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- Read overviews about support services and programs that BMC Software offers.
- Find the most current information about BMC Software products.
- Search a database for problems similar to yours and possible solutions.
- Order or download product documentation.
- Report a problem or ask a question.
- Subscribe to receive email notices when new product versions are released.
- Find worldwide BMC Software support center locations and contact information, including email addresses, fax numbers, and telephone numbers.

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In the United States and Canada, if you need technical support and do not have access to the Web, call 800 537 1813 or send an email message to customer_support@bmc.com. (In the Subject line, enter SupID:<yourSupportContractID>, such as SupID:12345.) Outside the United States and Canada, contact your local support center for assistance.

Before contacting BMC Software

Have the following information available so that Customer Support can begin working on your issue immediately:

- Product information
  - Product name
  - Product version (release number)
  - License number and password (trial or permanent)

- Operating system and environment information
  - Machine type
  - Operating system type, version, and service pack
  - System hardware configuration
  - Serial numbers
  - Related software (database, application, and communication) including type, version, and service pack or maintenance level

- Sequence of events leading to the problem

- Commands and options that you used

- Messages received (and the time and date that you received them)
  - Product error messages
  - Messages from the operating system, such as file system full
  - Messages from related software
License key and password information

If you have a question about your license key or password, contact Customer Support through one of the following methods:

- E-mail customer_support@bmc.com. (In the Subject line, enter SupID:<yourSupportContractID>, such as SupID:12345.)
- In the United States and Canada, call 800 537 1813. Outside the United States and Canada, contact your local support center for assistance.
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The BMC Remedy Asset Management User’s Guide describes how to use the BMC Remedy Asset Management application to manage assets throughout your enterprise. BMC Remedy Asset Management is one of the BMC Remedy IT Service Management suite (BMC Remedy ITSM suite) applications, which also include:

- The BMC Remedy Change and Release Management applications.
- The BMC Remedy Service Desk solution (which includes the BMC Remedy Incident Management application and the BMC Remedy Problem Management application).

The applications run in conjunction with the BMC Remedy Action Request System platform (BMC Remedy AR System platform) and share a common database. The applications consume data from the BMC Atrium Configuration Management Database (BMC Atrium CMDB) application.

### Best Practice and New icons

Documentation for the BMC Remedy ITSM suite contains two icons.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
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<tr>
<td>![New Icon]</td>
<td>The New icon identifies features or products that are new or enhanced with version 7.5.00.</td>
</tr>
<tr>
<td>![Best Practice Icon]</td>
<td>The Best Practice icon highlights processes or approaches that BMC has identified as the most effective way to leverage certain features.</td>
</tr>
</tbody>
</table>
Audience

BMC Remedy Asset Management is intended for the following IT professionals:

- Approver
- Asset manager
- Configuration administrator
- Contract manager
- Financial manager
- IT director
- Purchasing agent
- Software asset manager

BMC Remedy IT Service Management suite documents

The following table lists the documentation available for BMC Remedy Asset Management 7.5.00. It also lists relevant documents for related solutions and products.

Unless otherwise noted, online documentation in Adobe Acrobat (PDF) format is available on product installation CDs, on the Customer Support website (http://www.bmc.com/support_home), or both.

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<th>Document provides</th>
<th>Audience</th>
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<td>BMC Remedy Asset Management 7.5.00</td>
<td></td>
<td></td>
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<tr>
<td>BMC Remedy ITSM Configuration Quick Start</td>
<td>A reference card to quickly install and configure applications in the BMC Remedy ITSM suite.</td>
<td>Administrators</td>
</tr>
<tr>
<td>BMC Remedy Asset Management User’s Guide</td>
<td>Procedures for using the BMC Remedy Asset Management application; includes new features and overview.</td>
<td>Everyone</td>
</tr>
<tr>
<td>BMC Remedy IT Service Management Concepts Guide</td>
<td>Conceptual overview of the applications that make up the BMC Remedy ITSM suite of applications.</td>
<td>Everyone</td>
</tr>
<tr>
<td>BMC Remedy IT Service Management Configuration Guide</td>
<td>Procedures for configuring the BMC Remedy ITSM applications.</td>
<td>Administrators</td>
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<tr>
<td>BMC Remedy IT Service Management Data Management Administrator’s Guide</td>
<td>Procedures for using the Data Management tool that is part of BMC Remedy ITSM suite.</td>
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<tr>
<td>Title</td>
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<tr>
<td><strong>BMC Remedy IT Service Management Guide to Multi-Tenancy</strong></td>
<td>Scenarios for implementing multi-tenancy. It also describes how multi-tenancy is implemented in the BMC Atrium CMDB product and how that implementation relates to multi-tenancy as implemented in the BMC Remedy ITSM applications.</td>
<td>Everyone</td>
</tr>
<tr>
<td><strong>BMC Remedy IT Service Management Release Notes</strong></td>
<td>Information about known issues in each release of BMC Remedy ITSM. Also provides a list of new features included with the applications.</td>
<td>Everyone</td>
</tr>
<tr>
<td><strong>Help</strong></td>
<td>Help for using BMC Remedy Asset Management, available by clicking Help in the product interface. Available from help links after help is installed.</td>
<td>Everyone</td>
</tr>
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</table>

### Other BMC Remedy IT Service Management 7.5.00 products

<table>
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<tr>
<th>Title</th>
<th>Document provides</th>
<th>Audience</th>
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<tr>
<td><strong>BMC Remedy Change Management User’s Guide</strong></td>
<td>Procedures for using the BMC Remedy Change Management application; includes new features and overview.</td>
<td>Everyone</td>
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### Solutions

<table>
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<tr>
<th>Title</th>
<th>Document provides</th>
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<tr>
<td><strong>BMC Dashboards for Business Service Management Getting Started</strong></td>
<td>Information about installing, configuring, and using BMC Dashboards for BSM.</td>
<td>Everyone</td>
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### BMC Atrium Core 7.5.00

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<td><strong>BMC Atrium CMDB Administrator’s Guide</strong></td>
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<td><strong>BMC Atrium CMDB Common Data Model Diagram</strong></td>
<td>Hierarchical diagram of all classes in the CDM, including unique attributes and applicable relationships.</td>
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<tr>
<td><strong>BMC Atrium CMDB Normalization and Reconciliation Guide</strong></td>
<td>Information about configuring and managing jobs that normalize and reconcile product information from data providers that is used to update the BMC Atrium CMDB.</td>
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<tr>
<td><strong>BMC Atrium Core Concepts and Planning Guide</strong></td>
<td>Information about BMC Atrium CMDB concepts and best practices for planning your BMC Atrium CMDB implementation.</td>
<td>Executives and administrators</td>
</tr>
<tr>
<td>Title</td>
<td>Document provides</td>
<td>Audience</td>
</tr>
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</tr>
<tr>
<td><strong>BMC Atrium CMDB User’s Guide</strong></td>
<td>Information about using BMC Atrium CMDB, including how to search for CIs and relationships, launch federated data, generate reports, and run reconciliation jobs.</td>
<td>Users</td>
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<tr>
<td><strong>BMC Atrium Discovery and Dependency Mapping 7.5.00</strong></td>
<td><strong>BMC Atrium Discovery and Dependency Mapping: Populating BMC Atrium CMDB</strong> Information about configuring a connection to BMC Atrium CMDB, synchronizing discovery data, and reconciling and maintaining the data.</td>
<td>Administrator</td>
</tr>
<tr>
<td><strong>BMC Configuration Automation for Clients 7.5.00</strong></td>
<td><strong>BMC Configuration Automation for Clients Configuration Discovery Integration for CMDB Implementation Guide</strong> Instructions about planning, installing, and configuring the Configuration Discovery integration. This guide also includes information about relationship classes and mappings, data exchanges, and reconciliation definitions.</td>
<td>Administrator</td>
</tr>
<tr>
<td><strong>BMC Remedy Action Request System 7.5.00</strong></td>
<td><strong>BMC Remedy Action Request System Concepts Guide</strong> Concepts for using the BMC Remedy Action Request System.</td>
<td>Administrators</td>
</tr>
<tr>
<td><strong>BMC Service Level Management 7.5.00</strong></td>
<td><strong>BMC Service Level Management Configuration Guide</strong> Procedures for configuring the BMC Service Level Management application.</td>
<td>Administrators</td>
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</table>
Chapter 1  Introducing BMC Remedy Asset Management

This section introduces you to BMC Remedy Asset Management. IT professionals can use BMC Remedy Asset Management to track and manage enterprise configuration items (CIs), the items they represent, and their changing relationships, throughout the entire CI lifecycle.

The following topics are provided:

- About BMC Remedy Asset Management (page 16)
- Using BMC Remedy Asset Management with other products (page 17)
- Installing and configuring BMC Remedy Asset Management (page 18)
- What’s new in BMC Remedy Asset Management 7.5.00 (page 19)
- Roles and their tasks (page 22)
About BMC Remedy Asset Management

BMC Remedy Asset Management helps reduce the total cost of ownership of items represented by your CIs and increases return on investment. The BMC Remedy ITSM suite integrates BMC Remedy Asset Management with BMC Remedy Service Desk (which contains the BMC Remedy Incident Management and BMC Remedy Problem Management applications), BMC Remedy Change Management, and BMC Service Level Management. BMC Remedy Asset Management offers the flexibility to support customized business processes.

BMC Remedy Asset Management provides the following capabilities:

- **Enhanced software license management automation**—Reduce software license overspending and non-compliance through greater accuracy in discovering, tracking, and reallocating software licenses. By automatically linking discovered software CIs to contracts, BMC Remedy Asset Management can report on license compliance. If BMC Remedy Change Management is installed, it can also facilitate license reallocation.

- **Contract management**—Track the status, type, terms, conditions, payments, and other information about lease, software, warranty, and maintenance contracts.

- **Blackout schedule**—Create schedules listing available or unavailable times for CIs.

- **Inventory management**—Specify, track, and manage individual CIs and bulk items.

- **Configuration management**—Define standard configurations, or setups, for different people or groups within a company, and maintain the status of the CIs within the configurations.

- **Lifecycle IT CI management**—Use best practices workflow to manage all phases of the IT CI management lifecycle from requisition, purchase and receipt, to installation and deployment.

- **Financial management**—Consolidate CI costs from procurement to disposition, and allocate and track costs to cost centers.

- **Requisition management**—Create purchase requisitions, manage the approvals of the requisitions, create purchase orders, and manage the receipt of items from suppliers and the creation of the associated CIs.
Using BMC Remedy Asset Management with other products

In a typical environment, you use BMC Remedy Asset Management with other products. For example, you might use a discovery product to populate BMC Atrium Configuration Management Database (BMC Atrium CMDB). Table 1-1 lists products that might be used in your environment.

Table 1-1: Products used with BMC Remedy Asset Management

<table>
<thead>
<tr>
<th>Product</th>
<th>Relationship with BMC Remedy Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMC Atrium CMDB</td>
<td>BMC Remedy Asset Management extends the BMC Atrium CMDB common data model. BMC Remedy Asset Management provides views of CIs that focus on the attributes applicable to managing your assets.</td>
</tr>
<tr>
<td>Discovery products, such as the following products:</td>
<td>Discovery products automatically populate BMC Atrium CMDB. BMC Remedy Asset Management is a consumer of data from discovery products. <strong>Note:</strong> If you are using the BMC Remedy Asset Management software license management feature together with BMC Configuration Automation CDI, you must use BMC Configuration Automation CDI patch 7.5.00.001 or later.</td>
</tr>
<tr>
<td>- BMC Configuration Automation for Clients Configuration Discovery Integration for CMDB (BMC Configuration Automation CDI)</td>
<td></td>
</tr>
<tr>
<td>- BMC Atrium Discovery and Dependency Mapping (BMC Atrium Discovery)</td>
<td></td>
</tr>
<tr>
<td>BMC Service Level Management</td>
<td>Agreements created in BMC Service Level Management can be tied to CI unavailability (outages). For example, an agreement can establish the maximum length of time that certain items can be unavailable and set penalties for breaching the agreement.</td>
</tr>
</tbody>
</table>
Installing and configuring BMC Remedy Asset Management

Application administrators use the Application Administration console to configure the BMC Remedy Asset Management application. They use this console to:

- Modify permissions and functional roles.
- Configure assignment rules.
- Define bulk CI reorder levels.
- Delete CIs duplicated during the reconciliation process.
- Configure the default depreciation method for a specific CI categorization.
- Configure who to notify when a CI is set to a specific status.
- Configure whether a CI is down or up depending on its status.
- Configure license management rules.
- Configure the priority of a CI unavailability record based on the unavailability class (Incident or Change), and type (scheduled or unscheduled).
- Configure the approval process for configurations.
- Create contract types and software license types.

Table 1-1: Products used with BMC Remedy Asset Management (Continued)

<table>
<thead>
<tr>
<th>Product</th>
<th>Relationship with BMC Remedy Asset Management</th>
</tr>
</thead>
</table>
| BMC Remedy Change Management | BMC Remedy Asset Management can initiate change requests to make sure that work is performed in the following areas:  
  - Purchasing—When you purchase an item requiring installation, you can generate a change request.  
  - Scheduled audits and maintenance—Change requests can be generated to assign and track the work.  
When BMC Remedy Change Management updates BMC Atrium CMDB, you can view the changes in BMC Remedy Asset Management. |
| BMC Remedy Service Desk       | Service desk analysts can record CI unavailability from incidents and can link incidents to CI unavailability. Service desk analysts and problem analysts can use information from BMC Remedy Asset Management to help diagnose incidents and problems. |
For information about installation and configuration of BMC Remedy Asset Management, see the *BMC Remedy IT Service Management Installation Guide* and the *BMC Remedy IT Service Management Configuration Guide*.

## What’s new in BMC Remedy Asset Management 7.5.00

This section describes what is new in BMC Remedy Asset Management 7.5.00, which includes:

- Contract management (page 19)
- Software license management (page 20)
- Documentation enhancements (page 20)
- Additional enhancements to BMC Remedy Asset Management (page 21)

### Contract management

Version 7.5.00 provides a new Contract Management console.

The ability to create parent-child relationships within contracts has been expanded, so that you can create relationships between any contracts. This ability is especially applicable to complex enterprise contracts. You can use a master contract to represent an overarching contract with a company for which you have additional related contracts. The related contracts can include software licenses, support contracts, and any other type of contract.

An application administrator can create new contract types.

For all contracts, the Status Reason and Terms fields have new values. For master contracts and software license management contracts, you can use the new Term Condition field when the selected term has an expiration.

New permissions are available for contract management:

- Contract Admin
- Contract Config
- Contract User
- Contract Viewer

New reports are available for contract management.

For more information about contracts and the Contract Management console, see Chapter 6, “Contract management.” For information about creating new contract types, see the *BMC Remedy IT Service Management Configuration Guide*. 
Software license management

BMC Remedy Asset Management helps you with software license management and compliance. For example, you can verify that your company has the legal right to use the software that it has and that purchased licenses are being used.

Version 7.5.00 introduces a new robust and extensible architecture for software license management. This version provides the following new features:

- Software Asset Management console
- License Engine, which connects CIs to software licenses and checks compliance of certificates
- Manage License Jobs console, from which you can manage license jobs that are processed by the License Engine
- Predefined license types, such as per instance licenses and site licenses
- The ability to create your own license types

New reports are available for software license management.

You can create licenses based on people using a product. People are created in BMC Remedy ITSM in the People form. The BMC_Person class in BMC Atrium CMDB is populated by BMC discovery products, such as BMC Configuration Automation for Clients CDI. To maintain a single source of people for software license management, people created in BMC Remedy ITSM in the People form are now reconciled into BMC Atrium CMDB in the BMC_Person class. The BMC_Person class is used by site licenses, and is available for license types that you create.

For more information, see Chapter 7, “Software license management,” and the BMC Remedy IT Service Management Configuration Guide.

Documentation enhancements

In addition to updates for new features in BMC Remedy Asset Management, this document includes the following enhancements:

- Roles are aligned with roles in BMC Service Management Process Model, which are consistent with IT Infrastructure Library® (ITIL®) best practices. This information is documented in “Roles and their tasks” on page 22.
- Information is available about the role of discovery products, because you are probably using discovery product to populate BMC Atrium CMDB. This information is documented in “Working with discovered CIs” on page 57.
- A troubleshooting section is provided for Software License Management. This information is documented in “Troubleshooting software license management” on page 177.
- Throughout this document, information is streamlined and consolidated. Although the 7.5.00 version of the BMC Remedy Asset Management User’s Guide documents significant new features, this version has fewer pages than the previous version of the guide.
Additional enhancements to BMC Remedy Asset Management

In addition, BMC Remedy Asset Management 7.5.00 includes enhancements in the following areas:

- CI unavailability
- CI user interface forms and relationships

**CI unavailability**

You can now record CI unavailability (outages) for the following additional CI types:

- Application Service
- Business Service
- Database
- LAN
- NT Domain
- WAN

**CI user interface forms and relationships**

BMC Remedy Asset Management provides new user interface forms for the BMC Atrium common data model (CDM) classes indicated in Table 1-2.

**Table 1-2: New CI-type-to-CDM-class mapping**

<table>
<thead>
<tr>
<th>CI type</th>
<th>CDM class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Collection</td>
<td>BMC_ConcreteCollection</td>
</tr>
<tr>
<td>Document</td>
<td>BMC_Document</td>
</tr>
<tr>
<td>Resource Allocation Setting Data</td>
<td>BMC_ResourceAllocationSettingData</td>
</tr>
<tr>
<td>Resource Pool</td>
<td>BMC_ResourcePool</td>
</tr>
<tr>
<td>Transaction</td>
<td>BMC_Transaction</td>
</tr>
<tr>
<td>Virtual System Setting Data</td>
<td>BMC_VirtualSystemSettingData</td>
</tr>
</tbody>
</table>

You can now create the following relationships between CIs:

- Impact
- Setting Of
The user interface for certain CI types were removed because their CDM classes were deprecated. If you have CIs for these CI types, during the upgrade of BMC Atrium CMDB, these CIs are moved to other CDM classes. Table 1-3 lists the removed CI types and the CI types that are now used for this information.

Table 1-3: CI type changes resulting from CDM class deprecation

<table>
<thead>
<tr>
<th>Removed CI type</th>
<th>CI type now used</th>
</tr>
</thead>
<tbody>
<tr>
<td>File System Share</td>
<td>Share</td>
</tr>
<tr>
<td>Local Printer</td>
<td>Printer</td>
</tr>
<tr>
<td>LPAR (logical partition)</td>
<td>Computer System</td>
</tr>
<tr>
<td>Virtual System</td>
<td>Computer System</td>
</tr>
<tr>
<td>VM Ware</td>
<td>Virtual System Enabler</td>
</tr>
</tbody>
</table>

In addition, the user interface forms for Sybase Database Server and Telnet Server have been removed, because their CDM classes are now provided only with BMC Atrium Discovery.

Roles and their tasks

The roles related to using BMC Remedy Asset Management generally encompass the responsibilities outline in the following sections. The roles in your organization might vary. For example, one person might fulfill several roles.

**IMPORTANT**

To define the permissions and functional roles for each of the following roles, review the *BMC Remedy IT Service Management Configuration Guide*.

BMC Remedy Asset Management includes the following roles:

- Approver
- Configuration administrator
- Contract manager
- Financial manager
- Purchasing agent
- Software asset manager
Roles and their tasks

Appraiser

Approvers use BMC Remedy Asset Management to perform the following tasks:

- Approve or reject requests for the acquisition of new items.
- Approve or reject proposed standard configurations.

An approver can be any person in your organization. This role uses the following permissions:

- Asset Viewer
- Incident Viewer
- Infrastructure Change Viewer
- Problem Viewer

Configuration administrator

Configuration administrators require an overall view of the CIs for which their support groups are responsible. Some organizations call this role an asset manager. For CIs for which their support group is responsible, configuration administrators perform the following tasks:

- Create purchase requisitions.
- After an item is ordered has been delivered, verify the condition and inform purchasing.
- Label items after they have been delivered.
- Keep CIs up-to-date.
- Maintain the information of external organizations that supply or support items.
- Maintain CI relationships. These relationships include the relationships between a CI and other CIs, its supplier, its contracts, and the service infrastructures that it is a part of.
- Manage inventory.
- Perform bulk updates.
- Create maintenance schedules and audit schedules for CIs.

This role uses the following permissions:

- Asset Admin
- Contract User
- Purchasing User
- Receiving User
Contract manager

Contract managers are responsible for managing IT contracts. This role uses the Contract Admin permission. Contract managers perform the following tasks:

- Create support, warranty, lease, maintenance, and software contract and license information.
- Relate the contracts to the applicable CIs.
- Maintain the contract data.
- Make sure that customers are renewing or renegotiating their contracts.

In some organizations, the contract manager also takes on the role of software asset manager.

Financial manager

Financial managers use BMC Remedy Asset Management to review cost information and prepare periodic charge-back and cost-recovery reports. This role uses the Cost Manager permission.

Purchasing agent

Purchasing agents who are not part of the IT organization might have access only to the Purchasing console. Purchasing agents who are part of the IT organization assume one or more additional roles and have access to the applicable consoles. The Purchasing console provides access to purchase requisitions and purchase orders. This role uses the Purchasing User permission. Purchasing agents perform the following tasks:

- Obtain quotes from suppliers for items that have been requested for purchase.
- Request approval for ordering items after the quotes from suppliers for these items have been collected.
- Submit purchase orders for items that have been approved for purchase.
- Update purchase line items after configuration administrators have confirmed the receipt of items for which purchase orders were submitted.

Software asset manager

Software asset managers are responsible for optimizing software assets and for managing compliance with software license contracts. They also evaluate usage of software licenses to make sure that the organization is not over-purchasing licenses.

This role uses the Asset Admin permission. This role can be fulfilled by the configuration administrator.
Chapter 2

Getting started

This section introduces you to BMC Remedy Asset Management and describes how to access the application. This section describes the Asset Management console and some of its features, some of which are common across the other BMC Remedy IT Service Management applications. This section also introduces the other consoles in BMC Remedy Asset Management.

The following topics are provided:

- Starting BMC Remedy Asset Management (page 26)
- Using the Asset Management console (page 27)
- Using the Overview console (page 45)
- Role-based consoles (page 49)
Starting BMC Remedy Asset Management

You can open the Asset Management console from your desktop or from a browser.

▶ To open BMC Remedy Asset Management from your desktop

1. If you are using Microsoft Windows XP, choose Start > Programs > BMC Software > AR System > BMC Remedy User.
2. In the User Name field, type your user name.
3. In the Password field, type your password.
4. If your administrator gave you a preference server name or an authentication string, enter this information.
   Click Options, and type this information in the Preference Server and Authentication fields.
5. Click OK. Several messages might appear during the login process.
   The BMC Remedy AR System IT Home page appears.
6. In the navigation pane on the left, click the Asset Management console link.

NOTE
This link appears only if BMC Remedy Asset Management is installed and you have permission to access the Asset Management console. If you do not see the link, contact your administrator.

The Asset Management console appears.

▶ To open BMC Remedy Asset Management from a browser

1. Type the following URL into your browser:
   http://webServer:port/arsys/forms/ARServer/Home Page
   where:
   - webServer is the fully qualified name of the BMC Remedy Mid Tier system, specified in the format server_name.company.com.
   - port is an optional port number. If the web server is not on the default port (port 80), you must specify the port.
   - ARServer is the name of the server on which BMC Remedy AR System was installed.
   For a list of supported browsers, see the compatibility matrix at the Customer Support web site (http://www.bmc.com/support_home).
2. Enter your user name and your password, then click Login.
3. When the IT Home page opens, click the Asset Management console link.
Using the Asset Management console

Use the Asset Management console to manage configuration items (CIs) within BMC Remedy Asset Management. This console is used by configuration administrators.

**TIP**

As you work with the forms and dialog boxes associated with this console and throughout BMC Remedy Asset Management, you might see a plus sign (+) included in a field label. You can type part of the information in these fields and press ENTER. If an exact match is located, the application automatically completes the field. If a selection list appears, double-click the appropriate item. Using auto-fill fields and lists is faster, more consistent, and more accurate than typing the information.

The following topics are provided:

- “Functional areas of the Asset Management console” on page 28
- “Using the functions on the Asset Management console” on page 31
- “Searching for CIs” on page 32
- “Broadcasting a message” on page 37
- “Changing datasets” on page 41
- “Performing bulk updates” on page 41
- “Modifying your application preferences” on page 44

For information about another major task that you can perform in this console, see “Adding work information” on page 72.
### Functional areas of the Asset Management console

Figure 2-1 illustrates the functional areas of the Asset Management console.

#### Figure 2-1: Asset Management console and its functional areas

Table 2-1 describes what you can do in each of the functional areas.

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Console tab</td>
<td>If the Flashboards tab is open, click the Console tab to return to the console. Use this tab to perform tasks from the Asset Management console.</td>
</tr>
<tr>
<td>Flashboards tab</td>
<td>Click the Flashboards tab to select and to view flashboards. The flashboards that appear in the Asset Management console represent, in graphical format:</td>
</tr>
<tr>
<td></td>
<td>- Computer system by status</td>
</tr>
<tr>
<td></td>
<td>- CI by type</td>
</tr>
</tbody>
</table>

---

*Note:* The diagram shows the Asset Management console banner, console header, configuration items (CIs) panel, navigation pane, and CI to CI relationship panel.
### Table 2-1: Asset Management console functional areas (Continued)

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asset Management console header</strong></td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td>You can filter the CIs by company.</td>
</tr>
<tr>
<td>CI Type</td>
<td>Select the type of CIs displayed in the Configuration Items (CIs) panel.</td>
</tr>
<tr>
<td>Dataset Name</td>
<td>Work with CIs in the selected dataset. For example, you might switch between working with CIs in the production dataset (BMC Asset) and the sandbox dataset (BMC.ASSET.SANDBOX). For more information, see “Changing datasets” on page 41 and “Using a sandbox dataset for CI data” on page 57.</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes the data in the tables.</td>
</tr>
<tr>
<td><strong>Navigation pane</strong></td>
<td></td>
</tr>
<tr>
<td>Broadcasts indicator</td>
<td>The broadcasts indicator displays the number of broadcast messages. Click the indicator to view and to create broadcast messages. For more information, see “Broadcasting a message” on page 37.</td>
</tr>
<tr>
<td>CI Counts</td>
<td>Indicates how many of the listed CIs have the following status values:</td>
</tr>
<tr>
<td></td>
<td>■ Down</td>
</tr>
<tr>
<td></td>
<td>■ Ordered</td>
</tr>
<tr>
<td></td>
<td>■ In Inventory</td>
</tr>
<tr>
<td></td>
<td>■ Deployed</td>
</tr>
<tr>
<td></td>
<td>CI counts reflect the filters—your selections for Company, CI Type, and Dataset Name. Using search definitions does not change the CI counts.</td>
</tr>
<tr>
<td>Search Definitions</td>
<td>Search using predefined searches, and manage your searches. For more information, see “Creating a custom search” on page 32.</td>
</tr>
<tr>
<td>Functions</td>
<td>Provides links to asset management functions. For more information, see “Using the functions on the Asset Management console” on page 31.</td>
</tr>
<tr>
<td>Consoles (not shown in Figure 2-1 on page 28)</td>
<td>Depending on your permissions and what other applications are installed, use these links to open:</td>
</tr>
<tr>
<td></td>
<td>■ Change Management console</td>
</tr>
<tr>
<td></td>
<td>■ Contract Management console</td>
</tr>
<tr>
<td></td>
<td>■ Incident Management console</td>
</tr>
<tr>
<td></td>
<td>■ Overview console</td>
</tr>
<tr>
<td></td>
<td>■ Problem Management console</td>
</tr>
<tr>
<td></td>
<td>■ Release Management console</td>
</tr>
<tr>
<td></td>
<td>■ Software Asset Management console</td>
</tr>
<tr>
<td></td>
<td>■ BMC IT Business Management</td>
</tr>
<tr>
<td><strong>Configuration Items (CIs) panel</strong></td>
<td></td>
</tr>
<tr>
<td>Create</td>
<td>Create a new CI. For more information, see “Creating CIs” on page 58.</td>
</tr>
</tbody>
</table>
### Table 2-1: Asset Management console functional areas (Continued)

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>View or modify the selected CI. For more information, see “Working with configuration items” on page 51.</td>
</tr>
<tr>
<td>Print</td>
<td>Print a report of the selected CI.</td>
</tr>
<tr>
<td>Show Work Info</td>
<td>When you access the Asset Management console from a browser, you can show or hide work information. When you access the Asset Management console from BMC Remedy User, work information is always displayed.</td>
</tr>
<tr>
<td>Hide Work Info</td>
<td></td>
</tr>
<tr>
<td>Explore CI</td>
<td>Use BMC Atrium Explorer to see a map of the relationships between the selected CI and related CIs. For more information, see “Exploring CI relationships” on page 64.</td>
</tr>
<tr>
<td>Related Services</td>
<td>See the list of business services that are affected by the selected CI.</td>
</tr>
<tr>
<td>CIs table</td>
<td>Lists CIs from the results of your search. When the console first opens, it displays deployed computer systems for all companies to which you have access.</td>
</tr>
<tr>
<td>Work Info table</td>
<td>Displays work information records for the selected CI. Use the Create and View buttons to create new work information records and to view details of the selected work information record.</td>
</tr>
<tr>
<td>CI to CI Relationship panel</td>
<td></td>
</tr>
<tr>
<td>Relationship Type</td>
<td>You can filter the Related CIs table for CIs with a specific relationship type, such as component.</td>
</tr>
<tr>
<td>Show</td>
<td>Select whether the Related CIs table displays CIs that are children or parents of the CI selected in the CIs table.</td>
</tr>
<tr>
<td>View</td>
<td>View or modify the related CI.</td>
</tr>
<tr>
<td>Show Work Info</td>
<td>When you access the Asset Management console from a browser, you can show or hide work information. When you access the Asset Management console from BMC Remedy User, work information is always displayed.</td>
</tr>
<tr>
<td>Hide Work Info</td>
<td></td>
</tr>
<tr>
<td>Related CIs table</td>
<td>Lists CIs related to the CI that you select in the CIs table.</td>
</tr>
<tr>
<td>Work Info table</td>
<td>Displays work information records for the selected related CI. Use the Create and View buttons to create new work information records and to view details of the selected work information record.</td>
</tr>
</tbody>
</table>
Using the Asset Management console

The Asset Management console provides access to asset management tasks. Table 2-2 describes the function links in the navigation pane.

**Table 2-2: Function links**

<table>
<thead>
<tr>
<th>Link</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage CIs</td>
<td>Create or search for CIs. For more information, see “Working with configuration items” on page 51.</td>
</tr>
<tr>
<td>Advanced CI Search</td>
<td>Perform a search of the BMC Atrium CMDB, based on CI type. For more information, see “Performing an advanced CI search” on page 33.</td>
</tr>
<tr>
<td>Manage Inventory</td>
<td>Create bulk items. Search for bulk items, nonbulk CIs, or CIs in inventory. For more information, see “Managing inventory” on page 213.</td>
</tr>
<tr>
<td>Manage Contracts</td>
<td>Open the Contract Management console. For more information, see “Contract management” on page 129.</td>
</tr>
<tr>
<td>Manage Software Asset</td>
<td>Open the Software Asset Management console. For more information, see “Software license management” on page 149.</td>
</tr>
<tr>
<td>Manage Configurations</td>
<td>Create new or manage current configurations. Also use to check inventory and create purchase requisitions. For more information, see “Using the configuration catalog” on page 219.</td>
</tr>
<tr>
<td>Manage Costs</td>
<td>Manage cost center and charge-back processes. For more information, see “Costing and charge-backs” on page 181.</td>
</tr>
<tr>
<td>Manage Bulk Updates</td>
<td>Perform bulk updates to CI and people information. See “Performing bulk updates” on page 41.</td>
</tr>
<tr>
<td>Schedules</td>
<td>Create or modify maintenance, audit, and review schedules. For more information, see “Creating a schedule” on page 84.</td>
</tr>
<tr>
<td>Purchasing</td>
<td>Open the Purchasing console to create or search for purchase requisitions and purchase orders. For more information, see “Requisition management” on page 99.</td>
</tr>
<tr>
<td>My Profile</td>
<td>Open your People Profile record. For more information, see the BMC Remedy IT Service Management Configuration Guide.</td>
</tr>
<tr>
<td>Application Preferences</td>
<td>Modify your console or Overview console preferences. For more information, see “Modifying your application preferences” on page 44.</td>
</tr>
<tr>
<td>Reminders</td>
<td>Create reminders for yourself or other members of your organization. For more information, see “Creating reminders” on page 43.</td>
</tr>
<tr>
<td>Reports</td>
<td>Generate reports on CIs, contracts, and so on. For more information, see “Reporting” on page 235.</td>
</tr>
<tr>
<td>Process Overview</td>
<td>Opens a picture of the process overview. If BMC Service Management Process Model, which provides an overview of IT Infrastructure Library (ITIL) best practice processes, is installed, the asset configuration management process opens to provide process guidance.</td>
</tr>
</tbody>
</table>
Searching for CIs

You might choose to search for CIs to view cost, unavailability, or other lifecycle information about particular CIs and the items that they represent. You can perform any of the searches listed in Table 2-3.

Table 2-3: Methods of searching for a CI

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Reference to instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predefined search</td>
<td>Quickly find CIs for which you frequently search. You can create custom searches.</td>
<td>“Creating a custom search”</td>
</tr>
<tr>
<td>Basic search</td>
<td>Use the basic search functionality to open a CI form, such as the Computer System form, in search mode.</td>
<td>“Performing a basic search” on page 33</td>
</tr>
<tr>
<td>Advanced CI search</td>
<td>Search for computer systems with specific components. For example, you can search for all computer systems running a specific patch or operating system.</td>
<td>“Performing an advanced CI search” on page 33</td>
</tr>
<tr>
<td>BMC Atrium CMDB advanced CI search</td>
<td>Use the BMC Atrium CMDB query dialog box to build complex searches.</td>
<td>“Using the BMC Atrium CMDB query dialog box to search for CIs” on page 35</td>
</tr>
</tbody>
</table>

Creating a custom search

You can define and save a custom search. After you save the custom search, it appears in the My Searches node of the Defined Searches list.

**NOTE**
The My Searches node appears only after you define a custom search.

You can also create custom searches on the Contract Management console and on the Software Asset Management console.

**To define a custom search**

1. In the Defined Searches section of the navigation pane, click Manage My Searches.
2. In the Search Name field, type a name for the search.
3. Click Build Search Qualification to open the Advanced Qualification Search Builder dialog box, and then define the search qualification.
4. From the Keywords or Fields selection boxes, select the keywords or record fields on which you want to search.
   
   To insert operators (+, =, >, <, and so on), click the appropriate operator button. Place literal values between double quotation marks. For example, to search for a CI where the urgency was not defined, you would construct the following search: 'Urgency' = $NULL$
5 Click Select to close the Advanced Qualification Search Builder, and then click Save.
6 Close the Manage My Searches dialog box.
   The search appears in the Defined Searches list, under the My Searches node.

**To edit the custom search**

1 In the Defined Searches section of the navigation pane, click Manage My Searches.
2 From the list of searches, select the search to modify, and then click Build Search Qualification.
3 Edit the search as required, and then click Select.
4 Click Save to save the edit.

**Performing a basic search**

Use the basic search functionality to open a CI form, such as the Computer System form, in search mode.

**To perform a basic search for CIs**

1 In the navigation pane of the Asset Management console, choose Functions > Manage CIs.
2 From the CI Type list, select a CI type, and click Search.
   The selected CI form appears in search mode.
3 Use the fields to specify your search criteria, and click Search.

**Performing an advanced CI search**

Use the advanced CI search to perform a search of the BMC Atrium CMDB, based on CI type. You can refine the search by providing more specific search criteria from a set of selection fields.

When you search the Computer System CI class, the advanced search feature provides a further set of search criteria that you can use to conduct searches at the component level. For example, you can search for all computer systems running a specific patch or for all computer systems running Windows 2000.

When you finish performing your search, the results appear in an on-screen table. You can generate and then print a high-level report of one or more of the CIs found during the search.

**To perform an advanced CI search**

1 In the navigation pane of the Asset Management console, choose Functions > Manage CIs.
2 In the Manage CI Information dialog box, click Advanced Search.
3 In the CI Advanced Search dialog box, select the applicable CI type.

For example, if you want to search for a LAN Endpoint, expand the Access Point menu item, and then select LAN Endpoint.

You can click Search to find all the items that match the selected CI type, or you can narrow the search by providing more specific search criteria. Continue with step 4 if you are providing more specific search criteria; otherwise, go to step 5.

--- TIP ---

Broad searches can take a long time to complete. They can also create performance issues for your system. BMC recommends that you provide more specific search criteria.

--- NOTE ---

If you selected a Computer System CI type, an extended list of specific search criteria appears that enables you to search at the system component level, as illustrated in Figure 2-2 on page 34.

--- Figure 2-2: CI Advanced Search dialog box, searching at the component level ---

4 In the Search Criteria for ciType area, provide the search criteria and then click Search.

To narrow your search results, provide as much information in this area as possible.
To perform a task on one of the CIs, in the CI Search Results table, locate and then select the appropriate CI.

