Agiloft ITIL Guide

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ITIL Knowledgebase Guide

This guide describes our out-of-the-box Pink Elephant certified ITIL system.

The ITIL system provides all the functionality to manage a complex IT organization, including Service Request Management, Incident Management, Problem Management, Change Management, Configuration Management, Project Management, and more. Our goal has been to provide ready-to-go, out-of-the-box ITIL-compliant structures and process flows for managing IT services, while enabling complete extensibility to meet the needs of any particular organization.

Information Technology Infrastructure Library (ITIL) is a set of best practices intended to improve IT service while reducing failures and costs. For more information, see the Wikipedia article on ITIL. The actual implementation of any ITIL process is open to a wide range of interpretations. While the basic structure of Service, Incident, Problem, Change, and Configuration Management is likely to be part of any ITIL implementation, the services that fall under each category, the relationship of the Service Catalog to these various processes, the ways requests are structured and managed and many other details will vary widely based on the needs and preferences of a particular organization, as well as the functionality of the particular software program used to implement ITIL.

Companies may implement ITIL along a spectrum moving from simple to complex – from a fairly streamlined, direct approach, to a more controlled approach, with more process steps and approvals required for relatively simple tasks. Based on our years of experience implementing IT service solutions that people actually use, we recommend starting from the simplest approach first, and adding some of the additional features once you are seeing the benefits. For instance, the standard progression for incidents in ITIL moves from one or more incidents to the creation of a problem record in which root cause analysis is done, which may then result in a change request. However, we have designed the system so that if a person has a problem with a printer, it does not necessarily require the creation of an incident, a problem, and a change request, just to get a new ink cartridge installed. However, if you want to follow this more extended process, we have made it as easy as possible – from any record a button can be clicked to create the related records and map field values from the current record. There are no duplicate text entries when creating problems, change requests and incidents.

Since there are so many different ways of implementing ITIL, this documentation provides a detailed guide to how it has been implemented in the out-of-the-box Agiloft ITIL KB. We have pre-built the complex relationships and functions that many companies may want, while attempting to avoid too much complexity for those who prefer a less bulky and more efficient implementation. This is a rather difficult balancing act, and while we have done our best to get it right for the largest number of customers, the real power of the system is in how easy it is to change it to adapt to your company's specific preferences and needs.

We will offer some guidance throughout this document to where to go to make changes to the critical relationships and behavior to suit your needs.

Who Should Read This?

This guide is primarily intended to be used by admin users or system designers who need structural information about the ITIL knowledgebase in order to customize it.

General ITIL Overview

This page describes a few key features of our ITIL system.

Which ITIL Standard do we Use?

Our ITIL out-of-the-box system is based on the standards and terminology defined in the ITIL 2011 Edition library.

Control Active Functions with the ITIL Functions Table

A full-fledged ITIL system includes many complex relationships and handling of the individual components that **may** be included in an ITIL framework. So our out-of-the-box system has many features that not all companies will want to use, such as Operational Level Agreements, Definitive Media Libraries, Underpinning Agreements, a Continual Service Improvement register, configuration item baselines, release management, event management, and so on.

To make it easy to hide or turn off certain features, we have added a table called **ITIL Functions** in the system. This table describes several functional areas in the system and provides an option to turn them on or off. Additionally, it stores notes about additional steps required to hide all the function's related tables and fields, and note for reactivating a disabled function.

If the Function Turned On value is No, then the fields related to that function are mostly hidden from users, while the rules that may run for that function will not meet the condition necessary for them to run. By default, most of the functions are on, with a few exceptions. You may however want to start with just a few functions on, and then add others once you have had some experience with the core functionality. For more details, view the ITIL Functions section.

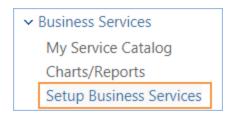
Keep in mind that fields that are visibility controlled by the ITIL functions value will only be shown to a user if that user's group has view access to the relevant "ITIL Function turned on" field in that table.

Time Based Rules Need to be Enabled

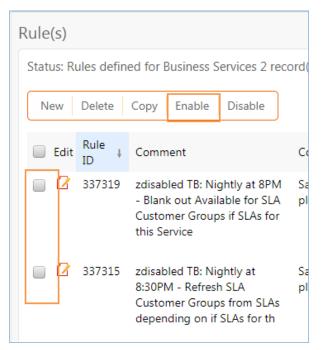
The system comes with over 100 preconfigured time based rules that can run on any frequency, from every 5 minutes to every 10 years. These rules identify service requests or incidents that have gone past their SLA due dates, tasks that are coming due, and much more.

Since there are many parts of the system that a given customer may not use, **we have disabled all these time based rules by default**. As you configure each module of the program to go live, you will need to enable the rules that you want to use.

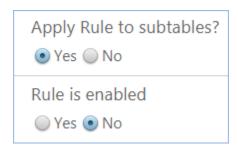
This is easily done from the table setup menu by going to the Rules tab. For instance, suppose you want to turn on time based rules for Business Services. Under the Business Services table in the left pane, click Setup Business Services.



In the table wizard, navigate to the Rules tab. Next, sort rules by the Comment field to find the time based rules that have a z in front of their name, indicating they have been disabled.



Select each rule you want to enable, then click the Enable button in the action bar. That will enable the rules so they start running. Update the name of the rule to remove the zdisabled text - you can also enable each one while editing the name by scrolling to the bottom of the first screen and setting rule is enabled to Yes, then saving the rule.

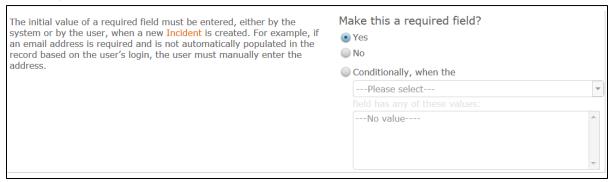


Security Controls

In general, group permissions control what each user can see and do in the system. A user may belong to more than one group to receive a superset of that group's permissions. For detailed documentation of our group permissions and how they work, click Group Permissions Help.

Designating Fields as Mandatory

Yes, any field may be made mandatory. It can be defined as always required, never required, or conditionally required based on the value in another choice-based field. This option appears within the field setup wizard, on the Options tab.



Once fields have been designated as required, how this requirement is displayed is defined globally.

The Required Fields window, located at **Setup > Look and Feel > Required Fields Display**, is a single page that allows you to define how the system displays required fields.

The options selected in the Required Fields window apply to all users, and can be defined separately for User-record fields and for Wizard fields.

Here you can choose:

- Whether to use an asterisk (*) to denote a required field
- Where to position the asterisk
- To use alternate text defined by the administrator with custom HTML
- The color of the required label

Archiving Records

Records may be archived automatically in a variety of ways. The system can run a time based rule to set a flag in records whose Date Closed is greater than some time period, for instance 5 years, and that are not used as standard solutions or knowledgebase articles. It can set an Archived flag to Yes, and that can cause the records to be made invisible to standard users and then deleted on a regular basis, say quarterly or annually, after saving a backup with all archived records.

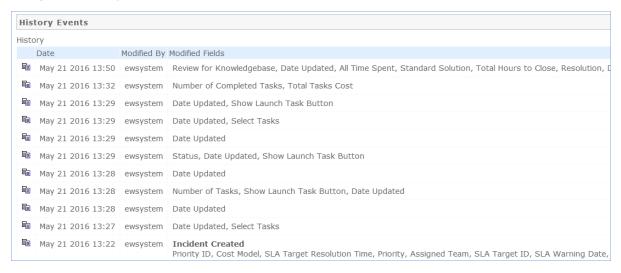
In our out-of-the-box setup, we have added an Archived field for Incidents with a rule to set the value to Yes three years after an incident is closed, provided it is not a standard solution or converted to a knowledgebase article.

Unique Record IDs

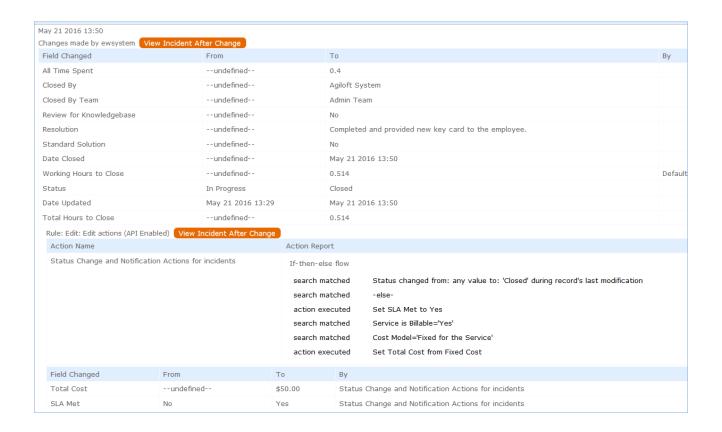
In Agiloft, any record is automatically assigned an ID number that is unique in the table in which it resides. The numbers are incremented by 1 for each record. If a customer requires a more complex numbering system, we can customize the system to add prefixes or other values in addition to the automatically incrementing number.

Audit Trails and the History Field

Each table has a History field that maintains an audit trail of every change made to the record, whether that change is made by a user or a rule action.



You can open any entry for complete change details. The history shows whether changes were made by a user or a rule, and also provides a button, View Incident After Change, to show a snapshot of the state of the record after this change.



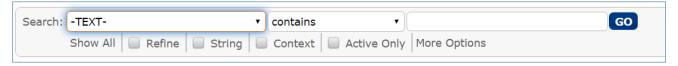
Searching

Any table in the system can be searched. For instance, you may want to find a particular incident, or all contracts of a certain type, or you may be looking for particular text content within an attached file. The quick search block lets you complete *ad hoc* searches, and is used when you don't anticipate running the same search again.

Saved searches let you run the same search repeatedly and are typically used for searches you will need routinely. Saved searches have the added benefit of accepting more complex search criteria and offer more granular search results.

Quick Searches

Quick searches are done from the search block above the table you wish to search. If the search block (screenshot below) is not visible, click Search on the action bar to expand the search block.



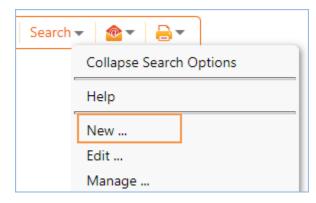
Using the Search Block

- The first input box is a drop-down to indicate which field in the table to search. If the default -TEXT- is selected, all fields will be searched, including the content within any attached files, including .doc, .docx, text, and CSV files as well as OCR'd PDF files.
- The second input box defines the search operator. Different operators are available depending on the type of field selected in the first box. For example, numeric or choice fields offer "greater than" and "less than" operators, but text fields do not.
- In the third input box, enter the value you are searching for.

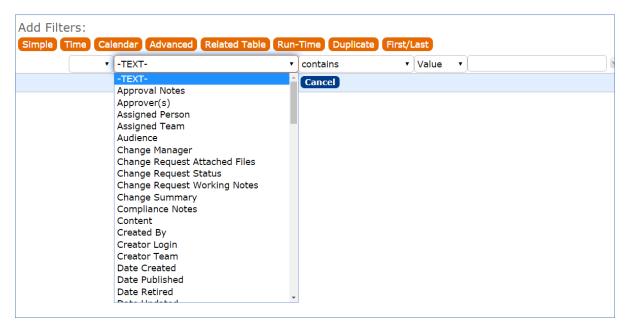
The most common ad hoc searches will look something like "Knowledge Type equals User Guide" or "Incident Summary contains keycard." Quick searches can be performed on related tables using the search function on the associated action bar.

Saved Searches

To create a saved search, hover over the down arrow next to the search item in the action bar and select New.



This opens the saved search wizard, which has options for Simple filters (most commonly used), as well as more advanced options. Click Simple to add a filter.



Just like the quick search above, simple filters let you search any field for a particular value. Again, selecting -TEXT- will search through all available fields within the current table. For more information on the other search types, please see Saved Searches or the online training unit for searching.

Managing Saved Searches

Users in the Admin group, and those with permission to publish saved searches, see an Apply tab in the saved search wizard where they can decide which groups should have the search:

- 1. Accessible
- 2. Active
- 3. Visible in left menu
- 4. Visible in My Assigned

The Apply tab options have the following results:

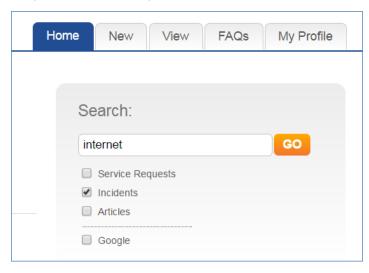
1. Choosing to make a search Accessible gives user the ability to interact with the search in their own Manage Searches wizard.

Each staff, or power user, can adjust where their accessible searches appear by checking the Active, Show in Left Pane, or Show in My Assigned boxes, defined next. This lets users customize where searches appear to tailor the interface to their work preferences.

- 1. Active makes the search appear on the Search drop-down.
- 2. Show in Left Pane adds the search to the left pane, indented below the Table name.
- 3. Show in My Assigned adds the search to the My Assigned section in the left pane.

Additional Searching in the EUI

In the end user interface home page, there is a search block that can be used to search tables to which the user has access. A general internal customer can search service requests, incidents, articles, or can use an integrated search Google.



Groups and Teams

When you begin to customize the system, think about the different types of users and how their role affects the access they need.

Agiloft users belong to *teams* and *groups*. Groups set the level of access to tables, records, and fields. Team settings affect other parts of the interface such as the color scheme, available table views, and the user's default home page. Teams also define working groups of users, and can receive emails that go to every member of the team.

Users in multiple groups receive the superset of those groups' access settings. Users can also belong to multiple teams, but must always have a Primary Team to set important defaults. Groups are time consuming to configure due to the sophistication of the permission options. For easier maintenance, we recommend keeping the number of groups as small as possible.

Terminology

A note about terminology: We use the term **end user** to mean users who access the system through the end user interface, a simplified interface that allows them to create records of any kind, view any records made available to them, edit records defined as their own, and view any FAQs made available to them. These users cannot edit records defined as belonging to other people and they use the unlimited end user license.

We use the expressions "End User" or "Customer" interchangeably in this document to refer to company employees whose main role in the system is to make requests on their own behalf or for someone else (typically their supervisor or supervisee).

We use the term **staff** to indicate the people who are working on other people's issues – they may be solvers, technical support staff, IT staff, approvers, developers, sales reps, managers, or any other types of users who access the system through the staff interface.

"Technician" may also be used to refer to members of the IT organization or other teams that will be responsible for handling, creating, or responding to requests submitted by customers or other technicians.

Both end users and staff users may be employees of your company. Staff users require their own named license or may share a concurrent staff license.

- Groups
- Teams

Groups

This table lists the default groups that have been set up for the ITIL KB and describes the general permissions of each. To see more information about a group's permissions, you can print out or save to a file the full details of that group's permission by going to Setup > Access > Manage Groups, editing the group, and then on the Table tab, mousing over the printer icon to print out the general permissions for the group.

Groups	Туре	General description of access
Admin	Staff	These users can edit the system including rules and workflow, and can view, change and delete all records
Admin Import	Staff	This is a copy of the admin group with some additional create permissions for fields that may need to be set during import, such as date created, date updated, and so on.
Anonymous	Staff	This group is only used to enable unregistered users to click on an email hyperlink sent in an outbound email in order to edit that record. It is used in conjunction with the Anonymous user. If all your users have logins in the system, you will not need this group.
Approver	Staff	This group holds people who can approve Contracts or Change Requests. Approvers will primarily interact with their Approval records, but they can also view change requests for which they are an approver. They may be added to the Change Approval Board or the Emergency Change Approval Board Teams. They can also view and edit Contracts for which they are an approver, and can view tables necessary to approve Contracts such as Steps, Approvals, Approval Templates, and Companies.
Base ServiceDesk	Staff	This group has the base permissions that should apply to all more privileged groups dealing with the Service desk tables. Users in those groups should also be made a member of the Base Servicedesk group. This group has full create/edit access to records in the Service Request, Incident, Problems, and Tasks tables, and create/edit own access to Change Requests and time entries. It has full view access to Configuration Items, Services, Companies, and Employees and can edit its own employee record, but has no other create or edit access in those tables. It can create/edit end user records, but not delete records.
Business Admin	Staff	This is for business administrators of the system who can view and edit all records in most tables. It is one level lower than the system administrators, who are in the admin group.

Change Manager	Staff	This group is responsible for management of Change Request records and has full privileges on the Change Request table. Members can create, edit, and delete records in this table and will typically be Change Managers or Change Owners. They can also create task and approval workflows for Change Requests, and can edit Change Request related services. Change Managers will typically also be on the Change Advisory Board and possibly the Emergency Change Advisory Board Teams. They also have privileges to the configuration items table, where they can edit the status and other elements of configuration items, in order to carry out change requests on those configuration items.
CI Change Creator	Staff	This is a group used by a special script that captures changes to desired fields in Configuration Items, and stores those changes as records in the CI Change Log table. Do not delete if you use this functionality.
Configuration Manager	Staff	This group has full access to the Configuration Item records and is responsible for creating, editing, and deleting those records. People responsible for working on and configuring CIs, managing CI resources, and maintaining the configuration item catalog would typically be in this group. They might also be added to the Service Manager group if they are responsible for setting up change request workflows or services related to CI's.
Contract Creator	End user	For internal employees who can create contracts or contract requests. They can create and edit their own contracts and view all contracts.
Contract Manager	Staff	This group has full access to the Contract table, Approvals table, Steps and Approval Workflow tables, and Companies table. They also have some access to End Users and Employees. They are responsible for creating, editing, and approving contracts for customers or the company.
Contract Owner	Staff	This group has a subset of the Contract Manager permissions. They are responsible for Contracts assigned to them, and have full permissions there, but can only view Contracts that they did not create or were not assigned to. They have all the other permissions necessary to allow them to use Contracts effectively.
Customer	End user	Used only when providing external customer support. Then this group is used for end user customers, who can submit and view their own support cases.
Customer Manager	Staff	Customer Manager – relevant if providing external customer support. Customer managers can view all support cases for their own company.
Guest	End user	This group may be used in hyperlinks to allow creation of new requests of any kind, such as Leads, users, Incidents, without seeing the rest of the user interface. It can also be used by a user to self-register.
Internal customer	End user	Internal Customers are your general employees - they can submit Service Requests and Incidents based on the service catalog, as well as see their own Configuration Items. They can edit some of their profile information and view other employee contact information. They may also access Knowledge FAQs. Most users should be in this group in addition to any other groups they need.

Knowledge Creator	End user	Can create knowledge articles and edit their own records until they are approved. They can also view others' records. This user should also typically be put into the Internal end user group to be able to submit service requests.	
Knowledge Reviewer	Staff	Can edit approvals for knowledge articles for which they are the approver.	
Knowledge Manager	Staff	People who can approve and publish knowledge articles. They are responsible for Knowledge articles, maintenance of knowledge topics, and knowledge subtypes.	
Marketing	Staff	This group is responsible for coordinating and recording information about marketing campaigns and providing quotes to prospective customers. They have full access to: Campaign, Company, Lead, Opportunity, and Product tables. They have some access to Product Quoted, Quote, Tasks, Teams, Time Entry, People: End User, and People: Employee tables.	
Procurement Group	Staff	This group is responsible for managing the Items Requested in service requests that involve purchases and they also have full access to the CI Subtypes and Catalog Items tables. They are generally added to the Base ServiceDesk group as well to be able to resolve the service requests for purchases.	
Sales	Staff	This group is responsible for recording information regarding sales efforts to specific companies as well as Purchase Orders made. They can also create and update Support Case records for the companies they represent. They have full access to: Company, Contract, Lead, Opportunity, and PO tables. Partial access to Campaign, Product, Product Quoted, Project, Quote, Support Case, Tasks, Teams, Time Entry, People: End Users.	
Service Manager	Staff	For staff responsible for maintaining the Service Portfolio (Service table) and the Task Workflows/Templates table. Only the Service Manager group can create new Services.	

Teams

Teams serve a different purpose for customers/end users and for staff users. For end users, unless you need to provide multiple branded interfaces to different sets of users, or expect your end users to access the system in multiple languages, it is simplest to put them all in one team with the word 'customer' in the title, such as Customer Team or Internal Customer Team.

If you need to provide a custom look and feel and customer branding to different sets of users, then you will need a separate customer team to go with each look and feel scheme. Teams can also be associated with a different default language, so it would make sense to have language-based customer teams if you were planning to run the program in a multi-lingual environment.

For staff users, teams are used to identify the functional units to whom records may be assigned. You will want a staff team for each assignment group, sometimes called a Queue. Teams can be hierarchical, so you may set up a hierarchy such that you can send an email to a mid-level team and the members of its subteams will receive the email. Users have one primary team, which defines the look and feel they see and their default table views. They can be members of as many additional teams as needed, so they are CC'd on emails and included in the assignment list for items assignable to those teams.

Teams Table is Special

The Teams table is a system table with some special hard-coded fields, such as the Working Hours and language fields, the team name, label, description, Team Leader, and some screen refresh options.

It also has some custom fields that can be modified, and you can add your own custom fields to the teams table to manage any other information associated with your teams. If you edit the teams table setup, you will only be able to modify the custom fields and their layout options.

Creating new teams and accessing all of their attributes is best done through the **Setup > Access > Manage Teams** screen. Editing just the custom fields and adding users may also be done through the Teams tab on the left toolbar.

A user's primary team defines the default date format shown to the user on all date and date/time field lookups. The options allow a 24 or 12 hour clock and different ordering of month and days:

Time Format:		
Time format separator: ○ Space ○ Character : 		
Display Seconds		
Date Format: Month: • First 3 characters, e.g. Oct All characters, e.g. October 2 digits, e.g. 10 Year: • 4 digits, e.g. 2010		
2 digits, e.g. 10		
Order: Month Day Year Day Month Year Year Month Day		
Date format separator: ● Space ○ None ○ Character		

The default teams have been set up in the format shown above. These options appear on the Formats tab of the team wizard and can be changed to your preferred format. Unfortunately, there is currently no way to mass edit these values for all teams.

Managing Team Membership

Team membership is controlled by two fields in the user record that are linked to the Teams Table: Primary Team (single choice), and Teams (multi-choice). We recommend adding a user's Primary Team to the multi-choice Teams field along with any additional teams. This way a user's entire team membership can be found in a single field, which makes searching and filtering easier.

When you initially import users into the system, you can import their primary team and teams' values, with multiple comma separated values (with no spaces after the commas). Once users are in the system, you may update team membership by editing specific users or by editing the team through the Teams tab, and looking up and importing users for the embedded Primary Team Members or Team Members tables shown for the Team. Looking up and selecting a user for either of these tables changes the linked field in the user's own user record to point to this team.

Default Teams

The teams shown below have been set up as the default teams for the application. You can delete any teams you do not need and you can rename any team to match your own company's naming conventions. You can of course also create any additional teams you need. This is best done by going to **Setup > Access > Manage Teams** and either editing a team or creating a new one there.

	User Teams	Description
--	------------	-------------

1st Level Support Teame	First Level Support Team
2nd Level Support Team	Second Level Support Team
Admin Team	Used for system notifications about rule, email and other errors
Backup and Storage Team	CI Backup and Storage Team
Change Advisory Board	This team holds all members of the Change Advisory Board.
	Subteams may be created for CABs for particular business units or departments as needed.
Change Approver Team	Change Approver Team
Change Management Team	Change Team
Compliance Team	Compliance Team used in contract approvals
Configuration Management Team	CI Team
Contract Management Team	Contract Management Team
Contract Owner Team	For staff contract owners/buyers
Custom Applications Team	CI Software Team
Customer Team	External Customer Team
Database Team	CI Database Team
Desktop Applications Team	CI Desktop and Support Team
Document Creator Team	Document Creator Team for internal end users. If using external users, then change the parent team.
Document Management Team	Team for Document Management
Document Reviewers Team	People who have been identified to review documents.
Emergency Change Advisory Board	This team holds members of the Emergency Change Advisory Board, which is typically a subset of the CAB Team. These members will be called upon to approve emergency changes.
Facilities Team	Facilities support team
Finance Team	Finance team used in contract approvals

HR Team	Human Resources Team. Acts on new employee Service Request Tasks.
Internal Customer Team	Internal Customer Team
Knowledge Team	Knowledge Team for publishing FAQs
Legal Team	Legal Team approves contracts
Marketing Team	Marketing Team
Network Operations Team	CI Network Team
Office Mgmt Team	Office management support team
Professional Services Team	Members of this team are assigned to projects
Project Manager Team	Project Manager Team
Purchasing Team	Purchasing Team
Risk Team	Risk team approves contracts
Sales Team	Sales Team
Security Team	Configuration Item Security and Support and Change Team
Server Team	Configuration Item Server Team
Service Management Team	This is the primary team for Service Managers
System Administration Team	Configuration Item System Administration Team
Vendor Management Team	Vendor Management Team
Vendor Team	Container for external Vendors - used in Contract Management

Special Teams to Manage Schedules and Working Hours

Since teams can have detailed working hours, we have set up a few special "teams" just to hold the sets of hours used to define a set of Support Hours, Availability Schedules, and Maintenance Window schedules. These teams do not have user members, but are linked into SLAs and Business Services and are used to measure SLA and change request results in terms of the amounts of time services were unavailable outside their scheduled maintenance windows. You can modify or add new teams to manage different schedules.

Team	Used For
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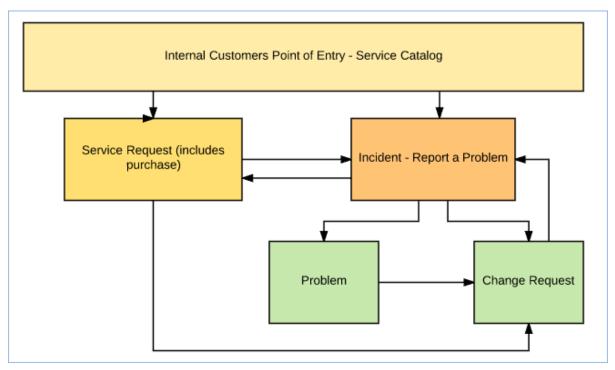
Available: 24 x 7 with maintenance friday 6pm to sun 10pm	This set of hours is used as the availability schedule for moderately critical services
Available: 24 x 7 except Sat. 8pm to midnight	This set of hours is used for more critical services
Available: 6am to 7pm weekdays	This set of hours is used for less time sensitive services
Support: 7 - 7 weekdays	Used for SLA support hours for some silver or gold SLAs
Support: 8 - 5 weekdays	Used for the standard corporate SLAs
Support: 24 x 7	Used for the gold or highest level SLAs for critical services
Maintenance Window: weekdays 7pm to 6am, Sat, and Sun to midnight	Used for low criticality services as the maintenance period for changes
Maintenance Window: Friday 6pm to Sunday 10pm	Used for moderate criticality services
Maintenance Window: Saturday 8pm to midnight	Used for most time-critical services

Request Management Overview

Deciding how to segment the service catalog and what table structure to use for an ITIL implementation can be quite a challenge. The default setup of the service catalog balances the following basic goals:

- Make it easy for end users (the customers) to know where to go to request what they need and to follow up on their requests.
- Make the back-end processing and workflows as simple and clear cut as possible for the technical users and approvers who must process the requests.
- Make the system easy for administrators to understand and maintain so that changes can be implemented for one kind of request without affecting how other records are processed.

The Service Catalog offers services to the end user that may be created in one of two tables: Service Requests or Incidents. From here the requests can easily be grouped into problems or converted into a change request as shown in the diagram. The system is designed to make it easy to push requests from one place to another for further work. For instance, multiple incidents can be linked to a single problem record and a workaround pushed from the problem into the related incidents, automatically emailing the workaround to the customers.



The arrows in the diagram above show the predefined conversion paths a request may take, if a technician believes it is appropriate: a service request can, with a click of a button, generate an Incident or a Change Request, or can be linked to existing incidents or changes. Likewise, an Incident can generate or link to an existing Problem, while a Problem can generate or link to a Change Request. A change request may also cause an incident.

A Problem may be related to multiple Incidents and a Change Request may be related to multiple Problems, Service Requests, and Incidents. Naturally there are also relationships within each of these tables to Users, Teams, Configuration Items, and other essential components of the system.

Available Services and Request Types

Whether or not a particular group of users can request particular services depends on a few things:

- Their group permissions for instance, our default internal end users cannot directly create a Change Request, while technical users can.
- Which SLA Customer group they belong to and which business services and service offerings are included in all SLAs available to that SLA Customer group.

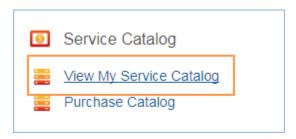
Internal customers will submit Service Requests – which can include the purchase of items – to request a standard service, such as onboarding of a new employee or a request for a new software license. They can submit an Incident to report a problem or an interruption to a business or technical service. If merited, that incident may lead to the creation of a Problem and/or a Change Request by technical staff.

Service Requests, Incidents, and Change Requests may include a set of tasks that need to be completed before the request can be completed. Service Requests and Change Requests can also include approval workflows prior to the work being scheduled.

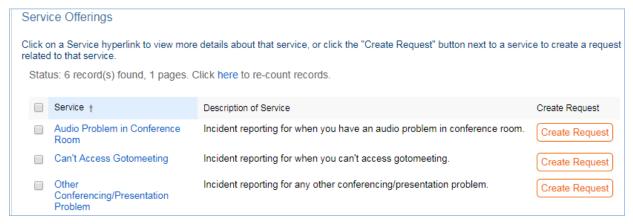
Submission Methods for End Users

The system is designed so that end users can submit a request in one of three ways:

By clicking on a service catalog showing their available services.



They can then choose a business service to drill down to the services included, where they see a button to create the appropriate record for the service:



• Create an Incident or Service Request directly and then choose the appropriate service from the service catalog once in the record.



Select from a configurable set of quick links to create requests for specific services. This lets end users create service requests without the need to know which table is used to store and process the requests.

Quick Links:

- Password Reset
- New Email Account
- New Employee
- Slow Internet

Service Requests vs. Change Requests

For some services, it may be unclear whether they should be offered through a service request or a change request. For instance, account provisioning, employee off-boarding or on-boarding, or simple application changes could go under either category. We like to use the criteria that changes that do not require approval are best handled in the service request table, while those that do require approvals or that require careful scheduling belong in the change request table. Approvals are available to both Service Requests and Change Requests, so the services can be configured accordingly.

SLAs are primarily tied to service requests and incidents, with less weight given to SLA targets for change requests, since changes must often be carefully scheduled during maintenance windows. Thus if you are concerned with measuring turnaround time for standard services, they are generally best handled in service requests.

Service Requests

The Service Requests table holds all customer service requests. A service request (SR) is created when an internal customer needs a new service, a standard preapproved change to an existing service, a password reset, or some other kind of assistance or information. Service requests are also used to request the purchase of equipment, supplies, or new services or software.

When the user needs to report an interruption in service or a problem with an existing service, an incident should be created instead. Agiloft separates service requests from incidents because these two kinds of request have different workflows and resolution criteria. An incident may often require the generation of a Problem and a Change Request, while Service Requests will generally be self-sufficient and straightforward to handle.

The easy way to distinguish Service Requests from Incidents is to recognize that Service Requests are the kinds of things you would select from a service catalog, such as application assistance, password resets, new employee setup, documentation, or copying services.

If a user creates a Service Request when it should have been an Incident, the technician may click the Save Changes and Copy to Incident button on the Related Records tab of the service request form to easily convert that Service Request into an Incident and have all the fields mapped appropriately.

A user creating a service request chooses the business service from a drop-down, and then sees all the active services for that business service in a second drop-down list. The default business services for service requests can be seen in the business services table, or by creating an SR record and opening the drop-down list.

Creating Service Requests

Service Requests (SRs) may be created by telephone support staff or technicians on behalf of customers or by customers directly through the web interface or by inbound email.

End User Record Submission

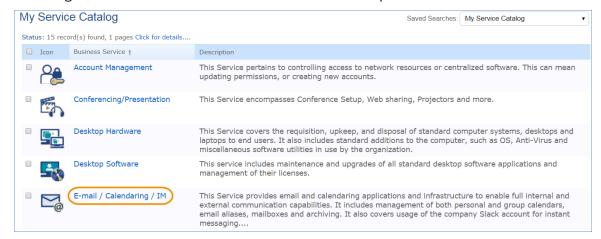
A customer can submit a service request from the default end user interface home page by either:

Clicking on Create a Service Request or hovering over New and selecting Service Request from the home page.



When a service request is created in this way, the user is required to select a service aft er selecting a business service. When the service is selected, the user will see a description of the service, any special instructions for that service, and any additional dependent fields defined to be visible for that service.

- Clicking on View My Service Catalog under the Service Catalog section on the home page.
 - This brings the user to a list of business services with descriptions.



- After selecting one of the business services, the user can choose from a list of relevant services. The services shown, in addition to being filtered to services for the business service item selected, are also limited based on the user's SLA Customer Group. For instance, the user in this example is in the Sales Department SLA Customer Group, and therefore can only view services in which the Available SLA Customer Groups contains the Sales Department.
- The Create Request button can be used to generate a new Service Request or Incident, depending on the Request Type defined for the service.
- If the user clicks Create Request for Set up Email Account, a new service request record opens with the service information prepopulated – the first categorization chosen maps into the Business Service, and the service offering selected maps into the Service.
- Clicking on one of the Quick Links that have been preconfigured to identify the business service and service.

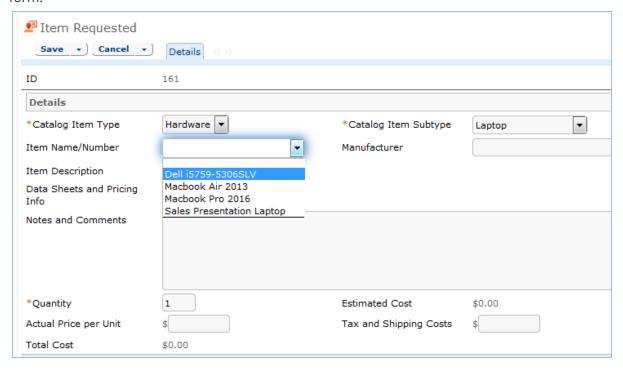
Quick Links:

- Password Reset
- New Email Account
- New Employee
- Slow Internet

When a customer submits a Service Request using any of these methods, the submitter information fields automatically populate based on the details in the user's Person record. In the default setup, a request cannot be submitted on behalf of a user who has no user record in the system. This may be changed by modifying the linked fields from the User table to enable "non-source" values.

Requests involving Purchase

When users submit a request that involves a purchase, they see the Items Requested section at the bottom of the form. To choose the items for the purchase, click the Select Item link to bring up a new item requested form.



To complete the purchase request:

- Select the Type and Subtype. Only those values made accessible in the service record will be selectable, and then look up the available models from the Catalog, shown as the drop-down called Item Name/Number, and select one. After selecting the item, the latest price and an estimated cost are displayed.
- 2. Save the Item Requested form and return to the Service Request. Users can create additional request items if the purchase involves more than one item; for instance, for a new computer, the user could create items for the main processor, the mouse, and the monitor to be ordered. Once the items are created, they are shown in the Service Request screen.



3. Click Save to save the Service Request form, which will send an email acknowledging that the request was received.

Actions on Submission

The system runs the following actions when a new Service Request is submitted.

Automatic Assignment and setting of Priority and SLA Dates.

When a new request is saved, it is automatically assigned to a team based on the values in three fields pulled from other tables. The related service has a Responsible Team associated with it and a field called Give Service Team Priority over CI Team that has Yes/No values. If a Configuration Item was identified for the request, then there is also a CI Responsible Team field that will be populated in the SR.

The current assignment logic is: if the Service Request involves a specific configuration item (CI), then the request is assigned to the responsible team for that CI, unless the Give Service Team Priority over CI Team field is set to Yes. In this case, or if no CI is defined, then it is assigned to the Responsible Team for the Service. If there is no Responsible Team for the Service, then it is assigned to the 1st Level Support Team.

Naturally, this logic may easily be changed to suit your organization. You can simply set a default value such as the 1st Level Support Team or you may choose some other logic to use based on different fields. If technicians need to reassign the Service Request to a different team or person, they simply change the Assigned Team and/or Assigned Person field and the system will email the new assignee notifying them of the reassignment.

In addition, the priority is set based on the Impact and Urgency, and the correct SLA is applied, if SLA's are in use, based on the submitter, the service, and the configuration item, if any. If the request does not require approval first, then the SLA target dates are set based on the SLA and the priority.

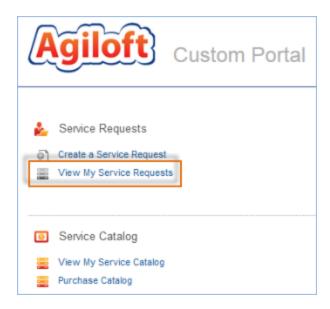
Notifications

When a service request is submitted, if it does not require approval first, a pop-up appears to the submitter stating the SLA target date. For a new request that is not Closed, which can happen when technicians take a phone call, an acknowledgement email is sent to the submitter. If the selected service had a value of Yes in the field "CC Manager", then the submitter's manager is also emailed.

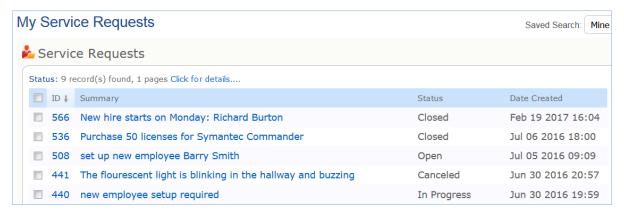
If the assigned person field has a value, that person is emailed, otherwise the assigned team is emailed about the new request. If the request requires approval, they will launch the approval process; otherwise, they will work on completing the request.

Following Progress on Their Requests

Customers may return to the portal to check on the status of their service requests by clicking View My Service Requests on the home page.



They will see all of their Service Requests displayed, and can click the Summary link to view and add more information.



Technician Record Submission

If technicians create the SR, they may choose an assigned team and assigned person from the drop-down fields and the changes will not be overwritten: the rule only assigns the record if the Assigned Team field is empty when the record is saved.

New SRs are created in a Status of Open by default. During creation, a technician may change the Status to In Progress, if they wish to indicate they have already started working on it, or Closed if they were able to resolve the issue immediately and want to capture the request for reporting purposes.

Automatic Email Sent if Request is Closed during Technician Submission

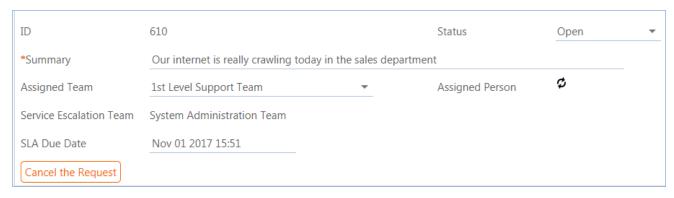
If a Support Staff technician creates a record in a status of Closed, an email is sent to the customer telling them how to reopen the Service Request. This email is sent by a workflow action and is displayed as a checkbox that can be deselected by technician users. This option is set in the table's Workflow, and can be modified.

The Service Request Layout

This section describes the default layout screens and fields for service requests.

Common Area

The common area, shown above all tabs of a service request record, contains the ID, Summary, Status, Assigned Team, Assigned Person, and SLA Due Date for the service request.



- Summary is required and allows the user to briefly describe the request.
- Status defaults to Open and changes as the service request progresses to Pending Approval, Approved, In Progress, Pending Customer, Updated by Customer, Closed, Canceled, and Reopened.
- The Assigned Team and Assigned Person can be entered upon creation manually by a technician; otherwise a rule sets the Assigned Team automatically when the new service request is saved.
- Once the service request is saved, the SLA Due Date populates.
- The common area also has a button to Cancel the Request which appears after the record is saved for the first time.

Details Tab

The Details tab contains information about the user who submitted the request, the service being requested, the request's importance, and notes about the request. The Submitter fields default to the user who created the service request, but can be updated by a technician if the request was created on behalf of another user. Upon submission, the user must choose a Business Service. Based on the Business Service chosen, a list of relevant Services will be available for selection. Alternatively, if the submitter requested the service through the service catalog, these fields will be prepopulated for them.

Impact and Urgency are also required. Upon saving the record, a Priority will be chosen automatically based on the Impact and Urgency. If the Impact or Urgency is changed, the button Set Priority can be used to refresh the Priority field based on the new values. To manually override the priority, Override Priority can be set to Yes. The submitter can enter more details about the request in the Description field. After submitting a service request, the submitter can enter additional notes in the Additional Information field. Any relevant files can be added to the Attached File field.

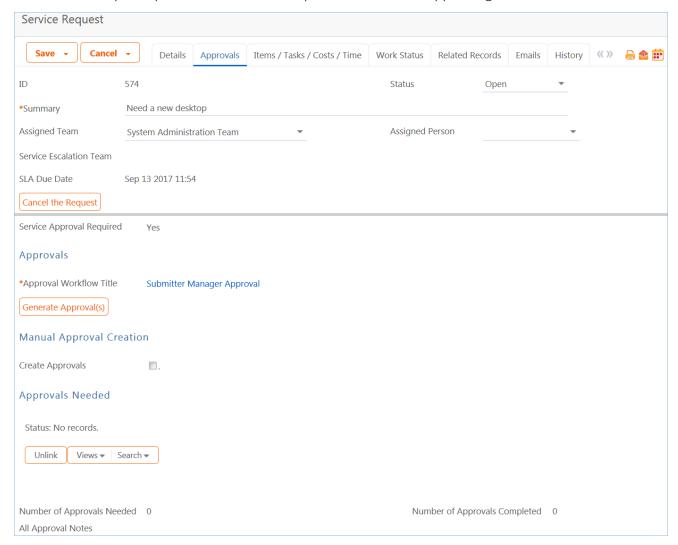
If the service is marked as billable and the Service Cost function is turned on, there are two additional required fields shown above Description:



The list of cost centers available is filtered to those where the Department matches the Submitter's Department. See Cost Centers for more details on this background table.

Approvals Tab

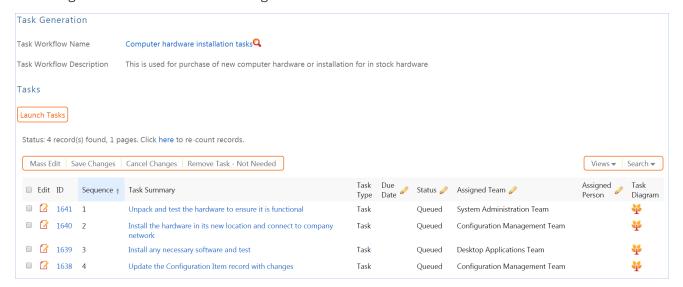
If the service requires approvals, fields on this tab will allow creation, editing, and launching of approval records. Depending on the approval method of the service, either Predefined Workflow Only, Manually Created in Request Only, or Both Options Available, different fields will be available. In the example image, the service is Desktop Computer, which has Both Options Available for approval generation.



A workflow will be selected automatically if the service has a Default Workflow, but may be changed manually by privileged users. The approvals in the workflow are generated for this service request by clicking Generate Approvals. If additional approvals need to be added, the checkbox Create Approvals in the Manual Approval Creation section can be selected, which will make new fields appear. Additional details on approvals can be found in the Managing Approvals section below.

Items, Tasks, Costs, and Time Tabs

If the service for the request is marked as being billable, for instance a Desktop Phone or Headset Purchase, cost information appears on this tab. In addition, if the service involves a purchase, the items that the user has requested will be displayed in the Items Requested for Purchase section. If the service has a task workflow, it can be launched and managed on this tab. For instance, the "Computer hardware installation tasks" workflow contains the following tasks by default: Unpack and test the hardware to ensure it is functional; Install the hardware in its new location and connect to company network; Install any necessary software and test; Update the Configuration Item record with changes.



Based on the Service selected and the Assigned Team for the Tasks, each Task generated in this tab may also be tied to an OLA Target, with a Resolution Time and Resolution Time warning threshold, allowing progress to be tracked against them as needed and notifying the appropriate parties - i.e. Assigned Team Manager - when those thresholds are breached. For more information on OLA Targets, see Service Level Management.

The Items requested for Purchase table shows any items being purchased for this service request. Below the table is an Estimated Cost of Order based on the Estimated Cost of the Item Requested, a Total Cost of Order based on the Actual Price per Unit of the Item Requested, a count of the Number of Items Requested, and a count of the Number of Incomplete Items Requested based on the Items Requested that are not yet installed.

In the Service Cost Information, the Cost Model field is set automatically when new service requests are created to match the Cost Model field in the Service record. The options are Fixed for the Service, Based on Items Purchased, Based on Task Costs, and Based on Time Spent. Depending on the selected option, different fields are visible in the service request. For instance, if the Cost Model is 'Fixed for the Service,' a field for Fixed Cost appears.

If your company tracks the time spent on requests, the fields for entering time spent appear near the bottom of this tab. Users may put in an amount of time and a brief description, and click the Add Time button to generate a time entry linked to the service request.

Work Status Tab and SLA fields

The Work Status tab displays all of the information from the SLA defined for the Service Request based on the user's SLA group. For more information on this, see Service Level Management. The SLA Title is displayed, along with the support hours for the SLA, the SLA Target Response Time, Actual Response Time, SLA Target Resolution Time, SLA Warning Date, and whether or not the SLAs for Response and Resolution were met. If the SLA was breached, a Reason for SLA Breach field becomes visible where the breach can be explained. There are also Staff Working Notes with time stamps, and a Resolution field that can pull from the Known Error database if needed along with an Attached Files field.

Note that these fields will be hidden if you turn off the SLA function in the ITIL Functions table. Also, the SLA targets will be blank for service requests that require approval until the request is approved, at which time the target due dates are calculated.

This tab also includes the main fields used to communicate the resolution to the customer and to communicate with other staff members. The Staff Only Working Notes field is only visible to members of the Base Service Desk group, so customers cannot see the notes in that field.

The Resolution field is used to put in the final resolution that is sent to the customer when the request is set to Closed. There are several other fields that appear below only once the status is set to Closed: the Closure Category, Reason for SLA Breach, if relevant, and the Standard Solution and Review for Knowledgebase fields.

Related Records Tab

If the service request was created from within an incident, that incident is automatically displayed in the Source Incident section.

If the service request should be converted into an incident or change request, buttons here can be used to map information from the service request into the new incident or change request. Clicking Save Changes and Copy to Incident, for example, opens a new incident record with the Summary, Assigned Team, Assigned Person, Submitter Information, Business Service, Description, Configuration Item, Additional Information, Staff Only Notes, and Resolution prepopulated based on the service request. In addition, the incident will automatically show the originating service request in the Source SR fields. Once the new incident is saved, the service request will be automatically updated to show the related incident information.

The same thing applies to converting a service request to a change request. The source SR is shown in the change request and the change request information is linked back to the service request.

If the service request is related to a release, the release can be selected in the Related Release section.

All Service Requests submitted by this user shows any other service requests created by the same Submitter, allowing technicians to compare the current request to previous ones for the same user. At the bottom of this tab, any configuration items assigned to the submitter are also listed in a table.

Processing of Records

This section describes the most common actions a technician will perform when working on a service request. Throughout the process, the technician can enter working notes in the Staff Only Notes field, which is an append-only field not visible to the customer.

Requesting Information from the Submitter

If a technician working on a Service Request needs more information from the customer in order to take further action, set the status to Pending Customer. A workflow action will automatically send an email to the customer requesting further information. The email includes the contents of the Additional Information field on the Details tab, an append-only field used for communicating with the customer. The email includes a link for the customer to open the Service Request directly.

Changing the Assigned Team or Person

Technicians may reassign a request to a different team or a different person. Any time either field is changed, an automatic notification is sent. It is sent to the new assigned person, if there is one and it is not the person who just set it, or to the new team.

Managing Approvals

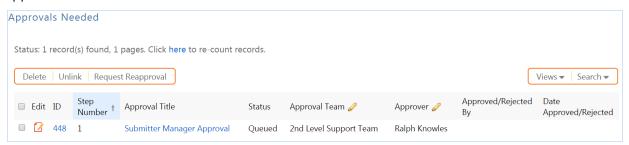
For service requests that need to be approved, approvals are managed in the Approvals tab. All of the approval fields are dependent on the Service Approval Required field having a Yes value. If it has a No value, then no approvals are needed and this tab can be skipped.

The methods available for approval generation for a service request depend on the service. As described in the Service Catalog and Portfolio Services, there are three options for approval generation methods for a service:

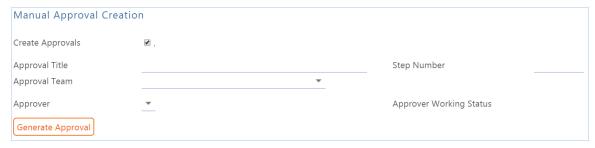
- 1. **Using a predefined workflow**: If a service's Approval Generation Method is Predefined Workflow Only, then the default approval workflow will be shown, with the button to Generate Approval(s).
- 2. **Manually creating approvals within the service request**: If Manually Created in Request Only is selected as the Approval Generation Method, the user will just see the option to Create Approvals in the service request, and will define approvals manually.
- 3. **Both methods can also be available for a service**: If Approval Generation Method is set to Both Options Available, the fields visible for the Predefined Workflow Only method are visible, along with the option to manually create approvals.

If the service for the request allows for a Predefined Workflow, the Approval Workflow Title appears and populates with the Default Workflow for the service. To create approvals based on the workflow:

1. Click Generate Approval(s). Any approvals generated based on the workflow will appear in the table of Approvals Needed below.



- 2. If the service also allows manually created approvals, the user can create additional approvals by selecting the Create Approvals checkbox.
 - a. This causes the 'Manual Approval Creation' section to appear. Enter an Approval Title, give the approval a Step Number, and click Generate Approval.



- b. After clicking Generate Approval, the new approval will be added to the table of Approvals Needed. This process can be repeated to create multiple ad hoc approvals.
- 3. Once all approvals are created, click Launch Approval Process. Launching the approval process sets the approval(s) with the lowest Step Number from Queued to Pending Approval. In addition, an email is sent to the Approver, or the Approval Team.
- 4. Approvers have three options for taking action upon approval records. They can click Approve, Require Changes, or Permanently Reject.
 - a. Approve sets the Status of the approval record to Approved and triggers launching of the approval(s) in the next highest step number, provided there are no other approvals with the same step number waiting to be approved.
 - b. Require Changes results in an email to the Assigned Person of the service request.
 - c. Permanently Reject sets the Status of the approval to Permanently Rejected, sets the Status of the service request to Canceled, sets the Status of any other Queued or Pending approvals for the service request to Not Needed, and triggers an email to the Submitter and Assigned Person for the service request to notify them of the rejection.
- 5. Once the first step approval is approved, the next one(s) in the sequence is set to Pending Approval. Once all approvals are approved, the Status of the service request is set to Approved. SLA timeframes for the service request are then updated, using the date the service request was approved as the start time.

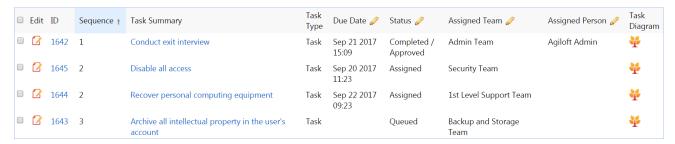
Using Tasks for a Service Request

Some services are defined to have a set of tasks that should be completed. The task method is defined in the service record as described in Tasks for Service Requests. If tasks are associated with the service, they are generated by the technician responsible for the service request when ready, on the Tasks tab. For the user-selected tasks, the Generate Tasks button remains visible in case the user decides to check additional boxes after generating the first tasks. Validation prevents the same tasks from being created a second time for the same service request.

Tasks are created with a status of Queued or Conditional (if the task is marked as a conditional task, that is, the task is only needed if some particular field condition is met, defined in the task template). A rule running on creation handles assignment. Once the tasks have been generated, the Launch Tasks button becomes visible.

When the Launch Tasks button is clicked, all tasks that have no prerequisite tasks are set to a Status of Assigned, and the assigned team or person is notified with an email. The Date Due and OLA Target dates (if OLAs are used) are set to start the clock from when a task is assigned.

Below is an example of tasks for a service request that were generated from a task workflow in which two of the tasks have prerequisite tasks:



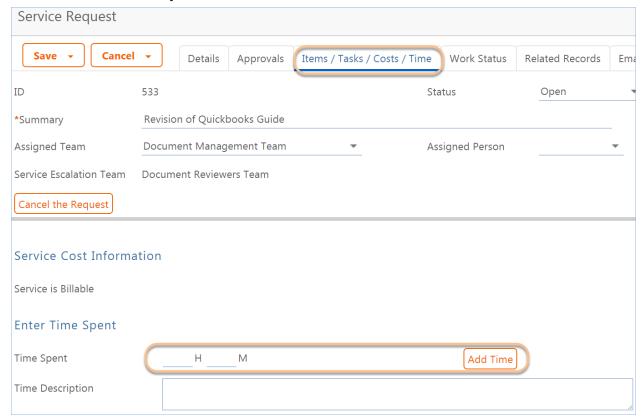
The Sequence field indicates the general sequence of tasks. If all the tasks have a Sequence value of 1, this indicates that they are likely all parallel tasks triggered at the same time. If a task has one or more prerequisite tasks, its sequence value is automatically set to the highest sequence value of its prerequisite tasks plus 1. So if a task has prerequisites whose Sequence values are 1 and 4, it will be set to 5. This numbering does not "do anything", it is just descriptive of the general order in which the tasks are expected to be done.

If there are tasks that have prerequisite tasks, those tasks remain in the Queued or Conditional status until all of their prerequisites are completed, at which point any conditions are checked (for the conditional tasks) and the status is set to Assigned or Not Needed (if the condition for a conditional task is not met). In the example above, the last task is Queued waiting for its preceding tasks to be completed. The two sequence 2 tasks were assigned at the same time, since their sequence 1 prerequisite task was Completed/Approved.

When tasks are used, two fields track the number of tasks and the number of completed tasks - those with a terminal status. When these two fields match, meaning that the final task has been completed, a rule notifies the assigned person or assigned team (if no assigned person) that the final task is done.

Reporting Time Spent

Technicians may easily report the time they spend on handling service requests. There are two fields: Time Spent and Time Description, and an action button: Add Time, on the Time tab of the layout. Entering values there will automatically create a new time entry record when the Add Time button is clicked. The time entry will show the work done by the technician and on the current date.



All the time entries for a request can be seen on the Time tab as well. If a technician needs to report time that was spent on a different day or by a different user, click the New button on the Time spent table to submit a time entry directly and change the date or "Done by" field. All time entered is totaled in the All Time Spent field, which can be used in reporting or billing.

The Add Time action button converts the time fields into a Time Entry record and then blanks out the current values so they will be empty. Note that this same time entry methodology is used in the Incident, Problem, Change Request, and Task tables. So time spent on each type of request will be held in a single table (Time Entries) from which reports may easily be run for all kinds of time.

Canceling Requests

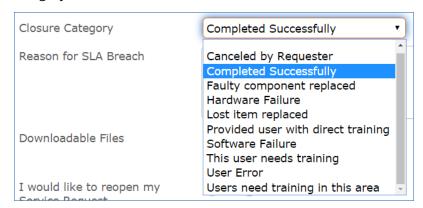
At any point after creation of a service request, a user can cancel their own requests by clicking the Cancel the Request button in the common area. After clicking Cancel the Request, users must confirm the cancellation in a new pop-up window. If confirmed, the service request's status will change to Canceled, any pending approvals for the request will be marked as Not Needed, any open tasks will be set to Not Needed, and any items requested will be marked Canceled.

Closing Requests

When the service request is resolved, the technician sets the Status field to Closed and enters the solution notes into the Resolution field. If a similar incident has been resolved and marked as a standard solution, a technician can click on the lookup icon next to the Resolution field:



This opens a new window. Use the search bar at the top to look for the most relevant service requests. If a service request with a similar resolution exists, technicians use the Import/Replace button to copy the service request's Resolution into the current service request. The standard resolution can be modified further if needed. The technician can also select a Closure Category, which is used for reporting. The options for Closure Category are:



The closure category table holds these values, and they can be modified to match your company's needs.

When a service request is marked as Closed, fields in the Knowledge Management section appear, provided that this function is turned on. Standard Solution can be set to Yes when the service request is common or has a resolution that might apply to future service requests. Once Standard Solution is Yes, the Resolution in this service request can be selected and pulled into new service requests' Resolution fields using the lookup icon next to the field.

Setting Review for Knowlegebase? to Yes indicates that a knowledge article will be created based on this service request. Once Review for Knowledgebase? is Yes, the Knowledge Document Status and Create Knowledge Article fields are visible. The default value of Knowledge Document Status is Pending Review, and once Create Knowledge Article is clicked, the Knowledge Document Status is automatically updated to Created. If it turns out the knowledge article is not necessary, change the Knowledge Document Status to Not Needed. Clicking Create Knowledge Article opens a new knowledge article record with some information mapped from the service request, such as the Title, Purpose, and Content. Additional required fields must be populated before saving the record. Once the new knowledge article is saved, it is automatically linked back to the originating service request. In addition, the knowledge article will automatically include details from the source service request.

