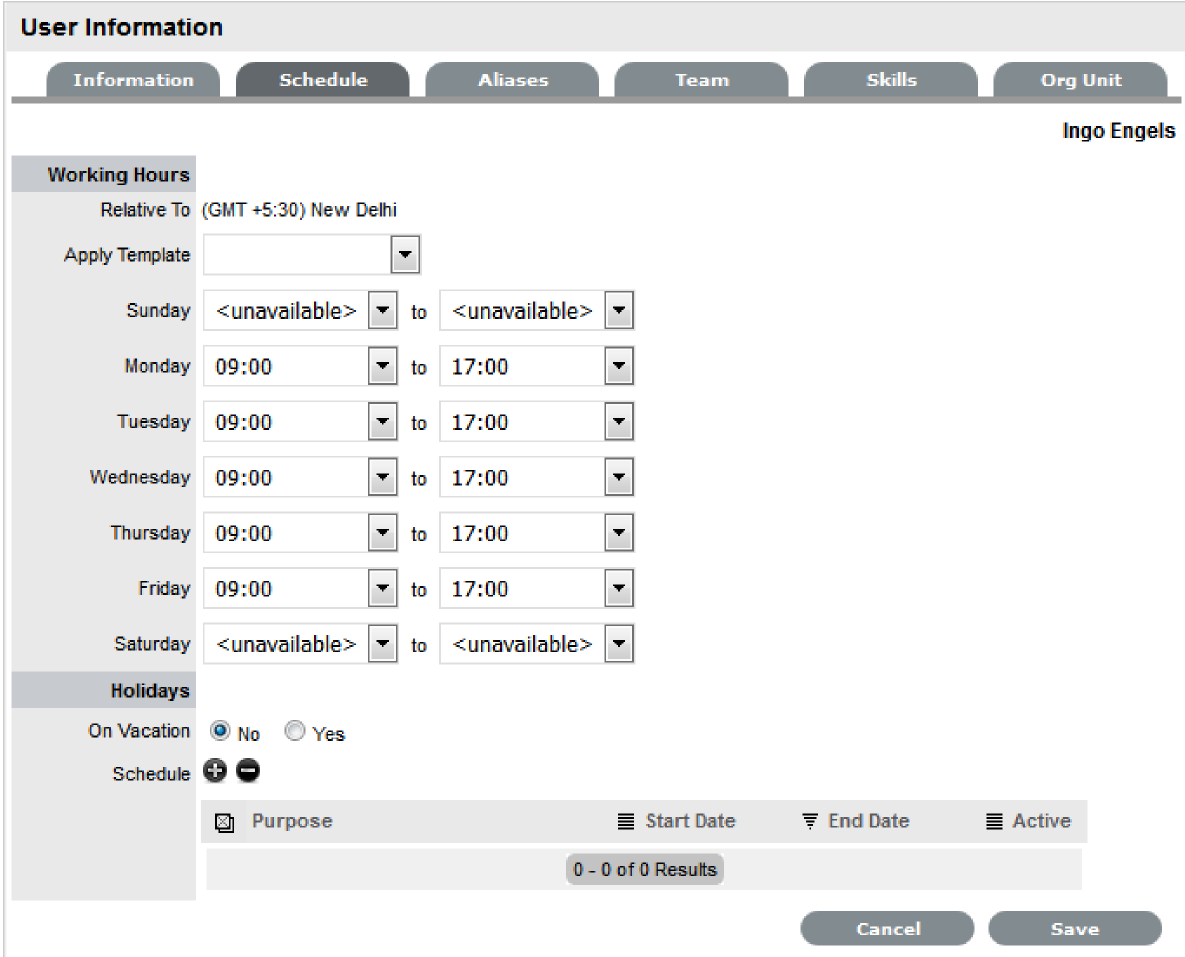
vCard Button

Select this option to download and open the User's information in an electronic business card format, to email or save outside the system.

Schedule Tab

By default the Schedule tab includes the On Vacation option, which can be set to Yes when the User takes leave. The system will automatically reassign the User's active requests, if the Vacation Reassign option has been enabled in the Admin>Setup>Privileges>User tab. If this option has not been enabled, a Supervisor User will need to manually reassign the requests, if required.

If the system Setup has been configured to Define Work Hours and Schedule Vacations, this additional functionality is available within the Schedule tab.



Define Work Hours

Use the drop-down lists to set the hours of work when the User is available for the week. Based on what is set here, the system will assign requests to the User during their available hours. However, if no other Technician is available for requests based on their defined work hours, the system will assign the User new requests outside of their set work hours.

NOTE: If the Technician Define Work Hours option has been enabled, the hours of work MUST be defined, otherwise the system will ignore the Technician Assignment logic and automatically allocate new requests to the Team Lead.

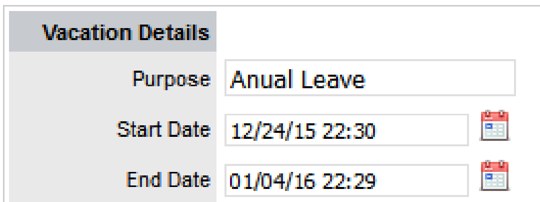
Schedule Holidays

The Schedule Holidays functionality allows the Supervisor to pre-book leave in the system for Users. There are no restrictions on the number of days that can be set, and based on the configuration, when a leave period is activated, the system will automatically reassign active requests to other available Users applying the Technician Assignment logic. If the request was initially drawn from an Incident Queue, it will not return to the Queue but be reassigned to the most relevant Technician based on the Technician Assignment logic.

As a Supervisor User, to schedule User leave:

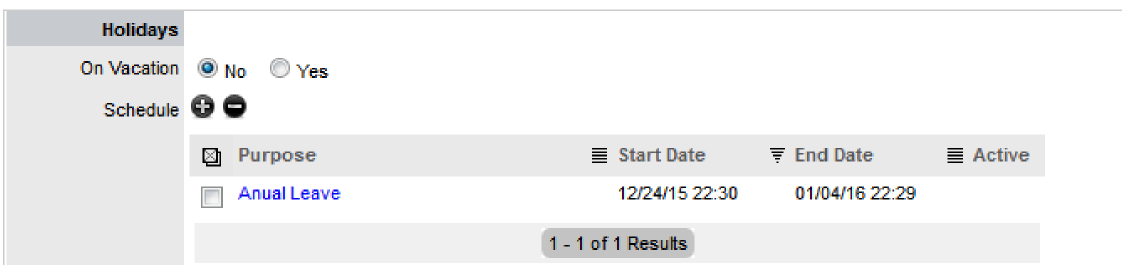
1. Go to the Users>User option
2. Select the hyperlink name of the User
3. Move to the Schedule tab
4. Click Edit
5. Select

   The Vacation Details window is expanded.
6. Enter the reason for leave in the Purpose box



7. Complete the Start and End date details
8. Click Save

   The details are recorded in the database and when the Start Date is reached, new requests will not be assigned to the User. After the scheduled End Date, the User account will be automatically re-activated.



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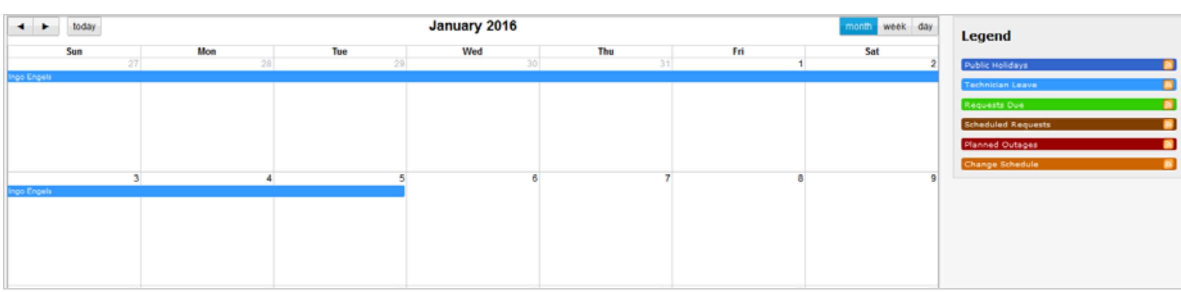
9. **NOTE:** It should be noted that if the User on vacation is a Team Lead for any Teams where there are no Technicians available for new request assignment, the system will allocate new requests to the Team Lead, regardless of their vacation status.

The Supervisor Events calendar in the Home Tab shows when Users on vacation:



Aliases Tab

NOTE: This is only applicable if the User has the Customer Role.

Use the Aliases tab to enter additional email addresses. Email addresses in the Aliases tab allow the User to send emails to the System or Team support addresses from more than one address. The system creates requests from these emails. Notifications for requests created using an address in the Aliases tab, are sent to the main email address and cc'd to the alias address that was used to create the request.

When one or more alias email addresses have been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the most appropriate email address to be set as the default address applied to Customer correspondence. When the Send To field is set to an alias address the Primary Email address is not included in the cc list, unless specified in the request Information tab cc list.

To add an alias email address:

1. Select User>Users
2. Click on the User name

   The User Information screen appears.
3. In the Information tab, click Edit
4. Select the Aliases tab
5. Enter an alias email address
6. Click Save

   When an alias email address has been created for a Customer, a Send To field is displayed on the Customer Information screen, which allows the alias email address to be set as the default address applied to Customer correspondence.

7. **NOTE:** An alias will only be used if the User has a Customer Role.

Team Tab

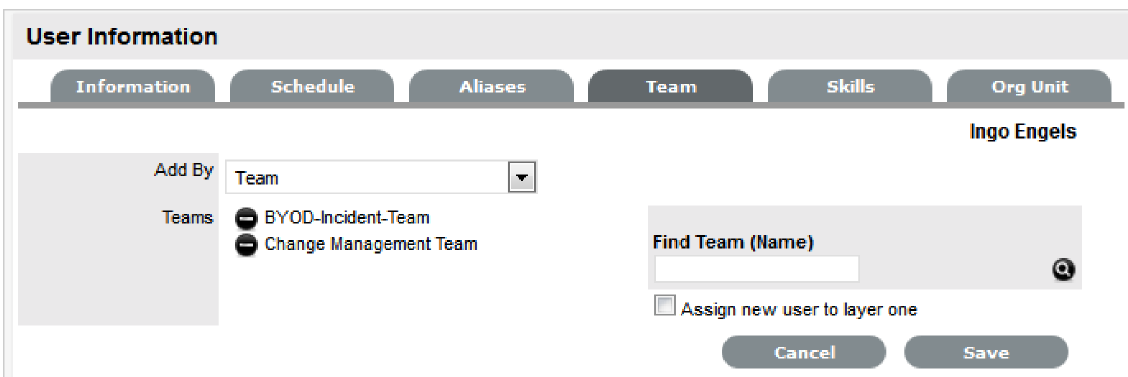
The User Team tab lists Teams associated with the selected User. Use this section to assign the User to one or more support Teams, making the additions by Team or job Assignment templates that have been configured in the system. Processes selected in the Information Tab for the User determine the Teams available in the Team tab.

Once a User is assigned to the Team, the Supervisor must configure the escalation layers for the Team to include the new User. However, the User can easily be added to Layer One of escalation when associated with a new Team by ticking the "Assign new users to layer one option" when assigning the Team within this tab. Also, if Assignment templates are created in the system, by selecting the Team template, the User will automatically be added to Teams,Escalation Layers and Work Groups configured within the selected template.

NOTE: The User must be assigned the relevant Processes for Support Teams to be shown in Team search results. If an Assignment template is selected and includes Teams for Processes the current User is not allocated, those Teams will not be included on the template.

To add a User to a Team within the Team tab:

1. Click Edit



2. Using Add By Team, enter a Team Name in the Find Team field and click

   Or, leave the field empty and click . The Teams for Processes that the User is assigned are displayed in the search results.
3. Tick "Assign new user to layer one", if relevant
4. Select a Support Team link

   The User is assigned to the Team and layer one of escalation if appropriate.
5. Click Save

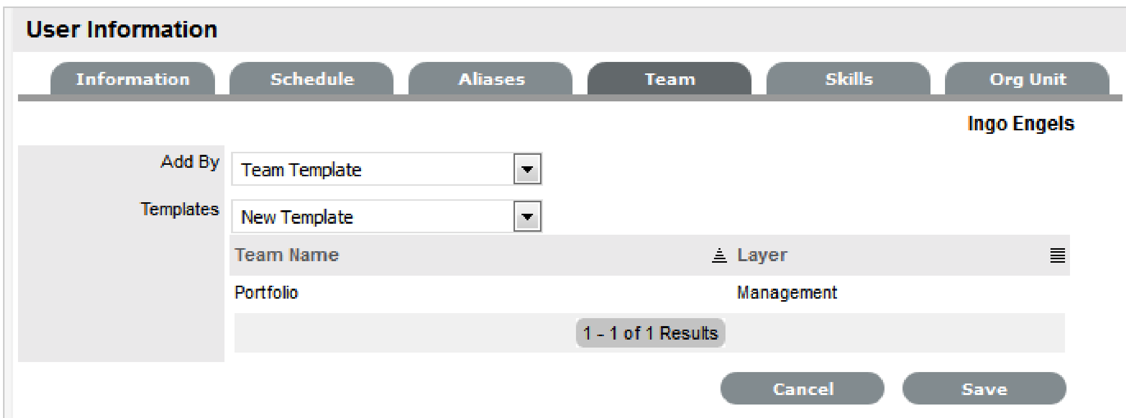
To add a User to a Team within the Team tab using Assignment templates:

1. Click Edit
2. Within the Add By field, select Team Template

   Job Assignment Templates that have been configured in the User>Assignments tab are displayed, but only including Teams consistent with the Processes assigned to the User.

3. Select one or more Template options
4. Click Save.

   The User is automatically included in the Teams, Escalation Layers and Work Groups configured in the Template.



To remove a User from a Team:

1. Select User>Users

   The User Information screen appears.
2. Click on the name of the User
3. Select the Team Tab
4. Click Edit
5. Select  to remove a Team assignment
6. Click Save
7. Click Done

8. **NOTE:** If a User is the Team Lead or the only person assigned to an escalation layer they cannot be removed from a Team under this tab.

Skills Tab

Use this section to assign any specific Classifications that are to be handled by a Supervisor, Technician or Partner. This assignment assumes areas of expertise for Users assigned to these Classifications. This allows the system to automatically route requests logged against these Classifications to the most appropriate User.

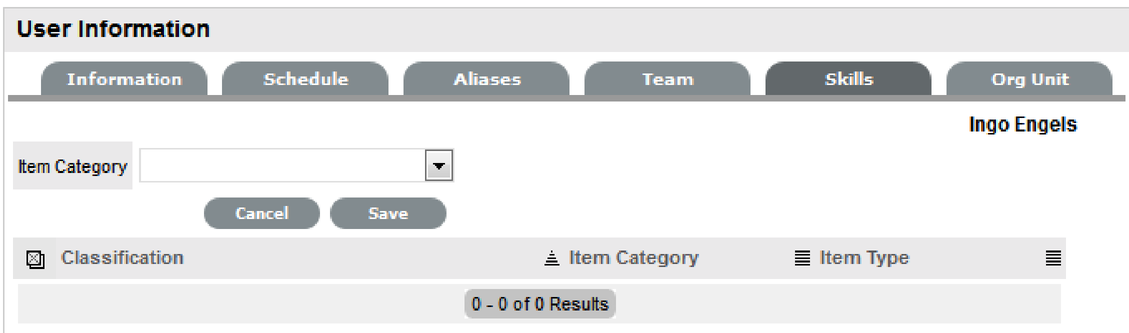
NOTE: Prior to using the Skills tab, the Supervisor should configure Items and Classifications.

Assigning a Classification

To assign a Classification:

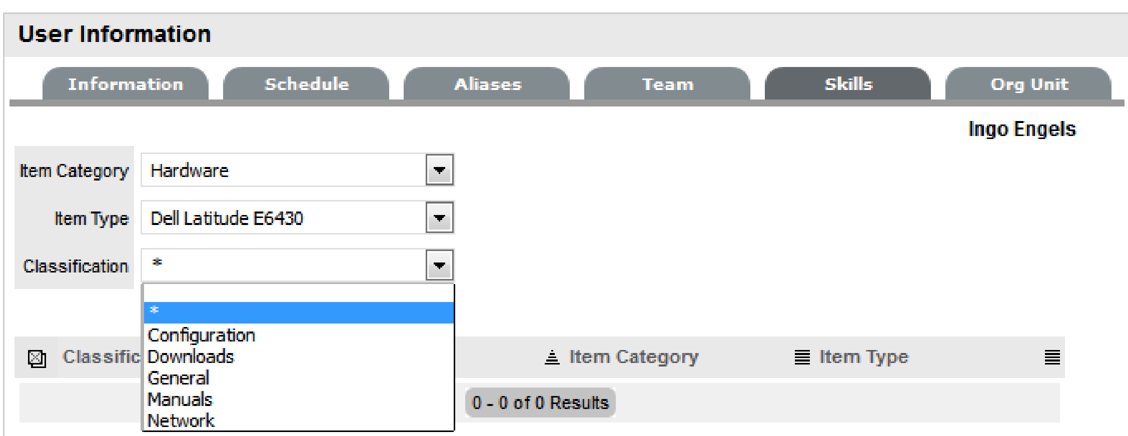
1. Select User>Users>Skills
2. Click Edit to display the Add button
3. Click Add
4. Select the Item Category

   The Item Type and Classification Type drop-down list is displayed.



5. Choose an Item Type, if relevant
6. Select * to assign all Classifications as Skills or choose a specific Classification

   The list displayed will include all Classifications configured for the Item Category and the Item Type, if an Item Type is selected.



7. Click Save
8. Click Done

NOTE: The Classification assigned to the User is either based on the Classifications of an Item Category or Item Type, hence displaying two columns. However, the Item Type column will only include information when the Classification selected is specific to that Item Type, and not directly related to the Item Category.

To remove a Classification:

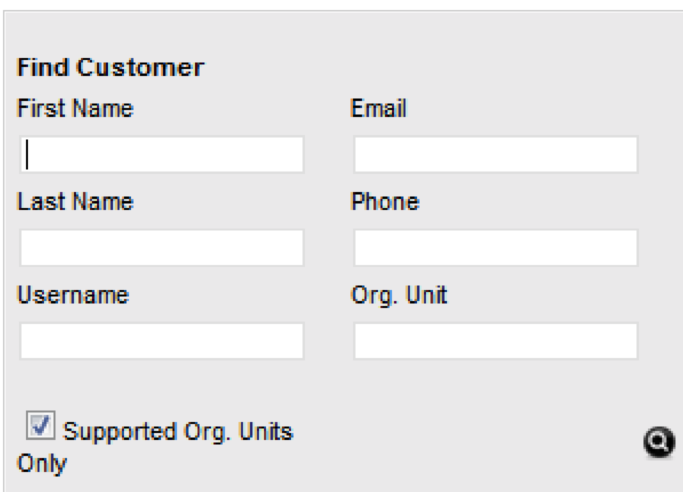
1. Select User>Users

   The User Information screen appears.
2. Click on the name of the User
3. In the Skills tab, click Edit

   The Delete button appears at the bottom right.
4. Click the checkbox next to the Classification. Multiple Classifications can be checked
5. Click Remove
6. Click Done

Org Unit Tab

Use this section to assign one or more Org Units to a Supervisor, Technician or Partner, which will result in requests that are logged by these Org Units being routed to the assigned Users. When Users are assigned to support Organizational Units, the Find Customer option during the request creation process displays the "Supported Org. Units Only" option. This limits the Customer search results to those Customers who belong to the Org. Units the logged in Technician is assigned to support.

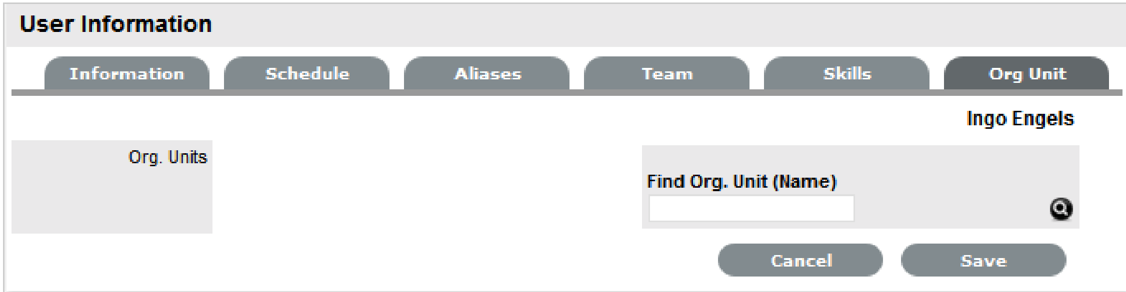


Assigning an Org Unit

To assign an Org Unit:

1. Select User>Users>Org Units

2. Click Edit to display the Find Org. Unit search field
3. Enter any known Org. Unit details or leave the field blank to return the full list of Org. Units recorded in the system



4. Click
5. Click on the Org. Unit name hyperlink to associate it with the User

   Multiple selections may be made, if required.
6. Click Save

Removing an Org Unit

To remove the association between a User and an Org Unit:

1. Select User>Users

   The User Information screen appears.
2. Click on the name of the User
3. In the Org Units tab, click Edit
4. Select next to the relevant Org Unit/s

   The Org Unit/s details are removed from the tab
5. Click Save
6. Click Done

Re-enabling Deleted Accounts

Administrators have the ability to reactivate deleted User accounts.

To enable a deleted account:

1. Within the User>Users tab, select the Search button
2. Select Deleted as the Account Status search option
3. Click Search

   A list of deleted Users is displayed.
4. Select a User to re-enable

   The User information page appears.
5. Click the Enable button, to reactivate the account.

   The User account becomes active and is available within the application.

3.3.3 Importing Users using LDAP/Active Directory Server (External Authentication)

Administrators can connect the system to a Directory Server for User authentication purposes. This removes the need to create User accounts as it allows the application to synchronize User accounts and access levels with an existing Directory Server. It has the added benefit of allowing the Administrator to work with existing infrastructure.

As part of the mapping process, if no values exist on the authentication server for a mapped field, no drop-down menu will appear and Users cannot edit the field.

When the authentication server is used, the User's password is not visible through the service management application, regardless of whether the User is new or existing in the system. This is due to the User's account being validated against an authentication server account rather than a system account. The password is stored in the authentication server's database and it is not accessible through the application.

Also, Users using LDAP or Active Directory authentication are not able to edit their first name, last name, LDAP/ADS username or email address. These fields are stored on the authentication server and cannot be modified within the service management tool.

To import Users using a directory server, see Authentication.

3.4 Assignments

The Assignments tab allows job function templates to be created for new and existing Technician Users. Users can be assigned to multiple Teams, Escalation Layers and, for new Users, Processes by applying the templates. Administrator and Supervisor Users can apply these templates within the User Information screen for new Users, and the Team tab of the User Information screen for existing Users who are assigned the relevant Processes.

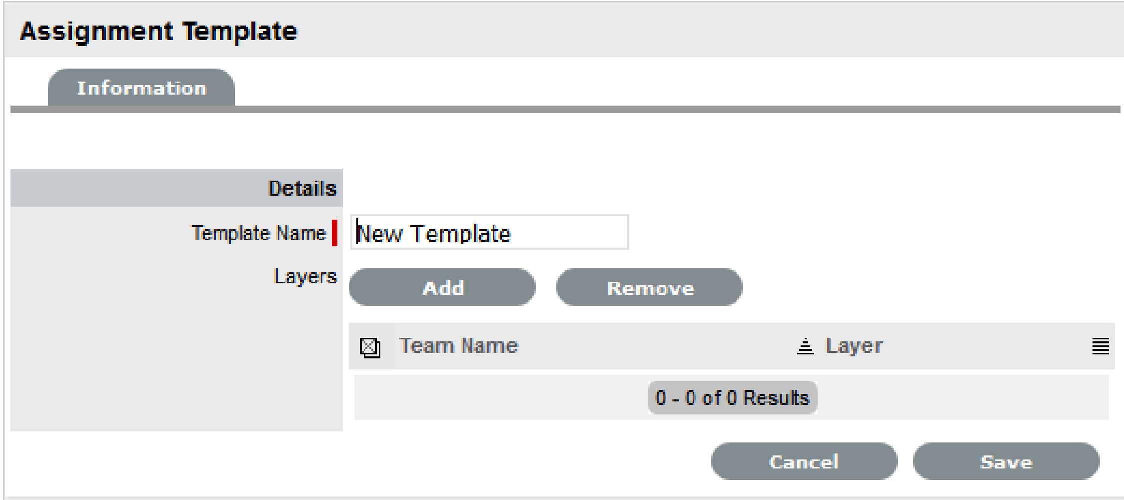
For example, a Frontline Support template may be created, where a User is assigned to Layer 1 of an Incident Team and a Work Group of a Service Request Team. They may also be assigned to an Update Customer Group within a Change Management Team. This template could then be easily applied to all Users created directly in the system, within the User Information screen. Or, if the User was created using an authentication server, the template could be applied within the Team tab of the User Information screen.

3.4.1 Creating an Assignment Template

Before creating an Assignment template, be sure all the relevant Teams and Escalation Layers or Groups exist in the system. However, should you create additional Teams, Escalation Layers or Groups at a later date, the Assignment template can easily be updated.

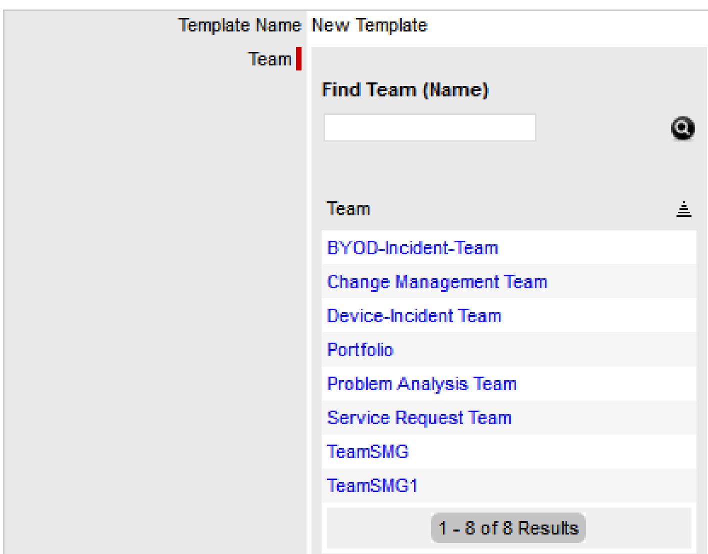
To create an Assignment Template:

1. Select User>Assignments
2. Click New



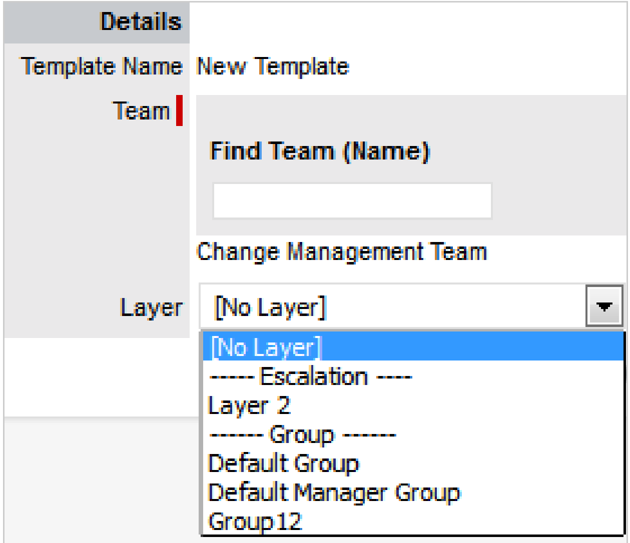
3. Enter the Template Name
4. Click Add

   The Find Team editor is displayed.
5. Enter a Name to find a specific Team, or leave the field blank to return a list of all Teams and click

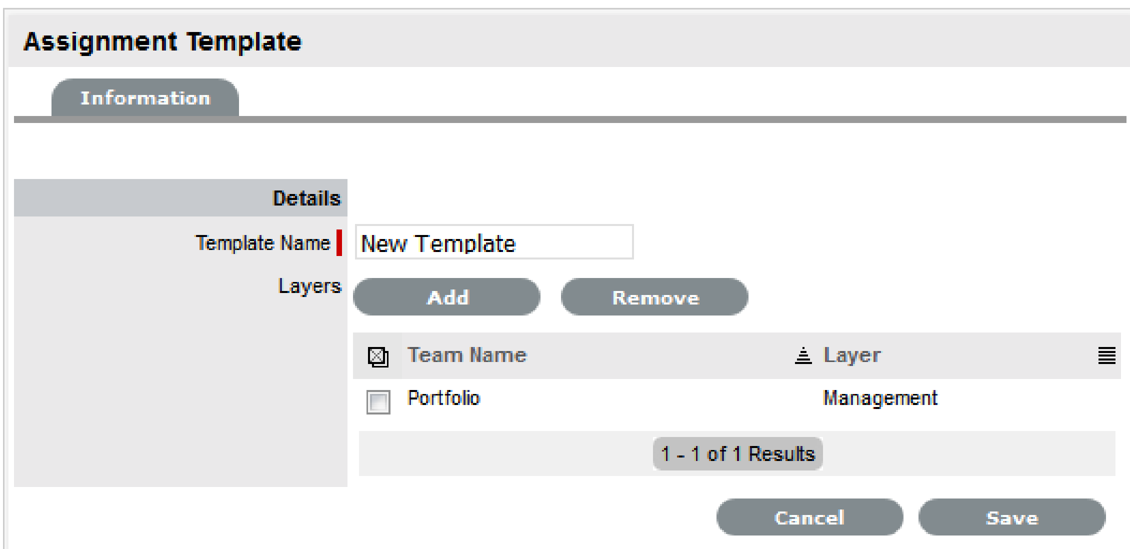


6. Select the Team name link

   The Layer or Groups drop down list is displayed.
7. Select an option from the available list



8. Click Save
9. Repeat steps 4 to 8, until all relevant assignments have been created for the template



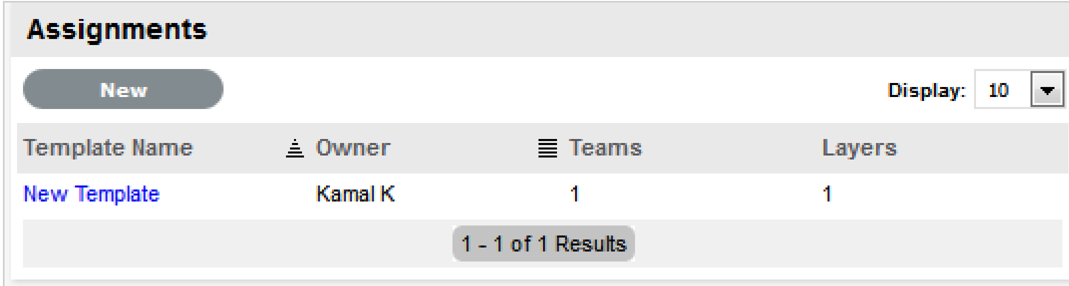
10. Click Save.

    The template is now available within the User Information screen for new User creation, or the Teams tab for existing Users.

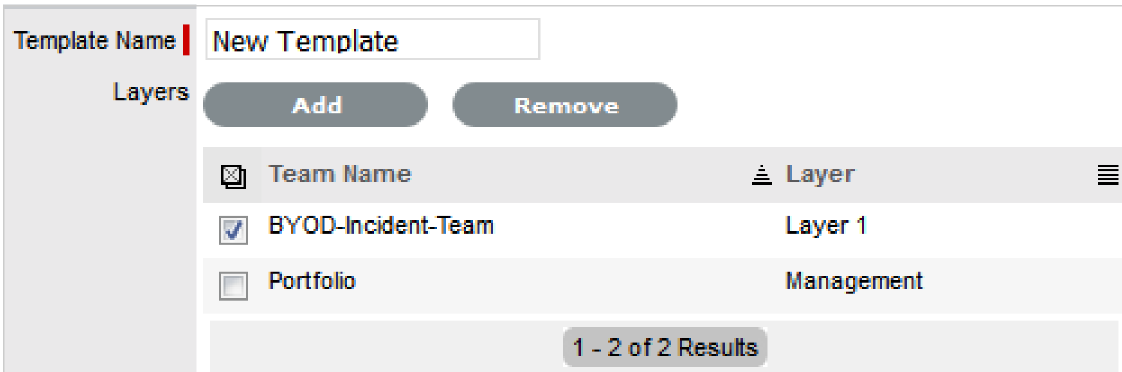
3.4.2 Editing an Assignment Template

To make changes to an existing User Assignment template, such as adding or removing Teams and the related Layer or Group assignment:

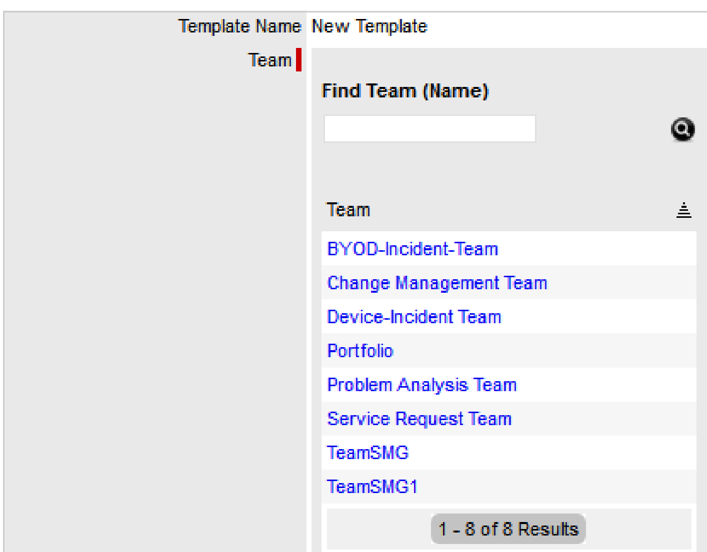
1. Select User>Assignments



2. Click on the relevant Template Name hyperlink
3. Click Edit
4. To remove a Team/Layer association, check the box next to the Team Name



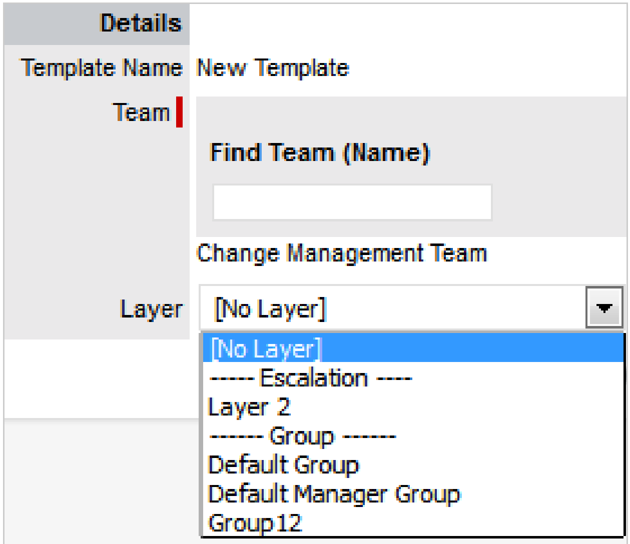
5. Click Remove
6. To add a Team/Layer association, click Add
7. Enter a Name to find a specific Team, or leave the field blank to return a list of all Teams and click



8. Select the Team name link

The Layer or Groups drop down list is displayed.

9. Select an option from the available list



10. Click Save
11. To save all changes, click Save.

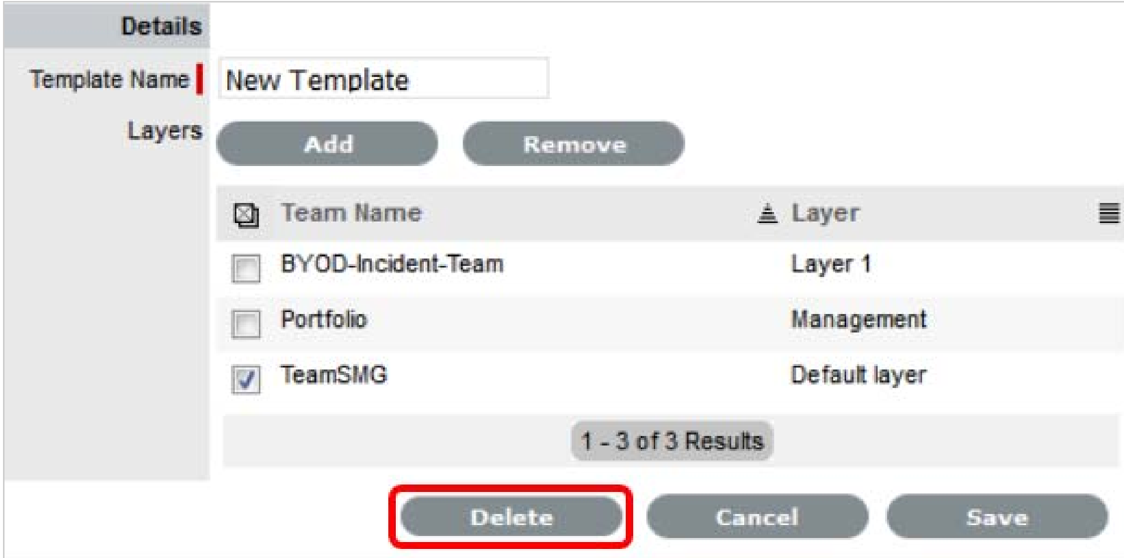
    The screen defaults to the Assignments list view.

3.4.3 Deleting an Assignment Template

To delete an Assignment template from the system:

1. Select User>Assignments
2. Click on the relevant Template Name hyperlink
3. Click Edit
4. Select Delete

    A warning message is displayed.



5. Click OK.

   The screen defaults to the Assignments list view.

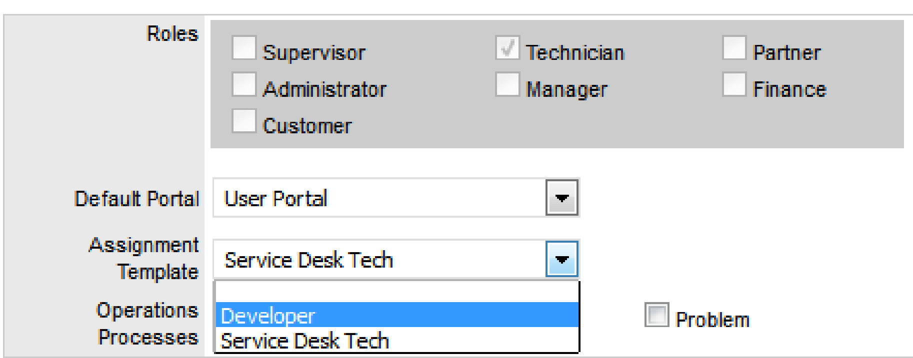
3.4.4 Applying Assignment Templates to New Users

For new Users created directly in the system, the Assignment template is available within the User Information screen. By selecting a template, the newly created User is automatically associated with all relevant Processes, Teams, Escalation Layers and Groups. To remove a Team assignment after a template has been applied during the new User creation, deselect the Process and the Team Name will be removed from the assigned list.

To use an Assignment template for a new User:

1. Select the User>Users tab
2. Click New
3. Enter the User details
4. Within the Assignment Template field, select the relevant option

   All Processes are automatically ticked for the User.



5. Uncheck any Processes that are to be removed for the User

The Team association will automatically be removed from the Team Name list.

6. Complete remaining User details, including assigning a Supervisor and Email address
7. Click Save.

3.4.5 Applying Assignment Templates to Existing Users

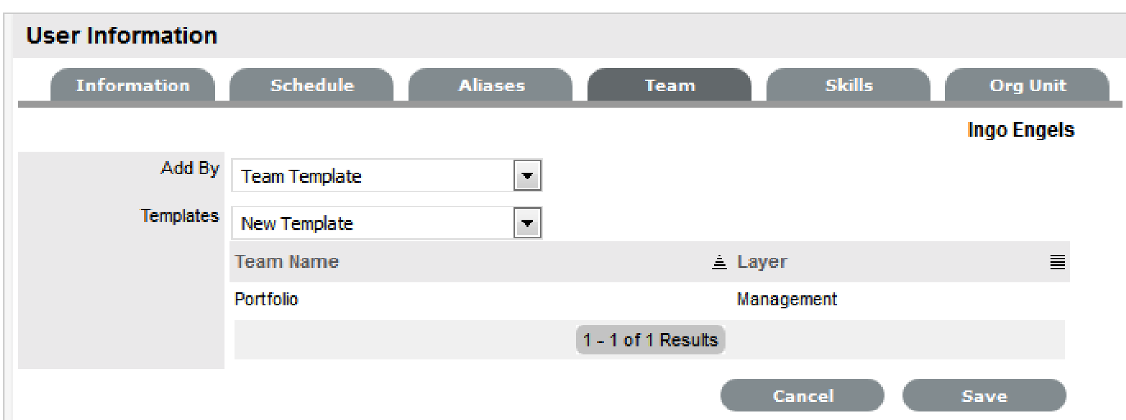
For Users who have active accounts in the system and are assigned the relevant Processes, the Assignment template is available within the Team tab of the User Information screen.

To apply a template to an existing User:

1. Go to User>Users
2. Select the Technician Name hyperlink
3. Click Edit
4. Verify the User has all the relevant Processes with the User Information screen
5. Select the Team tab
6. Within the Add By field, select the Team Template option

   The drop down list of Templates is made available.

7. Select the relevant Template from the list
8. Click Save.



3.5 About Roles

3.5.1 User Roles

There are seven access levels in the system that determine the functionality and privileges. These include the Administrator and Customer Roles, plus five User Roles:

- Supervisor
- Technician
- Partner
- Manager
- Finance

A Default Role is assigned if multiple Roles are allocated to an individual.

A User can have more than one Role but only one of the licensed Roles of:

- Supervisor
- Partner
- Technician

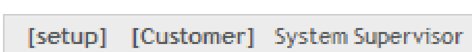
Default Portal

Individuals can be allocated more than one Role. For Users assigned more than one Role, define a Default Portal within their Information screen. When they log into the system, the Default Portal is displayed and they can move to other Portals using the links provided next to their login name.

The Default Portal options include Customer, Setup for system Administrators and User, for those assigned a Supervisor/Technician/Partner, Finance and Manager Role(s).

When a person has multiple Roles, the Default Role is used to log into the system and the privileges of multiple User Roles are consolidated in one view. For example, if a User is assigned Finance, Manager and Supervisor/Technician access, they can view all functionality related to these Roles within the User view.

When the User is also assigned Admin and Customer access, next to their login name, the options of Setup and Customer will be displayed.



The Administrator can access the admin functionality within the Setup view. If the Administrator is also assigned User and Customer access, next to their login name, the options of Setup and Customer will be displayed.

Users or Administrators who are also assigned Customer access can view the Customer Portal through the Customer link displayed in the sub-menu bar. Whilst logged in as the Customer, the options of User and Admin Portal will be displayed within the Customer Portal sidebar Menu.

To move to another User Role portal:

1. Log in using the credentials for the default User Role
2. Click on the Setup/User/Customer link, as required.

   The screen defaults to the selected functionality.

3.5.2 User Processes

The service management application includes processes to manage the different types of requests:

- Service Requests
- Incidents
- Problems
- Change Requests
- Release and Deployment
- Service Level Management

NOTE: Service Requests, Problem, Change, Release and Deployment Management apply based on installed license.

When User accounts are created, access to Incident, Problem, Change, Release, Deployment, Request, Service Level, Configuration and Knowledge Management processes are allocated to the Roles. Allocating processes gives the User access to requests and information within each assigned process.

Providing access to the licensed processes of Incident, Problem, Change and Service Requests means the User can be assigned as a member of support Teams within that process.

Setting access to the support process of Service Level Management displays the Service Tab for the User when they log into the application. This allows the User to create and edit SLAs, OLAs and Underpinning Contracts.

When the privileges of Configuration and Knowledge are selected, the options to define control at a more granular level are displayed in the User Information screen, and Users can be assigned permission to create, edit, delete and publish elements within these processes.

The following User Roles have limitations for the processes they are assigned:

- The Finance Role can only be assigned Configuration and Service Level Management
- The Management Role can be allocated all processes but with 'Read Only' access.

3.5.3 User Roles & Privileges

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Modules & Features							
Setup							
Email Setup and email customization	Yes						
Create Custom Fields	Yes						
Set User, Customer & System Privileges	Yes						
UI customization	Yes						
Dynamic database switching	Yes						
Schedule LDAP/ADS Integration	Yes						
Item import via AMIE or .CSV file	Yes						
Customer Import	Yes						
Scheduled Reports	Yes						
Incident Analyzer for Problem Management	Yes						

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Enable Billing module	Yes						
Customize Workflows		Yes					
Customize System Messages and Keywords	Yes						
Chat		Yes	Yes	Yes			Yes
Context Sensitive Help	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Create Users	Yes	Yes					
Assign User Roles & Processes	Yes	Yes					
Create Teams, Escalation layers & Workgroups		Yes					
Create Customers	Yes	Yes	Setup	Setup	Setup	Setup	
Enable Customer access	Yes	Yes	Yes	Yes	Yes	Yes	
View/ Edit Customer	Yes	Yes	Yes	Yes	Yes	Yes	
Search Customers	Yes	Yes	Yes	Yes	Yes	Yes	
Re-enable deleted Users & Customers	Yes						
Create Organizational Units		Yes	Yes	Yes	Yes	Yes	

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Assign Contracts to Cust Org. Units	Yes	Yes	Yes	Yes	Yes	Yes	
Incident Managemen t							
Create/Edit Incidents		Yes	Yes	Yes			
Delete Incidents		Yes					
View/ Edit other Technicians' Incidents		Yes	Setup				
Re-assign Incidents		Yes	Setup	Setup			
Escalate Incidents		Yes	Setup	Setup			
View all Incidents		Yes	Setup				
Handshaking		Yes	Yes	Yes			
Incident Groups		Yes	Yes	Yes		Yes	
Impact analysis		Yes	Yes	Yes		Yes	
View Proposed Solutions		Yes	Yes	Yes			
Incident analysis		Yes	Yes	Yes			
Subscribe to RSS feeds		Yes	Yes	Yes			
Request Fulfilment							
Create/Edit Service Requests		Yes	Yes	Yes			

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Delete Service Requests		Yes					
View/ Edit other Technicians' Service Requests		Yes	Setup	Setup			
View all & re-assign Service Request		Yes	Setup	Setup			
Approve Service Request						Yes	Yes
Escalate Service Request status		Yes	Yes	Yes		Yes	
Handshaking		Yes	Yes	Yes			
View Proposed Solutions		Yes	Yes	Yes			
Service Request Groups		Yes	Yes	Yes		Yes	
Impact analysis		Yes	Yes	Yes		Yes	
Update Workflow State		Yes	Yes	Yes			
Problem Management							
Create/Edit Problems		Yes	Yes	Yes			
Delete Problems		Yes					

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
View/ Edit other Technicians' Problems		Yes	Setup				
Re-assign Problems		Yes	Setup	Setup			
Escalate Problems		Yes	Setup	Setup			
View all Problems		Yes	Setup				
Create Known Errors		Yes	Yes	Yes		Yes	
Impact analysis		Yes	Yes	Yes		Yes	
View Proposed Solutions & Workarounds		Yes	Yes	Yes			
Problem analysis		Yes	Yes	Yes			
Create Workarounds		Yes	Yes	Yes			
Change Management							
Create/Edit Change Requests		Yes	Yes	Yes			
Delete Change Requests		Yes					
View/ Edit other Technicians' Change Requests		Yes	Setup	Setup			

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
View all & re-assign Change Request		Yes	Setup	Setup			
Escalate Change Request/ Change CR status		Yes	Yes	Yes		Yes	
Approve Change Request						Yes	Yes
Change Groups		Yes	Yes	Yes		Yes	
Impact analysis		Yes	Yes	Yes		Yes	
Create Back Out procedure		Yes	Yes	Yes			
Update Workflow State		Yes	Yes	Yes			
Release & Deployment							
Create/ Delete Tasks		Yes					
Edit Tasks		Yes	Yes	Yes			
View/ Edit other Technicians' Tasks		Yes	Setup	Setup			
View all & Re-assign Tasks		Yes	Setup	Setup			
Define a Release		Yes				Yes	
Define a Deployment Package		Yes				Yes	

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Control Release Lifecycle		Yes				Yes	
Create and Modify Workflow		Yes					
Service Asset & Configuration, Service Portfolio & Service Catalog Management							
Create/Edit/ Delete Items		Yes	Setup	Setup	Setup	Setup	Setup
View/Edit Items		Yes	Yes	Yes	Yes	Yes	
Search Items		Yes	Yes	Yes	Yes	Yes	Yes
Re-enable deleted Items		Yes					
Create Item Categories, Types & Classifications		Yes					
Create Outages		Yes	Setup		Yes	Yes	
View Outages		Yes	Yes	Yes	Yes	Yes	Yes
Assign Contracts		Yes	Yes	Yes	Yes	Yes	
Service Level Management							
Define SLAs		Yes	Yes		Yes	Yes	

Service Manager User Roles and Privileges	**Administrator**	**Supervisor**	**Technician**	**Partner**	**Finance**	**Manager**	**Customer**
Define Underpinning Contracts		Yes	Yes		Yes	Yes	
Define OLAs		Yes	Yes		Yes	Yes	
Create Vendors		Yes	Yes		Yes	Yes	
Create SLA Breach Codes		Yes					
View SLA breaches		Yes	Yes		Yes	Yes	
Financial Management							
Create Purchase Orders					Yes		
Process Purchase Orders					Yes		
Create and Assign Contracts					Yes		
Process Contracts					Yes		
Create and Process Invoices					Yes		
Create, Manage & View Item Costs					Yes		
Forecast Service Item Costs					Yes		
Knowledge Management							

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Create Articles/ FAQs		Setup	Setup	Setup		Setup	
Publish Articles		Setup	Setup	Setup		Setup	
Create Article Groups		Yes	Setup	Setup			
Search Articles		Yes	Yes	Yes		Yes	Yes
Administer Forums		Setup	Setup	Setup			
Create/ Modify/ Reply to topic threads		Setup	Setup	Setup			Setup
Create Surveys		Setup	Setup	Setup		Setup	
Complete Surveys		Yes	Yes	Yes	Yes	Yes	Yes
Reports							
KPI Reports		Yes	Yes			Yes	
Incident Reports		Yes	Yes			Yes	
Problem Reports		Yes	Yes			Yes	
Change Request Reports		Yes	Yes			Yes	
Configuratio n Reports		Yes			Yes	Yes	
Service Agreement Reports		Yes			Yes	Yes	
Contract Reports		Yes			Yes	Yes	
Organization Reports		Yes			Yes	Yes	

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Technician Reports		Yes				Yes	
Knowledge Reports		Yes	Yes			Yes	
Finance Reports		Yes			Yes	Yes	
Login Reports	Yes	Yes				Yes	
System Reports	Yes	Yes					
Build Reports		Yes			Yes	Yes	
Custom Reports		Yes				Yes	
Home							
Create Alerts	Yes	Yes	Setup				
View Alerts	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enable Quick Calls	Yes						
Create Quick Call Templates		Yes					
Set User Preferences	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Disable receiving personal email	Yes	Yes	Yes	Yes	Yes	Yes	
Dashboard across Processes		Yes	Yes	Yes		Yes	
Customer Portal							
Create/ View/Edit requests							Yes

Service Manager User Roles and Privileges	Administrator	Supervisor	Technician	Partner	Finance	Manager	Customer
Edit & close existing requests							Setup
View Proposed Solutions							Yes
Search Knowledge Base							Yes
View FAQ's							Yes
View Service Catalog							Setup
Create Items							Setup
View Outages							Yes
Chat Technician regarding request							Setup
Search Forums							Setup
Complete Surveys							Yes
Subscribe to RSS feeds							Yes

3.5.4 Administrator Role

The Administrator Role performs System Configuration and Setup tasks including:

- Customizing the application and automated messages
- Configuring the interaction between external systems, including the authentication servers and asset management tools
- Enabling Customer, User, Request and System Privileges
- For systems with Problem Management, set parameters for automatic Problem identification and creation.

NOTE: Multiple Administrator Roles can be created within the system

It is recommended that organizations create only one or, at maximum, two Administrators. Only an existing Administrator can create other Administrator accounts.

If a User is assigned multiple Roles, the privileges are consolidated within a single User view. See: Changing Roles.

3.5.5 Supervisor Role

The Supervisor Role provides maximum access to the system for day-to-day management of the service desk and configuration control.

Supervisor Users can:

- Create User and Customer accounts
- Assign Roles & Processes
- Build workflows
- Configure the CMDB
- Allocate Technicians to Teams and Escalation Layers
- Define Service and Operational Level Agreements (SLAs and OLAs) for the organization.

The Configuration Management Database (CMDB) is the central data repository for the support tool. The CMDB allows centralized management of IT infrastructure through Configuration Items (Items). Within the application, everything is tied to Items in the CMDB. Supervisors control the configuration of the CMDB, which includes:

- Item Categories
- Lifecycle Templates
- Item Types
- Classifications
- Configuration Items

NOTE: The ability to create Items can also be assigned to other Roles, if the Administrator has enabled the option

If a User is assigned multiple Roles, the privileges are consolidated within a single User view. See: Changing Roles.

3.5.6 Technician Role

The Technician Role is assigned to service desk staff who work on requests.

Technicians are allocated support Processes and can then be assigned to Teams and Escalation Layers. Technicians can belong to any number of Teams within Processes.

When enabled by the Administrator, Technicians can:

- Create new Customers
- Create new Items

- Reassign requests
- Edit other Technicians' requests
- Create Alerts
- Create, edit, publish and delete Knowledge Base Articles by default.

NOTE: Every Technician must be assigned to a Supervisor

If a User is assigned multiple Roles, the privileges are consolidated within a single User view. See: Changing Roles.

3.5.7 Partner Role

A Partner User is assigned to a Partner Organization and has the same privileges as a Technician User, but can only view and support Customers associated with their assigned Partner Organization.

A Partner Role gives a User the ability to:

- Manage their Customers
- Manage their Customers' requests
- Create and maintain their Customers' Items
- View reports

Users who are assigned the Partner Role must be associated with a Partner Organization, and this is done manually within the User Information screen or within the Partner Organization > Technician tab. Partner Organizations are used in the management of requests between Customers/ Organizational Units and external service providers within the support system. It allows multiple Partner Users to be available within a Team, and assigned at relevant levels of escalations for working on requests.

If a Partner User is created and not associated with a Partner Organization, they cannot be assigned to a Team and therefore cannot be assigned to work on requests.

When a request is created for a Partner Organization's Customer it is automatically allocated to the Partner User within the Partner Organization.

3.5.8 Manager Role

The Manager Role is a User who can oversee the activities of the service desk or specific Processes. Managers have access to most parts of the system, primarily on a *read-only* basis.

The Manager access can be provided to Users who do not actively participate in the day-to-day happenings of service and support Teams, but may require detailed information about the actions and status of requests.

As a Manager, the User can:

- Create Customers
- View requests within their allocated Processes
- Access the full range of reports

- Create and modify Items
- Approve Service and Change Requests. (Based on licenses for Service Manager product.)

Users who manage the service desk and are to be included in Teams with edit access to requests, should be allocated a Supervisor Role.

NOTE: If a User is assigned multiple User Roles, the privileges are consolidated within a single User view. See: Changing Roles.

3.5.9 Finance Role

Users with the Finance Role are assigned Service Level Management and Configuration Management by default. Their Role is primarily for driving the service costing models and, if relevant, maintaining the Billing module that uses system Contracts and Purchase Orders.

A Finance User can:

- Create Customers and Items
- Project end to end Service costs
- Complete access to SLA's and OLA's
- Access reports
- Bill for services
- Process payment for Invoices
- Cancel Maintenance Contracts
- Manage IT and Service Assets

NOTE: A User assigned the Finance Role is the only User with the privilege to process the payment of Invoices

This is relevant for systems that have the Invoice option enabled in the Billing Setup.

If a User is assigned the Supervisor and Finance Role, the privileges are consolidated within a single User view. See: Changing Roles.

3.5.10 Customer Role

The Customer Role is for users who submit Service Requests, Incidents and possibly Change Requests to the service desk.

Within the system, based on the system configuration, Customers can:

- Create and manage requests via email
- Create, view or edit their requests through the Customer Portal
- Self-diagnose issues using the Knowledge Base
- Access proposed Solutions during the request creation process
- Participate in a live chat with Technicians to discuss their issues
- Subscribe to RSS feeds for the latest information on their requests

- Access the Knowledge Base, Forums and FAQs
- Customers have access to their Items' Outages information
- View all Services offered by the Service Organization, if enabled for the system
- Approve Service and Change Requests. (Based on licenses for Service Manager product.)

4 Reports

4.1 Reports

The Reports tab is used to view:

- Login Reports
- System Reports
- Log

These reports provide the Administrator with details of system activity in real time. The Reports outline who has logged into the system and how the application is performing. The Login report can be used to log out Users who have closed a session without logging out.

Within the Log tab, the Administrator can view the system log files and export them when they require assistance with the system.

4.2 Login Report

The information displayed on the Login Report screen includes:

- Recent Logins with IP addresses, host details and login dates for Users who recently accessed the system
- Alert Manager Statistics showing active Alerts in the system

  Alerts can be created manually by Users and automatically by the system to notify Users about service and support activities.
- Current sessions, with an End Session option at the bottom of the screen.

NOTE: Administrator Users can click on Logout to end a User's session. This may be required if a User has disconnected from the system without logging out and needs access to log back in. This option is not required if the Terminate Active Session option is set to Yes in the Setup>Privileges>System tab.

4.3 System Reports

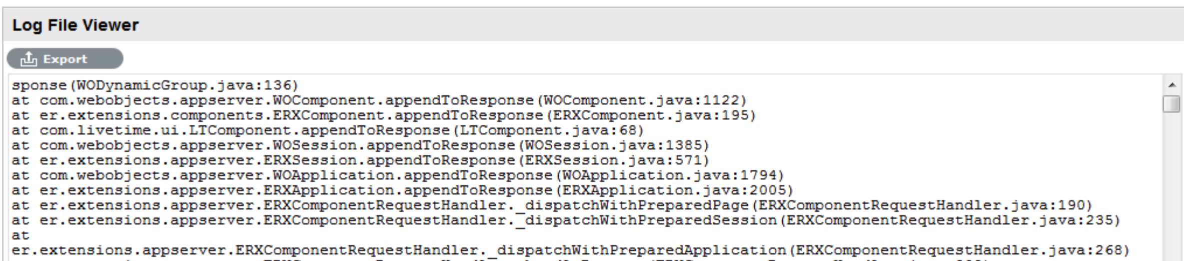
System reports are a real time summary of the system status and environment.

Report information includes:

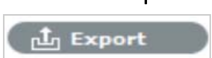
- Statistics including a summary of key system metrics regarding the current session, the hosting environment and memory usage
- Overall application and database statistics
- Tasks lists all background system jobs including Indexing, which allows the Supervisor to view that the system is indexing correctly without sticking
- Information about the Java Virtual Machine running on the server.

4.4 Log File View

To assist with the diagnosis of issues experienced when using the system, the Administrator can access system log files within the Log File Viewer screen. The information contains the last 250K of the 1MB log file.



4.4.1 Log File Request

Administrators experiencing issues with the application, can easily export their Log File information using 

. The output of a log file export, which includes system and license information, can then be uploaded to a pre-existing incident or emailed to your local system support team.

5 My Account

5.1 My Account

The My Account tab allows the User to:

- Edit personal information and notification preferences
- Reset their Username and password
- Set Password questions, if enabled in the system
- Select the Default Portal and Home tab landing page
- Set a Time Zone and Date Format

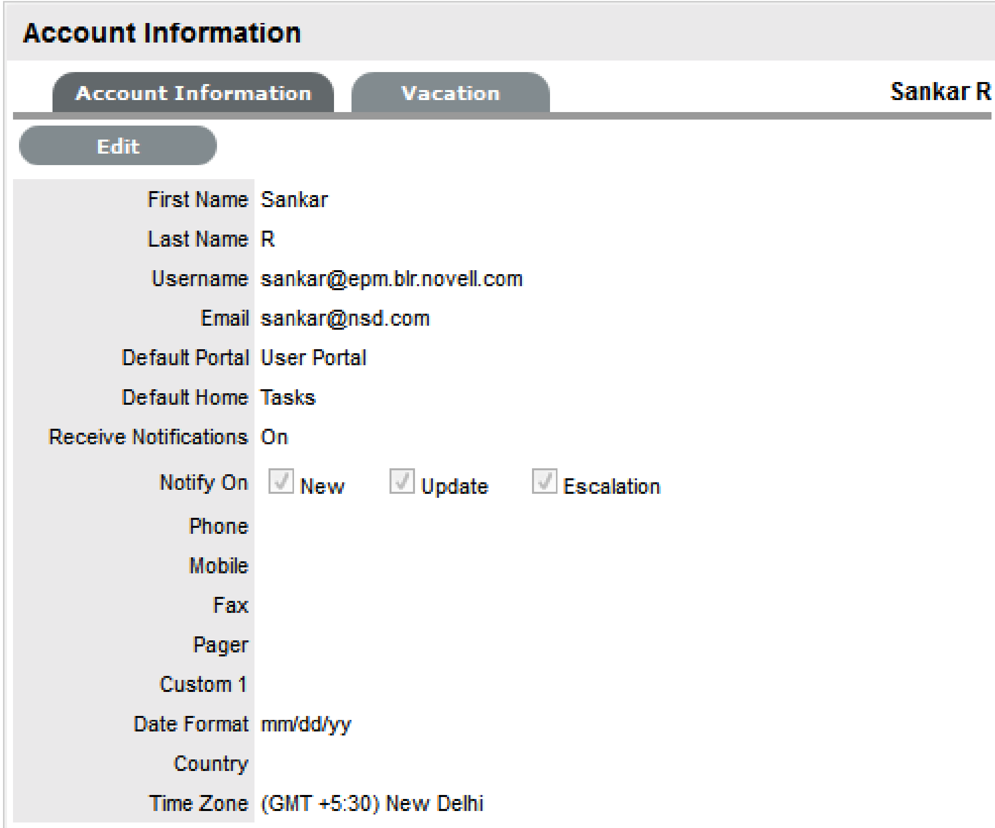
NOTE: Fields imported through an LDAP or Active Directory server cannot be changed.

5.1.1 Editing Account Information

To edit account information:

1. Select Home>My Account

   The Account Information screen appears.



2. Click Edit
3. Make the required changes

4.

Account Information	
First Name	First name of the Account User. If account information is imported via LDAP or Active Directory, First Name will not be editable.
Last Name	Last name of the Account User. If account information is imported via LDAP or Active Directory, Last Name will not be editable.
Username	Username name of the Account User.
Password	Password reset.
Confirm Password	Re-enter the password to confirm correct entry of the selected password.
Password Question One/Two	Select questions that are to be asked when the Lost Password link is selected in the Login Page and the challenge questions are required to verify Users details before re-sending the system password. (These fields are displayed when Password Questions option has been enabled in Setup>Privileges>System.)
Answer One/Two	Enter the answers to the questions.
Default Portal	Where a User has more than one Role, the Default Role will be the Role used at login.
Default Home	The User can define the tasks Home tab or the Dashboard tab as the default landing page when they log into the system.
Preferred Communication	Select Email or SMS as the preferred method of receiving updates from the system. This field is visible if the User also has a Customer Role in the system and the Customer Defined Contact option is enabled in Setup>Privileges>CustomerTab. It only applies, when the Team has the Customer Notification option set to Customer Defined.
Email	Email address for the Account User.
Receive Notification	When set to No the User will not receive system-generated emails when requests are created or updated. Irrespective of the setting in this field when a request is escalated to a User, an email notification will be sent.
Phone, Mobile, Pager	Telephone, mobile and pager details. If these fields are imported via LDAP or Active Directory they will not be editable.

Account Information	
Date Format	Preferred date format.
Country	When Country details are entered, if the Country has States, a States list will be displayed. (If the option is not available is the displayed list, additional options can be configured by the Administrator in Setup>Localization> Regions.)
Time Zone	User's Time zone
Available for Chat	Using this option Users can select whether they are available for a Chat request, when the Chat facility is enabled.

5. Click Save.

5.1.2 Receiving Email

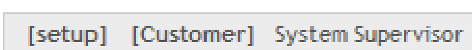
If a User does not wish to receive email notifications when they are assigned a new request, or when changes are made to a request (i.e., a new request Note has been logged by the Customer) set the Receive Email option to No.

It should be noted that regardless of what is selected for the Receive Email option, if a request is escalated to the User, a notification email is forwarded to them by the system.

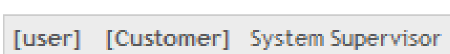
5.2 Changing Roles

If a User is assigned more than one Role in the application, they can switch to another Role after logging into the system that provides the User access to their assigned Default Portal.

The User Roles of Supervisor or Technician, Finance and Manager are consolidated within one User view. Therefore, if a User is assigned Finance, Manager and Supervisor/Technician access, they can view all functionality related to these Roles within the User view. If the User is also assigned Admin and Customer access, next to their login name, the options of Setup and Customer will be displayed.



The Administrator can access the administrator functionality within the Setup view. If the Administrator is also assigned User and Customer access, next to their login name, the options of User and Customer will be displayed.



Users or Administrators who are also assigned Customer access can view the Customer Portal through the Customer link displayed in the sub-menu bar. Whilst logged in as the Customer, the options of User and Admin Portal will be displayed within the Customer Portal sidebar Menu.

To move to another User Role portal:

1. Log in using the credentials for the default User Role
2. Click on the Setup/User/Customer link, as required.

   The screen defaults to the selected functionality.

5.3 Alerts

Alerts are an internal mechanism used by Administrators to notify Users about important issues relevant to them or their environment. System generated Alerts are created for Administrator Users when:

- An ADS/LDAP sync has been performed
- An AMIE Item import has been completed
- SLA warnings and breaches.

Alerts generated within the My Account tab can act as reminders or notifications for personal use, for a specific User, or for Users of a particular Role. Alerts can be scheduled to be published and dismissed.

Viewing Alerts

When an Alert is received, the Alert icon flashes in the top right corner, next to the login name:

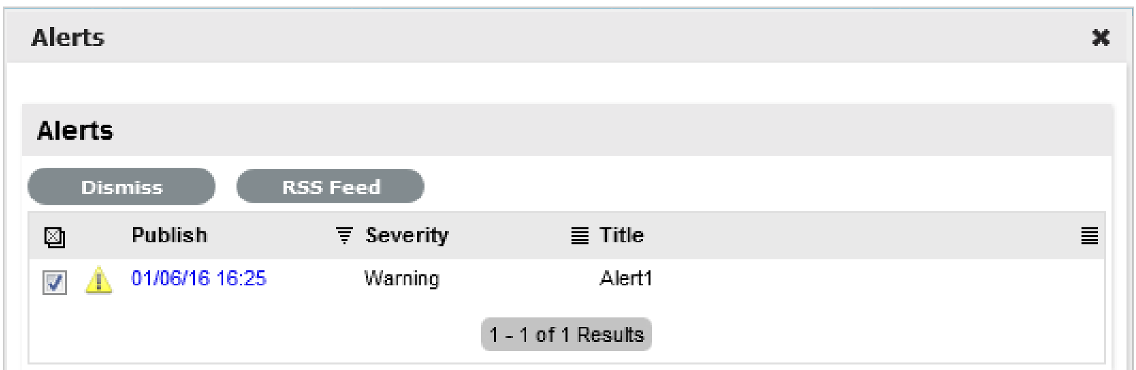
To view a received Alert:

1. Click on the icon

   The Alert screen opens with all current Alerts. The icon in the first column indicates whether the Alert is Information, a Warning or Urgent.

2. Click on the date link in the Publish column to view the details of the Alert
3. Click Done to close and retain the Alert

   Or, select Dismiss to delete it from the pop-up window and disable the flashing icon
4. To dismiss one or multiple Alerts within the Alerts list, check the boxes next to the relevant Alerts and then select the Dismiss option



5. To subscribe to RSS feeds for Alert updates, select the RSS button.

5.3.1 Creating Alerts

To create an Alert:

1. Select Home>Alerts
2. Select New

   The Alerts editor appears.
3. Enter a Publish and Dismiss date
4.

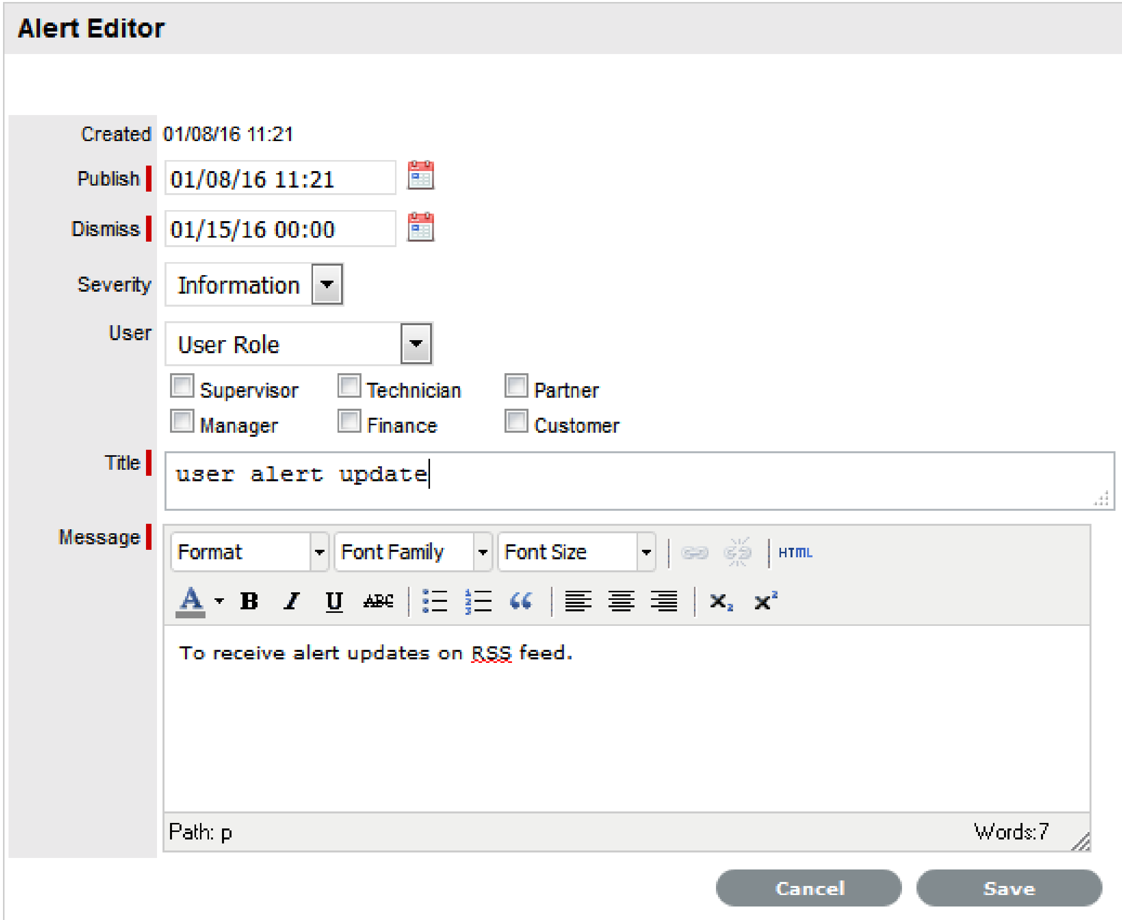
Alert Details	Description
Created	The current date and time.

Alert Details	Description
Publish	The date on which the alert is published. Use the calendar icon to the right of the field, to select a Publish date. Set to a date and time in the future for publishing the Alert.
Dismiss	The date the Alert ceases to be available. Use the calendar icon to the right of the field, to select a Publish date. On this date, the Alert will disappear from a User's Alert list.
Severity	The type of Alert to be published. The choices are: ◆ Information – for general Alerts ◆ Warning – to warn Users of potential issues ◆ Urgent – to publish an urgent actionable message. The icon appearing with the message will depend on the type of Alert.
User	The type of Users to receive the Alert, which include: ◆ Specific Customer or User ◆ User Role ◆ Personal Alert ◆ Organizational Units ◆ Public. In the Find User or Customer list, click search to select the recipient from the drop-down list. An Alert sent to a User Role will go to all Users with that Role. A personal Alert appears on the User's own screen at the Publish date. A Public Alert appears when the Public Alert link is selected on the Login Page.
Title	Enter the title of the Alert.
Message	Enter the main content of the Alert.

5. Select the Severity for the Alert message
6. Select the User

   Options include selecting User Roles, a specific User or personal.
7. Enter a Title for the Alert
8. Enter the Message content for the Alert
9. Click Save

Alerts with current Publish dates will be sent immediately.



10. Click Done.

5.3.2 Deleting Alerts

Alerts can be deleted within the List View by selecting one or more Alert checkboxes and clicking the Delete button. Alternatively, they can be deleted individually within the Alert Editor information screen by selecting the Delete button.

5.3.3 SLA Breach Alerts

Alerts are also used by the system to inform Users about SLA breaches. The Alert will be addressed to the User and assigned to the request that has failed to reach an SLA target. The breach will contain information such as the affected Request ID, and how the SLA has been breached.

6 Setup

The Setup enables the Administrator to configure the application and control the behavior of the system. You must configure the Email, LDAP, Database, ZENworks and ZENworks Import for the Service Desk system up and running.

This section includes the following:

6.1 Setup Tab

The following options are included:

- Email configuration, including customizing all email templates used by the system
- Customize fields and Portal messages
- Integrate the system with external applications, define Open ID options and enable outbound Web Services functionality

- Define User, Customer, Request and System privileges
- Localize the application, including language of content automatically generated by the system, public holidays and time-zones for the scheduling functionality
- Enable the Billing module for using Contracts, Purchase Orders and SLA costs
- Import Items via a.CSV file and AMIE

The tabs available within Setup include:

- Email
- Custom Fields
- Privileges
- Customize
- Localization
- Licenses
- Database
- LDAP
- SSO
- Reports
- Billing
- AMIE
- ZENWorks

6.2 Email

- Section 6.2.1, "Email," on page 432
- Section 6.2.2, "Setup," on page 440
- Section 6.2.3, "Templates," on page 444
- Section 6.2.4, "SMS," on page 481
- Section 6.2.5, "Email Log," on page 483
- Section 6.2.6, "User Directory or Domain Migration," on page 484

6.2.1 Email

The Email sub-menu option is used to configure the system's incoming and outgoing email settings.

NOTE:
- The MS MODERN AUTH and OAuth base authorization is available only from ZENworks Service Desk 8.3.1.
- If you had configured OAuth based authentication (OAuth or MS Modern Auth) for Email in earlier versions using provided FTF, then after upgrade, you need to configure the settings again in the Email Setup page (Setup >Email > Server).

The system uses email to notify Customers about:

- Login information
- Request creation, updates and closure
- Contract renewals
- Invoice management
- Purchase Order creation

Emails notify Service Desk Users of:

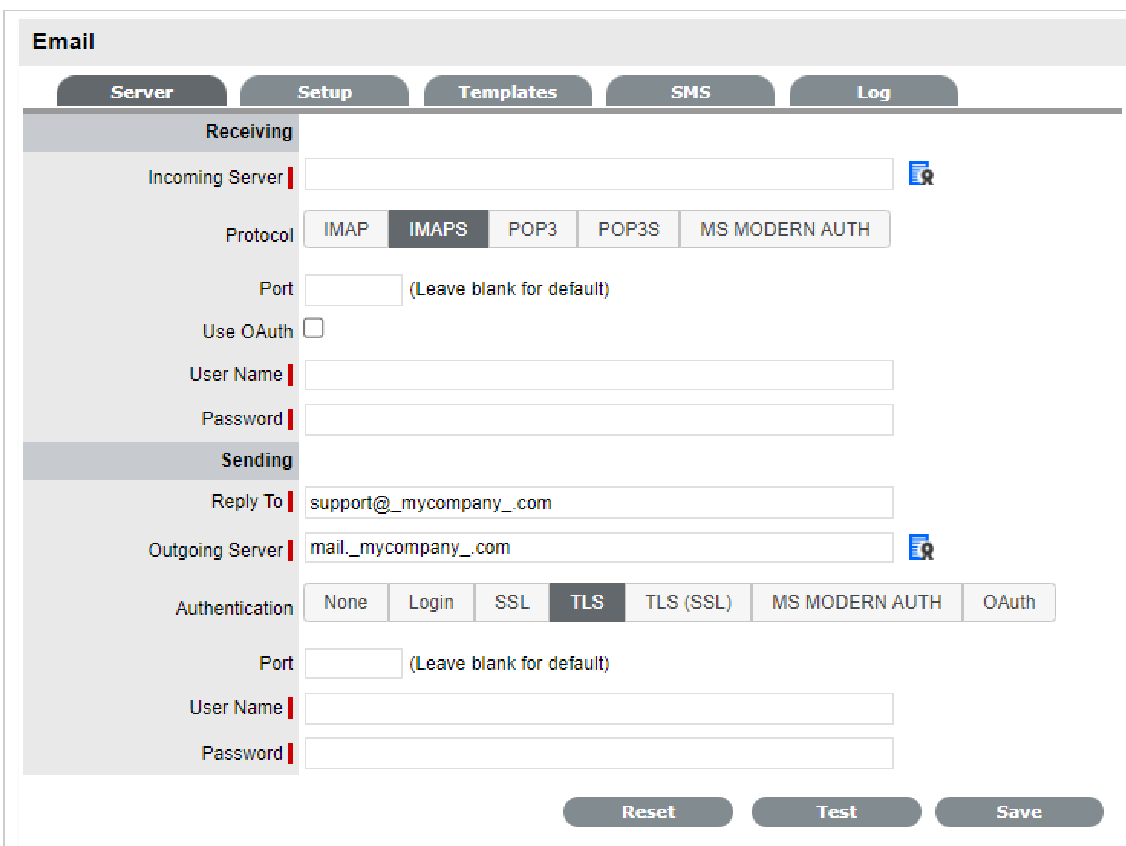
- Request allocation
- Escalations and SLA reminders, warnings and breaches
- Amendments to requests made by other Users
- Addition or removal of requests from Groups
- Required request approvals

For detailed information regarding managing requests using email polling see Email Polling and Request Creation in the Appendices of this guide.

Server Tab

To enter email server details:

1. Select Setup >Email > Server



2. Enter the Receiving and Sending Details:

Receiving	
Incoming Server	The incoming server used by the system to receive emails.
Protocol	The protocol of the incoming email account IMAP, IMAPS, POP3, POP3S and IMAPS with Microsoft Modern Auth. OAuth based authentication is available for IMAPS and POP3S. When you select the secured protocol such as IMAPS, POP3S or MS MODERN AUTH, a certificate icon will be displayed, click the icon to view the certificate of the server. For more information on Microsoft Modern Auth, see Microsoft Modern Auth. For more information on OAuth based authentication, see OAuth Based Authentication.
Transport	This option is visible if IMAP or POP3 has been set for the email account protocol. Select to secure the transport layer to encrypt the whole channel, if relevant to your email server configuration.
Port	Can be left blank for the default, or enter a port. Enter a timing interval if polling is enabled. This will be the period of time the system will use to check if any messages need to be polled.
User Name	Enter User Name for the incoming mail server.
Password	Enter the account Password.
Sending	
Reply To	The default system email address and the account that the email polling feature uses.
Outgoing Server	The outgoing (or SMTP) server used by the system to send emails. When you select the authentication as SSL, TLS (SSL), MS Modern Auth or OAuth, a certificate icon will be displayed, click the icon to view the certificate.

Receiving	
Authentication	If your SMTP server requires sender identification before sending email select between Login, SSL, TLS, MS Modern Auth, or OAuth depending on the server configuration. Additional fields might be displayed based on the selected authentication method. For more information on Microsoft Modern Auth, see Microsoft Modern Auth. For more information on OAuth based authentication, see OAuth Based Authentication.
Port	Enter a different port, or leave blank to use the default.
User Name	When authentication is required, enter the SMTP authorization details.
Password	When authentication is required, enter the account password.

3. Click Save.

Reset Button

To delete the content in all fields within the Server tab, select the Reset button. The system will display a message requiring verification of the Reset selection. Click OK to verify and clear all fields.

Test Button

To test if the email configuration is correct for sending email, click Test. This will send a message to the Administrator, using the Outgoing Server details that have been provided.

Microsoft Modern Auth

Microsoft Modern Auth uses IMAPS for incoming and SMTP for sending emails.

Following are the server settings for default Microsoft Office 365 configuration:

- Authorization Server: https://login.microsoftonline.com
- Incoming Server (IMAPS): outlook.office365.com
- Outgoing Server (SMTP): smtp.office365.com

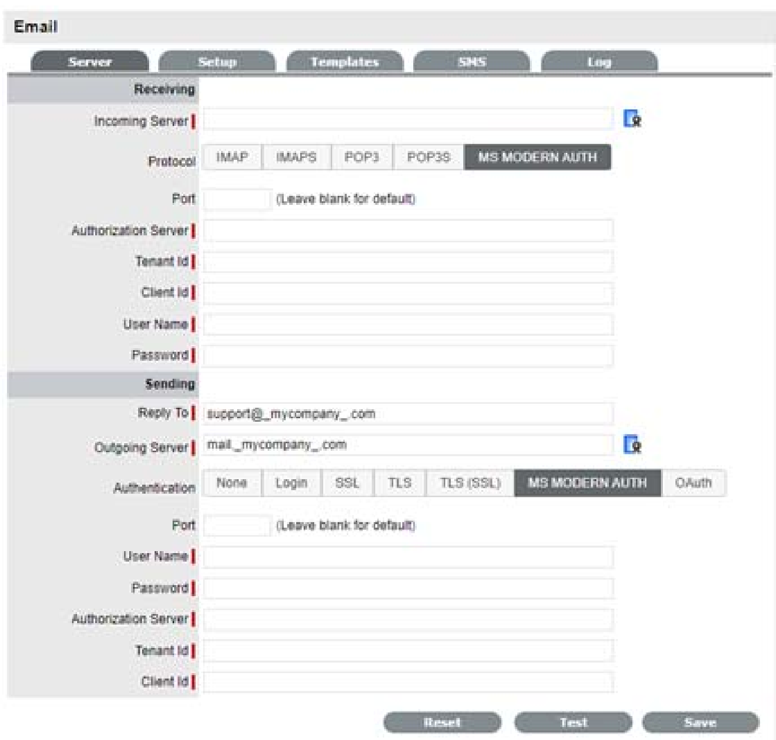
  Ensure that you verify these settings with respective service provider.

