CHAPTER 4

Getting Started

Revised: August 28, 2012, OL-21064-07

Introduction

The module guides you through the process of installing or upgrading the Cisco Service Control Application for Broadband (SCA BB):

- Explains how to install Protocol Packs, which contain new and updated protocol signatures
- Describes the concept of the Console as a collection of tools, presents each tool and its role, and describes how to launch the tools and navigate between them
- Concludes with a Quick Start that describes how to apply your first service configuration and generate your first report

How to Install SCA BB

Note The SCA BB application can only be installed in the administrator user group of Windows XP. During installation the SCA BB application will change registry entries, therefore installation in normal user groups is not allowed. The installer must have administrator privileges assigned.

You install SCA BB in two stages:

1. Install the SCA BB front ends:
   - The SCA BB Console
   - The SCA BB Service Configuration Utility, the SCA BB Signature Configuration Utility, and the SCA BB Real-Time Monitoring Configuration Utility
2. Install the SCA BB application components:
   - The SCA BB Service Modeling Language Loadable Image (SLI) and the SCA BB Service Control Engine (SCE) applicative management plug-in
   - The SCA BB Subscriber Manager applicative management plug-in (for systems with a Cisco Service Control Management Suite [SCMS] Subscriber Manager [SM])

If you are upgrading an existing installation of SCA BB, see How to Upgrade the SCE Using the SCE Software Upgrade Wizard, page 4-9 or Working with Protocol Packs, page 4-19.

The SCA BB Installation Package

The SCA BB installation package is a ZIP file located in the CCO.

The installation package consists of the following files:

- The installer for the Console: scas-bb-console-<version>-<build>.exe.
- A Cisco installation application package file (PQI file) for each type of SCE platform. Each PQI file is located in a subfolder whose name is the platform name.
- The file scas_bb_util.tgz, which contains the files for the SCA BB Service Configuration Utility (**servconf**), the SCA BB Signature Configuration Utility (**sigconf**), and the SCA BB Real-Time Monitoring Configuration Utility (**rtmcmd**) (together with real-time monitoring report templates).
- The file PCubeEngageMib.mib, which defines the SCAS BB MIB, located in the SNMP subfolder.
- The SCA BB Service Configuration Java API distribution file: serviceconfig-java-api-dist.tgz.
- The file surfcontrol.xml, which lists the content categories for content filtering using SurfControl Content Port Authority, located in the URL Filtering subfolder.

Installing SCA BB Application Components

SCA BB has two software components that reside on the SCE platform:

- The SCA BB SLI, which performs traffic processing
- The SCA BB SCE applicative management plug-in, which performs some service configuration operations

SCA BB also has one software component that resides on the SM device:

- The SCA BB SM applicative management plug-in, which performs some application-specific subscriber management operations

To install these components from the Console, see How to Install PQI Files on SCE Devices, page 5-23 and Managing CM Devices, page 5-27.

To install these components from a command line, see Installing PQI Files from the Command Line, page 13-9.

Prerequisites

Before installing SCA BB, verify that the SCE platform and, if used, the SCMS-SM are operational and are running appropriate versions of their software.

- How to Verify that the SCE Platform is Operational, page 4-3
- How to Verify that the SCE Platform is Running an Appropriate Version of the OS, page 4-3
- How to Verify that the SM is Correctly Installed, page 4-3
- How to Verify that an Appropriate Version of the SM is Running, page 4-3

How to Verify that the SCE Platform is Operational

Step 1 Verify that the status LED on the SCE flashes green. (Orange—booting up; flashing orange—warning; red—failure.)

How to Verify that the SCE Platform is Running an Appropriate Version of the OS

Step 1 At the SCE platform CLI prompt `(SCE#)`, type `show version`.

Step 2 Press **Enter**.

The response shows the version of the OS running on the SCE platform.

How to Verify that the SM is Correctly Installed

Step 1 Open a Telnet session to the SM.

Step 2 Go to the SM bin directory and type `p3sm --sm-status`.

Step 3 Press **Enter**.

The response to this command displays the operational status of the SM.

How to Verify that an Appropriate Version of the SM is Running

Step 1 Open a Telnet session to the SM.

Step 2 Go to the SM bin directory and type `p3sm version`.

Step 3 Press **Enter**.

The response to this command displays the SM version.

How to Install SCA BB Front Ends

You should install the following SCA BB front ends:

- The Console
- The SCA BB Service Configuration Utility (**servconf**), the SCA BB Signature Configuration Utility (**sigconf**), and the SCA BB Real-Time Monitoring Configuration tool (**rtmcmd**) (together with associated real-time monitoring report templates)
  - **servconf** requires access to the Java Runtime Environment (JRE) (see Installing the Java Runtime Environment, page 4-4).

Hardware Requirements

- At least 1024 MB RAM is required to run the Console.
- The minimal supported screen resolution for the Console is 1024x768 pixels.

Operating System Requirements

The SCA Reporter GUI front end can be installed on any computer running Windows 2000, Windows XP, Windows Vista, or Windows 7.

Installing the Java Runtime Environment

The SCA BB Service Configuration Utility, **servconf,** requires access to JRE version 1.6.

You can download a JRE from the Sun™ website at http://java.com/en/download/.

To verify that the JRE is installed, run **java -version** from the command prompt. The Java version should start with 1.6.

If a different version of JRE is also installed on the workstation, you may need to tell **servconf** where to find the appropriate JRE. Do this by setting the JAVA_HOME environment variable to point to the JRE 1.6 installation directory. For example:

```
JAVA_HOME=C:\Program Files\Java\j2re1.6_08
```

How to Install the Console

Step 1 Navigate to the Console installation file, sca-bb-console-3.6.5.exe, and double-click it.

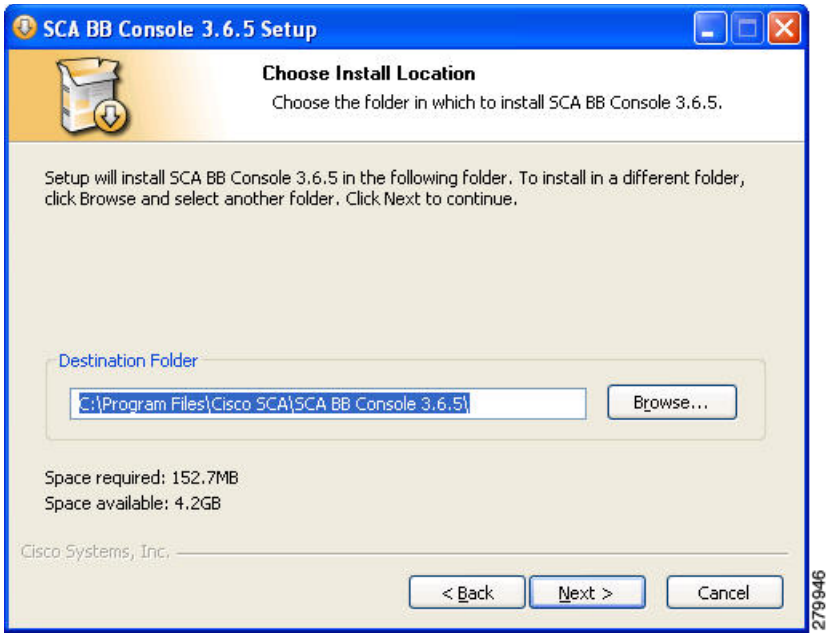
The Welcome page of the SCA BB Console 3.6.5 Setup wizard appears (see Figure 4-1).

Figure 4-1 Welcome to the SCA BB Console 3.6.5 Setup Wizard

Step 2 Click **Next**.

The Install Location page of the Setup wizard opens (see Figure 4-2).

Figure 4-2 Choose Install Location

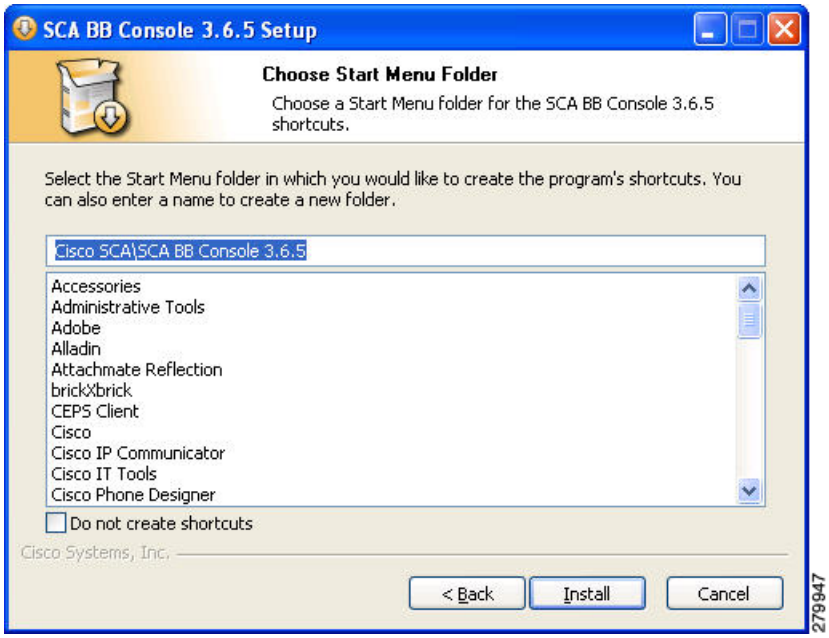


Step 3 (Optional) Click **Browse** and choose a different destination folder.

Step 4 Click **Next**.

The Start Menu Folder page of the Setup wizard opens (see Figure 4-3).

Figure 4-3 Choose Start Menu Folder



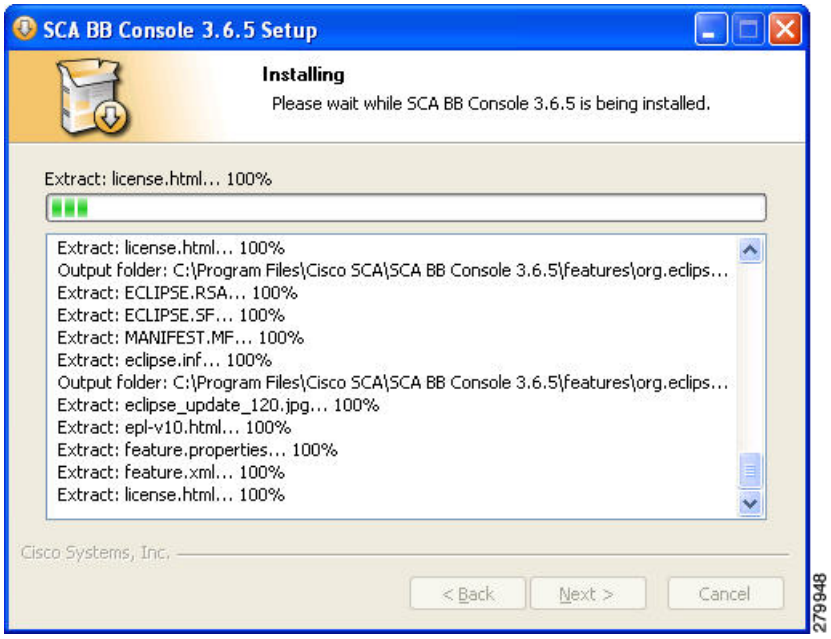
Step 5 (Optional) Enter a different Start Menu folder in the Start Menu Folder field.

Step 6 (Optional) Check the **Do not create shortcuts** check box.

Step 7 Click **Install**.

The Installing page of the Setup wizard opens (see Figure 4-4).