Closing a service request triggers a workflow email to the customer that includes the content of the Resolution field and tells the customer that the request has been completed.

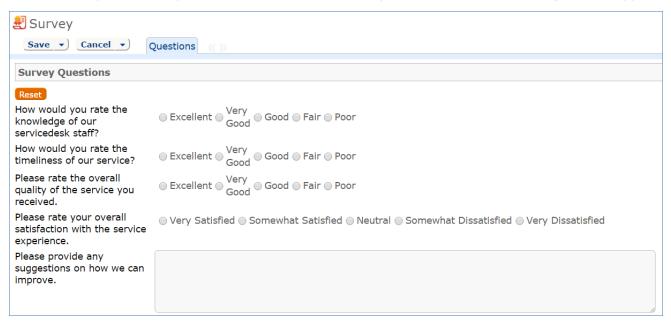
Customer Updates

If the customer updates the Service Request at any point, an email notifies the assigned person or assigned team (if there is no assigned person) of the update.

When the customer replies to an email or edits a Service Request in a status of Pending Customer, the status changes to Updated by Customer and an email notifies the assigned person or the assigned team (if assigned person is empty) that the customer has replied. The customer is able to update the Additional Notes field directly, and email replies are mapped to that same field.

The email sent to customers when their ticket is closed includes a link back to the record if they wish to reopen it and instructs them to explain why they are not satisfied with the solution. Clicking the link will automatically change the "I Would Like To Reopen My Service Request" field to Yes, which in turn sets the status of the service request to Reopened and notifies the assigned person. It also increments the # of Times Reopened by 1.

Customers may alternatively be sent a link to submit a survey, in which case the following window appears:



Once the survey is saved it is added to the Surveys table where it can be included in reports and used to inform service improvement plans.

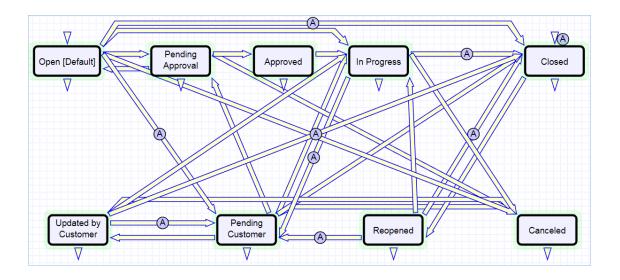


Validations and other Automation

Following are some of the validations and other automation managed by the system:

- If a technician sets the status to Pending Customer, they must put notes into the Additional Information field to be sent to the customer.
- If approvals are required, the status cannot be set to Approved, Closed, or In Progress until there is at least one approval and the approvals are all completed.
- When the status is changed to Closed, there must be text in the Resolution field, all tasks must be completed, and all items requested must be completed (for a purchase).
- If the priority or the SLA is changed for an SR, the SLA targets are reset based on the new priority/SLA.
- If Review for Knowledgebase changes to Yes and the Knowledge Document Status is empty, the Knowledge Document Status is set to Pending Review, while if the Review for Knowledgebase is set to No, it is changed to Not Needed.
- When the status changes from Open to any other status, if SLA function is included and SLA Response met is empty, if the actual response time is greater than the SLA target response time, SLA Response Met is set to No, otherwise it is set to Yes.

Workflow



Ownership

Records in this table are "owned" by the person whose login matches the Submitter Login. This means each record is associated with a particular login and no other "end user" employee will be able to edit that record. All technician users are able to edit any service request by default.

Reporting and Statistics

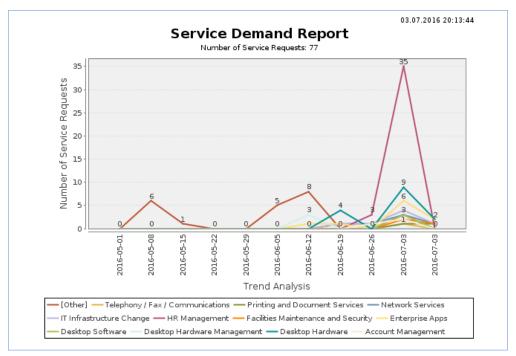
Several fields are included that are used for statistical reporting. The following fields may be of interest:

- **Number of Assignees** is auto-incremented each time the assigned person changes
- Number of Teams Assigned is incremented each time a different team is put in the Assigned Team field
- **Number of Reopens** is incremented each time a closed request is reopened by a customer
- **Total Hours to Close** elapsed time between Date Created and Date Closed (default value)
- Working Hours to Close elapsed time between Date Created and Date Closed minus the non-working hours of the team in the Assigned Team field and the time during which the Status was Pending Approval

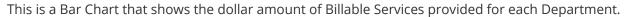
There are default reports measuring Total Time Spent by Service Category, Average time to close by service category and by person who closed, as well as averages for number of people assigned, number of teams assigned, and so on. With the field structures already there, it is easy to add reports to slice and dice the information the way you need it. Below are a few examples of the default reports.

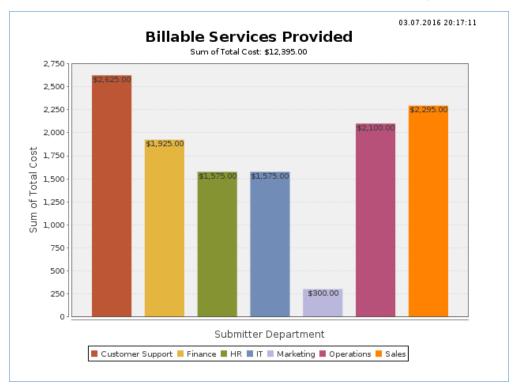
Service Demand Report

This is a Trend graph that shows a trend analysis of the service demand over time based on the number of Service Requests for each Service.



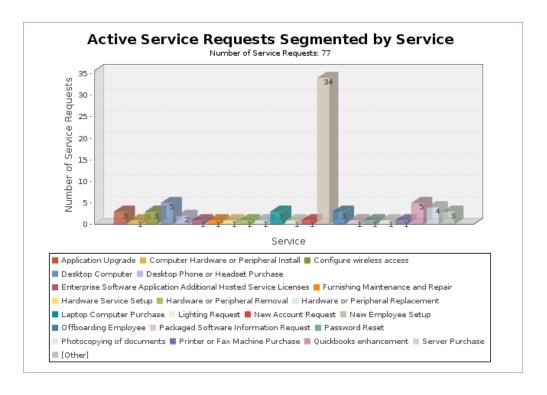
Billable Service Report





Active Service Requests Segmented by Service

This is a Bar Chart that shows the number of active Service Requests for each Service.



Incidents

Incidents are used to report service problems and outages. They represent interruptions to customer service. The objective is to return to the normal service as quickly as possible with minimal business impact. An example of an incident for an end user might be: "I cannot access my email."

What is the distinction between Service Request and Incident? Incidents are interruptions or degradations of an existing service that need to be rectified. They are problems that need to be solved, rather than a request for new service or a change to a functioning service, such as a new employee setup or new software application request. Incidents and service requests are held in separate tables.

Incidents may result from underlying problems caused by misconfiguration or hardware failures, and an underlying problem may result in several end users submitting Incidents. When this is the case, the underlying problem may be reported and managed in a separate Problem record.

When an incident is caused by an underlying problem, the technician working on the incident can link the incident to an existing problem record or create a new problem record. They may also click the Save and Create Change Request button to create a change request, if they wish. The Change Request keeps track of incidents that are linked to it.

Problems may require significant changes in order to be permanently resolved. In this case, the technician working on the problem will link it to a new or existing change request. While a problem may stay open until the change is implemented, often a workaround is found to resolve the interruption in service for the customer.

The system is set up to make it easy to generate and relate Incidents, Problems, and Change Requests, and to quickly and automatically propagate workarounds from problems into all related incidents.

Creating Incidents

Incidents may be created by internal customers through the web portal in the same manner as for service requests, via email, or by a technician taking a telephone call from a customer. When incidents are created through the user emailing a specific address, the subject line of the message becomes the Summary of the incident, the message body becomes the Description, and the Source field is set to Email.

Incidents may also be created by network monitoring systems configured to send problem reports to the system through one of the standard APIs. If you are using Agiloft's Event Management module, you can specify which event types should result in an incident, and which kinds of event resolutions should close the incident. See more details in the Event Management section. A field in the incident form specifies the reporting source (email, web, phone, event monitoring system, etc.).

A technician may convert a service request to a new incident via an action button in the SR form if a customer submitted a service request when he should really have submitted an incident. incidents can also be created from a change request, when they result from a change that has been implemented.

End User Record Submission

When a customer submits an incident, the contact fields automatically populate based on the details in his/her User record. In the default setup, an Incident cannot be submitted on behalf of a user who has no user record in the system. This may easily be changed by modifying the linked fields from the User table to enable "non-source" values to be used.

If the user clicked the Create Request button from the view of services in the service catalog, the system will also populate the Business Service and the Service Problem Type automatically. If the user created the incident by clicking on a Create an Incident link, then the user will need to select the Business Service and the Service Problem Type from the drop-down fields.

The user then describes his/her problem in more detail via the Summary and Description fields.

There are two fields to describe the priority of the incident: Impact and Urgency. Impact specifies how widespread the Incident is: A user whose desktop computer is malfunctioning would choose 'Affects Single User', whereas a critical server failure might be classified as 'Affects Company'. Urgency is a subjective measure of the criticality and time sensitivity of the incident, and ranges from Low to Critical. Both Impact and Urgency are used to automatically determine the official Priority of the incident, a field which is only editable by IT staff.

After providing the summary, description, impact, and urgency, the user clicks Finish and receives an automatic email notification when the system creates the record.

Technician Record Submission

A technician creating an incident sees additional information relating to the status of the incident, including assignee and status fields. Unlike end-users, technical staff can see an additional section on the details tab for Configuration Item Information that shows fields relating to a specific configuration item. By default, incidents are created with the Relevant CI Identified? field set to No, but if a staff person determines the CI that is the root cause of the incident, he or she may set this field to Yes and select a configuration item via a linked field set.

Incidents are automatically assigned based on the selections made in the Service Problem Type (the service record) about which team should take priority - the CI team, if there is one, the service responsible team, or the default 1st Level Support Team. Technicians can also set the assigned team and assigned person manually via drop-down lists.

If the Relevant CI has been identified, and if the service has been defined to give the CI team priority, when the incident is saved, a rule will assign the team responsible for the CI selected to the incident. A technician may change the Assigned Team field later, as the rule will only set the Assigned Team at the time the incident is first created.

New incidents are created in a status of Open by default. During creation, a technician may change the status to Assigned (if he wishes to indicate it has already been assigned to an individual) or Closed (if he was able to resolve the issue over the phone and wants to capture the request for reporting purposes).

Automatic Emails Sent upon Submission

If a technician creates a record in a status of Closed an email is sent to the customer telling him/her how to reopen the incident. This email is sent by a workflow action and is displayed as a checkbox that can be turned off by technician users. This option is set in the workflow options.

If the status is not Closed when saved, a rule will send the customer an acknowledgement email and will also send an email to either the Assigned Person, if there is one, or to the Assigned Team if not.

Incident Form Layout

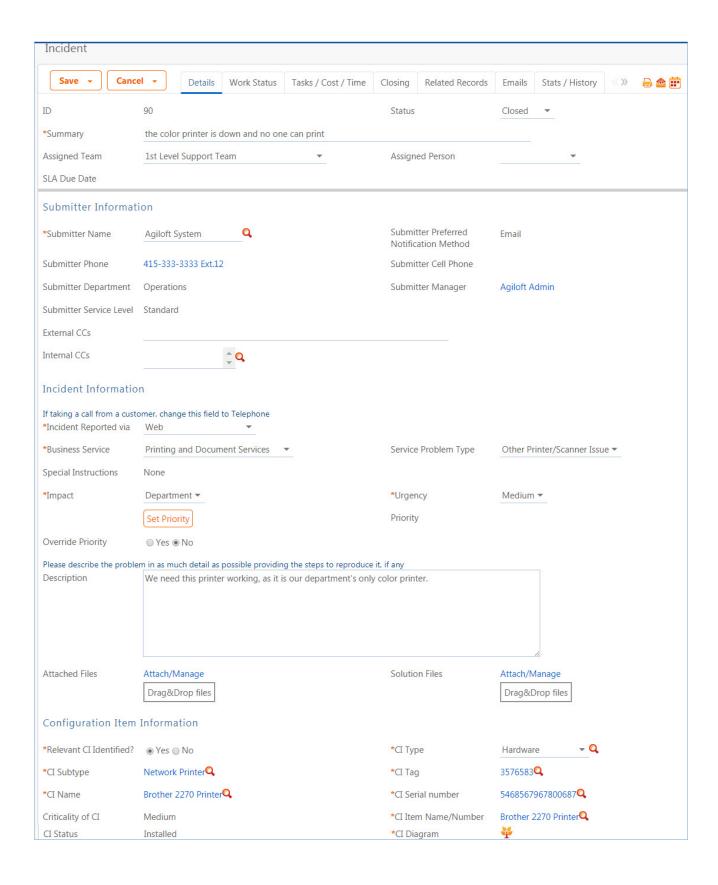
This section contains an overview of the information stored in an incident record.

Common Area

In the common area, an incident Summary must be entered to briefly describe the issue. An Assigned Team and Assigned Person can be selected, and anyone who wants to be CC'd on all notifications can be added to the Internal CCs field. If an Assigned Team is chosen but an Assigned Person is not, all team members will receive a notification. If an Assigned Person is chosen, the email will be sent only to that individual.

Details Tab

The Details tab contains most of the basic information for an Incident including the submitter, service and service problem, priority, description, files, and related CIs.



Submitter Information

The submitter fields, Submitter Name, Preferred Notification Method, Phone, Department, and Service Level in the Submitter Information section default to the person who creates the incident, but this can be changed by clicking the lookup icon.

Incident Information

The Incident Information section contains an overview of the incident itself. Incident Reported via can be used to indicate how the incident was submitted, with options of Web, Telephone, E-mail, Voicemail, and Event Monitoring System. Next, a Business Service must be selected. Depending on the Business Service chosen, certain Service Problem Types are available to categorize the incident further. Impact indicates the scope of the incident's effect, and Urgency can be used to convey how important it is to resolve the issue. Impact and Urgency have options that are available based on the Priority Group for the Service Problem Type selected. Once Impact and Urgency values are selected, the Set Priority button can be clicked to view the priority that will be automatically assigned when the record is saved. If this automatically-generated Priority needs to be manually overwritten, Override Priority can be set to Yes, a new Priority can be selected, and a Reason for Override must be entered before clicking the Override Priority button.



The Description field allows for a more detailed explanation of the incident.

CI Information

If there is a configuration item involved with the incident, it can be selected by setting Relevant CI Identified? to Yes. This will make CI fields visible, and a lookup icon can be clicked in order to search for and select the configuration item.

Work Status Tab

The Work Status tab contains information about the SLA, progress notes, resolution information, and fields to allow creation of a knowledge article.

The SLA Title, SLA Support Hours, SLA Target Response Time, and SLA Target Resolution Time are set automatically by a rule, based on the SLA Group of the user who submitted the incident, whether a selected CI has its own SLA, and any SLAs specific to the incident problem type. The SLA targets are set based on the SLA and the priority of this incident. Note that if you have turned off the SLA function, the SLA fields will not be displayed.

Additional Information is an append-only field showing a timestamp and author for each note added. It is used to communicate with the customer, and customers and staff members may view and update it. The Staff Only Notes field also shows the timestamp and author, but is only visible to members of the base servicedesk group

and other technical groups, along with admins.

If the particular problem type has any knowledge articles associated with it, they will be shown below the Staff Only Notes. This allows you to create articles providing troubleshooting steps or staff instructions for each problem type and to display these scripts within the incident. You can alternatively put such details into the Special Instructions field for the particular problem type and display it in the form.

Tasks/Cost/Time Tab

Any tasks generated for the incident are shown on this tab, as well as service costs, if any, and the amount of time spent on the associated tasks. More on task generation can be found in the Tasks section below.

Closing Tab

The Resolution and Closure Category fields are populated when closing an incident, along with Reason for SLA Breach, if the target was not met. Publication fields appear when an incident is Closed, and can be used to mark this incident as a Standard Solution and to create a knowledge article based on it.

Related Records Tab

The Related Records tab can be used to show records that are related to the incident. More on linking incidents to problems, service requests, and change requests can be found in the Processing Incidents section below.

Stats / History Tab

This tab shows event dates including Date Created, Date Updated, and Date Closed. Below, in the History Events section, each row represents a record edit made by a person or rule and shows the user or rule that made the edit, the date and time of the edit, the fields that were changed, the previous value of the fields, and the updated values. Edit a history record to see the details.

The SLA Response Met and SLA Resolution Met fields are updated automatically when the response time or resolution time passes.

Processing Incidents

This section describes how to process incidents.

Requesting Information from the Submitter

If a technician needs more information from the customer in order to work on an Incident, they can add a note to the Additional Information field and set the status to Pending Customer. A workflow action will automatically send an email to the submitter requesting further information. The email includes the content of the Additional Information field, an append-only field used to communicate with the submitter. The email includes a link for the customer to open the Incident directly.

Reassigning Incidents

If the technician needs to reassign the Incident to a different team or person, they can simply change the Assigned Team and/or Assigned Person field and the system will email the new assignee notifying them of the reassignment.

The Staff Only Notes field is an append-only field that holds technician working notes that are not visible to the customer.

SLAS

An SLA is assigned to each new incident automatically. If the incident has a related CI, and the CI has an SLA, that SLA is used. If not, an SLA is chosen that meets the following criteria:

- 1. The SLA is available for the service in the incident.
- 2. The SLA is available for the SLA Customer Group to which the Submitter of the SLA belongs or the SLA Type is Corporate.
- 3. The SLA is either Active or In Review.
- 4. If the previous criteria are met for more than one SLA, the SLAs are sorted by SLA Type, and the first one is chosen. SLA Types are sorted in the following order: Configuration Item, Service-specific, Customer Group, and Corporate.

Once an SLA is set for the new incident, an SLA Target is set automatically. The SLA Target defines the Response Time, the Resolution Time Warning, and the Resolution Time in minutes. These times are used in the incident to set the SLA Response Due Date, SLA Warning Date, and SLA Due Date. Once these dates are defined, rules running every 10 minutes in the incident check whether the dates have arrived. Note that these rules are disabled in the out-of-the-box system and should be enabled when you are ready to start using the system.

The SLA response measures how long it takes a technician to change the Status of the incident. A rule captures any change to status and tracks whether the response was met at that time. If the SLA Response Met is still empty when the SLA Response Due Date arrives, the system compares the Actual Response Time to the SLA Target Response Time. If the Actual Response Time is less than the SLA Target Response Time, the system marks that the SLA Response time was met by setting SLA Response Met to Yes. If the Actual Response Time is greater than the SLA Target Response Time, or if the Actual Response Time is empty, meaning that the Status of the incident was never changed, SLA Response Met is set to No. If the SLA Response Time was not met, an email is sent to the Assigned Person, Assigned Team, and the Assigned Team Leader and a browser pop-up also alerts the Assigned Person and Assigned Team to the breach.

The SLA resolution target is met if the incident is marked as Closed before the SLA Due Date. If the incident has

not been closed before the SLA Warning Date, an email is sent to the Assigned Person, the Assigned Team, and the Service Escalation Team to warn them of the upcoming SLA deadline. Once the SLA Due Date arrives, the field SLA Resolution Met indicates whether the incident was closed in time. If the incident is Closed before the SLA Due Date, the SLA Resolution Met field is immediately set to Yes. If on the SLA Due Date the incident is not yet Closed, the SLA Resolution Met field is set to No. In addition, if the SLA is breached and there is a Service Escalation Team, the Assigned Team for the incident is set to the Service Escalation Team and the new Assigned Team and Assigned Team Leader, in addition to the Assigned Person, receive an email alerting them of the breach. If there is no Service Escalation Team defined, an email is sent to the current Assigned Team, Assigned Person, and the Assigned Team Leader.

Tasks

Depending on the service, an incident may have predefined tasks. Within a service, there are three Task Generation Method options:

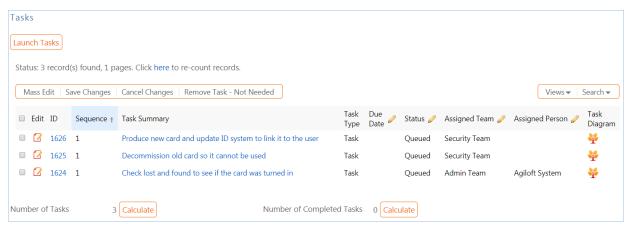
- 1. **User Selected Tasks**: Individual task templates are defined in the service without a sequence defined, and one or more of them can be selected and generated within an incident for that service.
- 2. **Predefined Task Workflow:** A series of tasks are defined in the service as the default task workflow, generally with a sequence defined. In an incident for that service, the entire task workflow is generated.
- 3. **User Generated Ad hoc Tasks:** Within an incident, tasks can be manually created that are not based on a template.

For instance, an incident with the Business Service of 'Facilities Maintenance and Security' and Service Problem Type of 'Lost Keycard' automatically shows three checkboxes representing tasks that can be selected and generated for an incident.



To use one or more of these tasks for this incident...

1. Select the task(s) checkbox and click Generate Tasks. The tasks will be generated and shown in the Tasks related table.



- 2. By default, these user-selected tasks are not sequenced and can be completed in any order. It is usually better to create a task workflow if you want a sequential process. However, you can also take the un-ordered tasks and modify them to identify prerequisites. To indicate that the task has prerequisites, edit it and navigate to the Related Tasks tab.
 - a. Set 'Enable Prerequisite Tasks' to Yes to show the fields used to create task prerequisites.
 - b. Next, select the task that should precede this one from the Add Task to Prerequisites drop-down and then click Add to Prerequisites. If there will be more than one task in the sequence number before this task, you can use the Trigger Condition field to specify whether this task should be launched when all of the tasks for the previous sequence number are complete or if any one of them is complete.
 - c. The prerequisite task will then be shown in the Prerequisite Tasks table and the Number of Prerequisite Tasks will be incremented.
 - d. Save the task. Once saved, the task's Sequence number will be automatically updated to reflect its new position in the task workflow.
 - e. The task chosen as a prerequisite will also be updated to show the tasks that are dependent on it.

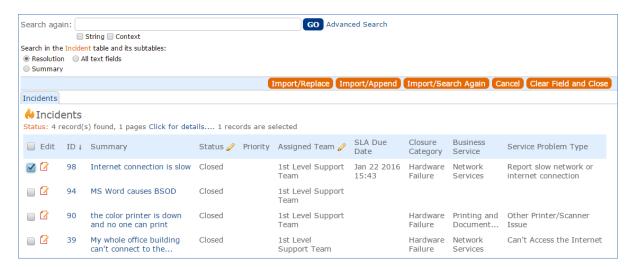
Additional tasks can be modified in the same way. Once the task sequences are set up and any other modifications that might be needed are complete (for example, the default Assigned Team or Person could also be changed), the tasks can be launched by clicking Launch Tasks. This will update any tasks that do not have prerequisites defined to a status of Assigned and trigger an email to the Assigned Person, or, if there is no individual assigned, the entire Assigned Team. In addition, the Status of the incident will automatically be set to In Progress.

If the tasks have a sequence defined by setting prerequisite tasks, tasks of a certain sequence number will only be launched once the previous tasks are complete. In our example task workflow, the two tasks with a Sequence of 2 are marked as Assigned once the first task is Completed.



Closing Incidents

When the technician completes work on the Incident, they set the Status field to Closed and put the solution notes into the Resolution field. If a similar incident has been resolved and marked as a standard solution, a technician can click on the lookup icon next to the Resolution field. Clicking this icon opens a new window showing all previously resolved incidents marked as standard solutions.



The technician can use the search bar at the top of the window to look for incidents most relevant to the one that is currently being closed. If an incident with a similar resolution is found, use the Import/Replace button to select it. This will copy the previous incident's resolution into the current incident, where it can be modified as needed.

Closing an incident triggers a workflow email to the customer that includes the content of the resolution field and tells the customer that the request has been completed. A closure category should also be added at this time. When an incident is marked as Closed, publication fields appear.



If the incident's resolution might apply to future incidents, set Standard Solution to Yes. Once standard solution is Yes, the resolution in this incident can be used in the Resolution field for future incidents.

Setting Review for Knowlegebase to Yes indicates that a knowledge article should be considered for this incident. Once Review for Knowledgebase is Yes, the Knowledge Document Status and Create Knowledge Article fields are visible. The default value of Knowledge Document Status is Pending Review, and once Create Knowledge Article is clicked, the Knowledge Document Status automatically updates to Created. If it turns out the knowledge article is not necessary, Knowledge Document Status can be changed to Not Needed manually. Clicking Create Knowledge Article opens a new knowledge article record with some information mapped from the incident, such as the Title, Purpose, and Description. Additional required fields must be populated before saving the record. Once the new knowledge article is saved, it is automatically linked within the originating incident.

In addition, the knowledge article will automatically include information about the source incident. When an incident is closed, an email such as the following is sent to the Submitter:

Dear Customer,

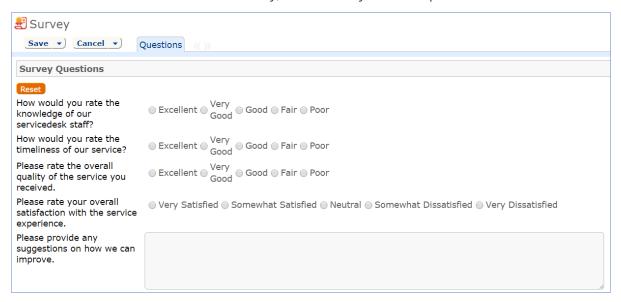
We believe we have resolved your Incident. The resolution is:

The keycard was not in the lost and found, so we decommissioned the old card and generated a new card. You can pick it up any time.

Further information about your Incident is included below. If you would like to reopen your request, click here and add your comments in the additional information field.

We appreciate hearing your feedback so that we may improve our service. Click here to submit a survey.

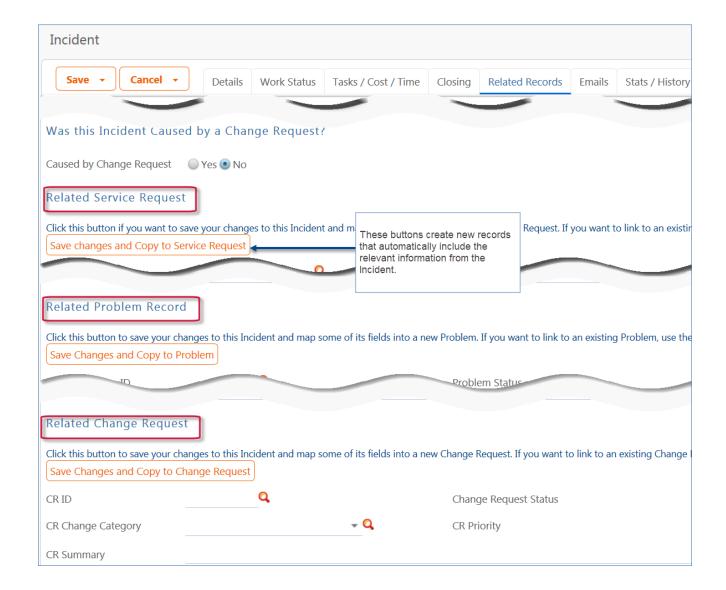
If the submitter chooses to submit a survey, a new Survey window opens.



Once the survey is saved, it is added to the Surveys table, where it can be included in reports and used to inform service improvement plans. Note that the link in the closing email that brings up the survey will first need to be modified to use your system hostname, KB name, and other parameters.

Creating or Linking to Related Records

The Related Records tab allows problems, service requests, and change requests to be generated from the incident. To create a service request, for example, click Save Changes and Copy to Service Request. That will open a new service request record with some information automatically populated, including the Summary, Submitter, Business Service, and Description. Clicking Save Changes and Copy to Problem or Save Changes and Copy to Change Request will each open the new record on the screen so that it can be updated before saving, and the basic information is again mapped from the incident.



These sections – Related Service Request, Related Problem Record, and Related Change Request - also allow you to link the incident to an existing service request, problem, or change request. If the incident was caused by a change request, Caused by Change Request should be set to Yes, which makes visible a link to change requests. The source change request can be selected using the lookup. If the incident was created from within a change request by adding a new Incident in the area called Incidents caused by this Change Request, then the Caused By Change Request field in the incident will be populated automatically.



Cloning Incidents

If a new incident to be reported is almost identical to an existing incident, the older incident can be cloned from the main table view of incidents. To do this...

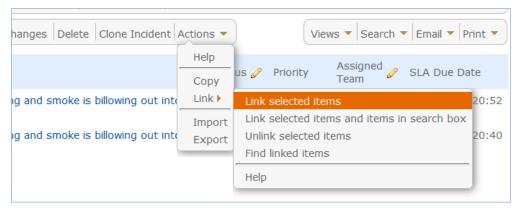
- 1. Select the incident in the table view and then click Clone Incident in the action bar. This opens a new Incident record with most of the basic information pre-filled based on the cloned incident.
- 2. Make any desired changes to the newly cloned Incident, then save the record.

 Note: The submitter information is not mapped from the older incident, but instead defaults to whoever clicked the Clone Incident button.

It is also possible to copy all information from an existing incident into a new incident. We don't recommend this as it also copies the date created and other fields such as SLA due date. But if it is desirable to copy everything, you can select the incident, hover over Actions in the table menu, and click Copy.

Linking Related Incidents

When incidents are cloned or several incidents are submitted about the same problem, it is easy to link them together so they can all be dealt with together. Get the incidents you want on the screen, and then in the action bar choose **Actions > Link > Link Selected Items**.



This will link each incident to the others. Later, when you want to address all of them, you can find all incidents linked to any one of them by selecting one incident and mousing over the same menu shown above and selecting Find linked items. That will bring all of the incidents on the screen. From there, you may select them all and click the Mass Edit button to close or update them all at once.

Relating Incidents to Problems

If an incident has an underlying problem that needs to be addressed, the technician may quickly convert the Incident into a related Problem record. Or she may use the Linked Problem lookup to search for existing Problems that may be the cause of this incident, and if one is found, link the Incident to that Problem. When an Incident is linked to a new or existing Problem, the Incident may be automatically updated from the Problem record when a workaround or solution to the Problem is identified.

Within the Problem record, a button may be pressed to copy the workaround for the problem into all related Incidents, set the Status of the Incident to Workaround Provided, and email the assigned person, the

submitter, and any cc's. Another button may be pressed to populate the Problem's Solution into the related Incidents, set their Status to Closed, and email the customers.

Reporting Time Spent

Technician users may easily report the time they spend on handling Incidents. On the Tasks / Costs / Time tab, the Time Spent, Time Description, and Add Time fields are used to report time. Entering values there will automatically create a new Time Entry record after clicking Add Time. The time entry will show the work done by the technician and the current date.

All the time entries for a request can be seen on the Time tab as well. If a technician needs to report time that was spent on a different day or by a different user, click the New button on the Time spent table to submit a time entry directly and change the date or "Done by" field. All time entered is totaled in the All Time Spent field, which can be used in reporting or billing.

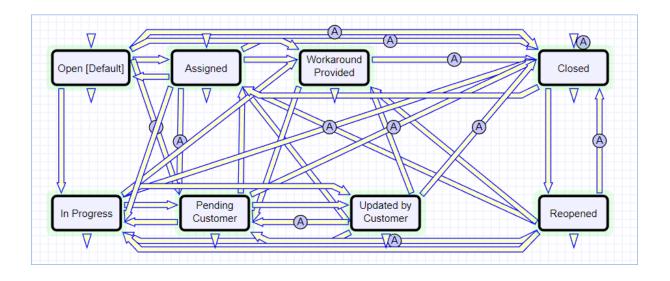
Note that this same time entry methodology is used in the Service Request, Problem, Change Request, and Task tables.

Customer Updates

If the customer updates the Incident at any point, an email notifies the assigned person or assigned team (if no assigned person) of the update. When the customer replies to an email they receive or edits their Incident while it has a status of Pending Customer, the status changes to Updated by Customer and an email notifies the assigned person or the assigned team, if assigned person is empty, that the customer has replied. The customer is able to update the Additional Information field directly and any email reply from the customer is also mapped to that same field.

The closing email to customers includes a hotlink back to the record if they wish to reopen it and instructs them to explain why they are not satisfied with the solution. Clicking the hotlink will automatically change the "I Would Like To Reopen My Incident" field to Yes, which in turn sets the Status of the Incident to Reopened and notifies the assigned person.

Workflow



Ownership

Records in the Incident table are "owned" by the individual submitter. This means each record is associated with a particular employee login and no other "end user" employee will be able to edit that record. All technician users are able to edit any Incident by default.

Reporting and Statistics

This section describes a few of the out-of-the-box reports and describes some of the statistics available for Incidents.

Fields Used in Reports

Several fields are included that are used for statistical reporting. The following fields may be of interest:

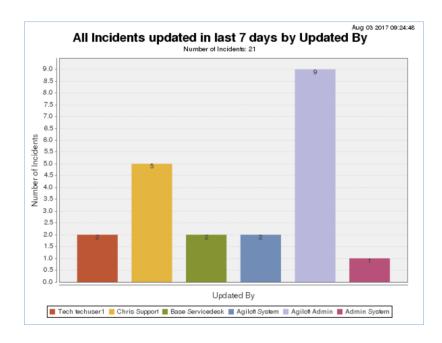
- **Number of Assignees** is auto-incremented each time the assigned person changes
- Number of Teams Assigned is incremented each time a different team is put in the Assigned Team field
- **Number of Reopens** is incremented each time a closed request is reopened by a customer
- Total Hours to Close elapsed time between Date Created and Date Closed
- Working Hours to Close elapsed time between Date Created and Date Closed minus the non-working hours of the team in the Assigned Team field and the time during which the Status was Pending Customer

Reports

There are default reports measuring Total Time Spent by Type of Problem, Average time to close by Type of Problem and by person who closed, as well as averages for number of people assigned, number of teams assigned, number of reopens, and so on. With the field structures already there, it is easy to add reports to slice and dice the information the way you need it. Some of the reports included are:

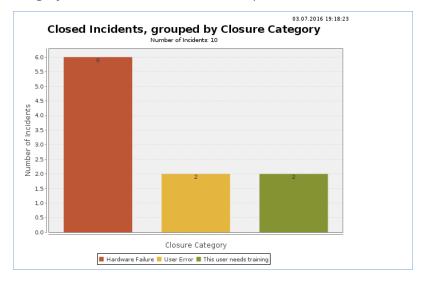
All Incidents updated in last 7 days by Updated By

This report contains a graphical bar chart displaying the number of incidents edited by each user. It also includes an HTML portion with more details on each incident that was edited, including the last Date Updated, grouping by user and showing the most recent update last.



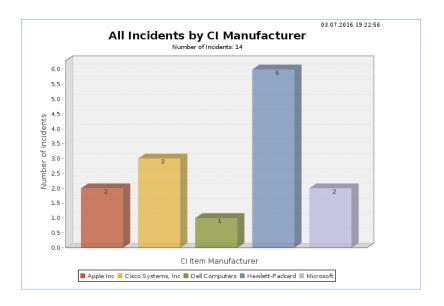
Closed Incidents, grouped by Closure Category

This report contains a graphical bar chart displaying the number of incidents closed, grouped by closure category, and also includes an HTML report.



All Incidents by CI Manufacturer

This report contains a graphical bar chart displaying the number of incidents reported for each CI Manufacturer, grouped by closure category, and also includes an HTML report.



Problems

Problem records track the investigation and diagnosis of a root cause of one or more incidents. Problems identify the underlying issue such that resolving the problem not only resolves the incident, it prevents further incidents. Incident Management is concerned with restoring service as quickly as possible, whereas Problem Management is concerned with determining and eliminating root causes, and hence eliminating repeat problems.

The primary objectives of Problem Management are to prevent incidents caused by a similar root situation from recurring and to minimize the impact of incidents that cannot be prevented.

Problem Creation and Overview

When an incident is based on an underlying problem, first-response support technicians create a problem record from the incident, automatically creating a link between the incident record and the problem. The new problem record imports relevant information from the incident, such as the linked configuration item. Problems can also be created without being linked to existing incidents, such as in cases where a problem is discovered internally but no Incidents have been reported.

The submitter, along with their department and contact information, are automatically populated based on the person who creates the problem, and the reporting source of the Problem is also captured in the record. Resolution of problems may require changes to the system. Staff addressing the problem may determine that a shared CI needs to be replaced or modified, and may therefore file a change request. All updates throughout the life cycle of the problem record are logged in the record's history along with the date and time, and updates can also be logged in the Additional Notes field, which logs the updater and time stamp of the update.

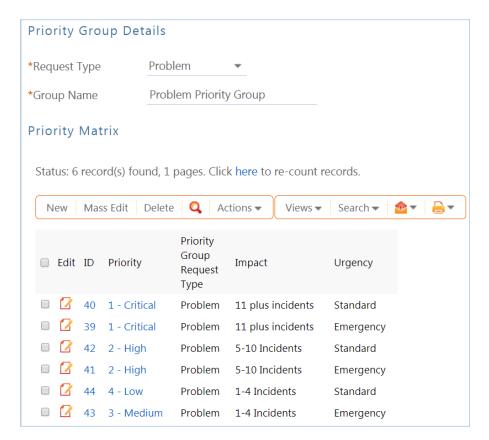
When the problem is resolved, a technician updates the record with relevant information and closes the record, in turn prompting automation to begin closing procedures for related Incidents. If the problem cannot be resolved it may be classified as a Known Error and a permanent work-around supplied. This will also update the related Incidents.

Processing of Records

Once created, problem records can be linked to incidents from either the problem record or from an incident record.

Priority

Priority, a measure of the problem's urgency and relative importance, is set by default based on the combination of Impact and Urgency and how the Problem Priority Group is configured. The default priority matrix for problems is shown below.



These values may be changed to match a company's preferences. See the Impact, Urgency, and Priority Management section for more details. Problem priority, a measure of impact and risk, particularly with regards to IT service operations, may be determined separately as part of Problem Classification procedures. Together priority and problem priority help IT managers make decisions for scheduling and planning and help determine the category of related change requests.

Diagnosis

The problem record follows its own workflow separate from the incident. Ops team members open the problem record in the default status of Pending Diagnosis to indicate that a diagnosis has yet to be determined, or Diagnosed if no further steps are required. The default Problem SLA has specified targets for completing diagnosis, based on the priority, and a diagnosis clock is started upon creation of the problem record. As part of the diagnosis, technicians select the service involved based on existing incident reports or based on the most likely service to be related to the problem. If a particular configuration item is identified as the source of the problem's root cause, staff can quickly link the problem to the CI record.

Once a diagnosis is supplied, staff will move the record into a status of Diagnosed, fill out the Root Cause description and any further analysis, and save the record. They may also suggest a temporary fix, or "workaround", for the problem and push that to related incidents, e.g. "use Printer B3 for now instead", if a permanent solution is not readily available.

Diagnosis and Resolution Clocks

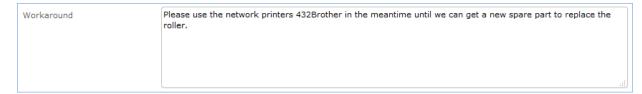
When the status changes from Pending Diagnosis to Diagnosed, Pending Change, Resolved, or Deferred, the diagnosis clock stops, the Diagnosis End Time field automatically populates with the current time, and the resolution clock starts. The diagnosis clock measures the working support hours between creation of the problem and diagnosis of the problem against the SLA diagnosis target.

The resolution clock measures time between when diagnosis is completed and the problem is resolved or deferred, excluding the time when the status is Pending Change, against the SLA resolution target for problems. While the status is in Pending Change, both clocks are stopped, since the people handling problems may not have control over when a change request can be scheduled and implemented.

Workgrounds

If a workaround exists while the problem investigation is in progress, you can send the workaround to any related Incidents and the incident submitters. To do this...

1. Enter the details of the workaround into the Workaround field.



- 2. On the Related Records tab, change the Workaround Provided field to Yes.
- 3. Click 'Update Incident with Workaround.' This posts the workaround to all related Incidents and changes the status to Workaround Provided. When the Incident status changes to Workaround Provided, the system sends an email to both the end user (submitter) and the assigned staff person of the Incidents, along with any CC's.

Deferring and Seeking More Information

During the root cause diagnosis or determination of the proper solution, staff may need more information from a separate process, for example incident details. In this case, technicians change the problem's Status to Pending More Information and send an email to staff members with requests for information. If a problem is deemed too risky or of lower priority than more imminent issues, change the status to Deferred to reflect no ongoing diagnosis or pending changes.

Resolution

In most cases where a problem's root cause deals with a configuration item, a change request will be submitted to make the appropriate fixes to the configuration item. When Change Requests are created directly from the problem record, they are instantly linked. While a problem is waiting for change request to be implemented, it can be put in the status of Pending Change. If the change request linked to a problem is closed, the system will notify the problem assignee to take additional steps to close the problem record if it was in a status of Pending Change.

A problem whose root cause is known but for which there is no permanent resolution is considered a Known Error. Known Errors should have workarounds to allow Incident Management to restore service as quickly as possible. When the problem is resolved either directly, or through a change request, all related incidents can be closed at once. On the Related Records tab, the button Update Incidents with Solution can be used to push the Resolution field of the problem into the Resolution field of the linked incidents, closing the incident and triggering an email to the customer with the resolution.

Once the permanent resolution is determined and implemented, staff users enter the description in the Resolution field and set the status to Resolved. A Closure Category for the resolution of the problem can be selected. In addition, a required Review for Knowledgebase field is displayed when closing, and if set to Yes, a knowledge article can be created from the problem for review to be added to the Knowledge Articles table.

Analysis and Major Problem Reviews

It is important to learn from problems to reduce the likelihood of repeat issues. There are two fields intended to facilitate analysis after a major problem.

- Include in Major Problem Review: this is a required field.
- Major Problem Review notes: this is used to write up notes about what was done well in the crisis, what didn't work so well, and what could be done to prevent such a crisis in the future. This field is only visible if the Include in Major Problem Review field has a Yes value.

Known Errors

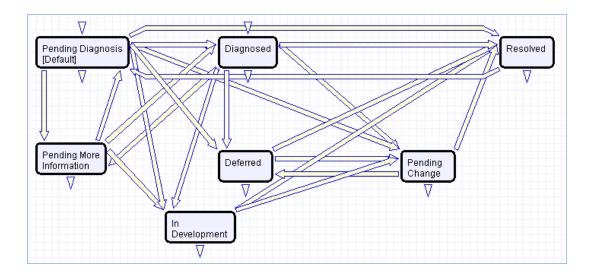
Problems can be marked as known errors by setting the Known Error field to a Yes value. All known errors can be easily viewed by support technicians using the Known Errors saved search. Additional saved searches for Known Errors Unresolved and Resolved Known Errors show problem records that are still unaddressed, and those that have been resolved, respectively.

For known errors that should be visible to end users, we recommend that they are pushed into a knowledgebase article, which can be done directly from the problem record.

Ownership

Problems are owned by the staff member who creates the problem record. Since only technical staff generally see problem records, groups may share responsibilities between Incident Management and Problem Management and multiple individuals may be given responsibility for a problem without actually owning it.

Workflow

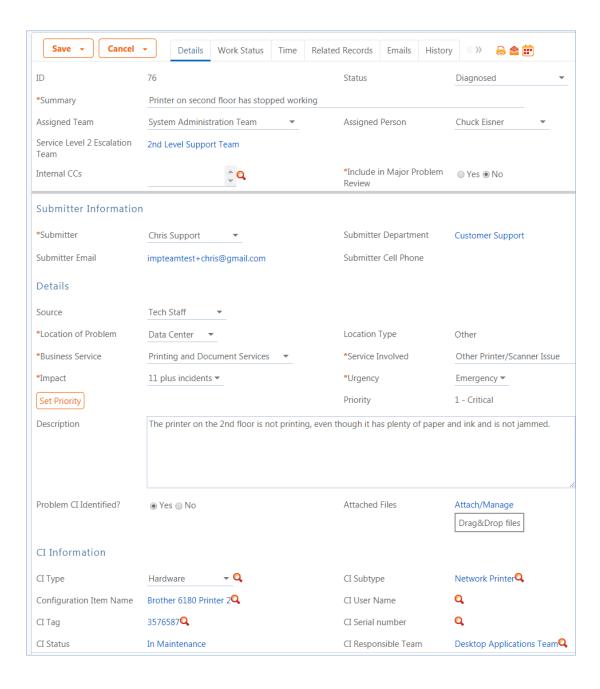


Problem Layouts

This section contains an overview and screenshot examples of the information stored in a Problem record in the out-of-the-box system. The common area is shown in all tabs, and shows the progress of the problem, such as its Status, its Team Assignment, as well as the Assigned Person or owner of the problem record.

Details tab

The Details tab contains most of the information and updates pertaining to the problem, including the Submitter, Submitter Department and Contact Information, Source of the problem (how it was reported), the Location of the problem, the Business Service and Service impacted by the problem, as well as the Impact, Urgency, and resulting Priority of the Problem. If a CI has been identified, it can also be selected here.



Work Status Tab

All Diagnosis details can be logged here along with the Risk and Root Cause analysis, and any additional working diagnosis notes with time stamps. The Resolution Details section in this tab allows for the detailing of a Workaround for the problem, which can later be updated in the related incidents, or to pull an existing Resolution from the Known Error subset of problems. If the status is Resolved, a Closure Category can also be specified for the problem, and a determination must be made as to whether the problem should be included in a future Major Problem Review. The date the problem was resolved is then automatically logged in the History tab of the record to provide an audit trail.

Time Tab

The Time tab displays the SLA thresholds for the problem, including thresholds for the SLA Diagnosis Time, SLA Resolution Time, and the progress against those thresholds. Amount of time spent working on the problem can also be logged here.

Related Records Tab

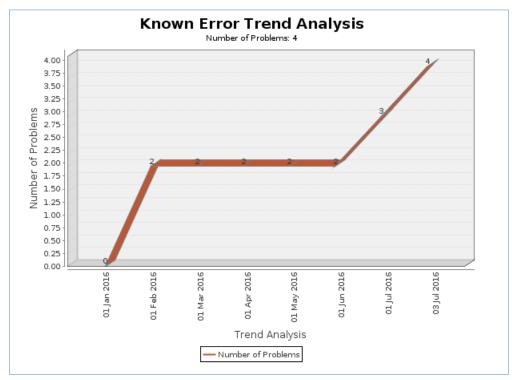
The Related Records tab shows the list of incidents related to the problem. If a workaround or resolution has been provided, it can also be pushed from the problem record to all of its related incidents. The problem can also be linked to an existing change request, or can be used to create a new one, copying over all of the relevant information directly from the problem record to the change request. In addition, the Knowledge Management section of this tab also allows the problem to be directly integrated and converted into a record in the Knowledge Articles table with a status of Pending Review.

Reporting and Statistics

There are numerous default reports measuring different metrics for problems, and a few of the most relevant and frequently used are listed here as examples.

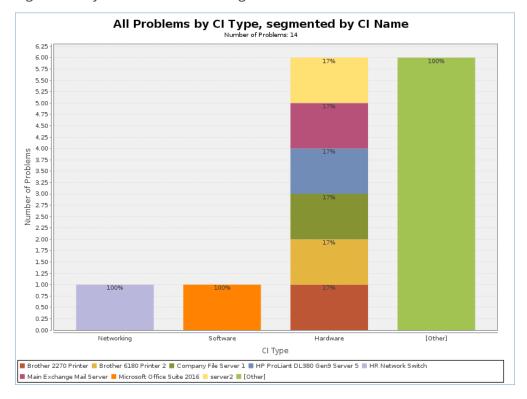
Known Error Trend Analysis

This is a Trend graph that shows the number of problems marked as Known Errors over the course of a pre-defined period of time (by default, this is since the beginning of the current year).



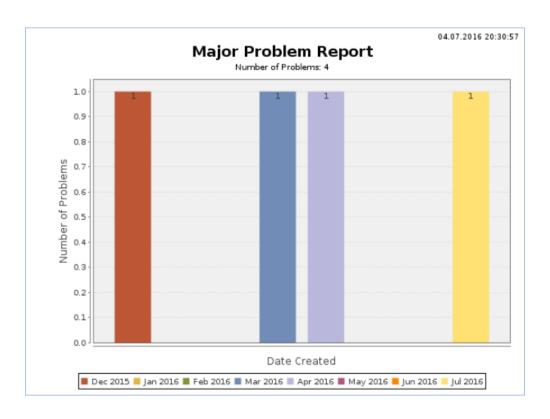
All Problems by CI Type, segmented by CI Name

This is a Segmented Bar Chart that shows the number of problems that were reported for each CI type, segmented by the name of the Configuration Item.



Major Problem Review Report

This report shows the major problems by month over the past year. Additional details are in the HTML portion of the report.



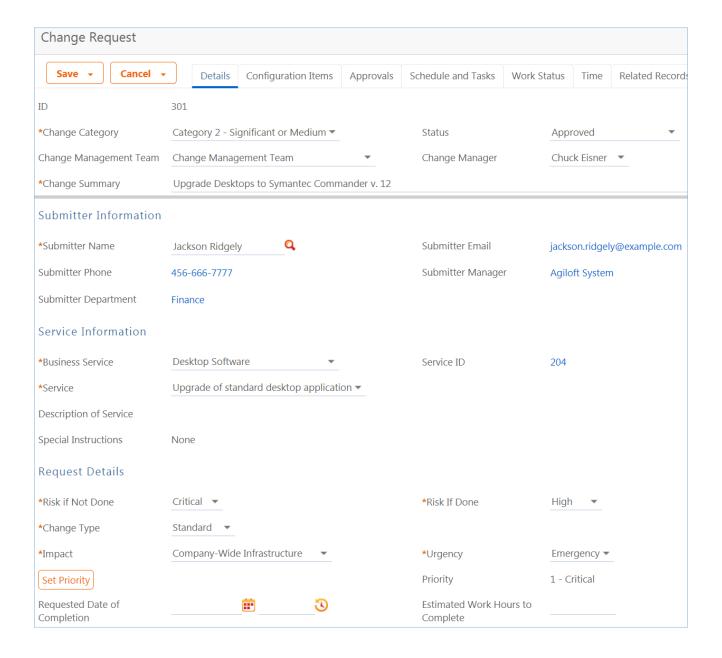
Change Requests

The Change Requests table is used for Change Management. A change request is created when a change is needed to a configuration item or to any other business object that may require a set of approvals before such a change can be completed.

Once a change request (CR) is created, it can be assigned to the appropriate teams or individuals for one or many approvals, and may then be moved along in the process, from approval to scheduling, to action by staff members actually making the change, to completion, testing, and release.

Of course each organization has its own definition of types of change that may need to be managed in this way, but we have pre-populated the service catalog with a list of common change types. You can easily add your own change categories and types to the services table. Change requests differ from service requests in that they are not visible by default to end users and typically follow a stricter set of procedures and approvals.

The Change Request table pulls its services from linked entries in the Services table. A user creating a change request chooses the higher level Business Service from a drop-down, and then sees all the active service offerings for that business service in a second drop-down list called Service. The available services for change requests can be seen in the Service Portfolio (or by creating a CR record and opening the drop-down list). When the service is selected, several additional fields are pulled in with the service, including whether or not approvals and tasks are needed.



Creation of Change Requests and Initial Actions

Change requests (CRs) can be created directly by users or by action button from a Service Request or a Problem record. When created with action buttons, the Change Request is linked back to the generating record.

End User Record Submission

By default, change requests are not visible to end-users and cannot be created by them. This is defined by group permissions, and if you would like to allow end users to submit change requests, change the group permissions of the relevant groups to enable this and enable access to change requests in the end user interface.

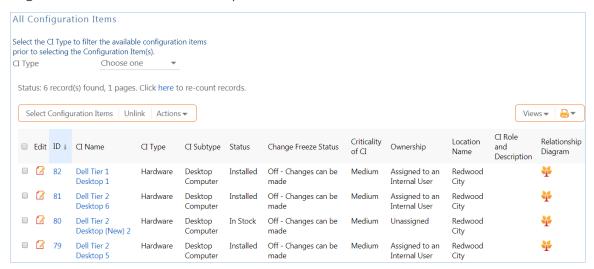
Technician Record Submission

When a technician submits a change request, the submitter contact information fields automatically populate based on the details in the user's Person record. In the default setup, a request cannot be submitted on behalf of a user who has no user record in the system. However, the creator can select a different person as the submitter if needed.

The Change Request table pulls its services from linked entries in the Service Portfolio table. A user creating a change request chooses the Business Service from a drop-down, and then sees all the active services that belong to that business service in a second drop-down list called Service. When the service is selected, several additional fields are pulled in with the service, including fields defining whether approvals are needed and the approval generation type. Users in the appropriate groups may be given permission to modify the approvals needed for a particular change.

When a technician creates the CR they choose an assigned team and assigned person from the drop-down fields at the top of the screen. The assigned team or person will be automatically set when the record is saved if the user does not choose the assignees. New CRs are created in the status of Open by default. Once the main fields are filled in, the user navigates to the Configuration Items tab. This allows the user to look up one or more configuration items. The CIs can be filtered by choosing a CI Type first and then clicking the Select Configuration Items lookup.

As CIs are selected, important information can be seen in the view of the CIs, including their criticality and the diagram that shows their relationships with other CI's.



You must choose a Configuration Item, even if none are involved in the change request. A Configuration Item is required to facilitate task management and prevent system errors. The "No CI Involved" configuration item record, with the CI Type of None, should be used in this situation.

Once the CIs are selected, the user clicks Submit for Review to save the change request and begin processing. When the change request is saved, the status changes to Pending Change Manager. In addition, required fields are validated and background fields are set to control visibility of approval and task buttons.

Automatic Assignment of New Requests

When a new change request is saved, it is automatically assigned to a team based on the values in three fields pulled from other tables. The related service has a Responsible Team associated with it and a field called 'Give Responsible Team Priority over CI Team' with a Yes/No value. If a configuration item was identified for the request, then there is also a CI Responsible Team field that will be populated in the CR.

The current assignment logic is: if the Assigned Team is empty when created and the change request involves a specific configuration item (CI), then the request is assigned to the responsible team for that CI, unless the 'Give Responsible Team Priority over CI Team' is set to Yes. In this case, or If no CI is defined, then it is assigned to the Responsible Team for the service. If there is no Responsible Team for the service, then it is assigned to the Change Management Team.

Naturally, this logic may be changed to suit your organization. You can simply set a default value such as the Change Management Team or you may choose some other logic to use based on different fields. The current logic is implemented in the CR rule named 'Create: All Change Request Creation Actions' and the action named 'Assign change request'.

Automatic Emails Sent upon Submission

If the status is not Completed when saved, a rule will send the submitter an acknowledgement email and will also send an email to either the Assigned Person, if there is one, or to the Assigned Team.

Processing the Change Request

Most services linked to change requests require one or more approvals. See the section on Approval Management for details about how to set up approval workflows and templates.

Many of the default approval workflows for change requests contain conditional approvals, which depend on the Change Type (i.e. Standard, Normal, Emergency, Change Proposal) and Change Category (Category 1 - Minor or Small, Category 2 - Significant or Medium, Category 3 - Major or Large), and other factors. The workflows are predefined within each service, and can be used to create Change Models and Standard Change Workflows. Each service may have both a default Approval Workflow and a default Task Workflow.

In addition to being able to define standard change workflows and workflows for change proposals and other change models, further processing details that are pulled into the CR are also stored in the service record, including the Responsible Team, Escalation Team (i.e. which team it should be escalated to if thresholds for escalation are met), the default Change Type, and any additional fields that should be shown for the change request based on that service.

Managing the Approval Process

Change requests can use different approval methods, discussed in the Approvals for Change Requests section on the Service Catalog page. Based on the approval method defined in the service record, approvals will typically be created and launched within the change request using buttons.