Perform one or more of the tasks described in the following table.

<table>
<thead>
<tr>
<th>Task</th>
<th>Step or steps to perform the task</th>
</tr>
</thead>
<tbody>
<tr>
<td>View the details of a specific CI.</td>
<td>Click View. The CI form opens with the details of the selected CI.</td>
</tr>
<tr>
<td>View related CIs.</td>
<td>Click Explore CI. BMC Atrium Explorer appears, with the details of the related CIs.</td>
</tr>
<tr>
<td>Create a high-level report.</td>
<td>1 Click CI Report. A window appears containing a high-level report of the selected CIs. 2 To print the report, click the print icon in the report window. A copy of the report is sent to your system's default printer.</td>
</tr>
</tbody>
</table>

**Using the BMC Atrium CMDB query dialog box to search for CIs**

Use the BMC Atrium CMDB query dialog box to build complex searches. You can specify multiple classes and attributes, and group search conditions. For example, you can search for all computer systems in Houston or London that are running Microsoft Windows XP.

When you use the BMC Atrium CMDB query dialog box, you interact directly with BMC Atrium CMDB. Note the following elements:

- **CI class**—CI types in BMC Remedy Asset Management correspond to CI classes.
- **Attribute**—Fields on the BMC Remedy Asset Management CI forms correspond to attributes. Most attributes are the same or similar to the field names on BMC Remedy Asset Management CI forms. Some attributes do not appear as fields on BMC Remedy Asset Management CI forms, because they are not relevant to asset management.

For information about using and creating searches in the BMC Atrium CMDB query dialog box, see the *BMC Atrium CMDB User’s Guide*.

**To use the BMC Atrium CMDB query dialog box to search for CIs**

1 In the navigation pane of the Asset Management console, choose Functions > Advanced CI Search.
2 In the BMC Atrium CMDB query dialog box, click the New icon.
3 In the Query dialog box, click the Query Criteria tab.
   Figure 2-3 on page 36 displays the Query dialog box with a query that is being constructed for computer systems in a location.
4 Double-click a CI class to search, such as BMC_ComputerSystem.
In the list of search conditions, use the drop-down menus to create one or more search conditions for that class:

a. Optionally, select the check box and type a label for the condition. If you save this search, whenever you run the search, you are prompted with this label. You might choose to use the attribute name, or you might choose a more descriptive label. For example, if you are building a query for a computer system in a location, you might create labels of “Server Name” and “Location,” for the two name attributes.

b. Select an attribute.

c. Select an operator.

d. Enter a value.

e. If you want to add another search condition, select AND or OR.

f. Use the search condition buttons to arrange and group conditions.
To include a relationship between CI classes:

a. In the list of chosen classes and relationships, click the drop-down arrow for a CI class and select a relationship class.

b. From the list of unselected CI classes, select the related CI class.

c. In the list of search conditions, use the drop-down menus to create one or more search conditions for the new class.

For example, you might query for all computer systems with Microsoft XP by building a query that includes the BMC_ComputerSystem CI class, the BMC_HostedSystemComponents relationship class, and the BMC_OperatingSystem CI class.

7. Repeat step 4 through step 6 until you have added all the classes and conditions necessary for the search.

8. To run the search, and to make sure that the search returns expected values, click Preview.

9. To view the results in the display pane, click Copy & Close.

**Broadcasting a message**

Use broadcast messages to share timely information across the IT organization and to customers. For example, if an outage is scheduled for a CI, you could broadcast an announcement of the outage. Service desk analysts would see the broadcast message from the Incident Management console, and would be aware of the outage when customers report incidents. If you set the broadcast message with public view access, then customers would see the broadcast message from the Requester console.

While viewing broadcast messages, you can perform several tasks. If you belong to an authorized authoring group, you can create a new broadcast message or modify a message. If you are viewing the message from a record, you can relate the broadcast message to that record.

When viewing a broadcast from either the Incident Management console or the Incident form, you can create a new incident from the broadcast. If the broadcast was created from a problem investigation, CI unavailability, or another incident, the application asks whether you want to relate the new incident to the originating record.

▶ **To create a new broadcast**

1. Open the Asset Management console and click the broadcasts indicator.

   **NOTE**

   To create a new broadcast from a CI, click View Broadcast.

2. In the View Broadcasts dialog box, click Create.

   To create a broadcast, you must have the functional role of Broadcast Submitter. See the *BMC Remedy IT Service Management Configuration Guide* for details.
3 In the New/Modify Broadcasts form, enter information in the required fields. Specify the following information on the Broadcast Details tab.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>Select the company to which this broadcast pertains. Only users with access to this company see the broadcast. To send the broadcast to everyone, select Global from the Company list. The Company field is mandatory. If you complete the other location fields, however, you can indicate a specific part of the company. For example, you can specify the site, organization, or department.</td>
</tr>
<tr>
<td>Subject</td>
<td>A short description of what the broadcast is about.</td>
</tr>
<tr>
<td>Broadcast Message</td>
<td>The text of your message.</td>
</tr>
<tr>
<td>Broadcast Type</td>
<td>Select a broadcast type from the list.</td>
</tr>
<tr>
<td>Broadcast Start Date</td>
<td>To start the broadcast now, click the Broadcast Start Date field, and press ENTER. To select a date from the calendar, next to the date field, click Browse. Use the calendar to select the start date and end dates of the broadcast. You can also specify times of the day using the Time feature at the bottom of the calendar.</td>
</tr>
<tr>
<td>Broadcast End Date</td>
<td></td>
</tr>
<tr>
<td>Broadcast Originated From</td>
<td>This field is completed by the system. The contents depend on where you are creating the broadcast. For example, if you broadcast from an incident, this is set to Incident.</td>
</tr>
<tr>
<td>Broadcast Originated From ID</td>
<td>This field is filled in by the system, but only when you create a broadcast from within a record. If you create a broadcast from the main console, the field appears disabled.</td>
</tr>
</tbody>
</table>
To add an attachment to the broadcast message, right-click inside the table and select Add from the menu.

In the Add Attachment dialog box, indicate the file to attach. Click Open to attach the indicated file. You are limited to one attachment for each broadcast.

To allow members of another group to modify the message, perform the following steps:

a. Click the Authoring Groups tab.

b. Click Manage Authoring Groups.

c. In the Authoring Group dialog box, indicate the group that you want to have authoring rights by selecting from the menus. When you finish, click Add.

The support group you belong to appears in the table. You can indicate another group, or click Close to dismiss the dialog box.

Click Save.

The Broadcast appears in the Broadcast table.
To view broadcast messages

1. You can view broadcast messages from the following locations:
   - From the Asset Management console, click the broadcasts indicator.
   - Open a CI, and then in the navigation pane, choose Quick Links > View Broadcast. The View Broadcasts dialog box appears. Select the message you want to view from the broadcast messages table. The Broadcast Details tab displays the details of the selected broadcast.

   **Figure 2-5: View Broadcasts dialog box—from a CI**

   ![View Broadcasts dialog box](image)

   **NOTE**

   When you are viewing broadcast messages from the Asset Management console, the dialog box does not include search fields.

   When you view broadcast messages from the current CI, the list include all the broadcast messages. This list is not limited to the broadcast messages related to the current CI.

2. To view another message, perform either of the following steps:
   - When viewing from the main console, close the View Broadcasts dialog box, select the broadcast message you want to view from the table, then click View.
   - When viewing from the current record, click the message you want to view from the table. The message details appear.
Changing datasets

A dataset is a collection of CIs that are identified by a unique name.

CIs can be discovered by a discovery tool or manually entered. In either situation, the CIs are likely to be put into one of the following datasets in the BMC Atrium CMDB:

- BMC Asset—The default production dataset.
- BMC.ASSET.SANDBOX—The default sandbox dataset. For information about the sandbox dataset, see “Using a sandbox dataset for CI data” on page 57.
- BMC Configuration Import—Data from BMC Configuration Automation for Clients.
- BMC Impact Production—Data that is modeled in BMC Service Impact Manager.
- BMC Topology Import—Data from BMC Atrium Discovery and Dependency Mapping.
- Third-party dataset—You might have other datasets from third parties.

You can change the dataset in which you are working by selecting it from the Dataset Name list on the Asset Management console.

For more information about working with data in the BMC Atrium CMDB, see the BMC Atrium CMDB User’s Guide.

Performing bulk updates

You can use the bulk update feature in BMC Remedy Asset Management to modify CIs that require many concurrent changes. You can perform many-to-one or one-to-many bulk updates. You cannot perform many-to-many bulk updates.
Relating people through bulk updates

You can use the bulk update feature to relate people to CIs.

To relate people through a bulk update

1 In the navigation pane of the Asset Management console, choose Functions > Manage Bulk Updates.

2 In the Manage Bulk Updates dialog box, in the CI Search Criteria area, specify your search criteria, and click Search.

3 In the People Search Criteria area, specify your search criteria, and click Search.

4 From the CI Search Results table, select the CIs you want to relate to a person. Or, select one CI to relate to several people.

5 From the People Search Results table, select the people records that you want to relate to a CI. Or, select one person to relate to several CIs.

6 From the Role list, select the role you want the person or people, who are assigned to this CI, to perform.

7 Click Relate.

8 In the confirmation message, click OK.
Updating CI locations through bulk updates

You can use the bulk update feature to update CI locations.

**TIP**

The software license management feature requires that the Company field is completed for software CIs. If you are managing site licenses, you must complete the Site field for computer system CIs. If these fields are not completed by your discovery products, you can use the bulk update feature to update the Company and Site fields in bulk.

---

**To update CI locations through bulk updates**

1. In the navigation pane of the Asset Management console, choose Functions > Manage Bulk Updates.
2. In the Manage Bulk Updates dialog box, in the CI Search Criteria area, specify your search criteria, and click Search.
3. From the table, select all the CIs for which you want to change a location, and click Update CI Location.
4. In the Relocate CIs dialog box, from the Company, Region, Site Group, and Site lists, select a new location for the CIs you selected.
5. Click Save.
6. In the confirmation message dialog box, click Yes.

Creating reminders

A reminder is similar to a BMC Remedy AR System notification. For a reminder, however, you can define the content of a reminder and specify when to send it.

**To create a reminder**

1. In the navigation pane of the Asset Management console, choose Functions > Reminders.
2. In the Reminders dialog box, click the Create Reminder tab.
3. From the Notify list, select whether you want to notify an individual or a group.
4. In the Recipient field, specify the name of the person or group you want to send the reminder to.
5. In the Time field, specify the time and date you want the reminder to be sent. The time and date must be in the future.
6. In the Message field, specify the text you want in the reminder.
7. Click Save.
Modifying your application preferences

You use the Application Preferences link to modify the default search criteria on the Asset Management console to search for CIs. You can also modify your preferences so that the following types of information appear by default on the Overview console.

To modify your preferences

1. In the navigation pane of the Asset Management console, choose Functions > Application Preferences.

   **Figure 2-7: Application Preferences form**

2. In the Application Preferences form, from the console View list, select whether you want the console View to open in Personal view. The personal view displays all tickets assigned to you. This selection applies only to BMC Remedy Incident Management users.

3. Click the Asset Management tab.

4. Modify your preferences.

5. Click Save.
Using the Overview console

Use the Overview console if you must respond to, manage, or track individual or group work assignments from a variety of sources. For example, if your company runs the full BMC Remedy ITSM suite, either you or the group you manage might receive work assignments from BMC Remedy Incident Management, BMC Remedy Problem Management, and BMC Remedy Change Management. From the Overview console, you can quickly get information about all your work assignments and perform the procedures that you use most often.

This section includes the following topics:
- Functional areas of the Overview console (page 45)
- Console List table (page 47)
- Selecting status values (page 48)

Functional areas of the Overview console

Figure 2-8 illustrates the functional areas of the Overview console.

Figure 2-8: Overview console and its functional areas
Table 2-4 describes what you can do in each of the functional areas.

**Table 2-4: Overview console functional areas**

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview console header</strong></td>
<td></td>
</tr>
<tr>
<td>Company and View By</td>
<td>This area contains two fields: Company and View By. These fields combine to provide a way that you can indicate the company name and the assigned-to categories used to filter the records in the Console List table.</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes the data in the tables.</td>
</tr>
<tr>
<td><strong>Navigation pane</strong></td>
<td></td>
</tr>
<tr>
<td>View Broadcast, or New Broadcast</td>
<td>Opens the broadcast dialog box, from where you can view, create, modify, and delete broadcast messages. When there are unread broadcast messages, this area displays a message: New Broadcasts, followed by the number of new messages. When there are new broadcast messages, the area also turns red. See “Broadcasting a message” on page 37. Note: If you open the Overview console with no new broadcast messages, but the View Broadcast link is red, open the Application Preferences dialog box and make sure that a Console View preference has been selected. For information about how to view and select Console View preference, see “Modifying your application preferences” on page 44.</td>
</tr>
<tr>
<td>Functions</td>
<td>Use the links in this area to do the following actions:</td>
</tr>
<tr>
<td><img src="image" alt="Select Status Values" /></td>
<td>See only those records in a certain state, which you specify from the Select Status Values dialog box. See “Selecting status values” on page 48.</td>
</tr>
<tr>
<td><img src="image" alt="My Profile" /></td>
<td>View your profile.</td>
</tr>
<tr>
<td><img src="image" alt="Application Preferences" /></td>
<td>Set your application preferences and options. This function is also available from the BMC Remedy Asset Management console. See “Modifying your application preferences” on page 44.</td>
</tr>
<tr>
<td>Consoles</td>
<td>Depending on your permissions and what other applications are installed, use these links to open:</td>
</tr>
<tr>
<td><img src="image" alt="Asset Management console" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Change Management console" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Contract Management console" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Incident Management console" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Problem Management console" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Release Management console" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Software Asset Management console" /></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="BMC IT Business Management" /></td>
<td></td>
</tr>
<tr>
<td><strong>Console List panel</strong></td>
<td></td>
</tr>
<tr>
<td>Quick Actions</td>
<td>To print the selected record, select the Print action from the menu.</td>
</tr>
<tr>
<td>View</td>
<td>Displays a form containing detailed information about the selected record in the Console List table.</td>
</tr>
<tr>
<td>Create</td>
<td>Creates a new record. For an example, see “Creating purchase requisitions” on page 105.</td>
</tr>
</tbody>
</table>
### Console List table

The Console List table lists different types of requests. The types of requests that you can choose from depend on the applications that are installed.

A specific prefix identifies each type of request:

- **CRQ**—Identifies change requests. To view and define change requests, BMC Remedy Change Management must be installed.

- **RLM**—Identifies release requests. To view and define release requests, BMC Remedy Change Management must be installed.

- **TAS**—Identifies tasks.

- **SDB**—Identifies solution database entries. To view and define solution entries, BMC Remedy Service Desk must be installed.

- **INC**—Identifies incidents. To view and define incidents, BMC Remedy Service Desk must be installed.

- **PBI**—Identifies problems. To view and define problems, BMC Remedy Service Desk must be installed.

- **PKE**—Identifies known errors. To view and define known errors, BMC Remedy Service Desk must be installed.

- **PR**—Identifies purchase requisitions. To view and define purchase requisitions, BMC Remedy Asset Management must be installed.

### Company and View By filters

You can also change the table’s contents by using the Company and View By filters at the top of the console:

- **Company**—Shows records associated with a particular company (useful in a multi-tenancy environment).

---

**Table 2-4: Overview console functional areas (Continued)**

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search For Ticket</td>
<td>Opens a dialog box from which you can select the type of ticket you are searching for. After you select the type of record from the menu, click the Select button to open a search form specific to the type of ticket. For an example, see “Searching for purchase requisitions” on page 105. Note: To see activity records and CI unavailability records, you must search for those tickets, because these records are not displayed in the Console List table.</td>
</tr>
<tr>
<td>Console List table</td>
<td>Lists the different types of requests. See “Console List table.”</td>
</tr>
</tbody>
</table>
View By—Shows records that either are assigned to you or to your support groups, according to the following table.

<table>
<thead>
<tr>
<th>View By filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>Displays records assigned to you.</td>
</tr>
<tr>
<td>Selected Groups</td>
<td>Prompts you to select any support groups to which you belong. You can select to display all records assigned to your group, or records assigned to your group that are not yet assigned to an individual.</td>
</tr>
<tr>
<td>All My Groups</td>
<td>Displays records assigned to all your support groups. You can choose to display all records, or records that are not yet assigned to an individual.</td>
</tr>
</tbody>
</table>

If there are more entries than the system can show in the table, perform one of the following actions to see more entries.

<table>
<thead>
<tr>
<th>When using BMC Remedy User</th>
<th>When using a browser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place the pointer in the table and right-click, and then choose Next or Prev to see the next grouping of entries.</td>
<td>Use the arrow keys at the top corner of the table to scroll through the table.</td>
</tr>
</tbody>
</table>

**Selecting status values**

You can use the Select Status Values dialog box to filter the requests that appear in the Overview console based on their status.

To select status values

1. From the navigation pane, choose Functions > Select Status Values.
2. In the Select Status Values dialog box, select the status values for each category from the lists, then click OK to close the dialog box.
3. If the Assigned Work table does not refresh with the filtered records, click Refresh to reload the table’s contents.
Role-based consoles

Depending on your role, you might have access to one or more of the consoles listed in Table 2-5. You can access these consoles from the navigation pane of the BMC Remedy AR System IT Home page.

Table 2-5: Role-based consoles

<table>
<thead>
<tr>
<th>Console</th>
<th>Used by</th>
<th>Purpose</th>
<th>For more information, see</th>
</tr>
</thead>
</table>
| Purchasing            | • Configuration administrators  
                      • Purchasing agents | • Create purchase requisitions  
                      • Place purchase orders  
                      • Price purchase requisitions  
                      • Access approval console  
                      • Run reports               | “Requisition management” on page 99                                         |
| Approval              | Anyone with permission to approve a purchase requisition  
                      | • Approve or reject purchase requests  
                      • If BMC Remedy Change Management is installed, approve or reject change requests  
                      • Access Approval Central  
                      • View or create reminders | “Requisition management” on page 99                                         |
| Receiving             | Configuration administrators                  | • Receive and return items from suppliers  
                      • View purchase orders       | “Requisition management” on page 99                                         |
| Contract Management   | Contract Managers                            | Create and manage contracts                                              | “Contract management” on page 129               |
| Software Asset Management | Software Asset Managers          | • View software license compliance  
                      • Manage software license certificates  
                      • Manage jobs that automatically attach CIs to license certificates | “Software license management” on page 149       |
This section describes how to create, track, and work with configuration items (CIs).

The following topics are provided:

- Overview of a CI (page 52)
- Categorizing CIs (page 55)
- Setting the company and location of a CI (page 55)
- Providing access to a CI for multiple companies (page 56)
- Using a sandbox dataset for CI data (page 57)
- Working with discovered CIs (page 57)
- Creating CIs (page 58)
- Viewing CI audits (page 63)
- Exploring CI relationships (page 64)
- Using BMC Atrium Impact Simulator (page 65)
- Creating relationships in a topology (page 68)
Overview of a CI

A configuration item (CI) represents any component of an infrastructure. For example, a CI can represent a hardware component or software component, a service, an inventory location, and a network (LAN or WAN). CIs can vary widely in complexity, size, and type, from representing an entire system to representing a single component.

Configuration administrators use the CI forms to create CIs and track them throughout their lifecycle. Throughout the CI lifecycle, configuration administrators manage costs, software licenses, and contracts. They schedule resources and perform other activities.

CIs and other BMC products

Discovery products, such as BMC Configuration Automation for Clients and BMC Atrium Discovery and Dependency Mapping (BMC Atrium Discovery) can populate CIs in BMC Atrium Configuration Management Database (BMC Atrium CMDB). You can use BMC Remedy Asset Management to manually create or update CIs.

Users of BMC Remedy Incident Management, BMC Remedy Problem Management, or BMC Remedy Change Management use the information in CIs. This information helps them to diagnose user problems. They can use this information to determine whether a change to a CI or the IT infrastructure is required.

For example, a user calls in with a printing problem. A staff member using BMC Remedy Incident Management can check a printer CI to see whether the printer is down or in repair. Or, for example, your change manager determines that an operating system must be upgraded on certain computers. That manager can relate those CIs to the related change request.

For more information, see the BMC Remedy Service Desk: Incident Management User’s Guide or the BMC Remedy Change Management User’s Guide.
Overview of the CI form

This section describes the different functions available from a CI form.

The CI form contains the following areas:

- **Navigation pane**—Use the quick links in the navigation pane to page or to email contacts, run reports, view broadcast messages, create blackout schedules, and so on.

- **CI Information**—Use this area to specify general information about the CI and the item that it represents. For example, you can specify the CI name, status, and number of users affected by the item. You can specify the impact, and urgency that apply when the item goes down.

- **CI tabs**—Use these tabs to perform additional activities. You can relate contracts and configurations. You can add cost, schedule, outage, and return information. You can track work and can update areas impacted by this CI. For more information, see “Leveraging secondary CI features” on page 71.

Figure 3-1: Computer System form
When you use BMC Remedy Asset Management to create a new CI, you can perform some tasks before you save the CI. After you save it, or when you open a CI, you can perform additional tasks. For example, when you create a new Computer System CI, you see only the tabs listed in Table 3-1.

**Table 3-1: CI tabs displayed before you save the CI**

<table>
<thead>
<tr>
<th>Tab</th>
<th>Purpose</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Categorize your CIs and specify location and lifecycle information.</td>
<td>“Creating CIs” on page 58</td>
</tr>
<tr>
<td>Specifications</td>
<td>Specify additional information about the item, for example, environment information and network information.</td>
<td>“Creating CIs” on page 58</td>
</tr>
<tr>
<td>Financials</td>
<td>Specify costs associated with owning the item.</td>
<td>“Working with costs” on page 82</td>
</tr>
<tr>
<td>Impacted Areas</td>
<td>If the item goes down, use this tab to add areas that might be affected.</td>
<td>“Performing additional functions on the CI form” on page 96</td>
</tr>
<tr>
<td>Work Info</td>
<td>Add tasks that you perform against the current CI or the item that it represents.</td>
<td>“Adding work information” on page 72</td>
</tr>
</tbody>
</table>

*Note: You can also access this feature from the navigation pane.*

When you open a CI, depending on the CI type, you might see the additional tabs listed in Table 3-2.

**Table 3-2: CI tabs displayed after you save the CI**

<table>
<thead>
<tr>
<th>Tab</th>
<th>Purpose</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracts</td>
<td>Relate contracts to a CI. For software product CIs, release a software license certificate to a CI.</td>
<td>“Relating a contract to a CI” on page 145</td>
</tr>
<tr>
<td>People</td>
<td>Relate people to a CI.</td>
<td>“Relating people, organizations, and groups to CIs” on page 73</td>
</tr>
<tr>
<td>Relationships</td>
<td>Relate CIs to other CIs.</td>
<td>“Working with related items” on page 77</td>
</tr>
<tr>
<td>Relationship details</td>
<td>Display components related to a computer system CI, such as memory, operating system, and products.</td>
<td>“Viewing relationship details for a computer system CI” on page 77</td>
</tr>
<tr>
<td>Outage</td>
<td>Add outage information about a CI.</td>
<td>“Creating outage information” on page 88</td>
</tr>
</tbody>
</table>

NEW
Categorizing CIs

The CI categorization model is based on the classes in the BMC Atrium CMDB. CIs are direct views into those classes. You leverage the product categorization in BMC Remedy Asset Management to further categorize and define the CIs in a BMC Atrium CMDB class.

CIs are categorized using a five-tier categorization structure, which includes the product name and product version. The fourth tier, product name, determines the manufacturer.

NOTE
The following fields and structure correlate directly with the CI data fields in BMC Atrium CMDB.

Figure 3-2: Product Categorization area

Setting the company and location of a CI

The location structure is a hierarchy of Company, Region, Site Group, and Site. Define location data on the Company and Site configuration forms, as described in the BMC Remedy IT Service Management Configuration Guide. After you define the data, you can specify it on CIs, as illustrated in Figure 3-3.

If you are using software license management, you must specify the company for software CIs. If you do not specify the company, the CI will not be related to a software license certificate. Other fields might be required for some license types; for example, the Site field is required for matching with a site license.
Location information is specified at the company level. To the user, the value in the Company field on a CI determines what selection data appears in the Location lists and fields.

## Providing access to a CI for multiple companies

To separate data for multiple companies or multiple business units, use the Company field. Users can access data only for companies for which they have access. To see the data for a specific company that you have the permission to view, select the company from the list.

In a multi-tenancy environment, users can access a CI only if one of the following conditions is met:

- The user belongs to the same company as the CI.
- On the People tab, you create a “Supported by” or “Used by” relationship to a people organization. The user is a member of the same company as the people organization.
- The user has unrestricted access to all companies.

If multiple companies access an item, such as a printer, you can use the Company field to indicate the company with primary responsibility for the CI. You can relate the CI to the other companies. For instructions on relating CIs, see “Working with related items” on page 77.
Using a sandbox dataset for CI data

When multiple sources update BMC Atrium CMDB, there must be some control on how that data is updated. Without control, BMC Atrium CMDB can become loaded with unintended data. BMC Atrium CMDB and BMC Remedy Asset Management provide an underlying mechanism to control how your production data is updated. This mechanism is the sandbox dataset.

BMC Remedy Asset Management is installed with the sandbox dataset set to BMC.ASSET.SANDBOX and the production dataset set to BMC ASSET.

An administrator defines what sources of updates have the most appropriate information to load into the production data, and can disable the sandbox. The *BMC Remedy IT Service Management Configuration Guide* describes this procedure.

The user does not make changes directly to production data, unless the sandbox is disabled. When a user modifies data, the data flows through a temporary storage area (the sandbox dataset), and then runs through the Reconciliation Engine. The Reconciliation Engine determines which modified attributes to also modify into the production data.

**IMPORTANT**

During reconciliation, some updates might not get updated in the production dataset. The system can be configured to treat another data source as a higher precedence than the data being entered through BMC Remedy Asset Management. If two data sources make updates, the data source with the highest precedence determines the production dataset.

Depending on whether your system is configured with a sandbox dataset, the CI creation process varies slightly.

- If your system is configured with a sandbox dataset, CIs that you create or modify flow through the sandbox dataset. While this is happening, a dialog box appears. You can choose to wait until the data has been reconciled, or move on to the next CI.
- If your system does not have a sandbox dataset, CI data goes directly into the production dataset.

Working with discovered CIs

Discovery products automate the process of populating BMC Atrium CMDB. When these products discover IT hardware and software, they create CIs and relationships from the discovered data.

For example, you might use BMC Configuration Automation for Clients or BMC Atrium Discovery to populate BMC Atrium CMDB. BMC Configuration Automation for Clients can discover CI types such as computer system, processor, operating system, and software product. BMC Atrium Discovery can discover CI types, such as computer system, cluster, application, and business service.
When data providers, such as discovery products, put data into BMC Atrium CMDB, this data is partitioned into separate datasets. The Reconciliation Engine component of BMC Atrium CMDB reconciles these datasets into a consolidated production dataset that you use as the single source of reference for your IT environment.

The Reconciliation Engine identifies CIs for reconciliation from discovery products and from BMC Remedy Asset Management, merges the identified records to the production dataset based on a precedence value, and purges obsolete configuration data from the production dataset. The production dataset is named BMC Asset.

Data consumers, such as BMC Remedy Asset Management, read data from the production dataset. You can use BMC Remedy Asset Management to view, modify, and work with the discovered CIs. You can also use BMC Remedy Asset Management to create CIs that are not discovered, as described in “Creating CIs” on page 58.

**IMPORTANT**

BMC discovery products populate key CI fields so that CIs can be uniquely identified during reconciliation. If you create a CI that might later be discovered, you must enter values in these fields that match the values populated by discovery products. For example, the CI Description field can be used during reconciliation to identify a CI. Failure to enter this data correctly can result in duplicate CIs. For information about how BMC discovery products identify CIs, see the BMC Atrium Discovery and Dependency Mapping: Populating BMC Atrium CMDB guide and the BMC Configuration Automation for Clients Configuration Discovery Integration for CMDB Implementation Guide.

**Creating CIs**

To create a CI, you must have Asset Admin permissions. If you have Asset User permissions, you can modify a CI only if the CI is related to your Support Group. Your administrator (or any person with Asset Admin permissions) can related the CI to your Support Group.

You specify information about each of your CIs and the items that they represent by using forms for different CI types, such as:

- Computer System
- Bulk Inventory

Most CI forms contain similar fields; the only difference is how you categorize the CI. The following two examples show how to create a CI for two different CI types. The procedure is similar for other CI types.

For a description of CI types and their relationships, see “CI and relationship types” on page 243.
When you save a CI and the sandbox is enabled, the new or modified CI is stored in the sandbox dataset until the Reconciliation Engine runs and moves it into the production dataset. Until the Reconciliation Engine runs, you can see your changes in the sandbox dataset only.

Creating a Computer System CI

Follow this procedure to create a Computer System CI.

To create a Computer System CI

1. In the navigation pane of the Asset Management console, choose Functions > Manage CIs.
2. In the Select a CI Type dialog box, choose System > Computer System, and click Create.

At the top of the Computer System form, specify general information. Bold field names indicate required fields. You must specify information into these fields before you can save the CI.

Figure 3-4: Computer System form
3 In the CI Name field, specify a name for the CI.

When creating a CI name, follow a consistent naming convention. According to IT Infrastructure Library (ITIL) guidelines, identifiers should be short but meaningful, and for hardware, not based on supplier device names. For example, the name might include an indicator of the item’s function followed by a numeric code, such as MONITOR100.

4 In the CI ID field, type a unique alphanumeric value for the CI.

5 Specify whether the item is supported by selecting Yes or No from the Supported list.

This field provides information for your records.

6 From the Company list, select the company to which this item belongs.

For more information about this field, see “Providing access to a CI for multiple companies” on page 56.

7 From the Primary Capability and Capability List fields, select or type the roles this item performs in your company’s topology.

8 Select a status from the Status list.

The default value is Deployed. You can select one of the following options.

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received</td>
<td>The item represented by the CI was received in shipping.</td>
</tr>
<tr>
<td>Being Assembled</td>
<td>The item is being assembled.</td>
</tr>
<tr>
<td>In Repair</td>
<td>The item is down for maintenance.</td>
</tr>
<tr>
<td>Down</td>
<td>The item is down, but not yet in maintenance.</td>
</tr>
<tr>
<td>End of Life</td>
<td>The item is no longer being deployed.</td>
</tr>
<tr>
<td>Transferred</td>
<td>The item was transferred to another location.</td>
</tr>
<tr>
<td>Delete</td>
<td>The CI is marked for deletion.</td>
</tr>
<tr>
<td>In Inventory</td>
<td>The item is in inventory but not yet deployed.</td>
</tr>
<tr>
<td>On Loan</td>
<td>The item is on loan to another location.</td>
</tr>
<tr>
<td>Ordered</td>
<td>The item has been ordered but is not yet available.</td>
</tr>
<tr>
<td>Disposed</td>
<td>The item is no longer available and was disposed of.</td>
</tr>
<tr>
<td>Reserved</td>
<td>The item was reserved and taken out of inventory.</td>
</tr>
<tr>
<td>Return to Vendor</td>
<td>The item must be returned to the vendor as damaged or unwanted.</td>
</tr>
</tbody>
</table>

9 Select the impact, urgency, and priority that apply when this item goes down (becomes unavailable).

10 In the Users Affected field, specify the number of people who use this item. Alternatively, specify the number of users who are affected when the item goes down.
11 Complete the other fields in this area.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tag Number</td>
<td>The CI tag number. This number is usually placed on the product by a member of your IT department to track the CI.</td>
</tr>
<tr>
<td>Serial Number</td>
<td>The item’s serial number.</td>
</tr>
<tr>
<td>Part Number</td>
<td>The item’s part number.</td>
</tr>
<tr>
<td>System Role</td>
<td>The role this item plays in your company.</td>
</tr>
<tr>
<td>Status Reason</td>
<td>The reason for the current CI status.</td>
</tr>
</tbody>
</table>

12 Click the General tab.
13 Use the Tier fields to categorize the item, as described in “Categorizing CIs” on page 55.
14 In the Location area, use the lists and fields to specify the location of the item.
15 Specify the dates of the CI in the Lifecycle area.
16 Click the Specifications tab.
17 Add additional information about the CI and the item that it represents.
18 Click Save.
19 If you see a message instructing you to complete additional fields, which might be necessary for this particular CI, do so.

**Creating a Bulk Inventory CI**

You create Bulk Inventory and Inventory Location CIs from the Select a CI Type dialog box. After you create these records, you manage your bulk item quantities and your storage locations from the Manage Inventory form.

For more information, see “Managing inventory” on page 213.

**To create a Bulk Inventory CI**

1 In the navigation pane of the Asset Management console, choose Functions > Manage CIs.
2 In the Select a CI Type dialog box, choose Bulk Inventory > Bulk Inventory, and click Create.
3 Click Create.
In the Bulk Inventory form, use the Tier fields to categorize the item, as described in “Categorizing CIs” on page 55.

Specify the number of bulk inventory items in the Received Quantity field.

Click Save.

Adding bulk inventory to a storage location

After you create your bulk inventory records, add them to an inventory location.

To add your bulk inventory to an inventory location

1. Create a Bulk Inventory CI and save it, as described in “Creating a Bulk Inventory CI” on page 61.
2. Click the Inventory Location tab.
3. Click Add.
4. In the Search Inventory Locations dialog box, specify your search criteria, and click Search.
5. From the Results List table, select a location and click Relate.

A message appears stating that the selected inventory location has been related to the bulk inventory record.

6. Click OK, and then click Close.
7 In the Bulk Inventory form, click the Quantity per Location column and specify the bulk item quantity you want in this location.

![Figure 3-6: Bulk item quantity on the Inventory Location tab](image)

8 Click Save.

### Viewing CI audits

You can view the following types of CI audits:

- Notification audits, which provide a log of notifications sent about a CI.
- BMC Atrium CMDB audit, which shows information about the creation and modification of a CI.

#### Viewing a notification audit of a CI

You can see an audit log of notifications related to a CI.

▶ **To view a notification audit of a CI**

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Functions > Notification Audits.
3. In the CI Notification Audits dialog box, select an audit, and click View.

#### Viewing a BMC Atrium CMDB audit of a CI

The BMC Atrium CMDB audit shows information about a selected CI, as stored in BMC Atrium CMDB. The audit includes the date that the CI was created, the user ID of the creator, the date it was last modified, and so on.

For example, Allen Allbrook, a configuration administrator at Calbro Services, thinks that the data for a computer system might be inaccurate. He wants to view the audit history of the CI so that he can see all the modifications to this computer system during its history. He can investigate why the data is no longer accurate.
For more information about BMC Atrium CMDB audits, see the BMC Atrium CMDB User’s Guide.

To view a BMC Atrium CMDB audit of a CI

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Functions > CMDB Audits.
3. In the View Instance History form, select a history entry, and click View.

   The data displayed in the CMDB DefaultAuditLog form depends on how the form is configured. By default, Name, Status, Region, Site Group, and Site are displayed. An administrator can configure more fields to audit, as described in the BMC Atrium CMDB Administrator’s Guide.

Exploring CI relationships

BMC Atrium Explorer shows a map of the relationships between the selected CI and related CIs. To view relationships at all levels throughout your environment, you can traverse this map from one CI to another. For example, the selected CI might be a computer system that is related to a printer. You might traverse the map to see how that printer is related to other computer systems. BMC Atrium Explorer shows the relationship between the computer system, printer, and other computer systems.

To explore CI relationships

1. Open the Asset Management console.
2. From the Configuration Items (CIs) table, select the CI, and click Explore CI.

   BMC Atrium Explorer opens, displaying the selected CI. Other related CIs might be displayed, depending on the CI types and relationships.
Using BMC Atrium Impact Simulator

You can use the BMC Atrium Impact Simulator application to determine how a change to the availability of an item represented by a CI affects other items. For example, you can run a simulation in BMC Atrium Impact Simulator to learn what devices and applications in the network would be affected if you took a server offline.

You can also use BMC Atrium Impact Simulator to plan for disaster recovery. You can run simulations to determine where the network is weakest, and plan accordingly.
BMC Atrium Impact Simulator uses the impact relationships that you create between CIs. For information about creating relationships, see “Working with related items” on page 77.

When you run a simulation, you can specify an impact state for each CI in the simulation. Table 3-3 lists the states that you can select in BMC Atrium Impact Simulator.

**Table 3-3: Impact states in BMC Atrium Impact Simulator**

<table>
<thead>
<tr>
<th>BMC Atrium Impact Simulator state</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slightly Impaired</td>
<td>The item is delivering services normally, but some problem might affect it.</td>
</tr>
<tr>
<td>Impaired</td>
<td>The item’s delivery of service is slightly affected.</td>
</tr>
<tr>
<td>Very Impaired</td>
<td>The item’s delivery of service is affected.</td>
</tr>
<tr>
<td>Unavailable</td>
<td>The item has a failure and is unable to deliver service.</td>
</tr>
</tbody>
</table>

When you run a simulation, BMC Atrium Impact Simulator uses these states and the impact relationships defined between CIs to predict the corresponding impact on the items that they represent. For example, a simulation that includes a server with an impact state of Unavailable might return several related CIs that are predicted to be unavailable as a result of the unavailable server. However, an Impaired server in that same simulation might return impacted CIs that are predicted to be only Slightly Impaired.

