



Setting Up Cisco EPOM

This chapter contains the following topics:

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- [Setting Up a Network, page 4-13](#)
- [Adding Domains, Groups, and Users, page 4-15](#)
- [Managing Cisco EPOM Corba Cache, page 4-22](#)

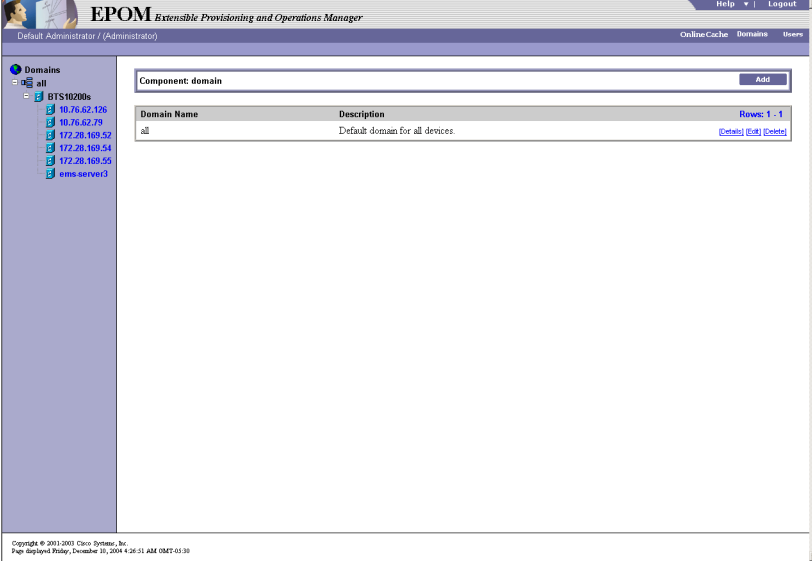
Navigating the Cisco EPOM Interface

Navigating the Cisco EPOM interface is described in these topics:

- [Overview of the Cisco EPOM Application Window, page 4-2](#)
- [About Main Cisco EPOM Windows, page 4-9](#)
- [Using Cisco EPOM Forms, page 4-10](#)

Overview of the Cisco EPOM Application Window

This is an example of the Cisco EPOM application window:



The screenshot shows the Cisco EPOM (Extensible Provisioning and Operations Manager) application window. The title bar reads "EPOM Extensible Provisioning and Operations Manager" with "Help" and "Logout" buttons. Below the title bar, it says "Default Administrator / (Administrator)" and "Online Cache Domains Users".

The left sidebar shows a tree view under "Domains":

- all
- BTS10200s
 - 10.76.62.126
 - 10.76.62.79
 - 172.28.169.52
 - 172.28.169.54
 - 172.28.169.55
 - ems.server3

The main content area has a "Component: domain" label and an "Add" button. Below this is a table with the following data:

Domain Name	Description	Rows: 1 - 1
all	Default domain for all devices.	Details Edit Delete

At the bottom left of the window, there is a copyright notice: "Copyright © 2011-2003 Cisco Systems, Inc. Page displayed Friday, December 30, 2009 4:26:53 AM GMT-05:00".

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Standard Window Elements

Window Element	Description
Window title	Identifies the current window, such as Component: domain management.
Window banner	Displays the application name and includes the Help and Logout buttons.
Main menu	Displays the current user name, user type (Administrator or User). This menu bar also includes main menu buttons to switch between domain management, user administration and Online Cache Management.
Submenu	Displays the currently selected component, if any, and buttons for major operations on that component.



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


This submenu bar also has the Reports, Config, Edit, and Delete buttons. These buttons are duplicated in the BTS10200 Details pane. They have the same function whether you click them in the submenu bar or the Details pane.

The submenu includes a highlighted link to the selected Cisco BTS 10200 EMS server. Click the link to go to the index for the selected server, where you can access reports or Help.

