

The Network Navigator

To manage a network entity—Cisco Service Control Engine (Cisco SCE) platform, Subscriber Manager (SM), or Collection Manager (CM)—from the Console, you must first define it as a device in the Network Navigator.

This chapter describes how to use the Network Navigator tool to create a model of all local and remote sites and devices that are part of the Cisco Service Control solution, how to manage the devices remotely, and other functionality that is part of the Network Navigator tool.

The Usage Analysis wizard, which can be used to create a simple model of devices and connect to them, is also described in this chapter.

This chapter consists of these sections:

- The Network Navigator Tool, page 1
- Introduction to Managing Sites, page 2
- Introduction to Managing Devices, page 6
- Working with Network Navigator Configuration Files, page 28
- Network Settings Requirements, page 33

The Network Navigator Tool

The Network Navigator tool contains four views:

- Network Navigator view—Displays all sites and devices that you have defined as part of your system, in the Site Manager tree.
- Properties view—Displays the editable properties of the node selected in the Site Manager tree in the Network Navigator view.
- Progress view—Displays a progress bar when you perform an operation on a site or device in the Site Manager tree.

• Console view—Displays log messages concerning actions performed in the Network Navigator tool.

| Eile Tools Window Help | | | | |
|--|-----------------------|----------------------------------|-------|---------------|
| ₩ ₩ | | | | |
| 😭 🔏 Subscriber Manager 🥐 Network Navigator 🍕 Ar | nonymous Group Manage | r 🛭 🛃 Service Configuration Edit | tor | |
| 🥶 Network Navigator 🛛 | A ~ 5 | Properties 🛙 | | 🔁 🎝 🗟 🗸 🗖 |
| ▲ Site Manager ▲ default site ■ SM device [10.78.241.209] ■ SCE device [10.78.241.37] ■ SCE SCE device [10.78.241.97] ■ SCE 2K [10.78.241.202] ■ SCE 2K (10.78.241.211] ■ SCE device [10.78.242.121] ■ SCE device [10.78.242.219] ■ SCE device 1 [10.78.241.206] ■ Site1 | | Property | Value | × □ □ |
| 🔄 Console 🖾 | | | | 🕞 🚮 🛃 🗉 🕶 🗂 🗖 |
| Console + 8/13/14 6:02:38 PM IST INFO System mode | channed to Full Fur | uctionality | | |
| | changed to putt pu | | | |
| • | | | | • |
| Full Function | nality | | | |

Figure 1: The Network Navigator Tool

Introduction to Managing Sites

You can manage a Cisco SCE, Subscriber Manager, or CM from the Console only if the network entity is defined as a device in the Network Navigator. After a device is added to the Network Navigator, you can perform management and monitoring operations on the device.

You can also perform operations on a group of devices. For example, you can apply the same service configuration to a group of Cisco SCE platforms. The Network Navigator enables you to group devices by adding them under the same site. A site is a group of devices that can be managed together. At installation, the Network Navigator contains a default site with no devices. You can add devices to this site or add additional sites, as described in the following sections.

Grouping devices in sites can also help to manage the passwords for these devices (see Password Management , on page 6section).

This section explains these procedures:

Adding a Site to the Site Manager

Before adding devices, you must add your sites to the Site Manager.

Procedure

Step 1 In the Network Navigator view, right-click the Site Manager node. A popup menu appears.

Figure 2: Site Manager Menu

| New | 🕨 🔼 Site |
|----------------------|----------|
| Editing | • |
| Show Properties View | |

- Step 2From the menu, select New > Site .A new Site node is added to the Site Manager.
- **Step 3** In the Properties view, enter a name for the site in the Name cell.
- **Step 4** (Optional) In the Version cell, enter a version number.

Introduction to Adding Devices to a Site

You can add Cisco SCE, Subscriber Manager, CM, or database devices to a site.

Adding Cisco SCE Devices to a Site

To use the Network Navigator to configure, monitor, and update the software of a Cisco SCE platform, you must first add the Cisco SCE platform to a site.

Procedure

Step 1 In the Site Manager tree, right-click a site.

A popup menu appears.

Figure 3: Site Manager Tree Menu

| 🗉 🔝 Site Manager | | |
|------------------|--------------------------------|--------|
| 🖹 📥 default sit | New | 🕨 🖣 СМ |
| SM 🗸 | Apply Service Configuration | 🕵 SCE |
| СМ 👔 | SCE Software Upgrade Wizard | SM 📲 |
| 4 | Retrieve Service Configuration | |
| 4 | Install Protocol Pack (SPQI) | |
| | Configuration Wizards | • |
| | Editing | • |
| | Show Properties View | |

- **Step 2** From the menu, select New > SCE . The Create New SCE wizard appears.
- **Step 3** In the Address field, enter the IP address of the Cisco SCE.
- **Step 4** (Optional) In the Name field, enter a meaningful name for the Cisco SCE.
- Step 5 Click Finish.

The Create New SCE wizard closes.

The new device is added to the site.