Priorities can help you understand the problems that you should address first if you were to make the changes that you simulated. For example, a simulation might reveal that if a server were to fail, email and payroll services might be disabled. The computed priority for these services would help you decide which service to restore first.

If you have BMC Remedy Change Management installed, you can open a new change request directly from BMC Atrium Impact Simulator. Similarly, if you have BMC Remedy Service Desk installed, you can open a new incident request. This enables you to take immediate action if the results of an impact simulation are acceptable. For information about change requests, see the *BMC Remedy Change Management User’s Guide*. For information about incident requests, see the *BMC Remedy Service Desk: Incident Management User’s Guide*.

For more information about BMC Atrium Impact Simulator, see the *BMC Atrium CMDB User’s Guide*. 
Functional areas of the BMC Atrium Impact Simulator console

Figure 3-8 illustrates the functional areas of the BMC Atrium Impact Simulator console.

Table 3-4 describes what you can do in each of the functional areas.

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cls for Simulation</strong></td>
<td></td>
</tr>
<tr>
<td>CIs for Simulation table</td>
<td>This table contains the CIs that you select for simulation. The left column contains the Set CI’s State for Simulation field. Use this field to assign an impact state to the CI in the table.</td>
</tr>
<tr>
<td>Add CI</td>
<td>Click to search for one or more CIs to add to the table.</td>
</tr>
<tr>
<td>Remove CI</td>
<td>Click to remove the selected CI from the table.</td>
</tr>
<tr>
<td>Simulate Impact</td>
<td>Click to run an impact simulation for the CIs in the table.</td>
</tr>
<tr>
<td><strong>Results</strong></td>
<td></td>
</tr>
<tr>
<td>Results in Topology</td>
<td>Shows the results of a simulation as a topology, including any impact relationships between the CIs. An icon on each CI image represents the predicted impact state for each CI, based on the simulation criteria.</td>
</tr>
<tr>
<td>Results in Table</td>
<td>Shows the results of a simulation as a table. The Predicted State column indicates the expected impact for each CI. To list only impacted service CIs, click Show Services. To list all impacted CIs, click Show All Results.</td>
</tr>
<tr>
<td>Save Simulation</td>
<td>Save the simulation. Saved simulations can be loaded and compared.</td>
</tr>
</tbody>
</table>
Running an impact simulation

Use this procedure to simulate the impact that a change to one or more items has on other items.

**To run an impact simulation**

1. Open BMC Atrium Explorer and display one of the CIs that you are including in the simulation, as described in “Exploring CI relationships” on page 64.
2. Right-click the CI and choose Simulate Impact from the context menu.
3. To add more CIs to the simulator, perform the following steps in the BMC Atrium Simulator:
   a. Click Add CI.
   b. In the Query window, run a query to return the CIs that you want to include in a simulation.
      For more information about searching for CIs, see “Using the BMC Atrium CMDB query dialog box to search for CIs” on page 35.
   c. In the results list, select one or more CIs to include in a simulation, and click OK.
4. In the CIs for Simulation area of the BMC Atrium Impact Simulator console, select a CI, and then select an impact state in the Set CI’s State for Simulation field.
   Repeat this step until every CI in the CIs for Simulation area has the impact state that you want to simulate.
5. Click Simulate Impact.
6. View the results of the simulation on the Results in Table and Results in Topology tabs.
7. To save the simulation, complete the following steps:
   a. Click Save Simulation.
   b. In the dialog box, enter a name for the simulation.
   c. Provide a description of the simulation, such as its purpose, and the source CIs used in the simulation.
   d. Click OK.

Creating relationships in a topology

This section discusses how to use the network topology feature in BMC Remedy Asset Management. You can use this feature to create relationships between the networked items in your organization. You can also use this feature to track network information and system information about those items.
Using network topologies to diagnose problems

Service desk staff can view the relationships between CIs in a network topology to diagnose problems. For example, a user might call about a problem with a network printer. The specialist can view the network topology to identify the network printer. The specialist can then determine whether the problem is with the network printer or another problem. The specialist can make this determination by searching for tickets that are related to the CI. The tickets might indicate whether the item is down or in repair.

Network topologies can also be useful during the planning and risk assessment phases of a change request. For example, a change request comes in that requests an operating system upgrade for several application servers. The change manager or configuration administrator views the network topologies of these computer systems. The topologies indicate which computers or users would be affected by the change.

Relating CIs in a network topology

To arrange CIs in a network topology, relate them to connectivity segments or IP connectivity subnets. You can relate the following CI types to segments and subnets in a peer-to-peer relationship:

- Computer System
- Mainframe
- Printer

You can use your discovery tool (for example, BMC Configuration Automation for Clients or BMC Atrium Discovery) to discover these CIs, segments, or subnets, or you can create them manually. Then you can relate the connectivity segments and subnets to a CI.

To relate connectivity segments and subnets to a CI

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Advanced Functions > Topology.
3. In the Topology Relationships Form, from the Show Related list, select Connectivity Segment or IP Connectivity Subnet, and click Relate.
4. In the message that appears, click OK.
5. In the CI Search dialog box, specify your search criteria, and click Search. You can use the Advanced Search field to perform an advanced search.
6. Select the connectivity segment or IP connectivity subnet you want to relate.
7. From the Relationship Type list, select the relationship of this segment or subnet to the CI.
8. Click Relate. The Topology Relationships form reappears with the records in the table.
Next, you can relate other Computer System, Mainframe, or Printer CIs to the segments or subnets.

To relate other CIs to connectivity segments or subnets

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Advanced Functions > Topology.
   The Topology Relationships form appears.
3. From the Show Related list, select Connectivity Segment or IP Connectivity Subnet.
4. From the CI Type list, select the system you want to relate to the current connectivity segment or subnet.
5. Click Relate.
6. In the CI Search dialog box, specify your search criteria, and click Search.
7. Select the system you want to relate, and click Relate.
   The Topology Relationships form reappears with the records in the table.
Chapter 4 Leveraging secondary CI features

This section describes secondary tasks that you can perform from a configuration item (CI) Information form. Chapter 3, “Working with configuration items” describes the primary tasks.

The following topics are provided:

- Adding work information (page 72)
- Relating people, organizations, and groups to CIs (page 73)
- Working with configurations (page 75)
- Working with related items (page 77)
- Working with costs (page 82)
- Working with maintenance schedules and audit schedules (page 83)
- Creating outage information (page 88)
- Creating a blackout schedule (page 92)
- Performing additional functions on the CI form (page 96)

For information about contracts and software license certificates related to CIs, see the following sections:

- “Relating contracts to CIs” on page 143
- “Determining which CIs use a license certificate” on page 173
- “Manually managing CIs attached to a license certificate” on page 174
- “Manually managing CIs attached to a license certificate” on page 174
Adding work information

You use the Work Info tab on the CI Information form to add information about tasks performed on the current record. For example, you might want to add work information about the following topics:

- **General Information**—Notes about the record. For example, you might want to add a note that a particular CI was deployed, and include the date.
- **Implementation Plan**—Notes about a plan to implement a global change throughout your organization.
- **Costing and Charging**—Additional information about the cost of the current CI, incident, change, or so on. For example, if you split the cost of maintaining a CI between two cost centers, you might add a note here. You might also add a note to indicate that the cost to implement a change came under budget.

You can find more options available from the Work Info Type list on the Work Info tab.

To add work information

1. From the Asset Management console, view a CI record, and click the Work Info tab.

2. Complete the following fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Info Type</td>
<td>Select the type of work information that you want to add.</td>
</tr>
<tr>
<td>Source</td>
<td>Select the source of this information. For example, you can indicate whether the information was received through an email, was a system assignment, or was a request received over the web.</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>Specify the details of your work information record.</td>
</tr>
</tbody>
</table>
Relating people, organizations, and groups to CIs

You can relate people, organizations, and support groups, to CIs. You might need to relate CIs to people that either manage, support, or own the CI. For example, if you set up a new salesperson with a laptop, you can assign that person to the laptop. When you relate the salesperson, you can keep track of who uses the laptop. And, if you know the support group responsible for repairing laptops, you might also relate that support group to the laptop.

In a multi-tenancy environment, users can access a CI record only if one of the following conditions is met:

- The user belongs to the same company as the CI.
- On the People tab, you create a “Supported by” or “Used by” relationship to a people organization. The user is a member of the same company as the people organization.
- The user has unrestricted access to all companies.

People with Asset Admin permission can modify any CI that they can access. People with Asset Viewer permission can view any CI that they can access, but they cannot modify CIs.

People with Asset User permission can perform the following tasks:

- If they belong to a Support Group that has a “Supported by” role for the CI, they can modify the CI.
- They can view, but not modify, any other CI that they can access.

### Field name | Description
--- | ---
Attachments | To add an attachment, perform the following steps:
1. Right-click in the attachment table, and choose Add.
2. From the Add Attachment dialog box, select a file, and click Open.
Locked | To lock the log, select Yes.
**WARNING**
If you select Yes, you cannot modify the work log after you save it.
View Access | This field is available on all work info records. For records that are displayed on the Requester console, selecting External makes the records available on the Requester console. CI records, however, are not displayed on the Requester console.

3. To add the information to the Work Info History table, click Save.

4. To see a report of the tasks that you performed against this record, click Report.
You can relate more than one person, organization, or group to a CI. You can also relate different people or groups to the same CI, with different roles. For example, you can relate a printer to users of the marketing and engineering groups. You can set the printer as owned by the marketing group and managed by the printer support group.

To relate a person, organization, or group to a CI

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the People tab, and click Add.
3. In the Select Type dialog box, select the type of contact; then search for and select the contact as described in the following table.

<table>
<thead>
<tr>
<th>Type of contact</th>
<th>Steps to select the contact</th>
</tr>
</thead>
</table>
| People                | 1. In the Type list, select People, and click OK. The Primary Contact option buttons become enabled.  
                          | 2. To make this person the primary contact for the CI, select Yes, and click OK.  
                          | 3. In the People Search dialog box, search for the person.  
                          | 4. Select the person that you want to relate, and click Select.  |
| People organization   | Use People organization to relate people by their company, organization, or department.  
                          | 1. In the Type list, select People Organization, and click OK.  
                          | 2. In the Organization Search dialog box, search for the organization or department.  
                          | 3. Select a record from the results table and choose a relationship level.  
                          | The relationship level defines which people are related to the CI.  
                          | For example, you can related a CI at the company level. Therefore, if you are an employee of that specific company, you are related to that CI. |
| Support group         | Note: To create a CI, you must have Asset Admin permissions. If you have Asset User permissions, you can modify a CI only if it is related to your support group. Your administrator (or any person with Asset Admin permissions) can relate the CI to your support group.  
                          | 1. In the Type list, select Support Group, and click OK.  
                          | 2. In the Support Group Relationships dialog box, search for the support group.  
                          | 3. Select the support group that you want to relate, and click Select. |

4. In the Select Role dialog box, select the role the person, organization, or group performs in relation to the CI, and click OK.

The related record appears on the People tab on the CI Information form.
Working with configurations

Configuration administrators define configurations as sets of CIs that are required by different groups of people in the company. For example, the configuration for support agents might include a computer, monitor, keyboard, mouse, and printer.

If a CI belongs to a configuration, to view details about the configuration, click the Configuration link from the navigation pane. This link opens the Configuration Information dialog box. You can also add a new configuration to replace the current one.

Viewing configuration information

If the CI that you are working with belongs to a configuration, you can view details about it on the Configuration dialog box.

To view configuration information for a CI

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Functions > Configuration.

The Configuration Information dialog box appears. If the CI belongs to a specific configuration, information about the configuration appears in read-only fields.

![Figure 4-2: Configuration Information dialog box](image)

3. To see a categorization comparison of CIs to items in the configuration, click View Differences.
4. To check the inventory for an item in the configuration, perform the following steps:
   a. Click Check Inventory.
   b. In the Manage Configurations dialog box, select the item and click Check Inventory.
   c. In the Configuration Information dialog box, view the items in inventory.
Adding a configuration to a CI

If a configuration does not appear in the Configuration tab, you can add the configuration for the CI. The configuration administrator or application administrator usually creates configurations.

**NOTE**

A CI can be related to only one configuration. If you add a new configuration, it replaces the current configuration.

To add a configuration to a CI

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Functions > Configuration.
3. In the Configuration Information dialog box, click Add.
   
   If the CI already belongs to a configuration, a warning message appears.

   **Figure 4-3: Searching for Configurations dialog box**

4. In the Searching for Configurations dialog box, specify your search criteria, and click Search.
5. Select a configuration, and click Relate.

   Information about the new configuration appears on the Configuration tab.
Working with related items

A CI can be related to other CIs. For example, the monitor, mouse, and keyboard CIs can be related to a computer system CI as components. If you are using a BMC discovery product, the discovery product can create the relationships when it populates BMC Atrium CMDB.

When a CI or relationship is not discovered, you can manually create the relationship. When you relate a CI or service to another CI, you must define the relationship type between the two records. For a description of each relationship type, see “CI and relationship types” on page 243.

If the applicable application is installed, you can also relate incidents, problems, known errors, solution database entries, and change requests to the current CI. For example, if an incident or change request affects the availability of a CI, you can relate it to the CI.

You can use the Quick Action field to create new relationships or to modify relationships.

Viewing relationship details for a computer system CI

When you open a computer system CI, you can view the details of the following related components:

- BIOS element
- Card
- Disk drive
- IP endpoint
- LAN endpoint
- Memory
- Network port
- Operating system
- Patch
- Processor
- Product

To view relationship details

1. Open a computer system CI, as described in “Searching for CIs” on page 32.
   You can use the advanced search feature to locate a computer system with specific components.
2. Click the Relationship Details tab.
3 From the tree view, select the category of the CI that you want to view.
   The related CIs that belong to that category appear in the table.

4 View either a detailed description or a summary of the related CI, as described in the following table:

<table>
<thead>
<tr>
<th>To view...</th>
<th>Perform the following steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>A detailed description of</td>
<td>1 Select the related CI from the table.</td>
</tr>
<tr>
<td>the related CI</td>
<td>2 Click View.</td>
</tr>
<tr>
<td></td>
<td>The CI information form refreshes with the details of the selected CI.</td>
</tr>
<tr>
<td>A summary of the related CI</td>
<td>1 In the tree view, expand the category of the related CI that you want to view.</td>
</tr>
<tr>
<td></td>
<td>A list of the related components appears beneath the category heading.</td>
</tr>
<tr>
<td></td>
<td>2 From the list, select the component that you want to view.</td>
</tr>
<tr>
<td></td>
<td>The table is replaced with a view that contains high-level information about the component.</td>
</tr>
</tbody>
</table>
Creating records from the Relationships tab

You can use the Relationships tab to create records to relate to the current CI.

**NOTE**

Only users with a permission of Asset Admin can relate one CI to another. If the applicable application is installed, users with a permission of Asset User can relate CIs to incidents or other records.

To create a record from the Relationships tab

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Relationships tab.

**Figure 4-5: CI Information form—Relationships tab**

3. To see relationships to the current CI, select an option from the Show Related list.
4. From the Request Type list, select the type of record you want to relate.
5. If you selected Asset Record, select a CI type from the CI Type list.
   For a description of each CI type, see “CI and relationship types” on page 243.
6. Click Create.
   The dialog box or the form that appears depends on your selection. If you select Asset Record, the Select Relationship Type dialog box appears.
7. From the Relationship list, select the relationship between these two CI records, for example, Component.
8. Click OK.
9. In the Select Relationship Type dialog box, from the Show list, select Parent or Child.
   a. To set the related CI as a parent of the current CI record, select Parent.
   b. To set the related CI as a child of the current CI record, select Child.
10. Click OK.
In the new CI Information form, complete the required fields, and click Save.

In the Show Related field of the Relationships tab of the CI, select the appropriate item, and click Search.

If the selection criteria for the table includes the CI that you related, it appears in the Current Relationships table.

Relating records to CIs

You can relate records to the current CI from the Relationships tab.

To relate a record

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Relationships tab.
3. From the Request Type list, select the type of record you want to relate.

**NOTE**

Depending on which BMC Remedy applications you have installed, you might see more than one option in the Request Type list. For example, if you have BMC Remedy Incident Management installed, you can select to relate an incident or a CI from this list.

4. If you selected Asset Record, select a CI type from the CI Type list, and click Search.

A search dialog box appears for the type of record you want to relate. Depending on your selections, a CI Search dialog box might appear.

Figure 4-6: CI Search dialog box
5 Specify your search criteria, and click Search.
6 Select one or more records from the table.
7 From the Relationship Type list, select the relationship between the records.

**NOTE**
What appears in the Relationship Type list depends on the type of record you are relating. The list is different for a known error in BMC Remedy Problem Management, an infrastructure change in BMC Remedy Change Management, and so on.

8 Click Relate.

In this example, a Select Relationship Type dialog box appears. Select a value and click OK.

The record that you related appears in the Current Relationships table of the CI record.

### Using relationship quick actions

You can perform various quick actions, as described in Table 4-1, depending on the record type of the selected related record.

<table>
<thead>
<tr>
<th>Quick action</th>
<th>Applicable record type</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore CI</td>
<td>CI</td>
<td>Explore the CI and its relationships to other CIs. For details, see “Exploring CI relationships” on page 64.</td>
</tr>
<tr>
<td>Get Related Relationships</td>
<td>Incident, Problem, Known error, Solution database entry, Change request</td>
<td>Pull relationships from the selected records to the current CI.</td>
</tr>
<tr>
<td>Modify Relationship Type</td>
<td>Incident, Problem, Known error, Solution database entry, Change request</td>
<td>Modify the relationship between the selected record and the current CI.</td>
</tr>
<tr>
<td>Show Related Services</td>
<td>CI</td>
<td>See the list of business services that are affected by the selected CI.</td>
</tr>
</tbody>
</table>

#### To use a relationship quick action

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Relationships tab.
Figure 4-7: CI Information form—Relationships tab

3 To show another related record type, select the appropriate type from the Show Related list, such as Incidents.

4 Select a record.

5 From the Quick Action list, select the action, and click Execute.
The quick action is performed.

Working with costs

A CI record can include information about related expenses, such as contract costs, total cost of ownership (TCO), and depreciation. Use the Financials tab to view, add, modify, or delete costs for a CI.

To work with costs, you must have one of the following permissions:

- Asset Admin, which maps to the cost manager permission.
- Asset User, which maps to the cost user permission.
- Asset Viewer, which maps to the cost viewer permission.

For information and procedures for defining roles and their permissions, see the BMC Remedy IT Service Management Configuration Guide.

Adding costs

Use the Financials tab to add total cost of ownership (TCO) information about a CI.

To add TCO information to a CI

1 Open a CI, as described in “Searching for CIs” on page 32.

2 Click the Financials tab.

If available, information appears about the costs associated with this CI. For example, when someone at Calbro Services looks at a laptop that was purchased and received by using BMC Remedy Asset Management, the Financials tab displays the cost from the purchase order.
In the Cost/Entries area, click Add.

4 In the Costs dialog box, add information to the Cost Center Code, Cost Category, Related Cost, and the other related cost fields.

**NOTE**

When you compute the Total Purchase Cost and exclude the price, the currency for the Unit Price or Sales Tax fields on the Financials tab require a currency ratio. Otherwise, a warning message appears.

5 Click Save.

The cost appears on the Financials tab on the CI Information form.

---

### Working with maintenance schedules and audit schedules

You can set up schedules that notify IT or asset management personnel when maintenance and audits for CIs are necessary. For example, an IT technician might perform routine maintenance on all the printers in a company once every six months. The maintenance tasks can include changing the toner and checking for printer driver updates. You can create a maintenance schedule that notifies the technician when to begin maintenance tasks. After completing the maintenance tasks, the technician changes the status of the schedule to Completed.

**NOTE**

If you have BMC Remedy Change Management installed, you can select a change template. When the maintenance schedule comes due, this change template is used to create the change request. The change request is then assigned to a technician to complete the maintenance.
You can create an audit schedule to perform periodic audits. Perform audits to check for differences between the information in the CI database and the CIs that are deployed in the company. For example, to schedule a quarterly audit of the CIs at a site, relate the audit schedule to all the CIs at that location. You can also set up a review schedule to review the configuration of CIs.

After you create a schedule, you can relate the schedule to a CI. When you no longer need a schedule, you can remove the schedule from the CI.

You work with schedules in the Schedule Criteria form. You can open this dialog box from the Asset Management console or from the Schedule tab on the CI Information form.

Creating a schedule

You create maintenance schedules and review schedules in the Schedule Criteria form. For example, Calbro Services has a high-speed high-volume network printer on each floor of their offices. These printers require maintenance every six months. The configuration administrator sets up a maintenance schedule for each of these printers.

To create a schedule

1. On the Asset Management console, from the navigation pane, choose Functions > Schedules.
2. In the Schedule Information dialog box, click New Schedule.

Figure 4-9: Schedule Criteria form
3 In the Schedule Criteria form, from the Schedule Type list, select the appropriate schedule type.

- **Audit Schedule**—You can create only one audit schedule for each CI. If you create a new audit schedule for a CI that already has an audit schedule, the current audit schedule is deleted.

- **Maintenance Schedule**—Use this to establish a periodic maintenance schedule. If necessary, you can create several maintenance schedules for a CI. For example, for the printers at a site, you can set up one schedule for changing the toner and another schedule for restocking the paper.

- **Review Schedule**—Use this to establish periodic review of configurations. For more information about review schedules, see “Generating a review schedule” on page 229.

4 Specify information about the schedule:

   a For Schedule Name, specify a name for the schedule.

   b For Schedule Description, provide a description for the schedule.

   c From the Frequency and Period lists, select how often you want the schedule to occur (for example, every six months).

   d For Lead Time in Days, specify the number of days in advance that you want someone to be notified about the schedule.

5 Complete the rest of the fields:

   a Select the Support and Notification criteria.

   b If you have BMC Remedy Change Management installed, select a change template from the Change Template list.

      For example, when setting up a maintenance schedule for a network printer at Calbro Services, Allen Allbrook selects the Network.

      A change request is created when the schedule is due.

6 Categorize the CIs using the Tier fields, as described in “Categorizing CIs” on page 55.

7 To relate the CI records to the schedule, click Add.

8 Click Save.

### Relating a schedule to a CI

You can relate a maintenance schedule or audit schedule to one or more CIs. For example, to maintain a server on a standard interval, create a maintenance schedule. Then relate the schedule to the CI record for the server.

**To relate a schedule to a CI**

1 Open a CI, as described in “Searching for CIs” on page 32.

2 From the navigation pane, choose Functions > Schedule.
3 In the Schedule Information dialog box, from the Schedule Type list, select the type of schedule that you want to relate, and click Create.

The Select the schedule(s) to be related dialog box appears.

4 Select the schedule you want to relate to the CI.

5 Click Relate Selected Schedule.

The schedule appears in the Schedule Information table.

**Modifying a schedule**

After you create a schedule and save it, you can modify the entire schedule. For example, you can change an audit schedule so that it occurs yearly instead of monthly.

You can also change one occurrence of a schedule that is related to a CI. For example, if an IT technician is out of the office when a monthly maintenance task is scheduled, you can change the notification contact for that month. Any user can change one occurrence of the schedule by using the Schedule tab on the CI Information form.
NOTE
Whenever you complete tasks for a maintenance schedule or audit schedule, you must change the status of the schedule to Completed.

Modifying the entire schedule
Use the Schedule Criteria form to modify the entire schedule.

► To modify an entire schedule
1. On the Asset Management console, from the navigation pane, choose Functions > Schedules.
2. Click Search for Schedule.
3. In the Schedule Criteria form, from the Schedule Type list, select Audit Schedule, Maintenance Schedule, or Review Schedule, and click Search.
4. Select a schedule from the search results.
5. Modify the fields that you want to change, and click Save.

Modifying one occurrence of the schedule for a CI
Use the Schedule tab on the CI Information form to modify one occurrence of the schedule. Any user can modify one occurrence of the schedule.

► To modify one occurrence of the schedule for a CI
1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Functions > Schedule.
3. In the Schedule Information dialog box, select the schedule you want to modify, and click View.
4. In the Schedule Information form, modify the fields you want to change, and click Save.

Changing the status for a schedule
After you complete scheduled activities for a maintenance schedule or audit schedule, you must change the status of the schedule to Completed. Any user can change the status of a schedule.

► To change the status for a schedule
1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Functions > Schedule.
3. In the Schedule Information dialog box, select the schedule you want to modify, and click View.
4 In the Schedule Information form, in the Status field, select a new option. The options are Scheduled, In Progress, and Completed. After you complete activities for a maintenance schedule or an audit schedule, change the status to Completed.

5 Click Save.

In the confirmation message that appears, click OK.

The modified schedule appears in the Schedule tab on the CI Information form. If you changed the status to Completed, the Schedule Information table displays the next scheduled audit or maintenance date.

Creating outage information

CI unavailability, or outage, is the actual down time of a CI. Unavailability might be due to scheduled maintenance (the record is created from a change request) or an unexpected problem (the record is created from an incident).

For example, the change manager at Calbro Services creates a change request for a server upgrade and creates a CI unavailability record from the request. The configuration administrator at Calbro Services can open the CI unavailability record and add financial information about the cost of unavailability.

You can create CI unavailability records only for the following CI types:

- Application
- Application Infrastructure
- Application Service
- Application System
- Business Service
- Computer System
- Database
- Document
- Equipment
- LAN
- Mainframe
- NT Domain
- Printer
- Software Server
- WAN
CI unavailability lifecycle

The CI unavailability lifecycle supports the following status changes, as described in Table 4-2. A CI Unavailability record is Open if the status is not Restored.

Table 4-2: Status changes in the CI unavailability lifecycle

<table>
<thead>
<tr>
<th>Your action</th>
<th>If no CI Unavailability records apply</th>
<th>If CI Unavailability records apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change the status of a CI from Up to Down.</td>
<td>An unavailability record exists dialog box appears.</td>
<td>A dialog box appears. You can create a new unavailability record.</td>
</tr>
<tr>
<td>Update a CI while its status is Down.</td>
<td>Nothing happens.</td>
<td>A dialog box appears. You can create a new unavailability record.</td>
</tr>
<tr>
<td>Change the status of a CI from Down to Up.</td>
<td>A dialog box appears. You can update the CI Unavailability record.</td>
<td>Nothing happens.</td>
</tr>
<tr>
<td>Update a CI while its status is Up.</td>
<td>A dialog box appears. You can update the CI Unavailability record.</td>
<td>Nothing happens.</td>
</tr>
</tbody>
</table>

To create outage information

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Outage tab, and click Create.

Figure 4-12: Configuration Item Unavailability form

3. In the Configuration Item Unavailability form, indicate whether the unavailability request originated from a change request or an incident.

   From the Unavailability Class list, select Change or Incident.
NOTE
If you have BMC Remedy Change Management or BMC Remedy Incident Management installed, and you create a CI Unavailability record from either of these applications, this field is automatically populated.

4 From the Unavailability Type list, select one of the following options.

<table>
<thead>
<tr>
<th>Unavailability type</th>
<th>Purpose</th>
<th>Availability of selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule Full</td>
<td>You plan to take the CI out of service during a scheduled change. Only when you are creating a CI Unavailability record from a change request.</td>
<td></td>
</tr>
<tr>
<td>Scheduled Partial</td>
<td>You plan to change the CI, but not take it out of service. Note: CI performance suffers some performance degradation during the duration of the change. Only when you are creating a CI Unavailability record from a change request.</td>
<td></td>
</tr>
<tr>
<td>Unscheduled Full</td>
<td>The CI is experiencing an unplanned complete service outage. Only when you are creating the CI Unavailability record from an incident or change request.</td>
<td></td>
</tr>
<tr>
<td>Unscheduled Partial</td>
<td>The CI is experiencing an unplanned service degradation. Only when you are creating the CI Unavailability record from an incident or change request.</td>
<td></td>
</tr>
</tbody>
</table>

After you select the class and type, the priority field is automatically completed.

5 Provide a description for the unavailability.

6 If this is a scheduled unavailability, specify scheduled start dates and end dates on the Dates/Assignment tab.

When you save the form, the scheduled duration of the unavailability appears in the Estimated Duration field.

NOTE
If you specify a scheduled start and end date without specifying the actual dates, the Unavailability Status is set to Scheduled after you save the form.

7 Specify actual start dates and end dates for the unavailability.

When you save the form, the actual duration appears in the Actual Duration field.

NOTE
After you save the form, if you specify an actual start date without an end date, the Unavailability Status field is set to Current Unavailability. The Unavailability Status is set to Restored when you specify an actual end date. After you set the actual end date, you can modify it, but not remove it.
8 Select an option from the Assignment is set from area.

- **Configuration Item**—If you assign a support group responsibility for the CI unavailability when you relate the group to a configuration item, this option is selected. In addition, if you set the assignment lock to yes, you cannot change the support group assignment from the CI Unavailability record. If you set the lock to no, you can select another assignment method.

- **Cross Referenced Request**—If the CI Unavailability record is created from an incident or a change request, this option is selected. The person assigned the ticket is also assigned the CI Unavailability record. This option keeps the CI Unavailability assignment synchronized with the assignment for the incident or change request.

- **Manually**—Select this option when you want to manually assign the CI Unavailability record to any group. Then, set the Assignment Status to Assigned.

  Setting the Assignment Status to Completed marks the CI Unavailability record as closed. Only users with Asset Admin or Asset User permissions can modify a closed unavailability record.

  **NOTE**
  
  You can do this only from the CI Unavailability form, not from the Outage tab on the CI Information form.

- **Automated Routing**—If you do not assign a support group from the People tab, unavailability assignment defaults to Automated Routing. Automated Routing configured on the Assignment configuration form.

  For more information about configuring your applications, see the *BMC Remedy IT Service Management Configuration Guide*.

9 Set the assignment.

Assignment is set first through the CI. If assignment is not set using this method, the automated routing option is used.

If you are working from the BMC Remedy Incident or BMC Remedy Change Management applications and automated routing is not configured, assignment is set as Cross Referenced Request.

**NOTE**

For descriptions of each of these assignment methods, see step 8 on page 91.

The individual or group assigned to this unavailability record must set the status to Completed after recording the actual start and end times.
10 Use the other tabs to add supporting unavailability information:

- **CI Status Information**—Change the CI status to reflect the CI unavailability. Examples of status include Down and In Repair.

- **Relationships**—View or relate incidents, infrastructure changes, and problem investigations. This tab is available only if you have BMC Remedy Incident Management, BMC Remedy Change Management, or BMC Remedy Problem Management.

- **Financials**—View, create, and track outage costs related to the CI unavailability. For information about adding costs, see “Working with costs” on page 82.

**NOTE**
You must save the CI Unavailability record before you can create relationships and costs.

- **References**—View the incident or change IDs that might have created the unavailability record. This tab is available only if you have BMC Remedy Incident Management or BMC Remedy Change Management.

11 Click Save.

## Creating a blackout schedule

Use the blackout schedule to indicate:

- Times when the current CI is unavailable for changes in BMC Remedy Change Management. During this time, a CI must not be brought down. For example, the server used by payroll might have a blackout schedule to indicate that the CI must not be affected by any changes during paycheck processing.

- Scheduled outages during which the CI is available for maintenance and other changes. When a CI is available for changes, business services might be affected.

You use the Registration for Shared Time Segment form to create a blackout schedule. You can schedule a blackout to occur once or to recur. Blackout schedules are stored in the Business Time Segment form. This form is also used by BMC Remedy Change Management to help to avoid scheduling changes when a CI must be available.

**NOTE**
You can create a blackout schedule either from BMC Remedy Asset Management or from BMC Remedy Change Management.
Creating a one-time blackout schedule

Use a one-time blackout schedule to indicate a nonrecurring interval when a CI must be available or will be unavailable.

For example, at Calbro Services, a server is hosting a website for a special anniversary event. Allen Allbrook, the configuration administrator, creates a one-time blackout schedule for the week of the anniversary event to prevent the server from being taken down during that week, making sure that the website is available throughout the event.

To create a one-time blackout schedule

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Advanced Functions > Blackout Schedules.

Figure 4-13: Registration for Shared Time Segment form

3. In the Registration for Shared Time Segment form, click Add.
In the Business Time Segment form, provide a description of the availability or unavailability of the CI.

From the Availability list, select whether the CI will be available or unavailable for changes:
- Unavailable—Business services require use of the CI in this time segment, so it is unavailable for changes.
- Available—The CI is available for changes.

To enable this blackout, select the Enable check box.

For Duration Type, select One Time.

Click the One Time tab.

Specify your start and end date times, and click Save.

Creating a recurring blackout schedule

Use a recurring blackout schedule to indicate regular CI availability or unavailability requirements.

For example, Finance at Calbro Services process payroll checks every Thursday. Allen Allbrook, the configuration administrator, wants to make sure that neither the payroll server nor the payroll printer are taken down for maintenance on Thursdays. He sets two recurring blackout schedules to accomplish this.
To create a recurring blackout schedule

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Advanced Functions > Blackout Schedules.
3. In the Registration for Shared Time Segment form, click Add.
4. In the Business Time Segment form, provide a description of the availability or unavailability of the CI.

For example, at Calbro Services, Allen Allbrook provides the description, “Payroll check processing.”
5. From the Availability list, select whether the CI will be available or unavailable for changes:
   - Unavailable—Business services require use of the CI in this time segment, so it is unavailable for changes.
   - Available—The CI is available for changes.

For example, Allen selects Unavailable, to make sure that the payroll server is not taken down for maintenance.
6. To enable this blackout, select the Enable check box.
7. For Duration Type, select Recurring.

The Recurrence Definition tab appears.

Figure 4-15: Business Time Segment form—Recurrence Definition tab

8. Specify start and end date times for the activity recurrence and the recurrence type information. Depending on your selections, you might have to complete additional fields.

For example, to set a weekly schedule, Allen selects Weekly.
9. Click Save.

In the example, Allen repeats this procedure for the payroll printer.
Performing additional functions on the CI form

On the CI form, you can perform the additional functions that are listed in Table 4-3. To perform any of these functions, you must first open the applicable CI, as described in “Searching for CIs” on page 32.

Table 4-3: Additional functions on the CI form

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding additional data</td>
<td>You can add, view, modify, or remove additional CI data. You specify both the labels and values for this additional data. If you delete a CI, the associated additional data is also deleted. To access this function, from the navigation pane, choose Advanced Functions &gt; Additional Data.</td>
</tr>
</tbody>
</table>
| Emailing contacts about information pertaining to CIs | To send email with information about a CI, perform the following steps:  
1. From the navigation pane, choose Functions > Email System.  
2. On the Email System form, search for the people that you want to contact.  
3. In the Email Information area, specify the message details.  
4. If applicable, add an attachment.  
5. Click Send Email Now. |
| Paging a person or on-call group | Use the paging feature to perform manual pages. Pager service provider and paging email are set up on the Notifications tab on the People form. For information about setting up paging notifications, see the BMC Remedy IT Service Management Configuration Guide.  
To page a person or on-call group, perform the following steps:  
1. From the navigation pane, choose Functions > Paging System.  
2. In the Paging System form, in the People Search Criteria area, specify your search criteria, and click Search.  
3. Select the person you want to page, and click Select.  
4. In the Paging Information area, specify the person’s pager information, enter the message, and click Send Page Now.  
Alternatively, you can click the Page By On-Call Group tab and send a page to a group instead of an individual. To do this, perform the following steps:  
1. Click the Page By On-Call Group tab.  
2. In the On-Call Group Search Criteria area, specify your search criteria, and click Search. Results matching your search criteria appear in the table.  
3. From the table, select the group you want to page, and click Select.  
4. In the Paging Information area, specify the group’s pager information, enter the message, and click Send Page Now. |
Performing additional functions on the CI form

Table 4-3: Additional functions on the CI form (Continued)

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
</tr>
</thead>
</table>
| Updating impacted areas| Changes or updates to CIs can affect more than one company, location, or organization. You specify which areas are impacted by a specific CI on the Impacted Areas tab on the CI Information form.  
  Note: BMC Remedy Change Management uses the CI’s impacted areas to help determine approval mappings. For example, you can determine mappings based on location or organization.  
  To specify the impacted areas for a CI, perform the following steps:  
  1. Open a CI, as described in “Searching for CIs” on page 32.  
  2. On the Impacted Areas tab, click View.  
  3. In the Impacted Areas dialog box, complete the fields to relate an impacted area to the current CI.  
  4. Click Add and then click Close. Then, on the CI Information form, click Save. |
| Working with returns   | When you return a CI, you can record the return information. You can also view and delete return information. The Returns function is not available for bulk CIs.  
  You can record return information either from the CI form or from the Receiving console. For information about the Receiving console, see “Receiving and returning purchase items” on page 124.  
  To add return information for a CI, perform the following steps:  
  1. Open a CI, as described in “Searching for CIs” on page 32.  
  2. From the navigation pane, choose Functions > Returns.  
  3. In the Return Receipts dialog box, click Create.  
  4. In the Return Information dialog box, record the information.  
  Specify the type of return, the quantity to return, and the reason for the return. You can also specify a Return Materials Authorization (RMA) number.  
  5. Click OK. |
Chapter 5 Requisition management

This section discusses how to use BMC Remedy Asset Management to create purchase requisitions to order items needed to resolve incidents or complete change requests. This section also discusses how to receive and return items represented as configuration items (CIs).