Default Conditional Approval Workflow

We have defined a standard ITIL default approval workflow called Default - conditional approvals based on type/category with conditional approvals generated based on the combination of Change Category and Change Type. It is a good illustration of how conditional approvals can be set up. It contains the following approval templates: Change Manager Approval for all Minor changes; IT Executive Board Approval for Major Change; CAB first Approval for Significant Normal Change; ECAB First Approval for Significant Emergency Change; CAB second approval for Major/Normal change; ECAB second approval for Major / Emergency change. The result of this setup is to create the following approvals for the following combinations of Change Category and Change Type:

- Minor change Change Manager Approval only
- Significant Change / Normal CAB Approval only
- Significant Change / Emergency ECAB Approval only
- Major Change / Normal IT Executive Board, then CAB Approval
- Major Change / Emergency IT Executive Board, then ECAB Approval

Approval Creation and Processing

Once the request has been sent for review, if it was for a service that requires approvals, the change manager can review it and generate any needed approvals. Clicking the Generate Approval(s) button will generate the approvals based on the predefined approval workflow. If the change request service allows ad hoc approvals, options will be available to generate additional approvals as needed. Approvals are generated in a status of Queued by default. Once the approvals are generated, new buttons appear to 'Launch Approval Process' and 'Recheck Conditional Approvals.'

When change managers are ready for the approval process to start, they click Launch Approval Process to set all approvals with the lowest step number to Pending Approval. It will also update the status of the change request to Pending Approval.

When an approval's status is set to Pending Approval, the approval team and/or approver are notified by email. Only the person identified as the approver or on the approval team will be permitted to approve or reject the approval. The approval process sequence is controlled by the step numbers. Approvals with the same step number value are launched at the same time, when the approvals with the next lower step number are completed. This is a different model than in the task workflows, in which the prerequisite task functionality provides more sophisticated branching sequences. With approvals, the step number controls the process and there are no separate sequences or threads in the approval process.

Another way in which approval generation is different from the handling of tasks is that conditional approvals are not created at all unless their condition is met at the time of generating the approval. Since these conditions generally depend on the meta data and fields in the change request, it is important to make any critical fields required to hold a value before getting to the point of generating approvals. The Recheck Conditional Approvals button does allow the technician to recheck the condition, if after generating the first approvals, the meta data changes. But it is best to ensure that any needed meta data is filled out first.

As the first approvals are completed, those with the next step number are set to Pending Approval and their assignees notified. Any approval notes put into the approvals are copied up to the change request in the running All Approval Notes field. Two fields below the approvals table track the Number of Approvals Needed and the Number of Approvals Completed, and once those two numbers are equal and greater than or equal to 1, the status is changed to Approved and the Requester and the Change Management team are notified.

Managing Tasks

date.

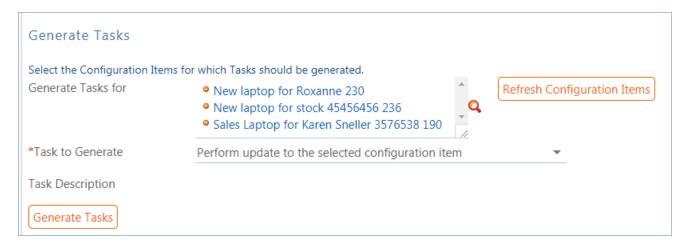
Some services have predefined tasks that will be created, either in a multi-sequence workflow, or individually. Tasks are generally created for the CR once any approvals are done. The user must first enter the Change Window Start Time and Change Window End Time, so that the tasks can be scheduled to start on the start

*Change Scheduling - Required to Generate Tasks

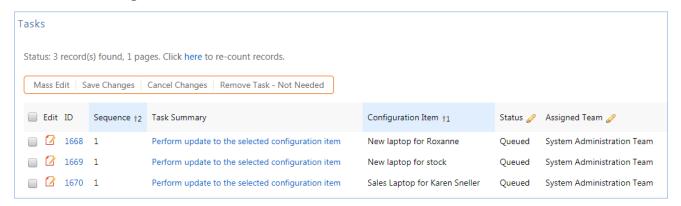
*Change Window Start Time May 27 2016 ** 00:00 ** Change Window End Time May 31 2016 ** 00:00 ** On the Change Window End Time May 31 2016 ** On the Cha

Services with a Single Default Task Defined

Here is an example where there is one default task for a given service (Perform update to the selected configuration item). Clicking the Generate Tasks button will generate one task for each of the CIs listed in the Generate Tasks for field.

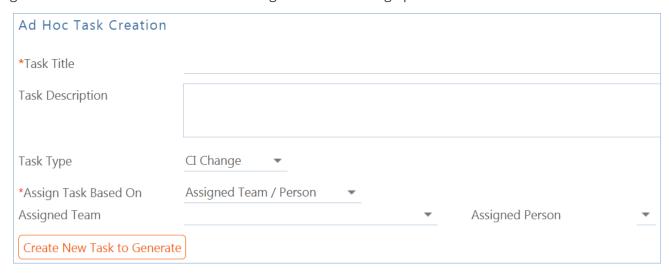


The result of clicking the Generate Tasks button in this case is:



Generating Ad Hoc Tasks

Depending on the options selected in the service, the user may have an option to create one or more ad hoc tasks. He may check the box for Create New Task to Generate? to create another task template that can be generated for all the selected CIs. Checking that box will bring up some fields to fill in for the ad hoc task:



Clicking the button to Create New Task to Generate will create a new Task Template, save the change request, and reopen it to edit, with the new task selected in the Task to Generate field. From here, he can click the Generate Tasks button again to add the Task to this CR for each CI that is selected.

Launching Tasks

Tasks may not be launched until the approval process is completed. This is to ensure that no work is started without approval. Clicking the Launch Tasks button will run the following checks and actions:

- If the field Service Approvals Required is set to Yes and there are still pending approvals, the tasks are prevented from launching.
- If the change request is related to a release and the release status has not yet advanced to Build in Progress or beyond, the tasks are also prevented from launching.
- Otherwise, a background field that controls visibility of the Launch Tasks button is set to No, a field controlling visibility of the Create Tasks button is set to No, the field Launched in all tasks for the workflow is set to Yes, the tasks without prerequisites are set to a status of Assigned, and the change request status is set to Implementation Started.

See the Task Templates and Tasks topics for more details on how tasks are launched and processed.

Reassigning the Change Request

To reassign the change request to a different team or person, change the Assigned Team and/or Assigned Person field and the system will email the new assignee notifying them of the reassignment.

Completing the Change Request

When all tasks are completed, the Change Manager is notified. Based on whether the tasks were all completed or whether some of them failed, the change manager will then set the status of the change request to Completed and the Closure Category to the appropriate value. If there are tasks whose status is Failed, the closure category will be validated to contain an appropriate value.

Changing the status to Completed will send an email to the Requester stating that the change is completed. Upon closing a change request, fields on the Work Status tab can be used to create a Knowledge Article based on the change request.

Setting 'Review for Knowlegebase' to Yes indicates that a knowledge article should be considered based on this change request. Once Review for Knowledgebase is Yes, the Knowledge Document Status and Create Knowledge Article fields are visible. The default value of Knowledge Document Status is Pending Review, and once Create Knowledge Article is clicked, the Knowledge Document Status is automatically updated to Created. If it turns out the knowledge article is not necessary, Knowledge Document Status can be changed to Not Needed manually. Clicking Create Knowledge Article opens a new knowledge article record with some information mapped from the change request, such as the Title, Purpose, and Description. Additional required fields must be populated before saving the record. Once the new knowledge article is saved, it is automatically linked within the originating change request. In addition, the knowledge article will automatically include about the source change request.

Working Notes

The Working Notes field is updated automatically from the running working notes for all of the related Tasks.

Related Records and Removing Tasks

During the working process, some tasks may be removed as not needed by the change manager. The action bar above the Tasks table in the change request includes a button to remove one or more tasks. This changes the status of the selected tasks to Not Needed and hides them. They are moved to the History tab and the embedded table called Inactive Tasks. There is a button above this table allowing the user to select a task and reassign it back to an active task.

Additional Notifications to Teams and Individuals

There are two fields that result in automatically notifying specified people or teams when the status of the change request is changed to Approved, Scheduled, and Completed. The 'Notify these Teams on Status Changes' and 'Notify these People on Status Changes' fields are shown near the bottom of the Details tab.



The change manager can look up specific teams or people and populate them into these fields, and when the status changes to Approved, Scheduled, or Completed, the teams and/or users will receive a notification telling

them of the new status and details about the request. The following is an example of the email sent when a request is scheduled.

Subject: Change request 278 is Scheduled

Body: You are identified as a CC on the change request shown below, which has just been schedule.

The change is scheduled to start on Jul 05 2016 01:00 and to end at Jul 05 2016 03:00.

Click here to view the request directly.

ID: 278

Change Category: Category 2 - Significant or Medium

Status: Scheduled

Change Management Team: Change Management Team

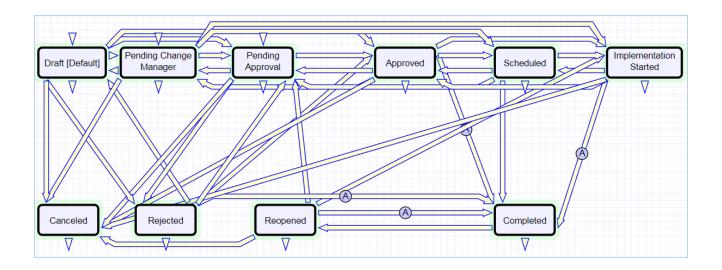
Change Manager: Chuck Eisner

• • •

Parent/Child Relationship

Previously we used a parent-child relationship of change requests to manage changes to multiple CIs. That possibility is still available but the fields for relating parent and child change requests have been removed from the layout, since that was a much more cumbersome process than the improved process based on generating tasks for each configuration item within the change request. However, if there is a need to relate change requests in a parent child structure, this logic can be re-utilized by putting the fields back on the layout and enabling the rules that managed the relationships.

Workflow



Change Request Form Layout

This section contains an overview and screenshot examples of the information stored in a change request in the out-of-the-box system.

Details Tab

A Change Summary must be entered to briefly describe the change, and a Change Category must be selected to categorize the significance of the change. A Change Management Team and Change Manager can be selected, and any team or people who want to be CC'd on status change notifications can be added to the notification fields. If a Change Management Team is chosen but a Change Manager is not, all team members will receive a notification. If a Change Manager is chosen, the email will be sent only to that individual.

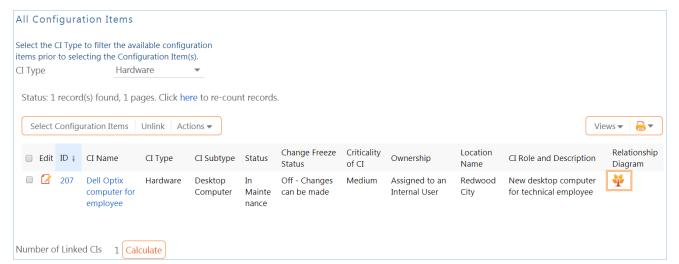
The submitter fields, Submitter Name, Email, Phone, Manager, and Department in the Submitter Information section default to the person who creates the Change Request, but this can be changed by clicking the lookup icon.

Next, a Business Service must be selected. Depending on the Business Service chosen, certain Services are available to categorize the Change Request further. The Risk for both if the Change is done and not done can be logged for analysis and assessment of the overall risk of the change request. Impact indicates the scope of the change request's effect, and Urgency can be used to convey how important it is to make the change. Impact and Urgency have options that are available based on the priority group for the service selected. Once Impact and Urgency values are selected, the Set Priority button can be clicked to preview the Priority that will be assigned to the Change Request based on the Impact and Urgency.

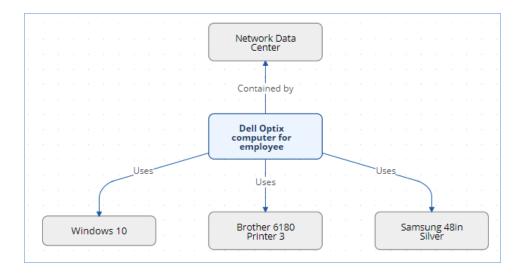
A description of the change is required, and in some cases, business reasons that justify the change. A backout plan is required, and an attachment or multiple attachments with more details can also be uploaded.

Configuration Items Tab

The Configuration Items tab shows all of the configuration items that will be affected by the change being requested, and allows the user to create these relationships between the change request and the CIs. Any relationships created here will also subsequently be displayed when viewing the CI record directly. CI attributes are also shown to facilitate change assessment and authorization, such as the Criticality of each CI.



In the Relationship Diagram column, click the tree icon to see a relationship diagram for each CI that shows the other CIs to which it is related.



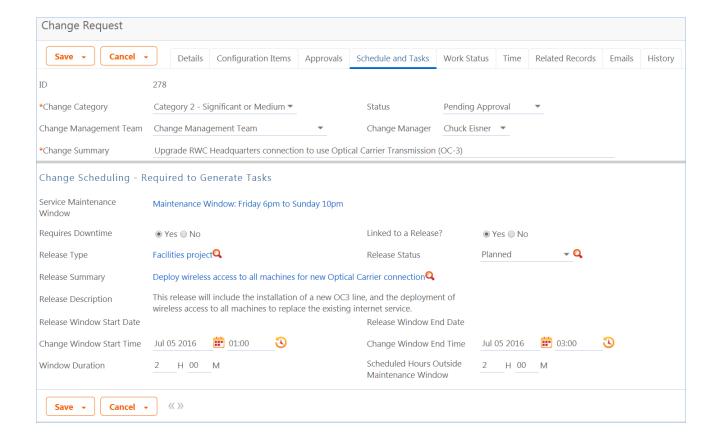
Approvals Tab

Based on the requirements specified for the service that the change request pertains to, approvals may be required. The Approvals tab displays the default Approval Workflow for that Service, and a different one can be selected if needed using a lookup. The approvals are then generated and launched, with the first approval set to a status of Pending Approval. Once all approvals are completed, the status of the change request is set to Approved.

Schedule and Tasks Tab

The Schedule and Tasks tab displays the maintenance window for the service and indicates whether there will be downtime. In addition, the change request can be tied linked to a Release record, and information about the Change Window Start Time and Change Window End Time can also be included. Once the change request is ready to be scheduled and has been approved, buttons appear to create one or more calendar entries for the change window, as well as for any build or test activities that should be published in the change calendar.

If Tasks are required for the change request, they are also shown on this tab with a Default Task Workflow and the option to customize and generate tasks.



Work Status Tab

The Work Status tab provides a place for working notes to be added. If the status is changed to a terminal status, for instance Completed or Canceled, a Closure Category is also specified for the change request.

Time Tab

Technician users may easily report the time they spend on handling change requests. There are two fields and an action button: Time Spent, Time Description, and Add Time on the Time tab of the layout. Entering values there will automatically create a new time entry record when the Add Time button is clicked. The time entry will show the work done by the technician and on the current date.

All the time entries for a request can be seen on the Time tab as well. If technicians need to report time spent on a different day or by a different user, they may click New on the Time spent table to submit a time entry directly and change the date or Done by field. All time entered is totaled in the All Time Spent field, which can be used in reporting or billing.

Note that this same time entry methodology is used in the Incident, Problem, Service Request, and Task tables.

Related Records Tab

The Related Records tab displays all of the links/relationships to and from the Change Request, including related problem records, related incidents, incidents caused by the change request, and related service requests.

Ownership

Records in the change request table are owned by the person whose login matches the Creator Login field.

Reporting and Statistics

This section describes the reports and statistical functions in the Change Requests table.

Forward Schedule of Change and Projected Service Outage

The Forward Schedule of Change represents approved changes and the proposed implementation dates. More generally, it is a list of change requests set to occur in the future. Functionally it might include CRs with restricted criteria, such as approved changes only, but by default the Forward Schedule of Change simply shows all change request that are not in a status of Closed.

The Forward Schedule of Change is a saved search available from the left pane menu under the Change Request table name. Change Requests are listed in order of Change Window Start Time. This search is also used in a structured HTML report of the same name. The report groups the CRs by requested date of completion, by week, and shows summary data including the sum of the Estimated Time to Complete for all records. The report can be configured to be sent in a weekly email to the Change Management team.

Projected Service Outage

The Projected Service Outage represents all approved changes that are set to occur in the future that will result in downtime. Similar to the Forward Schedule of Change, the Projected Service Outage (PSO) is also available from the left pane menu under the Change Request table name, and can be viewed in a structured HTML report. The change requests in the PSO are listed in order of the Change Window Start Time.

Both the Forward Schedule of Change and Projected Service Outage can be set up to be automatically emailed to various teams. This also applies to all charts and reports, which can be configured to be automatically sent to the defined teams. This allows for the sending of various reports to accommodate pre and post meeting workflows or CAB/eCAB proceedings, such as reports of pending changes, completed changes, and CRs pending post change reviews.

Change requests can be added to the Change Schedule using the Calendar icon at the top right corner of any record. Users can also subscribe and add the calendar as an internet calendar in Outlook. Users can further refine what they see on their calendars based on the Event Type in the Calendar entries, for instance Build, Test, Implementation. A link can also be generated and the same link can be distributed to all users to integrate the schedule into their Outlook Calendars.



Accomplished Change

Accomplished Change is the complement to the Forward Schedule of Change and by default shows all closed Change Requests, sorted by Date Closed.

Approval Management

There are three tables that control the automated and ad hoc creation of approvals related to various processes within the system. Currently approvals are used within Change Requests, Service Requests, Contracts, and Knowledge Articles. They can be added to other processes as needed.

The approval processes are managed by the Approval Workflows, Approval Templates, and Approvals tables.

- Approval Workflows
- Approval Templates
- Approvals

Approval Workflows

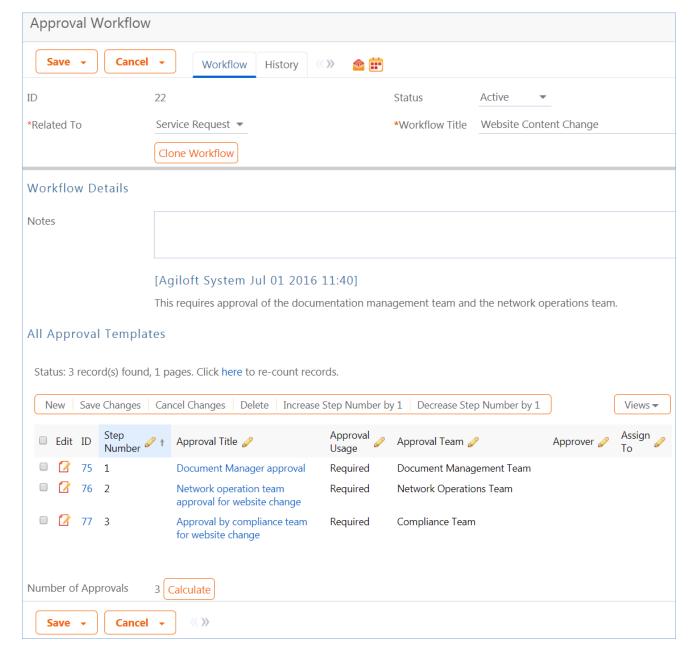
The Approval Workflows table is used to configure a set of approvals to be used for a given service request, change request, contract, or other object. A workflow consists of one or more approval templates, each of which defines a team or person responsible for approving, the order in which the approval will be needed, and some other characteristics of the approval. By default, approval workflows can be used for contracts, change requests, and service requests.

The approval process can include a combination of parallel and sequential approval steps.

Use Case

Approval Workflow records may be created by members of the Admin, Contract Manager, Change Manager, and Service Manager groups. To create a new approval workflow, click New from the Approval Workflow table action bar or from within the Contract Type or Service record.

The Related To field must be set to the correct value for the appropriate linked fields to appear, based on the process for which the approval workflow will be used. The next step is to add approval templates to the workflow by clicking New in the action bar of the All Approval Templates related table. For more information on how to design the templates to get a mixture of sequential and parallel approvals, see the Approval Templates section.



Required fields are marked by an asterisk. These include Workflow Title and Related to, which defines the table the workflow is used in. If the workflow is related to Contracts, an additional option allows the user to specify which contract types use this workflow.

When the workflow is selected for use in an approval process within another record, the system will generate the required approval records based on the specified approval templates. Additional ad hoc approvals may be created directly from within the Contract or Change Request if that method is permitted, based on the service or contract type setup.

Managing and Reusing Approval Workflows

Approval workflows can be modified even if there are outstanding contracts or services using them. Since the approvals are generated up front as soon as the record moves to Pending Approval, later modifications to the workflow and its templates will only have an impact if there are conditional approvals that are rechecked later in the process.

A workflow can be cloned by using an action button. Clicking Clone Workflow will copy the workflow, and make a copy of each of its approval templates. The cloned Approval Templates will be automatically linked to the newly cloned Workflow record. They can then be edited and modified as needed.

Approval Workflow Statuses

The approval workflow's status is either Active or Inactive. Only active workflows appear in the Workflow Title drop-down menu from a Contract or Service record. Workflows with a status of Inactive are no longer available for use in the approval process. Admin group members can change a workflow from Active to Inactive if needed.

Ownership

Workflow records are owned by the user who creates them. Specifically, a record is owned by the user whose Login matches the Creator Login field.

Approval Templates

The Approval Templates table holds a record for each approval to be created as part of a standard Approval Workflow. It predefines the approval team or person and also controls whether the approval is conditional on some meta data criteria being met or is always generated. Each approval template can only be used by a single approval workflow, i.e., there is a one-to-many relationship between approval workflows and approval templates.

Approval Templates can be created by users in the Admin, Contract Manager, Change Manager, and Service Manager groups. New approval template records are usually added from within an approval workflow record. Creating an approval template from the Approval Workflow table populates the link to the workflow. If an approval template is created directly from the Approval Template table, a linked Workflow Title must be manually selected. Each template contains information about which workflow uses the approval template, whether the approval is Required or Conditional, and how the approval is assigned. The required fields are Approval Title, Assign Approval Based On, and Step Number.

The Related Records tab displays all other approval templates used in the same workflow. The Step Number and title for the approval are used when converting the template to an Approval record.

Required vs. Conditional Approvals

In the Approval Usage field, the user sets whether the approval is Required or Conditional. When Conditional is selected, the Condition field will appear. The user can then input a formula that is evaluated when approvals are generated. This formula can contain any number of conditions that can be linked together by operators such as "or", "and", "contains", etc.

Required approvals are automatically generated when the Create Approvals button is clicked in the contract record or the Generate Approvals from Workflow button is clicked in the change request or service request record. Conditional approvals are only generated if the condition is met (typically the Condition is a search criterion based on some field value(s) in the record for which approvals are generated).

How are Conditions Defined?

To set up a condition for a field to meet some criteria for an approval to be generated, you must start with the variable for that linked record ID in the approval template, followed by a period and the field name in the source table. The approval template has fields for each of the linked sets to which it might be related.

So for instance, a conditional approval generated only if the change request risk is Category 2 and the Change type is Emergency would have a condition such as:

```
($latest_change_request_id.risk_if_done=="Category 2 - Significant or Medium") && ($latest_change_request_id.change_type=="Emergency")
```

There are several examples of conditional approval templates in the out-of-the-box system and you can use these as a guide to the appropriate syntax.

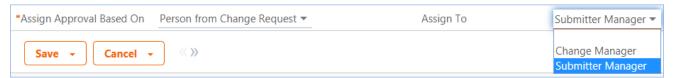
The mechanism by which the system evaluates the condition is that the action that runs in the action button "Generate Approvals" from the change request, service request, or contract pushes that record's ID into the appropriate field shown above, and an action running on the approval template is triggered in turn. If the

Approval Template Usage is Required, the approval is generated. If it is Conditional, it pulls in the values from the linked record and compares them to the condition in the Condition field. If true, it generates the approval, and if false, it does not.

Assigning Approvals

Approvals can be assigned to teams or users based on field values selected in the Approval Template or based on other variable fields from the parent record such as Contract Owner, Requester Manager, Contract Department Head, or Change Manager, Change Requester, etc. If "Assigned Team / Person" is selected in the Assign Approval Based On field, the Approval Team and Approver fields are visible. The Approver field is filtered to members of the selected Approval Team.

If, for an approval template for change requests, "Person from Change Request" is selected, the Assign To field appears. The drop-down selection in this field shows a list of user fields from the change request record, in this case, Change Manager and Submitter Manager.



Note: The selections in the Assign To field are configured and linked in from the Replacement Variables table. Refer to the Replacement Variables topic for more details on how to set up these values and their variables.

Similarly, when "Team from Change Request" is selected, a team can be chosen from the Assign To drop-down.

Sequence of Approvals

The sequence of approvals depends on the Step Numbers. Approvals are generated and ordered based on the step number order, and are triggered to Pending Approval from the lowest to the highest step number. To set up parallel approvals, give the same step number to each approval template in a parallel step. All concurrent approvals, meaning approvals with the same step number, must be approved in order to trigger the next step.

The automation that controls the triggering and ordering of approvals is managed from the Approval table, not the Approval Template. Fields in the approval record are used to determine if there are concurrent approvals and to define the Lowest Step Number which may not be 1, if the first step is a conditional approval that is not generated.

Using Approvals Just to Notify

You can use an approval template simply to provide a notification at a particular point in the process, rather than to create an approval that needs to be approved. This is done by setting the Auto Approve? field to Yes. When the preceding approval to the approval resulting from this template is completed, instead of the approval being set to Pending Approved, it is set to Approved automatically and the approver is notified, provided the Notify for Auto-Approval is set to Yes.

Approvals

The Approvals table holds all of the approvals that are sent to users and approved or rejected by them. Each record in the table is an individual approval or rejection linked to a parent Change Request, Service Request, Contract, or Document record.

In addition to being generated automatically based on a workflow and its approval templates, ad hoc approvals may be created by users with the appropriate privileges, either in addition to the predefined approvals, or instead of them.

Approvals for Change Requests and Service Requests

The default status for a new approval record is Queued. There are two main ways in which an approval is created for a change request. The first is by the change manager clicking a button on the Approvals tab.



This will generate the approvals based on the selected workflow. If an approval template's Approval Usage field has a value of Conditional, then it is only created if the condition is met.

The other method is for a change manager to create an ad hoc approval using the Create Approvals checkbox in the change request on the Approvals tab.



Note that this checkbox is only visible if the service was defined to permit ad hoc approvals and only prior to any approvals being launched. When the box is checked, the additional fields appear to define the approval title, step number, team, and approver, and to generate the approval.

Notifying Approvers

The approvers are not notified until the Change Manager or technician launches the approval process, by clicking the Launch Approvals button. At that point, the lowest numbered approval record will be updated to Pending Approval and the Approver or the Approval Team (if the Approver field is blank) will be notified that the approval is due. If there are any concurrent approvals for a particular step, the approval record will also be updated with those concurrent approvals.

If an approval is set to be Auto-Approved, the approval status will be updated to Approved and the Approver

or the Approval Team will be notified of the auto-approval, unless the Notify for Auto-Approval field has a No value. This is a method of notifying someone about a change without requiring them to respond.

Approving, Requiring Changes, or Rejecting an Approval

The approver can approve the change by email through a link or click a Require Change or Reject hotlink to edit the Approval record directly and enter some comments and click the appropriate button. If editing the approval record directly, comments will be required if the approval record is rejected or marked as requiring changes. Any individual attempting to click one of the three buttons to approve, reject or require changes will be subject to a validation rule requiring that they be a member of the selected Approval Team.

Whenever the approval notes field is updated, a rule will copy the update into the linked change request or service request's All Approval Notes append only field and the field in the approval will be blanked out.

If the approval is marked Approved and there are no concurrent approvals, the next approval record in the sequence will be updated to Pending Approval and the Approver or Approval Team will be notified. If there are concurrent approvals, all concurrent approvals must be completed prior to the next approval step being updated to Pending Approval. The approver and the date approved will be updated to reflect whoever clicked the Approve button.

If a change request approver clicks the button Requires Change, the linked change request status will be modified to Pending Change Manager, and the Change Management team and Change Manager, if any, will be notified and they will decide whether any changes made require restarting the whole approval process or just carrying on from the rejected approval. If they want to start over, they will click a "Relaunch Approvals" button and that will first set all linked approvals to Queued and then launch the first step again. Otherwise they can make the necessary changes, then set the "requires change" approval back to Pending Approval for the process to carry on from there again.

If the Requires Change button is pressed for a service request approval, the assigned person on the service request is notified. They will take similar steps to make necessary changes and either restart the approval process from the beginning or from the latest step.

If the approver for a change request marks the approval as Permanently Rejected, the linked change request will be updated to a status of Rejected and the Requester and Change Management Team notified. The user will be required to resubmit the change request if still required, with appropriate changes.

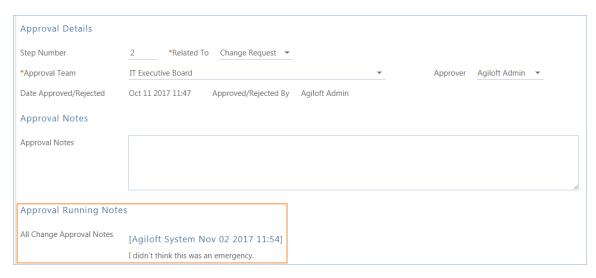
If a service request approval is permanently rejected, the service request is set to a status of Canceled and the submitter and assigned person are both notified of the rejection.

In either case, all other approvals in a status of Queued or Pending Approval will be updated to Not Needed. If an approval is updated from a status of Pending Approval to Not Needed as a result of the above action, the Approver or Approval Team will be notified that their approval is no longer necessary.

Approval Notes

Each approval record stores the parent record's ID, Approval Team, and Approver. Depending the type of record the approval is for, additional fields will be visible from the linked record. The Date Approved/Rejected field captures and displays the timestamp of the approval, shown on the History tab.

Notes about the approval or rejection are entered into the Approval Notes field. When the record is saved, the notes are updated in the linked record's All Approval Notes field, and they become visible to approvers as part of the linked set to the original record. This way each approver can see notes added by previous approvers when they are approving.



Only people in the Approvers group and members of the Approval Team can approve or reject approval records. Users updating the status to Permanently Rejected or Requires Change are required to enter Approval Notes.

Knowledge Article Approvals

The approval process for knowledge articles is more basic. It allows only for approvals by individuals and in a parallel configuration. It is managed from within the knowledge article by selecting Yes for the Requires Approval field on the Progress tab. The user selects one or more Approver(s) who will be assigned to review and approve the document, then clicks the Submit for Approval button to generate the approval records. These records are not generated from approval templates but by going down through the selected employees and converting from each employee record to create an approval linked to the knowledge article. The knowledge article ID is passed into the employee record along with the flag to convert.

All knowledge article approvals are created with a default status of Pending Approval and the approvers are notified immediately. All approval records are created with a Step Number of 1. Notes added to knowledge article approvals are appended to the Approval Notes field in the parent knowledge article. For more information on approvals for knowledge articles, see Knowledge Management.

Contract Approvals

The approval process for contracts is very similar to that for change requests and service requests. Approval workflows are used to control the templates and the same options and behavior are available. For more details on the contract workflows, see the Contracts Table section.

Ownership

Approval records are owned by the user who creates them. Specifically, a record is owned by the user whose Login matches the Creator Login field.

Task Management

Tasks may appear in service requests, change requests, projects, releases, and other places within the system. The Task Management tables help automate task creation and include Task Workflows, Task Templates, Task Steps, and Tasks.

- Task Workflows
- Task Templates
- Task Steps
- Tasks

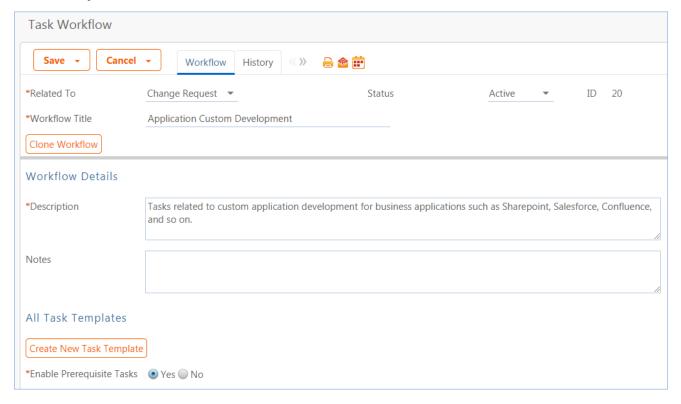
Task Workflows

Task Workflows are records that are used to hold a set of task templates that may be organized to trigger all at once or in a specified sequence. They can be used in change requests, services requests, releases and they are also used in the Project Types table. They essentially predefine the tasks that should be done for a particular request type. They are used in conjunction with the Task Generation Method of Predefined Task Workflow, a field in the Service Portfolio and the Project Type tables.

Task workflows can be created by members of the Project Manager, Change Manager, Service Manager, and Admin groups. All except admin users may only edit the workflows related to their primary tables, so change managers can edit workflows related to change requests, while project managers can edit workflows related to project types.

Creation of Records

A task workflow can be created directly in the Task Workflows table or it can be launched from within a service for a change request or service request or from a project type record, using an action button. The advantage of doing it from a service record or project type record is that the Related to field will be populated automatically with the correct table:



Either way, the process of setting up a new task workflow involves naming it with a unique name, ensuring it is related to the correct table, adding a description, and then creating the task templates. Clicking the Create New Task Template button saves the workflow and then brings up the new task template screen. See Task Templates for more information on how to create and fill out the task template form.

Once the first template is created, if the Enable Prerequisite Tasks is set to Yes in the workflow, then additional templates may select the earlier ones as prerequisites.

Prerequisite Task Handling

Within a single task workflow, there may be multiple threads of dependent tasks with different prerequisites, and these threads may proceed independently. It is possible to launch two separate threads and bring them back into alignment by making their last tasks prerequisites of the next task, for instance.

Task templates can be conditional, and if their condition is not met, then they will be marked as not needed when they would otherwise be assigned. When they are marked as not needed, their dependent tasks will be assigned. This is an important point: tasks that are dependent on conditional tasks are not prevented if the condition is not met. If they should be prevented, then they should also be made conditional based on the same condition as their prerequisite task.

Note that when tasks are launched for a project or a request using a Launch Tasks button, the status of tasks will be changed to Assigned based on the following logic:

- The task status was Queued or Conditional;
- The task has no prerequisites and is either not conditional, or its condition is met;
- The task has some prerequisites but they are all set to a status of Not Needed or Completed i.e. they are conditional and are not needed, or they have been "removed" (marked as not needed) by a technician before the tasks are "launched".

Below is an example of a task workflow for employee termination.



Here there are two tasks that will be assigned right away because they have no prerequisite tasks. The tasks with a sequence value of 2 will be assigned as soon as the Hold Exit interview is completed, so they might get assigned before some of the tasks in step 1 are completed. The final task will be assigned as soon as the exit interview is completed and the Reassign all support and other tasks item is completed. So it is conceivable that ID62, ID160 and ID63 are all in progress at the same time and any may be completed first.

The ability to choose exactly which tasks must be finished before a task is assigned gives a very flexible model for complex task workflows. The sequence number gives a general impression of the order of tasks, but it is not definitive and does not control any of the processing. It allows the tasks to be sorted more or less in order of assignment.

Cloning a Task Workflow

Workflows can be cloned using the Clone Workflow button. The effect of cloning a workflow is to create a new workflow with the workflow title changed to prefix it with information that is was cloned, i.e. Cloned on 05/27/2016 02:58 - General IT Project. The task templates are also cloned and linked to the new workflow.

Note that task templates may only be linked to one workflow and are created independently for each workflow, since they may have a sequence and order within that workflow that would be different within a different workflow.

Task Templates

The Task Templates table holds records that serve as templates for automatically generated tasks. Each Template record specifies a Task related to one of the other tables. Task Templates have a Related to field, just as tasks do, and they may be linked to a specific service, task workflow, or project type. They define the method of assignment, the expected number of working hours to complete, and any prerequisite tasks.

Task Templates may be combined within a Task Workflow, or they may exist independently of a workflow. They can be combined to form a set of "User Selected Tasks" linked to a service or project type. Or a single task template may be linked to a service for a change request, to be generated for each of the configuration items linked to the change request.

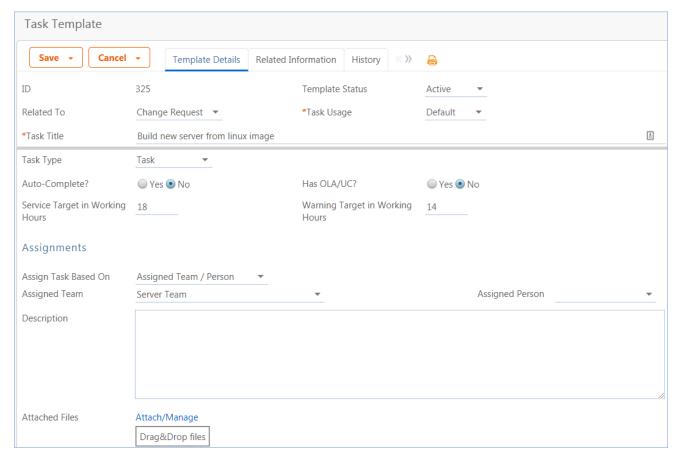
Template Details Tab

All of the interactive fields are on the Template Details tab. Task templates may be related to Service Requests, Change Requests, and Projects, along with other tables.

The Task Usage may be Default or Conditional. If conditional, then a saved search condition based on metadata in the record where the task is generated should be defined. When the task is assigned, the condition is checked to see if it is met and the task's status is changed accordingly. If the condition is met, it is set to Assigned, otherwise it is set to Not Needed. Tasks can also be auto-completed by setting the Auto-Complete? field to Yes.

The Service Target in Working Hours is used to set the task's Date Due once it is in the 'Assigned' status, by adding the defined number of working hours for the assigned team to the current time. The Warning Target in Working Hours sets that field in the task using the same logic.

The Task Title may not contain commas.



The Assign Task Based On field lets you define a task template whose resulting task will be assigned to a person defined in the related record. The default of Assigned Team / Person lets you choose the assigned team or person in the task template. A different value allows you to choose a variable that has been preconfigured in the Replacement Variables table. For instance, for tasks related to Service Requests you will see options in the Assign To field such as Service Request Assigned Person, Service Request Submitter, and Service Request Submitter Manager.



The choices in the Assign to field are set in the Replacement Variables table and can be edited there, or new fields added.

Note that if you set a task to be assigned in this way, but there is no value in the selected field – for instance, there is no submitter manager defined in the service request – then the task will not be properly assigned. As a backup, such tasks are assigned to the 1st level Support Team.

Setting up Prerequisites

You can add and remove prerequisite tasks from a task template record. To add a prerequisite task...

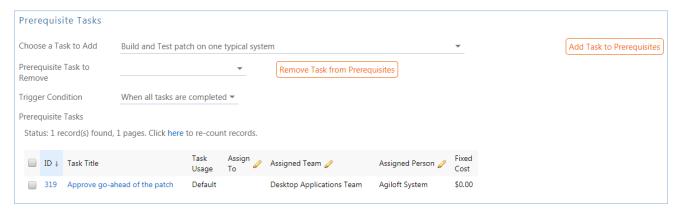
1. Select a task in the workflow in the Choose a Task to Add field.

2. Click Add Task to Prerequisites to set it as a prerequisite for the current task. It will appear in the Prerequisite Tasks list.

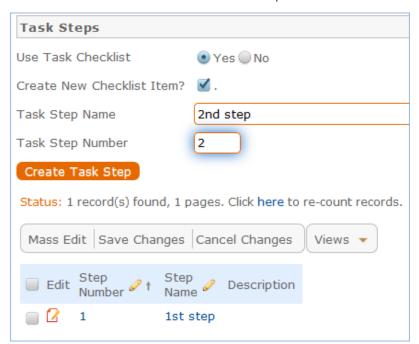
To remove a prerequisite task...

- 1. Select a task in the Prerequisite Task to Remove field.
- 2. Click Remove Task from Prerequisites.

Note that prerequisite task setup is only visible and enabled if the task template is linked to a Task Workflow and if the linked field Workflow Enable Task Prerequisites is 'Yes.



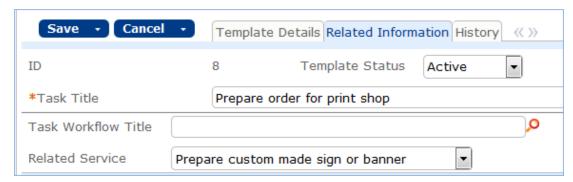
At the bottom of the tab is the option to set up a task checklist. Checklist items appear as a set of checkboxes in Task records created from this template. If Yes is selected, you can add individual steps and define the order of the task checklist items with the Task Step Number.



To add steps, first check the Create New Checklist Item? box, then fill out a name and the step number. Click the Create Task Step button to create a record in the Task Steps table. Creating a task checklist can provide a list of troubleshooting steps or a list of things to be done within a single task.

Related Information Tab

The Related Information tab shows other records that contain this task template. If the template is part of a task workflow, the workflow is listed in the Task Workflow Title field. If it is linked to a particular service as a "User Selected Task," then the linked service name will be displayed in the Related Service field.



Use Case

Task Templates are related to either the Project, Change Request, or Service Request tables using the 'Related to' field at the top of the form. Whenever a Task Template is used to generate a Task, a conversion is done from the Task Template table to the Task table, mapping important information in the task template to the task record that is generated. This task record is linked to the service request, project, or other table that generated it, as well as being linked back to the source task template.

Templates can be made inactive when they should no longer be used, and that will prevent them from being generated as tasks. When the status is changed to Inactive, an edit rule will delete any link to a task workflow, project type, or service, so the task template will no longer appear as available in those services or new projects.

Another rule prevents task titles from having commas in them, and if a comma is stripped out, provides a pop-up message alerting the creator that it has been removed. This is required due to the need to compare a task title to a comma separated list of multiple existing prerequisite task titles - the comma is used to distinguish one template from another, and if there is a comma in a title, it produces inaccurate results.

Using Tasks Just to Notify

You can use a task template simply to provide a notification at a particular point in the process, rather than to create a task that requires action to be completed. This is done by setting the Auto-Complete? field to Yes in the template record.

When the task is created from this template, it is marked Completed automatically at the appropriate point in the task workflow. For instance, if there are preceding or prerequisite tasks, the auto-complete task is not marked Completed until it is ready for assignment.

Automation and Workflow

The automation on the Task Template table is almost all designed to handle the conversion into tasks when triggered from elsewhere, rather than to manage a process within the Task Template itself. In general, there are "flag" fields in the task template that get set to Yes to trigger conversion for each of the different main record types, and linked fields to the source records so that the new tasks that are triggered can be linked to the correct service request, project, or change request. In addition, we keep track of all service requests and projects for which a task template has been generated so that if a user tries to generate the same task for the same parent record, the system prevents it. Since change request tasks must be generated multiple times, one for each CI, we do not block this in the same way.

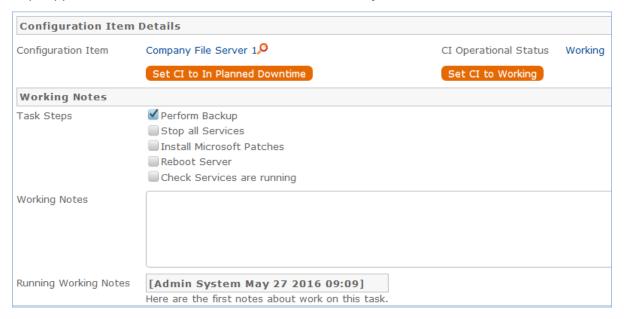
Cloning Task Templates Along with a Task Workflow

Task workflows may be cloned and then modified, and when a task workflow is cloned, its task templates are also cloned and linked to the new workflow. Cloning reproduces all the elements of the original task template except any task steps. If task steps were involved in the task template, they will need to be recreated in the cloned template.

Task Steps

Task steps are used to define a multi-step process within a single task, as an alternative to creating several tasks. This makes sense when the same person is performing all the steps, or when the steps are used as a reminder for actions that may or may not need to be done. Adding task steps to a task template can be simpler than creating multiple tasks in a task workflow, as the information is all in a single task. They are best used when you do not need an audit trail of when each step was done and by whom.

Individual task step records are linked to a specific task template and can only be used in that template. They are very simple records with just a Title and a Sort Order. In a Task record created from the template, Task Steps appear as a set of checkboxes in the order defined by the sort order.



Task steps are always created from within a task template, as described in the Task Templates section. They should not be created directly, since without being linked to a task template, they will never appear anywhere. There is no automation on this table.

Tasks

Like Services, the Tasks table is a global table that holds records that often link to and appear within the records in other tables. The Tasks table holds individual tasks. While it may be used for tasks of many different kinds, the system is currently set up so tasks can be related to Service Requests, Change Requests, Releases, Incidents, Projects, and Configuration Items, or they can be completely independent of other tables. It is possible to modify the setup to relate tasks to records in any table and to show embedded tasks in any other table.

In the Tasks table, the Related To field indicates what type of record the task is associated with. Related records may be Change Requests, Service Requests, Projects, Configuration Items, and Releases. Service requests, releases, and change requests contain fields showing an embedded Tasks table and other fields to create tasks. Tasks and the fields for generating them are also shown within Projects and Configuration Items. Projects allow the same methods of task generation as service requests, while Configuration Items allow single tasks to be created and linked to the CI, and they also show all tasks that have been created from other records (change requests or service requests) that relate to that CI.

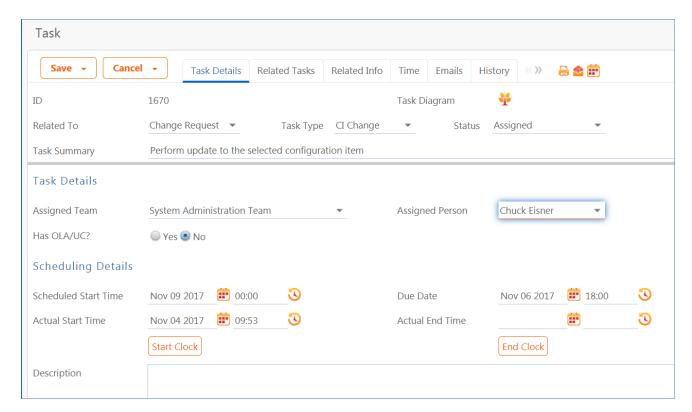
If you need to use tasks in additional tables, you can modify the Related To field and add the desired table to the choice list. Then, create a linked set of fields from that other table, and make these fields visibility dependent on the value in the Related To field. Use the linked Service Request and Change Request fields as a model. Finally, create a related table in the other table pointing to the Tasks table, giving users the ability to create new tasks from the related table. This advanced change is best done after completing our online training course or with our professional consulting team's assistance.

Task Layout

This section reviews the important fields on each tab of the Task record.

Task Details Tab

The main task screen has fields for assignment, the Task Type, its Status, its Due Date, and a Description. It also includes an area for managing the related configuration item, if any, and a place to add working notes and to display all the running working notes that have been added.



When tasks are generated for a change request, their Scheduled Start Time is set based on the change window start time. When tasks generated from a template move into the Assigned status, the system sets the Scheduled Start Time to now, sets the Warning Date by adding to the current date and time the Warning Target in Working Hours of the task template, and sets the Due Date field based on the Service Target in Working Hours field in the task template. The Assigned Team's working hours are used to calculate the dates.



When working on a CI-related task, the technician will see fields identifying the configuration item and two related action buttons. The action buttons let technicians update the Operational Status of the linked CI to indicate that it was taken offline or brought back online.

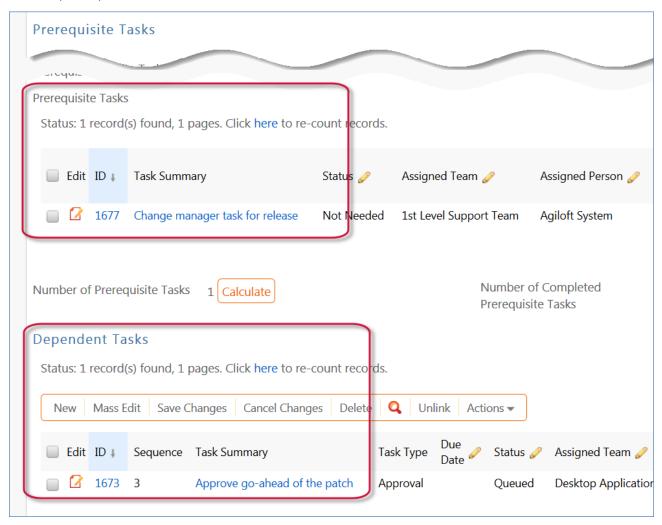


Some tasks include Task Steps. These steps, which appear as checkboxes above the Working Notes field, are created in the task templates. There are no default rules enforcing that all checkboxes are checked before completing a task, but such a rule could be added.

Working Notes	
Task Steps	 Perform baseline backup prior to patch Build patch on standard system Test the result, restart the desktop and login to confirm proper functioning
Working Notes	

Related Tasks Tab

The Related Tasks tab shows the prerequisite tasks, if any, and allows the current task to be related to prerequisite tasks within in the same parent record. It also shows any dependent tasks – those for which this task is a prerequisite.



In the above example, we see a task that has one prerequisite and one following task defined. The Trigger Condition field defines whether this task can be Assigned only when all prerequisites are done, or as soon as any of them are done. Additional tasks associated with the same parent record can be added to the prerequisites by selecting the task and clicking the Add to Prerequisites button. Any prerequisite task can be removed as a prerequisite by selecting it in the Remove Task from Prerequisites field and clicking the Remove

from Prerequisites button.

Related Info Tab

This tab shows details about the record linked to the task, which will typically be either a project, service request, change request, release, or incident. From here you can open the source record by clicking on the linked fields.

Time, Emails, and History Tabs

The Time tab allows time to be entered and shows all time entered for the task. Note that any time entered for the task will also roll up into the request to which the task is linked. If OLAs are being used, information about the OLA targets and whether they have been met are shown on this tab as well.

The Emails tab holds communication records while the History tab holds standard fields such as History, Date Created, Date Updated, and the Warning Date.

Using the Tasks Table

This section describes how to use the Tasks table. Much of the behavior of tasks may be defined in the task template from which it is generated, so be sure to review the task template section as well.

Tasks Created from a Template

Tasks are most often created when a user clicks a button to Generate Tasks in another record, for instance from within a Project, Service Request, Change Request, Incident, or Release. Such tasks are generated from Task Templates that have been defined to be used for the particular project or request type. When generated from a template, tasks are auto-assigned to the appropriate team or person based on settings in the task template record.

Tasks Created Manually (Ad Hoc)

Tasks can also be created manually outside of any other record or by clicking a button to create an ad hoc task from within one of the request records. In the latter case, the user chooses the Assigned Team and/or Assigned Person and may also set a Due Date, select prerequisite tasks manually, and set other fields as needed.

Note that users are prevented from creating tasks whose Task Title has a comma, since some of the automation for prerequisite tasks would fail. If a task is created with a comma, the comma is removed. Commas are also prevented in Task Template titles for the same reason.

Automation When Tasks are Created

Several rules run on the Tasks table when new records are created. These include validations for data integrity as well as automation related to the linked records such as Incidents, Change Requests, Service Requests, etc.

Validations

- Tasks related to a Project can't be saved if the status of the project is Completed or Canceled.
- Tasks created with a Due Date in the past prompt a warning for the user. The task may still be saved with the past Due Date.

Automated Actions

- The Task's status is set to Conditional if the task template usage is Conditional.
- If the task template defines the assignee as an individual from the related record, for instance the Change Manager or Project Manager, then that person is linked from the parent record. The Assigned Team is set to that user's Primary Team.
- If the Task is in a Status of Assigned and assigned to a person, then that person is emailed unless they are the task's creator. Otherwise, the assigned team receives the notification email.
- The Request Priority field, if empty, is set based on the priority value of the parent record. The parent record may be an Incident, Service Request, Change Request, or Release.
- If the task relates to a Change Request and was generated as a single task, its sequence value is set to 1.
- If the task's source template included prerequisite tasks, then the corresponding tasks are set as prerequisites. The prerequisites are then sorted and the one with the highest sequence value is set in another linked field called Highest Sequence. The new task's sequence is set to the highest previous sequence plus one.

Note that the Sequence field is purely informational. No automation is triggered based on the sequence directly, but it is there to provide a general idea of the order in which tasks will be triggered and completed.

Processing Tasks

When tasks are first assigned, the Assigned Person or Team is notified. Additionally, the Due Date is set based on specified criteria. Tasks are assigned when they are created initially from a parent record, or when prerequisite tasks have been completed. Tasks can also be assigned directly by users for ad hoc tasks. Some tasks are auto-completing, and in that case the task is marked Completed and the assignee is notified.

Once the task is assigned, the assignee begins work. Staff can add Working Notes and refer to the linked Service Request, Project, Change Request, or other parent record from the task. The default statuses for tasks are Queued (default), Conditional, Failed / Rejected, Waiting for Others, Assigned, Completed / Approved, and Not Needed.

When the Working Notes field is updated, the text is copied into the Running Notes field and the Working Notes is erased for reuse. If the task is related to a change request, the notes are also updated in the Change Request's running working notes.

At any point until the task is completed, users may enter time spent on the task in the Time Spent and Time Description fields, then click "Add Time" to convert the information into a time entry.

When working on a configuration item, the Start Clock and End Clock buttons can be used to set the Actual Start Time and Actual End Time as needed. The user may also manually put values in these fields. When a task record is saved, if the status has changed to Completed / Approved, Failed / Rejected, or Not Needed, the system updates any dependent tasks by refreshing their Number of prerequisite tasks counts. If this was the last prerequisite, then that will trigger the next rule to assign the dependent tasks. A rule sets the Assigned Person field, if it is blank, to the person who completed the task. If the task is for a project, the project manager is notified of the task completion.

Completing Tasks

When a technician completes the task, they may change the Status to Completed / Approved and save the record. If the Date Done field is empty, the system enters the current date and time. Alternately, technicians may enter a Date Done directly. The system allows the user to override the value in that field.

When a prerequisite task is completed, its dependent tasks are updated, and if all prerequisite tasks are now completed or the Trigger Condition was set to trigger after any one prerequisite is done, then a rule checks whether the task was conditional, and if so, checks the condition to see if it is met.

If the task is not conditional or its condition is met, then it sets the status to Assigned. Otherwise, it sets the status to Not Needed, which will trigger any next dependent tasks. When all tasks for a particular record are completed or marked as Failed / Rejected or not needed, the person or team assigned to the main request is notified that all tasks are done.

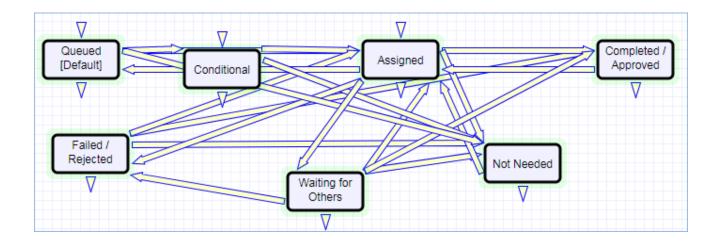
Measuring Time for Tasks

In addition to time that is manually entered, the system tracks two kinds of elapsed time. The Working Hours to Complete field is set to the difference between the Date Created and Date Done, excluding the non-working hours of the assigned team and also excluding the time during which the Status was Queued, Conditional, or Not Needed.

The Actual Working Hours field measures the time between the Actual Start Time and Actual End Time, excluding the non-working hours of the assigned team. These fields can be used in reports to see the average amounts of time tasks of specific types are taking. They can also be compared against the Template Number of Hours to Due Date value, which sets the expected working hours that should be needed for the task.

Automation and Workflow

There is a simple workflow for tasks that currently executes no actions, but simply controls the status transitions.



Time Based Rules

There are two time based rules that are set up but not running:

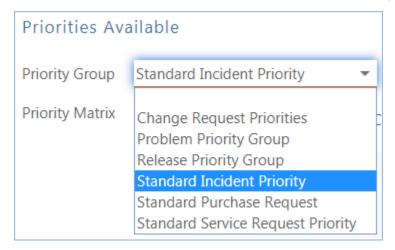
- TB: (DISABLED) Notify of upcoming task. It will notify the assigned person or team when the due date is one day away, once it is turned on. Currently it is disabled. There is a radio button at the bottom of the General tab in the table settings if this rule is desired. The schedule may need to be changed from every 10 years to something more useful.
- TB: (DISABLED) Set alert color to red if overdue. This sets the alert color to red when the date due has passed, so that views that use row coloring can show users that the task is overdue.

Impact, Urgency, and Priority Management

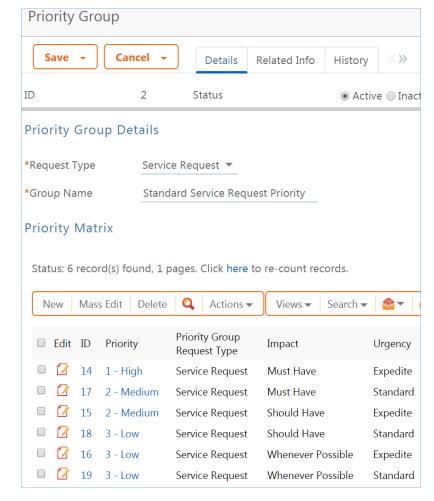
There are five tables that manage the urgency, impact and priority values that are shown within a Service Request, Incident, Change Request, Problem or Release record. This section describes how these tables work.