Note Starting from the release 4.2.0, SCE 2000 device is not supported. When SCE 2000 device is added in the network navigator, an error message appears and no operation can be performed on the device.

Adding Subscriber Manager Devices to a Site

To use the Network Navigator to configure, monitor, and update the software of an Subscriber Manager, you must first add the Subscriber Manager to a site.

Procedure

| Step 1 | In the Site Manager tree, right-click a site. |
|--------|---|
| | A popup menu appears. |
| Step 2 | From the menu, select New $>$ SM . |
| | The Create New SM wizard appears. |
| Step 3 | In the Address field, enter the IP address of the Cisco Service Control Subscriber Manager. |

Step 4 (Optional) In the Name field, enter a meaningful name for the Subscriber Manager.

- Step 5 Click Finish.
 - The Create New SM wizard closes.

The new device is added to the site.

Adding Collection Manager Devices to a Site

To use the Network Navigator to monitor a Collection Manager, you must first add the Collection Manager to a site.

Procedure

| Step 1 | In the Site Manager tree, right-click a site. |
|--------|---|
| | A popup menu appears. |
| Step 2 | From the menu, select $New > CM$. |
| • | The Create New CM wizard appears. |
| Step 3 | In the Address field, enter the IP address of the Collection Manager. |
| Step 4 | (Optional) In the Name field, enter a meaningful name for the Collection Manager. |
| Step 5 | Click Finish. |
| - | The Create New CM wizard closes. |

The new device is added to the site.

Deleting Devices

Procedure

| Step 1 | In the Site Manager tree, right-click a device. A popup menu appears. |
|--------|---|
| Step 2 | From the menu, select Delete . The device is deleted and removed from the Site Manager tree. |

Deleting Sites

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Procedure

Step 1 In the Site Manager tree, right-click a site in the Site Manager tree.

A popup menu appears.

- **Step 2** If prompted, enter your password.
- **Step 3** From the menu, select Delete . The site and all its devices are deleted and the site is removed from the Site Manager tree.

Introduction to Managing Devices

The Network Navigator enables you to manage Cisco SCE, Cisco Service Control Subscriber Manager, Cisco Service Control Collection Manager, and database devices.



The Usage Analysis wizard enables you to create a simple model of devices and connect to those devices to perform various tasks. (See Using the Usage Analysis Wizard section.)

This section contains these topics:

Password Management

Normally, before you can access a device (Cisco SCE, Cisco Service Control Subscriber Manager, Cisco Service Control Collection Manager, or database), you must enter its password. When you try to perform any operation on a site device, the Network Navigator first asks for the device username and password. (Repeating the same operation on the same device does not always require a second entry of the password.)

When performing operations on multiple devices, password entry can become tedious. The Site Master Password can help you remember some or all usernames and passwords of your element by storing them as part of the site data, and entering them for you automatically when you connect to an element.

The Site Master Password protects saved usernames and passwords in the password manager. The Password Management dialog box prompts you for the master password of the site when you wish to activate the site password manager. If you have multiple sites, each site requires a separate master password.

Figure 4: The Password Management Dialog Box

| ¥ Passwo | rd Management |
|---|--|
| and the second se | Required for Apply to SCE Operation gets the password for the device SCE 1 [172.2.5.31]. |
| Target: Type: Service: User: | SCE 1 [172.2.5.31] SCE RPC |
| Password: | ster Password can help you remember some or all of your |
| entering the | asswords by storing them as part of the site's data, and em for you automatically when you connect to an element. Site Master Password |
| Change S | ite Master Password |
| | Apply Cancel |

For each site, when the Password Management dialog box appears, check the Enable Site Master Password check box.

Introduction to Managing Cisco SCE Devices

This section explains the following procedures:

Configuring Cisco SCE and Collection Manager Devices Using a Wizard

The Network Navigator Device wizard allows you to configure Cisco SCE and Cisco Service Control Collection Manager devices and connect to them.



If they do not exist, devices defined in the wizard are added to the default site in the Site Manager tree.

Procedure

Step 1

In the Network Navigator view toolbar, click the Configure SCE and CM devices (

The Welcome window of the Network Navigator Device wizard appears.

Figure 5: Welcome - Network Navigator Device

| € Network Navigator Device Wizard | |
|--|----------|
| | - |
| This wizard lets you quickly add SCE platforms and CM to the Network Navigato tree. | ' device |
| < <u>B</u> ack <u>Next ></u> Einish Ca | ncel |

Step 2 Click Next.

The SCE IP Addresses page of the Network Navigator Device wizard opens.

 Image: Step and the section of the

Figure 6: SCE IP Addresses

Step 3 In the edit box, enter the IP addresses of the Cisco SCE devices that should be added to the model. If you started from the Network Navigator, the IP addresses of the Cisco SCE devices that you selected are displayed in the edit box. You can add additional addresses.

Note You can work with up to 20 Cisco SCE devices at one time using the wizard.

Step 4 Click Next.

The SCE Usernames and Passwords page of the Network Navigator Device wizard opens.