Prerequisites:

1. Register ZENworks Service Desk as an application with the Azure Active directory.

   For more information, see Registering an Application or any documentation provided by the service provider.
2. Obtain OAuth parameters (Tenant Id, Client Id) from the Azure for the registered ZSD application.
3. In the Azure portal, open the registered application, go to Authentication, and ensure that you set Allow public client flows to Yes.
4. Ensure that the email address configured can access Microsoft 365 email using IMAP and Authenticated SMTP.
5. Ensure that the email address configured does not have multi-factor authentication enabled.
6. Ensure that for the registered application you provide the following API permissions (Microsoft Graph) of type Delegated and Grant admin consent.
   - IMAP.AccessAsUser.All
   - SMTP.Send

NOTE: - If multi-factor authentication cannot be disabled or you do not want to use public client flows, then you can use OAuth Based Authentication. The OAuth Based Authentication works with O365 Modern Authentication.
- Any changes made in the Azure portal might take some time to reflect in other places.



OAuth Based Authentication

This option is available for IMAPS and POP3S for receiving emails and SMTP for sending emails.

Prerequisites:

1. Register ZENworks Service Desk as an application with the respective email provider.

   For more information, see any documentation provided by the service provider.

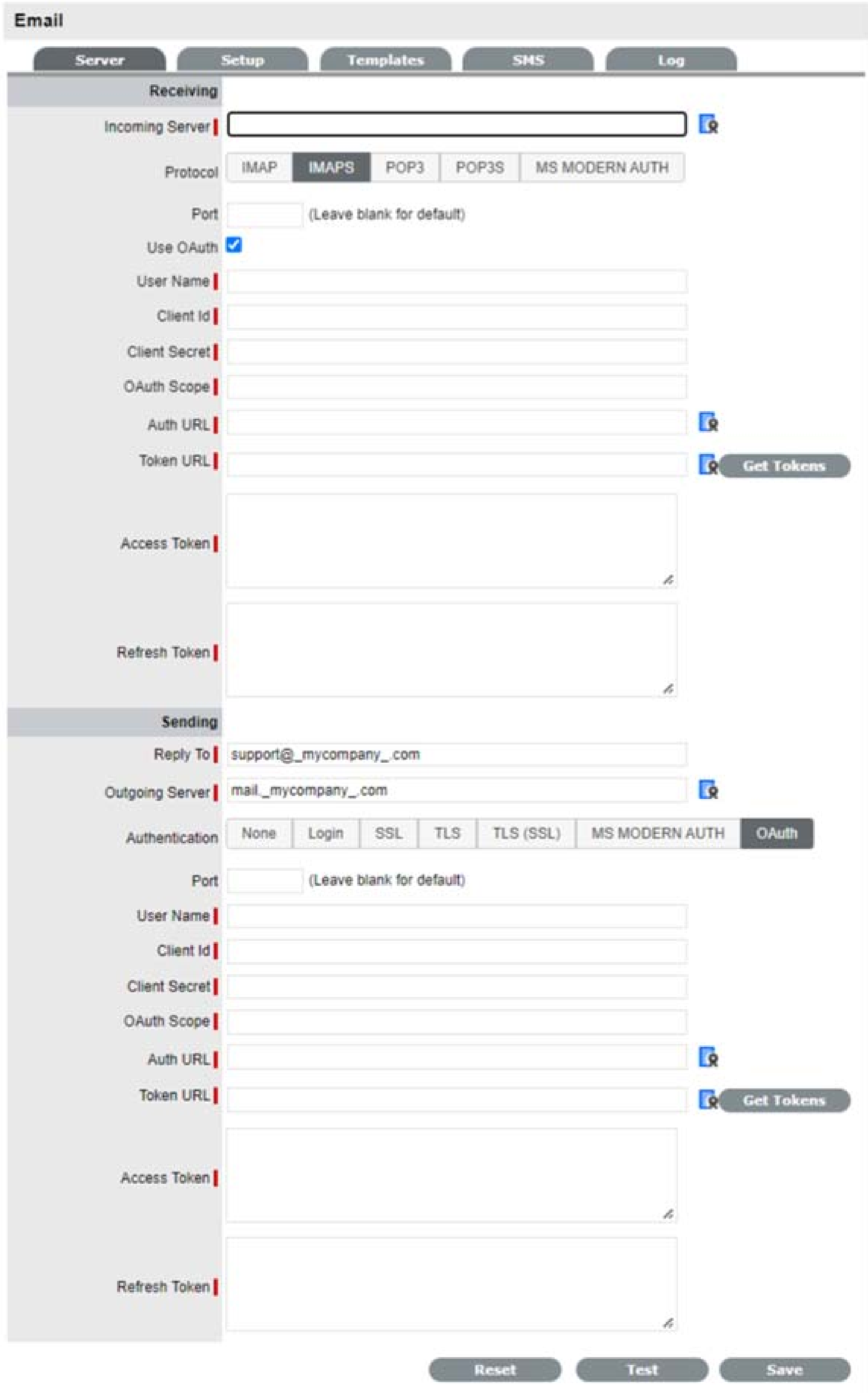
   NOTE: ◆ While registering the application, use the following URLs as the redirect URI of type Web, Web Server, or Web Application:

   https://<FQDN>/LiveTime/WebObjects/LiveTime.woa/wa/oauthlanding

   ◆ Ensure that you add redirect URIs of all the public interfaces (IP or domain name) of ZENworks Service Desk.

   ---

2. Obtain OAuth parameters (Client ID, Client Secret, OAuth Scope, Auth URL, Token URL).
3. Ensure that the email address configured can access email using IMAP/POP3 and SMTP.


Email
Server
Setup
Templates
SMS
Log
Receiving
Incoming Server
Protocol
IMAP
IMAPS
POP3
POP3S
MS MODERN AUTH
Port
(Leave blank for default)
Use OAuth
User Name
Client Id
Client Secret
OAuth Scope
Auth URL
Token URL
Get Tokens
Access Token
Refresh Token
Sending
Reply To
support@_mycompany_.com
Outgoing Server
mail._mycompany_.com
Authentication
None
Login
SSL
TLS
TLS (SSL)
MS MODERN AUTH
OAuth
Port
(Leave blank for default)
User Name
Client Id
Client Secret
OAuth Scope
Auth URL
Token URL
Get Tokens
Access Token
Refresh Token
Reset
Test
Save

After specifying all the details, click Get Token. You will be redirected to the provider UI for authentication. After successful authentication, you will be redirected back to ZSD portal, where generated tokens will be displayed. Copy the respective tokens to the email configuration page, save the changes and then test the connection.

NOTE: If tokens are expired, then ZENworks Service Desk will automatically try to regenerate the token. If the regeneration of token fails, an alert will be displayed to the administrator to check the configuration and regenerate the tokens using the above steps again.

Following are the default settings for Microsoft Office 365 and Gmail:

NOTE: Ensure that you verify these settings with respective service provider.

O365

1. Auth URL: https://login.microsoftonline.com/<your_tenant_id>/oauth2/v2.0/authorize?prompt=consent
2. Token URL: https://login.microsoftonline.com/<your_tenant_id>/oauth2/v2.0/token
3. Scopes:
   - Sender (SMTP): https://outlook.office.com/SMTP.Send offline_access
   - Receiver (IMAPS): https://outlook.office.com/IMAP.AccessAsUser.All offline_access
   - Receiver (POP3S): https://outlook.office.com/POP.AccessAsUser.All offline_access

Gmail

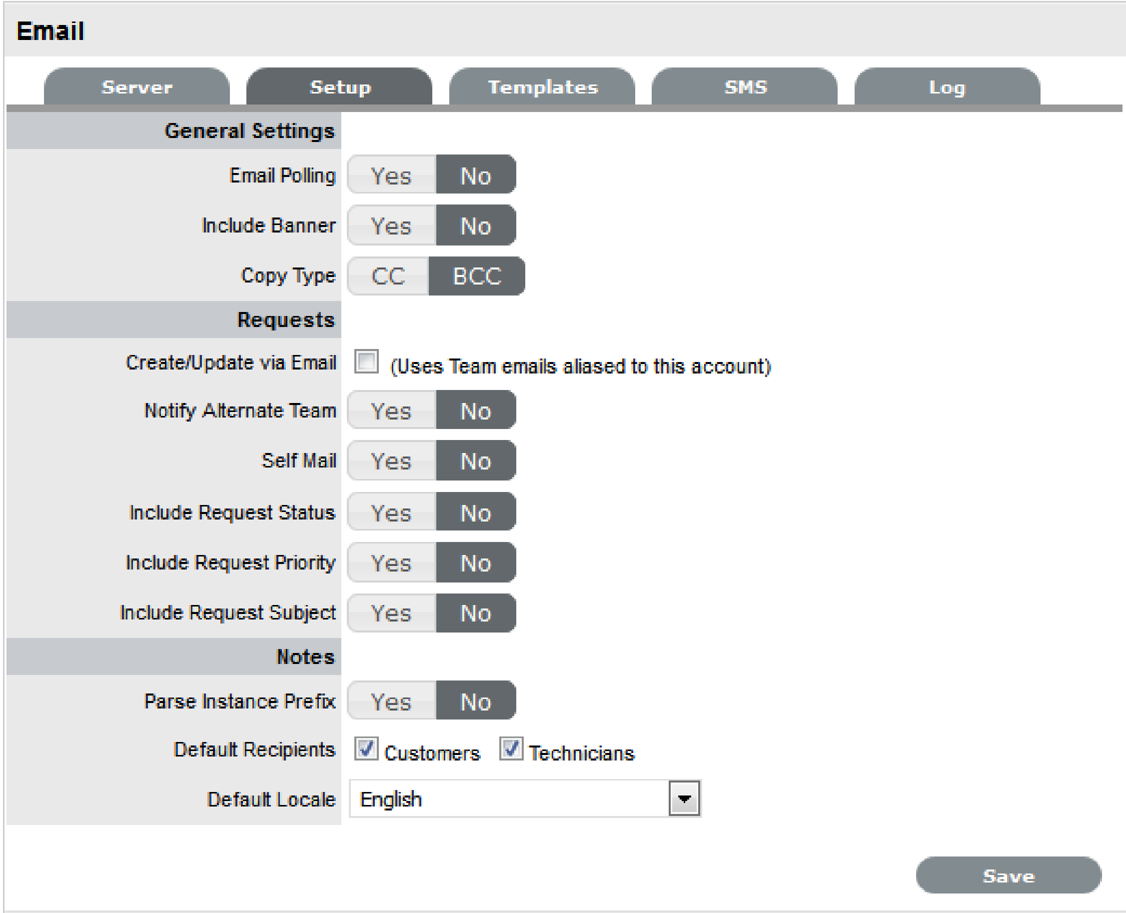
1. Auth URL: https://accounts.google.com/o/oauth2/v2/auth?prompt=consent&access_type=offline
2. Token URL: https://oauth2.googleapis.com/token
3. Scopes:
   - Sender (SMTP): https://mail.google.com/
   - Receiver (IMAPS/ POP3S): https://mail.google.com/

6.2.2 Setup

The Email Setup tab allows the Administrator to define the behavior of the email polling functionality.

To set the email functionality details:

1. Select Setup >Email > Setup



2. Define the settings in line with your organizational requirements:

3.

General Settings	
Email Polling	Enable Email Polling to allow the application to check for new email received in the mailbox on the incoming server defined within the Server tab. For new messages that are received, the system will send a message to the sender acknowledging their message. System generated messages are customized within the Setup>Email>Templates tab. **NOTE:** This option will be locked down if the Create via Email option is selected.
Interval	Enter the time period the system will use to check the incoming server for any messages sent to the support system.
Include Banner	Select Yes to include a banner within emails sent from the system. The banner will be derived from: Setup>Customize>Setup>Public Banner.
Email Errors	When enabled, details of any system errors occurring while the application is running will be sent to the development lab.
Copy Type	For emails sent within requests, define if the Technician is to be copied or blind copied the correspondence.
Requests	
Create/Update via Email	Select this option to enable requests to be created from emails addressed to the support system and Team addresses aliased on the email server. (See: Email Polling.) **NOTE:** Email Polling will be locked down to Yes when this option is selected and the Accept Anonymous option is displayed.
Accept Anonymous	When enabled, the system will create requests from emails received from email addresses that do not exist in the application's database. (Refer below for more information regarding this setting.)
Notify Alternate Team	When enabled, and if there is more than one Team created for a Process, within the Summary tab of a request the Alternate Team field is displayed. Members of the Alternate Team will be notified relative to the settings defined for the Current Team, and for New Notes, if Technicians is selected in the New Notes screen.

General Settings	
Self Mail	When set to Yes, new Notes created by a Technician or Customer are also sent to them when they save the Note.
Include Request Status	When enabled, the system will include the request Status within the Email Subject line of any correspondence sent from the system, regarding a request.
Include Request Priority	When enabled, the system will include the request Priority within the Email Subject line of any correspondence sent from the system, regarding a request.
Include Request Subject	When enabled, the system will include the content from the Subject line of a request within the Email Subject line of any correspondence sent from the system, regarding a request.
Notes	
Parse Instance Prefix	The Instance prefix is used to process email correspondence from multiple instances. If this is not required, set the option to No.
Default Recipients	Within the new Notes editor of requests, the default email settings can be defined for the recipient groups. Define the groups who are more likely to be sent every New Note created related to a request.
Default Locale	Set the default language file to be used for email correspondence. The option set is applied to the Email Locale field in the Customer and User Information screens and can adjusted on a per account basis, as required. **NOTE:** The content for automated emails sent from the system for languages other than English, is defined within the Localization>Content tab.

4. Click Save.

NOTE: Ability to configure maximum size limit for emails with attachments is introduced. You can configure the maximum size limit for emails with attachments by specifying the `livetime.fileSizeLimit` value within the `system.properties` file. By default, the value is set as 100 MB. After modifying the files, restart the ZENworks Service Desk service.

Receiving emails from anonymous email addresses

When the Accept Anonymous option is enabled, the system will create requests from emails received from email addresses not recorded in the application. This process is managed by the System User being assigned as the Customer, and the original sender being added to the email address list, in the Notify section.

It should be noted, that

enabling this option increases the likelihood of spam emails being converted into unwanted requests in the system. Email administrators should ensure that spam filtering is performed prior to the request being received in the inbox polled by the application. It is not the function of the service management tool to monitor, parse or filter emails prior to the creation of records based on the contents of the target inbox.

6.2.3 Templates

- "Email Templates" on page 444
- "Request Approval Process" on page 451
- "Email Parameters" on page 454
- "Email Summary Templates" on page 460
- "Keywords" on page 468
- "Error Messages" on page 473
- "Out of Office" on page 476
- "SMS Templates" on page 477

Email Templates

- "Configuring Full Email Templates" on page 445
- "Approval Messages" on page 451

Administrators can customize the content and template details for emails automatically generated by the system within the Templates tab.

The labels for the Templates are generated in English, but can be customized within the Setup>Localization>Content tab.

The filter views within the Templates tab include:

View Option	Description
Full Email Templates	Allows Users to customize the content and insert parameters of emails automatically generated and sent by the system.

View Option	Description
Email Summary Templates	Users configure the content of templates that are included in the automatically generated emails, which summarize the specific details of the matter at hand. See: Summary Templates
Email Keywords	Allows Users to enter alternative words for the system to use when sending mail and parsing emails received at the support email address. See: Keywords for a description of where the words are used by the system.
Error Message Templates	Allows the Use to customize the error messages automatically generated and sent by the system. See: Error Messages.
Out of Office	Allows the User to customize multiple Out of Office options for the system to identify in incoming email Subject lines, so it knows to ignore the email. See: Out of Office.
SMS Templates	Allows Users to customize the content and insert parameters for text messages automatically generated and sent by the system.

Content for the automatically generated email messages sent by the system is configured within the Full Email Templates filter screen of the Email > Templates tab. In addition to customizing the content of the messages, there is also the facility to insert parameters for specific details sourced from the database.

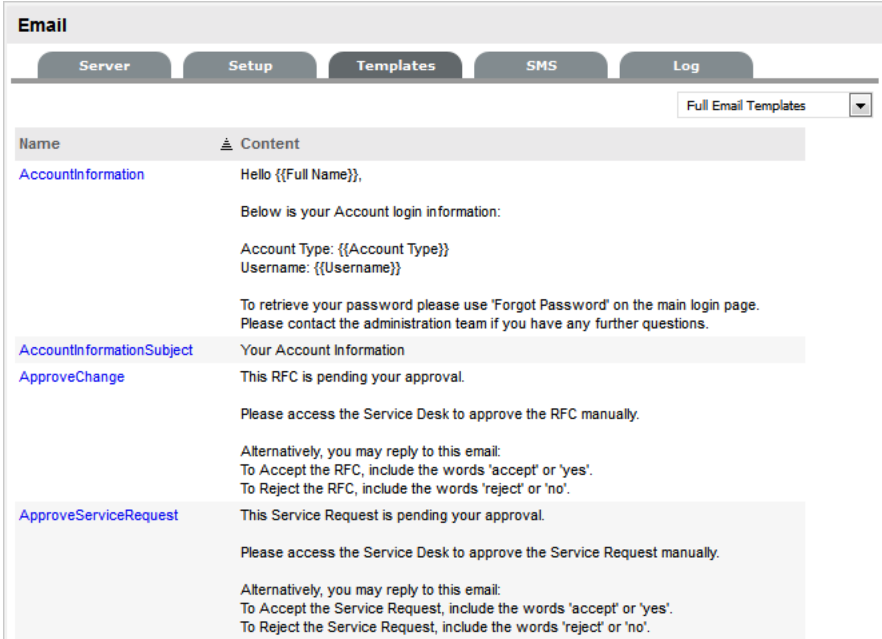
The template parameters, look and feel of email messages sent in regard to Knowledge Base Articles, Items, Requests, Invoices and Contracts are configured within the Email Summary Templates filter screen of the Templates tab.

Configuring Full Email Templates

To configure messages:

1. Select Setup>Templates>Full Email Templates filter

   The Full Email Template filter screen is displayed.



Email Templates	
AccountInformation	Sent when a Customer or User is emailed the login details of their account.
AccountInformation Subject	Content to be included in the Email Subject line when a Customer or User is emailed the login details of their account.
ApproveChange	Message sent to Managers when an RFC moves to an Approval State. The configured message must indicate to Managers that they are specific with their reply, using: The words 'accept' or 'yes', to Accept the Change The words 'reject' or 'no', to Reject the Change.
ApproveServiceRequest	Message sent to Managers when a Service Request moves into an Approval State. The configured message must indicate to Managers that they are specific with their reply, using: The words 'accept' or 'yes', to Accept the Change The words 'reject' or 'no', to Reject the Change.
ClosedPrefix	Included at the beginning of the email that is sent to a customer when a request is closed.
ClosedTechPrefix	Message template for an email sent to a technician when a request is closed.

Email Templates	
ClosedTechTimeout	Message template for an email sent to a technician when a request is closed automatically due to lack of customer response to the solution proposed by the technician.
ClosedTimeout	Used by the handshake facility and prefaces emails sent as Incident Note using the Propose button.
CloseRequest	Message included in the Email that uses the handshaking facility and proposes a Solution to the Customer.
CloseRequestLink	The message sent with the hyperlink to enable Customers to keep a request open after a possible solution has been sent to them. This template is used in conjunction with the CloseRequest message when the Handshaking facility is used to by a Technician to propose a Note as a solution.
CloseTech Request	Message template for an email sent to a technician after the Service Desk proposed a solution to the customer. It informs that the request will be closed if there is no action from the customer.
ContractExpired Message	Email sent to a Customer when a Contract has expired and a new request is logged or an existing request is still open when the expiration date is hit.
ContractTimeElapsed (Subject Line)	Subject line for ContractExpiredMessage, which is he email sent to a Customer when a Contract period has elapsed or all purchased support hours have been used.
ContractTimeLow	Email sent to a Customer when the amount of time remaining on a Contract triggers the low time percentage threshold. (The default percentage is defined in the Setup>Billing>Contracts tab.)
CreateChange	Included at the beginning of the email to a Customer when a Change Request is first created.
CreateIncident	Included at the beginning of the email to a Customer when an Incident is first created.
CreateProblem	Included at the beginning of the email to a Customer when a Problem is first created.
CreateServiceRequest	Included at the beginning of the email to a Customer when a Service Request is first created.
CreateTechChange	Message template for an email sent to a technician when a change request is created.
CreateTechIncident	Message template for an email sent to a technician when an incident is created.
CreateTechProblem	Message template for an email sent to a technician when a Problem request is created.
CreateTechServiceRequest	Message template for an email sent to a technician when a service request is created.

Email Templates	
InvoicePrefix	Included at the start of an email sent to the Customer with a newly created Invoice. (This email content is also used for the email sent to Customers when the Setup>Billing>Contracts option is enabled and the number of days for the Subscription "Contract Renewal Time" is triggered.)
ItemStatusChangePrefix	Included at the beginning of the email sent to a Customer when an Item Status has been amended and the option to notify customer is selected in the Item Information tab.
LDAPInformation	Sent when a new Customer or User is emailed the login details of their account after an authentication server synch.
NewAttachmentToTech	Sent to a User when a new attachment is added to a request in the Customer Portal.
NoAccount	This message is sent to a Customer when they have attempted to log an Incident via Email but are not registered with the system. **NOTE:** The Subject line of this email can be customized in the Error Message Templates filter of the Email>Templates tab.
NoContractCreate RequestSummary	Message sent to a Customer to inform them that work cannot commence on newly logged request as no contract is in place.
NoContractReminder Summary	Reminder message sent to a Customer to inform them that work cannot commence on newly logged request as no contract is in place.
NoteClosedPrefix	Email sent to a Customer when they have sent an email Note to the system, when a request was already closed.
NotePrefix	Included each time a new Note is associated with an existing request.
NoteTechPrefix	Message template for an email sent to a technician when a the customer follow-up is added as a note to an existing request.
PasswordLost	Sent when a Customer or User is emailed their account information for login as a result of their selecting the Forgot Password link on the Login Page.
PasswordQuestion	Sent when a Customer or User is emailed a challenge question for resetting their password for login as a result of their selecting the Forgot Password link on the Login Page. (The Password Questions option is enabled in the Setup>Privileges>System tab. The questions/answers are set within the Customer/User My Account Information screen.)
PasswordReset	Sent when a Customer or User is emailed their account information for login after their Password has been re-set within the Customer Information or User Information screen.

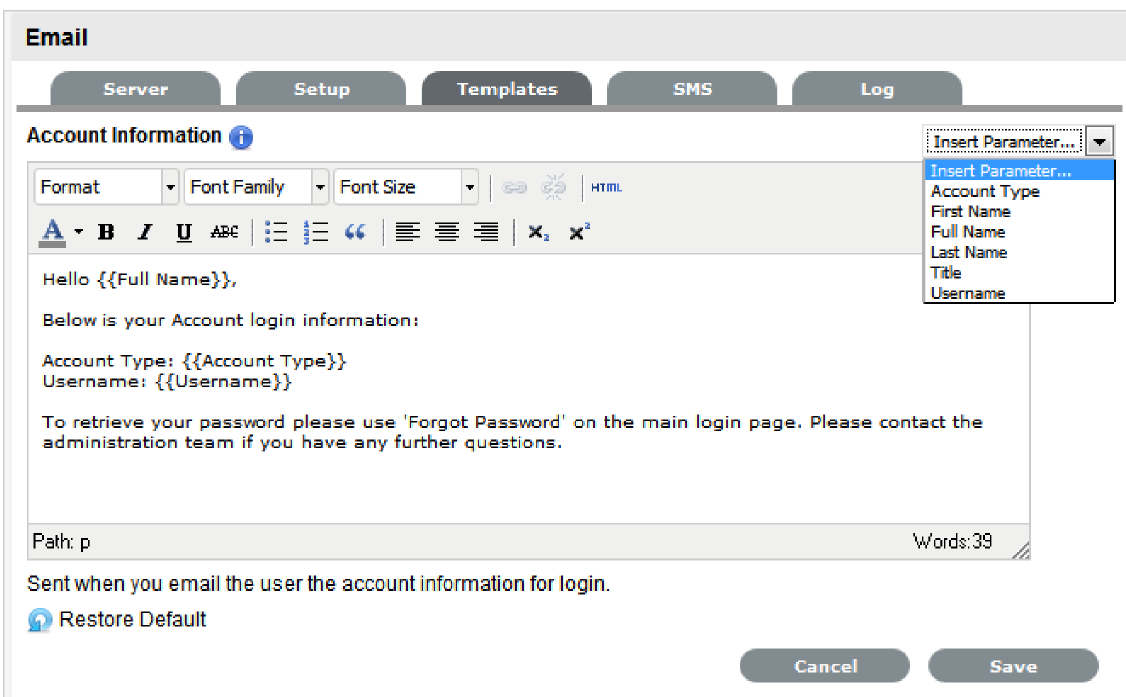
Email Templates	
PlannedOutagePrefix	Included in the email sent when an Item is scheduled to be taken offline.
RequestAccepted Prefix	Acknowledgement sent to the person responsible for a Request in an Approval State, when a Request is approved.
RequestDeescalate FromTo	When a request is manually de-escalated this message is sent to the newly assigned Technician.
RequestDeescalate NotAvailable	When a request is manually de-escalated this message is sent to the previously assigned Technician to let them know that the request is no longer available for them to work on.
RequestEscalateFromTo	When a request is manually escalated this message is sent to the newly assigned Technician.
RequestEscalateNotAvailable	When a request is manually escalated this message is sent to the previously assigned Technician to let them know that the request is no longer available for them to work on.
RequestReassignedManager Prefix	This message is sent when the Manager responsible for processing the approval of a request is changed and is sent to the previously assigned Manager.
RequestReassignedManager ToTechPrefix	The message included in an email when a request moves from a Manager Approval State to the newly assigned Technician User.
RequestReassignPrefix	When a request is reassigned this message is sent with the request details to the previously assigned User.
RequestReassignToPrefix	When a request is reassigned this message is sent with the request details to the newly assigned User.
RequestRejectedPrefix	Acknowledgement sent to the person responsible for a Request in an Approval State, when a Request is rejected.
RequestStatusChanged Prefix	The content of an email sent when the Status of a request is moved from Pending-No Contract to the default open state of the assigned Workflow. This is sent to the assigned Technician.
RequestStatusChanged Subject	The content of the sent when the Status of a request is moved from Pending-No Contract to the default open state of the assigned Workflow. This is sent to the assigned Technician.
RequestWorkaround	Message sent when a Workaround is applied to a request in the Analysis tab and emailed to the Customer.
Responder	Message sent from the monitored email account when the system does not accept new requests via email.
Signature	The details included at the bottom of emails sent from the system. **NOTE:** Signatures can be customized on a per Team basis in the Setup>Localization>Content tab.

Email Templates	
SlaBreached	Email sent to the assigned User when an SLA is breached.
SlaBreachedSubject	The content in the Subject line of an email sent to an assigned User and Service Level Manager, and if configured within the SLA the Team Lead, when an SLA is breached.
SlaTimeElapsed	Sent to the assigned User and Service Level Manager, and if configured within the SLA the Team Lead, when an SLA Reminder/Warnings is triggered.
SlaTimeElapsedSubject	The content in the Subject line of an email sent to an assigned User and Service Level Manager, and if configured within the SLA the Team Lead, when an SLA Reminder/Warning is triggered.
SurveyCompleted	Thank you message automatically generated for Customers who have submitted a completed survey.
SurveyPrefix	Message sent when a Customer or User is invited to complete a survey.
SurveyReminderPrefix	Message sent to a Customer or User to remind them to complete a survey.

2. Click on the required message name link

   The default text will be displayed.

3. Edit the message including inserting any relevant Parameters



4. Click Save.

NOTE: Approval Change, Approval Service Request, Create Problem and Create Change, Create Service Request apply to Service Manager Only.

Approval Messages

As the system allows Managers to approve or reject RFCs and Service Requests via email, the automatically generated emails must include specific instructions for the Manager to include either the words "accept" or "yes" to approve the RFC, or "reject" or "no" to reject the RFC in their reply. This is essential as the system will only recognize these key words when it automatically processes the email reply sent by the Manager.

NOTE: This is only applicable to Service Manager.

To use the Manager Approval Process via email, the system's email set-up must include the activation of the Email Polling functionality and the relevant Team details must include an incoming email address.

Request Approval Process

As part of the Request Fulfillment approval process, Users that have a Manager Role and are assigned to a Service Request Team can approve or reject Service Requests. To allow a Manager to approve a Request they must be assigned to the Service Request Workflow Approval State. (See: Service Request Teams.) Then, when a Request is moved into an Approval State, the Manager is assigned the Request allowing them to view and reject or accept the Request.

The security of the approval process can be enhanced by forcing the assigned Manager to re-enter their User Name and Password when processing a request. This is achieved by enabling the Strong Authentication option for the Team. (See: Service Request Teams.)

The service management system allows Managers to approve a Request either via the application's interface or email.

Accept or Reject a Service Request via the application

1. Select the Request tab
2. Select the filter option Pending Approvals

   From the list provided select a Request ID hyperlink.
3. Click Edit

   The Accept and Reject will be available to process the Request.

4. Select the Next Action option

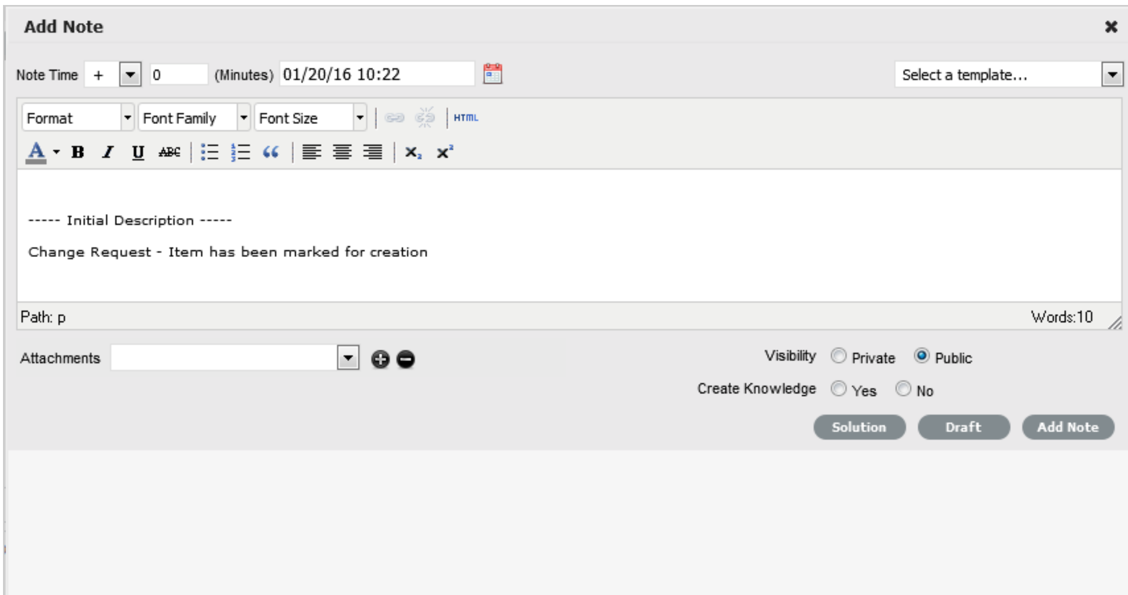
   Click (Accept) or (Reject) button to move the Service Request into the relevant pre-defined state and re-assign the Request to a Technician allocated to the status.

5. Enter Authentication details, if prompted

   When the Strong Authentication option is enabled for the Change Team associated with the request, an Approve Change Request window is displayed prompting the User to enter their Password details. Enter your Password and select the Authenticate button and click ✖ to close the pop-up window.

6. Enter additional details in the Notes Tab, if relevant

   A Notes window is displayed to allow the Manager to add detailed information regarding the approval option selected.



7. Click Add Note.

   Note that the Manager User will no longer be able to edit the Request after the selection is made, and the Request will continue through the Service Request Workflow Lifecycle.

8. **NOTE:** If the Approval State is configured to be an Item Details Editable state, the Manager can amend the Item details when in this State.

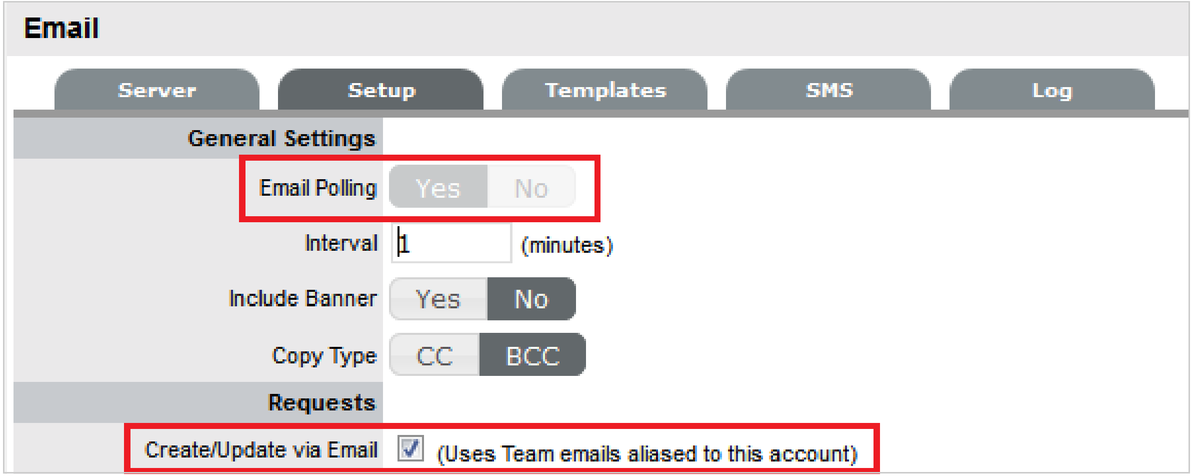
Accept or Reject a Request via email

To use the Manager Request approval process via email, the following configuration must be in place:

The Administrator must configure the system Setup>Email screens to include:

- Email Polling functionality
- Create via Email option
- Customise the ApproveServiceRequest email content, as required

The Supervisor must also include an incoming email address for the Service Request Team.



When a Service Request is escalated to an Approval State, an email is sent to the assigned Manager User informing them that a Request is pending approval. The Manager can approve or reject the Service Request by simply replying to the escalation email using the words Accept /Yes or Reject/No.

When the system polls for incoming email, the Manager's response is automatically applied to the relevant Request and based on the Manager's response, the Request is routed to a Technician allocated to the next Workflow State. The Manager is also sent a confirmation email informing them that their selected action has been applied to the Request.

Example of email sent to Manager:

This Service Request is pending your approval.

Please access the Service Desk to approve the Service Request manually.

Alternatively, you may reply to this email:
To Accept the Service Request, include the words 'accept' or 'yes'.
To Reject the Service Request, include the words 'reject' or 'no'.

Service Request Information	
Service Request #:	100016
Date Opened:	11/25/09 13:01 (MM/dd/yy HH:mm)
Classification:	General
Technician:	Manager User
Item #:	100002
Item Type:	Service Desk
Identifier:	
Customer:	Dan Springer
Org Unit:	
Customer Room:	
Country:	
Due Date:	11/25/09 16:01
Description:	Request to update to Microsoft Vista.

Email Parameters

The drop-down options included in the Email Parameters lists used within the Full Email Templates throughout the application, are drawn from the following parts of the system:

Parameter options for Account Information, LDAP Information, Password Information templates:

Parameter	Source
Account Type	The Default User Role derived from the Customer or User information screen.
First Name	Derived from Customer or User information screen.
Full Name	Derived from Customer or User information screen and combines the First and Last Name.
Last Name	Derived from Customer or User information screen.
Password	Derived from Customer or User information screen.
Title	Derived from Customer or User information screen. **NOTE:** This option is visible if Enable Titles is selected within the Admin>Setup>Privileges>Customer.
Username	Derived from Customer or User information screen.

Parameters for the request, Approve Change, Approve Service Request, Closed, Closed Timeout templates:

Parameter	Source
Classification	Drawn from the Classification field, in the Summary tab of a request.
Close Date	Shows the Close Date as recorded in the Service Terms information of the request.
Country	Derived from the Country field window in the Customer Tab of a request.
Customer First Name	Derived from the Customer Field in the Summary tab of a request.
Customer Last Name	Derived from the Customer Field in the Summary tab of a request.
Customer Name	Derived from the Customer Field in the Summary tab of a request and combines the First and Last Name.
Customer Phone	Derived from the Contact Phone Field in the Summary tab of a request.
Customer Room	Derived from the Item Room Field in the Summary tab of a request.
Date Style	Detail drawn from the Admin>Setup>Privileges> Customer tab.
Due Date	Derived from the Service Terms window in the Summary Tab of a request.
Email Locale	Derived from the Contact tab of the Customer Information details.

Parameter	Source
FSC Date	Derived from the Service Terms window in the Summary Tab of a Change Request.
Handshaking Close Days	Derived from the Org Unit associated with the Customer or number of default days defined in the Setup>Privileges>Requests tab.
Identifier	Derived from the Item Identifier Field in the Summary tab of a request.
Item #	The Item Number is derived from the Item details recorded in the Customer Tab of a request.
Item Type	The Item Type is derived from the Item details recorded in the Customer Tab of a request.
Last Note ID	Shows the system generated Note identification number as a hyperlink, for the Note last added to a request. When clicked by the Customer or User, defaults to the request information screen for that request inside the system.
Notes	Details the number of Notes added to a request.
Open Date	Derived from the Service Terms window in the Summary Tab of a request.
Org Unit	Derived from the Org Unit field window in the Customer Tab of a request.
Priority	Derived from the Priority Details as recorded in the Summary tab of a request.
Process	Shows if the request is a Service Request, Incident, Problem or Change.
Request Description	Derived from the initial Description entered for the request, as recorded in the Summary tab.
Request ID	Shows the system generated request identification number.
Request URL	Shows the request identification number as a URL to allow the Customer to enter the system within the specific request screen by clicking the URL.
Subject	Derived from the Subject entered for the request that is populated from an Email Subject line or directly into the application, and recorded in the Summary tab.
Team	Shows the Team assigned to manage the request.
Team Phone	Display the Team telephone number as recorded in the Team Information screen.
Technician First Name	Shows the name of the Technician assigned to the request.

Parameter	Source
Technician Last Name	Shows the name of the Technician assigned to the request.
Technician Name	Shows the name of the Technician assigned to the request and combines the First and Last Name.
Title	Derived from Customer or User information screen. **NOTE:** This option is visible if Enable Titles is selected within the Admin>Setup>Privileges>Customer.

Parameter available in Contract Time templates:

Parameter	Source
Threshold	Draws the percentage from the Threshold field in the Setup>Billing>Contracts tab.

Options for the Invoice templates:

Parameter	Source
Adjustment	Drawn from the Cost Calculations field, and is the amount that is deducted from the sub-total.
Customer First Name	Derived from the Customer Details Name field on the invoice.
Customer Last Name	Derived from the Customer Details Name field on the invoice.
Customer Name	Derived from the Customer Details Name field on the invoice and combines the First and Last Name.
Customer Title	Derived from Customer Information screen. **NOTE:** This option is visible if Enable Titles is selected within the Admin > Setup > Privileges > Customer.
Delivery Status	Shows the assigned Delivery Status from the Invoice.
Due Date	Drawn from the Order Details of the invoice.
Entered By	Drawn from the Order Details of the invoice and combines the First and Last Name.
Entered By First Name	Drawn from the Order Details of the invoice.
Entered By Last Name	Drawn from the Order Details of the invoice.
Invoice #	Shows the system generated Invoice Number.
Invoice Date	Drawn from the Order Details of the invoice.
Invoice Status	Derived from the Status field of the invoice.

Parameter	Source
Line Items Total	Derived from the Costs section of the Invoice and shows the overall cost for Items on the invoice.
List of Item Type Line Items	When Items are associated with an invoice, shows the details recorded in the Item Type field.
List of Maintenance Contract Line Items	When Contracts are associated with an invoice, shows the details recorded in the Contract Type Name field.
Notes	Shows any details recorded in the Notes field of the invoice.
Order Date	Drawn from the Order Details and shows the date the invoice was received.
Org Unit	Derived from the Customer Details and shows the customer's associated Org Unit.
PO Number	Drawn from the Order Details and shows the Purchase Order number associated with the invoice.
Payment Date	Shows date of payment for the invoice based on details recorded in the Invoice Status section.
Payment Status	Shows if payment has been received for the invoice based on details recorded in the Invoice Status section.
Processed By First Name	Drawn from the Order Details and shows the name of the User who processed payment of the invoice.
Processed By Last Name	Drawn from the Order Details and shows the name of the User who processed payment of the invoice.
Processed By	Drawn from the Order Details and shows the name (combines the First and Last Name) of the User who processed payment of the invoice.
Shipping	Shows the Shipping Costs as derived from the Costs section of the invoice.
Shipping Date	Derived from the Status section of the invoice and shows the expected shipping date of goods.
Tax	Drawn from the Costs Section and shows the tax applied to the invoice.
Tax Rate	Drawn from the Costs Section and shows the tax rate applied to the invoice.
Terms and Conditions	Shows details recorded in the Terms and Conditions field of the invoice.
Total	The Grand Total of the Invoice, including tax and any adjustments.

Parameter	Source
Tracking Number	Drawn from the Tracking Number field within the Status section of the Invoice.

Parameters for the Item Status Change template:

Parameter	Source
Category	Shows the Item Category from the Item Information tab.
Criticality	Shows the assigned Criticality of the Item as recorded in the Item Information tab.
Item Number	Shows the Item Number as recorded in the Item Information tab.
Item Type	Details the Item Type as entered in the Item Information tab.
Status	Shows the Status of the Item as recorded in the Item Information tab.

Parameter for the New Attachment template:

Parameter	Source
File Name	Allows the file name of the newly received attachment to be included in the email to the User.

Parameters for the Escalation templates:

Parameter	Source
Current Technician	Shows the name of the newly assigned Technician.
Previous Technician	Shows the name of the Technician who was previously assigned the request.
Process	Shows the ITIL Process of the request, i.e., Change, Incident, Problem or Service Request.
Request ID	Shows the Request identification number.

Parameters for the request Status update templates:

Parameter	Source
New Status	Shows the details of the newly assigned Workflow State.
Previous Status	Shows the Status name of the previously assigned to the request.
Process	Shows the ITIL Process of the request, i.e., Change, Incident, Problem or Service Request.
Request ID	Shows the Request identification number.

Parameters for the SLA templates:

Parameter	Source
Hr/Min	Shows the time as recorded in hours or minutes, based on the SLA configuration.
Name	Shows the name of the SLA.
Phase	Shows the SLA phase of Response Time, Restoration Time or Resolution Time.
Process	Shows the ITIL Process of the request, i.e., Change, Incident, Problem or Service Request.
Time Elapsed	Shows the amount of time passed for the phase of the SLA.
Time Limit	Shows the amount of total time associated with the phase of the SLA.

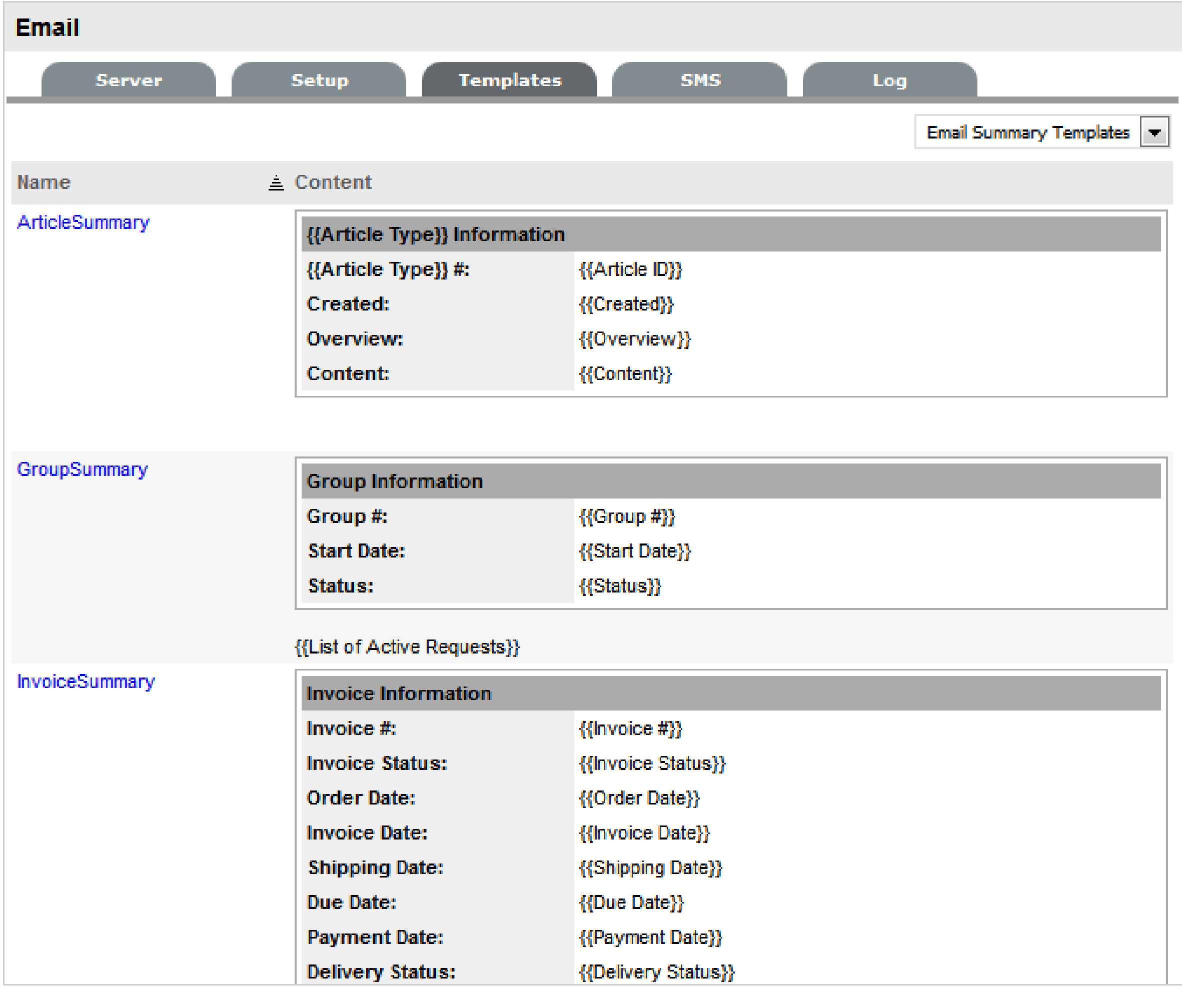
Parameters for the Survey templates:

Parameter	Source
Description	Shows the content included in the Description field of the survey.
Name	Shows the Title of the survey.
Number of Questions	Shows the number of questions included in the survey.

Email Summary Templates

Automated email messages sent in relation to requests, Knowledge Base Articles, Items, Invoices and Contracts include a summary table of information or template. The information included in these tables, parameters, look and feel are configured within the Email Summary Templates filter screen of the Templates tab.

Knowledge of HTML would be useful when customizing the templates, but is not mandatory.



The templates for messages that can be configured within this screen include:

Message	Description
Article Summary	Email that notifies User about the pending Review date of a Knowledge Base Article.
Group Summary	Email sent to the Users when a Request Group is created, updated or closed.
Invoice Summary	Email sent to a Customer that summarizes their Invoice information and included in all correspondence regarding the Invoice. This is forwarded with the InvoicePrefix content that is configured in the Email >Templates >Full Email Templates filter view. This template is also used for the email sent to Customers when the Setup > Billing > Contracts option is enabled and the number of days for the Subscription "Contract Renewal Time" is triggered.

Message	Description
Item Summary	Email sent to a Customer when a Service Item moves into an inactive State, when the email notification option is selected within the Item.
Maintenance Contract Summary	Email sent to a Customer including their service maintenance contract details.
Request Summary	Email sent to Users when a request is created or updated.
Survey Summary	The survey summary template is included in system generated emails regarding survey notification and reminders.

To customize the message template:

1. Select Setup > Email > Templates
2. Select the Email Summary Templates filter
3. Click the Template Name hyperlink

   The HTML editor appears.
4. Modify the table, as required

   As part of the customization, the Administrator can use system parameters included in the Insert Parameter drop down list. Using these options ensures the customized template includes the correct format for the information to be sent in the email.
5.

Icon	Description
Insert Parameter	The drop-down list options ensure that the HTML correct format is used for these details to be included on the customized message.
Restore Defaults	Restores the System default email message.

6. Adjust the Date Style format, if relevant
7. Click Save

Template Field Options

ArticleSummary

This template is included in the system generated emails for Knowledge Base Article reviews.

Field	Source
Article ID	Knowledge Base Article number.
Article Title	Displays content drawn from the Title field.
Article Type	Shows if it is a general Article, Solution Workaround or FAQ.
Content	Drawn from the Title field of a KBA.
Created	Displays the date the Article was created.
Overview	Derived from the Problem field of a KBA.

GroupSummary

This template is included in system generated emails when a request group is created, updated and closed.

Field	Source
Description	Derived from the Description field on the Details tab of a requests group.
Group #	The identifying group number generated by the system for the request group.
List of Active Requests	Indicates the number of requests in an Active State contained in the request group.
Name	Drawn from the Name field on the Details tab of a request group.
Start Date	Is derived from the date that a request group is created.
Status	Derived from the Status field on the Details tab of a request group.

InvoiceSummary

The Invoice Summary template is used when the Email button is selected within the Invoice Editor screen and when an Invoice is created and updated.

Field	Source
Adjustment	Drawn from the Cost Calculations field, and is the amount that is deducted from the sub-total.
Customer Name	Derived from the Customer Details Name field on the invoice.
Customer Title	Derived from Customer Information screen. **NOTE:** This option is visible if Enable Titles is selected within the Admin>Setup>Privileges>Customer.

Field	Source
Delivery Status	Shows the assigned Delivery Status from the Invoice.
Due Date	Drawn from the Order Details of the invoice.
Entered By	Drawn from the Order Details of the invoice.
Invoice #	Shows the system generated Invoice Number.
Invoice Date	Drawn from the Order Details of the invoice.
Invoice Status	Derived from the Status field of the invoice.
Line Items Total	Derived from the Costs section of the Invoice and shows the overall cost for Items on the invoice.
List of Item Type Line Items	When Items are associated with an invoice, shows the details recorded in the Item Type field.
List of Maintenance Contract Line Items	When Contracts are associated with an invoice, shows the details recorded in the Contract Type Name field.
Notes	Shows any details recorded in the Notes field of the invoice.
Order Date	Drawn from the Order Details and shows the date the invoice was received.
Org Unit	Derived from the Customer Details and shows the customer's associated Org Unit.
PO Number	Drawn from the Order Details and shows the Purchase Order number associated with the invoice.
Payment Date	Shows date of payment for the invoice based on details recorded in the Invoice Status section.
Payment Status	Shows if payment has been received for the invoice based on details recorded in the Invoice Status section.
Processed By	Drawn from the Order Details and shows the name of the User who processed payment of the invoice.
Shipping	Shows the Shipping Costs as derived from the Costs section of the invoice.
Shipping Date	Derived from the Status section of the invoice and shows the expected shipping date of goods.
Tax	Drawn from the Costs Section and shows the tax applied to the invoice.
Tax Rate	Drawn from the Costs Section and shows the tax rate applied to the invoice.
Terms and Conditions	Shows details recorded in the Terms and Conditions field of the invoice.

Field	Source
Total	The Grand Total of the Invoice, including tax and any adjustments.
Tracking Number	Drawn from the Tracking Number field within the Status section of the Invoice.

ItemSummary

This template is included in system generated emails for Item Status changes:

Field	Source
Category	Shows the Item Category from the Item Information tab.
Criticality	Shows the assigned Criticality of the Item as recorded in the Item Information tab.
Item Number	Shows the Item Number as recorded in the Item Information tab.
Item Type	Details the Item Type as entered in the Item Information tab.
Status	Shows the Status of the Item as recorded in the Item Information tab.

MaintContractSummary

This template is included in system generated emails regarding the creation and update of service contracts.

Field	Source
Contract #	Shows the system generated Contract Number.
Contract Type	Specifies if the Contract is a Per Incident or Per Item Contract.
End Date	Includes the date the current Contract date ends.
Invoice #	Shows the system generated Invoice Number.
Remaining	Shows the amount of time remaining on a Contract.
SLA	Includes the name of the SLA included as part of the Contract.
Start Date	Shows the commencement date of the current valid Contract.

MaintContractSummaryByMonth

This template is included in system generated emails regarding the creation and update of service contracts that are automatically renewed on a monthly or quarterly basis.

Field	Source
Contract #	Shows the system generated Contract Number.
Contract Type	Specifies if the Contract is a Per Incident or Per Item Contract.
End Date	Includes the date the current Contract date ends.
Interval End Date	Shows the contract.
Interval Remaining	Shows the contract.
Interval Start Date	Shows the contract.
Invoice #	Shows the system generated Invoice Number.
Remaining	Shows the amount of time remaining on a Contract.
SLA	Includes the name of the SLA included as part of the Contract.
Start Date	Shows the commencement date of the current valid Contract.

OutageSummary

This template is included in system generated emails related to Planned Outages.

Field	Source
Outage Items	Shows the details of Items associated with the Outage.
Outage Reason	Displays the content of Reason field in the Outage information screen.
Outage Related Requests	Shows Requests related to the Outage.
Outage Schedule	Details the Start and End Date of the Outage.

RequestSummary

The request summary template is included in emails relating to the creation, update and closure of requests.

Field	Source
Classification	Drawn from the Classification field, in the Summary tab of a request.
Close Date	Derived from the Service Terms window in the Summary Tab of a request.
Country	Derived from the Country field window in the Customer Tab of a request.

Field	Source
Customer Name	Derived from the Customer Field in the Summary tab of a request.
Customer Phone	Derived from the Contact Phone Field in the Summary tab of a request.
Customer Room	Derived from the Item Room Field in the Summary tab of a request.
Date Style	Detail drawn from the Admin>Setup>Privileges> Customer tab.
Due Date	Derived from the Service Terms window in the Summary Tab of a request.
Email Locale	Derived from the Customer Information details screen and defines the language used by emails sent from the system.
FSC Date	Derived from the Service Terms window in the Summary Tab of a Change Request.
Handshaking Close Days	Drawn from the Admin>Setup>Privileges>System, unless overridden by the number of days defined in the Super>User> OrgUnit>Details tab.
Identifier	Derived from the Item Identifier Field in the Summary tab of a request.
Item #	The Item Number is derived from the Item details recorded in the Customer Tab of a request.
Item Type	The Item Type is derived from the Item details recorded in the Customer Tab of a request.
Last Note Id	Shows the system generated Note identification number as a hyperlink, for the Note last added to a request. When clicked by the Customer or User, defaults to the request information screen for that request inside the system.
Notes	Details the number of Notes added to a request.
Open Date	Derived from the Service Terms window in the Summary Tab of a request.
Org Unit	Derived from the Org Unit field window in the Customer Tab of a request.
Priority	Derived from the Priority Details as recorded in the Summary tab of a request.
Process	Shows if the request is a Service Request, Incident, Problem or Change.
Request Description	Derived from the initial Description entered for the request, as recorded in the Summary tab.

Field	Source
Request Id	Shows the system generated request identification number.
Request URL	Shows the system generated request identification number as a hyperlink. When clicked by the Customer or User, defaults to the request information screen for that request inside the system.
Subject	Derived from the Subject entered for the request that is populated from an Email Subject line or directly into the application, and recorded in the Summary tab.
Team	Shows the Team assigned to manage the request.
Team Phone	Display the Team telephone number as recorded in the Team Information screen.
Technician Name	Shows the name of the Technician assigned to the request.

SurveySummary

The survey summary template is included in system generated emails regarding survey notification and reminders.

Field	Source
Description	Drawn from the Survey Description Field.
Name	Displays the Name given to the Survey.
Number of Questions	Shows the number of questions included on the Survey.

Keywords

Keywords are used by the system to identify how to handle inbound and outbound email from the system.

The following table includes a list of all Keywords that are used by the system, which can be customized, and where they in the appear in the application:

Keyword	Direction	Description
Accept	Inbound	Accept or Yes is used to Approve Requests and must be included in the approval email.

Keyword	Direction	Description
Accepted	Outbound	Included in Subject line for emails generated when a request has been accepted and sent to the person responsible managing the approval.
AddToGroup	Outbound	Not Used.
Article	Outbound	Included in the Subject line of emails sent to Customers including an Knowledge Base Articles.
Author	Outbound	Included in content of Forum update message.
AutoReply	Outbound	Included in the Subject line of emails for error messages.
ChangeRequest	Inbound Outbound	Customer must include in email Subject line when updating a Change Request. Automatically included in Subject line of Change Request emails.
ChatLog	Outbound	Used in the Subject line of emails sent to Customer with a copy of a chat transcript.
Classification	Inbound	Included in Subject line with keyword “Item” e.g. Item Classification. Cannot be used alone.
Closed	Outbound	Included in Subject line of email responding to request, e.g. Incident Closed.
Contract	Outbound	Used in Subject line regarding Contract activity (i.e, Contract Active or Contract Low).
Created	Outbound	Included in Subject line of email responding to creation of a request, e.g. Request (or Invoice) Created.
Customer	Outbound	Keyword in Subject line of email regarding a Contract status, e.g. Customer Name Contract Active
DeEscalated	Outbound	Included in Subject line of email to User regarding a request being de-escalated.

Keyword	Direction	Description
Deleted	Outbound	Included in Subject line of email regarding a deleted request (or Invoice), e.g. Request Deleted.
Delivered	Outbound	Included in Subject line of email regarding an Invoice, e.g. Item Delivered.
Details	Outbound	Included in Subject line of email responding to a request, e.g. Request (or Invoice) Details.
Escalated	Outbound	Included in Subject line of email responding to request, e.g. Request Escalated.
Forum	Outbound	Keyword in Subject line e.g. Forum Update
Group	Outbound	Not used
Hours	Inbound & Outbound	Used in emails when the system refers to hours. For example, SLA and Contract emails.
Incident	Inbound Outbound	Customer must include in Subject line, when updating an Incident. Automatically included in Subject line for emails generated regarding Incidents.
IncidentQueue	Outbound	Inserted as the technician name when a request is assigned to the request Queue and the Technician Name is configured as a parameter in the outgoing email.
Invoice	Outbound	Keyword in Subject line, e.g. Invoice Created (or Details/ Deleted/Delivered).
Item	Inbound Outbound	Keyword in Subject line, e.g. Item Classification. Keyword in Subject line e.g. Item # Contract Active, or Item # Status Update
Minutes	Inbound & Outbound	Used in emails when the system refers to minutes. For example, SLA and Contract emails.
NewNote	Outbound	Included in content of email advising that a new Note has been added to a request.

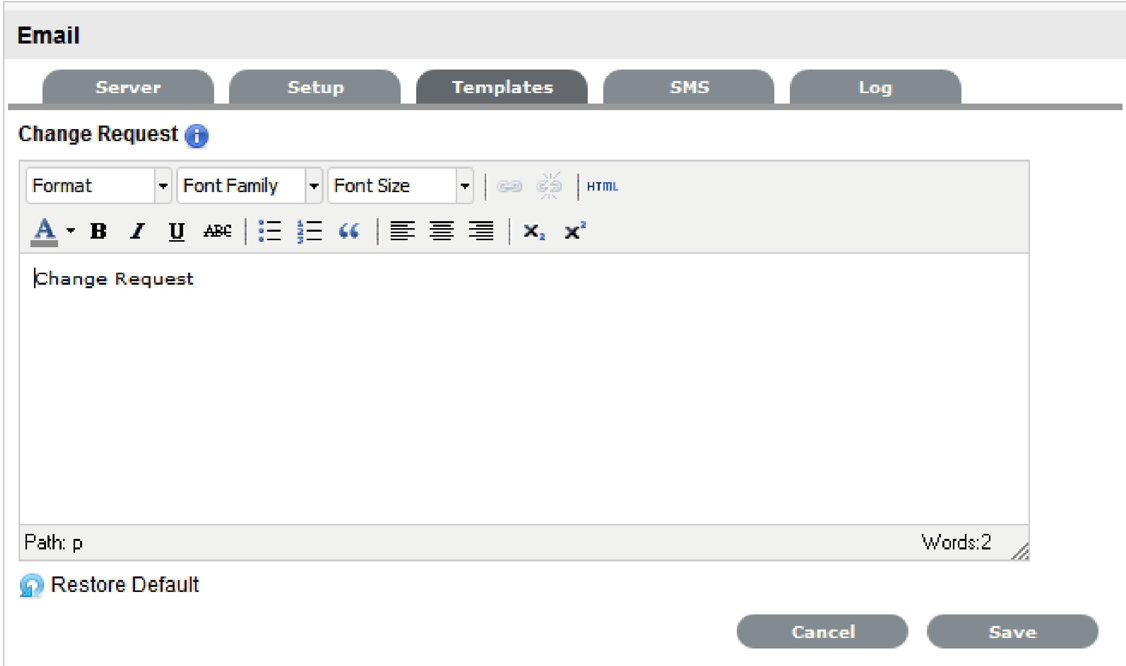
Keyword	Direction	Description
NewSolution	Outbound	Not used.
No	Inbound	Reject or No is used to Reject Requests and must be included in the rejection email.
OrgUnit	Outbound	Keyword in Subject line of email regarding contract status, e.g. OrgUnit Name Contract Active
PlannedOutage	Outbound	Included in Subject line of automated email notifications about planned Item outages.
Prefix	Inbound & Outbound	Included as prefix in email subject line.
Problem	Outbound	Automatically included in Subject line for emails generated regarding Service Requests.
Reassigned	Outbound	Included in the Subject line of emails sent regarding reassigned requests.
ReceivedMessage	Outbound	Included in content of email replying to Customer attempting to update a request that has already been closed. (Subject line Request closed.)
Reject	Inbound	Reject or No is used to Reject Requests and must be included in the rejection email.
Rejected	Outbound	Included in Subject line for emails generated when a request has been rejected and sent to the person responsible managing the approval.
Reminder	Outbound	Reminding the Manager to process a Request that is waiting for approval.
Resolution	Outbound	Included in Subject line for emails generated regarding SLA Resolution times.
Resolved	Outbound	Included in Subject line for emails generated regarding SLA Resolution times.
Response	Outbound	Included in Subject line for emails generated regarding SLA Respnse times.

Keyword	Direction	Description
Restoration	Outbound	Included in Subject line for emails generated regarding SLA Restoration times.
ReviewReminder	Outbound	In Subject line of email reminding User to review Article, e.g. ReviewReminder Article #
Service Request	Inbound Outbound	Customer must include in Subject line, when updating a Service Request. Automatically included in Subject line for emails generated regarding Service Requests.
SolutionCreated	Outbound	Included in Subject line of email to Customer when a solution has been created for an open request.
SolutionFound	Outbound	Included in Subject line of email to Customer when a solution has been found and applied to an open request.
Status	Outbound	Included in Subject line for emails regarding , e.g. Item # Status Update
SystemWarning		Outbound: Warning of unpaid invoice.
Unknown	Outbound	Used in emails when the value of parameters selected for inclusion are not known.
Unpaid	Outbound	Warning of unpaid invoice.
Updated	Outbound	Included in Subject line of email, e.g. Request Updated.
Yes	Inbound	Accept or Yes is used to Approve Requests and must be included in the approval email.

Customize Keywords

To allow the system to recognize an alternative word for a System Keyword:

1. Select Setup>Email>Templates
2. Choose the Keywords filter view
3. Click on the relevant Name hyperlink



4. Enter the customized word
5. Click Save

Error Messages

Error Messages are automatically generated and sent by the system in relation to various application activities. The following table includes details for when each Error Message is used by the system:

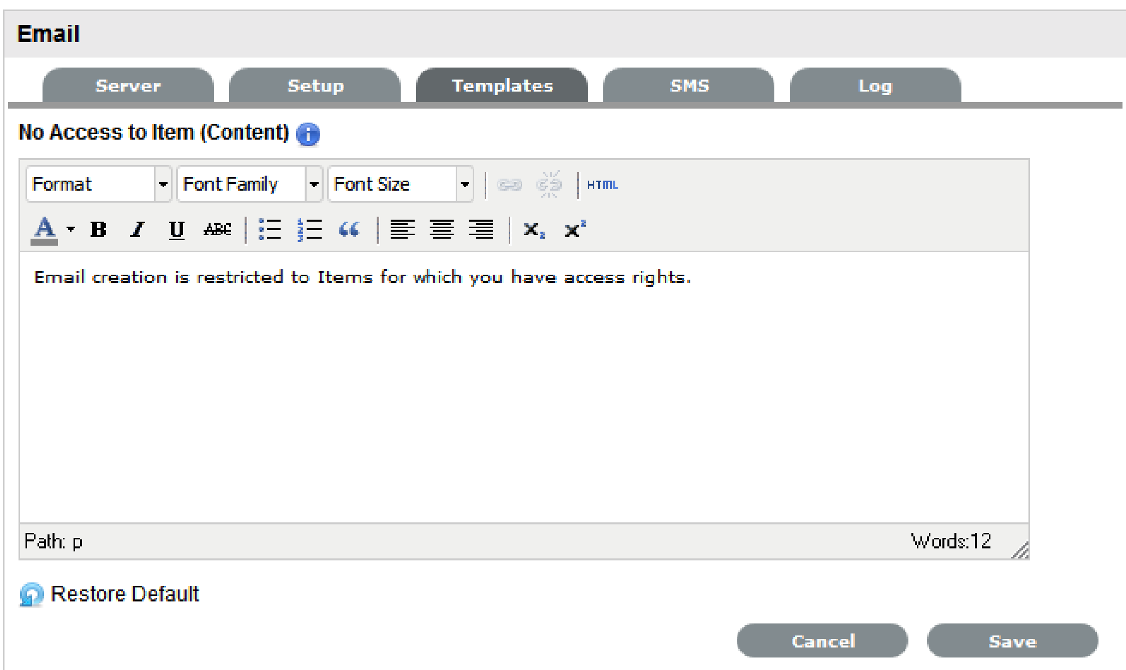
Message	Description
ApprovalRequiredContent	The main content of an email sent to a Customer attempting to edit request, which is currently in “Approval” State. Such requests cannot be edited until approval is given.
ApprovalRequiredSubject	Email Subject Line content for ApprovalRequiredContent emails.
InvalidTeam	The main content of an email sent regarding the system receiving an email including an address and name of Team that does not match. For example, email may have been intended for Change Team but used Incident Team address, or vice versa.
NoAccessToItemContent	The main content of an email sent when the system receives an request via email that includes an Item# in the Subject line that the Customer does not have access.

Message	Description
NoAccessToItemSubject	The Subject Line of an email sent when the system receives an request via email that includes an Item# in the Subject line that the Customer does not have access.
NoIncidentFoundContent	The main content of an email sent by the system when it cannot find the Incident # referred to in the email.
NoIncidentFoundSubject	Email Subject Line content for NoIncidentFoundContent emails.
NoPermissionChangeContent	The body of the email sent when a Customer tries to log a Change Request via email and the"Create Change Requests" option is disabled in the Admin>Setup>Privileges>Customer tab.
NoPermissionChangeSubject	The Subject line content included on NoPermissionChangeContent emails.
NoPermissionIncidentContent	The body of the email sent when a Customer tries to log an Incident via email and the"Create Incidents" option is disabled in the Admin>Setup>Privileges>Customer tab.
NoPermissionIncidentSubject	The Subject line content included on NoPermissionIncidentContent emails.
NoPermissionProblemContent	The body of the email sent when a Customer sends a request a Problem Management Team.
NoPermissionProblemSubject	The Subject line content included on NoPermissionProblemContent emails.
NoPermissionRequestContent	The body of the email sent when a Customer tries to log a Service Request via email and the Create Service Requests option is disabled in the Admin>Setup>Privileges>Customer tab.
NoPermissionRequestSubject	The Subject line content included on NoPermissionRequestContent emails.
NoServiceIncidentContent	The content of the email sent when a Customer tries to log an Incident for a Service by including the Item# in the Subject line of their email addressed to the Incident Team, and the"Service Incident" option is disabled in the Admin>Setup>Privileges>Customer tab.
NoTeamFound	The main content of an email sent by the system when it receives an email sent a Team email address that is not in the system.

Message	Description
NoUserFound	The Subject Line included on the NoAccount emails. **NOTE:** The content for emails sent by the system when it receives emails from addresses that do not exist in the system, i.e., NoAccount email, can be configured in the Full Email Templates filter of the Email>Templates tab.
RequestCreationErrorContent	The system generated email sent when an error occurs during the creation of request. An example of an error would be if the database becomes unavailable during the request creation process.
RequestCreationErrorSubject	The Subject line content included on the RequestCreationErrorContent email.
UnauthorizedApprove	The email sent when a Manager sends email attempting to approve change but does not have approval permission enabled.
UnrecognizedAction	The email sent when a Manager sends an email attempting to accept or reject a Change but does not use the keywords YES or ACCEPT, NO or REJECT.

To edit a Message:

1. Click on the required message name link



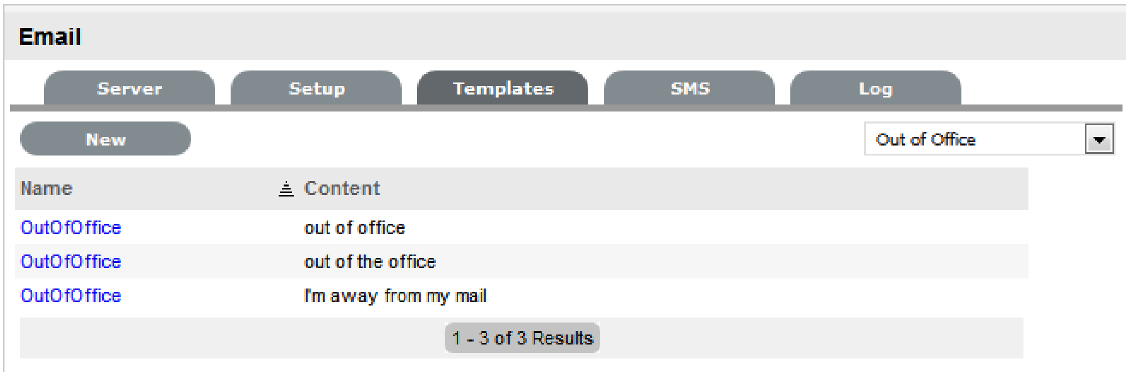
2. Update the message content
3. Click Save

Out of Office

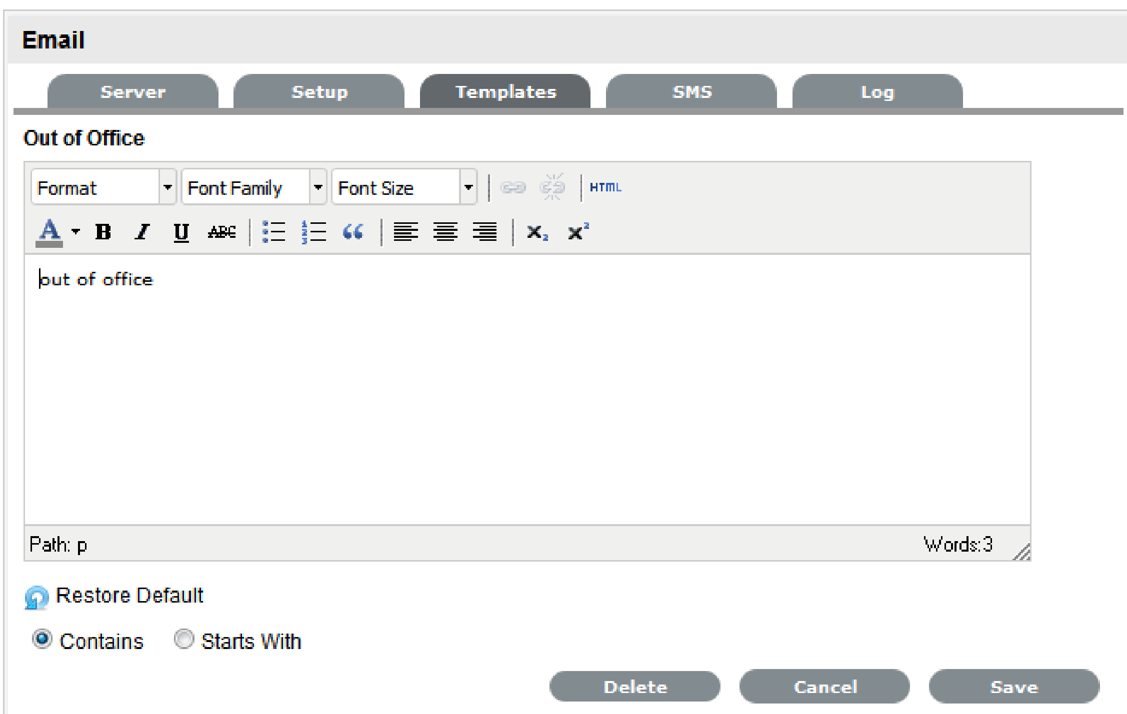
Users can customize multiple Out of Office options within the application, which allows the system to identify incoming email Subject lines with this message in different languages. The system will ignore emails with this content in the Subject line of emails.

To add or edit out of office messages as an Administrator:

1. Go to the Setup tab
2. Move to the Email>Templates tab



3. Select the Out of Office option
4. Click New or select the relevant message link
5. Add or amend the Subject line content that is to be identified by the system



6. Click Save

SMS Templates

The templated text and parameters for SMS messages sent from the system regarding requests and Item outages are configured within the SMS Templates filter screen of the Templates tab.

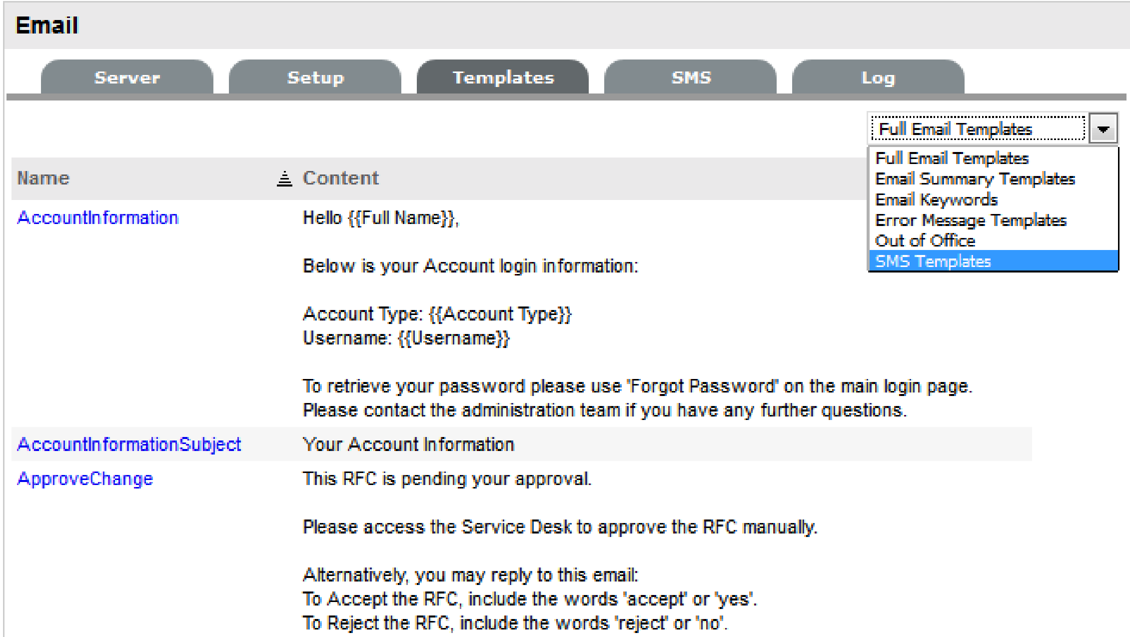
Template can be customized for the following messages sent from by the system:

SMS Templates	
ApproveChangeSMS	Message sent to Managers when an RFC moves to an Approval State.
ApproveServiceRequestSMS	Message sent to Managers when a Service Request moves into an Approval State.
ClosedRequestSMS	Included at the beginning of the email when a request is closed.
ClosedTimeoutSMS	Used by the handshake facility and prefaces emails sent as Incident Note using the Propose button.
CloseRequestLinkSMS	Message sent with the hyperlink to enable Customers to keep a request open after a possible solution has been sent to them. If the Customer clicks on the link, the automated close process is deactivated.
CloseRequestSMS	Message sent when the handshaking facility is applied and the Technician proposes a Solution to the Customer.
CreateRequestSMS	Message sent to a Customer when a request is created.
DeleteRequestSMS	SMS sent to a User when a request is deleted.
GroupCreateSMS	SMS sent to a User when a request group has been created in the system.
InvoicePrefixSMS	Message sent to a Customer with a newly created Invoice.
ItemStatusChangeSMS	SMS sent to a Customer when an Item Status is changed.
NewAttachmentToTechSMS	SMS sent to a Technician when a Customer uploads an attachment to a request in the Customer Portal.
NoteClosedPrefixSMS	SMS sent to when a new Note is added to a closed request.
NoteClosedSMS	Sent to a Customer when they have attempted to a Note to a request that is already closed.
NotePrefixSMS	Sent each time a new Note is associated with an existing request.
PlannedOutageSMS	Included in the SMS sent when an Item is scheduled to be taken offline.

SMS Templates	
RequestDeescalate FromToSMS	Message sent when a request is manually de-escalated this message is sent to the newly assigned Technician.
RequestDeescalate NotAvailableSMS	Message sent when a request is manually de-escalated this message is sent to the previously assigned Technician to let them know that the request is no longer available for them to work on.
RequestEscalateFromToSMS	Message sent when a request is manually escalated this message is sent to the newly assigned Technician.
RequestEscalateNot AvailableSMS	Message sent when a request is manually escalated this message is sent to the previously assigned Technician to let them know that the request is no longer available for them to work on.
RequestReassignedManager PrefixSMS	This message is sent when the Manager responsible for processing the approval of a request is changed and is sent to the previously assigned Manager.
RequestReassignedManager ToTechPrefixSMS	The message included in an email when a request moves from a Manager Approval State to the newly assigned Technician User.
RequestReassignPrefixSMS	When a request is reassigned this message is sent with the request details to the previously assigned User.
RequestReassignToPrefixSMS	When a request is reassigned this message is sent with the request details to the newly assigned User.
RequestStatusChanged PrefixSMS	The content of an email sent when the Status of a request is moved from Pending-No Contract to the default open state of the assigned Workflow. This is sent to the assigned Technician.

To customize an SMS message template:

1. Select Setup > Email > Templates
2. Move to the SMS Templates filter



3. Select the Message Name hyperlink

   The HTML editor appears.

4.

Icon	Description
Insert Parameter	The drop-down list options provides specific details to be included on the SMS message.
Restore Defaults	Restores the system default SMS message.

5. Modify the message as required

   As part of the customization, the Administrator can use the existing parameters included in the Insert Parameter drop down list. Using these options ensures the customized message use the correct format for the details regarding this information.

6. Click Save.

SMS Parameters

Parameters for new and updated Request templates:

Parameter	Source
Process	Shows if the request is a Service Request, Incident, Problem or Change.
New Status	Shows the Workflow State assigned to the request.
Request Id	Shows the system generated request identification number.
Request URL	A direct link to the request.

Parameters for the Group templates:

Parameter	Source
Group #	Shows the Group ID number.
Group URL	A direct link to the request Group.
Group Type	Identifies the Group as Service Request, Incident, Problem or Change requests.

Parameters for the Invoice template:

Parameter	Source
Invoice #	Shows the Invoice number.
Invoice URL	A direct link to the invoice.

Parameters for the Item Status Change templates:

Parameter	Source
Item Number	Shows the Item Number as recorded in the Item Information tab.
Status	Shows the Status of the Item as recorded in the Item Information tab.

Parameter for the New Attachment template:

Parameter	Source
File Name	Allows the file name of the newly received attachment to be included in the email to the User.

Parameters for the Planned Outage templates:

Parameter	Source
Outage End Date	Drawn from the End Date field in the Configuration>Planned Outages screen.
Outage Items	Shows the Items associated with the Planned Outage in the Configuration>Planned Outages tab.
Outage Start Date	Drawn from the Start Date field in the Configuration>Planned Outages screen.

Parameters for the Escalation templates:

Parameter	Source
Current Technician	Shows the name of the newly assigned Technician.
Previous Technician	Shows the name of the Technician who was previously assigned the request.
Process	Shows the ITIL Process of the request, i.e., Change, Incident, Problem or Service Request.
Request ID	Shows the Request identification number.