Window Element	Description
Navigation pane, tree view	Displays a tree view you can use to display the structure of the current view, such as the Domains tree, the User/Groups tree, the inventory device Configuration tree, the Reports tree, and navigate through tree objects.

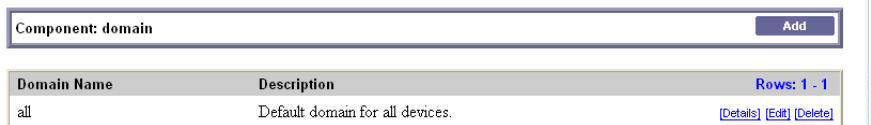


Navigation pane, icons	When you select a Cisco BTS 10200 EMS server and click on Config icons (in the Configuration tree) identify the main object types and the default action that occurs when you click on the tree object. The available actions depend on the object type.
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Window Element	Description
	A main component, expandable to view subcomponents.
	Click to show the component or list of components of that type, and access other operations such as adding a new component of that type or searching for components.
	Click to search for components of this type.
	Click to check or change status.
	Click to diagnose the component.

Window Element**Description****Content area**

Displays information about the object selected in the navigation pane. The display changes if you select a different object or click a command button, such as **Add** or **Edit**.



This pane includes a title box across the top, containing a description of the current object and command buttons for actions that apply to it. Management windows display a list of the managed objects and buttons applicable to the object, such as **Edit** or **Delete**.

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Window Element**Description****Managed object windows**

These windows include standard elements and navigation features as shown in this example.

Success: Entries 1-101 of 2071 returned.

Component: dial_plan Add Search

[Check All](#) [Clear All](#) [Details](#) [Edit](#) [Delete](#)

id ▲	dest_id	digit_string	Rows: 1 - 100 of 2071 ➔
<input type="checkbox"/> Dial1	dst1	222	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	271201	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	271202	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	271203	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	271204	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	271205	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	271206	Details Edit Delete
<input type="checkbox"/> Incoming	RLGHNCDS1	306291	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	306301	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	306362	Details Edit Delete
<input type="checkbox"/> Incoming	local-sub	306391	Details Edit Delete

- You can sort on column headers.
- All defined objects of the selected type are listed.
- Allowed operations on a selected object are listed at right, such as Details, Edit, and Delete. See the “[Standard Cisco BTS 10200 Operations](#)” section on [page 4-8](#) for a complete list.
- Links to other parts of the configuration are provided, for quick navigation between related windows. Click the items displayed with blue underlining to jump to that component. In the example above, you can click a dial plan profile ID (dp1) to go directly to a dial plan profile.

Standard Cisco BTS 10200 Operations

In the managed object window, you can carry out any operation supported for the selected object type. The operation appears as an underlined blue link. Operations are executed in real time. These Cisco BTS 10200 operations are available in Cisco EPOM:

- **Add**—Add a component.
- **Edit**—Edit the component.
- **Details**—Show all the information on the component.
- **Delete**—Remove the component from the configuration.

You cannot delete a component if other components depend on it. For example, you cannot delete a subscriber profile until you have deleted all the subscribers that are associated with it.

- **Status**—Check the status of the component.
- **Control**—Take the component in or out of service.
- **Diag**—Issue a diagnostic command to the component.
- **Equip**—Equip components to put them in service.
- **Unequip**—Unequip a component prior to deleting.
- **Reset**—Reset defined circuit identification codes (CICs).

Reset the CIC if there are errors in the communication on that trunk.

- **Search**—Search for components meeting the specified criteria.

Fill in the search criteria, then click **Search**. For example, in the subscriber window, to find a list of subscribers using a particular media gateway, in **mgw_id** enter the gateway id, then click **Search**. A list of matching subscribers appears.

- **Audit**—Examine entries on data tables
- **Sync**—Syncing the data between data tables and shared memory segments

About Main Cisco EPOM Windows

Cisco EPOM's three main windows are Domain Management, User Management, and Online Cache Management. From Domain Management you access all device-related functions. From User Management, Cisco EPOM administrators can access user and group access functions, and Cisco EPOM users can access their own user record, for example, to change their password. From Online Cache Management users can view, delete and renew Corba connections between Cisco EPOM and Cisco BTS 10200 servers.