The following topics are provided:

- Overview of the purchasing process (page 100)
- Viewing purchase requisitions in the console (page 104)
- Searching for purchase requisitions (page 105)
- Creating purchase requisitions (page 105)
- Working with purchase requisitions (page 116)
- Working with purchase orders (page 118)
- Receiving and returning purchase items (page 124)
Overview of the purchasing process

The purchasing process starts when someone requires an item that is not available in inventory. The purchasing process involves IT personnel involved in different roles. The process ends when the item is received and installed. Figure 5-1 illustrates the process.

**Figure 5-1: Purchasing process overview**
Table 5-1 summarizes the role of each person in the purchasing process.

**Table 5-1: Roles of IT personnel in the purchasing process**

| Role                        | Description of role                                                                                                                                                                                                                                                                                                                                                     | Notes                                                                                                                                                                                                                      |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Configuration administrator | Configuration administrators submit purchase requisitions for items. Although anyone with Purchasing User permission can create a purchase requisition, the best practice indicates that a configuration administrator submits the purchase requisition. The requirement for the purchase requisition comes from the change management process. For example, a support specialist might work on an incident that involves a request for new memory. Or, a change coordinator might get a request from an IT director to upgrade all laptops in the company with the latest Microsoft Windows operating system. If the item is not in inventory, the change coordinator assigns a task to the configuration administrator to submit the purchase requisition. When the purchased item arrives, the configuration administrator receives and secures the item, reconciles line items of the purchase order with the packing list or other documents, and ensures the quality of the received item. If necessary, the configuration administrator returns items. |
| Contract manager or software asset manager | A contract manager or software license manager can create a requisition for software licenses.                                                                                                                                                                                                                                                                                                                                 |
| Purchasing agent            | The purchasing agent prices line items and routes the purchase requisition for approval. After receiving approval, the purchasing agent places the order with the vendor for items on the purchase order.                                                                                                                                                                                   |
| Approver                    | The person responsible for approving or rejecting the purchase requisition is typically a manager.                                                                                                                                                                                                                                                                      |
Table 5-2 summarizes the tasks each person performs to complete the purchasing process.

### Table 5-2: Tasks each person performs to complete the purchasing process

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Role</th>
<th>Tasks</th>
<th>For more information, see</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Configuration administrator</td>
<td>Use the configuration catalog to check inventory for current items. If the items are available, reserve them to be removed from inventory.</td>
<td>“About the configuration catalog” on page 220</td>
</tr>
<tr>
<td>1a</td>
<td>Configuration administrator</td>
<td>If the items are not available, create a purchase requisition to order those items. For software, a contract manager or software asset manager creates a purchase requisition for software licenses. To add line items to the purchase requisition, use either of the following methods: ▪ Search the configuration catalog for the items that you need. Add the items from the catalog. ▪ Manually add the line items. Provide information about billing, shipping, and accounting codes, and indicate whether installation is needed. If entering the line items manually, route the purchase requisition to purchasing for pricing. If pricing is not needed, route the purchase requisition for approval.</td>
<td>“Creating purchase requisitions” on page 105</td>
</tr>
<tr>
<td>1b</td>
<td>Contract manager or software asset manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Purchasing agent</td>
<td>Receive the purchase requisition from the configuration administrator, price the line items, and then route the requisition for approval.</td>
<td>“Pricing purchase items” on page 112 “Submitting the purchase requisition for approval” on page 113</td>
</tr>
<tr>
<td>3</td>
<td>Approver</td>
<td>Approve or reject the purchase requisition. If the purchase requisition is rejected, it is routed back to the configuration administrator for any changes, and then it is resubmitted for approval. After the purchase requisition is approved, the purchase requisition generates a purchase order.</td>
<td>“Approving the purchase requisition” on page 114 “Modifying rejected purchase requisitions” on page 116</td>
</tr>
</tbody>
</table>
Overview of the purchasing process

4 Purchasing agent Order line items on a purchase order. For example, for a line item for a Dell monitor and a Gateway computer, the purchase requisition is split into two purchase orders. Each purchase order indicates a single supplier (Dell and Gateway). The purchasing agent modifies any cost center information or accounting information. The purchasing agent then places the order with the suppliers. You can place order using email, BMC Remedy Asset Management web services, or a manual method, such as fax. If an Enterprise Resource Planning (ERP) integration is present, the ERP information can be passed back to BMC Remedy Asset Management, and includes the purchase order number, invoice number, shipping information, and so on. Software license purchases typically do not require physical shipment. Other line items on the purchase order, however, might be for the physical media.

5 Configuration administrator After receiving items, use the Receiving console to verify receipt of the correct line items from the supplier. Determine whether any of the items received needs to be returned. If so, record what is being returned, the date the item will be returned, the quantity to be returned, and the reason for the return. Contact the supplier and await reshipment. If the items are being returned and not replaced, the system updates the line item quantities on the purchase order and original purchase requisition to reflect this, and also updates the purchase order amount. Record which items are received or partially received. The corresponding CIs are created in BMC Atrium CMDB and can be accessed in BMC Remedy Asset Management. Fifteen days after all the items are received, the purchase order and purchase requisition are closed.

Table 5-2: Tasks each person performs to complete the purchasing process (Continued)

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Role</th>
<th>Tasks</th>
<th>For more information, see</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Purchasing agent</td>
<td>Order line items on a purchase order. For example, for a line item for a Dell monitor and a Gateway computer, the purchase requisition is split into two purchase orders. Each purchase order indicates a single supplier (Dell and Gateway). The purchasing agent modifies any cost center information or accounting information. The purchasing agent then places the order with the suppliers. You can place order using email, BMC Remedy Asset Management web services, or a manual method, such as fax. If an Enterprise Resource Planning (ERP) integration is present, the ERP information can be passed back to BMC Remedy Asset Management, and includes the purchase order number, invoice number, shipping information, and so on. Software license purchases typically do not require physical shipment. Other line items on the purchase order, however, might be for the physical media.</td>
<td>“Placing a purchase order” on page 120</td>
</tr>
<tr>
<td>5</td>
<td>Configuration administrator</td>
<td>After receiving items, use the Receiving console to verify receipt of the correct line items from the supplier. Determine whether any of the items received needs to be returned. If so, record what is being returned, the date the item will be returned, the quantity to be returned, and the reason for the return. Contact the supplier and await reshipment. If the items are being returned and not replaced, the system updates the line item quantities on the purchase order and original purchase requisition to reflect this, and also updates the purchase order amount. Record which items are received or partially received. The corresponding CIs are created in BMC Atrium CMDB and can be accessed in BMC Remedy Asset Management. Fifteen days after all the items are received, the purchase order and purchase requisition are closed.</td>
<td>“Receiving and returning purchase items” on page 124</td>
</tr>
</tbody>
</table>
Viewing purchase requisitions in the console

Configuration administrators and purchasing agents can view purchase requisitions.

▶ To view purchase requisitions in the console

1. On the Purchasing console, from the Show list, select Requisitions Requested By Me.
   
The purchase requisitions that you created and submitted appear in the table.

   **Figure 5-2: Purchasing console**

2. To view purchase requisitions that were requested for another individual, perform the following steps:
   
a. Select Requisitions Requested For.
   
b. In the People Search Criteria dialog box, specify your search criteria, and click Search.
   
c. Select an item from the table, and click Select.
      
The requisitions created for that person appear in the console.
Searching for purchase requisitions

You can search for and modify purchase requisitions that you have created and submitted.

**To search for and modify purchase requisitions**

1. In the navigation pane on the Purchasing console, choose Functions > Search Requisition.

2. In the Search Requisitions dialog box, specify your search criteria, and click Search. Results matching your search criteria appear in the table.
   - If you do not specify search criteria in the Supplier Name field, Estimated Price and Description columns appear in the search results.
   - If you specify search criteria in the Supplier Name field, Supplier Name and Part Number columns appear in the search results.

3. To open a purchase requisition, select the purchase requisition, and click View.

Creating purchase requisitions

The first step in ordering items and software licenses is to create a purchase requisition.

After you create the purchase requisition, you can perform additional tasks, as described in the following sections:

- “Specifying purchase items manually” on page 109
- “Obtaining pricing” on page 112
- “Pricing purchase items” on page 112
- “Submitting the purchase requisition for approval” on page 113
- “Approving the purchase requisition” on page 114
- “Modifying rejected purchase requisitions” on page 116
- “Modifying rejected purchase requisitions” on page 116
- “Working with purchase requisitions” on page 116
To create a purchase requisition

1. In the navigation pane on the Purchasing console, choose Functions > Create Requisition.

**Figure 5-3: Purchase Requisition form**

2. In the Purchase Requisition form, provide general information about the purchase requisition at the top of the form.

   **NOTE**
   The Status field and Requisition ID fields are read-only. The status of the purchase requisition changes depending on at what stage the purchase requisition is in its lifecycle.

   a. In the Date Required field, select the date the items are required.
   b. Select whether installation is needed.
   c. If you selected Yes and BMC Remedy Change Management is installed, select a change template from the Change Template list.

   **NOTE**
   The change template might contain a change request for a specialist to install this item when it is received.

d. In the Description field, provide a description of the purchase requisition, for example, new employee setup.
In the Justification field, specify why these items are needed, for example, for a new employee.

In the Full Name field, specify the name of the person who needs these items, for example, a new employee.

When you specify the person, information appears in the Phone Number and Manager fields, depending on the settings defined by your administrator.

**NOTE**
The Full Name and Phone Number fields display the name and the phone number of the person requesting the items.

3 If you are ordering an item from the configuration catalog, perform the following steps:

   a Click Select Configuration.

   b In the Manage Configurations dialog box, select the configuration for which you want to view items to purchase.

   c Click Check Inventory.

   The Configuration Information for [Name] dialog box appears.

   ![Configuration Information for [Name] dialog box](image)

   The Purchase Requisition form appears again. The items in the configuration now appear on the Line Items tab on the form.

4 If you are ordering an item that is not in the configuration catalog, perform the steps described in “Specifying purchase items manually” on page 109.
5 Click the Details tab.

6 Complete the following fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Center</td>
<td>The cost center number. If the person in the Requested For field has a cost center number, the number appears here.</td>
</tr>
<tr>
<td>Accounting Code</td>
<td>The accounting code number. If the person in the Requested For field has an accounting code, the accounting code appears here.</td>
</tr>
<tr>
<td>Project Number</td>
<td>The project number.</td>
</tr>
<tr>
<td>Budget Code</td>
<td>The budget code.</td>
</tr>
</tbody>
</table>

7 Click the Shipping tab.

8 If it does not already appear, provide the Ship To Address and Bill To Address information. Specify shipping or billing instructions in the Instructions field.

**NOTE**

Your application administrator can define what appears in the lists on the Shipping tab. For more information, see the *BMC Remedy IT Service Management Configuration Guide*.

The Approval tab is a read-only tab. This tab shows the purchase requisitions that are pending approval, approved, or rejected. To view the signature information from this tab, select a record and click View.

9 Click Save.
Specifying purchase items manually

If the items you want to order are not in the configuration catalog, you can create and specify them manually.

To specify purchase items manually

1. Find a purchase requisition, as described in “Searching for purchase requisitions” on page 105.
2. On the Line Items tab, click View.

Figure 5-6: Line Item Information form

3. At the top of the Line Item information form, provide general information about the line item.
   a. In the Part Number field, specify the part number for the item.
   b. In the Description field, specify a description of the item.

NOTE
The Status field is read-only. The status of the line item changes depending on at what stage the line item is in its lifecycle.
c From the CI Type list, select the type of CI you want to add to the purchase requisition.

d Specify the quantity and pricing information as follows.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit of Measure</td>
<td>This field has a default value of Each. This field can contain any applicable value, such as Box, Bag, or Pallet.</td>
</tr>
<tr>
<td>Required Qty</td>
<td>Select the number of items you want to purchase. The default value is 1.</td>
</tr>
</tbody>
</table>
| Unit Price       | The price of each item. If the unit price is not provided, the purchase requisition is routed to purchasing for pricing.  
                  | **Note:** If no currency ratio exists for a currency used in a line item, a warning appears when the Grand Total is computed and the price is excluded. |

4 On the General tab, use the Tier and Product Name fields to categorize the item, as described in “Categorizing CIs” on page 55.

When you select the product name, the manufacturer name might appear in the form.

5 Complete the following fields on the General tab.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
</table>
| Supplier Name      | The name of the company that sells the item.                               
                  | **Note:** If you do not provide the supplier name, the purchase requisition is routed to purchasing to provide a supplier name. |
| Notes to Purchasing| Additional information for purchasing.                                     |
| Notes to Supplier  | Additional information for the supplier.                                   |
6 Click the Details tab and complete the following fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Center</td>
<td>The cost center number. This field is filled in with the cost center information from the Purchase Requisition form. If needed, modify it.</td>
</tr>
<tr>
<td>Accounting Code</td>
<td>The accounting code number. This field is filled in with the accounting code information from the Purchase Requisition form. If needed, modify it.</td>
</tr>
<tr>
<td>Project Number</td>
<td>The project number.</td>
</tr>
<tr>
<td>Budget Code</td>
<td>The budget code.</td>
</tr>
<tr>
<td>Attachment</td>
<td>To add an attachment, perform the following steps:</td>
</tr>
<tr>
<td></td>
<td>1 Right-click in the attachment table.</td>
</tr>
<tr>
<td></td>
<td>2 Choose Add from the menu that appears.</td>
</tr>
<tr>
<td></td>
<td>3 Select a file from the Add Attachment dialog box, and click Open.</td>
</tr>
</tbody>
</table>

7 Click the Tracking tab and add any notes about the line item.

NOTE

The Received Items and Returns tabs are read-only. You can use these tabs to see which items have been received or returned.

8 Click Save.

The Purchase Requisition form appears, and the line item that you created appears in the table.

9 Click Save again.

Purchase requisition states

A purchase requisition can be in any of the following states:

- **In Preparation**—The requester is modifying the purchase requisition.
- **Pending Pricing**—The purchase requisition has been routed to purchasing for pricing.
- **Quote In Progress**—The purchase requisition is in purchasing and is being priced.
- **On Hold**—The requester or the approver suspended the purchase requisition.
- **Pending Approval**—The purchase requisition is pending approval. In this state you can reduce the quantity of items or remove items. You cannot add new items.
Obtaining pricing

If you do not know the price or the supplier name of the items you are requesting, you can submit them to purchasing for pricing.

If you submit purchase items that are missing either the estimated price or the supplier name, their status changes to Pending Pricing. In addition, a message appears, stating that the purchase requisition was routed to purchasing for pricing.

➢ To obtain pricing on purchase items

1. Open a purchase requisition, as described in “Searching for purchase requisitions” on page 105.
2. Click Request Pricing.
3. Click OK.
4. On the Purchasing console, open the requisition again.
   The status of the purchase requisition changes to Pending Pricing.

Pricing purchase items

If you are a purchasing agent and are responsible for pricing purchase requisitions and processing purchase orders, use the Purchasing console. The Purchasing User permission gives you access to the Purchasing console. You can have access to the Purchasing console without full access to BMC Remedy Asset Management.

In addition to being able to show your own purchase requisitions, from the Show menu, you can choose to show:

- Requisitions to Price
- Orders to Place
- Orders already Placed

The navigation pane provides you with two additional links: Search Order and Reports.

➢ To price purchase items in a purchase requisition

1. On the Purchasing console, from the Show list, select Requisitions to Price.
2. Select the purchase requisition you want to price, and click View.
3. In the Purchase Requisition form, click Request Pricing, and click OK.
4. On the Purchasing console, open the purchase requisition again.
5. On the Line Items tab, select the line item that needs pricing, and click View.
6 In the Line Item Information form, make changes to the pricing, as necessary.
7 On the General tab, specify values in the Quote Number and Quote Info fields.
8 If you know that the item is taxable, select Yes from the Taxable list.
9 Click Save, and in the confirmation message, click OK.
10 In the Purchase Requisition form, type a name in the Manager field.
11 To route the newly priced requisition to a manager for approval, click Submit for Approval.
   The purchase items on the Line Items tab change to Pending Approval.
12 Click Save.
   On the Purchasing console, the purchase requisition that you priced no longer appears in the table.

**Submitting the purchase requisition for approval**

After you price a purchase requisition, someone must approve it. You can click Submit for Approval to change the status of the purchase requisition to Pending Approval and route it to the appropriate approver.

**To submit the purchase requisition for approval**

1 Find a purchase requisition, as described in “Searching for purchase requisitions” on page 105.
2 In the Manager field, specify a manager who has approval permission.
3 Click Submit for Approval, and in the confirmation message, click OK.
4 On the Purchasing console, click Refresh.
   The purchase requisition’s status changes to Pending Approval.
Approving the purchase requisition

If you are a manager, you might need to approve or reject a purchase requisition that one of your employees submitted.

BMC Remedy Asset Management provides an out-of-the-box approval process. By default, the purchase requisition is routed to the necessary manager for approval. You can use the Approval console to route the requisition to another manager for approval. For example, if you charge the cost of the items on a purchase requisition for one of your employees to another manager’s cost center, you can route the purchase requisition to that manager for additional approval.

**NOTE**

You can use the Approval Server to define different process types, configure approval notifications, and so on. For more information, see the *BMC Remedy Action Request System: BMC Remedy Approval Server Guide*.

▸ To approve a purchase requisition as approver

1. In the navigation pane on the Purchasing console, choose Functions > Approvals.

![Figure 5-8: Approval console](image)

2. On the Approval console, if the purchase requisition needs additional approval or must be routed to another approver, select it from the table, and click View Details. Otherwise, skip to step 5.
3 To add one or more additional approvers, perform the following steps:
   a Click Adhoc.

   **Figure 5-9: Ad hoc Approvers dialog box**

   b In the Name field of the Ad hoc Approvers dialog box, select the name of a manager who also must approve the requisition.

   c If there are multiple approvers, select One Must Sign or All Must Sign from the If Multiple Approvers list.

   d If an approver is optional, set Independent to Yes.

   Independent indicates that the approval process can continue without that person’s approval. That person can approve or reject the purchase requisition before the process is complete.

   e Click Add.

   f As needed, continue to add approvers.

   g When you are done adding approvers, select the approvers to be added, and then click Save.

   **NOTE**

   Rows in the table of approvers are not saved until you select them and click Save.

   h Click Close.

4 To reassign approval to another manager, perform the following steps:
   a Click Reassign.

   b In the message that appears, specify the name of the manager you are reassigning the purchase requisition to for approval, and click OK.

5 On the Approval Console, in the Pending Approvals table, select the purchase requisition that you want to approve.

6 Click Approve or Reject.

   The purchase requisition is removed from the table.
Modifying rejected purchase requisitions

If the purchase requisition has been rejected instead of approved, it is routed back to the configuration administrator to make changes.

To make changes to a rejected purchase requisition

1. Find a purchase requisition with a Rejected status, as described in “Searching for purchase requisitions” on page 105.
2. In the message that appears, click one of the following buttons:
   - **Modify**—The purchase requisition reappears and the status changes to In Preparation. Make the necessary changes, and click Submit for Approval.
   - **Cancel Requisition**—The purchase requisition reappears and the status changes to Canceled. You cannot make more changes to the requisition.
   - **Close**—The status of the purchase requisition remains as Rejected.

Working with purchase requisitions

The following sections describe tasks that you can perform on the Purchase Requisition form:

- “Modifying purchase items” on page 116
- “Removing purchase items” on page 117
- “Holding a purchase requisition” on page 117
- “Canceling a purchase requisition” on page 118

Modifying purchase items

You can modify purchase items on your purchase requisition while the purchase requisition is in one of the following states:

- In Preparation
- Pending Pricing
- Quote In Progress
- On Hold
- Pending Approval

In this state you can reduce the quantity of items or remove items. You cannot add new items.

To modify purchase items

1. Find a purchase requisition, as described in “Searching for purchase requisitions” on page 105.
2. Click the Line Items tab.
3 Select the purchase item that you want to view or modify, and click View.
4 In the Line Item Information form, make your changes.
5 Click Save.

The Purchase Requisition form appears, and the line item that you created appears in the table.
6 Click Save again.

**Removing purchase items**

If you do not need a purchase item, you can remove it. You can remove items from the purchase requisition when the requisition is in one of the following states:
- In Preparation
- Pending Pricing
- Quote In Progress
- On Hold
- Pending Approval

In this state you can reduce the quantity of items or remove items. You cannot add new items.

**To remove purchase items**

1 Find a purchase requisition, as described in “Searching for purchase requisitions” on page 105.
2 Click the Line Items tab.
3 Select the purchase item you want to remove.
4 Click Remove.
5 In the confirmation message that appears, click Yes.
6 Click Save.

**Holding a purchase requisition**

You might need to place a purchase requisition on hold. If the status of a purchase requisition is In Preparation, Pending Pricing, Quote in Progress, or Rejected, you can place it on hold.

**To hold a purchase requisition**

1 Find a purchase requisition, as described in “Searching for purchase requisitions” on page 105.
2 Click Hold or Cancel.
3 In the message, click Put on Hold.
The status of the purchase requisition changes to On Hold.

4 To take the purchase requisition off hold, save, close, and reopen the purchase requisition, and then click Submit for Approval.

**Canceling a purchase requisition**

You might need to cancel a purchase requisition. If the status of a purchase requisition is Approved, Partially Received, Received, or Closed, you **cannot** cancel it.

---

**NOTE**

After you cancel a purchase requisition, you cannot make changes to it.

---

**To cancel a purchase requisition**

1 Open a purchase requisition, as described in “Searching for purchase requisitions” on page 105.

2 Click Hold or Cancel.

3 In the message that appears, click Cancel Requisition.

   A warning message appears, indicating that you cannot undo a canceled requisition.

4 Click Yes.

The status of the purchase requisition changes to Canceled.

**Working with purchase orders**

After the purchase requisition has been priced and approved, becomes a purchase order and is routed to purchasing. A purchasing agent submits the purchase order to a supplier for purchase.

The following sections describe tasks that you can perform with purchase orders:

- “Searching for purchase orders” on page 119
- “Completing a purchase order” on page 119
- “Placing a purchase order” on page 120
- “Resending a purchase order” on page 121
- “Canceling a purchase order” on page 121
- “Generating reports from the Purchasing console” on page 123
Searching for purchase orders

As a purchasing agent, you can search for and view purchase orders that are in preparation, on order, partially received, received, or canceled.

To search for purchase orders

1. In the navigation pane on the Purchasing console, choose Functions > Search Order.
2. In the Search Purchase Order dialog box, specify your search criteria, and click Search.
3. To view a purchase order, select the item from the table, and click View.

Completing a purchase order

When purchasing agents first open a purchase order, they might need to complete some additional fields.

To complete a purchase order

1. On the Purchasing console, from the Show list, select Orders to Place.
2. Select the purchase order you want to place, and click View.

3. If necessary, on the Purchase Order Form, from the Payment Terms list, change the payment terms.
4. In the Notes to Supplier field, add any notes to the supplier.
5. If known, in the Tax Rate field, specify the tax rate.
6 If known, in the Shipping & Handling field, specify the shipping and handling amount.

7 Click the Shipping tab.

8 If necessary, complete the fields in the Ship to Address and Bill to Address areas. If necessary, change the default values in the Freight Terms, Ship Via, and Shipping Options fields.

   The Tracking tab contains read-only information, for example, whether the order can be accessed using a web service.

9 Click Save.

**Placing a purchase order**

As a purchasing agent, you can send a purchase order to a supplier by email or by web service. You can also send it manually.

➤ **To place a purchase order**

1 Open a purchase order, as described in “Searching for purchase orders” on page 119.

2 In the Purchase Order Information form, click Place Order.

   ![Figure 5-11: Place Purchase Order dialog box](image)

3 In the Place Purchase Order dialog box, from the Place Order Using list, select Email, Web Service, or Manual.

   - If you select Web Service, the order becomes accessible to a web service. Another application can use its web service to accept the order.
   - If you select Manual, you must complete a purchase order on paper.
If you select Email, complete the remaining fields as follows:

- Complete the SendTo field, and, optionally, the CC and BCC fields with the recipients of the message.
- If appropriate, modify the subject line from the default value.
- Review the message text. If necessary, you can change it.

Click Save.

On the Purchase Order Information form, the status of the purchase order changes to On Order.

**Resending a purchase order**

As a purchasing agent, if you must change a purchase order after you have placed it, you can resend the order.

**To resend a purchase order**

1. Open a placed purchase order, as described in “Searching for purchase orders” on page 119.
2. In the Purchase Order Information form, click Resend Order.
3. In the Resend Purchase Order form, repeat steps 2 through 5 in the procedure “Placing a purchase order” on page 120.

**Canceling a purchase order**

As a purchasing agent, you can cancel a purchase order by clicking Cancel Order from the purchase order.

**To cancel a purchase order**

1. Open a purchase order, as described in “Searching for purchase orders” on page 119.
2. On the Purchase Order Information form, click Cancel Order.
3. When prompted to confirm whether to cancel the order, click Yes.
4 In the Cancel Purchase Order dialog box, from the Cancel Order Using list, select Email, Web Service, or Manual.

5 If you select Email, complete the remaining fields as follows:
   a. Complete the SendTo field, and, optionally, the CC and BCC fields with the recipients of the message.
   b. If appropriate, modify the subject line from the default value.
   c. Review the message text. If necessary, you can change it.

6 Click Save.

On the Purchase Order Information form, the status of the purchase order changes to Canceled.
Generating reports from the Purchasing console

As a purchasing agent, you can generate purchasing reports from the Purchasing console.

**To generate a report from the Purchasing console**

1. In the navigation pane on the Purchasing console, choose Functions > Reports.

**Figure 5-13: Report console**

2. On the Reports console, from the Report Name list, select the report you want to run.

3. Categorize the fields you want to search using the Tier fields, as described in “Categorizing CIs” on page 55.


5. In the Enter Values dialog box, type new values for the report title and the subtitle.

6. Click OK.

7. Click Close.

The report appears.
Receiving and returning purchase items

After you have placed the purchase order with the supplier, the next step is to receive the items from the supplier. When items are received, new CIs are created in BMC Remedy Asset Management for the items that were received.

To see items that are received by way of a purchase requisition, click the Financials tab on the CI form. If the item was received in this manner, the Requisition ID and Order ID fields are completed.

You can also use the Receiving console to return items that are damaged or are not needed.

The following sections describe tasks for receiving and returning purchase items:

- “Receiving items” on page 124
- “Returning purchase items” on page 126
- “Returning purchase items to be replaced” on page 127
- “Returning purchase items from a CI” on page 127

Receiving items

You can record receipt of items in BMC Remedy Asset Management.

**IMPORTANT**

When you receive an item, the corresponding CI is created. If you receive an item that will be discovered, the CI must be updated with identifying information. After the item is on the network, it can be discovered. If the Reconciliation Engine cannot identify the discovered CI as the same as the received CI, two CIs will represent the same item in your BMC Atrium Configuration Management Database (BMC Atrium CMDB). For information about how BMC discovery products identify CIs, see the *BMC Atrium Discovery and Dependency Mapping: Populating BMC Atrium CMDB* guide and the *BMC Configuration Automation for Clients Configuration Discovery Integration for CMDB Implementation Guide*. 
To receive items

1. To see purchase order line items waiting to be received, on the Receiving console, specify your search criteria, and click Search.

   **Figure 5-14: Receiving console**

2. For each item you are receiving, click the Received Qty column and change the quantity to the quantity you are receiving.

   **Figure 5-15: Changing the received quantity**

3. Select each line item you want to receive, and click Receive.

   The Total Received Qty column is updated with the number of received items. The amount you specify is cleared from the Rec Qty column. If you receive the entire required quantity, the line item disappears from the Receiving console.
4 To receive items within the line item, select the line item from the table, and click View.

5 In the Line Item Information form in the Received Qty field, specify the received quantity, and click Save.

Returning purchase items

If you have inspected an item but have not yet marked it as received, you can return it. For example, you might want to return an item because it arrived damaged or is no longer needed.

If the item has already been received, a CI has been created for it. If the item is damaged or is no longer needed, the configuration administrator can return it from the CI.

▶ To return an item from the Receiving console

1 To see purchase order line items waiting to be received, on the Receiving console, specify your search criteria, and click Search.

   Results matching your search criteria appear in the table.

2 Select the item you want to return.

3 Click Return.

4 In the Return Item Information dialog box, from the Type list, select Return.

   Selecting Return indicates that you are returning the item and canceling the request for the item.

5 In the RMA field, specify a Return Materials Authorization (RMA) number (optional).

6 In the Quantity to Return field, reduce the number of items have yet to be received.

   This number cannot be greater than the number remaining to be received.

7 In the Reason for Return field, provide a reason for the return.

8 Click OK.

   If you return the total number of items remaining to be received, on the Receiving console, the item is removed from the table. If you return fewer items, the Required Qty is reduced by the number you return, but the line item remains in the Receiving console.
Returning purchase items to be replaced

You can replace the items that you return. First, contact the supplier and arrange for a replacement of the return. Then, mark the item for replacement in the Return dialog box.

**To return an item to be replaced**

1. To see purchase order line items waiting to be received, on the Receiving console, specify your search criteria, and click Search.
2. Select the item you want to replace.
3. Click Return.
4. In the Return dialog box, from the Type list, select Replace.
5. In the RMA field, specify a Return Materials Authorization (RMA) number (optional).
6. In the Quantity to Return field, specify the number of items to be replaced. This number cannot be greater than the number remaining to be received.
7. In the Reason for Return field, provide a reason for the replacement.
8. Click OK.

Returning purchase items from a CI

If an item has been received and a CI was created for it, a configuration administrator can return or replace the item from the CI.

**To return an item from a CI**

1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the navigation pane, choose Functions > Returns.
3. In the Return Receipts dialog box, click Create.
4. In the Return Information dialog box, from the Type list, select whether you are returning or replacing the item.
5. In the RMA field, specify a Return Materials Authorization (RMA) number (optional).
6. In the Quantity to Return field, specify the number of items being returned or replaced. This number cannot be greater than the number remaining to be received.
7. In the Reason for Return field, provide a reason for the return.
8. Click OK.
This section describes how to create support, warranty, lease, and maintenance contracts that you can relate to your configuration items. This section also provides an overview of the Contract Management console.

Software license management is described in Chapter 7, “Software license management.”

The following topics are provided:
- Contract types (page 130)
- About the Contract Management console (page 131)
- Creating master contracts (page 134)
- Creating non-software-license contracts (page 137)
- Tracking the contract lifecycle (page 142)
- Adding a payment for a contract (page 143)
- Relating contracts to CIs (page 143)
- Adding end-of-lease terms (page 147)
Contract types

You can create stand-alone contracts or contracts that are related to CIs. Table 6-1 lists the contract types that BMC Remedy Asset Management provides.

Table 6-1: Contract types provided by BMC Remedy Asset Management

<table>
<thead>
<tr>
<th>Contract type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lease</td>
<td>Use a lease contract to track details associated with leasing equipment. For example, if you lease several servers from one company, you might have a master lease contract that shows the general terms and conditions. You might have subcontracts for each server.</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Use a maintenance contract to provide routine maintenance by a vendor. For example, when you purchase a network printer, it might come with a maintenance contract. Or, you might decide to purchase an additional or extended maintenance contract.</td>
</tr>
<tr>
<td>Master Contract</td>
<td>Use a master contract as the overarching contract with a company for which you have additional related contracts. The related contracts can include software licenses, support contracts, and any other type of contract.</td>
</tr>
<tr>
<td>Software License</td>
<td>Use a software license contract for a software license. You can track compliance and use of the license. For information, see Chapter 7, “Software license management.”</td>
</tr>
<tr>
<td>Support</td>
<td>Use a support contract to track contracts you might buy for support of a product. For example, if you buy a scanner, a support contract gives you access to customer support for any problems or questions you have about the scanner. You can create a master support contract that shows the general terms and parameters, with subcontracts for specific items. For example, you can have a software contract with a company. You can have subcontracts for support of each software product that you buy.</td>
</tr>
<tr>
<td>Warranty</td>
<td>Use a warranty contract to guarantee equipment against mechanical imperfections and defects. For example, if you buy a scanner, a warranty contract replaces any defective parts for the scanner, for a defined period. When you buy a piece of equipment, it might come with a warranty contract. You might buy an additional or extended warranty for the equipment.</td>
</tr>
<tr>
<td>Other</td>
<td>If created by your application administrator, additional contract types might be available, such as a statement of work contract. Application administrators can create additional contract types, as described in the BMC Remedy IT Service Management Configuration Guide.</td>
</tr>
</tbody>
</table>
About the Contract Management console

The Contract Management console is the primary console for contract managers. Anyone who manages contracts with vendors, enters contracts in the system, and has any of the following permissions, can use this console:

- Contract Viewer
- Contract User
- Contract Admin

Functional areas of the Contract Management console

Figure 6-1 illustrates the functional areas of the Contract Management console.

![Figure 6-1: Contract Management console and its functional areas](image)
Table 6-2 describes what you can do in each of the functional areas.

### Table 6-2: Contract Management console functional areas

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract Management console banner</strong></td>
<td></td>
</tr>
<tr>
<td>Console tab</td>
<td>If the Flashboards tab is open, click the Console tab to return to the console. Use this tab to perform tasks from the Contract Management console.</td>
</tr>
</tbody>
</table>
| Flashboards tab                      | Click the Flashboards tab to select and to view flashboards for all suppliers or for a selected supplier. The flashboards that appear in the Contract Management console represent, in graphical format:  
  - Contract by status  
  - Contract by type |
| **Contract Management console header**|                                                                                                                                             |
| Company and Supplier                 | You can filter the contracts listed in the contracts table by company, by supplier, or by both.                                               |
| Refresh                              | Refreshes the data in the tables.                                                                                                         |
| **Navigation pane**                  |                                                                                                                                             |
| Inbox                                | The inbox displays events generated when the License Engine runs, and other messages about contract and software compliance information.  
  The inbox displays messages for the following areas:  
  - Contracts that have expired or are about to expire.  
  - Software license certificates that are not compliant or are approaching non-compliance.  
  - Software license certificates that have expired or are about to expire.  
  - Summary results of the engine run.  
  - List of new CIs that are linked to software license certificates  
  **Note:** You might see different types of messages displayed, depending on how the application administrator has configured inbox preferences.  
  From the inbox, you can indicate whether you have dealt with a message. To view the applicable contract or certificate, select the message and click View. |
| Contract Counts                      | Indicates how many of the listed contracts are in each status. Contract status can be draft, executed, historical, or delete.  
  CI counts reflect the filters—your selections for Company and Supplier. Using search definitions does not change the contract counts. |
| Search Definitions                   | Use a predefined search or create a new search to search for contracts. For more information, see “Searching for contracts” on page 133. |
| Functions                            | The Contract Management console provides access to additional functions that are not related to contract management. For example, you can access other consoles from this console. For more information, see “Secondary functions on the Contract Management console” on page 134. |
About the Contract Management console

Searching for contracts

Use the filters above the contract list to search for contracts by company.

Use the Search Definitions area in the navigation pane to search for contracts by the following criteria:

- Contract type, such as leases or software contracts
- Expiration date, such as contracts that expired in the past 48 hours or that are due to expire in 30 days
- Predefined searches
- Criteria that you define
Secondary functions on the Contract Management console

This console also includes links to perform the following functions:

- Open other consoles, such as the Purchasing console and the Reporting console.
- Manage CIs. For more information, see “Working with configuration items” on page 51.
- Create reminders, as described in “Creating reminders” on page 43.
- View your profile.

Creating master contracts

A master contract is an overarching contract with a company for which you have additional related contracts. The related contracts can include software licenses, support contracts, and any other type of contract.

The Financials tab of the master contract displays costs rolled up from related contracts. You can also use this tab to manage costs and payments that are directly tied to the master contract.

**NOTE**

Only a user with Contract Admin permission can create contracts. A user with Contract User permission can modify contracts.
To create a master contract

1. On the Contract Management console from the Create list, select Master Contract.

The Master Contract form has two main areas. In one area, you specify standard contract information. In the other area, you specify general information, relating contracts, adding payment information, and so on.

Figure 6-2: Master Contract form, displaying Related Contracts tab

2. Specify the following information.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>A unique alphanumeric value.</td>
</tr>
<tr>
<td>Summary</td>
<td>Brief description of the contract.</td>
</tr>
<tr>
<td>Term</td>
<td>Select the applicable term:</td>
</tr>
<tr>
<td></td>
<td>▪ Fixed—Contract expires at the expiration date.</td>
</tr>
<tr>
<td></td>
<td>▪ Never Ending—Contract never expires. This is also known as an evergreen contract.</td>
</tr>
<tr>
<td></td>
<td>▪ Rolling Contract—Contract automatically renews at the expiration date.</td>
</tr>
<tr>
<td>Term Conditions</td>
<td>If you select a term that has an expiration date, select the duration until the expiration date.</td>
</tr>
</tbody>
</table>
### Status

Select the applicable status of the contract:
- **Draft**—The contract has never been executed but is going through the process of being executed. You can use draft status for contracts that are in negotiation or pending signature.
- **Executed**—The contract that is executed and valid. Executed contracts include active contracts that have started. An executed contract might have the following status reasons: active, change pending, on hold, requires attention, under renegotiation.
- **Historical**—The contract is not valid. Historical contracts include contracts that have expired, been terminated, or been canceled.
- **Delete**—The contract is scheduled for deletion.