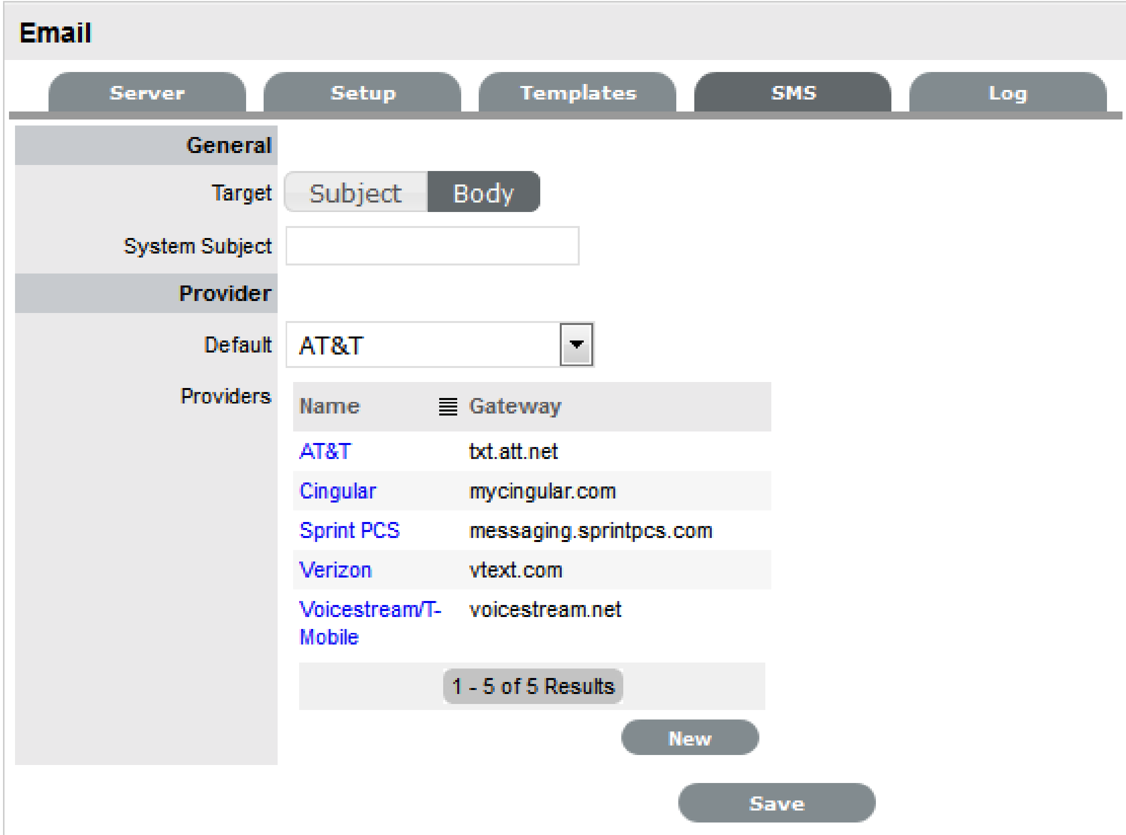
6.2.4 SMS

The details of the SMS service providers that are to be applied within Customer and User account information screens, are configured within the SMS tab of the Setup>Email sub-menu option. Within this screen, the default Customer Service Provider is defined and automatically applied to Customer account information when SMS notification is selected as the preferred method of notification by the Customer or User.

The SMS functionality allows a subject line to be specified for providers that require a security token or account number in the subject line, with the message to be sent in the body. On install, the default setting is set to Subject, not requiring an account number or security token as the provider only requires email server information. This can be customized to meet the provider's requirements.

To configure the SMS setting:

1. Select Setup >Email > SMS



2. Set the Target location for sent message:
    - *Subject*: this is selected when the system is to include the message content in the email Subject Field, as the service provider only needs to know the email server details.
    - *Body*: this is selected when the system is to include the message content in the email Body, allowing a System Subject to be configured as required by the service provider, with content such as an account number or security token.

To edit the details of default entries:

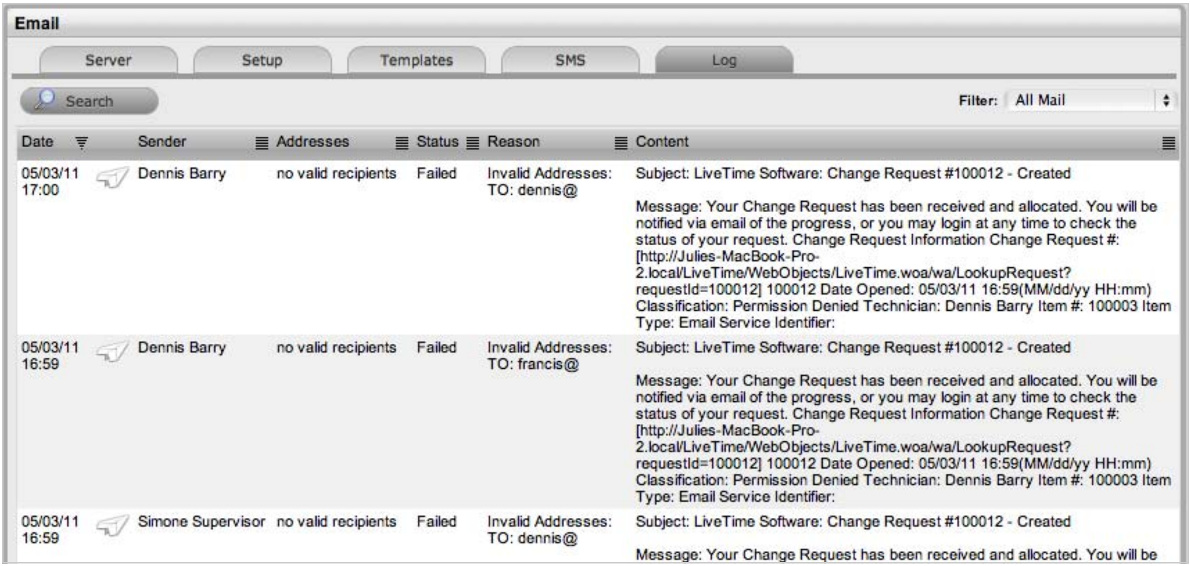
1. Select the hyperlink of the relevant service provider
2. Amend details
3. Click Save

To add a service provider:

1. Click New
2. Enter the Name and Gateway details
3. Select Save
4. Set the Default Customer Service Provider from the drop-down list options
5. Click Save

6.2.5 Email Log

The Email Log facility allows an Administrator to access a complete list of email activity that occurs within the service management application. This enables an Administrator to determine whether an email is successfully sent or if it has failed. If an email fails to send, the system provides an explanation for the failure.



The Email Log screen has the following filter views:

Filter	Description
All Mail	Displays all email activity.
Inbound Mail	Lists the emails that have been sent to the system.
Inbound Mail Errors	List the emails received by the system mailbox in error (i.e., from email addresses with no account.)
Outbound Mail	Lists the emails that are sent from the application by Users.
Outbound Sys Mail	Lists the emails that are automatically sent by the system e.g. Escalations, SLA breaches.

NOTE: Automatic system maintenance deletes 14 day old Email Log entries.

Search Email Activity

Administrators can conduct searches on inbound and outbound emails recorded in the system Email log.

To search for an email as an Administrator:

1. Go to the Setup>Email>Log tab
2. Select the Search button

3. Define:
4.

Option	
Start Date	Enter the earliest relevant date for the system to include in the search.
End Date	Enter the latest relevant date for the system to include in the search.
Direction	Define if the search is to include either inbound or outgoing email.
Status	Define the email status option to be searched: ◆ Sent email ◆ Failed to send email ◆ Email set a Pending status ◆ Email Sent with Errors.

5. Click Search.

6.2.6 User Directory or Domain Migration

If user accounts are migrated to a different directory server, or to another domain in the same server, perform the follow these steps in the ZENworks Service Desk to sync the existing accounts with the new server:

IMPORTANT: ◆It is recommended that you perform the steps in the test environment and then replicate the same in the production environment.

- Ensure that the email and username for accounts are the same in the new source, else the accounts will not be reconciled in the ZENworks Service Desk.

Scenario 1: When the Primary Email is same in the new source

1. In ZENworks Service Desk, modify the existing LDAP configuration, and update the new server details.
2. Save the details and sync the changes.

The existing user accounts in ZENworks Service Desk will be synced with the new LDAP source.

Scenario 2: When the Primary Email has to be changed in the target source

1. In ZENworks Service Desk, ensure that the target Primary Email address is added as the Email alias for users, the alias can either be updated manually or imported from the old user source alias field.
2. In the ZENworks Service Desk, modify the existing LDAP configuration and update the new server details.
3. Save the details and sync the changes.

The existing user account in ZENworks Service Desk will be synced with the new LDAP source.

NOTE: After successful migration, email alias in the old user source, which is a Primary Email in the new user source will be updated as the Primary Email in ZENworks Service Desk.

6.3 Custom Fields

- Section 6.3.1, "Enabling a Custom Field," on page 485
- Section 6.3.2, "Data Type - List," on page 488
- Section 6.3.3, "Custom Fields for Incidents, Change and Service Requests," on page 490
- Section 6.3.4, "LDAP/ADS Accounts Custom Fields," on page 491

The Custom Fields function allows screens in the system to be adapted to meet specific requirements of an organization, as additional fields can be created for different parts of the application.

Custom fields can be set for different system screens and include the option to select:

- Data type
- Style
- Defining if the field is required or includes a description
- Determining whether it can be viewed or edited by the Customer (Incident, Change and Service Request

  Custom fields only.)

NOTE: A maximum of 5 fields is allowed for each option.

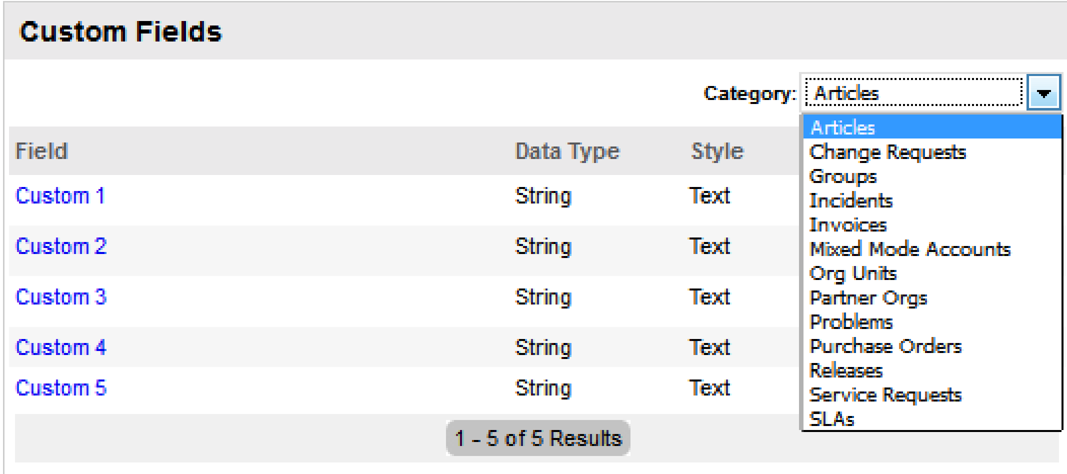
6.3.1 Enabling a Custom Field

To enable a Custom Field:

1. Select Setup>Custom Fields

   The Custom Fields screen appears.
2. From the Category Filter drop-down list select the screen option

   The displayed list includes all screens where custom fields can be added.

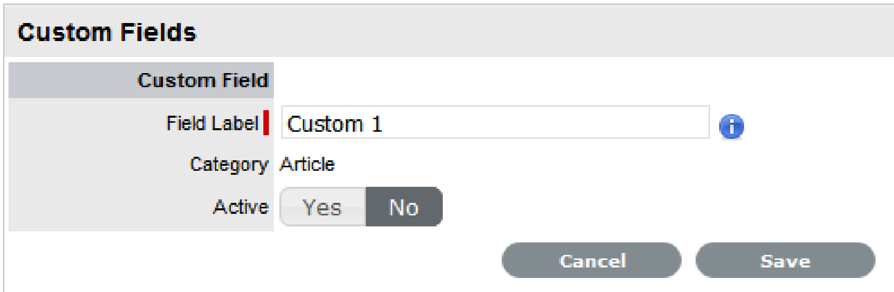


Custom Fields	Custom Field Locations
Articles	Additional field for Articles in the Knowledge Base.
Change Requests	Additional field for a Change Request.
Customers	Additional field for Customer Information.
Groups	Additional field for Service Request, Incident, Problem and Change Groups.
Incidents	Additional field for Incident Information.
Invoices	Additional field for Invoices. (Option visible when Billing>Invoices have been enabled for the system.)
Org Units	Additional field for an Organizational Unit.
Partner Orgs	Additional field for Partner Organization.
LDAP/ADS Accounts	Customized LDAP/ADS fields can be used to map to a Directory Server when importing user account details. See Authentication.
Problems	Additional field for Problem details.
Releases	Additional field for Release Management details.
Service Requests	Additional field for Service Request information.
SLAs	Additional fields for Service Level Agreement Information screen.
Users	Additional field for the Users Information screen.
Purchase	Additional field for Purchase Orders. (Option visible when Billing>Purchase Orders have been enabled for the system.)

NOTE: Problem, Change, Release and Service Requests are in Service Manager only

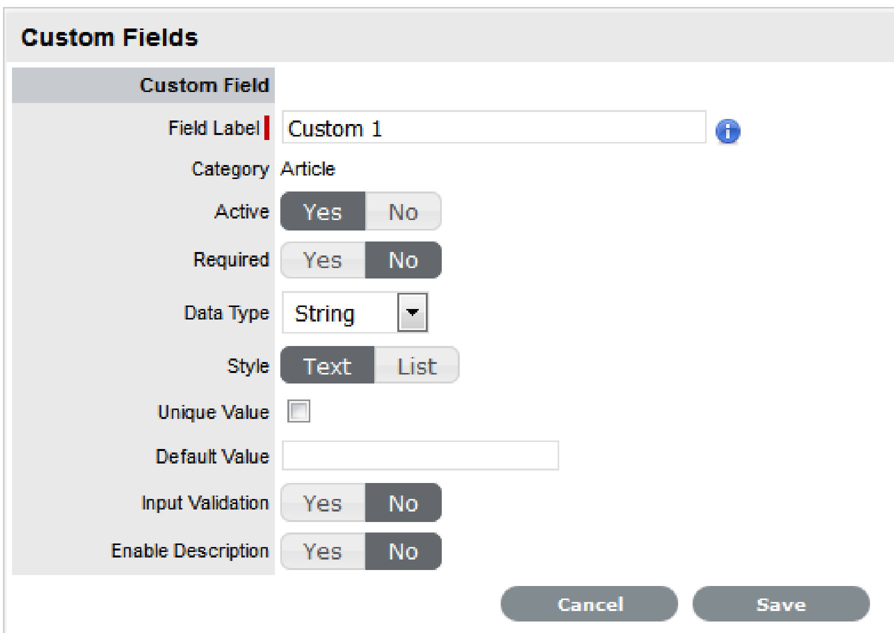
1. To define a custom field, click on the appropriate field label hyperlink

   An editable window appears.



2. Toggle the Active field to Yes

   Once activated, a list of options is displayed.



Options	Description
Field Label	Edit the Field Label by entering the relevant name. (Required.) **NOTE:** The label entered within this field is applied to the English UI. For it to appear in another language, configure this label in the Setup>Localization>Content tab.
Active	Defines the Custom Field visibility.
Required	Defines if the field is mandatory when displayed.

Options	Description
Data Type	The format required for the field. Select the data type from the following: ◆ String (Text or List) ◆ Number-Custom Field that requires a number ◆ Boolean (Radio Buttons) ◆ Date-Custom Field that requires a value in a date format ◆ Currency- A currency can be defined for the Field ◆ Hyperlink - A URL can be included in the field.
Style	From the options provided, the way the data type will be displayed. ◆ String custom field - either an open text field or a list, or ◆ Boolean custom field - uses radio buttons to define Yes/No or True/False.
Unique Value	When active, the system prevents the duplication of data within the customized field.
Input Validation	When enabled the Input Mask and User Mask can be defined. *Input Mask* : A regular expression to use for data validation of values entered by a User (i.e., Zip/ Post Code, telephone no.) *User Mask*: A User Friendly representation of the Input Mask that Customers can understand should it appear in a validation error message.
Enable Description	When enabled, a Description field appears that allows the User to enter details of what information the field is expected to capture. These details are accessible next to the custom field on the relevant screen.

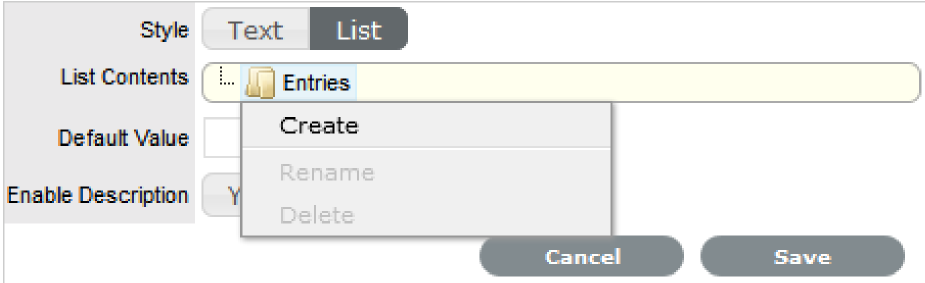
6.3.2 Data Type - List

When the Data Type String - List is selected the List Contents field is displayed, which provides the facility to create a drop down list to be created as options within the field.

To create a new list entry within the List Contents field:

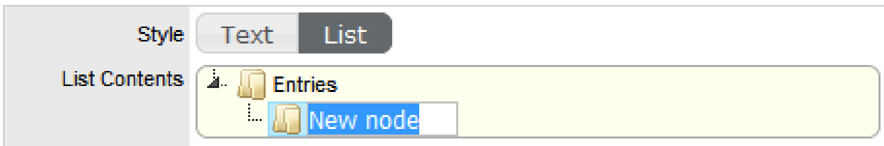
1. Right click the Entries link

   The Create option is displayed

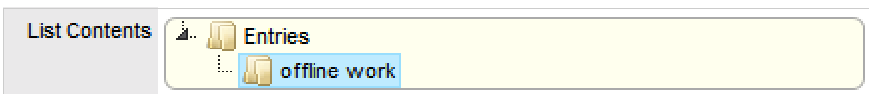


2. Click Create

   A New node link displayed

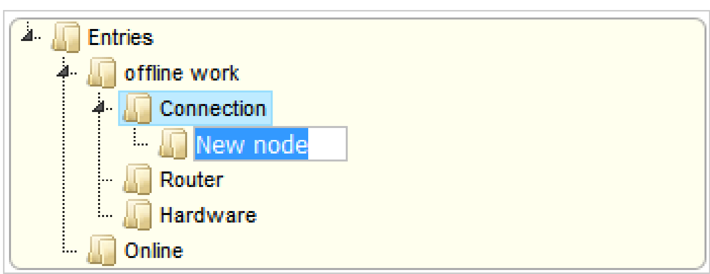


3. Enter the name of the field
4. Click outside the field to save the entry

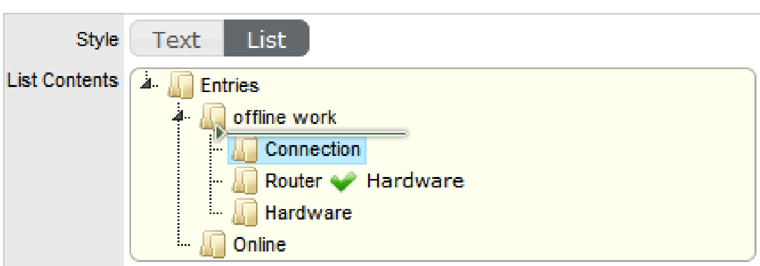


5. Repeat this process until all list entries have been added

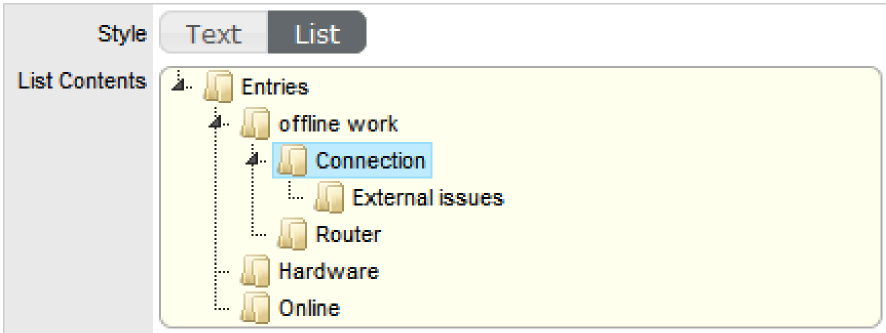
   To create a nested list, right click on the relevant list entry and repeat the above process.



6. To move an existing entry to a new position, select the entry, then drag and drop the entry into its new location



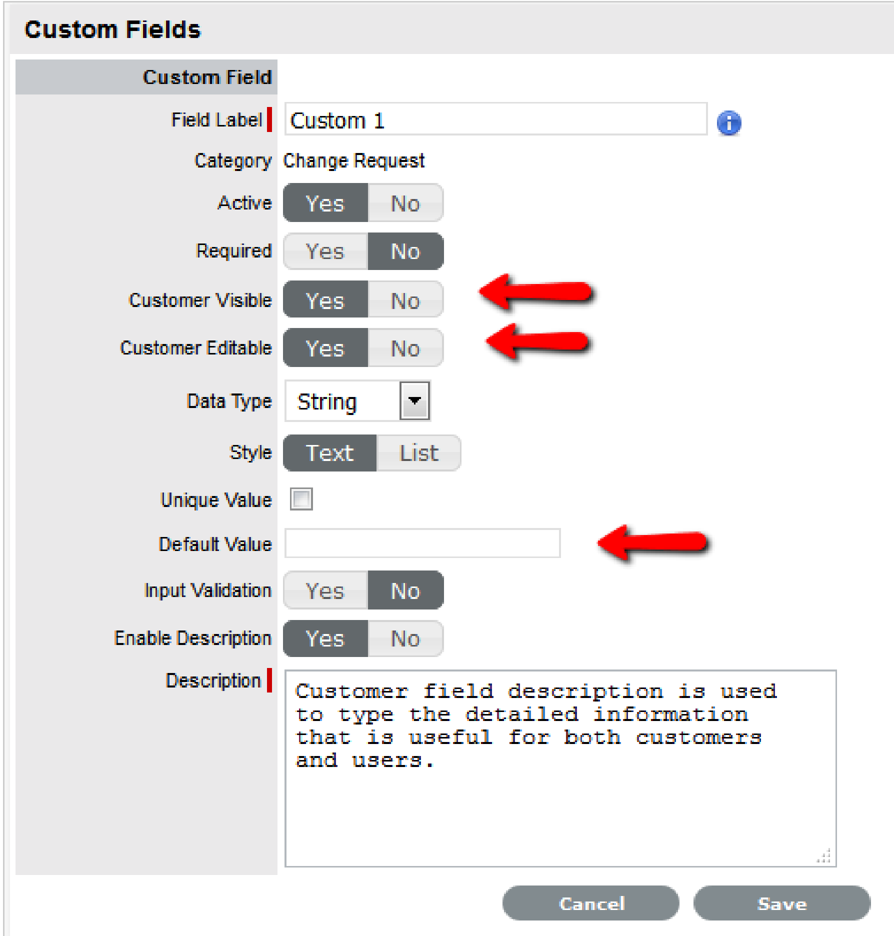
7. When all the relevant details have been defined for the custom field, click Save.



6.3.3 Custom Fields for Incidents, Change and Service Requests

If a custom field is enabled for an Incident, Change or Service Request, additional options are displayed. These include:

	Description
Customer Visible	The custom field is visible in the Customer Portal, otherwise it can only be viewed via Technician access.
Customer Editable	Allows the Customer to edit the content within this field.
Default Value	The custom field will automatically be populated with the value entered here when a request is created. This value can be edited within the request screen, if required.



NOTE: If Customer Visibility is set to No for a required field, then a Default Value must be defined. This will enable the Customer to save a new request without seeing the relevant field.

6.3.4 LDAP/ADS Accounts Custom Fields

The LDAP/ADS custom fields are used to define specific Customer and User fields configured within LDAP/ADS. The custom fields for Customers and Users are completed when Users and Customers are entered manually or imported using a .CSV file.

If Mixed Mode LDAP is applied, the same set of custom fields are used. These are listed with the label Mixed Mode within the Custom Field Category filter list.

6.4 Privileges

- Section 6.4.1, "Privileges," on page 492
- Section 6.4.2, "User Privileges," on page 492
- Section 6.4.3, "Customer Privileges," on page 495
- Section 6.4.4, "Requests Privileges," on page 498
- Section 6.4.5, "System Privileges," on page 503

6.4.1 Privileges

The Privileges tab contains global setup options that govern the application behavior, how Customers and Users can interact with the system and define system defaults.

Ideally, Privileges are set upon initial configuration, however, the system will adapt to changes made later.

There are four tabs within Privileges:

- User
- Customer
- Requests
- System

6.4.2 User Privileges

Within the User tab, privileges for Users with the Technician and Partner Role can be configured by customizing the options within the Technicians options list. This also includes enabling functionality related to all User work hours and public holidays. Defaults can also be adjusted for Users across the Knowledge Management and Configuration Management processes.

Specific to Technician Users, the following privileges include the ability to:

- Create new Customers
- Create new Items
- Reassign requests
- Edit other Technicians' requests
- Create, edit, publish and delete Knowledge Base Articles by default.

NOTE: Privileges assigned to the Technician Role are also applied to the Partner Role.

Enabling User Privileges

To configure User Privileges:

1. Select Setup>Privileges

   The User tab is displayed.

User Privileges	
Technicians	
Create Customers	Allows Technicians to create Customer Accounts.
Reassign Requests	Allows Technicians to reassign requests to another Technician within the same Team. When disabled, requests can only be reassigned through Escalation or changing the status of the request by the Supervisor.

User Privileges	
Duplicate Requests	Allows Technicians to copy requests to fast track request creation. Supervisors have this privilege by default.
Manual Request Time	Disables the timer that automatically monitors and records the time when a request is in Edit Mode. **NOTE:** ◆ This option is not available when Contracts are enabled in the Setup>Billing tab, as time worked on a request must be added to Notes manually by Users. ◆ In the redesigned request page, the automatic time will not monitor and record the time when the request is in the Edit mode.
View All Requests	Allows Technicians to view all the requests, regardless of Team assignment, logged in the system for the Processes they are assigned. It also allows Technicians to edit requests that are assigned to fellow Team members.
Update Closed Requests	Set to Yes to enable Technicians to add Notes to requests that are assigned a Workflow Exit State.
Allow Reopen Requests	Enables technicians to reopen closed requests. **NOTE:** By default, supervisor will be able to reopen closed requests even without enabling this privilege.
Reset SLA on Request Re-open	By enabling this privilege, SLA will be reset when technician reopens the request. When SLA is reset, then the Response Time, Restoration Time, Resolution Time, Due Date and Open Date parameters will also be reset.
Search All Items	Within the Items tab of a request, the All Items option is displayed in the Find Item box for Technician Users, if this option is enabled.
Include Globals Default	By enabling this option, the "Include Global* Options" is ticked by default in the Find Item field, when a User is creating a request.
Subject Required	Allows technicians to enable or disable the subject field in the new end-user portal.
Subject Required	To make the completion of the Subject field mandatory for Users during the request creation process, set the option to Yes.
Technician Alerts	Allows Technicians to create system Alerts.
Work Hours	
Define Work Hours	Allows the Technician's availability to be configured within the Users>Schedule tab. This ensures that Requests are only forwarded to the User during the Defined Work hours, unless there are no other Users available. *If this option is enabled, the Users Work Hours must be defined for each User, otherwise the built-in technician assignment logic will be ignored and all new requests will be assigned to the Team Lead.

User Privileges	
Scheduled Vacations	Allows leave to be scheduled for Users, within the Users>Schedule tab. This allows vacations to be planned and automatically detected by the System when the User commences leave. The System will not assign the User new Requests when they are on vacation.
Vacation Reassign	This option becomes available when the 'Schedule Vacations' option is active. When enabled, this option ensures active requests of the User commencing leave are automatically re-assigned to available Technicians within the User's Team.
Login during Vacation	This option becomes available when the **Schedule Vacations** option is active. When enabled, users can login into Service Desk and work on requests during vacation. The System will not assign the User new Requests when they are on vacation..
Schedule by Technician	This option becomes available when the **Schedule Vacations** option is active. When enabled, users can login into Service Desk and work on requests during vacation. The System will not assign the User, new Requests when they are on vacation.
Observe Public Holidays	This option ensures the System gives consideration to public holidays when calculating SLA times, escalations and breaches. **NOTE:** When enabled, the Public Holidays sub-menu option is visible within the Admin>Localization>Holidays tab.
Assignment Control	When enabled provides the Assignment option within the User Information screen. This allows a Supervisor or Administrator to turn request assignment off for a User who is available in the system.
Edit Customer Partner	Allows Customers to be assigned to Partners within the Customer Information tab.
Create Outage	Enables a Technician to create outages for Items.
Force Analysis	The system will propose relevant Solutions within the Analysis tab, during the request creation process.
Configuration	
Roles	Set the default privileges for the User Roles' ability to create, edit and delete Item information in the CMDB. If you change the default privileges, for an existing user the privileges will not be updated. Since, these settings are not system level settings. But when you create a user the default privileges are assigned. Individual settings below user information section will determine the actual privileges for that user. If you want to change these settings for many users, use the Bulk edit feature.
Knowledge	
Roles	Configure the default Knowledge Base authoring permissions for each User Role.

2. Click Yes to enable, or No to disable a Privilege option
3. Click Save

6.4.3 Customer Privileges

Customer Privileges specify the options that are available to Customers within the Customer Portal.

Enabling Customer Privileges

To enable Customer Privileges:

1. Select **Setup** >**Privileges** >**Customer**

   The Privileges screen is displayed.

Customer Privileges	Description
Create Account	Allows Customers to create their own account from the Login screen.
Default Web Access	Define the default setting for Web Access on newly created Customer Accounts.
Default Tab	Select the default tab for the customer. By default the selected option will be displayed in the Customer portal.
Generic Requests*	Define if Customers can view, create or edit Generic Requests in the Customer Portal.
Generic Request Type*	This option becomes visible when **Generic Requests** option is active. Define the type for generic request from Incident, Service Request or Change Request. For example, if your generic request type is set to Incidents, when you create a generic request, the request gets listed as incident in the User portal. Then the technician can include item details.
Incidents	Define if Customers can view, edit, create (create and view), create or edit Incidents in the Customer Portal.
Change Requests	Define if Customers can view, edit, create (create and view), create or edit Change Requests in the Customer Portal.
Service Requests	Define if Customers can view, edit, create (create and view), create or edit Service Requests in the Customer Portal.
Service Incidents	If the option to create Incidents in the Customer Portal is enabled, this can be refined by defining if Incidents can be logged against Service Items. If this option is disabled then Services are not displayed in the Category drop-down list during the Incident creation process. Also, if a Customer attempts to log an Incident against a Service via email by including the Item# in the Subject line, and this option is disabled, the system will send an error message. The "NoServiceIncidentContent" error message can be customized in the Admin>Setup>Email>Templates>Error Message filter.

Customer Privileges	Description
Default Request*	Define the default request type from Generic Request, Incident, Service Request, Change Request or Quick Call. The list shows if the options are enabled. For example, if Service Request option is turned off, then Service request option is not shown as an option.
Items	Define if Customers can view, create or edit their own Item details within the Customer Portal.
Show Only Active Items	Allows Customers to only view Items that are marked as Active in the system.
Show Subject Field	Displays the Subject field above the Description field in the Customer Portal.
Show Status Field*	Allows to hide or display the Item status in the Customer Portal.
Enable CC for Requests	Enables customers to add emails IDs as CC for requests.
Enable Search for CC	Enables auto suggestion of email IDs and names of existing users when customer start specifying the mail IDs in the CC field of a request.
Allow Re-open	Enables customers to reopen closed requests.
Reset SLA	This privilege will be enabled only when Allow Re-open is enabled. By enabling this privilege, SLA will be reset when customer reopens the request.
Allow Re-open	Enables customers to reopen closed requests.
Show Priority/Urgency	Enables customers to view and set the Priority/Urgency for their requests. Select "No" to hide Priority/Urgency in the customer portal.
Show Time Spent	Enables customers to view the time spent by a technician on a request note.
Item ID search*	Allows Customers to search by an Item's ID when creating a new request.
Force Search	When enabled, proposes solutions for Incidents based on the Item Type, Classification and Description provided.
Create Forum Topics*	Allows Customers to create a new Forum topic through the Customer Portal.
Display Room	Displays the Room for an Item when creating a request.
View Technician	Yes allows Customers to view the details of Technician assigned to their request in the Customer Portal.
Show All Services	Enables the Service Catalog link in the Services tab of the Customer Portal. This allows Customers to view and log requests against all Services offered by the support organization (i.e., request access to a service). Services listed here are not assigned an Exit Item Lifecycle State.
Show Service Targets	Displays the Response, Restoration and Resolution targets for the SLA assigned to the request in the Customer Portal.
Enable RSS*	When enabled, provides the RSS Requests Menu option in the Customer Portal.

Customer Privileges	Description
Enable Titles	When enabled, displays the Titles Tab within the Setup, which can be customized. This list is then displayed in the Title field in the User and Customer Information screen. See Titles.
Enable Item Shadow	When enabled, if requests are logged against an Item on the Customer Portal, Technicians can amend the Item assigned to the request without the Customer seeing the change.
Customer Defined Contact	When enabled, this option allows the Customer to define their preferred method of contact in their Profile or My Account screen. Their preference applies when a Team has the Customer Notification option set to Customer Defined.
Items in Request	If you select Mandatory, then the Item, Item Type and Item Category fields are mandatory when creating a request. If you select Optional, then the Item, Item Type and Item Category fields are optional when creating a request. If you select Hide, then Item, Item Type and Item Category fields are not displayed while creating a request and request creation will be similar to creating a Generic Request in the Classic Customer portal. **NOTE:** This privilege was known as Items Required in ZENworks Service Desk 8.0 and 8.1.
Items Required	If you select Yes, then the Item, Item Type and Item Category fields are mandatory when creating a request. If you select No, then the creation of request will be similar to creation of Generic Request in Classic Customer Portal in ZENworks Service Desk 8.0 and prior versions.
Show Additional Information	Enables you to display additional details such as location Preferred contact type while creating requests.
Show Contact Details	When enabled, allows customers to provide contact details such as Location and Preferred Contact Type and view Line Manager while creating requests. **NOTE:** This privilege was known as Show Additional Information in ZENworks Service Desk 8.0 and 8.1.
Default Date Style	Sets the default Date format to be used across the application.
Default Timezone	Sets the default time zone across the application. This can be overridden on a per User basis, by a User who sets their time zone for their log in account
LDAP/AD	(Visible when an LDAP/AD connection is configured.)
Include Customers	Set to Yes if the system is to import Customer details when synched with an LDAP/AD server.
Mixed Mode	Allows Customer accounts to be created directly through the system, as well as being imported via LDAP/AD.
View Shared Requests	(Request visibility options for the Customer Portal.)

Customer Privileges	Description
By Ownership	Allows requests to be viewed by all Owners of the Item, when logged against a Shared or Global Item. (See the table below for toggle option outcomes.)
By Org Unit	(This option is visible when the By Ownership is enabled.) Allows requests to be viewed by all Customers of an Org Unit assigned to the Item, when logged against a Shared or Global Item.

Fields marked with * are not applicable for the new end-user portal.

2. Click Yes to enable, or No to disable a Privilege option
3. Click Save.

Setting the View Shared Requests options

When setting the visibility of requests logged against shared Items, refer to the table below to ensure the correct visibility option is configured for your organizational requirements:

By Ownership	By Org Unit	Shared Request Visibility
No		Only visible to the Customer who logged the request.
Limited	No	Visible to the Customer who logged the request and other Owners in the same Org Unit, assigned to the Item.
Limited	Limited	Visible to Customer who logged the request and members of Org Unit they belong to, if the Org Unit is also assigned to the Item.
Limited	Yes	Requests visible to Owners within all Org Units assigned to the Item.
Yes	No	Visible to Customer who logged the request and other assigned Owners.
Yes	Limited	Visible to Customer who logged the request, other members of the Org Unit the Customer logging the request belongs to and other Owners assigned to the Item .
Yes	Yes	Visible to everyone who share the Item assigned to the request.

6.4.4 Requests Privileges

Requests Privileges allows the Administrator to control the functionality available for requests and set default requirements. These privileges are applied system-wide.

Enabling Requests Privileges

To enable Requests Privileges:

1. Select Setup > Privileges > Requests

   The Requests Screen appears.

Request Options	
Enable Escalation Control	Enables escalation to be enabled or disabled on a per request basis. This option is only available to Supervisor Users.
Queues	Allows Teams to use a holding bay for requests that are received via email or the Customer Portal. The Queues can be enabled within the Team Information screen, on a per Team basis.
Control Deployments via RFC	When enabled, Change Requests are automatically created from newly entered Deployments, and will require approval before work commences on the Deployment.
Control CMS via RFC	When enabled, changes made within the CMDB by a Technician will generate a Change Request requiring approval before the change is implemented.
Customer CMS via RFC	When enabled, Customers creating Items via the Customer Portal generate a Change Request that requires approval before the change is implemented in the CMDB.
Minimum Solution Relevance	Define the minimum degree of relevancy for content included in the Description field of a request, when the system automatically searches the Knowledge Base to propose solutions.
Enable Quick Calls	Enables the functionality that allows the Supervisor to profile Requests using Quick Call Templates. These can be used by other system Users when creating new requests.
Request Priority (Derived/Selected)	Derived: Allows the system to derive the Priority based on Urgency and Impact of the request. Selected: Allows you to manually select the Priority from the list. You can still select Urgency and Impact, but Priority will not be derived from the selections. **NOTE:** Applicable only on the request detail page.

Request Options	
Default Priority	**This option is displayed when the Incident Priority is set to Selected. The selection made from the drop-down menu, is automatically applied as the default Priority for newly created requests.
Handshaking	Enables notifications to be sent to a Customer using the Propose button within an Incident or Request, stating the Incident/Request will be closed if no reply is received from them within a set number of days. **NOTE:** Note: The Solution button within an open Incident/Request is not accessible when the Handshaking facility is enabled. When enabled, if Problems or Changes are closed, any related Incidents or Requests are moved to the Pending - Approval State not to the default Closed State.
Handshaking Close Action	Sets the system default number of days to lapse before an Incident or Request will close if the Customer does not respond to the handshake email notification. This can be adjusted on a per Org Unit basis. **NOTE:** To allow Customers to re-open an Incident or Request using the link in the handshake email, the web server must be using Port 80.
Customer Additional Information Reminder	Sends reminder mails to customers to notify that additional information is requested by the technician. When a technician requests for additional information from customer and customer fails to provide the required information with specified duration (Remind After Days), email reminders will be sent to the customer. If customer fails to provide the required information after a specified number of reminders (Remind Count), then a note will be added to the request. Depending on the Handshaking settings, the request will be processed further. ◆ The content of the reminder email can be configured in the CustomerAdditionalInformationReminder and CustomerAdditionalInformationReminderSubject email templates. To configure the templates, go to Setup > Email > Templates tab. ◆ The Handshaking setting is not applicable for Problem and Change requests.

Request Options	
Remind After Days	Define the number of days to lapse before sending reminder email to customer to provide additional information that is requested from the technician.
Remind Count	Define the number of reminder mail that should be sent to customers to provide additional information that is requested from the technician.
Approval Reminder	To automatically send Managers reminder emails regarding Requests requiring their approval, set this option to Yes. When Yes is selected, define the number of days to lapse before a reminder will be sent. The content of the reminder email is drawn from the ApproveChange or ApproveServiceRequest template. These are configured within Setup>Email>Templates tab.
Default Notes Visibility	Sets the system default visibility of Notes, when added to requests. If it is expected that the majority of Notes are to be emailed to Customers, select Public.
Allow Unknown	When set to No and a User opens a request that is assigned the Unknown Service Item, the User will be prompted to update the Item before saving the request.
Archive Requests	When enabled, the number of days a request is closed before being removed from the List View and archived is to be set. Requests that are archived are no longer included for searching. However, they can be still accessible for reporting purposes. If you modify the date range or disable the setting, the archived request that are no longer eligible for archiving will get unarchived. **NOTE:** Archiving is reversible. However, if the previous archive task is running, then archive options will be disabled until the current task is completed.
Default SLA	Is used as the Default SLA when a new request is created without an SLA defined for the Item, Customer or Org Unit.
Default Incident* Team (required if using AMIE)	Set the Default Incident Team, which is used for AMIE integration and also set as a default Support Team for Item Types.

Request Options	
Default Problem* Team (required if using AMIE)	Set the Default Problem Team, which is used for AMIE integration and also set as a default Support Team for Item Types.
Default Change* Team (required if using AMIE)	Set the Default Change Team, which is used for AMIE integration and also set as a default Support Team for Item Types.
Default Request Team* (required if using AMIE)	Set the Default Request Team, which is used for AMIE integration and also set as a default Support Team for Item Types.
Review Options	
Review SLA	When enabled will display the Review date field in the Service Level Information screen. The default number of days between reviewing SLAs should be set and the number of days before the review date for an Alert Reminder, should also be entered.
Review RFC	When enabled the system will display a Review date in the RFC Information tab. The default number of days between reviewing RFCs should be set and the number of days before the review date for an Alert Reminder, should also be entered.
KBA Options	
Control KBA via Request	When enabled, a Request is generated when the KBA is created, deleted or amended and can only be published to the KB by a User with publishing privileges.
Request Type	Specify the type of request to be generated when new or amended KB content is moved to a "Pending Publication" state. (The options are based on the ownership of Change and Service Request licenses.)
Default SLA	Set the default SLA to be used for when requests are logged regarding updates in the knowledge base. Applying an SLA here, determines which workflow and team will receive the requests for approval, as with any other request logged in the system.

* To be set after Teams have been configured.

1. Click Yes to enable, or No to disable a Privilege option
2. Click Save

Purge Deleted Attachments

This action will purge all the deleted attachments that were deleted from requests and request groups. This is an irreversible action, and you will not be able to retrieve the deleted attachments.

6.4.5 System Privileges

The System Privileges screen allows an Administrator to control the following options:

- Knowledge Base
- Surveys
- Forums
- Outages
- Other general settings

Enable System Privileges

To enable System Privileges:

1. Select **Setup** > **Privileges** > **System**
2. The following information is displayed:

Customer Privileges	Description
Host Address	To be completed with details of the machine hosting the application, if required.
Edit Item Numbers	Allows users to edit the identification number of an Item.
Public Knowledge Base	Allows access to the Public Knowledge Base on the Login Page.
Public Surveys	Provides access to Public Surveys on the Login Page.
Public Alerts	Alerts with the visibility defined as "Everyone" will be made available on the Login Page.
Public Request	

Customer Privileges	Description
Passwords	When LDAP or Active Directory Authorization is not used internal authentication is used. To define the password type to be used by the system select: *Random*: the system will generate a random string whenever a password is reset. *Email*: The Users Email Address will be used as the password. *Manual*: Allows the User to manually create a password.
Password Questions	Enables the ability to set security questions within the My Account screen for Customers and Users, which are referenced when resetting or re-sending login credentials.
Session Timeout	The number of minutes the system waits before terminating idle sessions. **NOTE:** Ensure that the session timeout on the server hosting the application, is equal to or greater than the Timeout option defined in the System Privileges. For changing the timeout option on the server that is hosting the application, edit as follows: ◆ For a standalone application: Edit the /<MFSD_server_installation_path>/Server/webapps/LiveTime/WEb-INF/web.xml file. ◆ For an appliance: Edit the srv/tomcat6/webapps/LiveTime/WEB-INF/web.xml file.
Default Name Pattern	Select the order for names being displayed in the system, when the First and Last Name are shown together on a screen.
Outbound Web Services	When enabled, request Workflow States and Item Lifecycle States can be assigned a 'listener', which allows these details to be updated in external systems. (Refer to the Extend section of the LiveTime website for details on how to develop a listener.)

Customer Privileges	Description
OpenID Provider	Enables the system to function as an OpenID Provider for User authentication across network resources, as the user authentication source. The OpenIDProvider URL should be: <PROTOCOL>://<SERVER>/LiveTime/ WebObjects/LiveTime.woa/ wa/providerLookup The Protocol should be set to http or https and the server details should include where the system is hosted.
OpenID Consumer	Enables the system to delegate authentication of Users and/or Customers to one or more OpenID Providers. OpenID Providers that are to be used as delegates are configured in the Setup>Authentication>Social tab.
Trust all SSL Connections	Enables the system to automatically trust certificate while integration with a 3rd party server such as Email, LDAP and ZENworks. By default (and recommended), Trust all SSL Certificates will be set to "No" and users have to manually trust the certificates.
Attachment Preview	Enables attachment preview of the supported files in the request detail page. **NOTE:** ◆ The preview might not be displayed immediately. ◆ Sometimes Preview might not be generated even for the supported files.
Hide old pages	Hides placeholder pages of the older UI which has been re-designed.

Customer Privileges	Description
Telemetry	Telemetry enables ZENworks to collect statistical data about your usage of Service Desk. This data will enable us to ensure that you have the best possible experience with Service Desk. Telemetry is scheduled to run once a month. If your Service Desk server does not have outward connectivity and you want to upload the data manually, then perform the following: 1. Copy the telemetry `enc` file from the following location: ◆ **Windows:** `\Program Files\ServiceDesk\LiveTime\Telemetry` ◆ **Linux:** `/usr/local/ServiceDesk/LiveTime/Telemetry` ◆ **Appliance:** `/LiveTime/Telemetry` 2. Using any FTP client connect to `productfeedback.microfocus.com` with `username`: anonymous and password: blank (optionally use your email-id). 3. Upload the file to the `stats/MFSDTelemetry` folder.
Mandatory Product Data	Telemetry collects the following mandatory product data: ◆ License type ◆ Technician count ◆ Customer count ◆ ZENworks integration ◆ Database type ◆ Operating system
Gather Configuration Data	(Optional) This collects the list of categories and count.
Gather Feature Usage Data	(Optional) This collects the following feature usage data: ◆ Quick call count ◆ Request info and count ◆ Process info and count
Forum Options	
Use Forums	This option enables and disables all Forums within the system.

Customer Privileges	Description
Default Sort Order	Sets the default Forum Topic sort order to either ascending or descending.
Public Forums	This option enables Public Forums to be viewed from the login page and does not require an account to view.
Outages Options	
Planned Outages Page	A link to the Planned Outages page is displayed on the Login Screen. Outages can be set within Configuration Item properties to schedule when the item will be off-line. **NOTE:** To display the Outages tile, Planned Outages Page and Outages Page should be set to Yes in **Setup** > **Privileges** > **System** | **Outage Options**. The Outage will be displayed only when the Minimum Criticality for an Item Category is set to equal or higher criticality, and the Item must be deployed. For Item, Criticality must be equal to or higher than the Item Category Minimum Criticality setting. To view the Outages Offline, go to the “Item Category” and ensure that the Offline State and Customer Visible are set to Yes.
Outages Page	A link to the Outages Page is displayed on the Login Screen.
Minimum Criticality	Defines the Minimum Criticality required for Items to be displayed on the Outages pages.
Show Affected Relationships	Enables Item from the Outages page to show the Item's Relationships.
Show Affected Users	Allows Item owner's details to be displayed on the Outages page.
Show Inactive Items	Displays inactive Items on the Outages page. An inactive Item is an Item that is currently not in use by the organization.
Show Change Requests	Allows Customers to view Change Requests related to Outages displayed in the Customer Portal.
Search Outages	Enables Outages to be searched using the Customer email addresses or Item number.
KBA Review Options	

Customer Privileges	Description
Review KBA	When enabled a Review date field is displayed in the KBA Information screen. The default number of days between reviewing KBAs should be set and the number of days before the review date for an Alert Reminder, should also be entered.
KBA Comment Options	
Enable KBA Comments	Enables commenting on the KBAs.
KBA Comment Visibility	Using this field, you can enable the comment visibility to Customers and Technicians. Owner of KBA will always have comment visibility.

4. Click Yes to enable, or No to disable a Privilege option
5. Click Save.

NOTE: Note: All Outages options apply to Service Manager only.

Re-Index Button

The Re-Index button at the base of the System Privileges page is used to re-build the system index. If the search engine appears to be failing text searches, this process will re-create the index. The indexing rebuild runs as a background process.

The following content and attachments is re-indexed:

- Knowledge Base
- Forums
- All requests
- Items

For more information on search, see “Full Text Search Options” on page 255.

6.5 Customize

6.5.1 Customize

The *Customize* menu allows the Administrator to brand the application where system banners can be replaced with the appropriate organizational banners. Graphics included should be PNG images. The Application Banner should be 250 x 60 pixels and all other banners should be 500 x 60 pixels.

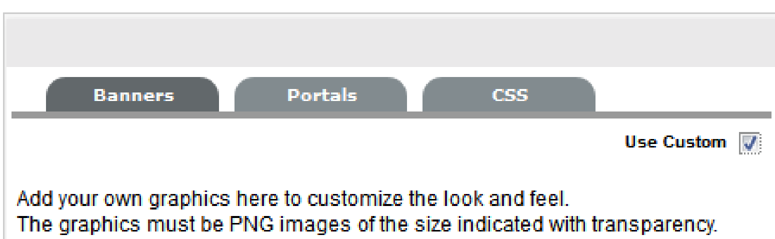
Adding a Customized Banner

To add a customized banner:

1. Select Setup>Customize

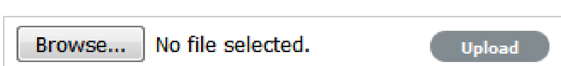
Banner Type	**Displayed**
Application	Visible on the Log in page of the system.
User	Visible in the portals for Supervisor, Technician, Administrator, Partner, Finance and Manager Users
Public/Email	Displayed on public portals for Knowledge, Outages, Surveys and Forums. This banner is also included in emails when the Setup>Email>Setup option of Include Banner is set to Yes.
Customer	Visible in the Customer Portal. **NOTE:** Banners for Partner Organizations can be uploaded in the Banners tab of the User>Partner Organization screen. This will override the system Customer Portal banner for Customers associated with the Partner Organization.

2. To use *Custom Banners*, select the *Use Custom* checkbox at the top of the Customize *Banners screen.*



3. To upload a new banner, click *New*

   A window with a browse function appears.



4. *Browse* to the location of the image and click

   The image will be uploaded.

5. Repeat the process until all banners have been replaced
6. *Click Save.*

NOTE: When the Purchase Orders functionality is enabled within the Setup>Billing tab, the option to upload a logo that will be used for system generated POs is displayed. The graphic should be saved as 150x150 PNG file.

Portals Tab

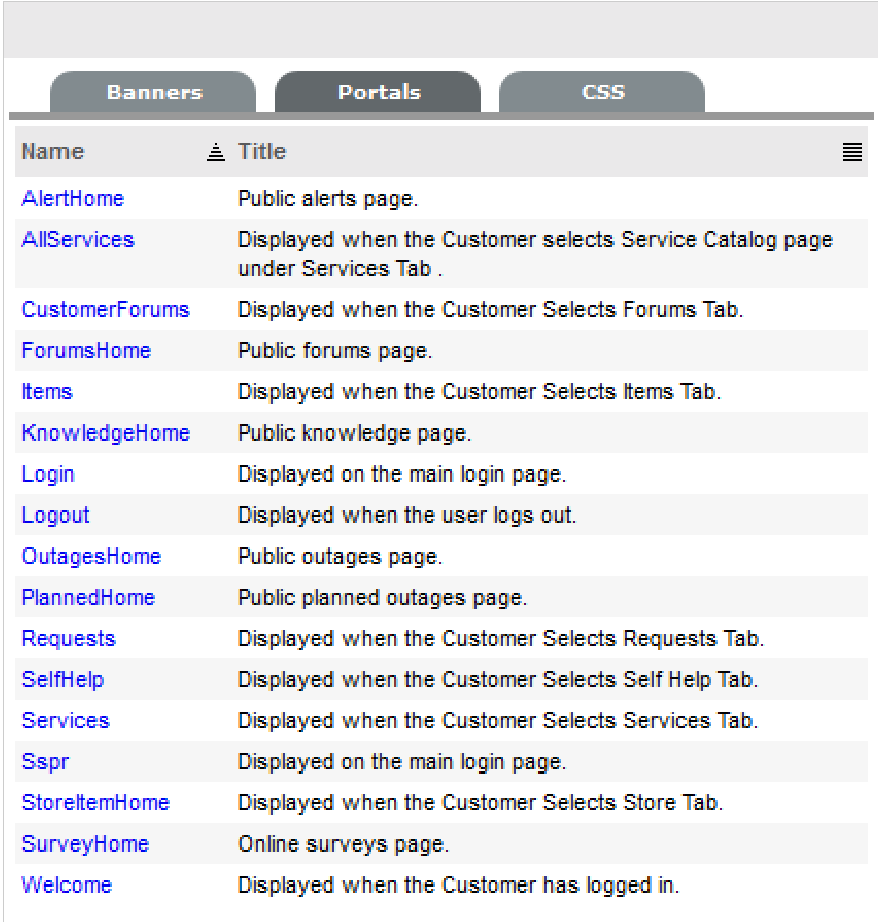
All Public Access home page messages can be fully customized under the Portals tab. Links to documents and downloads may be added. The home page messages can be customized for:

- Alerts
- Forums
- Knowledge Base
- Login Page
- Public Outages
- Planned Outages
- Surveys
- Customer Portal welcome message

NOTE: Outage Home and Planned Home Messages apply in Service Manager only.

To customize a Public Access message:

1. Select Setup > Customize
2. Click the Portals tab

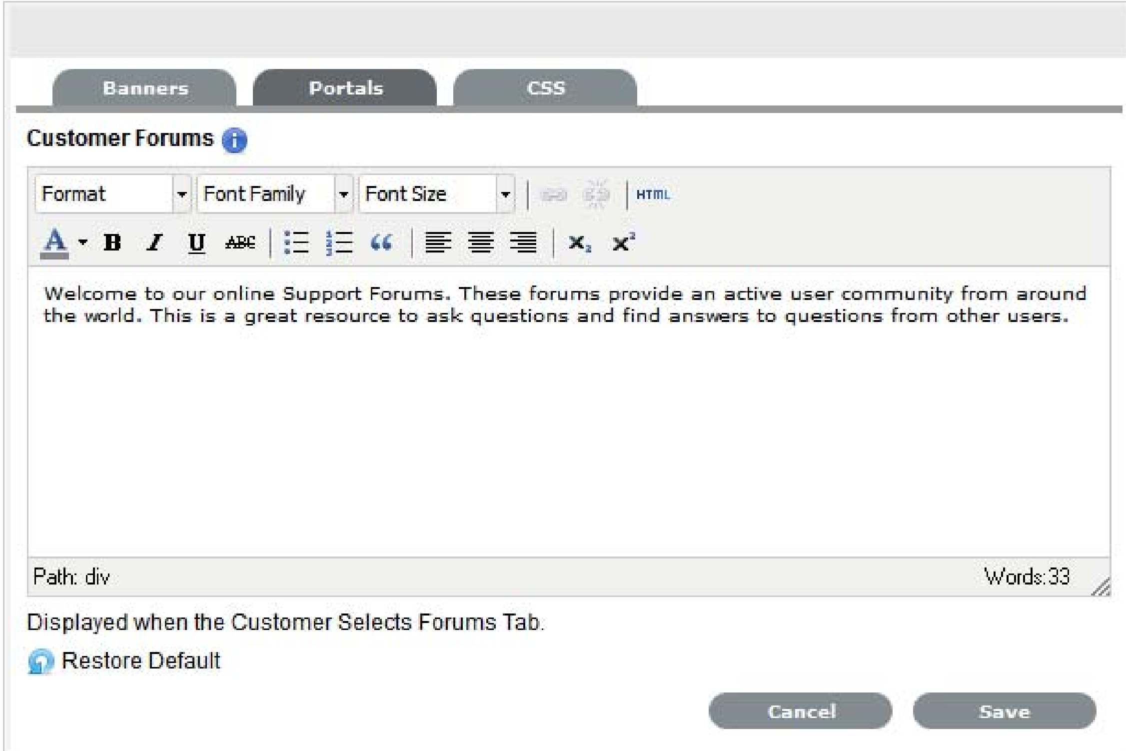


Banners | Portals | CSS

Name	Title
AlertHome	Public alerts page.
AllServices	Displayed when the Customer selects Service Catalog page under Services Tab .
CustomerForums	Displayed when the Customer Selects Forums Tab.
ForumsHome	Public forums page.
Items	Displayed when the Customer Selects Items Tab.
KnowledgeHome	Public knowledge page.
Login	Displayed on the main login page.
Logout	Displayed when the user logs out.
OutagesHome	Public outages page.
PlannedHome	Public planned outages page.
Requests	Displayed when the Customer Selects Requests Tab.
SelfHelp	Displayed when the Customer Selects Self Help Tab.
Services	Displayed when the Customer Selects Services Tab.
Sspr	Displayed on the main login page.
StoreItemHome	Displayed when the Customer Selects Store Tab.
SurveyHome	Online surveys page.
Welcome	Displayed when the Customer has logged in.

3. Select the Name hyperlink

   The HTML editor appears.



4. Edit the message as required
5. Click Save.

Cascading Style Sheets

The system can be further customized using cascading style sheets (CSSs) to amend:

- Color
- Fonts
- Tabs
- Graphics

See: Cascading Style Sheets (CSS).

6.5.2 Portals

All Public Access home page messages and some Customer Portal pages can be customized within the Portals tab.

Knowledge of HTML is required to edit this section. Links to documents and downloads may be added. The content can be customized for the following system Portals:

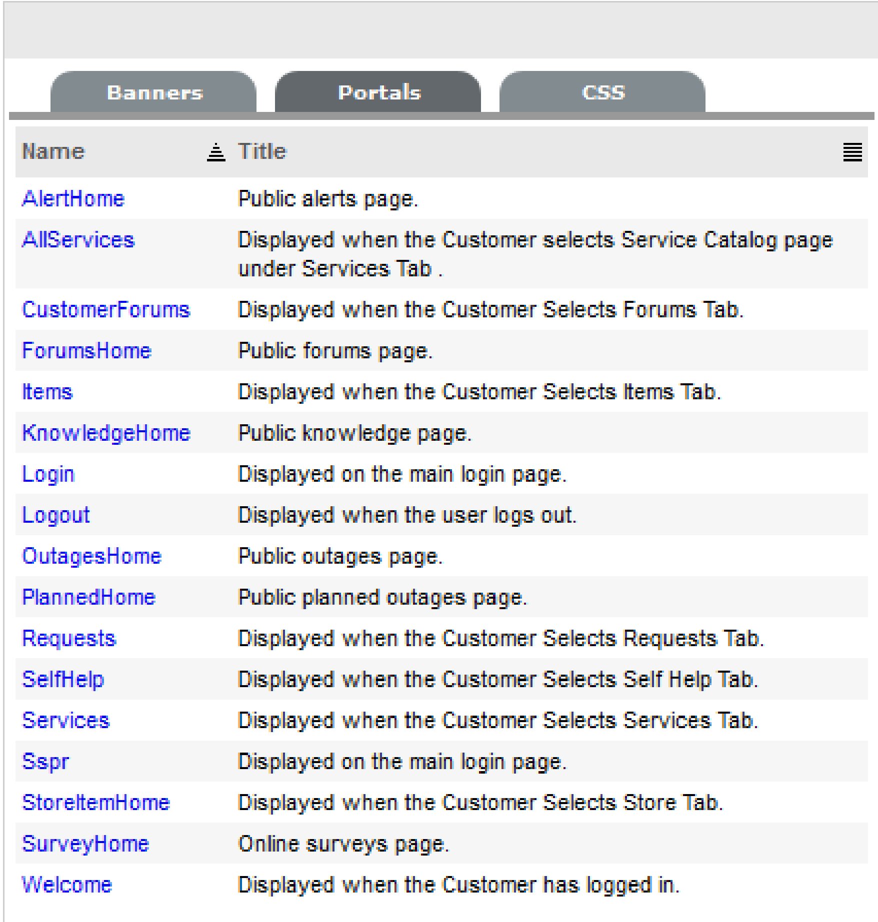
1.

Name	Description
AlertHome	Accessed by clicking the Alerts link on the system Login screen.

Name	Description
AllServices	Visible as the header within the Service Catalog screen of the Services tab in the Customer Portal.
CustomerForums	Visible as the header within the Forums page of the Customer Portal.
ForumsHome	Visible as the header within the Forums pages of Public Forums.
Items	Visible in the Items tab within the Customer Portal.
KnowledgeHome	Accessed by clicking the Knowledge Base link on the system Login screen.
Login	Visible on the screen where system users enter their login credentials.
Logout	Visible on the page displayed when system users log out.
OutagesHome	Accessed by clicking the Outage link on the system Login screen of Service Manager installations.
PlannedHome	Accessed by clicking the Planned Outage link on the system Login screen of Service Manager installations.
Requests	Visible in the Requests tab within the Customer Portal.
SelfHelp	Visible in the Self Help tab within the Customer Portal.
Services	Visible as the header within the Services tab of the Customer Portal.
SurveyHome	Displayed in the public online surveys page.
Welcome	Displayed on the landing page when the Customer logs into the Customer Portal.

To customize a Portal message:

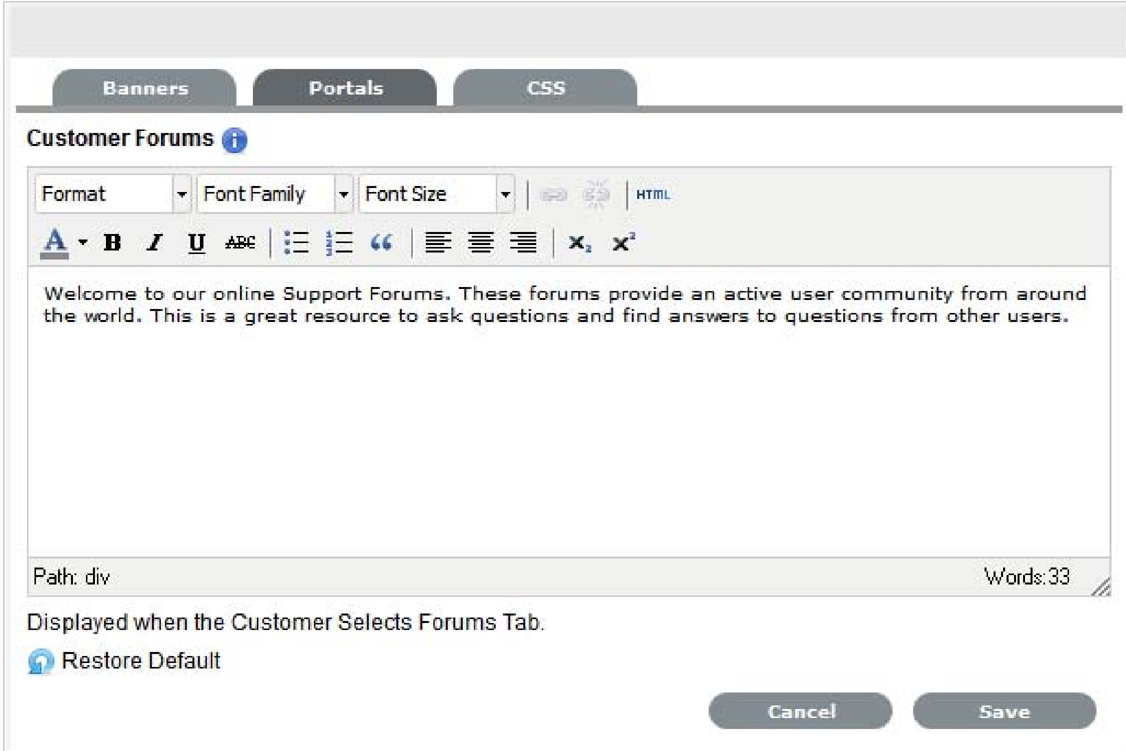
1. Select Setup > Customize



Name	Title
AlertHome	Public alerts page.
AllServices	Displayed when the Customer selects Service Catalog page under Services Tab .
CustomerForums	Displayed when the Customer Selects Forums Tab.
ForumsHome	Public forums page.
Items	Displayed when the Customer Selects Items Tab.
KnowledgeHome	Public knowledge page.
Login	Displayed on the main login page.
Logout	Displayed when the user logs out.
OutagesHome	Public outages page.
PlannedHome	Public planned outages page.
Requests	Displayed when the Customer Selects Requests Tab.
SelfHelp	Displayed when the Customer Selects Self Help Tab.
Services	Displayed when the Customer Selects Services Tab.
Sspr	Displayed on the main login page.
StoreItemHome	Displayed when the Customer Selects Store Tab.
SurveyHome	Online surveys page.
Welcome	Displayed when the Customer has logged in.

2. Select the Name hyperlink

   The HTML editor appears.



3. Edit the message as required
4. Click Save

Cascading Style Sheets

The system can be further customized using cascading style sheets (CSSs) to amend:

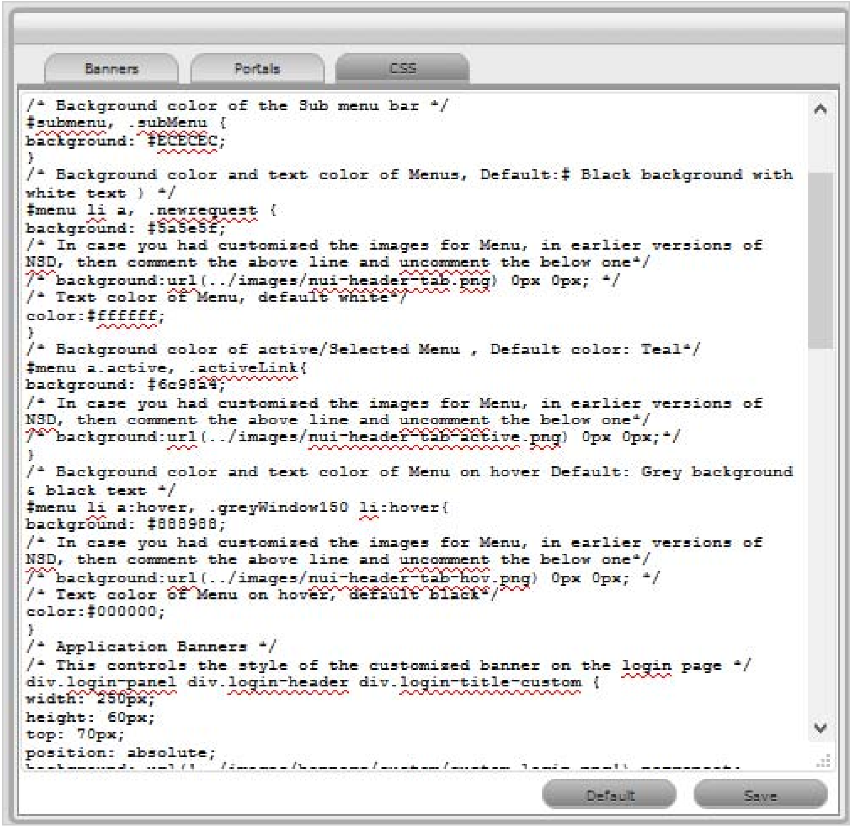
- Color
- Fonts
- Tabs
- Graphics

6.5.3 Cascading Style Sheets (CSS)

- "Background Colors" on page 516
- "Application Banners" on page 517

The CSS tab allows Users to customize the look and feel of banner backgrounds and tabs within the system. Knowledge of working with cascading style sheets is recommended when making changes to these settings.

The options available for configuration include:

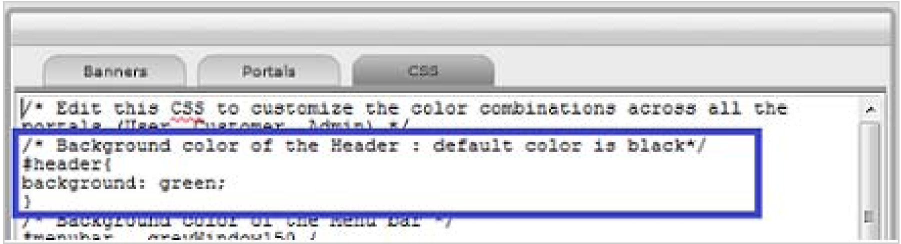


Background Colors

CSS Editor	
Background Colors	
#header	This controls the background color of the header.
#menubar, .greyWindow150	This controls the background color of the menu bar.
#submenu, .subMenu	This controls the background color of the submenu bar.
#menu li a, .newrequest	This controls the color of the menu background and the text.
#menu a.active, .activeLink	This controls the background color of the active selective menu.
#menu li a:hover, .greyWindow150 li:hover	This controls the background color of menu on hover.

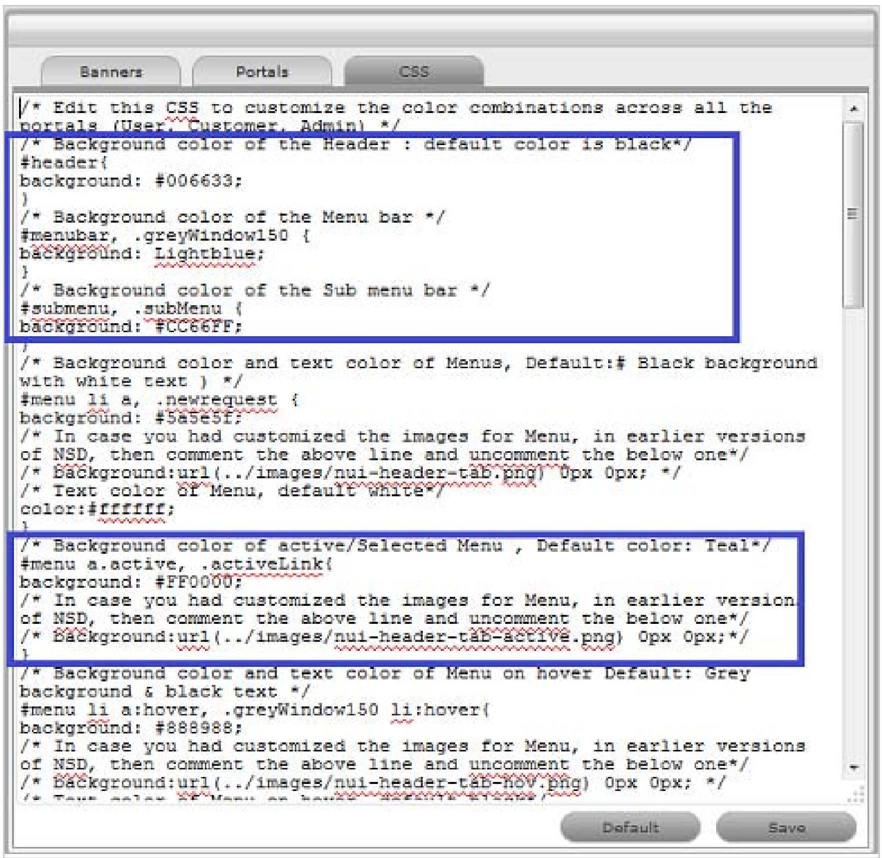
Example 1

This example shows how to change the default header color to green. In the #header section for background, you can either directly specify green or use the Hex color code for green. After saving the changes, you can see a change in the background color of all portals as shown below:



Example 2

The following screen displays the customized colors of the header, menu bar, submenu bar; the active menu and the configurations made to get this result:



NOTE: After saving the changes, ensure that you clear the browser cache to view your custom changes.

Application Banners

CSS Editor

Application Banners

CSS Editor	
div.login-panel div.login-header div.login-title-custom	This controls the style of the customized banner on the Login page.
div.login-panel div.login-header div.login-title-container	This controls the style of the default banner on the Login page.
div.login-panel div.login-header span.login-app-logo	This controls the helpdesk icon graphic on the Login page.
#header .customPngBanner	This controls the style of the customized banner within the User portal.
#header .defaultBanner	This controls the style of the default banner graphic within the User portal.
#header .customPngBanner	This controls the style of the customized banner within the Customer & Public portals.
#pageHeader .defaultBanner	This controls the style of the default banner within the Customer & Public portals.
Menu Options (User Portal)	
#menu a.active	This controls the highlight on the active (main) menu selection.
submenu a:hover	This (in tandem with the span extension) controls the mouseover (hover) on the submenu tabs.
#submenu a:hover span	This (in tandem with the hover default above) controls the mouseover (hover) on the submenu tabs.
#submenu a.active	This controls the highlight applied to the selected submenu options.

If unwanted changes are made to the system Style Sheets, use the Default button to return the system to the out-of-the-box format.

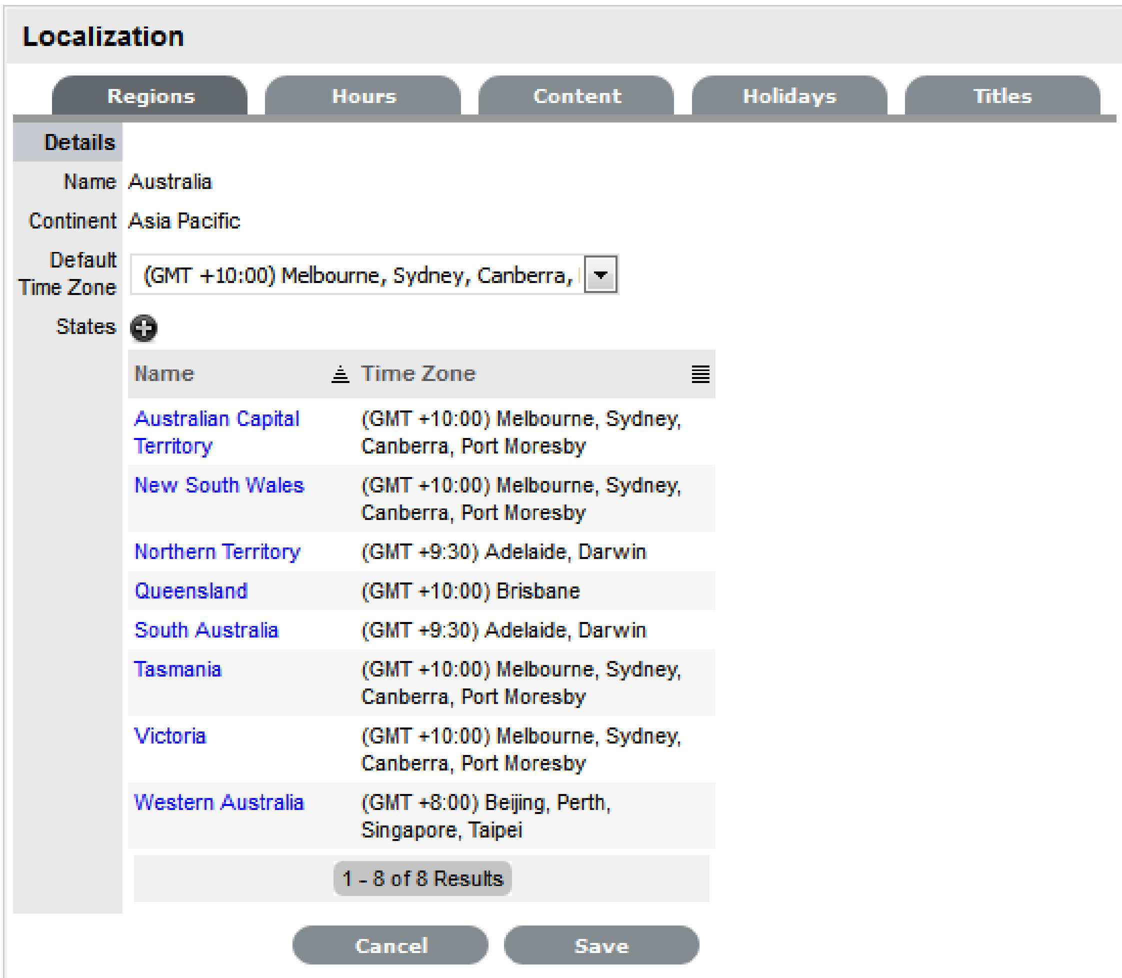
6.6 Localization

6.6.1 Regions

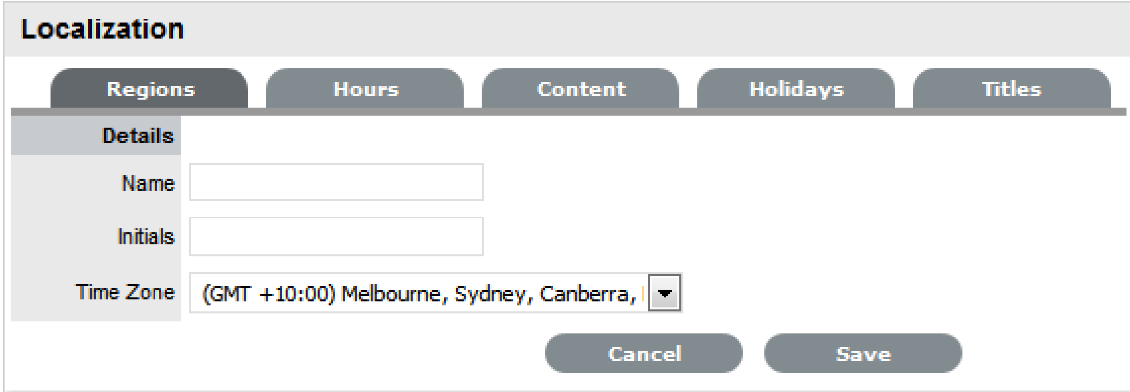
This option allows the Administrator to customize the geographic regions or States that are available for each Country. This information is applied to Customers and Org Units when their contact details are being defined. When the Customer or Org Unit "Country" field is completed within the information screen, the States that are displayed are drawn from the Geographic Regions defined here.

To define a State for a Country:

1. Go to Setup > Localization > Regions tab
2. Search and select a Country hyperlink from the list provided



3. Click to add another State or region

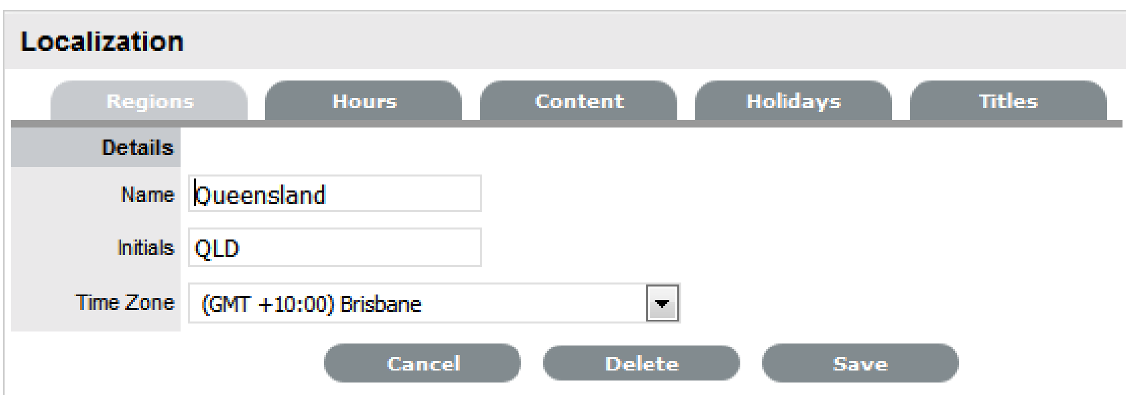


4. Enter the Name, representative Initials and select the relevant Time Zone
5. Click Save
6. Repeat Steps 3 to 5 to add more regions
7. Select Save.

Editing States

A default or customized template can be easily edited:

1. Go to Setup > Localization > Regions tab
2. Search and select a Country hyperlink from the list provided
3. Select the relevant State Name hyperlink.



4. Edit the Name, Initials or Time Zone details
5. Select Save.

Deleting a State

A default or customized template can be easily deleted:

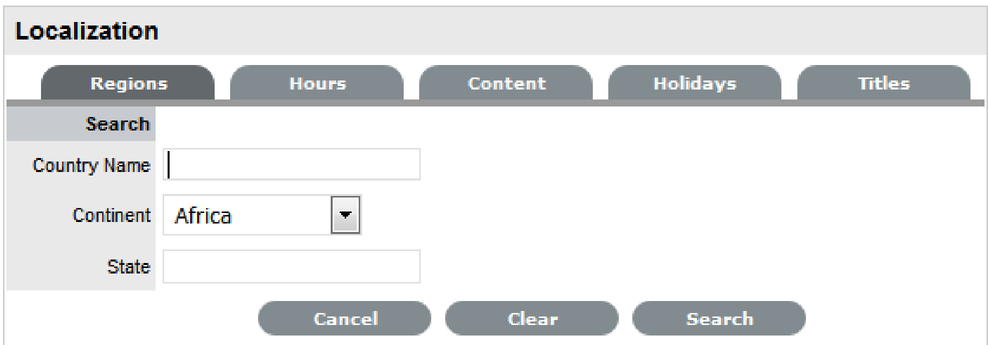
1. Go to Setup > Localization > Regions tab
2. Search and select a Country hyperlink from the list provided
3. Select the relevant State Name hyperlink

4. Select the Delete button
5. Select Save.

Region Search

To find a Country or State within a Country, the Search facility can be used. To conduct a search:

1. Go to Setup > Localization > Regions tab
2. Select Search

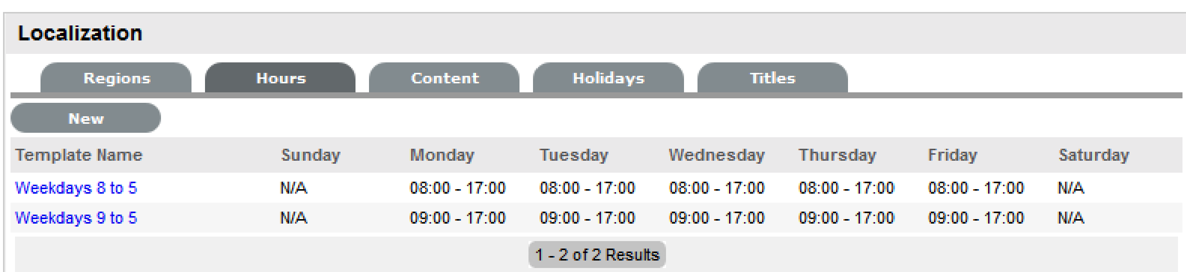


3. Enter the known details

   Search options include Country Name, Continent or can also be refined by the State within a Country.
4. Click Search.