This table describes the main Cisco EPOM windows in each category. The Access With column gives an example of how to access the window, but as in any web application, there are many links between windows that can shortcut hierarchical navigation.

Window—Domains	Access With	Use To...
Domain Management	Domains button	<ul style="list-style-type: none"> • Manage domains and devices • Access domain-level tasks
Domain Details	Details or click the domain in the Domain tree	<ul style="list-style-type: none"> • View what inventory devices are contained in the domain and what user groups have access to the domain
Modify Domain	Edit from Domain Details	<ul style="list-style-type: none"> • Add devices, add groups with access to the domain
Cisco BTS 10200 Component Status	With a Cisco BTS 10200 EMS server selected in the Domain tree window, click Config	<ul style="list-style-type: none"> • View, modify, and check or change the status of Cisco BTS 10200 devices • Schedule provisioning tasks • Access Provisioning Wizards
Cisco BTS 10200 Configuration Wizard	In the Configuration tree, click Provisioning Flow and click the provisioning task	<ul style="list-style-type: none"> • Carry out common provisioning operations with prompts for each required step in the procedure
Cisco BTS 10200 Component Reports	With a Cisco BTS 10200 EMS server selected in the Domain tree window, click Reports	<ul style="list-style-type: none"> • Select and view Performance or Billing Reports

Window—Users	Use To...
User Administration	<p>Administrators—Add, modify, or delete users, including assigning users to one or more groups.</p> <p>Users—View your settings and change your first name, last name, password, or email.</p>
Group Administration	<p>Administrators—Add or delete groups. Groups are listed under Groups in the Edit User window so that you can assign or unassign users to them.</p>
Window—Online Cache	Use To...
Online Cache Management	<p>Administrators—Renew, Delete and view Corba connections between Cisco EPOM and configured Cisco BTS 10200 inventories.</p> <p>Users—View Corba connections between Cisco EPOM and configured Cisco BTS 10200 inventories.</p> <p>Refer “Managing Cisco EPOM Corba Cache” section on page 4-22</p>

Using Cisco EPOM Forms

You can use Cisco EPOM forms to Add, View, and Edit information on inventory components, domains, users, and groups, to specify report parameters, to search for devices, and so forth. The Add component form is an example:

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About Form Actions

In a form, you can do the following:

- Fill in or select field values. Required fields are identified with a red checkmark.
- Click **Clear Form** to clear out existing information.
- Click **OK** to save the current field values, including any changes you have made, and return to the previous window.
- Click **Cancel** to discard any changes and return to the previous window.

Adding Multiple Components with Common Properties

In Component Add forms, you can use **Apply** to add multiple components with the same properties. For example, in the Subscriber Add form, enter common properties and fill in the ID for the first subscriber of that type, then click **Apply**. The subscriber is added and the form stays open. Fill in the id for the next subscriber and click **Apply**. Repeat for each subscriber of this type.

About Field Types

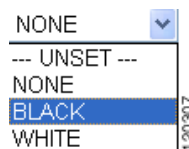
There are five field types:

- **Text fields**, where you fill in text information:

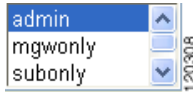


For many text fields, you need to know the correct value to enter, such as the hostname of a Cisco BTS 10200 EMS server.

- **Dropdown list boxes**, where you select one from a list of choices:




- **Multiple-select fields**, such as the Groups field in the Edit User window, where you select one or more in a list of choices:



Click to select a single value, or **Ctrl+click** to select multiple values. Selected values are highlighted.


- **Parameter fields**, where you click to select from a list of parameters values:



Click  to open the Selection Helper window. Make your choices, then click **OK**.