Figure 4-4 Installing



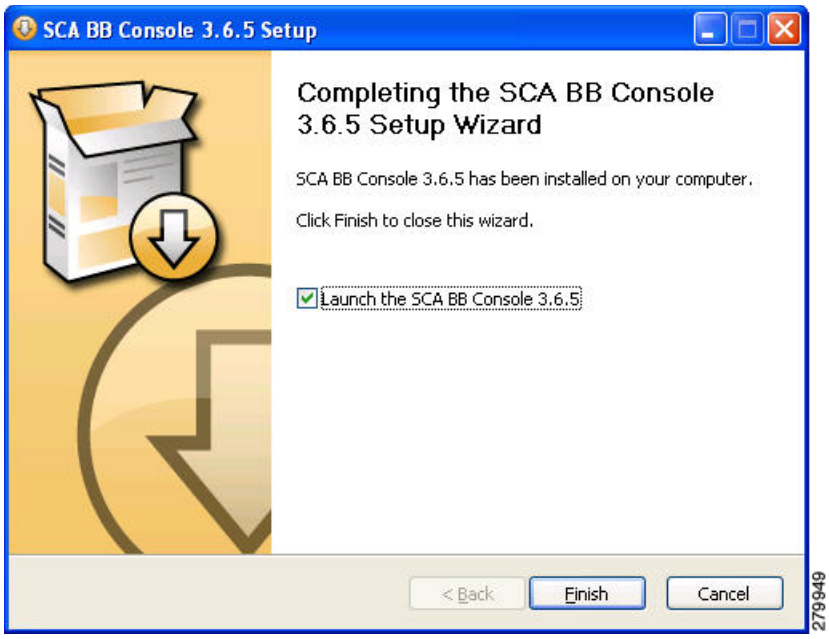
Step 8 Wait until the installation is complete.

The Next button is enabled.

Step 9 Click **Next**.

The Installation Complete page of the Setup wizard opens (see Figure 4-5).

Figure 4-5 Completing the SCA BB Console 3.6.5 Setup Wizard



Step 10 To launch the Console, check the **Run SCA BB Console after installation** check box.

Step 11 Click **Finish**.

The SCA BB Console 3.6.5 Setup wizard closes.

The Console is now installed on the machine.

A shortcut is added to the Start menu.

How to Install the SCA BB Configuration Utilities

Step 1 From the SCA BB installation package, extract the file scas_bb_util.tgz, and copy it to a Windows, Solaris, or Linux workstation.

Step 2 Unpack the file to a new folder.

The SCA BB Service Configuration Utility (**servconf**), the SCA BB Real-Time Monitoring Configuration Utility (**rtmcmd**) (and associated real-time monitoring report templates), and the SCA BB Signature Configuration Utility (**sigconf**) are located under the bin folder.

How to Upgrade SCA BB Components

Upgrading SCA BB includes upgrading each of the following software components:

- SCE Firmware
- The SCE PQI file
- Protocol Pack SPQI file
- Policy file

Note This section describes the upgrade of SCA BB application components only. For a full description of the entire Cisco solution upgrade procedure, consult the solution upgrade document accompanying the formal release.

- When you upgrade old PQB files, some protocol IDs are changed automatically. Messages such as the following may be displayed to indicate the change:

```
Protocol ID of BaiBao changed from 80 to 43
Protocol ID of PPLive changed from 81 to 44
```

- When you upgrade a device with a new SPQI or PQI file, all other devices that are not upgraded may fail.
- New SCA BB releases do not use the default Dynamic Signature Script (DSS) file (see that it was installed for a previous SCA BB release).
- If a protocol pack for the new release is available, install it after the product installation is complete. Do *not* install an old protocol pack on top of a new product installation.

How to Upgrade the SCE Using the SCE Software Upgrade Wizard

You can upgrade the SCE using the Network Navigator Tool via the SCE Software Upgrade wizard.

Step 1 Open the Network Navigator.

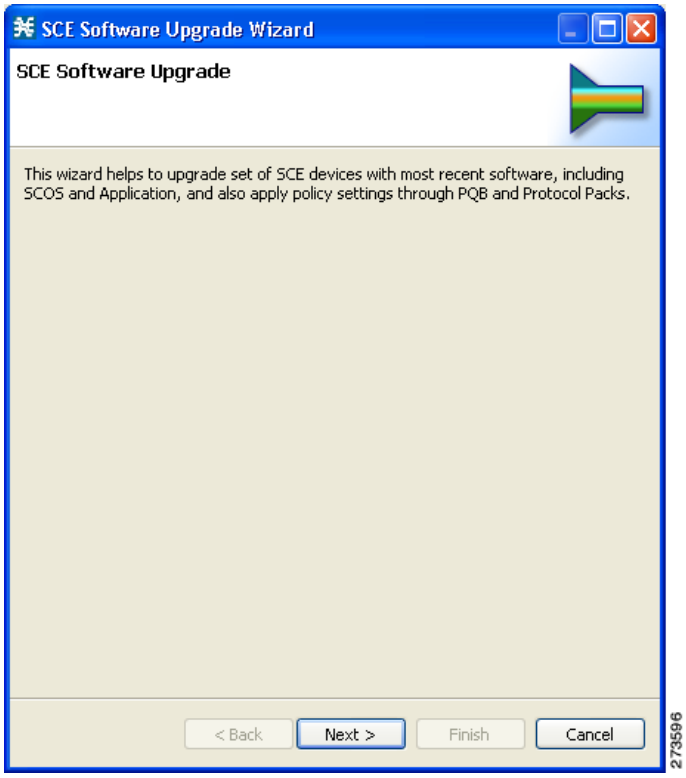
Step 2 Choose one or more devices in the Site Manager tree.

Step 3 Right-click one of the selected devices.

Step 4 From the popup menu that appears, choose SCE Software Upgrade wizard.

The SCE Software Upgrade wizard appears (see Figure 4-6).

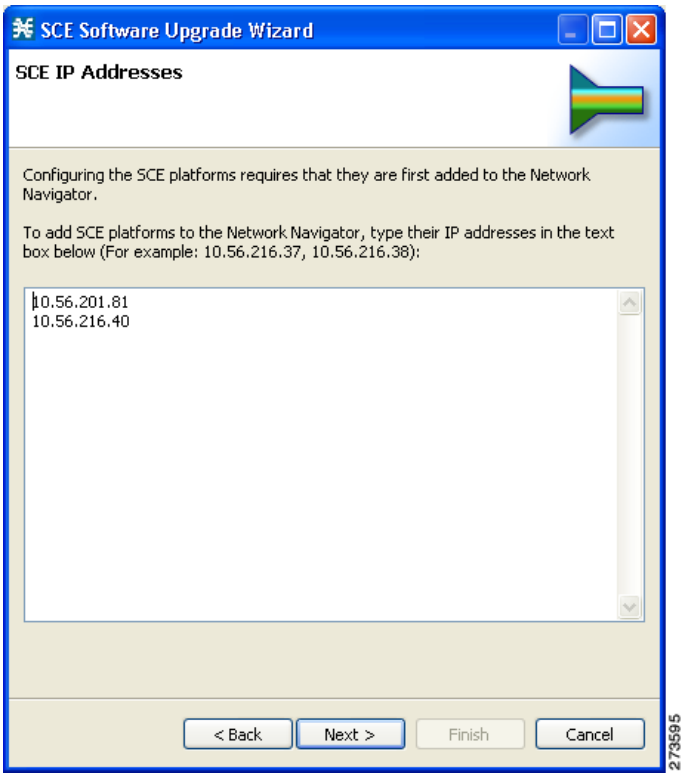
Figure 4-6 SCE Software Upgrade



Step 5 Click **Next**.

The SCE IP Addresses page of the SCE Software Upgrade wizard opens (see Figure 4-7).

Figure 4-7 SCE IP Address

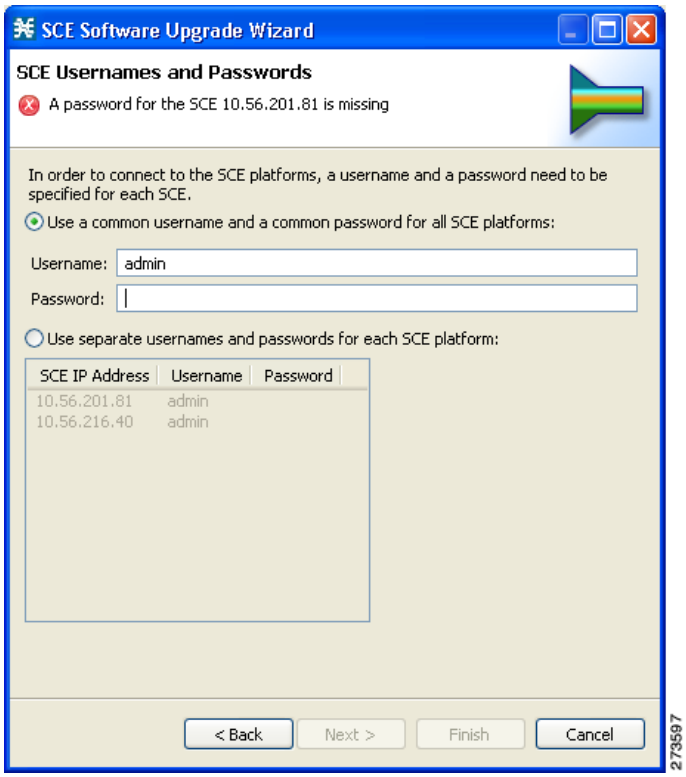


Step 6 (Optional) In the edit box, enter additional IP addresses.

Step 7 Click **Next**.

The SCE Usernames and Passwords page of the SCE Software Upgrade wizard opens (see Figure 4-8).

Figure 4-8 SCE Usernames and Passwords



Step 8 Enter the usernames and passwords for the SCE devices.

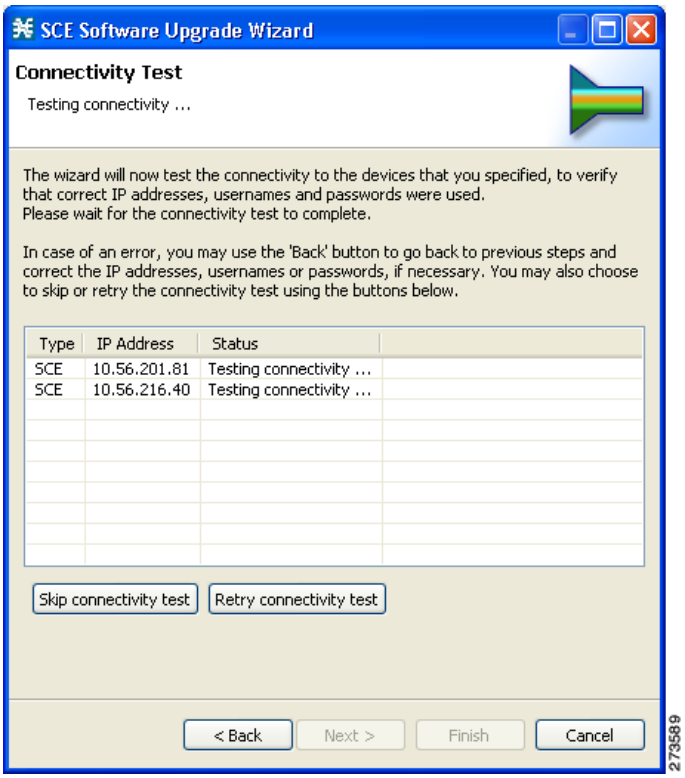
Do one of the following:

- To use the same username and password for all the 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 SCE device, click the **Use separate usernames and passwords for each SCE platform** radio button, and, for each SCE device, enter the username and password in the appropriate cell of the table.

