CMDB Solution 8.5 from Symantec™ User Guide



CMDB Solution 8.5 User Guide

Legal Notice

Copyright © 2018 Symantec Corporation. All rights reserved.

Symantec, the Symantec Logo, the Checkmark Logo and Altiris, and any Altiris trademarks are trademarks or registered trademarks of Symantec Corporation or its affiliates in the U.S. and other countries. Other names may be trademarks of their respective owners.

The product described in this document is distributed under licenses restricting its use, copying, distribution, and decompilation/reverse engineering. No part of this document may be reproduced in any form by any means without prior written authorization of Symantec Corporation and its licensors, if any.

THE DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID. SYMANTEC CORPORATION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE FURNISHING, PERFORMANCE, OR USE OF THIS DOCUMENTATION. THE INFORMATION CONTAINED IN THIS DOCUMENTATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Symantec Corporation 350 Ellis Street Mountain View, CA 94043

https://www.symantec.com

Symantec Support

All support services will be delivered in accordance with your support agreement and the then-current Enterprise Technical Support policy.

Knowledge Base Articles and Symantec Connect

Before you contact Technical Support, you can find free content in our online Knowledge Base, which includes troubleshooting articles, how-to articles, alerts, and product manuals. In the search box of the following URL, type the name of your product:

https://support.symantec.com

Access our blogs and online forums to engage with other customers, partners, and Symantec employees on a wide range of topics at the following URL:

https://www.symantec.com/connect

Technical Support and Enterprise Customer Support

Symantec Support maintains support centers globally 24 hours a day, 7 days a week. Technical Support's primary role is to respond to specific queries about product features and functionality. Enterprise Customer Support assists with non-technical questions, such as license activation, software version upgrades, product access, and renewals.

For Symantec Support terms, conditions, policies, and other support information, see:

https://entced.symantec.com/default/ent/supportref

To contact Symantec Support, see:

https://support.symantec.com/en US/contact-support.html

Contents

Symantec Supp	oort	3
Chapter 1	Introducing CMDB Solution	6
	About CMDB Solution	
Chapter 2	Configuring CMDB Solution	9
	About configuring CMDB Solution settings Configuring organizational hierarchy update settings	
Chapter 3	Managing your organizational structure	11
	Setting up your organizational structure Creating a location Creating a cost center Creating a department Creating a user Updating your organizational hierarchy manually	13 14 15 16
Chapter 4	Managing security in Asset Management Suite Managing security on an organizational group	18 19
Chapter 5	Managing configuration items	21
	Managing configuration items Configuring default data entry values Configuring ownership settings Creating custom status values Creating an edit view Creating a configuration item Running configuration item maintenance tasks Tracking the associations of a configuration item Creating a custom configuration item type	22 23 24 25 26

	Creating a custom data class	30
	Creating a configuration item type	
	Adding a custom data class to a configuration item type	
	Creating a custom configuration item association type	
	Creating a virtual association	35
Appendix A	Reference topics	36
	Predefined configuration item types	36
	About configuration item associations	
Glossary		40
ndex		41

Chapter 1

Introducing CMDB Solution

This chapter includes the following topics:

- About CMDB Solution
- What you can do with CMDB Solution

About CMDB Solution

CMDB (Configuration Management Database) Solution is a component of Asset Management Suite. This solution lets you model configuration items for any component in your environment and the relationships between them in a centralized database.

CMDB Solution lets you identify all components and relationships and to instigate any required changes. The solution actively manages configuration items according to user-specified instructions in jobs, tasks, configuration policies, and custom CMDB rules.

See "What you can do with CMDB Solution" on page 6.

What you can do with CMDB Solution

See "About CMDB Solution" on page 6.

CMDB Solution has many features and uses, including the following:

hierarchy.

Define organizational groups and Organizational configuration items such as departments and cost centers mirror the structure and hierarchy of your organization. CMDB Solution hierarchy features and child to parent relationships specify standard settings throughout an organizational hierarchy. For example, a task that is applied to a parent department can be automatically pushed down to child departments. Setting up organizational configuration items should be the first thing you do with CMDB Solution.

> When you set up associations between configuration items during the CMDB Solution installation, organizational views are automatically created with the same hierarchy and membership.

See "Setting up your organizational structure" on page 11.

Define configuration items.

Configuration items such as assets and contracts are entered into the database using predefined templates called configuration item types. The base configuration item types should be used when possible. The base configuration item types leverage other configuration item types. They provide summary data on the created configuration items and include associated reports and functionality that is not available in custom configuration item types. If none of the base configuration item types meet your needs, you can create a custom configuration item type.

You can specify default configuration item type values so that all configuration items based on a configuration item type are created with predefined values. When you enter data for assets, certain fields have the same value for many assets of a particular asset type. For example, users in a particular location have the same phone number prefix. You can save time by having the prefix already entered into the appropriate field.

See "Creating a configuration item" on page 25.

Add data to the CMDB

Importing is the easiest and the most efficient method of entering data into the system. You can also enter data manually. As you set up a configuration item management system, there is certain data that makes sense to enter before other data. For example, most configuration items rely on the availability of organizational data

See "Creating a configuration item" on page 25.

Clean up and configure data management with ready-made configuration items.

CMDB Solution lets you clean up and manage your data with predefined tasks. For example, you can perform an inventory-to-asset data synchronization, set the default computer ownership, merge duplicate computers, and identify the computers that are no longer in use.

See "Running configuration item maintenance tasks" on page 26.

Track the associations and relationships of configuration items.

CMDB Solution adds a Resource Association Diagram tool that lets you view the relationships of configuration items in a graphical format. You can track where an asset is located, who owns an asset, and which assets are associated with each owner.

In the Resource Association Diagram, you can specify the format, the filter, and the number of levels and nodes to display. To customize and easily recreate the display for your environment, you can save the display options and filters.

See "Tracking the associations of a configuration item" on page 29.

Create customized item actions and CMDB rules to manage data.

CMDB rules target a group of assets based on their type and properties, and then make changes to these assets. Out of the box configuration items address the most commonly required configuration item management policies. CMDB rules provide the flexibility to create custom policies for individual configuration item management needs.

Configure security.