- **Add subelement fields**, where you click to drill down to a form to add a subelement. In this example for the component, ISDN B-channel, the trunk group ID field is empty:


No trunk_grp items defined. 

Click  to open a form to define the subelement, then click **OK** to save the changes and return to the previous form, or **Apply** to save the changes and keep working in the subelement form.

View-only fields have a gray background and cannot be edited.

About Field-Level Help

For help on a field, point to  in order to view a short description of the field and any requirements, such as minimum or maximum number of characters.

For parameter fields, click  to open the Selection Helper window.

About Moving Between Windows

Use the application buttons or the various tree views in the navigation pane to move between windows.

If you simply want to move back to the previous window, use the Cisco EPOM **Cancel** button, if available, or another application button.

Setting Up a Network

Setting up a network is described in these topics:

- [About Adding a Cisco BTS 10200 EMS Server, page 4-13](#)
- [Adding a Cisco BTS 10200 EMS Server, page 4-14](#)

About Adding a Cisco BTS 10200 EMS Server

The first step is to add a Cisco BTS 10200 Softswitch EMS server to the Cisco EPOM inventory.

Before you begin, obtain this information about the Cisco BTS 10200 EMS server:

- Hostname or IP address.
- Login and password.
- Site ID. This is necessary for CORBA communication (how Cisco EPOM communicates with the Cisco BTS 10200 EMS server). See [“Determining a Cisco BTS 10200 EMS Server Site ID”](#) section on page 4-13.

Determining a Cisco BTS 10200 EMS Server Site ID

This server ID enables Cisco EPOM to communicate with the Cisco BTS 10200 EMS server via the CORBA interface.

Step 1 Log in to the Cisco BTS 10200 EMS server as the root user.

Step 2 To determine the site ID, enter:

```
grep SITEID /etc/optical1.cfg
SITEID=rtptvc2
```

Adding a Cisco BTS 10200 EMS Server

With this procedure, you can add a Cisco BTS 10200 EMS server to the “all” domain and set up the initial configuration.

Step 1 Start Cisco EPOM (see the “[Logging In to Cisco EPOM](#)” section on page 2-11). Cisco EPOM opens to the Domain Management window.

Step 2 In the Domain pane, in the **all** domain row, click **Edit**.
The Modify component: Domain window opens.



Tip

Because you are viewing the “all” domain, the Inventory and Groups items are also preceded by “all” (all Inventory and all Groups).

Step 3 In the all Inventory pane, click **Add**.
The Add component window opens.




Note

Red checkmarks identifies required fields.

Step 4 Enter the required information:



Tip

Move your cursor over the  symbol to access field-level help, such as the range of characters allowed for a response.

- **Hostname:** The hostname or IP address of the Cisco BTS 10200 EMS server.

- Type: Select **BTS 10200**.
- Login: The Cisco BTS 10200 EMS server login.
- Password: The Cisco BTS 10200 EMS server password.
- Site Id: The site ID for the Cisco BTS 10200 EMS server. See [“Determining a Cisco BTS 10200 EMS Server Site ID”](#) section on page 4-13.

Step 5 Click **OK**.

The specified Cisco BTS 10200 EMS server is added to the “all” domain.

Adding Domains, Groups, and Users

By using the user, group, and domain administrative tools in Cisco EPOM, you can set up read and write or read-only access for Cisco EPOM users to any Cisco BTS 10200 EMS server network. Use domains to organize networks into logical groups that are accessible to specific user groups. Use groups to organize users based on the domains to which you want users to have access. You can also assign a Cisco BTS 10200 user login name and password to a Cisco EPOM user group to further control access to the Cisco BTS 10200 EMS server (see Chapter 6, [Managing Security with Cisco EPOM](#)).