Figure 7: SCE Usernames and Passwords

| € Network | Navigator Device Wizard |
|---|--|
| C. S. S. S. C. S. | ames and Passwords rd for the SCE 10.56.216.37 is missing |
| specified for | |
| Use a <u>c</u> orr Username: Password: | admin |
| Use separ SCE IP Add 10.56.216. | |
| | |
| | <pre> Eack Next > Einish Cancel Cancel </pre> |

- **Step 5** Enter the usernames and passwords for the Cisco SCE devices. Do one of the following:
 - To use the same username and password for all the Cisco SCE devices that you are adding, enter the username in the Username field and the password in the Password field.
 - To provide a different username and password pair for each Cisco SCE device, check the Use separate usernames and passwords for each SCE device radio button, and, for each Cisco SCE device, enter the username and password in the appropriate cell of the Cisco SCE device table.

Step 6 Click Next.

The Cisco Service Control Collection Manager Setup page of the Network Navigator Device wizard opens.

Figure 8: Cisco Service Control Collection Manager Setup

| CM Setup | |
|---|--------------|
| 🔇 An IP address | s is missing |
| CM to the Netwo boxes below. The wizard will ve | |
| CM IP address: | |
| CM <u>u</u> sername: | scmscm |
| CM <u>p</u> assword: | |
| | |
| | |

- Step 7 Define the Cisco Service Control Collection Manager to use with this configuration. Do one of the following:
 - Enter the IP address, username, and password of the CM device in the appropriate fields. If you started from the Network Navigator, this information is retrieved and displayed. You can modify these parameters.
 - Check the Skip this step check box.

Step 8 Click Next.

The Connectivity Test page of the Network Navigator Device wizard opens.

| Figure | g : | Connectivity | Test |
|--------|------------|--------------|------|
| | | | |

| | t ivity Test ectivity tests ha | ve passed. | . |
|--|--|---|--|
| iat corr ease w i case (prrect t | ect IP addresse vait for the connu of an error, you he IP addresses | s, usernames and passwo ectivity test to complete may use the 'Back' button | to go back to previous steps and ;, if necessary. You may also choose |
| Туре | IP Address | Status | |
| SCE | 10.56.216.37 | Connection succeeded | |
| CM | 10.56.201.81 | Connection succeeded | |
| <u>S</u> kip co | onnectivity test | Retry connectivity test |] |
| | | | |
| | | | |

The wizard tests to see that the connections to the defined devices can be made.

Note If a connection to one or more of the devices cannot be made or if there is some problem with the connection (such as invalid version of the device) an error is displayed next to the device. You can skip these tests by clicking Skip Connections . The connections are validated when you click Finish at the end of the wizard.

Step 9 Click Next.

The Confirmation page of the Network Navigator Device wizard opens.

Figure 10: Confirmation

| | or Device Wiz | | | | ۷. |
|--|-----------------|-----------------|-----------------|------------|----|
| | | | | | |
| The following actions wi | - | | | | |
| Connect to the followin 10.56.216.37 Connect to the CM 10.5 Configure the SCE platf | 6.201.81 and ac | dd it to the Ne | twork Navigator | lavigator: | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

The actions that the wizard is about to take are listed on the page.

Step 10 Click Finish.

I

The Configuration Output page of the Network Navigator Device wizard opens.

| Configuration Output | | | | 1 |
|--|---|---|---|---------------------------------------|
| + 8/13/14 4:57:02 PM IST + 8/13/14 4:57:02 PM IST + 8/13/14 4:57:02 PM IST + 8/13/14 4:57:09 PM IST + 8/13/14 4:57:09 PM IST + 8/13/14 4:57:13 PM IST + 8/13/14 4:57:13 PM IST + 8/13/14 4:57:13 PM IST + 8/13/14 4:59:00 PM IST + 8/13/14 4:59:00 PM IST | g configu INFO INFO INFO INFO INFO INFO INFO INFO | red. Adding devices to the Networ Connecting to SCE 10.78.241. Verifying that the SCE platf Found anonymous group in SCE Applying configuration to SC Reading SCE platform data Preparing configuration scri Sending configuration to SCE Executing configuration scri Updating configuration regis Applying configuration to SC Configuration completed succ | 97 orms are insta 10.78.241.97, E 10.78.241.97 pt for SCE8000 pt on SCE try E 10.78.241.97 | not setting (1 out of : - 8×GBE |
| ۲ [| | m | | • |
| | | | Close | Cancel |

Figure 11: Configuration Output

New devices are added to the default site in the Site Manager tree in the Network Navigator.

Figure 12: Network Navigator



The wizard attempts to connect to all devices that you defined. The operation fails if:

- The wizard cannot connect to any of the Cisco SCE devices that you listed in Step 3.
- You defined a CM in Step 7, but the wizard cannot connect to it.

If you defined a CM in Step 7, the Cisco SCE devices are configured so that the only category 1 RDR destination is the CM.