6.6.2 Hours

For the ease of configuring the Technician Scheduled hours of work and customizing hours of operation for Service Level Agreements, work hour templates can be created within the Setup>Localization>Hours screen. These templates are then made available throughout the application, wherever hours of operation are defined.

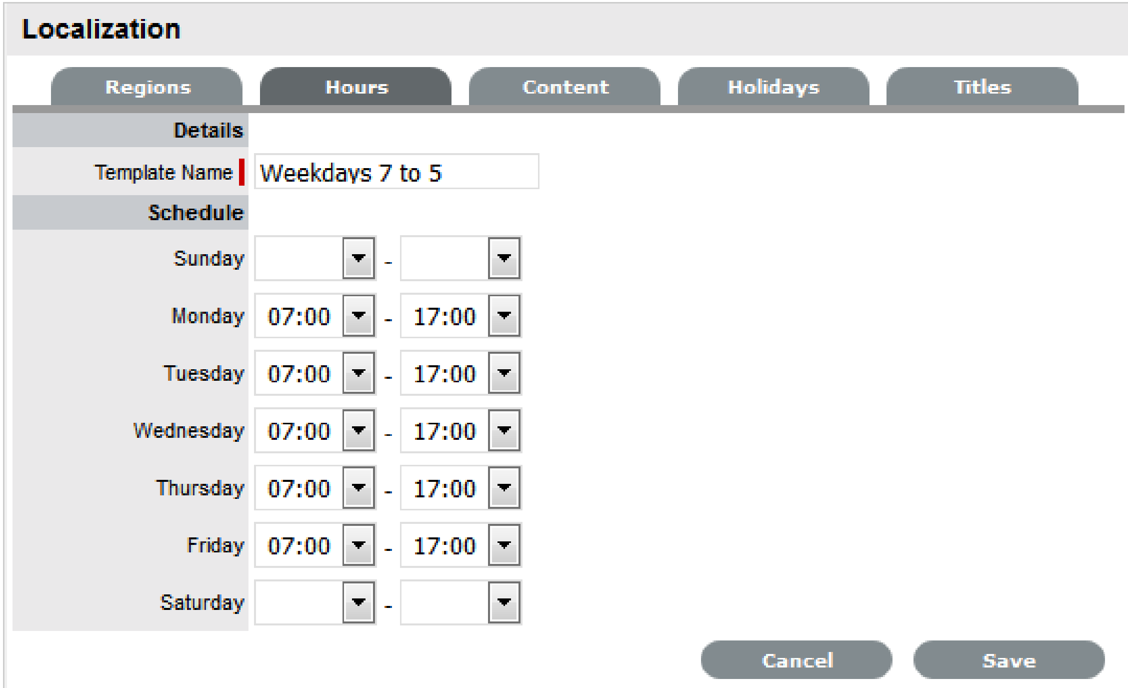


To create a template:

1. Go to Setup>Localization>Work Hours tab
2. Click New
3. Enter the Template Name

   (Required.)

4. Set the hours of operation



5. Select Save.

Editing a Template

A default or customized template can be easily edited:

1. Go to Setup>Localization>Work Hours tab
2. Click the relevant Template Name hyperlink
3. Amend the hours, as required
4. Select Save.

Deleting a Template

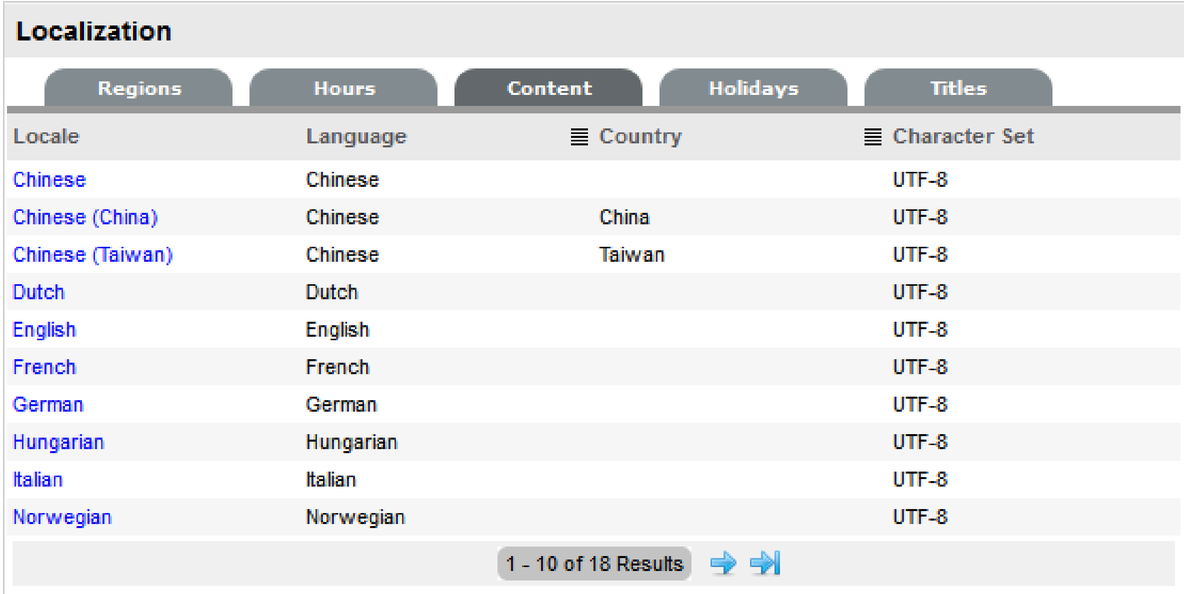
A default or customized template is deleted from the List View:

1. Go to Setup>Localization>Work Hours tab
2. Click the Template Name hyperlink
3. Select Delete

   A warning message will be displayed.
4. Click OK.

6.6.3 Content

The Content tab allows Users to configure automated messages, user interface and system objects content for language files used by the application.



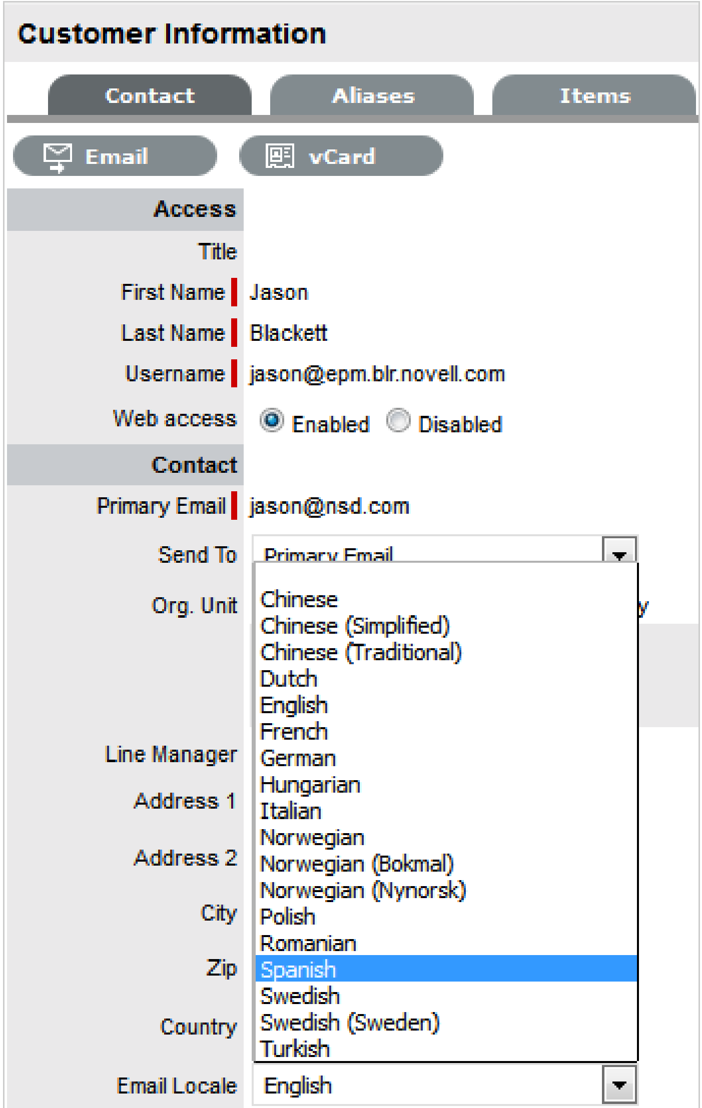
Localization

Regions | Hours | Content | Holidays | Titles

Locale	Language	Country	Character Set
Chinese	Chinese		UTF-8
Chinese (China)	Chinese	China	UTF-8
Chinese (Taiwan)	Chinese	Taiwan	UTF-8
Dutch	Dutch		UTF-8
English	English		UTF-8
French	French		UTF-8
German	German		UTF-8
Hungarian	Hungarian		UTF-8
Italian	Italian		UTF-8
Norwegian	Norwegian		UTF-8

1 - 10 of 18 Results

The customized content is applied to Customers and Users by setting the Email Locale option in their account information screen.



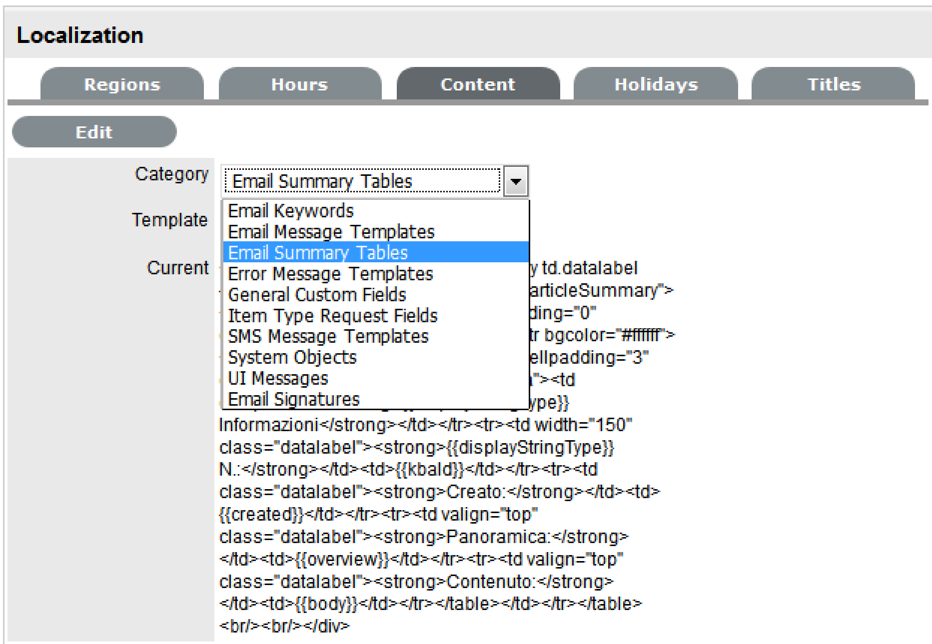
Content can be customized across the following elements and messages:

- Email Keywords
- Emal Message Templates
- Email Summary Tables
- Error Message Templates
- General Custom Fields
- Item Type Request Fields
- SMS Message Templates
- System Objects
- User Interface messages
- Email Signatures

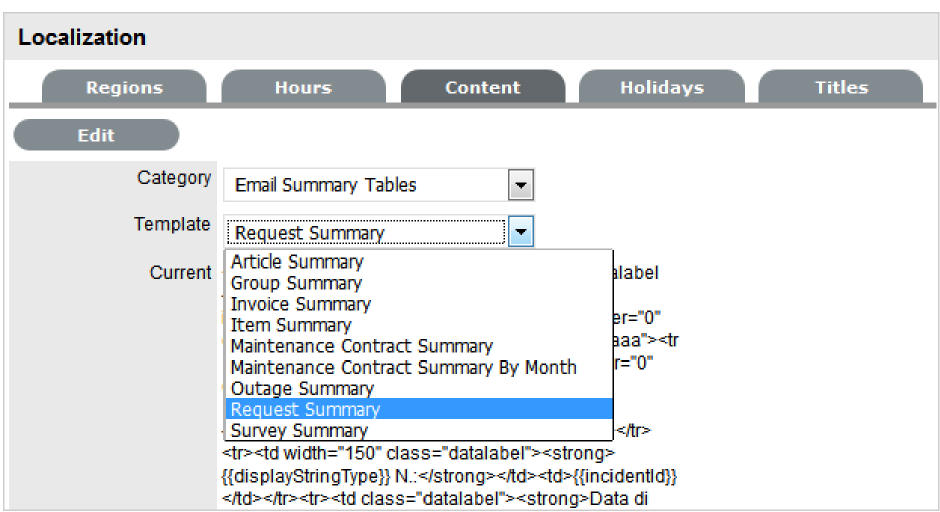
NOTE: It is recommended that the localization of user interface content, email and sms messages be done after they have been configured and reviewed within the Setup>Email and Setup>Customize tabs, respectively.

To customize content:

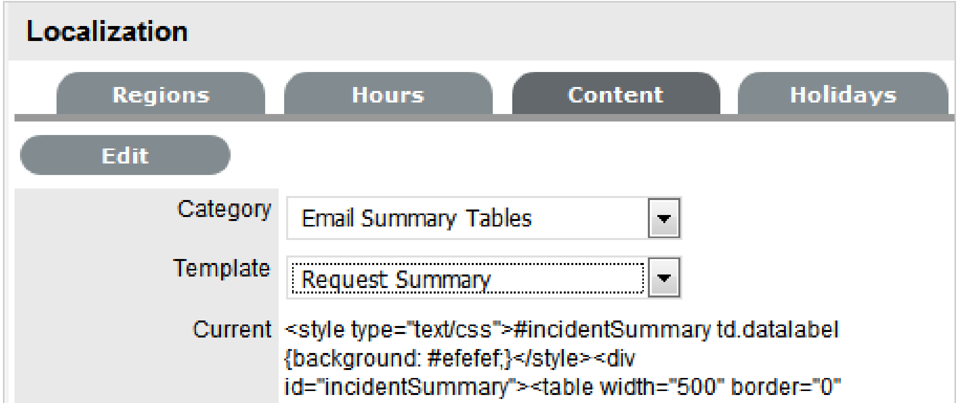
1. Select Setup>Localization
2. Move to the Content tab
3. Select the Locale link for the language file that is to be edited
4. Within the Category field, select the element to be customized



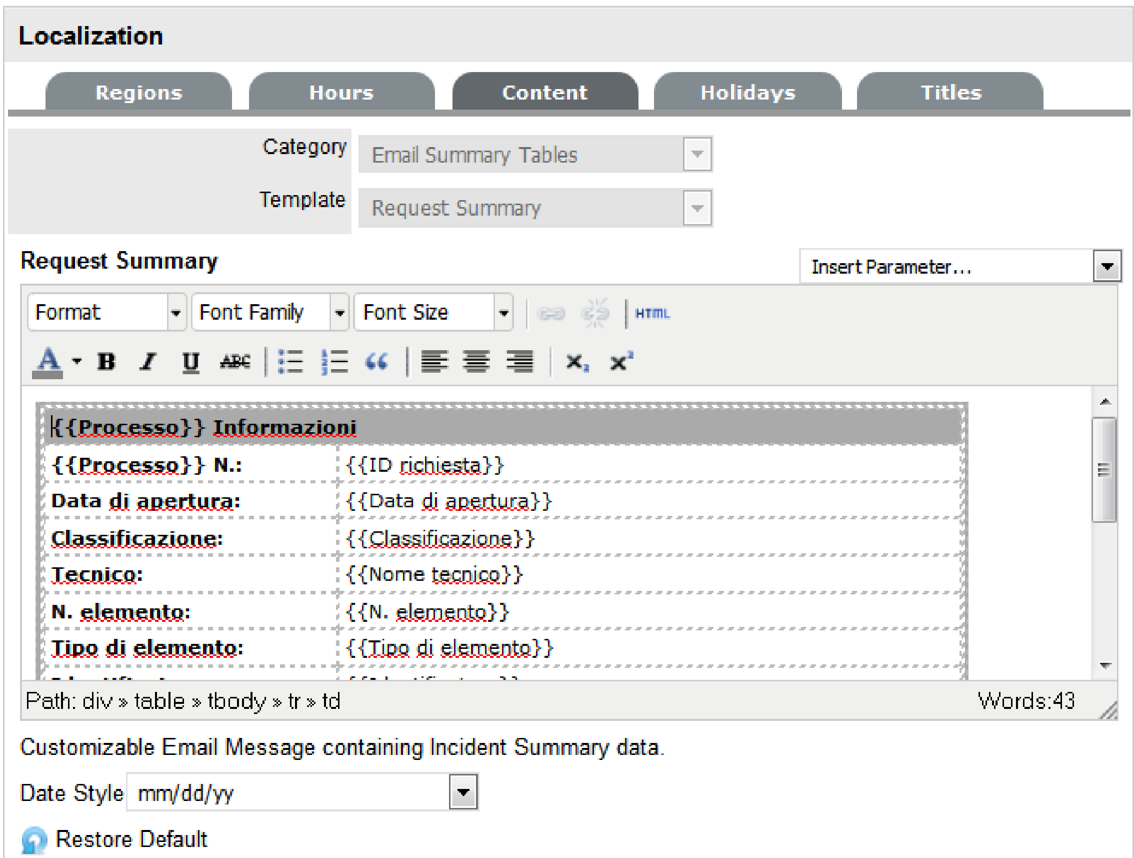
5. Within the default field displayed when the relevant Category is selected, choose the element to be customized



6. Click Edit



7. Amend the content and format, if required



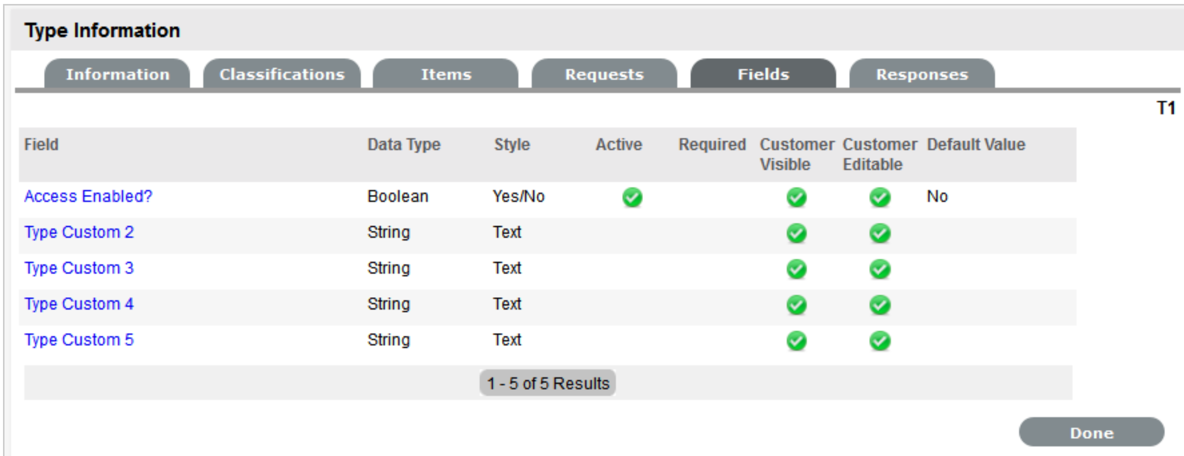
8. Click Save.

   Repeat the above process for all the relevant elements in the default list or select the Content tab to return to the Locale list.

6.6.4 Item Type Request Fields

Within the system, service organizations can refine custom fields made available during the request creation process based on the Item assigned to the request. In the Fields tab a User can create custom fields that apply to the Item Type. Therefore, when a request is logged against an Item that uses an Item Type with custom fields configured within the Fields tab, the Fields are made available within the Details tab of the request creation process.

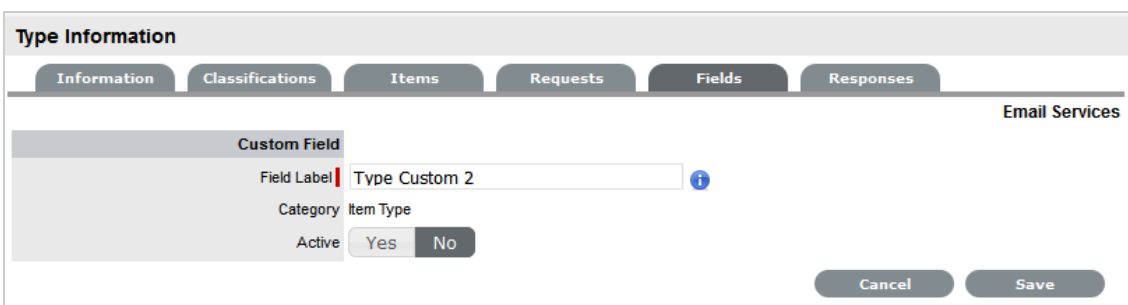
These fields are in addition to the fields created by the Administrator within the Admin>Setup>Custom Fields, which are created for the specific Process, such as Incident, Problem, Change and Service Requests.



To create Field labels within the Type Information screen:

1. Click the Fields tab
2. Click Edit
3. Select a Field hyperlink

   The Custom Field screen is displayed.



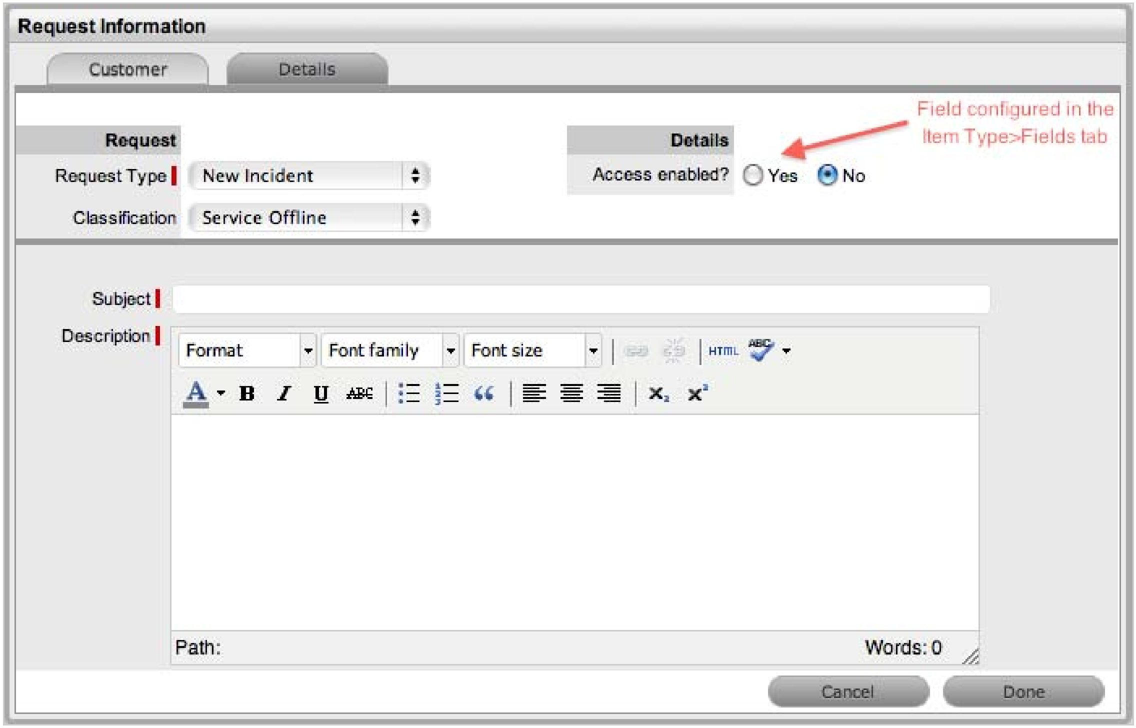
4. Click Yes to activate the Field
5. Complete the following details:
6.

Categories Fields	Description
Category	

Categories Fields	Description
Field Label	The name of the field.
Active	Indicates if the field is active.
Required	Indicates if the field is required or mandatory field.
Customer Visible	Defines if the Customer can see the field within the Customer Portal. If Yes is selected, define if the Customer can edit the field information on the Customer Portal.
Data Type	Dictates the field's Data Type. The options available include : ◆ String - List or Free Text ◆ Number ◆ Boolean - radio buttons for Yes/No and True/ False ◆ Date - creates a date field ◆ Currency- creates a currency field ◆ Hyperlink.
Style	Defines how the data is recorded or presented in the field. (e.g., String - List or Free Text field.) See Lists or below for more information about creating a list within the field.
Unique Value	When active, the system prevents the duplication of data within the customized field.
Default Value	Value entered is the default system entry for the field, when the field is not completed manually.
Input Validation	When enabled the Input Mask and User Mask can be defined. *Input Mask* : A regular expression to use for data validation of values entered by a User (i.e., Zip/ Post Code, telephone no.) *User Mask*: A User Friendly representation of the Input Mask that Customers can understand should it appear in a validation error message.
Enable Description	When enabled a Description field appears, allowing the User to enter details of what information is the field is expected to capture. These details are accessible next to the custom field on the relevant screen.

7. Click Save

The active Field will now be available during the request creation process, for all Items that use the Item Type.



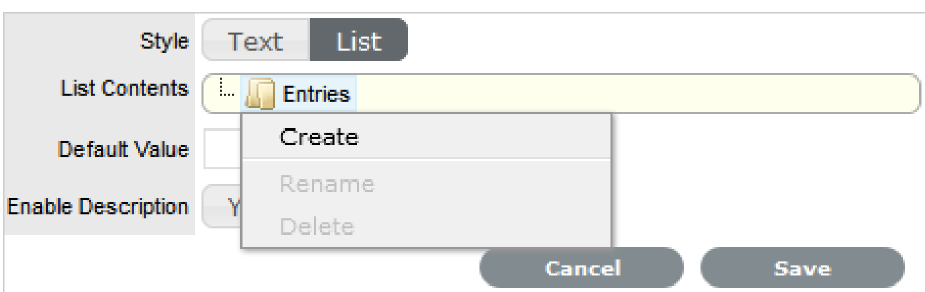
Data Type - List

When the Data Type String - List is selected the List Contents field is displayed, which provides the facility to create a drop down list to be created as options within the field.

To create a new list entry within the List Contents field:

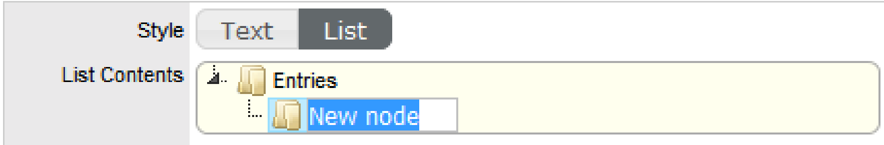
1. Right click the Entries link

   The Create option is displayed

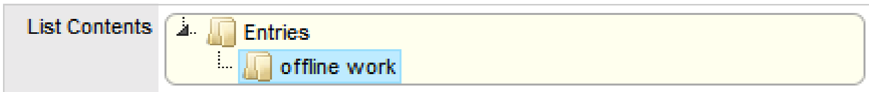


2. Click Create

   A New node link displayed

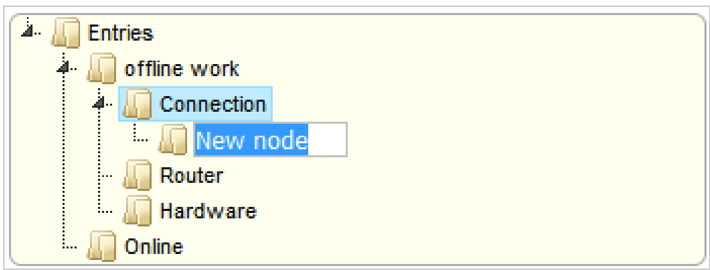


3. Enter the name of the field
4. Click outside the field to save the entry

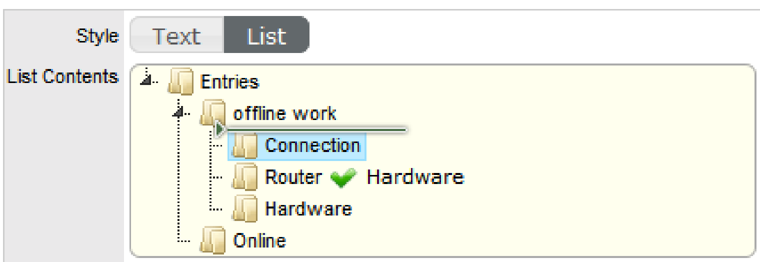


5. Repeat this process until all list entries have been added

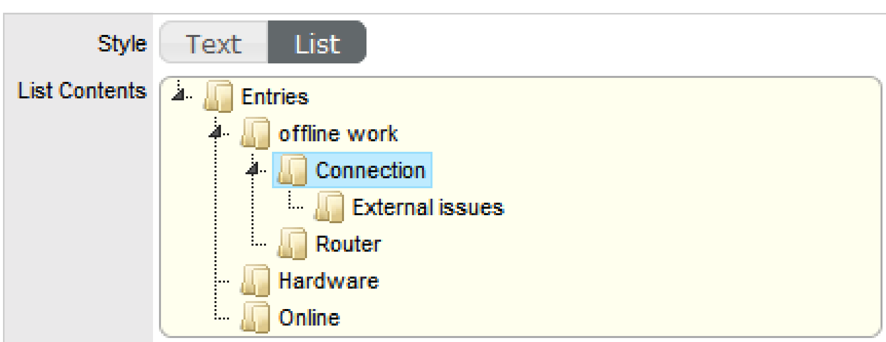
   To create a nested list, right click on the relevant list entry and repeat the above process.



6. To move an existing entry to a new position, select the entry, then drag and drop the entry into its new location



7. When all the relevant details have been defined for the custom field, click Save.



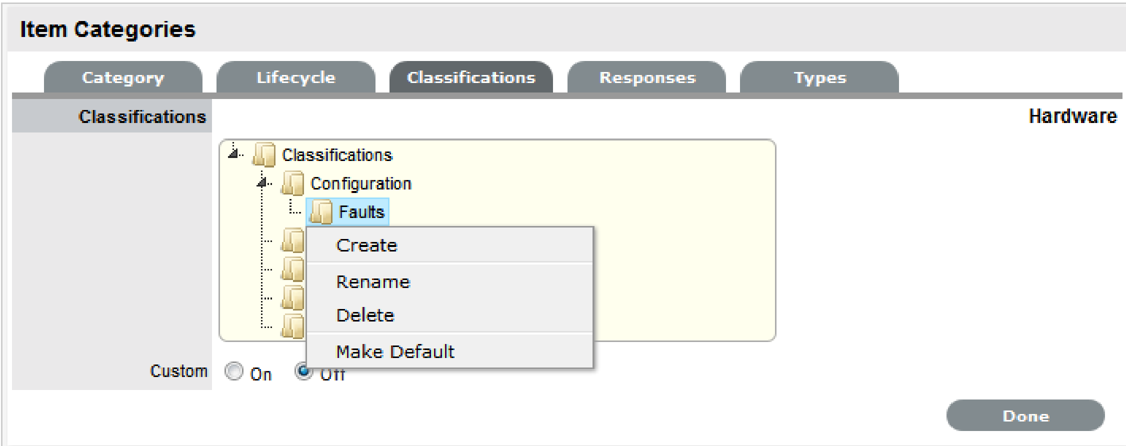
Creating Nested List Entries

List entries can be expanded to include nested options.

To create a nested list:

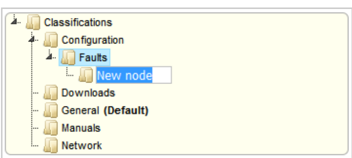
1. Right-click the relevant list entry header

   The Create, Rename, Delete and Make Default options are displayed.



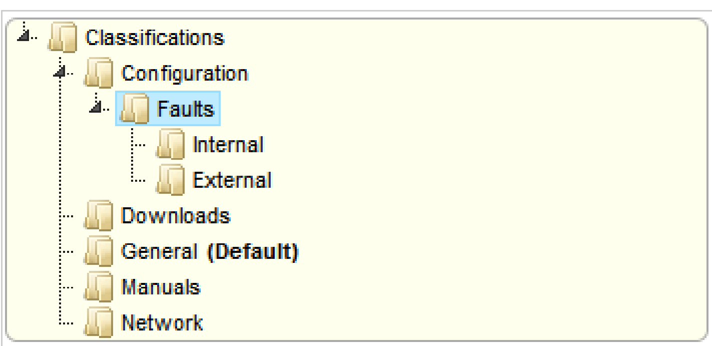
2. Select Create

   A text box will appear under the list entry.



3. Enter the name for the list entry
4. Click away from the text box to commit and save the change
5. Move an existing list entry to a new position, if required

   Select the entry, then drag and drop the entry into its new location
6. The above steps can be repeated until the nested list is complete.

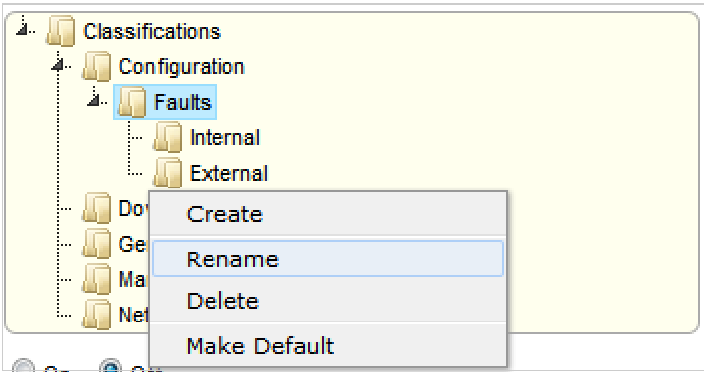


Renaming a List Entry

Any list entry can be renamed.

To rename a list entry:

1. Right-click the list entry link



2. Click Rename
3. Edit the field content
4. Click away from the text field to save the change.

Deleting a List Entry

To delete a list entry:

1. Right-click the relevant list entry
2. Click Delete
3. Click Done when the list is complete.

6.6.5 Priority

The Priority determines the timeframe in which an Incident should be handled and sets the service level targets adopted by the Incident that drive the SLA triggers and actions. It represents the degree of importance of the Incident to the Customer and also indicates the urgency of the request to the Technician.

An Incident can have one of four possible Priorities:

- Urgent
- High
- Medium
- Low

Setting Incident Priority

The Administrator configures the options for determining the Priority within the Setup>Privileges>Request tab. The Priority options include:

- Selected Priority - where the system configured default Priority is applied to the request but can be manually adjusted by the User
- Derived Priority - where the Impact is derived from the Item Criticality and the User enters the Urgency, enabling the system to calculate the Priority.

Urgency: The value selected reflects how quickly a resolution is required

Impact: The value selected indicates the impact the Incident has on the User and Organization. The higher the Impact the higher the Priority to resolve the Incident.

If the Administrator has set the Request Priority option to Derived, the Priority of an Incident results from the Impact being mapped from the Criticality of the Item and then combined with the selected Urgency. However, if required, the Impact can be manually adjusted within the Incident Information screen to affect the Priority.

The following table displays the calculations applied by the system using the Item Criticality mapped directly to the Incident Impact, to determine an Incident's Priority:

Impact / Urgency	Urgent	High	Moderate	Low	Very Low
Critical	1.000	0.850	0.700	0.550	0.410
High	0.850	0.723	0.595	0.468	0.349
Moderate	0.700	0.595	0.490	0.385	0.287
Low	0.550	0.468	0.385	0.303	0.226
Very Low	0.410	0.349	0.287	0.226	0.168

The above calculations result in the following Priorities:

Priority	Upper	Lower
Urgent	1	0.83
High	0.83	0.58
Medium	0.58	0.34
Low	0.34	0

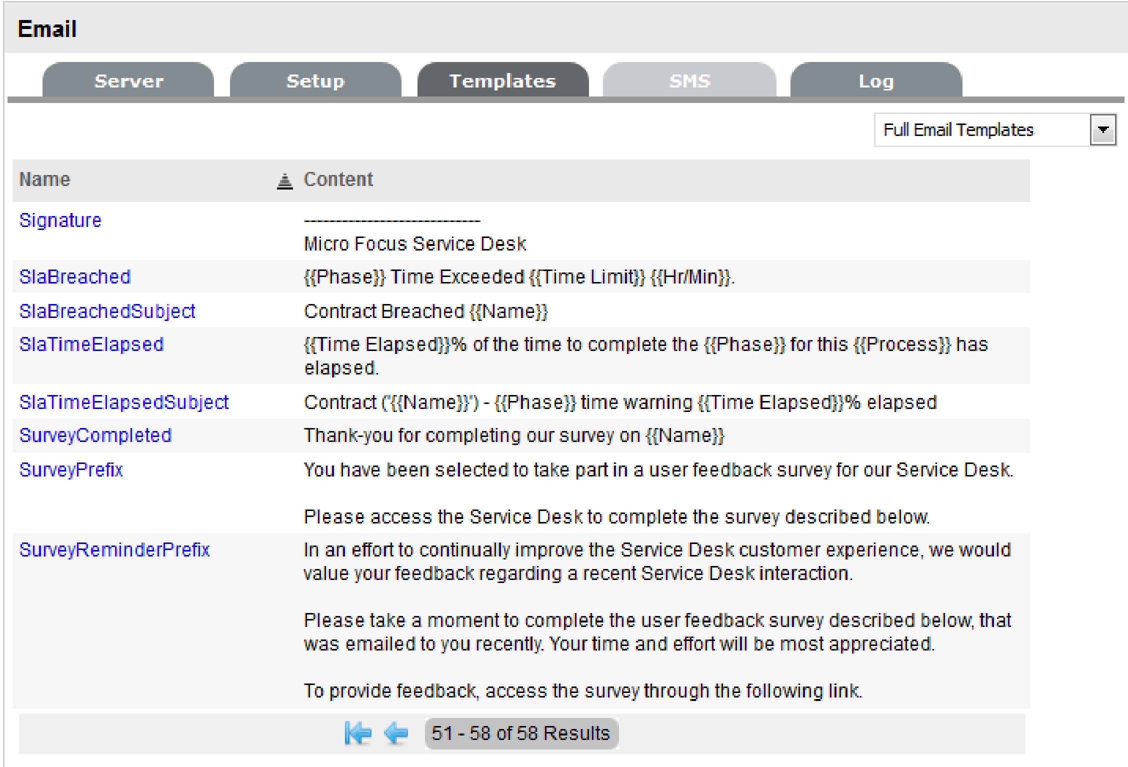
6.6.6 Email Signatures

Email Signatures that are applied at the base of all emails sent by the system are customized within the Full Email Templates filter of the Setup>Email>Templates tab. These can also be customized on a per Team basis using the Localization functionality.

To set the system default Signature:

1. Select Setup>Email
2. Go to the Templates Tab

   The Full Email Templates filter view is displayed
3. Click to the final page of the Email Templates
4. Select the Signatures link



5. Edit the content
6. Click Save.

Team Signatures

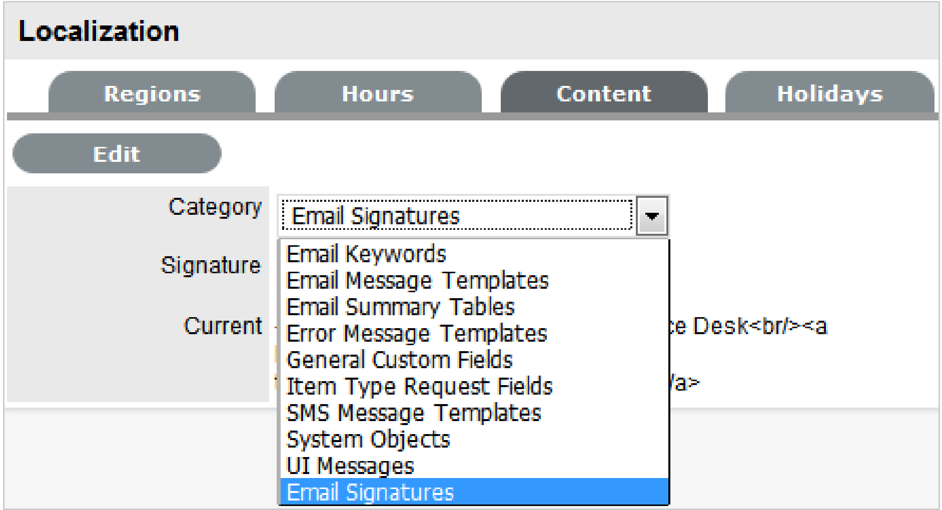
After Teams have been created by the Supervisor in the User>Teams tab, an Administrator can customize the content of the Signature for the Team within the Setup>Localization>Content tab. This function allows individual signatures to be customized for each Team and in the relevant language for Customers.

To amend the Signature details on a per Team basis:

1. Select Setup>Localization
2. Click the Content tab
3. Select the Link of the language file to be customized

   To create a signature file for each Team in English, select the English Locale link.
4. In the Category list select Email Signatures

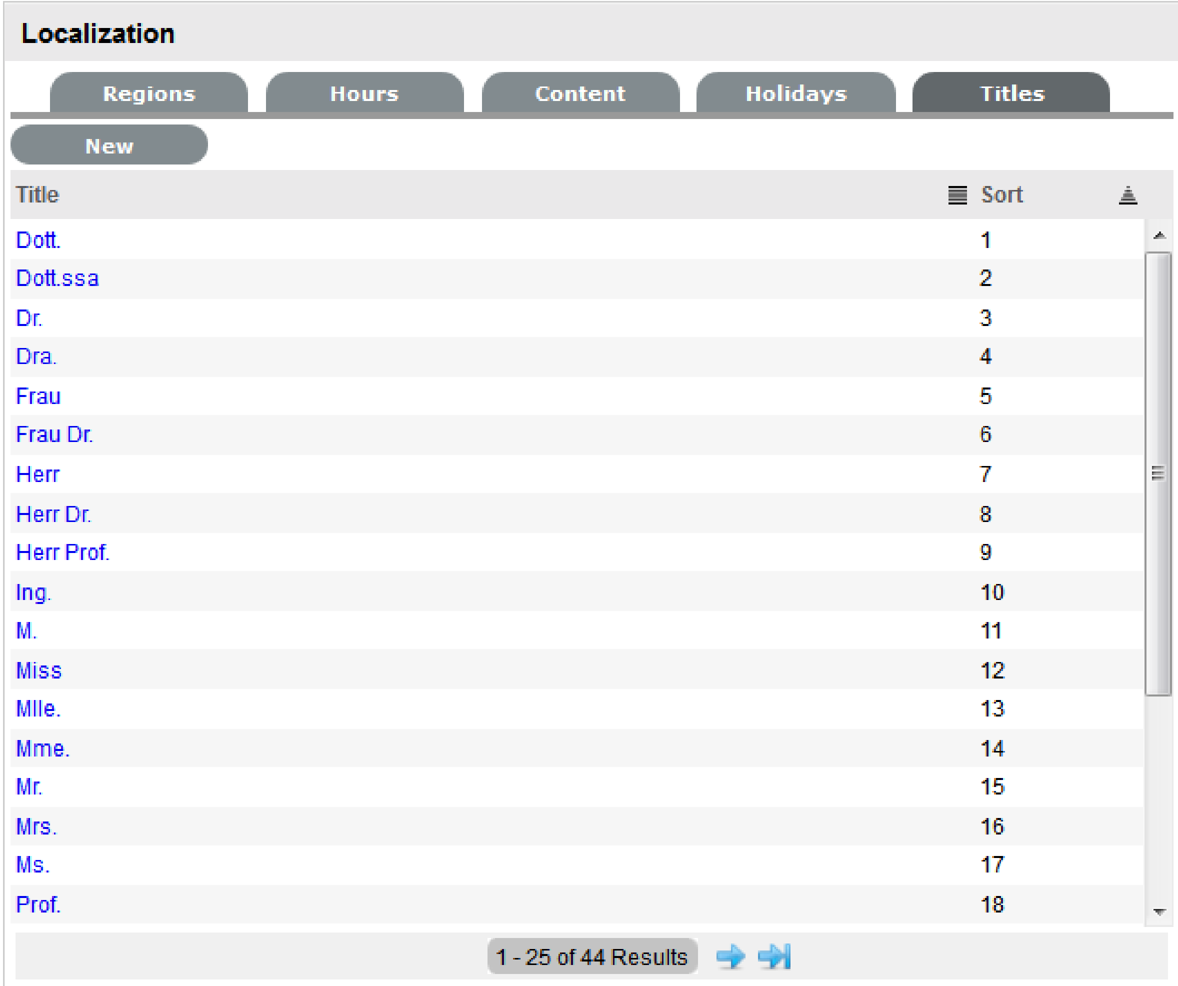
   A Signature list is displayed that includes the default Signature and the list of Team names configured in the system.
5. Select the Team Signature within the drop down list



6. Click Edit
7. Amend the signature details
8. Click Save.

6.6.7 Titles

When the Use Titles option is enabled in the Setup>Privileges>Customer tab, the Titles option is visible within the Setup>Localization screen. Titles configured here become an option within the Customer and User Information screens. When this option is enabled, a list of title options are displayed in the Titles table.

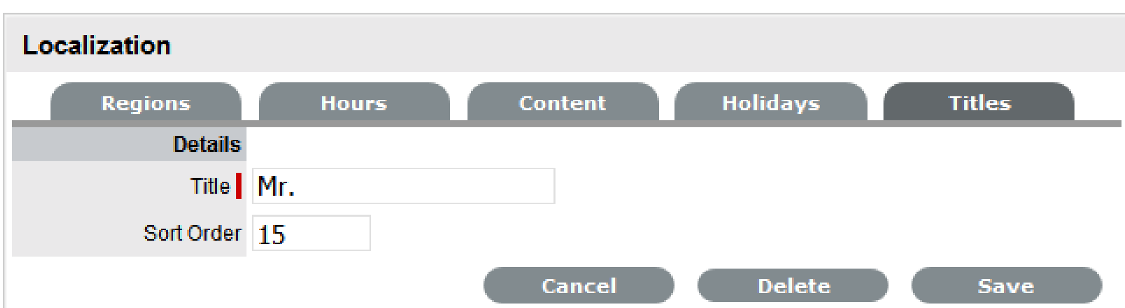


Edit a Title

Titles listed can be re-named or have their sort order changed as required.

To edit a pre-existing entry in the Titles list:

1. Within Setup>Localization>Titles
2. Select the relevant Title hyperlink
3. Amend the Title detail, if required



4. Update the Sort Order detail, if required

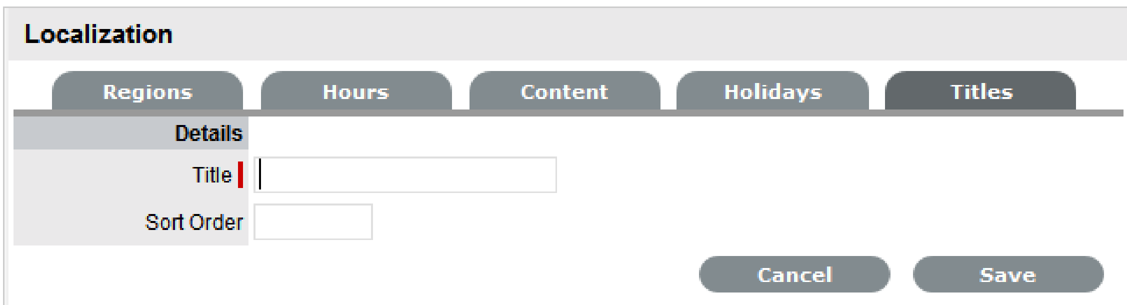
   This will change where the Title appears in the drop-down list options when the Title field is included in the Customer Information screen.
5. Click Save.

Alternatively, to remove an entry from the Titles list, select the Title hyperlink and click Delete.

Create a Title

To create an additional Title list option:

1. Within Setup>Localization>Titles
2. Select the New button



3. Complete the Title details
4. Enter Sort Order number

   This will define where the Title appears in the drop-down list options when the Title field is included in the Customer Information screen.
5. Click Save.

6.7 Licenses

The Licenses menu displays information about the currently installed license. Details of the current license, hosting server and licensed users can be viewed from this screen. A new license can also be installed.

IMPORTANT: Service Desk has two editions that are differentiated by different License Keys:

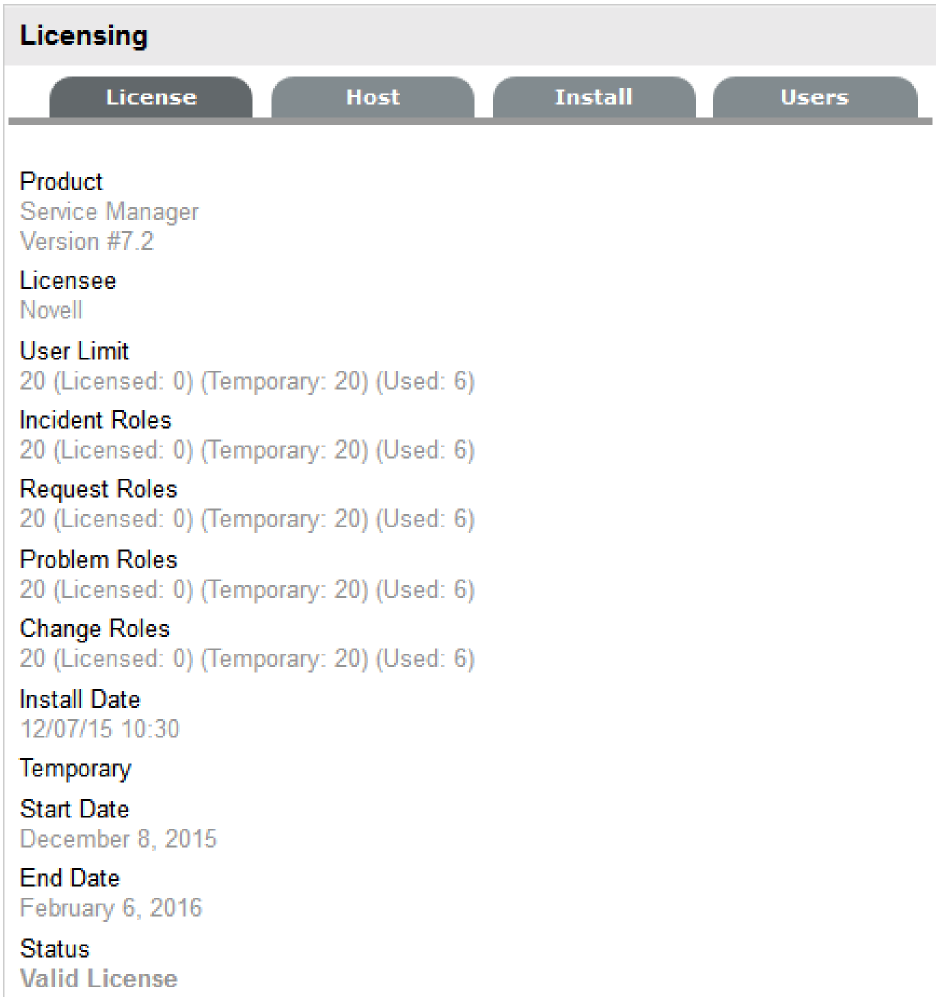
- **ZENworks Service Desk for Incident Management:** This includes Incident, Configuration, Knowledge, and Service Level Management (Basic) feature with an emphasis on internal or external customer support. This comes with single Incident Workflow, and can be configured only with single LDAP/AD source.
- **ZENworks Service Desk for ITIL Management:** This is a comprehensive service management solution that is fully compliant with Information Technology Infrastructure Library(ITIL)standards.ZENworks Service Desk for ITIL Management supports eleven core ITIL processes including Request, Incident, Problem, Change; Configuration, Knowledge, Release

and Deployment; Finance, Service Level Management, Service Catalog, and Service Portfolio. This enterprise-wide solution delivers complete customer service and offers support for any size organization.

6.7.1 Viewing a License

To view a license:

1. Select Setup > License.The Licensing page appears.



You can see the details about License information below:

License Information	Details
Product	Identifies which service management product is currently installed.
Licensee	The organization that holds the license.
User Limit	The maximum number of non-Customer users that are allowed to use the system. Value inside brackets indicates how many licenses have already been used.
Incident Roles	The number of individual Incident Management licenses purchased.
Request Roles	The number of individual Request Fulfillment licenses purchased.
Problem Roles	The number of individual Problem Management licenses purchased.
Change Roles	The number of individual Change Management licenses purchased.
Install Date	The date on which the license is installed.
Status	Indicates whether the license is currently valid.

NOTE: Highlighted fields apply in Service Manager only.

6.7.2 Host Tab

The Host Tab shows the host name and IP address for the server where the application is deployed.

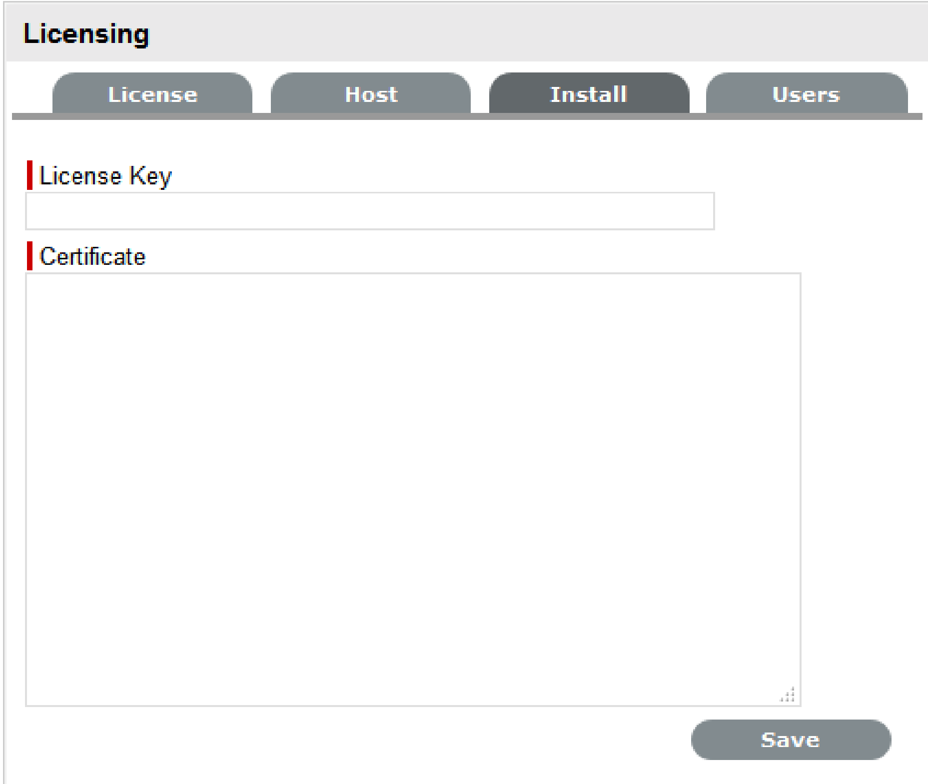
6.7.3 Install Tab

The Install Tab allows a new license to be entered using a License Key and Certificate for the application.

Updating License Information

To update License Information:

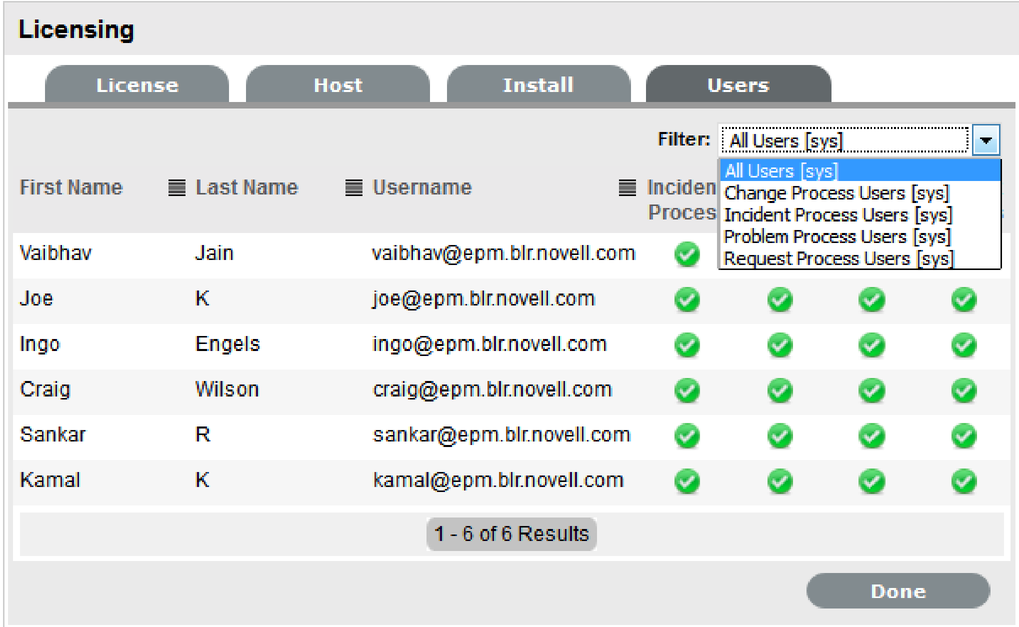
1. Select Setup > Licenses > Install. The Install Tab appears.



2. Enter the license key for the application.
3. Enter the Certificate details.
4. Click Save. The License tab will show the updated license details.

6.7.4 Users Tab

The Users Tab lists all current Users of the system, including their assigned processes. Administrators can filter the list based on process by using the Filter drop-down box in the top right corner of the Users tab.



NOTE: The Process filter and columns (Problem, Change and Request Process Users) apply in Service Manager only.

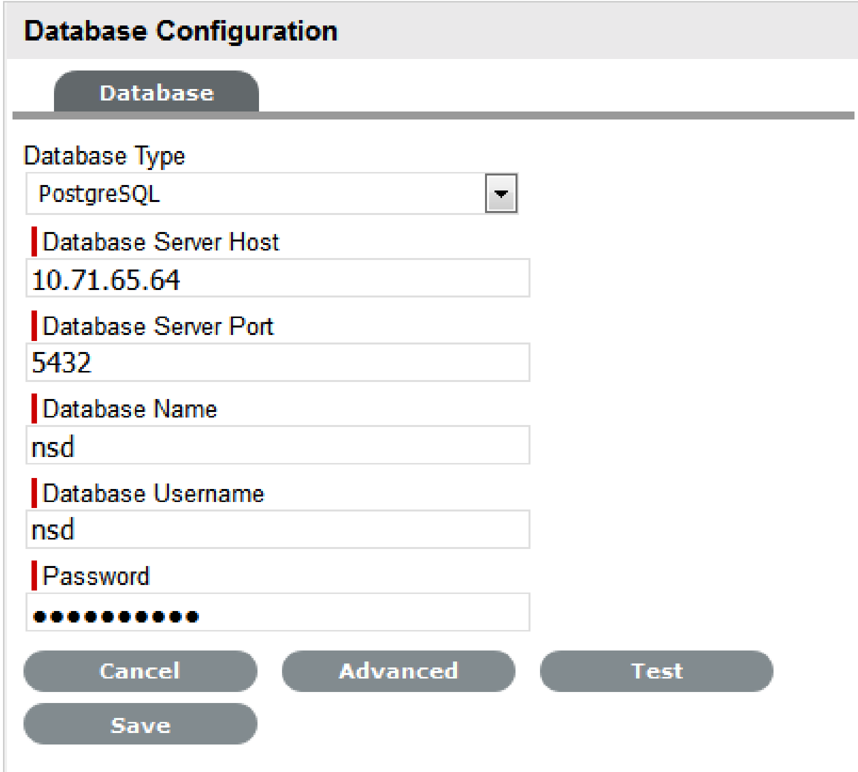
6.8 Database

This section is used to specify the JDBC Database connection details that the service management application uses to connect to the database.

6.8.1 Configuring Database Settings

To configure database settings:

1. Select Setup>*Database>Edit The Database Configuration screen appears.*



Database Setup	
Database Type	Use the dropdown box to select the type of database.
Server Host	Enter the IP Address of the Server Host.
Server Port	Enter the Server Port number.
Database	Enter the database name.
User name	Enter the Username
Password	Enter the Password.

2. Enter or modify database connection details
3. Select the Test button to verify the details entered and check the connection
4. Click Save.

NOTE: The system must be re-started for any changes to take effect.

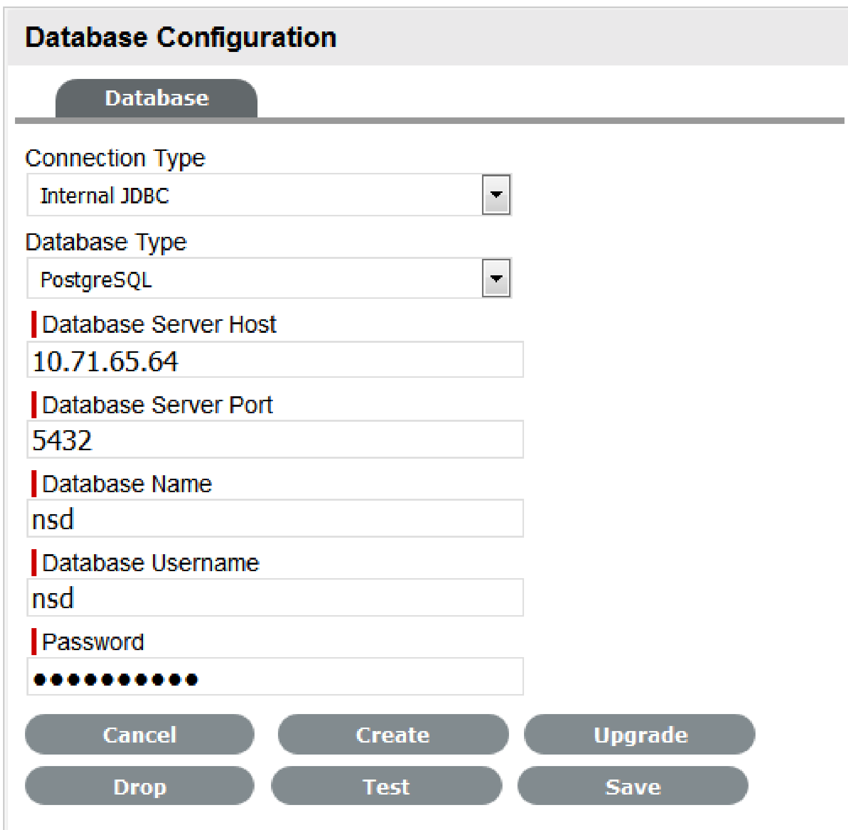
6.8.2 Test Button

Allows the Administrator to validate the database connection details between the service management application and the database. A system message will advise whether the connection was successful.

6.8.3 Advanced Button

The Advanced options allows the Administrator to change the default connection type, as well as generating scripts based on the database selected.*When the Advanced button is clicked, the Connection Type field displays a drop-down menu to select the JDBC connection. This option is set by default to Internal JDBC.*

NOTE: Changing the connection type to Custom JDBC Driver allows the Administrator to change the driver. *This option is NOT recommended.*



The buttons displayed provide the following functionality:

Advanced Settings	Description
Create	Generates a SQL creation script for the connected database that can be used by a DBA to create the system database.
Upgrade	Allows DBAs to upgrade to the database for a new release. **NOTE:** Before upgrading make a backup of the existing database.
Drop	Creates a script that the database administrator can run against an existing system database to erase the schema and content.

6.9 Backing-up and Restoring Internal PostgreSQL Database

6.9.1 Backing-up Internal PostgreSQL Database

To take a backup of the internal PostgreSQL database, perform the following steps:

1. Stop Servicedesk service, by running the following command:

   ```
   service servicedesk stop
   ```
2. witch to postgres user, by running the following command:

   ```
   sudo -su postgres
   ```
3. Go to the root level (/) or to the /tmp to avoid permission issue warning

   Example: cd /tmp
4. Take database backup and keep it in /tmp location with file name "servicedesk_db.backup"

   ```
   pg_dump --dbname=servicedesk --file=/tmp/servicedesk_db.backup --
   encoding=UTF8 --blobs --format tar
   ```
5. Start the service desk service, by running the following command:

   ```
   service servicedesk start
   ```

6.9.2 Restoring the Internal PostgreSQL Database

To restore the internal PostgreSQL database, perform the following steps:

1. Copy the database backup to the /tmp location
2. stop Servicedesk service, by running the following command:

   ```
   service servicedesk stop
   ```
3. Switch to postgres user, by running the following command:

   ```
   sudo -su postgres
   ```
4. Go to the root level (/) or to the /tmp to avoid permission issue warning

Example: cd /tmp

5. Drop existing internal database.

   If the drop fails, then the database is being used. Example: servicedesk any other database viewer tool. Ensure that you stop those services)

   ```
   dropdb servicedesk
   ```

6. Create empty internal database, by running the following command:

   ```
   createdb servicedesk --template=template0 --encoding=UTF8 --
   owner=sdadmin
   ```

7. Restore database from the backup file, , by running the following command:

   ```
   pg_restore /tmp/servicedesk_db.backup --dbname=servicedesk -n public
   ```

8. run vacuum command to optimize, by running the following command:

   ```
   vacuumdb -f -z servicedesk
   ```

9. Start the service desk service, by running the following command:

   ```
   service servicedesk start
   ```

6.10 LDAP

- Section 6.10.1, “LDAP Authentication,” on page 545
- Section 6.10.2, “Active Directory Integration,” on page 547
- Section 6.10.3, “LDAP Server Integration,” on page 554
- Section 6.10.4, “LDAP/Active Directory Advanced Settings,” on page 558
- Section 6.10.5, “User Directory or Domain Migration,” on page 563

6.10.1 LDAP Authentication

There are several ways to authenticate users of the service management application. By default the system uses its internal authentication mechanism but there is also the option to authenticate against one or more Directory Servers or use OpenID Providers.

Internal Authentication

Using internal authentication requires the Administrator or Supervisor to create accounts for all User types by entering the contact information, access levels and password. This information is then saved to the system database. The typical case for using Internal Authentication is where there are few Users, or in an environment that has no pre-existing directory server. Usually, the Administrator would configure the User accounts prior to announcing the system is operational, and from that point on, maintain the accounts as necessary. (See: Create Customers or Create Users.)

OpenID Providers

OpenID is a decentralized process to verify a Customer's or User's online identity. It addresses the single sign-on issue by not relying on a centralized website to confirm a User's identity. The system can be enabled to be an OpenID consumer, which provides seamless authentication between third party authentication utilities and the service management system. OpenID Providers are configured within the Social tab, and Customers or Users that have accounts with the configured OpenID Providers can log into the system by selecting the relevant icon on the Login page.

Directory Server Authentication

The system allows the Administrator to connect to one or more Directory Servers for User authentication purposes. This removes the need to create User accounts as it allows the application to synchronize User accounts and access levels with the existing Directory Server. It has the added benefit of allowing the Administrator to work with existing infrastructure. (See: AD Authentication or LDAP Authentication.)

Directory Server Groups (External Authentication)

Roles are used to grant access within the application. Users must be assigned to Groups on the directory server that correspond to the Roles within the support system. Group members are assigned Roles and access levels within the service management tool.

The default group names the system expects to find on the directory server are:

- Administrators
- Supervisors
- Technicians
- Partners
- Managers
- Finance
- Customers

The Group names can be customized in the LDAP/Active Directory Advanced tab. Users can belong to more than one group, for example if a User holds the Roles of Technician and Manager, they would belong to the Technicians and Managers groups.

NOTE: Users can have only one of the Partner, Supervisor and Technician Roles. Therefore, they can belong to only one of these groups. However, they may also belong to any other group, or combination of groups.

The following fields may or may not be mapped, depending on the options set by the system Administrator:

- First Name
- Last Name
- Email
- Phone
- Mobile
- Pager
- Address

- City
- Zip
- Country

Email Address

All User accounts must include an email address to be successfully imported into the system. If additional fields have been mapped from the authentication server to corresponding fields in the application, a drop-down menu containing all the optional values for the field will be available beside the mapped field. Choose the correct value from each list.

Mixed Mode Authentication

The application can use a combination of internal and external authentication. This means, the service management tool can be synchronized with a Directory Server to import User and Customer details as well as allowing Customer Accounts to be created directly within the system. Such a feature is useful, if the service and support solution is being used for internal and external customer support.

To enable Mixed Mode authentication, after the system has connected to the Directory Server, move to the Setup>Privileges>Customer tab and enable the Include Customers option to display the Mixed Mode field. Set the Mixed Mode option to Yes.

NOTE: If authenticating against a Directory Server, all User accounts will validate against the server except for the application default Administrator User. The default Administrator User account details can be modified within the My Account tab of the application.

6.10.2 Active Directory Integration

Active Directory is a unique implementation of the LDAP standard, as the requirements for communication need to conform to the Microsoft™ Windows Authentication protocols. To meet this need, it is necessary to enter all domains from which Users will authenticate. Multiple sources of Active Directory can be synchronized with the system, if required.

NOTE:
- From ZENworks Service Desk 8.3.1 onwards, Setup > LDAP is changed to Setup > User Sources.
- Additionally, Azure Active Directory is available as one of the user sources

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For more information on Azure Active Directory Integration, see Azure Active Directory Integration.

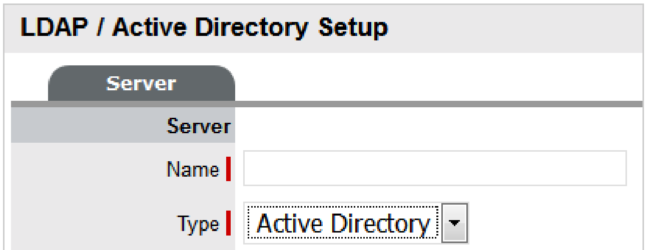
Configuring the Active Directory Integration

To configure the Active Directory integration:

1. Select Setup > LDAP (User Sources)
2. Click New

   The LDAP/Active Directory Server (User Source Configuration) screen tab is displayed.

3. Enter the Server Name
4. Select Active Directory within the Type drop down list

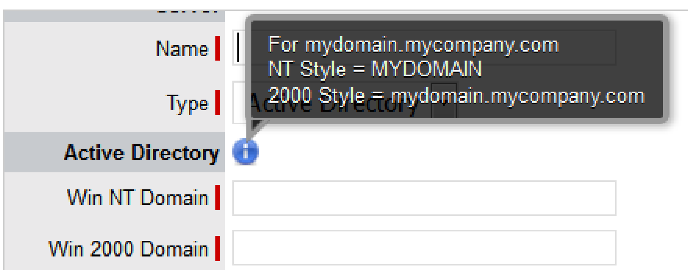


5. Define all the Domains from which Users will be authenticated

   Domains will need to be entered in both NT and Windows 2000 domain naming systems formats. This is because Active Directory conforms to Microsoft™, Windows NT and Windows 2000 authentication protocols.

   Make entries with care, as they are not validated against the Directory Server by the system Domain Editor.

NOTE: Verify the Active Directory setup before you provide the Windows NT domain and Windows 2000 domain credentials.



NOTE: Here is an example of both the naming conventions for the domain:

mydomain.mycompany.com

NT Style = MYDOMAIN

2K Style = mydomain.mycompany.com

---

6. Enables Import Groups, if you have configured Store and want to assign store items to an LDAP group using "LDAP Group Extension". To import LDAP Groups, select Import Groups and specify Group Admin DN, Password and Group Node/Base DN.
7. Click Save
8. Using the drop-down arrow, select the Default Domain, which is used in the following three ways:
   - on the login page
   - to authenticate against, when synchronizing with the Directory Server
   - where the system expects to find the User Groups.
9. Enter all other required fields to configure the Directory Server

10.

Settings	Description
Security	Determines how the integration layer will authenticate. For Active Directory this should be set to Cleartext– Username + Password. Anonymous connections to Active Directory are rarely enabled.
Server Host	Enter the hostname or IP address of the Active Directory Server. On a Windows NT domain this will be the primary domain controller.
Server Port	The default Active Directory Server Port is 389. This is rarely changed.
Username	Used by the system to authenticate against the Active Directory Server when reading account information. The domain prefix/suffix will be appended, based on the default domain, when connecting to the Server.
Password	Enter the Password for the Username account.
Users Node	The component of the base domain name that refers to the location of the User Groups .For example, if the location of the User Groups is the following: ou=UserGroups, ou=MIS, dc=myoffice, dc=mycompany, dc=com (SeeLDAP/Active Directory Advanced Settings for information on Group configuration.) Groups must be in the default domain, in this case myoffice.mycompany.com. The Users Node only needs the location of the Groups within the default domain, so the Users Node in this example will be: ou=UserGroups, ou=MIS.
Additional Filter	
LDAP Query	In this field, you can specify an additional LDAP query to filter-out records based on specified criteria. Filter Query is applied on user attributes and will be applied only within the group names specified in the Advanced tab. Following is an example of the LDAP Query: (&(mail=*epm.com)(|(department=Biology)(department=Chemical))) **NOTE:** The filter query should be standard LDAP query (vendor specific).

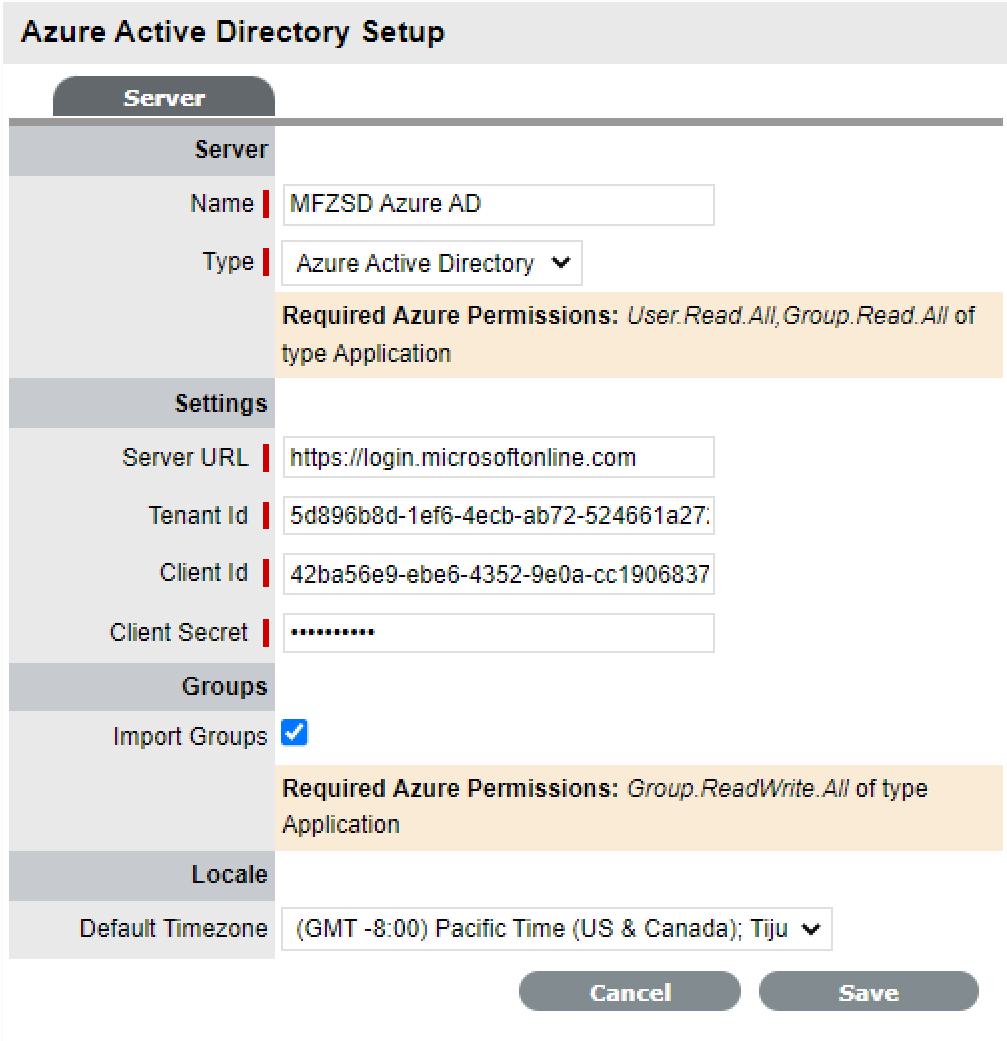
Settings	Description
LDAP Groups for Store Item	**Group Admin DN:** Specify the group admin DN. Example: cn=user, cn=users, dc=domain, dc=com **Password:** Specify the password of the DN. **Group Node/Group based DN:** If this field is not specified, then it considers the value specified in Users Node/Base DN. **NOTE:** The above options are enabled only when you select Import Groups checkbox in the Groups section. This is used to assign a store item to an imported LDAP Group using the LDAP Group Extension.
Locale	
Default Timezone	Select the default Timezone to be applied to all User accounts imported via Active Directory.

11. Click Save.

    Repeat the above process to add more than one authentication server for authorizing User access.

Azure Active Directory Integration

Azure Active Directory is a unique implementation of the LDAP standard, as the requirements for communication need to conform to the various protocols. To meet this need, it is necessary to enter all domains from which Users will authenticate. Multiple sources of Active Directory can be synchronized with the system, if required.



Prerequisites:

- Register ZENworks Service Desk as an application with the Azure Active directory.

  For more information, see Registering an Application or any documentation provided by the service provider.

NOTE: - While registering the application, use the following URLs as the redirect URI with Web platform:
  - https://<FQDN>/LiveTime/WebObjects/LiveTime.woa/wa/oauthlogin
  - https://<FQDN>/servicedesk/login
- Ensure that you select platform type as Web.
- Ensure that you add redirect URIs of all the public interfaces (IP or domain name) of ZENworks Service Desk.

- Obtain OAuth parameters (Tenant Id, Client Id, Client Secret) from the Azure for the registered ZSD application
- Provide required Azure API permissions for the registered ZSD application as displayed in the ZSD UI

Configuring the Azure Active Directory Integration

To configure the Azure Active Directory integration, perform the following steps:

1. Select Setup > User Sources
2. Click New

   The User Source Configuration tab is displayed.
3. In the Server panel, specify the Server Name
4. In the Type drop down, select Azure Active Directory.

   Ensure that you provide the User.Read.All, Group.Read.All permissions in the Application that you had created in the Azure portal.
5. In the Settings section, specify the following details that is obtained from the Azure portal after registering the application:
   a. Server URL
   b. Tenant ID
   c. Client ID
   d. Client Secret
6. Enables Import Groups, if you have configured Store and want to assign store items to an LDAP group using "LDAP Group Extension".

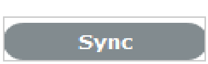
   To additionally import groups for the store assignment, ensure that you provide Group.ReadWrite.All permissions in the application that you had created in the Azure portal.
7. In the Default Timezone, select the default Timezone to be applied to all User accounts imported via Active Directory.
8. Click Save.

Test Button

The Test button creates a connection to the Active Directory Server, applying the configuration settings. If successful, it will attempt to determine how many Users are in each group and display a Results Screen.

NOTE: If the test fails, an error message will display the cause.

Sync Button



The Sync button runs the synchronization process to import all Users from the Server Directory. If new Active Directory Accounts have been created and those Users require immediate access to the system, a manual synchronization would be used.

Only one synchronization can run at a time. When multiple Users need access, create the accounts, then run a single manual synchronization.

A manual synchronization may take some time as it depends on the connection speed with the external service. The manual synchronization works best for small directories. Larger Active Directory implementations can take some time to propagate the changes, so account information may not be immediately available.

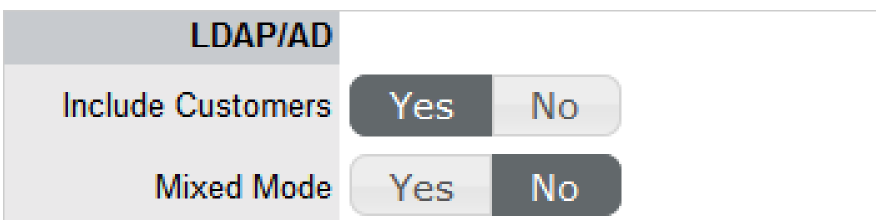
Login

After successful configuration and import of user account, user can log into ZSD by providing their complete username. Click Login with Azure, you will be redirected to the Azure portal to complete the login process. After successful login, you will be redirected back to the ZENworks Service Desk portal.

NOTE: After successful login, ZENworks Service Desk will maintain its own session and will not depend on Azure session. Hence, Logging out from ZENworks Service Desk will not log you out from Azure.

Importing Customers

Customer details can be imported using Active Directory by enabling the option, if required. When the system is setup to synchronize with Active Directory, move to the Setup>Privileges>Customer tab and enable the Include Customers option.



If there is a need to create Customers using Active Directory and the system's internal authentication capability, Mixed Mode authentication can also be enabled. After the option to Include Customers is set to Yes in the Customer Privilege tab, the Mixed Mode field is displayed. Set this option to Yes to allow Customers to be created directly in the system and using Active Directory.

Imported Account Usernames

Accounts imported from Active Directory use the UPN as the Username, as opposed to the NT style login. The domain component of the UPN is derived from the selected domain in the popup on the login page, which means Users need to enter their login name only to connect to the support application.

Login details are passed directly to the directory server for authentication and are not retained within the service management system.

6.10.3 LDAP Server Integration

Multiple types and sources of directory servers can be synchronized with the system at any one time. Among the several LDAP servers supported by the system, and which this section discusses, are the following:

- Open LDAP
- Netscape Directory Server
- Micro Focus eDirectory

It should, however, be noted that LDAP does follow a standard and as such the settings detailed herein should also apply to other implementations.