Step 9 Click **Next**.

The Connectivity Test page of the SCE Software Upgrade wizard opens (see Figure 4-9).

Figure 4-9 Connectivity Test



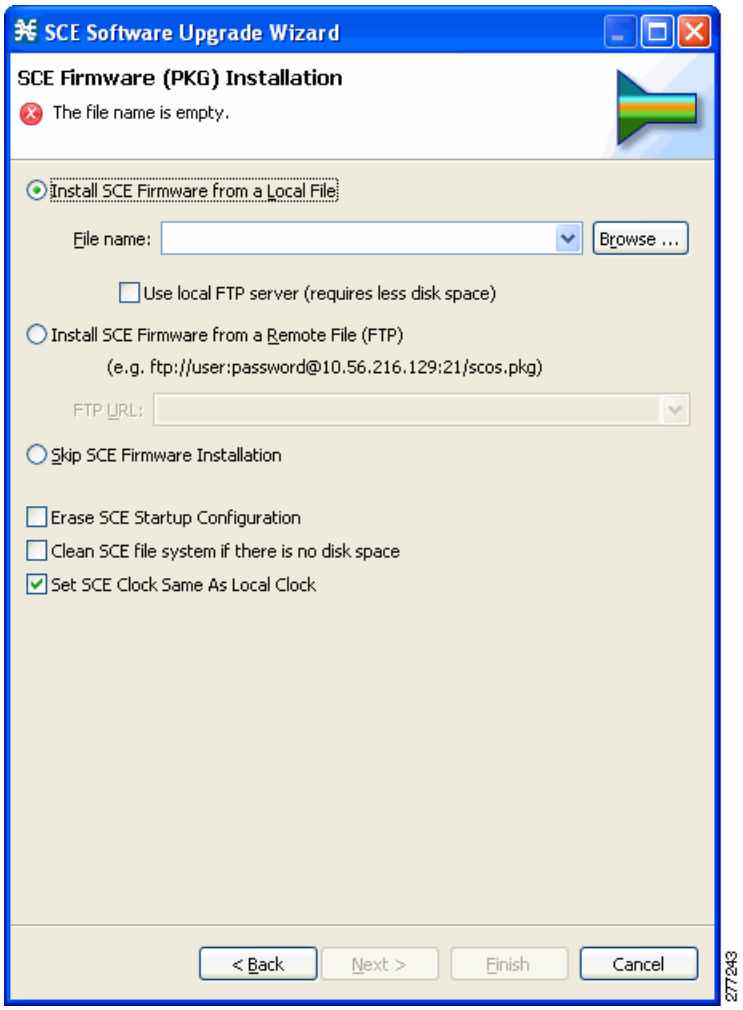
The wizard tests to see that the connections to the defined devices can be made.

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 connectivity test**. The connections are validated when you click **Finish** at the end of the wizard.

Step 10 Click **Next**.

The SCE Firmware (PKG) Installation page of the SCE Software Upgrade wizard opens (see Figure 4-10).

Figure 4-10 SCE Firmware (PKG) Installation



Choose the SCE Firmware installation file.

Do one of the following:

- To install SCE Firmware from a local file, click **Browse**.

  A Select file dialog box appears.

  Browse to the SCE Firmware installation file that you are installing.

  Check the Use local FTP server check box to reduce the disk space usage.

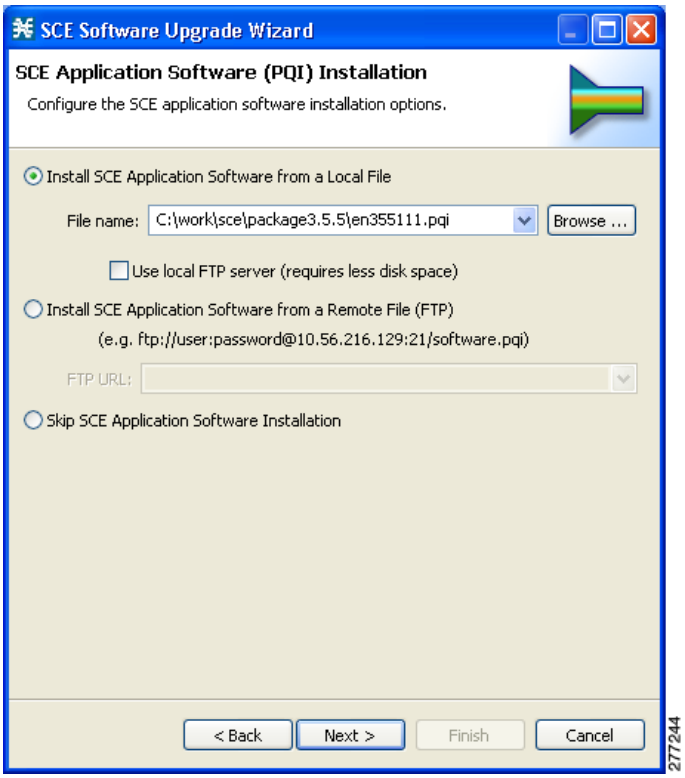
- To download SCE Firmware from a remote site, choose the **Install SCE Firmware from a Remote File (FTP)** radio button and in the FTP URL field, enter the URL.

Step 11 Click the **Skip SCE Firmware Installation** radio button.

Step 12 Click **Next**.

The SCE Application Software (PQI) Installation page of the SCE Software Upgrade wizard opens (see Figure 4-11).

Figure 4-11 SCE Application Software (PQI) Installation



Step 13 Choose the PQI installation file.

Do one of the following:

- To install the PQI file from a local file, click **Browse**.

  A Select file dialog box appears.

  Browse to the PQI file that you are installing.

  Check the Use local FTP server check box to reduce the disk space usage.

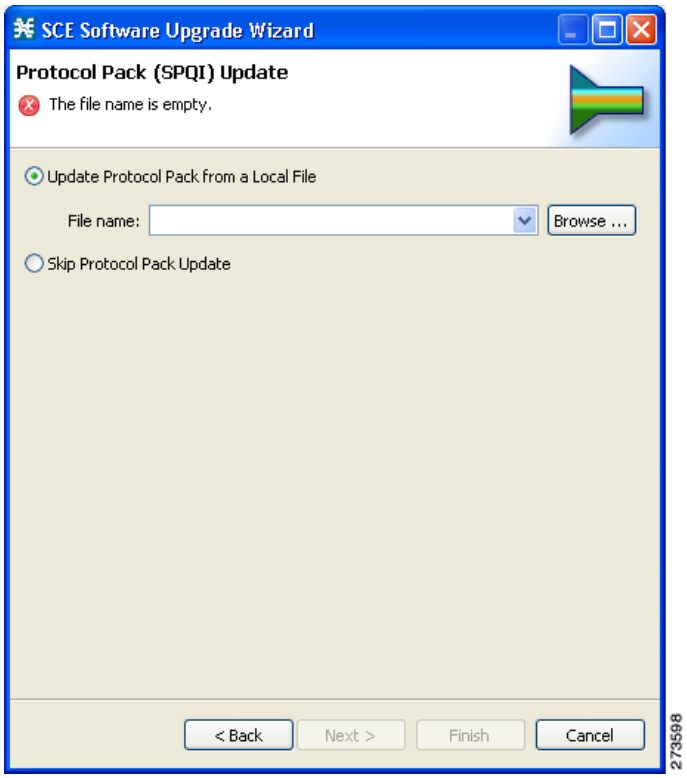
- To download a PQI file from a remote site, choose the **Install SCE Application Software from a Remote File (FTP)** radio button and in the FTP URL field, enter the URL.

  Click the **Skip SCE Software Application Installation** radio button.

Step 14 Click **Next**.

The Protocol Pack (SPQI) Update page of the SCE Software Upgrade wizard opens (see Figure 4-12).

Figure 4-12 Protocol Pack (SPQI) Update



Step 15 Update the protocol pack.

Do one of the following:

- To update the SPQI file from a local file, click **Browse**.

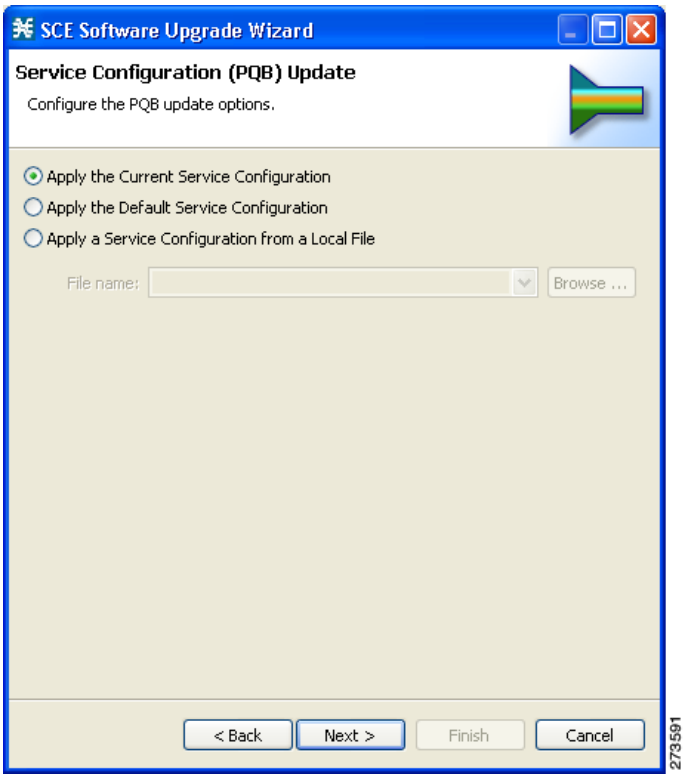
  A Select file dialog box appears.

  Browse to the SPQI file that you are updating.
- Click the **Skip Protocol Pack Update** radio button.

Step 16 Click **Next**.

The Service Configuration (PQB) Update page of the SCE Software Upgrade wizard opens (see Figure 4-13).

Figure 4-13 Service Configuration (PQB) Update



Step 17 Choose one of the PQB update options.

- **Apply the Current Service Configuration**—Keep the existing service configuration.
- **Apply the Default Service Configuration**—Apply the default service configuration delivered with the product.
- **Apply the Service Configuration from a Local File**—Apply a service configuration from a local file.

Step 18 If you selected the Apply the Service Configuration form a Local File radio button, click **Browse**.

A Select file dialog box appears.

Browse to the file containing the service configuration.

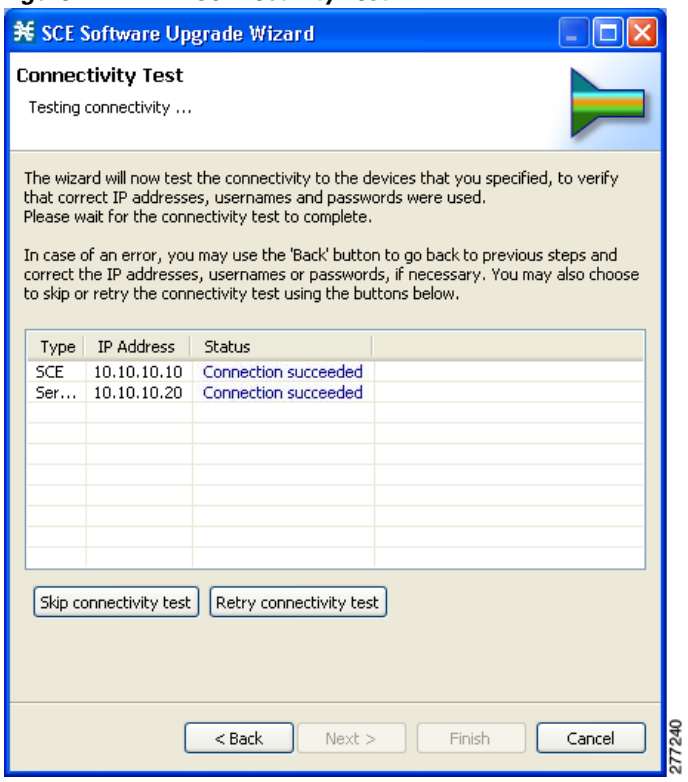
Step 19 Click **Next**.