If multiple users work with configuration items, for example entering and editing data, then you should configure security. CMDB Solution includes predefined security roles. You can modify predefined security roles or you can create your own roles. You can also restrict or allow access to configuration item types and data classes. Hierarchy features are used to set and enforce security settings throughout a hierarchy.

With the role-specific views, you can choose to show or hide menu items depending on a user's security role. For example, you can give a user access to the Reports menu but not to the Manage menu. You can also add menus and customize the sub-menus

See "Managing security on an organizational group" on page 18.

Chapter 2

Configuring CMDB Solution

This chapter includes the following topics:

- About configuring CMDB Solution settings
- Configuring organizational hierarchy update settings

About configuring CMDB Solution settings

The CMDB Solution settings let you set up an environment for managing configuration items in your system. For example, you can specify default values for configuration item type fields, configure organizational hierarchy update settings, and configure ownership settings. You can also specify custom status values for configuration items.

See "Creating custom status values" on page 24.

See "Configuring default data entry values" on page 22.

See "Configuring organizational hierarchy update settings" on page 9.

See "Configuring ownership settings" on page 23.

Configuring organizational hierarchy update settings

When you add new locations, cost centers, or departments into your database, the items do not appear in the **Organizational Views and Groups** list until the organizational hierarchy gets updated. The **Organizational Hierarchy Settings** page lets you define how often you want to update the organizational hierarchy. The default update interval is 30 seconds.

In large environments, Symantec recommends that you disable the automatic update task to improve the performance. If you disable the automatic update, you can manually run the **Update Organizational Hierarchy** task to update the organizational hierarchy.

See "About configuring CMDB Solution settings" on page 9.

See "Updating your organizational hierarchy manually" on page 16.

To configure organizational hierarchy update settings

- In the Symantec Management Console, on the Settings menu, click All Settings.
- 2 In the left pane, expand Service and Asset Management > CMDB Solution, and then click Organizational Hierarchy Settings.
- 3 In the right pane, configure the update interval.
- 4 Click Save changes.

Chapter 3

Managing your organizational structure

This chapter includes the following topics:

Setting up your organizational structure

Setting up your organizational structure

Asset Management Suite lets you create and maintain associations among organizations, assets and resources. For example, you can associate a computer with a user, a department and a location. You can also associate a department with a specific cost center. After you specify these logical groups and associations, you can keep track of an asset. You can track where an asset is located, who has it, and which department or cost center has responsibility for it.

Before you can create the associations, you must add organizational configuration items into the Configuration Management Database (CMDB). The organizational configuration item types let you enter organizational data and define the structure of your organization. Organizational configuration item types are the essential building blocks upon which all of your other asset and contract data is based. Later, when you create entries for assets and other configuration items, you can then associate these items with the organizational information that already exists.

Organizational configuration item types support a hierarchy for organizing the resources. Organizing information in a hierarchy simplifies management and access to the data. You can view information at different levels of detail. For example, you can look at the reports for all computers in a building, on a site, in a geographical region, or at company level.

Before you enter any data, consider your organizational needs and the relationships that the resources have with each other. Symantec recommends that you plan and set up organizational configuration items at the beginning. However, you can update and edit the organizational configuration items later. When you create an organizational configuration item, you can specify

all data, including the association data. While you specify the association for a configuration item type, you can create an associated configuration type too. For example, you can specify a location for an asset from the already-created locations. Alternatively, you can create a new location from the same window, and then associate the newly-created location to the asset.

To create a configuration item, right-click a configuration item type, and then click the context menu option that lets you create a new configuration item.

Note: Ideally, you would enter all data for a configuration item at once, and then move on to the next configuration item. However, when you create an organizational configuration item, it is often not possible. Organizational configuration items have associations with each other.

After you enter your organizational data and associate it with assets, contracts and users, the system automatically creates organizational groups under the organizational views. Organizational groups offer a great benefit when you want to manage your assets by location or department. For example, you can apply policies and tasks separately to the different resource targets that you create from the organizational groups. You can also create and configure site-specific security roles to restrict each asset management team, so that they can only view and manage assets of their own sites.

See "Managing security on an organizational group" on page 18.

Process for setting up your organizational structure Table 3-1

Step	Action	Description
Step 1	Create locations.	The location organizational type lets you add geographical or physical locations into the Configuration Management Database (CMDB). See "Creating a location" on page 13.
Step 2	Create cost centers.	The cost center organizational type lets you add your company's cost centers into the CMDB. Note that if you enter cost center data but have not created a location, you cannot specify a location for a cost center. See "Creating a cost center" on page 14.
Step 3	Create departments.	The department organizational type lets you add your company's departments into the CMDB. If you enter department data but have not created a location and a cost center, you cannot create the associations for a department. See "Creating a department" on page 15.

Step	Action	Description
Step 4	Create users.	The user configuration item type lets you enter data about people in your company into the CMDB.
		See "Creating a user" on page 16.
Step 5	(Optional) Update the organizational hierarchy manually.	When you set up your organizational structure in the Symantec Management Console, the organizational items do not appear in the Organizational Views and Groups list until the organizational hierarchy gets updated. By default, the automatic update runs every 30 seconds and updates the organizational hierarchy.
		If you have disabled the automatic updating of organizational hierarchy, you must use the Update Organizational Hierarchy task to manually refresh the hierarchy.
		See "Updating your organizational hierarchy manually" on page 16.

Table 3-1 Process for setting up your organizational structure (continued)

Creating a location

The **Location** organizational type lets you add geographical or physical locations into the Configuration Management Database (CMDB). If your company has multiple sites around the world, you can use the geographical locations, such as country, state and city, to create a location for each site. You can then associate the assets of each site with the locations that you define. Physical locations, such as building, floor and cubicle, let you create separate locations at a single site. You can then associate assets of each building, floor or cubicle to their corresponding locations.

You can associate each location with its manager and with a cost center. When you enter data for a location, you can also specify the hierarchy for it. For example, you can create a location for the United States, and then create sub-locations for the states, such as California, Utah, and Texas.

Note that on the **Location** page, all location items are displayed in the flat list. You can see the hierarchy of the locations on the **Organizational Views and Groups** page.

This task is a step in the process for setting up your organizational structure.

See "Setting up your organizational structure" on page 11.