- Note RDR categories are the mechanism by which different types of RDRs can be sent to different collectors. For more information about RDR categories, see either the "Raw Data Formatting: The RDR Formatter and NetFlow Exporting" chapter of Cisco SCE8000 10GBE Software Configuration Guide or the "Raw Data Formatting: The RDR Formatter and NetFlow Exporting" chapter of the Cisco SCE8000 *GBE Software Configuration Guide.* A new service configuration is created:
- - Report Only mode.
 - The maximum Transaction RDR rate is set as the default value (250) divided by the number of Cisco SCE devices. (To configure the Transaction RDR, see Managing Transaction RDRs section ; the content and structure of the Transaction RDR is listed in the "Transaction RDR" section in the "Raw Data Records: Formats and Field Contents" chapter of Cisco Service Control Application for Broadband Reference Guide.)

Step 11 Click Finish.

The Network Navigator Device wizard closes.

Generating Tech Support Info Files for Cisco SCE Devices

This operation generates the support file, for the Cisco SCE platform, for the use of Cisco technical support staff.

Procedure

Step 1 In the Site Manager tree, right-click an SCE device. A popup menu appears.

Figure 13: Site Manager Tree Menu

| ✿ SCE Software Installation Wizard ♣ Apply Service Configuration ♣ Retrieve Service Configuration | | |
|---|---|--------|
| 🕕 Online Status 🞁 Generate Tech Support Info File | | |
| 🍄 Install OS Finger Printing Signature 🍄 Install Protocol Pack (SPQI) | | |
| Advanced | • | |
| Configuration Wizards | • | |
| Editing | • | 8 |
| Show Properties View | | 046790 |

Step 2 From the Site Manager Tree menu, select Generate Tech Support Info File .

The Generate Tech Support Info File dialog box appears.

Figure 14: Generate Tech Support Info File

| ¥ Generate Tech Support Info File | |
|--|---------------|
| Extracts the logs from the device Extracting the logs from the device | |
| Select file to extract to: | Browse |
| | Einish Cancel |

Step 3 Click Browse.

A Select File dialog box appears.

- **Step 4** Browse to the folder where you want to save the tech support info file.
- **Step 5** In the File name field, enter a new file name, or select an existing ZIP file.
- Step 6 Click Open to select the file.If the file exists, it is overwritten when you generate the tech support info.The Select File dialog box closes.
- Step 7 (Optional) To add log files to the output tech support info file, check the Add GUI Console log files check box.
- **Step 8** (Optional) Check the Open file after it is fetched check box.
- Step 9 Click Finish. The Generate Tech Support Info File dialog box closes. A Password Management dialog box appears.
- **Step 10** Enter the appropriate password. (For more information, see Password Management, on page 6 section.)
- **Step 11** Click Generate.

The Password Management dialog box closes.

A Generate tech support info file progress bar appears.

The file is generated.

Retrieving the Online Status of Cisco SCE Devices

This operation provides information about the current software version and operational status of the Cisco SCE platform. The enhanced Cisco SCE online statuses are categorized as:

- System-displays the platform information
- · Configuration-displays the Hostname
- Status-displays the operational mode and total traffic on the Cisco SCE

For more information on monitoring Cisco SCE online status, see the Cisco SCA BB Demo Kit Quick Start Guide.

Procedure

Step 1 In the Site Manager tree, right-click an SCE device. A popup menu appears.



Step 2 From the menu, select **Online Status**.

A Password Management dialog box appears.

Step 3 Enter the appropriate password. For more information, see Password Management, on page 6 section.

Step 4 Enter the SNMP RO Community String.

If SNMP is not already enabled on the Cisco SCE, it gets enabled.

If RO communities are not configured on the Cisco SCE or if only RW communities are configured on the Cisco SCE, the SNMP RO community you provide here is added to the Cisco SCE.

If only RO communities are configured on the Cisco SCE, the SNMP RO community you provide here is validated first against the RO communities configured on Cisco SCE. If the RO community is valid, the online status window is launched. If the RO community is not valid, a validation message appears.

Step 5 Click Extract .

The Password Management dialog box closes.

An Extracting info progress bar appears.

The Cisco SCE online status is retrieved.

Figure 15: Cisco SCE Online Status

| SCE SCE device[10.56.216.3 | | 19 00 | | 2 1 | |
|----------------------------|---|-------|--|-----|--|
| Property | Value | | | | |
| E System | Cisco Service Control, SW version: Version 3.6.0 Build 682, HW version: SCE2000 4xGBE | | | | |
| Configuration | SCE2000 | | | | |
| Status | | | | | |
| Operational State | Warning | | | | |
| Uptime | 11 hours, 28 minutes and 31 seconds | | | | |
| SCE Clock | 04:18:12 UTC WED February 2 2005 | | | | |
| Logger Counters | Fatals: 0; Errors: 0; Warnings: 13 | | | | |
| RDR Counters | Queued: 0; Sent: 0; Thrown: 0 | | | | |
| Subscribers Counters | Active: 0; Anonymous: 0; Introduced: 0 | | | | |
| 😥 Bandwidth (Kbps) | 0 | | | | |
| | 0 | | | | |
| Memory Utilization (%) | 0 | | | | |
| Service Loss | 0 | | | | |
| Total Active Flows | 0 | | | | |
| Connections Per Second | 0 | | | | |

Installing a Protocol Pack on a Single Cisco SCE Platform

Procedure

- Step 1 In the Site Manager tree, right-click the Cisco SCE on which you plan to install the protocol pack.
- Step 2 From the popup menu that appears, select Update Dynamic Signature Pack .