The Connectivity Test window of the SCE Software Upgrade wizard opens.

The connectivity test verifies the connections to the defined devices.

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 connectivity test**. The connections are validated when you click **Finish** at the end of the wizard.

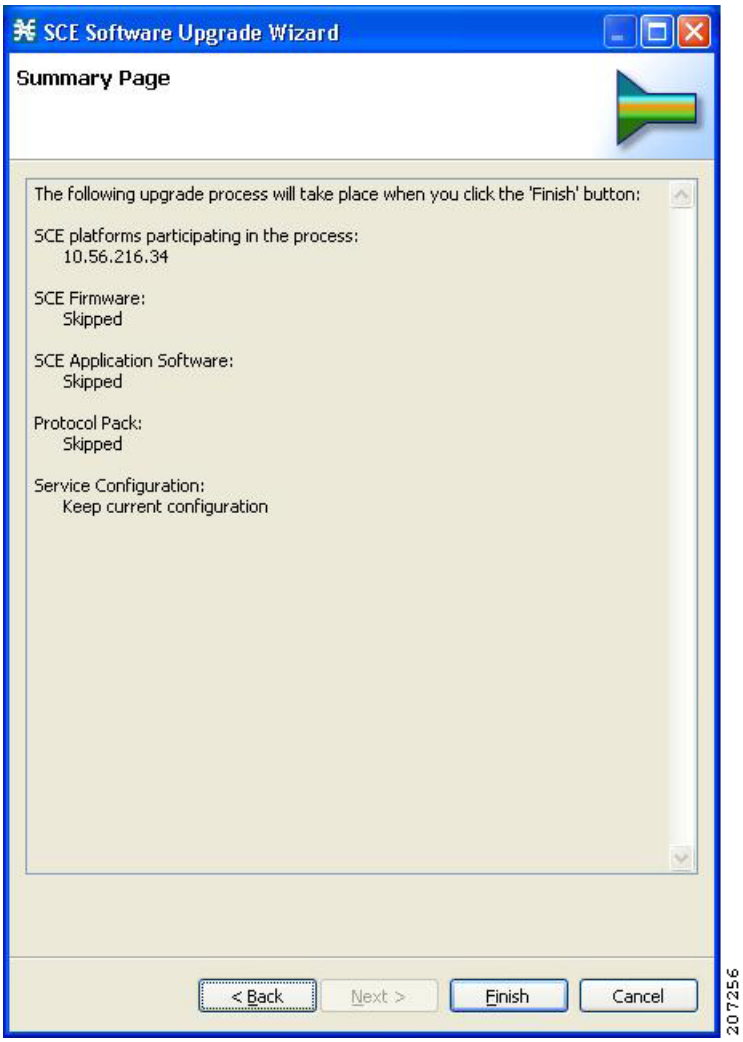
Figure 4-14 Connectivity Test



Step 20 Click **Next**.

The Confirmation page of the SCE Software Upgrade wizard opens (see Figure 4-15).

Figure 4-15 Summary Page

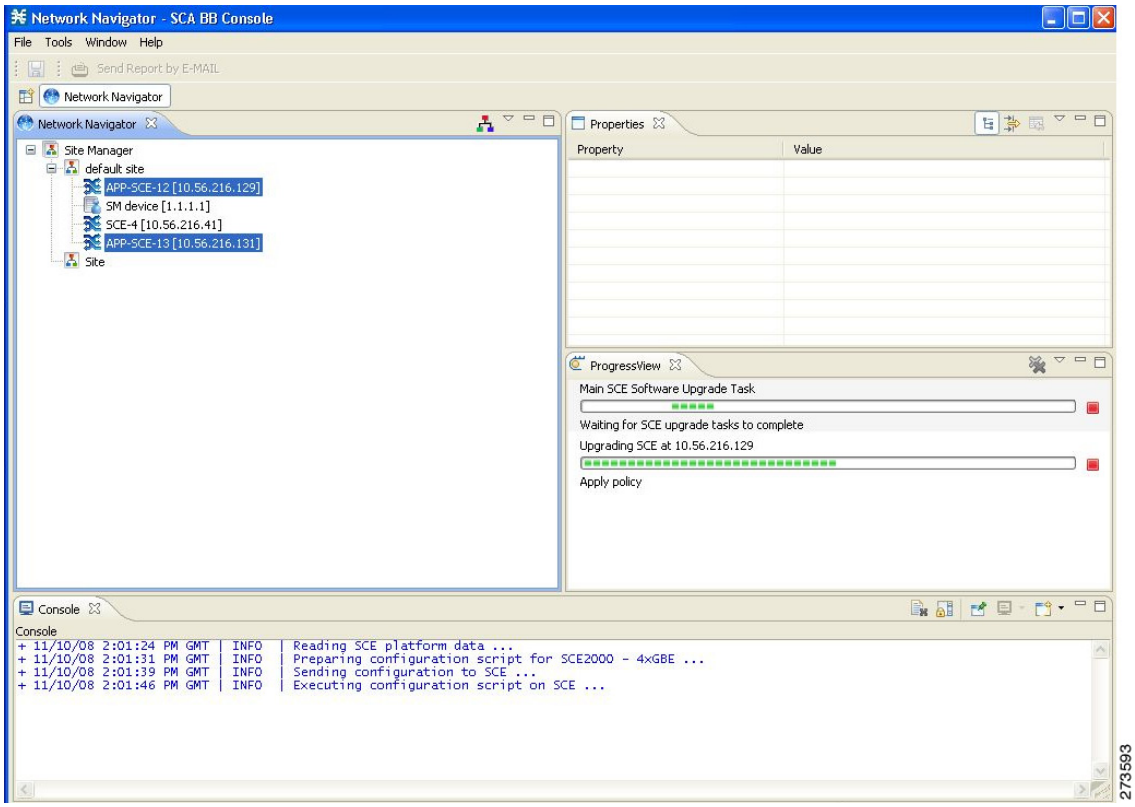


The actions that the wizard is about to take are listed on the page.

Step 21 Click **Finish**.

You can view the progress in the Progress view (see Figure 4-16).

Figure 4-16 Progress



Working with Protocol Packs

SCA BB uses stateful Layer 7 capabilities for classification of traffic flows.

When a traffic flow is handled by the system, it is assigned a signature ID according to the set of Layer 3 to Layer 7 parameters (the signature) characterizing this flow. Typically, these signatures come embedded in SCA BB.

To enable rapid response to the ever-changing protocol environment, SCA BB was enhanced to allow signatures to be updated dynamically. You can load a protocol support plug-in onto an operational system, enhancing the system's protocol support without compromising the stability of the system (no update of an existing software component is required) and without any service downtime.

Protocol Packs

Periodically, Cisco publishes protocol packs containing new and improved protocol signatures for SCA BB. A typical protocol pack is a file containing signatures for detecting network worms, popular peer-to-peer applications, and other relevant protocols. When loaded into SCE platforms, these signatures improve SCA BB classification abilities.

Note You can install a protocol pack on an SCE platform only if a PQI is already installed on the platform.

A protocol pack for SCA BB may be either a DSS file or an SPQI file:

- Loading a DSS file to the SCE platform requires no downtime of SCA BB or the platform.
- Loading an SPQI file to the SCE platform entails updating the SCE application:
  - If hitless upgrade (see Hitless Upgrade of the SLI, page 4-28) is enabled, there is no downtime of the SCE platform when loading the SPQI file.
  - If hitless upgrade is *not* enabled, loading an SPQI file requires a short downtime (up to one minute) of the SCE platform. During that time, network traffic bypasses the platform and is neither controlled nor reported.

Note If hitless upgrade is disabled, SPQI installation can cause the loss of the following subscriber data from all subscribers: package ID, real-time monitoring flag, and quota settings. Subscribers are assigned default values for these properties.

Installing Protocol Packs

You install a protocol pack on an SCE platform using one of the following:

- The SCA BB Service Configuration Utility, page 13-1
- The Network Navigator tool (see How to Install a Protocol Pack, page 5-19)

Note If the protocol pack is an SPQI file you can enable and configure the hitless upgrade option using Hitless Upgrade CLI commands. (See Hitless Upgrade of the SLI, page 4-28.)

The tool or utility performs the following steps:

1. Retrieves the current service configuration from the SCE platform and (optionally) stores a backup copy in a folder that you specify.
2. Imports the signatures that are in the DSS or SPQI file into the service configuration. This overwrites any DSS that was previously imported into the service configuration.
3. For each new signature that includes a Buddy Protocol attribute (an attribute that points to an existing protocol) (see The Buddy Protocol, page 12-4)—Adds the new signature to all services that include the buddy protocol.
4. If the protocol pack is an SPQI file—Replaces the SCE application. This causes a short (up to one minute) downtime in SCE platform service.
5. Applies the new service configuration to the SCE platform.

If the protocol pack is an SPQI file and the hitless upgrade option is enabled, you can monitor the progress of the upgrade using Hitless Upgrade CLI Commands, page 4-28.

Installing the Service Hierarchy Tree

Opening a PQB using the Client (GUI) exposes its service hierarchy tree (signatures, flavors, protocols, and so forth). The Service Configuration Hierarchy is defined by the Client.

When loading a PQB file from the SCE, it is essential that the PQB Hierarchy Tree is the same version as the one in the Client, or in other words, the PQB must be the same version as the Client, otherwise the PQB does not open.

Because the client can be connected with different SCE with different versions, and each PQB can have different Service Hierarchy Tree definition, the user needs to install the relevant Service Hierarchy Tree in the Client (GUI) before opening a PQB.

The client has the ability to install the service hierarchy tree according to the SCE version. The GUI installation comes with a fixed set of service hierarchy elements which are placed in a specific version related jar files. This enables the user to select between different jars related to different versions.

Note The SCE service hierarchy tree is different than the client version. When installing a service hierarchy tree for a SCE:

- Always back up user PQB prior to upgrade to PPXY and keep a copy since the PQB is changed.
- Remove/Reinstall Service Tree Protocol.