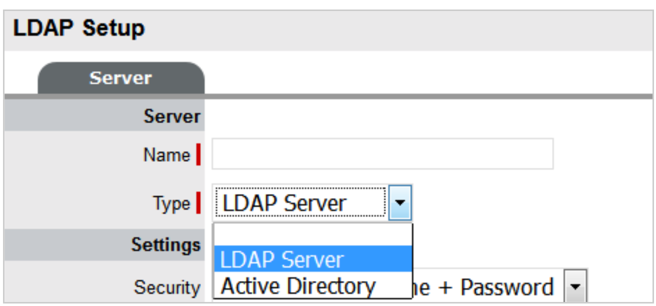
Configuring LDAP Server Integration

To configure LDAP Server integration:

1. Select Setup>LDAP
2. Click New

   The LDAP /Active Directory Server tab is displayed.
3. Enter the Server Name

   (If the system is to synch with Zenworks, ensure the Server Name matches the User Source Name used by Zenworks.)
4. Select LDAP within the Type drop down list



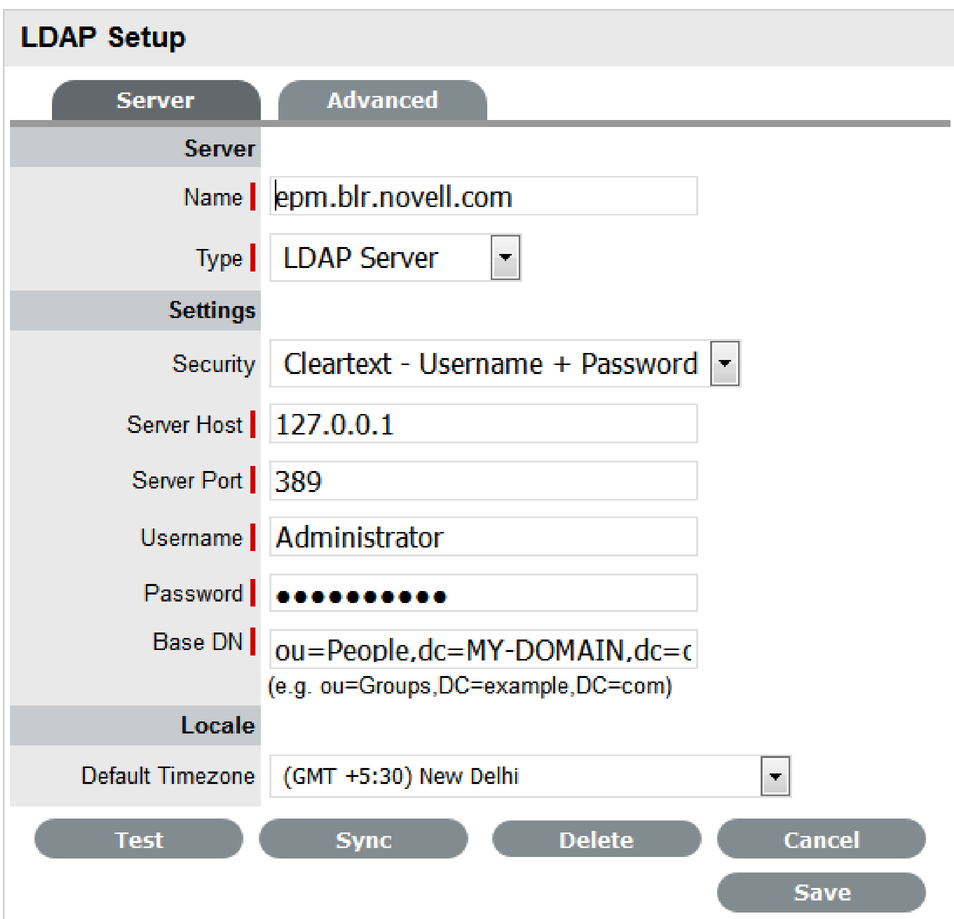
5. Complete the Settings fields
6.

Fields	Description
Security	Secure Socket Layering (SSL) encryption is provided for Active Directory and LDAP server integration. Details entered here determines how the integration layer authenticates. User authentication can be with Secure Socket Layering (SSL) or Clear Text. Select Anonymous or User name and Password. If Anonymous is selected, ensure anonymous access to the directory is available.

Fields	Description
Server Host	Enter the host name or IP Address of the LDAP Server.
Server Port	This is the LDAP Server Port. The default is 389.
User name	*The system authenticates the* user name against the LDAP Server. Leave this blank for anonymous connections. Where a user name is provided, Netscape allows the internal users to connect as the account name, so using 'cn=Directory Manager' is acceptable. Open LDAP expects the fully qualified Domain Name for the user, regardless of access level, so at the very least 'cn=Manager,dc=example,dc=com'. For other accounts the user BaseDN is required. Users logging in need only enter their login name, it is assumed the login name will be unique across the entire directory.
Password	If a User account is specified in the User name field, enter the account password.
BaseDN	*The* Base Domain Name refers to the domain location of the User Groups. For example, assume that the location of the User Groups is the following: ou=UserGroups,ou=MIS,dc=myoffice,dc=mycompany,dc=com The above String would be the BaseDN.
Additional Filter	
LDAP Query	In this field, you can specify an additional LDAP query to filter-out records based on specified criteria. Filter Query is applied on user attributes and will be applied only within the group names specified in the Advanced tab. Following is an example of the LDAP Query: (&(mail=*epm.com)(|(department=Biology)(department=Chemical))) **NOTE:** The filter query should be standard LDAP query (vendor specific).

Fields	Description
LDAP Groups for Store Item	**Group Admin DN:** Specify the group admin DN. Example: cn=user, cn=users, dc=domain, dc=com **Password:** Specify the password of the DN. **Group Node/Group based DN:** If this field is not specified, then it considers the value specified in Users Node/Base DN. **NOTE:** The above options are enabled only when you select Import Groups checkbox in the Groups section. This is used to assign a store item to an imported LDAP Group using the LDAP Group Extension.
Locale	
Default Timezone	Select the default Timezone to be applied to all User accounts imported using the authentication server.

7. Enter all required fields to configure the Directory Server



Test Button

The Test button will create a connection to the LDAP Server using the configuration settings. If successful, it will attempt to determine how many Users are in the top level of each group and display a Results screen.

NOTE: If the test fails, an error message will display the cause.

Configuring OpenLDAP for ZENworks Service Desk

While configuring OpenLDAP for ZENworks Service Desk, ensure that you consider the following points:

1. The LDAP group has objectClass of **top** and **groupOfUniqueNames**
2. The givenName, sn, and mail attributes are specified.
3. In the Service Desk LDAP settings, set the **Include Disabled Accounts** setting to **Yes**

Following are the LDIF examples to create a user, to create a group and to add user to the group:

1. To create a user:

   ```
   # User Entry (use with ldapadd utility)
   dn: cn=user1,dc=example,dc=com
   cn: user1
   objectClass: inetOrgPerson
   givenName: user
   sn: one
   mail: user1@example.com
   userPassword: <userpassword>
   ```

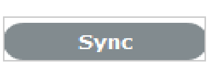
2. To create a group: (At least one user must be added as a member while creating the group)

   ```
   # Group Entry (use with ldapadd utility)
   dn: cn=group1,dc=example,dc=com
   cn: group1
   objectClass: top
   objectClass: groupOfUniqueNames
   uniqueMember: cn=user1,dc=example,dc=com
   ```

3. Add user to the group:

   ```
   # Add Member Entry (use with ldapmodify utility)
   dn: cn=group1,dc=example,dc=com
   changetype: modify
   add: uniqueMember
   uniqueMember: cn=user2,dc=example,dc=com
   ```

Synch Button



The Synchronization button runs the synchronization process manually. It is most useful for the initial deployment, and when new directory server accounts have been created for Users who require immediate access to the system.

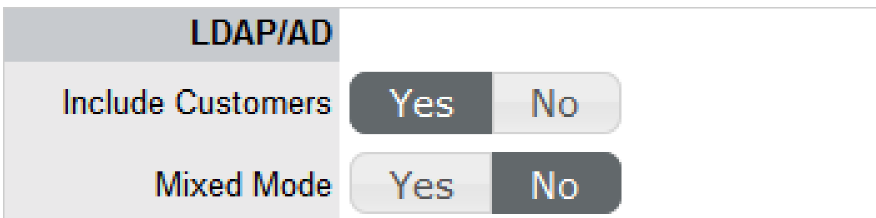
If using Certificates ensure the certificate details are entered in the Certificates tab before synchronizing.

Only one synchronization can run at a time. For multiple users needing access, create the accounts on the LDAP server then run a single manual synchronization.

A manual synchronization may take some time as it depends on the connection speed with the external service. The manual synchronization works best for small directories, as larger directories take more time to propagate changes.

Importing Customer Details

Customer details can be imported using LDAP by enabling the option, if required. When the system is setup to synchronize with LDAP, move to the Setup>Privileges>Customer tab and enable the Include Customers option.



If there is a need to create Customers using LDAP and the system's internal authentication capability, Mixed Mode authentication can also be enabled. After the option to Include Customers is set to Yes in the Customer Privilege tab, the Mixed Mode field is displayed. Set this option to Yes to allow Customers to be created directly in the system and using LDAP.

6.10.4 LDAP/Active Directory Advanced Settings

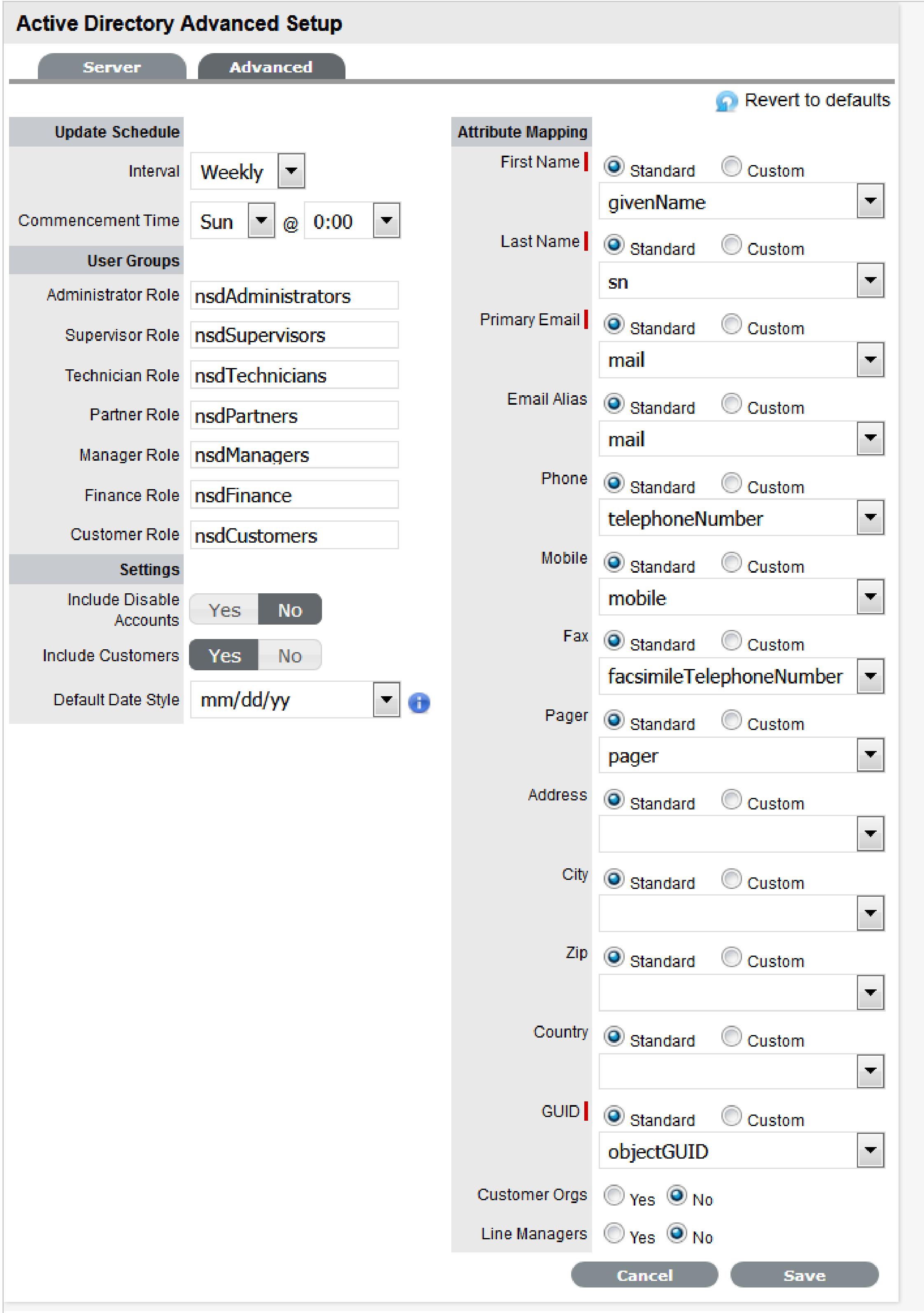
Before setting up the LDAP/ADS configuration within the system, the Advanced settings should be revised. The default setup assumes that the User Groups that the system uses to authenticate match what is on the server, and that the User information imported matches the attributes available on the server.

LDAP/Active Directory Advanced Options Set-up

To configure the Advanced options within the LDAP/Active Directoy Setup window:

1. Select Setup>Authentication

   The LDAP /Active Directory Setup screen appears.
2. Click Edit
3. Move to the Advanced tab of the selected Authentication Server



4. Enter the relevant details for the fields, as required

5.

Field	Description
Revert to Defaults	*Resets* the installation defaults.
Update Schedule	*Sets a* routine synchronization to update the system with current AD/LDAP accounts. Select the required Daily, Weekly or Monthly intervals and Commencement details.
Commencement Time	*Set the day of the week and time the system is to start automatically synchronizing with the directory server.*
User Groups	Provides imported Users Roles. (The system will look for these groups by default) The User Group names can be customized, only requiring a unique name for each group. The group names on the Directory Server must be identical to the User Group names entered here. Customize or use the default User Group names as necessary. Members of each group will be assigned the appropriate Role within the system. To assign multiple Roles to a User, make sure they are members of each of the required groups. Users can have only one of the Supervisor, Technician or Partner Roles but they can also have any other Role or combination of Roles.
Settings	**Include Disable Accounts:** Set to Yes if the system is to import disabled accounts details when synched with an LDAP/AD server. **Include Customers:** Set to Yes if the system is to import Customer details when synched with an LDAP/AD server. **Default Date Style:** Set this field as the default date format for imported users. **NOTE:** Ensure that you set this field before importing LDAP users, and this will be applicable only for newly imported users.

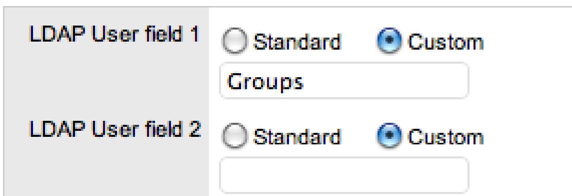
Field	Description
Attribute Mapping	Maps attributes from the directory server to corresponding fields in the system. Native system fields are First Name, Last Name, Email (A unique Email Address must be included for a User account to be created), Phone, Mobile, Pager, Address, City, Zip and Country. **NOTE:** Mandatory User information for new and existing User accounts include the First Name, Last Name and Email address. If these details are not available, the application will not validate an existing User account and automatically reassign any open or active requests to another valid User. *Standard:*Next to each field is a drop-down menu containing the list of default fields specific to either LDAP or ActiveDirectory server type. For each native name, the default fields are selected. Use the default mapping or select the mapping attribute as required. Custom: Select the Custom option to manually enter an Attribute Field.
GUID	Global Unique Identifier For ADS select objectGUID For OpenLDAP select entryUUID For eDirectory select GUID.
LDAP User fields/ Mixed Mode User Fields	The LDAP User field headings will be replaced with any custom LDAP/ADS Accounts fields created by the Administrator in Setup>Custom Fields (See Custom Fields.), or Mixed Mode User Fields if the Mixed Mode option is enabled in the Server tab. Use the drop-down list to select the appropriate mapping to the matching directory server field or select Custom to manually enter a Field.
Customer Orgs	Organizational Unit relationships can also be mapped from the authentication server. By default this is not enabled. To activate Customer Organizational Unit mapping, select Yes for the Import Customer Organizational Units option and define where the Company and Department information is to be derived.

Field	Description
Line Managers	LDAP attribute that defines a Customer's line manager, which is used for processing approvals on Service and Change Requests. Only system users with the Customer Role can be assigned as Line Managers.

6. Click Save.

Mapping Fields to the Matching Directory Server Field

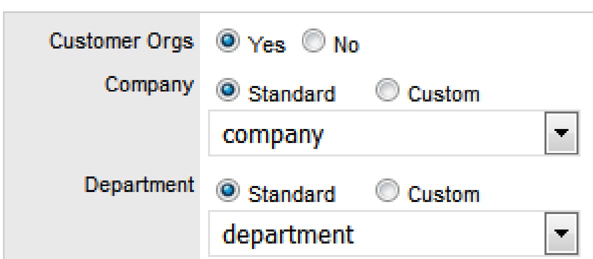
The LDAP User field headings will be replaced with any custom LDAP/ADS fields created by the Administrator in Setup>Custom Fields. See Custom Fields. Use the drop-down list to select the appropriate mapping to the matching directory server field or select Custom to manually enter a Field.



User details are imported when synchronization with the Active Directory/LDAP server takes place. Imported fields cannot be modified through the service management tool directly, the appropriate authentication server console must be used.

Import Customer Org Units

Organizational Unit relationships can also be mapped from the authentication server. By default this is not enabled. To activate Customer Organizational Unit mapping, select Yes for the Import Customer Organizational Units option.



NOTE: The details of the Org. Units are not populated upon this synch, only the Org. Unit names.

For the Org. Unit details to be assigned to Customer or User Information, create the Org. Unit in the Supervisor>User>Organizational Units tab and ensure the Org. Unit name is identical to what is stored in the authentication server. If the details are not identical, the system will create another Org. Unit.

6.10.5 User Directory or Domain Migration

If the user accounts are migrated to a different directory server, or to another domain in the same server, perform the follow these steps in the ZENworks Service Desk to sync the existing accounts with the new server:

IMPORTANT: Ensure that the email and username for accounts are the same in the new source, else the accounts will not be reconciled in the ZENworks Service Desk.

---

1. In the ZENworks Service Desk, modify the existing LDAP configuration and update the details as required.
2. Save the details and sync the changes.
3. The existing user accounts in ZENworks Service Desk will be synced with the new LDAP source.

NOTE: It is recommended that you perform the steps in the test environment and then replicate the same in the production environment.

6.11 PSS

* Section 6.11.1, “Password Self Service,” on page 563

6.11.1 Password Self Service

The Password Self Service option is provided for organizations using Password Management tools such as NetIQ SSPR, PWM, or other similar tools to enable users to manage their passwords themselves without contacting service desk.

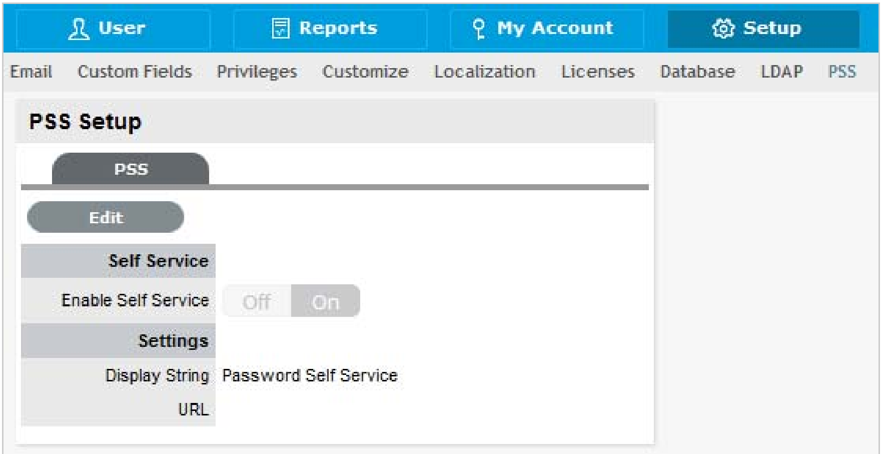
This is applicable when the system is using Directory Servers such as Active Directory or eDirectory for user authentication. It is not applicable when using internal authentication.

It should be noted that these tools provide a URL in different formats to redirect the end users to manage their passwords, so administrators are advised to check the documentation of their PSS tool for the URL and type of services to provide – such as reset forgotten password, change current password, setup of challenge response, new user registration, and so forth. Organizations might prefer to provide service to either reset a forgotten password or change a current password.

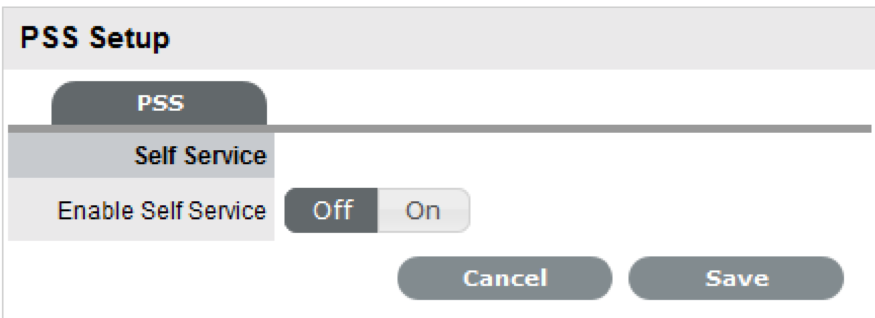
When configured, PSS allows customers and users to manage their passwords in their directory servers, thereby reducing requests to the service desk and increasing end user productivity.

To configure PSS:

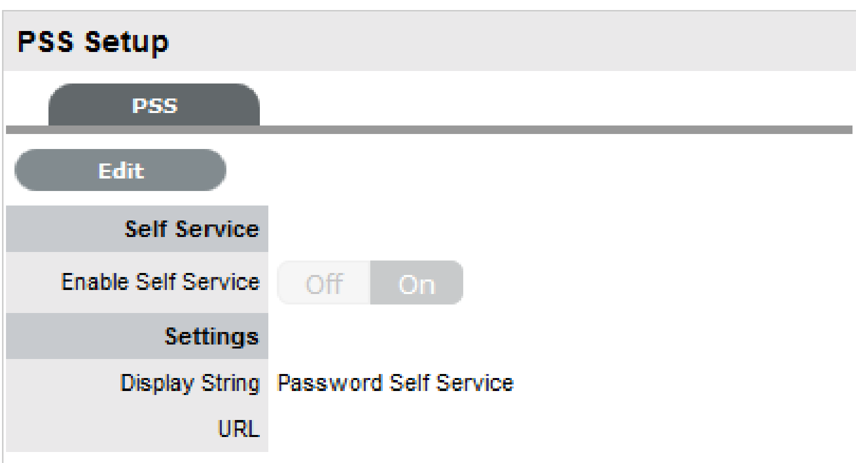
1 Select **Setup** > **PSS**



2 On the PSS Setup page, click Edit.



3 Set the **Enable Self Service** option to **On**.



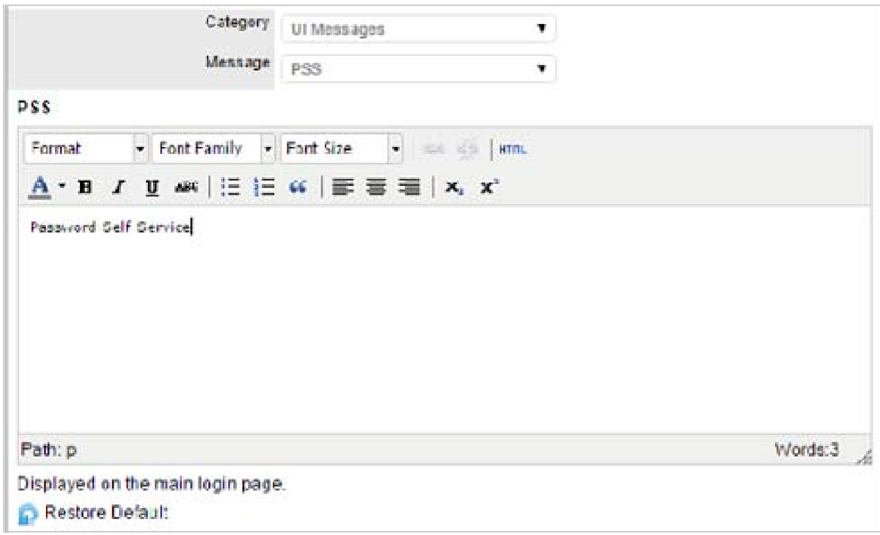
4 Specify the required URL.

5 Click Save.

6 Log out to find the **Password Self Service** link on the main login screen.

By default, the system uses the display string **Password Self Service.** If you want to use your own display string or use a localized string, do the following:

1. Click **Setup** > **Localization** > **Content**,
2. Select **UI Messages** as the Category.
3. Select **PSS** as the message string.
4. Click **Edit** to change the display string.
5. Click **Save** after modifying the message string.



6.12 AAF Sources

Advanced Authentication provides multi-factor authentication to protect sensitive data by using a series of authentication methods.

NetIQ Advanced Authentication can be integrated with ZENworks Service Desk to provide a more secure way to access the Service Desk portals. The multi-factor authentication can be enabled for all the users imported from an LDAP (non-Azure AD) server and can be configured for all the user roles.

For more information, see the ZENworks Service Desk - Advanced Authentication Getting Started document in the ZENworks Service Desk documentation site.

6.13 SSO

6.13.1 Single Sign On

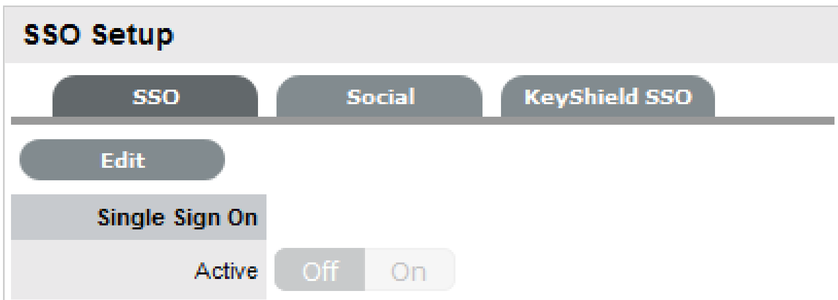
Single sign-on (SSO) options are provided for organizations using request header-based, single sign-on technologies such as Shibboleth. These work best with directory server technologies, as they keep the account details synchronized. It should be noted that some of these technologies rely on application server redirects to be implemented, so Administrators are advised to check the documentation of their SSO provider for details on how to activate and use request header-based Single Sign On.

For an overview of SAML-based SSO configuration, see Overview of SAML-based SSO configurations.

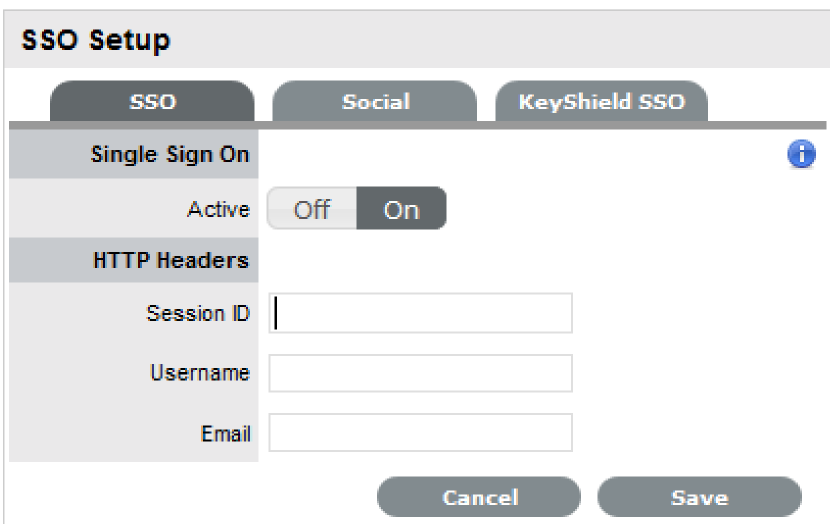
When configured, SSO allows Customers and Users who have logged in to their networks using their directory server authentication credentials to automatically access the service management application without re-entering their login details.

To configure SSO:

1. Select Setup > SSO.



2. Click Edit.
3. Toggle to On.



4. Complete all fields:

Fields	Description
Session ID	Enter the name of the HTTP Header that contains the SSO session id. All the Headers can be viewed by clicking .
Username	Enter the name of the HTTP Header that will contain the Login of the User attempting to access the support system.
Email	Enter the name of the HTTP Header that will contain the email address of the User attempting to access the support system.

5. To view all Session Headers, click .
6. Click Save.

For Active Directory: userPrincipalName (UPN) which will be in the format of logon_name@domain_name.

Example: ppedron@opentext.com

For eDirectory: Logon name from the UID

Example: If UID is "cn=ppedron,o=opentext", then the parameter to be passed is just log in name. In this scenario, the login name is "ppedron".

NOTE: If you are using multiple directory servers of different types, then go through the identity provider's documentation on how to pass the attribute differently for different types of directories.

Overview of SAML-based SSO configurations

This document provides an overview of SAML-based SSO configurations. In this scenario, we have used Shibboleth as a SAML service and identity provider. However, similar configurations can be used for other providers that support SAML-based SSO.

Administrators are advised to check the documentation of their respective SSO provider for details on how to activate and use request header-based SAML SSO.

Commonly Used Terminologies

Following are some of the common terminologies that will be used in this document:

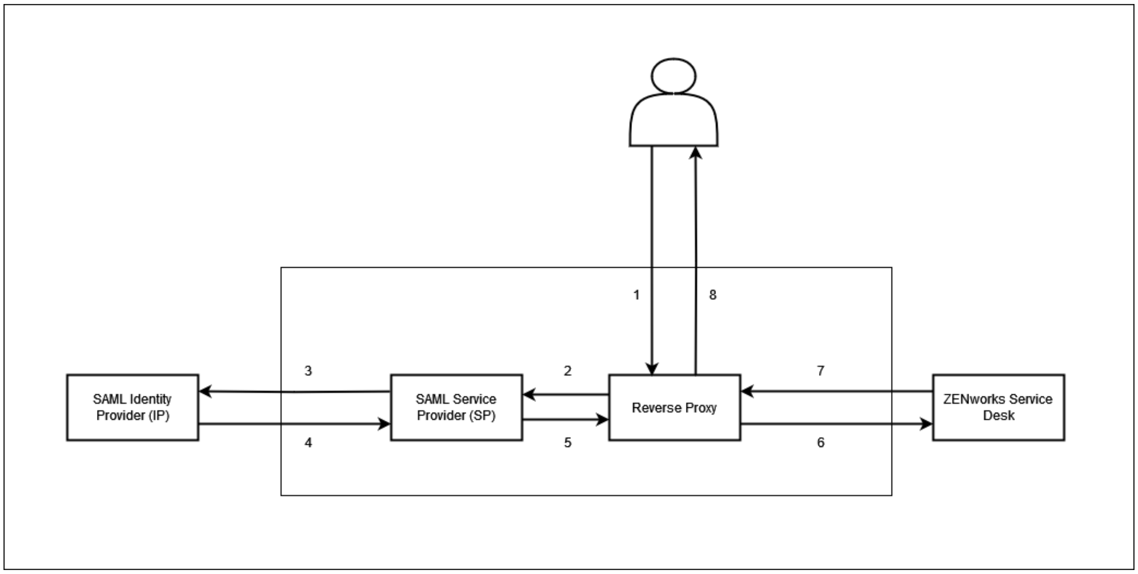
- Reverse Proxy: A web server (Example: Apache or Nginx) acting as a proxy for ZENworks Service. This will be the public-facing access point for the ZENworks Service Desk. Users will never directly interact with the actual ZENworks Service Desk server. You can select any proxy server recommended by the service provider. The reverse proxy should be installed on the same device where the SP is installed.
- SP: SAML Service Provider (Example: Shibboleth SP). Configured with reverse proxy. Generally, SP can be configured with any IDP supporting SAML.
- IDP: SAML Identity provider (Example: Shibboleth IDP).

* User: A Service Desk user.
* ZSD: ZENworks Service Desk server.

Workflow

The following steps provide a generic SAML-based SSO workflow:

1. Users access the ZENworks Service Desk via reverse proxy.The reverse proxy is protected via SP.



2. The SP detects the user's attempt to access the restricted content within the resource.
3. The SP generates an authentication request, and then sends the request to the user and then to the IDP.
4. The IDP authenticates the user and then sends the authentication response to the user, and then back to the SP.
5. The SP verifies the IDP response and sends the request through to the reverse proxy. The SP adds the required configured HTTP headers to the request.
6. Reverse proxy sends the request to the ZENworks Service Desk.
7. ZENworks Service Desk validates the users based on the HTTP headers and sends back the response to the reverse proxy.
8. The reverse proxy serves the requested content to the user.

Configuration

1. Set up an IDP (The organization can use the existing SAML SSO IDP).

   For more information, refer to the respective IDP vendor documentation for the installation and configuration details.
2. Deploy a new device to host reverse proxy and SP.
3. Install the SP of your choice and its supported web server (reverse proxy).

   For more information, refer to the respective SP vendor documentation for the installation and configuration details.

4. Configure web server to act as a reverse proxy where request is protected by the SP.

   For more information, refer to the respective SP and web server vendor documentation.
5. Configure SP to communicate with IDP for authentication.

   For more information, refer to the respective SP vendor documentation.
6. Configure IDP to accept the request from SP or register SP with IDP.

   For more information, refer to the respective IDP vendor documentation.
7. On successful authentication, IDP should release the attributes email, and username (UPN in case of AD).

   For more information, refer to the respective IDP vendor documentation.
8. SP should inject the SAML session, email, and username attributes to the reverse proxy as an HTTP header.

   For more information, refer to the respective SP vendor documentation.
9. Configure SSO on the ZENworks Service Desk to accept the attributes for verification. For more information, see Single Sign On.

Important configuration consideration

Following are some of the important configuration consideration that should be noted while configuing SAML-based SSO:

- Make sure that the ZENworks Service Desk server is accessible to the public only via the reverse proxy address and not directly. This can be achieved by configuring the firewall.
- Ensure that the required HTTP header is injected only by the SP running on the same device. Since SP and a reverse proxy are installed on the same device, a simple rule of allowing header injection only by the same IP or local host might be sufficient.

  For more information, refer to the respective reverse proxy vendor documentation.

Limitations

Following are some of the Limitations of SAML-based SSO:

- No common logout. i.e. Logging out from the ZENworks Service Desk will not log out from the IDP-SP session.
- The ZENworks Service Desk login page can be accessed directly, and the user can directly log into the ZENworks Service Desk. Hence, the SSO configuration should be used for ease of use to leverage SSO login and should not be used to enforce multifactor login.

6.13.2 Keyshield SSO

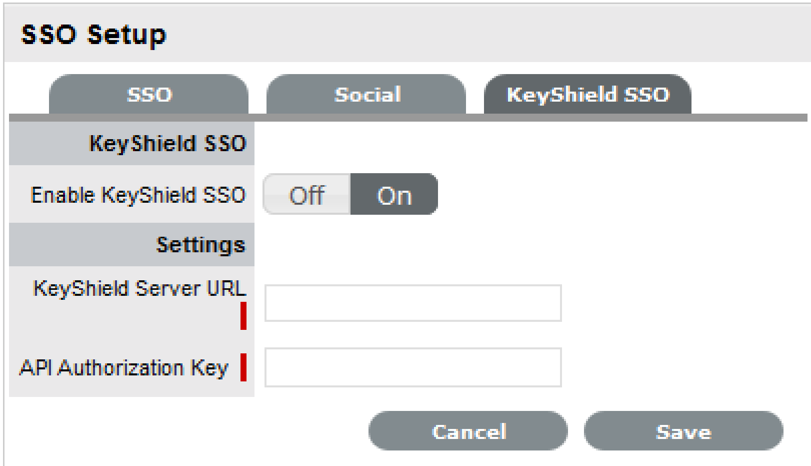
The Keyshield SSO feature is now integrated into ZENworks Service Desk this feature provides a single sign-on mechanism, and works with other Micro Focus products such as Filr, GroupWise, and Vibe.

KeyShield SSO is a single sign-on that enable users to access their applications without authenticate to each one of them. When configured, Keyshield enables customers and users who have logged onto their networks using their directory server authentication credentials, to automatically access the service management application without re-entering their login details.

To configure KeyShield SSO:

1 Select **Setup** > **Setup** > **SSO**.

2 In the SSO page, click **KeyShield SSO**.



3 **Toggle On**, then specify the following settings:

- **KeyShield Server URL:** The KeyShield server's IP address (`https://<ipaddress>:<port>`).
- **API Authorization Key:** The API key generated in the Keyshield server.

4 Click **Save**.

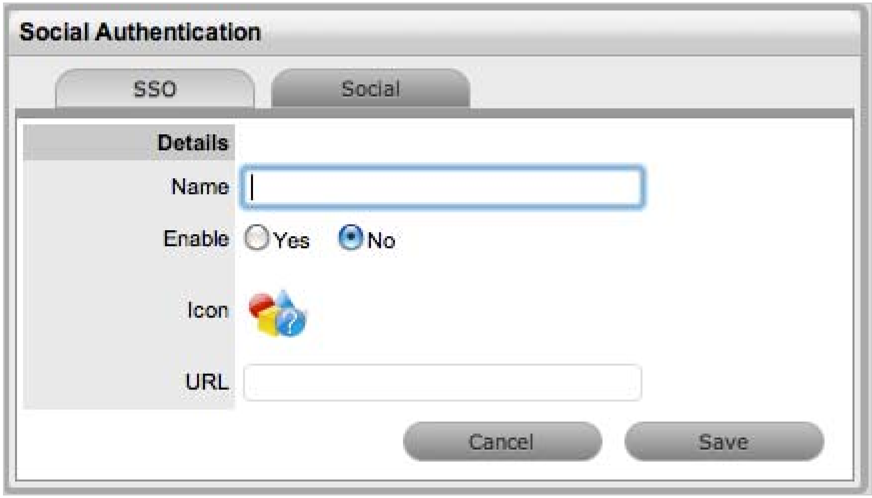
6.13.3 Social

The Social tab is available when the OpenID Consumer option is enabled within the Setup>Privileges>System tab. This functionality delegates the authentication of Customers and Users when accessing the system to OpenID Providers.

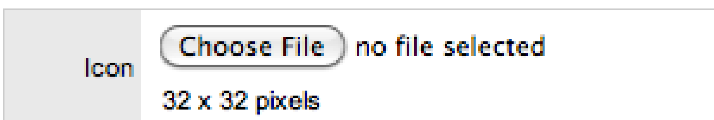
Defining an OpenID Provider

To enter the account details for an OpenID Provider:

1. Select Setup > SSO > Social tab
2. Click New



3. Complete the Name field
4. Select Yes to enable the Provider to authenticate Users and Customers
5. Click  to upload the OpenID's icon that will be displayed on the system Log in page



6. Click Choose File to search for the image file

   The image must be 32x32 pixels.
7. Click to upload
8. Define the URL details for the OpenID Provider
9. Click Save.

   The icon for the OpenID Provider will now be active on the system Log in page.

6.14 Reports

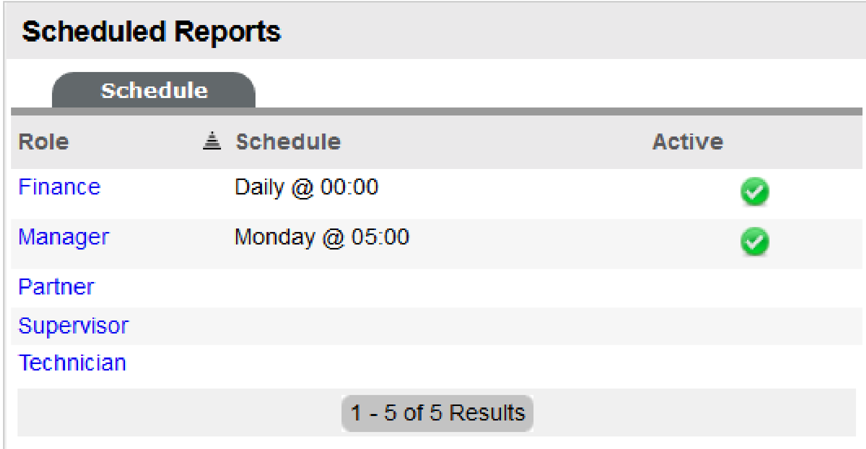
6.14.1 Schedule Reports

Schedule Reports allow the Administrator to configure the system to automatically send reports via email to Supervisor, Technician, Finance, Partner and Manager Users on a regular basis. The content of the email is defined on a per Role basis with the reports drawn from the default system reports or those built using the system report builder.

Setting Up Scheduled Reports

To set up scheduled reports:

1. Select Setup>Reports



2. Select the relevant Role link

   The screen defaults to the Details screen.

3. Click Yes within the Active field

   Scheduled reports are enabled for all Users of selected Role.

email	Description
Send	Define if the automated reports are to be sent Daily, Weekly or Monthly.
Time	Using the 24 hour clock, set what time of day the report is to be emailed to the User Role group.
Content	
Date Range	Set the number of previous days, weeks or months that the report is to be calculated over.
Page Size	Nominate A4, Legal or Letter as the page format size for the report.
Selected Reports	
	Add or remove reports in this section.

4. Complete the email details

   Nominate the frequency and time of day the reports are to be sent.

5. Complete the Date Range for the emailed reports

   The Date Range intervals include daily, weekly and monthly. Define the number and interval type for sending the reports.

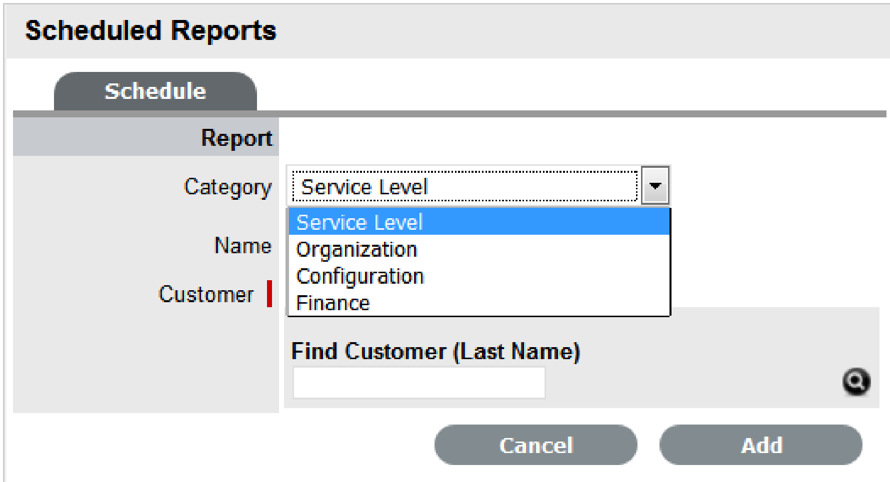
6. Set the paper size

7. Click to add reports to the schedule

   The screen defaults to the display Category and Name drop down lists.

8. Select the Report Category

The Name list is refined based on the Category selected. For example, if KPI is set as the Report Category the Names list includes all types of KPI summary reports included by default in the system.



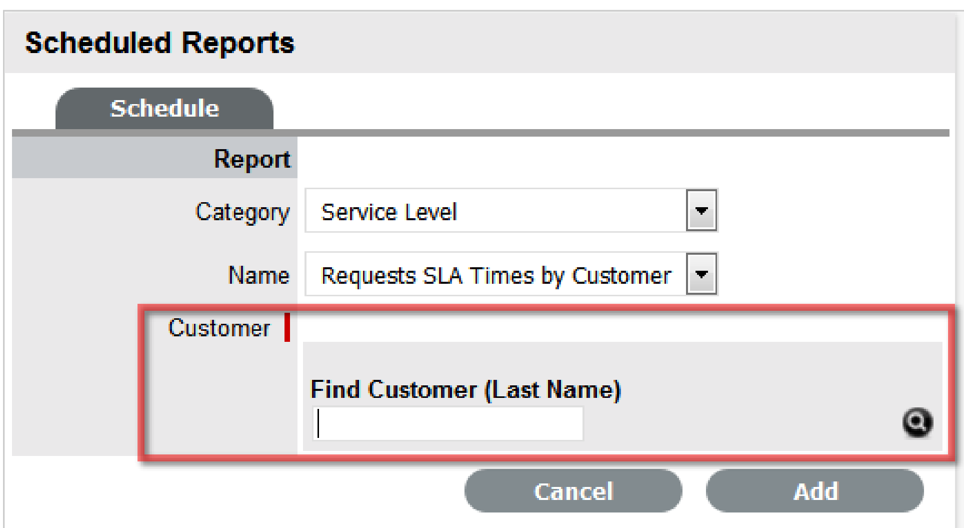
9. Define the report Name and any other required options

   Based on the Report Name selected, the options to create a trend report or define the results by specific parameters (i.e., Customer Name, Item Type, etc) are displayed.

10. Click Add

    Repeats steps 7 to 10 to associate all the required reports with the scheduled reports email.

11. Select Test, if required



12. Search and select the User who is to receive the test report

    Ensure that the user creating the scheduled report must have the role for that type of report, to search and assign a recipient.

13. Click Test

A test copy of the report is sent to the defined User with the test interval range based on *one* day, week or month, not the actual number defined in the Previous field for the scheduled reporting period.

14. Click Save.

Repeat the above process for all relevant User Roles.

6.15 Billing

6.15.1 Billing

The Billing module allows Users to create Invoices, Purchase Orders and manage Customer support Contracts. Billing allows support organizations to charge Customers for support services provided, and manage Items purchased with Service Contracts.

When the Billing module is enabled by the system administrator, the Invoices and Purchase Orders sub-menu options are available within the application Finance tab. Purchase orders can simplify the tracking of where and when new Items are purchased or leased. This feature is not meant to replace an organization's original PO system, it is designed to easily link a specific PO number (and its associated vendor and date information) with an Item.

The Invoices section allows Customers to be billed for products (Items) or support services (Contracts) provided by the organization. An Invoice can be created when an Item and Service Contract is ordered by a Customer. Alternatively, Invoices can be created for Service Contracts alone, as the Item may already exist in the system.

Invoices can be generated through the following screens:

- Within the Invoices section
- When a request is created against an out-of-contract Item
- When an Item, Customer or Organizational Unit is created, or edited to assign a new SLA.

The Billing options include:

- Purchase Orders
- Contracts
- Invoices

Billing	**Description**
Purchase Orders	Allow Users to track Items from the moment an order is placed to its delivery and implementation. POs cover leased and purchased Items.
Contracts	Within Contracts, Users can manage Customer Service agreements over a specific time period.
Invoices	Allow Users to charge Customers for contracts. When Invoices are activated, Contracts are automatically enabled

Billing	Description
Display SLA Prices	Enables SLA Price fields to be visible in the SLA Editor screen. This allows the Supervisor to allocate costs to SLAs and assists with the calculation of Break Even Point costs for Service Items. See: SLAs.
Email Notifications	(This option is visible when Contracts are enabled.) Enables the system to update Finance Users via automated emails, regarding Invoice and/or Contract related matters.
Global Settings	
Currency	Defines the currency that is to be automatically applied by the system for all financial transactions.

NOTE: Invoices and Contracts will not work when Global Items are in use. If Billing is enabled after the application has been in use, a Supervisor will need to assign owners to Global Items before Billing can be activated.

6.15.2 Invoices

The Invoices sub-menu option is available within the Finance tab when the option has been enabled by the system administrator. Invoices allows support organizations to charge Customers for support services provided, and manage Items purchased with Service Contracts.

(For more information about enabling Billing, see: Setup>Billing within the Administrator Guide.)

An Invoice can be created when an Item and Service Contract is ordered by a Customer. Alternatively, Invoices can be created for Service Contracts alone, as the Item may already exist in the system.

Invoices can be generated by the system through the following screens:

- Within the Invoices section
- When an Incident is created against an out-of-contract Item
- When an Item, Customer or Organizational Unit is created, or edited to assign a new SLA.

The following sections are covered within Invoices:

- Invoice creation - creating an invoice for a Service Contract or an Item with a Service Contract
- Invoice summary screen - Summary tabs, emailing and editing an Invoice, and information about an Invoice Status
- Invoice payment and delivery - processing an Invoice when payment is required.

6.15.3 Creating Invoices

Invoices can be created for Items and associated service Contracts, and for Items or Service Contracts only.

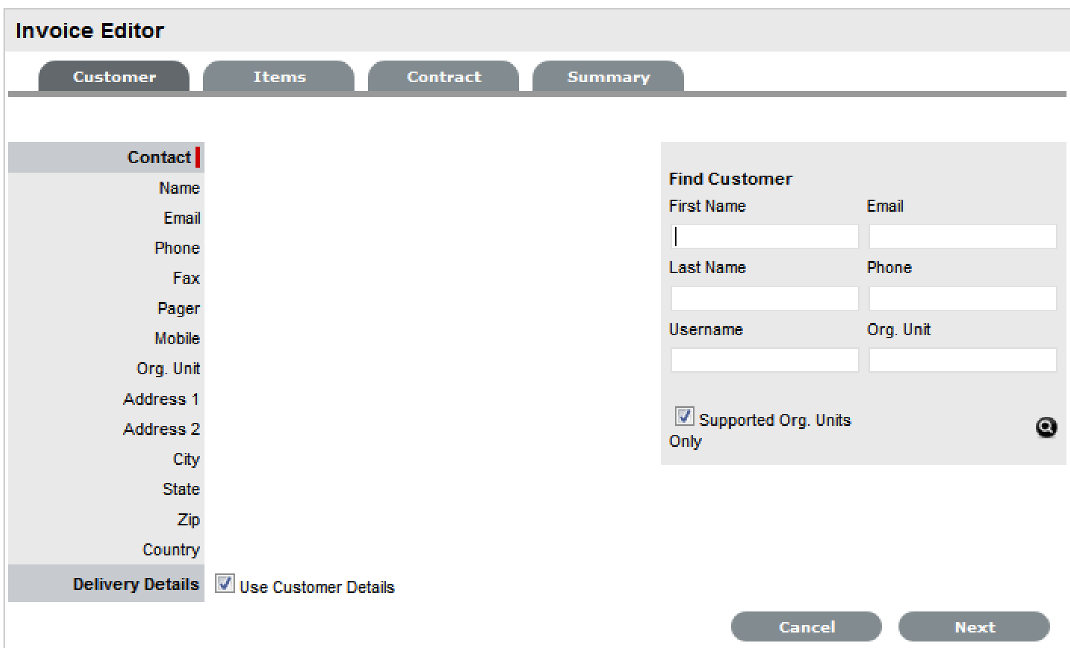
Creating an Invoice to purchase an Item and Service Contract

To create an Invoice:

1. Select Finance>Invoices
2. Click New

   The Customer tab appears.
3. To assign a Customer to the Invoice:
   a. Search for a Customer who already exists in the system

      Enter any known information such as their First Name, Last Name, Email Address, Org. Unit or Username in the Find Customer fields. To view a list of all Customers in the database, leave all the fields blank.



   b. Click 
   c. Click on a Customer's name to assign them to the Invoice

      The Delivery Details are automatically extracted from the Customer Details. If they are not the same, uncheck by clicking the tick in the Use Customer Details box and enter the correct details.
   d. Select Next to continue.

      The system moves to the Items tab.

4. To add an Item Type for an Item Order:

a. Select 

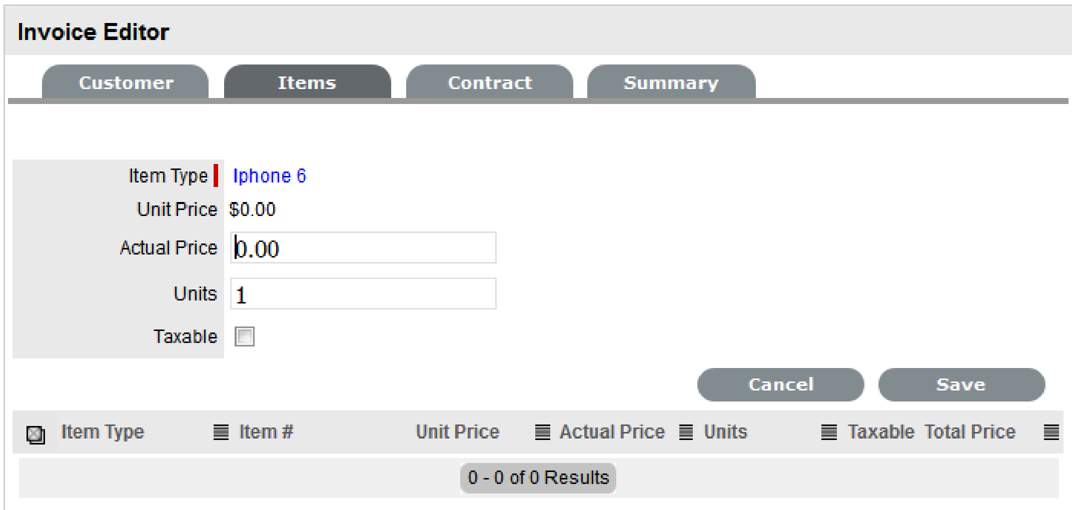
if the Invoice is to purchase a new Item

Otherwise, click Next to purchase a Service Contract.

b. Search for the Item Type to be associated with the Invoice

Leave the search field blank and click the Search button to display a list of Item Types that can be assigned to the Invoice

c. Select the relevant Item Type link to add it to the Invoice



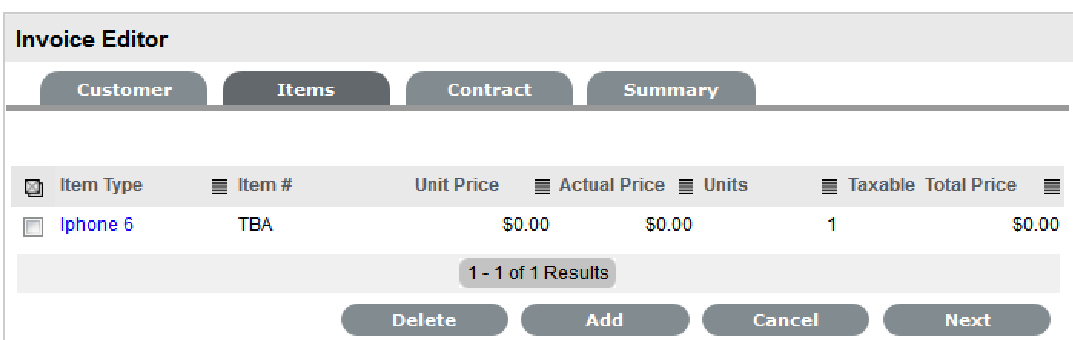
d. Enter the Actual Price information, if relevant and the number of Units to be ordered

e. Mark the order as Taxable if required

The tax is not included in the Actual Price but will be calculated within the Invoice Summary tab.

f. Click Save to add

The Item Type details are applied to the Invoice



g. To add more Item Types, select 

and repeat the above process.

Alternatively, click Next to move to the Contract tab, if required.

5. To add a Service Contract for a newly ordered Item Type:

   a. Select 

to add a Service Contract to the Invoice

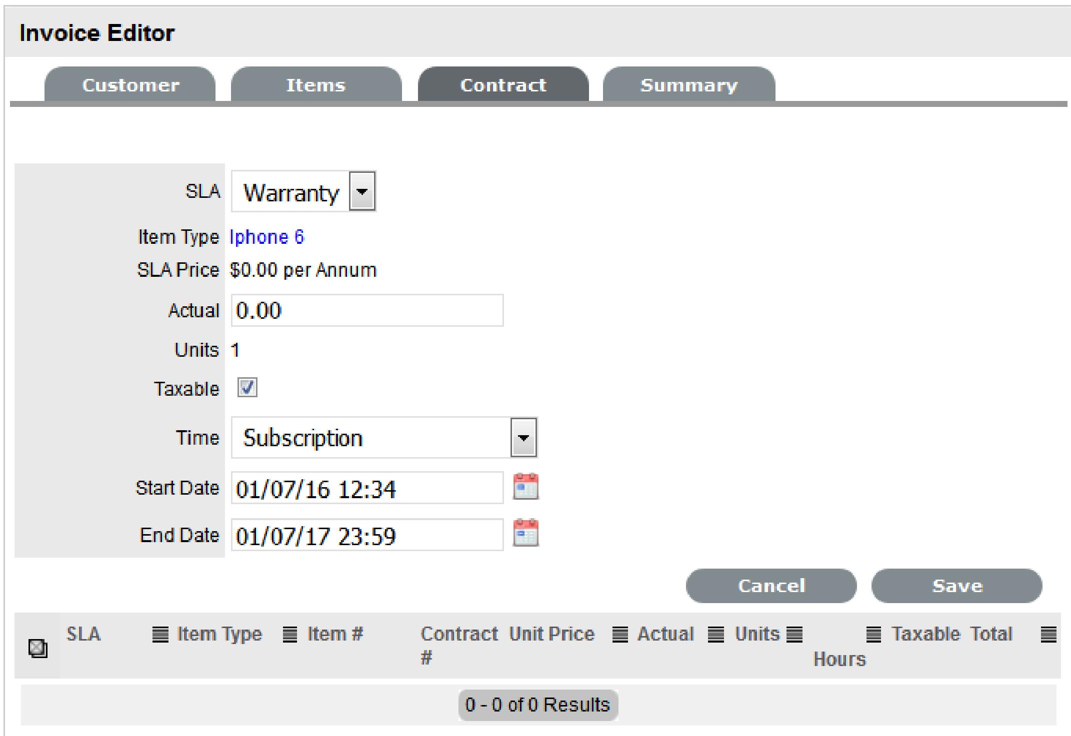
      Or, click Next to go to the Invoice summary.

   b. Select the appropriate SLA from the drop-down options

   c. Select the Item Type related to the Service Contract

      To search for an Item Type enter any known details in the Find Item Type search field.

   d. Click the Item Type link to assign it to the Invoice



   e. Amend the Actual Price, if relevant

   f. Check the Contract as taxable, if relevant

   g. Select the Time period covered by the Contract:

      Subscription - a contract that covers a specified period of time

      Time Limited Subscription - a contract that covers either a specified period of time or number of support hours, whichever limit is reached first

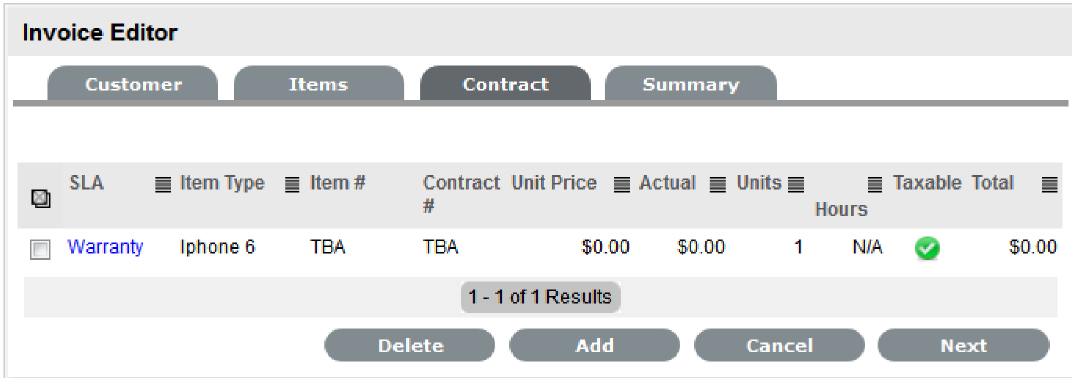
      Support Hours - a contract that defines the number of support hours covered

      Support Hours by Month - a contract that covers a total number of support hours purchased for a defined timeframe and allocated on a per month basis.

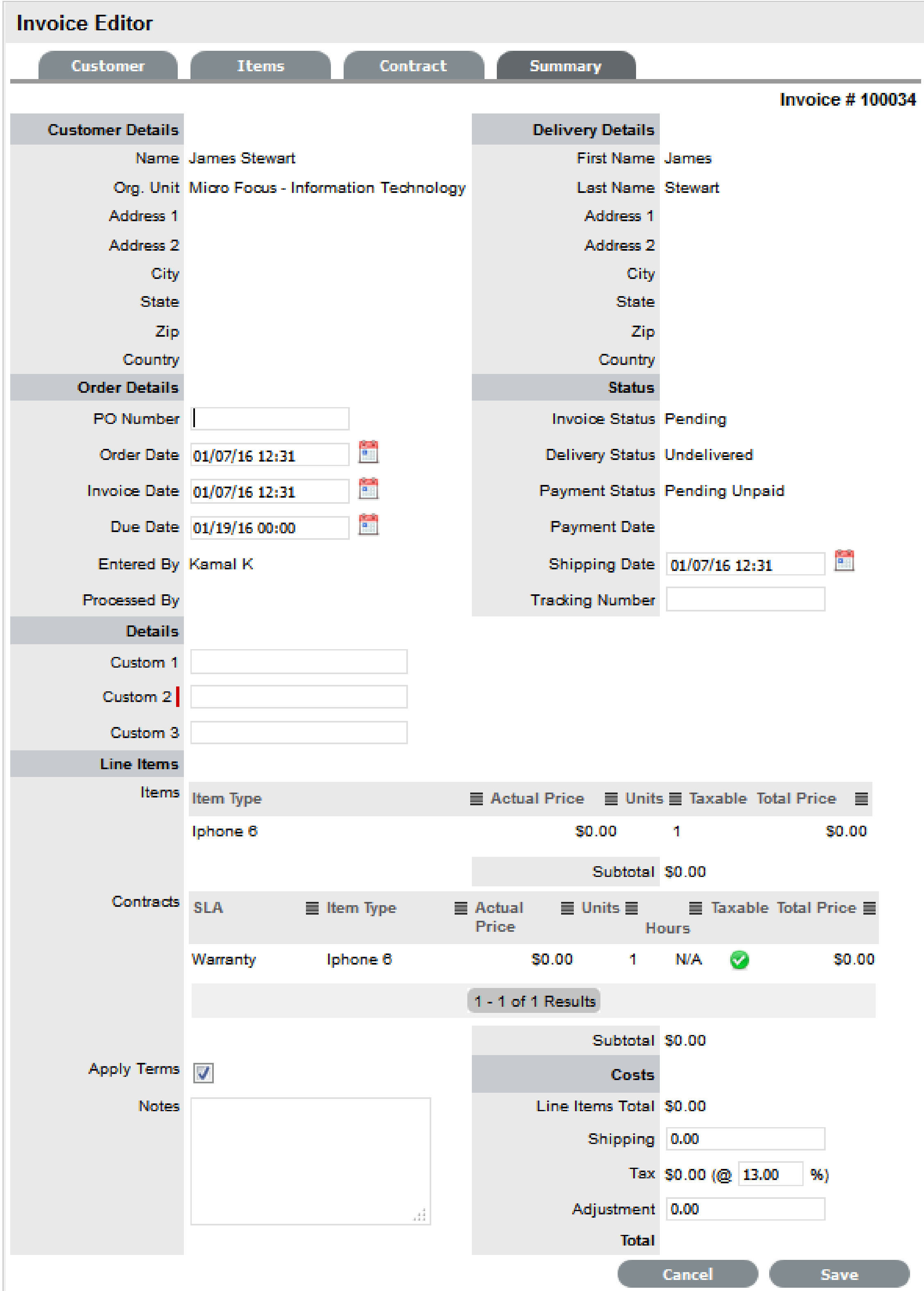
   h. Click Save.

i. To add another contract to the Invoice, click 

and repeat the above process.



6. Click Next to move onto the Summary page



7. Enter a PO Number and make any other adjustments, if relevant
8. Click Save

9. Select 

to send the Invoice to the Customer, if required
10. Click Done.

Creating an Invoice to Purchase a Service Contract

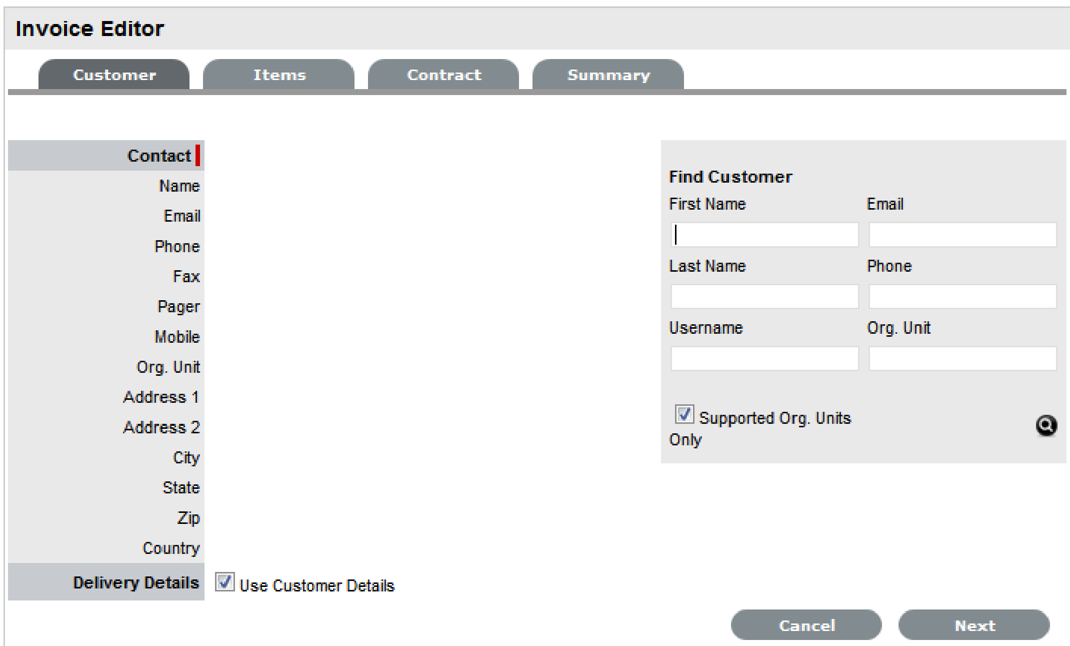
To create a Service Contract Invoice:

1. Select Finance>Invoices
2. Click New

   The Customer tab appears.
3. To assign a Customer to the Invoice:

   a. To search for a Customer who already exists in the system

      Enter any known information such as their First Name, Last Name, Email Address, Org. Unit or Username in the Find Customer fields. To view a list of all Customers in the database, leave all the fields blank.



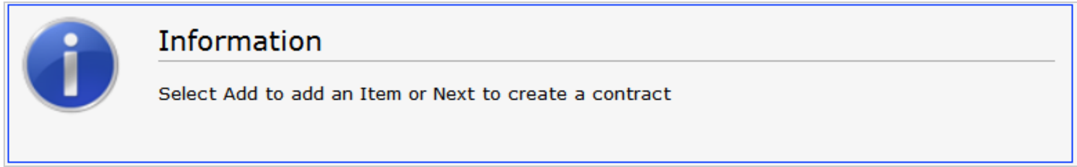
   b. Click 

   c. Click on a Customer's name to assign them to the Invoice

      The Delivery Details are automatically extracted from the Customer Details. If they are not the same, uncheck by clicking the tick in the Use Customer Details box and enter the correct details.

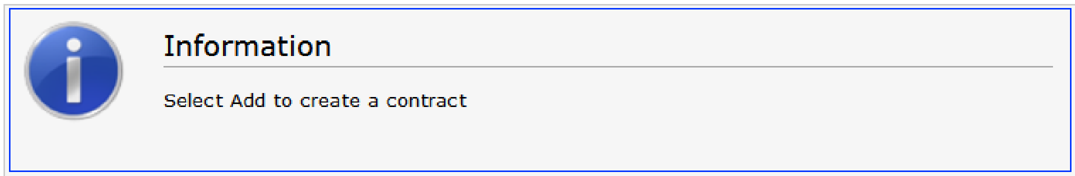
   d. Select Next

      The system moves to the Items tab and displays the following message



e. Click Next again

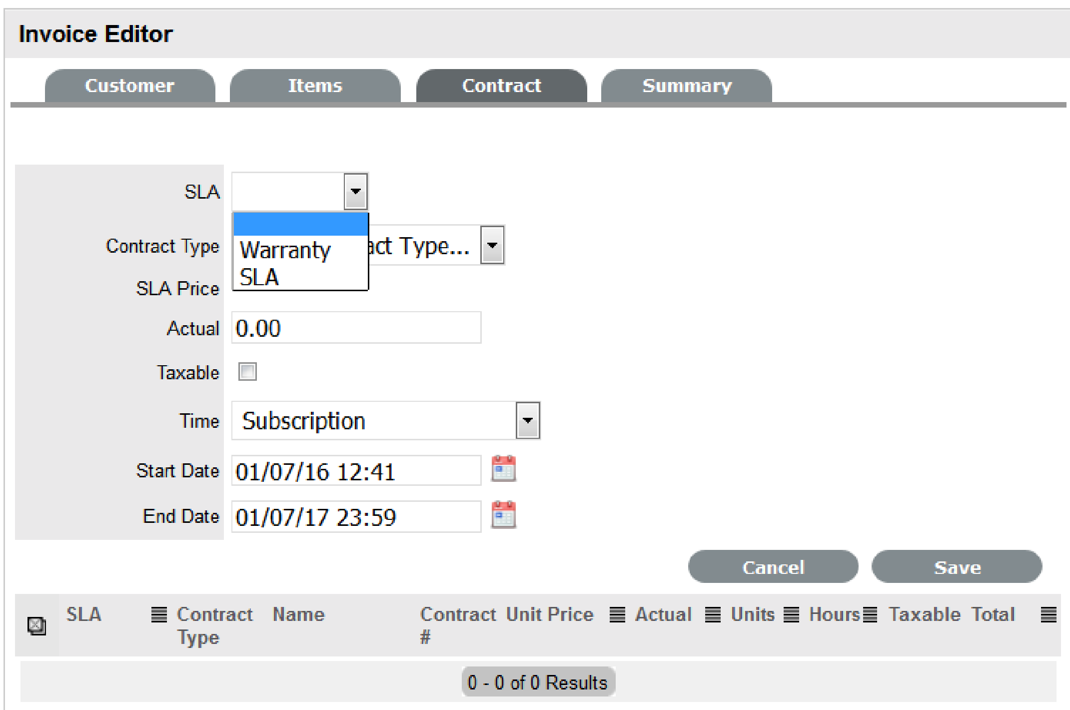
The system moves to the Contract tab.



4. To create a Service Contract:

a. Select Add to create the Service Contract

b. Select the appropriate SLA from the drop-down options



c. Select the Contract Type

d.

Contract Type	Description
Item Contract	To purchase a contract for an Item. Search and select an Item using the Find Item search.
Customer Contract	To purchase a contract for a Customer. Search and select a Customer using the Find Customer search.
Org Unit Contract	To purchase a contract for an Organizational Unit. Search and select an Org Unit using the Find Org Unit search.

e. Amend the Actual Price, if relevant

f. Check the Contract as taxable, if relevant

g. Select the Time period covered by the Contract:

If *Subscription* is selected, the Start and End Dates are automatically completed by the system.

If *Time Limited Subscription* is selected, the Support Hours field is displayed and the number of support hours purchased by the Customer should be entered. Also, the Start Date and End Date fields should be completed manually, entering the length of time for the subscription period.

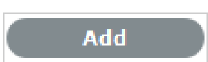
If *Support Hours* is selected, the number of support hours purchased by the Customers should be entered.

If *Support Hours by Month* is selected, a contract that covers a total number of support hours purchased for a defined timeframe and allocated on a per month basis.

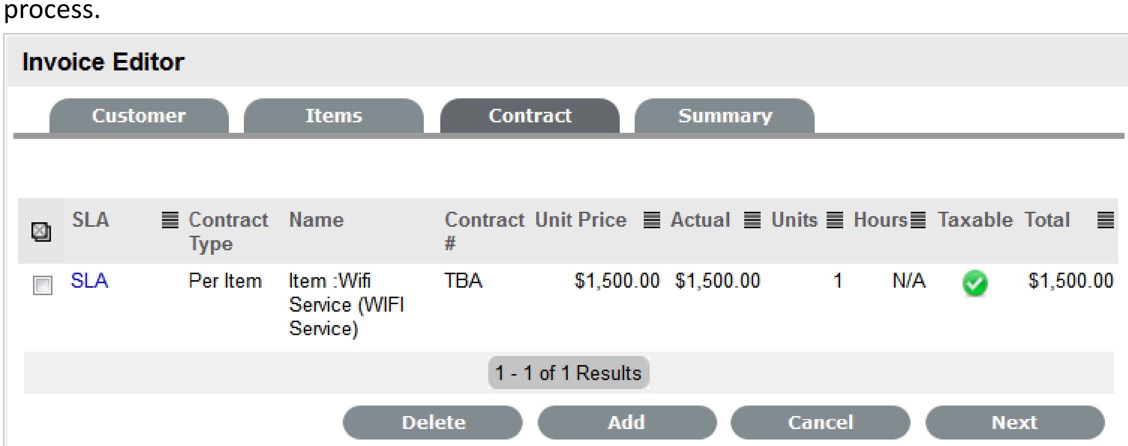
(If a Contract is forward dated with a Start Date set in the future, the Pending Contract status is assigned. See Pending Contracts.)

h. Click Save

5. To add another contract to the Invoice, click



and repeat the above process.



6. Click Next to move onto the Summary page

7. Make any adjustments, as required
8. Click Save
9. Select Email to send the Invoice to the Customer, if required
10. Click Done.

6.15.4 Invoice Summary

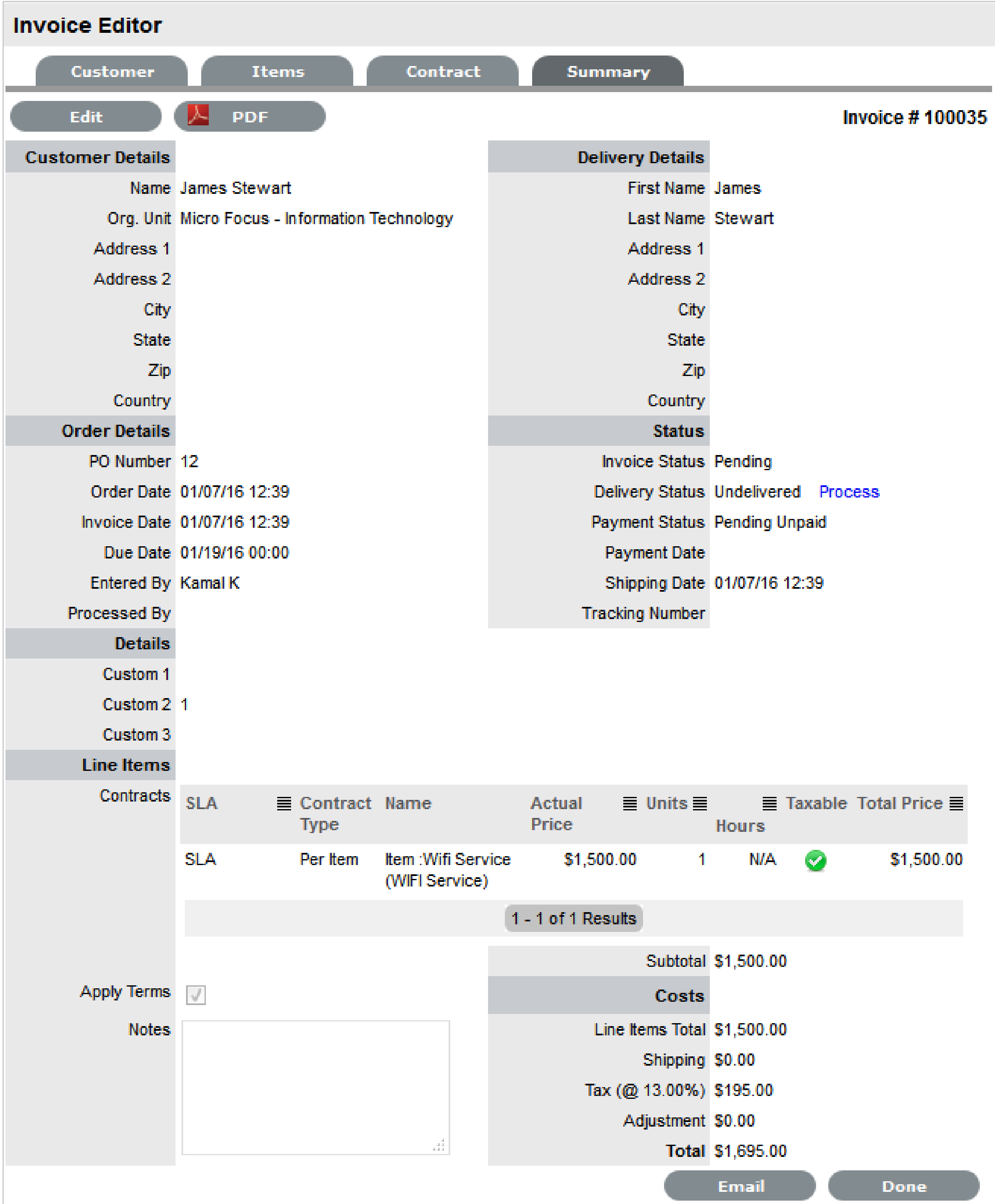
The Invoice Summary tab includes the invoiced Customer, delivery and order details. It allows Users to email the Invoice to relevant parties and displays the status of the Invoice. The summary screen also allows Finance Users to process an Invoice when payment is received.

The following fields are included with the Invoice Summary tab:

Fields	Description
PO Number	Auto-generated or manually entered order identification number.
Order Date	Auto-generated or manually adjusted order date.
Invoice Date	Auto-generated or manually adjusted date for the invoice creation.
Due Date	The date the invoice is due. Auto-generated based on the Default Invoice Due value defined by the Administrator.
Entered By	The User who created the invoice.
Processed By	The User who processed the invoice.
Invoice Status	Displays what stage of the order process the invoice is in.
Delivery Status	Details the status of delivery for items on the invoice
Payment Status	Details if the invoice has been paid
Payment Date	Date the invoice was processed for payment.
Shipping Date	Manually entered date of shipping.
Tracking Number	Reference number manually entered to track the order.
Apply Terms	For the system terms and conditions to be included in the PDF Invoice and the Invoice emailed to the Customer, tick the Apply Terms option.
Notes	Enter any additional Invoice information within the Notes field.
Shipping, Discounts and Taxes	Before saving an Invoice, any shipping costs to be included in the grand Invoice total can be entered in the Shipping field.

Fields	Description
Adjustment	The Adjustment field records Customer discounts and will be subtracted from the final order total.

NOTE: A flat tax percentage can be added to taxable line Items included on the Invoice. This is a global property that is configured by the system Administrator, in Setup>Billing>Tax Rate, but can be edited if required.



Emailing an Invoice

Once an invoice is created, selecting the Email button will send a copy of the Invoice to:

- The Customer who placed the order
- The system Finance User

- The User who recorded the Invoice
- The Customer who will take delivery, if different to the person who placed the order

If the system Administrator has enabled the Email Invoice functionality in the application Setup, the Invoice will be emailed automatically to the relevant parties when it is created.

Invoice Status

When an Invoice is first logged in the system it has a status of Pending. A pending Invoice can be edited. However, when an Invoice has been successfully delivered or processed, the Invoice Status moves to Active and it is no longer editable.

Status	
Invoice Status	Pending
Delivery Status	Undelivered Process
Payment Status	Pending Unpaid
Payment Date	
Shipping Date	01/07/16 12:39

An Invoice changes to a status of Cancelled when one of the following events occurs:

- Another Invoice is created to supersede the original Invoice; or
- The Invoice was created for a specific Incident and that Incident was deleted/cancelled either manually or due to the Incident Cancel Time, set by the system Administrator, being exceeded. See Setup>Billing within the Administrator Guide.

Editing an Invoice

To amend Invoice details or to include additional Line Items, edit or enter the information prior to selecting the Process hyperlink. This link is not available when the Invoice is in Edit mode, as all Invoice information must be locked down to ensure the application has control of the details of the Items and their delivery.

6.15.5 Invoice Payment & Delivery

Relative to the workings of your support organization, Item and/or Support Contract Invoices may or may not need to be paid before an Item can be delivered to your Customer or Support Contract used by your Customer.

To update the Shipping Date, open the Invoice in Edit mode when the Delivery Status is Undelivered and enter the relevant date within the Shipping Date field.

Processing an Invoice when Payment is Required

For organizations where the option of Payment Required is enabled by the Administrator, a User with Finance access is the only User who can update the Payment Status of an Invoice. To update the Payment Status, the Finance User selects the Payment Received hyperlink of an Invoice to change the status to Paid. Once payment has been made, any other User, such as a Supervisor, can process the Invoice.

Status		
Invoice Status	Pending	
Delivery Status	Undelivered	Process
Payment Status	Pending Unpaid	Payment Received
Payment Date		

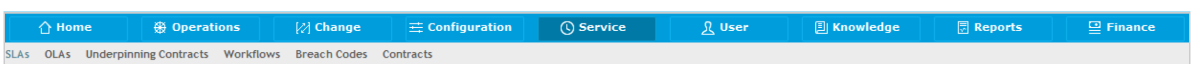
Processing an Invoice when Payment is not Required

If the Payment Required option has not been enabled by the system Administrator, a Line Item can be activated in the support system by selecting the Delivery Status Process hyperlink. This means that Customer payment does not need to be received by the organization before the Customer Item is delivered or a support contract is activated in the system.

When the Process hyperlink is clicked, the Invoice Status is updated to Active, and the Delivery Status changes to Delivered. (If the invoice is related to a support contract, the request status is moved from Pending - No Contract to the Workflow default open State, such as Pending.)

Status		
Invoice Status	Active	
Delivery Status	Delivered	
Payment Status	Pending Unpaid	Payment Received
Payment Date		
Shipping Date	07/29/10 14:01	

6.15.6 Service Level Agreements (SLAs)



Service Level Agreements (SLAs) are used by organizations to manage the levels of service expected of the IT and to ensure optimal maintenance of critical business systems and services. SLAs are documents that are negotiated between the Service Provider and Customer departments, to identify expectations and clarify responsibilities.