The Update Dynamic Signature Pack dialog box appears.

Figure 16: Update Dynamic Signature Pack

| ₩. | |
|----------------------------------|---|
| Update Dynamic Signature | The second |
| Select the dynamic signature: | Browse |
| Backup the current configuration | Browse |
| | () (OUNDERT) |
| | |
| | |
| | |
| | Einish Cancel |

| Step 3 | Click Browse. A Select file dialog box appears. |
|---------|--|
| Step 4 | From the Files of type drop-down list, select *.spqi or *.dss , depending on the file to be installed. |
| Step 5 | Browse to the file to be installed. |
| Step 6 | Click Open. The Select file dialog box closes. |
| Step 7 | (Recommended) Check the Backup the current configuration check box, click Browse , and select a backup file. |
| Step 8 | Click Finish. A Password Management dialog box appears. |
| Step 9 | Enter the appropriate password. For more information, see Password Management, on page 6 section. |
| Step 10 | Click Update. The Password Management dialog box closes. |
| | An Update Dynamic Signature Pack progress bar appears. |

The service configuration on the Cisco SCE platform is updated.

Introduction to Applying Service Configurations to Cisco SCE Devices

You can apply a service configuration to a single Cisco SCE platform, to selected Cisco SCE platforms, or to all Cisco SCE platforms at one or more selected sites.



The service configuration that you are applying must be open in the Service Configuration Editor.

▲ Caution If anomaly-based detection of malicious traffic is enabled, any access control list (ACL) that is configured on the Cisco Service Control Engine (Cisco SCE) platform but is not applied to anything (for example, an interface, an access map, or an SNMP community string) might be deleted when a service configuration is applied to the platform. To workaround this issue, disable anomaly-based detection of malicious traffic. In the Network Traffic tab, select Service Security . In the Service Security Dashboard, clear the Enable anomaly detection check box.

Applying a Service Configuration to Multiple Cisco SCE Platforms

Procedure

- **Step 1** In the Site Manager tree, select sites or Cisco SCE devices to which you are applying the service configuration and right-click one of them.
- Step 2 From the popup menu that appears, select Apply Service Configuration.The Choose Policy dialog box appears, listing all service configurations that are open in the Service Configuration Editor.
 - **Note** If only one service configuration is open in the Service Configuration Editor, a Password Management dialog box appears. Continue at Step 4. (If no service configurations are open in the Service Configuration Editor, an error message is displayed.)
- Step 3 Select a service configuration from the list and click OK.A separate Password Management dialog box appears for each Cisco SCE device that you have selected.
- Step 4 For each Cisco SCE device, enter the password and click Apply . The service configuration is applied to each selected Cisco SCE platform in turn.

Applying a Service Configuration to a Single Cisco SCE Platform

Procedure

| Step 1 | In the Site Manager tree, right-click a Cisco SCE device. |
|--------|---|
| | A popup menu appears. |

Step 2 From the menu, select Apply Service Configuration .The Choose Policy dialog box appears, listing all service configurations that are open in the Service Configuration Editor.

Note If only one service configuration is open in the Service Configuration Editor, a Password Management dialog box appears. Continue at Step 5. (If no service configurations are open in the Service Configuration Editor, an error message is displayed.)

Figure 17: Choose Policy

| OK Cance | |
|----------|----------|
| | OK Cance |

Step 3 Select a service configuration from the list.

Step 4 Click OK.

A Password Management dialog box appears.

- **Step 5** Enter the appropriate password. (For more information, see Password Management, on page 6 section)
- Step 6 Click Apply.

The Password Management dialog box closes.

An Applying service configuration to Cisco SCE progress bar appears.

The service configuration is applied to the selected Cisco SCE platform.

Introduction to Retrieve Service Configurations from Cisco SCE Devices

You can retrieve service configurations from a single Cisco SCE platform, from selected Cisco SCE platforms, or from all Cisco SCE platforms at one or more selected sites.

Retrieving Service Configurations from Multiple Cisco SCE Platforms

Procedure

Step 1 In the Site Manager tree, select sites or Cisco SCE devices whose service configurations you want to retrieve, and right-click one of them.

- Step 2From the popup menu that appears, select Retrieve Service Configuration.A separate Password Management dialog box appears for each Cisco SCE device that you have selected.
- Step 3 For each Cisco SCE device, enter the password and click Retrieve .The service configuration is retrieved from each Cisco SCE platform in turn, and is opened in the Service Configuration Editor.