To view, install, and remove the service hierarchy tree use the following procedures:

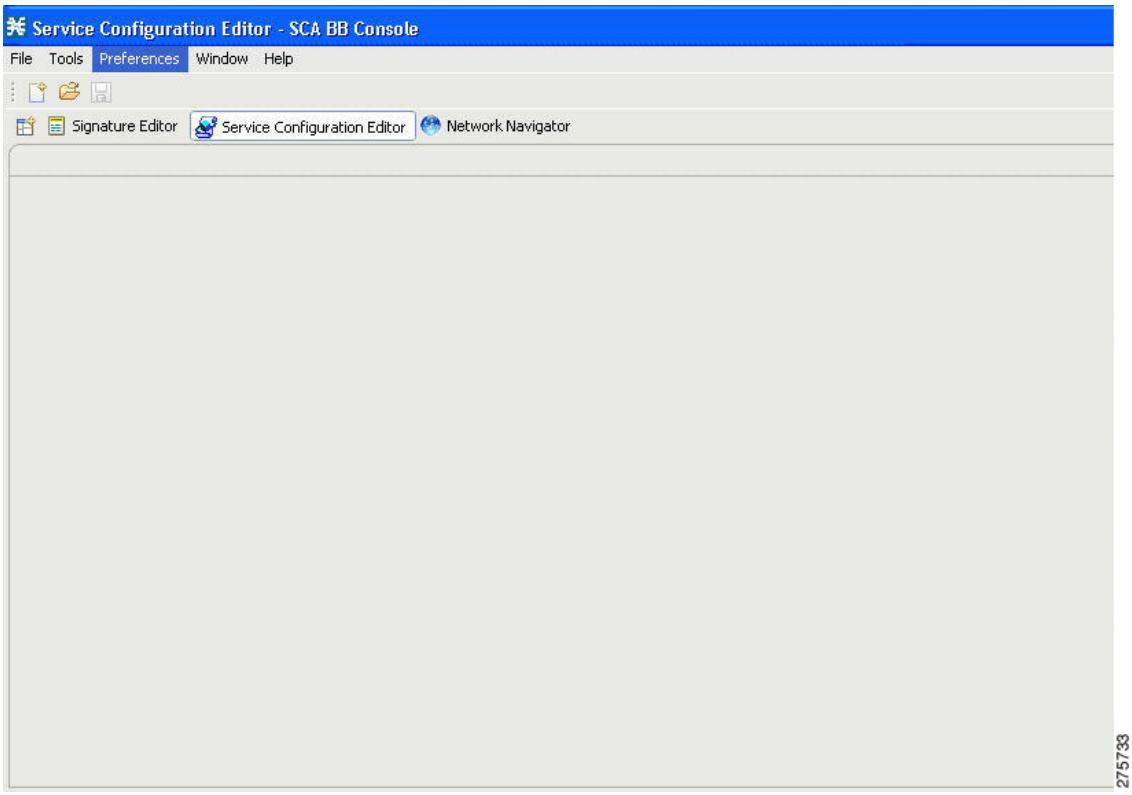
- View and Install Service Hierarchy Tree, page 4-22
- Remove Service Hierarchy Tree, page 4-26

View and Install Service Hierarchy Tree

Step 1 To view the service hierarchy tree, open the Protocol Pack tab.

Step 2 From the toolbar, select Service Configuration Editor (see Figure 4-17).

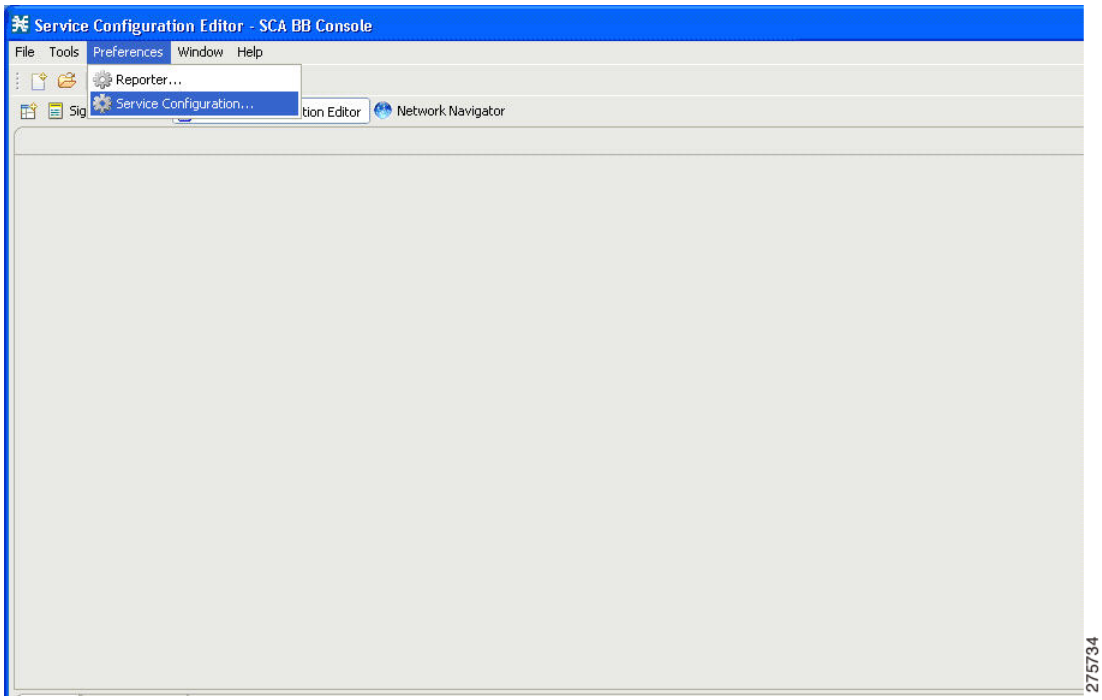
Figure 4-17 Service Configuration Editor - Preferences



Step 3 Select Preferences and then select Service Configuration.

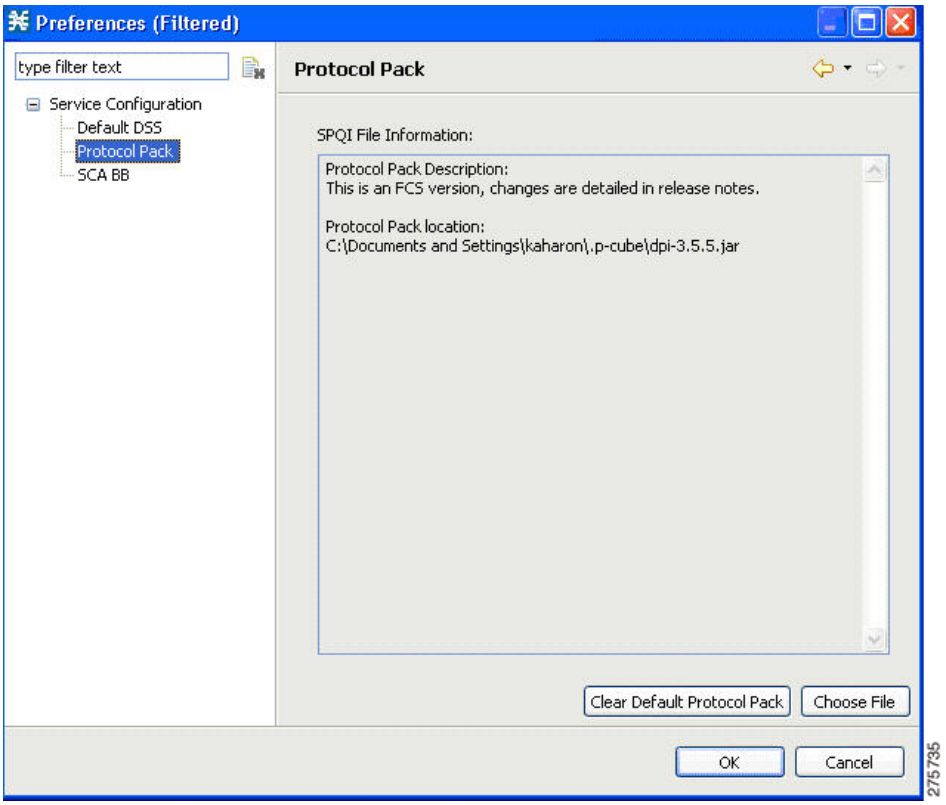
A Preferences window opens (see Figure 4-18).

Figure 4-18 Service Configuration Editor - Service Configuration



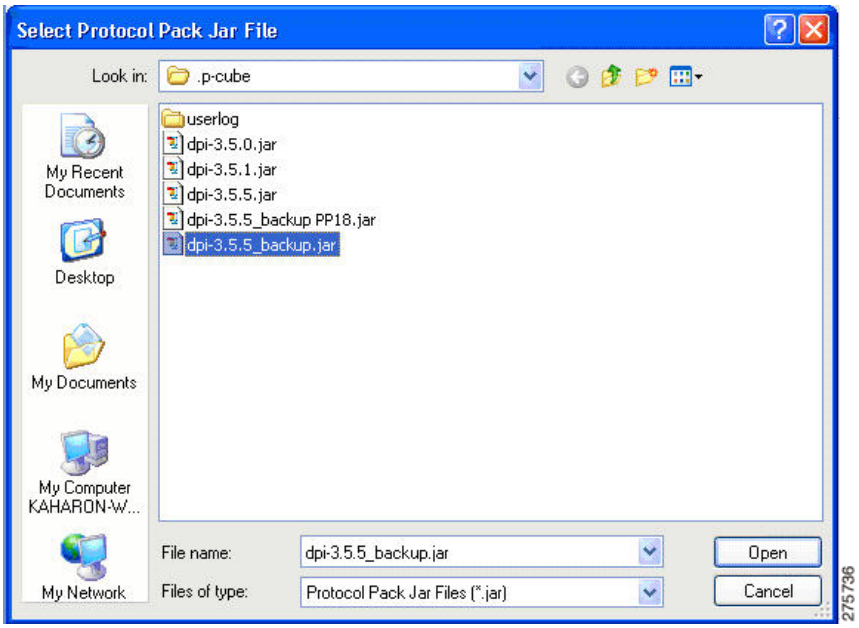
Step 4 Select Protocol Pack from the Service Configuration tree (see Figure 4-19). The upper window provides information related to service hierarchy tree related to the GUI.

Figure 4-19 Preferences (Filtered)



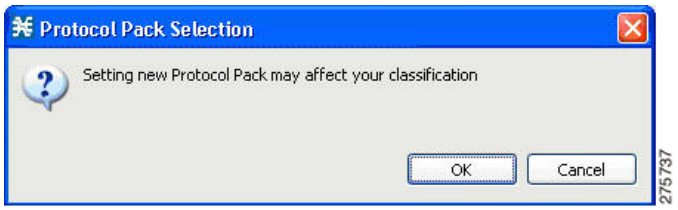
Step 5 To install a new service hierarchy tree, click the **Choose File** button and select either a jar file or a SPQI file (see Figure 4-20).

Figure 4-20 Select Protocol Pack



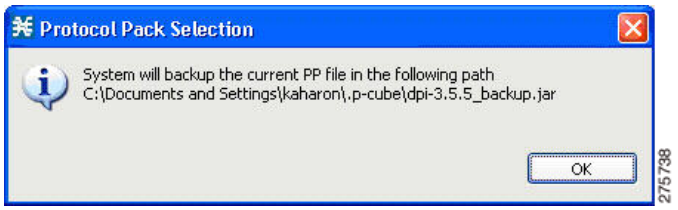
Step 6 Click Open, and approve the warning message (see Figure 4-21) by clicking **OK**.

Figure 4-21 Protocol Pack Selection Warning Message



Step 7 To backup the current protocol pack and install the new service hierarchy tree, approve the backup message (see Figure 4-22) by clicking OK.