Procedures to add domains, groups, and users are described in the following topics:

- [Adding Domains, page 4-15](#)
- [Adding Groups and Assigning Them to Domains, page 4-17](#)
- [Adding Users and Assigning Them to Groups, page 4-19](#)

Adding Domains

Add a domain to create a logical network group that is accessible to specific user groups. A domain definition includes a Cisco BTS 10200 EMS server (which may have been already defined in another domain, or can be defined when you add the domain) and groups with access to the domain.

- Step 1** Click **Domains** if you are not already in the Domain Management window.
- Step 2** Click **Add**. The Add Domain window opens.
- Step 3** Define the domain:

- a. **Domain Name**—The domain name that appears in the Domain tree. Enter up to 15 characters; spaces are allowed.
 - b. (Optional) **Description**—Descriptive information that appears in the Domain Management window.
 - c. Click **OK**. You return to the Domain Management window, with the new domain listed in the domain list, but is not yet listed in the Domain tree.
- Step 4** To add a Cisco BTS 10200 EMS server or a user group to a domain, click **Edit**. The Modify Domain window opens.
- Step 5** Do one of the following:
- To add a Cisco BTS 10200 EMS server to this domain:
 - a. Next to **No Inventory Found**, click **Edit**.
The Inventory Edit window opens listing existing Cisco BTS 10200 EMS servers.
 - b. Select the server you want to add to this domain, then click **OK**.
 - c. If you want to add a new Cisco BTS 10200 EMS server and include it in this domain at the same time, click **Add**,
 - d. Define the server (see Chapter 4, [Configuring Cisco BTS 10200 Components](#)).
- Or
- To specify which groups have access to this domain,
 - a. Next to *XYZ Domain Groups*, click **Edit**.
 - b. The Group Edit window opens listing all groups and their current access.

- c. For each group that should have access to this domain, select the desired access type, **Read/Write** or **Read Only**.
- d. Click **OK**.

You return to the Domain Management window.

- Step 6** If you added a Cisco BTS 10200 EMS server and now want to add groups, or vice versa, repeat Steps 4 and 5.

Adding Groups and Assigning Them to Domains

A domain definition specifies user groups with read/write or read-only access to that domain. Add groups to organize users according to what domains they should have access to.

- Step 1** Click **Users** if you are not already in User Administration window.
- Step 2** In the navigation pane, click **Groups**. The Group Administration window opens listing existing groups.
- Step 3** Click **Add**.
- Step 4** Specify the name of the new group, which can be up to 255 characters. Spaces are allowed.
- Step 5** Click **OK**. The group is added to the group list.



Tip

The Cisco BTS 10200 Login and Cisco BTS 10200 Navigation Tree fields are described in the [“Setting Up Cisco EPOM Security”](#) section on page 6-3.

- Step 6** To switch to the Domain Management window, click **Domains**.

- Step 7** In the Domain list, click **Edit** for the domain that you want the new group to be able to access. The Modify Domain window opens.
- Under *XYZ Domain* Groups you see a list of groups that currently have access to this domain.
- Step 8** Click **Edit**. The Group Edit window opens listing all groups and their current access.
- Step 9** In the dropdown list box for the new group, select the desired access:
- **None** (to remove access from a group that has had access)
 - Read/Write
 - Read Only
- Step 10** Click **OK**. The access level for this domain is changed, and you return to the Domain Management window.
-

Deleting Groups

You can delete obsolete groups. For example, you can delete a group if you delete the domain it is associated with.



Note You cannot delete the default group admin and the default userid admin.

- Step 1** Click **Users** if you are not already in the User Administration window.
- Step 2** In the navigation pane, click **Groups**. The Group Administration window opens listing existing groups.
- Step 3** In the row for the group that you want to delete, click **Delete**. The Delete Group window opens.

Delete group: san jose OK Cancel

Group Name

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- Step 4** Click **OK**. The group is deleted and you return to the Group Administration window. The Group Names list reflects the deletion.

Adding Users and Assigning Them to Groups

- Step 1** Click **Users** if you are not already in the User Administration window. The list of current users appears.
- Step 2** Click **Add**. The Add user window opens.