To create a location

- In the Symantec Management Console, on the Home menu, click Service and Asset Management > Manage Configuration Items.
- 2 In the left pane, expand Organizational Types.
- 3 Right-click Location and click Create Location.

- In the Create configuration item window, in the Location box, type the name of the location, and then fill in the location information.
- 5 (Optional) To create a hierarchy, in the **Location Hierarchy** section, specify the parent location for the item that you currently edit.

You can also first insert all locations, and then add a parent location to a group of locations at once. To add a parent location to a group of locations, do the following:

- Select the locations to which you want to add the parent location.
- In the list of locations, right-click one a location, and then click CMDB Functions > **Assignment Functions > Assign Parent Location.**
- In the Select a Report dialog box, select the parent location, and then click OK.
- 6 (Optional) If you enter the **Location To Subnet** parameter and then enable the **Update** Network Resource Location task, the task automatically assigns this location to the network devices that belong to the specified subnet.
 - However, you cannot assign a location to computers with multiple IP addresses in a subnet. Use the **Ignore** filter to add subnet IP address that the task can ignore. You can append the % character to IP address to filter the entire set of IP addresses.
- Click OK.

Creating a cost center

The Cost Center organizational type lets you add your company's cost centers into the Configuration Management Database (CMDB). Cost centers are associated with the departments or other sections of the company that create costs. For example, an engineering department, IT department or services department can each include one or more cost centers. The managers of these cost centers are responsible for approving all asset purchases and ensuring that the expenditures are kept within budgets.

You can associate a location and a manager with each cost center. You cannot specify a single cost center for multiple locations at once.

See "Creating a location" on page 13.

The **Cost Center** configuration item type lets you create a hierarchical structure of the cost centers in your company. Note that on the **Cost Center** page, all cost center items are displayed in the flat list. You can see the hierarchy of the cost centers on the Organizational Views and Groups page (Manage > Organizational Views and Groups).

This task is a step in the process for setting up your organizational structure.

See "Setting up your organizational structure" on page 11.

To create a cost center

- In the Symantec Management Console, on the Home menu, click Service and Asset Management > Manage Configuration Items.
- In the left pane, expand Organizational Types. 2
- 3 Right-click Cost Center and click Create Cost Center.
- In the Create configuration item window, give the cost center a name and specify the Cost Center Code.

You use Cost Center Code value for accounting related data.

- Fill in the cost center data.
- (Optional) To create a child cost center, in the Cost Center Hierarchy section, select a parent cost center.
- 7 Click OK.

Creating a department

The **Department** organizational type lets you add your company's departments into the Configuration Management Database (CMDB). You associate each department with a location, a cost center and a barcode that is used for physical audits. The **Department** configuration item type also lets you specify a manager for the department.

When you enter the data for a department, you can specify its hierarchical position within the company. You can see the hierarchy of the departments on the Organizational Views and Groups page. On the Department page, all departments are displayed in the flat list.

This task is a step in the process for setting up your organizational structure.

See "Setting up your organizational structure" on page 11.

To create a department

- In the Symantec Management Console, on the Home menu, click Service and Asset Management > Manage Configuration Items.
- 2 In the left pane, expand Organizational Types.
- 3 Right-click **Department** and click **Create Department**.
- In the Create configuration item window, give the department a name and fill in the department data.
- (Optional) To create a child department, in **Department Hierarchy** section, select a parent 5 department.
- Click OK.

Creating a user

The **User** configuration item type lets you enter data about people in your company into the Configuration Management Database (CMDB). The **User** configuration item type is associated with the company and the department configuration item types. You can also specify a manager for a user.

When you use Asset Management Suite for the first time, you do not have to insert user data manually. Symantec recommends that you use Microsoft Active Directory Import to enter all your company's existing users into the CMDB. If the user data that you import also contains department data, you can use it to automatically assign users to the departments. To accomplish this task, you must enter the department data before you import the user data.

You can add users manually in the Symantec Management Console when you need to add a few users at a time. For example, when you add information about new hires.

This task is a step in the process for setting up your organizational structure.

See "Setting up your organizational structure" on page 11.

To create a user manually in the Symantec Management Console

- In the Symantec Management Console, on the Home menu, click Service and Asset Management > Manage Configuration Items.
- 2 In the left pane, expand Organizational Types.
- 3 Right-click User and click Create User.
- In the **Create configuration item** window, fill in the user data.
- 5 Click OK.

Updating your organizational hierarchy manually

When you add new locations, cost centers, or departments in the Symantec Management Console, the items do not appear in the Organizational Views and Groups list until the organizational hierarchy gets updated. By default, the automatic update runs every 30 seconds and updates the organizational hierarchy.

In large environments, Symantec recommends that you disable the automatic update task to improve the performance. You can disable it on the Organizational Hierarchy Settings page that you access from the Settings menu, at All Settings > Service and Asset Management > CMDB Solution > Organizational Hierarchy Settings.

If you have disabled the automatic updating of the organizational hierarchy, you can use the **Update Organizational Hierarchy** task to manually refresh the hierarchy on demand. You can run this task immediately or on a specified schedule. For example, you need to run the task after every import of your organizational data.

This task is an optional step in the process for setting up your organizational structure.

See "Setting up your organizational structure" on page 11.

To update organizational hierarchy manually

- In the Symantec Management Console, on the Manage menu, click Jobs and Tasks.
- 2 In the left pane, expand System Jobs and Tasks > Service and Asset Management > CMDB, and then click Update Organizational Hierarchy.
- On the **Update Organizational Hierarchy** page, add the organizational hierarchies that you want to update.
- 4 Click Save changes.
- 5 (Optional) Under Task Status, schedule the task.

Managing security in Asset Management Suite

This chapter includes the following topics:

Managing security on an organizational group

Managing security on an organizational group

Managing security on an organizational group involves two main steps. You assign an organizational group to a security role, and then you set the security permissions for the organizational group.

In most environments, you have different users who need various degrees of access to the Asset Management Suite features. Each type of user has different access needs. For example, a supervisor user needs the rights to verify and update resource entries, and a manager user needs to access the reports. To set up security roles for different types of users, you can modify the predefined asset management security roles, or you can create new security roles.