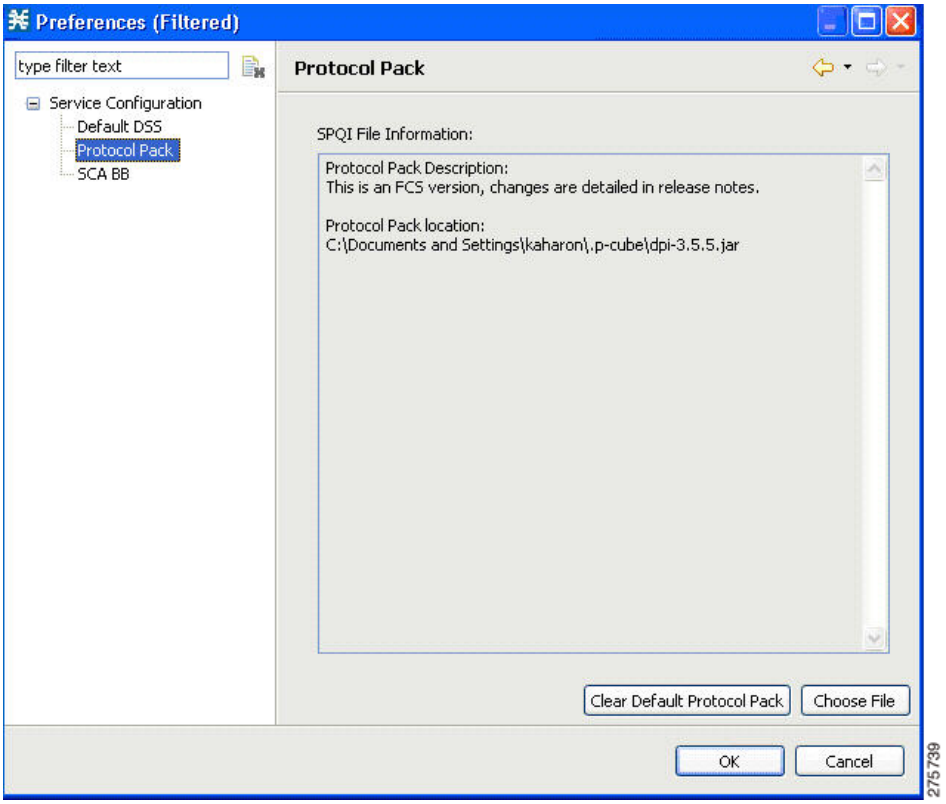
Figure 4-22 Protocol Pack Selection Backup Message



Remove Service Hierarchy Tree

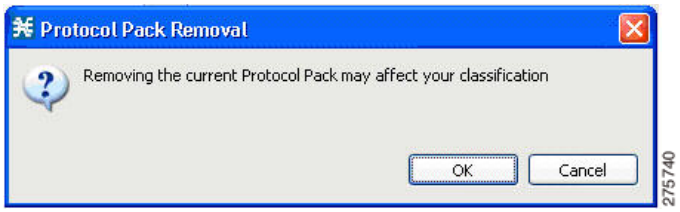
Step 1 To remove the service hierarchy tree and to return to the default configuration, click the Clear Default Protocol Pack button in the Preferences window (see Figure 4-23).

Figure 4-23 Preferences (Filtered)



Step 2 Accept the operation by clicking **OK** on the Protocol Pack Removal message screen (see Figure 4-24).

Figure 4-24 Protocol Pack Removal Message



The service hierarchy tree is removed from the system, and when a new PQB is opened, the client installs the default service classifications.

How to Verify Version Compatibility for Protocol Packs

A protocol pack is compatible only with specific versions of the SCE application. When working with protocol packs, you should verify that the protocol pack version matches the SCE application version. For example, only use a protocol pack for 3.6.0 on SCE application version 3.6.0.

The version compatibility information for each protocol pack is included in the protocol pack's release notes.

Step 1 Verify that the correct version of **servconf** is installed and running correctly.

- From the command prompt, type `servconf --version`.
- Press **Enter**.

The version of the utility should match that of the protocol pack.

Step 2 Verify that the correct version of the SCE application is installed.

- At the SCE platform CLI prompt `(SCE#)`, type `show version`.
- Press **Enter**.

The application version should match that of the protocol pack.

Step 3 Verify that a service configuration (PQB) is applied to the SCE platform.

- In the Console, retrieve and view the current PQB.

How to Verify the Installation of a Protocol Pack

Step 1 At the SCE platform CLI prompt `(SCE#)`, type **show version**.

Step 2 Press **Enter**.

The response shows the version of the OS running on the SCE platform. This includes information about the installed protocol pack version.

Step 3 Retrieve the PQB from the SCE platform and view it using the Console.

Step 4 Verify that the new protocols from the protocol pack were added to the service configuration.

The problems that may cause the installation of a protocol pack to fail and their remedies include:

- Missing or incorrect version of the JRE—Install the correct version of the JRE (see Installing the Java Runtime Environment, page 4-4).
- Incorrect or missing SCE application version on the SCE platform—Verify that the correct version of the SCE application is installed (see How to Verify Version Compatibility for Protocol Packs, page 4-27).
- No service configuration (PQB) is applied to the SCE platform—Create a new PQB and apply it using the Console.
- **servconf** failed to import the new signatures into the PQB—Use the `--force-signature` update signature option when running **servconf** (see servconf Syntax, page 13-1).

When reporting problems to Cisco, please include the **servconf** log file, located at <user.home>\.p-cube\servconf.log. With Windows, this usually maps to C:\Documents and Settings\<username>\.p-cube\servconf.log or C:\Users\<username>\.p-cube\servconf.log.

Hitless Upgrade of the SLI

Hitless upgrade is the SCA BB method of upgrading the software components that reside on the SCE platform without incurring any service downtime.

- Hitless upgrade is available on SCE 2000 and SCE 1000_2U platforms.
- Hitless upgrade is not available on SCE 1000_1.5U platforms.

If hitless upgrade is enabled, classification, reporting, and control continue uninterrupted when you install an SPQI file (see Working with Protocol Packs, page 4-19). You can install SPQI files using either the Console or **servconf,** the SCA BB Service Configuration Utility. An SPQI file is a package that includes the required (SLI) files.

Note When you apply a new policy or during Protocol Pack upgrade, there is a delay of 30 seconds before the rules are applied to the new flows.

After the new application is loaded on the SCE platform:

- The new application services all new flows and bundles.
- The old application continues to service existing flows (and new flows that belong to bundles of existing flows).
- Both applications share available memory.

Until all old flows die or are killed, the hitless upgrade is considered to be in progress. To make the hitless upgrade process bounded, you can set criteria that triggers the explicit killing of all flows still executing on the old application. Two such criteria exist:

- When a specified amount of time has passed since the process started.
- When the number of old flows goes below a specified threshold.

The default value for the first criterion is 60 (minutes); the default value for the second is zero (flows). This means that the replace operation is guaranteed to complete after no more than one hour (sooner, if all old flows die naturally), but no old flows are killed by the application before one hour passes.

These criteria are configurable by CLI commands.

You can initiate the explicit killing of all old flows using a manual command.

Hitless Upgrade CLI Commands

You can configure, monitor, and control hitless upgrade using the SCE platform Command-Line Interface (CLI). For more information about the SCE platform CLI, see *Cisco SCE8000 CLI Command Reference.*

The commands listed here are explained in the following section.

Use the following CLI commands to configure the criteria for completing a hitless upgrade:

```
replace completion time <minutes>
no replace completion time
default replace completion time
```

```
replace completion num-flows <num>
no replace completion num-flows
default replace completion num-flows
```

These commands are line interface configuration commands. To run these commands you must enter line interface configuration mode (see How to Enter Line Interface Configuration Mode, page 4-30) and see the `SCE(config if)#` prompt displayed.

The following two CLI commands are EXEC mode commands.

Use the following CLI command to monitor the progress of a hitless upgrade:

```
show applications slot <num> replace
```

Use the following CLI command to force immediate completion of a hitless upgrade:

```
application slot <num> replace force completion
```

Description of Hitless Upgrade CLI Commands

Table 4-1 describes the hitless upgrade CLI commands listed in the previous section.

Table 4-1 Hitless Upgrade CLI Commands

Command	Description
replace completion time <*minutes*>	Sets the time criterion for killing all old flows and completing the hitless upgrade. Specifying a value of zero disables this criterion—the hitless upgrade is completed only when the number-of-flows criterion is met.
no replace completion time	Sets the time criterion for completing the hitless upgrade to zero.
default replace completion time	Resets the time criterion for completing the replace operation to the default value of 60.
replace completion num-flows <*num*>	Sets the number-of-flows criterion for completing the hitless upgrade operation. When the number of old flows drops below the number specified by this criterion, the remaining flows are killed and the hitless upgrade is complete.
no replace completion num-flows	Sets the number-of-flows criterion for completing the hitless upgrade to zero.
default replace completion num-flows	Resets the number-of-flows criterion for completing the hitless upgrade to the default value of zero.

Table 4-1 Hitless Upgrade CLI Commands (continued)

Command	Description
show applications slot <*num*> **replace**	Shows the current hitless upgrade state: • Current replace stage • Current completion criteria • Current completion status (elapsed time and number of flows on each traffic processor) • Whether this is an upgrade or a downgrade • Values for spare memory
application slot <*num*> **replace force completion**	Forces the current hitless upgrade process to complete (killing all old flows).

How to Enter Line Interface Configuration Mode

To run line interface configuration commands, you must enter line interface configuration mode and see the `SCE(config if)#` prompt displayed.

Step 1 At the SCE platform CLI prompt `(SCE#,` type **configure**.

Step 2 Press **Enter**.

The `SCE(config)#` prompt appears.

Step 3 Type **interface LineCard 0**.

Step 4 Press **Enter**.

The `SCE(config if)#` prompt appears.

How to Launch the Console

Step 1 Choose **Start > All Programs > Cisco SCA > SCA BB Console 3.6.5 > SCA BB Console 3.6.5**.

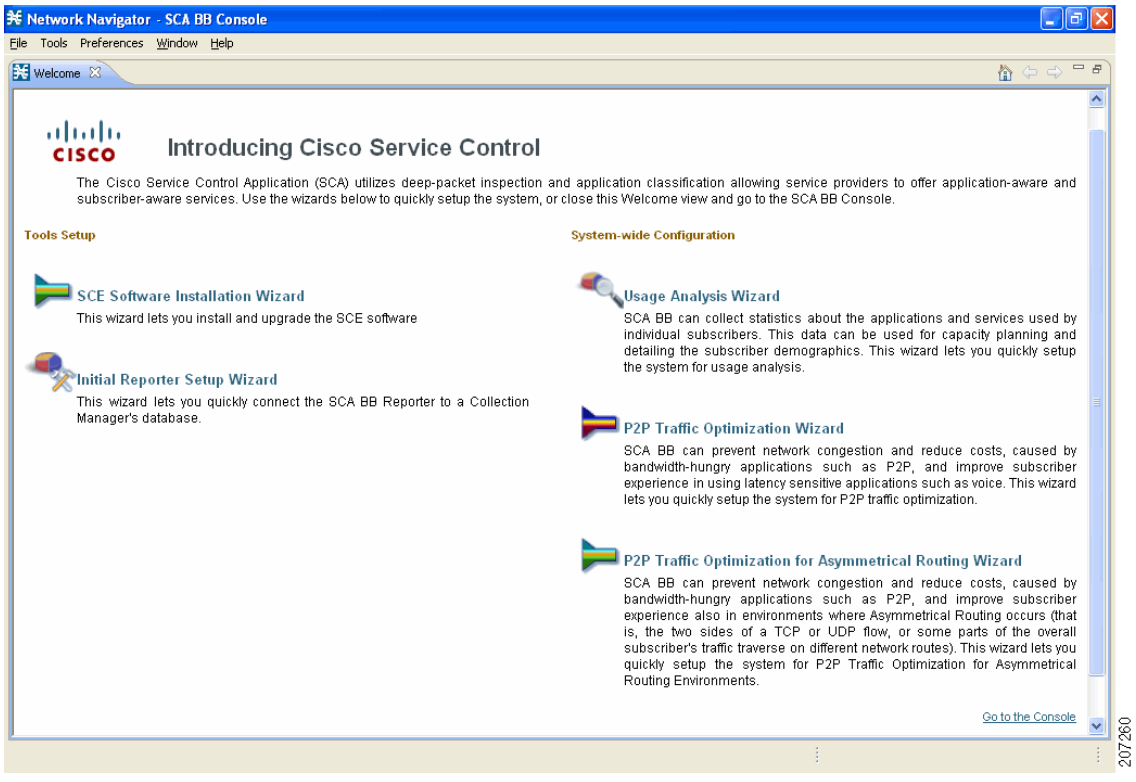
The Cisco Service Control SCA BB Console splash screen appears (see Figure 4-25).