### Status Reason

Optionally, you can select a status reason. The status reason provides additional explanation for the status. For further information about status and status reason values, see “Tracking the contract lifecycle” on page 142.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Select the applicable status of the contract:</td>
</tr>
<tr>
<td></td>
<td>- <strong>Draft</strong>—The contract has never been executed but is going through the process of being executed. You can use draft status for contracts that are in negotiation or pending signature.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Executed</strong>—The contract that is executed and valid. Executed contracts include active contracts that have started. An executed contract might have the following status reasons: active, change pending, on hold, requires attention, under renegotiation.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Historical</strong>—The contract is not valid. Historical contracts include contracts that have expired, been terminated, or been canceled.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Delete</strong>—The contract is scheduled for deletion.</td>
</tr>
<tr>
<td>Status Reason</td>
<td>Optionally, you can select a status reason. The status reason provides additional explanation for the status. For further information about status and status reason values, see “Tracking the contract lifecycle” on page 142.</td>
</tr>
<tr>
<td>Company</td>
<td>The company associated with this contract.</td>
</tr>
<tr>
<td>View Access</td>
<td>Select who can view or modify this contract:</td>
</tr>
<tr>
<td></td>
<td>- <strong>Public</strong>—Anyone who can access contracts can view or modify the contract.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Internal</strong>—Only people in the support group managing this contract can view or modify the contract.</td>
</tr>
<tr>
<td>Supplier Name</td>
<td>The supplier associated with this contract.</td>
</tr>
<tr>
<td>Cost Center</td>
<td>The cost center that owns this contract. This field and the following fields are located on the General tab.</td>
</tr>
<tr>
<td>Contract Managed By</td>
<td>The support company associated with this contract.</td>
</tr>
<tr>
<td>Company</td>
<td>Company</td>
</tr>
<tr>
<td>Organization</td>
<td>The support organization associated with this contract.</td>
</tr>
<tr>
<td>Group</td>
<td>The support group associated with this contract.</td>
</tr>
<tr>
<td>Contact</td>
<td>Optionally, you can assign an individual to receive notifications for this contract. If you do not specify a notification contact, the notification group receives notifications.</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>Date that the contract expires. When a contract expires, individuals are notified first, then groups.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong>: This field is not available for never-ending contracts.</td>
</tr>
<tr>
<td>Notification Date</td>
<td>When the contract expires, the notification contact and the owner contact are notified on this date.</td>
</tr>
</tbody>
</table>
To add related contracts, perform the following steps in the Master Contract form:

a. Save the master contract.

b. Click the Related Contracts tab.

c. In the Create New Contracts area, select the contract type, and click Create.

d. Complete the contract form, as described in “Creating non-software-license contracts” or in “Creating a software contract” on page 161.

When you save the related contract, it is automatically related to the master contract.

Creating non-software-license contracts

You can create a stand-alone contract or a contract that is related to a CI. To create and track your software license contracts, follow the procedures in Chapter 7, “Software license management.”

All contract forms are identical and track the same type of information, except the Lease and Software License contract forms.

**NOTE**

For information about additional Lease contract information see “Adding end-of-lease terms” on page 147. For information about Software Licenses contracts, see Chapter 7, “Software license management.”

This procedure uses a Lease contract as an example, but the procedure is similar for other contract types. You can create a Lease contract from the following locations:

- From the Contracts tab on the CI form
- From the Contract Management console, by clicking Create

After you create the contract, you can perform the tasks described in the following sections:

- “Adding contact information” on page 140
- “Adding cost information to a contract” on page 140
- “Relating the contract to another contract” on page 141
- “Adding a payment for a contract” on page 143
- “Relating contracts to CIs” on page 143

For a lease contract, you can add end-of-lease terms, as described in “Adding end-of-lease terms” on page 147.
To create a lease contract

1. On the Contract Management console, click Create and select the type of contract that you are creating, such as Lease.

The Lease Contract form has two main areas. In one area, you specify standard contract information. In the other area, you specify ownership information, relate child contracts, add payment information, and so on.

Figure 6-3: Lease Contract form

2. Specify the following information.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>A unique alphanumeric value.</td>
</tr>
<tr>
<td>Summary</td>
<td>Brief description of the contract.</td>
</tr>
<tr>
<td>Term</td>
<td>Duration of contract in months.</td>
</tr>
</tbody>
</table>
Creating non-software-license contracts

3 Click Save.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Select the applicable status of the contract:</td>
</tr>
<tr>
<td>Draft—The contract has never been executed but is going through the process of being executed. You can use draft status for contracts that are in negotiation or pending signature.</td>
<td></td>
</tr>
<tr>
<td>Executed—The contract that is executed and valid. Executed contracts include active contracts that have started. An executed contract might have the following status reasons: active, change pending, on hold, requires attention, under renegotiation.</td>
<td></td>
</tr>
<tr>
<td>Historical—The contract is not valid. Historical contracts include contracts that have expired, been terminated, or been canceled.</td>
<td></td>
</tr>
<tr>
<td>Delete—The contract is scheduled for deletion.</td>
<td></td>
</tr>
<tr>
<td>Status Reason</td>
<td>Optionally, you can select a status reason. The status reason provides additional explanation for the status. For further information about status and status reason values, see “Tracking the contract lifecycle” on page 142.</td>
</tr>
<tr>
<td>Company</td>
<td>The company associated with this contract.</td>
</tr>
<tr>
<td>View Access</td>
<td>Select who can view or modify this contract:</td>
</tr>
<tr>
<td>Public—Anyone who can access contracts can view or modify the contract.</td>
<td></td>
</tr>
<tr>
<td>Internal—Only people in the support group managing this contract can view or modify the contract.</td>
<td></td>
</tr>
<tr>
<td>Customer ID</td>
<td>Optionally, you can enter the customer ID by which the supplier identifies the company.</td>
</tr>
<tr>
<td>Supplier Name</td>
<td>The supplier associated with this contract.</td>
</tr>
<tr>
<td>Cost Center</td>
<td>The cost center that owns this contract. This field and the following fields are located on the General tab.</td>
</tr>
<tr>
<td>Contract Managed By Company</td>
<td>The support company associated with this contract.</td>
</tr>
<tr>
<td>Organization</td>
<td>The support organization associated with this contract.</td>
</tr>
<tr>
<td>Group</td>
<td>The notification group associated with this contract.</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>Date that the contract expires. When a contract expires, individuals are notified first, then groups.</td>
</tr>
<tr>
<td>Notification Date</td>
<td>The date contacts on the Contacts tab are notified when the contract expires.</td>
</tr>
</tbody>
</table>
Adding contact information

On the top half of the contract form, you can select the supplier. BMC Remedy Asset Management adds the supplier to the supplier contacts table in the Contacts form, which you can access from the Contract Information form. Use the Contacts dialog box to specify information about the contact people, how to contact them, and who is authorized to call them.

To see the list of contacts for a contract, in the navigation pane, choose Functions > Contacts.

For information about setting up contacts (people) in your company, see the BMC Remedy IT Service Management Configuration Guide.

Adding cost information to a contract

You can add cost information to non-software contracts.

On software contracts, you can view cost information. However, you can add and remove cost information only from the attached license certificates, as described in “Recording the purchase cost for a license” on page 177.

To add cost information to a contract

1. If it is not already open, open the contract.
2. Click the Financials tab.
   The Cost Entries table lists currently recorded costs.
3. Below the Cost Entries table, click Add.
4. In the Costs dialog box, specify the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>After you save the cost, the company is set to the company for the contract.</td>
</tr>
<tr>
<td>Cost Center Code</td>
<td>Select the appropriate cost center.</td>
</tr>
<tr>
<td>Cost Category</td>
<td>This is set to Contract. Costing reports list costs from multiple sources.</td>
</tr>
<tr>
<td>Cost Type</td>
<td>To keep a record of the type of cost, select from the following choices:</td>
</tr>
<tr>
<td>Description</td>
<td>Optionally, type a note describing the cost.</td>
</tr>
<tr>
<td>Related Cost</td>
<td>Type the cost and select the currency.</td>
</tr>
<tr>
<td>Related Units</td>
<td>If this charge is time-based, enter the number of hours or minutes.</td>
</tr>
<tr>
<td>Unit Type</td>
<td>If this charge is time-based, select either Hours or Minutes. Otherwise, select Flat Rate.</td>
</tr>
<tr>
<td>Date Incurred</td>
<td>Select the date that the cost is incurred.</td>
</tr>
</tbody>
</table>
5 Click Save.

**Adding terms and conditions**

You can record terms and conditions for any contract.

► To record terms and conditions for a contract

1 If it is not already open, open the contract.
2 In the navigation pane, choose Functions > Terms and Conditions.
3 In the Terms and Conditions dialog box, specify the following information.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Terms and conditions can be draft, executed, or historical.</td>
</tr>
<tr>
<td>Effective Date</td>
<td>Set the effective date to the same date as the contract.</td>
</tr>
<tr>
<td>Terms and Conditions ID</td>
<td>When you save the terms and conditions, the application sets the ID.</td>
</tr>
<tr>
<td>Summary</td>
<td>Enter a summary of the terms and conditions. You can enter additional information in the Notes field and by adding up to three attachments.</td>
</tr>
<tr>
<td>Submitter</td>
<td>If you leave this field blank, when you save the terms and conditions, you are set as the submitter.</td>
</tr>
<tr>
<td>Submit Date</td>
<td>When you save the terms and conditions, the applications sets the Submit Date.</td>
</tr>
</tbody>
</table>

4 Click Save.

**Relating the contract to another contract**

You can relate any contract to any other contract.

► To relate a contract to another contract

1 If it is not already open, open the contract.
2 Click the Related Contracts tab.
3 Specify the contract to which you are relating the current contract.
   a To relate the contract to a new contract, click Create and complete the new contract form.
   b To relate the contract to a contract already in the system, perform the following steps.
      a Select the contract type, click Search, and search for the contract.
      b Select the contract.
      c Select the relationship type, and then click Relate.
Tracking the contract lifecycle

You can use the contract status and status reasons to track the contract throughout its life.

A status can have one of the following status values:

- **Draft**—Before the contract start date, the contract has a draft status. You can reset a cancelled contract to draft status.
- **Executed**—At the contract start date, the contract status becomes executed.
- **Historical**—When an executed contract expires or is cancelled, its status is set to historical.
- **Delete**—Use this status to flag contract records for deletion.

Status reason provides additional information, as listed in Table 6-3.

<table>
<thead>
<tr>
<th>Status</th>
<th>Status reason</th>
<th>Description of status reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft</td>
<td>In negotiation</td>
<td>The contract is under negotiation.</td>
</tr>
<tr>
<td></td>
<td>Pending Signature</td>
<td>Negotiations and review are completed, but the contract is not signed.</td>
</tr>
<tr>
<td></td>
<td>Current</td>
<td>The contract has been signed, but is not yet executed.</td>
</tr>
<tr>
<td>Executed</td>
<td>Active</td>
<td>This is the default value for executed contracts.</td>
</tr>
<tr>
<td></td>
<td>Requires Attention</td>
<td>This value is set when there is no activity on the contract for the configured amount of time.</td>
</tr>
<tr>
<td></td>
<td>Under re-negotiation</td>
<td>When a contract is being renegotiated, a possible change is pending.</td>
</tr>
<tr>
<td></td>
<td>Change Pending</td>
<td>A change on the contract is pending.</td>
</tr>
<tr>
<td></td>
<td>On Hold</td>
<td>No activity is allowed on this contract until the status reason is changed.</td>
</tr>
<tr>
<td></td>
<td>Pending renewal</td>
<td>Use this status reason to indicate that the contract is still being recognized as valid after the expiration date, while the renewal is being negotiated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note:</strong> You must also extend the expiration date. After the expiration date, the contract is set to a status of Historical with a status reason of Expired.</td>
</tr>
<tr>
<td></td>
<td>Historical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expired</td>
<td>When a contract reaches the expiry date, its status is set to historical, and the status reason is set to expired.</td>
</tr>
<tr>
<td></td>
<td>Terminated</td>
<td>Indicates a contract that was terminated at the expiry date.</td>
</tr>
<tr>
<td></td>
<td>Cancelled</td>
<td>Indicates a contract that was terminated before the expiry date.</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>Scheduled for Deletion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The contract record is scheduled for deletion and can be removed.</td>
</tr>
</tbody>
</table>
Adding a payment for a contract

Use the Financials tab on the Contract Information form to specify information about payments. You can specify due dates, date sent, and information about the check. You can also add, remove, and view payments.

Figure 6-4: Contract Information form—Financials tab

To add a payment for the current contract
1. If it is not already open, open the contract.
2. If you made changes to the contract, save the contract.
3. Click the Financials tab.
4. In the Payments area, click Add.
5. In the Payment Information dialog box, complete the fields, and click Save.
6. On the contract form, click Save.

Relating contracts to CIs

You can link CIs to related contracts. For example, if a warranty agreement applies to a hardware item, you can relate this agreement to the CI. For software contracts, you must relate the CI to the license certificate. Software license compliance is tracked at the certificate level.

To relate multiple CIs to a single non-software contract, create the relationships on the Contract form. To relate a single CI to multiple non-software contracts, create the relationships on the CI form.

You can relate one or more contracts to a CI. If a contract later changes or expires, you can remove the contract from the CI.
Relating CIs to a contract

Use the Relationships tab on the Contract Information form to relate, remove, and view CIs that are related to the contract. Relationships between contracts and CIs can be 1-to-many and many-to-1.

Figure 6-5: Contract Information form—Relationships tab

To relate a CI to a contract

1. If it is not already open, open the contract.
2. Click the Relationships tab.
3. From the CI Type lists, select the type of CI that you want to relate to the contract.
   
   Only certain CI types are available, depending on the contract. For example, from a lease contract you can select a computer system, but not software.
4. Specify the CI to which you are relating the current contract.
   
   To create the CI, click Create and complete the new CI form.
   
   To select a CI, search for the CI, select the relationship type, and then click Relate.

   For definitions of these relationship types, see “CI and relationship types” on page 243.
Relating contracts to CIs

To relate multiple contracts to a CI, you can open the CI, and use the Contracts tab to relate contracts to the CI.

You cannot relate a CI directly to a software contract. Instead, use the License Certificate field to relate the CI to the software license certificate. The software license certificate is related to the software contract.

To relate a contract to a CI

1. From the Asset Management console, open a CI.
   
   For information about opening a CI, see “Searching for CIs” on page 32.

2. Click the Contracts tab.

3. In the Search Existing Contracts area, select a contract type from the Contract Type list, and click Search.

4. In the Searching for Contracts dialog box, from the Search For list, select the type of contract you want to relate, and click Search.

5. In the Results List, select one or more contracts to relate to the CI.

   If no contracts appear in the list, you can add a contract. See “Creating a new contract to relate to a CI” on page 146.
From the Relationship Type list, select the relationship of this contract to the CI:

- **Attached to**—The contract is related to the CI.
- **Terms and Conditions of**—The contract uses the terms and conditions of the CI contract.

Click Relate.

The contract is related to the CI, and the contract appears in the Current Contracts for this CI table.

## Creating a new contract to relate to a CI

If you do not find the contract when you search for it, you can create it. Create the contract from the Contracts tab on the CI form.

### To create a new contract to relate to a CI

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Contracts tab.
3. In the Create New Contracts area, select a contract type from the Contract Type list.
4. Click Create.

   The appearance of the contract form varies, depending on the type of contract.

5. Complete the required fields on the contract form.
6. Click Save.

   A message appears stating that the person in the Notification Contact field will be notified when this contract expires. Click OK.

   **NOTE**

   To notify a group when a contract expires, leave the individual contact field blank. Otherwise, specify the notification group and the individual under that group to notify an individual.

7. Click Close.

   The contract record is related to the CI, and the contract appears in the Current Contracts for this CI table.
Adding end-of-lease terms

On a lease contract, end-of-lease terms specify what happens when the lease term is up. Use the End of Lease tab on the Lease Contract form to provide this information. End-of-lease options usually include opportunities to renew the item, and to return, upgrade, purchase, or buy out the remaining lease.

To add end-of-lease terms

1. Open the lease contract.
2. Click the End of Lease tab, and complete the following fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned End of Term Action</td>
<td>Select an end-of-lease term action from the list.</td>
</tr>
<tr>
<td>Residual Value</td>
<td>Specify the residual value of this lease. The residual value is the value you can purchase the item for after the lease expires.</td>
</tr>
<tr>
<td>Lease Rate Factor</td>
<td>Specify the expected percentage increase for this lease contract payment.</td>
</tr>
</tbody>
</table>

3. If BMC Remedy Change Management is installed, complete the fields in the Change Types area, and complete the End of Lease and Renew Lease fields.

If you want someone to take action when the lease contract expires, you can specify that a change request be created when the lease expires. Specify the change request by relating a change type to the contract. For example, if you select a change type named End of Life (EOL) Renew Lease, this change can trigger the creation of a change request. The change request can contain tasks that need to be performed to renew the lease.

Depending on the end-of-term action you take, different fields appear below the End of Lease field. If you select Renew, a Renew Lease field appears. If you select Return, a Return to Lessor field appears. If you want someone to take action when a lease is renewed or returned, relate change templates from these fields.

4. Click Save.
Chapter 7 Software license management

You can use the software license management feature in BMC Remedy Asset Management to facilitate, focus, and follow-through on compliance. This section describes how to use BMC Remedy Asset Management to manage software licenses and their compliance within your organization.

The following topics are provided:
- About software asset management and software license management (page 150)
- About the Software Asset Management console (page 157)
- Creating a software contract (page 161)
- Reviewing a software contract (page 163)
- Adding a license certificate to a software contract (page 163)
- About certificate groups (page 166)
- Manually managing certificate groups (page 166)
- Managing jobs that automatically attach CIs to license certificates (page 167)
- Reviewing a software license certificate (page 171)
- Relating one license certificate to another license certificate (page 172)
- Determining which CIs use a license certificate (page 173)
- Manually managing CIs attached to a license certificate (page 174)
- Manually specifying a license certificate for a software CI (page 176)
- Recording the purchase cost for a license (page 177)
- Troubleshooting software license management (page 177)
About software asset management and software license management

Organizations can acquire software in different manners. Software can be built for a specific purpose within the company. Software can be purchased from a software vendor or outsourcer. Software can be acquired through an acquisition or merger between companies, or between departments within a single company.

Software asset management is a core component of an overall asset management policy. IT Infrastructure Library (ITIL) in the *Software Asset Management Book* defines software asset management as “all of the infrastructure and processes necessary for the effective management, control and protection of the software assets within an organization, throughout all stages of their lifecycle.”

ITIL indicates that the following processes make up the holistic approach to software asset management:

- **Overall management processes**—The management processes surrounding the other software assets management processes. The overall management processes are related to change management.
- **Core asset management processes**—Identification of software assets, including maintaining this information in the configuration management database (CMDB).
- **Logistic processes**—Control of the software asset lifecycle. These processes include procurement, deployment, and end of life.
- **Verification and compliance processes**—Verification and compliance of software asset management policies and procedures, including license compliance.
- **Relationship management processes**—Software contract management.

BMC provides solutions in each of these processes. This section focuses on the key processes for verification and compliance (license compliance), relationship processes (contract management), and logistic processes (deployment) in the context of the solution that BMC provides for software license management.
About the software lifecycle

The software lifecycle comprises stages for negotiation, procurement, deployment, maintenance, renewal, and end of life, as illustrated in Figure 7-1.

Figure 7-1: Software lifecycle

Negotiation

Procurement

Renewal

Maintenance

Deployment

End of life

Negotiation

When you plan to procure software from another company, one of the first steps is to negotiate a software license contract with the vendor. If you have BMC IT Business Management suite, you can use the Vendor Relationships Management module during the negotiation stage.

In BMC Remedy Asset Management, you can use the Contract Management console to track the different types of contracts for each vendor, including software contracts. You can use the Software Contract form to track the terms of the contract, the cost of the contract, and the individual certificates that represent the license purchased. The Software Contract form provides links to extended information about the contract, such as the purchase order, the Digital Media Library (DML), and the deployed software configuration items (CIs) in BMC Atrium Configuration Management Database (BMC Atrium CMDB).
**Procurement**

You can use BMC Remedy Asset Management to generate a purchase order for the software, or you can use other procurement software. You can relate the purchase order for the software to the software license certificates, so that you can track the financial information regarding software procurement.

**Deployment**

When the software arrives, several procedures must be performed to deploy the software, as indicated in Table 7-1.

**Table 7-1: Procedures for deploying software**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing the deployment process</td>
<td>BMC provides several mechanisms to manage the deployment of the software. You can use BMC Remedy Change Management to manage the deployment of software into the IT infrastructure as described in the BMC Remedy Change Management User's Guide. BMC Remedy Change Management tracks the tasks involved in deploying the software, and can help you understand the risks or dependencies on the software. BMC also provides solutions to manage the actual deployment.</td>
</tr>
<tr>
<td>Deploying the software to existing systems in the IT infrastructure</td>
<td>BMC Configuration Automation for Clients can manage the deployment of software to existing desktops. It uses policies to enforce that the software is deployed only to the systems entitled to have the software.</td>
</tr>
<tr>
<td>Managing the “bare metal” provisioning of new systems</td>
<td>You can use BMC BladeLogic and BMC Atrium Orchestrator to manage the bare metal provisioning of systems. BMC Atrium Orchestrator integrates with BMC Remedy Change Management to take information about the systems that are being deployed. BMC Atrium Orchestrator works with BMC BladeLogic and with BMC Configuration Automation for Clients to deploy the appropriate software packages to the system.</td>
</tr>
</tbody>
</table>
Maintenance

Maintenance is an ongoing activity. BMC Remedy Asset Management provides a way for you to track the ongoing license compliance for the software. Tracking compliance is rule-based and can vary based on the license agreement for the specific software and specific vendor.

To manage the health of the software, you can use the following BMC products:

- **BMC Remedy Service Desk**—Manage incident requests, problem investigations, and known errors related to the software.

- **BMC monitoring software**—Monitor application and server performance using programs such as BMC ProactiveNet Analytics, BMC Performance Manager, and BMC Transaction Management.

- **BMC Service Level Management**—Manage service level agreements related to the software.

- **BMC Service Impact Manager**—Track the impact to the company if the software has issues.
You can use BMC Configuration Automation for Clients to track and understand the usage of software. By understanding usage, you can proactively maintain the deployment of software to allow for the most effective use of the purchased software licenses.

**Renewal**

When software contracts are nearing expiration, BMC Remedy Asset Management can send notification. BMC Remedy Asset Management provides processes for renewing contracts and for tracking the additional purchase of licenses. The renewal process feeds back into the negotiation process, providing a closed loop vision of the software lifecycle.

**End of life**

If software is being put through an end-of-life process, you can use BMC Remedy Asset Management to help determine where the software is deployed, which can help you decide whether to upgrade the software to newer or other versions.

**Implementing software license management**

The contract manager and software asset manager create software contracts, add license certificates, and relate software CIs to license certificates.

The power of software license management comes when you use the License Engine to automate the process. When you add a license certificate, you specify the license type (such as a per instance or site license) and specify details required for that license type. Each license type provides a set of connection rules, which the License Engine uses to query BMC Atrium Configuration Management Database (BMC Atrium CMDB) and select the appropriate CIs to connect to the license. Each license type also provides a set of compliance rules, which the License Engine uses to calculate whether the license is in compliance. The software asset manager schedules license jobs, so that the License Engine regularly connects software CIs to license certificates and checks for compliance.

You are not restricted to the license types that come with BMC Remedy Asset Management. An application administrator can create new license types, as described in the *BMC Remedy IT Service Management Configuration Guide*. The application administrator can create sophisticated queries and calculations based on the data in BMC Atrium CMDB. For example, the Per Copy license type, which comes with BMC Remedy Asset Management, calculates the number of users for a software product by looking at the number of users (stored as BMC_Person) with a dependency on the computer system of which the software CI is a component. For compliance calculations, you can get data from an BMC Remedy AR System form, in addition to data stored in BMC Atrium CMDB.
The software license management lifecycle, as described in “About the software lifecycle” on page 151, is implemented as described in Table 7-2.

Table 7-2: Software license management lifecycle

<table>
<thead>
<tr>
<th>Stage</th>
<th>What happens</th>
<th>Described in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiation</td>
<td>The contract manager creates the software contract with a draft status.</td>
<td>“Creating a software contract” on page 161</td>
</tr>
<tr>
<td></td>
<td>If the contract requires a new license type, the application administrator</td>
<td>BMC Remedy IT Service Management Configuration Guide</td>
</tr>
<tr>
<td></td>
<td>creates the new license type.</td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td>The contract manager changes the status of the software contract to executed.</td>
<td>“Reviewing a software contract” on page 163</td>
</tr>
<tr>
<td></td>
<td>The configuration administrator requisitions and purchases software.</td>
<td>“Creating purchase requisitions” on page 105 and “Working with purchase orders” on page 118</td>
</tr>
<tr>
<td></td>
<td>The software asset manager adds license certificates for purchased software.</td>
<td>“Adding a license certificate to a software contract” on page 163</td>
</tr>
<tr>
<td>Deployment</td>
<td>The software asset manager creates and schedules a license job to connect CIs to the license certificate and to check compliance of the license.</td>
<td>“Managing jobs that automatically attach CIs to license certificates” on page 167</td>
</tr>
<tr>
<td></td>
<td>The configuration administrator receives the software.</td>
<td>“Receiving and returning purchase items” on page 124</td>
</tr>
</tbody>
</table>
Software license management and multi-tenancy

Each software contract and software license applies to the company that you specify on the software contract. The License Engine connects CIs only for that company to the software license. This means that you must specify the Company field in the CI, or configure your discovery product to specify the Company field.

Table 7-2: Software license management lifecycle (Continued)

<table>
<thead>
<tr>
<th>Stage</th>
<th>What happens</th>
<th>Described in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>Discovery products, such as BMC Configuration Automation for Clients or BMC Atrium Discovery, discover the software. The discovery products populate BMC Atrium CMDB with the CI for the software and with the relationship between software and the computer system on which it is installed.</td>
<td>BMC Configuration Automation for Clients Configuration Discovery Integration for CMDB Implementation Guide and BMC Atrium Discovery and Dependency Mapping: Populating BMC Atrium CMDB</td>
</tr>
<tr>
<td></td>
<td>The BMC Atrium Reconciliation Engine runs, populating the production dataset (BMC Asset) with the discovered data.</td>
<td>BMC Atrium CMDB Normalization and Reconciliation Guide</td>
</tr>
<tr>
<td></td>
<td>The License Engine runs the license job to connect CIs to the license certificate and to check compliance of the license. The software asset manager can check the history from the Manage License Jobs console.</td>
<td>“About the Manage License Jobs console” on page 168</td>
</tr>
<tr>
<td></td>
<td>The software asset manager monitors the status of software license certificates.</td>
<td>“About the Software Asset Management console” on page 157 and “Reviewing a software license certificate” on page 171</td>
</tr>
<tr>
<td></td>
<td>To prepare for an audit, the software asset manager runs a license job immediately, to check for compliance, and then prints a report.</td>
<td>“Running a job immediately” on page 170 and “Table 11-1 describes the predefined reports included with BMC Remedy Asset Management, organized by the type of report.” on page 241</td>
</tr>
<tr>
<td>Renewal and End of Life</td>
<td>When the software license expires, the next time that the License Engine runs a connection and compliance job, it removes the software CIs from the expired license. If there is another non-expired license, the License Engine attaches the software CIs to the license. Otherwise, the software CIs are unlicensed.</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>If the license is renewed, the software asset manager opens the license certificate and renews the license. The next time that the License Engine runs a connection and compliance job, it attaches the software CIs to the renewed license certificate.</td>
<td>“Reviewing a software license certificate” on page 171</td>
</tr>
</tbody>
</table>
About the Software Asset Management console

The Software Asset Management console is the primary console for software asset managers. Anyone who manages software licensing and has any of the following permissions can use this console:

- Asset Admin
- Asset User
- Contract User
- Contract Admin

Functional areas of the Software Asset Management console

Figure 7-2 on page 158 illustrates the functional areas of the Software Asset Management console.
Table 7-3 describes what you can do in each of the functional areas.

**Table 7-3: Software Asset Management console functional areas**

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Software Asset Management console banner</strong></td>
<td>If the Flashboards tab is open, click the Console tab to return to the console. Use this tab to perform tasks from the Software Asset Management console.</td>
</tr>
</tbody>
</table>
| **Flashboards tab**                  | Click the Flashboards tab to select a flashboard. The flashboards that appear in the Software Asset Management console represent, in graphical format: \n  - Certificates by compliance status  
  - Certificates by manufacturer  
  - Certificates by supplier |
| **Company, Manufacturer, and Product Name** | You can filter the software license certificates listed in the certificates table by any company, by manufacturer, by product name, or by a combination. For example, you can list all Microsoft Visio licenses for your company. |
About the Software Asset Management console

Refresh

Refreshes the data in the tables.

Navigation pane

Inbox

The inbox displays events generated when the License Engine runs, and other messages about contract and software compliance information.

The inbox displays messages for the following areas:

- Contracts that have expired or are about to expire.
- Software license certificates that are not compliant or are approaching non-compliance.
- Software license certificates that have expired or are about to expire.
- Summary results of the engine run.
- List of new CIs that are linked to software license certificates.

**Note:** You might see different types of messages displayed, depending on how the application administrator has configured inbox preferences.

From the inbox, you can indicate whether you have dealt with a message. To view the applicable contract or certificate, select the message and click View.

Certificates summary

A summary of certificate software license compliance with counts of how many certificates are in compliance, out of compliance, or approaching breach.

CI counts reflect the filters—your selections for Company, Manufacturer, and Product Name. Using search definitions does **not** change the certificate counts.

Search Definitions

Use the defined searches to search for certificates that are approaching breach, in compliance, out of compliance, or of unknown compliance. Use the Manage My Searches link to define additional searches.

Functions

The Software Asset Management console provides access to the following functionality:

- Managing software license jobs. For more information, see “Manually managing CIs attached to a license certificate” on page 174.
- Managing CIs. For more information, see “Working with configuration items” on page 51.
- Additional functions, as described in “Secondary functions on the Software Asset Management console” on page 160.

Consoles

Depending on your permissions and what other applications are installed, use these links to open:

- Asset Management console
- Change Management console
- Contract Management console
- Incident Management console
- Overview console
- Problem Management console
- Release Management console
- BMC IT Business Management

Table 7-3: Software Asset Management console functional areas (Continued)

<table>
<thead>
<tr>
<th>Functional area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refresh</td>
<td>Refreshes the data in the tables.</td>
</tr>
<tr>
<td><strong>Navigation pane</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Inbox</strong></td>
<td>The inbox displays events generated when the License Engine runs, and other messages about contract and software compliance information. The inbox displays messages for the following areas: <strong>Contracts that have expired or are about to expire.</strong> <strong>Software license certificates that are not compliant or are approaching non-compliance.</strong> <strong>Software license certificates that have expired or are about to expire.</strong> <strong>Summary results of the engine run.</strong> <strong>List of new CIs that are linked to software license certificates.</strong> <strong>Note:</strong> You might see different types of messages displayed, depending on how the application administrator has configured inbox preferences. From the inbox, you can indicate whether you have dealt with a message. To view the applicable contract or certificate, select the message and click View.</td>
</tr>
<tr>
<td><strong>Certificates summary</strong></td>
<td>A summary of certificate software license compliance with counts of how many certificates are in compliance, out of compliance, or approaching breach. CI counts reflect the filters—your selections for Company, Manufacturer, and Product Name. Using search definitions does <strong>not</strong> change the certificate counts.</td>
</tr>
<tr>
<td><strong>Search Definitions</strong></td>
<td>Use the defined searches to search for certificates that are approaching breach, in compliance, out of compliance, or of unknown compliance. Use the Manage My Searches link to define additional searches.</td>
</tr>
<tr>
<td><strong>Functions</strong></td>
<td>The Software Asset Management console provides access to the following functionality: <strong>Managing software license jobs.</strong> For more information, see “Manually managing CIs attached to a license certificate” on page 174. <strong>Managing CIs.</strong> For more information, see “Working with configuration items” on page 51. <strong>Additional functions,</strong> as described in “Secondary functions on the Software Asset Management console” on page 160.</td>
</tr>
<tr>
<td><strong>Consoles</strong></td>
<td>Depending on your permissions and what other applications are installed, use these links to open: <strong>Asset Management console</strong> <strong>Change Management console</strong> <strong>Contract Management console</strong> <strong>Incident Management console</strong> <strong>Overview console</strong> <strong>Problem Management console</strong> <strong>Release Management console</strong> <strong>BMC IT Business Management</strong></td>
</tr>
</tbody>
</table>
Secondary functions on the Software Asset Management console

This console includes links to perform the following functions that are not related to either contract or software license management:

- Open other consoles, such as the Purchasing console and the Reporting console.
- Use the BMC Atrium CMDB query dialog box to build complex searches, as described in “Using the BMC Atrium CMDB query dialog box to search for CIs” on page 35.
- Create reminders, as described in “Creating reminders” on page 43.
- View your profile.
Creating a software contract

You can track compliance and usage of software license contracts. Unlike most other contracts, however, you do not relate the software CI directly to the contract. For software contracts, you add software license certificates to the contract, and relate the software CIs to the certificates.

For software contracts, you maintain the cost information in the attached certificates. You can view the total cost on the contract.

► To create a software license contract

1. On the Contract Management console, click Create, and select Software License.

Figure 7-3: Software Contract form displaying License Details tab

2. On the Software Contract form, complete all the required fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>A unique alphanumeric value.</td>
</tr>
<tr>
<td>Summary</td>
<td>Brief description of the contract.</td>
</tr>
</tbody>
</table>
| Term       | Select the applicable term:  
  ■ Fixed—Contract expires at the expiration date.  
  ■ Never Ending—Contract never expires.  
  ■ Rolling Contract—Contract automatically renews at the expiration date. |
### Field name | Description
--- | ---
Status | Select the applicable status of the contract:
- **Draft**—The contract has never been executed but is going through the process of being executed. You can use draft status for contracts that are in negotiation or pending signature.
- **Executed**—The contract that is executed and valid. Executed contracts include active contracts that have started. An executed contract might have the following status reasons: active, change pending, on hold, requires attention, under renegotiation.
- **Historical**—The contract is not valid. Historical contracts include contracts that have expired, been terminated, or been canceled.
- **Delete**—The contract is scheduled for deletion.

Company | The company associated with this contract.
View Access | Select who can view or modify this contract:
- **Public**—Anyone who can access contracts can view or modify the contract.
- **Internal**—Only people in the support group managing this contract can view or modify the contract.

Supplier Name | The supplier associated with this contract.
Cost Center | The cost center that owns this contract. This field and the following fields are located on the General tab.
Support Company | The support company associated with this contract.
Support Organization | The support organization associated with this contract.
Notification Group | The notification group associated with this contract.
Notification Contact | Optionally, you can assign an individual to receive notifications for this contract.
Owner Group | The group responsible for this contract.
Owner Contact | Optionally, you can indicate an individual responsible for this contract.
Expiration Date | Date contract expires. When a contract expires, individuals are notified first, then groups.
Notification Date | When the contract expires, the notification contact and the owner contact are notified on this date.

**Note:** If individual contacts are not specified on the Contacts tab, the notification group and owner group are notified.

3. Save the contract.
4. Add license certificates, as described in “Adding a license certificate to a software contract” on page 163.
Reviewing a software contract

The Software Contract form displays the following information:

- Contract details, including the status, and the terms and conditions
- A list of all license certificates for the contract
- The cost rollup from the license certificates

From the Software Contract form, you can perform the following actions:

- Update the status of the contract.
- Record payment for the contract.
- Add license certificates, as described in “Adding a license certificate to a software contract.”.

You can perform high-level reviews of all software contracts from the Software Asset Management console and the Contract Management console. For information about the consoles, see “About the Software Asset Management console” on page 157 and “About the Contract Management console” on page 131.

Adding a license certificate to a software contract

A license certificate indicates the right to deploy software in your environment. Because one contract might have multiple certificates, software compliance is tracked at the software level.

To maintain a history of the purchase, you can link the certificate to a purchase order line item.