In a large and a complex organization that has offices in several countries, additional security management might be necessary. For example, you might want to restrict each asset management team, so that they can only view and manage the assets for their own site. To accomplish this task, you need to create and configure site-specific security roles.

 Table 4-1
 Process for managing security on an organizational group

Step	Action	Description
Step 1	(Optional) Create a custom security role.	When you want to manage security of an organizational group, the first step is to create the custom security roles. Custom security roles can help you better manage the assets that are dispersed over multiple sites or organizational units.

Step	Action	Description
Step 2	Assign an organizational group to a security role.	After you create a security role, you can assign an organizational group to it. Only users who are assigned to this security role can view and manage the assets of this organizational group.
		See "Assigning an a security role to an organizational group" on page 19.
Step 3	Configure security permissions for an	To control what a security role can do with asset records of an organizational group, you must configure its security settings.
	organizational group.	See "Configuring security permissions for an organizational group" on page 19.

Table 4-1 Process for managing security on an organizational group (continued)

Assigning an a security role to an organizational group

Assigning a security role to an organizational group lets you specify the users who can view and manage the assets in this organizational group. You can assign a predefined or a custom security role. If you want to assign the a custom security role to an organizational group, you must create the custom security role first.

This task is a step in the process for managing security on an organizational group.

See "Managing security on an organizational group" on page 18.

To assign a security role to an organizational group

- In the Symantec Management Console, on the Manage menu, click All Resources.
- In the left pane, expand any organizational view, right-click an organizational group to which you want to assign a security role, and then click Manage Security > Assign Management Rights.
- In the Assign Management Rights dialog box, select the security role.
- 4 Click OK.

Configuring security permissions for an organizational group

Security permissions let you control the actions that the users of a security role can perform with asset records in an organizational group.

This task is a step in the process for managing security of an organizational group.

See "Managing security on an organizational group" on page 18.

To configure security permissions for an organizational group

- In the Symantec Management Console, on the Manage menu, click All Resources.
- 2 In the left pane, expand any organizational view, right-click an organizational group for which you want to configure the security permissions, and then click **Security**.
- On the Security Role Manager page, in the Role list, click the security role that you want to configure.
- 4 Configure the security permissions.
- 5 Click Save changes.

5

Managing configuration items

This chapter includes the following topics:

- Managing configuration items
- Creating a custom configuration item type

Managing configuration items

Asset Management Suite lets you manage and track the assets that you have in your environment. For each item that you want to manage, you enter information into the Configuration Management Database (CMDB) as a configuration item entry. Asset Management Suite provides you with the predefined configuration item types that let you manages different types of assets. Configuration item types are the templates that define the data that you can store about a specific configuration item in the CMDB. These configuration items can be assets, locations, invoices, schedules, users, contracts, and so on.

A configuration item type consists of the following components:

Base configuration item type	The base configuration item type is the foundation on which a configuration item type is built. A configuration item type inherits the data classes of the base configuration item type.
Data classes	Data classes are the building blocks of a configuration item type. Each data class defines the attributes that you can record about a configuration item.
Configuration item association types	Configuration item association types create associations between configuration items and allow related data to be linked together.

Table 5-1 Process for managing configuration items

Step	Action	Description
Step 1	Set up the environment for managing configuration items.	Before you enter the asset data into the database, you set up your environment for managing configuration items. For example, you can create custom status values and custom configuration item types. To simplify and speed up the data entry, you can set the default data entry values and create custom edit views.
		See "Configuring default data entry values" on page 22.
		See "Configuring ownership settings" on page 23.
		See "Creating custom status values" on page 24.
		See "Creating an edit view" on page 24.
		See "Creating a custom configuration item type" on page 29.
Step 2	Create configuration items.	You can create configuration items through manual entry, scanning of the asset during the receiving process or importing the assets. You can also gather inventory data about the computers in your network, and then have each computer automatically created as a configuration item. See "Creating a configuration item" on page 25. After you create a configuration item, you can manage and track it through its whole lifecycle.
Step 3	Perform configuration item maintenance tasks.	You can run different asset maintenance tasks related to asset ownership, merging of duplicate computers or users, inventory synchronization and network resource location. See "Running configuration item maintenance tasks" on page 26.

Configuring default data entry values

The default data entry values automatically populate the fields on the configuration item creation page and let you save data entry time. For example, if most of the contracts in your company are assigned to the same user, you can set that user as the default. Then you only need to change the default value when the contract is assigned to a different user.

Note: When you import data, the default values are not applicable.

This task is a step in the process for managing configuration items.

See "Managing configuration items" on page 21.

To configure default data entry default values

- In the Symantec Management Console, on the **Settings** menu, click **All Settings**.
- In the left pane, expand Service and Asset Management > CMDB Solution, and then click Default Values.
- 3 In the right pane, click the item for which you want to set the default values.
- In the Data Entry default values dialog box, specify the default values, and then click OK.

Configuring ownership settings

Multiple users, departments and cost centers can partly own the same configuration item. CMDB Solution lets you assign ownership percentage to a configuration item so that you can define the percentage that each of the multiple users, departments or cost centers owns. To allow a configuration item to have multiple owners you must configure ownership settings.

Ownership Settings

The following table describes the options for ownership settings:

Option	Description
Ownership Style	Lets you choose whether an asset can have multiple owners. Once you set multiple ownership, you can no longer go back to a single association. If you set multiple ownership with warning, a warning appears when you assign ownership to an asset that already has an owner.
Ownership Rule	Lets you specify what type of owners (users or departments) have precedence in the event of a conflict of ownership.

This task is a step in the process for managing configuration items.

See "Managing configuration items" on page 21.

To configure ownership settings

- In the Symantec Management Console, on the Settings menu, click All Settings.
- In the left pane, expand Service and Asset Management > CMDB Solution, and then click Ownership Settings.

- To allow a configuration item to have multiple owners, in the right pane, under **Ownership Style**, in the drop-down list, click one of the following options:
 - Multiple

Once you set multiple ownership, you can no longer go back to single association.

Multiple With Warning

Once you set multiple with warning ownership, you receive a notification when you assign ownership to a currently owned asset.

- To specify what type of owners to keep in the event of a conflict of ownership, in the right pane, under **Ownership Rule**, in the drop-down list, click one of the following options:
 - User Precedence
 - Department Precedence
- Click Save changes.