Priority Groups Table

Each service in the Service Portfolio table is linked to a Priority Group.



By default there are six priority groups, but you can create additional ones as needed. They are applied based on the request type and each priority group can have its own set of urgencies, impacts, and priority matrix of values that result from all combinations of urgency and impact within a record. For example, the priority matrix for standard service requests has six levels of priority.



All of the wording in the priority matrix fields is defined for the specific priority group, so it is possible to have completely different priority lists for different services, as needed.

In order to set up a new priority group, the priority group must first just be created, named, and saved. Then, either the existing impact and urgency records can be updated to add that priority group to the available groups, or new impact and urgency records can be created and linked to the new group. That will make those values available to create the priority matrix.

Impacts Table

The Impacts table contains all possible Impact values that can be selected in the request tables. Each impact can be made available for one or more priority groups. Within a request, the available impacts are filtered based on the priority group of the Service for the request being contained in the Impact record's Available for Priority Groups field. The Order field defines the order in which the impact is listed in the drop-down list.

Order 3 2 1	Status Active Active Active
2	Active
1	,,,,,,,
_	Active
1	
	Active
2	Active
3	Active
4	Active
3	Active
2	Active
1	Active
3	Active
2	Active
1	Active
3	Active
2	Active
1	Active
2 1 2	

Urgencies Table

The Urgencies table contains a record for each possible urgency value that can be selected within a request record. Urgencies only appear in requests if the value in the request's Service Priority Group field overlaps with the Available for Priority Group field in the Urgency record.

ID ‡	Urgency	Available for Priority Groups	Order	Status
8	Emergency	Change Request Priorities Problem Priority Group Release Priority Group	2	Active
7	Standard	Change Request Priorities Problem Priority Group Release Priority Group	2	Active
6	Expedite	Standard Purchase Request Standard Service Request Priority	1	Active
4	Low	Standard Incident Priority	4	Active
3	Medium	Standard Incident Priority	3	Active
2	High	Standard Incident Priority	2	Active
1	Critical		1	Active

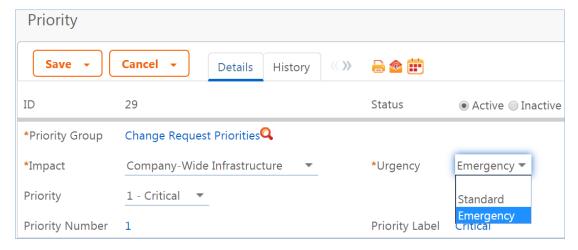
Priority Values Table

The Priority Values table holds records for all the possible priority values used in the priority matrix, making it faster to set up new priority matrices. The default values are shown in the table below.

Priority	Priority Label	Priority Number
5 - Very Low	Very Low	5
4 - Low	Low	4
3 - Medium	Medium	3
3 - Low	Low	3
2 - Medium	Medium	2
2 - High	High	2
1 - High	High	1
1 - Critical	Critical	1

Priorities Table

The Priorities Table is where these values are all put together to define the matrix and how priorities will be assigned based on the combination of impact and urgency. Priority records are best created while editing the Priority Group record, using the related table of priorities shown there.



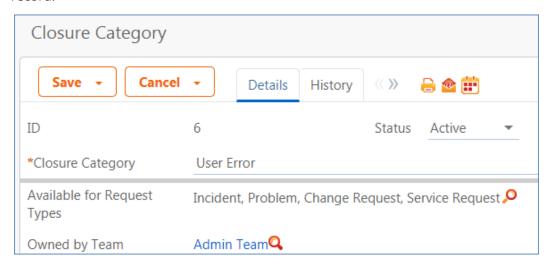
To set up the matrix, create a Priority record and choose an impact and an urgency and decide what priority you want to be the result of that combination. Then create the other records. When creating a Priority record, the impacts and urgencies available for selection are filtered based on the priority group, which is why they need to be set up first. To change the logic that leads to a certain priority, the Impact and/or Urgency fields within the priority record can be modified.

Closure Categories

This background table holds a record for each closure category value that can be selected in request records. Closure categories have been configured for incidents, service requests, problems, change requests, and releases. In these requests, the user is typically prompted to select a Closure Category when changing the Status to Closed or some other terminal status. This information is then used in reports to provide information about what the most common closure categories are.

Closure categories and related fields can be turned off by navigating to the ITIL Functions table and setting the Function Turned On field to No. That will hide the closure categories fields from the tables where they are used.

Each record stores the types of requests for which the closure category should be available. Each closure category also has an Owned by Team, which is used to restrict users outside that team from editing the record.



Default Closure Categories with the request types for which they are available are shown below.

Closure Category	Associated Request Types
Service Interruption	Incident
Self-Repaired by Monitoring System	Incident
Lost item replaced	Incident,Service Request
Faulty component replaced	Incident,Problem,Change Request,Service Request
Provided user with direct training	Incident,Service Request
Users need training in this area	Incident,Service Request
Rejected by Approvers	Change Request,Release
Canceled by Requester	Incident,Change Request,Service Request
Replaced with another RFC	Change Request
Partially completed, partial rollback	Change Request,Release

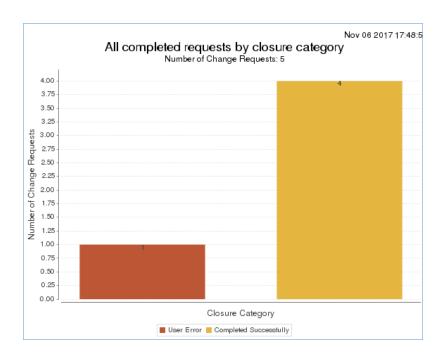
Rolled Back after Failures	Change Request,Release
Completed with Failures	Change Request,Release
Completed Successfully	Change Request,Service Request,Release
User Error	Incident,Problem,Change Request,Service Request
This user needs training	Incident,Service Request
Software Failure	Incident,Problem,Service Request
Hardware Failure	Incident,Problem,Service Request

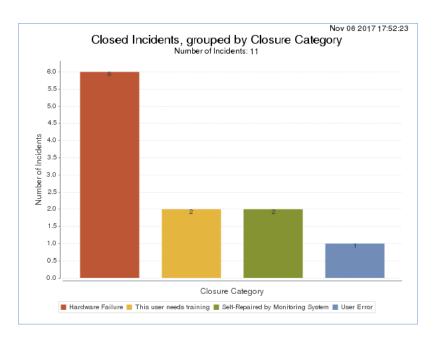
Usage and Reports

The Closure Category appears as a drop-down list in the request tables and is filled with an appropriate value when completing the request. An example from the Change Request table, showing the values available for a change request, appears below.



A report running on the Change Request table reports on all completed change requests by closure category. A similar report exists on the Service Requests table, as well as one on the Incident table.





Service Catalog and Portfolio Management

This section describes the out-of-the-box structure for the Service Catalog and service management portion of the Agiloft system. The relevant tables are summarized below.

Table name	Description
Business Services	This table holds the high level business services for which specific service offerings will be made available to users based on specific SLAs. The business services are also created as configuration items to provide a diagram in the configuration items table of the relevant components and services on which the business service depends. An example of a Business Service is "Network Services" or "HR Management". For more information, see Business Services.
Service Portfolio	This table holds all of the specific service offerings that are being planned or are in progress – the Service Pipeline – as well as those that are Active or being reviewed for renewal – the Service Catalog – and those that are retired. Each individual service is linked to a Business Service. Under the Network Services Business Service, for example, are services for Can't Access the Internet, Can't Access Shared Drive, Configure wireless access, Report slow network or internet connection, and so on. Each service is used in a specific request type, such as Service Request, Incident, or Change Request. For more information, see Service Portfolio Services.
Service Plans	This table is used to capture information for Service Improvement Plans and Service Quality Plans in support of continual service improvement. These plans can be linked to customer surveys and to the CSI Register. The use of this table can be toggled in the Setup > Tables menu by hiding or unhiding it. It can also be turned on or off in the ITIL Functions table. For more information, see Service Plans and CSI Register.
CSI Register	This table is used to manage a CSI Register and collect information there that will be linked to Service improvement plans. The CSI register may be turned off in the ITIL Functions table if not needed and the table hidden or unhidden. For more information, see Service Plans and CSI Register.
Service Level Agreements and Underpinning Agreements	These tables will be discussed in the Service Level Management section, though they have direct relationships to the Service Portfolio and Catalog.

Business Services

The Business Services table holds the primary services under which specific service offerings are organized. It includes fields for collecting data about the supporting services, the business use case, and the SLA customer groups for whom the service is available, which is automatically set based on the SLAs that have been linked to the business service. By default the service catalog consists of a two-level hierarchy with a Business Service being the parent and Services in the Service Portfolio being the children.

There are additional subsets within this hierarchy based on the Request Type resulting from the service – Service Request, Incident, or Change Request – and also, within Service Requests, based on whether the service involves a purchase, defined by the field "Involves Item Purchase- Yes/No" in the service table. Further tagging or keywords could be used to segment the catalog in other ways as needed. Each business service includes a field to hold an icon that will represent it in the displayed service catalog.

Sample Display in Service Catalog

The out-of-the-box system has several sample business services, some of which are shown below in the main service catalog view.

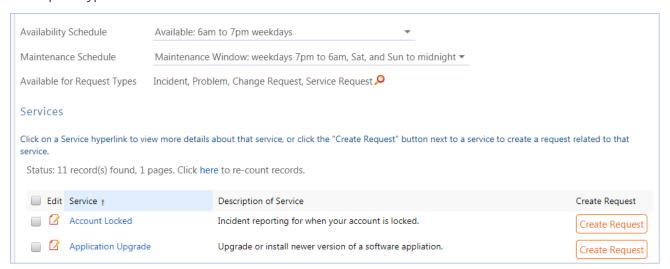
[con	Business Service †	Description
	Account Management	This Service pertains to controlling access to network resources or centralized software. This can mean updating permissions, or creating new accounts.
5	Company Website	This service includes management of the company websites and web pages and all content. It includes services for requesting changes to the website, correcting errors, and managing versions.
	Conferencing/Presentation	This Service encompasses Conference Setup, Web sharing, Projectors and more.
	Desktop Hardware	This Service covers the requisition, upkeep, and disposal of standard computer systems, desktops and laptops to end users. It also includes standard additions to the computer, such as OS, Anti-Virus and miscellaneous software utilities in use by the organization.
	Desktop Software	This service includes maintenance and upgrades of all standard desktop software applications and management of their licenses.
<u></u>	E-mail / Calendaring / IM	This Service provides email and calendaring applications and infrastructure to enable full internal and external communication capabilities. It includes management of both personal and group calendars, ema aliases, mailboxes and archiving. It also covers usage of the company Slack account for instant messaging
0	Enterprise Apps	This Service contains options for mission-critical business software used by the organization.
<u>a</u>	Facilities Maintenance and Security	This category includes services and problems related to HVAC, Lighting, furniture, key cards, and other facility-related issues.
	HR Management	This Service is used primarily by HR and hiring managers to set up new employees, update their information, or request an employee separation task.
	IT Infrastructure Change	This is a technical service only available to IT staff.
HELP	IT Service Issues	Sometimes, a system will not respond the way one would expect, or not respond at all. This option allow you to submit an outage report to let us know if something is not behaving correctly. This service is use when none of the other main categories seem to apply.
	Network Services	This Service covers the network itself, both wired and wireless, and also includes file sharing and backup/restore services.

Business Services Layout

Business Services records consist of the following screens.

Details Tab

This tab holds key details about the purpose of the business service, its schedule and maintenance hours, and the request types in which it is used.



Note that the Availability and Maintenance schedules are defined using the working hours of a team and the fields are actually links to the Teams table, with the team name describing the time frame being used. If the time frame needs to be changed, the team can simply be edited, or new teams may be created with the appropriate days and hours. In addition to Availability and Maintenance windows for the business services, support hours are defined for services with the SLA record, and those support hours, also defined as teams, are used when setting SLA targets. See Service Level Management for more details.

The Business Service table is used to on-board new business services as well as to define and display the active ones to users. The visibility of a business service to customers and non-service professionals is controlled by the Status field, which is one of Planned, In Progress, Active, Retired, or Canceled.

General users can see only business services with an Active status, while the service management team can view all records and can use the other statuses while working on development of a new business service. The Details tab also includes the list of Services that are available related to this business service, as well as a count of how many active services there are for each request type.

When a user selects a business service within a particular request type, only those that have at least one service for that request type are displayed.

The Icon field holds an icon that is displayed in the catalog for users.

Work Status Tab

The Work Status tab displays the ongoing notes about a service as well as any SLAs and OLAs that have been linked to this business service. Note that a service may have multiple SLAs with differing levels of service and different service targets linked to it. The Ongoing Notes are time and date stamped with the name of the user who last updated them, for a running history of updates.

Viewing Customers with Access to the Business Service

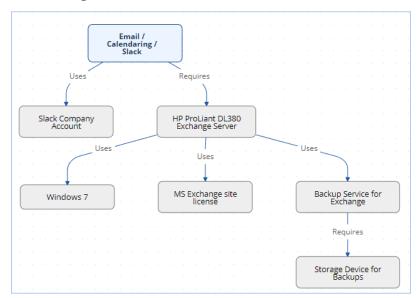
Access to the business service is controlled through the SLAs and to the SLA Customer Groups with access to the SLAs. This information is summarized in the Available for SLA Customer Groups field, which is automatically updated with all the SLA customer groups that are contained within the linked SLAs. This can be used to get a full list of which customers have access to this particular business service.

In order to view which individual users have access, simply click on a link in the Available for SLA Customer Groups field. This will bring up a view of that SLA Customer group record. From there, click on the Related Info tab to see a list of all customers for that SLA, and hence, this business service.

This tab holds an append-only field for ongoing notes about the business service.

Configuration Item Tab

Each business service is also created as a configuration item so that its relationships to components and other configuration items can be set up and displayed where needed. This information appears on the Configuration Item tab. The list of the direct relationships to this service are displayed as shown below for the Email /Calendaring / Slack business service.



Email and History Tabs

These are the standard tabs that show all email communications from the business service record and the history of all changes made to the record.

Automation

Two rules are configured to run each night to refresh the values in the Available for SLA Customer Groups field by matching on all the linked SLAs and the groups within those SLAs. This handles a situation in which a new group is added to an existing SLA, such as a Corporate SLA or a new SLA becomes active and is linked to this service. These rules could be set to run more often in a rapidly changing environment.

These rules are disabled by default and should be enabled when going live with the system.

Service Portfolio Services

The Service Portfolio table holds all of the individual service offerings related to a business service - the individual records in this table are called Services.

It is the main source for the detailed ITIL Service Catalog. It holds a record for each service that may be offered to end users or technicians through the service catalog. All services offered by the organization to end users should be managed here and this table's workflow is used to manage the on-boarding process for a new service. Each service is offered through a different request type, such as a Service Request, Incident, or Change Request. Each service is therefore associated with one of these three tables, and this association is defined in the Services field "Request type."

Presenting Services to Customers

There are several ways the system can be configured to enable users to create a request for a particular service. Whichever method is used, users will only see the Active or In Review business services and service offerings for which their SLA customer group has an active SLA.

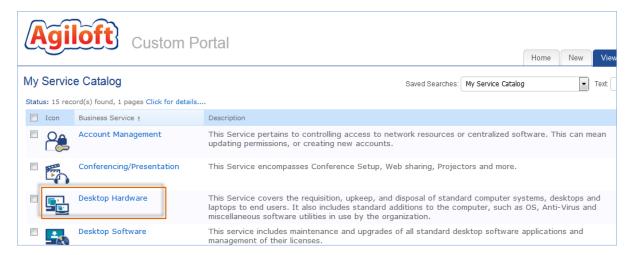
The system comes with Corporate SLAs that cover all users and that are linked to most of the default services, but each service may have specific SLAs available to only one set of users. For example, the Quickbooks services are available only to the Finance Team SLA group.

Whenever customers interact with the services or the service catalog, they only have access to the services defined as available to their SLA Customer Group. For technician users, their permissions allow them to view all services, including those that are not yet active. When *submitting* a request, technicians are still limited to selecting from services that are Active or In Review. Since the system filters the services a customer can view, there is no need to create a specialized catalog for each customer. Instead, customers in different SLA customer groups automatically see their appropriate services based on their own linked SLAs.

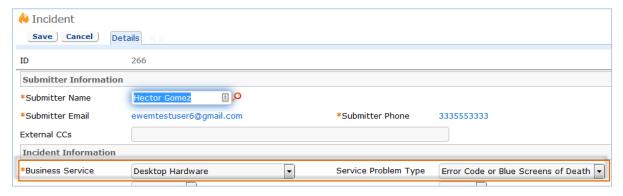
Our default End User Interface demonstrates the main three methods by which customers can access services and create requests and incidents.

Business Service Catalog Drill-Down

The first method for presenting services is to use the Service Catalog view of Business services, which allows the user to view the service offerings within a business service and to click the Create Request button without knowing in advance whether the request will become an incident or a service request. In this method, the user clicks on the View My Service Catalog link to see the personal service catalog. This opens a view of the business services with a row for each authorized business service.



Now the user can click on a particular business service, for instance, Desktop Hardware, to view more about it and to see the individual service offerings. From the list of service offerings, the user can click on the linked service to view more information about the service offering, or they can click on the Create Request button to create a new request with the business service and service prepopulated.



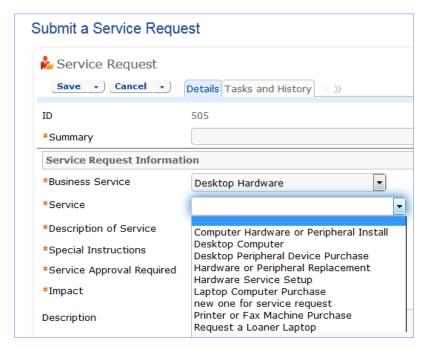
Preconfigured Hyperlinks for Specific Services

A second method for presenting Business Services is to create links to create requests for the most popular services, or the services that are available to all users. This approach is represented by the Quick Links section on the interface.

Clicking one of the Quick Links open a new Service Request or Incident with the service and business service prepopulated. This simplifies services for users since it takes only one click to open the request. However, if your service catalog is large with many offerings, it is more difficult to set up and maintain.

Creating New Incidents or Service Requests Directly

Alternatively, users may create a new Service Request or Incident directly. To do this, click the relevant link for 'Create a Service Request' or 'Create an Incident,' then select the business service and service.



This works best if the users already know which kinds of requests are Service Requests and which are Incidents. If they do create a record in the incorrect table, staff can convert from one record type to the other.

Adding Specialized Catalogs

You can make specialized catalogs available that find any subsets of services based on search criteria or fields in the Services table. The end user interface shows a second service catalog, Purchase Catalog, that displays all services that relate to a purchase.



If users click on this item, they see those specific services and can create a request directly.

IT-Only Services

Technical users who use the staff interface of have additional options when creating requests. They can go directly to the appropriate table in the left pane to submit a request, or they may also use the Service Manager home page and click on a link to their own service catalog. In either case, they will see additional services that were not available to customer users, such as IT Infrastructure change, based on their own SLAs and group permissions.

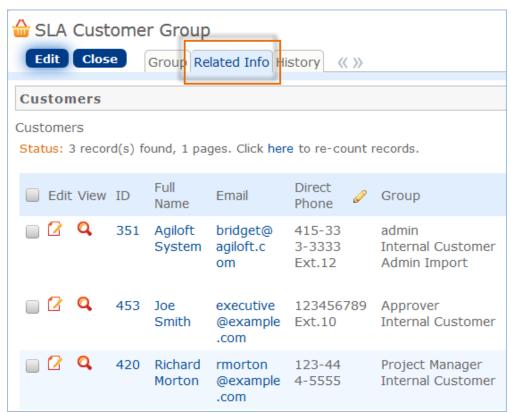
Showing all Services for a Customer

Within each user record, a related table shows all the services that customer can access. In addition, reports can show which services were actually used by which customers. The report: All Services by Submitter on the Service Request table shows the services actually used by each customer.

Showing all Customers for a Service

It is possible to review the customers for whom a service is available in a few different ways. Services are linked to one or more SLA customer groups, and users are associated with those groups. So, the recommended way to view customers for a service is from the service record, and then through the linked SLA Customer Groups. Clicking on an SLA Customer group such as the Gold / Executive group shows the SLA Customer Group record. In the SLA Customer Group record, the Related Info tab shows all the users in that group.

Alternatively, you could add a field to the Service record that shows a table view of all users in the linked SLA customer groups.



Service Record Layout

We have created several sample services. Naturally, your organization will want to create its own services, delete many of our sample services, or change the associations we have made for those services. For instance, the on-boarding of new employees is currently managed through the Service Request table under the Service New Employee Setup. Some organizations may prefer to manage new employee setup through the Change Request table instead. Making this kind of change is a matter of modifying the service record and changing the field called Request Type to point to the desired table.

Since the Service Catalog is the backbone for many ITIL processes, the Services table has several special fields that are pulled into the corresponding request to enable automation, escalation, and special field visibility and dependencies based on the type of service.

Details Tab

The first screen displays key details about the service. The Description of the service and the Special Instructions are shown to users when they submit a service request or incident to provide them with more information about the service.

The Attached file fields such as the Supporting Service Business Case and Service Design Package can hold supporting documents about the service, while the Service Warranty field can be used to provide further information about the expected turnaround times. The Service Criticality field represents the value of the service to the business.

Additional fields define the default team to be assigned to the request and the escalation team, as well as whether the service is billable, and if so, based on what criteria. The Auto-Assign to Responsible Team determines whether the service responsible team takes priority over the CI Responsible Team, if a CI was selected for the request, when assigning a new request. If yes, then the service team is assigned, if No, then if there is a CI and it has a responsible team defined, that team will be assigned to the request.

The Level 2 Escalation Team is automatically assigned to a request or incident when the SLA is breached, and is notified both before – at the warning interval – and after the SLA breach.

Costs for Services

Some services may be billable, and the system supports four different cost models by default: Fixed for the Service, Based on Items Purchased, Based on Task Costs, or Based on Time Spent.

Depending on the cost model, the cost information is entered in the service itself. For values of Fixed for the Service it is entered directly. For Based on Task Costs, the task templates will have values that are totaled. For Based on Time Spent, it is compiled by totaling the time spent on the request, while for Based on Items Purchased, it is the total cost for items purchased as part of the request.

When a service request or incident that is billable is completed, the Total Cost in that record is populated automatically by the system based on the entered data and the service's cost model. Reports for billable service requests and incidents can be used to export cost information to an accounting system. A Cost Center field in the request tables allows the submitter to select the appropriate cost center that should be billed for a given request. Cost center values are held in the Cost Centers table and can be modified by importing your own values there and deleting the default values.

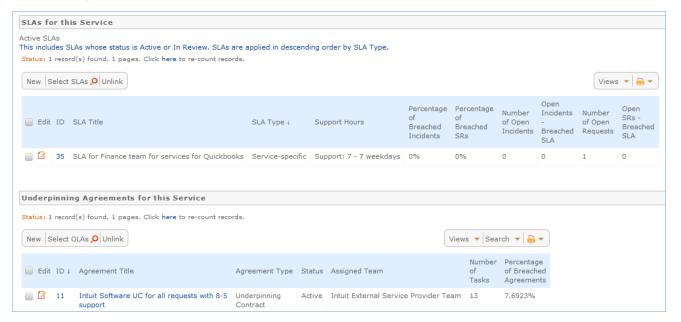
The cost fields are only visible when setting up a service if the ITIL Functions table record for Service Costs has

a Yes value in the Function Turned On field. If not, those fields will be hidden wherever they appear.

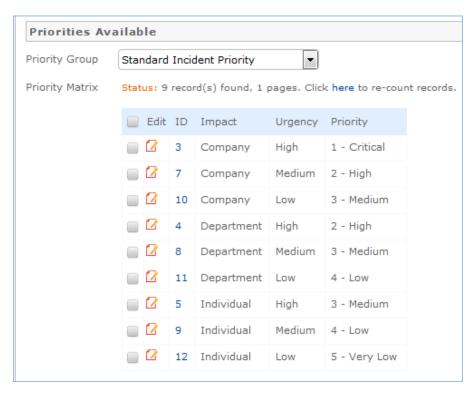
SLAs / OLAs / Priorities Tab

This tab holds information about the available SLAs and OLAs for this service. The links to the service are generally made from the SLA or OLA table when those records are created and their scope defined. A service may have multiple SLAs linked to it, and the SLAs are applied to a request in priority order, described more fully in the Service Level Management section.

Service level requirements are also held in the SLA table and that is where the SLR is negotiated and defined. For a service that is being planned, the SLR may be linked to that service to provide information on the requirements that are being negotiated. Once that SLR becomes an SLA, it would typically remain linked to the service as it goes live.



Note that the view of the SLA and Underpinning Agreement can show the percentage of breached agreements and/or the number of open and breached requests. The next section on the SLAs / OLAs / Priority tab shows the Priority group used for the service and the available priorities for that group.



The SLA and OLA sections on the form will be hidden if the ITIL Functions for SLA or Underpinning agreements are turned off. Specialized priority groups can be created to provide a particular service with its own impact, urgency and priority values as needed. See Impact, Urgency, and Priority Management for more details on how this is done.

Approvals and Tasks Related to Services

Some services may have associated approval workflows or standard tasks or task workflows. These options are available from the additional tabs in the service record. Approvals and tasks are available out of the box for both Service Requests and Change Requests, while tasks are also available for incidents.

Approvals for Change Requests and Service Requests

There are three options for how to handle approvals for a change request or service request, shown in the Approval Generation Method drop-down below: using a predefined approval workflow, manually created ad hoc approvals, or both. For a Predefined Workflow Only, the user will select from existing approval workflows related to change requests. If none yet exist, they can use the button to create a new approval workflow on the fly.

If the user selects Manually Created in Request Only then no further information is needed in the service record, and they will be able to add the approvals manually within the individual request.

Approval View in the Change Request or Service Request

The selections made in the Service will result in different options appearing within the Change Request.

In a request based on a predefined workflow only, the user will see the workflow listed and a button to generate the approval records. If the user has permission to edit the Approval Workflow Title field, they would also be able to change to a different workflow as needed. If both predefined and manual approval creation are permitted, the user will see an additional checkbox, Create Approvals, that can be expanded to add one or more ad-hoc approvals. If only the manual approval creation is defined, then the user will just see the option to Create Approvals and will add any approvals needed.

Note that if the Approval Required field in the service has a Yes value, at least one approval will need to be created and approved to move the request forward to completion.

Tasks for Change Requests

The Tasks tab of the service allows the selection of a method for task generation. The available methods depend on the request type and they are different for service requests and incidents vs. change requests. Change Requests have two options for the task generation method: Predefined Task Workflow and CR Single Task from Template.

Change requests are typically associated with one or more configuration items. Task handling for change requests is therefore designed to create a task for each configuration item that has been associated with the request. If the user chooses 100 configuration items for a change request and generates tasks, whichever tasks are defined for the change request are created 100 times, one for each configuration item. The tasks are generated in this way by using a task template and pushing its details down through the configuration item records, so this necessitates restricting some of the other task generation options.

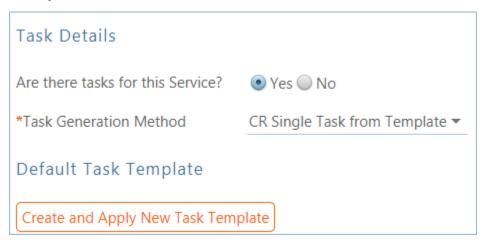
Predefined Task Workflow - allows the selection and/or creation of a Task Workflow with predefined task templates arranged in a sequential or parallel order. See more details about configuring task workflows in the Task Workflows section.

Note that if your workflow has 3 tasks, they will each be generated for each configuration item.

The CR Single Task from Template option is more common for change requests involving numerous configuration items. Here you define a single task template to be used with the change request.

Note that a single task may have several predefined steps, presented as a checklist, to assist technicians in performing the task. See the sections on Task Templates and Task Steps for more details on how to set this up.

Using task steps within a single task makes good sense for a change request. While setting up the service, if the task template you want to use does not yet exist, use the Create and Apply New Task Template button to open the task template screen to define a new template. After saving the template, select it for the service where you started.



In the Change Request, it is possible when using this task method to select more than this one task template to generate. After the default task is generated, the user can select from other predefined tasks and generate

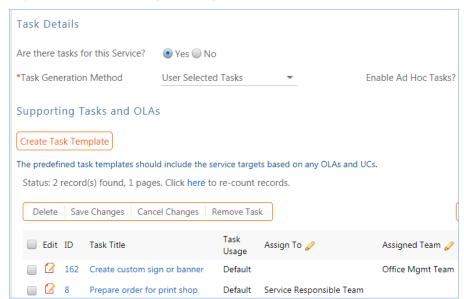
them as well.

Tasks for Service Requests and Incidents

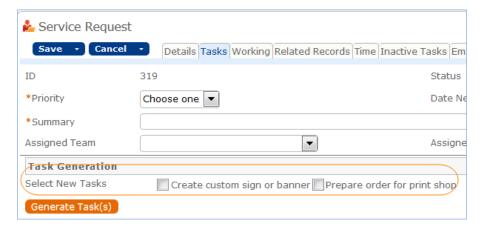
For service requests and incidents, there are some different task generation options. There are three possible methods:

Predefined Task Workflow – this is the same as the usage in change requests, except that the tasks are not tied to CI's and are just created once per request. With this choice in a service,, another field - Enable Ad Hoc Tasks – appears, and if it has a Yes value, then in addition to the predefined tasks, the user may create additional tasks for a particular request.

■ **User Selected Tasks** –allows the service manager to create a set of possible tasks that will be displayed in a request as checkbox items, so the user may select which tasks are relevant for this particular service request or incident and generate just those tasks.



To create templates for the potential tasks, click Create Task Template. Ad hoc tasks may also be enabled for this type by selecting Yes for the Enable Ad Hoc Tasks? field. In the Service Request, the optional tasks from the service appear as checkboxes.



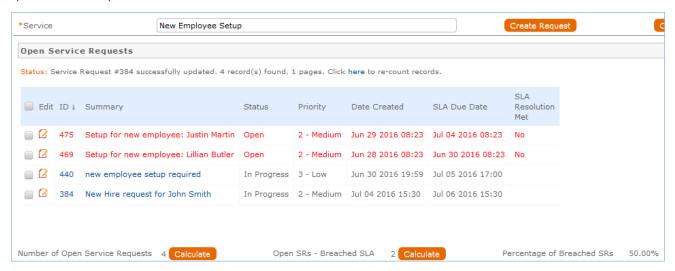
The user checks the boxes for the tasks he wants, and clicks the Generate Task(s) button to generate the individual tasks. These tasks, since they are all optional, are defined as parallel tasks without specific prerequisites.

■ **User Generated Ad Hoc Tasks** – this selection allows the user to manually create tasks in the service request without reference to any preexisting templates. In this case, the user will see a button in the service request to create a new task. Ad hoc tasks can be made sequential during creation by selecting one or more prerequisite tasks as the individual tasks are created.

Performance Tab

The performance tab on the layout is used to hold information about the number of open incidents or service requests for a service and the percentage of those that have breached their SLA.

Depending the request type, it shows different fields: a related table of open incidents, or a related table of open service requests, and the relevant statistical fields.



These values can be shown in reports on the service table as well as on the Incident or Service Request tables.

Service Provisioning Tab

This is where the workflow for on-boarding a new service is done. There are fields to track communications, updates, knowledge and other materials that may be relevant, and automation to make it easy to email people responsible with information or questions about the service.

New Service Onboarding and Management

In addition to the notes and links to files and knowledge, the Status field is used to manage the onboarding process and to define the subsets of the Service Portfolio. It has default values of Planed, Pending Approval, Approved, In Development, Active, In Review, Retired, or Canceled.

- All services that are in a status of Planned, Pending Approval, Approved, or In Development are shown in the Service Pipeline list and report.
- Those with a status of Active or In Review are shown in the Service Catalog list.
- Those that have been set to Retired are shown in the Retired list and report.

On the date of the Next Review Date the Status is automatically changed to In Review and the Service owners are notified by email. This is to cause every service to be re-evaluated on a regular basis.

- During the review, if the service owners decide the service is still valid as it is, they can set the status back to Active.
- If they decide to retire the service, they can set its status to Retired.
- If they decide to work on a new revision of the service, they can clone it using the "Clone" button and make revisions and changes in the new record while keeping the old version's status of In Review. Once the new version is ready to activate, they can set the status of the preceding version to Retired.

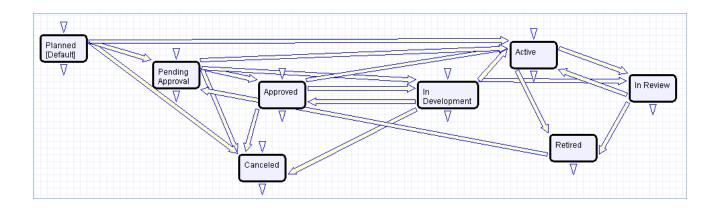
Note: While the status is In Review, the service is still available to users.

Once the Service Catalog is initially set up by creating the appropriate services in the Service table, new service items will typically be created by staff members only when a new service is planned or initiated. Initial permissions are set so only users in the admin, Service Manager, and Change Manager groups can create, modify, and delete services.

Ownership

Services are owned by the person who creates the service.

Workflow



Saved Searches

A few of the default saved searches are listed below.

Saved Search Name	Search Description	
Service Pipeline	Status is Planned, Pending Approval, Approved, or In Development	
Service Catalog	Status is Active or In Review	

Retired Services	Status is Retired
Planned Services	Status is Planned

Reports

A few of the available reports are listed below.

Report Name	Description
Service Catalog	This report shows a chart and list of all active and in review services, the services that are available to customers for requests:
Service Pipeline This report shows all services in the pipeline.	
Retired Services This report shows all services whose status is Retired. Report	

Service Level Management

This section describes the tables that control the functioning of Service Level Management (SLM) in Agiloft. There is additional discussion about how SLM is applied in the pages describing the different request tables, particular in the sections on Service Requests and Incidents.

The main tables related to Service Level Management are listed here.

Table name	Description
SLAs	This table holds a record for each negotiated Service Level Agreement between the IT department and its customers. SLAs are made available to one or more SLA Customer Groups. Each user is assigned to an SLA Customer Group and that defines the set of services available to that user. For more information, see Service Level Agreements.
SLA Targets	This table holds a target record for each combination of SLA, Priority, and Request type that defines the expected Response Time, Warning Time, and Resolution time. Targets are applied to specific service requests or incidents based on the SLA and the priority of the request or incident, and then are used to manage escalation and notifications. Each SLA has multiple targets. See more details in SLA Targets.
Underpinning Agreements	This table holds a record for each Operational Level Agreement or Underpinning Contract between the IT Department and internal company teams or external service providers. These records detail the scope of the service to be provided, the team responsible for providing the service, and any specific task templates to which the Operational Level Agreement (OLA) or Underpinning Contract (UC) will apply. It will also have multiple OLA Targets, for every combination of priority available for the tasks to which the Underpinning Agreement will be applied. For more information, see Underpinning Agreements.
OLA Targets	This table holds a target record for each possible priority for the tasks that will be assigned to an underpinning agreement. The OLA Target will be applied when tasks are assigned to set the due date, warning date, and response date for the task, so the performance can be measured against that target.
SLA Customer Groups	SLA Customer Groups represent a set of users who will have specific SLAs negotiated on their behalf. All customer groups are linked to any SLAs whose Type is Corporate, while Service-Specific or Customer-Specific SLA's may be created and assigned to just one or more SLA Customer Groups. See SLA Customer Groups
Surveys	A link to a Survey can be sent out with every service request and incident with a very simple questionnaire, and the information is gathered to assist in measuring service quality. See Survey Management for details on how surveys are configured and managed.
Service Improvement and Quality Plans	This table manages both service improvement plans and service quality plans. These records can be linked to the CSI register and to customer surveys for further support. For more information, see Service Plans and CSI Register.
CSI Register	The CSI register acts as a log for gathering service improvement information and opportunities. CSI records can be linked into the Service Improvement and Quality Plans. For more information, see Service Plans and CSI Register .

Service Level Agreements

The Service Level Agreements (SLAs) table manages the service level agreements between the IT department and its customers. SLAs define specific SLA targets for response and resolution times for incidents and service requests. These SLA targets also define diagnosis and resolution times for problems. SLA targets are based on the priority of the request record and are applied or updated whenever the priority is set or changed.

Each SLA has its own SLA targets.

The SLA structure is designed to be extremely flexible. It can handle anything from the simplest situation, in which all employees and services have the same standard SLAs, to scenarios where each department has different response times, multiple sets of services have different response times, or a combination of the two.

When applying an SLA to a request or incident, there are two factors that determine which of the available SLAs is applied: the SLA types and the SLA Customer Group of the submitter.

SLA Types

There are four different types of SLAs and they are applied to new service requests or incidents in priority order as follows:

Configuration Item - Critical configuration items or classes of items may be given their own SLA, and this SLA will take priority over other SLAs.

Service-Specific - This is an SLA for one or more specific services typically with reduced time frames for its SLA targets that may be available to only some customer groups. For example you may have a special SLA for a high priority service that should have better response times than less business-critical services, or for single services that should only be available to a specific groups of users.

Customer Group - This is an SLA that typically covers multiple services but that applies to a specific Customer Group, for instance an SLA for the finance manager group that gives them better resolution times for mission critical financial-related services.

Corporate - This is an SLA for multiple services that are made available to all users in all customer groups, typically at a base level of service, for services that may not be included in the other SLA types.

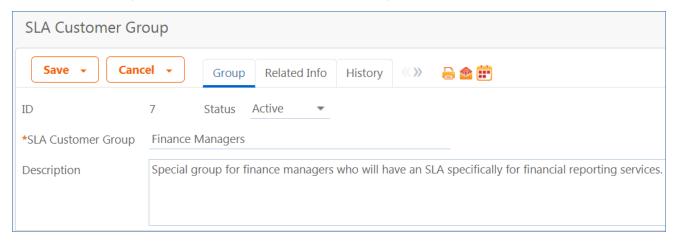
SLA Customer Groups

SLAs are defined to be available to one or more SLA Customer Groups. Users each belong to one SLA Customer Group. The SLA Customer Groups table holds the values for the different groups. The out-of-the-box groups include:

- Corporate
- Finance Managers
- IT Managers
- Sales Department
- HR Department
- Gold / Executive

Silver

You can modify these records or create new SLA Customer Groups to match your company service structure. SLA Customer Group records hold a name, status, and description.

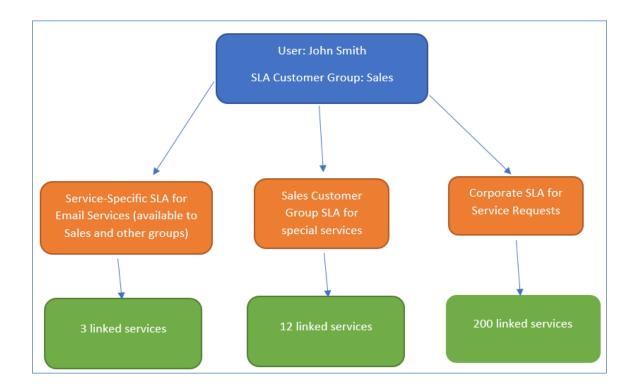


On the Related Info tab, they show all the people who are assigned to the group, as well as the business services and service offerings associated with the group.

Application of SLAs to Customer Groups, Users, and Requests

Corporate SLAs are applied to all groups automatically. Both Service-Specific and Customer Group SLAs can be applied to one or more SLA customer groups. So a particular customer group might have a combination of all three types of SLAs available to it, and all three might even be linked to some overlapping services.

Users of the system each belong to one SLA Customer Group, and that group defines the list of services that user can request, based on the SLAs tied to his group and the services tied to these SLAs, as shown in the diagram.



Example

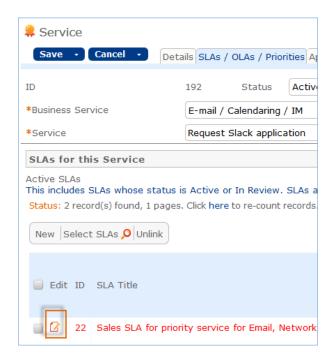
Here John Smith is in the sales SLA Customer Group, and that group has access to three different SLAs, shown in orange, and through those SLAs, to their services shown in green, some of which overlap. He will be able to submit requests and incidents for any of the services linked to any of these three SLAs.

If John submits a request for an email related service that is covered by all three SLAs, then the service-specific SLA will be applied, based on the priority order described above. If he submits a request that is covered by both the corporate SLA and the sales customer group SLA, then the Sales Customer Group SLA will be applied. If he submits a request that is only covered by the corporate SLA, then that SLA will be applied.

However, in all three cases above, if the request was for a configuration item that had its own SLA, that SLA would be applied instead. If there are services not included in any of those three SLAs, he will not see them or be able to submit requests for them.

SLA Layout

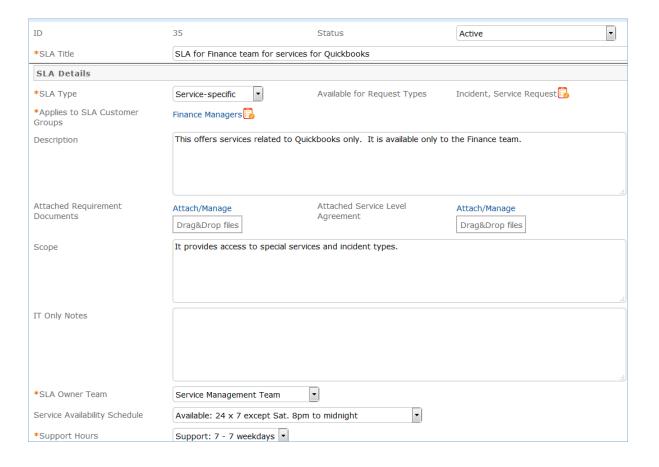
It is important to set up the SLAs carefully to ensure that there is some coverage for all services – typically in a corporate SLA – with the special coverage for certain services or certain groups within the organization. Open an SLA by clicking the Edit icon in the left pane. They can also be opened from within a service record, on the SLAs tab.



The Details tab of the SLA contains the primary fields. SLAs may be applied to both incidents and service requests or only to one request type. The multi-value Applies to SLA Customer Groups field defines the groups that can use the services in this SLA.

Fields for Scope and attached files gather the negotiated data and requirements for the SLA. The SLA Owner Team defines the internal IT team that is responsible for managing the SLA, while the availability and support hours define the hours that will be used for SLA target measurement and reporting.

It is important to configure the Support Hours because all SLA targets are measured against the defined Support Hours.

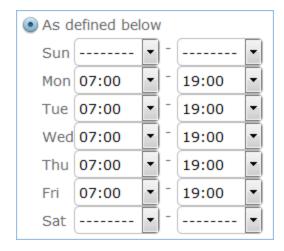


Support Hours

The support hours for SLAs, as well as the availability and maintenance schedules for requests and configuration items, are defined as special teams. Teams can have specific working hours and the system is able to include or exclude team working hours in any kind of time measurement, for elapsed time fields or reports, so this gives the ability to set targets based on such team hours and then to measure them.

For example, here are the working hours defined for the Support: 7 - 7 weekdays team

Day	Hours
Sunday	
Monday	07:00-19:00
Tuesday	07:00-19:00
Wednesday	07:00-19:00
Thursday	07:00-19:00
Friday	07:00-19:00
Saturday	



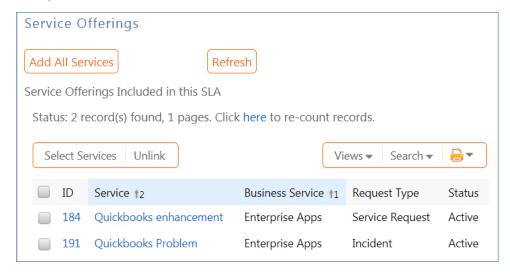
Several default teams have been set up with and named for specific working hours, but if you need to manage other kinds of schedules, you can modify these teams or create new ones. The Teams table has a special custom field, Team is Responsible For, that helps filter the drop-downs for support hours, maintenance hours, and availability hours, as well as the drop-downs for assigned teams within the request tables.



When setting up new teams for this purpose, it is important to check the appropriate box so the team will appear in the various drop-downs.

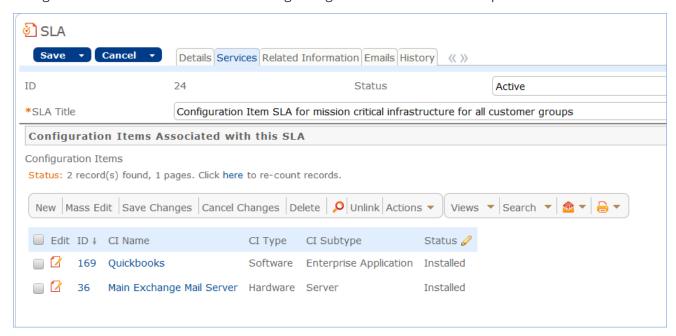
Services for an SLA

The Services tab allows the user setting up the SLA to first select the business services, and then the related service offerings to which the SLA will apply. The service offerings are filtered to those for the business services selected. Users can click Add All Services to add all services for the selected business services, or use the lookup to choose individual services.

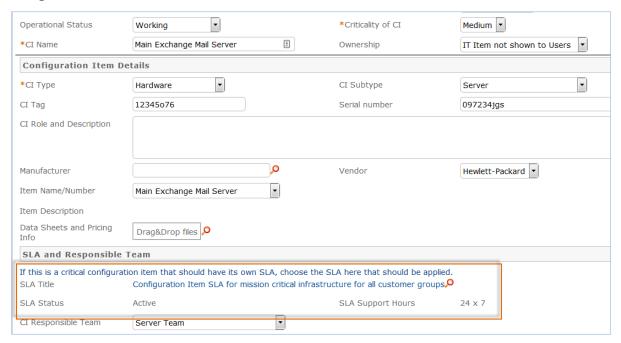


Configuration Item SLAs

Configuration Item SLAs are linked to existing configuration items instead of specific services.



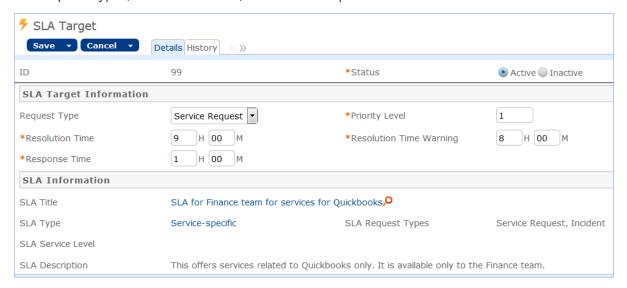
An SLA can also be selected when creating or editing a Configuration Item record. Here is the corresponding configuration item record:



Below the services section is the related table showing the SLA targets that will be used for this SLA. When setting up a new SLA, click the New button above this table to create new SLA target records.

SLA Targets Table

The SLA targets table is used to define the turnaround time for a service request, incident, or problem record. Each target is linked to one SLA and is shown within that SLA. Since an SLA may cover more than one request type, the targets can be distinguished by the request type as well as the SLA. The SLA target form has the following fields: ID and Status; SLA Target Information including Request Type, Priority Level, Resolution Time, Resolution Time Warning, and Response Time; and linked fields to the SLA which include SLA Title, SLA Type, SLA Request Types, SLA Service Level, and SLA Description.



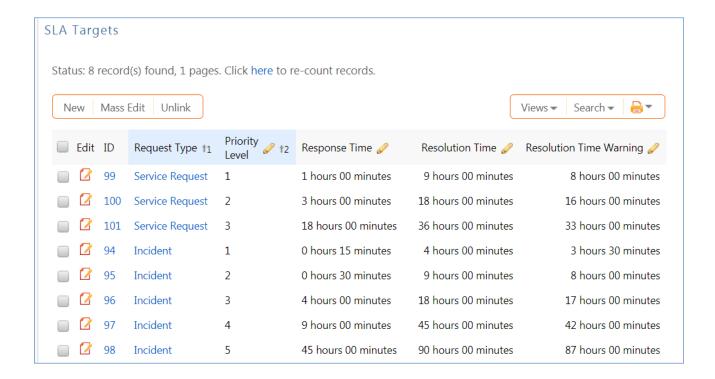
The key elements are the Priority value, the Request Type, and the three time fields that set the response, warning, and resolution times. Each of these times is measured only during the defined support hours for the SLA. So if the SLA has hours from 7 AM to 7 PM and a service request with the above target is submitted at 6 PM on Monday, the response time will be due at 7 PM, the warning time will occur at 2 PM Tuesday (with 1 hour remaining Monday and 7 hours starting from 7 AM Tuesday), and the resolution time will be set to 3 PM Tuesday.

Applying SLA Targets in Service Requests and Incidents

When a service request or incident is created, the appropriate SLA is applied based on the criteria described above. Then based on the Priority of the record, the appropriate SLA target is applied and linked into the request or incident.

When the SLA target is linked, if no approvals are needed first, a rule sets three date fields in the request – the SLA Due Date, SLA Response Due Date, and SLA Warning Date – by adding the values set in the target for each of these times to the current date/time plus that value according to the working support hours for the SLA.

In a case where there are approvals before work can begin for a service request, the SLA Response due date is set immediately, and the SLA Warning Date and SLA Due date are set when all approvals are completed and the status is set to Approved. In that case, the time is measured from the Date Approved rather than the date the record was created.



Available Priorities

In order to assist in setting up SLA targets, the available priorities for the various request types included in the SLA are shown in the Available Priorities table view. It is the priority number (level) that is used in the target. If there are only three priorities for Service Requests, but five priorities for Incidents, as in the default setup, then an SLA that covers both request types will have eight SLA Targets, one for each possible priority.

Related Information Tab - Measuring Performance

The Related Information tab holds information about all open service requests and open incidents that are based on this SLA. It can be used in reporting to show the current situation by SLA.

Emails and History Tab

The Emails tab hold standard communications fields showing all emails sent about the SLA. The History tab displays standard History fields and the Date Created, Date Updated.

Onboarding an SLA - Status Workflow

The SLA record has several workflow statuses to manage the on-boarding of new SLAs. The SLA on-boarding process may well begin as a Service Level Requirement - the first Status allows the SLA record to be created in a status of Planned - Service Level Requirement, so that the necessary requirement information can be collected and gathered in this record during negotiations. From there it may move to In Negotiation, and when ready to use, Active.

When SLAs are applied to service requests and incidents, only those in a Status of Active or In Review may be applied. If an SLA is replaced by a new version, the old one can be set to a Retired status, and a planned SLA may be canceled if it does not meet the needs of the organization.

Date Fields for Tracking Progress

When an SLA changes to Active, the Date Activated field is automatically populated. In addition, the Next Review Date can be set to trigger a reminder to review the SLA and see if it should be adjusted, at whatever interval is ideal. SLAs are automatically set to a Status of In Review when the Next Review Date arrives and an email is sent to the SLA Owner Team notifying them that the SLA should be reviewed. This email is sent by a time based rule that checks each day to see if the current date matches the next review date.

The Ongoing Notes field is an append-only field that will date/time/user stamp all updated comments.

Reporting

Reporting for SLA performance is done from several places.

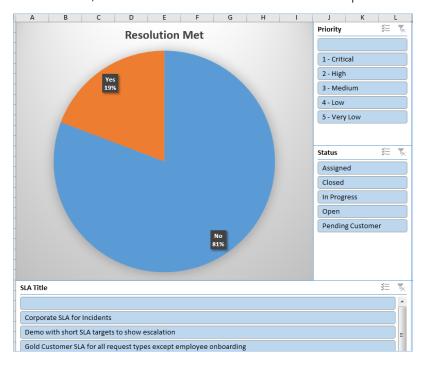
Excel reports have been created for the Service Request and Incident tables that allow the data to be sliced by any factor, from the individual SLA, to the individual business service or services, by assigned team and so on.

SLA Dashboard for Incidents

The report on the Incident table is shown below. Go to **Incidents > Charts and Reports** to access it.



When clicked, it results in an Excel file that can be manipulated to show any statistics related to SLA metrics.

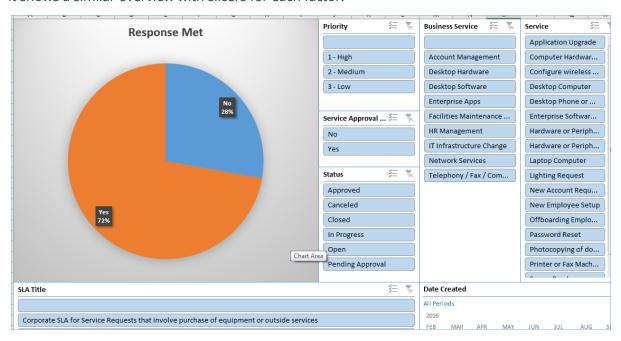


Service Request SLA Dashboard

The same Excel-based report runs on the Service Request table.

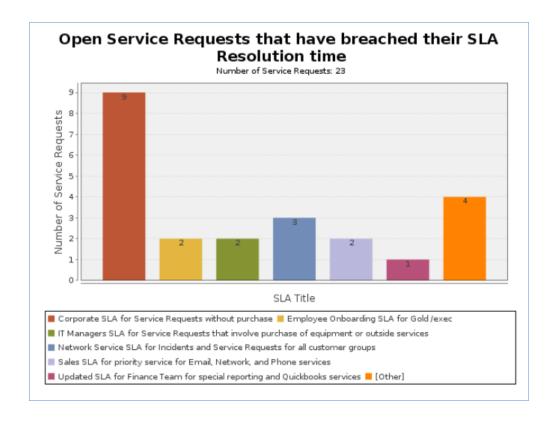


It shows a similar overview with slicers for each factor.



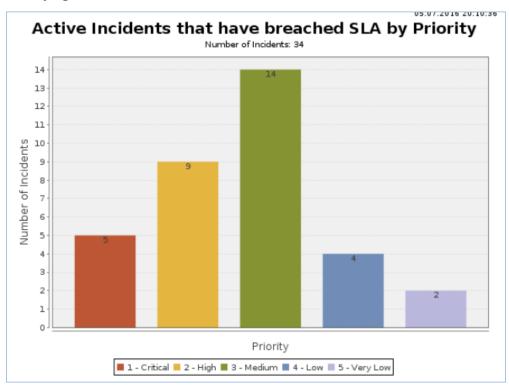
Open Service Requests that have Breached their SLA Resolution Time

This report, with a bar for each SLA, runs on the service request table and also appears in the Service Management Dashboard.



Active Incidents that have Breached SLA by Priority

This report on the incident table shows the open incidents that have already breached their resolution time. It also appears in the service management dashboard. From the report's HTML tab you can access the underlying Incidents.



Closed Service Requests: Percentage meeting SLA in past 12 months by assigned team

This chart and report shows by team the percentages of requests that met the SLA.



Service Manager Dashboard

The dashboard is accessible to service technicians to quickly find incidents and service requests that have breached their SLAs and to drill down to work on them.



Automatic Performance Monitoring

The Services table also has rules monitoring it to keep service records updated with the current number of open requests, and to set the color of the service to red when some threshold is surpassed. A time based rule tracks the performance of all services with regard to current status of breached incidents and sets the row coloring for service based on the result:

- If the percentage of breached incidents or service requests is greater than 30%, the row color is set to red.
- If the percentage is between 15-29.99% it is set to orange
- If the percentage is lower than 15 it is not colored.

Edit	ID ‡	Service	Number of Open Incidents	Open Incidents - Breached SLA	Percentage of Breached Incidents	Number of Open Service Requests	Open SRs - Breached SLA	Percentage of Breached SRs	Request Type	Responsible Team
2	203	Demo: building is on fire!!	5	5	100.00%	0	0		Incident	Risk Team
2	192	Request Slack application	0	0		2	0	0.00%	Service Request	Desktop Applications Team
2	191	Quickbooks Problem	8	7	87.50%	0	0		Incident	Intuit External Service Provider Team

Event Creation for SLAs with Performance Problems

SLA performance issues can result in the generation of an Event in the Event Management module. There is a weekly rule that searches for all SLAs whose Percentage of breached incidents is greater than 75% and generates an event for each one. These events will notify the service managers involved so they can analyze the reasons for the breach and take appropriate action.

Underpinning Agreements

The Underpinning Agreements table holds records for all Operational Level Agreements and Underpinning Contracts negotiated between the IT department and specific internal teams or outside service providers.

These agreements define the main contact information for the other party, the support hours and services and tasks that are covered by the agreements.

This function is controlled by the ITIL Functions table. It has been turned off by default. See ITIL Functions for information on how to enable it.

Agreement Layout

The tabs and fields of the Underpinning Agreements are described below.