The screenshot shows the 'Add user' dialog box. It contains the following fields:

- Username:
- First Name:
- Last Name:
- Password:
- Confirm Password:
- Email Address:
- Groups:

Buttons: Add, Cancel

Vertical ID: 120315

- Step 3** Define the user:
- **Username**—Enter the name that the user will use to log in to Cisco EPOM.
 - **First Name**—Enter the user's first name.
 - **Last Name**—Enter the user's last name.
 - **Password**—Enter the initial password for Cisco EPOM access. The user can change this later.
 - **Confirm Password**—Enter the password again for confirmation.
 - **Email Address**—Enter the user's email address, which provides an email shortcut in the user list.
 - **Groups**—Click the group this user will belong to. To select multiple groups, press **Ctrl+click**. The selected groups are highlighted.
To deselect a group, point to the group, and press **Ctrl+click**.

- Step 4** Click **OK**. The user is added, and you return to the User Administration window where the new user is listed.

Modifying and Deleting Users

If you are a member of the admin group, you can modify user information, including group membership, or you can delete users who no longer require Cisco EPOM access. (If you are not a member of the Admin group, you can change your password, name, and email, but not your userid or group association.)

- Step 1** Click **Users** if you are not already in the User Administration window. The list of current users appears.
- Step 2** In the row for the user whom you want to change, do one of the following:
- To modify user information:
 - a. Click **Edit**.

The Edit User window opens. .

The screenshot shows a dialog box titled "Modify user: skarunan" with "OK" and "Cancel" buttons. The form contains the following fields:

Username	skarunan
First Name	s
Last Name	karunan
Password
Confirm Password
Email Address	skarunan@cisco.com
Groups	admin

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- b. Make the changes and click **Edit** to save them.

c. To delete the user, click **Delete**. The Delete User window opens.

Delete user: skarunan		Delete	Cancel
Username	skarunan		
First Name	s		
Last Name	karunan		
Password		
Email Address	skarunan@cisco.com		

d. Click **Delete**.

e. You return to the User Administration window, showing the list of users.

Changing Your User Information

As a user, you can change your password, email address, and first name/last name information. You cannot change your user name, group membership, or domain access, which can be changed only by the Cisco EPOM administrator.

-
- Step 1** From any Cisco EPOM window, click **Users**. The User Administration window opens.
- Step 2** In the row with your user information, click **Edit**. The Edit User window opens.
- Step 3** Modify the desired fields. You can change these fields:
- First Name
 - Last Name
 - Password (you must enter the password again in Confirm Password)
 - Email Address
- Step 4** Click **Edit**. You return to the User Administration window.
-

Managing Cisco EPOM Corba Cache

Cisco EPOM 4.4(1) introduces a new feature - Online Corba Cache Management. The Online Cache window enables a user to view, renew and delete the internal Corba cache maintained by Cisco EPOM.

The Corba Cache is of utmost importance to EPOM as it cuts down the Cisco BTS 10200 query time and enhances the performance of Cisco EPOM.

If the Cisco BTS 10200 server is restarted or someone invokes the `kill cis` command then Cisco EPOM is unable to query Cisco BTS 10200 server. This is due to the persistent nature of the Cisco BTS 10200 Corba objects.

Using Online Corba Cache Management a user need not restart the Cisco EPOM server, but instead the user may delete or renew the Corba Cache. This enables Cisco EPOM server to query restarted Cisco BTS 10200 servers without being restarted itself.

**Note**

Renew and Delete operations can be invoked with Administrator privileges only.