Retrieving Service Configurations from a Single Cisco SCE Platform

Procedure

| Step 1 | In the Site Manager tree, right-click a Cisco SCE device. A popup menu appears. |
|--------|--|
| Step 2 | Enter your password if prompted. |
| Step 3 | From the menu, select Retrieve Service Configuration . A Password Management dialog box appears. |
| Step 4 | Enter the appropriate password. For more information, see Password Management, on page 6 section. |
| Step 5 | Click Retrieve . The Password Management dialog box closes. |
| | A Retrieving from Cisco SCE progress bar appears. |

The service configuration is retrieved from the Cisco SCE platform and opened in the Service Configuration Editor.

Installing PQI Files on Cisco SCE Devices

This operation installs the Cisco SCA BB on the Cisco SCE platform.



Note It is recommended to use the SCE Software Upgrade wizard when installing a PQI file on multiple Cisco SCE devices. See Upgrading the SCE Using the SCE Software Upgrade Wizard section.

Note Installing a PQI file usually takes a few minutes.

Procedure

Step 1 In the Site Manager tree, select a Cisco SCE device.

Step 2 From the Console main menu, choose Network > Install Application Software (PQI).

The Update Software dialog box appears.

Figure 18: Update Software

| ¥ Update Software Please choose a file | | | 2 | |
|---|--------|---|--------|---|
| Select the pqi file: | | ~ | Browse |) |
| | Einish | | Cancel |) |

- **Step 3** Click Browse . A Select file dialog box appears.
- **Step 4** Browse to the PQI file that you are installing.
- Step 5 Click Open. The Select file dialog box closes.
 Step 6 Click Finish. A Password Management dialog box appears.
 Step 7 Enter the appropriate password.
- For more information, see Password Management, on page 6 section.Step 8 Click Apply.

The Password Management dialog box closes.

An Updating software to SCE progress bar appears.

The PQI file is installed on the selected Cisco SCE.

Installing a Cisco SCE OS Software Package on Cisco SCE Devices

This operation installs the Cisco SCE OS software package (the operating system software and firmware of the Cisco SCE platform).



It is recommended to use the SCE Software Upgrade wizard when installing an SCE OS software package on multiple Cisco SCE platforms. See Upgrading the SCE Using the SCE Software Upgrade Wizard section.

Procedure

- **Step 1** In the Site Manager tree, select a Cisco SCE device.
- **Step 2** From the Console main menu, choose Network > Upgrade SCE Platform Firmware (PKG). The Update OS dialog box appears.

Figure 19: Update OS

| ¥ Update OS | | | | 6 | |
|------------------------|------|--------|----------|--------|----------|
| Please choose a | file | | | | |
| Select the pkg file: [| I. | | • | Browse |) |
| | | Einish | | Cancel | 21 DD 42 |

- Step 3 Click Browse . A Select file dialog box appears.
- **Step 4** Browse to the PKG file containing the OS that you are installing.
- Step 5 Click Open.

The Select file dialog box closes.

- Step 6
 Click Finish.

 A Password Management dialog box appears.
- Step 7Enter the appropriate password.For more information, see Password Management , on page 6 section.
- Step 8 Click Apply.

The Password Management dialog box closes.

An Updating software to SCE progress bar appears.

The PQI file is installed on the selected Cisco SCE.

Introduction to Managing Subscriber Manager Devices

Generating Tech Support Info Files for Subscriber Manager Devices

This operation generates the support file, for the Subscriber Manager, for the use of Cisco technical support staff.

Procedure

Step 1 In the Site Manager tree, right-click an Subscriber Manager device. A popup menu appears.

Figure 20: Site Manager Tree Menu

| Manage Subscribers Online Status | |
|--------------------------------------|------|
| Generate Tech Support Info | File |
| Advanced | • |
| Configuration Wizards | • |
| Editing | , |
| Show Properties View | |

- **Step 2** From the menu, select Generate Tech Support Info File . The Generate Tech Support Info File dialog box appears.
- Step 3 Click Browse. A Select File dialog box appears.
- **Step 4** Browse to the folder where you want to save the tech support info file.
- **Step 5** In the File name field, enter a new file name, or select an existing ZIP file.
- **Step 6** Click Open to select the file. If the file exists, it is overwritten.

The Select File dialog box closes.

- Step 7 (Optional) To add log files to the output tech support info file, check the Add GUI Console log files check box .
- **Step 8** Check the Open file after it is fetched check box.
- Step 9Click Finish.
The Generate Tech Support Info File dialog box closes.
A Password Management dialog box appears.
- Step 10 Enter the appropriate password. (For more information, see Password Management, on page 6 section.)
- Step 11 Click Generate.

The Password Management dialog box closes.

A Generate tech support info file progress bar appears.

The file is generated.

Retrieving the Online Status of Subscriber Manager Devices

This operation provides information about the current software version and operational status of the Subscriber Manager Device.