Creating custom status values

For some resources, you may need to create a custom status value.

Warning: If you assign a custom status to an asset, it becomes inactive and does not appear in the reports. Instead of using custom statuses, Symantec recommends that you create a custom status as a Location and assign the asset to this location.

When a custom status is deleted, the resources that are configured with the particular custom status are reverted to the Active status.

This task is a step in the process for managing configuration items.

See "Managing configuration items" on page 21.

To create custom status values

- In the Symantec Management Console, on the Settings menu, click All Settings.
- In the left pane, expand Service and Asset Management > CMDB Solution, and then click CMDB Global Settings.
- In the right pane, in the **Custom Status** box, type the name of the custom status value, and then click Add.

Creating an edit view

When you open the page to create or edit a configuration item, the default edit view opens. On the default edit view, you can specify information for all the data class attributes that apply to this configuration item type. On the default edit view, you can also create all associations

that are possible for this configuration item type. If you do not need to insert some data or you prefer to insert the data in a different order, you can edit the default views. You can also create new views.

Customized edit views let you simplify and speed up the process of creating and editing configuration items by enabling you to control which fields and options are displayed.

Note: When you create a data class and edit a view to use in a virtual association, the column names must be ParentResourceGuid and ChildResourceGuid to avoid errors.

This task is a step in the process for managing configuration items.

See "Managing configuration items" on page 21.

To create an edit view

- Open the dialog box to create or edit a configuration item. See "Creating a configuration item" on page 25.
- In the dialog box, in the **View** drop-down list, click **Manage Views...**.
- 3 In the Change Edit Views dialog box, click New, insert the name of the view, and then click OK.
- Select the Data classes and Associations that are displayed on the Edit configuration item page when you select the view.
 - Symantec suggests that you select the **Data classes** and **Associations** based on your data entry roles.
 - Check Share this Edit Page View with other Asset users, if you want to allow everyone to use this view.
- 5 Click Save changes.

Creating a configuration item

Configuration items represent the resources and information that you want to track in your environment. Gathering and entering asset information is one of the first steps in asset management. You must create a configuration item for each asset that you want to track. To create a configuration item, you can use the predefined configuration item types that Asset Management Suite provides. You can also create and use custom configuration item types.

See "Predefined configuration item types" on page 36.

See "Creating a custom configuration item type" on page 29.

You can manually create configuration items or they can be automatically created. You must manually create configuration items for non-networked assets like office equipment, racks, and monitors. For networked devices, you can use inventory management tools to automate the task of creating a configuration item. For example, you can gather inventory data about computers on your network, and then have each computer automatically created as a configuration item.

This task is a step in the process for managing configuration items.

See "Managing configuration items" on page 21.

To manually create a configuration item

- 1 In the Symantec Management Console, on the Manage menu, click Assets.
- 2 In the left pane, expand the desired folder.
- To create a configuration item, right-click a configuration item type, and then click the context menu option that lets you create a new configuration item.
- In the Create configuration item window, specify the details of the configuration item.
- 5 Do one of the following:
 - Click Save and create new, to save the data and create the next item.
 - Click Apply, to save the data and continue editing the same item.
 - Click **OK**, to save the data and close the window.

Note that in the configuration items list, you must click **Refresh** to display the changes.

To automatically create a configuration item for a network device

- In the Symantec Management Console, on the Actions menu, click Discover > Import Microsoft Active Directory.
- Specify the import settings and click **Save Changes**.
 - Each identified device is set up as a configuration item in the system.
- 3 (Optional) To view the configuration items, in the Symantec Management Console, on the Home menu, click Service and Asset Management > Manage Configuration Items, and then click the correct folder and configuration item type.

Running configuration item maintenance tasks

CMDB Solution lets you model configuration items for any component in your environment and the relationships between them in a centralized database. It lets you identify all components and relationships and to instigate any required changes. The solution actively manages configuration items according to user-specified instructions in jobs, tasks, configuration policies, and custom CMDB rules.

This task is a step in the process for managing configuration items.

See "Managing configuration items" on page 21.

To run configuration item maintenance tasks

- In the Symantec Management Console, on the Manage menu, click Jobs and Tasks.
- 2 In the left pane, under Jobs and Tasks, expand System Jobs and Tasks > Service and **Asset Management > CMDB**, and then click one of the following tasks:

Assign Computer's Ownership to be the **Primary User**

This task lets you synchronize the owner of a computer asset with the primary user who is reported through basic inventory. By default, the primary user of a computer is the person who has logged in the most during a particular month. This information is stored in a Inv_AeX_AC_Primary_User table.

The recommended schedule is to run the task daily during off peak hours.

Clean Ownership

This task resolves conflicts between the **Asset User Owners** resource association and the **Ownership Details** data class. Ownership conflicts can occur when several departments or users own the same resource. The **Asset User Owners** resource association associates an asset with a user resource or a department resource, and the Ownership Details data class keeps track of the ownership percentage. If the Clean Ownership task finds a conflict between the Asset User Owners resource association and the Ownership Details data class, the ownership resource association takes precedence, and the data class is updated.

The recommended schedule is to run the task every 12 hours.

Duplicate Computer Merge

This task automatically merges the computers that have identical **System** Number, Serial Number, or Barcode in the Configuration Management Database (CMDB).

When you use the **Duplicate Computer Merge** task to merge computers, the following restrictions apply:

- The **Duplicate Computer Merge** task only lets you merge two computers that have duplicate system numbers, serial numbers, or barcodes in CMDB.
- One of the duplicate computers to be merged must be a managed computer and the other must be an unmanaged computer. You cannot merge two unmanaged computers.

The recommended schedule is to run the task daily during off-peak hours.

Duplicate User Merge

This task merges the users that have duplicate **UserId** and **Domain** or Given Name and Surname information in the CMDB.

The recommended schedule is to run the task daily during off-peak hours.

Inventory Clean Up

This task deletes inventory data from the Asset Management Suite inventory data classes and the Inventory Solution data classes for the resources that are no longer in use. After inventory data for a resource is deleted, financial and other non-inventory data is still available.

The recommended schedule is to run the task daily during off-peak hours.