When the License Engine runs, it attaches CIs to the certificate, based on the following information about the license certificate:

- Company
- Product manufacturer and name
- Categorization
- Answers to connection questions

To add a license certificate to a software contract

1. On the Contract Management console, select the software license contract, and click View.
2. On the Software License Contract form, click the License Details tab, and click Add.
3 On the License Certificate form, complete all the required fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>This information comes from the software contract.</td>
</tr>
<tr>
<td>Software Contract ID</td>
<td></td>
</tr>
<tr>
<td>Certificate ID</td>
<td>The certificate ID identifies the license certificate in listings and reports. It does not have to be unique.</td>
</tr>
<tr>
<td>Summary</td>
<td>This field provides additional space to describe the certificate.</td>
</tr>
<tr>
<td>Status</td>
<td>When you create a license certificate, the status is set to Draft.</td>
</tr>
<tr>
<td>License Category Type</td>
<td>Select from Client, Server, or Mainframe.</td>
</tr>
<tr>
<td>License Type</td>
<td>Select the appropriate license type. The license type determines the connection questions and the compliance questions. BMC Asset Management comes with the following license types:</td>
</tr>
<tr>
<td></td>
<td><strong>Enterprise</strong>—A company-wide site license for the product.</td>
</tr>
<tr>
<td></td>
<td><strong>Per copy</strong>—This license is based on the number of unique people using the license. Unique people are the people related to the computer system on which the product is installed. These people include both people related to the computer system through BMC Remedy ITSM with the “used by” relationship and people who are discovered with dependency on the computer system.</td>
</tr>
<tr>
<td></td>
<td><strong>Per copy per device</strong>—If two copies per device are permitted, each device with either one or two copies of the product consumes one license. In this example, a device with three copies of the product consumes two licenses.</td>
</tr>
<tr>
<td></td>
<td><strong>Per instance</strong>—Each instance of the software requires a separate license.</td>
</tr>
<tr>
<td></td>
<td><strong>Site</strong>—The product is licensed for an entire site within the company. It can be restricted to a region, site group, or site. The site is determined by the site of the computer system on which the product is installed.</td>
</tr>
<tr>
<td>Cost Center</td>
<td>This information comes from the software contract, but can be changed.</td>
</tr>
<tr>
<td>Effective Date</td>
<td>Specify the date that the license becomes effective.</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>Specify the date that the license expires. If the license does not expire, leave this field blank.</td>
</tr>
</tbody>
</table>

4 To link the certificate to a purchase, perform the following steps:
   a In the Purchase Line Item area, click Search Line Item.
   b In the Search Purchase Line Items dialog box, search for the purchase line item.
   c Select the appropriate line item, and click Relate.

5 Click Next.
6 Select the software from the product dictionary.

You must select the manufacturer. Optionally, you can select the product name, the version, or the categorization.

If the same type of certificate exists, you are asked whether to group the certificates. You are prompted to group only certificates that have the same product categorization.

**TIP**

If you do not need to track license certificates separately, BMC recommends that you group them. If you must track license certificates separately, however, do not group them. For example, if each department pays separately for their own Microsoft Visio licenses, do not group them. For information about certificate groups, see “About certificate groups” on page 166.

7 If you are prompted to group the certificate, perform the following steps to add it to a group:

   a. Click Manage Grouping.

   b. Search for and select the master certificate.

      If there is no appropriate master certificate, you can create a master certificate.

   c. Click Add to Group.

   d. After you finish grouping certificates, click Next.

8 Provide connection details and compliance details.

<table>
<thead>
<tr>
<th>Detail type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection details</td>
<td>To determine which CIs use the license certificate, the License Engine uses the information that you provide about connection details. These details provide information about how to connect the license certificate to the appropriate CI.</td>
</tr>
<tr>
<td>Compliance details</td>
<td>To determine compliance, the License Engine uses the information that you provide about compliance details. For example, a Per Instance license certificate asks you how many licenses were purchased and displays how many licenses were deployed.</td>
</tr>
</tbody>
</table>

**NOTE**

For some license types, a dialog box prompts you for connection details and compliance details. Use the Save button to save the details and continue.

9 On the certificate, click Save.
About certificate groups

Certificate groups consolidate the tracking of license certificates. A master certificate is grouped with individual child license certificates. The CIs are attached to the master certificates. License allocation numbers are attached to the child license certificates.

For example, under the same software contract, you might buy 200 licenses for Microsoft Word. Later, you might buy 100 more licenses. In this example, it does not matter which CI is attached to a specific license certificate. For compliance, it only matters that you do not exceed 300 Microsoft Word instances for the contract.

By grouping license certificates, you gain flexibility in how the license certificates are applied. On the master certificate, you modify the sequence to which license certificates are allocated to matching CIs. When the first license in the sequence is fully used, the License Engine starts applying CIs to the next license. As a result, only the last certificate can be out of compliance.

---

**TIP**

If you have multiple contracts with different costs for being out of compliance, make sure that the most expensive certificate is allocated first, because only the last certificate can become out of compliance.

Certificate groups help you avoid unnecessary warnings. Consider the preceding Microsoft Word license example. If you do not group the license certificates, you might receive a warning when 190 CIs are attached to the first license certificate. Although you have another license certificate that is valid for 100 instances, the first certificate would be approaching the maximum usage. If, however, you group the certificates, for compliance checks, it is equivalent to having one certificate for 300 instances. You receive a warning only when the last certificate in the sequence approaches being completely allocated.

When a certificate expires, the License Engine checks for compliance. If you have enough licenses remaining in the group, you do not receive a warning. If a license certificate is not part of a group, when it expires, all the related CIs are out of compliance.

Manually managing certificate groups

You can manually add or remove a certificate from a certificate group.

When you remove a certificate from a group, the CIs remain attached to the master certificate; when you run a licence job, CIs might be attached to the ungrouped certificate. If the group contained two certificates only, when you remove a certificate from the group, the master certificate is removed, because you cannot have a group of only one certificate.
To remove a certificate from a group

1. From the Software Asset Management console, open the certificate.
2. In the navigation pane, choose Functions > Unrelate From Group.
   A message prompts you to confirm that you want to unrelate the certificate from the group.
3. To unrelate the certificate from the group, click Yes.

To manually add a certificate to a certificate group

1. From the Software Asset Management console, open the certificate.
2. In the navigation pane, choose Functions > Manage Grouping.
   The Group Certificates dialog box displays certificate groups and ungrouped certificates that can be grouped with the open certificate.
3. Select the appropriate certificate or certificate group, and click Select Certificate, and then click Close.

Managing jobs that automatically attach CIs to license certificates

The License Engine automatically connects CIs to license certificates, based on company, product information, and answers to connection questions. It also calculates compliance based on answers to compliance questions.

You can schedule the License Engine to run immediately, at a specific time, or after reconciliation.

**NOTE**
The License Engine runs only jobs that you create and schedule.

You can manage these jobs from the Manage License Jobs console. From this console, you can also see the results of license job executions.
About the Manage License Jobs console

From the Manage License Jobs console, which is illustrated in Figure 7-4, you can manage license jobs and view the results of license job executions. The top half of the console lists license jobs.

Figure 7-4: Manage License Jobs console

Depending on your selection for the Show Related option, the bottom half of the console shows one of the following sections:

- **Schedule**—Lists the schedules for the selected license job. You can create new schedules, view (and modify) details of schedules, and delete schedules. Schedules can be time-based or reconciliation-based. To manage time-based schedules, click the Time Based Schedules title. To manage the reconciliation-based schedules, click the Reconciliation Based Schedules table title.

- **History**—Displays the history of the selected license job. The history displays the following information about the license job:
  - The number of certificates connected to CIs.
  - The number of certificates with multiple certificates.
  - The number of software CIs that are not related to certificates.
  - The number of certificates out of compliance.

To view details for the license job run, select the job and click View Details.
Managing jobs that automatically attach CIs to license certificates

- **Running Jobs**—If the select job is running, displays the status.

## Creating a job

You can create a job to check license compliance, or to connect CIs to licenses and then check compliance. After you create the job, you can either run it immediately or schedule it to run at a later time.

### To create a job

1. In the navigation pane of the Software Asset Management console, choose Functions > Manage License Jobs.
2. In the Manage Licence Jobs console below the list of license jobs, click Create.
3. In the Create License Job dialog box, specify the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>This job applies to licenses for the company that you select.</td>
</tr>
<tr>
<td>Job Name</td>
<td>Enter a descriptive name to identify this job.</td>
</tr>
<tr>
<td>Job Status</td>
<td>Select whether the job is active or inactive.</td>
</tr>
<tr>
<td>Job Type</td>
<td>To check for CIs to connect to the license and then check compliance, select CONNECTION AND COMPLIANCE. To check compliance without connecting CIs, select COMPLIANCE.</td>
</tr>
<tr>
<td>License Type</td>
<td>You can run jobs for a specific license type, such as Per Instance.</td>
</tr>
<tr>
<td>Product catalog fields</td>
<td>You can specify the product manufacturer, product name, product model/version, or product categorization.</td>
</tr>
<tr>
<td>Note: If you specify model/version in the job, but the certificate does not indicate model/version, no license certificates are checked.</td>
<td></td>
</tr>
<tr>
<td>DataSet Name</td>
<td>To check the production dataset, leave the default value BMC Asset. To check another dataset, such as a test dataset, select the dataset.</td>
</tr>
<tr>
<td>Advanced CI Criteria</td>
<td>You can build any certificate criteria with the advanced certificate criteria.</td>
</tr>
<tr>
<td>Note: Limiting the scope of CIs that are checked improves performance when running the license job.</td>
<td></td>
</tr>
</tbody>
</table>

4. To restrict the certificates being checked, specify the job criteria.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>License Type</td>
<td>You can run jobs for a specific license type, such as Per Instance.</td>
</tr>
<tr>
<td>Product catalog fields</td>
<td>You can specify the product manufacturer, product name, product model/version, or product categorization.</td>
</tr>
<tr>
<td>Note: If you specify model/version in the job, but the certificate does not indicate model/version, no license certificates are checked.</td>
<td></td>
</tr>
<tr>
<td>Advanced Certificate Criteria</td>
<td>You can build any certificate criteria with the advanced certificate criteria.</td>
</tr>
</tbody>
</table>

5. To specify the CIs being checked, specify the following information:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DataSet Name</td>
<td>To check the production dataset, leave the default value BMC Asset. To check another dataset, such as a test dataset, select the dataset.</td>
</tr>
<tr>
<td>Advanced CI Criteria</td>
<td>The license certificate contains connection questions that determine applicable CIs for the license. However, you can specify Advanced CI Criteria to restrict the scope of CIs that are checked.</td>
</tr>
<tr>
<td>Note: Limiting the scope of CIs that are checked improves performance when running the license job.</td>
<td></td>
</tr>
</tbody>
</table>
6 Click Save.

Running a job immediately

After you create a job, you can run it immediately. For example, to check compliance in preparation for an audit, create a compliance job, as described in “Creating a job” on page 169, and then run it.

1 In the navigation pane of the Software Asset Management console, choose Functions > Manage License Jobs.

2 Select the job and click Run.

The job runs immediately. You can view the results in the History, as described in “Viewing the results of a license job” on page 170.

Scheduling a time-based license job

After you create a job, you can schedule it to run on a recurring basis.

1 In the navigation pane of the Software Asset Management console, choose Functions > Manage License Jobs.

2 Select the job and, in the bottom half of the console, click Create.

3 In the Job Schedule Information dialog box, select each day that the job should run, such as Sunday and Wednesday.

4 Select the schedule time.

5 Click Save.

Viewing the results of a license job

History displays the results of a license job.

1 In the navigation pane of the Software Asset Management console, choose Functions > Manage License Jobs.

2 Select the license job.

3 For Show Related, select History.
Reviewing a software license certificate

Scheduling a reconciliation-based license job

After you create a job, you can schedule it to run after reconciliation. Reconciliation-based jobs only check CIs that were modified after the last time the job was run.

To schedule a reconciliation-based license job

1. In the navigation pane of the Software Asset Management console, choose Functions > Manage License Jobs.
2. Select the job and, in the bottom half of the console, click Reconciliation Based Schedules.
3. Select the applicable reconciliation job, and click Relate.

Reviewing a software license certificate

The License Certificate form displays the following information:

- License certificate details, including the license type, status, company, and manufacturer
- Accounting and purchasing information about the license
- A list of all software CIs attached to the license certificate
- A list of certificates grouped with the current license certificate

From the License Certificate form, you can perform the actions listed in Table 7-4.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
</table>
| View information not displayed on the certificate form. | From the Functions menu in the navigation pane, you can view the following information:  
  - Audit trail  
  - Connection details—Information that you provided when adding the license certificate  
  - Compliance Details—Information that you provided when adding the license certificate, and information resulting from a license job run, such as the number of licenses deployed. |
| Manage grouping. | Manage certificate groups, as described in “Manually managing certificate groups” on page 166. |
You can perform high-level reviews of all software license certificates from the Software Asset Management console. For information about the console, see “About the Software Asset Management console” on page 157.

### Relating one license certificate to another license certificate

When you renew or upgrade a software license, you can relate the new and old license certificates to each other, to help maintain traceability.

For upgrades, both certificates might be executed. Software CIs for the old version are connected to the old certificate, and software CIs for the new version are connected to the new certificate.

For renewals, the old certificate is typically historical. Only the new certificate is executed.

You can relate certificates for other reasons, if appropriate.

**NOTE**

Relating licence certificates is not the same as grouping license certificates. For information about grouping license certificates, see “Manually managing certificate groups” on page 166.

**To relate one license certificate to another**

1. Open the Software Asset Management console.
2. Select the license certificate, and click View.
Determining which CIs use a license certificate

You can determine which CIs use a license certificate, which can help you handle the following situations:

- A license certificate is out of compliance. You want to find software instances that can be removed.
- A software contract is up for negotiation. You want to determine if all the licenses are required.
- You have a license certificate that is not applied automatically, at least for some CIs. You want to confirm that the appropriate CIs are related to the license certificate. If necessary, you can manually relate CIs to the license certificate.

To determine which CIs use a license certificate

1 Open the Software Asset Management console.
2 Select the license certificate.
   The Related CIs table lists CIs that use the selected license certificate.
Manually managing CIs attached to a license certificate

The License Engine automatically attaches CIs to license certificates, based on company, product information, and answers to connection questions. However, if necessary, you can manually add or remove software CIs from the license certificate. Software CIs include the following CI types: Operating System, Package, Patch, Product, Software Server, and System Software.

**TIP**
If you manually remove a CI from a license certificate, manually add it to the correct license certificate. Otherwise, when the License Engine runs, it might attach the CI to the same certificate.
## To add or remove a software CI from a license certificate

1. Open the license certificate from either the Software Asset Management console or the Contract Management console, as described in the following table.

<table>
<thead>
<tr>
<th>Console</th>
<th>Steps to open the license certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Asset Management console</td>
<td>Select the license certificate.</td>
</tr>
<tr>
<td></td>
<td>Click View certificate.</td>
</tr>
<tr>
<td>Contract Management console</td>
<td>Select the applicable software license contract.</td>
</tr>
<tr>
<td></td>
<td>Click View.</td>
</tr>
<tr>
<td></td>
<td>On the License Details tab, select the license certificate and click View.</td>
</tr>
</tbody>
</table>

**Figure 7-5: License Certificate form**

2. Click the Software Assets tab.

   The Software Assets tab lists all the CIs that use the license certificate.

3. To add a CI, perform the following steps.
   - From the CI Type lists, select the type of configuration item that you want to relate to the license certificate.

4. Specify the CI to which you are relating the current contract.
   - To create the CI, click Create and complete the new CI form.
   - To select a CI, search for the CI, select the relationship type, and then click Relate.

4. To remove a CI, select it and click Remove.
5 In the message window that appears, select whether to run a license job. The license job checks for connections and compliance.

6 If you run a license job, complete the Create License Job dialog box and click Submit. The Company, License Type, and product catalog fields are filled in with values from the license certificate. In the Job Name field, you must enter a descriptive name to identify this job.

Manually specifying a license certificate for a software CI

The License Engine automatically attaches software CIs to license certificates, based on company, product information, and answers to connection questions. However, if necessary, you can manually specify the license certificate for a software CI. Software CIs include the following CI types: Operating System, Package, Patch, Product, Software Server, and System Software.

To manually specify a license certificate for a software CI

1 Open the software CI from either the Software Asset Management console or the Asset Management console, as described in the following table.

<table>
<thead>
<tr>
<th>Console</th>
<th>Steps to open the CI</th>
</tr>
</thead>
</table>
| Software Asset Management console | 1 Expand the Unrelated CIs panel.  
2 From the Job Name list, select the job that found the unrelated CI.  
3 Select the CI from the list of Unrelated CIs, and click View. |
| Asset Management console     | Search for the CI, as described in “Searching for CIs” on page 32. |

2 On the CI form, click the Contracts tab.

3 In the Search Existing Contracts Area, select the License Certificate contract type, and click Search.

In the Searching for Certificates dialog box, you can refine your search.

4 Select the applicable software contract, select a relationship type of Attached to, and click Relate.
5 In the message window that appears, select whether to run a license job. The license job checks for connections and compliance.

6 If you run a license job, complete the Create License Job form and click Submit. The Company, License Type, and product catalog fields are filled in with values from the license certificate. In the Job Name field, you must enter a descriptive name to identify this job.

**Recording the purchase cost for a license**

On a certificate, you can record the purchase cost for a license. Each software contract displays the costs for the licenses attached to the contract.

► **To record the purchase cost for a license**

1 From the Software Asset Management console, open the license certificate.

2 In the Purchase Cost field, type the cost to purchase the license, and select the currency.
   The cost center comes from the software contract.

3 Click Save.

**Troubleshooting software license management**

This section helps you troubleshoot the following problems that you might encounter in software license management:

- No CIs are related to a software license certificate.
- One or more CIs are not related to any software license certificates.
- Incorrect CIs are related to a software license certificate.
- A “per copy” license is approaching breach faster than expected.

For your records, and to assist with troubleshooting, each certificate includes an audit trail of modifications to the certificate and of notifications sent about the certificate.
## No CIs are related to a software license certificate

Table 7-5 lists possible causes why no CIs are related to a software license certificate, along with the diagnostic method to determine the cause.

### Table 7-5: Tips for troubleshooting why no CIs are related to a software license certificate

<table>
<thead>
<tr>
<th>Possible cause</th>
<th>Diagnostic method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Categorization specified on the license certificate does not match categorization of discovered CIs.</td>
<td>View the license certificate, as described in “Reviewing a software license certificate” on page 171. If categorization fields are completed, open a CI to see whether the categorization matches. To fix this issue, change the categorization on the certificate either to match the CI, or to be blank.</td>
</tr>
<tr>
<td>Connection questions are not answered correctly. Connection questions must be answered correctly to connect the CI to the certificate.</td>
<td>View the license certificate and check the answers to connection questions.</td>
</tr>
<tr>
<td>No job has been run to connect the CIs to the certificate.</td>
<td>Open the Manage License Jobs console, as described in “Manually managing CIs attached to a license certificate” on page 174, and check the history. View the jobs to determine whether any apply to the license type.</td>
</tr>
<tr>
<td>The license type is not correctly configured. When creating a license type, an administrator specifies how the connection question answers map to CIs in BMC Atrium CMDB. An error can result in no CIs being related to the certificate.</td>
<td>An administrator can examine the license type, as described in the BMC Remedy IT Service Management Configuration Guide. To check for issues with rules, open the AST:ConfigRuleSet form. This is an intermediate form between the Configure License Type wizard and the License Engine.</td>
</tr>
<tr>
<td>The License Engine did not complete its run.</td>
<td>Check the following forms:</td>
</tr>
<tr>
<td></td>
<td>- <strong>RLE:RunHistory</strong>—Provides information about each License Engine run, including status (Pending, Running, Aborted, Completed, Completed with Warning, Completed with Errors).</td>
</tr>
<tr>
<td></td>
<td>- <strong>RLE:EngineExceptions</strong> - Lists Java™ exceptions, RLE exceptions, and the ruleset ID.</td>
</tr>
<tr>
<td></td>
<td>- <strong>arjavaplugin.log</strong>—This log file is typically located in the ARserver\Db directory of the server. If you turn on logging, this log file provides details of the License Engine job run. Logging is configured from the Application Administration console, as described in the BMC Remedy IT Service Management Configuration Guide.</td>
</tr>
<tr>
<td>The Company attribute (or another attribute used to connect the CI to the license certificate) is not set on the CIs.</td>
<td>Search for and open the appropriate CI, as described in “Searching for CIs” on page 32. The Company and Manufacturer attributes are always used to connect a CI to a license certificate. Whether other attributes are required for a connection depends on the license type. For example, for a site license, the Site attribute must be specified on the computer system on which the product is installed.</td>
</tr>
</tbody>
</table>
One or more CIs are not related to any software license certificates

Table 7-6 lists possible causes why one or more CIs would not be related to any software license certificates, along with the diagnostic method to determine the cause.

Table 7-6: Tips for troubleshooting one or more CIs are not related to a software license certificate

<table>
<thead>
<tr>
<th>Possible cause</th>
<th>Diagnostic method</th>
</tr>
</thead>
<tbody>
<tr>
<td>No software license certificates are applicable for the CI.</td>
<td>On the Software Asset Management console, check the Unrelated CIs panel. This panel lists CIs that could not be matched to license certificates by a job. View the license certificate, as described in “Reviewing a software license certificate” on page 171. If no other CIs appear on the Software Assets tab, continue to diagnose the cause, as described in “No CIs are related to a software license certificate” on page 178. If the Software Assets tab lists incorrectly related CIs, continue to diagnose the cause, as described in “Incorrect CIs are related to a software license certificate” on page 179.</td>
</tr>
<tr>
<td>A CI could be related to multiple certificates. Because the License Engine cannot determine the appropriate certificate, the CI is not related to any software license certificate.</td>
<td>On the Software Asset Management console, check the Unrelated CIs panel. This panel lists CIs that could not be matched to license certificates by a job. Check the inbox for a message with additional details. From the inbox message, you can relate the CI to the appropriate certificate.</td>
</tr>
</tbody>
</table>

Incorrect CIs are related to a software license certificate

Table 7-7 lists possible causes why incorrect CIs are related to a software license certificate, along with the diagnostic method to determine the cause.

Table 7-7: Tips for troubleshooting why incorrect CIs are related to a software license certificate

<table>
<thead>
<tr>
<th>Possible cause</th>
<th>Diagnostic method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Categorization is too broad. Many CIs match the specified configuration.</td>
<td>View the license certificate, as described in “Reviewing a software license certificate” on page 171. If a product is not specified, all CIs that match the manufacturer and categorization are related to the certificate.</td>
</tr>
<tr>
<td>Connection questions are not answered correctly. Connection questions must be answered correctly to connect the correct CI to the certificate.</td>
<td>View the license certificate and check the answers to connection questions.</td>
</tr>
<tr>
<td>The license type is not correctly configured. When creating a license type, an administrator specifies how the connection question answers map to CIs in BMC Atrium CMDB. An error can result in incorrect CIs being related to the certificate.</td>
<td>An administrator can examine the license type, as described in the BMC Remedy IT Service Management Configuration Guide.</td>
</tr>
</tbody>
</table>
A “per copy” license is approaching breach faster than expected

The “per copy” license type is based on the number of unique people using the license. Unique people are the people related to the computer system on which the software is installed. These people include both people related to the computer system through BMC Remedy ITSM with the “used by” relationship and people who are discovered with dependency on the computer system.

People created in BMC Remedy ITSM are stored in the People form, but are also reconciled into BMC Atrium CMDB in the BMC_Person class. People who are discovered by BMC discovery products are stored in BMC Atrium CMDB in the BMC_Person class. If more people are discovered on a computer system than expected, you might be using more licenses than expected.

BMC_Person records, when related to computer systems, are displayed on the Relationships tab of the Computer System form. The People tab of the Computer System form displays the people related through BMC Remedy ITSM, but does not include the people related through BMC discovery products. The Relationships tab displays records for all related people.

You can build a query to search for people as described in “Using the BMC Atrium CMDB query dialog box to search for CIs” on page 35.

To determine the people using a per copy license

1. Open the Software Asset Management console and select the license.
2. In the Related CIs table, select a related CI and click View CI.
3. In the Product form, click the Relationships tab.
4. Select the computer system CI, and click View.
5. In the Computer System form, click the Relationships tab and count the number of BMC_Person records.
6. Repeat step 2 through step 5 for each product CI that is related to the selected license, and total the number of BMC_Person records.
This section presents tasks necessary to specify and track costs in BMC Remedy Asset Management.

With BMC Remedy Asset Management, IT personnel can manage infrastructure costs by accurately tracking all the expenses and depreciation costs related to IT configuration items (CIs). IT personnel specify costs for CIs. To allocate costs to the appropriate cost center for recovery purposes, they can generate charge-back invoices.

The following topics are provided:
- IT roles for asset accounting (page 182)
- The charge-back cycle (page 183)
- About cost centers (page 183)
- About charge-backs (page 184)
- About time periods (page 184)
- Providing accounting information (page 185)
- Providing purchasing information (page 185)
- Working with costs (page 186)
- Working with depreciation (page 190)
- Working with charge-backs (page 196)
- Generating charge-back reports and invoices (page 202)
- Closing the current period (page 211)
IT roles for asset accounting

When working with BMC Remedy Asset Management, the IT personnel involved in asset accounting generally are either configuration administrators or financial managers. IT roles can vary from organization to organization, and in some companies, one person might fulfill several roles.

Configuration administrator—Uses BMC Remedy Asset Management to create, track, and manage CI records. In some companies, an asset manager performs this function.

The configuration administrator is responsible for the following tasks:

- Creating, searching for, and modifying CI records. See “Providing accounting information” on page 185.
- Adding and modifying costs to CI records, and charging costs to the appropriate cost centers. See “Working with costs” on page 186.

Configuration administrators add and track accounting information, such as purchasing details, depreciation, and other costs. They use the Financials tab on the CI Information form to add and track this information. See “Working with depreciation” on page 190.

Financial manager—Tracks cost data, prepares periodic charge-back reports, and generates charge-back invoices for cost recovery.

The financial manager is responsible for the following tasks:

- Working with the application administrator to set up cost centers and charge-back information. See “Working with charge-backs” on page 196.
- Generating charge-back reports, making any necessary adjustments, and then generating charge-back invoices. See “Generating charge-back reports and invoices” on page 202.
- Sending charge-back invoices to departments for review, and then sending final invoices to the accounting department.
- Closing each accounting period. See “Closing the current period” on page 211.

Financial managers use the Manage Costs dialog box to track costs and generate charge-back invoices to recover costs. For more information about recovering costs, see “Working with charge-backs” on page 196.
The charge-back cycle

The configuration administrator and the financial manager complete the tasks listed in Table 8-1 when working with BMC Remedy Asset Management.

Table 8-1: Overview of tasks performed during the charge-back cycle

<table>
<thead>
<tr>
<th>Time</th>
<th>Role</th>
<th>Tasks</th>
<th>For more information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughout the current period</td>
<td>Configuration administrator</td>
<td>Specify costs and charge costs to the appropriate cost centers</td>
<td>See “Providing accounting information” on page 185</td>
</tr>
<tr>
<td>End of the current period, before approval</td>
<td>Financial manager</td>
<td>Generate charge-back reports and make any necessary adjustments, such as for unallocated costs, and generate preliminary charge-back invoices, and then send them to the appropriate business units for verification and approval</td>
<td>See “Working with charge-backs” on page 196</td>
</tr>
<tr>
<td>End of the current period, after verification or approval</td>
<td>Financial manager</td>
<td>If changes are required, make the adjustments and if required, send the final invoices to the accounting department for posting to the general ledger or close the current period</td>
<td>See “Working with charge-backs” on page 196</td>
</tr>
</tbody>
</table>

About cost centers

A cost center is an entity used to track cost information within an organization. Many companies use cost centers to group expenses by department (for example, by Engineering or Sales).

Administrators can also set up split cost centers, so that a department can allocate its costs to other departments. You can split costs equally, or specify a percentage for each department involved. For example, a project management department might split its costs equally between an engineering department and a sales department. The project management department is the source cost center, and the engineering and sales departments are the target cost centers. One hundred dollars in costs for the project management department is allocated as $50 to the engineering department and $50 to the sales department.

In BMC Remedy Asset Management, you can have only one level of split cost centers. For example, if you split a source cost center called C1 into two target cost centers called C-1 and C-2, you cannot also split C-1 and C-2 into additional target cost centers.
The application administrator can associate a cost center with an employee, a CI or a contract. If BMC Remedy Change Management is installed, the application administrator can associate a cost with a change request. If a cost center is associated with a CI, you can use the cost center to allocate portions of the CI’s cost to different departments.

About charge-backs

Charge-backs are invoices for charging departments or cost centers for the IT CIs required to support their business processes. The IT group can use charge-backs to recover expenses from departments that use their CIs or services. Charge-backs help show the value of IT services to departments within the company who use those services. During each period, the financial manager reviews the costs and generates a preliminary charge-back invoice for the business unit review. Then, the financial manager sends the charge-back invoices to the appropriate business units. When the invoices are approved, the financial manager can send them to the accounting department to post to the general ledger.

Financial managers can generate charge-back invoices for the expenses incurred. They can also charge an additional amount to cover the cost of their services and other indirect costs. This additional amount is called a charge-back percentage.

For example, suppose an IT department orders a $2,000 laptop for an employee. The IT department might generate a charge-back invoice for the employee’s department for $2,000. Or, the IT department can add a charge-back percentage, such as 10%, to the purchase price to cover the expense of purchasing and configuring the equipment. In this example, the charge-back invoice to the other department would be $2,200. You can add a charge-back percentage when you generate a charge-back invoice. See “Generating charge-back reports and invoices” on page 202.

About time periods

Time periods are the regular intervals during which you review costs and create charge-back invoices. You work with the application administrator to configure BMC Remedy Asset Management with the appropriate time periods. Time periods can be set as quarters or months. They can also be set so that you can manually determine the start date and end date for each period.

At the end of the period, the financial manager generates charge-back invoices and closes the period. After the period is closed, cost entries for that period can no longer be used for future charge-backs. As a result, costs are not charged to departments more than once.
Providing accounting information

Many corporations depend on a finance department to manage and control finances and costs. IT organizations also need accounting information to manage, calculate, and reduce the total cost of ownership for their IT CI portfolio.

Configuration administrators provide CI accounting information in the Financials tab on the CI Information form.

- Use the fields in the Financials tab on the CI Information form to specify the cost center, requisition ID, and other purchasing information.
- Use the Cost Entries table to add costs that are associated with the CI.
- For CI records, use the Accounting Information area to provide information about depreciation, tax credits, market value, and book value.

**Figure 8-1: CI Information form—Financials tab**

![CI Information form—Financials tab](image)

Providing purchasing information

Use the Financials tab on the CI Information form to provide purchasing information.

**To provide purchasing information**

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Financials tab.
3. Complete the following fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Center</td>
<td>Specify the cost center to charge for related costs. If the CI is purchased with a purchase requisition, this field is already populated. For more information, see “About cost centers” on page 183 and “Working with charge-backs” on page 196.</td>
</tr>
<tr>
<td>Budget Code</td>
<td>Specify the budget code. Companies use budget codes to track expenses to specific categories. Budget codes are used in a capital or operating budget.</td>
</tr>
<tr>
<td>Project Number</td>
<td>If this cost is for a project, specify the project number.</td>
</tr>
</tbody>
</table>
Choose your next step:

- To specify costs for this record, continue with “Adding costs” on page 187.
- To specify depreciation information for this record, continue with “Providing depreciation information” on page 192.
- To save your changes after you finish providing information for this record, click Save in the record.

## Working with costs

Configuration administrators use the Cost Entries table in the Financials tab on the CI Information form to work with costs that are associated with the record. This table also lists any contract-related costs.

**Figure 8-2: Cost Entries table on the CI Information form**

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Code</td>
<td>Specify the accounting code. Accounting codes correspond to an expense line in a general ledger. Companies use them to track specific line items. Examples of accounting codes might include 00021: Hardware or 00022: Software.</td>
</tr>
<tr>
<td>Requisition ID</td>
<td>If the CI record was created from a purchase order, or if your applications administrator has integrated a procurement program, this field is already filled.</td>
</tr>
<tr>
<td>Order ID</td>
<td>If the CI record was created from a purchase order, or if your applications administrator has integrated a procurement program, this field is already filled.</td>
</tr>
<tr>
<td>Purchase Date</td>
<td>Specify the date the CI was purchased, or click to select a date from the calendar.</td>
</tr>
<tr>
<td>Invoice Number</td>
<td>Specify the invoice number of the CI.</td>
</tr>
<tr>
<td>Unit Price</td>
<td>Specify the unit price. If you create the CI record from a purchase requisition or from a purchase order, this field is already filled.</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>Specify the sales tax. If you create the CI record from a purchase requisition or from a purchase order, this field is already filled.</td>
</tr>
<tr>
<td>Total Purchase Cost</td>
<td>BMC Remedy Asset Management calculates the total purchase cost by adding the values in the Unit Price and the Sales Tax fields.</td>
</tr>
</tbody>
</table>
**NOTE**

If you belong to the Asset Admin or Asset User permission groups, you can add, modify, or delete cost records with the Costs dialog box.

After you specify costs and make any necessary adjustments, you can issue charge-back invoices to recover your expenses.

### Viewing costs

You can view costs for the current period using the Financials tab on the CI Information form. If information must be modified, you can change it using the procedures in “Adding costs” on page 187, “Modifying costs” on page 189, and “ Removing costs” on page 190.

**Figure 8-3: CI Information form—Financials tab**

To view costs

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Financials tab.
3. At the top of the Cost Entries table, select an option from the Show field to view specific types of costs.

For example, you can select Chargeback to display any charge-back costs. See “Working with charge-backs” on page 196.

### Adding costs

You add costs for CIs using the Costs dialog box. If contract costs are associated with CIs, you can specify those costs here. If BMC Remedy Change Management is installed, you can also add change costs, such as a charge for installation. For information about allocating change costs to CIs, see the *BMC Remedy Change Management User’s Guide*.

After you add information about costs, you can issue charge-back invoices to other departments to recover your costs. See “Working with charge-backs” on page 196.
To add costs

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Financials tab, and click Add.

Figure 8-4: Costs dialog box

3. In the Costs dialog box, for Cost Center Code, select the cost center that you want to bill for this expense.

   The default value for this field is the default cost center, Unallocated. To issue a charge-back invoice to recover this cost from another department, you must replace this value with another cost center code.

   When you select a cost center code, the read-only Cost Center Name field is populated.

4. For Cost Type, select an option:
   - **Chargeback**—Costs are charged back to another department. Before you can issue a charge-back invoice for this cost, you can select this option and specify a cost center.
   - **Component**—Costs are associated with a CI’s components.
   - **Disposal**—The item has been disposed of, and the disposal has a cost.
   - **Lease**—Costs associated with a lease contract or service for this item.
   - **Maintenance**—Costs associated with a maintenance contract or service for this item.
   - **Other**—Other associated incidental costs.
   - **Purchase Price**—The purchase price of the item.
   - **Sales Tax**—Sales tax based on purchase price.
   - **Software License**—Costs associated with a software license contract or service for this item.
   - **Support**—Costs associated with a support contract or service for this item.
- **Upgrade**—Costs associated with upgrades for this item.
- **Warranty**—Costs associated with a warranty contract or service for this item.

**NOTE**
The entries in the Sales Tax and Purchase Price fields are added to the entry in the Total Purchase Cost field. If an entry exists, when the sales tax is not zero or charged, the cost is updated. If no entry exists, a cost entry is created. If you modify these prices using the Costs dialog box, you must also modify the Total Purchase Cost field on a CI Information form.

5 For Description, provide a description of the cost.
6 For Related Cost, select a currency type and specify the cost.
7 For Date Incurred, specify the date that the cost was incurred.
8 Click Save.
   The cost appears in the Cost Entries table, and the Total Cost field is updated.
9 In the CI record, click Save.

**Modifying costs**

You can modify costs for CIs on the Financials tab on the CI Information form. However, you can modify information only for the current period. See “About time periods” on page 184.

► **To modify costs**

1 Open a CI, as described in “Searching for CIs” on page 32.
2 Click the Financials tab.
3 At the top of the Cost Entries table, select an option from the Show field to view specific types of costs.
   For example, you can select Chargeback to display any charge-back costs. See “Working with charge-backs” on page 196.
4 Select a cost item in the table, and click View.
5 Modify the fields in the Costs form. For information about these fields, see “Adding costs” on page 187.
6 Click Save.
   The modified information appears in the record.
7 In the CI record, click Save.
Removing costs

You can remove costs for CIs on the Financials tab on the CI Information form. However, you can remove costs only for the current period. See “About time periods” on page 184.

To remove costs

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Financials tab.
3. At the top of the Cost Entries table, select an option from the Show field to view specific types of costs.
   
   For example, you can select Chargeback to display any charge-back costs. See “Working with charge-backs” on page 196.
4. Select a cost item in the table, and click Remove.
   
   The cost item is removed from the record.
5. In the CI record, click Save.

Working with depreciation

Each year that you own an asset, the asset loses some value until it eventually has no more value to the business. Measuring the loss in value of an asset is called depreciation. Depreciation is a method to allocate the cost of an asset over its estimated useful life. By depreciating your assets, you can take tax deductions for the loss in value.

**NOTE**

You can configure depreciation rules by Product Catalog using the Configuration Manager. For more information, see the *BMC Remedy IT Service Management Configuration Guide*.

BMC Remedy Asset Management includes the following four methods of depreciation.