Procedure

| Step 1 | In the Site Manager tree, right-click an Subscriber Manager device. A popup menu appears. |
|--------|---|
| Step 2 | From the menu, select Online Status. |
| | A Password Management dialog box appears. |
| Step 3 | Enter the appropriate password. For more information, see Password Management, on page 6 section |
| Step 4 | Click Extract. |
| • | The Password Management dialog box closes. |
| | An Extracting info progress bar appears. |

The Cisco Service Control Subscriber Manager online status is retrieved.

Figure 21: Cisco Service Control Subscriber Manager Online Status

| Information for SM Site | SM[10.56.212.71] | |
|-------------------------|--|--|
| Operational State | Active | |
| DataBase Errors | | |
| Critical Errors | | |
| Last Installation | Operation: Install; ; Package: SCA BB 3.1.0 build 14 | |
| Number of logins | 0 | |
| Login rate | 0.0 | |
| Number of Logouts | 0 | |
| Logout rate | 0.0 | |
| Number of pull requests | 0 | |
| Pull requests rate | 0.0 | |
| | | |

Connecting to Subscriber Manager Devices

To manage subscribers using the Subscriber Manager GUI tool, you must connect to an Subscriber Manager device.



The Subscriber Manager GUI tool performs authentication on the Cisco Service Control Subscriber Manager by opening a PRPC connection to port 14374 and attempting to log in using the username and password that you entered in the Password Management dialog box. If a PRPC server with this user is not running on the Cisco Service Control Subscriber Manager, authentication fails. If you have changed the PRPC port on the Cisco Service Control Subscriber Manager, see User Authentication , on page 33 section.

Procedure

- Step 1In the Site Manager tree, right-click an Subscriber Manager device.A popup menu appears.
- **Step 2** From the menu, select Manage Subscribers . A Password Management dialog box appears.
- **Step 3** Enter the appropriate password. (For more information, see Password Management, on page 6 section.)
- Step 4Click Connecting.The Password Management dialog box closes.

A Connecting to progress bar appears.

You connect to the Subscriber Manager, and the Console switches to the Subscriber Manager GUI tool.

What to Do Next

For an explanation of how to proceed, see Subscriber Manager GUI Tool section.

Introduction to Managing Collection Manager Devices

You can configure Collection Manager devices using a wizard. See Configuring Cisco SCE and Collection Manager Devices Using a Wizard, on page 7 section.

Retrieving the Online Status of CM Devices

This operation provides information about the current software version and operational status of the Collection Manager.

Procedure

Step 1 In the Site Manager tree, right-click a CM device.

A popup menu appears.

Figure 22: Site Manager Tree Menu

| 🔞 Online Status | |
|-----------------------|---|
| Advanced | ۲ |
| Configuration Wizards | ۲ |
| Editing | F |
| Show Properties View | |

- **Step 2** From the menu, select Online Status . A Password Management dialog box appears.
- **Step 3** Enter the appropriate password. For more information, see Password Management, on page 6 section.
- Step 4Click Extract.
The Password Management dialog box closes.

An Extracting info progress bar appears.

The Cisco Service Control Collection Manager online status is retrieved.

For an example of a retrieved online status window (for a Cisco SCE platform), see Retrieving the Online Status of Cisco SCE Devices, on page 17 section.

Working with Network Navigator Configuration Files

After you add sites and devices to the Network Navigator, you can export this data to a file to back up your settings and to share them with other users, who can import your Network Navigator settings into their Console.

If you use the Site Master Password to store the passwords of the network devices, the passwords are also exported, in encrypted form. This means that other users who import this data need to only provide the Site Master Password to access the devices.

Exporting a Network Navigator Configuration

Procedure

Step 1 From the Console main menu, choose File > Export.

The Export dialog box appears.

Figure 23: Export



Step 2 From the export destination list, select Network Navigator Configuration to a file.

Step 3 Click Next.

The Export Network Navigator Configuration to a file dialog box appears.

Figure 24: Import Network Navigator Configuration from File

| ¥ | |
|---|--------|
| Import Network Navigator Configuration from file | / |
| At least one site should be selected for export | |
| Available sites: | |
| Image: New York Image: State Stat | |
| Select All Deselect All Invert Selection Select the export destination: | |
| Network Navigator configuration file: | Browse |

The Available sites pane lists all of the sites in the configuration.

- **Step 4** Select the sites to export, using the check boxes and the select buttons.
- **Step 5** In the Select the export destination area, click Browse. An Open dialog box appears.
- **Step 6** Browse to the folder where you want to save the configuration file.
- Step 7 In the File name field, enter a new file name, or select an existing site_xml file.
- **Step 8** Click Open to select the file.
 - Note If the file exists, it is overwritten. The Open dialog box closes.
- Step 9 Click Finish.

The Export Network Navigator Configuration dialog box closes.

The configuration is saved to the file.

Importing a Network Navigator Configuration

Procedure

Step 1 From the Console main menu, choose File > Import . The Import dialog box appears.