Figure 4-25 Cisco Service Control SCA BB Console

After the Console has loaded, the main window of the Console appears.

The first time that you launch the Console, the Welcome view is open in the main window (see Figure 4-26).

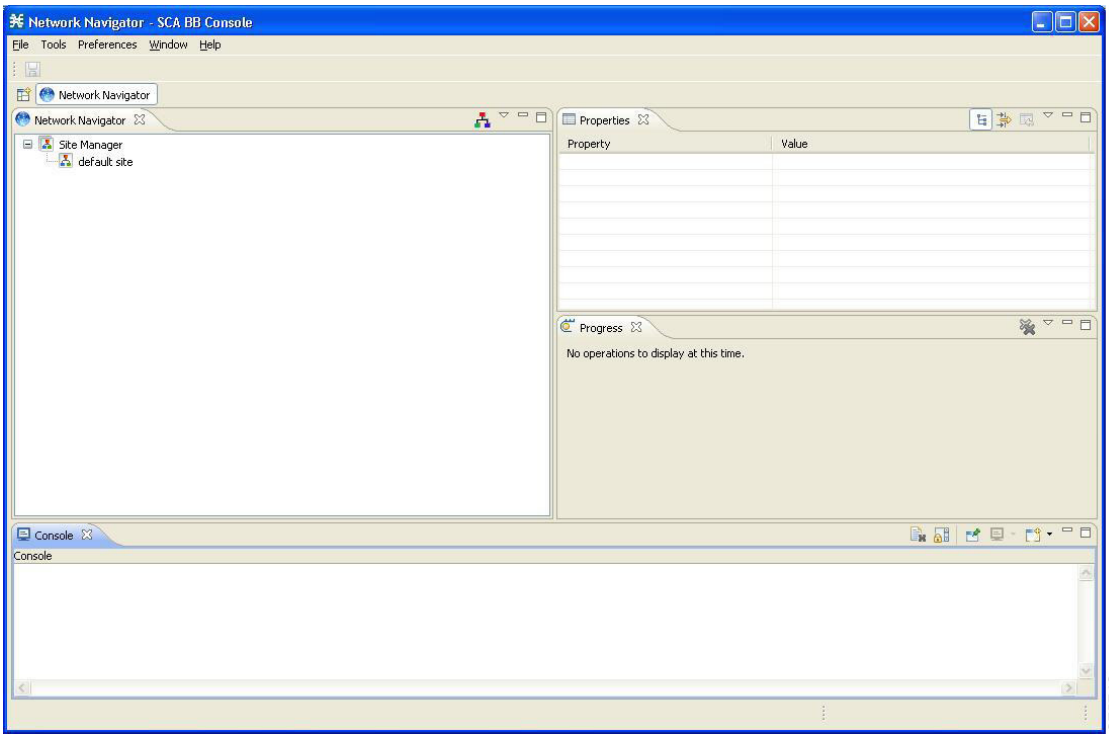
Figure 4-26 Welcome - Introducing Cisco Service Control



Step 2 Close the Welcome view and click **Go to the console**.

The Welcome view closes. The Network Navigator tool is open in the Console (see Figure 4-27).

Figure 4-27 Network Navigator



Note When you close the Console, it remembers which tools are open, which is the active tool, and whether the Welcome view is displayed, and applies this the next time you launch the Console.

How to Use the Console

The Console is the front end of SCA BB. You use it to configure the services that the SP offers to you.

The Console consists of the following tools:

- Network Navigator tool
- Service Configuration Editor tool
- Signature Editor tool
- Subscriber Manager GUI tool
- Reporter tool

The Console GUI has a menu bar and a standard toolbar (see Figure 4-28). Underneath the toolbar is another bar that displays the button of any open Console tool. When you launch a tool, a button is added to this bar. To switch between open tools, click the appropriate button on the bar.

Figure 4-28 Menu Bar and Toolbar of the Console GUI

Note The title of the Console window shows the active tool and the active service configuration.

The Welcome View of the Console links to a number of Configuration Wizards that can configure the initial, basic configuration of your system.

- Configuration Wizards, page 4-33
- The Network Navigator Tool, page 4-68
- The Service Configuration Editor Tool, page 4-69
- The Signature Editor Tool, page 4-71
- The Subscriber Manager GUI Tool, page 4-72
- The Reporter Tool, page 4-73
- Online Help, page 4-74

Configuration Wizards

The configuration wizards available from the Welcome view are (three of these wizards can also be executed from the Network Navigator tool):

- Usage Analysis wizard—Creates a simple model of devices and connects to them.
- The P2P Traffic Optimization wizards:
  - P2P Traffic Optimization wizard—Creates a simple model of devices, connects to them, and limits P2P traffic to a specified percentage of total available bandwidth.
  - P2P Traffic Optimization at a Peering Point wizard—Creates a simple model of devices, connects to them, limits P2P traffic to a specified percentage of total available bandwidth, and allows you to enable asymmetric routing classification mode.
- Reporter DB Configuration wizard—Connects the SCA BB Reporter tool to a database.

Asymmetric Routing

Traffic processing depends on the routing environment. The Cisco Service Control solution can operate in two typical routing schemes: symmetric and asymmetric. In asymmetric routing, for a significant number of flows, only one direction (inbound or outbound) is routed through the SCE platform.

Anonymous Subscriber Mode

Anonymous subscriber mode is a mode in which entities defined as IP addresses are treated as subscribers.

How to Use the Usage Analysis Wizard

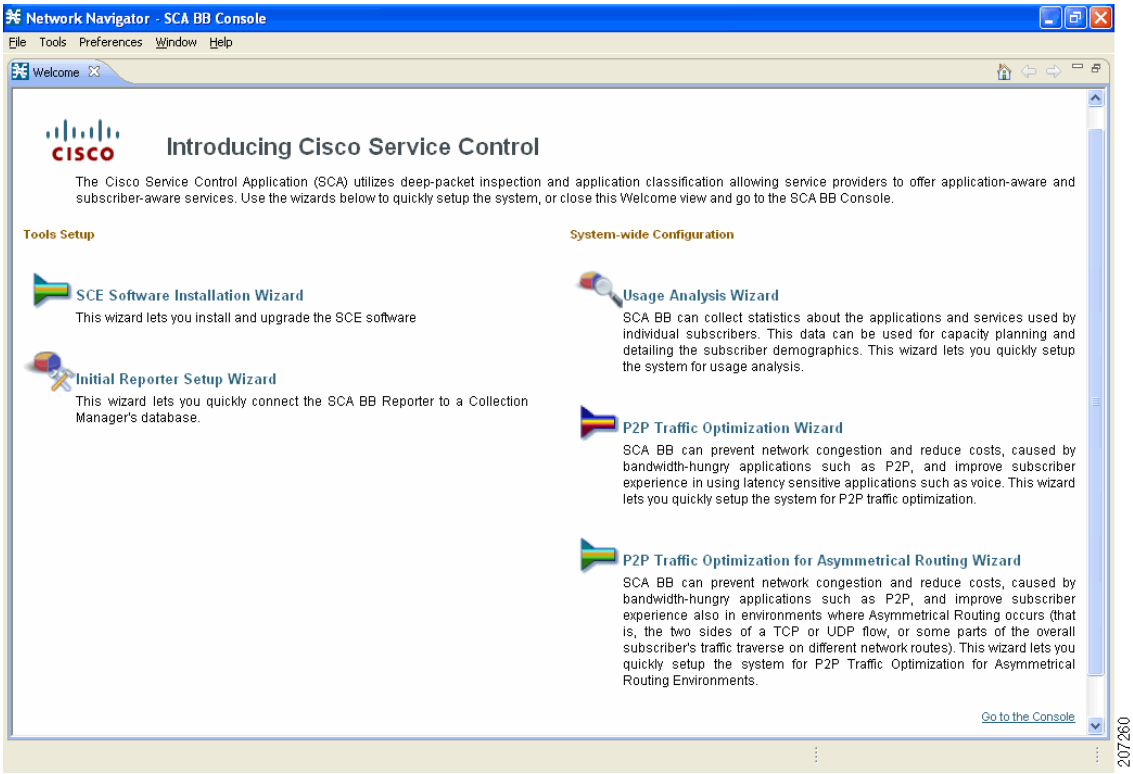
The Usage Analysis wizard allows you to create a simple model of devices and connect to them.

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

Step 1 From the Console main menu, choose **Help > Welcome**.

The Welcome view opens (see Figure 4-29).

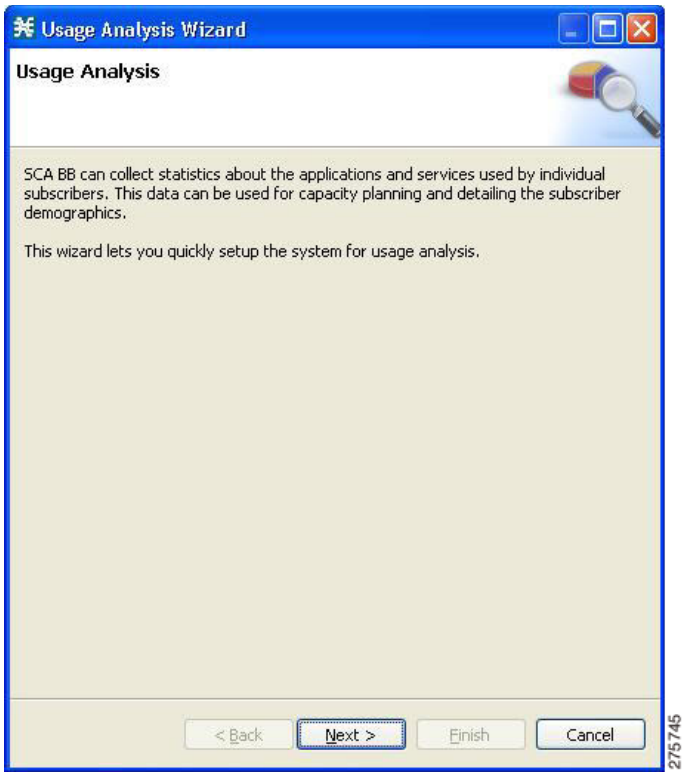
Figure 4-29 Welcome - Introducing Cisco Service Control



Step 2 Click **Usage Analysis Wizard**.

The Welcome page of the Usage Analysis wizard appears (see Figure 4-30).

Figure 4-30 Usage Analysis



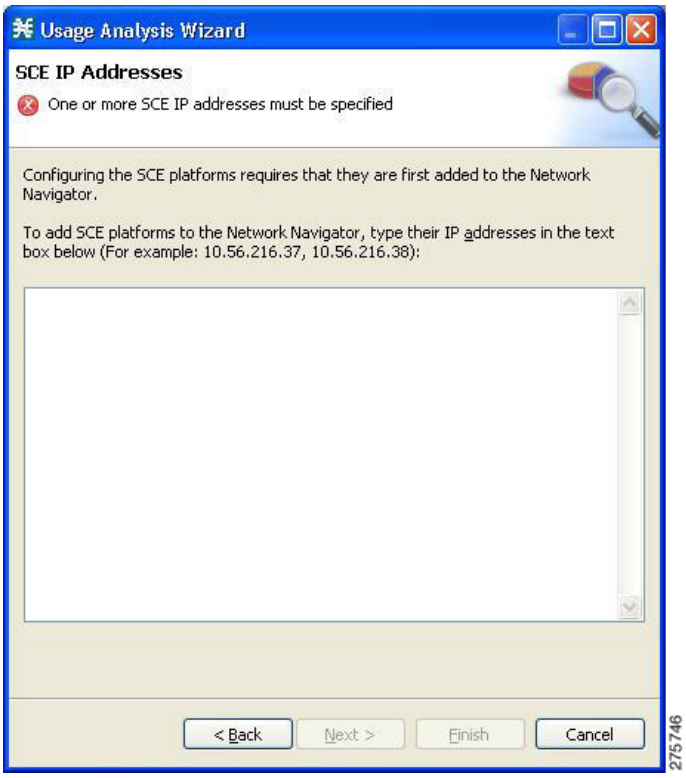
Note You can also execute the Usage Analysis wizard from the Network Navigator tool:

1. Select one or more devices in the Site Manager tree.
2. Right-click one of the selected devices.
3. From the popup menu that appears, select **Configuration Wizards > Usage Analysis Configuration**.
4. You can set only one CM and one Reporter database in the wizard. If you select more than one CM or Reporter database, only one CM and one Reporter database is selected and a warning message is displayed. Click **OK** to continue.