Table 8-2: Methods of depreciation

<table>
<thead>
<tr>
<th>Depreciation method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight-line depreciation</td>
<td>Assets depreciate at a constant value per year. The total depreciation equals the purchase price minus the salvage value. To calculate the annual depreciation, the total depreciation is divided by the estimated useful life of the asset.</td>
</tr>
<tr>
<td>Declining balance (150%)</td>
<td>Assets depreciate at a constant rate per year, accelerated by a factor of 150%. In this method of accelerated depreciation, 150% of the straight-line depreciation amount is taken the first year. That same percentage is applied to the undepreciated amount in subsequent years.</td>
</tr>
</tbody>
</table>
Working with depreciation

To understand depreciation of an asset, you must know the following information:

- **Initial cost of the asset.**
- **Useful life of an asset**—How many years you expect the asset to retain value for your business.
- **Book value of an asset**—The purchase cost minus the accumulated depreciation.
- **Depreciation**—An expense that reduces the value of a long-term tangible asset.
- **Accelerated depreciation**—A method of depreciation that enables greater deductions in the earlier years of the life of an asset.
- **Salvage value**—The estimated value that an asset will realize at the end of its useful life.

**NOTE**

For more information about depreciation, consult your tax professional.

Use the Financials tab on the CI Information form to track the initial cost and the subsequent depreciation of your assets. If depreciation has been calculated, the Depreciated field is set to Yes and the View button is visible. If no depreciation information has been specified, the field is set to No and the Create button is visible.

---

Table 8-2: Methods of depreciation (Continued)

<table>
<thead>
<tr>
<th>Depreciation method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double-declining balance (200%)</td>
<td>Assets depreciate at a constant rate per year, accelerated by a factor of 200%. In this method of accelerated depreciation, double the straight-line depreciation amount is taken the first year. That same percentage is applied to the undepreciated amount in subsequent years.</td>
</tr>
<tr>
<td>Sum-of-the-year’s digits</td>
<td>Assets lose more of their value early in their lifetime. This method of calculating depreciation of an asset assumes higher depreciation charges and greater tax benefits in the early years of an asset. In this method of accelerated depreciation, each year of useful life is assigned a value from the total down to 1. The sum of the years of the useful life of an asset is calculated. For example, for 3 useful years, this sum is 6 (3 + 2 + 1). For each year, the asset is depreciated by the year’s value divided by the sum. For example, in the first year, it is depreciated by 3 / 6, which is 50%.</td>
</tr>
</tbody>
</table>
Providing depreciation information

You can add depreciation information for a CI using one of several depreciation methods. Before you provide depreciation information, you must create a record for the CI and save the record. You must also set the status of the CI to either Received or Deployed.

**To provide depreciation information**

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Financials tab.
3. Specify a unit price.
4. In the Accounting Information area, click Create.
   - If depreciation has not yet been calculated, the Accounting Information area includes a Create button. After depreciation has been calculated, this area includes a View button.
5. In the Create CI Depreciation dialog box, for Method, select the depreciation method that you want to use for this CI.

<table>
<thead>
<tr>
<th>Select this method</th>
<th>If the CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight Line Depreciation</td>
<td>Depreciates at a constant value per year.</td>
</tr>
<tr>
<td>Declining Balance (150%)</td>
<td>Depreciates at a constant rate per year, accelerated by a factor of 1.5 (150%).</td>
</tr>
<tr>
<td>Double-Declining Balance (200%)</td>
<td>Depreciates at a constant rate per year, accelerated by a factor of 2.0 (200%).</td>
</tr>
<tr>
<td>Sum-of-the-year’s Digits</td>
<td>Loses more of its value early in its lifetime.</td>
</tr>
</tbody>
</table>

6. For Useful Life (months), specify the number of months that you expect this CI to be in service.
7. For Depreciation Starts, select the date when you want to start calculating depreciation for this CI.

BMC Remedy Asset Management calculates depreciation on the last day of the month prior to the month you select, even if you select a specific date.
8 If this CI has a salvage value, specify it in the Salvage Value field and select a currency type from the list.

The salvage value is the estimated value that an asset will realize at the end of its useful life. BMC Remedy Asset Management uses the salvage value in calculating the monthly depreciation figures. For example, if a laptop costs $4,000.00 and has a useful life of 12 months and a salvage value of $1,000.00, BMC Remedy Asset Management uses $3,000.00 as the fully depreciated amount. The default amount for this field is $0.

9 Click Compute Depreciation.

10 Click OK in any confirmation messages that appear.

The Depreciated field is now set to Yes, and the Create button is changed to View.

11 In the CI record, click Save.

**Viewing depreciation**

After you provide depreciation information for a CI, you can view the depreciation schedule. You can also modify the depreciation, change the methods, and recalculate the result to see the effects of changes. See “Modifying depreciation” on page 195.

---

**NOTE**

If depreciation has been calculated for this asset, the Depreciated field on the Financials tab on the CI Information form is set to Yes and a View button appears. If depreciation has not been calculated, the Depreciated field is set to No and a Create button appears.

---

**To view depreciation**

1 Open a CI, as described in “Searching for CIs” on page 32.

2 Click the Financials tab.

3 In the Accounting Information area, click View.

   If you see a Create button instead of a View button, depreciation has not yet been specified for this CI. See “Providing depreciation information” on page 192.

   The Depreciation Information for CI dialog box appears, displaying the depreciation for any months in which the CI has already been depreciated.
To view the details of the depreciation history, select an item in the table, and click View.

After you finish viewing the information, in the Depreciation Details for CI dialog box, click Close.

Click the Depreciation Schedule tab to view the depreciation schedule for this CI.

The Depreciation Schedule tab shows the following information:

- **Effective Date**—The date that the listed depreciation takes effect.
- **Status**—The status of the CI’s depreciation.
- **Current Depreciation**—The amount of the listed depreciation.
- **LTD Depreciation**—The life-to-date depreciation.
- **Useful Life of Asset**—The estimated number of months that the depreciable asset is expected to be in use.
- **Remaining Life**—The number of months remaining in the useful life of the asset.
Modifying depreciation

You can use the Depreciation Details for CI dialog box to change the start date for depreciation and to select the depreciation method. You can also recalculate depreciation based on different criteria.

After depreciation has been calculated for an asset, the Depreciated field on the Financials tab on the CI Information form is set to Yes and the View button is visible.

To modify depreciation

1. Open a CI, as described in “Searching for CIs” on page 32.
2. Click the Financials tab.
3. In the Accounting Information area, click View. (If you see a Create button instead of a View button, depreciation has not yet been specified for this record. See “Providing depreciation information” on page 192.)

The Depreciation Details for CI dialog box appears, displaying the depreciation for any months in which the CI has already been depreciated.

**Figure 8-8: Depreciation Information for CI dialog box**

4. Modify any of the following fields:
   - Method
   - Useful Life (months)
   - Depreciation Starts
   - Salvage Value

   For information about these fields, see “Providing depreciation information” on page 192.

**IMPORTANT**

For charge-back entries for depreciation to work correctly, the same price must appear in the following fields: Unit Price field on the CI record form, Related Cost field on the Cost form, and the Total Purchase Cost field on the Depreciation form.

Modify depreciation information, and then click Recalculate.
5 Click Recalculate to recalculate the depreciation for this CI record.  
6 Click Yes or OK in any confirmation messages that appear.  
7 In the CI record, click Save.  

**NOTE**  
If you modify the Total Purchase Cost field on the Depreciation Details for CI dialog box and click Recalculate, a message indicates that you must manually update the Total Purchase Cost field on the Financials tab on the CI Information form.

### Specifying tax-related values other than depreciation

In addition to depreciation, you can track other tax-related values for assets. For CI records, you can provide information about tax credits, book value, and market value.

**To specify tax-related values other than depreciation**

1 Open a CI, as described in “Searching for CIs” on page 32.  
2 Click the Financials tab.  
3 In the Accounting Information area, complete the following optional fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Credit</td>
<td>If you have donated this asset, specify the tax credit amount in the Tax Credit field.</td>
</tr>
<tr>
<td>Market Value</td>
<td>Specify the fair market value for this asset. This is the price at which an item can be sold by a willing seller to a willing buyer, neither of whom are under any pressure to buy or sell.</td>
</tr>
<tr>
<td>Book Value</td>
<td>The book value (subtracted from the accumulated depreciation from the purchase cost) for this asset.</td>
</tr>
</tbody>
</table>

4 In the CI record, click Save.

### Working with charge-backs

To implement charge-backs, IT personnel must plan how to implement charge-backs at their company. They can then work with the application administrator to configure BMC Remedy Asset Management with the appropriate cost centers and time periods.

Configuration administrators specify costs for the current period and they track them against the appropriate cost centers. Costs are also added by purchase requisitions.
When costs are specified for the current period, financial managers review charge-backs, make any necessary adjustments, and print charge-back invoices. Financial managers send the charge-back invoices to the appropriate cost centers for approval, and then send the charge-back information to the accounting department for posting to the general ledger. After the information is received by accounting, financial managers close the current period.

Planning and setting up charge-back information

Use these steps to plan and to set up charge-back information.

Step 1 Plan how to implement cost centers and the charge-back process at your company:

- Determine the cost centers at your company. Determine whether any cost centers split their costs with other cost centers (target cost centers). See “The charge-back cycle” on page 183.
- Decide which employees must belong to each cost center.
- Plan appropriate time periods for implementing charge-backs.

Step 2 Work with the application administrator to configure BMC Remedy Asset Management with the information from step 1. The administrator must complete the following tasks:

- If necessary, set up cost centers for the company, including split cost centers.
- Add all application users to appropriate cost centers.
- Set up appropriate time periods for implementing charge-backs.

For information about configuring BMC Remedy Asset Management, see the BMC Remedy IT Service Management Configuration Guide.

Implementing the charge-back process during each period

Use these steps to implement the charge-back process during each period.

Step 1 Specify costs for the current period. See “Working with costs” on page 186.

Step 2 At the end of the period, generate preliminary charge-back reports and make any necessary adjustments. See “Generating a list of charge-back entries” on page 198, “Generating charge-back reports” on page 203, and “Adjusting charge-back entries” on page 200.

Step 3 Generate and print charge-back invoices. See “Generating charge-back invoices” on page 206.

Step 4 Send the charge-back invoices to the appropriate business units for verification and approval.
Step 5  Send the final charge-back invoices to your company’s accounting department.

Step 6  At the end of the period, close the period. See “Closing the current period” on page 211.

Generating a list of charge-back entries

After the configuration administrator specifies costs and charge-backs, the financial manager generates a list of charge-back entries. This list summarizes charge-back information for a specified period, including the cost centers billed, cost types, and related costs. The information is used to generate reports and charge-back invoices.

At the end of the period (but before you close the current period), generate the charge-back entries to check the information for accuracy. If you find discrepancies, you can make any necessary adjustments before you print your charge-back invoices. For example, after checking the list, you might discover that you allocated a cost to the wrong cost center. You can then specify the correct cost center before you create your invoice.

If you change the cost information after you generate the list, you can regenerate the list to refresh the data. When you regenerate the list, you can choose to discard or preserve your changes. If you have split cost centers, you can calculate the entries for these cost centers. For more information about split cost centers, see “The charge-back cycle” on page 183.

To generate a list of charge-back entries

1  On the Asset Management console, from the navigation pane, choose Functions > Manage Costs.

   The Manage Costs form appears. The first time that you open the form for the current period, no information appears in the Charge-back Entries table. After you click Generate Preliminary Costing, the table lists charge-back entries.

2  In the Period Start Date and Period End Date fields, specify the start date and end date for the current period.

3  Click Generate Preliminary Costing.

4  If you have already generated the list for the current period, respond to any confirmation messages that appear:
   - If you have already generated the list for the current period, to create the list again, click Yes.
   - If you made adjustments to any entries since you last generated the list, to preserve the adjustments, click Yes. To discard the adjustments, click No.

The table now lists charge-back entries.
Working with charge-backs

The next time that you open the Manage Costs form for the current period, charge-back entries appear in the table.

Viewing charge-back entries

You view charge-back information for assets in the Manage Costs form. The first time that you open the console for the current period, generate a list of charge-back entries. See “Generating a list of charge-back entries” on page 198.

To view charge-back information

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Costs.

   The Manage Costs form appears. The first time you open the dialog box for the current period, no entries appear in the table. After you click Generate Preliminary Costing, the entries appear in the table.

2. If this is the first time you have viewed charge-back entries for the current period, click Generate Preliminary Costing.

   The Charge-back Entries table now lists charge-back entries.
To limit the number of entries that appear in the table, specify criteria for the entries that you want to see.

- To view entries from a different period, specify new values in the Period Start Date and Period End Date fields.
- To view the charge-back entries for a specific cost center, select a cost center, and click Search.
- To view costs that have not yet been billed to a cost center, for Cost Center Code, select Unallocated, and click Search.

In the Charge-back Entries table, select the charge-back entry that you want to view, and click View. Results matching your search criteria appear in the table.

**Adjusting charge-back entries**

You can use the Adjustment dialog box to change charge-back information for assets. For example, if you discover that you specified the wrong cost for an asset, or if the cost is not allocated to the correct cost center, you can adjust the entry. You can also provide a reason for your adjustment.

After you make adjustments to a charge-back entry, two new entries appear at the bottom of the Charge-back Entries list in the Manage Costs form. The Adjustment column indicates that both of these entries are adjustments. The first entry has a positive value. The second entry has a negative value that cancels out the value of the original entry. Both values remain in the table so that you can keep a record of this adjustment.
Working with charge-backs

Figure 8-11: Manage Costs form—Charge-back Entries table

After you modify a charge-back entry, two new entries appear at the bottom of the table, and Yes appears in the Adjustment column.

For example, if you originally specified a charge-back cost of $150 and did not specify a cost center code, the cost center is unallocated. To correct the cost center, select the charge-back entry, click Adjustment, and specify the appropriate Cost Center Code, for example, W1. After you click Save, you see two new entries at the bottom of the table in the Manage Costs form. The first entry shows that a cost of $150 is now allocated to the W1 cost center. The second entry shows the previous, unallocated cost of -$150.

To adjust charge-back information

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Costs.

   The Manage Costs form appears. The first time that you open the console for the current period, no information appears in the Charge-back Entries table. After you click Generate Preliminary Costing, any current charge-back information appears in the table. You might have to wait a few minutes for it to appear.

2. If this is the first time you have viewed charge-back entries for the current period, click Generate Preliminary Costing.

3. To limit the number of entries that appear in the table, specify criteria for the entries that you want to see.
   - To view entries from a different period, specify new values in the Period Start Date and Period End Date fields.
   - To view the charge-back entries for a specific cost center, select a cost center, and click Search.
   - To view costs that have not yet been billed to a cost center, select Unallocated from the Cost Center Code field, and click Search.

4. In the Charge-back Entries table, select the charge-back entry that you want to adjust.

5. Click Adjustment.

6. In the Adjustment dialog box, modify the information that you want to change.

   You can change the entries in the following fields: Cost Type, Cost Center Code, and Related Cost. You can also add a reason for your adjustment.

7. Click Save.

   New entries appear in the Charge-back Entries list in the Manage Costs form. To indicate that these entries are adjustments, they display Yes in the Adjustment column. One of the entries has a positive value, and the other has a negative value.
Generating charge-back reports and invoices

After the configuration administrator specifies charge-back costs, the financial manager can generate reports to track information and to find entries that might need to be adjusted.

The financial manager can then make any necessary adjustments and generate invoices to give to the appropriate cost centers. After the invoices are accepted, the financial manager can forward them to the company’s accounting department for approval.

The financial manager generates charge-back reports and invoices with the Cost Management Reports dialog box. For all reports, you can change the title of the report and add a subtitle. For example, if you generate an invoice for a cost center called W1, you might use the following title and subtitle:

Title: Charge-back Invoice for Cost Center W1
Subtitle: Q4 2003

You can also change the currency type that is used to calculate charge-back values. For some reports, you can specify a charge-back percentage to add to the base cost.

After you generate reports, you can view them onscreen, print them, or save the file to another format.

You can generate the following types of reports:

- **Charge-back Invoice**—Provides a detailed list of charges to cost centers, including any charge-back percentage. At the end of each period, you can send this type of report to other departments for approval. Then you can send the final invoice to your company’s accounting organization.

  For each cost center, the invoice lists the category of the asset and the amount charged. For split cost centers, it also provides information about how charges are allocated for source cost centers and target cost centers.

- **Charge-back Summary**—Lists the total charges made to cost centers, including charge-back percentage. For split cost centers, it also provides information about how charges are allocated for source cost centers and target cost centers. This type of report gives the following details: total direct cost, allocation to, and allocation from.

- **Cost Incurred from Source**—Lists the base costs charged to cost centers. This type of report is similar to the Charge-back Summary report, but does not include charge-back percentage.
Generating charge-back reports and invoices

- **Unallocated Report**—Summarizes costs that have not been billed to any cost center, and lists records that still have the default value of Unallocated in the Cost Center Code field. Before you generate charge-back invoices for each period, you can run this report to determine whether any costs are unallocated. You can then assign these costs to the appropriate cost centers.

- **Adjustment Report**—Lists any adjustments that have been made for the current period. You can run this report to keep a record of your adjustments before you remove adjustments in the Manage Costs form.

**NOTE**

If your charge-back entries include split cost centers, you can view information about the split cost centers in the Allocation To and Allocation From rows in the following reports: Charge-back Invoice, Charge-back Summary, and Cost Incurred from Source.

**Generating charge-back reports**

Financial managers use the Cost Management Reports dialog box to generate reports to check charge-back information. For example, you can generate an Unallocated Report to determine whether any costs have not yet been billed to a cost center. If you find unallocated costs, you can assign them to appropriate cost centers. You can generate the following types of reports: Charge-back Invoice, Charge-back Summary, Cost Incurred from Source, Unallocated Report, and Adjustment Report.

After you view charge-back reports, you can make any necessary modifications to the charge-back information for the current period. Then you can generate charge-back invoices to send to other departments for approval at the end of each period.

**To generate a report**

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Costs.

2. In the Manage Costs form, If you have not yet generated charge-back entries for the current period, follow the procedure in “Generating a list of charge-back entries” on page 198.

3. Click Reports.
In the Cost Management Reports dialog box, select the company.

If you have not made any changes to charge-back entries for the current period, skip to step 8 to print the report. If you have made changes to charge-back entries, select one of the following options from the Generate Option field.

These options generate charge-back entries for split cost centers. You can retain or discard any adjustments that you made in the current period.

- **Preserve Adjustments**—If you want to retain changes made to charge-back entries in the current period.

- **Remove Adjustments**—If you want to discard changes made to charge-back entries in the current period.

  To generate a record of adjustments before you remove them, generate an Adjustment Report before you select this option.

- **Calculate Split Allocation for Adjustments**—If you made changes to split cost centers in the current period.

  **NOTE**

  If your charge-back entries include split cost centers, you do not see information about these cost centers in the table. Details about split cost centers appear in the Allocation To and Allocation From rows in the following reports: Charge-back Invoice, Charge-back Summary, and Cost Incurred from Source.

Click Generate Costing Entries.

Respond to the confirmation message by clicking OK.

The most recent process that you have run appears in the top of the Process Log table. If the Process Log table includes an entry with a status of Done With Message, for more information, you can view the process messages. See “Viewing and resolving process messages” on page 209.

Click the Step 2: Print Reports tab.
Generating charge-back reports and invoices

9 Select options for the report.
   - For Period Start Date and Period End Date, specify the dates for the beginning and the end of the period for which you want to print the report.
   - If you want the report to include information for a specific cost center, specify the name of the cost center. If you want it to include information for all cost centers, leave the Cost Center field blank.

10 For Report, select the type of report you want to generate:
   - **Charge-back Invoice**—Creates an invoice for the charges made to cost centers, including charge-back percentage.
   - **Charge-back Summary**—Lists the total charges made to cost centers, including charge-back percentage.
   - **Cost Incurred from Source**—Lists the base costs charged to cost centers, without including a charge-back percentage.
   - **Unallocated Report**—Summarizes the costs that have not been billed to any cost center, and lists records that still have the default value of Unallocated in the Cost Center Code field.
   - **Adjustment Report**—Lists the adjustments that have been made for the current period.

11 Click Print Report.

**Figure 8-13: Enter Values dialog box**

![Figure 8-13: Enter Values dialog box](image)

12 In the Enter Values dialog box, for each of the fields in this form, select the value that you want to change.
   Type the new value in the Enter a Value field. You must complete each field, or the report is not generated.
   - To change the title, type a new name for the report.
   - To add a subtitle, type a subtitle for the report.
To change the currency type used to calculate charge-back costs in this report, select a new currency and a value.

To define a charge-back percentage for reports that support this value, select a percentage and type a value.

13 Click OK.

The report appears.

Figure 8-14: Charge-back Summary report

14 Select an option for the report:

- To print the report, click the Print Report icon at the top of the window.
- To export the report to another format, click the Export Report icon at the top of the window. In the Export dialog box, select a format for the data and a destination for the file, and click OK.
- To scroll through the onscreen data, click the navigation icons at the top of the window.
- To close the report window, click the close box in the report window.

Generating charge-back invoices

At the end of each period, the financial manager can generate charge-back invoices to send to other departments.

Before you generate the final charge-back invoices, you can generate other reports to check the information. For example, you can run the Unallocated Report to determine whether any costs are not yet allocated to a cost center. You can then make adjustments to the cost centers so that these charges are included in the charge-back invoice. See “Generating charge-back reports” on page 203.
To generate charge-back invoices

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Costs.

2. In the Manage Costs form, if you have not yet generated charge-back entries for the current period, follow the procedure in “Generating a list of charge-back entries” on page 198.

3. Click Reports.

Figure 8-15: Cost Management Reports dialog box

4. In the Cost Management Reports dialog box, select a company.

5. If you have not made any changes to charge-back entries for the current period, skip to step 8 to print the invoice. If you have made changes to charge-back entries, select an option from the Generate Option field.

These options generate charge-back entries for split cost centers. You can retain or discard any adjustments that you made in the current time period.

- **Preserve Adjustments**—Retains any changes that you made to charge-back entries in the current period. This updates the charge-back entries for the current period and retains any adjustments.

- **Remove Adjustments**—Discards any changes you made to charge-back entries in the current period. This removes any adjustments for the current period, and regenerates the charge-back entries based on the cost entries for the current period. To generate a record of adjustments before you remove them, generate an Adjustment Report before you select this option.

- **Calculate Split Allocation for Adjustments**—Generates charge-back entries based on adjustments to split cost centers.
NOTE
If your charge-back entries include split cost centers, you do not see information about these cost centers in the table. Details about split cost centers appear in the Allocation To and Allocation From rows in the Charge-back Invoice.

6 Click Generate Costing Entries.

7 Respond to the confirmation message by clicking OK.

The most recent process that you have run appears in the top of the Process Log table. If an entry appears with a status of Done With Message in the Process Log table, you can view the process messages to get more information. See “Viewing and resolving process messages” on page 209.

8 Click the Step 2: Print Reports tab.

9 Select options for the invoice.

a For Period Start Date and Period End Date, specify the dates for the beginning and the end of the period for which you want to print the invoice.

b If you want the invoice to include information for a specific cost center, specify the name of the cost center. If you want it to include information for all cost centers, leave the Cost Center field blank.

10 For Report, select Charge-back Invoice.

NOTE
You can also generate other reports. See “Generating charge-back reports” on page 203.

11 Click Print Report.

12 In the Enter Values dialog box, for each of the fields in this form, select the value that you want to change. Type the new value in the Enter a Value field. You must complete each field, or the report is not generated.

- To change the title, click Report Title and type a new name for the invoice.
- To add a subtitle, click Report Subtitle and type a subtitle for the invoice.
- To change the currency type used to calculate charge-back costs in this invoice, select a new currency.
- To change the charge-back percentage used to calculate charge-back costs in this invoice, select a percentage and type a value.

13 Click OK.

The Report Preview window appears, displaying the invoice you created.
Generating charge-back reports and invoices

Figure 8-16: Charge-back Invoice

14 Select an option for the invoice:

- To print the report, click the Print Report icon at the top of the window.
- To export the report to another format, click the Export Report icon at the top of the window. In the Export dialog box, select a format for the data and a destination for the file, and click OK.

Viewing and resolving process messages

If BMC Remedy Asset Management encounters any potential problems when you generate charge-back information, the Charge Back Status dialog box displays a process message. A process message alerts you to information that might need attention, but it does not necessarily indicate an error. If you make changes to costs or cost centers for past time periods, or if you delete cost entries, process messages appear.

For example, suppose that you generated an invoice last month to bill a department for a $100 purchase. After you closed the current period, you discovered that the actual cost was $1,000. You then modified the information in the Costs dialog box by changing the incurred date and the cost. After that, you generated a new invoice for the current period, and sent it to the department to get reimbursed for the rest of the cost.

When you generated the new invoice, you would see a process message indicating that you modified an entry from a past period. You can disregard this process message because it does not indicate an error. In this case, you intended to change costs from a previous period.

You can use the Cost Management Reports dialog box to view and print any available process messages.

To view and print process messages

1 On the Asset Management console, from the navigation pane, choose Functions > Manage Costs.

2 In the Manage Costs form, click Reports.

3 In the Cost Management Reports dialog box, if you have not yet generated charge-back entries for the current period, follow the procedure in “Generating a list of charge-back entries” on page 198.
A status entry in the Process Log table beginning with Done indicates process messages. A message might also appear in the Process Message column.

**Figure 8-17: Cost Management Reports dialog box—Generate Costing Entries tab**

4 Select a company.

5 Select an item in the Process Log table.

6 Click View Process Messages.


**Figure 8-18: Process Status Messages dialog box**

7 To print a report of the process messages, click Print Process Messages.
For each of the fields in this form, select the value that you want to change in the list, and then type the new value. You must complete each field, or the report is not generated.

- To change the title of the report, select Report Title and specify a value in the Value field.
- To add a subtitle, select Report Subtitle and specify a value in the Value field.

9 Click OK.

10 Select an option for the report:

- To print the report, click the printer icon at the top of the window.
- To export the report to another format, click the envelope icon at the top of the window. Then select a format for the data and a destination for the file and click OK.

**Closing the current period**

After financial managers generate charge-back invoices, they send the invoices to the appropriate cost centers for approval. When the invoices are accepted, they send them to the company’s accounting department. For more information about the charge-back process, see “Working with charge-backs” on page 196.

After these procedures are completed, the financial manager’s final task for the period is to close the current period. Closing the current period locks the charge-back entries for this period so they cannot be modified. You can still make adjustments for past charge-back entries, though, and you can still generate reports from the entries.

The financial manager uses the Cost Management Reports dialog box to close the current period. The start date is reset to the first day of the next period for all types of time periods. If the administrator has configured the period as Monthly or Quarterly, the end date is automatically generated. If the period is configured as Manual, you must select the end date for the new period.

**To close the current period**

1 On the Asset Management console, from the navigation pane, choose Functions > Manage Costs.

2 In the Manage Costs form, click Reports.

3 In the Cost Management Reports dialog box, click the Step 3: Close Current Period tab.
4 Click Close Current Period.

5 To close the current period, in the confirmation message, click Yes.

If the time period is configured as Monthly or Quarterly, the next time period begins automatically. If the period is configured as Manual, the Current Charge Back Dates dialog box appears, and you must specify an end date for the new period.
Chapter 9 Managing inventory

This section describes how to track and manage configuration items (CIs) that are in inventory and available for deployment.

Before you can track inventory, you must add items to inventory. To add a bulk item to inventory, you must create a Bulk Inventory CI type and an Inventory Location CI type, and then relate the two. Bulk inventory items are CIs that you order in quantity, such as power cables. To add a CI to inventory, change the Status field on the CI record to In Inventory, and then designate a location.

After items are in inventory, you can view, relocate, and reserve and use CIs and bulk inventory items.

The following topics are provided:

- Creating bulk inventory CIs (page 214)
- Creating inventory location CIs (page 215)
- Placing bulk CIs in inventory (page 216)
- Placing non-bulk CIs in inventory (page 216)
- Viewing inventory locations (page 217)
- Relocating CIs (page 217)
- Reserving and using inventory (page 218)
Creating bulk inventory CIs

You do not need to create a record for each individual item. Instead, you can classify bulk items by the type of item, for example, cables or printer cartridges. You can then indicate the quantity and the base unit, as defined by the application administrator. You can also set notifications for reorder when the item reaches the specified reorder quantity.

To create a bulk inventory CI

1. On the Asset Management console, from the navigation pane, choose Functions > Manage CIs.

2. In the Select a CI Type dialog box, from the Type list, select Bulk Inventory > Bulk Inventory, and click Create.

Figure 9-1: Bulk Inventory form

3. In the Bulk Inventory form, complete the following required fields, and click Save.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI Name</td>
<td>Specify the name of the bulk inventory item, for example, Microsoft Windows XP.</td>
</tr>
<tr>
<td>Note:</td>
<td>After you create the CI, you cannot modify the CI name.</td>
</tr>
<tr>
<td>Tier 1</td>
<td>Use up to three product categorization tiers to categorize the item.</td>
</tr>
<tr>
<td>Tier 2</td>
<td></td>
</tr>
<tr>
<td>Tier 3</td>
<td></td>
</tr>
<tr>
<td>Received Quantity</td>
<td>Specify the number of items received.</td>
</tr>
</tbody>
</table>
Creating inventory location CIs

After you create your bulk inventory CIs, create inventory locations in which to place them.

To create an inventory location CI

1. On the Asset Management console, from the navigation pane, choose Functions > Manage CIs.

2. In the Select a CI Type dialog box, from the Type list, select System > Inventory Location, and click Create.

3. In the Inventory Location form, in the CI Name field, specify the location name.

4. Complete the other, optional fields.

**NOTE**

If CIs related to this inventory location were created from a purchase requisition, they appear on the Inventory Transactions tab.

5. Click Save.
Placing bulk CIs in inventory

To place bulk CIs in inventory, you must specify the location or locations for them.

TIP
If you do not see a location, make sure that the CI has a CI type of inventory location, and not physical location. For information about creating inventory locations, see “Creating inventory location CIs” on page 215.

To place bulk CIs in inventory
1. Open a bulk CI, as described in “Searching for CIs” on page 32.
2. On the Inventory Location tab, click Add.
3. In the Search Inventory Locations dialog box, specify the search criteria and click Search.
4. Select a location, and click Relate.
5. In the message about the relationship, click OK.
6. If the inventory is stored in multiple locations, for each location, repeat step 4 and step 5.
7. Click Close.
   On the Bulk Inventory form, the Inventory Location tab lists each of the related locations.
8. Click in the Quantity Per Location field for a location, and type the quantity in that location.
9. Continue to enter the quantity for each location, until all the quantity in stock for the bulk CI is accounted for.
10. Click Save.

Placing non-bulk CIs in inventory

You can place non-bulk CIs that you want to manage in inventory by changing the status of the CI to In Inventory, and then designating a location for that CI.

To place non-bulk CIs in inventory
1. Open a CI, as described in “Searching for CIs” on page 32.
2. From the Status list, select In Inventory.
3. Click OK in the confirmation message that appears.
4. In the Search Inventory Locations dialog box, from the Location list, select a location, make sure other values are correct, and click Search.
5. Select a location and click Return.
6. In the CI Information form, click Save.

**Viewing inventory locations**

You can view the location of all your CIs from the Manage Inventory dialog box.

► **To view inventory locations**

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Inventory.
2. Specify your search criteria, and click Search.
3. Select a CI or bulk inventory item from the table, and click View Location.

![Inventory Location form](image)

In the Inventory Location form, you can view the CIs in the inventory.

**Relocating CIs**

You can relocate CIs or bulk inventory items from one location to another.

► **To relocate CIs**

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Inventory.
2. In the Manage Inventory dialog box, specify your search criteria, and click Search.
3. Select the CI or bulk inventory item that you want to relocate, and click Relocate CIs.
4 In the Search Inventory Locations dialog box, from the Location list, select the location where you want to relocate the CI. If necessary, delete the default Company and Support Company values. Click Search.

5 Select the location where you want to relocate your CI.

6 In the Quantity field, specify the number of CIs that you want to relocate.

7 Click Relocate.

### Reserving and using inventory

You can reserve and use the CIs and bulk inventory items that are in inventory.

**To reserve and use inventory**

1 On the Asset Management console, from the navigation pane, choose Functions > Manage Inventory.

2 In the Manage Inventory dialog box, specify your search criteria, and click Search.

3 Select the CI or bulk inventory item that you want to reserve and use.

4 Click the Transaction Qty column and specify the number of CIs or bulk inventory items that you want to use.

![Figure 9-4: Manage Inventory dialog box—Transaction Qty column](image)

5 Click Reserve/Use Inventory.

The number of CIs or bulk inventory items in the Qty in Stock column is reduced by the number reserved and used. The number in the Trans Qty column is cleared. If you reserve the total number in stock, the item is removed from the table.
Chapter 10 Using the configuration catalog

This section describes how to use the configuration catalog in BMC Remedy Asset Management to set up and manage approved configurations in your company.

The following topics are provided:

- About the configuration catalog (page 220)
- Viewing configurations (page 221)
- Adding a configuration (page 222)
- Relating CIs to a configuration (page 226)
- Generating a differences report (page 227)
- Modifying a configuration (page 228)
- Generating a review schedule (page 229)
- Creating a new version of an active configuration (page 232)
- Creating a configuration from a copy (page 232)
About the configuration catalog

Configuration administrators and application administrators use the configuration catalog to define approved configurations to be used for people and groups within a company.

For example, a salesperson’s configuration might consist of a laptop, a personal digital assistant (PDA), a keyboard, a mouse, and a printer. You can add this configuration to the configuration catalog as the salesperson approved configuration.

Each of the approved configurations in the configuration catalog contains items. The items in a configuration are not CI records. A CI record represents an actual item in your IT environment, such Joe Unser’s laptop. The items in a configuration outline the components that comprise the configuration. Some items might be tracked as CIs in BMC Atrium CMDB (for example, a laptop). Other items might be tracked as bulk inventory (for example, a mouse). After you add items to a configuration, you must relate the corresponding CI records to the configuration. By relating the CI records to a configuration, you can keep track of which CIs are deployed in the configuration.

**Figure 10-1: Configuration diagram**

On the effective date of a new configuration, the following actions occur:
- Approved configurations become active.
- Previous versions of the configuration become inactive.
- Obsolete configurations are deleted from the database.
Use the configuration catalog to help accomplish the following tasks:

- **Make sure that only approved configurations are deployed**—New configurations must be approved before they are deployed. If BMC Remedy Change Management is installed, approvers can use it to approve configurations. If BMC Remedy Change Management is not installed, approvers can approve configurations manually.

  Approved configurations serve the following purposes:
  
  - Help IT specialists to troubleshoot problems. Any CIs that are not included as part of the approved configuration for that user might be contributing to the problem.
  - Help the configuration administrator determine how many systems are out of compliance or how many systems have previous configurations.

- **Check inventory**—When you require an approved configuration, use the configuration catalog to check whether the items are in inventory, and to reserve the required items. For example, when a new salesperson is hired, you can check that items for the salesperson approved configuration are in inventory.

- **Submit purchase requisitions**—You can access configuration functionality when creating a purchase requisition, and can access purchase requisition functionality when checking a configuration.

  - When creating a purchase requisition, you can select a configuration in the configuration catalog to order. For example, when a new salesperson is hired, the manager can submit a purchase requisition for items that are not in inventory.
  
  - When checking inventory for a configuration, you can create purchase requisitions for CIs that are low in inventory or that must be replaced because they are damaged or obsolete.

- **Review configurations**—You can schedule a review of configurations. You might review active configurations on a weekly, monthly, or yearly basis. You can use this review to find configurations that have outdated hardware or software. When you review a configuration, you can create a new version of the current configuration and relate all new CIs. For details, see “Generating a review schedule” on page 229.

### Viewing configurations

Configuration administrators and application administrators set up configurations.

**To view configurations**

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.

2. In the Manage Configurations dialog box, select a configuration, and click View.
The Configuration Information form displays details about the configuration. For active configurations, you can view the list of CIs that are related to the configuration (the Related CIs tab is not active for inactive configurations).

**Figure 10-2: Configuration Information form**

![Configuration Information form](image)

### Adding a configuration

Configuration administrators and application administrators can add configurations to the configuration catalog.

After you add a configuration, you can:

- Add items to the configuration.
- Create items to be added to the configuration.
- Change the unit type and number of items.

#### To add a configuration

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2. In the Manage Configurations dialog box, click Add.
3. In the Configuration Information form, provide general information about the configuration at the top of the form by completing the following fields.
Adding a configuration

NOTE
If you plan to make changes to the configuration after you save it, you can leave the Approval Status as Not Submitted. After you complete the configuration, you must change the Approval Status to Pending Approval to submit the configuration for approval.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Specify a unique alphanumeric ID for the configuration.</td>
</tr>
<tr>
<td>Description</td>
<td>Provide a description of the configuration.</td>
</tr>
<tr>
<td>Effective Date</td>
<td>Specify the date that the configuration becomes active.</td>
</tr>
<tr>
<td>Approval Status</td>
<td>To submit the configuration for approval, select Pending Approval.</td>
</tr>
<tr>
<td>Name</td>
<td>Type the name of the configuration.</td>
</tr>
</tbody>
</table>
| Schedule Name  | You can specify a review schedule for active and approved configurations only. To specify a technology review schedule, perform the following steps:  
1. Click this field and press ENTER.  
2. To create a schedule, click Create Schedule Information, complete the schedule criteria, and click Save.  
3. Select the schedule and click Relate Selected Schedule. |
| Company        | Select the company that owns the configuration.                             |
| Region         | Select the region where the configuration is deployed.                      |
| Site Group     | Select the site group where the configuration is deployed.                  |
| Site           | Select the site where the configuration is deployed.                        |
| Notes          | Add special notes about the configuration.                                  |

4. Click Save.

Adding items to the configuration

Items in a configuration are not CIs, but they represent the CI and bulk inventory records in the configuration. You can add items to configurations that have a status of Proposed or an Approval Status of Not Submitted or Pending Approval.