Details Tab

The Details tab holds most of the fields for the Underpinning Agreements. It is very similar to the fields for SLAs. It defines the request types that will be covered and the type of Agreement (OLA or Underpinning Contract). It includes description and scope fields to define what the agreement will cover. It defines the team that owns the agreement, as well as the team that will be assigned to tasks related to the agreement. It also defines the support hours that will govern time measurement for tasks related to the agreement.

Just as for SLAs, the Date Activated field indicates when the agreement was made active, while the Next Review Date defines when the OLA will be set to In Review.

Underpinning Contracts

If the Agreement Type is Underpinning Contract, there are some additional fields to identify the Vendor and contact information, as well as a link to fields in the Contracts table, which may hold the details of the contract with the vendor.

The Company table holds all service provider and other companies, while the External User table holds contacts outside your company. See Companies and People Table, Employees and External Users for more details on these background tables. The contracts table is part of a fully functioning contract management system and can be used to manage and store any service provider contracts. See Contracts for details on the contract management setup.

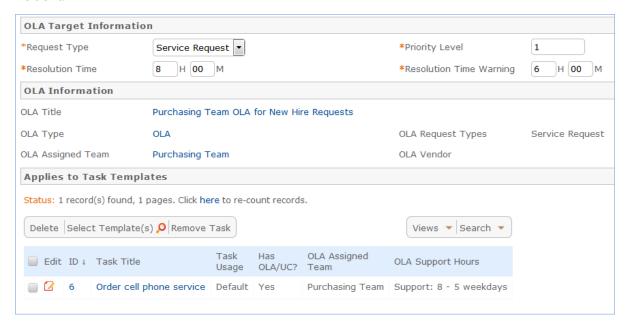
Services Tab

The Services tab is used to link the agreement to specific Business Services, and from there to specific service offerings linked to those business services. It is also where the OLA targets are defined.

OLA Targets

The OLA Targets table is used to define the resolution target times for tasks related to an OLA. The difference between OLA Targets and SLA Targets is that they do not apply to a whole service request or incident, but to specific tasks within that request that are predefined to be covered by an OLA or UC. Therefore there is an extra step to set up the targets, which involves linking them to specific task templates to which they will be applied.

Just as for SLA Targets, the OLA Target is also tied to, and applied based on, the priority of the request or incident.



Tasks Tab

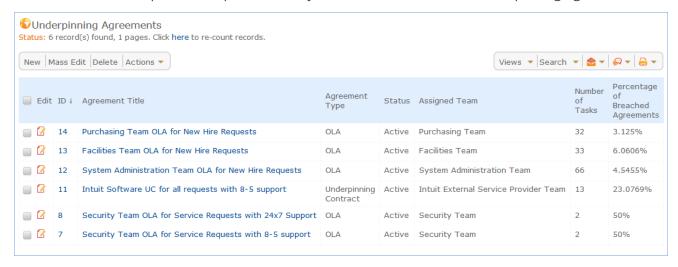
The Tasks tab displays the task templates to which the OLA will apply. Task templates are created as part of a task workflow once the OLA has been created, and they are linked to the relevant OLA, which causes them to appear here. Also on this tab are all actual Tasks done under this Agreement, with some statistic fields measuring the number of breached agreements and percentage of breached agreements. This allows the effectiveness of all OLAs to be reported on from the Underpinning Agreements table as well as from the Tasks table.

History Tab

The History tab shows dates fields and the history of all changes to the record.

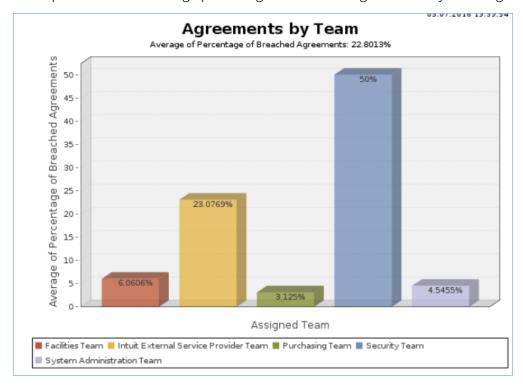
Reports

The default table view provides a quick summary of the effectiveness of all Underpinning Agreements.



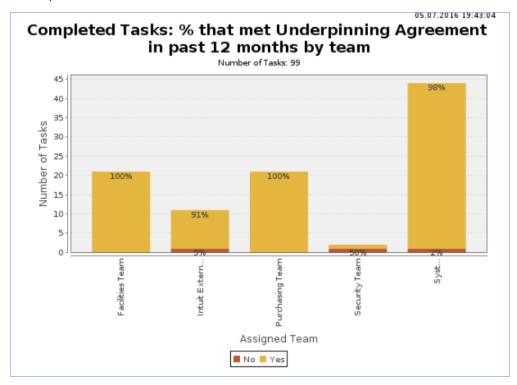
Agreements by Team Report

This report shows the average percentage of breached agreements by the assigned team.



Completed Tasks: % that met Underpinning Agreement in past 12 months by team

This report is run on the Tasks table.

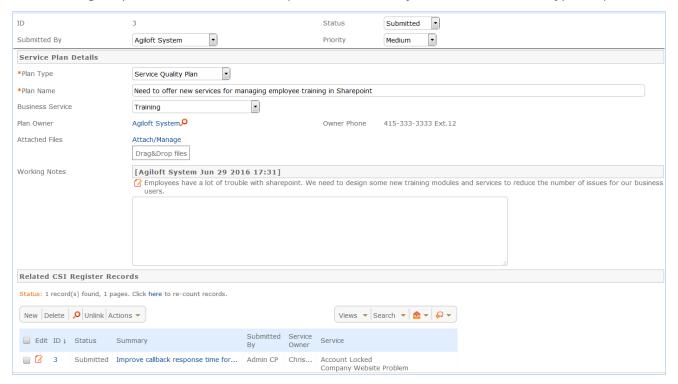


Service Plans and CSI Register

This topic describes the elements in the Service Plans and CSI Register tables. Both of these tables and their functions are turned off by default. See the ITIL Functions section for more information on how to enable them.

Service Plans Table

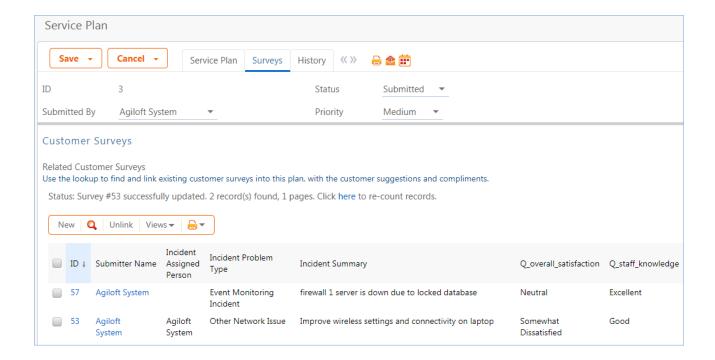
The Service Plans table is used to gather information for Service Improvement Plans and Service Quality Plans and to manage implementation of service improvements. The layout is similar for both types of plan.



The Related CSI Register records are only visible if the ITIL Function for CSI Register is turned on. In that case, the plan can be linked to one or more CSI Register records.

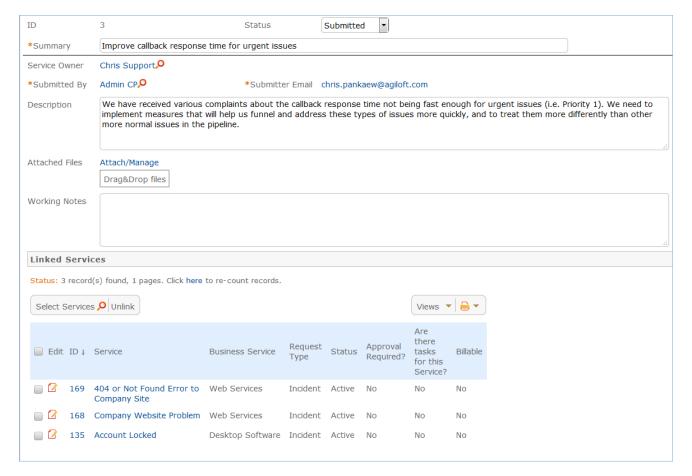
Surveys Tab

The surveys tab allows you to link in any customer surveys that are relevant to a particular service plan. A link to create a customer survey can be included automatically when an incident or service request is closed, and if a customer clicks the link, they will fill out a brief survey form.



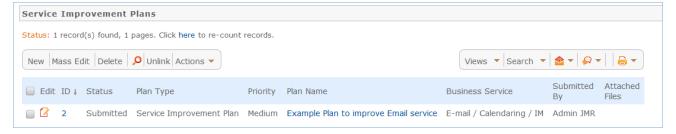
CSI Register

The CSI Register is a simple table for logging Continual Service Improvement suggestions and opportunities. These can then be linked into a Service plan as needed.



Specific services can be linked to the CSI record and details can be added in the Working Notes append-only field.

Any Service improvement plans can also be linked in or the link created from the Service Plan.



The link to the Service Plan is only visible if that function is turned on in the ITIL Functions table.

Survey Management

The system includes functionality for designing survey questions, collecting selected questions into a particular survey, called a Survey Type, and sending a link to fill out the survey to customers.

Surveys Table

The Surveys table collects customer feedback for Service Requests or Incidents and can hold surveys on any subject that have been sent to customers. An individual survey record will show the questions and their answers, and will identify the survey type, source record and people involved.

If the survey was for a service request or incident, the assigned team and person, priority and other information about the source record are displayed, so reports can be run on customer satisfaction by team or team member.



Use Case

Survey records are typically created by a customer clicking a hyperlink in an email sent to them requesting their feedback. For instance, when a service request is closed, the notification email includes a link to create a survey.

Dear \$full_name,

We have completed your Service Request. Here are the closing details:

\$solution

Further information about your request is included below. If you would like to reopen your request, click here and add your comments in the additional information field. Please do not reply to this email.

We appreciate your feedback on the handling of this request. To help us improve our service, please consider clicking on the link below to submit a survey.

Click here to submit a survey

This link must be modified for your system to use the KB name and hostname for your server. To do this, go to the Service Request table and hover over the email icon in the table view. Click on Manage Templates, then locate the closing email template and edit it. Additional guidance on how to manually create the hyperlink URL can be found in the Hyperlinks section in the Administrator Manual.

When the user clicks on the hyperlink, it will log them into the Knowledgebase as a Guest and take them directly to a new Survey record, without giving them access to anything else. As part of the link, the Service Request ID or Incident ID and Survey Type are populated in the survey record (hidden from the customer), linking the survey to the request that generated the email and to the person who completes the survey.

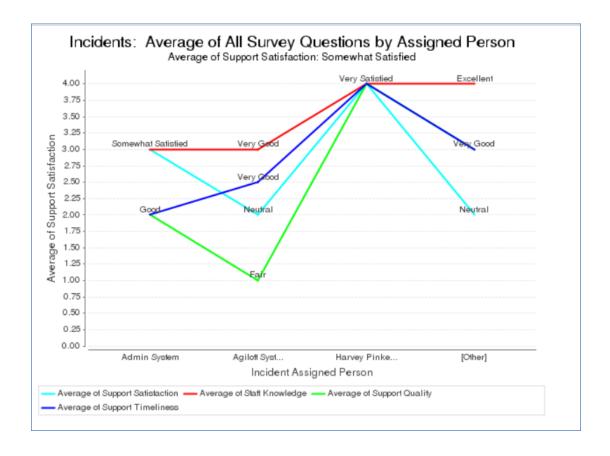
Ownership

Records in this table are owned by the name of the person to whom the survey email was sent.

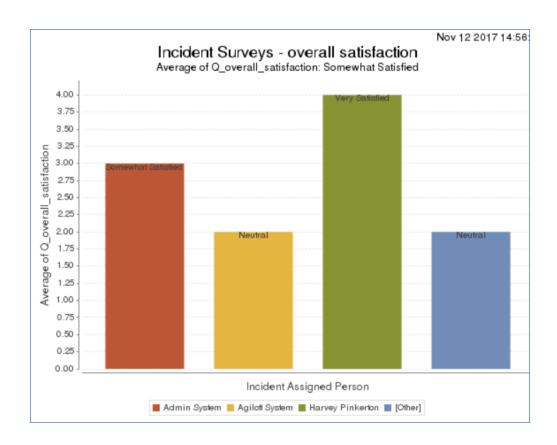
Reports

There are several predefined reports on the surveys table for incidents and service request surveys. For example:

Incidents: Average of all Survey Questions by Assigned Person



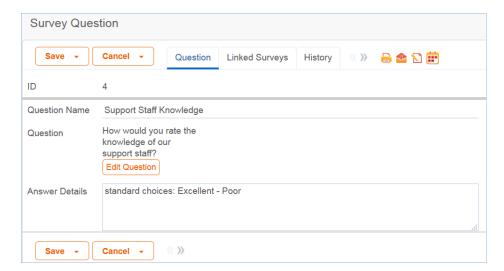
Incident Surveys - Overall Satisfaction



Survey Questions Table

This table is used to create and store the questions that will be used in surveys. They will be pulled into Survey Types, ordered there, and further defined in terms of whether they are required, dependent, and so on. Creating a survey question is similar to creating a "field", in that the user defines the data type for the answer and, for a choice field, the choices. Each question record functions as a "field" for purposes of setting up a table view in the surveys table, searching, and creating reports, as each question can be selected as a column of a view, axis for a report, and so on. The "question" field is based on a special data type called "Question Description" that has these special characteristics.

A label is defined for how the question will be displayed in reports or searches, the question itself is defined, and additional details and notes may be provided as well.



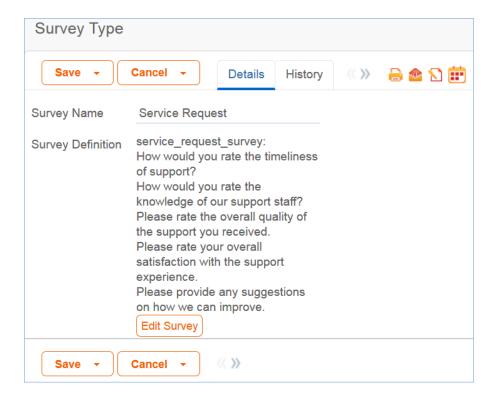
The Edit Question button in the record opens a wizard to assist in creating the question. On the General tab, the wizard allows the text of the question itself to be defined, as well as the type of response, which can be any of the field data types used in Agiloft. Various aspects of the question's presentation can be set here as well, and the question can be named if desired. Naming the question makes it searchable.

Ownership

Records are owned by the user whose Login matches the Creator Login for the record.

Survey Types Table

This table contains records for each set of questions you want to send in a survey. It gathers together the questions that will be asked in the survey, which are first defined in the Survey Questions table. When creating a survey type, a name is provided and the Edit Survey button pressed to see the list of possible questions and to select them, order them, and set their attributes. A link to the survey type within the Surveys table controls the selection of a survey type, and pulls the questions associated with that survey type into the form for the user to fill out.



Ownership

Records in this table are owned by the person who submits them.

Configuration Item Management

This section contains information about the setup of Configuration Items and all of their relationships and related tables. The primary tables for configuration management are described here.

Table name	Description
Configuration Items	This is the main table holding a record for each trackable configuration item. It has relationships to the request tables, the Knowledge Management tables and to tables that provide the CI Subtypes, Catalog Items, CI Relationships, and so on. See Configuration Items for more information.
Catalog Items	This table holds records for standard models or services that may be used in multiple individual configuration items. It is used to provide consistent descriptions and model information content within a configuration item. It is possible to eliminate this table if you do not wish to maintain this information outside of individual configuration items. See Catalog Items for more information.
CI Subtypes	This table holds a record for each configuration item subtype. Each record is linked to a particular CI Type. The subtypes are categories that are pulled into the other tables, such as Catalog Items and Configuration Items, for consistency. See CI Subtypes for details.
CI Change Log	This is an optional function that requires an Enterprise Edition license. It tracks changes to specific fields for configuration items and creates log entries for each change showing the previous and new values. It is disabled by default, as some actions are required before the script will work. See Using the CI Change Log for more details.
Items Requested	This table holds a record for each item that is requested by a customer or staff member to be purchased or pulled from in stock items. These records are created as part of creating a service request that involves equipment or service purchase. The Items Requested are shown within such Service Requests and the records are processed by purchasing or the configuration management team. See Items Requested for more information.
CI Relationships	This table defines the relationships between CI's, so that they may be displayed in diagrams to make the dependencies of components clear. Any CI may be related to one or more other CI's in a specified kind of relationship, and all such relationships can be displayed in a diagram format. See CI Relationships for more information.
Relationship Types	This table holds pairs of records for each relationship type that may be used to characterize the relationship between configuration items, such as Impacts/is Impacted by or Uses/Is used by. It is used within the CI Relationships table to create mirrored pairs of relationship records when a single record is created. See Relationship Types Table for more information.
Baselines	The Baselines table allows a configuration baseline to be created for a CI and stored for future reference or to be used to roll back unsuccessful changes. Baselines are related to individual configuration items. See Baselines for more information.
Definitive Media Library	The records in this table are used to store information about the physical or electronic location of copies of the code for software applications. See Definitive Media Library for more details.

Configuration Items

The Configuration Items table holds records containing information about your company's Configuration Items (assets). It may include CIs that are in inventory and not in service, as well as all assets that are in service.

Configuration Item Creation

Staff may add a configuration item (CI) manually to the system by creating a new record, or integrated discovery systems may create CI records automatically with specified attributes. Configuration Items have type-specific attribute fields (Manufacturer, Model, Serial Number, etc.) and relationships to other CIs, Service Requests, Incidents, Problems, Change Requests, and Releases.

Related Service Requests, Incidents, Problems, Change Requests, Releases and Tasks are displayed as lists of records within a CI, so the history of a given CI is readily available. Events and a CI Change Log are also shown there.

Configuration Items may also be related to other CIs by creating records in the CI Relationships table.

Configuration Items Layout

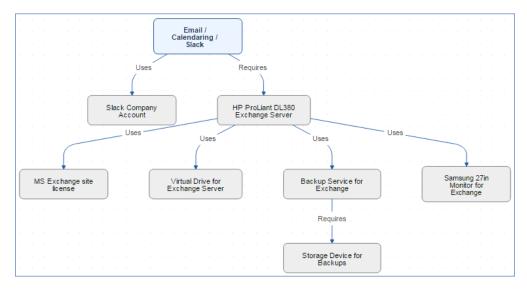
The tabs and fields in the Configuration Items table are described below.

Common Area

The common area at the top of the form includes the critical information about the configuration item: its name, its operational status and criticality, its general status, and its ownership.



The icon next to the Relationship Diagram field can be clicked to show a graphical display of the relationships between this CI and others. For instance, the CI representing the Email/Calendaring/Slack business service uses the Slack Company Account and Requires a server, which in turn uses four components.



The options for Status are Installed, In Maintenance, In Stock, On Order, Pending Install, Stolen, and Retired.

Details Tab

The Details tab shows the other basic information about the configuration item.

CI Type can be set to any of the following options: Hardware, Software, Service, Networking, Documentation, Furniture or Fixture, Other, and None. Each CI Type, except None, has an associated list of CI Subtypes to choose from. For example, the CI Subtypes for the CI Type of Software are:

- Database Application
- Database Instance
- Desktop Application
- Enterprise Application
- Google Search Appliance
- Infrastructure Software
- Operating System
- Other Application
- Web-Based Cloud Service Application
- Web Server Application
- Web Service.

Additional information that can be entered for a CI includes the CI Tag, Serial Number, CI Role and Description, Manufacturer, Vendor, Item Name/Number, and Item Description. The latter two fields are selected from linked records in the Catalog Items table, and this pulls in any data sheets or pricing information stored in the Catalog item record.

If the CI has a CI-specific SLA, that can be selected in the SLA section. Any CI-Subtype-specific fields are displayed below the SLA section, and the responsible team is also defined there.

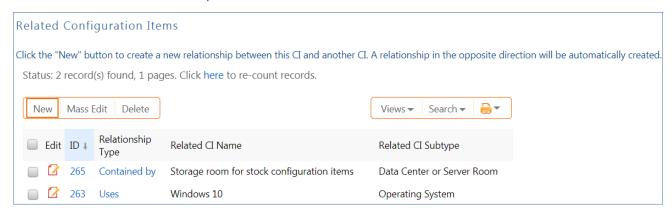
Knowledge articles related to a configuration item can be searched for and selected in the Relevant Knowledge Articles table by clicking on the lookup icon. This allows the system to be used to store user manuals or other documentation and link them to the configuration items to which they apply.

Service / Contracts Tab

This tab shows information about the purchase price and dates, as well as any suppport contract or maintenance information.

Usage / Relationships Tab

This tab shows any relationships created between this configuration item and other configuration items. Click New to create a new relationship.



It also includes information about the location of the configuration item and, if assigned to a user, the user's name and information.

Requests / Work Done Tab

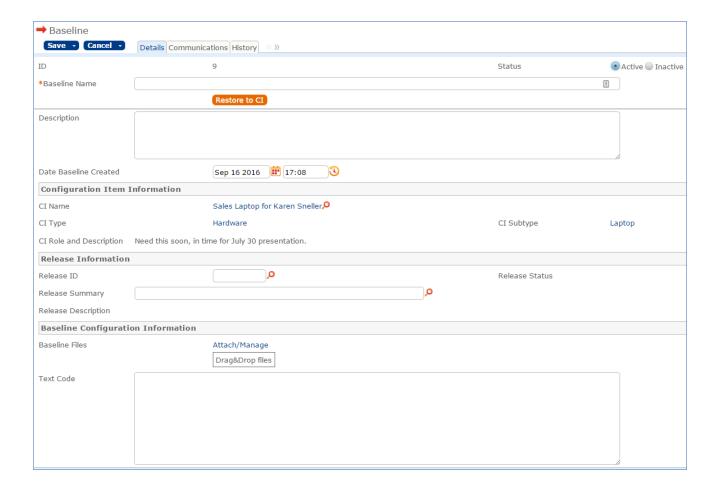
This tab contains an append-only notes field for any running notes about the configuration item, as well as information about related incidents, service requests, problem requests, change requests, releases, and tasks done.

Changes / Events Tab

This tab contains information about any change freezes, the CI change log, baselines, and any related events, if you are using the Event Management functionality. The Change Freeze Information section can be used to indicate that changes should not be made to this CI during a certain period of time. User permissions to edit these records can then be filtered to only allow editing if the CI is not frozen.

Agiloft can be integrated with an asset polling system, and any changes made through this integration can be captured automatically with change logs. The information tracked includes the date/time the changes were made and the field values before and after the change. This information is stored in a change log record linked to the CI that was modified.

To add a new baseline, click New in the action bar of the Baselines table (this table will not be visible if you have turned off the ITIL Function for Baselines). This opens a new baseline record that is automatically linked to the CI.



Emails and History Tabs

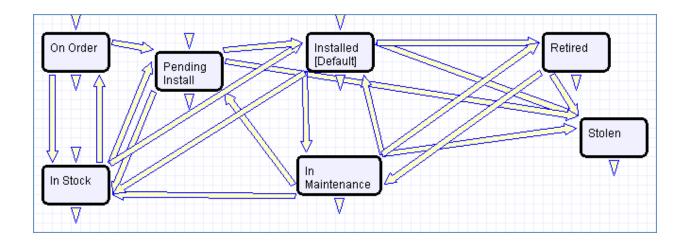
These are standard tab with any emails sent about the CI and information about when the CI was created and updated, who created and last updated it, and all changes made to fields. It also contains the CI Version, which can be set to auto-increment if certain fields in the CI record change.

Configuration Item Lifecycle

Configuration Items follow a lifecycle workflow from ordering through retirement. Configuration Items are created in the state of Installed by default.

Configuration Items that are requested but not immediately available might be created in a state of On Order, moved to In Stock when the Configuration Item is received, Pending Install while Operations is tasked with installing the Configuration Item, and finally Installed. Installed Configuration Items can change to In Maintenance for repairs and Retired or Stolen when the Configuration Item is no longer in use.

Workflow



Ownership

Configuration Item ownership is defined as the user whose Login matches the User Login field in the Configuration Item record.

Integration with CMS and CMDBs

All Service Requests, Change Requests, Incidents, and Problems are fully integrated with the Configuration Management Database (CMDB). Every Configuration Item displays a related table for each request type, showing all of the Requests that the Configuration Item was included in. With the appropriate permissions, a user can easily open the Configuration Item from any of the Requests related to it, and view other related Requests to help identify, investigate, diagnose, and eliminate problems/issues more easily.

Each Configuration Item is also linked to a parent Catalog Item, and it is possible to display all of the other Configuration Items for that Catalog Item in the Configuration Management System (CMS).

Automation and Notifications

The following automation is configured for Configuration Items:

- When a configuration item is created, if it was created from an Item Requested (it was ordered and is marked as received there and then converted to create a CI), it writes back its ID to the Item Requested and if its status is marked as Installed, it sets the status of the Item Requested to Installed.
- If the item has an Operating system defined, i.e., it is a computer and has been linked to an OS configuration item, a CI relationship is automatically created linking the OS to the CI.

- A general edit rule handles several updates. It interacts with event management to send appropriate notifications when an outage or outage resolution event occurs.
- If the Operational status changes to Unplanned outage, whether manually or by an event, this triggers an immediate browser popup and sends an email to the CI Responsible Team and the System Admin Team about the outage. If the CI's Criticality was High or Critical, it also sends an sms message to the team's notification numbers.
- If the Operational Status changes from Unplanned Outage to Working, whether manually or by an outage resolution event, notifications will be sent to the same people as for the outage, but with a resolution message telling people the outage has been resolved.

Using the CI Change Log

There is another rule, disabled by default, that handles automatic creation of records in the CI Change Log table. This rule will only work once some global variables are customized. It runs a python script that logs changes to specific fields in a configuration item. This is only available for the Enterprise edition.

When enabled, this rule runs a script that generates one CI Change Log record for each change to a tracked field to show the old value, the new value, and the date/time/person who made the change. It also increments the CI Version field by .1 each time one of the tracked fields is changed.

The fields tracked by default are:

- CI Name
- CPU
- Hostname
- IP Address
- Memory
- Number of Licenses
- Operating System
- Ownership
- Version

These fields are configured and mapped in a global variable and can be changed at any time to include newly created fields. The other details needed by the script are also set in global variables and can be changed as needed without having to modify the script.

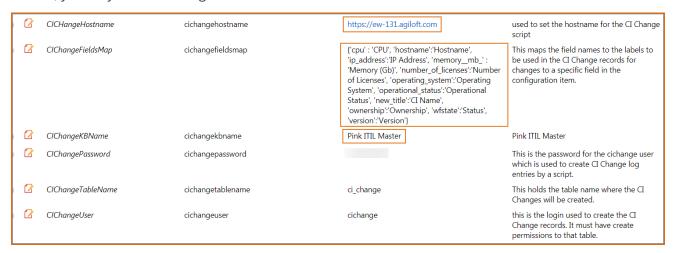
In order to set up the system to be able to run this script, change the highlighted global variables (go to Setup > System > Manage Global Variables):

- **CIChangeHostname** must be changed to the hostname for your KB, i.e. https://yourcompany.agiloft.com
- **CIChangeFieldsMap** can be changed if you want to track different fields. This provides a map of the field name in the configuration items table followed by the label to be displayed to represent the field in the CI Change Log. You can add more fields or remove fields here.
- **CIChangeKBName** must be changed to the name of your KB.

Unless you make other changes, you should not need to modify the remaining variables. The user whose login

is cichange is used by the script to create the CI Change record. That user's password is defined as the CIChangePassword variable. And the table name is the name for the CI Change Log table.

Once you have updated the variables, go to the rules for Configuration Items and review and enable the rule called "zDisabled - Edit: CI - Create CI Changes (web or API)." If you have changed which fields should be tracked, you may need to change the search condition for the rule as well.



Charts and Reports

The Configuration Items table has the following pre-built charts and reports:

- All Configuration Items by Status, sorted by count
- CI's purchased in the past 12 months with cost
- Cls with Change Logs in last 90 days
- Cls with change requests in last 90 days
- Configuration Items by CI Subtype
- Configuration Items by CI Type
- Maintenance Report -CI's With Problems or Maintenance Time
- Number of In Stock Cls by CI Type then subtype
- Number of Installed CIs by CI Type then subtype
- Service Due within next 3 Months

Several of these reports are described in more detail below.

Report Name	Description				
Cls Purchased in the Past 12 Months with Cost	This report shows the sum of the purchase cost for CIs per month purchased, for all CIs purchased in the past year. It has a both a graphical chart and a report component.				
Number of In Stock Cls by Cl Type and then Subtype	This report outputs information about the number of CIs that are In Stock, grouping them by CI Type and Subtype. It has a chart component and a report component.				

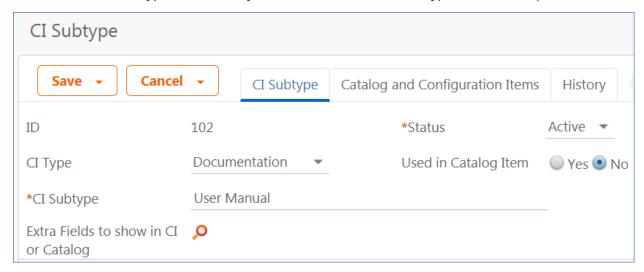
CIs with Change Requests in last 90 days	This report provides a list of all CIs that were involved in change requests completed in the last 90 days.
Maintenance Report - Cls With Problems or Maintenance Time	This report shows the CIs that have been associated with at least one problem record and which have spent more than 1 hour in maintenance.
Cls with Change Logs in last 90 days	This report displays CIs that have been updated in the past 90 days. This is useful when integrating with an asset polling system to see all CIs that were modified through the integration recently.

CI Subtypes

The CI Subtypes table provides the list of CI Subtypes related to a specific CI Type. It provides for consistency in categorization of configuration items and catalog items.

CI Subtype Layout

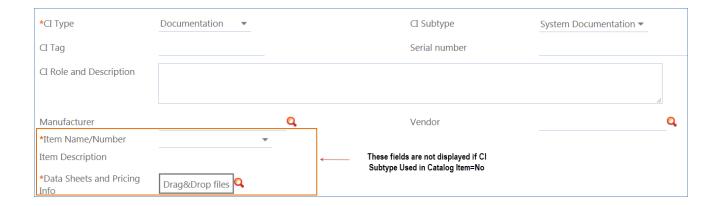
The form for a CI Subtype includes only a few fields. Choose the CI Type from the drop-down list.



The Used in Catalog Item field defines whether the CI Subtype appears when creating a new catalog item record. For instance, if the CI Subtype 'User Manual' is not used in a catalog item, it cannot be selected when creating a new catalog item.

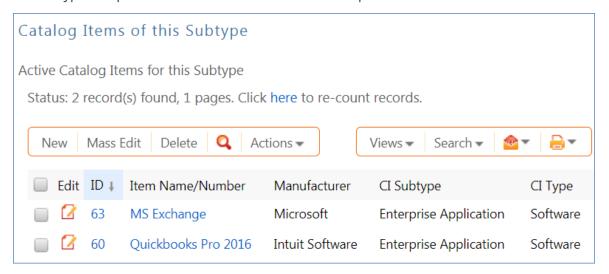


This field is also pulled into a configuration item record to determine whether to show the linked fields from the Catalog Item table within the CI. If the value here is Yes, then the Item Name/Number and other catalog item fields are displayed and required in the configuration item. If it is No, then these fields are hidden.



Catalog and Configuration Items Tab

This tab shows all the Active Catalog Items for this subtype. It also shows all the configuration items based on this subtype and provides a count that can be used in reports.

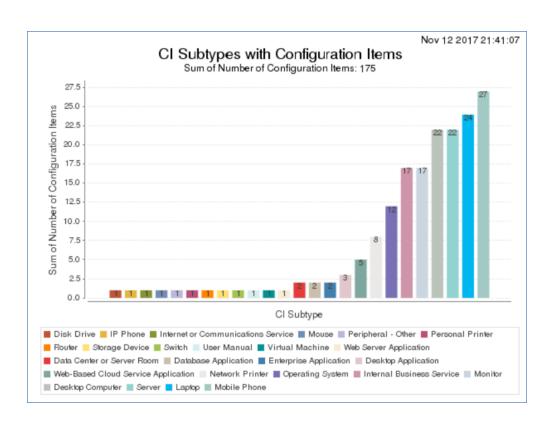


Reports

There are a couple of reports on this table.

CI Subtypes with Configuration Items

This shows all the CI Subtypes for which there is at least 1 configuration item.

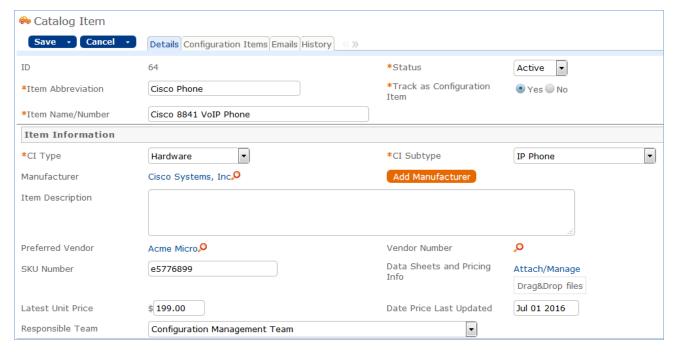


Catalog Items

This table provides a method of standardizing by model the information used within an individual configuration item. It holds records that define details of the CI Type, CI Subtype, Vendor, Manufacturer, specific model numbers, pricing, and so on. Configuration Items that are based on catalog items link in the item on which the CI is based to prepopulate all of that information.

Use Case

Catalog Items can be created and edited by members of the admin, admin import, and configuration manager groups. It is expected that the Configuration Managers will be responsible for maintaining the catalog information.



The list of CI Subtypes is held in a separate CI Subtypes table and is filtered once the CI Type is selected to only the subtypes associated with that type. The Latest Unit Price gives an idea of the latest pricing for the item. Rules could be configured to push the price paid when an item requested record is updated with the current price into this record to keep it updated as purchases are made.

Configuration Items Use of Catalog Items

Catalog Items are pulled into CI's. When setting up a new configuration item, the user selects the CI Type, and then the CI Subtype, and optionally enters the Manufacturer. If the CI Subtype is used with catalog items, then the user chooses a matching Catalog Item Name/Number from the available items. The catalog items are filtered based on a match of CI Type, CI Subtype, and Manufacturer, and once selected, their details are pulled into the CI record. If the catalog item has a preferred vendor, it is auto-populated into the Vendor field in the configuration item, but it can be modified.

Automation

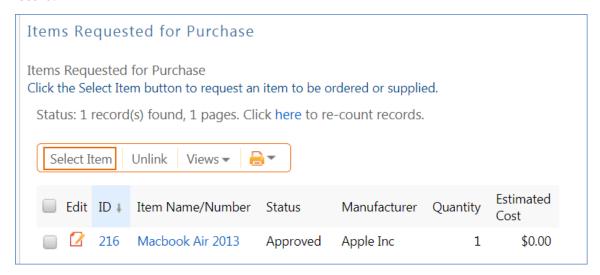
There is no automation on the Catalog Items table. It is purely a background table.

Items Requested

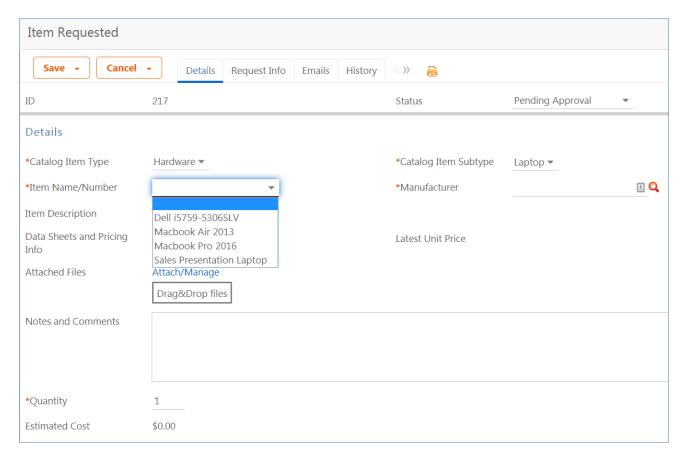
The Items Requested table acts as an intermediary table between the Service Request and Configuration Item tables. When users request items as part of a Service Request, they are creating new Item Requested records. These records represent the Items desired and their quantity for a particular request. For more information, review the Service Request section on purchases.

Record Creation

From a Service Request record, a user creates new Item Requested records for each Item desired in the embedded table view. These records are created on the Items / Tasks / Costs / Time tab in the Service Request record.



Clicking "Select Item" in the Items requested table presents the user with the new Item Requested form, which will be filtered based on the selected service to only show CI Types and Subtypes that were defined in the service:



The customer sees a basic form to select the item desired from the items in the Catalog. Staff members fulfilling the request see additional information.

Record Processing

Items requested may require approval prior to anyone acting upon them. If so, the approvals are handled in the related service request, and once approvals are obtained, the status on the linked items requested is changed to Approved and the assigned person of the service request is notified.

They may then look up Configuration Items in stock to see if they can fulfill the request without ordering additional equipment:



The Choose an In Stock Configuration Item section allows the fulfilling staff member to select an existing Configuration Item from the CI table. The CIs available for selection are filtered to only in-stock Configuration Items that match the CI Type and CI Subtype and Catalog Item (if relevant) for this Item Requested. The CI fields link the Item Requested to a physical, tracked asset (CI) rather than just the template description (catalog Item). If they find a matching item, they see a button to assign that item to the user who requested it.

When they click the Assign to Requester button, the system sets the Fulfilled with CI fields in the item

requested to the selected CI and updates the status to Applied from In Stock CI. It also updates the linked configuration item to change its Ownership value to Assigned to an Internal User, maps the submitter login from the Service request into the User Login field in the CI, and sets the status of the CI to Pending Install.

If no in stock item is found, the technician can order the item and track its progress in the Status field.

When it is necessary to order new items, the responsible person changes the status to Ordered, which sets the Date Ordered field. Available statuses are Pending Approval, Approved, Ordered, Applied from In Stock CI, Received, Installed, and Canceled.

Once the ordered equipment is received, the status should be changed to Received, and at that point, a button becomes available to convert the item requested into a new configuration item.



Clicking the button opens the new configuration item screen, with the details already mapped for the CI Type, CI Subtype, and Catalog Item. The rest of the information can be filled out and saved.

Later, once the configuration item is set to a status of Installed, a rule on the CI table comes back to the source Item Requested and updates its Status to Installed. Once completed, Item Requested records remain unchanged and stay linked to the Service Request. Since the Item Requested records are maintained separately from the Catalog Item records they were linked to, they retain data that might change over time, such as the actual price paid. Thus, even when the catalog items change, the service requests will always show Item data as it was at the time of the request.

Ownership

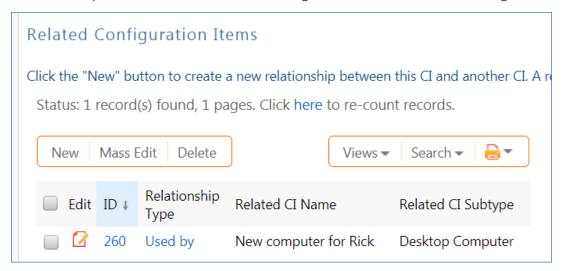
Item Requested records are owned by the Contact whose Login matches the Creator Login field in the Item Requested. Since Items Requested are not maintained outside of a Service Request, the relevant ownership stems from the submitter of the Service Request record.

CI Relationships

This table holds a record for each relationship between Cls. These relationships are used to create a diagram of the overall system of configuration items. When a user creates a relationship in one direction, the system automatically creates a relationship in the opposite direction between the same two configuration items.

Relationship Creation

CI Relationships are created from within a configuration item record on the Usage / Relationships tab.

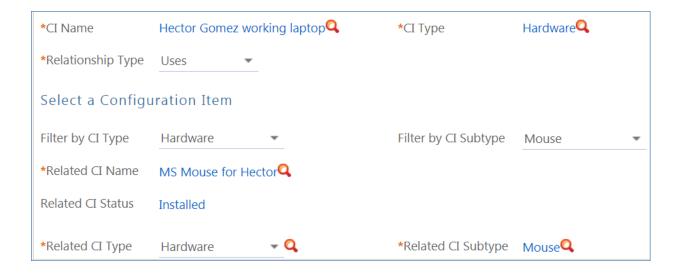


To add a new relationship, the user clicks the New button and selects the relationship type from the following options: Connected by, Connects, Contained by, Contains, Distributed by, Distributes, Has registered, Registered on, Impacted by, Impacts, Is Required by, Requires, Uses, and Is Used By.

These options can be customized in the CI Relationship Types table, where each type has an opposite type defined.

A new CI relationship has a Status of Active by default; this can be set to Inactive if the relationship is no longer valid.

After selecting the relationship type, the user looks up the related configuration item and selects it. The options can be filtered by first selecting a value in the Filter by CI Type and Filter by CI Subtype.



Automation

When a new relationship is created, the system creates the opposite relationship for the same two configuration items. This is done by mapping the CI ID and opposite relationship type into the related CI record and triggering conversion from the other CI to create a new relationship of that type. In the example above, the MS Mouse for Hector CI will have a new relationship added to it with a type of "Used by" and the link to Hector's laptop. This way the diagram from either CI will show the proper relationship to the other CIs.

An edit rule ensures that if a CI Relationship is changed, the corresponding record is properly updated. If the relationship type is modified in a CI relationship, then the opposite relationship is updated to use the opposite of the new relationship type. If an existing CI Releationship is edited to relate to a different configuration item, the rule marks the existing opposite relationship as Inactive and creates a new opposite relationship to the newly selected CI.

Diagram of Relationships

The CI Relationships table is used to construct the diagram of relationships between CIs. The diagram is just a field based on a special data type that allows relationships between records to be defined. The diagram is defined to show up to five levels above and below the configuration item from which is is launched.

Clicking on any item in the diagram takes the user to a view of that configuration item, from where the diagram icon may be clicked again to show all relationships to that item.

Relationship Types

This table stores a record for each type of relationship that can exist between Configuration Items (CIs). Each relationship type record also stores the Main CI Role, which defines each term as a parent or child role, which in turn determines how the diagram showing relationships is structured.

Each relationship type also identifies the reverse relationship type in the Opposite Relationship Type field. This is used to automatically create a relationship of the opposite type between two configuration items to allow diagramming from either item.

The system comes with several built-in relationship types. Admin users may add further types as needed.

Relationship Type	Main CI Role	Opposite Relationship Type
Connected by	Child	Connects
Connects	Parent	Connected by
Contained by	Child	Contains
Contains	Parent	Contained by
Distributed by	Child	Distributes
Distributes	Parent	Distributed by
Has registered	Child	Registered on
Registered on	Parent	Has registered
Impacts	Child	Impacted by
Impacted by	Parent	Impacts
Is Required By	Child	Requires
Requires	Parent	Is Required By
Used By	Child	Uses
Uses	Parent	Used By

Baselines

The Baselines table is designed to hold configuration details for a particular point in time for a configuration item. In the Baselines table, all information for a baseline is stored on the Details tab. Each baseline must have a name. A button can be used to run a script that would restore the baseline to the associated CI. More information about the baseline can be entered in the Description field. The Date Baseline Created field is set by default to the date/time the baseline record was created.

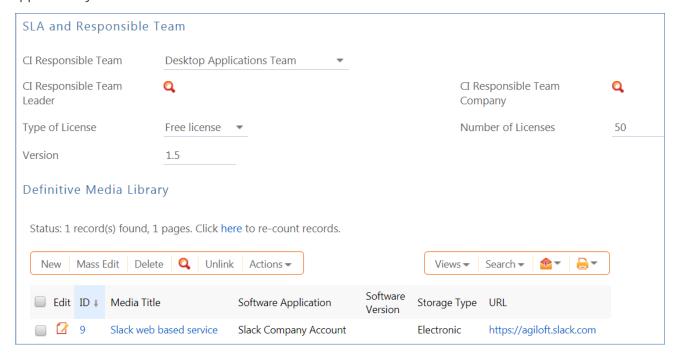
The Configuration Item Details section shows information about the CI associated with the baseline. If the baseline is related to a release, the release can be chosen in the Release Information section. Any files and code can be stored in the Baseline Configuration Information section.

The Baseline table is shown on the Changes / Events tab of a configuration item. None of the baseline fields are shown if the baseline function is turned off in the ITIL Functions table.

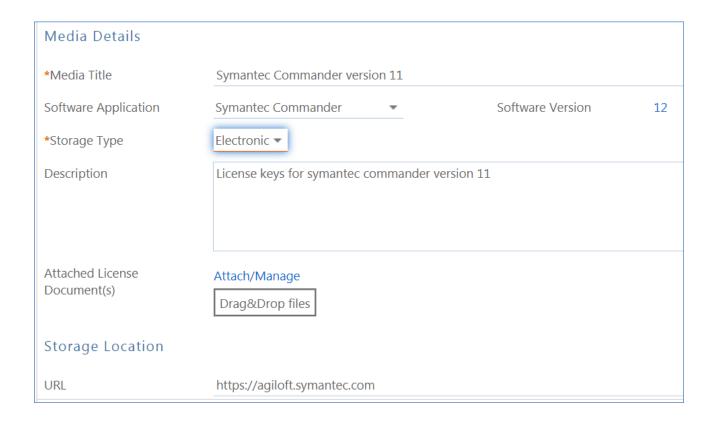
By default, this table is hidden and its function turned off. See the ITIL Functions section for information on how to enable it.

Definitive Media Library

The Definitive Media Library table holds information about how and where software applications are stored. It is visible in a related table within a configuration item record when the CI Type is Software. The table appears below the SLA and license information on the Details tab of the configuration item. It is an optional table that appears only if the function is turned on in the ITIL Functions table.



The records hold basic information about whether the storage type is electronic or physical, and depending on the answer, fields for the location information or the URL.



Event Management

Agiloft provides a robust Event Management system that can integrate with external monitoring systems or scripts, parsed inbound email, and other modules within the system to generate events automatically, convert specific types of event into incidents, and track information or warning events related to configuration items or other modules.

The system consists of two primary tables, Event Types and Events.

Event Types

The Event Types table defines the event types used to classify and process incoming events. Event types work best when they integrate with any external monitoring systems. This way, when a monitoring system creates an event it also identifies the Event Type in the system, typically by ID, so that the event will be processed as predefined for that event type.

Configuration Managers and admin users have the permission to set up and modify event types. These permissions can be granted to other groups as needed.

Events

The Events table holds each individual event. Both events and event types have an Alert Type that defines the nature of the event and how the event is processed.

Events are most commonly related to configuration items and used to notify about problematic conditions for a particular CI. But they may be related to other modules or conditions in the system, such as SLAs that have shown a pattern of breaching too often, or OLAs that are not being met consistently.

Events

The Events table holds a record for each event that is created to indicate some piece of information or problem about a component of the system.

In the default system, Events can be related to either Configuration Items or SLAs, shown in the Related To field. Depending on which you select, the new event will be linked to a configuration item or an SLA.

If you want to relate Events to other types of records, you can add those table values to the Related To field and a new linked field set pulled from the other table in the system.

Event Creation

Events can be created in the following ways:

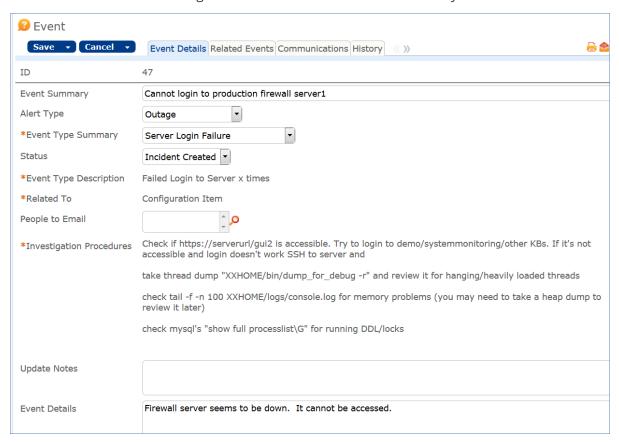
- From an external monitoring system that polls hardware or software, identifies issues, and sends the information to Agiloft, either in a REST call, using the SOAP API, or in a pre-formatted email sent to an inbound account.
- From a rule running on another table of the system that captures conditions that should provoke an event. As an example, we have a rule running on the SLA table on a weekly basis that finds SLAs whose current percentage of breached incidents is > 75% and creates an event for each such SLA. Similar rules can be created on any table of the system and can result in an event being created. That event will then generate an incident or not, based on the setup of the event type.
- From another external system that runs standard processes that should result in an informational event. These can be created in the same way as for a monitoring system: using REST, SOAP, or parsed email.
- Via scheduled import from another system. Scheduled imports can run once a day or more frequently to pull in data from other systems. This import file could create events.
- Events can also be created manually by a user with the permission to do so (admin and configuration manager groups).

Event Layout

The event form has information pulled from the event type as well as case-specific details provided by the monitoring system.

Event Details Tab

The Event Details tab has most of the relevant fields. The Event Summary and Event Details are provided by the monitoring system to describe this specific event, while the Event Type Summary and Event Type Description and People to Email come from the related Event Type. The continuation of the Event Details screen shows the related configuration item or SLA and also a link to any incident that was created.



Related Events Tab

The Related Events tab shows any preceding event or duplicate events. The time criteria by which an event is considered a duplicate is defined in the linked event type record. Resolution events also show a link to the precipitating event.

Emails Tab

The Emails tab shows any emails sent by the event automation.

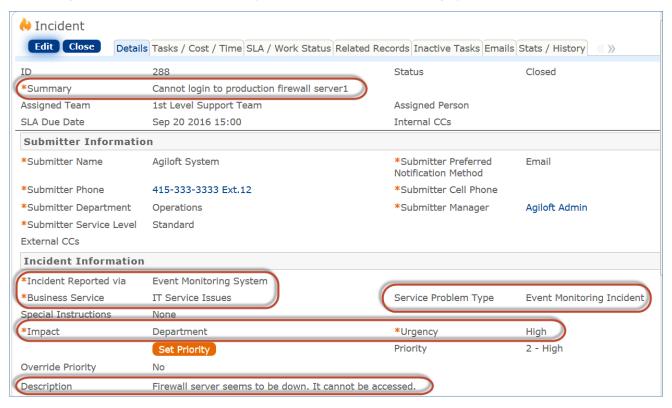
History Tab

The History tab shows the date and time the event was created and by which monitoring system or person. It also shows the time created for reporting and tracks any changes to the event record.

Incident Creation

Serious Warning events and Outage events should almost always result in an incident, so that standard procedures can be followed and SLAs invoked. Whether an incident should be created or not is defined in the event type record.

When an event is created for an event type that should create an incident, a rule runs to create the incident, mapping the Event Summary and Details, urgency and impact based on the values in the event type, mapping the configuration item, and setting its Business Service to IT Service Issues, the Service Problem Type to Event Monitoring Incident, and the Incident Reported Via to Event Monitoring System.



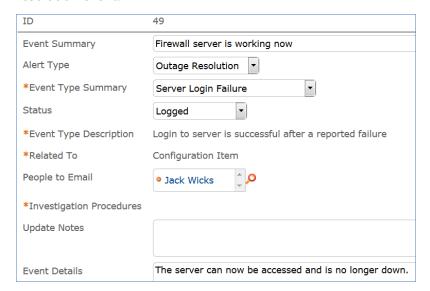
The incident will then be handled like any other incident.

Updating the Configuration Item

In addition to creating an incident, if the Alert type of an event is Outage and there is a linked configuration item, the system will update that configuration item to set its Operational Status to Unplanned Outage. It will also add a note to the Status Notes and Updates field identifying the event.

Resolution Events

When an event with alert type 'Outage Resolution' occurs, the actions taken by the outage event are effectively reversed. In the example shown below, a self-resolution took place and this event was followed by an Outage Resolution event.



The Related Events tab shows any linked events, both duplicate events that followed this event, and the precipitating event for a resolution event.



In this case we see that event 49 resolved the problem reported by event 47. As a result, the precipitating event's incident was updated to Closed and the configuration item Operational Status, which had been set to Unplanned Outage with the first event, was set back to Working by the second event. Each time an event updates an incident or a configuration item, it adds notes about the event ID and the actions it is taking to that record.

Event Processing and Automation

For information and warning events, or events that do not generate an incident, if the event type is defined to send email, then emails are sent to the appropriate team or people notifying them about the event.

When the event is created, several actions are run by rules:

- The Duplicate End Date is set to the Date Created plus duplicate minutes (pulled in from the event type)
 - This rule sets the Duplicate End date field in the new event by adding the event type's duplicate minutes value to the date created. This will be used to compare to any new events of the same type that are created (if their date is less than that date, they will be marked as duplicates).
- The Previous Event ID field is set automatically (based on the field default value action) to any event whose SLA ID or CI ID matches the new event, its related value matches, its event type matches, and its date is the latest one that is earlier than the new event. If the system finds a previous event matching that criteria, the status of the new event is set to Duplicate:
 - Otherwise, if it is an event type that should create an incident, the incident is created and the status is changed to Incident Created.
 - If no incident is created, if emails should be sent, then the notifications are sent based on the selection in the Event Type.
- If the event is an Outage event and there is a configuration item, the linked configuration item Operation Status is changed to Unplanned Outage.
- If the event is an Outage Resolution or Warning Resolution event type, the Precipitating Event linked set is defined as described above, and if a configuration item is defined, the linked configuration item is set back to Working status.
- If the precipitating event field has a value (i.e. this is a resolution of an earlier event), and the precipitating event is associated with an incident, the incident is set to Closed with a closure category of Self-Repaired by Monitoring System and an appropriate status note update.

Updating the Event Itself

While most events that require followup are expected to result in an incident, it is also possible to update the event itself. Service desk, Service managers, and Configuration managers can all update the event record as needed to provide investigation notes or other information. This information goes into the Update Notes field.

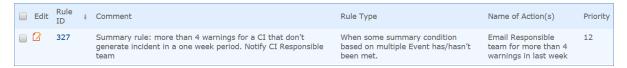
Followup - Converting to an Incident or Problem

It is also possible to convert from an Event to an Incident (for those that did not automatically generate an incident) and to a Problem, in case the number of warnings seems to suggest a problem. Buttons are available on the action bar for this conversion:

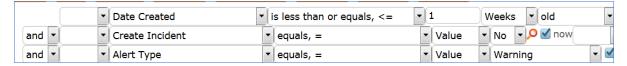


Summary Conditions Business Rule

It is possible to set up summary conditions that look for a certain number of events of a certain type for a specific CI or SLA and notify if that condition occurs. The system contains one example of this kind of rule as a model that can be followed to create additional rules based on specific criteria.



This rule runs once a week early Monday morning and looks for non-incident-generating warning events created in the past week.



Then it groups by CI ID and looks to see if there are more than 4 such events for any Configuration item. If there, are, it collates the events into an email and sends it to the CI Responsible team for that CI. Note that this time-based rule is disabled by default.

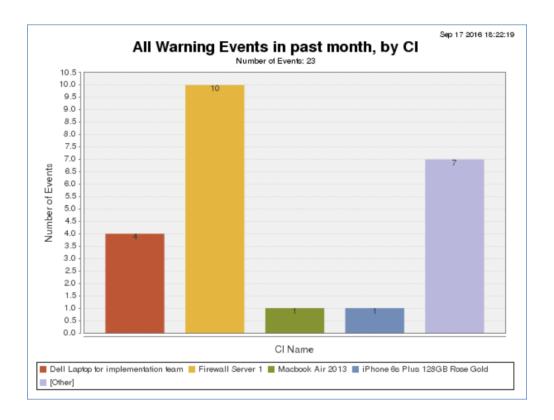
Archiving and Deletion

Events can be archived or deleted based on any time criteria. We have defined a sample rule, currently disabled, that will delete information events after three months. This rule runs weekly and finds events whose Alert Type is information and that were created more than three months ago. It runs a deletion action to delete the events.

Reports

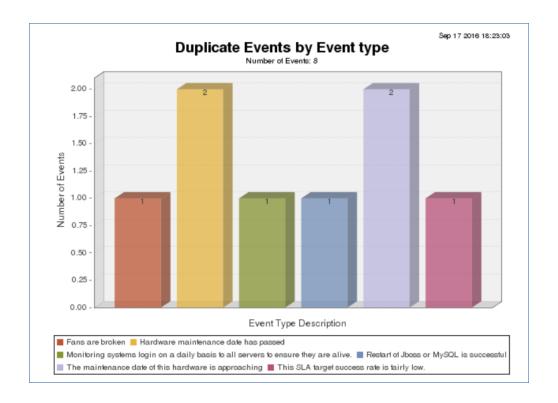
There are several reports set up on the Events table. These can be used to review the areas where problems are occurring, to identify problem configuration items that consistently generate events, and to track the effectiveness of the event monitoring system. Below are some samples of some of the built-in reports. These reports typically also provide an HTML and/or Excel-based output with more details.