This tab is used to create and modify Service Level Agreements that provide request management capabilities.

SLAs include the following elements:

- Name
- Service Level Manager
- Priority Targets

- Automated Alert Notifications
- Pricing (if enabled in Admin>Setup>Billing)
- Blackout Periods
- Workflows

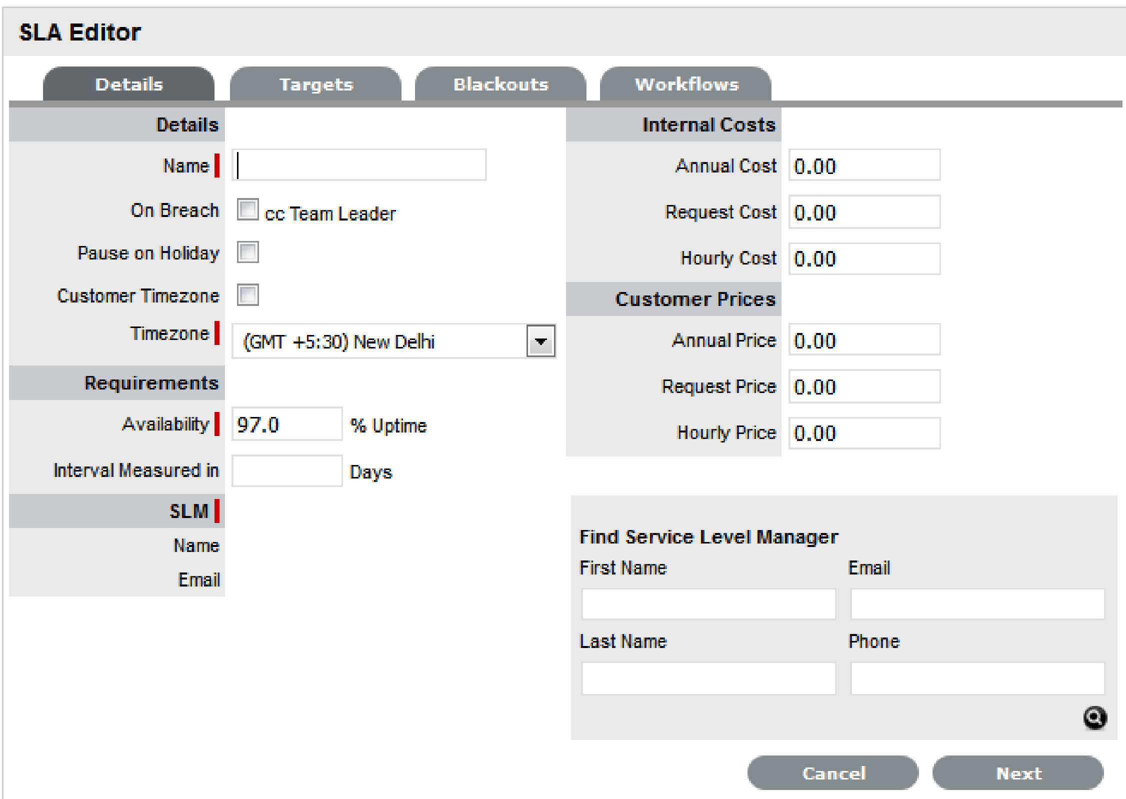
Details

Creating a Service Level Agreement

To create a new Service Level Agreement:

1. Select Service >SLAs
2. Click New

   The screen defaults to the Details tab of the SLA Editor screen.



3. Complete the fields, including any custom fields, as required:
4.

SLA Editor	
Details	
Name*	The name to identify the SLA.

SLA Editor	
Review Date	Details are completed based on the Admin default settings but can be edited by the User. An Alert is sent based on the default days set in the Review SLA Alert field in Admin>Setup>Privileges>Requests.
On Breach	Notification can be set to Carbon Copy (CC) an email to the Team Leader when the Warning or Escalation alert is sent to the Technician assigned to the request. It should be noted that the Service Level Manager is also notified when an SLA is breached.
Pause on Holiday	**This option is only displayed if the Observe Public Holidays option has been enabled within the Administrator>Setup>Privileges>User tab. Enable this option, if the SLA is to be adjusted on designated Public Holidays. The Public Holidays are defined within the Administrator>Setup>Public Holidays screen and associated with requests via the assigned Technician and their associated Country.
Customer Timezone	When enabled, SLA times displayed within the Technician request view uses the Customer timezone.
Timezone	This is visible when Customer Timezone is not set and all SLA dates are calculated based on the Timezone set within this field. This is especially applicable for User Work Hours, Blackouts, which also impacts the SLA Reports.
Requirements	
Availability*	Used to state the time an Item under the SLA is required to be online. The default value is set to 97%.
Interval Measured in	Defines the number of days over which the Availability requirement is calculated.
Priority	
Process Name	The field is displayed when Workflows have been assigned to the SLA. If multiple Workflows have been assigned for each Process, this field allows the User to assign a default Workflow for the SLA. When a request is created using the SLA, the default Workflow is assigned to the request.
SLM (Service Level Manager)	

SLA Editor	
Name Email	Use the Find Service Level Manager search option, to enter the contact details of the Manager who will monitor the performance of the SLA. This is also the User who is assigned responsibility for managing the performance of external support providers when a request moves into a Workflow State that is supported by an Underpinning Contract .
Internal Cost ^	
Annual Cost ^	The SLA cost is calculated on the basis of what is costs the service organization to provide the service agreement, as applied on a yearly basis per User. The figure is associated with Items and used to calculate the cost of supplying a Service. This figure can be used as the basis for setting the Annual Price. The figure entered should be on a Annual Cost per User basis.
Request Cost ^	Indicates the cost applied on a Per Request basis. This figure can be used as a reference for setting the Incident Price.
Hourly Cost ^	Indicates the cost applied on an Hourly basis. This figure can be used as a reference for setting the Hourly Price.
Customer Pricing ^	
Annual Price ^	This is the charge applied to the SLA on a yearly basis and paid by the customer consuming the Service associated with the SLA. (It should be greater than the SLA Cost, as it would include the cost of servicing the SLA plus a profit margin, if relevant.) The figure is associated with Items and used to calculate the price paid by the customer for consuming a Service. The figure entered should be on a Annual Price per User basis.
Request Price ^	Indicates the price paid by the customer when the SLA is applied on a Per Request basis.
Hourly Price ^	Indicates the price paid by the customer when the SLA is applied on an Hourly basis.

* Denotes a mandatory field

^ Only applicable when SLA Prices are enabled in Setup>Billing

Targets

The Targets tab is used to configure the SLA's priority Response, Restoration and Resolution Times.

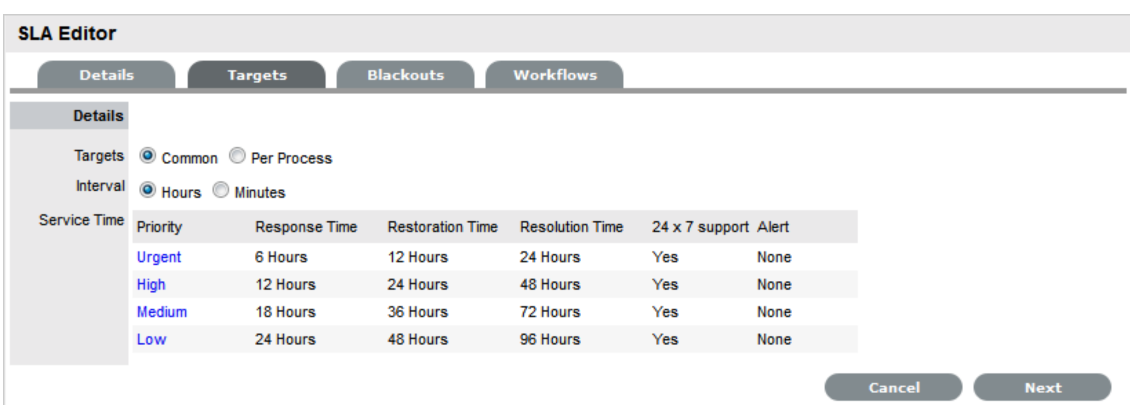
To modify a Priority:

1. Select Service > SLAs
2. Select an SLA
3. Select the Targets tab to display the following fields:
4.

SLA Editor	
Targets	
Targets	*Common*: Select Common if the SLA is to apply across Incidents, Requests, Problems and Change Management. *Per Process*: If the SLA is specific to a Process, select Per Process and choose a Process displayed in the drop-down list.
Interval	Define if the time is to be calculated in Hours or Minutes.
Service Time	
Priority	Urgent, High, Medium and Low.
Milestones	
Initial Response	The maximum time the Customer would wait from the point of request creation before receiving a Note update for a Technician. The Response trigger is stopped when a Note has been added to the request by the assigned Technician and an email is sent to the Customer. If the Response Time is reached, without a Note being added, the request will be escalated.
Restoration Time	The maximum time the Customer would wait from the time the request was created until a workaround or temporary fix has been implemented. The Restoration trigger stops by assigning the request a Workflow State that has to the SLA Restoration option set to Yes. By default, this Workflow State is Open - Restored.
Resolution Time	The taken time from the point of request creation until it the request is moved to a Workflow State with the SLA Resolution option set to Yes. Any of the default Workflow Exit States stop the Resolution Timer.
Notify Override	If the system is to override the default notification method set for a request when the Priority being edited is assigned to a request, check this option.

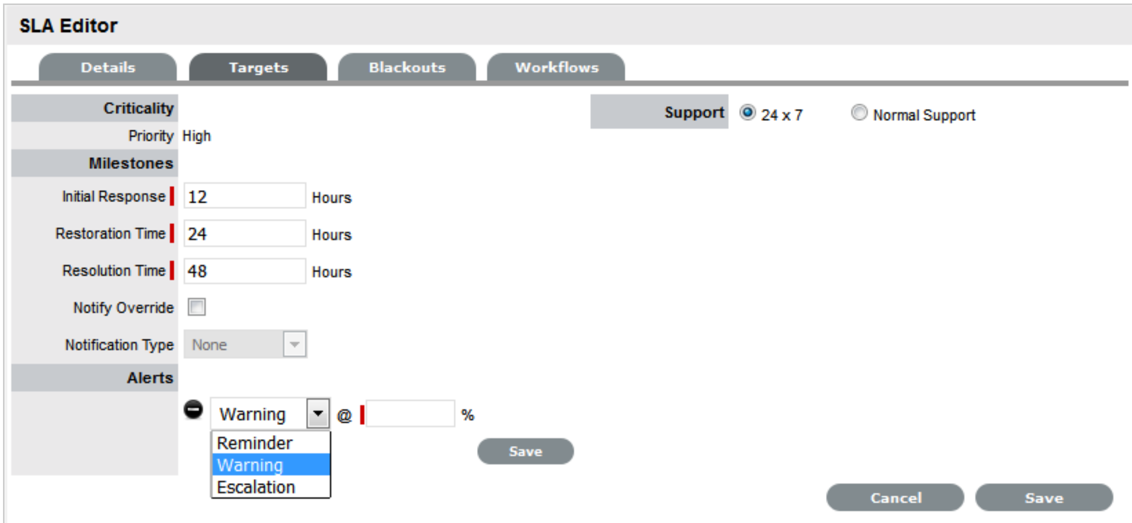
SLA Editor	
Notification Type	Set Email or SMS as the type of notification when the override action is applied to a Priority.
Alerts	
Reminder	Sends a reminder email to the Technician when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the SLA. Note, Alert intervals are not cumulative.
Warning	Sends a warning email to the Technician when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the SLA.
Escalation	Escalates the request to a higher escalation layer when the defined percentage of time elapses for a Response, Restoration or Resolution target that has not been met on a request. Can be set up to 200% of the SLA. It should be noted that the Service Level Manager is also notified when an SLA is breached.
Support	
24 x 7	Do not amend if the SLA is to apply 24 hours a day, 7 days a week.
Normal Support	Select if service hours are to be defined for the SLA. When checked, define the service hours by either selecting a template (Templates are configured by the Administrator in the Setup>Localization>Hours tab) or manually define the days and time by making selections within the drop-down lists.

5. Click Edit, if not already in Edit mode



6. Define if the SLA applies across all Processes or to a specific Process

7. Define if the SLA is to be calculated in minutes or hours
8. Select the Priority link to customize Milestones, Alerts and Support hours



9. Modify the Milestone intervals for the Response Time, Restoration Time and Resolution Time, as required

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NOTE: The time will be set in minutes or hours, as defined for the SLA.

Milestone intervals are not cumulative

For example, for the default Warranty SLA, the Priority of Urgent has the default Milestone times of 6, 12 and 24 hours. This means a User has 6 hours to send a response to a Customer before the Response time is breached, 12 hours from the point of request creation to meet the Restoration time, and 24 hours from the point of request creation to meet the Resolution time. It should be noted that requests may be moved to non-SLA timed States during these Milestone periods, so the 12 or 24 hours may not be consecutive hours.

---

10. Check the Notify Override option, if relevant

    Set the type of notification, email or SMS, that is to be used to contact the User assigned to the request with this Priority.

11. Create one or multiple Reminder, Warning or Escalation Alerts, if relevant

---

NOTE: Enter the percentage of time to elapse for an Alert to be triggered for a Milestone. Selecting Warning as the Alert will cause a warning e-mail to be sent to the request's Technician when the specified percentage of a milestone has been reached.

Selecting Escalation will trigger a request escalation to the next support layer of the Team. The escalation system will also fire if the SLA threshold is breached.

It is recommended that reminders be sent at 50% of elapsed time and escalations at 75-80%

These figures are advisory only. The internal processes of your organization will dictate the appropriate values. The Reminder percentage must be less than the Warning or Escalation percentages.

Alerts can be set to 200% of the SLA time, which ensures notifications can be still be received against breached requests

If Alerts are not customized, the application will automatically escalate the request when the Priority milestone is breached

12. Click Save
13. Modify other Priorities as necessary.

Configuring Support Hours

After the Priority times and Alerts of an SLA have been configured, Support Hours can be defined. These can be set to 24 hours by 7 days a week (24 X 7), or manually adjusted to reflect the support operation open hours.

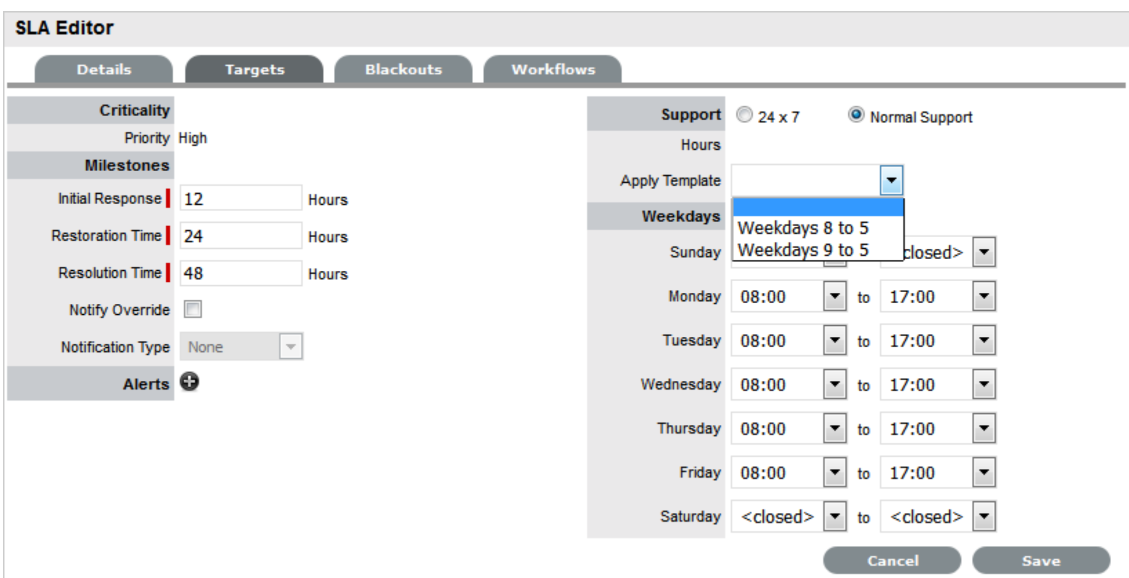
Under 24 X 7 mode, if the SLA's urgent Initial Response field is set to six hours, and an urgent request that uses the SLA is created at midnight in the assigned Technician's time zone, those six hours will expire by 6:00 AM. This is the option to use if a support operation is staffed 24 hours a day.

If a support operation is not open 24 hours a day, the request timers are not required to run when Technicians are not available. For instance, if the support hours are 9:00 AM to 5:00 PM and the SLA hours reflect this, the SLA timers of the urgent request created at midnight would not start ticking until 9:00 AM the following business day and would expire at 3:00 PM.

To define the SLA support hours:

1. Select Service > SLAs
2. Select an SLA
3. Click the Priority link

   This will display the Details tab with Support Hours options of 24x7 and Normal
4. The default setting is 24 X 7, to amend the support hours select the Normal Support option



5. Select a template from the Apply Template drop-down options or customize Weekdays manually.

   Note that the SLA timers become inactive when the support desk is closed.
6. Click Save.

Blackouts

Blackouts are used as part of Change and Configuration Management to advise Users about the appropriate periods of time that an Item associated with an SLA should be scheduled to be taken off-line if an Outage is needed. Within the system, when an Outage is being scheduled (Item>Details>Outages) the Blackout period is displayed, informing the User of the best time to schedule a Planned Outage.

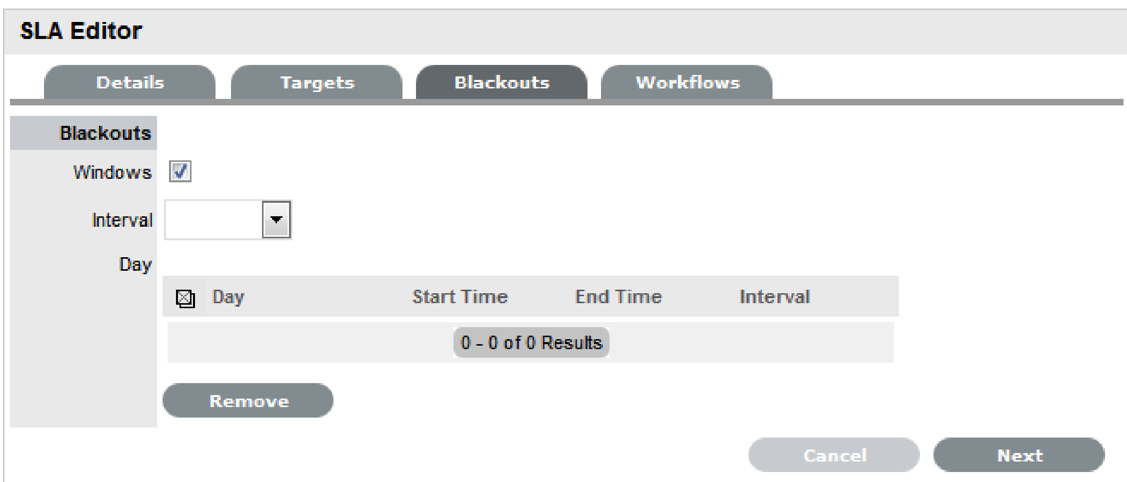
A Blackout Period is based on an agreement between the Customer and the Service Desk regarding set times that the Customer has no service expectations. This can also be the preferred time for Item upgrades and maintenance as they will not affect service availability.

A Blackout Period is specified within an SLA. During this time the SLA is viewed as inactive and its measuring time is stopped. OLAs that underpin a Workflow State that apply an SLA with a Blackout Period, also adopt the Blackout Period.

Specifying an SLA Blackout

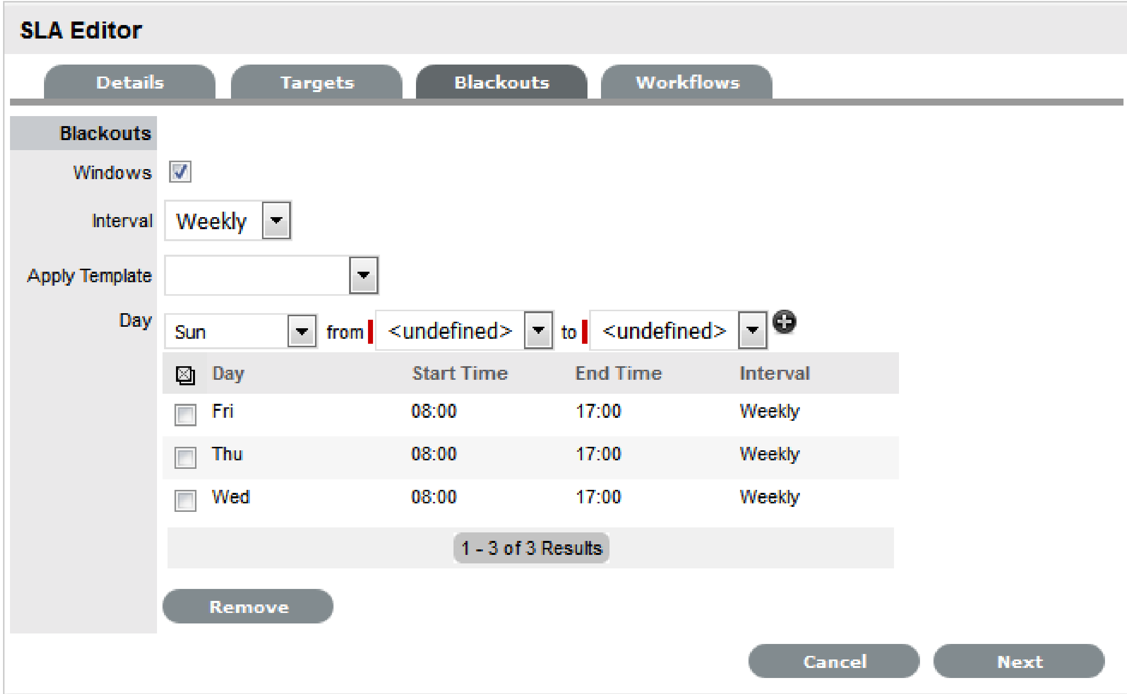
To specify an SLA Blackout:

1. Select Service >SLAs
2. Click an SLA hyperlink
3. Click Edit
4. Move to the Blackouts tab
5. Tick the Windows option



6. Set the Interval of weekly or monthly
7. Apply a Template or define the day and time period for the approved Blackout manually, then click
8. Define the preferred Timezone

   This is required information to save the Blackout information.

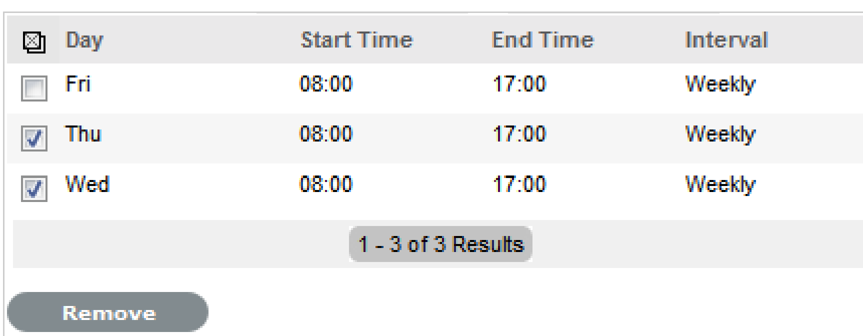


9. Click Save.

See: Item Planned Outages using Blackout Periods

To remove time-frames from the Blackout Period:

1. Select Service >SLAs
2. Click an SLA hyperlink
3. Click Edit
4. Move to the Blackouts tab
5. Check the box next to the Day to be deleted from the Blackout



6. Click Remove.

Workflows

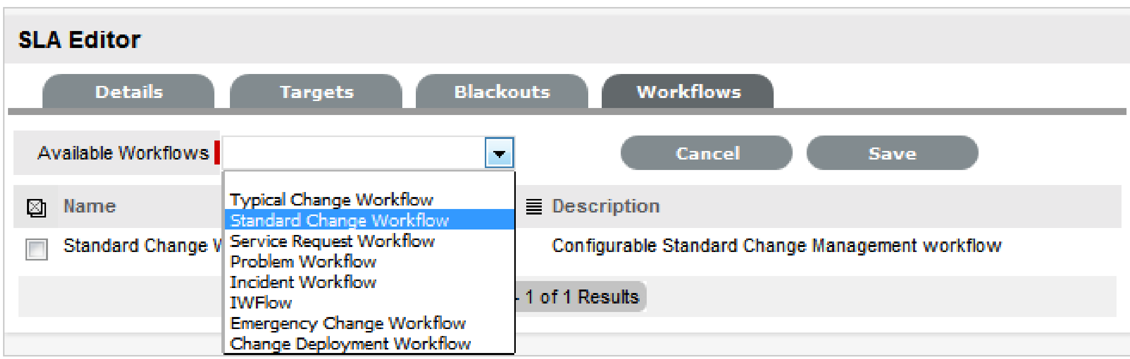
Workflows are associated with an SLA through the Workflows tab of the SLA Editor screen or within the Workflow itself. All SLAs assigned to the SLA are listed within this tab and Workflows can be added or removed within this tab, as required.

Assigning a Workflow

To assign a Workflow:

1. Select Service>SLAs
2. Click the relevant SLA link
3. Move to the Workflows tab
4. Click Edit
5. Select Add

   The Available Workflow drop-down list will be displayed.



6. Select a Workflow
7. Click Save.

To remove a Workflow assignment, use the checkbox next to the relevant Workflow and click the Remove button.

Default Warranty SLA

The system includes a default SLA that does not include costs, called Warranty. The Warranty SLA can be used or edited as required.

Integration with Request Creation and the Billing System

The prices specified in the SLA provide the basis for fees charged for support on both a Per Request basis and on a subscription basis. The hourly rate is included for reporting purposes. Rather than an Item using an SLA, Items can be covered by maintenance contracts. A contract can cover a particular request, or exist as a subscription.

Maintenance Contracts form part of the request creation process. Requests can be entered into the system without a valid contract, but are flagged as unpaid, and are unable to be worked on until the invoice is processed. There is also a control (configured in the Billing Preferences) for the length of time an unpaid request can exist in the system.

See: Assigning an SLA to a Customer

See: Assigning an SLA to an Organizational Unit when Contracts are Disabled

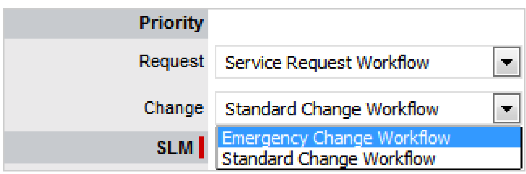
Assigning a Default Workflow to an SLA

If more than one process Workflow is assigned to an SLA, it is required to select a default Workflow. This default Workflow will be the Workflow assigned to a request when the SLA assigned supports more than one Workflow.

To assign a Default Workflow:

1. Select an SLA from the Service > SLA tab
2. Click Edit

   Note that the system automatically assigns a default Workflow to an SLA, as Workflows are being assigned.
3. Within the Priority Field, use the drop-down lists to update the relevant Incident, Problem, Change and Service Request default Workflows



4. Click Save to apply the change.

6.15.7 Outages

An Outage is when an Item Status is unavailable due to expected or unexpected events. For example, the Item may be out for repair or faulty. To move an Item into an unavailable State, and therefore list it as inactive, the Item Status selected for the Active State option within the Item Category Lifecycle must be set to No, and the Offline State option set to Yes.

Planned Outages

Planned Outages are used to manage Items' proposed unavailability. This is useful for informing Customers and Users about planned changes to infrastructure that may cause an Item to be taken offline or out of service.

If an Item has an SLA with a specified Blackout Period, ideally Outages should be planned to fall within this time. The Blackout Period is an agreement between the Customer and the service provider regarding a period of time when the Customer has no service expectations. This can also be the preferred time for Item upgrades and maintenance without affecting service availability. To access the Blackout Period details for an SLA associated with an Item, create the Planned Outage within the Outages tab of the Item Information screen.

Viewing Outages

Planned Outages can be viewed from the Login Page and the Customer Portal, if the Administrator has toggled the Setup>Privileges>System Outages Page option to Yes. This enables the Planned and Unplanned Outage links in the Customer Portal and Login Page.

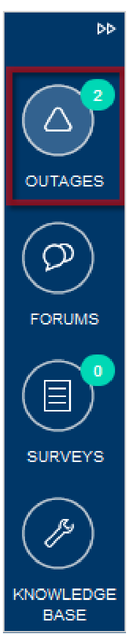
Customer Portal View

In the Customer Portal the Planned Outages information is accessible in the side bar menu of the Items and Services tab.

To view the Outage details, click the Outage No. link. To close the window, click Done.

Login Page View

Planned Outage information can also be accessed from the Login page, Click the View Outages link to display a complete list of current outages. Select the View Planned Outages link to access planned downtime details.



Planned Outage Page Options

- Search for Outages based on the Item Type

  This functionality is enabled by the Administrator in Setup>Privileges>System Search Outages.
- Within the Outage Details window, click on the Item Number link to show the Item Relationship Map

  To enable this feature, the Show Affected Relationships option must be activated by the Administrator in Setup>Privileges>System Outages.
- To return to the Planned Outage list, click the Done.

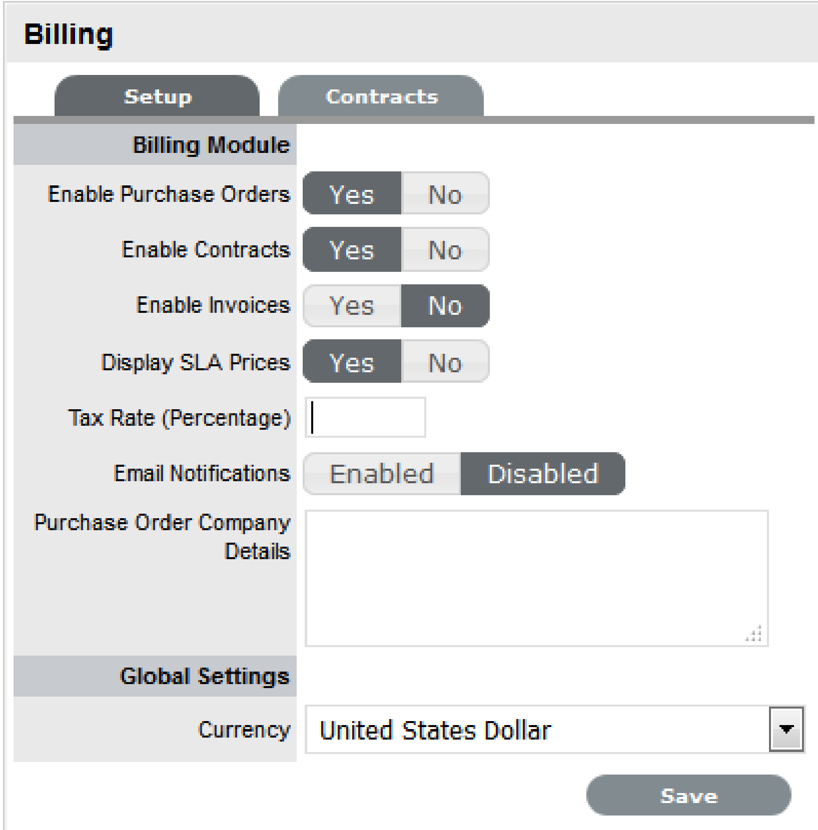
6.15.8 Purchase Orders

Purchase Orders can simplify the tracking of where and when new Items are purchased or leased. This feature is not meant to replace an organization's original PO system, it is designed to easily link a specific PO number (and its associated vendor and date information) with an Item.

Enabling Purchase Orders

To enable Purchase Orders:

1. Select Setup>Billing
2. Set the option Enable Purchase Orders to Yes



3. Set the default tax rate

   The percentage amount entered here is applied by default to all POs.
4. Enter the Company Details to be used on the PO
5. In Global Settings, select the preferred currency
6. Click Save.

NOTE: A logo can be applied to system generated POs by adding the graphic within the Setup>Customize tab. (This option is only displayed when the Purchase Orders functionality is enabled within the Setup>Billing tab.)

The Purchase Order sub-menu option is made available within the Finance tab for Finance, Supervisor and Technician Users, when enabled.

6.15.9 Contracts

A Contract is made up of a Service Level Agreement (SLA) and a Service Delivery Period (start and end time). They can be used to manage an entitlement to service from a start date, through to an end date.

Contracts and Invoices are used together when the Service Desk needs to charge its Customers for any support provided. Billing within the system is on a per Contract basis, and is enabled automatically when Invoices are activated.

Contracts can be created for different elements to suit organizational needs. Contracts can cover the individual elements:

- Items
- Customers
- Organizational Units
- Requests

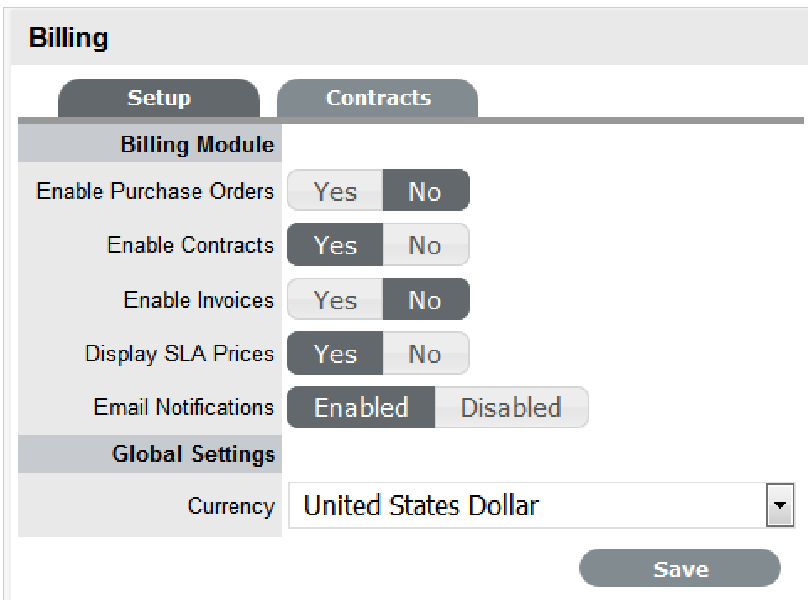
Pending Contracts are contracts that have a start date set in the future. They automatically become active on the contract start date or can be enabled manually.

Enabling Contracts

To enable a Contract:

1. Select Setup>Billing
2. Click Yes to enable Contracts

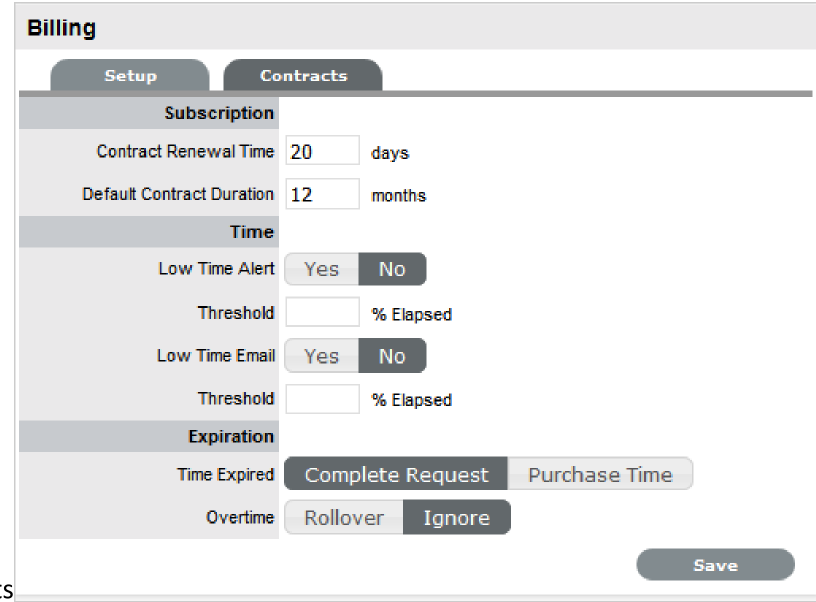
   A Contracts tab will be visible.



3. Define the Email Notifications option for Finance Users

   When enabled, automated emails are sent to Finance Users regarding matters relating to POs, Invoices and/or Contracts.
4. Set the Currency for all financial transactions managed by the system

5. Move to the Contracts tab to define parameters for



Contracts

6.

Options	Description
Subscription	
Contract Renewal Time	The system can automatically send a Contract Renewal Invoice before a contract expires. Enter the number of days prior to the contract expiration date for the system to send the renewal invoice. For Contracts not to be automatically created, leave this field blank. (The information for the invoice can be configured in the InvoiceSummary link within the Setup>Email>Templates>Email Summary Templates filter screen. This template is sent with the InvoicePrefix email that can be edited in Setup>Email>Templates>Full Email Templates list.)
Default Contract Duration	The system sets the default contract renewal period to 12 months, adjust or delete the entry as required.
Time	
Low Time Alert	The system can automatically create an alert within the Customer Portal for customers that have Time-based contracts (i.e., purchased a quantity of support hours.) The Alert can be sent based on the percentage of hours that have been used.

Options	Description
Low Time Email	The system can automatically send an email to a Customer that is getting close to using all their support hours in their Time-based contracts. The Email can be sent based on the percentage of hours that have been used. The Email content is set in the ContractTimeLow option of Setup>Email>Templates.
Expiration	
Time Expired	When a Customer's contract is expired when a User is working on a request, this option specifies if the User can Complete the request although the Contract has expired and if the system will lock out the User until the Customer has purchased additional time. When Complete Request is selected, the following options are displayed: ◆ Rollover - means the time used to resolve the issue will be subtracted from the Customer's renewed contract. ◆ Ignore - means the time used to resolve the issue, although the Customer contract has expired, is not allocated to a future contract. (The subject line and content for the automated emails sent on contract expiration is configured in the ContractTimeElapsed and ContractTimeElapsed of Setup>Email>Templates.)

7. Enter the Contract Renewal Time, if required

   For contracts not to be automatically created, leave this field blank.
8. Set Notifications and Thresholds
9. Set Time Expired option

10. Click Save.

6.15.10 Invoices

Invoices are used for the billing of Contracts and can also be used for Purchase Orders. When Invoices are enabled, Contracts are enabled automatically. Invoices can be used to maintain the purchasing of Items as well as Contracts for these and existing Items.

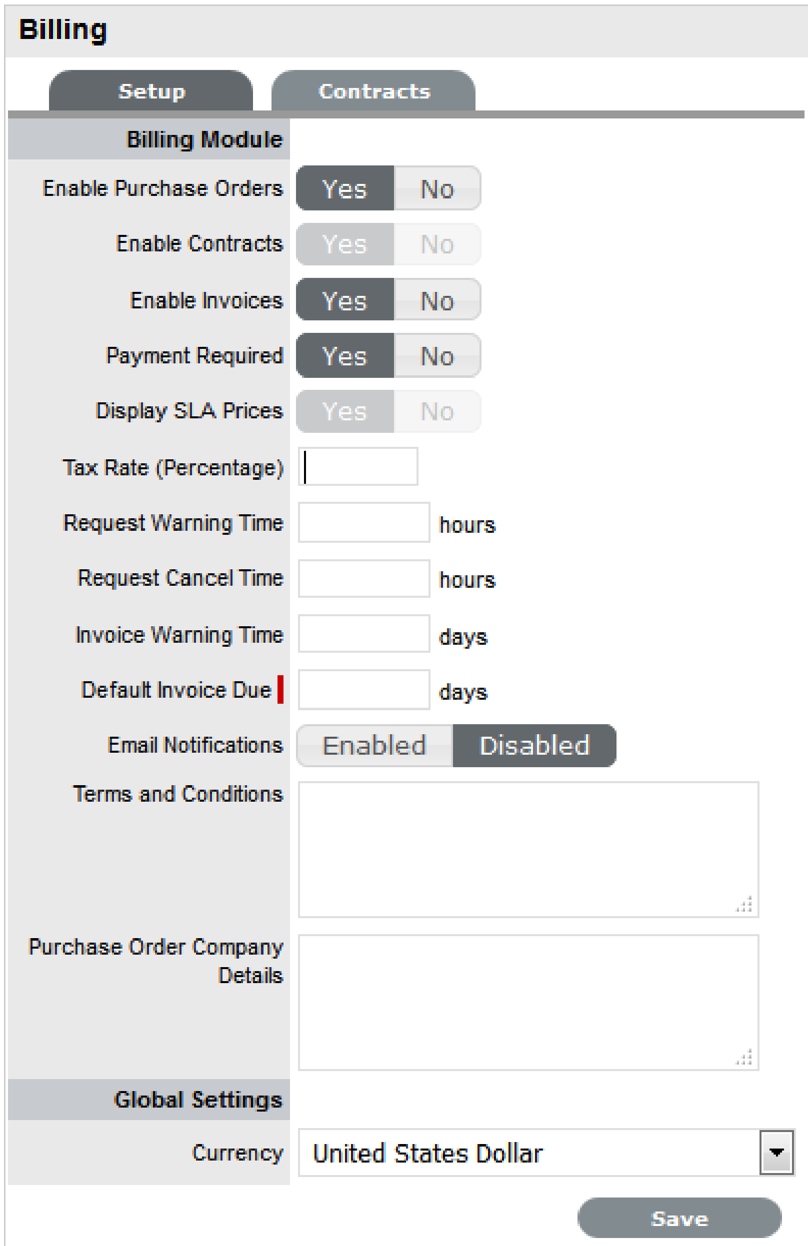
Enabling Contracts and Invoices

When an Invoice is created, a Contract is automatically generated.

To enable Invoices:

1. Select Setup>Billing
2. Click Yes to enable Invoices

   When an Invoice is enabled, the following options become

   available.
3.

Options	Description
Contracts	Contracts are enabled automatically when Invoices are activated.

Options	Description
Payment Required	Setting Payment Required to Yes will require line items on invoices to be paid before they become active in the system. Any incidents logged against an unpaid Contract or Item cannot be worked on until payment is received. **NOTE:** Note: Invoice payments can only be processed by a Finance User.
Tax Rate (Percentage)	The rate used to calculate tax on an invoice subtotal.
Request Warning Time	Where a Contract has not been paid and requests have been raised, a reminder email can be sent stating that payment is due. Use this field to specify the length of time in hours from the opening of the incident before sending a reminder email.
Request Cancel Time	Specifies a waiting time for requests with a Status of Pending-Unpaid before they are cancelled.
Invoice Warning Time	Enter the number of days prior to the due date to send the Customer a reminder email regarding non-payment of an invoice.
Contract Renewal Time	The system can automatically send a Contract Renewal Invoice before the end of a contract. Enter the number of days prior to the contract expiry to send the renewal invoice.
Default Invoice Due*	Enter the number of days to calculate an invoice due date.
Email Notifications	Enables the system to update Finance Users, via automated emails, regarding matters relating to POs, Invoices and/or Contracts.
Terms and Conditions	Free text entered in this field is included in the invoice emailed to the Customer.
Purchase Order Company Details	This option is displayed if the Purchase Orders option is also enabled. Enter the Company details to be displayed on Purchase Orders.
Currency	Select the currency for all financial transactions within the system.

*Denotes mandatory field.

1. Enable the Payment Required and Email Notification options, if necessary
2. Complete all the necessary fields

3. Select preferred currency
4. Click Save.

6.16 AMIE

The Asset Management Import Engine (AMIE) integrates with the following Inventory Management Products:

- Absolute Manage 6.0
- Centennial Discovery 2005, 9
- Express Software Manager 9.0, 9.5
- HP Universal CMDB 8.0
- LANDesk 8.5, 9.0, 9.0 (Hardware)
- LANrev 5.1
- LiveTime Discovery 2005, 2007
- LOGINventory 4.3
- Manage Engine Desktop Central 7.0
- Microsoft SMS Version 2003 SP1
- Microsoft SCCM 2007
- Spiceworks 4.0, 5.0
- ZENworks Asset Management 6.5+
- ZENworks Configuration Management 11.1, 11.1 (Hardware)

This section includes the following:

6.16.1 AMIE Mappings for Servers

The default AMIE mappings for each server type are as follows:

Absolute Manage 6.0

ITEM CATEGORY	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"computer.PROPCPUSPEED"
VALUE_PREFIX	""
VALUE_SUFFIX	"Mhz"
FIELD2 = "RAM" --	
FIELD	"field2"
VALUE	"computer.PROPPHYSICALMEMORYSIZE"
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"computer.PROPPRIMARYMACADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"network.PROPIPADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"network.PROPWINHOST"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"computer.PROPMACHINESERIALNO"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Centennial Version 2005 & 9

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"Hardware.size"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"Hardware.size"
VALUE_PREFIX	""
VALUE_SUFFIX	"KB"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"Client.macAddr1"
VALUE_PREFIX ""	
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"Client.ipaddr1"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"Client.sysMachine"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Hardware
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"Hardware.driver"
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"Products.versionName"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Express Software Manager 9.0 & 9.5

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	“machinehardware.c_processor”
VALUE_PREFIX	""
VALUE_SUFFIX	"Mhz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	“machinehardware.c_ram“
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	“machine.nicaddress“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"

Item Category	Hardware
VALUE	“machine.ipaddress”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	“machine.name”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	“machinehardware.machineserialnumber”
VALUE_PREFIX	""
VALUE_SUFFIX	""

HP Universal CMDB 8.0

Item Category	Hardware
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"CDM_NT_1.A_NT_PHYSICAL_MEMORY"
VALUE_PREFIX	"B"
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"CDM_HOST_1.A_HOST_HOSTNAME"
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Software
FIELD1 = "Path"	
FIELD	"field1"
VALUE	"CDM_APPLICATION_1.A_APPLICATION_PATH"
VALUE_PREFIX	""

Item Category	Hardware
VALUE_SUFFIX	"MHz"
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"CDM_APPLICATION_1.A_APPLICATION_VERSION_NUMBER"
VALUE_PREFIX	""
VALUE_SUFFIX	""

LANDesk 8.5

ITEM CATEGORY	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"Processor.mhzSpeed"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM" --	
FIELD	"field2"
VALUE	"Memory.bytesTotal"
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"NetworkSoftware.nicAddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"TCP.address"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	

ITEM CATEGORY	Hardware
FIELD	"field5"
VALUE	"Computer.deviceName"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"Computer.compSystem.serialNum"
VALUE_PREFIX	""
VALUE_SUFFIX	""
ITEM CATEGORY	Software
FIELD1 = "Path"	
FIELD	"field1"
VALUE	"software.path"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"FileInfo.version"
VALUE_PREFIX	""
VALUE_SUFFIX	""

LANrev 5.1

ITEM CATEGORY	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	“hardware_info.CPUSpeed“

ITEM CATEGORY	Hardware
VALUE_PREFIX	""
VALUE_SUFFIX	"Mhz"
FIELD2 = "RAM" --	
FIELD	"field2"
VALUE	“hardware_info.PhysicalMemorySize”
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	“hardware_info.PrimaryMACAddress“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	“network_adapter_info.IPAddress“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	“network_adapter_info.WinHost“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	“hardware_info.MachineSerialno”
VALUE_PREFIX	""
VALUE_SUFFIX	""

LOGINventory 4.3+

ITEM CATEGORY	Hardware
FIELD1 = "CPU"	

ITEM CATEGORY	Hardware
FIELD	"field1"
VALUE	"LI_CUP.LI_NAME"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD2 = "RAM" --	
FIELD	"field2"
VALUE	"LI_SYSTEM.LI_PCMEMORY"
VALUE_PREFIX	""
VALUE_SUFFIX	"MB"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"LI_NET.LI_MACADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"LI_NET.LI_IPADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"LI_PCINFO.LI_PCNAME"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"LI_SYSTEM.LI_SERIAL"
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"

ITEM CATEGORY	Hardware
VALUE	"LI_SOFTWARE.LI_VERSION"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Manage Engine Desktop Central 7.0

Item Category	Hardware
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"invcomputer.TOTAL_RAM_MEMORY_MB"
VALUE_PREFIX	"MB"
VALUE_SUFFIX	""
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"resourcemacip.MAC_ADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"resourcemacip.IP_ADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"invcomputeros.SERIAL_NUMBER"
VALUE_PREFIX	""
VALUE_SUFFIX	
Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"invsw.SOFTWARE_VERSION"
VALUE_PREFIX	""

Item Category	Hardware
VALUE_SUFFIX	""

Microsoft SMS 2003 SP1 and Microsoft SCCM 2007

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"Processor_DATA.currentClockSpeed0"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"PC_Memory_DATA.totalPhysicalMemory0"
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"Network_DATA.macaddress0"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"Network_DATA.ipaddress0"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"Computer_System_DATA.propName0"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"

Item Category	Hardware
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	""
VALUE_PREFIX	""
VALUE_SUFFIX	""
ITEM CATEGORY	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"SoftwareProductMap.productVersion"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Spiceworks 4.0, 5.0

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	“devices.processor_type“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	“devices.memory”
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	“devices.mac_address”
VALUE_PREFIX	""

Item Category	Hardware
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	“devices.ip_address”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	“devices.name”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	“devices.serial_number”
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Printers & Scanners
FIELD5 = "IP Address"	
FIELD	"field5"
VALUE	“devices.ip_address“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Serial Number"	
FIELD	"field6"
VALUE	“devices.serial_number”
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Network Infrastructure
FIELD5 = "IP Address"	
FIELD	"field5"
VALUE	“devices.ip_address“
VALUE_PREFIX	""

Item Category	Hardware
VALUE_SUFFIX	""
FIELD6 = "Serial Number"	
FIELD	"field6"
VALUE	“devices.serial_number”
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	“software_installations.version“
VALUE_PREFIX	""
VALUE_SUFFIX	""

ZENworks Asset Management 6.5+

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"NC_CPU.speed"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"NC_Workstation.totalMemory"
VALUE_PREFIX	""
VALUE_SUFFIX	"MB"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"NC_Workstation.lanaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	

Item Category	Hardware
FIELD	" field4"
VALUE	" NC_Workstation.ipaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	" field5"
VALUE	" NC_Workstation.machinename"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"NC_Workstation.serialNumber"
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Software
Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"NC_Product.model"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Zenworks Configuration Management 11.1

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"

Item Category	Hardware
VALUE	"NC_CPU.speed"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"NC_Workstation.totalMemory"
VALUE_PREFIX	""
VALUE_SUFFIX	"MB"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"NC_Workstation.lanaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	" field4"
VALUE	" NC_Workstation.ipaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	" field5"
VALUE	" NC_Workstation.machinename"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD7 = "OS Version"	
FIELD	"field7"
VALUE	" NC_Workstation.osmodel"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"NC_Workstation.serialnumber"
VALUE_PREFIX	""

Item Category	Hardware
VALUE_SUFFIX	""
Item Category	Software
FIELD20 = "Platform String"	
FIELD	"field10"
VALUE	"NC_Workstation.osproduct"
VALUE_PREFIX	""
VALUE_SUFFIX	""
Item Category	Software
Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"NC_Product.model"
VALUE_PREFIX	""
VALUE_SUFFIX	""

6.16.2 AMIE Customized Mapping

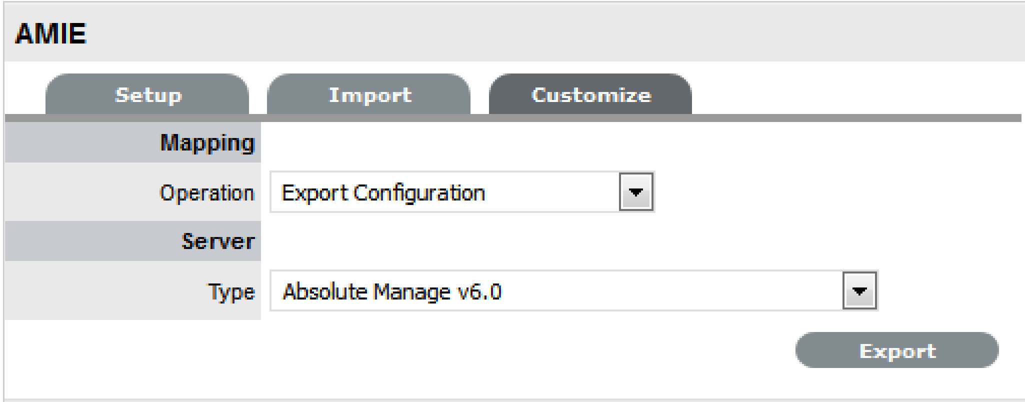
The customized mapping functionality provides the Administrator with greater control over the Item Types and Categories information accessed during the Item import process. It allows the Administrator to customize queries by defining parameters for importing Items.

IMPORTANT: As a prerequisite the Administrator should have knowledge of HQL and schema of the source database.

Export Configuration

Prior to importing Items, to define the parameters of the Items to be imported, the Item parameters must be exported to a file. To export the parameters file:

1. Log in as an Administrator
2. Select Setup > Item Import > Customize



3. From the Mapping Operation drop-down list, select Export Configuration
4. Select the Server Type for the configuration export
5. Click Export.

   An .xml file is produced.

Customizing the XML File

To customize the Item import, the above exported configuration file will need to be modified. To modify the file:

1. In the text editor of your choice, open the XML file
2. Modify the properties as required.

   The example below explains how the ZENworks Configuration Management 11.1+ (`ZENworksCM_11.1.xml`) configuration can be customized.

<IMPORT_DEFN> Element

The first line within the XML file displays the following fields:

```
<IMPORT_DEFN SERVER="ZENworks Configuration Management" VERSION="11.1+"
AUTHOR="Micro Focus">
```

They identify an entry for an Asset Management Server type. By modifying these fields, we can effectively create another configuration.

<IMPORT_DEFN SERVER="ZENworks Configuration Management" VERSION="11.1+" AUTHOR="Bob">

This newly configured name will be the Server Type listed as an option when setting up AMIE.

Attributes		
Name	**Type**	**Description**
SERVER	String	Name of Asset Management Server
VERSION	String	Version of Asset Management Server
AUTHOR	String	Author of the XML

Child Elements		
Name	**Occurrence**	**Description**
CONDITIONS	[0..1]	
ITEM	[1..*]	
SCHEMA	[0..1]	

<CONDITIONS> Element

To support multiple versions of AMIE source with a single XML driver:

```
<CONDITIONS>

<QUERY NAME="versionQuery">SELECT zDevice FROM
com.livetime.assetimport.ZDEVICE zDevice WHERE zDevice.PROPAGENTVERSION =
(SELECT MAX(zDevice1.PROPAGENTVERSION) FROM
com.livetime.assetimport.ZDEVICE zDevice1) </QUERY>

<CONDITION NAME="version113" QUERYVALUE="versionQuery.PROPAGENTVERSION"
CONDVALUE="11.3" VALUETYPE="NUMERIC" COND="EGREATER" TYPE="LOOKUP" />

<CONDITION NAME="version112" QUERYVALUE="versionQuery.PROPAGENTVERSION"
CONDVALUE="11.3" VALUETYPE="NUMERIC" COND="LESSER" TYPE="LOOKUP" />

</CONDITIONS>
```

Child Elements		
Name	**Occurrence**	**Description**
QUERY	[0..*]	
CONDITION	[0..*]	

<QUERY> Element

Define the 'Query' property to locate the table data.

For example, the query below will retrieve the ZENworks version data. The Query Name (versionQuery) is used to reference the property field as described later.

```
<QUERY NAME="versionQuery">SELECT zDevice FROM
com.livetime.assetimport.ZDEVICE zDevice WHERE zDevice.PROPAGENTVERSION =
(SELECT MAX(zDevice1.PROPAGENTVERSION) FROM
com.livetime.assetimport.ZDEVICE zDevice1) </QUERY>
```

Attributes		
Name	**Type**	**Description**
NAME	String	
CONDITION	String	

<CONDITION> Element

Get the actual condition value from the <QUERY> written for the `<CONDITIONS>`

```
<CONDITION NAME="version113" QUERYVALUE="versionQuery.PROPAGENTVERSION"
CONDVALUE="11.3" VALUETYPE="NUMERIC" COND="EGREATER" TYPE="LOOKUP" />
```

Attributes		
Name	**Type**	**Description**
Name	String	Name of condition, to be used later in different elements.
QUERYVALUE	String	Value as returned from the query.
CONDVALUE	String	Condition value to be compared using condition defined with 'COND' with value returned from the query.
VALUETYPE	ConditionValueType	Valid value types are; NUMERIC and STRING
COND	ConditionType	GValid value types are; REATER, LESSER, EGREATER, ELESSER, and EQUAL
TYPE	LookupType	`"LOOKUP"` - retrieves the data from the VALUE attribute as specified using the `query.property` notation. `"QUOTED"` - treats the VALUE attribute as a `hard-coded` value.

<ITEM> Element

The configuration mapping file is divided into "blocks" of Item Categories. In each block, we define a number of instructions to execute during AMIE's import process.

Example1:

`<ITEM CATEGORY="Hardware" ID_KEY_FORMAT="NC_Workstation.ZenWorksAgentId">`

Example 2:

Defining the block based upon the condition retrieved from `<CONDITION> Element`

`<ITEM CATEGORY="Software" ID_KEY_FORMAT="NC_SoftwareComp.ComponentOID" CONDITION="version113">`".

“`ITEM CATEGORY`" instructs AMIE to import all items within the defined XML block, as generic “Hardware”. If you want to be more specific about import for Hardware, you can break down into sub-categories. For example, “Computer”, “Printer”, and “Network Peripheral”.

Assuming the selected Asset Management Server supports the inventory control of these individual categories, defining an XML block for each category would allow the Administrator to import each Hardware Item as a “Computer, “Printer” or “Network Peripheral”.

Attributes

Name	**Type**	**Description**
CATEGORY	String	Specifies the category of the Items getting imported. This category must exist in Service Desk prior to import.
DEFAULT_STATE	String	Default state of item to be imported. Refer to the Item life-cycle in Service Desk.
SCHEMA	String	
ID_KEY_FORMAT	String	
CONDITION	String	To illustrate the format of the primary key field for this category in the Asset Management database. In the example, `"NC_Workstation.ZenWorksAgentId"` says that the “`ZenWorksAgentId`" column of the “`NC_Workstation`" table will contain the primary key for hardware.

Child Elements		
Name	**Occurrence**	**Description**
ASSET_ID_LIST	[0..1]	
RELATIONSHIP	[0..*]	
QUERY	[0..*]	
OWNERSHIP	[0..1]	
ITEM_TEAMS	[0..1]	
ITEM_TYPE		
ITEM_PROPERTY	[0..*]	

<ASSET_ID_LIST> Element

To get initial list of primary key of the assets to be imported. <QUERY> element will be called for each retrieved entries from this element and PARAM_NAME will be used in <QUERY> element while defining the query conditions.

For example,

```
<ASSET_ID_LIST PARAM_NAME="ASSETID" HEX_KEY="TRUE">

<SELECT>SELECT ncWorkstation.ZDEVICE.PROPZUID</SELECT>

<FROM>FROM com.livetime.assetimport.NCWORKSTATION ncWorkstation</FROM>

<WHERE>ncWorkstation.PROPMACHINENAME != 'Lost and Found' and
ncWorkstation.PROPISDELETED is null</WHERE>

<SORT1 ASCENDING="true">PROPWORKSTATIONOID</SORT1>

<ALIAS>ncWorkstation</ALIAS>
```

Attributes		
Name	**Type**	**Description**
PARAM_NAME	String	A name for the primary key. This will be used in the query written under query element.
HEX_KEY	String	Specifies whether primary key is of Hexadecimal format. Valid values are 'TRUE' and 'FALSE'
CONDITION	String	Whether the query has to be executed on certain condition as defined from the Condition element earlier.

Child Occurrence		
Name	**Occurrence**	**Description**
SELECT		"SELECT" clause of the query
FROM		"FROM" clause of the query
WHERE	[0..1]	"WHERE" clause of the query
SORT1	[0..1]	Sort based on column
SORT2	[0..1]	Sort based on column
SORT3	[0..1]	Sort based on column
ALIAS		"ALIAS" if used for the FROM clause
SQLCOUNT	[0..1]	SQL query for count

<Sort1>,<Sort2>,<Sort3> Element

Attributes		
Name	**Type**	**Description**
ASCENDING	boolean	'true/'f'alse'

<RELATIONSHIP> Element

When defining multiple Item Category types to import, for example Hardware and Software, an Administrator can specify how they are related. Configuring these properties will allow Items to be imported with predefined relationships.

IMPORTANT: Ensure that only children element should contain the relationship information as relationships are defined from the bottom to top.

For example, Software to Hardware Relationship block

```
<RELATIONSHIP RELATED_TO="Hardware" TO="is a parent of" NAME="Parent of /
Child of (Inherit Owner)" FROM="is a child of" CLASS="1000"
INHERIT_OWNERSHIP="1">

<NATIVE_ID_QUERY>SELECT software.NCWORKSTATION.ZDEVICE.PROPZUID FROM
com.livetime.assetimport.NCSOFTWARECOMP software WHERE
software.PROPCOMPONENTOID = :SW_ASSETID</NATIVE_ID_QUERY>

</RELATIONSHIP>
```

This "`Parent of/Child of`" relationship already exists as one of the factory supplied relationship types. However any newly defined relationships can be mapped and created as part of the import process.

Attributes		
Name	**Type**	**Description**
RELATED_TO	String	The Item Category another Item Category can relate to. For example "Software" is to be related to "Hardware".
NAME	String	The name of the relationship.
FROM	String	A label describing the relationship from the child to the parent. For example: [Software] is a child of [Hardware]
CLASS	String	1000=Hierarchical-based relationship. 2000=Connection-based relationship.
INHERIT_OWNERSHIP	0 or 1	0=No (Relationship does not inherit parent ownership data.) 1=Yes (Propagates ownership data (customer and organizational unit) from each parent Item to all of its children.)

Child Elements		
Name	**Occurrence**	**Description**
NATIVE_ID_QUERY	String	

<QUERY> Element

Define the 'Query' property to locate the table data.

For example, the query below will retrieve the data for Hardware. The Query Name is used to reference the property field in the child elements.

Example 1:

```
<QUERY NAME="wsQuery">SELECT ncWorkstation FROM
com.livetime.assetimport.NCWORKSTATION ncWorkstation WHERE
ncWorkstation.ZDEVICE.PROPZUID = :ASSETID</QUERY>
```

Example 2:

```
<QUERY NAME="query1" CONDITION="version113"> SELECT ncProduct FROM
com.livetime.assetimport.NCWORKSTATION ncWorkstation,
com.livetime.assetimport.NCSYSTEMCOMP ncComponent,
```

```
com.livetime.assetimport.NCPRODUCT ncProduct WHERE
ncWorkstation.ZDEVICE.PROPZUID = :ASSETID and ncWorkstation =
ncComponent.NCWORKSTATION and ncComponent.NCPRODUCTByProductoid =
ncProduct and ncComponent.PROPPRODUCTTYPE = 22 and
ncComponent.PROPISDELETED is null and ncProduct.PROPISDELETED is null</
QUERY>
```

Attributes		
NAME	**Type**	**Description**
CONDITION	String	

<OWNERSHIP> Element

Optional element to define the ownership of the assets.

For example,

```
<OWNERSHIP>
      <CUSTOMER FIELD="userName" VALUE="wsQuery.PROPLOGINNAME"
TYPE="LOOKUP" />
      <ORG_UNIT FIELD="displayString" VALUE="wsQuery.PROPDEPT"
TYPE="LOOKUP" />
 </OWNERSHIP>
```

Child Elements		
Name	**Occurrence**	**Description**
CUSTOMER	[0..1]	
ORG_UNIT	[0..1]	

<CUSTOMER> / <ORG_UNIT> Element

Attributes		
Name	**Type**	**Description**
FIELD	String	
VALUE	String	
TYPE	LookupType	LOOKUP, QUOTED

<ITEM_TEAMS> Element

Optional element to define field to define teams for the imported assets. Team can be assigned by either Team Name or Team ID as defined in Service desk.

Child Elements		
Name	**Occurrence**	**Description**
INCIDENT_TEAM	[0..1]	
REQUEST_TEAM	[0..1]	
PROBLEM_TEAM	[0..1]	
CHANGE_TEAM	[0..1]	
CHANGE_TEAM	[0..1]	

<INCIDENT_TEAM> / < REQUEST_TEAM> / < PROBLEM_TEAM> / <CHANGE_TEAM> Element

Optional element to define field to define teams for the imported assets. Team can be assigned by either Team Name or Team ID as defined in Service desk.

Child Elements		
Name	**Occurrence**	**Description**
TEAM_NAME	String	
TEAM_ID	String	

<ITEM_TYPE> Element

Defines asset's item type and manufacturer. Based upon the value existing/new item type and manufacturer will be used/created.

For Example:

```
<ITEM_TYPE>

   <MANUFACTURER>

      <MANUFACTURER_PROPERTY FIELD="fullName"
VALUE="query1.PROPMANUFACTURER" TYPE="LOOKUP" />

      <MANUFACTURER_PROPERTY FIELD="name" VALUE="query1.PROPMANUFACTURER"
TYPE="LOOKUP" />

      </MANUFACTURER>

      <ITEM_TYPE_PROPERTY FIELD="itemTypeName" VALUE="query1.PROPPRODUCT"
TYPE="LOOKUP" />

</ITEM_TYPE>
```

Child Elements		
Name	**Occurrence**	**Description**
MANUFACTURER		
ITEM_TYPE_PROPERTY	[1..*]	
EXCLUSIONS	[0..1]	

<MANUFACTURER> Element

Child Elements		
Name	**Occurrence**	**Description**
MANUFACTURER_PROPERTY	[1..*]	

<MANUFACTURER_PROPERTY> Element

Attributes		
Name	**Type**	**Description**
FIELD	String	
VALUE	String	
TYPE	LookupType	LOOKUP, QUOTED

<ITEM_TYPE_PROPERTY> Element

Attributes		
Name	**Type**	**Description**
FIELD	String	
VALUE	String	
TYPE	LookupType	LOOKUP, QUOTED

<EXCLUSIONS> Element

Child Elements		
Name	**Occurrence**	**Description**
CONTAINS	[0..*]	String
ABSOLUTE	[0..*]	String

<ITEM_PROPERTY> Element

Define the 'Item Property' to extract column data for the above Query.

Each of these entries maps an Item property, from the Asset Management Server to the service management system. For example, the value in the SerialNumber field of the Asset Management Server will be mapped to the Serial Number (field10) field of the service desk database.

Attributes		
Name	**Type**	**Description**
FIELD	String	This is the name of the field that exists in the system database. The field `"field10"` for the `"Hardware"` Item Category maps to the `"Serial Number"` field. For a current Entity- Relationship Diagram that includes these database fields, please contact your local support contact.
VALUE_PREFIX	String	This will prefix the actual value returned from the Asset Management Server database.

Attributes		
Name	**Type**	**Description**
VALUE	String	This value can either be a hard-coded value, or a value the Administrator wants to import from the Asset Management Server database (see: TYPE attribute below) For the latter, we define a string using the query.property notation, which will reference the actual value in the database. In our example, our VALUE attribute is `"wsQuery.PROPSERIALNUMBER "`. • `"wsQuery"` - the query name where our results are contained, the "Hardware" table. • `"PROPSERIALNUMBER"` - the property name, where the actual cpu value is stored, the "SIZE" column. In most cases, the property name is identical to the database column name, with the first letter capitalized followed by lower-case. Property names are always pre-appended with the word “prop”, to ensure uniqueness in the import process. Take this into consideration when defining custom properties.
VALUE_SUFFIX	String	This will suffix the actual value returned from the Asset Management Server database.
TYPE	LookupType	`"LOOKUP"` - retrieves the data from the VALUE attribute as specified using the query.property notation. `"QUOTED"` - treats the VALUE attribute as a hard-coded value.

```
<ITEM_PROPERTY FIELD="field10" VALUE_PREFIX=""
VALUE="wsQuery.PROPSERIALNUMBER" VALUE_SUFFIX="" TYPE="LOOKUP"/>
```

<SCHEMA> Element

Choose either <DROP> or <INCLUDE> to exclude unnecessary or to include only required.

```
Example 1: Using <DROP> to exclude unnecessary tables.

<SCHEMA>

   <DROP>
     <MAPPING_FILE NAME="AccessControlList"/>
     <MAPPING_FILE NAME="AccessType"/>
     <MAPPING_FILE NAME="ACLAddress"/>
   </DROP>
</SCHEMA>
Example 2: Using <INCLUDE> to include necessary tables.
<SCHEMA>
   <INCLUDE>
     <MAPPING_FILE NAME="NC_Component" />
     <MAPPING_FILE NAME="zZENObject" />
     <MAPPING_FILE NAME="zGroupings" />
     <MAPPING_FILE NAME="zMobileDevice" />
   </INCLUDE>
</SCHEMA>
```

Child Elements		
Name	**Occurrence**	**Description**
DROP		
INCLUDE		

<DROP>/<INCLUDE> Element

Child Elements		
Name	**Occurrence**	**Description**
RELATIONSHIP_MAPPING	[0..*]	
MAPPING_FILE	[0..*]	

<RELATIONSHIP_MAPPING>

Attributes		
Name	**Type**	**Description**
NAME	String	

<MAPPING_FILE>Element

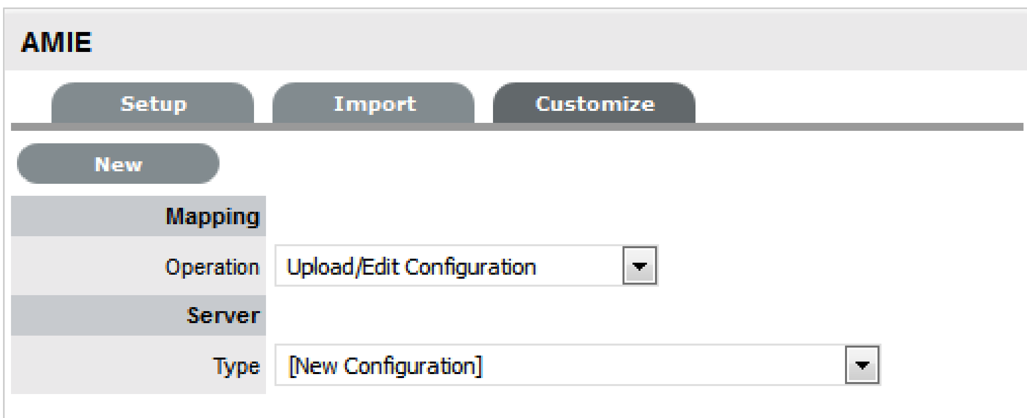
Attributes		
Name	**Type**	**Description**
NAME	String	

Upload / Edit the XML Configuration

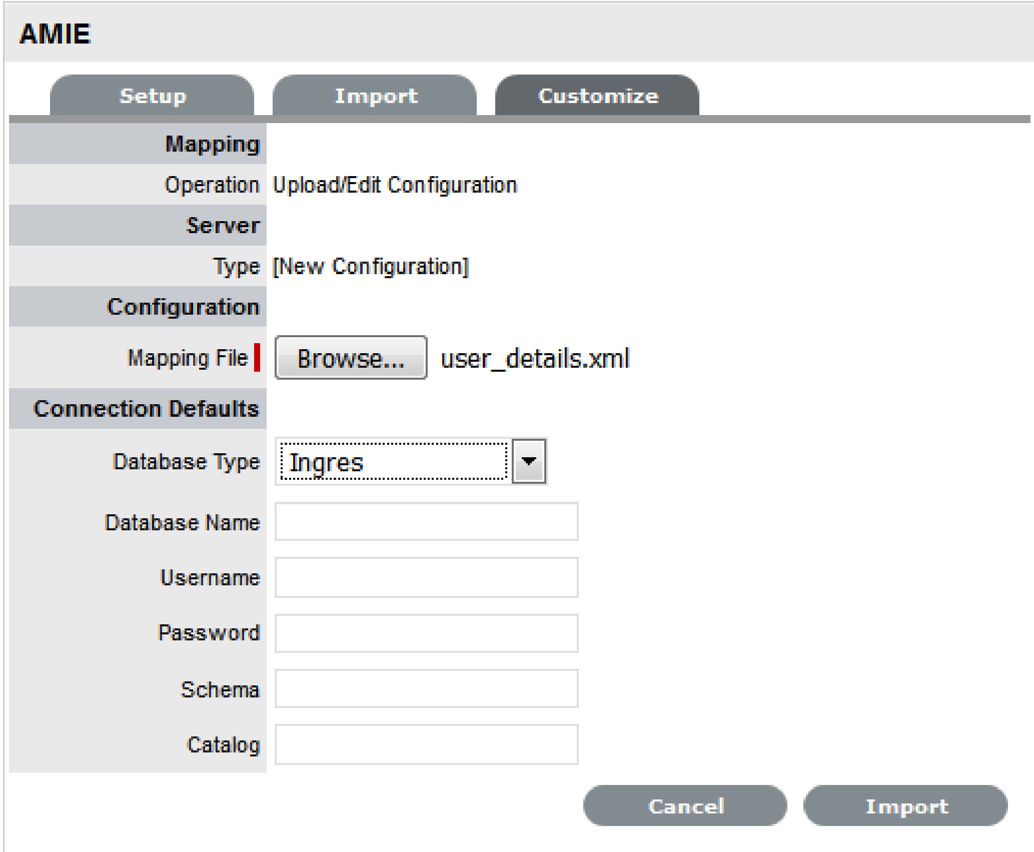
Once the XML has been customized it needs to be imported back into the system to enable the application to import Items using the new specifications.

To import the XML:

1. Log in as an Administrator
2. Select Setup > Item Import > Customize
3. From the Mapping Operation drop-down list, select Upload/Edit Configuration



4. Select [New Configuration] in the Type list
5. Click New
6. Select Choose File
7. Search and upload the XML file



8. Enter Connection Default values for the database type, name, username, password, schema and catalog, if necessary

   These will be the pre-set values when selecting and mapping the new Server Type.

9. Click Import button to import the XML file

   When the import is complete, the new configuration file will appear as a new Server Type.

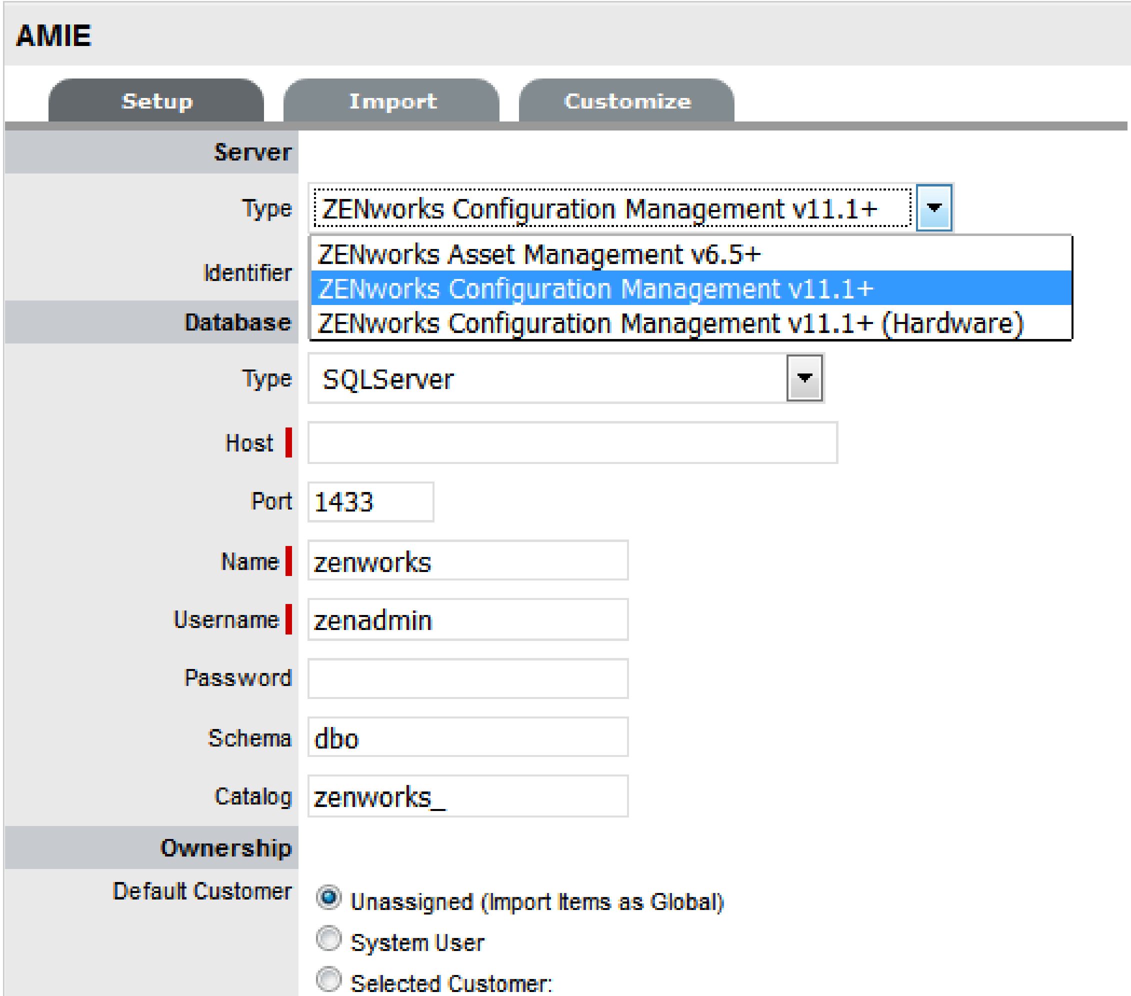
10. The Server Connection Details can be modified or updated by clicking Edit and making the required changes
11. Click Save.

Using the customized Server Type

Once a new Server configuration has been imported into the system, it can be selected as an option when configuring AMIE in the Setup tab.

To use the new Server Type:

1. Log in as an Administrator
2. Select Setup > Item Import > Setup
3. Select the System Type as Database Mapping (AMIE)
4. From the Server Type list select the customized server



5. Configure the database connect, ownership and synchronization period
6. Click Test to confirm the connection then Save when complete.

For more information on importing Items via AMIE, see: Importing Items Using Database Mapping.

6.16.3 Managing Items using Database Mapping (AMIE)

Within the CMDB Import screen multiple asset management datasources can be synchronized with the service management system. When one or more applications are configured within AMIE, a list is displayed within the AMIE Setup tab.

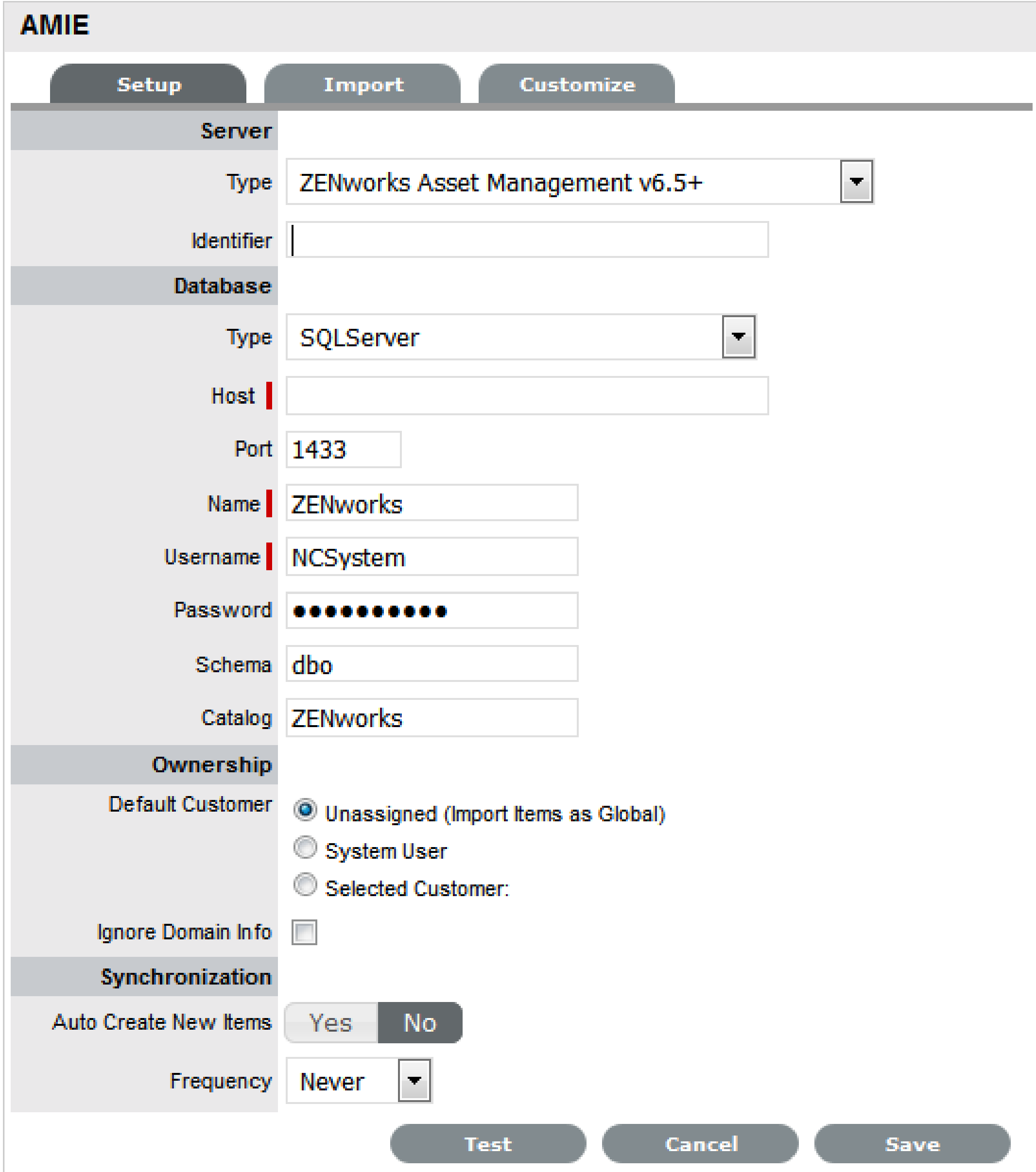
Importing Items Using Database Mapping

To import Items using Database Mapping, the following configuration steps need to be completed:

1. Select Setup>AMIE
2. Click New

   The Server, Database, Ownership and Synchronization fields appear.