After you add items to a configuration, you can relate CIs to the configuration that correlate to the items in the configuration. You can relate CIs only to configurations that are active and approved.

To add items to the configuration

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2. In the Manage Configurations dialog box, select a configuration to which you want to add items, and click View.
3. In the Configuration Information form, click the Items tab, and click Add.
4 In the Searching for Items dialog box, specify your search criteria, and click Search.
5 To view the details of a particular item before adding it, select the item and click View. After you have reviewed the item, click Close.
6 Select the items that you want to relate, and click Relate.
7 Click Save.

**Creating items to add to a configuration**

If the items that you want to add to the configuration are not available, you can create them.

▶ **To create an item to add to a configuration**
1 On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2 In the Manage Configurations dialog box, select the configuration to which you want to add items, and click Add.
3 In the Configuration Information form, click the Items tab.
4 Specify an ID, effective date, and description, and click Add.
5 In the Searching for Items dialog box, click Create.

![Figure 10-3: Item Information form](image)

6 In the Item Information form, complete the following fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item ID</td>
<td>Specify a unique alphanumeric ID for the item.</td>
</tr>
<tr>
<td>Description</td>
<td>Provide a description of the item.</td>
</tr>
<tr>
<td>Status</td>
<td>Keep the default choice of Active.</td>
</tr>
<tr>
<td>Company</td>
<td>Select the company to which this item belongs.</td>
</tr>
<tr>
<td>CI Type</td>
<td>Select the CI type.</td>
</tr>
<tr>
<td>Tier 1</td>
<td>Use the Tier fields to categorize the item, as described in “Categorizing CIs” on page 55.</td>
</tr>
<tr>
<td>Tier 2</td>
<td></td>
</tr>
<tr>
<td>Tier 3</td>
<td></td>
</tr>
<tr>
<td>Item Name</td>
<td>Specify the name of the item.</td>
</tr>
</tbody>
</table>
Adding a configuration

1. Click Save.
2. In the Searching for Items dialog box, select the new item, and click Relate.
3. In the Configuration Information form, click Save.

Changing the unit type and the number of items

After you have added items to the configuration, you can change their unit type and the number of the items. You can make this change to correct or update a configuration.

To change the unit type or the quantity of an item

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2. In the Manage Configurations dialog box, select a configuration for which you want to change items, and click View.
3. In the Configuration Information form, in the Items table, click the Unit Type column and select either Quantity or Length.
   
   Quantity refers to the number of items in the configuration. Length refers to the length of a bulk item, such as a cable.
4. Click one of the numbers in the Number column and specify a new quantity or a new length.
5. To recalculate the grand total, click Recalculate.
6. Click Save.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier Name</td>
<td>Specify the name of the company that supplied the item to your company.</td>
</tr>
<tr>
<td>Part Number</td>
<td>Specify the part number of the item.</td>
</tr>
<tr>
<td>Unit Price</td>
<td>Specify the unit price of the item. Select a currency code from the list next to the Unit Price field.</td>
</tr>
<tr>
<td>Notes</td>
<td>Add notes about the item.</td>
</tr>
</tbody>
</table>
### Relating CIs to a configuration

By relating the CI records to an approved configuration, you can keep track of which CIs are deployed in the configuration.

Before you can relate CI records to a configuration, the configuration must:

- Have items that correspond to the CI records.
- Be active and approved.

Each CI can be deployed in only one configuration. You can relate multiple CIs to a configuration, but you can relate only one configuration to a CI. If you relate a CI to a configuration, the configuration replaces any existing configuration for the CI.

#### To relate a CI to a configuration

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2. In the Manage Configurations dialog box, select an active and approved configuration to which you want to relate a CI, and click View.
3. In the Configuration Information form, click the Related CIs tab, and click Add.

#### WARNING

If you relate a CI to a configuration, the configuration replaces any existing configuration for this CI.

4. Click OK in the warning message.
5. In the Searching for Configuration Items dialog box, from the Search For list, select a CI type.
6. Optionally, you can limit the search results by making additional selections, such as selecting a CI status.
7. Click Search.
8 Select the CIs that you want to relate to the configuration, and click Relate Selected CI.
9 Click Save.

Generating a differences report

The differences report indicates the difference between what is in a configuration and the CIs related to it. For example, you might have a configuration that contains a laptop, mouse, keyboard, and docking station. If the keyboard is not the same type of keyboard as specified in the related configuration, the differences report shows this. This report helps you determine who is software and hardware compliant.

To generate a differences report

1 Open a CI, as described in “Searching for CIs” on page 32.
2 From the navigation pane, choose Functions > Configuration.

Figure 10-6: Configuration Information dialog box

3 In the Configuration Information dialog box, click View Differences.
In the Comparison of CI to Items in Configuration dialog box, the name of the configuration appears in the Configuration field. Any related CIs appear in the table. The Authorized column shows whether the CI is authorized for this configuration.

### Modifying a configuration

The status and the approval status of a configuration determine what you can modify, as indicated in Table 10-1.

<table>
<thead>
<tr>
<th>Status</th>
<th>Approval status</th>
<th>You can modify</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed</td>
<td>Not Submitted</td>
<td>All the fields in the configuration.</td>
</tr>
<tr>
<td></td>
<td>Pending Approval</td>
<td>All the fields in the configuration.</td>
</tr>
<tr>
<td></td>
<td>Rejected</td>
<td>All the fields in the configuration.</td>
</tr>
<tr>
<td>Approved</td>
<td>Any</td>
<td>You can relate or remove related CIs, but not items.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>You can edit any of the following fields: Status, Schedule Name, and Notes.</td>
</tr>
</tbody>
</table>

*Note:* When you save your changes, the configuration is submitted for approval again and the Approval Status remains set to Pending Approval. If you do not want the configuration to go out for approval again, you must change the Approval Status back to Rejected before you save the configuration.
To modify a configuration

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.

2. In the Manage Configurations dialog box, select the configuration that you want to modify, and click View.

3. In the Configuration Information form, make your changes, as indicated in Table 10-2.

4. Click Save.

<table>
<thead>
<tr>
<th>Type of change</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modify the configuration information.</td>
<td>Make changes to the fields. Depending on the particular configuration, you might not be able to change all fields.</td>
</tr>
<tr>
<td>Remove items.</td>
<td>You can remove items from a configuration without deleting the item record from the database. From the Items table, select the items you want to remove, and click Remove.</td>
</tr>
<tr>
<td>Remove CIs.</td>
<td>You can remove CIs from a configuration without deleting the CI from the database. Click the Related CIs tab. Then select the CIs you want to remove and click Remove.</td>
</tr>
</tbody>
</table>

Generating a review schedule

You can use the configuration catalog to set up review schedules. Use review schedules to review active configurations on a monthly, weekly, or yearly basis. You can review configurations that might contain outdated hardware or software. When you review a configuration, you can create a new version of the current configuration and relating all new CIs.

To generate a review schedule

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.

2. In the Manage Configurations dialog box, select an active and approved configuration, and click View.

3. In the Configuration Information form, click the Schedule Name field and press ENTER.

4. In the Select Schedule dialog box, click Create Schedule Information.
5 In the Schedule Criteria form, complete the following fields.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule Name</td>
<td>Specify the name of the schedule.</td>
</tr>
<tr>
<td>Schedule Description</td>
<td>Provide a short description of the schedule.</td>
</tr>
<tr>
<td>Schedule Type</td>
<td>Leave the default value, which is Review Schedule.</td>
</tr>
<tr>
<td>Frequency</td>
<td>Select how often you want the configuration to be reviewed (for example, monthly).</td>
</tr>
<tr>
<td>Period</td>
<td></td>
</tr>
<tr>
<td>Lead Time in Days</td>
<td>Specify the number of days in advance you want someone to be notified.</td>
</tr>
<tr>
<td>Notification Company</td>
<td>Specify the name of the company assigned to perform the review.</td>
</tr>
<tr>
<td>Notification Support Organization</td>
<td>Specify the name of the organization assigned to perform the review.</td>
</tr>
<tr>
<td>Notification SupportGroup</td>
<td>Specify the name of the group assigned to perform the review.</td>
</tr>
<tr>
<td>Notification Contact</td>
<td>Specify the name of the contact assigned to perform the review.</td>
</tr>
</tbody>
</table>

6 Click Save.

7 In the Select Schedule dialog box, select the review schedule that you created, and click Relate Selected Schedule.

The schedule appears in the Schedule Name field in the Configuration Information form. The next review date appears in the Next Review Date field.

**Relating additional configurations to a review schedule**

You can relate configurations to a review schedule. You can apply the same schedule to several configurations at one time.

**To relate additional configurations to a review schedule**

1 On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.

2 In the Manage Configurations dialog box, select an active and approved configuration, and click View.

3 Click the Schedule Name field, and press ENTER.

4 In the Select Schedule dialog box, select a review schedule from the table, and click View.

5 In the Schedule Criteria form, in the Configuration Information area, click Add.

6 In the Searching for Configurations dialog box, specify your search criteria, and click Search.
Generating a review schedule

Select the configurations that you want to relate to the review schedule, and click Relate.

In the Schedule Criteria form, the configurations that you related appear in the Configuration Information table.

Removing configurations from a review schedule

You can remove configurations from a review schedule.

To remove configurations from a review schedule

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2. In the Manage Configurations dialog box, select an active and approved configuration, and click View.
3. In the Configuration Information form, click the Schedule Name field and press ENTER.

The Select the schedule(s) to be related dialog box appears.
4. Select a review schedule from the table, and click View.
5. In the Schedule Criteria form, select the configurations that you want to remove, click Remove, and then click Save.

Marking a review as in progress or completed

If you are the person responsible for reviewing the configurations, you can change the status of the review to In Progress or Completed.

To mark a review as in progress or completed

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2. In the Manage Configurations dialog box, select an active and approved configuration, and click View.
3. In the Configuration Information form, next to the Next Review Date field, click View.
4. In the Schedule Information form, from the Status list, select In Progress or Completed.
5. Click Save.
Creating a new version of an active configuration

To update some of the items in the configuration, you can create a new version of an active configuration. For example, you might want to upgrade the operating system installed on your workstations, or you might need to replace some 300 MHz computers.

**NOTE**

All previous versions of a configuration are retained until the Status is set to Obsolete. You can create only one new version of an active configuration.

**To create a new version of an active configuration**

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.

2. In the Manage Configurations dialog box, select the active and approved configuration from which you want to create a new version.

3. Click Create New Version.
   The Configuration Information form appears, and the Version field updates to reflect the new version (version 2).

4. In the Description field, update the description of the new version.

5. From the Effective Date calendar, select when you want the new version to become active.

6. Use the Schedule Name field to generate a schedule for the new version or modify the current schedule.

7. Add new items or remove items from the Items table, then click Save.

Creating a configuration from a copy

If the new configuration that you want to create is similar to an existing one, you can create a copy of the existing configuration. For example, you might want to create a new configuration for quality assurance engineers that contains most of the same items in a configuration for software developers. Creating a copy eliminates having to add items to the configuration again.
To create a new configuration from a copy

1. On the Asset Management console, from the navigation pane, choose Functions > Manage Configurations.
2. In the Manage Configurations dialog box, select the configuration from which you want to create a new configuration, and click Copy.
   
   In the Configuration Information form on the Items tab, the items from the configuration that you copied appear. You also see the region and site information from the copied configuration.
3. Complete the fields in the new configuration.
4. If necessary, click Add or Remove to add or remove items.
5. Relate CIs to the new configuration after it is approved, as described in “Relating CIs to a configuration” on page 226.
6. Click Save.
You can generate reports about your company’s configuration items (CIs). These reports include contract agreement information with manufacturers and suppliers, purchase requisition and purchase order information, scheduling information, configuration information, and financial data for CIs and contracts.

The following topics are provided:

- Generating reports (page 236)
- Using predefined reports (page 240)
Generating reports

BMC Remedy Asset Management provides predefined reports to give you quick access to information about your system. Use the Report console to generate these reports. If the predefined reports return more information than you need, you can manage the scope of the report using qualifications. For information about using qualifications, see “Using qualifications to generate a report” on page 238.

--- IMPORTANT ---
If you use Crystal Reports software to modify the prepared reports supplied with BMC Remedy Asset Management, if you have a reporting problem, Customer Support can provide only limited assistance. In addition, there is no guarantee that problems resulting from these modifications can be solved. The standard reports included with BMC Remedy Asset Management are designed to be used without modification.

Generating a report

Use this procedure to generate a standard report without using qualifications (for information about generating reports with qualifications, see “Using qualifications to generate a report” on page 238).
To generate a report

1. In the navigation pane on the Asset Management console, choose Functions > Reports.

Figure 11-1: Report console

2. On the Report console, select a report from the Report Name list.

3. If you select a report that requires a date range, the date range field appears. Select a start date and end date for the report.

4. From the Destination list, select one of the following output destinations:
   - **Screen**—Your report appears in a separate dialog box.
   - **Printer**—The report is sent to the printer you specified in the Print Setup dialog box.
   - **File**—The report is saved to the path and file you specify.

5. Click Run Report. The Enter Values dialog box appears.

6. Complete the title, subtitle, and any other fields in this dialog box. These fields vary, depending on the report you selected.

7. Click OK.

   The report appears in the destination you selected.
Using qualifications to generate a report

You can manage the scope of a report by adding qualifications to the criteria that the report engine uses to generate the report content. You can tell the report to search only certain specified fields for particular values, or build advanced qualifications using field names, keywords, and operators. By saving the qualifications, you can rerun the qualified report without having to respecify the qualifications.

The following procedure describes how to generate basic report qualifications from the Define Report Qualification area of the Report console. To generate a report using advanced qualifications, see “Using qualifications to generate a report” on page 238.

To use qualifications to generate a report

1. In the navigation pane of the Asset Management console, choose Functions > Reports.

2. On the Report console, from the Report Name list, select the name of the report you want to generate.

3. In the Define Report Qualification area, build your qualifications from the lists. For example, to build the qualification “Cost Center = 001” select “Cost Center” from the list in the left column, select “=” from the operand list (middle column), and then type “001” in the right column.

   You can use all five rows in the area to define qualifications.

4. To save the qualification, click Save Qualification.

   By saving the qualification, you can rerun this report without defining the qualification again. See “Generating a report using saved qualifications” on page 240.

5. In the Enter Qualification Name dialog box, in the Qualification Name field, specify a name for your qualification, and click OK.

6. In the message stating that your qualification has been saved, click OK.

7. In the Report console, from the Destination list, select one of the following output destinations:
   - Screen—Your report appears in a separate window.
   - Printer—The report is sent to the printer you specified in the Print Setup dialog box.
   - File—The report is saved to the path and file you specify.

8. Click Run Report.
In the Enter Values dialog box, complete the title, subtitle, and other fields. These fields vary, depending on the report you selected.

Click OK.

The report appears in the destination you selected.

Using advanced qualifications to generate a report

This procedure describes how to generate a report using advanced qualifications.

To generate a report using advanced qualifications

1. In the navigation pane of the Asset Management console, choose Functions > Reports.
2. On the Report console, from the Report Name list, select the name of the report you want to generate.
3. Click Advanced Qualification.
4. In the Advanced Qualification Builder dialog box, use the buttons in the qualification builder to build your qualification, as described in “Searching for CIs” on page 32.
5. Click Select.

By saving the qualification, you can rerun this report without defining the qualification again. See “Generating a report using saved qualifications” on page 240.

6. On the Report console, from the Destination list, select one of the following output destinations:
   - **Screen**—Your report appears in a separate dialog box.
   - **Printer**—The report is sent to the printer you specified in the Print Setup dialog box.
   - **File**—The report is saved to the path and file you specify.

7. Click Run Report.
8. In the Enter Values dialog box, complete the title, subtitle, and other fields. These fields vary, depending on the report you selected.
9. Click OK.

The report appears in the destination you selected.
Generating a report using saved qualifications

You can generate a report using qualifications that you created and saved previously.

To generate a report using a saved qualification

1. In the navigation pane of the Asset Management console, choose Functions > Reports.
2. On the Report console, from the Report Name list, select a report that has a qualification saved.
3. Click Select Saved Qualification.
4. In the Saved Qualifications dialog box, select the qualification from the table, and click Return Selected.
5. On the Report console, from the Destination list, select one of the following output destinations:
   - Screen—Your report appears in a separate dialog box.
   - Printer—The report is sent to the printer you specified in the Print Setup dialog box.
   - File—The report is saved to the path and file you specify.
6. Click Run Report.
7. In the Enter Values dialog box, complete the title, subtitle, and other fields. These fields vary, depending on the report you selected.
8. Click OK.
   - The report appears in the destination you selected.

Using predefined reports

BMC Remedy Asset Management includes predefined reports to help you monitor activities related to your organization. This section outlines the available predefined reports.

You first select the type of report that you want to generate. The report type pulls information from the appropriate BMC Remedy Asset Management form. After you select a report type, you select the individual report that you want to generate.
Table 11-1 describes the predefined reports included with BMC Remedy Asset Management, organized by the type of report.

### Table 11-1: Predefined reports

<table>
<thead>
<tr>
<th>Report type</th>
<th>Report name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computer System</strong></td>
<td>Server Counts by OS</td>
<td>The number of servers, organized by operating system. This report does not include subtotals.</td>
</tr>
<tr>
<td><strong>Configuration Information</strong></td>
<td>Configurations by Approval Status</td>
<td>Details of configurations based on approval status.</td>
</tr>
<tr>
<td></td>
<td>Details of Active Configurations</td>
<td>Details of an active configuration with its component items.</td>
</tr>
<tr>
<td></td>
<td>Upcoming Configuration Reviews by Date Range</td>
<td>Details of active and approved configurations awaiting review.</td>
</tr>
<tr>
<td><strong>Contracts</strong></td>
<td>Expiring Contracts By Date Range</td>
<td>For a select contract type, expiring contracts by expiration date range.</td>
</tr>
<tr>
<td></td>
<td>Payments Due in Date Range</td>
<td>Payments due for selected contract types based on the specified date range.</td>
</tr>
<tr>
<td></td>
<td>Payments Made in Date Range</td>
<td>Payments made for selected contract types based on the specified date range.</td>
</tr>
<tr>
<td></td>
<td>Contracts by Status / Expiration Date Range</td>
<td>For a select contract type, contracts sorted by status or by expiration date range.</td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td>Configuration Item Purchase / Total Costs</td>
<td>Either purchase costs for items represented by CIs, or all costs for items represented by CIs.</td>
</tr>
<tr>
<td></td>
<td>Depreciation Costs By Date Range</td>
<td>Cost of the item’s depreciation. The depreciation records are grouped by CI.</td>
</tr>
<tr>
<td><strong>People</strong></td>
<td>Configuration Items Related by Entity Type</td>
<td>CIs associated with an entity type. You can create custom reports based on a choice of one entity type and multiple relationship types.</td>
</tr>
<tr>
<td><strong>Purchasing</strong></td>
<td>Open Purchase Orders by Status</td>
<td>Open purchase orders by status.</td>
</tr>
<tr>
<td></td>
<td>Open Purchase Requisitions</td>
<td>Open purchase requisitions.</td>
</tr>
<tr>
<td></td>
<td>Purchase Orders by CI Type</td>
<td>Purchase orders based on CI type.</td>
</tr>
<tr>
<td></td>
<td>Supplier Performance</td>
<td>Supplier performance organized by supplier, order ID, and purchase order number.</td>
</tr>
<tr>
<td><strong>Schedules</strong></td>
<td>Upcoming Configuration Items Due for Audit</td>
<td>CIs that are due for audits. This report can be sorted by status, product categorization, and site.</td>
</tr>
<tr>
<td></td>
<td>Upcoming Configuration Item Maintenance Checks</td>
<td>CIs that are due for maintenance checks within the specified date range.</td>
</tr>
<tr>
<td></td>
<td>Upcoming Maintenance Assets by Site</td>
<td>Assets due for maintenance, organized by site.</td>
</tr>
</tbody>
</table>
For each product in the Product Catalog that is deployed in the organization, the number of CIs and the number of software license certificates.

**Note:** Because a software license certificate can be valid for more than one CI, this is not a compliance report. Use the Certificates Breached or Approaching Breach report to view compliance.

<table>
<thead>
<tr>
<th>Report type</th>
<th>Report name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software</td>
<td>Active Product Names</td>
<td>For each product in the Product Catalog that is deployed in the organization, the number of CIs and the number of software license certificates.</td>
</tr>
<tr>
<td></td>
<td>Certificates Breached or Approaching Breach</td>
<td>Software license certificates that have been breached and certificates that are approaching breach.</td>
</tr>
<tr>
<td></td>
<td>Certificates by Software Contract</td>
<td>Software license certificates, grouped by contract.</td>
</tr>
<tr>
<td></td>
<td>Certificates by Supplier</td>
<td>Software license certificates, grouped by supplier and by contract.</td>
</tr>
<tr>
<td></td>
<td>Certificates by Vendor</td>
<td>Software license certificates, grouped by vendor (manufacturer).</td>
</tr>
<tr>
<td></td>
<td>Client License Model Totals</td>
<td>Total used and available licenses for each software contract, grouped by license type and product.</td>
</tr>
<tr>
<td></td>
<td>License Job Summary</td>
<td>Results of license jobs run by the License Engine.</td>
</tr>
<tr>
<td></td>
<td>Software CI Exception Report</td>
<td>Software CIs that should be tied to a certificate but are not.</td>
</tr>
<tr>
<td></td>
<td>Software Contract List by Expiration Date</td>
<td>Software contracts, organized by expiration date.</td>
</tr>
<tr>
<td></td>
<td>Software Title Detail Report</td>
<td>For each software product name, the applicable software contracts and their software license certificates.</td>
</tr>
<tr>
<td></td>
<td>Compliance / Maximum Exposure</td>
<td>Software licenses deployed compared with contracts, organized by manufacturer, and a maximum monetary exposure estimate for overdeployed software licenses.</td>
</tr>
</tbody>
</table>
BMC Remedy Asset Management provides the CI and relationship types listed in this section.

The following topics are provided:

- BMC_Access Point subclass (page 244)
- BMC_Bulk Inventory subclass (page 244)
- BMC_Collection subclass (page 244)
- BMC_Document class (page 245)
- BMC_Equipment class (page 245)
- BMC_Logical Entity subclass (page 246)
- BMC_Settings subclass (page 247)
- BMC_System subclass (page 247)
- BMC_System Component subclass (page 248)
- BMC_System Service subclass (page 250)
- Relationship types (page 251)
BMC_Access Point subclass

The following CI types are available when you create a CI under the BMC_Access Point subclass. You use these CI types to define the endpoints in your topology.

From the CI Type list on applicable forms, consoles, and dialog boxes, select Access Point.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Endpoint</td>
<td>A communication protocol endpoint that is dedicated to running TCP/UDP.</td>
</tr>
<tr>
<td>IP Endpoint</td>
<td>A protocol endpoint that is dedicated to running IP.</td>
</tr>
<tr>
<td>LAN Endpoint</td>
<td>A communication endpoint that, when its associated interface device is connected to a LAN, can send and receive data frames. LAN Endpoints include Ethernet, Token Ring, and FDDI interfaces.</td>
</tr>
<tr>
<td>Protocol Endpoint</td>
<td>A communication point from which data can be sent or received. Protocol Endpoints link system or computer interfaces to logical networks.</td>
</tr>
</tbody>
</table>

BMC_Bulk Inventory subclass

Bulk Inventory is the only CI type available under this subclass. You use this CI type to define your bulk items.

From the CI Type list in the Manage CI Information dialog box, select Bulk Inventory.

BMC_Collection subclass

The following CI types are available when you create a CI under the BMC_Collection subclass. You use these CI types to define site information and connectivity information.

From the CI Type list on applicable forms, consoles, and dialog boxes, select Collection.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Collection</td>
<td>Stores a generic and instantiable collection, such as a pool of hosts available for running jobs.</td>
</tr>
<tr>
<td>Connectivity Collection</td>
<td>A connectivity collection is used to collect a set of protocol endpoints of the same type that are able to communicate with each other. This collection can also collect related systems, users, or other managed elements.</td>
</tr>
</tbody>
</table>
### BMC_Document class

Document is the only CI type available under this class. You use this CI type to store information about documentation in your environment.

From the CI Type list on applicable forms, consoles, and dialog boxes, select Document.

### BMC_Equipment class

Equipment is the only CI type available under this class. You use this CI type to define noncomputing equipment, such as vehicles or maintenance tools.

From the CI Type list on applicable forms, consoles, and dialog boxes, select Equipment.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectivity Segment</td>
<td>A group of endpoints of a particular type (for example, ethernet or token ring) that are able to intercommunicate with the assistance of bridging or routing services.</td>
</tr>
<tr>
<td>IP Connectivity Subnet</td>
<td>A group of related IP protocol endpoints that can communicate with each other as members of a subnet.</td>
</tr>
<tr>
<td>IPX Connectivity Network</td>
<td>A network or subnet that uses the IPX protocol.</td>
</tr>
<tr>
<td>LNs Collection</td>
<td>A LNs Group represents a group of logical networks.</td>
</tr>
<tr>
<td>Local Area Network (LAN)</td>
<td>A collection of IP subnets in a LAN.</td>
</tr>
<tr>
<td>Role</td>
<td>A role, for example, a business or IT role.</td>
</tr>
<tr>
<td>Wide Area Network (WAN)</td>
<td>A collection of IP subnets in a WAN.</td>
</tr>
</tbody>
</table>
BMC_Logical Entity subclass

The following CI types are available when you create a CI under the BMC_Logical Entity subclass. You use these CI types to define accounts, business processes, databases, and so on.

From the CI Type list on applicable forms, consoles, and dialog boxes, select Logical Component.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account</td>
<td>An account that a person owns, used to access a specific target system. An Account is usually connected to a Person entity.</td>
</tr>
<tr>
<td>Activity</td>
<td>A function or step in a business process definition. Activity is also the superclass for Business Process and other types of activity definitions.</td>
</tr>
<tr>
<td>Business Process</td>
<td>Intended to group a set of Activity components to describe a business process.</td>
</tr>
<tr>
<td>Business Service</td>
<td>A business, IT, or technical service. A business service can be provided from one business or organization within a business to another. Examples of business services include customer support, order processing, and payroll.</td>
</tr>
<tr>
<td></td>
<td>An IT service is a business service that the IT organization provides to support business services or IT's own operations. Examples of IT services include employee provisioning and backup and recovery.</td>
</tr>
<tr>
<td></td>
<td>A technical service can be provided by IT to represent a service offering and the service level targets associated with that service. Examples of technical services include web farms and storage.</td>
</tr>
<tr>
<td>Database</td>
<td>A database is a collection of interrelated data, treated as a unit, which is organized into one or more schemas.</td>
</tr>
<tr>
<td>Physical Location</td>
<td>Specifies the position and address of a physical element.</td>
</tr>
<tr>
<td>Transaction</td>
<td>A single transaction initiated by an user or system. For example, a user selecting a web page from a user interface is a transaction, just as a computer program calling a web service to perform a function in another computer program is also a transaction.</td>
</tr>
</tbody>
</table>
BMC_Settings subclass

The following CI types are available when you create a CI under the BMC_Settings subclass. You use these CI types to specify virtual systems. From the CI Type list on applicable forms, consoles, and dialog boxes, select Settings.

A virtual system configuration consists of a top-level virtual system setting data CI with child resource allocation setting data CIs that are related as components. You can use virtual system configurations to represent current virtual systems and requests to create or modify virtual systems.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Allocation Setting Data</td>
<td>These settings contain information specific to the allocation that might not be visible to the consumer of the resource. For example, a virtual processor might look like a 2 GHz processor to the consumer; however, the virtual processor might only use 1 GHz of memory.</td>
</tr>
<tr>
<td>Virtual System Setting Data</td>
<td>Virtual system setting data defines the virtual aspects of a virtual system through a set of virtualization-specific properties. You can use this CI to model configuration information about virtual systems and their components.</td>
</tr>
</tbody>
</table>

BMC_System subclass

The following CI types are available when you create a CI under the BMC_System subclass. You use these CI types to define the systems in your organization. From the CI Type list on applicable forms, consoles, and dialog boxes, select System.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin Domain</td>
<td>A subclass of systems representing the admin domains for other elements such as Windows NT Domain, J2EE™ Domain, and so on.</td>
</tr>
<tr>
<td>Application</td>
<td>A deployed program that performs specific tasks.</td>
</tr>
<tr>
<td>Application Infrastructure</td>
<td>Hierarchically separates an application system from the infrastructure supporting that application system.</td>
</tr>
<tr>
<td>Application System</td>
<td>An application or software system that supports a particular business function and that can be managed as an independent unit.</td>
</tr>
<tr>
<td>Cluster</td>
<td>A group of disk sectors. The operating system assigns a unique number to each cluster and then keeps track of files according to the clusters they use.</td>
</tr>
<tr>
<td>Computer System</td>
<td>A complete, working computer. This CI type can also see a virtual system.</td>
</tr>
<tr>
<td>Inventory Location</td>
<td>The location of your inventory items.</td>
</tr>
</tbody>
</table>
### BMC_System Component subclass

The following CI types are available when you create a CI under the BMC_System Component subclass. From the CI Type list on applicable forms, consoles, and dialog boxes, select System Component.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS</td>
<td>The built-in software that determines what a computer can do without accessing programs from a disk.</td>
</tr>
<tr>
<td>Card</td>
<td>A printed circuit board that you can insert into a computer to give it added capabilities.</td>
</tr>
<tr>
<td>CDROM Drive</td>
<td>A device that can read information from a CD ROM.</td>
</tr>
<tr>
<td>Chassis</td>
<td>A metal frame that serves as the structural support for electronic components.</td>
</tr>
<tr>
<td>Database Storage</td>
<td>A device to hold and retain data from a database.</td>
</tr>
<tr>
<td>Disk Drive</td>
<td>A machine that reads data from and writes data on to a disk.</td>
</tr>
<tr>
<td>Disk Partition</td>
<td>A continuous range of logical blocks that is identifiable by the operating system using the partition’s type field and subtype field.</td>
</tr>
<tr>
<td>File System</td>
<td>The system that an operating system or a program uses to organize and keep track of files.</td>
</tr>
<tr>
<td>Floppy Drive</td>
<td>A machine that reads data from and writes data on to a disk.</td>
</tr>
<tr>
<td>Hardware Package</td>
<td>A hardware package that groups hardware components that are made up of other hardware components. For example, a chassis is made up of a disk drive, memory, a processor, and so on.</td>
</tr>
<tr>
<td>Hardware System Component</td>
<td>A hardware system component is a physical object, such as a disk, disk drive, display screen, keyboard, printer, board, or processor.</td>
</tr>
<tr>
<td>Keyboard</td>
<td>The set of typewriter-like keys that enables you to enter data into a computer.</td>
</tr>
<tr>
<td>Local File System</td>
<td>Files that reside on your workstation.</td>
</tr>
</tbody>
</table>

- **Mainframe**: A large computer capable of supporting hundreds, or even thousands, of users simultaneously.
- **NT Domain**: A group of computers and devices on a Windows NT network that are administered as a unit with common rules and procedures.
- **Printer**: A printer. Can represent both local printers and network printers.
- **Software Server**: A server on which your software applications reside.
<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logical System Component</td>
<td>A logical system component.</td>
</tr>
<tr>
<td>Media</td>
<td>Objects on which data can be stored. These include hard disks, floppy disks, CDs and tapes.</td>
</tr>
<tr>
<td>Memory</td>
<td>Internal storage areas in the computer.</td>
</tr>
<tr>
<td>Monitor</td>
<td>The display screen of a computer.</td>
</tr>
<tr>
<td>Network Port</td>
<td>An interface on a computer to which you can connect a network device.</td>
</tr>
<tr>
<td>Operating System</td>
<td>Software that controls the operation of a computer and directs the processing of programs.</td>
</tr>
<tr>
<td>Package</td>
<td>A computer program or a collection of related software, for example, Microsoft Works.</td>
</tr>
<tr>
<td>Patch</td>
<td>Also called a service patch, a fix to a program defect.</td>
</tr>
<tr>
<td>Pointing Device</td>
<td>A device with which you can control the movement of the cursor to select items on a display screen.</td>
</tr>
<tr>
<td>Processor</td>
<td>A silicon chip that contains a CPU.</td>
</tr>
<tr>
<td>Product</td>
<td>Something that is produced, such as a software program or a hardware component. For example, Microsoft Office would be categorized under Product.</td>
</tr>
<tr>
<td>Rack</td>
<td>A hardware component that holds other hardware components.</td>
</tr>
<tr>
<td>Remote File System</td>
<td>A file system that is not connected directly to your workstation.</td>
</tr>
<tr>
<td>Resource Pool</td>
<td>A logical entity provided by the host system to allocate and assign resources.</td>
</tr>
<tr>
<td>Share</td>
<td>Represents shared components such as a file system.</td>
</tr>
<tr>
<td>System Resource</td>
<td>An entity managed by a BIOS (basic input/output system), an operating system, or other software that is available for use by application software, logical devices, or both. System resources are individually identified and allocated entities that are assignable, reservable, counted or tracked, releasable, resettable, and so on. Examples of software resources are message queues, shared memory segments, and named pipes. Examples of hardware resources in an x86 environment are IRQs, DMA channels, and memory-mapped I/O. Another example is J2EE™ resources used by a J2EE server to provide the J2EE standard services required by the J2EE platform architecture.</td>
</tr>
<tr>
<td>System Software</td>
<td>Refers to the operating system and all utility programs that manage computer resources at a low level.</td>
</tr>
<tr>
<td>Tape Drive</td>
<td>A device that reads data from and writes it on to a tape.</td>
</tr>
</tbody>
</table>
Application Service is a CI type available under the BMC_System Service subclass. You use this to define the system services in your organization.

An Application Service is a logical element that contains the information necessary to represent and manage the functionality that a software feature provides. This service is a general-purpose object to configure and manage the implementation of functionality. This service is not the functionality itself.

From the CI Type list on applicable forms, consoles, and dialog boxes, select System Service.

<table>
<thead>
<tr>
<th>CI type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS</td>
<td>Short for uninterruptible power supply. A power supply that includes a battery to maintain power in the event of a power outage.</td>
</tr>
<tr>
<td>Virtual System Enabler</td>
<td>A virtual system enabler represents a collection of virtual operating systems (for example, VMWare) that can run on a specified system.</td>
</tr>
</tbody>
</table>
Relationship types

When you relate a CI or service to another CI, you must define the relationship type between the two records. The following relationship types are available with BMC Remedy Asset Management.

<table>
<thead>
<tr>
<th>Relationship type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
<td>Establishes component (or “part of”) relationships between managed elements.</td>
</tr>
<tr>
<td>Dependency</td>
<td>Establishes dependency relationships between object store elements.</td>
</tr>
<tr>
<td>Element Location</td>
<td>Relates a managed element to a location for site, inventory, and maintenance purposes. Physical elements can have locations, however, other managed elements might also be related to locations. For example, organizations might exist in one or more location, or services might be restricted to one location.</td>
</tr>
<tr>
<td>Hosted Access Point</td>
<td>Relates an access point and the system on which it resides. This relationship is 1-to-many and is weak with respect to the system. Each system might host many service access points. If the implementation of the access point is modeled, it must be implemented by a device or software feature that is part of the system hosting the service access point.</td>
</tr>
<tr>
<td>Hosted Service</td>
<td>Relates a service and the system on which the service resides. The relationship is 1-to-many and is weak with respect to the service. A service is hosted on the stem where logical devices or software features that implement the service are located. The model does not represent services hosted across multiple systems. The service is modeled as an application system that acts as an aggregation point for services that are each located on a single host.</td>
</tr>
<tr>
<td>Hosted System Components</td>
<td>A specialization of the Component relationship that establishes “part of” relationships between a system and the managed system elements on which it is composed.</td>
</tr>
<tr>
<td>Impact</td>
<td>Generically relates impact relationships between objects.</td>
</tr>
<tr>
<td>Inventory Bulk Items</td>
<td>Relates a bulk item to inventory location.</td>
</tr>
<tr>
<td>Inventory Computer Systems</td>
<td>Relates a computer system to inventory location.</td>
</tr>
<tr>
<td>Inventory System Components</td>
<td>Relates a system component to inventory location.</td>
</tr>
<tr>
<td>Member Of Collection</td>
<td>Establishes membership of managed elements in a collection.</td>
</tr>
<tr>
<td>Settings Of</td>
<td>Relates a managed element to the applicable setting data. Describes whether this is the default or current setting.</td>
</tr>
</tbody>
</table>
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