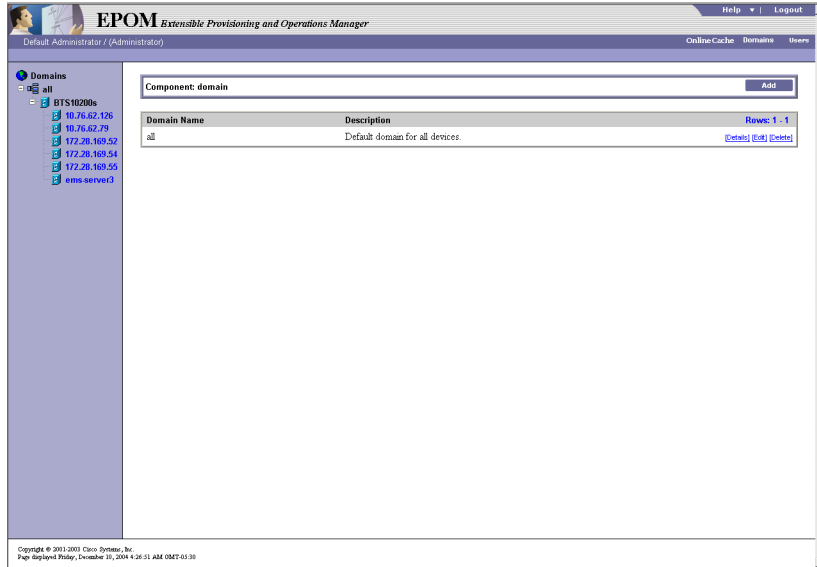
When to use

The Online Cache Window can be used in three instances:

- To View Corba Cache.
- To Renew Corba Cache for a particular Cisco BTS 10200:
 - When Cisco BTS 10200 has been restarted.
 - When someone invokes `kill cis` on Cisco BTS 10200 server.
 - When Cisco EPOM is unable to locate Cisco BTS 10200 Corba objects.
- To Delete Corba Cache:
 - When a Cisco BTS 10200 has been deleted from the inventory list of Cisco EPOM server.

Viewing, Deleting and Renewing EPOM Corba Cache

- Step 1** From Cisco EPOM window, click **Online Cache**. The Online Cache Management window opens.



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- Step 2** Cache information for all the configured Cisco BTS 10200 inventories can be viewed.

Pool name	Key Names
10.76.62.126----opti	IDENTIFIER_ANONYMOUS_UNUSED:4
	IDENTIFIER_ANONYMOUS_UNUSED:3
	IDENTIFIER_ANONYMOUS_UNUSED:2
	IDENTIFIER_ANONYMOUS_UNUSED:1
	IDENTIFIER_ANONYMOUS_UNUSED:10
	IDENTIFIER_ANONYMOUS_UNUSED:9
	IDENTIFIER_ANONYMOUS_UNUSED:8
	IDENTIFIER_ANONYMOUS_UNUSED:7
	IDENTIFIER_ANONYMOUS_UNUSED:6
	IDENTIFIER_ANONYMOUS_UNUSED:5
172.28.169.55----opt	IDENTIFIER_ANONYMOUS_UNUSED:4
	IDENTIFIER_ANONYMOUS_UNUSED:3
	IDENTIFIER_ANONYMOUS_UNUSED:2
	IDENTIFIER_ANONYMOUS_UNUSED:1
	IDENTIFIER_ANONYMOUS_UNUSED:10
	IDENTIFIER_ANONYMOUS_UNUSED:9
	IDENTIFIER_ANONYMOUS_UNUSED:8
	IDENTIFIER_ANONYMOUS_UNUSED:7

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Step 3 Click **Renew** or **Delete** for the desired Cisco BTS 10200 inventory to renew or delete its Corba Cache.

Pool name	Login	Site id	Maxsize	Size	
10.76.62.126	optuser		50	10	[Renew] [Delete]
172.28.169.55	optuser		50	10	[Renew] [Delete]
172.28.169.54	optuser		50	10	[Renew] [Delete]
10.76.62.79	optuser	rtp2vtc	50	10	[Renew] [Delete]
ems-server3	optuser		50	10	[Renew] [Delete]

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Step 4 Click any Cisco BTS 10200 inventory on the left pane and the proceed with normal operations for the relevant inventory.