Inventory To Asset Synchronization

This task synchronizes the following data contained in both the Asset Management Suite data classes and the inventory data classes:

- **Serial Number**
- **System Number**
- Manufacturer
- Model

If the task detects that the Asset Management Suite data classes already contain data for any of these items, it does not overwrite the data in the Asset Management Suite data classes with the inventory data.

The recommended schedule is to run the task daily during off-peak hours.

Resource Merge Rule

To merge duplicate resources for resource types other than computers and users, you must create a merge rule with the Resource Merge Rule task.

The recommended schedule is to run the task daily during off-peak hours.

Update Network Resource Location

This task uses asset subnet information gathered from the most recent inventory scan to automatically update the location data of an asset.

The recommended schedule is to run the task daily during off-peak hours.

The **Ignore** filter lets you ignore computers that have the same IP address from a subnet.

Hierarchy

Update Organizational This task updates the Organizational Hierarchy groups to match the associations in the database.

See "Updating your organizational hierarchy manually" on page 16.

- 3 Set Default Task Parameters, if required.
- 4 Click Save changes.
- In the Task Status section, click New Schedule. 5
- 6 In the **New Schedule** dialog box, schedule the task, and then click **Schedule**.

Tracking the associations of a configuration item

The Resource Association Diagram displays a graphic that shows a configuration item and all its associated configuration items. The Resource Association Diagram lets you view relationships between assets, users, locations, departments, and cost centers. In a large environment, this graphic makes it easier to track down an asset and its dependencies. For example, when a technician works on an incident and needs to review all of the details about the asset.

This task is a step in the process for managing configuration items.

See "Managing configuration items" on page 21.

To track associations of a configuration item

- In the Symantec Management Console, on the Manage menu, click Assets.
- 2 In the left pane, click the desired configuration item type.
- In the configuration items list, right-click the configuration item that you want to track, and then click CMDB Functions > Resource Association Diagram.
- (Optional) Adjust the Resource Association Diagram view according to your requirements.

Creating a custom configuration item type

Asset Management Suite provides predefined configuration item types (also known as resource types) for many types of assets.

See "Predefined configuration item types" on page 36.

If the predefined configuration item types do not meet all your requirements, you can define custom configuration item types. You can create the custom configuration item types in the following ways:

Customize the predefined configuration item types.

You customize the predefined configuration item types if they do not fully meet your requirements. For example, for some assets you might have information that cannot be stored in the existing data classes of the predefined configuration item types. In this situation you can define and add custom data classes and custom configuration item association types to the predefined configuration item types.

Create new configuration item types.

You can create new configuration item types if the predefined item types are insufficient to represent the items in your environment. Symantec recommends that when you create a new configuration item type, you specify a base configuration item type for it. The new configuration item type inherits the data classes. associations, and functionality from the base configuration item type. To extend the definition of the base configuration item type, you add custom data classes and custom resource association types to it.

Step	Action	Description
Step 1	Create a custom data class.	When the existing data classes of a configuration item type do not let you store all the information that you want, you create custom data classes. See "Creating a custom data class" on page 30.
Step 2	(Optional) Create a configuration item type.	You create new configuration item types only when the predefined configuration item types do no let you manage all the resources that you have in your environment.
		See "Creating a configuration item type" on page 32.
Step 3	Add a custom data class to a configuration item type.	After you create the custom data classes, you can add them to a predefined configuration item type or to a new configuration item type that you create.
		See "Adding a custom data class to a configuration item type" on page 33.
Step 4	Creating a custom configuration item association type.	For the data types that you want to link to other configuration item types, you create custom association types.
		See "Creating a custom configuration item association type" on page 33.
Step 5	Creating a virtual association	When you create an editable data class that has the attribute type Resource Foreign Key and associate it with an asset, you can create a virtual association for the asset using the data class.
		See "Creating a virtual association" on page 35.

Table 5-2 Process for creating a custom configuration item type

Creating a custom data class

Data classes are the building blocks of a configuration item type. They represent the categories of data that you want to record about a configuration item. For example, the Computer configuration item type contains the Cost Items data class, the Manufacturer data class, the Serial Number data class and so on.

CMDB Solution includes many predefined data classes that let you define new configuration item types. However, if the predefined data classes are not sufficient to clearly identify the configuration item types in your environment, you can create custom data classes. When you

create a data class, you can customize it by adding, editing, and deleting its attributes. Note that you cannot modify or delete the predefined data classes.

A data class can be visualized as a table in the Configuration Management Database (CMDB). Each data class has a set of attributes that define its properties.

A data class has the following components:

Data class attribute

Data class attributes define the data that data classes store. Data class attributes appear as fields when you enter data. After you add a data class attribute to a data class, you can edit certain aspects of the attribute. You can edit the description and control if it is hidden, but you cannot delete the description from the data class. You cannot add data class attributes to a predefined data class. For example, the Manufacturer data class contains the Manufacturer Name and Model data class attributes.

Data class attribute parameter

Data class attribute parameters specify the characteristics of a data class attribute such as name, description, and maximum length of the attribute. For each data class attribute, you must specify values for each of the parameters. You can specify the type, number, and order of characters in a field. For example, the name to be entered into the **Manufacturer Name** data class attribute might have a parameter of fewer than 256 characters.

This task is a step in the process for creating a custom configuration item type.

See "Creating a custom configuration item type" on page 29.

To create a custom data class

- In the Symantec Management Console, on the **Settings** menu, click **All Settings**.
- In the left pane, expand Notification Server > Resource and Data Class Settings > Data Classes > CMDB Data Classes, right-click the folder where you want to create a custom data class, and then click New > Editable Data Class.

3 On the **New Editable Data Class** page, give the data class a name and add the attributes.

The name of the database table that is linked to the data class is created from the name of this data class. It begins with the prefix Inv followed by the data class name. The spaces in the data class name are replaced with the underscore character. Note that the table name persists even if you later change the name of the data class.

Warning: Symantec recommends that you omit special characters from the custom data class names because they may cause errors.

Click Save changes.

After you create the data class, you can associate it with any configuration item type. To add the data class to a configuration item type, go to Settings > Notification Server > Resource and Data Class Settings > Resource Types, click the configuration item type where you want to add the data class, and then in the right pane, click **Add data classes**.