   NOTE: If you have migrated ZENworks from one database provider to another database provider, then ensure that you review the database details and make the necessary changes.



Configuration	
System Type	Define the system type as Database Mapping.
Identifier	An identifying label that is used in List Views to inform Users regarding the Source of an Item.
Server	
Type	Select the Type of inventory management product.
Database	
Type	Select the Database Type.
Host	Enter the Host name or IP Address.

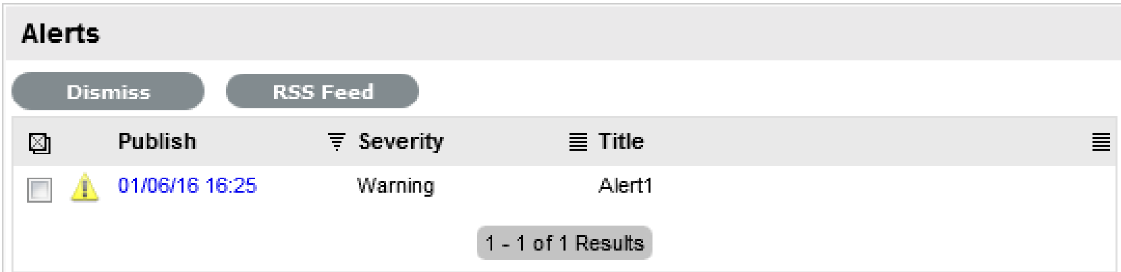
Configuration	
Port	Enter the Port Number for the database server.
Name	Enter the Database name.
Username	Complete User name details.
Password	Complete Password details.
Schema	Enter the Schema type.
Catalog	Enter the Catalog name. Typically this would be the name of the Database.
Notification (Only If 'Control CMS via RFC' is enabled)	
Email RFC's to Tech?	Select this option if technicians are to be notified of generated change requests.
Ownership	
Unassigned (Import Items as Global)	Select this option if Items are to be globally owned.
System User	Select this option to assign imported Items to the System User.
Selected Customer	Select this option to assign imported Items to a specific Customer.
Ignore Domain Info	Tick this field if the system is to disregard domain details attached to the User Name inside the AMIE source when assigning an owner.
Synchronization	
Auto Create New Items	This option is only visible when a single AMIE source is defined within AMIE. When enabled, Items are automatically created upon synchronization, relative to the Control CMS via RFC setting within the Setup>Privileges>Requests tab . If disabled, a snapshot of imported asset information is listed within the Super>Configuration>AMIE Snapshots tab.
Frequency	Choose a synchronization interval. This can be left as Never if the database will be synchronized manually. **NOTE:** Synchronization times will vary depending on the connection speed with the external service and the database size.

3. Click Test, to initiate a connection and test the setup

   If a connection is not made, a system message will advise which part of the configuration was not successful.

4. Click Save
5. To execute the import, click the Import button
6. After the import is complete, an Alert appears providing results of the import.

   Click on the Publish link to read the Alert details.



AMIE Import Alert

Alerts are generated for the Admin User after the AMIE synch is completed. The import alert summary displays:

- the details of the system that the synchronization was run against, as it is possible to import from multiple sources.
- the number of assets found in the datasource.
- the number of assets automatically created if a single datasource is configured in AMIE and the auto-create option is enabled; or if the Auto-Create option is disabled and Items already exists in the system, the number of Items that were updated.
- the number of AMIE Snapshots successfully imported, with a breakdown of new Items added and number of Items updated.

Delete Options and AMIE

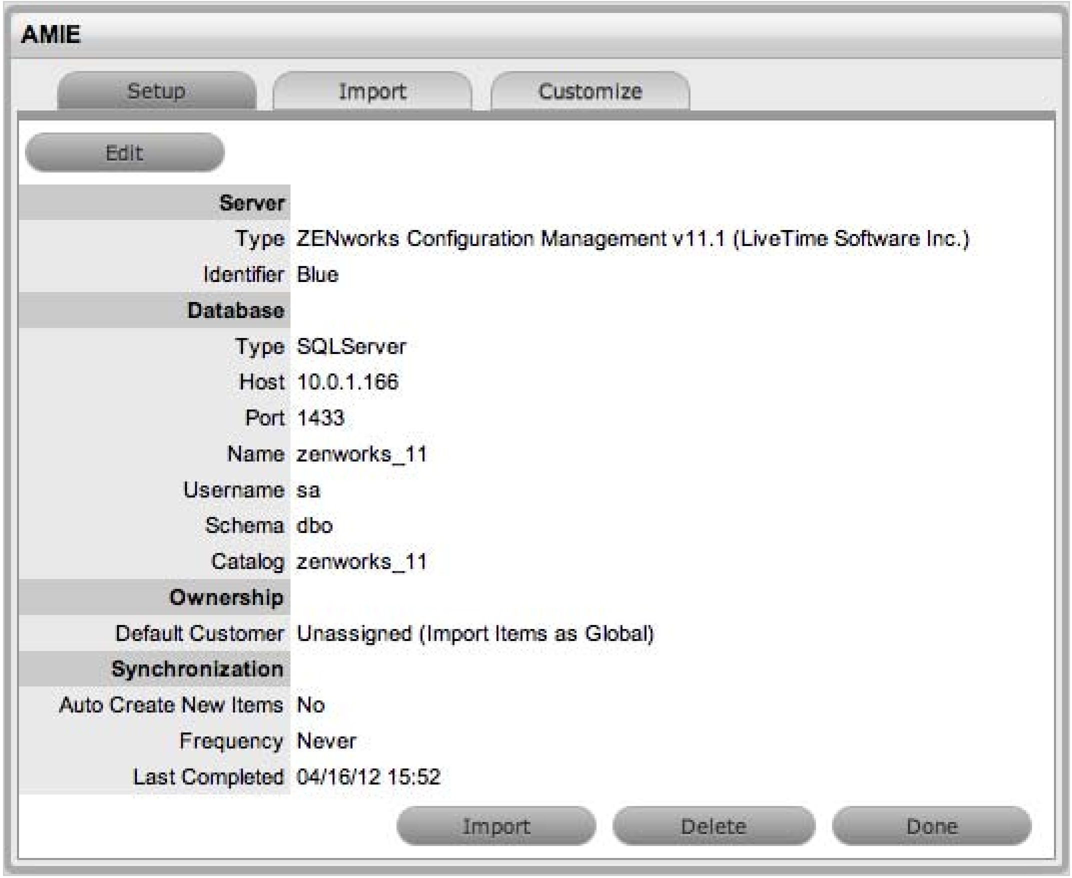
The options to delete AMIE configurations can be achieved through the List View on the AMIE Setup tab, or by clicking on the a hyperlink within the Server column within the List View, which displays the expanded Setup view for the specific asset management tool.

The Delete button clicked in the AMIE>Setup tab>List View results in Global level "delete" flags being applied to all AMIE-managed Items stored in the system, however it retains the server details configured in AMIE and their associated snapshots.

The imported Items that are deleted are not completely removed from the database but are flagged as not available . By not erasing the Items completely, the historical data is maintained and allows these Items to be re-enabled in the future. It should be noted that the Item Types associated with the deleted imported Items are not disabled in the application.

The Delete button selected within the expanded Setup tab view for the specific asset management datasource, results in Configuration level deletion of the configured server and any related AMIE snapshots.

NOTE: The application must be restarted after the performance of either deletion operation, to allow the changes to take effect and prevent unpredictable behavior of the system.

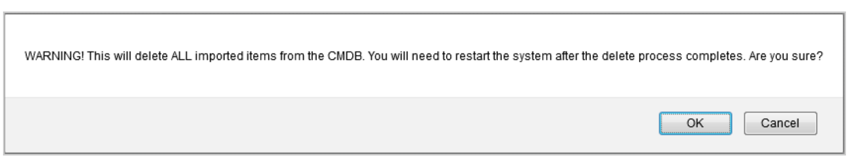


To delete the server configuration within AMIE and related snapshots:

1. Select Setup>AMIE>Setup
2. Select the Server link option within the AMIE list view

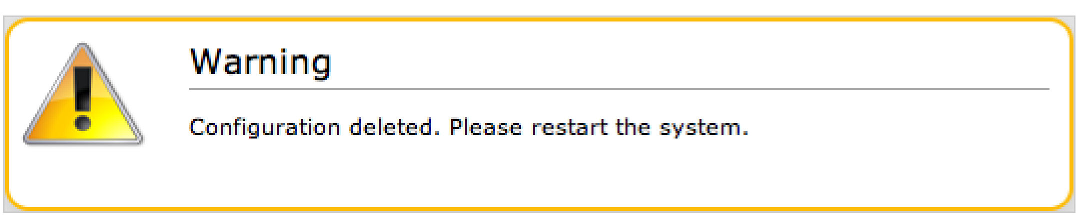
   The expanded Setup screen is displayed with the Delete button.
3. Select the Delete button

   A pop-up message is displayed asking your to confirm the deletion action.



4. Click OK.

   A warning message is displayed informing you to restart the application server to complete the deletion process.



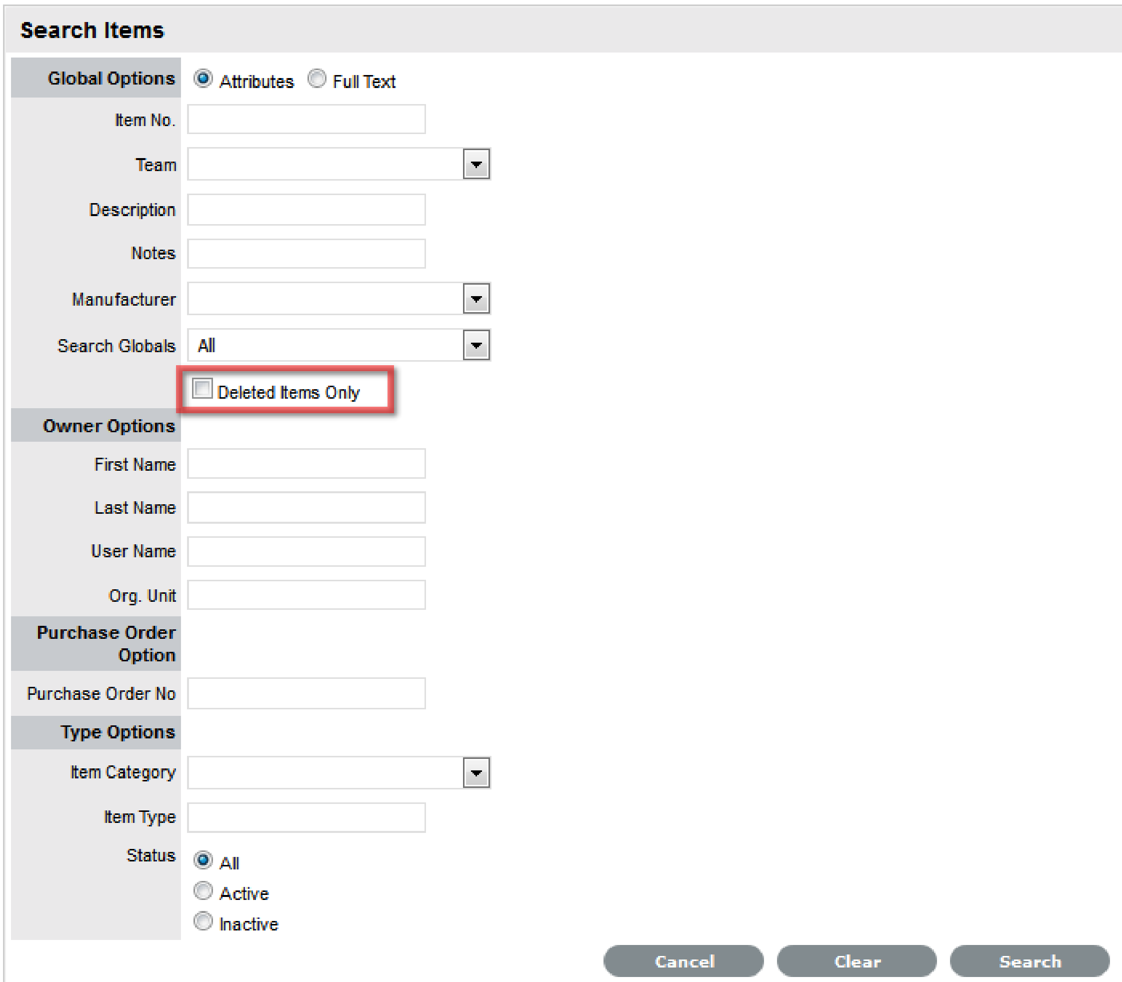
Re-enabling Deleted Items

To re-enable Deleted Items, initiate an Item search on deleted Items within the Configuration>Items screen of the Supervisor view.

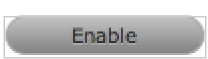
Within the Supervisor view to search for a deleted Item:

1. Select Configuration>Items
2. Click the Search button

   A simple search page will be displayed



3. Enter a search term
4. Select the Deleted Item Only option
5. Click Search

   A list of Items is displayed.
6. For the Item to be re-enabled, select the Item ID#
7. Click 

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NOTE: Service desk now uses service name of the Oracle database configured with ZENworks. While using the Oracle database, if you are unable to connect to ZENworks, see ZENworks Core Admin for the service name.

6.16.4 Importing Items using a .CSV File

To import Items using a .CSV file, a .CSV template, containing all available fields, can be downloaded and populated. The service management system uses a field mapping Wizard to match fields in the template to those in the system. To download the template go to Setup > Item Import > Import. See Downloading an Item .CSV Template for more information on configuring the .CSV file.

Before Importing a CSV File

For an Item to be successfully imported, the following fields must be mapped:

- Team/s
- Status.

The Teams within the .CSV file must be created in the system before they can be associated with an Item as part of a .CSV import. Teams are created by a Supervisor under the User>Teams tab.

Items are imported based on Category (i.e. Hardware, Software, etc.), which must be configured by the Supervisor within the Configuration>Categories tab before conducting a .CSV import. The Categories configuration defines the Details recorded in the Item to be imported into the system. The Administrator must create separate .CSV files based on the Categories configured, that are then individually uploaded into the application.

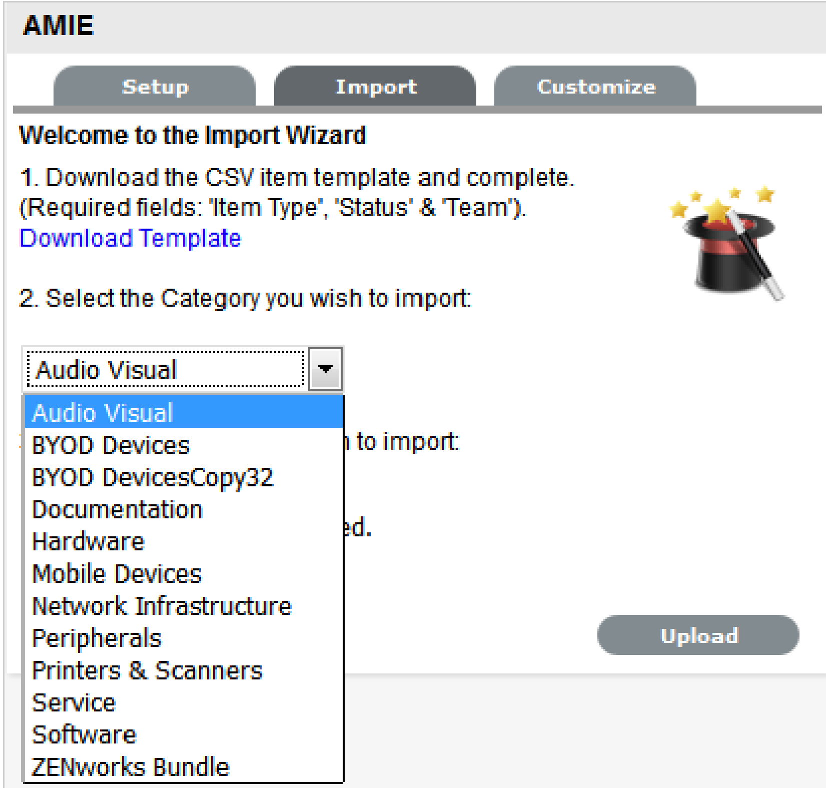
For Items imported with owners, the Username in the .CSV file must match the Username within the support system. If the owner does not exist in the system, the imported Item will become a Global Item.

NOTE: If relationships are to be created between Items upon import, Parent Items should be imported first. If the system generated Item Number is to be used for the Parent Item, it needs to be included in the Parent Item Number field of the Related Items when they are imported.

Importing Items

To import a CSV File using the Import Wizard:

1. Select Setup>AMIE
2. Select the Import tab



To access a template that illustrates the fields the application maps and the data types (see below), click the Download Template link on the Item Import Wizard screen within the Setup>AMIE>Import tab.

The following fields should be visible:

Item Number(Unique char 64),Item Type(char 128),Manufacturer(char 128),Incident Team(char 64),Problem Team(char 64),Change Team(char 64),Request Team(char 64), Company(char 128),Department(char 128),Room(char 64),Username (char 64),Status(char 128),Criticality(char 64)Purchase Date(datetime),Cost(decimal),Field1(char 256),Field2(char 256),Field3(char 256),Field4(char 256),Field5(char 256),Field6(char 256),Field7(char 256),Field8(char 256),Field9(char 256), Field10(char 256),Field11(char 256),Field12(char 256),Field13(char 256),Field14(char 256),Field15(char 256),Field16(char 256),Field17(char 256),Field18(char 256),Field19(char 256),Field20(char 256),Notes(CLOB),Relationship Name(char 256),Parent Item Number(char 64)

The char ### designation in parentheses after each field name signifies what type of data the import utility expects to see in each field. For instance:

- Item Type (char 128) means that the first name field cannot exceed 128 characters.
- Fields marked as Unique must be unique in the system.
- Note the Room details MUST be in the following format: COMPANY-DEPARTMENT;Room

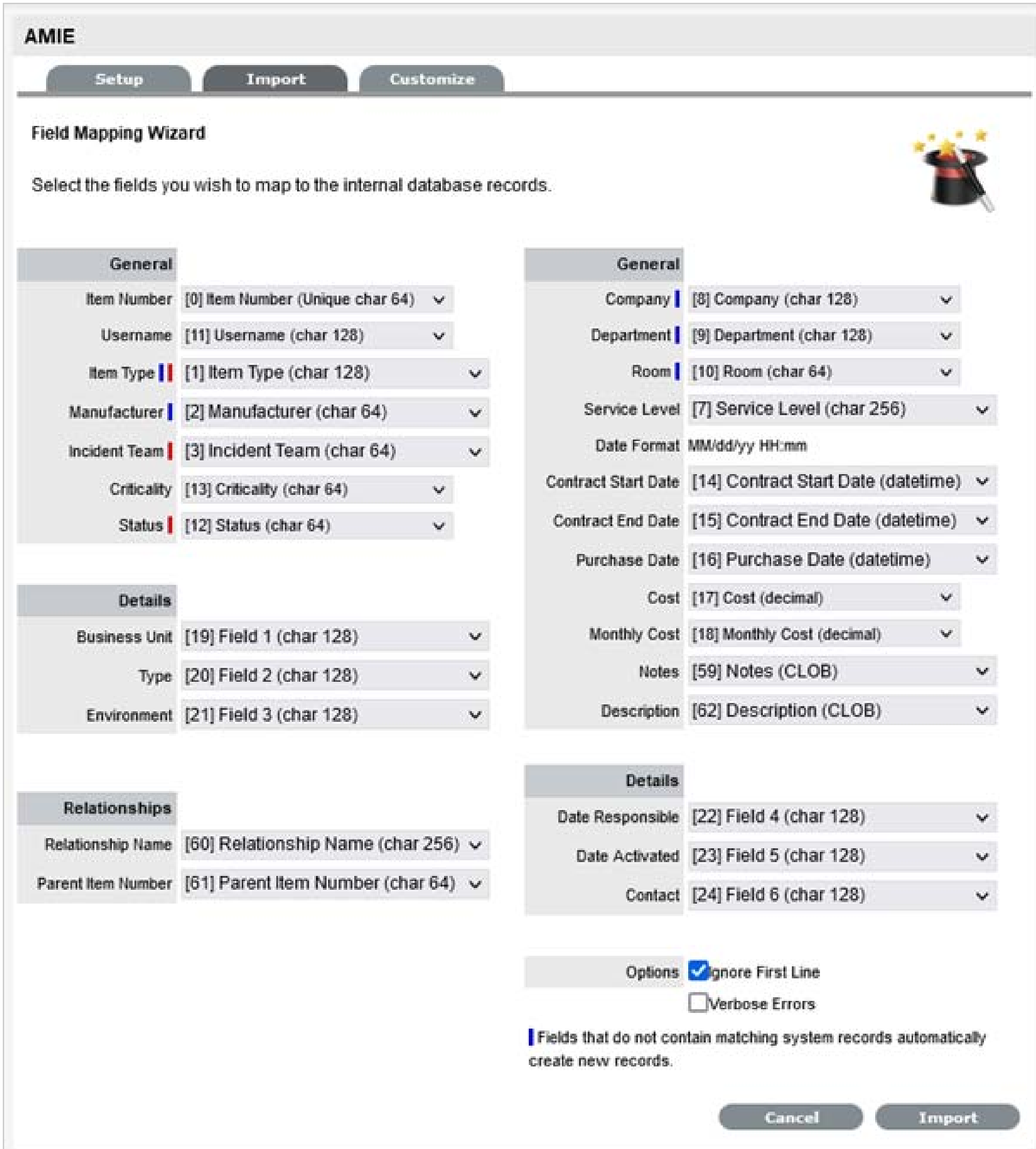
When creating a .CSV file for a Category, to determine the Field number of a configured Custom Field, within theCategory tab of an Item Category select the System defined Ordering option. The field labels will then be listed in sequential order from one to twenty.

3. To import, select the Item Category

The drop-down list consists of all Categories created by the Supervisor in Configuration>Categories.

4. Enter the file location, or use the Browse button
5. Select Upload

   The Field Mapping Wizard appears. Fields that can be mapped to the CSV file are available in the drop-down list.



6. *Review and map the fields within the .CSV*

Field Mapping Wizard
General

Field Mapping Wizard	
Item Number	Unique Item number of the Configuration Item, this can be generated by the system or defined in the .CSV file.
Username	Customer owning the Configuration Item, imported by entering their user name.
Item Type II	Item Type of the Configuration Item.
Manufacturer I	Sets the manufacturer details of the Item.
Incident Team I	Incident Team assigned to the Configuration Item.
Problem Team I	Problem Team assigned to the Configuration Item.
Change Team I	Change Team assigned to the Configuration Item.
Request Team I	Request Team assigned to the Configuration Item
Criticality	Sets the default Criticality (i.e, critical, high, moderate, low, very low) for the Item. Optional.
Status I	Default Configuration Item Status.
Company I	Company owning the Configuration Item.
Department I	Department owning the Configuration Item.
Room I	The location of the Item. The .csv file data format to import this information MUST be: COMPANY-DEPARTMENT;Room
Service Level	Configuration Item assigned SLA.
Date Format	Displays the date format required for the contract details to be imported successfully.
Contract Start Date	Sets the start date of a contract associated with an Item.
Contract End Date	Sets the end date of a contract associated with an Item.
Purchase Date	Date the Item was purchased.
Cost	The cost of the Item.
Monthly Cost	Sets the monthly Service Cost on per month basis for the Item.
Notes	Free text to add notes to the Item. Optional.
Details	
Fields 1 to 20	Custom fields created for the Category are displayed and can be mapped to the Item based on information included in the .CSV file.
Relationships	

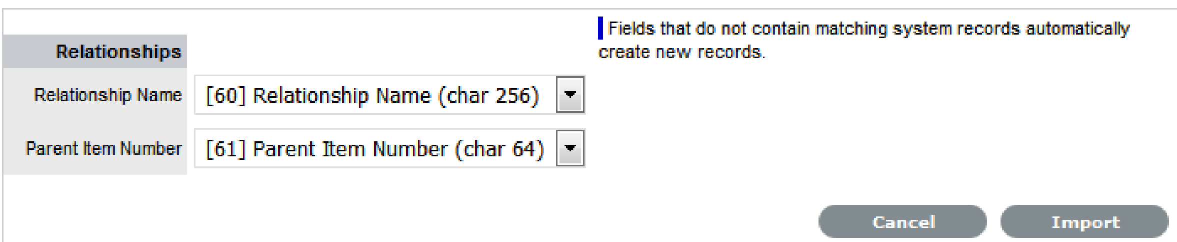
Field Mapping Wizard	
Relationship Name	Defines the description of the relationship between the Item set in the following field.
Parent Item Number	Identifies the Item with which an Item is related using the Item Number.
Options	
Ignore First Line	Option to ignore first row upon import.
Verbose Errors	Detailed description of any errors that occur during the import process.

NOTE: While specifying a date, ensure that you include time also along with date as shown in the below image.

I = Information that needs to exist in the system before the import

I = Fields that are mandatory

NOTE: If relationships are to be created between Items upon import, Parent Items should be imported first. If the system generated Item Number is to be used for the Parent Item, it needs to be included in the Parent Item Number field of the Related Items when they are imported.



1. Select the Ignore First Line checkbox if the first line of the imported CSV file has field headings

   Leave the checkbox clear if the CSV file begins with usable data.
2. Click Verbose Errors to record a detailed description of any errors that occur during the import

   Leaving the box unchecked will return a summarized error report.
3. Select Import to bring into the system the mapped field data

   The Item Import screen displays the results of the import.
4. Select Done.

Configuring Items after the Import

During the Item Import, elements that do not exist in the database are created. These are the fields marked with a blue line within the Field Mapping Wizard:

- Item Type

- Warranty
- Organizational Units.

After an import, all Item Types that have been created will need to be further configured.

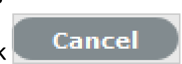
To complete Item Type configuration:

1. Log in to the Supervisor Portal
2. Select Configuration>Types
3. In the Item Types screen, click on the newly created Item

   The Type Information screen appears.
4. Complete the following fields:
5.

Item Type	
Name	Name of the Item Type.
Manufacturer	The manufacturer of the Item Type. New manufacturers can be created and existing manufacturers can be edited and deleted by using the Edit and New buttons that appear beside the drop-down menu of manufacturers.
Item Category	This signifies the type of Item. (Hardware, Software or Service are the default Types, but Users with the Supervisor Role can create more if required).
Identifier	The drop-down list that appears is drawn from the fields defined for the Item Category selected. Although this information is not required, the Identifier is used to differentiate similar Items that may be in use throughout an organization. For example, if an organization uses the same printers for all departments, an Item Category field of "Location" could be configured for the Item Details and this could also be used as a secondary Identifier for Printer Item.

Item Type	
Criticality	Rates the degree of importance of an Item Type within an organization, which can be adjusted on a per Item basis. The 'Impact' of a Request is initially pulled from the Criticality of the Item, but can be adjusted within the request Information screen if required. Requests logged through the Customer Portal, use the Criticality of the Item to set the Priority of the request. The Incident Analyzer, if enabled by the Administrator in Setup>CMS>Incident Analyzer, can apply the Criticality to automatically detect Problems. The minimum Criticality level can also be used to determine the off-line Items that appear on Outages pages, if the Outages pages are enabled by the Administrator in Setup>Privileges>System.
Icon	When the Type details are saved, the Icon selected for the Item Category will be displayed. To customize the icon for the specific Item Type, select the Icon to access the Upload Upload or Cancel Cancel options.
Unit Price	The per-unit price of the Item Type.
Instance Total	Number of instances owned by the organization.
Assigned	Number of instances assigned to Customers as Items.
Hidden	Select 'On' to ensure Customers cannot view this Item Type within the list in the Customer Portal. If all Item Types use this selection, the Item Type list will be completely removed from the Portal. Items created using Item Types with Hidden enabled, will not allow Customers to generate requests against them in the Customer Portal, nor will they be able to view or receive updates about requests logged by the User against Items with this functionality enabled.
Creation	Enabling this option gives Customers using the portal the ability to create new Items using this Item Type (if they have been granted the ability to create Items by the Administrator in Setup>Privileges>Customer>Create Item. (This option is not displayed when the Hidden option is enabled.)

Item Type	
Ignore Share	Enabling this option overrides the system level option for sharing requests raised against Items of this Type. Requests raised against Items of this Type will not appear in the customer portal when viewing shared requests is enabled.
Add Forum Topic	Create a forum topic using the Item Type Name. This option is only displayed when a new Type is being created.
Incident Default	The Team of Technicians assigned to support Incidents received related to the Item Type. See: Teams
Problem Default	The Team of Technicians assigned to support Problems received related to the Item Type. See: Teams
Change Default	The Team of Technicians assigned to support Change Requests received related to the Item Type. See: Teams
Request Default	The Team of Technicians assigned to support Service Requests received related to the Item Type. See: Teams
Service Level Default	The default service level for the Item Type. When Billing is enabled, service levels without a cost are listed as an option. The service level with an associated cost can be applied when the Item created, this ensures Item contract payment is processed.
Support Levels	All Service Level Agreements assigned to the Item Type, which will be displayed as options when a request is created applying Item that uses this Type template. SLAs listed here, are used within the Costs tab of Service Types to forecast break even points on the Service relative to the number of Users.
Find SLA (Name)	To assign multiple SLAs use this option. Click  to view all SLAs or refine the search by entering a specific name. Select the SLA hyperlink to assign the SLA to the Type Information. Click  to clear the search field.

6. Enter the Unit Price for the Item Type. This is an optional field that is used for asset management

   See Finance Role.

7. Set the Customer options

8. Assign the default support Teams
9. Assign one or multiple SLAs, as required
10. Click Save
11. Move to the Classification tab to create problem classification for this Item Type.

    Click on the Item Type name to continue configuration.

Assigning multiple Companies and Departments to an Item

The .CSV file import facility can also be used to assign more than one Company and Department to an Item, if required. To assign multiple companies within the Company column of the .CSV file, enter the company names separated by a semi-colon (;) If the Company or Companies do not exist in the system, or have been deleted, a new Company will be created.

When importing multiple Departments related to the multiple Companies, the Department related to the Company must be listed in the same order as the Companies and separated by a semi-colon. For example:

Company Field: comp1;comp2

Department Field: dept1:depart2 or ;dept2 or dept1;

Any departments that do not exist in the database or have been deleted, will be created as a result of the .CSV import.

To assign rooms to one of the locations of this multiple Company/Department assignment, the full details of the Company and Department must be entered into the column followed by a semi-colon and the Room number. An example of the Room import format is:

Company Field:CompName1;CompName2

Department Field:Dept1;Dept2

Room Field: CompName1 - Dept1;Room1

Updating Item Information via .CSV

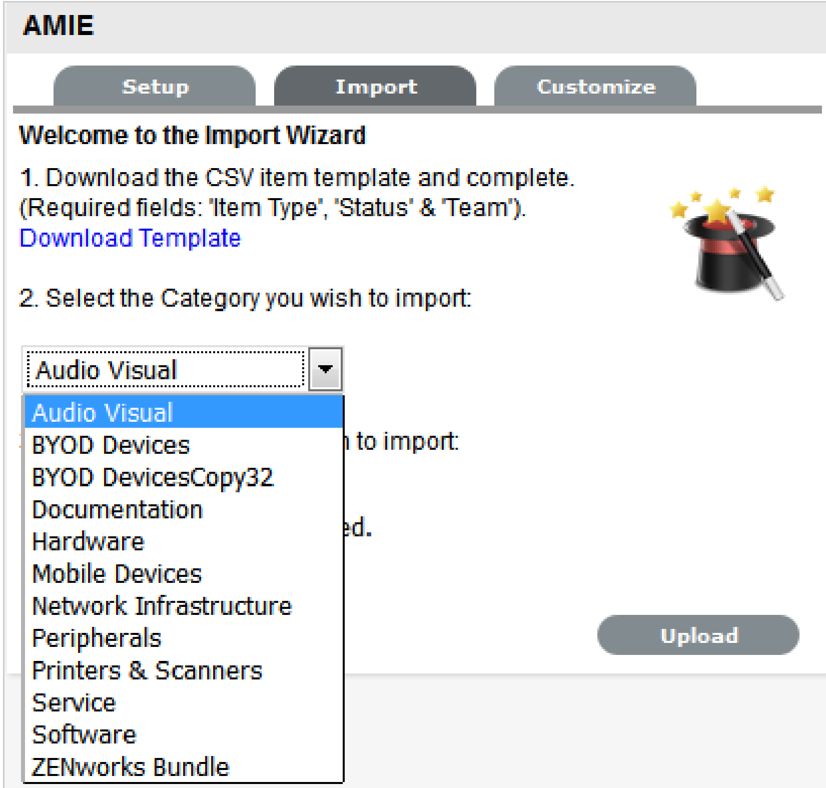
To easily update multiple Items that already exist within system, information can be imported using a .CSV file. For the update to be successful, the Item number in the .CSV file must match the Item number in the system.

Follow the above *Importing Items* procedure and ensure the Item Number field is mapped correctly. If an Item Number is not included in the .CSV file, a new Item will be created.

6.16.5 Downloading an Item .CSV Template

To download and populate the CSV Template for the CMDB Item Import process:

1. Select Setup>AMIE
2. Select the Import tab



To view a template that illustrates the fields the application is looking for and the data types (see below), click the Download Template link on the Item Import Wizard screen within Import tab of Item Import in the Setup tab.

The following fields should be visible:

Item Number(Unique char 64),Item Type(char 128),Manufacturer(char 128),Incident Team(char 64),Problem Team(char 64),Change Team(char 64),Request Team(char 64), Company(char 128),Department(char 128),Room(char 64),Username (char 64),Status(char 128),Criticality(char 64)Purchase Date(datetime),Cost(decimal),Field1(char 256),Field2(char 256),Field3(char 256),Field4(char 256),Field5(char 256),Field6(char 256),Field7(char 256),Field8(char 256),Field9(char 256), Field10(char 256),Field11(char 256),Field12(char 256),Field13(char 256),Field14(char 256),Field15(char 256),Field16(char 256),Field17(char 256),Field18(char 256),Field19(char 256),Field20(char 256),Notes(CLOB),Relationship Name(char 256),Parent Item Number(char 64)

The char ### designation in parentheses after each field name signifies what type

of data the import utility expects to see in each field. For instance:

a. Item Type (char 128) means that the first name field cannot exceed 128 characters.

b. Fields marked as Unique must be unique in the system.

c. Note the Room details MUST be in the following format: COMPANY-DEPARTMENT;Room

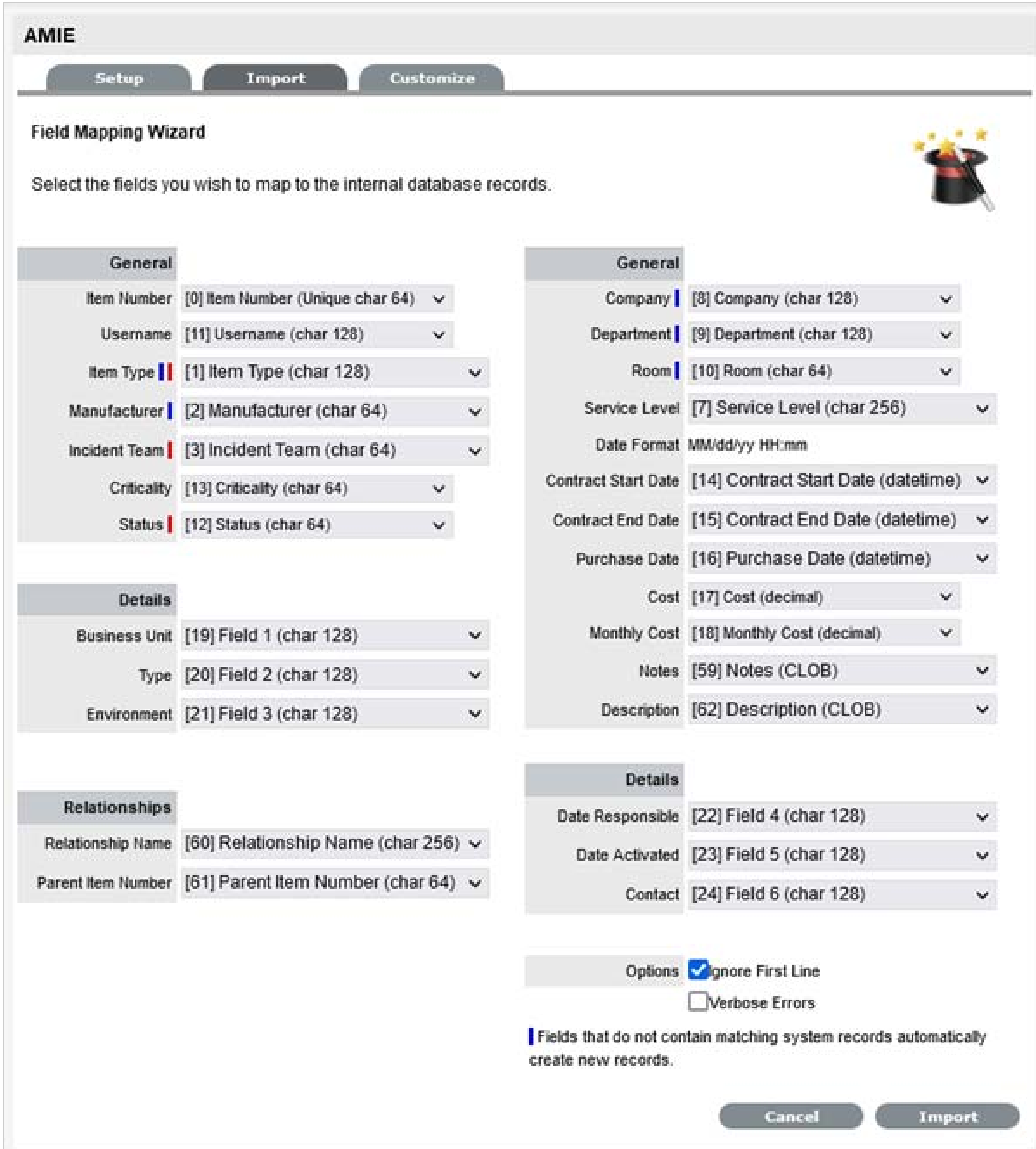
3. To import, select the Item Category

   The drop-down list consists of all Categories created by the Supervisor in Configuration>Categories.

4. Enter the file location, or use the Browse button

5. Select Upload

The Field Mapping Wizard appears. Fields that can be mapped to the CSV file are available in the drop-down list.



6. *Review and map the fields within the .CSV*

Field Mapping Wizard	
General	
Item Number	Unique Item number of the Configuration Item, this can be generated by the system or defined in the .CSV file.

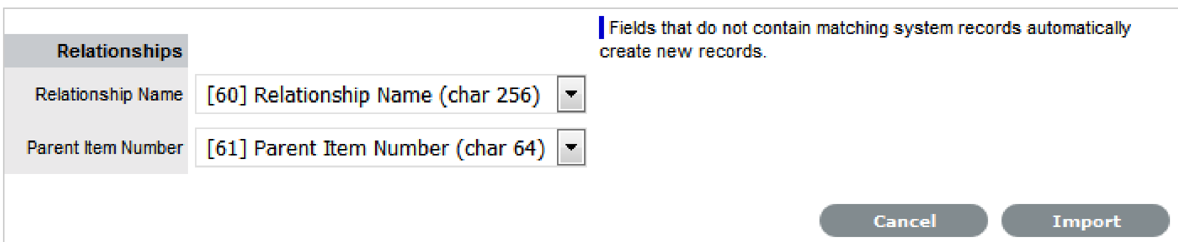
Field Mapping Wizard	
Username	Customer owning the Configuration Item, imported by entering their user name.
Item Type II	Item Type of the Configuration Item.
Manufacturer I	Sets the manufacturer details of the Item.
Incident Team I	Incident Team assigned to the Configuration Item.
Problem Team I	Problem Team assigned to the Configuration Item.
Change Team I	Change Team assigned to the Configuration Item.
Request Team I	Request Team assigned to the Configuration Item
Criticality	Sets the default Criticality (i.e, critical, high, moderate, low, very low) for the Item. Optional.
Status I	Default Configuration Item Status.
Company I	Company owning the Configuration Item.
Department I	Department owning the Configuration Item.
Room I	The location of the Item. The .csv file data format to import this information MUST be:
	COMPANY-DEPARTMENT;Room
Service Level	Configuration Item assigned SLA.
Date Format	Displays the date format required for the contract details to be imported successfully.
Contract Start Date	Sets the start date of a contract associated with an Item.
Contract End Date	Sets the end date of a contract associated with an Item.
Purchase Date	Date the Item was purchased.
Cost	The cost of the Item.
Monthly Cost	Sets the monthly Service Cost on per month basis for the Item.
Notes	Free text to add notes to the Item. Optional.
Details	
Fields 1 to 20	Custom fields created for the Category are displayed and can be mapped to the Item based on information included in the .CSV file.
Relationships	
Relationship Name	Defines the description of the relationship between the Item set in the following field.

Field Mapping Wizard	
Parent Item Number	Identifies the Item with which an Item is related using the Item Number.
Options	
Ignore First Line	Option to ignore first row upon import.
Verbose Errors	Detailed description of any errors that occur during the import process.

I = Information that needs to exist in the system before the import

I = Fields that are mandatory

NOTE: If relationships are to be created between Items upon import, Parent Items should be imported first. If the system generated Item Number is to be used for the Parent Item, it needs to be included in the Parent Item Number field of the Related Items when they are imported.



1. Select the Ignore First Line checkbox if the first line of the imported CSV file has field headings. Leave the checkbox clear if the CSV file begins with usable data.
2. Click in Verbose Errors for detailed descriptions of any errors that may occur during the import

   Leaving the box unchecked will return abbreviated errors.
3. Select Import to bring into the system the mapped field data

   The Item Import screen displays the results of the import.
4. Select Done.

Configuring Items after the Import

During the Item Import, elements that do not exist in the database are created. These are the fields marked with a blue line within the Field Mapping Wizard:

- Item Type
- Warranty
- Organizational Units.

After an import, all Item Types that have been created will need to be further configured.

To complete Item Type configuration:

1. Log in to the Supervisor Portal

2. Select Configuration>Types
3. In the Item Types screen, click on the newly created Item

   The Type Information screen appears.
4. Complete the following fields:
5.

Item Type	
Name	Name of the Item Type.
Manufacturer	The manufacturer of the Item Type. New manufacturers can be created and existing manufacturers can be edited and deleted by using the Edit and New buttons that appear beside the drop-down menu of manufacturers.
Item Category	This signifies the type of Item. (Hardware, Software or Service are the default Types, but Users with the Supervisor Role can create more if required).
Identifier	The drop-down list that appears is drawn from the fields defined for the Item Category selected. Although this information is not required, the Identifier is used to differentiate similar Items that may be in use throughout an organization. For example, if an organization uses the same printers for all departments, an Item Category field of "Location" could be configured for the Item Details and this could also be used as a secondary Identifier for Printer Item.
Criticality	Rates the degree of importance of an Item Type within an organization, which can be adjusted on a per Item basis. The 'Impact' of a Request is initially pulled from the Criticality of the Item, but can be adjusted within the request Information screen if required. Requests logged through the Customer Portal, use the Criticality of the Item to set the Priority of the request. The Incident Analyzer, if enabled by the Administrator in Setup>CMS>Incident Analyzer, can apply the Criticality to automatically detect Problems. The minimum Criticality level can also be used to determine the off-line Items that appear on Outages pages, if the Outages pages are enabled by the Administrator in Setup>Privileges>System.

Item Type	
Icon	When the Type details are saved, the Icon selected for the Item Category will be displayed. To customize the icon for the specific Item Type, select the Icon to access the Upload  or Cancel  options.
Unit Price	The per-unit price of the Item Type.
Instance Total	Number of instances owned by the organization.
Assigned	Number of instances assigned to Customers as Items.
Hidden	Select 'On' to ensure Customers cannot view this Item Type within the list in the Customer Portal. If all Item Types use this selection, the Item Type list will be completely removed from the Portal. Items created using Item Types with Hidden enabled, will not allow Customers to generate requests against them in the Customer Portal, nor will they be able to view or receive updates about requests logged by the User against Items with this functionality enabled.
Creation	Enabling this option gives Customers using the portal the ability to create new Items using this Item Type (if they have been granted the ability to create Items by the Administrator in Setup>Privileges>Customer>Create Item. (This option is not displayed when the Hidden option is enabled.)
Ignore Share	Enabling this option overrides the system level option for sharing requests raised against Items of this Type. Requests raised against Items of this Type will not appear in the customer portal when viewing shared requests is enabled.
Add Forum Topic	Create a forum topic using the Item Type Name. This option is only displayed when a new Type is being created.
Incident Default	The Team of Technicians assigned to support Incidents received related to the Item Type. See: Teams
Problem Default	The Team of Technicians assigned to support Problems received related to the Item Type. See: Teams
Change Default	The Team of Technicians assigned to support Change Requests received related to the Item Type. See: Teams

Item Type	
Request Default	The Team of Technicians assigned to support Service Requests received related to the Item Type. See: Teams
Service Level Default	The default service level for the Item Type. When Billing is enabled, service levels without a cost are listed as an option. The service level with an associated cost can be applied when the Item created, this ensures Item contract payment is processed.
Support Levels	All Service Level Agreements assigned to the Item Type, which will be displayed as options when a request is created applying Item that uses this Type template. SLAs listed here, are used within the Costs tab of Service Types to forecast break even points on the Service relative to the number of Users.
Find SLA (Name)	To assign multiple SLAs use this option. Click Search to view all SLAs or refine the search by entering a specific name. Select the SLA hyperlink to assign the SLA to the Type Information. Click Cancel to clear the search field.

6. Enter the Unit Price for the Item Type. This is an optional field that is used for asset management

   See Finance Role.
7. Set the Customer options
8. Assign the default support Teams
9. Assign one or multiple SLAs, as required
10. Click Save
11. Move to the Classification tab to create problem classification for this Item Type.

    Click on the Item Type name to continue configuration.

Assigning multiple Companies and Departments to an Item

The .CSV file import facility can also be used to assign more than one Company and Department to an Item, if required. To assign multiple companies within the Company column of the .CSV file, enter the company names separated by a semi-colon (;) If the Company or Companies do not exist in the system, or have been deleted, a new Company will be created.

When importing multiple Departments related to the multiple Companies, the Department related to the Company must be listed in the same order as the Companies and separated by a semi-colon. For example:

Company Field: comp1;comp2

Department Field: dept1:depart2 or ;dept2 or dept1;

Any departments that do not exist in the database or have been deleted, will be created as a result of the .CSV import.

To assign rooms to one of the locations of this multiple Company/Department assignment, the full details of the Company and Department must be entered into the column followed by a semi-colon and the Room number. An example of the Room import format is:

Company Field:CompName1;CompName2

Department Field:Dept1;Dept2

Room Field: CompName1 - Dept1;Room1

Updating Item Information via .CSV

To easily update multiple Items that already exist within system, information can be imported using a .CSV file. For the update to be successful, the Item number in the .CSV file must match the Item number in the system.

Follow the above *Importing Items* procedure and ensure the Item Number field is mapped correctly. If an Item Number is not included in the .CSV file, a new Item will be created.

6.16.6 Financial Management

Financial Management quantifies, in financial terms, the value of IT services for the business and IT department. This includes measuring the value of the underpinning infrastructure that provides the services and qualifying operational forecasts. Applying a services approach to IT, financial management helps identify, document and agree on the value of services being provisioned by IT, and provides service demand modeling and management.

With a goal to ensure funding for the delivery and consumption of services, Financial Management focuses on the demand and supply requirements based on business strategy, capacity inputs and forecasting use. As a transitional role between an organization's corporate finances and service management, Financial Management calculates and assigns a monetary value to a Service and service components to allow costs to be spread across the organization.

The monetary value is derived by calculating the operating and capital costs, which include the investments made in hardware and software license costs, annual maintenance fees for hardware and software and personnel resources used to support and maintain the services, across the number of Users.

Tightly integrated throughout the application, Financial Management derives hierarchical costs from within the CMDB and considers Org Units as Cost Centers, while extending functionality built into the Service Item costs calculator. Used as a forecasting tool, it provides the service organization with information about pricing a service, by detailing the contributing cost factors and applying concepts such as cost splitting across services that leverage common infrastructure. Stored in the CMDB, the central repository, organizations can generate their own reports and all data is broken down by cost center, ready to be reassembled in real time for the User interface to assist with business planning and the budgeting processes.

Financial Management is not a standalone process in this service management application, but a component of Service Portfolio Management and the Service Catalog, with direct access being found within the Service Item Costs tab of any Service Category Item.

To access this functionality, Users must be assigned the Finance Role, in the Information tab of their User information screen. For detailed information about using Financial Management, refer to Financial Management Applied.

6.16.7 Service Portfolio Management

The Service Portfolio details the commitments and investments made by a Service Provider to its customers and within the markets they service. It contains current contractual obligations, services under development and continuing service improvement programs.

The Portfolio represents all engaged resources and resources being released during the different phases of the Service Lifecycle. It includes the Service Pipeline that consists of services under development and the Service Catalog, which includes customer visible active services that have the potential to recover costs or earn profits for the Services provided.

Service Portfolio Management is a dynamic and ongoing process that covers the following stages in work practices:

- Define - list services, confirm business cases and verify portfolio data
- Analyze - maximize portfolio value, set priorities
- Approve - finalize portfolio proposal, authorize services and resources
- Charter - communicate decision and allocate resources.

The service management system includes ITIL certified Service Portfolio Management, with Service Pipeline and Service Catalog functionality, as part of the base product. Combining the Service Item Lifecycle stored in the embedded CMDB, with assigned Service Level Agreements and service Teams, the system enables organizations to manage their Service Offerings from strategy to design through to transition, operation and retirement.

Service Portfolio Management in the system allows organizations to create Service Categories that include business-related attributes, such as business processes supported, business owners and business users. This ensures organizations record all relevant information against the Service.

Organizations can further optimize their Service Portfolio Management by tracking and reporting on Service Offering and Service Component usage, Service Level performance and costs. This includes the functionality to calculate break-even points (B.E.P.) for offering a service, which allows support organizations to charge the appropriate cost for offering the service to their internal or external customers. This is achieved by recording of financial attributes against services, including service cost, service charges and service revenue.

The service management system SPM capability also allows organizations to easily record the technical aspects of services such as applications used, IT Owners, supporting services, dependent services, SLAs and OLAs, Contracts and Agreements by defining Relationship Maps.

Working with SPM

Using the SPM functionality, organizations can create and publish all Service Offerings throughout the Service Lifecycle, which include the phases of:

1. Services under development, that are being considered but are not yet released (Service Pipeline)
2. Services in production/operation, that would be included in the Service Catalog
3. Retired/discontinued Service Offerings.

Service Items are recorded against the different stages of the Lifecycle and easily accessed through the filter views, available within the Configuration>Items screen:

Filter	Relationship
All Items	All Items stored within the CMDB, regardless of the assigned Lifecycle State.
Hardware Catalog	All Items that use the Hardware Category Template stored within the CMDB, regardless of the assigned Lifecycle State.
Service Catalog	All Items that use the Service Category Template stored within the CMDB that are in an active Lifecycle State.
Service Pipeline	All Items that use the Service Category Template stored within the CMDB that are assigned a Pre-production Lifecycle State.
Service Portfolio	All Items that use the Service Category Template stored within the CMDB, regardless of the assigned Lifecycle State.
Software Catalog	All Items that use the Software Category Template stored within the CMDB, regardless of the assigned Lifecycle State.

Consistent with the Lifecycle model used for all Configuration Items (CIs) throughout the application, Service CIs are created using the Service Category template, with a series of Lifecycle States customized to represent the different phases a CI can transition through (i.e., inception, design, implementation, operation or retirement phases).

Within each State of the Service Lifecycle, the relevant Users included in the Service Portfolio Team can be assigned, allowing them to manage Service Item information when the Item is allocated the State.

Using the SPM Functionality

The following outlines how the SPM Team define, analyze, authorize and charter a Service Offering in the system. This is achieved as a Supervisor User with Configuration and Service Level Management privileges enabled.

To begin:

1. Create the Service Portfolio Team in the Service > Teams tab, and assign all the relevant Users

   Then within the Group tab, create the work and management groups associated with the Service Lifecycle and assign the relevant Users. (See: SPM Teams.)
2. Within the Configuration>Categories Tab, edit the existing Service Category

   Duplicate and edit an existing Service Category or click New, to create a new Service Category. (See: Categories.)
3. In Edit mode, click the Service Category option and assign the Service Portfolio Team

   Set field labels for the Item, including any relevant business related attributes. Save and move to the Lifecycle tab.
4. Edit the default Lifecycle, to include all the applicable States defined by the SPM Team

   Some example States include requirements, defined, analyzed, approved, chartered, designed, developed, built, test, released, operational, retired. (See: Categories Lifecycle.)
5. Within each stage of the Lifecycle define the following State options:
6.

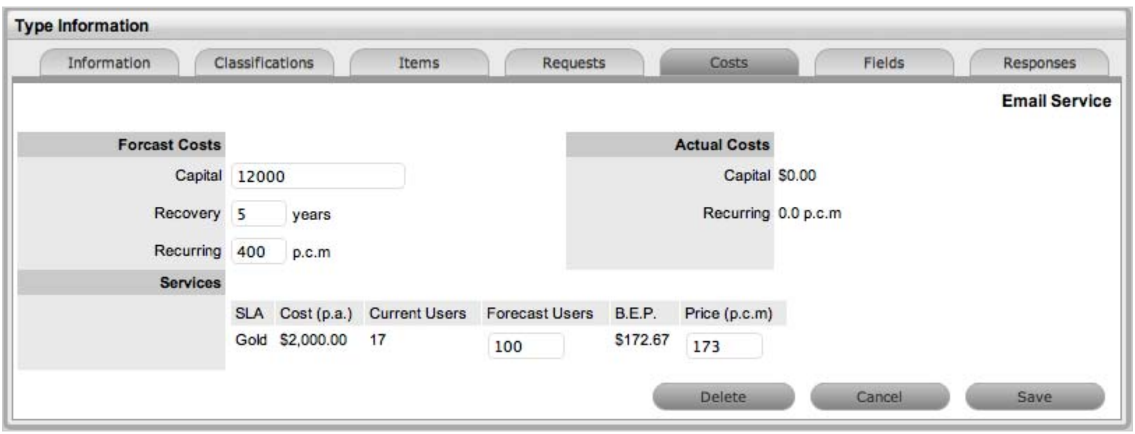
	Description
Status	
Name	Enter the name of the Lifecycle State.
Active State	Stipulates if the Item is Active, when assigned this State.
Offline State	Only visible when Active is set to No. Indicates if the Item is offline and inactive. Items moved into states where this is enabled, have availability metrics calculated.
Pre-production State	Only visible for Service Category lifecycle states. Items that use this state are available within the Service Pipeline filter view of the Configuration>Items tab.
Entry Point	An Entry Point is used to indicate the start of a Lifecycle. To make the state a Workflow Entry Point, select the Entry Point checkbox. As the Entry Point is the first state, the Previous States field will be removed.
Exit Point	Select whether the state will be an Exit Point. An Exit Point is used to indicate the end of a Lifecycle.

	Description
Service Team Group	Assign a Group within the associated Service Portfolio Team, to allow these Users to edit the Item details when it is assigned this stage of the Category Lifecycle.

7. Continue to configure the Category like any other Category and Save
8. Within the Configuration > Types tab, create an Item Type using the Service Category (See: Item Types.)
9. Assign one or more SLAs

   Multiple SLAs can be associated with the Type template as it allows the User to calculate the service costs for all Items that apply the Type template but that may need to be associated with different SLAs.
10. Move to the Costs tab and complete known details

    Within the Costs tab, organizations can calculate the Break-Even Point (BEP) of a Service based on forecasting the number of Customers of that Service. This enables the organization to account for the per calendar month price of the Service, which is used to calculate the ongoing revenue figures within the Item Costs tab that uses the Service Type template.

11.

Forecast Costs	
Capital	Enter the proposed total cost to be invested in the Service.
Recovery	Complete the field with the expected number of years designated to recover the costs of implementing the Service.
Recurring	Enter the proposed ongoing cost, on a per calendar month basis, for offering the Service.

Forecast Costs	
Services	Using the details entered in the Costs fields and the cost per annum of the SLA, enter the forecast number of Customers/Users to calculate the break even point (B.E.P) of the Service. Using the auto-calculated B.E.P., enter a per calendar month Price for the Service to recover costs. This figure is used in the Service Item Costs tab to calculate the ongoing Revenue figures.
Actual Costs	
Capital	Content for this field is derived from the Cost field within then Costs tab of the Item created using this Type.
Recurring	Content for this field is derived from the Monthly Cost field within the Costs tab of the Item created using this Type.

12. Create the Item and assign the relevant State, which in turn associates the relevant Users included in the SPM Team.

    Assign the Users and/or Org Units to set the number of affected Users, and set the appropriate SLA.

    The Costs tab of a Service Item includes information related to the financial and contractual details associated with the Item. The information more specifically related to the Service Item is recorded in the Charges and Revenue fields, as this information allows service and support organizations to calculate the costs of offering a service and if appropriate, recover the costs from the customers.
13.

Charges	
Price (per user)	Draws the figure from the Service Item Type Costs tab and displays this as a daily amount. This figure is then multiplied with the number of Users/ Customers assigned to the Item, to calculate the Revenue costs.
Cost (per user)	Draws the figure from the Inherited Costs and displays this as a daily amount. This figure is then multiplied with the number of Users/Customers assigned to the Item, to calculate the actual Costs.
Revenue	
Month to Date	Uses the Charges figure, multiplied with the number or Users and days of month passed, to calculate the month to date figure.
Previous Month	A reference figure for an average monthly cost, based on the previous months revenue for the Service Item.
Availability	

Charges	
Avg Repair Time	Entries displayed here are automatically calculated based on the average length of time an Item is offline.
Avg Time To Fail	Figures displayed here are automatically calculated based on the average time between an Item being moved to an offline State.

6.16.8 Financial Management Applied

Financial Management can be used to forecast the costs for offering a Service and can also calculate the amount that should be charged to the Service Users in order to recover costs.

To use Financial Management as a tool for calculating the financial value of the underpinning infrastructure that provisions services and to qualify operational forecasts, you need to:

- Provide the User access to the functionality
- Enable SLA costing functionality
- Enable the functionality within the Category
- Create the Item Type and enter forecast figures
- Create the Service Item, which automatically applies the forecast figures
- Build the relationships between the Service and underpinning hardware and software, to associate actual costs
- Use Finance Reports to compare forecast costs with actual costs, and chargeback costs to the Org. Unit Users.

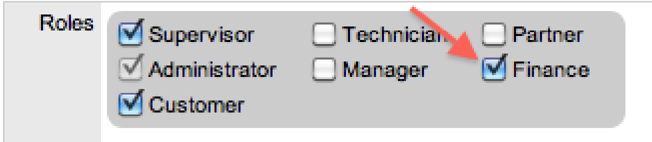
NOTE: To complete the following outlined process, a User must have Supervisor and Administrator access.

Enable Financial Management Access

To access the Financial Management functionality a User must be assigned the Finance Role within the Information tab of their User Information screen. Assigning the Role within a system synchronized with an authentication server, the system administrator needs to include the User in the Finance group in LDAP.

To switch on the functionality for an existing User in a system not synched with an LDAP server, as a Supervisor:

1. Select the User > Users tab
2. Click on the Name hyperlink of the relevant User
3. Select Edit
4. Tick the Finance box in the Roles field



5. Click Save.

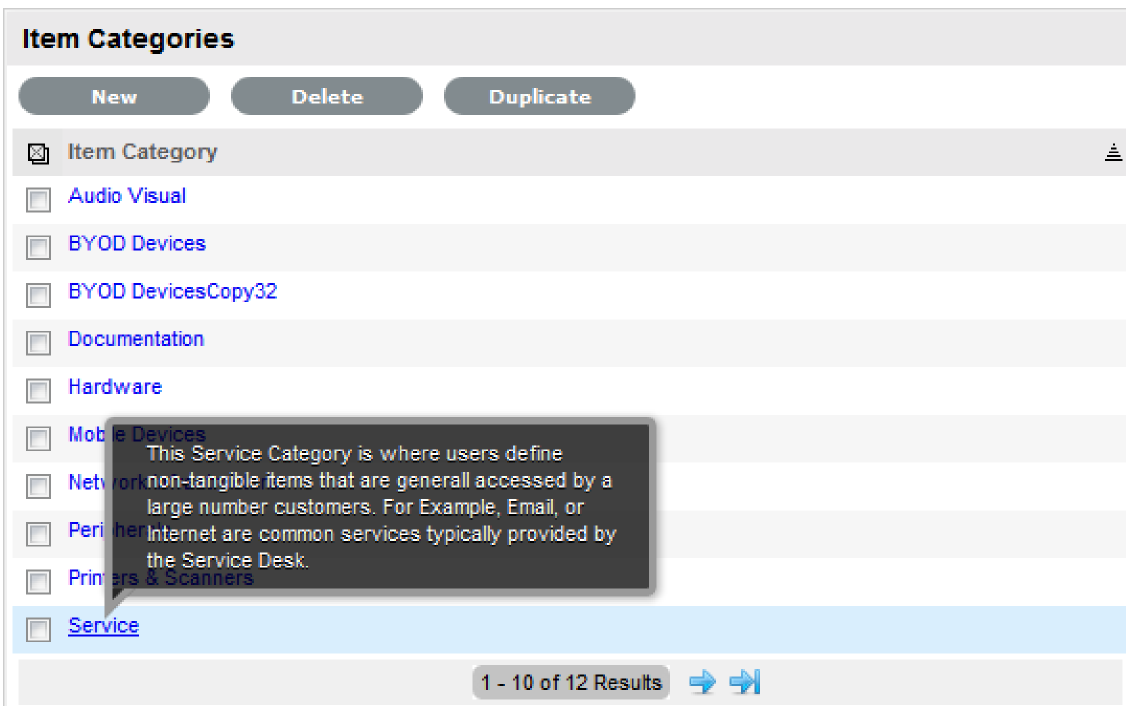
   The User can now access the Finance Management functionality within the consolidated User view.

Enable Functionality

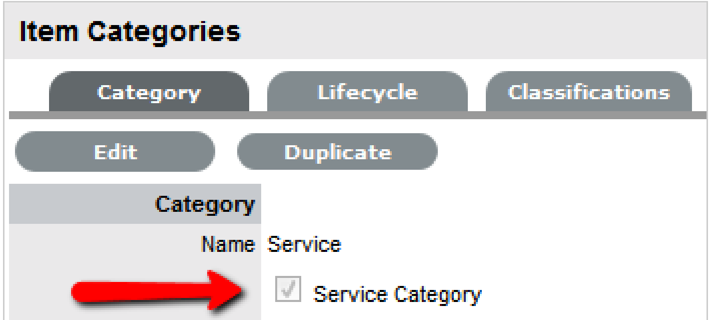
Financial information can only be calculated for Service Items that are created using a Category, which has the Service Category option enabled. By enabling this option, the Costs Tab is made available with the Item Type where baseline figures can be recorded.

As a User with the Finance Role:

1. Move to the Configuration > Categories tab
2. Click the Service Item Category hyperlink



3. Verify the Service Category option is checked



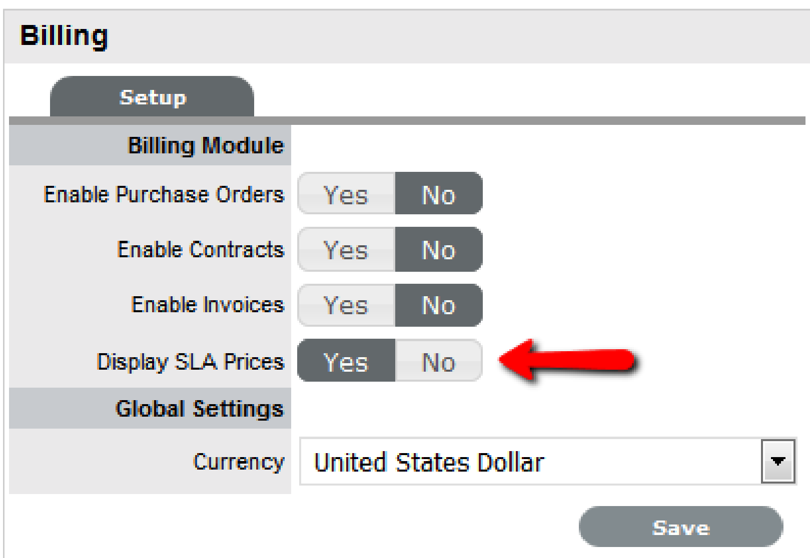
4. Click Done.

Charging for Service

If the service and support organization is to charge Organizational Units, that is companies or departments, for the ongoing service they provide the costing functionality for the Service Level Agreements (SLAs) needs to be enabled, and the Prices for the different Agreements need to be assigned to each of the SLAs.

As a User with Administrator access, within the Setup screen:

1. Select Setup > Billing
2. Click Yes for the Display SLA Prices option



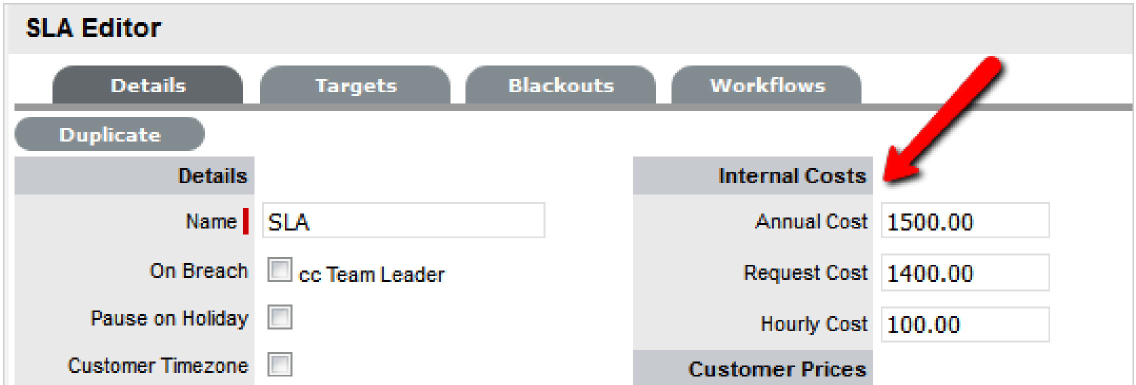
3. Click Save

   The Annual, Request and Hourly Price fields are now made available within an SLA Editor screen.
4. Switch to the User Portal to access the Supervisor view
5. Move to the Service > SLAs tab
6. Select the Name hyperlink for an SLA

   The SLA Editor is now displayed.

7. Click Edit
8. Enter the relevant figure in the Annual Price field

   The Annual Price entered should be the per User, per year price for the SLA.



9. Click Save and Done.

   Repeat the process for all relevant SLAs configured in the system. For detailed information about configuring SLAs see Creating SLAs.

Forecast Service Costs

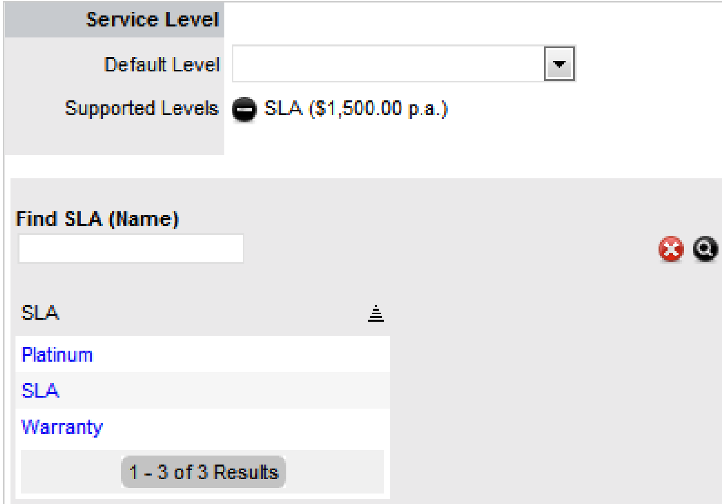
When proposing a Service as part of Service Portfolio Management, the investment and ongoing costs for offering a Service can be calculated. This information can then be used to project potential revenue for offering the Service and allow consumers of the Service to be charged for accessing the Service based on User access. For an example, we will use the Service Desk Service, considering the investment in hardware and software plus the ongoing SLA expense for offering the Service, when forecasting costs.

To forecast the cost of offering a Service, as a Financial User:

1. Move to the Configuration > Types tab
2. Select the default Service Desk Item Type

   If creating a new Item Type refer to Creating Item Types.
3. Click Edit
4. Search and select the relevant SLAs for the Supported Levels field

   This is where SLAs that have Prices are associated with them.



5. Move to the Costs Tab

   The Capital, Recovery and Recurring cost fields are now displayed.

6. Complete the following fields:
7.

Costs	
Capital	Enter the sum total to be invested in hardware and software infrastructure that will underpin the Service.
Recovery	Complete the field with the number of years designated to recover the costs of implementing the Service.
Recurring	Enter the ongoing cost, on a per calendar month basis, for offering the Service. For example, annual support and maintenance agreement costs charged on a monthly basis.
Services	Using the details entered in the Costs fields and the cost per annum of the SLA, enter the forecast number of Customers/Users to calculate the break even point (B.E.P) of the Service. Using the auto-calculated B.E.P., enter a per calendar month Price for the Service to recover costs. This figure is used in the Service Item Costs tab to calculate the ongoing Revenue figures. **NOTE:** If an SLA with an Internal Cost is assigned to the Type, the B.E.P will be the SLA cost divided by 12 plus the cost of recovering the Capital expenditure over the number of years defined for the Capital to be recovered. For example, where the SLA cost is $240 for the year, the B.E.P will never be less than $20 per month.
Actual Costs	

Costs	
Capital	Content for this field is derived from the Cost field within the Costs tab of the Item created using this Type.
Recurring	Content for this field is derived from the Monthly Cost field within the Costs tab of the Item created using this Type.

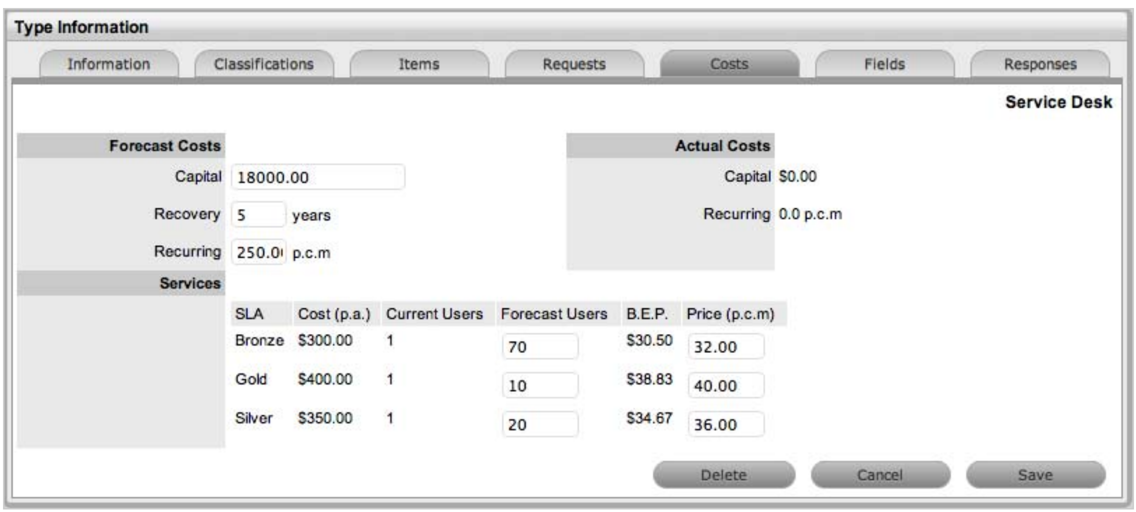
8. Enter a figure in the Forecast Users field for each SLA

   (The displayed SLAs are based on the ones assigned to the Supported Levels field in the Information tab.)

   If multiple SLAs are assigned to the Item Type and Forecast Users are assigned to each SLA, the Costs are divided by the total number of Forecast Users as calculated across the SLAs to arrive at the B.E.P. The system does not differentiate between who the Users are, it only accounts for the number of Users

9. Enter the Price for the Service to recover costs in a per calendar month

   Use the calculated Break Even Point (B.E.P.) to set the Price. This figure is then used as a comparison figure for the Actual cost in the Service Item Costs Tab.



10. Click Save and Done.

The forecasted Price per User is now available within the Charges Price field on the Costs tab of the Service Item.

Calculate Actual Service Costs

To calculate the actual Service Costs, the relationships of the infrastructure Items that underpin the Service need to be mapped within the Relationships tab. Working with these relationships, it should be noted that the Service is considered a Child Item within the hierarchy.

To build the relationship map refer to the Relationships Tab.

After the underpinning infrastructure and its associated costs are related to the Service Item, the following financial information is available in the Service Item Costs tab:

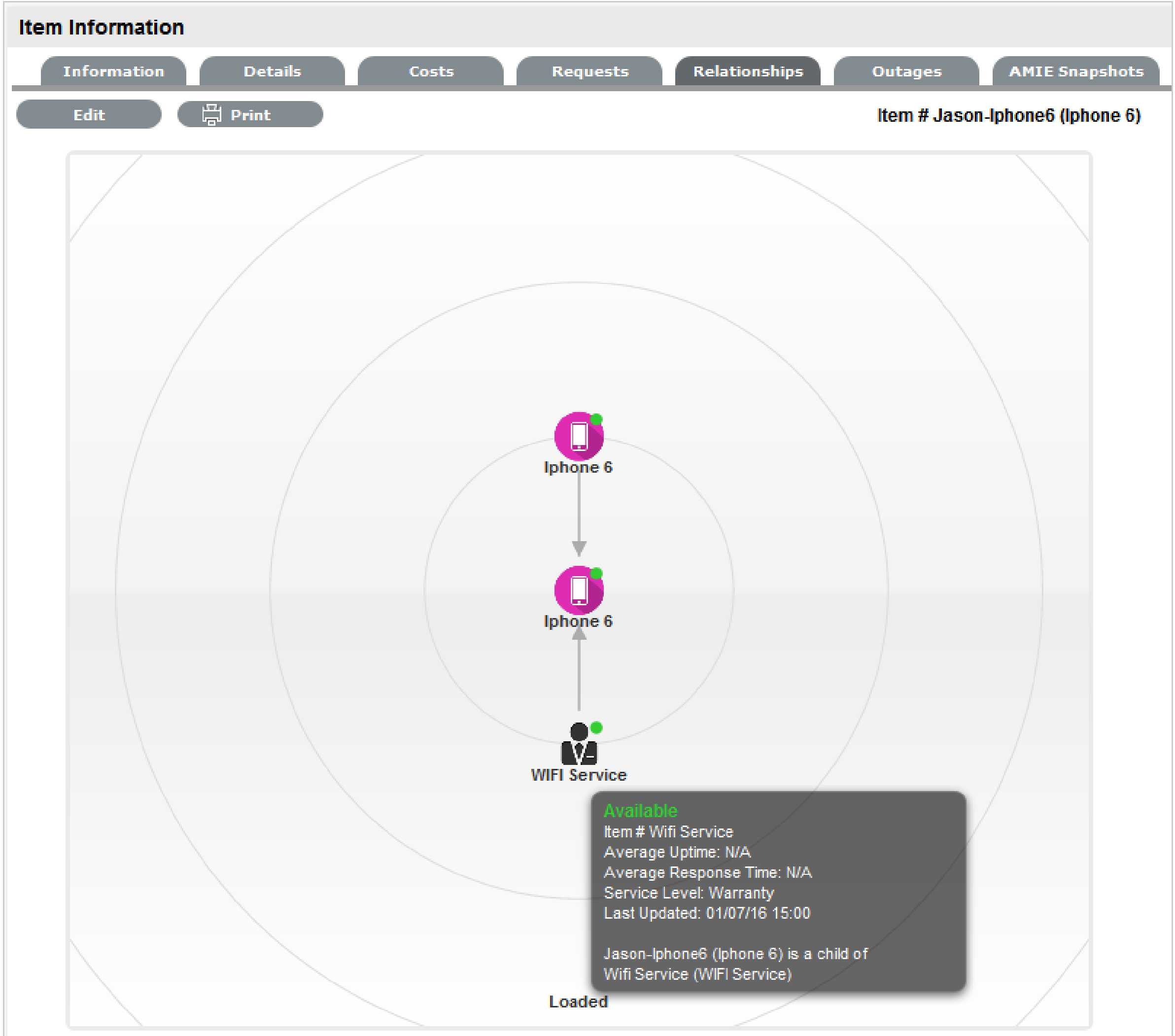
Financial	Description
Cost	The financial investment made to purchase the Item. This figure is also used when the Delegate Costs is enabled for allocating costs across related Items. **NOTE:** Typically for Service Items, the infrastructure costs would be zero as this would be derived from the associated Parent Items.
Monthly Cost	The amount invested on a monthly basis to maintain the running of an Item. This figure is also used when the Delegate Costs option is enabled for allocating costs across related Items.
Usage Unit Cost	This is used as a reference field, where the User can enter base unit cost, for example per Megabyte data charge, which can be used for calculating costs in custom reports.
Purchase Date	The date the Item was purchased.
Depreciate Over	Enter the number of years the Item is to be depreciated over, if required.

Financial	Description
Depreciated Value	The system calculates the current value of the Item based on the Purchase Date and the number of years the Item is to be Depreciated Over.
Audit Date	Set the date the Item is next to be audited.
PO Number	If Purchase Orders are enabled for the system, the field is visible and automatically populated with the PO number generated by a User within the Finance>Purchase Orders tab, when the Item order was recorded in the system.
Charges	
Price (per user)	Draws the figure from the Service Item Type Costs tab and displays this as a daily amount. This figure is then multiplied with the number of Users/Customers assigned to the Item, to calculate the forecasted Revenue.
Cost (per user)	Draws the figure from the Inherited Costs and displays this as a daily amount. This figure is then multiplied with the number of Users/Customers assigned to the Item, to calculate the actual Costs.
Revenue	
Month to Date	Uses the Charges Price figure, multiplied by the number of Users and days of month passed, to calculate the month to date figure.
Previous Month	A reference figure for an average monthly revenue figure, based on the previous month's revenue for the Service Item.
Costs	
Month to Date	Uses the Charges Cost figure, multiplied by the number of Users and days of month passed, to calculate the month to date Cost.
Previous Month	A reference figure for an average monthly cost, based on the previous month's cost for the Service Item.
Inherited Costs	
Inherited Capital	Total infrastructure costs of parent CI's that directly contribute to the cost of the Service Item. This figure is derived from all the Cost fields within the Item Information>Costs tab of related Parent Items.
Inherited Ongoing	Running costs of all associated Items that enable the Service Item to continue to function. This figure is derived from all the Monthly Cost fields within the Item Information>Costs tab of related Parent Items.

Financial	Description
Delegate Costs	To enable cost delegation across the relationship map allowing associated Items to inherit the costs of the current CI, select Yes. This will take the figures from the Cost and Monthly Cost fields for the Item and spread them across related Child Items. Define the technique to be used to evaluate the cost split: *Child Count*:Costs are split by percentage based on the number of child CI's the costs are being delegated across. *User Count*:Costs are split proportionally based on the number of users of the child CI's the costs are being delegated across. *Custom %*: Allows for the % cost to be assigned within the relationship. To do this, within the Service Item Relationships tab, all Items within the defined relationship map must have the same setting and then the Cost Split % can be set within the table included on the Relationships tab by clicking on the 0.00 link. Note, if a N/A link is visible within the Cost Split % column, then that Item does not have the Custom % option selected.
Availability	
Avg Repair Time	Entries displayed here are automatically calculated based on the average length of time an Item is offline.
Avg Time To Fail	Figures displayed here are automatically calculated based on the average time between an Item being moved to an offline State.

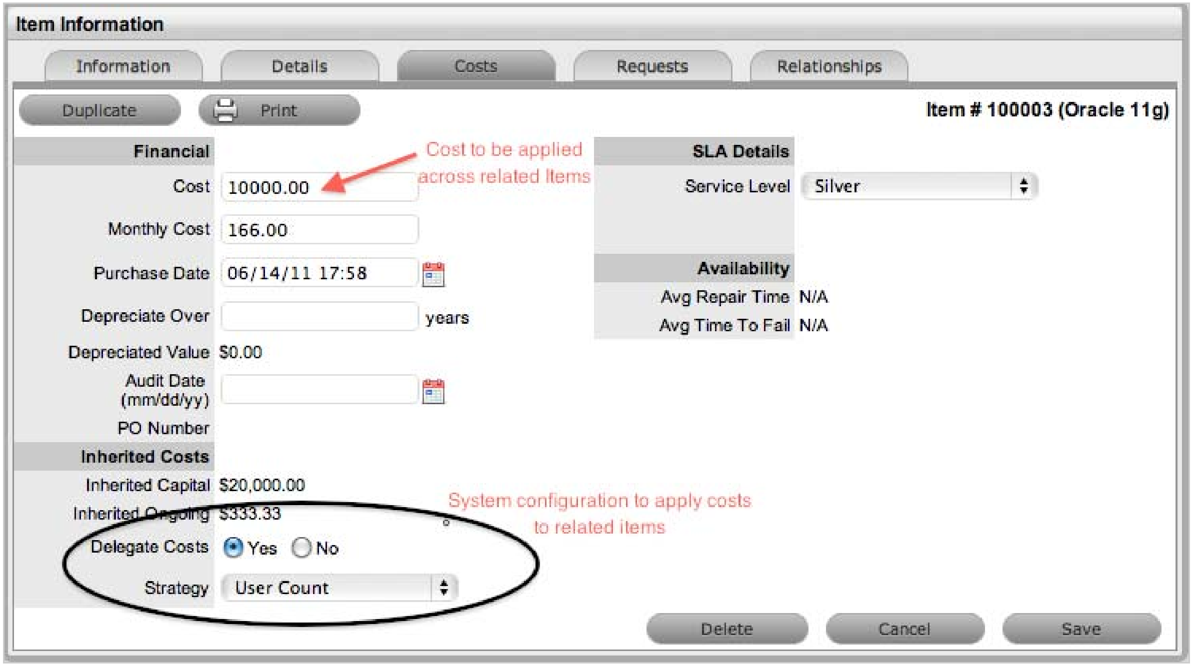
Inherited Costs

Charging Organizational Units appropriately for a Service can be based on figures derived from the Items associated with the Service. For example, the Service Desk is hosted on a server and uses service management software. The costs associated with the server and software are combined to make the Inherited Capital cost, while any ongoing support contracts would be assigned as an Inherited Ongoing cost on a per month basis.