All Warning Events in past month, by CI



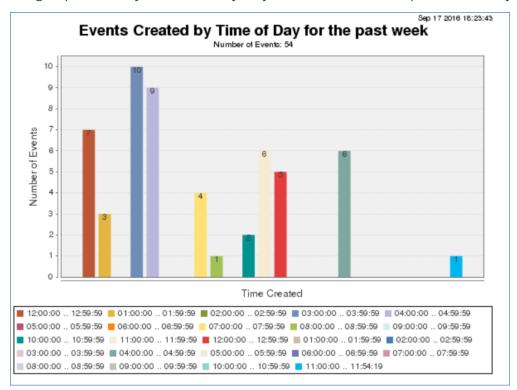
Duplicate Events by Event Type

This chart shows all the duplicate events created, totaled by event type.



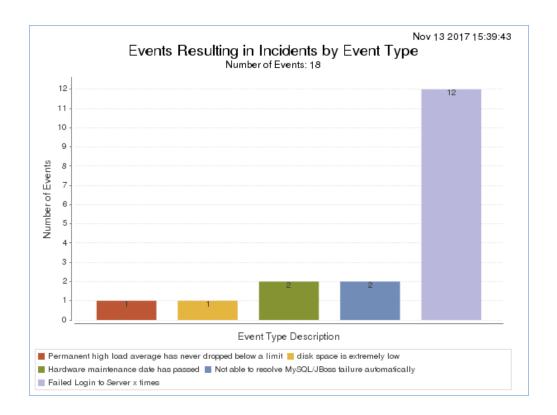
Events Created by Time of Day for the past week

This groups events by the time of day they were created to show peaks and valleys in event activity.



Events Resulting in Incidents by Event Type

This shows just the event types that result in incidents.



Non-Duplicate Events per CI Name

This report outputs both an HTML and Excel report showing the non-duplicate events grouped by Cl.

				Non-Duplicate Events per CI Name					
Number of Events: 23									
CI Name: Brother 6180 Printer 3									
Number of Events: 1									
ID	Alert Type	CI Name	CI Criticality	Event Type Summary	Event Details				
28	Information	Brother 6180 Printer 3	Medium	Hardware Maintenance Date Approaching	Printer is flashing, requires maintenar				
CI Name: Dell Laptop for implementation team									
Number of Events: 3									
ID	Alert Type	CI Name	CI Criticality	Event Type Summary	Event Details				
16	Warning	Dell Laptop for implementation team	Medium	Laptop Overheating					
17	Warning	Dell Laptop for implementation team	Medium	Laptop Overheating					
20	Warning	Dell Laptop for implementation team	Medium	Laptop Overheating					
CI Name : Firewall Server 1									
Number of Events: 12									

Event Types

The Event Types table holds all of the possible event types, categorized by the Alert Type and whether they pertain to a configuration item or some other object in the system. Out of the box, the system has event type relationships with Configuration Items and SLAs, but other relationships may easily be added.

Only members of the admin and Configuration Manager groups can create and modify the event types. For use with automated monitoring systems or scripts, it is important to create appropriate event types and then update the monitoring system to push the ID for the correct event type into the events it creates. This way, the processing details defined in the event type will be used to determine the correct course of action for the event.

The system comes with several sample event types showing some of the different options for processing events.

Alert Type	Event Summary †	Event Type Description	Email Behavior	Create Incident
Outage	AWS Status Check Failed	Alarm for Status Check Failed has been triggered by AWS=>SNS=>Lambda	Do not Send Email	Yes
Information	Backup Service Started	Backup service started, estimated duration is 2 hours.	Send Email	No
Information	Daily login to check system health	Monitoring systems login on a daily basis to all servers to ensure they are alive.	Do not Send Email	No
Warning Resolution	Disk Space Emergency	Disk Space Emergency is resolved and disk space is now adequate	Do not Send Email	No
Warning	Disk Space Emergency	disk space is extremely low	Do not Send Email	Yes
Information	Disk Space Emergency	Disk Space Emergency is resolved and disk space is now adequate	Send Email	No
Information	Hardware Maintenance Date Approaching	The maintenance date of this hardware is approaching	Send Email	No
Warning Resolution	Hardware Requires Maintenance	Hardware has received its maintenance	Send Email	No
Warning	Hardware Requires Maintenance	Hardware maintenance date has passed	Do not Send Email	Yes

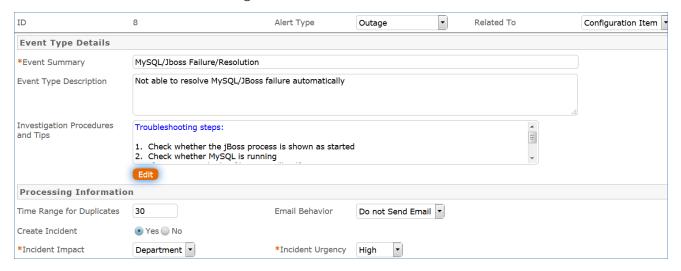
There are five different Alert Types, and each may be handled differently.

- Information
- Warning
- Outage
- Outage Resolution
- Warning Resolution

When event types are set up, the Outage Resolution and Warning Resolution alert type events should be linked to their preceding precipitating event (the warning or outage events). In this way, when a resolution event is created, it can update any incident or configuration item that was linked to the precipitating event to close the incident, change the status of the CI, and so on.

Event Type Creation

Event Types must contain an Event Summary, but it does not have to be unique. The Investigation Procedures and Tips field is an HTML-formatted field so you can include screenshots or formatted steps for investigation. This field will be shown in the resulting event.

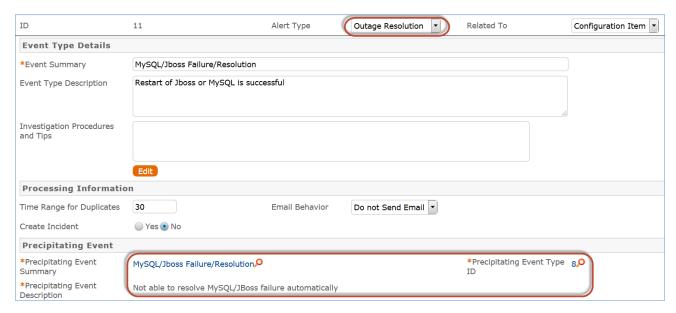


If several events of the same type for the same configuration item are received in short succession, it is important to be able to identify the later ones as duplicates, so we do not create incidents from each one. When setting up the event type, the Time Range for Duplicates field is used to provide a time range in number of minutes, after which a new event of the same type and for the same CI should not be considered a duplicate. In the case above, after 30 minutes, if a new event of this type is received, it will be treated as a new event, while before that, it will be marked as a duplicate.

You can choose whether the event should send an email to a team or to individuals. You can also choose whether the event should create an incident. When creating an incident, we typically do not send an email from the event, since the incident creation rules will already send the necessary emails. If the event is going to create an incident, you must set the default impact and urgency to use for the incident, so that the priority and SLA targets are all set.

Resolution Events

When creating an event type whose alert type is a resolution, there are additional fields to complete that link the resolution event type to the precipitating event type. For example, the resolution event type could be tied to the outage event type.



By selecting the related event type here, you create a link that can be used in the resulting event to pull in the precipitating event and its Incident ID and Configuration Item ID, which will allow the system to update those related records when a system self-corrects.

Email Notification Options

For events that don't create an incident, you have some additional choices for email notifications that can be sent from the event itself. When you choose Send Email in the Email Behavior field, two new fields appear. You can choose whether to notify the CI Responsible team about the event (for a Configuration Item Event) or the selected people in the People to Notify field, or both. When the event is created, your selection here is used to determine who should receive an email about the event.

It is of course possible to have event types that do not create an incident or send an email, but that are just informational. These events can be reported on and can measure the effectiveness of your monitoring systems.

Release Management

The goal of release management is to allow planning and deployment of releases into live environments. A release can be linked to one or more change requests or service requests and those requests and their tasks will be visible within the release record.

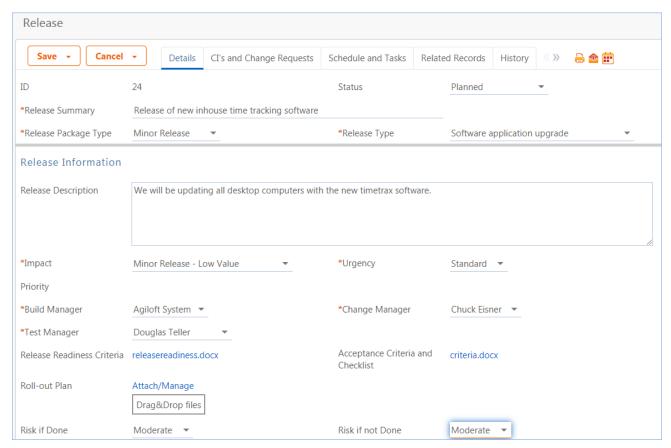
Releases are based on Release Types, which are preconfigured with documentation and task workflows that may include the approvals necessary to proceed with the release.

Release Layout

The release layout consists of several tabs of information.

Details Tab

The Details tab of the layout has the main fields that identify the owners of the release and other general information about the release.



When the Release Type and Version is selected, this pulls in the Release Readiness Criteria and Acceptance Criteria and Checklist documents that are attached to the release type, and these documents provide the

details for how the release should proceed, what the go / no go criteria are, and so on. Fields for Build Manager, Change Manager, and Test Manager identify the main decision makers and drivers of the release process. There are also fields used to specify the risks involved with the release, the backout plan, and the test plan.

Cls and Change Requests Tab

The CIs and Change Requests tab is used to select the configuration items for the release. From here you will be able to view the graphical display of the CI's to see any dependencies or downstream CI's that will be affected by the release.

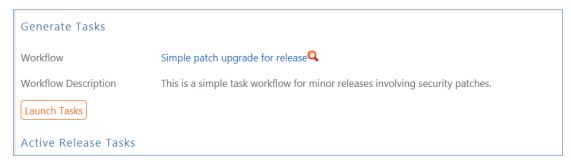
If any definitive media is involved, those records can be looked up and pulled into the Definitive Media table. In addition, you can search for any outstanding change requests and link them to the release.

The change request can alternatively be linked to the next release record from within the change request. The Configuration Items from Change Requests table can display all of the CIs linked to the selected change requests. Clicking the Refresh CIs button pulls in all of these CIs by querying the change requests.

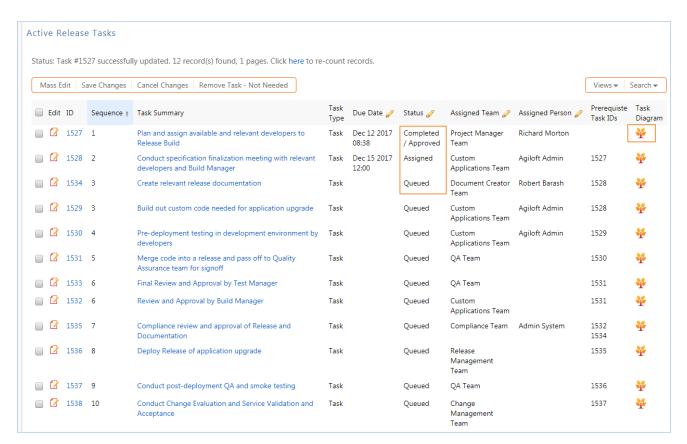
Schedule and Tasks Tab

The release start and end window is defined on this tab. To help in setting these values, the system populates the Earliest CR Start Time and Latest CR End Time with values based on the linked change requests and their own change window fields. These fields are informational only.

In addition, any task workflow is shown here and tasks are generated and launched from this screen.

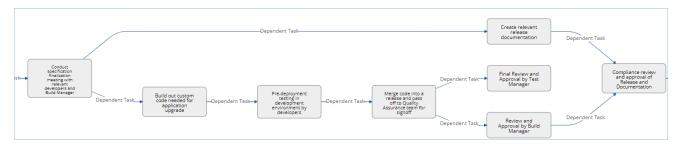


Releases support complex task workflows with approval tasks mixed in with CI change tasks, and sophisticated branching of tasks possible. Some default task workflows have been defined to demonstrate this capability. Here is a sample workflow for a software applications upgrade.



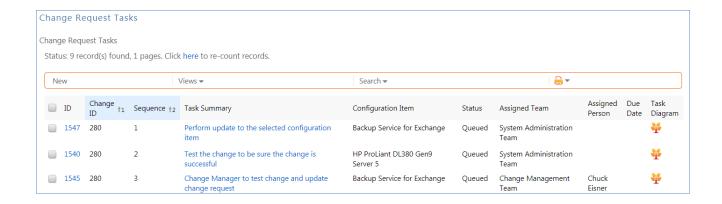
The Status column shows the progress of the tasks. Currently the task in sequence 2 is assigned and the rest of the tasks are waiting for their prerequisite to be completed. The Sequence indicates the relative order of the tasks.

The Task Diagram icon can be clicked to show the relationship between all of the tasks. What follows is a portion of the diagram for the sample tasks, showing that this is a branching sequence of tasks that come back together near the end of the process.



Change Request Tasks

If change requests have been linked in and they also have tasks, the change request tasks will be shown below the release tasks.



Related Records Tab

This tab shows any related knowledge articles, incidents, and service requests related to the release. New service requests for equipment or license purchases can be generated directly from within the release in order to be sure the proper goods are provisioned prior to doing the release.

Automation and Processing

When a release record is created, its priority is set by a rule based on the Impact and Urgency values. Releases have their own priority group and matrix that defines the mapping.

An email is also sent to the Change Manager, Build Manager and Test Manager for the release, notifying them about the release. Whenever the status of the release changes, the same three people are notified by email.

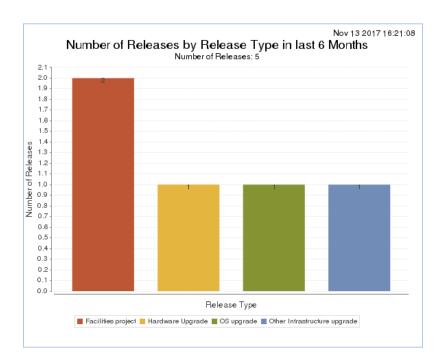
When all tasks for the release have been completed, the release status automatically updates to Completed.

If the Urgency or Impact change after the release is created, the system updates the priority to the correct value.

The rest of the notifications and automation for a release are typically handled through the tasks as they are launched and completed.

Reports

There are a couple of reports on the releases table. An example is Number of Releases by Release Type in last 6 months.



Releases

The Releases table holds a record for each release, with information about the release plan, responsible people, notes, and tasks. Releases can be linked to configuration items, incidents, change requests, service requests definitive media, and knowledge articles.

Working with Releases

New releases are created by in the Releases table by clicking New on the action bar.

Release Layout

The tabs of the Releases table are described below.

Common Area

The common area of releases contains the Release Summary, which is a brief description of the release's purpose. The Status field provides an overview of the release's progress. Status options are Planned, Scheduled, Build in Progress, In Testing, Deploying, Post-Deployment QA, Completed, and Rolled Back. The default value for Status is Planned.

Release Package Type has options of Major Release, Minor Release, Significant Release, and Emergency. Release Type and Version allows this release to be linked to the appropriate Release Type, stored in another table. The combination of Release Package Type and Release Type defines the workflow tasks and approvals that will be needed for the release.



Details Tab

The Details tab stores the core information about releases. Release Description allows for a longer explanation of the release's purpose and a description of what will be included in the release. Release Version allows a number to be assigned to the release.

When the Release Type and Version are selected, this pulls in the Release Readiness Criteria and Acceptance Criteria and Checklist documents that are attached to the release type, and these documents provide the details for how the release should proceed, what the go / no go criteria are, and so on. A Build Manager, Change Manager, and Test Manager may be assigned to the release. The list of available Build Managers is filtered to employees on the Release Management Team, while the available Change Managers are all employees on the Change Management Team. Any employee can be selected as the Test Manager.

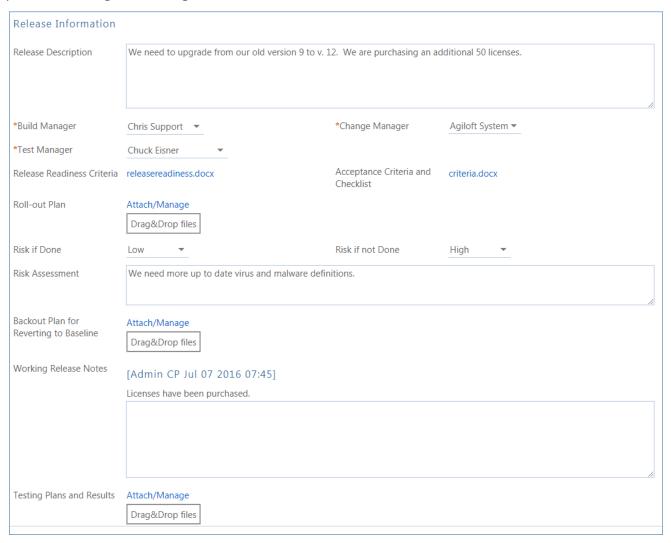
Roll-out Plan allows for files describing the plan for rolling out the release. Risk if Done and Risk if Not Done

have options of Low, Moderate, High, and Very High.

Risk Assessment is a text field allowing for a more detailed description of the risks involved with the release. The Backout Plan for Reverting to Baseline holds files about the steps involved in the release backout plan, and any configuration files needed to roll back the release.

Closure Category is filled out upon completion of the release to be used in reports. It is visible when the Status is Completed or Backed Out. The closure categories are the same choices available for change requests, and the closure category of the release could be pushed to the related change requests automatically. Working Release Notes is used for any notes throughout the release process. The author, date, and time of the note are captured.

The Testing Plans and Results file field is used to attach both the original test plans and any test results or data produced through the testing tasks.



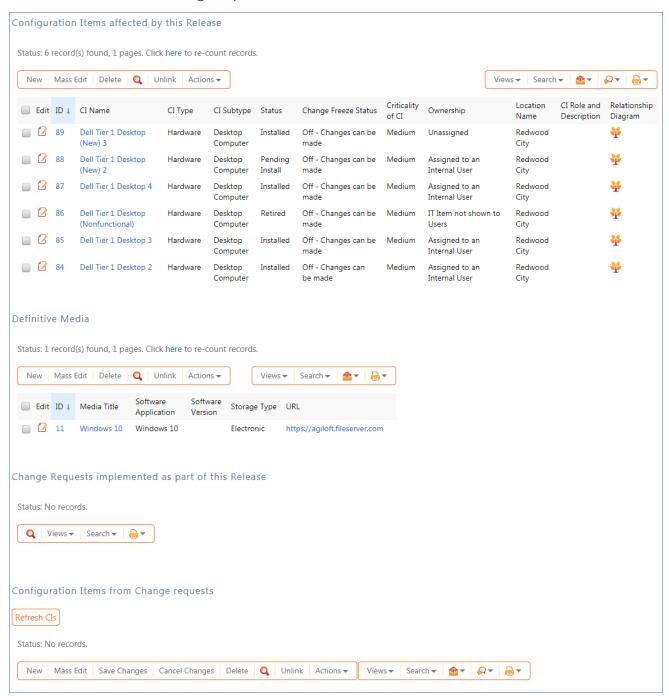
CIs and Change Requests Tab

The CIs and Change Requests Tab is used to select the Configuration Items affected by the Release. The relationship diagram for a CI provides a graphical display of dependencies or downstream CIs that will be affected or used in the release. The table of CIs also shows the location of the CIs and their criticality.

If any definitive media is involved, those records can be looked up and pulled into the Definitive Media table to identify the licenses and/or software involved in the release. In addition, you can search for any outstanding

change requests and link them to the release. The change request can also be linked to the release record from within the change request.

The lookup icon on the action bar of each table can be used to associate one or more configuration items, definitive media items, or change requests with the release.

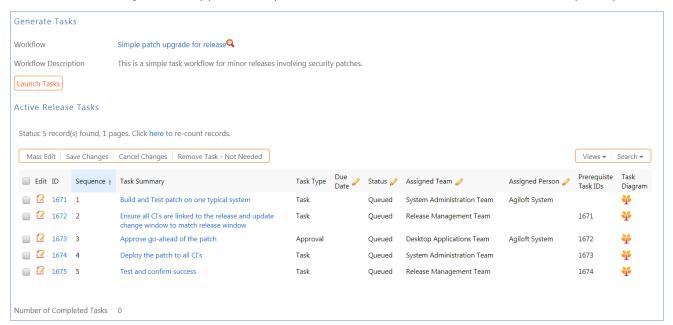


Schedule and Tasks Tab

This tab contains date fields and action buttons to manage the time frame of the release. The Release Window Start Date and Release Window End Date can be chosen manually. The Earliest CR Start Time and Latest CR End Date default to the corresponding value in any linked change requests for this release where the Change Window Start Time is less than all other change requests and greater than all other change requests, respectively.

In addition, any task workflow is shown and tasks are generated and launched from here. The workflow and activities for a release are all handled within the tasks, which are pre-configured for each Release Type and Release Package Type. The workflow is defined in the Release Type record, and the workflow tasks may include conditional tasks and/or approvals based on the Release Package Type.

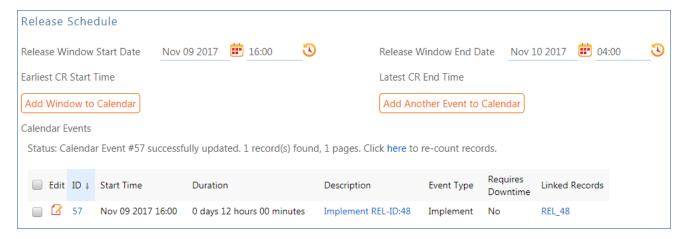
Once the tasks are generated and launched, if any task is marked as Failed, that will send an email to the three managers identified in the release and prevent the workflow from progressing. Once the Generate Tasks button is pressed, the tasks for the selected workflow are automatically generated and placed in a Queued status. The tasks may include approvals as part of the workflow, in addition to tasks that require specific work.



Launching the tasks will set all tasks that have no prerequisites to Assigned and notify the team/person that the task is due. More on the task process can be found in the Task Management section, and a description of the tasks table in particular is in the Tasks Table section.

Adding Calendar Events

Once the Status changes to Scheduled, calendar events can be generated using buttons on the screen. The Release start and end window event can be created by pressing Add Window to Calendar. That will create an event of type Implementation. Clicking the Add Another Event to Calendar opens the Calendar record form and will link that record back to the release. Any calendar events are shown in a table in the record.



The calendar can be subscribed to as an internet calendar and shown in your company's calendar software, whether that is Outlook, Exchange, or Google, for instance.

Change Request Tasks

If change requests have been linked in and they also have tasks, the change request tasks will be shown below the release tasks.

Related Records Tab

Knowledge articles applicable to the release are included on this tab. In addition, incidents and service requests related to the release can be selected here. The New button on the action bar of the related table can be used to create a new knowledge article, incident, or service request related to this release.

New service requests for equipment or license purchases needed for the release can be generated directly from within the release in order to be sure the proper goods are provisioned prior to doing the release. The costs from any purchases related to the release can be accessed through any linked service requests. Existing records can be looked up and linked in using the lookup icon above each table.

History Tab

The History tab contains the auto-generated Date Created and Date Updated, and the creator and last updater are stored. Below, the History field shows a row for each change made to the release record, including the updater, date and time of the update, the field(s) updated, and the old and new values of the field(s).

Completing the Release - Updating CIs

When the release has been completed and all tasks are done, the Status and the Closure Category fields should be updated to indicate whether the release was completed successfully.

In addition, if CIs were updated in such a way that new relationships should be created for them or changes are made to their attributes, then those CIs should be updated. This can be done in the simplest cases by using Mass Edit from the linked CIs.

Selecting CIs and clicking the Mass Edit button allows the user to choose which attributes of the linked CIs should be updated and to update them all at the same time. In addition, all CIs included in the Release will automatically show the release within their own Requests and Work Done tab. Any change requests tasks will also appear within the Configuration item record.

Release Types

The Release Types table stores a record for each type of release. The release type can have a default task workflow and documentation for release readiness and acceptance criteria. Release Types are pulled into Release records where all of the workflow and processing information is pulled in and applied to the Release.

Release types can be marked as Active or Inactive by changing the status field. Active is the default value, but the status can be set to Inactive if the release type will no longer be used.

The Clone to Create new Version button can be used to create a new release type with the Release Type, Description, Acceptance Criteria, Default Task Workflow, Release Readiness Criteria, and Task Generation Method mapped. The new release type record will appear on the screen so that any modifications can be made to these fields. The Version Number of the cloned release type is set to the previous release type version number incremented by 1.

Release Type and Version is a compound field, combining the Release Type name and the Version Number of the release type.

Release Readiness Criteria and Acceptance Criteria and Checklist hold files describing release readiness and criteria for acceptance of the release - i.e. policies, regulations, standards, and other requirements that must be met for deployment approval. These can also include information about service validation, various test plans and other testing activities.

In the tasks section, a Default Task Workflow can be selected. This determines the Task Workflow that is chosen automatically in a new release for this release type. These can be customized and used to incorporate Service Test Models, Service Validation, and various testing activities. The Task Templates are also used to manage roles and responsibilities and schedules, and can include different activities in different deployment environments. Once a Default Task Workflow Title is selected, the task templates included in the workflow are shown in the Task Templates table below.

When the release is created and a release type selected, the workflow and other information from the release type is populated into the release. The task templates, when generated, are created as tasks and their overall sequence and prerequisite structure is maintained.

This is a background table with no other processing, so there are no reports or other automation.

Knowledge Management

The goal of IT Knowledge Management is to make information available and easy to maintain. Agiloft has several tables designed to maintain the service knowledge management system. These tables are Knowledge Articles, Knowledge Ratings, Knowledge Subtypes, and Knowledge Topics.

- Knowledge Articles
- Knowledge Ratings
- Knowledge Rating Values
- Knowledge Subtypes
- Knowledge Topics

Knowledge Articles

Records in the Knowledge Article table represent FAQs, policies, user guides, and other reference information that is helpful in maintaining and improving the ITIL process. A knowledge article record has fields that are divided into tabs: Details, Progress, Source, Emails, and History. A small number of fields are stored in the common area, which is visible at the top of all of the other tabs.

Knowledge articles can be created by members of the admin, Admin Import, Base ServiceDesk, Business Admin, Knowledge Creator, ITIL Business Admin, Knowledge Manager, Marketing, and Project Manager groups.

Knowledge articles can be created by clicking New within the table view or by service desk personnel converting a resolved incident, service request, problem, or change request into an article.

If a user attempts to create a knowledge article with the same title as a previous knowledge article, the system will prevent the new article from being created until it has a unique title.

Error: The Title field has the "unique value" attribute, and a record with the value of Confluence User Guide already exists

Knowledge topics are assigned to knowledge articles based on content. Users can subscribe to topics in order to get emails when new articles with those topics are created.

Knowledge Article Layout

This section details the key fields in a Knowledge Article.

Common Area

The common area of each Knowledge Article record shows the ID, which is unique within the Knowledge Article table and auto-assigned to each new record. In addition, the Status of the knowledge article is shown to provide information on the article's progress through the review and publishing stages. The default Status is Draft for new articles. Other Status options that can be used to track progress include Pending Document Manager, Pending Approval, Ready for Publication, Published, Retired, and Canceled.

The common area also contains an Assigned Team drop-down. The Assigned Team defaults to the Knowledge Management Team, but may be updated to hold another team. If an individual is responsible for the article, the name can be selected in the Assigned Person drop-down. The options for Assigned Person are filtered based on the selected Assigned Team.

The common area contains four buttons when the Status is Draft: Submit for Review, Submit for Approval, Clone Article for Revision, and Cancel this Document. Submit for Review changes the Status to Pending Document Manager and triggers an email to the Knowledge Management Team. Submit for Approval changes the Status to Pending Approval and triggers creation of approval records for each individual who has been selected as one of the Approvers on the Progress tab. Cancel this Document changes the Status to Canceled. Clone this Article for Revision opens a new knowledge article with some of the basic information mapped.

Details Tab

The Details tab of a knowledge article contains most of the basic information about the article. There are five main sections: Document Details, Document Files, Related Articles, Ratings, and Submitter Information.

Document Details

- Knowledge Type is required and helps to categorize the article. Once a Knowledge Type is chosen, the Knowledge Subtypes will be filtered to the subtypes related to the Knowledge Type. Topic(s) should be selected based on the content of the article. If any users have subscribed to one of the topics chosen for this article, then they will receive an email when this article is published, notifying them that there is a new piece of information they might find interesting.
- Priority and Rush can be used to indicate how quickly this article should be reviewed and published. The default of Rush is No.
- Purpose and Description are used to explain the content of the article. HTML can be entered into the Description field by changing the radio button below it to HTML, or by clicking the Edit button.
- Special Compliance Requirements is required, and one or more options can be selected. If any option besides None is chosen, Compliance Notes must be entered.
- Document Access is required and used to identify who should be able to view this article. The options are Public, Partners, All Internal Users, Restricted to Specific Departments, and Restricted to Specific Users. If Restricted to Specific Departments is selected, a field appears allowing selection of one or more departments to which this article should be available. Similarly, if Restricted to Specific Users is selected, a field will be visible to allow lookup and selection of those users. Audience is an informational field, providing an overview of the types of people for which this article is intended.

Document Files

This section has information about the document itself. Source Files contains the original files used for the knowledge article. Published Format has several file types to represent the final, published version of the document. Once the article is published, the finalized document(s) can be added to the Published Files field. Both Source Files and Published Files accept document (Word, PDF, etc.) and image file types. If the file is stored at in internal URL, the URL can also be entered in the Internal File URL field.

Related Articles

Articles may be related to each other so they appear in the Related Articles list by clicking the lookup



icon.

Ratings

This section appears only once the status is set to Published or Retired. Users may rate articles by clicking on the "Rate this Article" button. Once an article has any ratings, they will appear in this section. The Overall Rating and Ratings Average fields show the average rating description and number for this article based on all ratings.

Submitter Information

This sections shows the Submitter's name and department. The submitter defaults to the person who created the knowledge article, but an admin or manager can edit the Submitter if the article was created on behalf of someone else.

Progress Tab

This tab holds approval information and notes on the knowledge article. Requires Approval is set to Yes if the article must be approved; if so, one or more Approver(s) can be selected. Once the article is submitted for approvals, an approval record for each approver will appear in the table of Approvals below. Any Approval Notes can be entered into the field manually. In addition, if any approvers write notes into an approval record, those notes are pushed to the Approval Notes here in the article.

Working Notes holds more general notes on the article's progress.

If there are milestones for the article, the Next Milestone Date can be stored. An article may also have a Final Due Date.

If revisions are needed and will be best handled with a service request, the button Raise a Service Request for Revision can be used. It opens a new service request record, mapping some of the information from the knowledge article. If this is done, any service requests created from the article will be shown in a table.

Services Tab

The Services tab contains a table of Associated Services. Services related to this article can be selected by clicking the lookup icon.

Source Tab

The Source field is used to specify where the knowledge article originated from, for instance from a change request, incident, problem, or service request. If there is a source record, the information is included below. When a knowledge article is created from within another record, such as an incident, the source incident details are automatically populated within the knowledge article.

History Tab

The History tab shows auto-generated dates: Date Created, Date Updated, Date Published, and Date Retired. It also keeps track of the user who created the record and the user who last updated the record. Below these fields, the History Events section contains a row for each time a change was made to the record, either by a user or a rule, and which fields were modified.

Knowledge Article Processing

This section describes how to create, review, and process Knowledge Articles.

Creating Articles

A knowledge article can be created by clicking New in the action bar of the main table view, or by clicking Create Knowledgebase Article within a Closed incident or service request, Completed change request, or Resolved problem. If created within an incident, service request, change request, or problem, the source record information is automatically populated into the knowledge article. In addition, some of the information from the source record is mapped into knowledge article fields, such as the article Title, Purpose, Attached Files, and Working Notes. Knowledge Articles start in a default Status of Draft.

For example, if Create Knowledge Article is clicked within a Closed incident, a new knowledge article record appears with the Title, Purpose, and Content fields prepopulated. These fields can be modified as needed. Additional required fields will also need values before saving the article.

Review and Approvals

Once an article has been created in a Status of Draft, it can be submitted for review by the Document Management Team by clicking Submit for Review. This changes the Status of the article to Pending Document Manager and sends an email to the Document Management Team. A document manager must then review the information, edit information if necessary, and either submit the article for approval or publish without approval. Alternatively, if the document manager determines that the Submitter must review the article or make additional changes, the manager can click Return to Submitter.

The field Requires Approval on the Progress tab indicates whether the article must be approved. The default value for this field is Yes, but can be set to No manually if approvals are not needed.

If approvals are not needed, the document manager will set Requires Approval to No and then can click Publish Without Approval. Clicking this button changes the Status of the article to Published.

If approvals are needed, the document manager will leave Requires Approval set to Yes on the Progress tab and select the users who need to approve from the Approver(s) lookup.

The approver(s) selected will appear in the Approver(s) field, and then the document manager will click Submit for Approval. This changes the Status to Pending Approval and generates an approval record for each of the approver(s) selected, then displayed in the Approvals table below.

For example, if Roxanne Marcin, Rick Peterson, and Ralph Knowles are listed as Approvers, they will each get an email asking them to review and approve the document. By default, any approver can approve at any time relative to other approvers. The approvers can click the hyperlink in the email to view the approval record, where additional details about the article can be accessed by clicking on the Knowledge Title.

Approvers can Approve, Require Changes for, or Permanently Reject the article. Any approval notes entered by approvers will appear in the Approval Notes field in the article. Once each approver has approved the article, the Status of the article is automatically changed to Ready for Publication. In addition, the Submitter and the Assigned Team receive an email alerting them that the article has been approved.

A knowledge manager may then click Publish, which changes the Status to Published. When an article is published and the Document Access is Public or All Internal Users, internal customers will be able to see the article. In addition, any users subscribed to one of the Topics for this article will receive an email about the new article.

Rejecting Articles

The reviewer may either approve or reject the article and provide Approval Notes. If the approval record is rejected, the reviewer must provide Approval Notes explaining why the document is rejected. A validation rule reminds the reviewer that they must provide rejection notes if a reviewer attempts to reject the approval without providing notes.

When any of the approvals are rejected, a rule in the Knowledge Article table detects this via a calculation on multiple linked records field that keeps track of the number of rejections. When this field is updated by rejections, the rule sets the Article's Status to Draft, emails the Submitter that the knowledge article requires an update, and sets a trigger field named Document Rejected, Requires Update in each of the linked approvals to Yes.

Setting the Document Rejected field to Yes in the approvals then triggers a rule that sets the Approval Status

field in all of the linked approvals to Requires Reapproval, unless that Approval already has a value of Rejected.

Since any rejected Approvals set the Status of the document back to Draft, the process essentially starts over. The Submitter can review the comments made by the reviewers and see any red-lined documents that have been attached to the approval records. Then the Submitter edits the document and presses the Submit for Review button again to change the Status of the Document to Pending Review and notify the Document Manager. The Document Manager can then keep the same Reviewer(s) or change them and Submit for Approval again. If a document is rejected by an approver and then submitted for approval again (and the Status therefore changed from Pending Approval to Draft and back to Pending Approval), the status of all of the linked approvals is restored to Pending Approval, and all Reviewer(s) are notified by email.

Revising Knowledge Articles

If a document manager wants to create a revision for an existing knowledge article, there are two options: clone the article for the revision or create a service request for the revision.

To clone the article, click Clone Article for Revision. A new knowledge article record will appear with some information mapped from the source article, including Title, Assigned Team, Purpose, Content, Special Compliance Requirements, Compliance Notes, and Source Files. Additional information can be entered and pre-filled fields can be modified before saving the revision record. The default Status of the revision article is Draft.

To create a service request for a revision, navigate to the Revisions section on the Progress tab and click Raise a Service Request for Revision.

This will bring up a new service request record with Source Files is mapped into the service request's Attached Files. In addition, the Summary of the service request is set to "Revision of [knowledge article title]", the Business Service is set to Printing and Document Services, and the Service is set to Change to an existing knowledge article.

An Impact and Urgency must chosen prior to saving the new service request. In addition, an explanation of the revision should be added to the Description field. More information about the knowledge article being revised is visible on the Related Records tab. The source knowledge article is populated automatically.

In the knowledge article, the service request for revision is automatically appended to a table of Service Requests on the Progress tab.

Retiring Knowledge Articles

After an article is Published, if it is no longer needed, it can be retired by a document manager using the Mark Retired button. Clicking this button changes the Status of the article to Retired.

Knowledge Subscriptions

Users can receive notifications about Knowledge Articles of interest by subscribing to topics.

Subscribing to Knowledge Topics

Each knowledge article can be associated with one or more topics such as Security, HR, or Confluence. Categorizing articles makes it easier to search for knowledge articles about specific topics. When users subscribe to a topic, such as Confluence, they receive an email when an article about Confluence is published.

Users can subscribe to topics by clicking on My Profile in the end user interface. At the bottom of the first tab, a drop-down of topics is visible. All topics are listed in the dropdown, minus any the user is already subscribed to. To subscribe, the user selects the topic and clicks Subscribe to Topic.

When the screen refreshes it shows the topic listed as one of the user's topics. In addition, a pop-up confirms that their subscription was successful.



Rating Knowledge Articles

Any user who reads a knowledge article can give it a rating by clicking Rate this Article. A new record will appear where the rating information can be entered.

Automation

When a knowledge article is created, the following actions run:

- If the Status is Pending Document Manager, an email is sent to the Knowledge Management Team to let them know that the document is ready for their review.
- If the article orginated from a service request, incident, problem, or change request, the source record is updated to link to the new article.

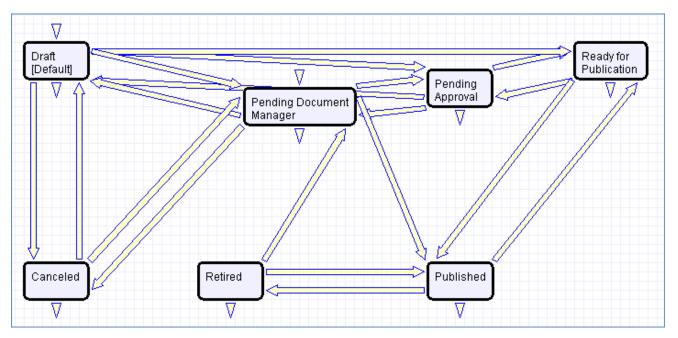
When a knowledge article is edited, the following actions run:

- If a user saves the article when the Status is Pending Approval and Requires Approval is set to Yes, but no Approvers have been selected, a validation prevents saving the article.
- If a user changes the Status to Published or Ready for Publication and and there are still approvals that have not been completed, a validation will warn the user that the approval process is not complete.
- If the Status changed from Pending Approval back to Draft, an email is sent to the Submitter to let them know that the document requires updates.
- If the Status changed to Published, an email is sent to the Submitter.

- If the Status changed to Pending Document Manager, an email is sent to the Knowledge Management Team to let them know the article is ready to be reviewed.
- If the Status changed to Ready for Publication, an email is sent to the Submitter.
- If the Status changes from Draft or Pending Document Manager to Pending Approval and there are approvals pending, all linked approvals are set to Pending Approval.
- If the Status changes to Published and there are Topics selected, an email is sent to all of the subscribers to each of the topics.
- If the Approver(s) are updated, each approver's profile record is flagged in order to trigger creation of approval records.
- When all approvals are completed for the article, the Status is set to Ready for Publication and emails are sent to the Submitter and the Assigned Team.

Workflow

The following diagram represents the different knowledge article states and the allowed transitions between the states.



Reports

Knowledge Article reports are listed below.

Evaluating Knowledge Article Usage

Information about how many users have viewed a knowledge article in a certain time can be captured. Several reports have been created to summarize this information. For example, one chart in the Activity Log table shows the number of file views per knowledge article each month.

Additional details on who viewed the file and when are part of this report as well.

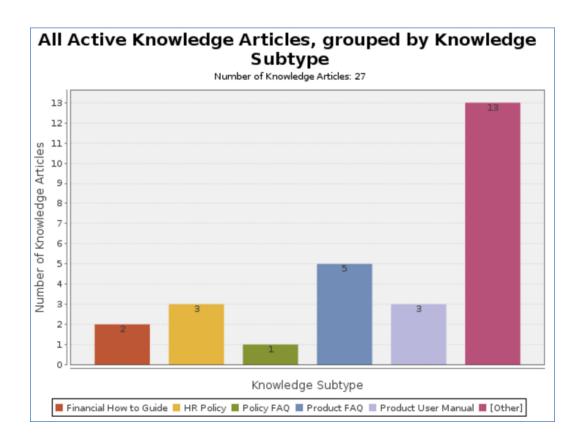
In addition to looking at file views, record views can also be included in reports. This information can be used to assess what types of knowledge are most useful or have been relevant over the past month.

Evaluating Knowledge Article Need

Reports in other tables can also provide information relevant to knowledge. For instance, this report of Closure Categories for incidents gives information on what types of incidents are occurring most frequently and what kinds of improvements can be made. Again, more details about the data used to generate this report are readily available in the HTML portion.

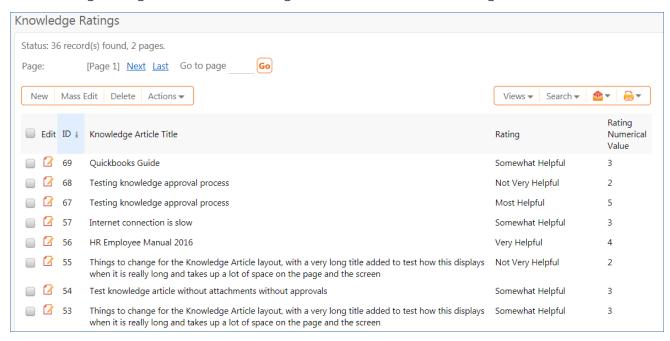
Checking for Similar Knowledge Articles

To help identify redundant information, as well as to provide information about what types of knowledge are being published, there is a report called All Active Knowledge Articles, grouped by Knowledge Subtype. The more detailed list of articles published within the same Knowledge Subtype can be used to easily determine which articles may be able to be combined.

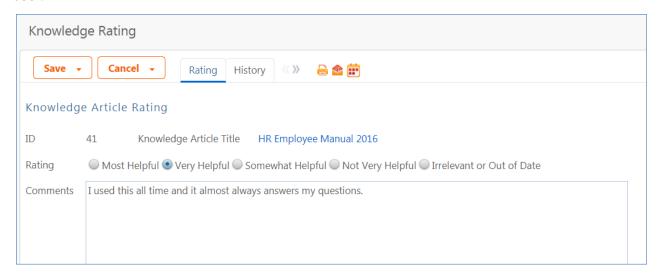


Knowledge Ratings

The Knowledge Ratings table stores the ratings that users submit for knowledge articles.

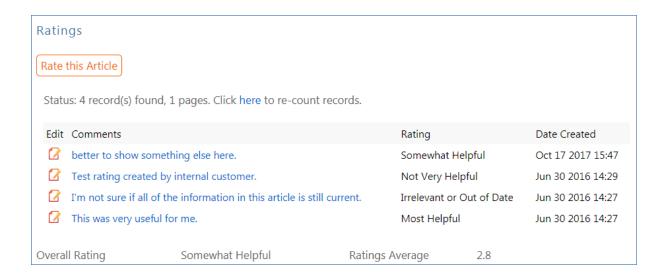


Each knowledge rating contains a link to the article's title, the user's rating, and any comments entered by the user.



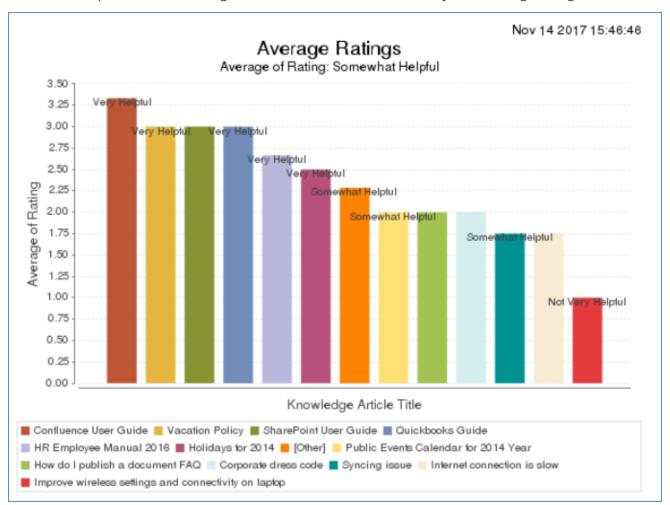
Knowledge ratings are created within knowledge articles. At the bottom of the Details tab of a knowledge article record, there is a Ratings section with a Rate this Article button. Clicking this button opens a new knowledge rating record in a new window.

All ratings for a knowledge article are averaged, and this information is shown below the table of Ratings within the article. In addition to the descriptive rating (between "Irrelevant or Out of Date" and "Most Helpful") a numerical average of the ratings (between 1 and 5) is also calculated.



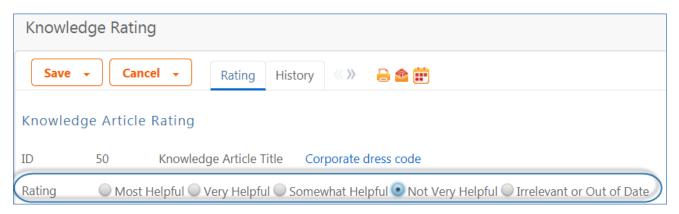
Reports

There is one report in the Knowledge Article table. It ranks all articles by their average rating.



Knowledge Rating Values

The Knowledge Rating Values table stores the options available for users selecting the Rating for a knowledge article.



The options range between "Irrelevant or Out of Date" and "Most Helpful."



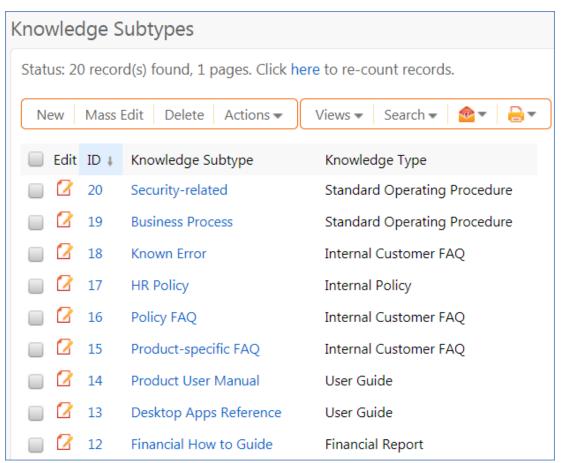
Each rating value record contains a Status, which determines whether it is available for selection when rating an article. The Rating Text Value is what the user sees when selecting a rating. Rating Low Range and Rating High Range are used to determine the correct rating value record that most closely represents the average for an article, and the Rating Numerical Value is used to show the numerical average of all ratings for an article.

Knowledge Subtypes

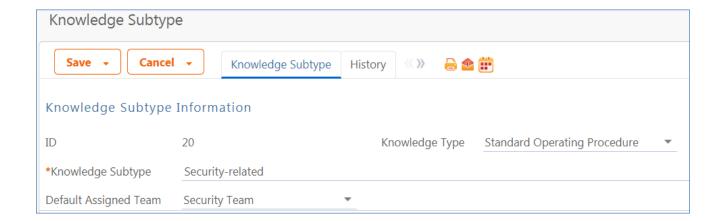
The Knowledge Subtypes table stores all of the knowledge subtypes that can be chosen for knowledge articles. Knowledge Type and Knowledge Subtype are used to categorize articles. In a knowledge article, a list of knowledge subtypes is provided based on the Knowledge Type selected.



Each subtype is stored in a record in the Knowledge Subtypes table. This table is where you can edit, remove, or add subtypes.

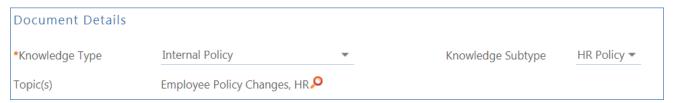


In addition to the name of the subtype, each record also stores the related Knowledge Type value for which this subtype should be available and the Default Assigned Team.

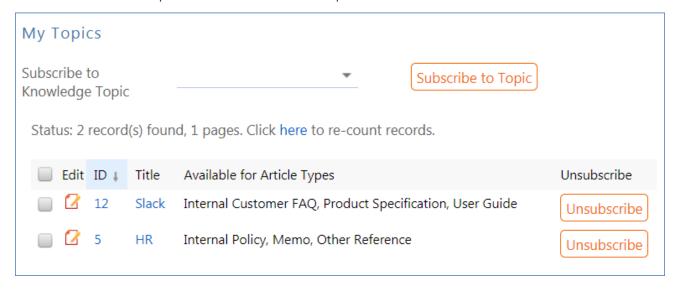


Knowledge Topics

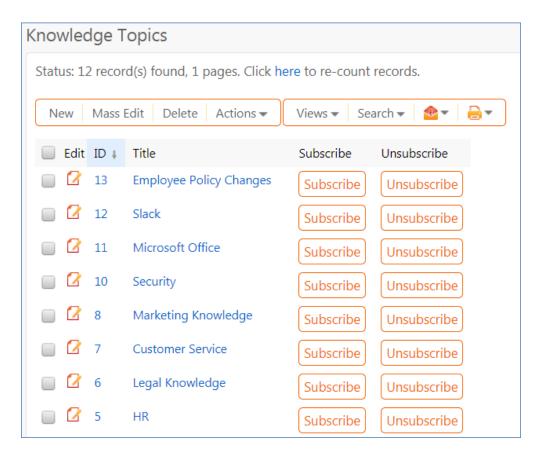
Knowledge articles can be associated with one or more topics. The topics available for a knowledge article depends on the Knowledge Type selected.



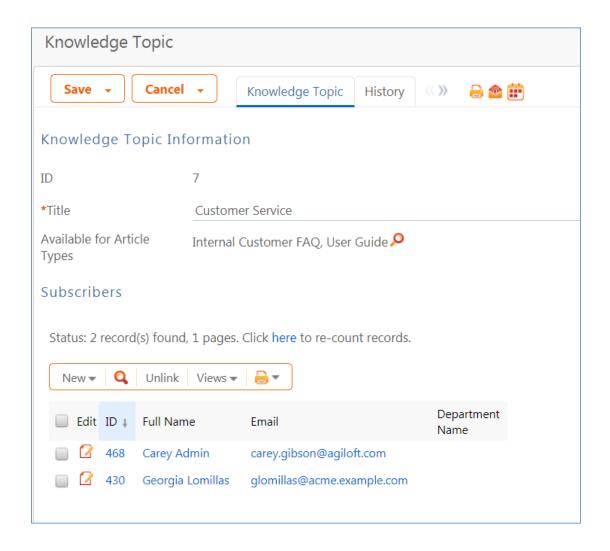
In each user's profile, there is a list of knowledge topics to which that user is subscribed, along with buttons to unsubscribe to those topics and subscribe to new topics.



These topics are stored in the Knowledge Topics table.



Each knowledge topic has a list of the knowledge types for which this topic is available for selection in an article. In addition, all users who have subscribed to the topic are shown in a table.



Background Tables

There are several other tables used in different areas of the system that hold data that is less active and workflow-oriented than the request tables. These tables are briefly described in this section.

- Companies
- Locations
- People Table, Employees and External Users
- Departments
- Cost Centers
- Calendar Events
- EUI Templates
- ITIL Functions
- Replacement Variables

Companies

The Companies table holds information about entities, organizations, and companies that interact with your organization. It may include customers, vendors, prospects, manufacturers, or companies with any other type of relationship.

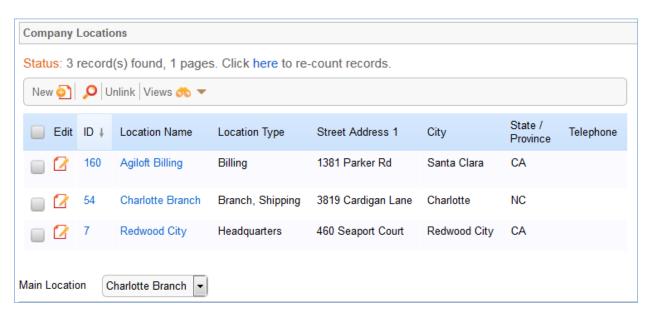
Use Case

Companies may be created by conversion from the Leads or Contracts table. Members of the Admin, Professional Services, Support Staff and Sales groups may also create new Company records directly. For contract management users, companies can be created with an action button when filling out a new Contract record.

The Company table contains mostly static data, and thus does not have any associated workflow actions. Information about a company and a company's relationship to your organization is stored in the company

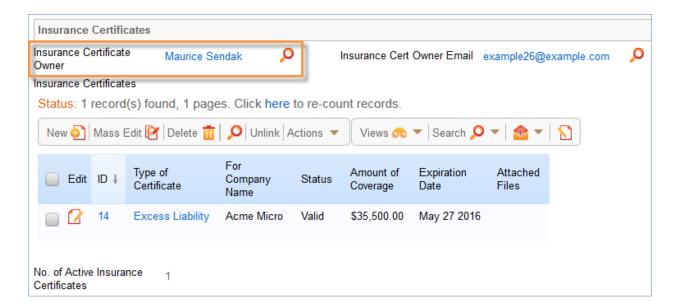
record. This information can be everything from the company's billing address to information about their support contracts with your company. More complex data relationships are displayed via linked fields, which pull any records from the Contacts and Opportunities tables that reference the Company record. This allows you to see any business deals or transactions in progress and keep track of any Company employees that your organization contacts.

Company address information is stored in the Locations table and displayed on the Locations and Contacts tab. A parent company may have several locations, e.g., a billing office, branch locations, and headquarters.



As a background table, many other tables link to the information stored in the Companies table. The Related Records tab shows related tables for Support Cases, Contracts, Insurance Certificates, and Assets.

New Insurance Certificates are typically added from the Company record. An Insurance Certificate Owner is defined just above the Insurance Certificates related table. The Insurance Certificate Owner is notified fourteen days before one or more certificates is due to expire, provided that there is at least one active or pending contract. In the certificate record, the Main Contact is the primary contact at the vendor company.



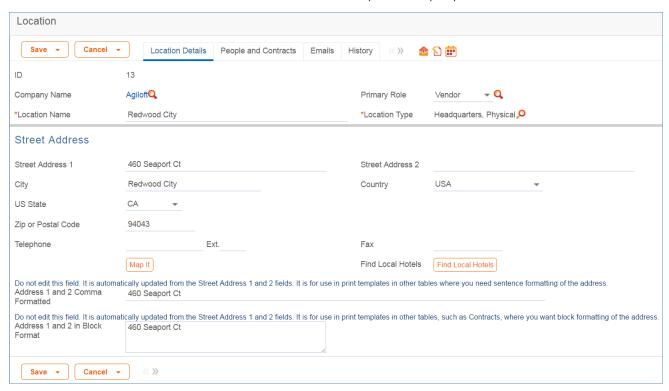
Insurance certificates added to a company record are automatically linked to all contracts associated with the vendor company.

Ownership

Records in this table are owned by the individual assigned sales rep, so each record is associated with a particular user login. Admins and members of the Contract Owner, Contract Manager, Marketing, Project Manager, and Sales groups can view and edit Companies. Most groups can view their own Company, and most internal users can view others' Companies.

Locations

The Locations table stores all address information for companies or people.



Each location can be linked to a company from the Companies table. Each location holds a single address and can have multiple Location Types.

Location records are created by conversion at certain points:

- When a new company is created from within a contract, a location is created in the background.
- When a lead is converted to an opportunity record, a location is created.

People may be associated with locations.

People Table, Employees and External Users

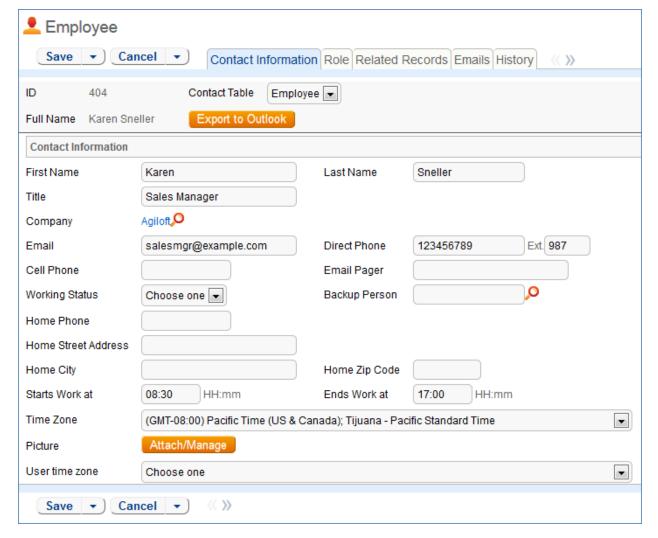
The People table and its subtables for employees and external users stores information about individuals who use your system.