Creating a configuration item type

Asset Management Suite provides predefined configuration item types for many types of assets. However, sometimes the predefined configuration item types are not sufficient and you might need to create your own configuration item types. For example, if you want to manage your tablet computers separately from other computers, you can create a new configuration item type for tablet computers.

This task is a step in the process for creating a custom configuration item type.

See "Creating a custom configuration item type" on page 29.

To create a configuration item type

- In the Symantec Management Console, on the Settings menu, click All Settings.
- 2 In the left pane, expand Notification Server > Resource and Data Class Settings > Resource Types, right-click the folder where you want to create a custom configuration item type, and then click **New > Resource Type**.
- On the **New Resource Type** page, give the configuration item a name and specify its settings.

If you specify the Base Resource Type, the created configuration item type inherits all data classes, associations, and functionality of the selected base configuration item type. Base configuration item types let you take advantage of built-in features such as asset aggregation, reporting, and accounting data. Any configuration item type can serve as a base configuration item type. No special configuration is required to allow a configuration item type to be a base configuration item type.

- Click Save changes.
- 5 (Optional) To make it easier to access the custom configuration item type, create a link to this configuration item type in the **CI Management** portal.

To create the link, do the following:

- In the Symantec Management Console, on the CI Management page, in the left pane, right-click the folder where you want to place the link, and then click New > Resource Type Link.
- In the Select a Resource Type dialog box, click the custom configuration item type, and then click OK.

Adding a custom data class to a configuration item type

After you create a custom data class, you can add it to a predefined configuration item type or to a new configuration item type that you create.

This task is a step in the process for creating a custom configuration item type.

See "Creating a custom configuration item type" on page 29.

To add a custom data class to a configuration item type

- In the Symantec Management Console, on the Settings menu, click All Settings.
- In the left pane, expand Notification Server > Resource and Data Class Settings > Resource Types, and then click the item to which you want to add a custom data class.
- On the configuration item type page, under Data Classes, click Add data classes.
- 4 In the Items Selector dialog box, check the data class that you want to add, and then click OK.
 - Note that once you add data into the custom data class, you cannot remove this data class from the configuration item type anymore. You can only edit the Edit configuration item page view so that it does not display the fields of the custom data class.
- 5 Click Save changes.

Creating a custom configuration item association type

A configuration item association type (also known as a resource association type) lets you link resources for more convenient access to associated data. You can then easily track the data about related configuration items. A configuration item association type is a template for creating a child to parent relationship between configuration items. This association links child configuration items to a parent configuration item. You can associate a computer monitor with a computer, a cell phone with a user, and several pieces of equipment with a lease. For example, the **Power to Network Resource** association type represents a group of network

resources that are directly connected to the power rather than covered by a backup power system (UPS).

When you create a configuration item association type, a new field appears in the child configuration item type. The field contains the list of configuration items that the parent configuration item type defines. You can associate any of them with the child configuration item type. For example, you can create a configuration item association type that links the Monitor configuration item type to the Computer configuration item type. The Monitor configuration item type includes the field with the list of computers that you can associate with the monitor.

If the predefined associations of a configuration item type do not meet all your requirements, you can create custom configuration item associations. For example, you might want to associate a contract to each of your vendors as part of the contract management. In Asset Management Suite, the default associations of a Contract configuration item type do not let you create such an association. In this case you can create a custom configuration item association type.

This task is a step in the process for creating a custom configuration item type.

See "Creating a custom configuration item type" on page 29.

To create a custom configuration item association type

- In the Symantec Management Console, on the **Settings** menu, click **All Settings**.
- In the left pane, expand Notification Server > Resource and Data Class Settings > Resource Associations > CMDB Association Types, right-click the folder where you want to create a custom association type, and then click New > Editable Association Type.
- On the New Editable Association Type page, give the association a name and specify its details.

To create an association between a contract and a vendor, configure the details as follows:

- Type **Contract's Vendor**, as the name of the new editable association type.
- In the Reverse Display name box, type Vendor's Contracts.
- For the **From Type** configuration item type, select **Contract**.
- For the **To Type** configuration item type, select **Company**.
- In the **Minimum Cardinality** box, type **0**.
- In the Maximum Cardinality box, type 1. Note that when you create a new association, you can only specify the minimum cardinality and maximum cardinality from parent to child. The cardinality from child to parent is always from 0 to many, and you cannot change it.

- Under Enable Editing From, check Contract, and in the drop-down list, click Resource Association Picker for Asset.
- Click Save changes.

Creating a virtual association

When you create an editable data class that has the attribute type Resource Foreign Key and associate it with an asset, you can create a virtual association for the asset using the data class. The virtual association is displayed as a dotted line connection in the Resource Association Diagram.

To create a virtual association

Open the CMDB SQL database and create and run the following SQL query:

```
create view vViewName AS
select ResourceGuid as ParentResourceGuid, DC AS ChildResourceGuid
from DB Table
```

Where *vViewName* is the view name that you will use when you create virtual association, DC is the attribute of type Resource Foreign Key, and DB Table is the table in the database that represents the data class you created.

Note: Ensure that the column names are ParentResourceGuid and ChildResourceGuid to avoid errors.

- From the Symantec Management Console, on the **Settings** menu, click **All Settings**.
- In the left pane, expand Notification Server > Resource and Data Class Settings > Virtual Associations, right-click Asset Virtual Associations, and then click New > Virtual Association.
- Enter the view name that you used in the SQL query and click Save. For example, from the SQL query mentioned in Step 1, the view name is *vViewName*.
- The GUIDs ParentResourceGuid and ChildResourceGuid are displayed in the table.
- To see the virtual association of the asset, open the Resource Association Diagram where the virtual association is displayed as a dotted line.
 - To know more about Research Association Diagram, refer to See "Tracking the associations of a configuration item" on page 29.

Appendix

Reference topics

This appendix includes the following topics:

- Predefined configuration item types
- About configuration item associations

Predefined configuration item types

Predefined configuration item types (also known as predefined resource types) are the templates that define what data is created and stored about a specific configuration item.

Asset Management Suite provides predefined configuration item types for many types of assets. You can add custom fields to the predefined configuration item types. You can also create new configuration item types, if required. However, Symantec recommends that you use predefined configuration item types, because different features and reports are available for the predefined configuration item types.