Figure 25: Import

| ¥ Import | |
|--|----------|
| Select Import Network Navigator devices tree from an XML file | Ľ |
| Select an import source: | |
| type filter text | |
| E- Network Navigator Import Network Navigator devices tree from an E | XML file |
| < Back Next > Einish | Cancel |

Step 2 From the import source list, select Network Navigator Configuration from file.

Step 3 Click Next.

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The Import Network Navigator Configuration from file dialog box appears.

Figure 26: Import Network Navigator Configuration from File

| 6 | |
|--|---------------|
| mport Network Navigator Configuration from This wizard imports a Network Navigator configuration from | |
| Select Network Navigator configuration file: | Browse |
| | |
| | |
| | |
| | |
| | |
| | |
| < <u>B</u> ack <u>N</u> ext > | Einish Cancel |

Step 4 Click Browse.

An Open dialog box appears.

- **Step 5** Browse to the folder containing the file to import, and select a site_xml file.
- **Step 6** Click Open to select the file. The Open dialog box closes.
- Step 7
 Click Finish .

 The Import Network Navigator Configuration dialog box closes.

The configuration is imported from the file.

Network Settings Requirements

Firewall and NAT Requirements

The ports listed in the table are the default values. If you change a port in a device, you must modify the firewall/NAT settings accordingly. (Modifying the Console settings to connect to a different PRPC port is described in the following section.)

| Source | Destination | Comments |
|-------------|--|---|
| Workstation | Cisco SCE port 14374/TCP | PRPC—Required for all Cisco SCE operations |
| Cisco SCE | Workstation port 21/TCP | FTP—Required for the following Cisco SCE operations: Install OS Generate Tech Support Info File |
| Cisco SCE | Workstation ports 21000/TCP to 21010/TCP | FTP—Alternative to port 21/TCP, required if another application on the workstation is using port21/TCP. |
| Workstation | Subscriber Manager port 14374/TCP | PRPC—Required for all Subscriber Manager operations |
| Workstation | CM port 14375/TCP | PRPC—Required for the CM Online Status operation and for CM authentication |

Table 1: Required Firewall NAT Settings Required for Network Navigator to Operate Properly

The SCA Reporter may have additional requirements for connecting to the database. For more information, see the Cisco Service Control Application Reporter User Guide.

User Authentication

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User authentication is performed when a Proprietary Remote Procedure Call (PRPC) connection is made to a Cisco SCE platform, a CM, or an Subscriber Manager. For authentication to succeed, a PRPC server must be running at the destination, and you must know the username and password of a user of the server.

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Note

If you change a PRPC server port in a device (SM/CM/Cisco SCE), you must add a line to the configuration file engage.ini : <IP address of device>.rpc.port=<port number> For example: 10.56.216.37.rpc.port=222 Add one line for each (non-default) port that you use. The file engage.ini is located in the folder Program files\Cisco SCA\SCA BB Console 4.2.x\plugins\policy.contribution_4.2.x\config\.

You define the username and password using the user/password mechanism in the Cisco SCE platform or a command-line utility in the Subscriber Manager and CM.

For more information about defining users, see the following:

- Cisco SCE—See either the "TACACS+ Authentication, Authorization, and Accounting" section in the "Configuring the Management Interface and Security" chapter of *Cisco SCE8000 10GBE Software Configuration Guide* or the "TACACS+ Authentication, Authorization, and Accounting" section in the "Configuring the Management Interface and Security" chapter of *Cisco SCE8000 GBE Software Configuration Guide*.
- Collection Manager—"Managing Users" section in the "Managing the Collection Manager" chapter of Cisco Service Control Management Suite Collection Manager User Guide.
- Subscriber Manager—"Information About the p3rpc Utility" section in the "Command-Line Utilities" appendix of Cisco Service Control Management Suite Subscriber Manager User Guide.



PRPC authentication from the Cisco SCA BB Console to any CM/SM/Cisco SCE IP addresses other than the real IP address of the device is not supported. This is especially important when the CM/Subscriber Manager/Cisco SCE resides on the inside interface of a NATing router or firewall Workaround : Redesign your network so that the SCA BB Console is given the real IP address of the CM/SM/Cisco SCE. Disable PRPC authentication on the Cisco SCE/CM/Subscriber Manager as described in the following sections.

Introduction to Disabling PRPC Authentication

Disabling PRPC Authentication on a Cisco SCE Platform

Procedure

Use the CLI to disable PRPC authentication. Run the **ip rpc-adapter security-level none** CLI in config mode.

Disabling PRPC Authentication on a CM

Procedure

Step 1 Edit the CM configuration file. Edit the cm/um/config/p3cm.cfg configuration file: [RPC.Server] security level=none

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Step 2 Reload the CM process.

Disabling PRPC Authentication on an Subscriber Manager

Procedure

| Step 1 | Edit the Subscriber Manager configuration file. Edit the ~pcube/sm/server/root/config/p3sm.cfg configuration file: |
|--------|---|
| | [RPC.Server] security_level= none |
| Step 2 | Load the configuration. Run the following CLU: p3smload-config |

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