The People table contains data about individual users of your system and individuals with whom your organization has contact or business relationships. There are two basic subtypes of users: External Users and Employees. Most external contacts will go in the External User table, as the Employee table tracks information that does not apply to people outside your company, such as working hours and hire date. People records normally have a link to a record in the Company table to define which company is related to the person.

People are considered static and do not have a workflow associated with them. People may be created manually by Guests (self-registering), Support Staff, and members of the Professional Services, Sales staff and Admin groups. Guest record creation is enabled by default so users can create their own logins using the limited-access "register" account.

People may also be created as the result of a conversion from a Lead or Contract record, or may be created as part of an import from an external database such as an LDAP directory. Each person record is assigned either a Team or an individual from the Employees subtable as the "Owner".

In general, we recommend that all people be created in either the Employees or External Users subtable, and not in the top level "People" table. External users are generally linked to external companies, while employees are linked to your own company.



The Employee sub-table has a rule attached to it that runs a conversion of an Employee record to the Approvals table when triggered by a field changed on the Employee record. This facilitates the Knowledge Management approval process.

Groups and Teams

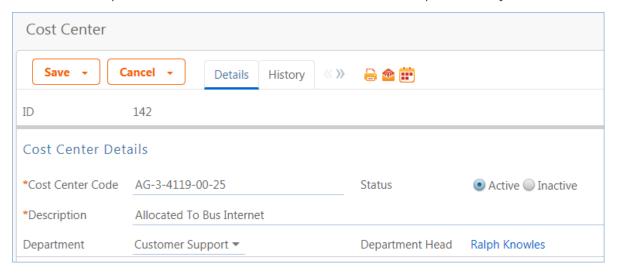
Users of the system are associated with a Primary Team and with one or more groups and additional teams. Assigning the correct value for a user's groups and teams is critical for giving them the appropriate permissions in the system. Groups control their access to tables and records and fields, while teams control their default views, dashboard, and other elements of the interface.

Departments

The Departments table stores information about any departments internal to the company. Each record typically stores the department name and a main contact, if applicable. Departments may be used to define distinct processes, contract types, or services on a per department level, as needed.

Cost Centers

Cost Centers is a simple background table that can hold cost centers, or accounting codes, for your company. It is optional, and records can be imported into it to be used by service requests and other parts of the system. It has been set up with some demo data that can be deleted and replaced with your own data.



Cost Centers are linked to a specific department and can be shown within the department record.

They may be marked as Inactive if they become obsolete. Records that were linked to an inactive cost center will continue to be linked to it, but the inactive cost centers will not be available for selection for new records.

The Service Request table makes use of cost centers for services that are billable, if the cost function is turned on. See the General ITIL Overview for more on the ITIL Functions table.

Calendar Events

This table contains event records displayed in the Calendar block in the left pane, or using a normal table view.

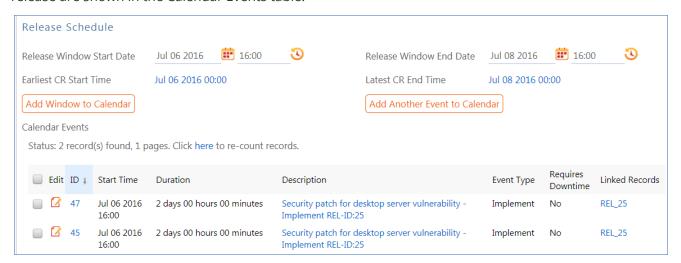
Use Case

The Calendar Events table is a special table used in the staff interface Calendar pane feature. Records in this table display as events in the Calendars for the individuals and groups that they reference. Calendar records are mostly static and do not have any default associated workflow or email setup. The Calendar pane is only available to Staff users, and cannot be made available to End Users.

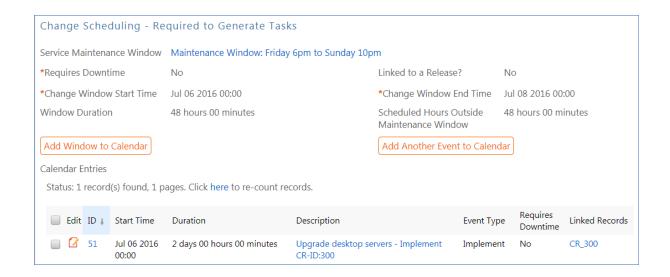
By default, only members of the admin, Project Manager, Base Servicedesk, Business Admin, and Change Manager groups may create Calendar records. No other groups have access to view Calendar entries by default, so other staff groups using the Calendar pane must be individually activated or given view and edit permissions. Records in this table are "owned" by their creators, and are linked to the creator's login.

Creating Calendar Events

A calendar event can be created from both releases and change requests. In a release, calendar events can be created using the buttons in the Release Schedule section on the Schedule and Tasks tab. All events for the release are shown in the Calendar Events table.

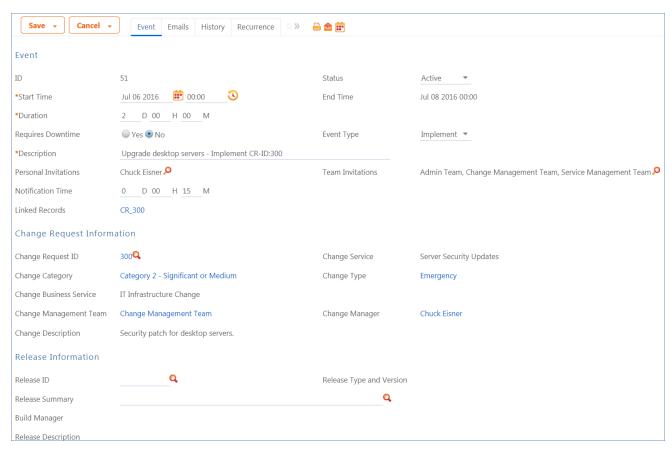


In a change request, calendar events can be created using the buttons in the Change Scheduling - Required to Generate Tasks section on the Schedule and Tasks tab. All events for the change request are shown in the Calendar Events table.



Calendar Events Layout

Most of the information for a calendar event is on the Event tab.



Options for Status are Active, Canceled, and Past. The default for a new event is Active, and the Status will be set to Past automatically once the End Time arrives. The Status can manually be set to Canceled if the event is no longer needed. Fields mapped from the change request or release include:

- Start Time
- Duration

- Change Request ID or Release ID
- Description
- Personal Invitations
- Team Invitations

Automation

The following automation runs on records in the Calendar Events table:

- When a calendar event is created, the End Time is calculated by adding the Duration to the Start Time
- When a calendar event is created from a change request, a rule runs to:
 - Append Event Type and Change Request ID to the event's Description
 - Append the Admin Team, Change Management Team, and Service Management Team to the Team Invitations for the event
 - Set an internal link within the event based on the Change Request ID
- When a calendar event is created from a release, a rule runs to:
 - Append Event Type and Release ID to the event's Description
 - Append the Admin Team, Change Management Team, and Release Management Team to the Team Invitations for the event
 - Set an internal link within the event based on the Release ID
- A time-based rule that runs daily, but is disabled by default, checks for any events that are Active, but in which the End Time has passed. It sets the Status of these records to Past.

EUI Templates

This table contains HTML based records used in creating a customized End User portal. Each record in this table corresponds to a page that is served up to a user or to an element included on one of the pages. There are records for the main tables expected to be displayed in the end user interface.

These files can be fully customized with their own look and feel. Among the records is one named style.css that controls the styles used in the other templates. For more details on how these records function, please review End User Interface. Since these files undergo little or no change during their lifetimes, no workflows, rules, or actions are associated with them, and no charts, reports or saved searches exist for this table.

ITIL Functions

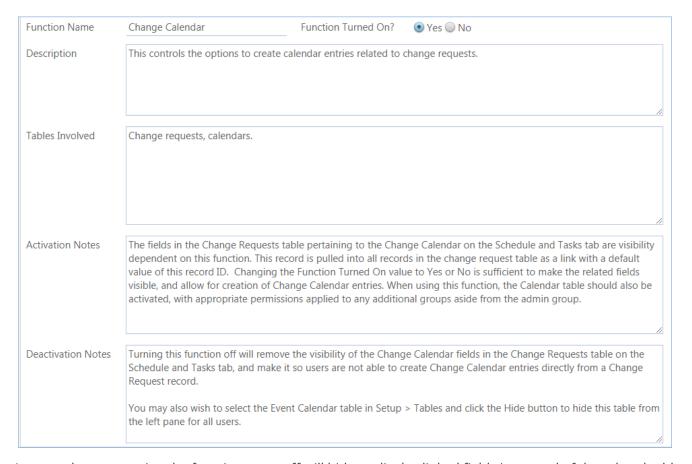
This table is used to provide information and a methodology for turning off or on some of the standard ITIL functions or modules, as you develop your own ITIL implementation. We wanted to make it easier to hide or show certain fields, and to run or eliminate certain rules, based on whether or not you want to use a particular function. We have tried to automate as much as possible, by tying the visibility of specific fields, tables, and rules to the selections made in this table.

The functions that have been predefined include the following:

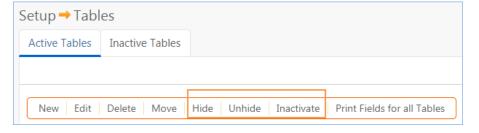
Function Name	Description	Function Turned On?	
Baselines	The Baselines table allows a configuration baseline to be created for a CI and stored for future reference or to be used to roll back unsuccessful changes. Baselines are related to individual configuration items. Using this to provide a rollback function would require the development of scripts.		
Change Calendar	This controls the options to create calendar entries related to change requests.	Yes	
CI Change Log	Agiloft can be integrated with an asset polling system, and any changes made through this integration or made by users to specific attributes can be captured automatically and pushed into the CI Change Log table. The information tracked includes the date/time the changes were made and the field values before and after the change. This information can be stored in a change log record linked to the CI that was modified.	No	
Closure Categories	Closure Category is filled out upon completion of the requests that use them, and is typically used in reports. It is visible when the Status is Completed or some other terminal status (depending on the request table). The closure categories are set up for change requests, releases, incidents, service requests, and problems. The closure category of a release can be pushed to the related change requests automatically.	Yes	
CSI Register	The CSI Register is a simple table for logging Continual Service Improvement suggestions and opportunities. These can then be linked into a Service plan as needed.	No	
Definitive Media	The records in this table are used to store information about the physical or electronic location of copies of the code for software applications.	Yes	
Event Management	Events are most commonly related to Configuration Items and used to notify about problematic conditions for a particular CI. But they may be related to other modules or conditions in the system, such as SLAs that have shown a pattern of breaching too often, or OLAs that are not being met consistently.	Yes	
Knowledge Management	Records in the Knowledge Article table represent FAQs, policies, user guides, and other reference information that is helpful in maintaining and improving the ITIL process.	Yes	

Release Management	Release Management is linked to Change requests and Configuration Items. It is typically used to manage a set of tasks related to a new release or upgrade of software or hardware configuration items. It has sophisticated task workflows that can include approval tasks.	Yes
Service Costs	Depending on the selected cost model, the cost information is entered in the service itself (when Fixed for the service), the tasks related to the service, or it is compiled by totaling the time spent on the request or the costs for items purchased as part of the request. When a service request or incident that is billable is completed, the Total Cost in that record is populated automatically by the system based on the entered data and the service's cost model.	Yes
Service Plans	The Service Plans table is used to gather information for Service Improvement Plans and Service Quality Plans and to manage implementation of service improvements.	No
SLAs	The SLAs table manages the service level agreements between the service organization and its customers. SLAs define specific SLA targets for response and resolution times for incidents and service requests. These SLA targets also define diagnosis and resolution times for problems. SLA targets are based on the priority of the request record and are applied or updated whenever the priority is set or changed.	Yes
Underpinning Agreements and OLAs	The Underpinning Agreements table holds records for all Operational Level Agreements and Underpinning Contracts negotiated between the IT department and specific internal teams or outside service providers, which includes information on OLA targets for various requests.	No

Each record in the functions table holds notes about how to completely turn the function on or off.



In several cases, turning the function on or off will hide or display linked fields in several of the related tables, but you will still need to either hide, unhide, activate, or deactivate the main table itself to make it appear or disappear from the left pane for all users. See Hide or Inactivate Tables for how to do this.



- Hide This turns off visibility and access to the table in the left pane of the program for all users. It keeps their permissions intact to the table, but hides it.
- Unhide This turns on visibility and access to the table in the left pane for the admin group only. Other groups may be added as needed.
- Inactivate this disables all references to the table in other tables as well as disabling all access to the table in the left pane. Linked fields to the table are still visible to admin users in the layouts and field wizard of other tables but they cannot be moved, viewed, or edited. The table disappears from the table trees where users select tables, such as in setting permissions, setting up outbound email, and other areas in the program.
- If a table has been inactivated previously, to activate it you must click on the Inactive Tables tab and then click a button to activate it.

In most cases, clicking the Hide or Unhide button is the best option and the easiest to reverse.

For the other fields whose visibility is controlled by the ITIL functions, the way this works is that we have set up a default value for a link to the appropriate record in this table in the tables where such visibility conditions need to be applied. For instance, in the Service Request table, we have four linked sets to specific records in the ITIL Functions table, one for Service Costs, one for Closure Categories, one for Knowledge Management, and one for SLAs. These links include the current value for the Function Turned On field for that record.

SLA Function Included? SLA Function ID	sla_function_included_ sla_function_id	Link to:selected fields from other table ITIL Function:function_included/Function Turned On?
		id/ID

Then the relevant fields in the service request have visibility conditions so they appear only if, for instance, SLA Function Included=Yes. If you change the value of that field in the ITIL functions table from Yes to No, then this linked field within all existing service requests is immediately updated, and those fields are hidden, and vice versa.

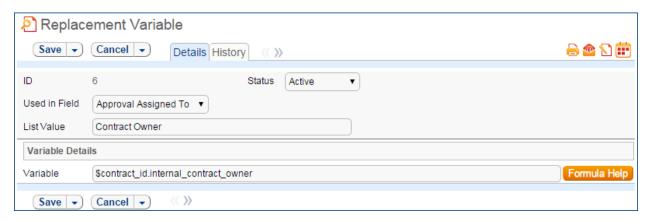
Keep in mind that fields that are visibility controlled by the ITIL functions linked set value will only be shown to a user if that user's group has view access to the relevant "ITIL Function Included" field in that table. This is true of all visibility dependent fields: users only see the field if they have view permission to the parent field. In addition, rules that set the SLA Due Date and targets only run if SLA Function included=Yes.

These linked sets are added to every table where they need to be used to control visibility or rules, making it easy to quickly show or hide a function once you decide whether you want to use it.

Replacement Variables

The Replacement Variables table is a background table used to manage assignment of Tasks and Approvals based on field values held in other records, generally the records for which they are created, such as Contracts, Projects, Service Requests, Change Requests, Incidents, or Releases.

Replacement Variable records store a variable chain used to pull in values from a linked field relationship. Generally, these variables are copied into template records (e.g., in the Approval Templates or Task Templates tables) and then used to dynamically assign records or set other field values when an approval or task is generated from a template.



Replacement Variables are used by Approval Templates to set the Assigned team or person for Approval records for contracts, change requests, or service requests. They are also used to set the assigned team or person in tasks related to change requests, service requests, or projects.

To create a replacement variable that will be used in Approvals, set the Used In Field to the value "Approval Assigned To". The value in the List Value field will show up in the Assign To drop-down in an Approval Template. Then, create a **variable chain** from the Approvals table to the appropriate field variable. For example, \$contract_id.requester_name finds the name of the Requester in the linked Contract record, while \$contract_id.requester_id.manager_name finds the Requester's manager.

The Variable should be a variable chain that starts from the Approval record—not from the Approval Template!

To use a Replacement Variable within an Approval Template, staff users can create an Approval Template and set Assign Approval Based On to the value "Person from Contract".

The user can then select a value for the Assign To dropdown, which contains a link to all Replacement Variable records for which Used in Field is "Approval Assigned To". When an Approval is generated from that Approval Template - see the Handling Approvals sections - the Approver is set using the variable chain in the Variable field from the Replacement Variable record.

The same principle is used to auto-assign tasks based on using a replacement variable linked set in task templates.

We have preconfigured several replacement variables. For instance, those based on fields in service requests that can be used in task templates include

Service Request Task Assignment Variables

Assignee Manager	\$sr_id.assignee_manager
SR Assigned Team Manager	\$sr_id.assigned_team_manager
Service Request Assigned Person	\$sr_id.assigned_person
Service Responsible Team	\$sr_id.type_of_service.responsible_team
Service Request Submitter Manager	\$sr_id.submitter_manager
Service Request Submitter	\$sr_id.full_name

If one of these is selected within a task template, then when the task is generated, the system looks up the relevant person in the service request and populates them into the assigned to field.

Additional Functions

In addition to the tables and functions described above, several additional functional tables are included with the ITIL KB that may be activated for use depending on the functions you requested when signing up for a free KB or downloading and installing. They cover the general functions of Contract Management, Project Management, and CRM (customer support, sales, and marketing).

These include the following main tables in addition to their supporting tables: Contracts, Documents, Projects, PO's, Surveys and Survey Answers, Leads, Opportunities, Quotes, Products, and Campaigns.

- Contract Management
- Documents Table
- Project Management
- Support Cases
- Sales CRM

Contract Management

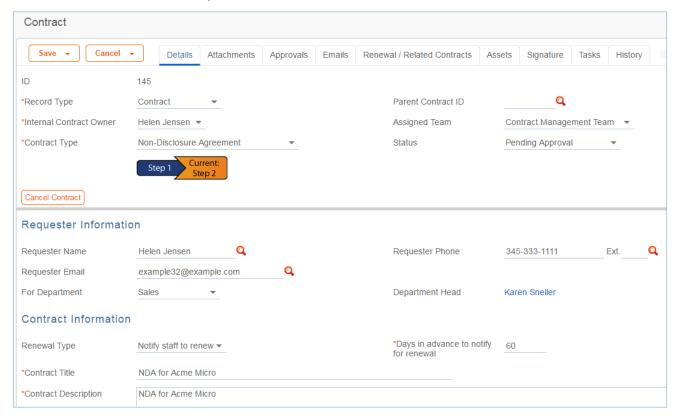
The Contract Management system is designed to be ready out of the box with a variety of approval processes built-in. It is easy to eliminate or modify any functions to better fit a desired business process. Some time-based rules are disabled by default and need to be enabled for the table to work correctly. To do this, go to the Rules tab of the Setup Contracts page, edit a rule with "(Disabled)" in the title, and click "Yes" in the "Rule is enabled" section at the bottom of the page.

This section describes how the default contract management system is configured. The Contract Management system is comprised of a few main tables with background tables playing a supporting role. The main tables are described in the following pages.

- Contracts
- Insurance Certificates
- Attachments
- Attachment Types
- Contract Tasks
- Contract Types
- Print Templates
- DocuSign Tables Overview
- Adobe Sign Tables and Setup

Contracts

The Contracts table holds all contract records. It also controls the associated automation and notifications related to contracts. Part of a representative record is shown below.



Required fields, marked with a red asterisk, include: Record Type, Internal Contract Owner, Contract Type, Days in Advance to Notify for Renewal, Contract Title, Contract Description, Contract Start Date, and Contract End Date.

Staff Use Case

This section covers the use case for power users. Each record in the table holds information about an individual contract including details about the contracting party, approval information, attached contract file and supporting documents, and renewal details.

Create Contracts

Contract records may be created by members of the Admin, Contract Creator, Contract Manager, and Contract Owner groups. Contracts may be created in one of two ways:

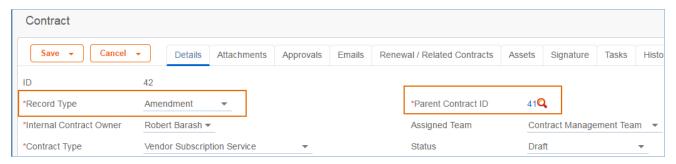
Click New in the Contract table action bar

Use the Create Related Contract button on the Renewal / Related Contracts tab to create a renewal, subcontract, or amendment from the current contract. This button is available only if the contract is in a Status of Signed, Active, Expired, or Canceled. Creating a new contract with the Create Related Contract button will automatically link it to the current contract by populating the Parent Contract ID field in the newly created record. For a more detailed explanation of creation by this method, see the Handling Related Contracts and Renewals section.

By default, contracts fall into one of four categories:

- Contracts
- Master Agreements
- Subcontracts
- Amendments

The Record Type field in the common area indicates the contract's category. "Contract" is the default Record Type for newly created contracts. It can be used to indicate either a stand-alone contract or a contract that exists under a master agreement. In the latter case, the Parent Contract ID can be filled in upon creation of the contract. Subcontracts and Amendments will be linked to a parent contract automatically, if they are created by clicking the Create Related Contract button in the parent contract record.



Below the Record Type are fields storing the Assigned Team and the Internal Contract Owner. The default Assigned Team is the Contract Manager Team. The Internal Contract Owner is the person responsible for overseeing the contract and ensuring timely renewals and approvals. The list of available owners is filtered to users who are in the Contract Owner Team or the Contract Manager Team. The default Internal Contract Owner is the user who creates the contract record, provided that user is in the Contract Manager or Contract Owner Team. Users in the Contract Manager or Admin group can manually change the Assigned Team and Internal Contract Owner if needed.

Once the appropriate fields are filled in, the contract may be saved in a Status of Draft.

The contract's Status field is changed automatically by the system at appropriate points in the workflow, generally when an action button is pressed or when some condition is met; however, users in the Admin group can manually override the Status if necessary.

Information about the contract requester, external company involved, and locations related to the contract may be added by clicking the lookup icon next to those fields. If a desired Requester, Company, or Location does not exist, a record must first be created in order to link it to the Contract.

Creating companies and contacts during contract creation

In the Contract Party Information section, users can find and link to an existing company, or create new ones as needed. To find an existing company record, use the lookup icon to search for the company. If the contract

party isn't found, staff users can add a new company by selecting New Company. Enter the name and address information, then click Create Company.

Contract Party Inform	Contract Party Information									
Contract Party Entry	Existing Company New Company	Be sure to click this button, after confirming that this company does not already exist with a different spelling Otherwise, the contract will not be linked to a contract party. [Create Company]								
*Company Name	New Company Limited	*Primary Role	Vendor	*						
*Street Address	123 Main Street	Street Address 2								
*City	Anywhere	*Country	USA	▼						
*Zip or Postal Code	94066	*State	UT ▼							

Both company and location records are created in the background, and linked to the new contract when the record refreshes.



Similarly, you can create new entries in the people table if the main contact for the contract party is not an existing contact. Select New Contact, enter the information, and click Create Main Contact. Multiple contacts can be created in this way, and then the primary contact can be selected from the Main Contact drop-down.



When contract requesters submit a new contract through the end user interface, they can enter new company and contact information, but they don't see the buttons to create new records. When a contract is submitted for review, Contract Managers can edit the contract party information, or click the button to confirm the new company or contact and finish adding records.

This setup is intended to prevent end users from creating duplicate companies with slightly different spellings and to ensure that contract managers have ownership and control of this data. Permissions can be changed easily to allow end users to use the buttons to create companies and contacts directly. Note that it is important for the contract managers to evaluate the new additions and either replace with existing data or click the buttons to create the appropriate background data. Otherwise, the linked data can't be used in print templates

and emails.

Creating contract attachments from default print templates

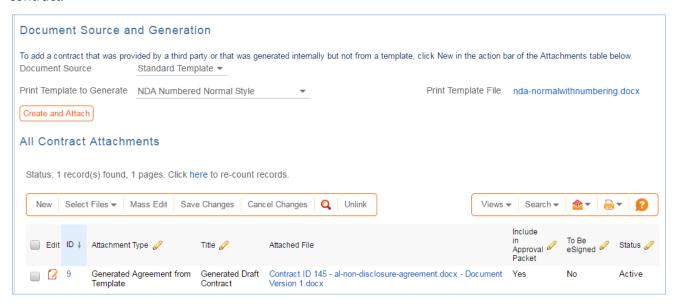
The Attachments tab shows all attached files related to the contract and provides the user with options to create and edit related attachments. For certain contract types, when the Document Source is set to Standard Template or Modified Template, the Print Template to Generate field appears. The Document Source can also be set to 3rd Party or Internal – Other to indicate a document provided by the external contract party, or which has been internally generated but not from a template, respectively. The Print Template to Generate has a default value set based on the contract type.

The Create and Attach action button is used to auto-generate a contract document from the MS Word print template specified in the Print Template to Generate field and stored in the Print Template File field. Clicking Create and Attach generates the document and creates an attachment record to hold the attached file. It also increments the Version Number field.

If the Contract Party Information section is not properly filled out and linked to records, a validation action warns the user to finish creating new records before generating the attachment.

Creating contracts and attachments from inbound emails

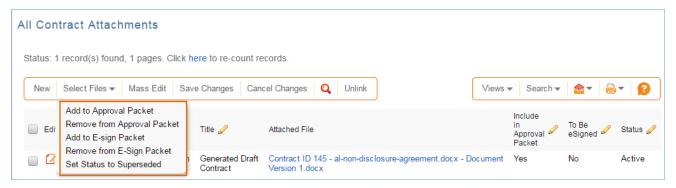
Attachments can be automatically generated from inbound emails containing attached files. Files from inbound emails are mapped to the Transitional Contract Files field in the contract, assigned a predetermined Attachment Title and Attachment Type value of Document Provided by Outside Party, and then converted into a new attachment record. The file is mapped into the Attached File field in the attachment record. If multiple files are attached to an inbound email, each one is converted into a separate attachment record for that contract.



Working with Attachments

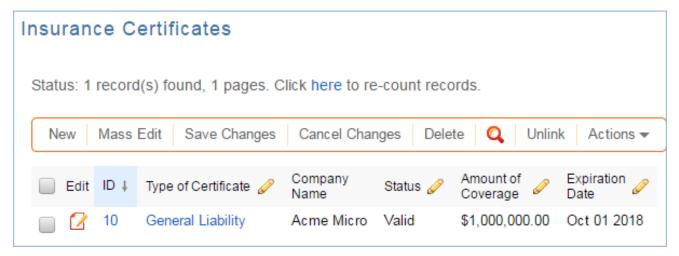
The All Contract Attachments related table is also used to manually create and attach files to the contract, such as supporting documents, signed agreements, or other documents from the contract parties. Create attachments from within the contract record by clicking New on the related table's action bar.

The Select Files drop-down on the action bar is used to operate on multiple selected attachments to update the fields to the far right in the table view. Add or Remove for the Approval Packet sets the Include in Approval Packet field to Yes or No. Add or Remove for the E-sign Packet changes the To Be eSigned field to yes or no. And Set Status to Superseded sets the status for the selected attachment(s) to Superseded.



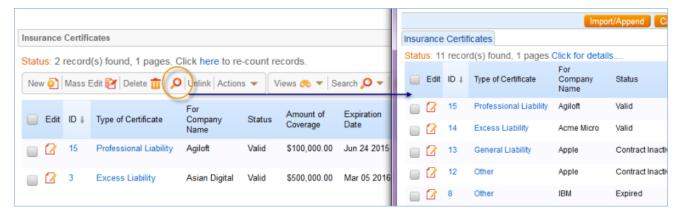
Tracking insurance certificates

The Attachments tab also holds a related table that can be used to track insurance certificates separately from other types of attachments. Certificates can be found directly in the Insurance Certificates table, and in related tables in both the Company and Contracts tables.



When you add an insurance certificate to a company record, it can be automatically linked to all pending or active contracts with that vendor by a daily time-based rule (disabled by default).

To create a certificate from a contract record, click New on the related table action bar; the certificate will be automatically linked to the contract. You will need to look up the company vendor in the For Company Name field when creating certificates from a contract.



The Insurance Certificate Owner (defined in the company record) is notified fourteen days before an insurance certificate's Expiration Date. When a certificate expires without being renewed, the Contract Managers of any related active contracts are notified on the date of the expiration.

For more information about insurance certificates and related automation, see the Insurance Certificates Table section.

Another method for managing insurance certificates

You may prefer to manage insurance certificates as contract attachments, instead of using the Insurance Certificates table. For example, if Contract Managers are responsible for renewing and maintaining insurance certificates, it may be best to use the Attachments table to hold the certificates, along with all other types of attached documents for contracts. Managing insurance certificates as contract attachments means the Contract Manager will receive email notifications instead of the Internal Certificate Owner.

If this method makes the most sense for your particular business, you can remove the default Insurance Certificates field from the contract layout. Then, go to the Attachment Type table and edit the record called Insurance Certificate. By default, this record's Status is Inactive; change the Status to Active to make it visible in the Attachments table.

Handling Approvals

Approvals for a contract are handled on the Approval tab. The order and nature of approvals depends on the Workflow selected on the Approvals tab. Selecting a Contract Type in the common area filters the available Workflow Title choices. For information on setting up the individual Workflows, refer to the Approval Workflows section.

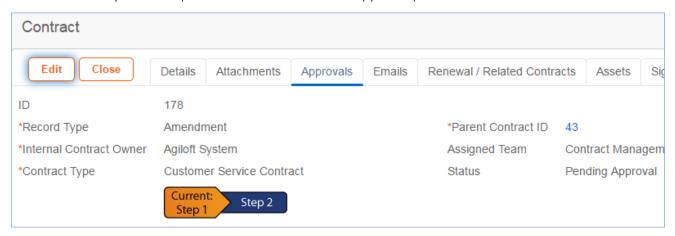
The order and nature of approvals depends on the Workflow Title selected on the Approvals tab. Selecting a Contract Type in the common area filters the available Workflow Title choices. For information on setting up the individual Workflows, refer to the Approvals Table section.

To submit a contract for approval, first select the correct Workflow Title from the drop-down provided. Click

Create Approvals to generate a set of Approval records in a Status of Queued. Once the records have been created, click Launch Approval Process to update the Status of the contract to Pending Approval and update the Status of the approval(s) with the lowest step number to Pending Approval. There may be more than one approval in the lowest step number for parallel approvals.

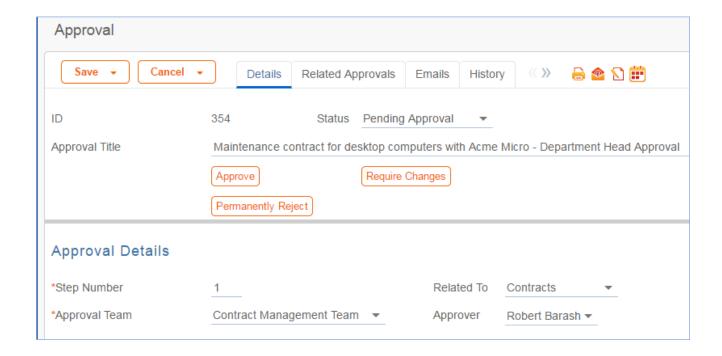


The system automatically notifies the first approver in the sequence. A progress bar also appears in the common area to provide a guick visual reference of the approval process.



To advance the contract workflow, an approver will use one of three action buttons to change the Status of the approval record:

- **Approve** to send the contract to the next approver in the sequence.
- **Require Changes** to send the contract back to the contract manager to make changes.
- Permanently Reject if the contract requires significant changes.



Both Require Changes and Permanently Reject require the user to enter notes in the Approval Notes field. These notes are appended to the Approval Notes field in the contract record and are also viewable from any other approval record linked to that contract.

As each approval is approved, the system notifies the next approver in the sequence that a contract is pending their approval. A list of all approval records is displayed under the Approvals Needed section and automatically updated as approval records are modified.

If a user who is not on the current approval team attempts to approve a contract, the system recognizes the error and prevents the user from completing the approval action.

When all the required approvals are received by the system, the contract Status is automatically changed to Approved.

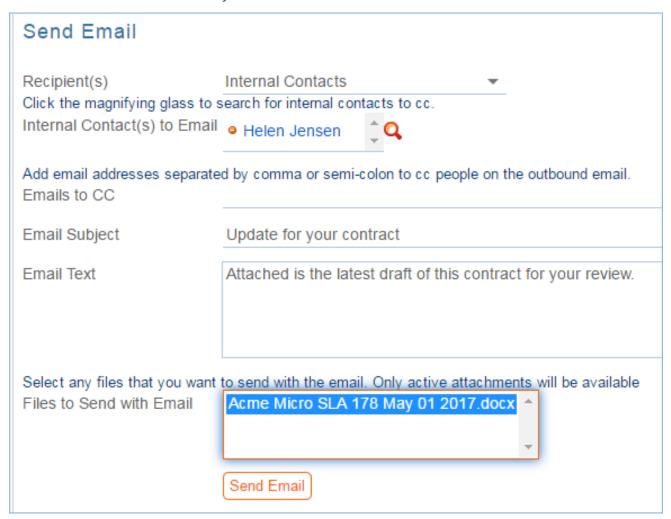
Adding notes and sending emails

Notes relevant to the general contract process are entered into the General Notes field on the Details tab, and notes pertaining to the approval process are entered into the Approval Notes field on the Approvals tab.



Emails can be sent to Internal Contacts and External Party Contacts from the Emails tab. First choose the type of Recipient(s) (Internal Contacts, External Party Contacts, or External Party and Internal Contacts), then click the lookup icon to select the contacts to email. Fill out the Email Subject and Email Text fields as needed, select

any files to send with the email, then click Send Email. The emails sent from the contract will be shown below in the Email Communication History.



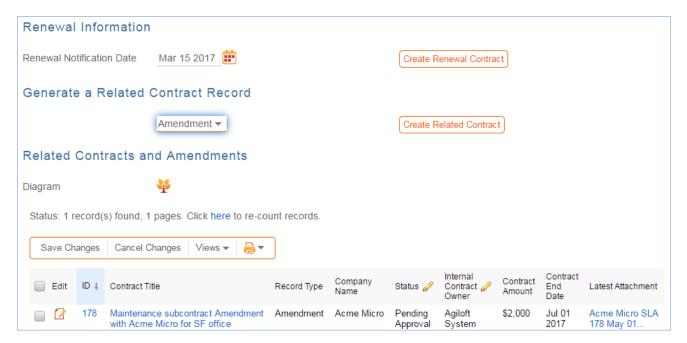
Related Contracts and Renewals

Information about the renewal process is stored on the Renewal / Related Contracts tab. Fields for capturing the Renewal Notification Date and Days in Advance to Notify for Renewal are provided as a default. If relevant, information about the renewal contract or previous contract are automatically updated by the system. The Create Renewal Contract button is used to create a renewal contract. This will link the new contract to the previous one.

This button is only visible when the contract's Status is Active, Canceled, Expired, or Signed. A new contract generated in this way can be edited before saving.

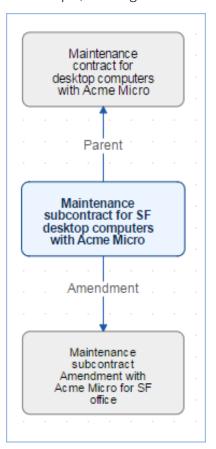
If applicable, the system automatically links renewal contracts to any preceding contracts, creating a chain for auditability. Any assets linked to the preceding contract will be linked to the renewal contract as well. Users typically do not enter information into the Renewal Contract and Previous Contract Information fields manually.

This tab is also used to create an amendment or subcontract of an existing contract. Select the type of record you wish to create, then click the Create Related Contract button. The new record will be linked to the current contract in a child relationship.



The Diagram icon is used to generate a diagram of any contracts related to this contract.

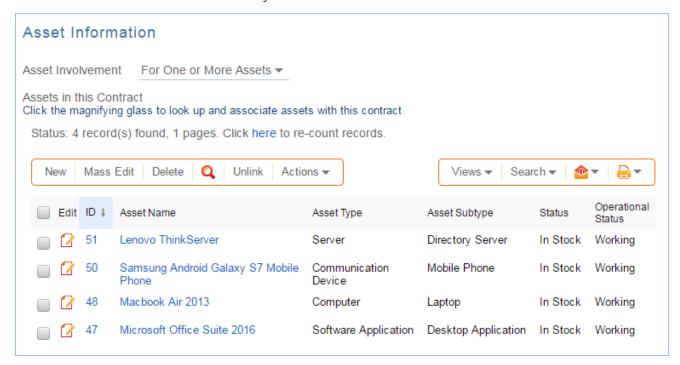
For example, the diagram for a subcontract of a master agreement, with its own amendment, is shown here:



Any direct children of the current contract are shown in the table in the Related Contracts and Amendments section.

Related assets

Assets can be linked to individual contracts from the Assets tab. Assets must be added separately to the Assets table before they are available to attach to contracts. If you are not relating assets to contracts, you can simply remove this tab and its fields from the layout.



Signing contracts with DocuSign or Adobe Sign

A Signature tab appears to the right of the Assets tab. This tab contains fields for contract document signers, and contains all fields related to DocuSign and Adobe Sign. If you are not using either system, these fields can simply be removed from the layout. The Files to Sign field holds attached files from the Attachments table that have a To Be eSigned value of Yes. The Refresh Files action button refreshes this field in case changes to the attachments were made in the same session under the contract's Attachments tab.



Fields under the Signers heading are used to populate the signature page of the contract's print templates and to identify the signers for either esignature program.

Before using either DocuSign or Adobe Sign, you will need to configure the integration by going to **Setup > Integration** and choosing the appropriate platform. For DocuSign, you must sign up for a Docusign account directly with DocuSign. For Adobe Sign, Agiloft can set up the account and allow you to purchase envelopes directly without any long term contract. See the sections on DocuSign and Adobe Sign below for more details.

Using Docusign

Once the contract is ready to sign, use the Create DocuSign Envelope action button to create a DocuSign Envelope record and attach the files held in the Files to Sign field.



This will also create a DocuSign Recipient record for each signer. These records are then shown in the related tables for DocuSign Envelopes and DocuSign Recipients on the Signature tab. Only users in the Admin and DocuSign Users groups can access the DocuSign fields on the Signature tab. For more information on DocuSign, refer to the detailed DocuSign User Manual at

http://www.agiloft.com/documentation/docusign-users-manual.pdf.

Using Adobe Sign

Once ready to send for signature, click the Create Adobe Sign Envelope button.



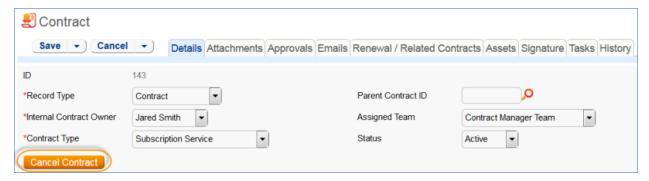
This will create an Adobe Sign Envelope and convert the signers into recipients.

Contract Processing

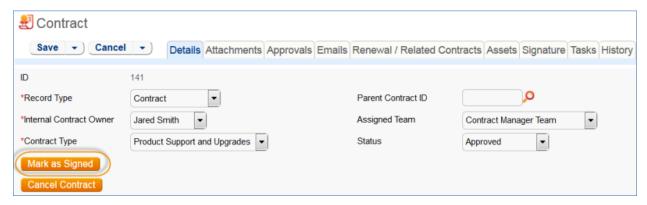
This section covers the remaining Status changes not mentioned in the explanations above. Once a contract changes to a Status of Signed, the system automatically updates the contract to a Status of Active when the Contract Start Date occurs.

Similarly, the Status is changed when the Contract End Date occurs. If the contract does not have an associated renewal contract, the Status is automatically set to Expired; if the contract does have a renewal, the Status is set to Renewed. If the contract is auto-renewing, the Contract End Date is increased by the Renewal Term in Months and the contract remains Active.

To cancel a contract, click the Cancel Contract button in the common area. Additionally, users of the Admin group can manually change the contract status to Canceled.



If the contract has a Status of Approved, the Mark as Signed button is visible in the common area. This button updates the contract Status to Signed.



Turning Off Approvals

Contract Management tables have Approval handling set up by default. The associated processes may be turned off in order to use Agiloft as a contract repository. To turn off Approvals, do the following:

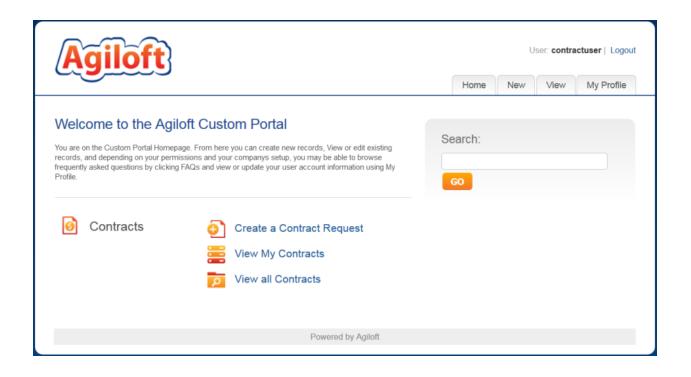
- 1. Edit field permissions to allow the Contract Manager Group to edit the Contract Status field in their own contracts and in others' contracts.
- 2. Remove status-changing buttons from the layout: Submit for Approval and Mark as Signed.
- 3. Remove the Approval tab and related fields from the layout.

For help on configuring table layouts, please refer to the Administrator Reference Manual or online help.

End User Use Case

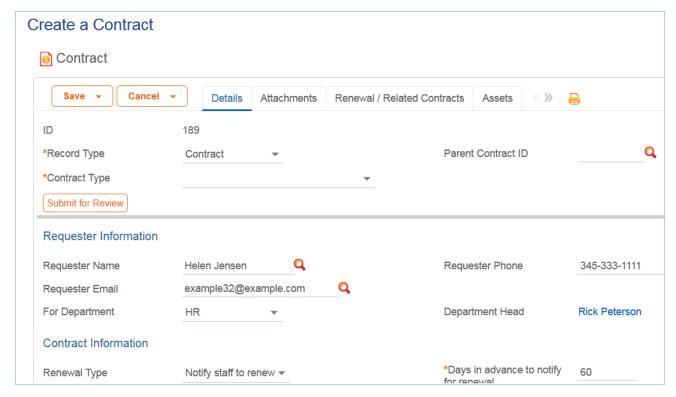
This section covers the use case for end users in a Contract Management context.

Members of the Contract Creator group are internal employees accessing the system via the end user interface. Contract creators, also called contract requesters, are users who submit requests for contracts but do not work on or manage the contract, once it is requested and submitted. Below is a representative home page for an end user in the Contract Creator group.



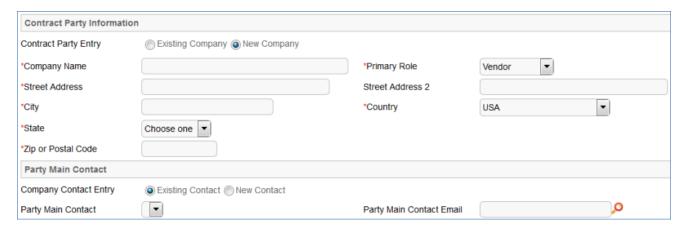
Creating Contracts

Users in the Contract Creator group may create contracts by clicking the Create a Contract Request link on the home page or by selecting **New > Contract** from the menu. A simplified contract form is presented to the end user. Many of the fields are hidden from the layout or restricted by field-level permissions.



In the Contract Party Information section, users can find and link to an existing company and contact, or create

new ones as needed. Select New Company and then enter the name and address information. After the contract is submitted for review, Contract Managers can confirm the new company to finish adding a record. Similarly, end users can suggest a new company contact by filling out the fields in the Party Main Contact section of the form.



Once the required information is filled in, the contract can be saved for later revisions. The contract requester can also press the Submit for Review button to request approval from a Contract Manager. Contract requesters can be contacted to update the submitted contract, but they are typically no longer involved in the approval process from this point forward. After the contract requester submits the contract for review, a contract manager decides whether to continue with the approval process or reject the contract request.



Viewing Contracts

At any time, the contract requester can view contracts they previously submitted by choosing **View > My Contracts** from the menu. Contract Creator group members can edit select fields in contracts they own.

Certain fields such as Contract Amount, Contract Start Date, and Contract End Date (among others) are not editable by the contract requester if the contract's Status is Pending Approval, Approved, Signed, Active, Renewed, or Expired. This is to prevent changes to currently active or in process contracts.

The contract requester can view all contracts they have permission to see by clicking on the All Contracts home page link or tab.

Ownership

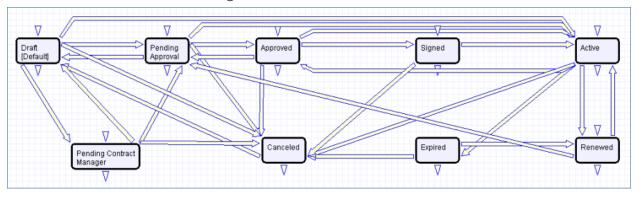
Records in this table are owned by the Contract Requester. Specifically, a record is owned by the user whose ID matches the number in the Requester ID field. By default, the Contract Requester is the user who created the contract record.

Automation

The Contracts table has several rules set up. Their actions have been described in the use cases above. Rules which are run based on a schedule (rather than those which are event-triggered) are identified by the prefix "TB", for time-based and are disabled by default.

Workflow

The Contracts table has the following default workflow:



Reports

The Contracts table contains the following default Charts/Reports:

Statu	us: 8	ts/Reports 8 record(s) found, 1 pages. Click here to re-count records. Copy Delete							
	Edit	View	Title †	Filter	Published				
	2	O	All Active Contracts with Vendors	Active Vendor Contracts (C)	No				
	2	O	All Active Customer Contracts	Active Customer Contracts (C)	No				
	2	O	Contract Amount by Status		No				
	2	O	Contract Expirations in next 90 days	Active Contract expiring within next 90 days (C)	No				
	2	O	Contracts by Party Type		No				
	2	O	Contracts by Type		No				
	2	O	Contracts in Progress	Contracts with an In Progress Status (C)	No				
	2	Q	Value of Signed Contracts starting in Past year	Active Contracts whose start date is less than a year ago (C)	No				

Insurance Certificates

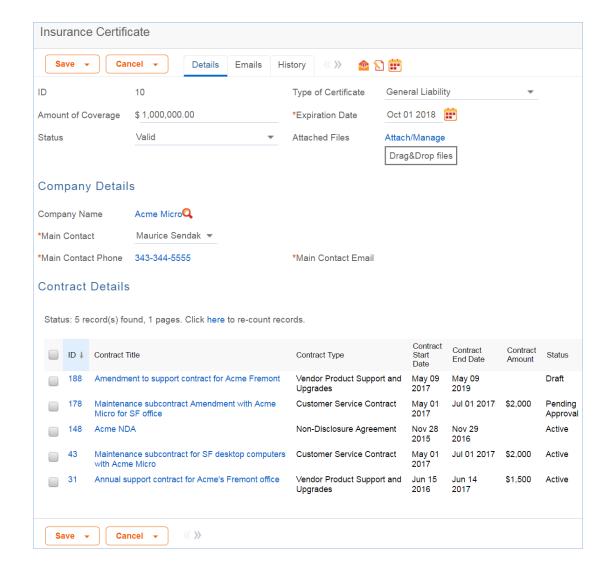
This table holds insurance certificates linked as attachments to Companies and Contracts. Each record in the table represents one insurance certificate linked to a unique vendor company, but may be linked to one or more contracts.

Use Case

Insurance certificates can be created in one of three ways:

- From a Company record, using the related table on the Related Records tab (preferred)
- From a particular Contract record, using the related table on the Attachments tab
- From the Insurance Certificate table action bar

New Insurance Certificates are created with a default Status of Valid. They may also have a Status of Expired or Contract Inactive. The Expiration Date and Main Contact are required fields. The Main Contact is the person at the vendor company from whom a replacement certificate can be requested. You can customize the Type of Certificate choice list as needed; the default options include Auto, Worker's Comp, Excess Liability, General Liability, etc.



Insurance certificates are primarily linked to vendor companies in the Company table. Once you add an insurance certificate to a vendor record, it can be linked to any contracts with that vendor.

Insurance certificate records contain information about related contracts for reference, held in the Contracts field. A time based rule, disabled by default, is designed to update the Contracts linked field with all contracts for that vendor that are currently pending or active. As a result, insurance certificates are automatically displayed within those contracts.

An Insurance Certificate Owner is defined in the company record just above the Insurance Certificates related table. The Insurance Certificate Owner is notified fourteen days before one or more certificates is due to expire.

When the Expiration Date arrives, the certificate's Status is updated in one of two ways:

- If any of the associated contracts have a Status of Active, the system updates the certificate's Status to Expired and an email notification is sent to all the Contract Owners about the expired insurance certificate.
- If none of the related contracts are Active, the system updates the certificate's Status to Contract Inactive.

Ownership

Insurance Certificate records are owned by their creator. Specifically, an Insurance Certificate record is owned by the user whose Login matches the Creator Login field.

Automation

The Insurance Certificates table contains rules that send notifications about upcoming expiring certificates.

Attachments

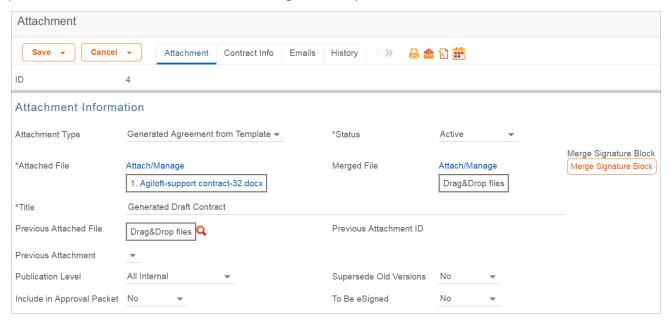
The Attachments table holds contract attachments such as generated contract documents, performance bonds, inbound documents, and signed agreements. Each record in the table represents one attachment that is linked to a contract. Each attachment contains information about the parent contract for reference, held on the Contract Info tab.

Use Case

Attachments can be created directly from the Attachments table, from a contract, or by inbound email. Attachments can have a Status of Active, Expired, Contract Inactive, or Superseded.

Creating Attachments from the Attachments Table

To create a new attachment directly, click New from the Attachments table action bar. You can select the parent contract on the Contract Info tab using the lookup icon next to the Contract Title field.

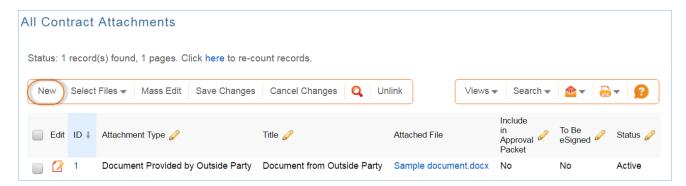


DocuSign users also see the Merged File field and the Merge Signature Block action button. When the Merge Signature Block action button is pressed, a DocuSign signature page is appended to the file in the Attached File field and the merged file is put into the Merged File field. The action button uses an attached file action and a MS Word template signature page. The signature page is specially formatted to include DocuSign tags. A rule then converts the file in the Merged File field into a new Attachment record and then resets the Merged File field to empty.

Creating Attachments from a Contract

Attachments can be created directly from a particular contract on the Attachments tab of the contract record. To create an attachment...

- 1. Click New on the Attachments action bar.
- 2. Fill out the form and Save the record, which automatically links it to the contract.



Attachments can be created from a print template using the Create and Attach action button in the Contract. They can also be created by an action that runs on files attached to inbound emails sent to the Contract table's inbound email address.

Ownership

Attachment records are owned by their creator. Specifically, an Attachment record is owned by the user whose Login matches the Creator Login field.

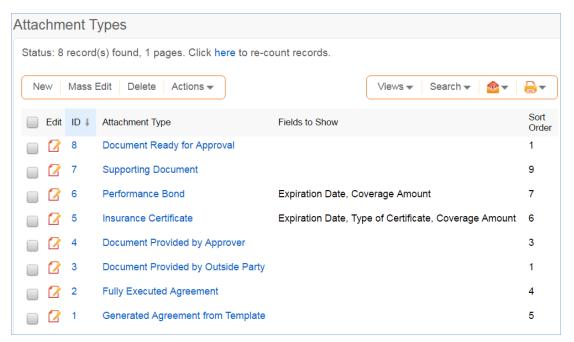
Attachment Types

The Attachment Types table is a background table that holds a record for each value to be displayed in the Attachment Type field within the Attachment record. It also defines any special fields to be displayed for this attachment type within the Attachment record.

Use Case

Attachment Types can be created and edited by admins and Contract Managers. The Attachment Type and Fields to Show fields are pulled into the Attachments table as a link to selected fields from another table. The values in Fields to Show are used by visibility dependency options to control visibility of certain fields in the Attachment records depending on the Attachment Type selected.

The Sort Order field is used to determine the order of the drop-down list displayed in the Attachment Type field within Attachment records.



Ownership

Attachment Type records are owned by their creator. Specifically, an attachment type record is owned by the user whose Login matches the Creator Login field.

Contract Tasks

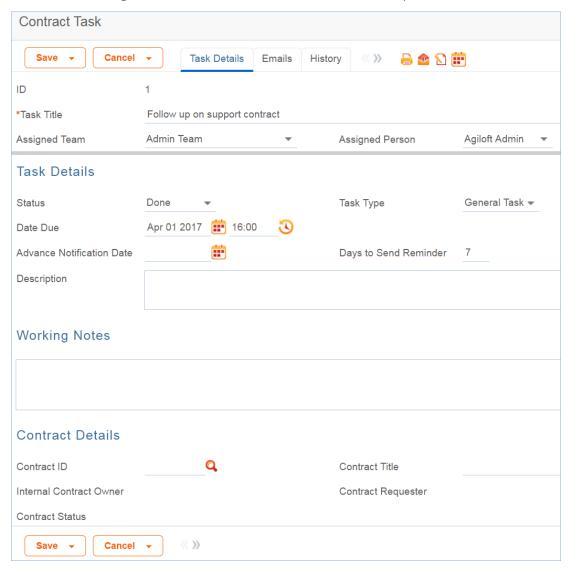
The Contract Tasks table holds tasks for contracts.

Use Case

Contract Tasks can be created from a related table in a Contract record. If a Contract Task is created from a Contract, the link to the Contract is populated; otherwise a Contract should be selected.

The default Status for new Contract Tasks is Planned. On creation, the Assigned Person is notified of the planned task, unless the assignee is the task's creator. If no Assigned Person is chosen, the Assigned Team is notified of the planned task and asked to assign someone.

When the Advance Notification Date arrives, the Status changes to Pending. Any open Contract Tasks (those in a Status of Pending or Planned) for a canceled contract will be updated to a Status of Canceled.

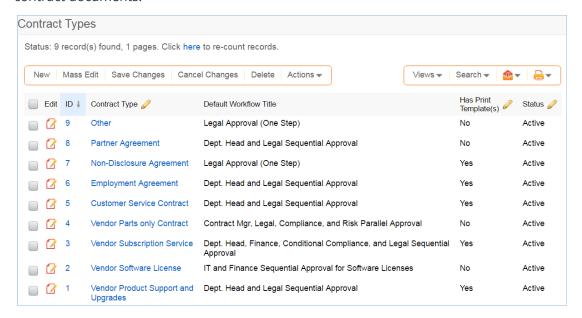


Ownership

Workflow records are owned by the user the task is assigned to. Specifically, a record is owned by the user whose ID matches the Assigned Person ID field.

Contract Types

The Contract Types table is a background table used to populate the Contract Type field of a contract record. Each Contract Type record holds a value displayed as a choice in the Contract Type field. It also determines the default approval workflow for the contract, as well as the default print template for auto-generation of draft contract documents.

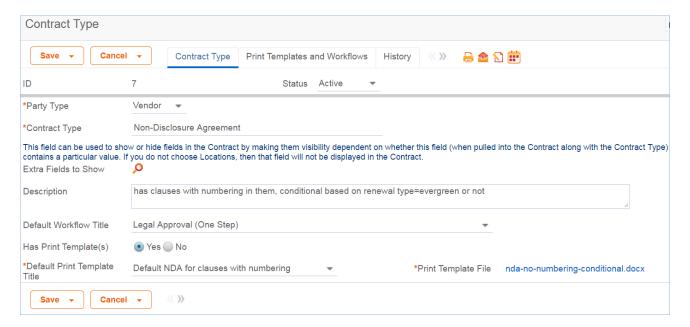


Use Case

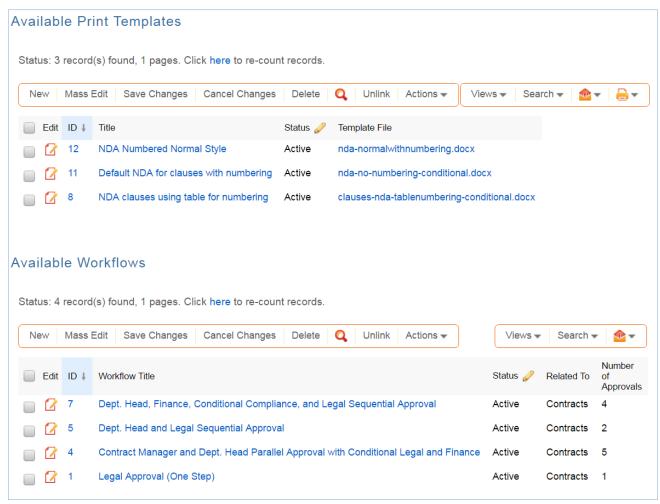
Contract Types can be created and edited by admins and Contract Managers. The Contract Type, Contract Type ID, Has Print Template(s), Default Print Template ID, and Contract Type Default Workflow ID, Extra Fields to Show are pulled into the Contracts table as a link to selected fields from the Contract Type table.