Table A-1 Predefined configuration item types of CMDB Solution

Category	Predefined configuration item types
Contract Management	Contract, SLA
Communication Equipment	Cell Phone, Desk Phone.
Computers and Peripherals	Computer, Monitor, Network Printer, Peripheral, Scanner, Virtual Machine.

Predefined configuration item types of CMDB Solution (continued) Table A-1

Category Predefined configuration item types	
Datacenter Types	 Computer Type Includes the predefined Server, Test, and Workstation types to let you specify what type of function or role a computer has. You determine the computer type when you edit or create a new computer configuration item. Power The power sources that the network uses and that are intended to be associated with UPS configuration items. Rack Network resource racks. You can specify which network resources are included in each rack. Services The functions that support one or more business areas. For example, the Service configuration item type lets you manage the information about your email service. Email service consists of several components such as Active Directory, Exchange Server, and Web Mail. Each of these components might be located on a separate server. When you set up the email service in the Symantec Management Console, you first create the systems that support this service. After you create the systems, you create the Service and in the Create configuration item window, under Supporting Systems, you add all related systems. When you then receive an incident that is related to the email service, you can use the Resource Association Diagram to track down the problem. The Resource Association Diagram lets you quickly view all the components that are connected to this particular service. See "Tracking the associations of a configuration item" on page 29. Systems The components that support services. For example, an Exchange Server. UPS Uninterrupted power supply resources. Includes the details on voltage, input and output frequencies, currents, and so on.
Generic Asset Types	Asset, Network Resource.
Other Assets	Furniture and Fixtures, Office Equipment, Site, Subnet.
Organizational Types	Company, Cost Center, Department, Location, User.

About configuration item associations

Understanding the relationships between various configuration item types, especially the crucial organizational configuration item types, helps you to identify the dependencies within the Configuration Management Database (CMDB). You can view relationships between configuration items in the Resource Association Diagram that you access in the Resource Manager, in the left pane.

See "Tracking the associations of a configuration item" on page 29.

Not all configuration item types can have direct associations with each other but most of them have indirect associations with each other. Associations are useful for reporting purposes. For example, a computer asset is associated with a user and the user is associated with a department. Although the asset may not be directly associated with the department, the asset is reported as one of the department's assets.

The following table shows direct configuration item type associations. The configuration item type column presents the child (from) configuration item type, and the direct association column presents the parent (to) configuration item types.

Table A-2	Direct associations of configuration item types
-----------	---

Configuration item type	Direct association
Asset	Cost Center, Location, User, Department, and Asset.
Cost Center	Location and Manager (User).
Department	Cost Center, Location, and Manager (User).
Location	Cost Center and Manager (User).
User	Company, Department, Location, and Manager (User).

The following table shows indirect configuration item type associations, including the path for creating the association. The configuration item type column presents the child (from) configuration item type, and the indirect association column presents the parent (to) configuration item types.

Indirect associations of configuration item types Table A-3

Configuration item type	Indirect association
Asset	User > Company User > Department User > User
Department	Cost Center > User
Location	Cost Center > User
Manager	Existing Users can be specified as Managers .
User	Department > Cost Center Department > Location

Glossary

type	the data classes of the base configuration item type.
configuration item association	The relationship between various configuration item types.
configuration item association type	A component of a configuration item type that creates associations between configuration items and allows related data to be linked.
configuration item entry	The information about an asset that is entered into the CMDB (Configuration Management Database).
configuration item type	A predefined template that is used to enter information about configuration items such as assets and contracts into the database.
cost center configuration item	A component of C MDB (Configuration Management Database) Solution that is used to create a hierarchical structure of the cost centers in a company.
cost item	An expenditure that relates to or adds to the cost of an asset.
custom status value	The status value of an asset that is not predefined.
data class attribute	A component of a data class that defines the data that the data class stores.
data class attribute parameter	A component of a data class that specifies the characteristics of a data class attribute such as name, description, and maximum length of one attribute.
department configuration item type	An element of CMDB (Configuration Management Database) Solution that specifies a manager for the department.
department organizational type	An element of CMDB (Configuration Management Database) Solution that is used to add a company's departments into the CMDB. Each department is associated with a location, cost center, and a barcode that is used for physical audits.
organizational configuration item type	An element of CMDB (Configuration Management Database) Solution that supports a hierarchy for organizing the resources.
predefined configuration item type	A template that defines what data about a specific configuration item is created and stored.

base configuration item A basic component of a configuration item type. A configuration item type inherits

Index

A	custom configuration item association types
asset. See configuration item	adding 29
associations	creating 33
tracking 29	custom configuration item types
associations of configuration items	adding data class 33
tracking 29	creating 29-30, 32-33
	custom data classes
C	adding 29
CMDB Solution	creating 29-30
about 6	custom resource types
features 6	creating 29
settings 9	custom status values
CMDB Solution settings	configuring 24
configuring 9	
ownership 23	D
configuration item association types	data class attribute 30
about 33	data class attribute parameter 30
configuration item type associations	data classes
about 38	components 30
direct 38	creating 30
indirect 38	department configuration items
configuration item types	creating 15
about 36	departments
association type 33	creating 11, 15
creating 32	direct associations 38
customizing 29, 32	
predefined 36	F
configuration items	_
	edit views
creating 21, 24–25 custom statuses 24	creating 24
data entry 22	1
default values 22	indirect associations 38
maintenance tasks 26	
managing 21, 26	I
ownership settings 23	
contracts	location configuration items
associating to a vendor 33	creating 13
cost center configuration items	locations
creating 14	creating 11, 13
cost centers	
creating 11, 14	

M managing security 18
N network devices creating automatically 25
organizational configuration items creating structure 11 organizing 11 organizational groups configuring security permissions 19 managing security 18 permissions 18 privileges 18 security 18 security permissions 18–19 security role 19 organizational hierarchy updating 16 organizational hierarchy settings configuring 9 organizational hierarchy update configuring 9 organizational structure creating 11 setting up 11 ownership settings configuring 23
P predefined configuration item types 36
R resource. See configuration items Resource Association Diagram 29 resource association type. See configuration item association type
S security permissions configuring 19 security roles assigning 19

U

user configuration items about 16 users about 16 creating 11, 16