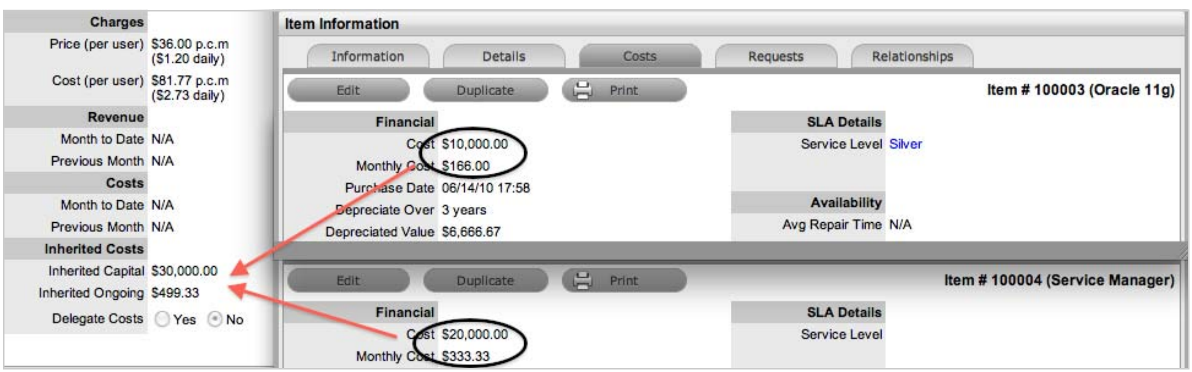


Current Item	Relationship	Related Item	Item #	Identifier	Category
Iphone 6	is a child of	Iphone 6	1000010		BYOD Devices
Iphone 6	is a child of	WIFI Service	Wifi Service		BYOD Devices

To derive the amounts from the related infrastructure and populate the fields within the Child Item, the Delegate Costs field must be enabled within the Inherited Costs for the Parent Items and the technique for deriving the cost must be assigned to the CI.



In the Service Desk example, for the server hosting the Service Desk Service it would be appropriate to delegate costs applying the Child Count technique as multiple software/service CIs may be associated with the server. While, the User Count would be used to delegate costs to the service management software.



After the relationships have been defined for the Service and the Inherited Costs applied, the Finance User can verify the forecast numbers by comparing the Inherited Costs within the Item>Costs tab, to the Capital and Recurring Costs recorded in the Item Types Costs tab. Any disparity between the figures should alert the Finance User as to whether the Service is within budget and if relevant, making or costing money.

Finance Reports

The Finance User can access the following Reports within the Reports>Finance tab, to assist with verifying the cost and revenue generated by a Service, and monitoring how a Service is used.

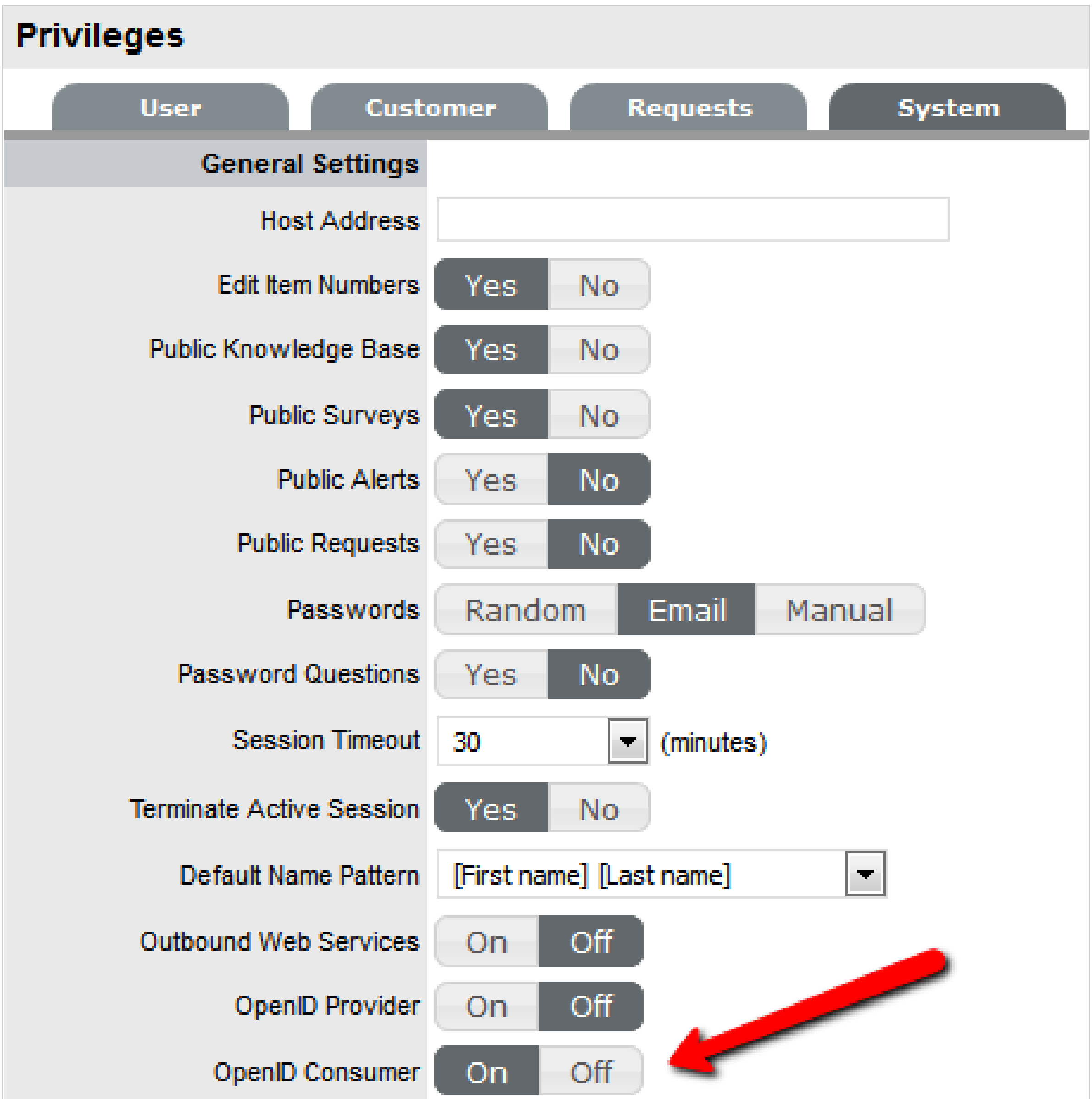
Finance Reports	Description
Service Cost	The cost of providing a Service is calculated nightly and saved, along with the revenue figures, in the ITEM_REVENUE table. The cost of the Service includes all the cost factors and saves a figure each night, per service, per cost centre. This is the sum of these for a Service.
Service Revenue	The price charged for providing a Service is calculated nightly and saved, along with the cost figures in the ITEM_REVENUE table. The price charge for the Service is determined in the cost calculator configured in the Service Item Type.
Total Service Cost	The cost of providing a Service is calculated nightly and saved, along with the revenue figures, in the ITEM_REVENUE table. The cost of a Service includes all the cost factors and saves a figure each night, per service, per cost centre. This is the sum of these across all Services.
Total Service Revenue	The price charged for providing all Services is calculated nightly and saved, along with the cost figures in the ITEM_REVENUE table. The price charge for the Service is determined in the cost calculator configured in the Service Item Types associated with all Services.
Service Consumption	Uses the total number of consumers of a service as recorded in the ITEM_REVENUE table, which is broken down by cost centre, to illustrate how the number of consumers of a service varies over time.

6.17 ZENWorks

Within the ZENWorks tab, the Service Desk can be configured to work seamlessly with the Configuration Management tool. In the first instance, this is achieved by using ZENWorks as the OpenID Provider for authenticating Service Desk Users and Customers. On a day to day basis, the ability to use the Remote Control and Bundle Management capability for the Configuration tool within a request, increases the efficiency of Service Desk Users when managing their workload.

6.17.1 Enabling OpenID for Authentication

To enable authentication of Service Desk Users through ZENWorks, the OpenID Consumer option within **Setup**>**Privileges**>**System** must first be enabled.



Once enabled, configure the ZENworks location details and OpenID information within the **AMIE**>**ZENWorks** tab.

6.17.2 Configuring the ZENworks Primary Server Details in ZENworks Service Desk

To allow ZENworks Service Desk users to use ZENworks Software, Hardware, Bundle, and Remote Management features, or to login to ZENworks Control Center from the ZENworks Service Desk User Interface, you must configure the details of ZENworks Primary Server.

You can use one of the following options:

NOTE: Automatic Configuration is applicable for ZENworks 11.2.3 and higher versions only. For earlier versions of ZENworks, use the Manual Configuration option.

6.17.3 Automatic Configuration

1 In the ZENworks Service Desk user interface, click **Setup** > **ZENworks**.

2 In the **General** tab, specify the ZENworks Server address.

3 Select **Automatic Configuration** to automatically exchange certificates.

4 In the Additional Details for "Getting Started" mode section, specify ZENworks Administrator user credentials to retrieve LDAP and AMIE configuration details.

NOTE:

- The ZENworks Service Desk and ZENworks certificates need to be exchanged to complete the registration process.
- Ensure that the system time is in sync with ZENworks Service Desk and ZENworks Server.

6.17.4 Manual Configuration

1 In the ZENworks Service Desk user interface, click **Setup** > **ZENworks**.

2 In the **General** tab, specify the ZENworks Server address.

3 Select **Manual Configuration**.

4 Click **Download Certificate** and store it on the local drive.

Open ID Settings

1 In the ZENworks Service Desk user interface, click **Setup** > **ZENworks**.

2 Click **OpenId** tab.

3 Read the information displayed in the OpenID Provider panel:

The OpenID Provider panel is displayed only if authentication of Service Desk users through ZENworks has already been enabled. For more information, see Using ZENworks with ZENworks Service Desk .

Name: Displays ZENworks as the OpenID Provider name.

Icon: Displays the ZENworks icon that will be available on the ZENworks Service Desk login page for the Service Desk customers and users accessing Service Desk.

URL: This field is initially blank. It display the OpenID Provider URL that is automatically generated based on the address specified in the **Server Address** option when you click **Save**.

4 Click **Save**.

The **URL** option in the OpenID Provider panel displays the OpenID Provider URL that is automatically generated based on the address specified in the **Server Address** option.

6.17.5 Reset Button

Select the Reset button for the system to generate a new certificate that allows the service desk to communicate with Zenworks. When selected, the system will display an information message providing the location details for downloading the new certificate.

To complete the ZENWorks integration:

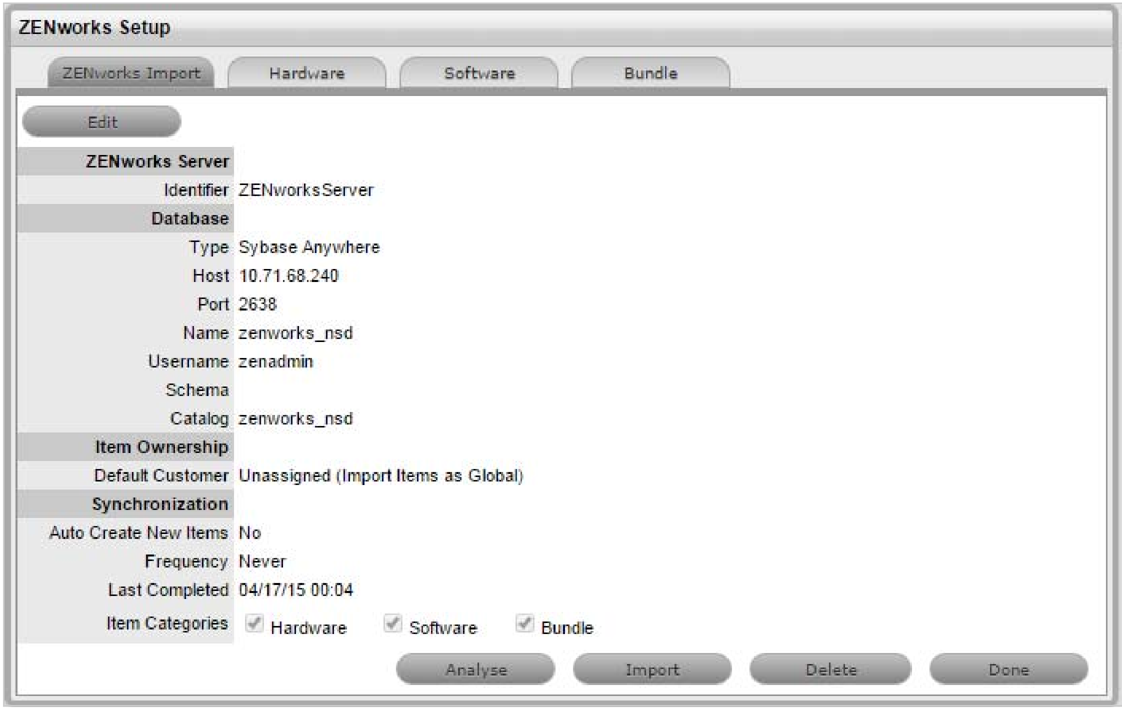
- Import Customer and User details from the eDirectory authentication server
- Import Items using the AMIE and the ZENWorks 11.

When validating account details of Users and Customers accessing the Service Desk, the system will query two locations for unique identifiers:

- Details in the GUID field imported from eDirectory for the Customer or User
- Customer's or User's email address.

6.18 ZENworks Import

Within the ZENworks CMDB import screen, multiple asset management datasources can be synchronized with the service management system.



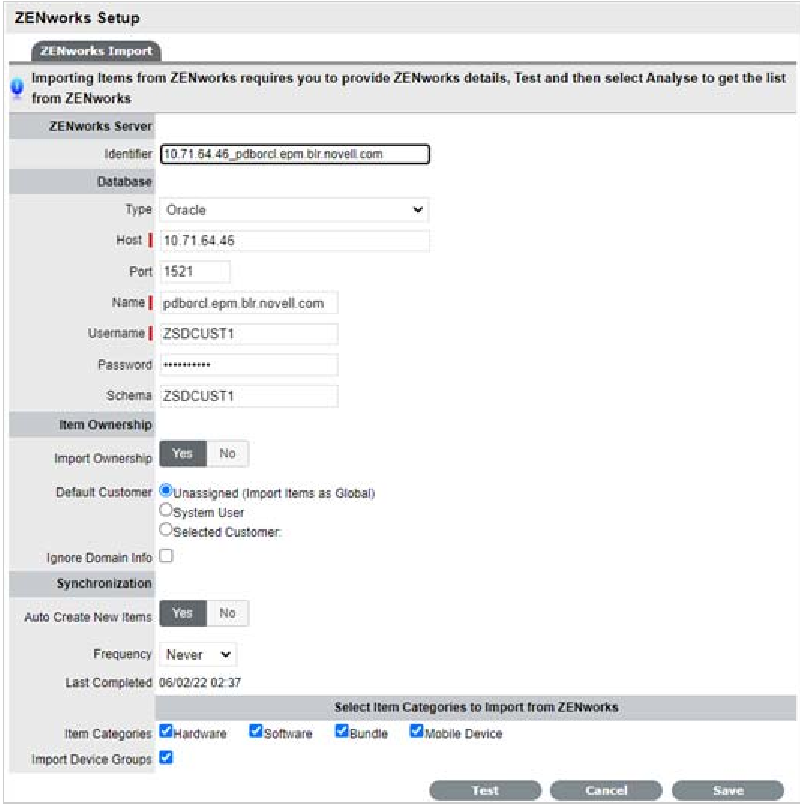
6.18.1 Importing Items from ZENworks

To import Items from ZENworks, do the following:

1. Select **Setup > ZENworks > ZENworks Import**.
2. Click **New**.

   The Server, Database, Ownership, Synchronization, and Item categories fields appear.

NOTE: If you have migrated ZENworks from one database provider to another database provider, then ensure that you review the database details and make the necessary changes.



Configuration

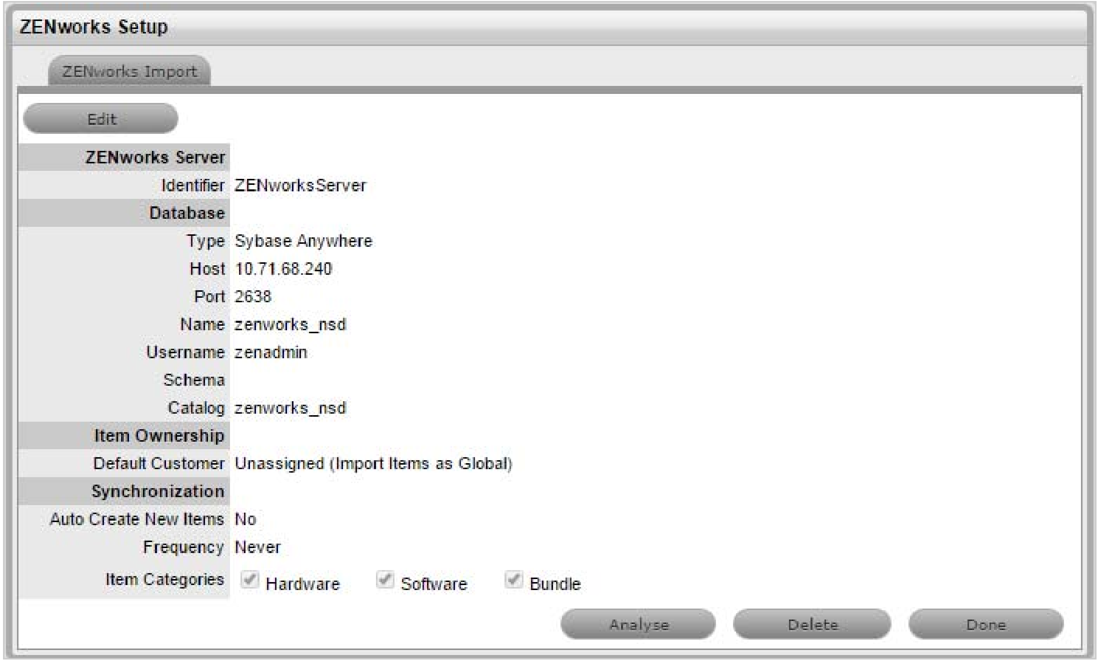
Identifier	An identifying label that is used in List Views to inform Users regarding the Source of an Item.
Server and Database	
Type	Select the ZENworks database Type.
Host	Enter the ZENworks Host name or IP Address.
Port	Enter the Port Number for the database server.
Name	Enter the Database name.
Username	Complete User name details.
Password	Complete Password details.
Schema	Enter the Schema type. For more information, see Importing Assets from ZENworks Configuration Management into ZENworks Service Desk in ZENworks Service Desk System Planning, Deployment, and Best Practices Guide.
Catalog	Enter the Catalog name. Typically this would be the name of the Database. For more information, see Importing Assets from ZENworks Configuration Management into ZENworks Service Desk in ZENworks Service Desk System Planning, Deployment, and Best Practices Guide.

Configuration	
Notification (Only If 'Control CMS via RFC' is enabled)	
Email RFC's to Tech?	Select this option if technicians are to be notified of generated change requests.
Ownership	
Unassigned (Import Items as Global)	Select this option if Items are to be globally owned.
System User	Select this option to assign imported Items to the System User.
Selected Customer	Select this option to assign imported Items to a specific Customer.
Ignore Domain Info	Tick this field if the system is to disregard domain details attached to the User Name inside the AMIE source when assigning an owner.
Synchronization	
Auto Create New Items	This option is only visible when a single AMIE source is defined within AMIE. When enabled, Items are automatically created upon synchronization, relative to the Control CMS via RFC setting within the Setup>Privileges>Requests tab . If disabled, a snapshot of imported asset information is listed within the Super>Configuration>AMIE Snapshots tab.
Frequency	Choose a synchronization interval. This can be left as Never if the database will be synchronized manually. **NOTE:** Synchronization times will vary depending on the connection speed with the external service and the database size.
Item Categories	
Hardware	Select this option if you want to import the hardware details of ZENworks devices.
Software	Select this option if you want to import the software details of ZENworks devices.
Bundle	Select this option if you want to import the ZENworks bundle details.
Mobile Device	Select this option if you want to import the mobile device details from ZENworks.
Import Device Groups	Select this option if you want to import the device groups from ZENworks.

3. Click **Test**, to initiate a connection and test the setup.

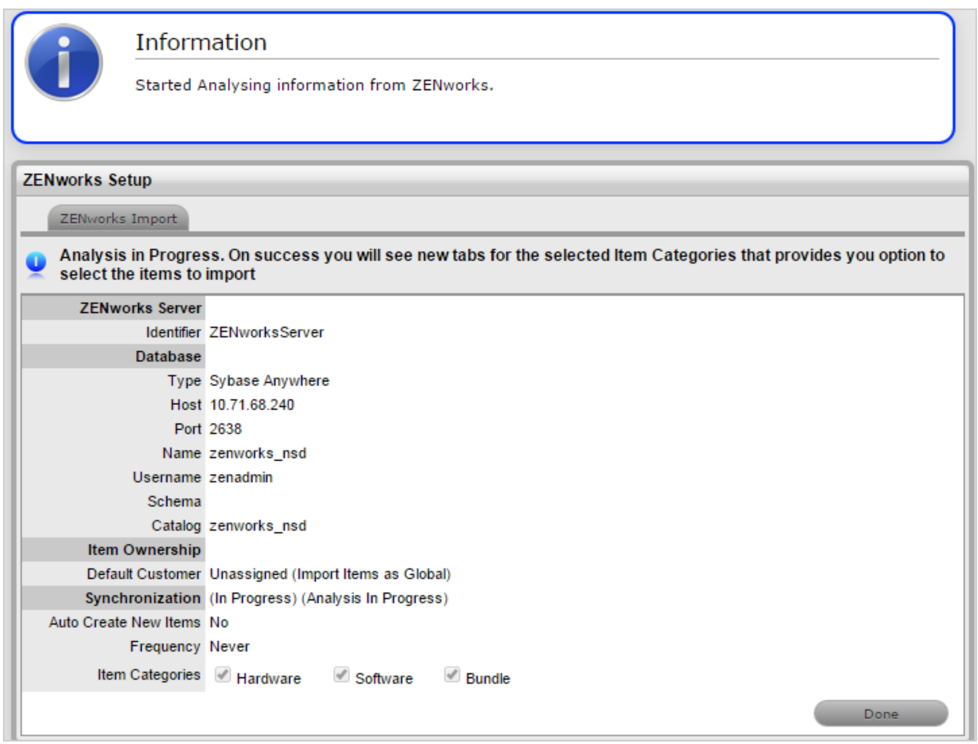
   If a connection is not made, a system message will advise which part of the configuration was not successful.

4. Click **Save**.

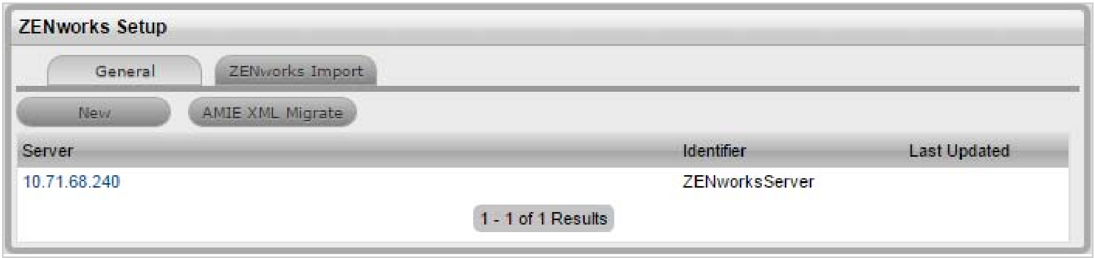


5. Click **Analyze**.

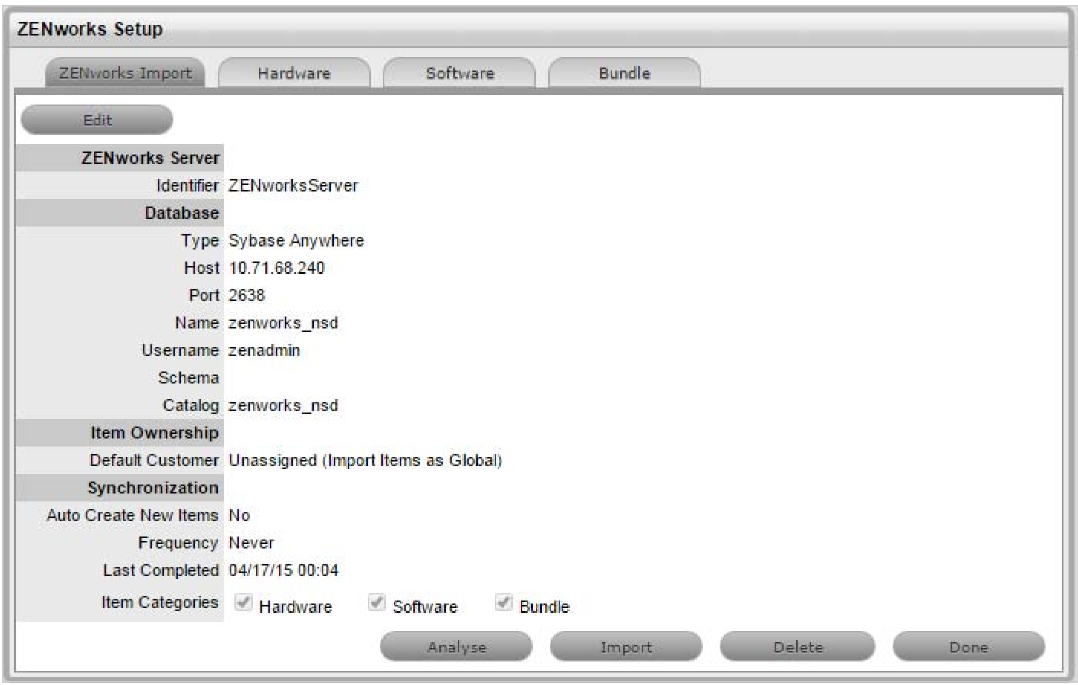
   The System starts analyzing information from ZENworks datasource. This might take several minutes depending on size of datasource and network connection.



After the analysis is complete, the system shall generate an alert with the analysis result.



On successful analysis, you will see tabs for selected Item Categories from Hardware, Software, Bundles and Mobile Device.



6. In each of the item category tabs (Hardware, Software, Bundles, Mobile Device), expand the parent tree.

NOTE: In the Hardware category tab, now you can import and vide Inventoried-only devices.

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7. Click each item.The details are displayed on the right -hand pane.
8. Review the information, and select each individual device folders, groups, software type, and Bundles that you want to import from ZENworks.

NOTE: Selecting the parent folder doesn't select individual items in the folder or subfolders

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9. Specify the Teams for the selected items.
10. Specify if you want the item number to be generated by the system or manually. This option becomes available only if the Edit Item number is set to Yes in Setup >Privileges >System.
11. Select the default state for the imported items.

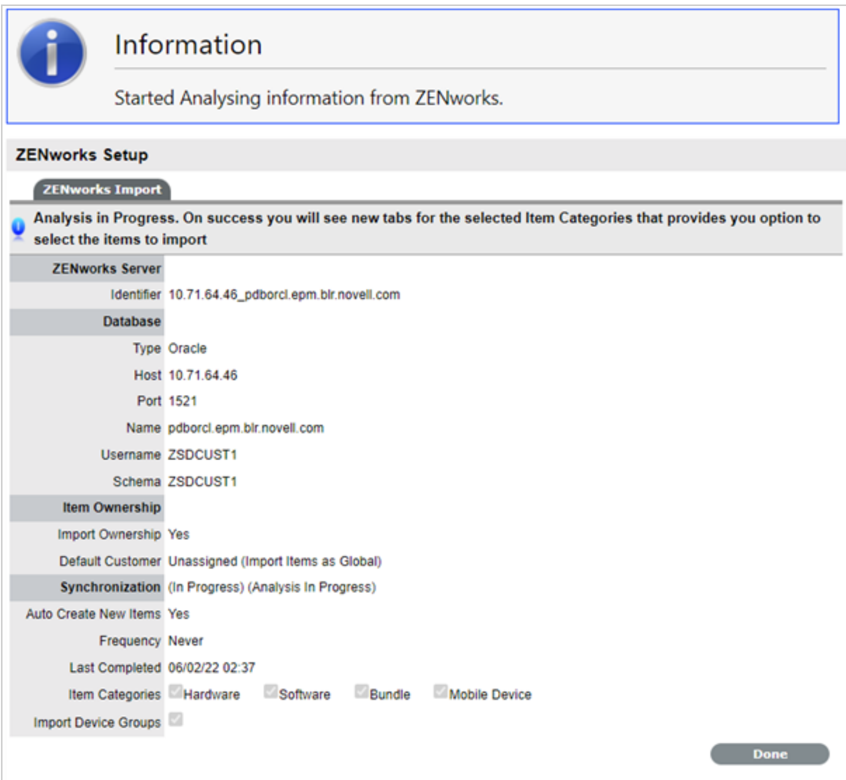
NOTE: It applies only to the newly imported items. Modifying the default state does not change the state of already imported items.

12. For software and bundles, select the Create Relationship with Hardware check box to create relationships after import.
13. Click Apply in each of the Item category tab to save you selections.

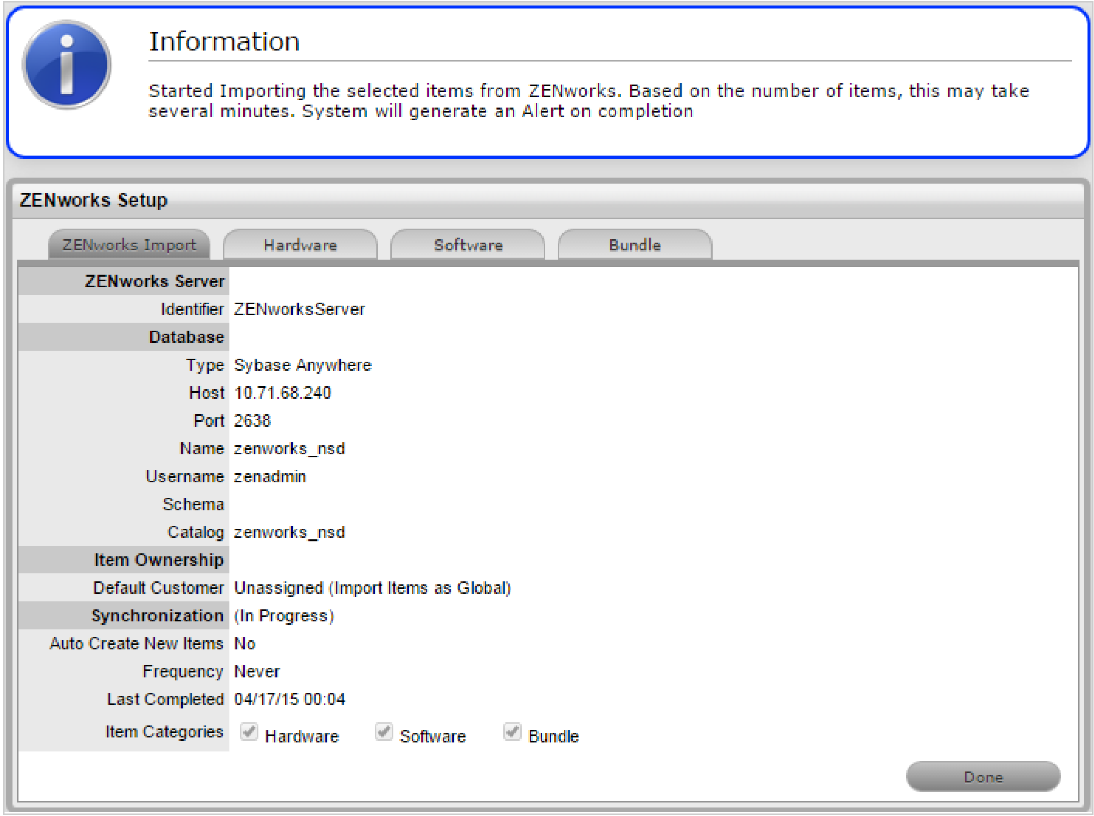
    Based on your requirement, you can enable Item reconciliation to avoid creation of duplicate items. For more information see section Item Reconciliation in Configuration Categories.

NOTE: If there is more than one configuration to the same ZENworks or an older configuration is deleted and a new configuration is created pointing to the same ZENworks, then you might end up with duplicate items, if reconciliation is not enabled or reconciliation criteria is not met.

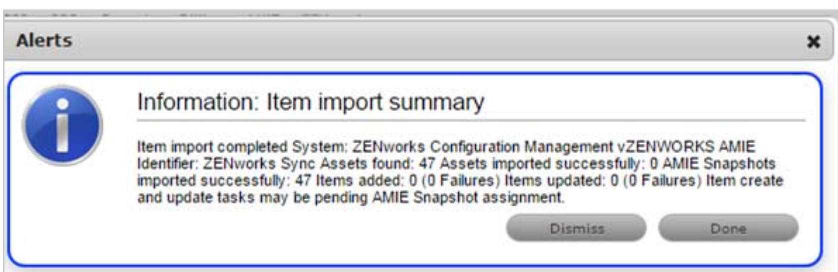
14. Navigate to ZENworks Import tab and click **Import** to start importing the selected items from ZENworks into the CMDB.



The system shows import progress message. The import might take several minutes depending on the number of items selected for import and network connection.



After the Import is complete, an alert appears providing import results.



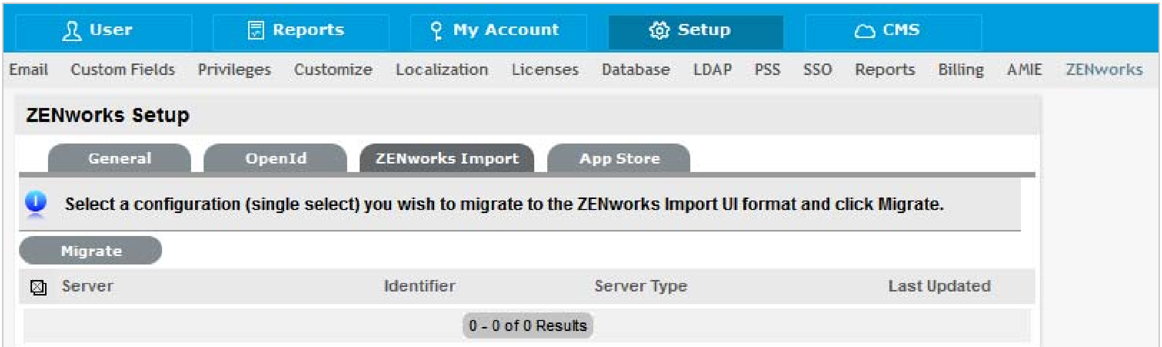
6.18.2 AMIE Import Alert

Alerts are generated for the Admin User after the AMIE synch is completed. The import alert summary displays:

- the details of the system that the synchronization was run against, as it is possible to import from multiple sources.
- the number of assets found in the datasource.
- the number of assets automatically created if a single datasource is configured in AMIE and the auto-create option is enabled; or if the Auto-Create option is disabled and Items already exists in the system, the number of Items that were updated.
- the number of AMIE Snapshots successfully imported, with a breakdown of new Items added and number of Items updated.

6.18.3 AMIE XML Migrate

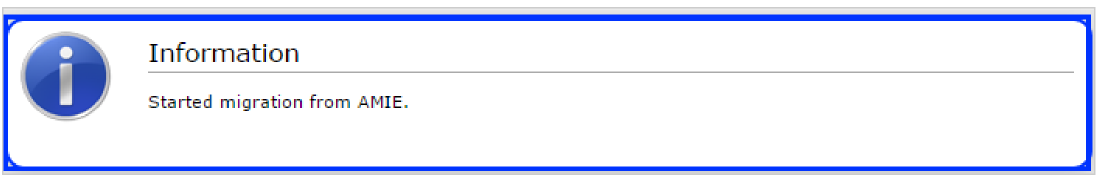
The AMIE XML Migrate option that is available within the ZENworks Import tab enables you to migrate the existing or older, System provided AMIE XML format to the ZENworks UI format.



Migrating the configuration from XML

To migrate the system provided AMIE XML files to ZENworks UI format:

1. Select an XML AMIE configuration you wish to migrate from the displayed list.
2. Click Migrate



NOTE: You can only migrate the System provided AMIE configurations (XML files). You cannot migrate the customized configurations to the ZENworks UI format. It is recommended that you continue to import items from your customized configurations.

You cannot start a migrate if the selected configuration is importing items because it might cause a conflict with the data that is being imported. You can start migrating the configuration only after the Item import is complete.

NOTE: Service desk now uses service name of the Oracle database configured with ZENworks. While using the Oracle database, if you are unable to connect to ZENworks, see ZENworks Core Admin for the service name.

6.18.4 Database Post-migration Steps

If you have migrated ZENworks database from one database provider to another provider, then ensure that you perform the following steps:

- Review the database connection details and update the required changes. Ensure all the entries and connection details are updated based on the new database details. Ensure that you match the exact character cases, as some details might be case sensitive.

- Test the updated connection.
- After successfully connecting to the database, save the changes.
- Restart ZENworks Service Desk service.

  Even if the connection is successful, the import might fail as you need to restart the ZENworks Service Desk service.
- After restarting the service, continue with the item import.

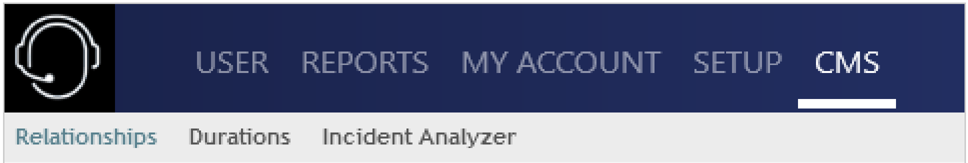
IMPORTANT: Ensure that you do not delete the existing configuration and recreate a new configuration, as this might lead to duplicate items in ZENworks Service Desk.

6.19 Item Reconciliation during item import from ZENworks

Based on your requirement, you can enable Item reconciliation to avoid the creation of duplicate items or to reconcile with an existing item based on certain criteria. For more information see section. For more information see section Item Reconciliation in Configuration Categories.

NOTE: If there is more than one configuration to the same ZENworks or an older configuration is deleted and a new configuration is created pointing to the same ZENworks, then you might end up with duplicate items, if reconciliation is not enabled or reconciliation criteria is not met.

7 Configuration Management System



Within the ITIL framework the Configuration Management System (CMS) includes the Knowledge Management Database (KMDB) and the Configuration Management Database (CMDB). Within the LiveTime CMS tab, the Administrator can define elements that are used within the CMDB, such as the terminology used to describe Item relationships and durations of warranties used by Service Contracts.

It also allows the Administrator to define parameters within Incident Management to implement proactive Problem Management.

NOTE: The CMS tab applies to Service Manager only.

7.1 Relationships

Relationships can be defined between Configuration Items of the CMDB to create a Service Catalog. The Catalog allows Users to assess the impact of a request on the organization. To build a Catalog, the Relationships are defined within the properties of a Configuration Item within Configuration Management.

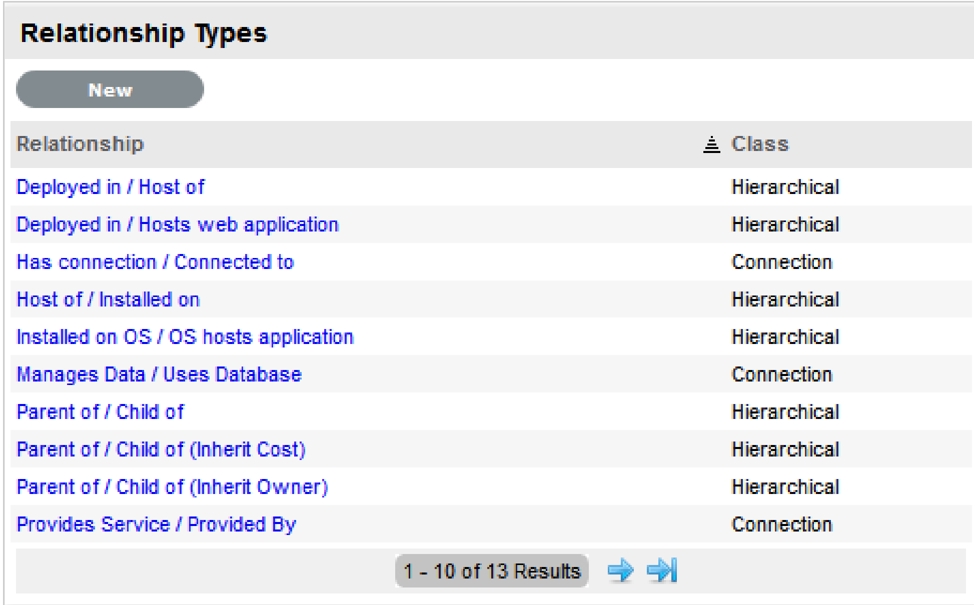
To assist with the building of a CMDB, the Administrator refines the list of Relationship Types available for the Supervisor.

7.1.1 Edit or Create Relationship Types

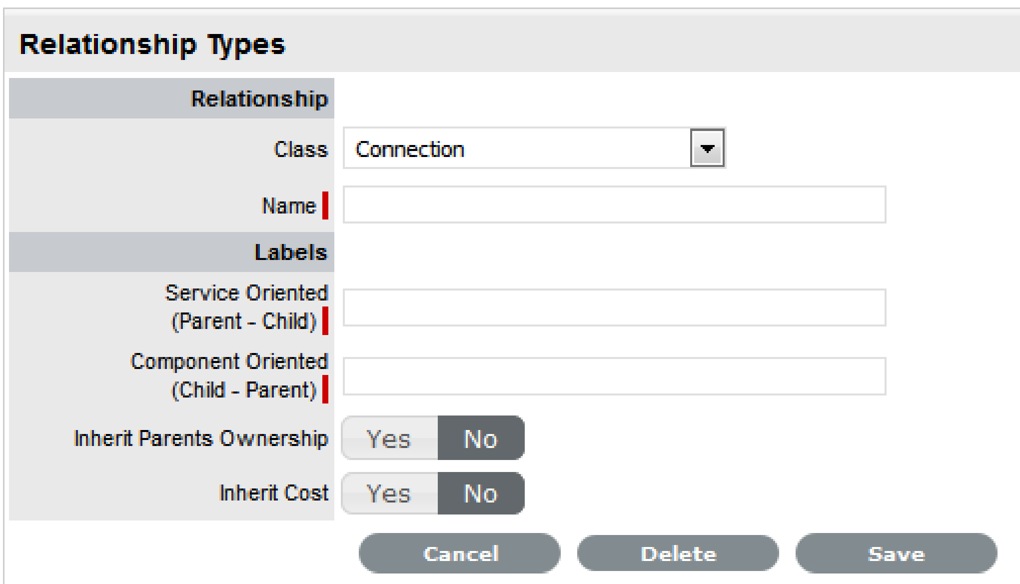
To edit or create a Relationship Type:

1. Select CMS>Relationships

   The Relationship Types screen appears.



2. To edit, click on the Relationship, or, to create a Relationship click New



3. Select the Relationship Class
4. Enter a Name for the relationship
5. Define the Service Oriented and Component Oriented labels
6.

Relationship Types
Relationship

Relationship Types	
Class	Select either a Hierarchical or Connection Class. *Hierarchical* describes ownership, such as a Parent/Child relationship, for example, an operating system hosting an application. *Connection* defines a connection association. For example, an application accessing a database.
Name	Enter a Name that reflects the nature of the relationship for both Component or Service views. For example, component view Name = Deployed in/Host of.
Labels	Each Relationship between Items can be described from a Service Oriented or Component Oriented view.
Service Oriented (Parent-Child)	A Service Oriented view describes relationships top-down with the Service at the top. For example, the Service Email Provision, would be at the top level with relationships between Configuration Items described, ending at an individual User.
Component Oriented (Child-Parent)	A Component Oriented view starts from the bottom up, with the Service being the top layer.
Inherit Parent Ownership	When this option is enabled, Child Items that use this Relationship Type will inherit the Parent Item's owners.
Inherit Cost	When this option is enabled, Child Items that use this Relationship Type will inherit the costs associated with Parent Item.

7. Click Save. *Sample Relationship Labels*
8.

Relationship Class	Relationship Name	Current Item	Relationship Label	Related Item
Service	Host of/Installed on	Application	is host of	Server
Component	Host of/Installed on	Application	is installed on	Server

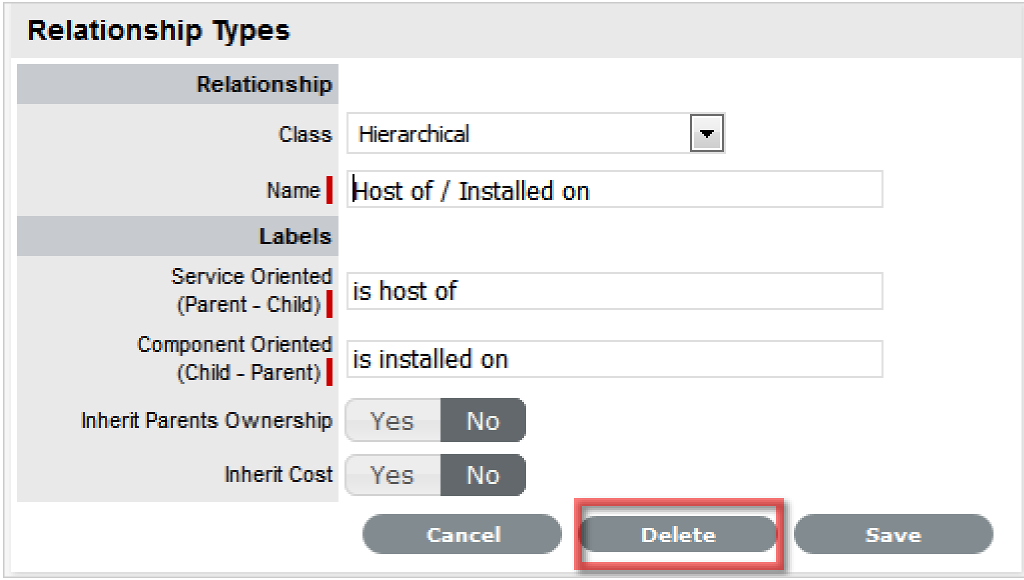
7.1.2 Delete a Relationship Type

To remove an entry on the Relationship Type list:

1. Select CMS>Relationships

   The Relationship Types screen appears.
2. Click on the Relationship link that is to be deleted
3. Select the Delete button

A warning message is displayed.



4. Click OK in the warning message.

7.2 Durations

NOTE: Note, this menu option is only visible when Purchase Orders is enabled in Admin>Setup>Billing.

Note, within the *Help Desk* application this option is found within Supervisor>Service tab.

The Durations menu is used to configure periods of time used for warranty and lease durations. They appear as a drop-down list when a default Warranty Service Level Agreement (SLA) is assigned to an Item Type. The duration selected determines the length of the warranty period.

Within Purchase Orders, the Lease Durations appear when a PO is created for leased Items, to specify the lease period.

Durations

New

Interval Name	Duration (days)
30 days	30
90 days	90
6 months	183
12 months	365
2 years	730
3 years	1095
4 years	1460
5 years	1825

1 - 8 of 8 Results

Within the Duration menu, a number of default durations exist. These can be edited or new durations created.

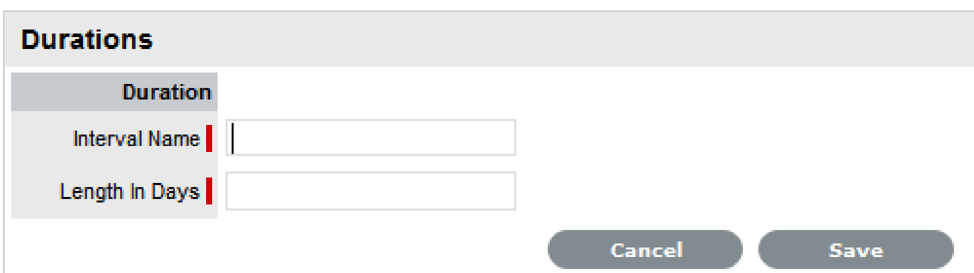
7.2.1 Creating or editing durations

To create or edit durations:

1. Select CMS > Durations

   (In the Help Desk application as a Supervisor select the Service > Durations tab)
2. Select the New button to create a new duration

   Or, click on the duration Interval Name to edit an existing duration. The individual Duration screen appears.



3. Enter the required interval name
4. Define the time period for the Duration
5. Click Save.

7.2.2 Delete a Duration

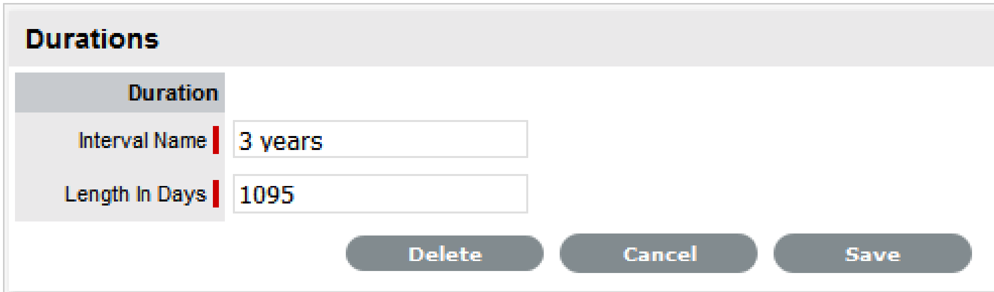
To remove an entry on the Durations list:

1. Select CMS>Durations

   The Durations screen appears.

2. Click on the Duration link that is to be deleted
3. Select the Delete button

   A warning message is displayed.



4. Click OK in the warning message.

7.3 Incident Analyzer

NOTE: Relevant to Organizations with system implementations using Problem Management.

The Incident Analyzer menu is used to set parameters to provide proactive Incident and Problem analysis. The Analysis Engine automates inter-process escalation between the Incident and Problem Processes. It automatically groups similar Incidents into a Problem based on the criteria set in the Incident Analyzer tab. Also, the Analysis Engine is able to retrieve Problems relevant to an Incident and present them for consideration.

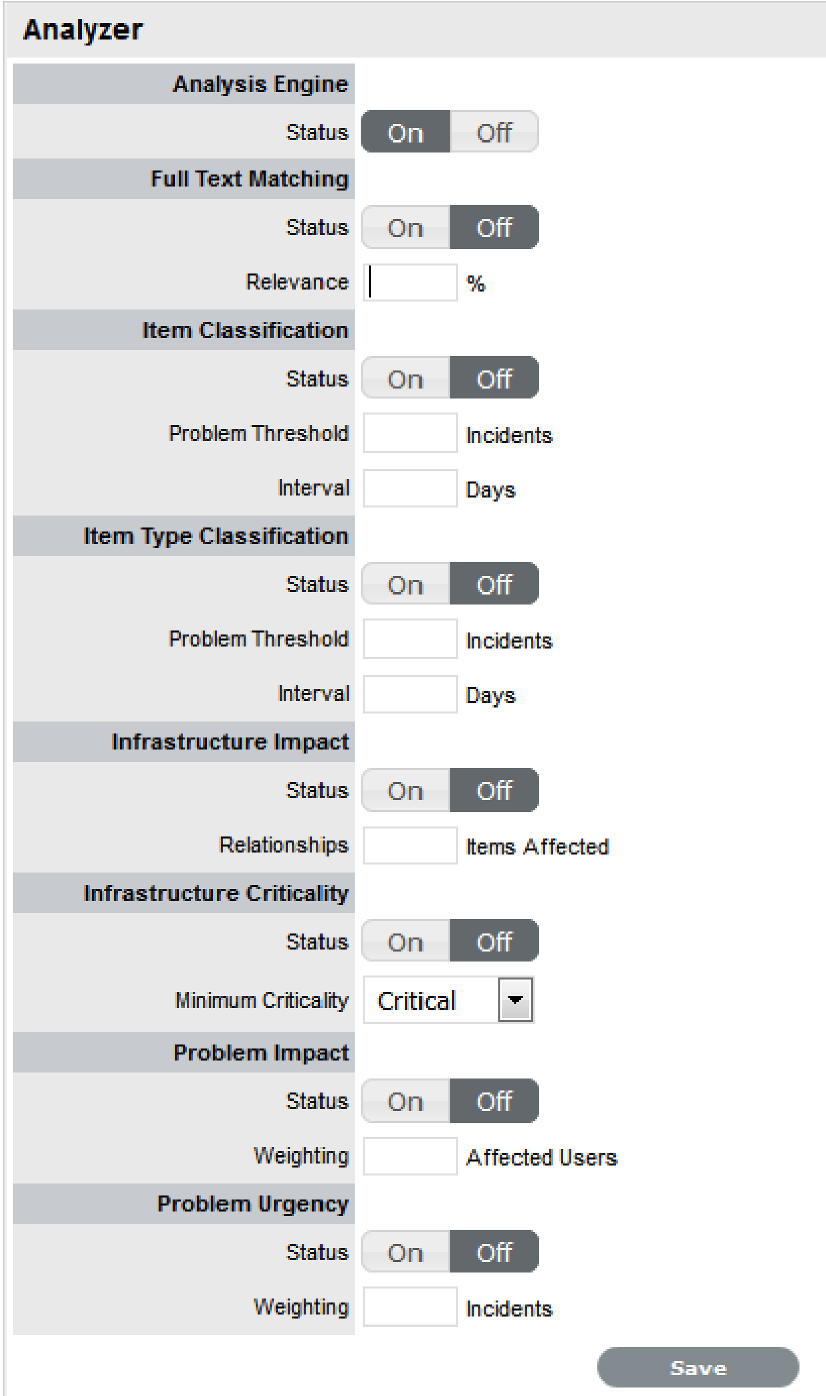
A Problem is used to manage a number of Incidents related to one cause or Incidents associated with highly critical Items. Problems are managed through the Problem Management Process.

7.3.1 Configuring the Incident Analyzer

To configure the Incident Analyzer:

1. Select CMS>Incident Analyzer
2. Click On to enable the Analysis Engine

   The Analyzer screen expands.



3. Enable the relevant Analyzer functions
4. Define the relevant parameters for one or all of the following options:

5.

Field	Description
Full Text Matching	Searches for matching text between Incidents and Problems. We recommend the Relevance percentage be set between 75-80%.
Item Classification	Searches Incidents based on matching the Item and Problem Classifications. If the number of Incidents entered in the Problem Threshold is met within the Time Interval entered, a new Problem will be created.
Item Type Classification	Searches by matching Item Type and Problem Classification of Incidents. If the matching number of incidents in the Problem Threshold for the Time Interval is met, a new Problem is created. **NOTE:** Note: We expect either Item/Classification or Item Type/Classification would be used exclusively.
Infrastructure Impact	Automatically escalates an Incident to a Problem if the number of related Items affected by the Incident is equal to or greater than the value entered here.
Infrastructure Criticality	Automatically escalates an Incident to a Problem if an Incident's Item criticality is equal to or greater than the value selected here. Select the criticality level from the drop-down list.
Problem Impact	Used to calculate the relevant impact rating that is assigned to an auto-created Problem. Multiplying by 4 the number entered in the Weighting field will give the required number of Affected Users for the problem to have the highest Problem Impact of Severe. The system calculates the number of Affected Users on the number of owners attached to an Item. An integer between 1-6 for the Problem Weighting is recommended.

Field	Description
Problem Urgency	Used to calculate the relevant urgency rating that is assigned to an auto-created Problem. Applied when a new Problem is created or an Incident is added to an existing Problem. Multiply by 4 the number entered in the Weighting field to get the required number of current Incidents or Problems for the rating of Urgent to be applied. An integer between 1-4 for Problem Urgency is recommended.

6. Click Save.

8 Troubleshooting

This section provide solutions to the problems you might encounter while using the ZENworks Service Desk.

8.1 Java Heap Space error in ZENworks Service Desk

ZENworks Service Desk is not responding with the java.lang.OutOfMemoryError: Java heap space error.

Workaround: Increase the Maximum Heap Memory.

For more information, see theConfiguring the Maximum Heap Memory Size for ZENworks Service Desk section.

8.2 Delay in displaying the Database Connection Lost message

During upgrade, in case the Database connection is lost or if the database goes down by accident, there may be a slight delay in displaying the connection lost status to the user.

Always ensure that the database and server are up and running. It is recommended not to restart the database while upgrade is in progress.

8.3 No License Installed error message is displayed while accessing ZENworks Service Desk

If the database is down for more than 24 hours, then you try to access ZENworks Service Desk classic portal, No license installed error message is displayed.

Workaround: Start the database server, and then restart the Service Desk services.

A Appendix

A.1 Configuring the Maximum Heap Memory Size for ZENworks Service Desk

To configure the maximum heap memory size for ZENworks Service Desk, perform the following:

1. Stop the Service Desk service.
2. Edit the following line in the servicedesk.server (Location: /etc/init.d):
   - `CATALINA_OPTS="-XX:MaxMetaspaceSize=256m -Xms256m -Xmx2048m -Djava.awt.headless=true"`

     Change the Maximum memory pool(Xmx) from -Xmx2048m to -Xmx<desired memory in MB>m. For example, -Xmx4096m to configure 4GB.
   - Optionally, you can also increase initial memory pool (Xms) from –Xms256m to -Xms512m for additional performance benefit.

   NOTE: Ensure that you reserve enough RAM for the operating system and other processes such as PostgreSQL (in case of internal database) and Appliance web console.
3. Save the changes and start the Service Desk service.

NOTE: If you are upgrading ZENworks Service Desk, then the changes made to the servicedesk.server file will be lost. Ensure that you replicate the same changes in the file after upgrading Service Desk.

A.2 Embedded Support Form

To create requests directly from a website, add the following script, with an amendment to the Protocol and BaseHost details, to the target Web Site Page Source:

<script type="text/javascript" defer="defer">

var protocol = "https://"; // use "http://" if not running ssl

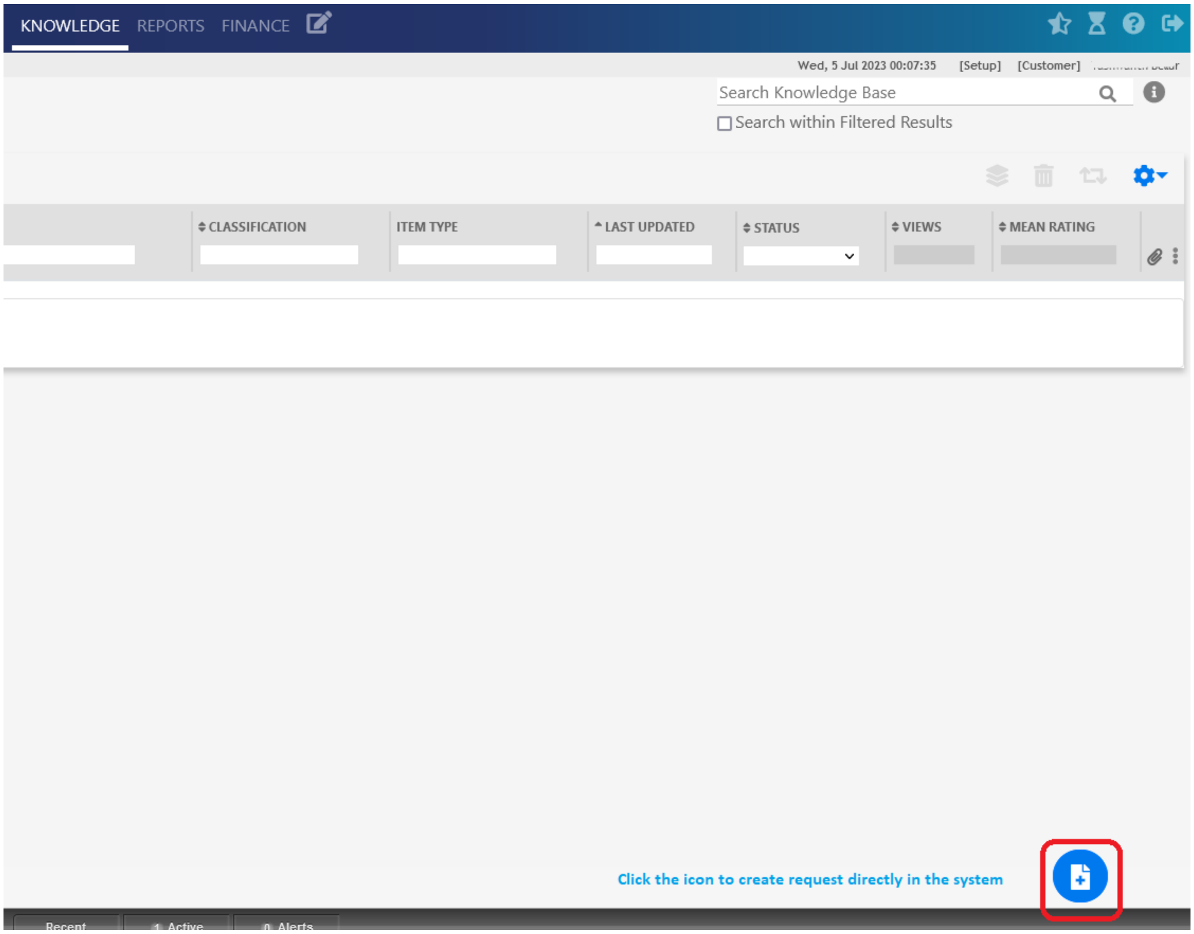
var baseHost = "servicedesk.mycompany.com"; // service desk hostname

document.write(unescape("%3Cscript src='" + protocol + baseHost + "/LiveTime/js/livetime.js' type='text/javascript'%3E%3C/script%3E"));

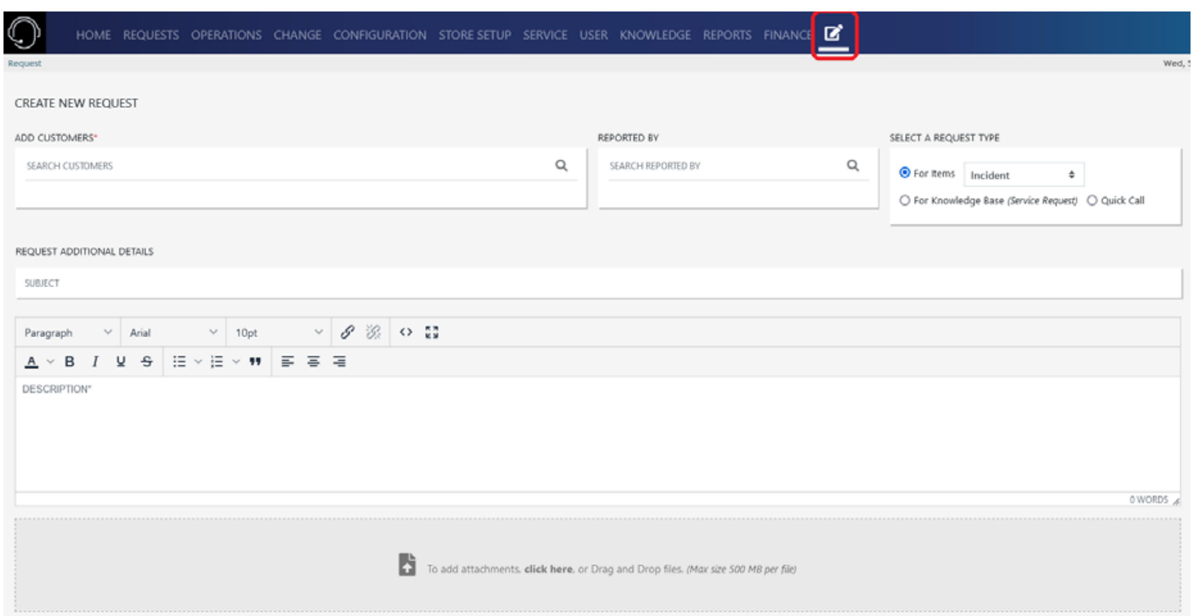
</script>

In the above script, adjust the details for the protocol and baseHost, to those of the server hosting the support system.

The following functionality is now accessible from your designated Web Site:



Request form displayed for completion:



A.3 Email Polling and Request Creation via Email

The Email Polling feature automatically manages incoming support requests via email, helping organizations to respond quickly and efficiently to Customer inquiries and minimizes time-consuming data entry tasks for Technicians.

A.3.1 Email Polling

By itself, the Email Polling feature acts as an auto-responder.

To turn on Email Polling:

1. Log in as Administrator
2. Select Setup>Email
3. Enter the Server Details

   These are the system accounts for the incoming and outgoing mail servers.
4. Within the Setup Tab, select Yes for Email Polling
5. Complete the Interval field

   Specify (in minutes) how long the system should wait between automated scans of the system email account. (At minimum this can be set to 5 minutes.) At the specified interval, the system will automatically scan the inbox of the system email address for messages.
6. Define remaining General, Requests and Notes Settings:

General Settings	
Email Polling	Enable Email Polling to allow the application to check for new email received in the mailbox on the incoming server defined within the Server tab. For new messages that are received, the system will send a message to the sender acknowledging their message. System generated messages are customized within the Setup>Email>Templates tab. **NOTE:** This option will be locked down if the Create via Email option is selected.
Interval	Enter the time period the system will use to check the incoming server for any messages sent to the support system.
Include Banner	Select Yes to include a banner within emails sent from the system. The banner will be derived from: Setup>Customize>Setup>Public Banner.
Email Errors	When enabled, details of any system errors occurring while the application is running will be sent to the development lab.

General Settings	
Copy Type	For emails sent within requests, define if the Technician is to be copied or blind copied the correspondence.
Requests	
Create/Update via Email	Select this option to enable requests to be created from emails addressed to the support system and Team addresses aliased on the email server. **NOTE:** Email Polling will be locked down to Yes when this option is selected and the Accept Anonymous option is displayed.
Accept Anonymous	When enabled, the system will create requests from emails received from email addresses that do not exist in the application's database. (Refer below for more information regarding this setting.)
Notify Alternate Team	When enabled, and if there is more than one Team created for a Process, within the Summary tab of a request the Alternate Team field is displayed. Members of the Alternate Team will be notified relative to the settings defined for the Current Team, and for New Notes, if Technicians is selected in the New Notes screen.
Self Mail	When set to Yes, new Notes created by a Technician or Customer are also sent to them when they save the Note.
Include Request Status	When enabled, the system will include the request Status within the Email Subject line of any correspondence sent from the system, regarding a request.
Include Request Priority	When enabled, the system will include the request Priority within the Email Subject line of any correspondence sent from the system, regarding a request.
Include Request Subject	When enabled, the system will include the content from the Subject line of a request within the Email Subject line of any correspondence sent from the system, regarding a request.
Notes	
Parse Instance Prefix	The Instance prefix is used to process email correspondence from multiple instances. If this is not required, set the option to No.

General Settings	
Default Recipients	Within the new Notes editor of requests, the default email settings can be defined for the recipient groups. Define the groups who are more likely to be sent every New Note created related to a request.
Default Locale	Set the default language file to be used for email correspondence. The option set is applied to the Email Locale field in the Customer and User Information screens and can adjusted on a per account basis, as required. **NOTE:** The content for automated emails sent from the system for languages other than English, is defined within the Localization>Content tab.

7. Click Save
8. Customize the content of emails automatically sent by the system within the Templates tab

   This includes Handshaking (CloseRequest), No Account and Signature Templates. The message prefix used by the system to recognize correspondence related to requests stored in the system can also be edited within the Prefix template.

If the request creation feature is turned off (i.e., the Create Incidents checkbox is not ticked), a reply is automatically emailed to the sender. The email informs the sender that requests are not received via email, and if they want to log a request they are advised to do so via the Customer Portal. The content of the Responder message can be configured by the Administrator in Setup> Email>Templates.

NOTE: Important: Before using the Email Polling feature, ensure that the main system email accounts inbox is empty. Otherwise, any messages in the inbox will be acted upon either with an auto-response message being bounced back to the sender or the system will attempt to create requests for the messages. The action will depend on the application's settings.

Please take special caution if the main system email account is an IMAP account. Unlike POP accounts, messages generally are not removed from an IMAP server's inbox after they are read. This means that failure to clear out the inbox prior to using the Email Polling feature could result in auto-responses being sent to (or requests being created for) every message in the inbox.

A.3.2 Creating requests via Email

If the Create Incidents feature is turned on, the system will attempt to either create a new request or update an existing one each time a message arrives in the system inbox.

To activate this feature:

1. Tick the Create/Update via Email checkbox under Setup>Email>Setup
2. If all Team members are to receive a copy of the notification that a new request has been received, set the Notify Alternate Team option within the Information tab of the Team.

To create a request via email, a Customer with a pre-existing account can simply send an email message describing the issue to the appropriate Team email address (refer to Setting Up Team Aliases, below).

When a new message arrives, the system identifies the Customer by matching the sender's email address against the addresses of Customers registered in the database. If it fails to find a match, an email is bounced back to the sender notifying them that they must create an account before creating requests via email. The content of this message is configured in the No Account field under Setup>Email>Messages.

If a matching Customer account is found, and the address that the email was sent to belongs to an existing Team, a request is created in the system. The body of the email becomes the main text of the request description. Any attachments included with the email will also be attached to the request. The new request is assigned a priority type of Medium, and uses the default Classification - General.

If the Customer only owns a single Item, this Item is automatically assigned to the request and the standard system SLA check of Customer>OrgUnit>Item will be run to verify which SLA should be assigned to the request.

If the Customer owns multiple Items, the system can automatically assign the relevant Item upon request creation if the Customer prefixes the email subject with 'Item #' followed by the Item identification number as recorded in the CMDB. If the Customer has an account in the system and is assigned as an owner of the Item, the system will refer to Relationships and Skills configured in the CMDB, resulting in the request being routed to the most relevant Technician for the job.

NOTE: If you want to create a request against a specific item through an email, the email subject must be prefixed with 'Item #' followed by the Item identification number as recorded in the CMDB in the following format:

1. If Item identification include spaces, use: Item # <`item_identification`>

   Example: Item # <`ZENworks Agent`>

2. If the item identification does not include spaces, use: Item # <`item_identification`> or Item # `item_identification`

   Example: Item # 102345 or Item # <102345>

In the case where the "Item #" is not included in the email subject line,and if the matching Customer is assigned zero or multiple Items, the new request uses the Unknown Item and the system default SLA. It is assigned to the Team or Technician who support the Unknown Item. When the Item is changed from Unknown to a specific Item, the Team or Technician assigned may change based on the Team configured to support the Item. The SLA may also be automatically reset by the system as it applies the SLA derivation logic of Customer>OrgUnit>Item to assign the relevant SLA.

Once the request has been created, an entry is added to the request Audit Trail, stating the request was generated via email. The Customer and the assigned Technician then receive emails notifying them of the request number and details.

A.3.3 Restricted Incoming Email Addresses and Subjects

Incoming email addresses that cannot be processed.

Sender should not have any of the following:

1. postmaster@
2. daemon@
3. noreply@
4. donotreply@

Also Sender should not start with 'no-reply'.

Subject should not contain any of the following:

1. undeliver
2. returned mail
3. mail error
4. autoreply
5. autoresponse
6. no such user found

A.3.4 Monitoring Tools and Request Creation

To automatically create requests from emails sent by monitoring tools, the monitoring tool must be created as a Customer within the system. The email address used by the monitoring tool can be the system default support address or a specific Team address. (See: Setting up Team Aliases below for sending to a Team address.) Once the request is created, an entry is added to the request Audit Trail, stating the request was generated via email. The monitoring tool Customer account and the assigned Technician receive emails notifying them of the request number and details.

If the monitoring tool Customer account is assigned to a single Item, this Item is automatically associated with the request and the standard system SLA check of Customer>OrgUnit>Item will be run to verify which SLA should be assigned to the request.

If the monitoring tool Customer account is associated with multiple Items within the CMDB, the system can automatically assign a specific Item upon request creation if the monitoring tool email prefixes the email subject with ‘Item #’ followed by the Item identification number as recorded in the CMDB. In this situation, if multiple Customers own the Item and if the request is to be associated with a different Customer after the request is created, Technicians can update the Customer details to move it from the monitoring tool Customer account within the Customer tab of the request Summary Tab.

In the case where the “Item #” is not included in the email subject line,and if the matching monitoring tool Customer account is assigned zero or multiple Items, the new request uses the Unknown Item and the system default SLA. It is assigned to the Team or Technician who support the Unknown Item. When the Item is changed from Unknown to a specific Item, the Team or Technician assigned may change based on the Team configured to support the Item. The SLA may also be automatically reset by the system as it applies the SLA derivation logic of Customer>OrgUnit>Item to assign the relevant SLA.

A.3.5 Adding Notes via Email

Managing requests via email is handled by the application sending its initial email with the subject line prefixed by the 'Incident #' or in the case of Change Management, prefixing the RFC subject line with 'Change Request #', followed by a series of numbers that make up the individual request identification number. Customers simply reply to this email and their correspondence is assigned to the relevant request, and any attachments are also uploaded to their request. Technicians can also reply to these emails to update the request, if convenient.

When the Note has been created, an entry is added to the request Audit Trail, indicating that a Note was added via email. The Customer and assigned Technician are then sent emails alerting them to the creation of a new Note.

A.3.6 Setting Up Team Aliases

For an incoming message to result in the successful creation of a request, it must be addressed either to the main system email address or to an email account that is an alias for the main system account and assigned to an existing Incident, Change or Service Request Team.

For example, if your main system email address is support@yourcompany.com and you want to set up three Teams, Team A, Team B and Team C, those three Teams should use email addresses that are aliases for support@yourcompany.com.

- teamA@yourcompany.com should forward messages to support@yourcompany.com
- teamB@yourcompany.com should forward messages to support@yourcompany.com
- teamC@yourcompany.com should forward messages to support@yourcompany.com.

NOTE: Consult the documentation that came with your mail server for information on setting up email aliases.

Using this technique, any message that is sent to teamA@yourcompany.com, teamB@yourcompany.com or teamC@yourcompany.com is automatically forwarded to support@yourcompany.com. The Email Polling mechanism then picks up those messages and responds accordingly. The resulting request is assigned to a Technician within the Team the message was addressed to.

An alternate configuration would involve setting a single Team's email address to the main system address, which by-passes the need for aliases but does not allow the system to funnel requests to specific Teams.

A.3.7 Troubleshooting

If you have trouble setting up or using email polling and creation, keep the following tips in mind:

- For the request creation feature to work properly, both the Email Polling and Create/Update via Email options must be selected under the Admin > Setup > Email > Setup tab
- Only emails sent to the main system address or to an alias that is currently in use by an existing Team can be accepted

* All pertinent information regarding the main system email address and the incoming and outgoing mail servers must be completed correctly
* Ensure the Customer sending the email has a valid email address within the system.

NOTE: Only Incidents, Change and Service Requests can be created via email. If a User attempts to send an email to a Problem Team, a reply email will be forwarded to them informing the User that the email must be sent to an Incident, Change or Service Request Team, for a request to be logged with the system.

A.4 Web Services

The Web Services Interface enables third party applications to interact directly with the service management application in a secure and controlled fashion. The interface is based on the SOAP standard for Web Services. For more information about SOAP Web Services, please see: http://www.w3.org/standards/webofservices/.

The system's Web Services Interface is intended for developers to use to extend the application's accessibility and requires a basic familiarity with Java. For detailed information and instructions, please refer ZENworks Service Desk Developer Resources.

A.5 Internationalization

Internationalization is the process of designing an application so that it can be adapted to various languages and regions without engineering changes. Sometimes the term internationalization is abbreviated as i18n, because there are 18 letters between the first "i" and the last "n."

The system is an internationalized program that has the following characteristics:

* The addition of localized data that allows the same executable to run worldwide
* Textual elements, such as status messages and the GUI component labels, are not hard-coded in the program. Instead they are stored outside the source code and retrieved dynamically
* Support for new languages does not require re-compilation
* Culturally-dependent data, such as dates and currencies, appear in formats that conform to the end user's region and language
* The application can be localized quickly.

Localization is the process of adapting software for a specific region or language by adding locale-specific components and translating text. The term localization is often abbreviated as l10n, because there are 10 letters between the "l" and the "n."

A.5.1 Internationalization

The support system internationalized framework is very intuitive and flexible, which allows Users to localize it for a particular language and character encoding schema.

The primary task of Users performing localization of the application is translating the user interface elements in the external text file - LiveTime.properties.

The following steps are a guide through the localization process. This example assumes French localization of the application and uses the ISO-8859-1 character set.

1. *Ensure the Desktop's Operating System has the appropriate character set installed*

   The localization file and rendering requires the character set to be available for data entry and data presentation.

2. *Ensure the RDBMS is created using the appropriate character set*

   This is required so that French data entry can be successfully saved and retrieved from the database.

3. *Specify the correct character set encoding for the system*

   Edit the 'Properties' file (/CONTAINER_APPS_PATH>/LiveTime/WEB-INF/LiveTime.woa/Contents/Resources folder) and specify the character set to use for presentation to the end user. This character set is sent to the end users to control presentation in both the user interface and outbound email.

4. *Edit the UI strings in the external properties file*

   The 'LiveTime.properties' file (/CONTAINER_APPS_PATH>/LiveTime/WEB-INF/LiveTime.woa/Contents/Resources folder) stores the externalized user interface content. This file is stored in plain text, the default (English) is encoded using the ISO-8859-1 character set. Alternative versions of this file can be created in any text editor that allows the file to be saved in the necessary character set.

The first step in creating a local version of this file is to save a copy of it, representing the appropriate language. For this example of the French translation, there is no need to worry about the file encoding, simply save a copy of the file called 'livetime_fr.properties'

A.5.2 Simple Messages

The copy of this file consists of a collection of name-value pairs, each are broken up into clusters representing user interface components.

For example:

ClassName.greetings=Hello

ClassName.farewell=Goodbye

ClassName.inquiry=How are you?

The 'name' or 'key' section (ClassName.greetings) of these strings is of little relevance to the end user except to note that if they are changed, the system is not able to look them up.

The 'value' component of these pairs (Hello) represents the corresponding user interface value. The (French) translator can safely edit these values and they will appear within the system.

ClassName.greetings=Bonjour.

ClassName.farewell=Au revoir.

ClassName.inquiry=Comment allez-vous?

A.5.3 Compound Messages

Compound messages contain variable data i.e., data that the support system substitutes into a message at run time. For example, given the message ‘Hello Sunshine’, the string Sunshine may vary. This message is difficult to translate because the position of the string in the sentence is not the same in all languages, or alternatively the value may need to be generated by the application based on some business logic.

Where this substitution is necessary, the localized strings have a set of braces containing an id number (a substitution variable). These blocks are replaced at run time by the system and are identified by its presence. The localized version of a given string must contain the same number of substitution variables.

For example:

ClassName.helloSunshine=hello {0}

This will render as “hello sunshine”, however we could modify this message to read “sunshine, hello” by doing this:

ClassName.helloSunshine={0}, hello

1. Edit the Locale Definitions file

   The ‘LiveTimeLocales.xml’ file (/Resource folder) defines the language code and charset used in order to process the strings defined in the external properties file.

Typically, this is the charset used when the external properties file is saved.

By default the following language locale is selected:

<LOCALE language="en" country="" charset="ISO-8859-1"/>

To enable the French external properties file to behave correctly, comment the above line and uncomment the following line:

<LOCALE language="fr" country="" charset="ISO-8859-1"/>

For convenience, many values are already supplied in this file so it is just a matter of uncommenting the necessary entry.

If an entry for the locale language is non-existent, then define it in the file by supplying the language code, country code, and charset, as illustrated in the above examples.

1. File Names.

   The names of the localized files do follow a standard. In the French example, livetime_fr.properties was the resulting file name. The ‘fr’ component of this name comes from iso 639-1.

A.6 AMIE Import

The Item Import menu allows Configuration Items to be imported from an external asset management database using Database Mapping (AMIE) and via a .CSV file.

Database Mapping with the AMIE option can be used with common asset management systems, including:

- Absolute Manage 6.0
- Centennial Discovery 2005, 9
- Express Software Manager 9.0, 9.5
- HP Universal CMDB 8.0
- LANDesk 8.5, 9.0, 9.0 (Hardware)
- LANrev 5.1
- LiveTime Discovery 2005, 2007
- LOGINventory 4.3
- Manage Engine Desktop Central 7.0
- Microsoft SMS Version 2003 SP1
- Microsoft SCCM 2007
- Spiceworks 4.0, 5.0
- ZENworks Asset Management 6.5+
- ZENworks Configuration Management 11.1, 11.1 (Hardware).

If Items have been managed externally, adding them to a .CSV file allows them to be easily imported into the support system.

See Item Import:

- AMIE
- CSV File.