If the Has Print Template(s) field value is Yes, additional fields in the Contract record are visible: Print Template to Generate and Create and Attach (an action button). The Default Print Template ID field is used to determine the default value in the Print Template to Generate field. Selecting a Default Print Template Title in a Contract Type record creates a link to the print template and updates the Available for Contract Types field in the associated Print Template record.

The Default Workflow Title field is used to set the value for the linked field in a Contract that pulls in the Workflow Title from the Workflow table. Selecting a Default Workflow Title in the Contract Type record creates a link to the workflow.



You can view all associated print templates and workflows on the Print Templates and Workflows tab of a contract type record. From here you can use the related table action bar to Unlink a print template or workflow from the contract type record if necessary.



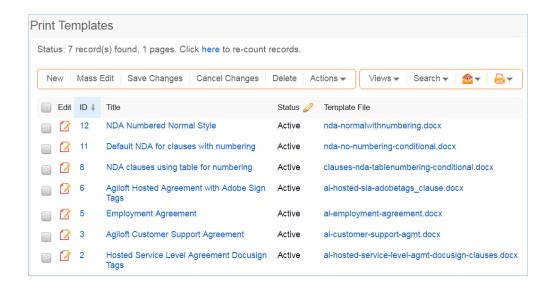
Print Templates

The Print Templates table is a background table that holds a record for each print template used by the Contracts table or other system tables. It also keeps track of the Version Number of the attached print template document, and defines which Contract Types can use the print template in the Available for Contract Types field.

Use Case

Print Templates can be created and edited by admins and Contract Managers. The ID, Title, Template File, and Version Number fields are pulled into the Contracts table as a link to selected fields from another table. These are filtered to print templates whose Available for Contract Types field contains the Contract Type selected in the current Contract record. If multiple print templates are available for a Contract Type, the default value for the Print Template to Generate in the Contract is matched to the Default Print Template Title and Print Template File fields of the selected Contract Type.

An abbreviation field is used in the resulting file name, so it is useful to populate any new print templates with a reasonable abbreviation.



Inserting Variables into Print Templates

Print templates may include field variables from the table on which the template is run, as well as from any table in the system. For instance, a template might have the text \$contract_start_date in the place where the start date of the contract should appear.

Conditional Text, Fields, and Content

There are several ways to insert conditions into a print template to use alternative text or alternative values. These are described in the Print Template Syntax Reference. It is common to have print templates with

optional or conditional sections that may or may not appear when the template is run, based on meta data in the contract.

Ownership

Print Template records are owned by their creator. Specifically, a Print Template record is owned by the user whose Login matches the Creator Login field.

DocuSign Tables Overview

DocuSign is an e-signature provider offering secure electronic signatures for documents. Agiloft provides embedded integration with DocuSign, and has completed an extensive certification process by DocuSign to verify that the Agiloft API is compliant with all DocuSign and e-signing standards requirements. You will need to set up an account at DocuSign before configuring the Agiloft interface.

Visit the DocuSign website at http://www.docusign.com to read FAQs and whitepapers, watch How-To videos, and learn more about the e-sign infrastructure. To see more about the DocuSign solution, view FAQs.

Turning on the DocuSign extension creates several tables, fields, and actions in Agiloft. The Agiloft template has been preconfigured with DocuSign to the extent possible without a DocuSign production account, so these tables and fields are already created for you.

To use DocuSign with Agiloft, you will need a Business or Enterprise license for at least one DocuSign user. Anyone in Agiloft who will send a contract document for signature via DocuSign will need a corresponding DocuSign user account. A DocuSign administrator account will be needed to complete the initial configuration within Agiloft.

For full details on how to complete the configuration of DocuSign to deploy it, please review the DocuSign Users Manual. The manual gives a full, detailed overview of how to use DocuSign and how it works.

Use Case for Signing Contracts

The system is currently configured to use DocuSign with Contracts. Note that DocuSign integration can be added to any table in Agiloft by creating a DocuSign action in that table to create an envelope and adding the DocuSign Envelope and DocuSign Recipients related tables to the other table.

For contracts, the DocuSign process begins by pressing the Create DocuSign Envelope action button on the DocuSign tab of a contract record. This buttons runs a DocuSign action, and that action can be edited if you have a different preferred configuration of signers. It is currently set to use one internal signer and up to two external party signers. These fields are on the Details tab of the contract record and should be filled in during the contract process.

When the button is used to create the envelope, the user may click a Create & Preview button in the Envelope record to go directly to the envelope in DocuSign and preview everything before clicking the Send button to launch the signature process.

Further details of this process are provided in the Contracts Table section, and in the DocuSign Integration topic.

Print Templates

We have set up a few sample print templates with DocuSign tags to use as a guide for your own contract print templates. One template, simply a page with a tagged signature block, is on the Attachments table, and the others are in the Contracts table.

The tagging process is fully discussed in the manual, but to see a sample document in the system, go to Print Templates and open the print template with the title "Hosted Service Level Agreement Docusign Tags".

This template has DocuSign tags in the Signature area – the tags are not visible unless you mouse over the text and apply a different text color. The tags are stored in white font color so they do not appear on the final signed document. If you add more signers or change the basic signing configuration, you will need to create

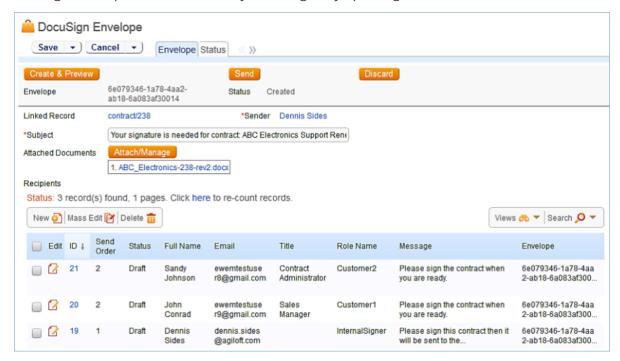
your own tagged signature blocks.

DocuSign Envelopes

The DocuSign Envelopes table holds the envelopes for e-signature, which contain a link back to the Contract record from which they were created in the Linked Record field. The table also contains an embedded table of the DocuSign Recipients list and the Attached Documents field which holds the attached files to be reviewed/signed.

By default, a DocuSign Envelope is created when a user clicks the Create DocuSign Envelope in the DocuSign Envelopes tab of a Contract record. The DocuSign Envelopes tab of a Contract is currently visible only to users in the admin and DocuSign Users groups.

How the envelope and recipients are populated depends on the configuration of the action run by the Create DocuSign Envelope button, and it may be changed by updating the action.



The Status of an Envelope is updated automatically based on its progress at DocuSign. Once it has been sent to DocuSign, it will have a Status of Created and will show the Envelope ID at DocuSign. As each Recipient signs, the Status of the Recipient record will be updated to Completed.

More details on working with DocuSign Envelopes are provided in the section "Create a DocuSign Envelope" in the DocuSign Users Manual.

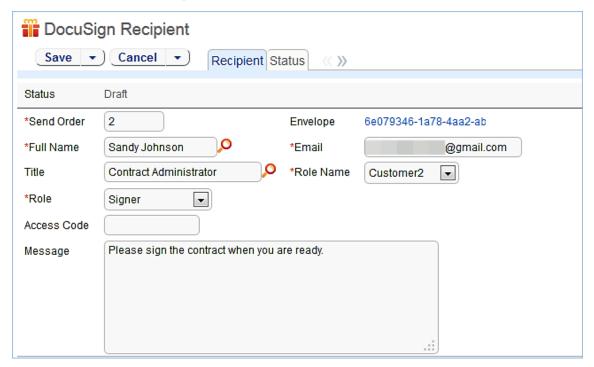
Ownership

DocuSign Envelope records are owned by the sender of the envelope. Specifically, records are owned by the user whose Login matches the Sender Login field.

DocuSign Recipients

The DocuSign Recipients table holds the Recipients for a particular DocuSign Envelope. They are linked to the DocuSign Envelope record and to the Contract record from which the Envelope was generated. The Recipient records are created automatically based on the configuration of the DocuSign Action that generates the DocuSign Envelope record. Recipients can also be added manually to a DocuSign Envelope if needed.

The Send Order controls the order in which signatures are requested by DocuSign. Each Recipient should have a different Role Name for a given contract.



The DocuSign Envelope and DocuSign Recipients tables are usually accessed from within a contract record.

Ownership

DocuSign Recipient records are owned by the user whose Login matches the Sender Login field.

DocuSign Roles

The DocuSign Roles table is used to name the roles that will be assigned to Signers and people identified as Recipients in the DocuSign Action which creates the DocuSign Envelope. It is prepopulated with four roles: Customer3, Customer2, Customer1, and Internal Signer.

When choosing recipients from within the DocuSign Action wizard, the admin selects from this list for each recipient. The role name is used in the DocuSign tags that are added to the document to match a Signer to his role, and the role names must match exactly.

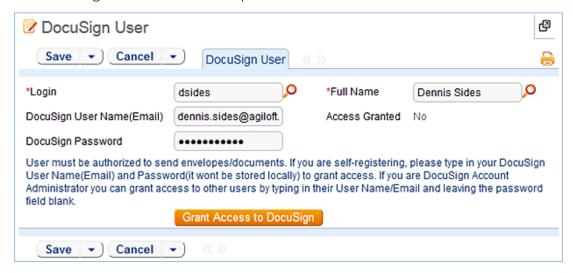
New roles may be added as needed and applied to the Signers and the document tags.

DocuSign Users

The DocuSign Users table holds a record for each user who will send documents to DocuSign by creating the envelope and clicking the Send button. Each record must have a valid DocuSign login to enable sending.

Use Case

The DocuSign Administrator and DocuSign Users, or Senders, must be set up at the DocuSign website first. The user must also exist in the People/Employees table in Agiloft. To set up the DocuSign User in Agiloft, click New in the DocuSign Users action bar to open the new user screen.



Look up the user by typing their name or login into the fields and using the lookup tool.

- **Full Name** the user's Full Name in Agiloft must match the name input at DocuSign.
- DocuSign User Name (Email) must match the email address input at DocuSign.
- **DocuSign Password** must match the password input at DocuSign and be manually filled in.

Then click the Grant Access to DocuSign action button to finish adding the DocuSign user.

DocuSign Users (senders) will have account records on both Agiloft and DocuSign. DocuSign Recipients (signers) are not required to have Agiloft or DocuSign account records.

Every person who sends out documents for signature, called DocuSign Users in Agiloft and Users with Sender Permissions in DocuSign, must have a user record in the following places:

- The People/Employee table of Agiloft
- The DocuSign Users table
- The Users table of the company's account at DocuSign

A successfully created DocuSign User record will look like the screenshot here.



At this point, the person is set up to send documents for e-signing through and DocuSign.

Adobe Sign Tables and Setup

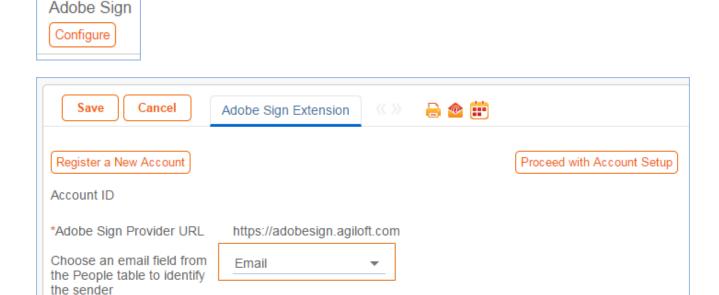
Adobe Sign integration is pre-deployed, in addition to the DocuSign integration, so that new customers can take advantage of either e-signature system.

There is a permission group called Adobe Sign User. Only people in that group and the admin group will be able to see and work with the Adobe Sign elements, by default. These include record visibility of the three Adobe Sign Tables discussed below, and the fields within the contract record for the Adobe Sign elements, including the button to generate the Adobe Sign Envelope from the contract.

Agiloft is an Adobe Sign partner, and customers may use the Adobe Sign integration without setting up a separate account or contract with Adobe Sign. Admin users may set up the Adobe Sign integration directly from the Setup menu, and may go there to purchase Adobe Sign envelopes from Agiloft as needed, with a minimum purchase of 25 envelopes.

Setting Up an Adobe Sign Account

To set up your own Adobe Sign account, go to **Setup > Integration > Configure Adobe Sign** to open the account form.

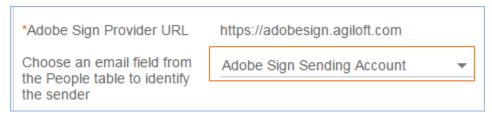


Decision About Who Documents Come From

There is an important decision to make about how documents will be sent for signature. Two sending models are available:

- You can use the Adobe Sign account main email address for all sending. This is the "admin" account you are going to set up in just a moment. The emails to signers will appear to come from that address (they actually come from echosign), but they can include the actual person who is sending them in the subject or content of the email. This is currently the most reliable sending model, and unless you find the generic email address objectionable, we recommend using this approach, for simplicity.
- You can create "sub-account" users for each user at your organization who will need to send a document for signature, and let them send under their own identity. We have an automated process to create such users for your account, but due to a current Adobe Sign limitation, this is not 100% reliable. The limitation is as follows: if a person has ever signed an Adobe Sign document or if their email address is already associated with another Adobe Sign account, they cannot be automatically created via the integration API as a sub-account of your new Adobe Sign account. Instead they are in a locked or pending status at Adobe Sign, and only the Adobe Support team can create this user in a usable status so they can send documents for signature.

In the Adobe Sign Extension screen, the option: "Choose an email field from the People table to identify the sender" defines the email account to use for sending. When a person tries to send a document for signature, the system looks at the value in the field defined here in the sender's user record to know what login (email) to use for the sending at Adobe Sign. If you choose the Email field, then the system will try to send under the user's own email address. You will need to make sure each user is created as a user in the Adobe Sign account, or their sending will be unsuccessful. If you prefer to have the documents sent under the admin account, then choose an email field here that will hold the admin email account in the user records for the users who you want to be able to send. We have provided a default email field called Adobe Sign Sending Account in the people table. If you have an older KB you can add such a field yourself.



You can add the Adobe Sign admin email address to this field (located on the history tab, it is only accessible to admin users) for all users who should be able to send documents for signature. Then when they send, the system will use the value in that field as the login for the sending. It is of course, also possible to set up some users as senders, and put their own email address in that field, and then only use the admin account for those who cannot be successfully set up at Adobe Sign.

Creating the Adobe Sign Account

To set up an Adobe Sign account, click the Register a New Account button on the form. This opens a form on an Agiloft server where you can choose the account type and define the email address to use for the Adobe Sign account.

If you are still in testing mode, you can create a development account and send practice envelopes at no cost. Once you are ready for production, you will deactivate the development account and create a new production account. The new account will need to use a different email address, so plan on that from the beginning.

Be sure to write down your account email address and password for the new Adobe Sign account. Once you finish filling out this form, you will be returned to your KB setup screen.

Check the email inbox for the account you entered as the Adobe Sign Account Email address. You should

receive a verification email from Adobe Sign. Click the link in that email to verify your account.

Back in the Agiloft setup screen, click on the Proceed with Account Setup button to refresh the screen with some additional options. Enter the Knowledge Base Server URL - this is the custom URL that is used as the hostname of the Agiloft server, i.e. https://mycompany.Agiloft.com. When you have entered that URL and verified your Adobe Sign account, you can click the Grant Access to Adobe Sign Connect button. This will bring up an Adobe Sign login screen. Enter the credentials for your new account. You will be asked to allow access to Agiloft:



Click the Allow Access button. Go back to the Setup screen and click the Grant Access to Adobe Sign Connect button again. The screen will refresh and you should see that access has been granted.



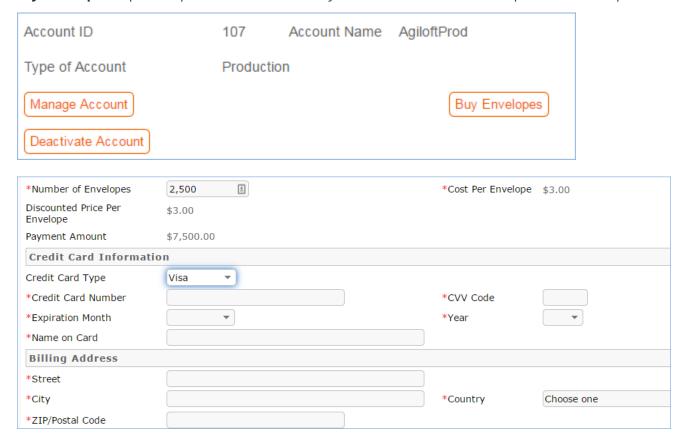
Now you are ready to start using the integration, unless this is a production account.

Using a Production Adobe Sign Account

If you have created a production account, you will need to buy envelopes before you start sending documents for signature. You will see two buttons on the integration setup screen:

Manage Account - open a view of your account to see the number of envelopes you have purchased and sent, and to buy envelopes.

Buy Envelopes - open the purchase screen where you can enter a credit card to purchase envelopes.



The current pricing tiers are shown on the purchase screen. The price per envelope depends on the volume purchased.

The default minimum purchase is 25 envelopes unless you have special volume discounted pricing. Once you have purchased envelopes you are ready to start sending contracts for signature.

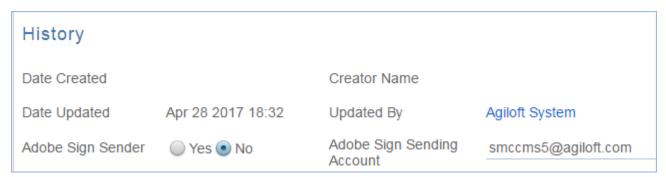
Adding and Removing Adobe Sign Users Automatically

If you have chosen to have individual users send under their own Adobe Sign sub-account, you will need to update the users to create their Adobe Sign sub-account. There are two rule actions on the people table, similar to rule actions for DocuSign. These are Add/Activate user to Adobe Sign and Deactivate Adobe Sign User.

There is a field in the employee table called Adobe Sign Sender, which has a Yes/No value (default value is No). When a new employee is created in the system, if that field has a Yes value, the system will try to create the user at Adobe Sign.

There is also an edit rule on the employee table that runs if the Adobe Sign Sender field just changed. It handles creation or removal of a user at Adobe Sign.

To create users at Adobe Sign, you need to identify the users and update the Adobe Sign Sender field, located on the History tab. Only admin users can modify that field. Naturally if you have not yet set up an Adobe Sign account, these actions will fail.



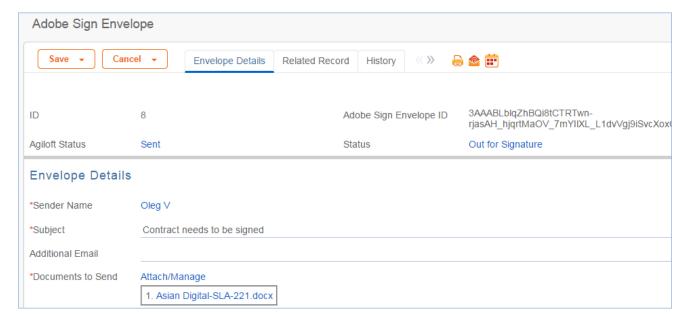
Adobe Sign Tables

The Adobe Sign Envelopes and Recipients tables are shown within the contracts table or any table in which an Adobe Sign action is configured. By default, Adobe Sign has been configured to work with the Contracts table.

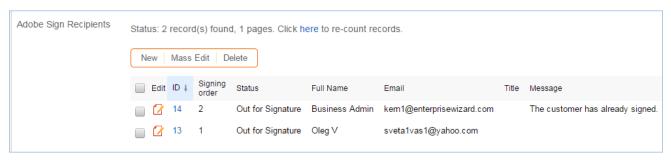
Adobe Sign Envelopes Table

The Adobe Sign Envelopes table holds the Envelopes for e-signature, which contain a link back to the Contract record from which they were created in the Linked Record field. The table also contains an embedded table of the Adobe Sign Recipients list and the Documents to Send field which holds the attached files to be reviewed/signed.

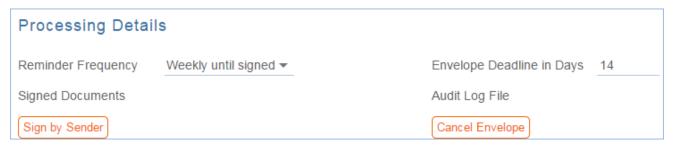
Once the envelope has been previewed and sent, it will be given an Adobe Sign Envelope ID and one of the paid envelopes will be used.



Within the envelope, you will be able to see the recipients and their signing status as well.



Signing may be set up to happen sequentially or in parallel. It is also possible to change the default reminder frequency and deadline before the envelope expires within the envelope record. As each signer responds, the Signed Documents will be updated with the latest version of the signed document, and an Audit Log file tracks all behavior within the system.



The Send Reminder button can be used to send a reminder email to any signer who has been notified but has not yet signed.

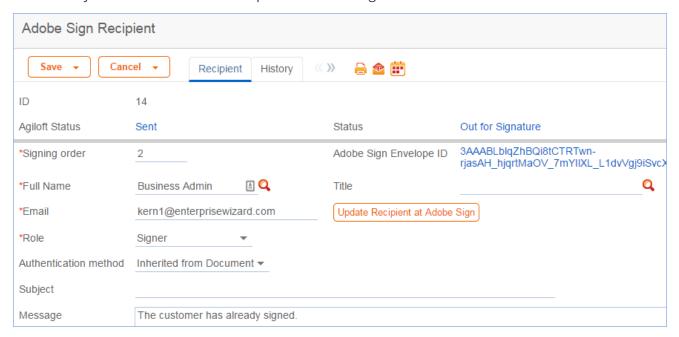
The Cancel Envelope button can be used to cancel the signing altogether.

Sign by Sender will add the sender's signature if he/she has been identified as one of the signers.

Adobe Sign Recipients Table

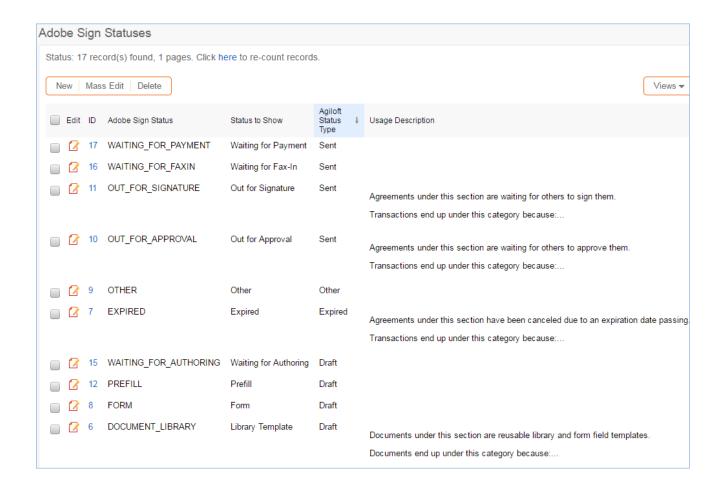
The Adobe Sign Recipients table holds the recipients for a particular Adobe Sign Envelope. They are linked to the Adobe Sign Envelope record and to the Contract record from which the Envelope was generated. The recipient records are created automatically based on the configuration of the Adobe Sign Action that generates the Adobe Sign Envelope record. Recipients can also be added manually to an Adobe Sign Envelope if needed.

The Update Recipient at Adobe Sign button is used to modify the signer's contact details, in case of an error. This can only be used before the envelope is sent to the signer.



Adobe Sign Statuses Table

The Adobe Sign Statuses table holds status values to provide users with a customizable list of statuses that may be more meaningful than the Adobe Sign default statuses. The status values appear within the envelopes and recipient records. It allows several statuses to be grouped under a status category such as Draft or Sent and provides some description about the meaning of some of the more obscure statuses.



Documents Table

Purpose: This table can be used to manage the creation and publication of documents of various types, from marketing collateral to employee procedure manuals. A light-weight parallel publication approval process is included.

Examples of documents that may be covered: FAQs, official memos, published company policies, user manuals, newsletters, press releases, and so on. The table may be used to manage documents that are accessed only through Agiloft (though the records in this table) or documents that are published at the company website, intranet or printed and distributed. Access to the documents is controlled through permissions based on a choice field within the record.

End User Record Submission

An end user belonging to the Document Creator team can create a document through the EUI. Action buttons will be provided to the end user to move the document through the workflow.

When a user submits a document for review, the contact information fields are automatically populated based on the details in his/her record - including the user's department. A direct link to the Department and the Department Manager will be auto-populated based on the submitter's department.

The record will be created in a default status of Draft. After supplying the required information and uploading a document, the user will click the Submit for Review button to begin the review process. The status of the record will be updated to Pending Review. If the user is not prepared to submit the record immediately, then can save the record and make further updates.

Technician Record Submission

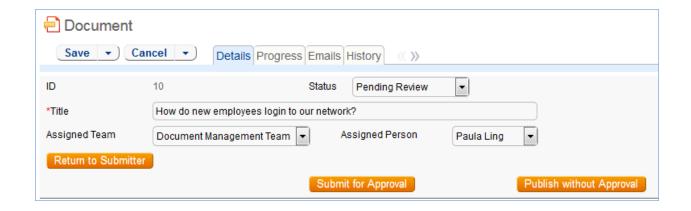
Staff users in the Document Management, Admin and Document Creator groups can submit documents. Support Staff members may also convert to create a new FAQ Document from an Incident or Service Request. Only Admins and Document Managers can update the status of a Document record manually. All other groups will use Action Buttons to move the document through the workflow.

The record will be created in a default status of Draft. After supplying the required information and uploading a document, the user will click the Submit for Review button to begin the review process. If the user is not prepared to submit the record immediately, they can save the record and make further updates.

Processing of Records

When a document record is submitted, the Document Management Team is assigned by default and notified. A Document Manager reviews the document for content and formatting, and to determine if the document requires additional review.

If there are any issues with the initial document, the Document Manager clicks Return to Submitter to send the document back to Draft status. A rule then notifies the Submitter that the document requires revision. The user makes appropriate updates to the document and record, then clicks Submit for Approval again.



Handling Approvals

The Requires Approval field on the Progress tab determines whether approvals are needed before publication.

If the document does not require approval by document Reviewer(s), the Document Manager clicks the Publish without Approval action button. The Submitter is notified that the document has been published. If the Requires Approval field is set to Yes, a validation rule notifies the Document Manager that approval is required if the Document Manager attempts to publish without approvals.

Selecting Approvers and Creating Approvals

If the document requires approvals by Reviewer(s), the Document Manager will select the appropriate reviewers by adding reviewer names under the Potential Reviewers heading on the Progress tab. This field is a link to a single field (Full Name) with multiple values enabled in the Employee table, displayed as a multiple value box with a popup selection list and filtered to people on the Document Reviewers Team.



After selecting the appropriate Reviewer(s), the Document Manager clicks Submit for Approval, or manually changes the Status of the record to Pending Approval. A validation rule checks to see if the Document Manager has actually added reviewers to the form.

When the record is saved, an approval record is created for each reviewer by a conversion process from the reviewer's Employee record. A *linked record action* updates the Last Document ID field in the Employee record.

When the system detects a change in the Last Document ID field it performs a *data conversion action*, using the employee record to create an Approval record. The approval record is linked to the document record through the mapping of Last Document ID field to the linked Document set in the approval record. Additional reviewers can be added during the approval process; automation rules and actions will prevent the creation of multiple approval records for existing approvers.

The default Approval Status for new approval records is Pending Approval. When an approval record is

created, the reviewer is automatically notified that they have a document to review and approve. In the Approval record, the linked field set from the document record includes a hyperlink to the document using the view only source field display option for the Document(s) field under the Attachment heading. The reviewer can click the link to open the document, allowing the reviewer to mark up the document which can then be uploaded to the approval record (reviewers are not able to upload the document to the source record). All updates to the document will be done by the Submitter, the Document Manager or an admin.

Rejecting Documents

The reviewer may either approve or reject the document and provide Approval Notes. If the approval record is rejected, the reviewer must provide Approval Notes explaining why the document is rejected. A validation rule reminds the reviewer that they must provide rejection notes if a reviewer attempts to reject the approval without providing notes.

When any of the approvals are rejected, a rule in the Document table detects this via a calculation on multiple linked records field that keeps track of the number of rejections. When this field is updated by rejections, the rule sets the document's Status to Draft, emails the Submitter that the document requires an update, and sets a trigger field named Document Rejected, Requires Update in each of the linked approvals to Yes.

Setting the Document Rejected field to Yes in the approvals then triggers the rule below that sets the Approval Status field in all of the linked approvals to Requires Reapproval, unless that Approval already has a value of Rejected.

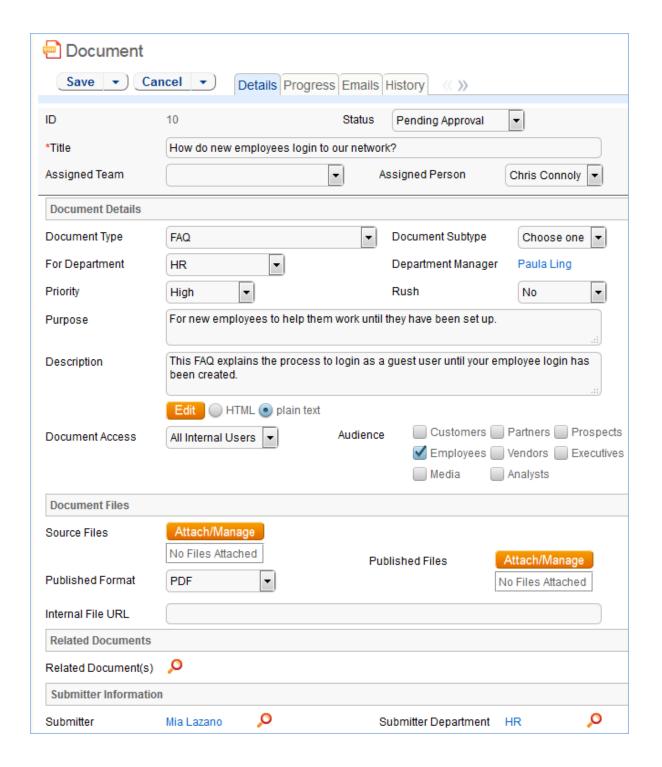
Since any rejected Approvals set the Status of the document back to Draft, the process essentially starts over. The Submitter can review the comments made by the reviewers and see any red-lined documents that have been attached to the approval records. Then the Submitter edits the document and presses the Submit for Review button again to change the Status of the Document to Pending Review and notify the Document Manager. The Document Manager can then keep the same Reviewer(s) or change them and Submit for Approval again. If a document is rejected by an approver and then accepted again (and the Status therefore changed from Pending Approval to Draft and back to Pending Approval), the status of all of the linked approvals is restored to Pending Approval, and all Reviewer(s) are notified by email.

Publishing Documents

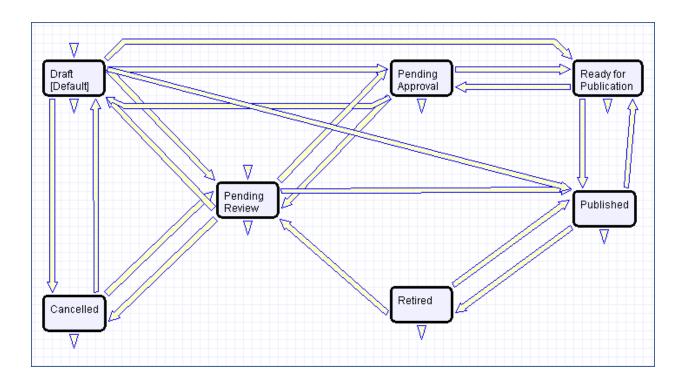
Once all approvals are completed and the value of the field Total Number Still Awaiting Approval is 0, a rule sets the Status of the document to Ready for Publication. Both the Submitter and Document Manager are emailed that the document is ready for publication.

The Document Manager can then attach the final approved document to the Published Files field and update the Status to Published. A validation rule checks again to see if there are still any pending approvals.

Once the Document is published, an email notification is sent to the Submitter.



Workflow



Project Management

Project Management consists of a few tables, some of which are described in this topic.

Projects Table

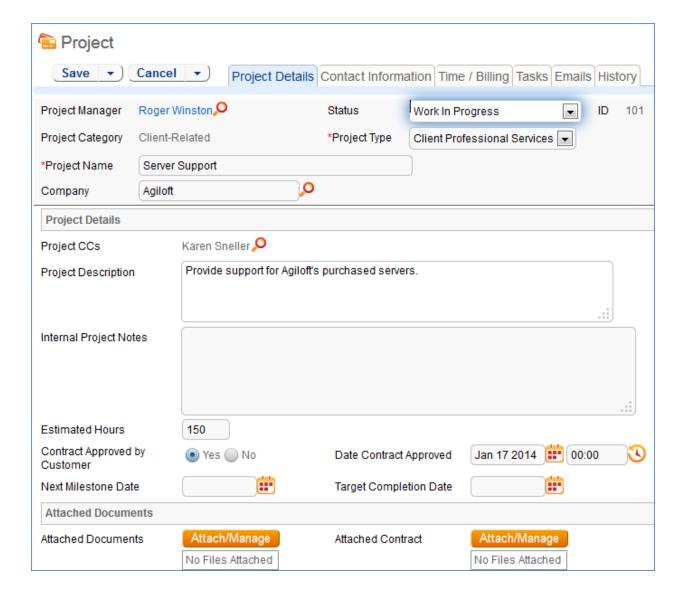
The Projects table holds records for project management activities. It is currently optimized for companies providing consulting services to their clients, and allows them to manage their billable and unbillable hours, work authorizations, and overall project status. It can easily be customized for internal project management instead.

Use Case

Members of the Admin or Project Manager groups may manually create Project records. Projects are creatable only in the "Planned", "Assigned", "Work in Progress" and "Awaiting Customer Feedback" states.

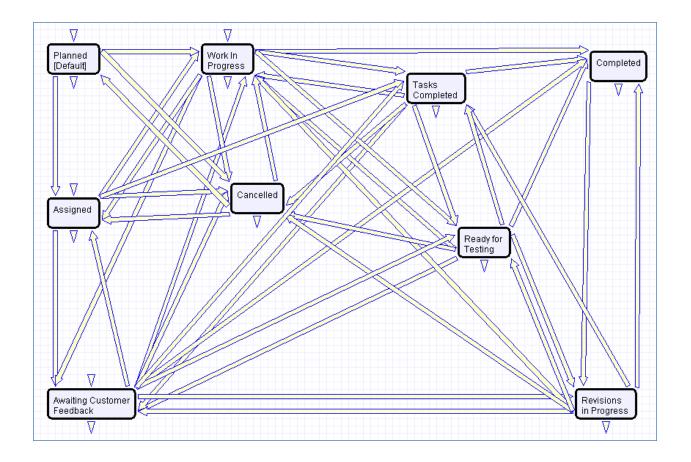
Only members of the Product Manager and admin Groups may edit others' Project records, but Support Staff (Base ServiceDesk group) may view their own Project records. The user who created the Project is automatically set as the Project Manager, and will get email notifications pertaining to the Project's status, such as when all tasks are completed or the hours spent on the project have exceeded what was authorized. Project CCs can be specified who will also receive notice when the Project is completed. The information on the "Contact Information" tab will be filled out with the information of the Project Manager's Manager, provided by the Employee record of the Project Manager.

Project records are divided into two broad categories: Internal and Client-Related. These categories are further divided by type. The tasks that are automatically generated by a project depend on the type selected. For each Project type there are task templates that list the tasks that get automatically generated. The exact selection of tasks that will be generated can be specified on the "Tasks" tab of the Project record. Ad-hoc tasks can also be created using an action button on that tab. Additional fields are visible when a Project's Category is "Client-Related". These fields hold information about customer contracts, contact details, and authorized hours.



Time spent on the project is tracked on the "Time / Billing" tab. It includes a small form to enter time spent and a related table of time entries for this project. Time entries can be searched for in the related table and linked to the project manually.

Workflow

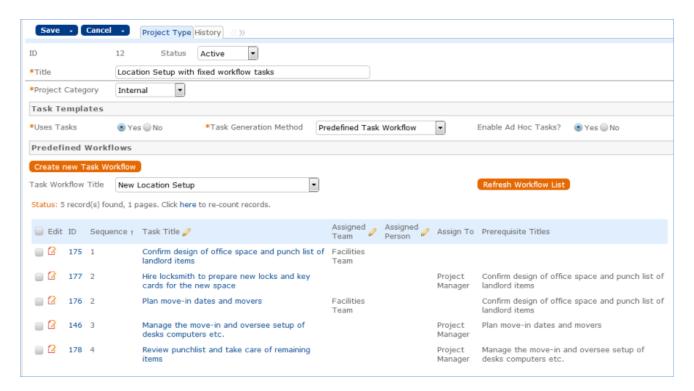


Ownership

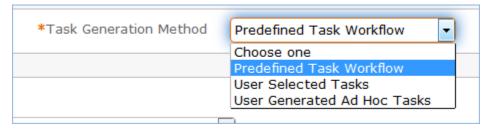
Records in this table are owned by the Employee designated as the Project Manager.

Project Types Table

Project Types is a background table that holds the Project Types referenced by the Projects table. It allows the creation of new Project Types by Project Managers and other users without Admin group privileges. Project Types define the task generation method, if any, and if task workflows will be used, they are defined in the project type record.



In addition to Predefined Task Workflows, project types may use Users Selected Tasks or User Generated Ad Hoc Tasks as the task generation methods.



The differences between these methods is discussed in more detail in the Tasks for Service Requests section above, and the same options available for Service Requests apply to Projects. The methodology for setting up task workflows and the way in which the prerequisite tasks are handled is discussed above in the Task Workflows Table section and in the Task Templates section.

Purchase Orders (PO) Table

The Purchase Order table tracks authorized billable hours for a project. It is shown as a related table within the Project table. It could easily be linked to support cases or Quotes or other tables within the system.

PO records are creatable manually via the web form, from within Project records in the related table, or via mass import. Only members of the Professional Services, Sales and admin Groups may create or import records. PO records are creatable in any workflow state.

Only members of the Professional Services, Sales and admin Groups may edit records, but Support Staff may view all PO records.

Ownership

Records in this table are owned by an Employee, generally the one who created the record. Each record is associated with a particular Employee login.

Support Cases

The Support Cases table manages external customer support requests. It is configured for the Customer group and the Base Technical Group.

End User Record Submission

Customers may create support cases using the tab in the end user interface or by sending an email (once an inbound email address is set up). When a customer submits a support case, the contact information fields automatically populate based on the details in the user's record. If the user record doesn't contain a value in the Customer Name or Email fields, the customer must enter a value in those fields manually. The Type of Issue is set by default to Question. If the customer changes it to Installation Issue or Bug, the Steps to Reproduce field is required. The case is assigned by default to the Support Team and the default status is Open.

Technician Record Submission

Staff members may also submit support cases on behalf of a customer, associating the customer with the case. If an internal staff user creates a case, he may assign it directly to an individual or a team other than the Support Team and may set its starting status to Open, Assigned, or Closed. When the record is created, emails are sent to the customer acknowledging receipt of the support case and to the assigned team (or person) telling them the case has been assigned to them.

If a Support Staff technician creates a record in a status of Closed (because they spoke with the customer over the phone and resolved the issue), an email is sent to the customer telling them how to reopen their case. Workflow actions send these emails automatically, but staff users can override them if given permission to override workflow actions.

Additional Processing of Records

When a technician works on a case, if he needs more information from the customer in order to take further action, he can set the status to Sent to Customer. This will automatically send an email to the customer requesting further information and include the content of the Additional Notes field, an append-only field that is used to communicate with the customer. The email includes a hyperlink for the customer to click to login to edit the case directly.

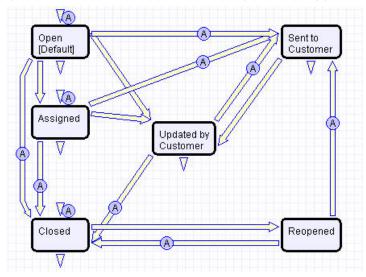
When the customer edits the case or replies to the email, the status changes to Updated by Customer and an email notifies the assigned person that the customer has replied. The customer is able to update the Additional Notes field directly and any text from an email reply maps to that same field. If the customer updates the case at any point, an email notifies the assigned person of the update. If the technician needs to reassign the case to someone else, he or she simply changes the Assigned Person field to that person's name and the system will email the new assignee notifying them of the reassignment.

The Staff Only Notes field holds working notes that should not be visible to the customer.

When the technician has completed work on the case, he/she sets the Status field to Closed and puts the

solution notes into the Solution field. This triggers an email to the customer that includes the content of the Solution field and tells the customer that the work is done. This closing email gives the customer a hotlink back to the record if they wish to reopen it and instructs them to explain why they are not satisfied with the solution. Clicking the hotlink will automatically change the "I Would Like To Reopen My Ticket" field to Yes, which in turn sets the Status of the ticket to Reopened and notifies the assigned person.

By default no escalation rules are set up for the Support Case table.



Ownership

Records in this table are owned by the individual customer. This means each record is associated with a particular customer login and no other customers will be able to edit that record, though members of the Customer Manager group can view all records submitted by other people at their company.

Sales CRM

The tables below are used to manage your customer relationships and support your sales team. These include:

- Leads
- Opportunities
- Products
- Products Quoted
- Campaigns
- Quotes

Leads

The Leads table is the initial point of entry for sales leads. Leads may self-register at your website or may be imported from a lead generation program. The initial qualification is done in this table, which contains all the fields desirable for managing sales.

Once a lead is qualified, it may either be fully worked in this table, or converted into a contact, an opportunity, and a company/account record, and the sales process may be managed in those records.

Creating Leads

Leads can be created directly using the web form, or, once an inbound email address is set up, via email. New leads may start out as Qualified, Uncontacted, Contacted, or Left Message in the workflow. The Leads table is set up by default to allow those in the Guest group to create records, allowing "click to register" lead generation hotlinks, and the embedding of the lead creation form in a web page.

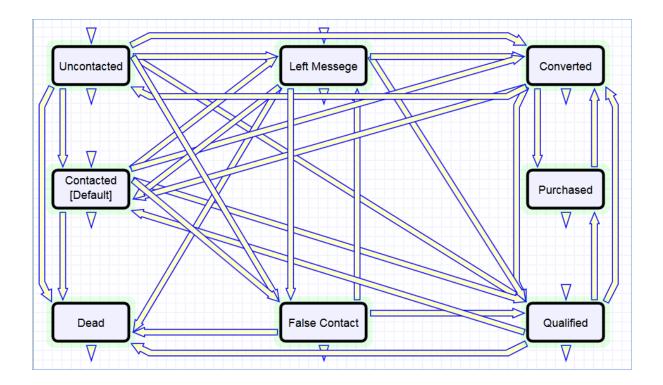
Naturally leads may also be imported from a spreadsheet from a lead generation program.

Processing of Records

Admins and members of the Sales and Marketing groups can create, view, and edit Leads. No other groups have access to the table by default.

When a lead's status changes to Converted, Agiloft converts the information in the record into three new records in the three other tables: Company, Opportunity, and Contact. This order of creation is important because both the Opportunity and Contact records will contain links to the original Company via the new record. If the Company record is not created first, the Contact and Opportunity records will be unlinked and orphaned, disabling reporting features.

Data fields containing information relevant to the company, such as address and billing address, company website, industry, annual revenue and number of employees, map to the Company record. Sales-specific data fields, such as key requirements, earliest and latest possible close date, and sales actions taken, map to the Opportunity record. All data from the lead referencing a specific person at the company map into a new Contact containing the individual's desk and cell phone numbers, email address, email preferences, and so on.



Ownership

Records in this table are owned by the individual assigned sales rep, so each record is associated with a particular user login. Only members of the Sales, Marketing and admin groups can view or edit Leads.

Opportunities

The Opportunities table tracks sales opportunity information and contract information when an opportunity becomes a sale.

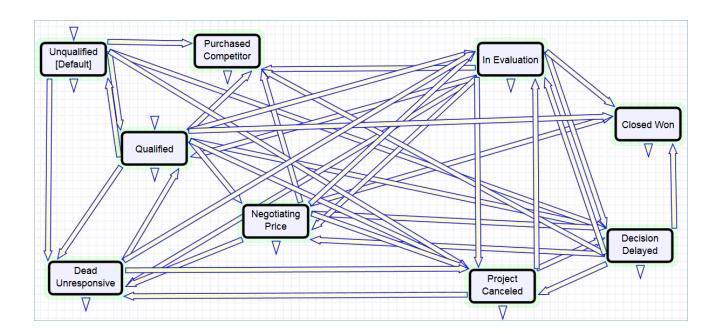
Use Case

Most Opportunity records are created from Leads via a Conversion rule. Members of the Admin, Marketing or Sales groups may create records manually. Opportunity records track possible sales. On the Deal Info tab, sales staff can rate the opportunity, estimate the value and probability of the sale, and indicate the prospect's Key Requirements and Positive Factors in the appropriate fields.

The Related Records tab shows other people linked to the Opportunity, as well as Quotes or Contracts that are linked to the current record.

Admins and members of the Sales, Business Admin, and Marketing groups can create, view and edit Opportunities. Members of the Project Manager and Service Manager groups may view all Opportunities. No other groups have access to the table by default.

Workflow

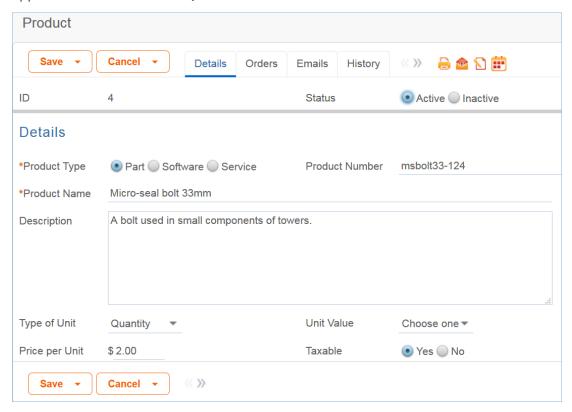


Ownership

Records in this table are owned by the individual assigned sales rep, so each record is associated with a particular user login from the Contacts table.

Products

The Products table holds products that your company sells and the product values are pulled into Opportunities and Products Quoted.



Creating Product Records

Product records can be created directly using the web form. Product records need to be created before they are available in any of the other tables such as Products Quoted.

Processing Records

Admin users and members of the Sales group can create and edit Products. View access is limited to members of the Marketing, Sales and Service Manager and Support Staff groups. No other groups have access to the table by default.

Products are categorized by the type, e.g. Part, Software or Service. Products that are no longer needed can be marked Inactive and will not appear in drop down lists when quoting a product.

Ownership

Records in this table are owned by the user who creates them.

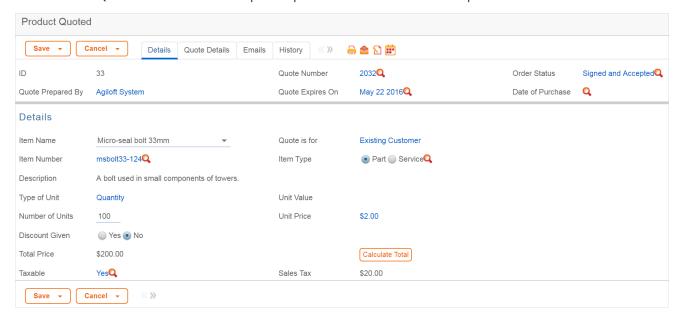
Reports

The Products table contains the following default Charts/Reports:

- Completed Sales by Product Type
- Potential Sales by Product Type
- Products in Price Range
- Sales Totals by Product

Products Quoted

The Products Quoted table holds the specific products associated with a quote.



Creating Product Quote Records

Product Quotes are created from the Quote table. As a Quote is created, either independently or from the Opportunities table, each added item or product creates a Products Quoted record.

Processing Records

Admins and members of the Sales and Marketing group can create, view and edit Products Quoted. Only Admins and Sales are allowed to edit quoted products created by other Sales or Marketing members. No other groups have access to the table by default.

When a product is added to a Quote record and saved, the Total Price is updated by a calculation based on the Unit Price, Number of Units and Discount Percentage. When the quantity of an item in a quote is changed, the Total Price of the quoted product is updated.

Ownership

Records in this table are owned by the person who created the associated Quote. Specifically, a record is owned by the user whose Full Name matches the Quote Prepared By field.

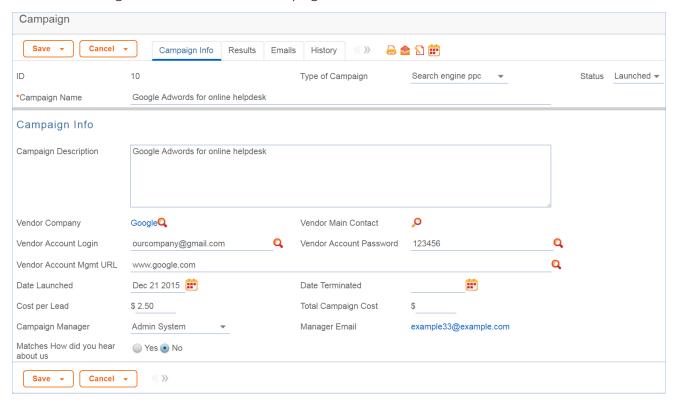
Reports

The Products Quoted table contains the following default Charts/Reports:

- Forecast of Parts Needed in next 6 months for accepted quotes
- Forecast of Potential Parts Needed in next 3 months
- Pie Chart showing Total Revenues per Product
- Value of Completed Orders per month for past 12 months
- Value of Completed Orders per Product for past 6 months

Campaigns

Every sales process involves a marketing aspect. A key marketing capability is tracking and measuring multichannel campaigns, including email, partner website, print advertising, purchased lists, newsletters, trade shows, search engine, radio, and TV. The Campaigns table tracks these various efforts.



The effectiveness of a campaign created by members of the Marketing group can be seen through its association with a Lead or an Opportunity. After creating a campaign, members of the Sales, Sales Manager or Marketing groups can choose that campaign in a Lead or Opportunity record by selecting a Campaign Name from a choice list created from Planned, Launched or Ongoing campaigns.

Creating Campaign Records

Campaigns can be created directly using the web form. New campaigns may only start out as Planned or Launched in the workflow.

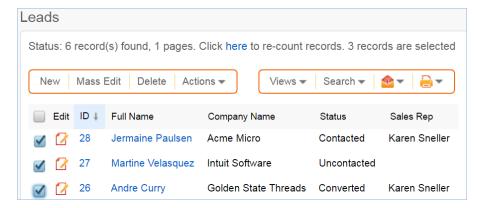
Processing Records

Admin users and members of the Marketing group can create and edit Campaigns. Members of the Sales and Sales Manager groups have view access. No other groups have access to the table by default.

Email Marketing Campaigns

Email marketing tracking has been set up by default on the Leads and People tables. This works in conjunction with the Campaign table, which contains many statistical fields to track the results of a sent email related to that campaign.

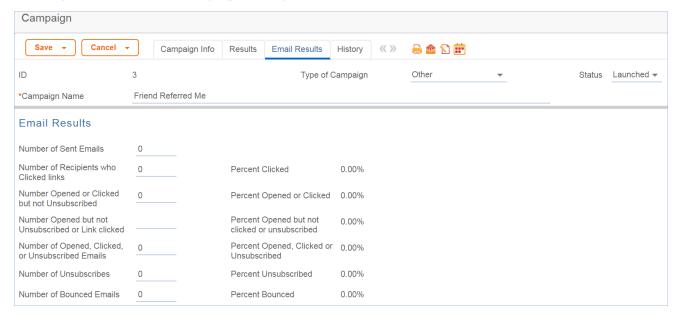
A marketing staff person sets up a Campaign to track results for a particular email. An email template may be created on the Leads and/or the People tables. Once the recipients are selected, hover over the email icon and click Send Email.



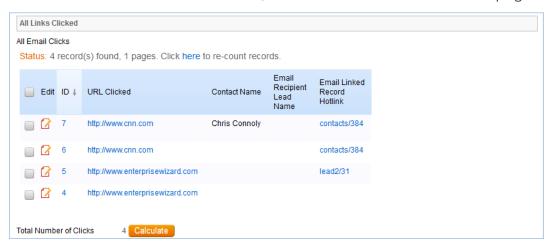
With the email window open, select **Insert > Populate** from template, then locate the desired marketing email template and import it. On the Options tab of the email dialog, the sender chooses the Campaign Name to use for email tracking.



When the email is sent out, all responses are captured by a service running in the background and the results are compiled in the related campaign as responses are received:



If there were links in the email and any recipients clicked them, then new records are automatically created in the Email Clicks table for each link clicked, and these are also shown in the campaign record:

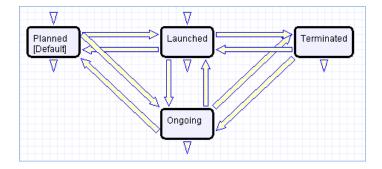


Further documentation about how the email campaign statistics are created and how to set up this functionality or modify it, please see Email Marketing. This functionality can easily be turned on for additional custom tables other than Leads and People.

Ownership

Campaign records owned by the user who creates them.

Workflow



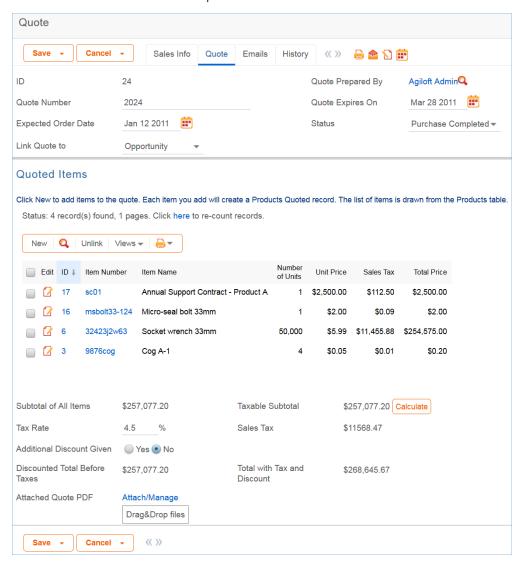
Reports

The Campaigns table contains the following default Charts/Reports:

- Results for All Active Campaigns
- Value of Orders by Type of Campaign

Quotes

The Quotes table is used to create purchase quotes for prospects or existing customers. It can be used independently, or within the Opportunities table. If you use Quotes as your primary way of indicating potential sales value, Agiloft offers preconfigured reports for the Quotes table that will forecast your sales over the next period and will report on past success rates. If you do not use Quotes, you can run these kinds of reports from the Opportunities table instead, using fields such as estimated Sale Value, Probability of Sale, and Expected Close Date to track the value of potential sales.



Creating Quote Records

A quote record is created with a default Status of Prepared. Upon saving the record, the quote is attached as a PDF to the record through an Attachment action. If a new quote is saved with a status of Sent to Customer, the quote is emailed to the prospect.

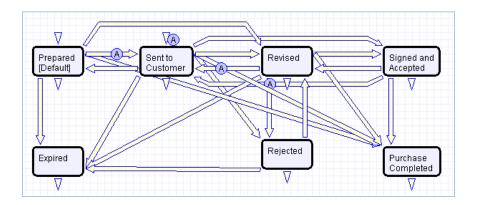
Processing Records

If the record is created and the Status is Prepared, the status can be changed to any one of the following states: Sent to customer, Expired, Revised, and Purchase Completed. If the status changes to Sent to Customer at any time, a quote with the attached PDF is emailed to the prospect.

Ownership

Quotes are owned by the Sales Rep who prepares them. Specifically, a Quote is owned by the user whose Full Name matches the name in the Quote Prepared By field.

Workflow



Reports

The Quotes table contains the following default Charts/Reports:

- Completed Purchases in Past Year
- Forecast 6 months, bar for each rep
- Forecast 6 months, runtime by rep
- Open Quotes value by Company
- Open Quotes Value by Sales Rep
- Open Quotes Value by Status
- Purchases Completed Last Month
- Quotes by Preparer