Step 3 Click **Next**.

The SCE IP Addresses page of the Usage Analysis wizard opens (see Figure 4-31).

Figure 4-31 SCE IP Addresses



Step 4 In the edit box, enter the IP addresses of the SCE devices that should be added to the model.

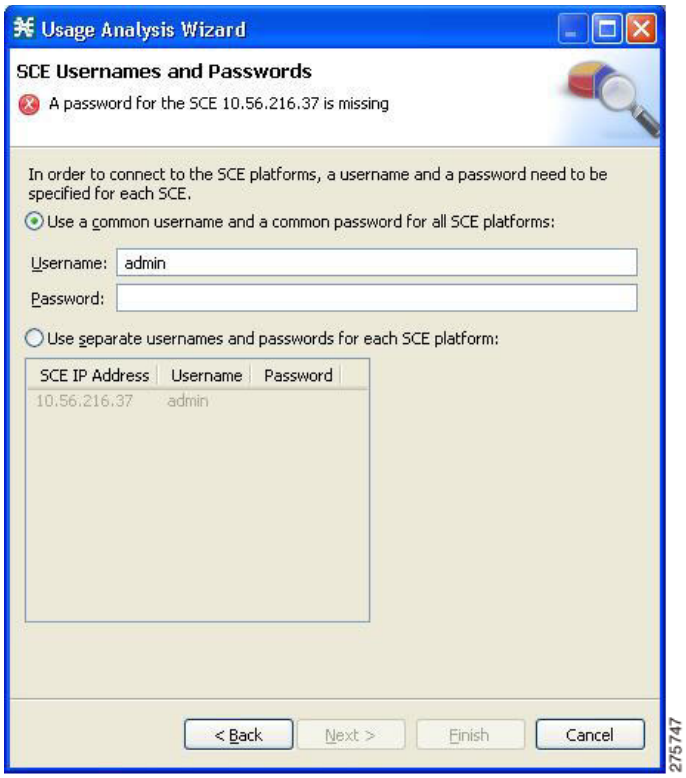
If you started from the Network Navigator, the IP addresses of the SCE devices that you selected are displayed in the edit box. You can add additional addresses.

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

Step 5 Click **Next**.

The SCE Usernames and Passwords page of the Usage Analysis wizard opens (see Figure 4-32).

Figure 4-32 SCE Usernames and Passwords



Step 6 Enter the usernames and passwords for the SCE devices.

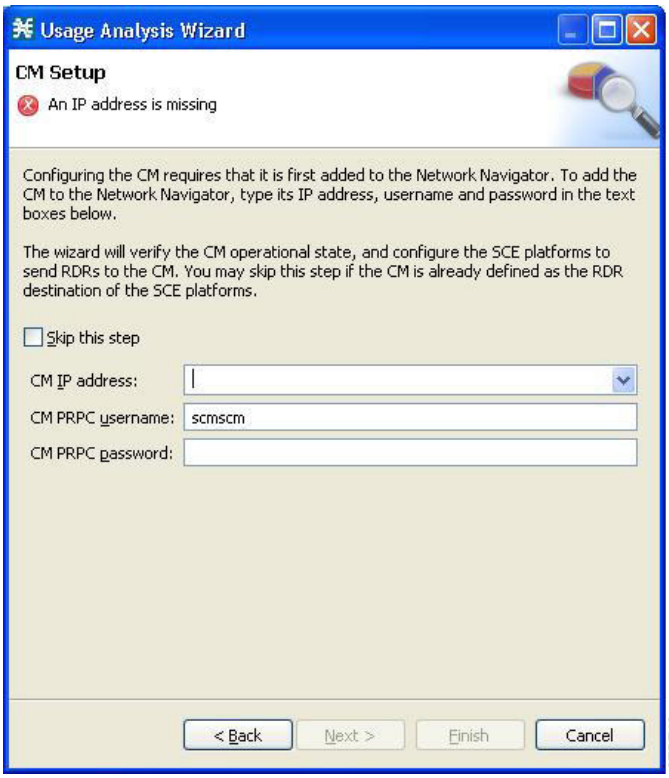
Do one of the following:

- To use the same username and password for all the 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 SCE device, select the **Use separate usernames and passwords for each SCE platform** radio button, and, for each SCE device, enter the username and password in the appropriate cell of the table.

Step 7 Click **Next**.

The CM Setup page of the Usage Analysis wizard opens (see Figure 4-33).

Figure 4-33 CM Setup



Step 8 Define the SCSM Collection Manager (CM) 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 9 Click **Next**.

The Reporter Setup page of the Usage Analysis wizard opens (see Figure 4-34).

Figure 4-34 Reporter Setup

Step 10 Define the database to which the Reporter tool should connect.

Do one of the following:

- Enter the IP address of the database and select the database type.

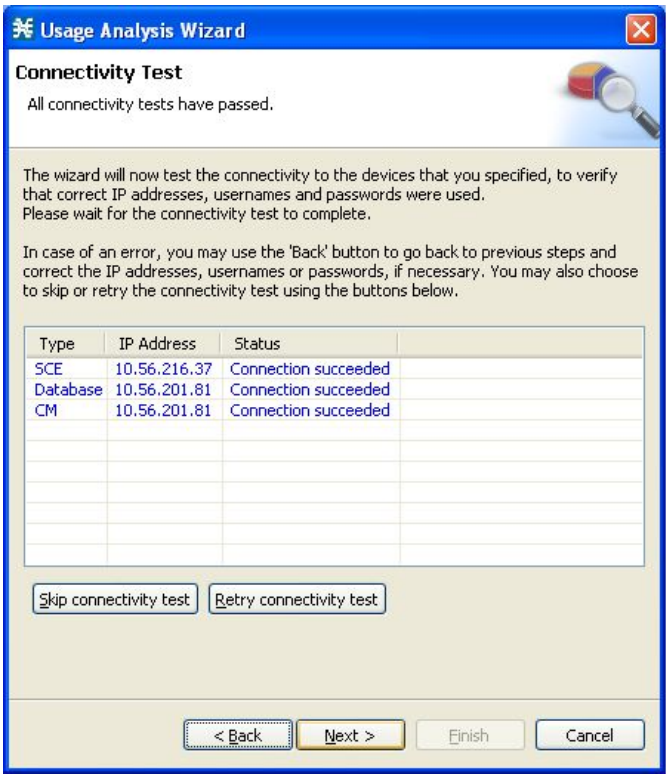
  If you started from the Network Navigator, this information is retrieved and displayed. You can modify these parameters.

- Check the **Skip this step** check box.

Step 11 Click **Next**.

The Connectivity Test page of the Usage Analysis wizard opens (see Figure 4-35).

Figure 4-35 Connectivity Test



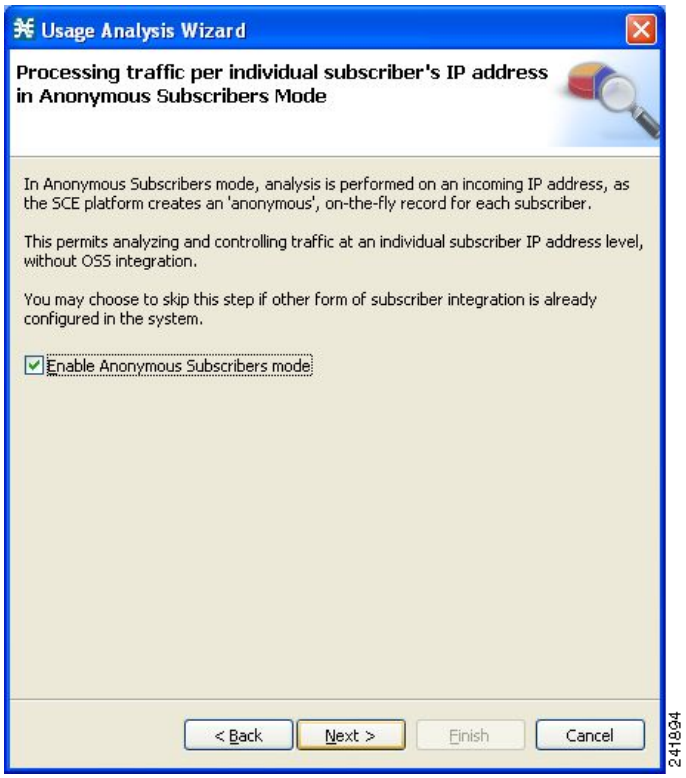
The wizard tests to see that the connections to the defined devices can be made.

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 connectivity test**. The connections are validated when you click **Finish** at the end of the wizard.

Step 12 Click **Next**.

The Anonymous Subscribers page of the Usage Analysis wizard opens (see Figure 4-36).

Figure 4-36 Anonymous Subscribers

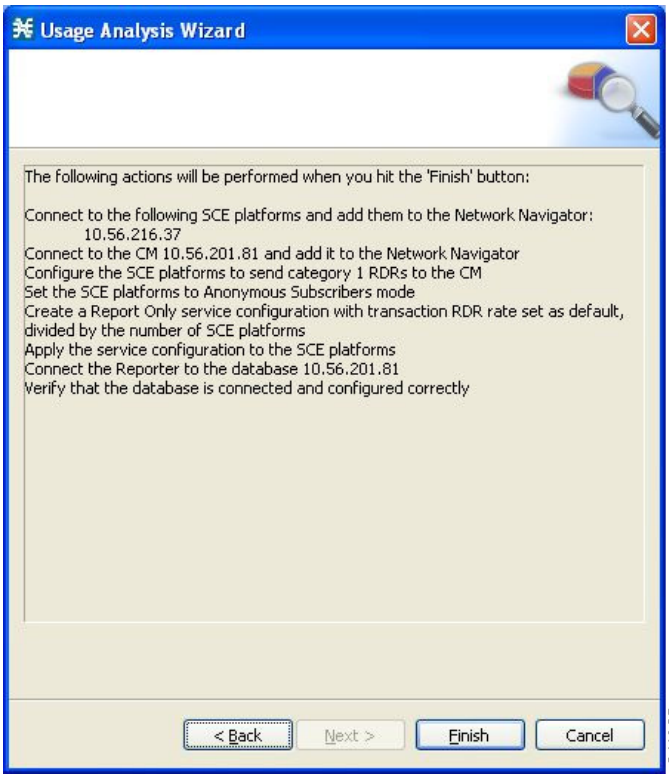


Step 13 To disable anonymous subscriber mode, clear the **Enable Anonymous Subscribers mode** check box.

Step 14 Click **Next**.

The Confirmation page of the Usage Analysis wizard opens (see Figure 4-37).

Figure 4-37 Confirmation

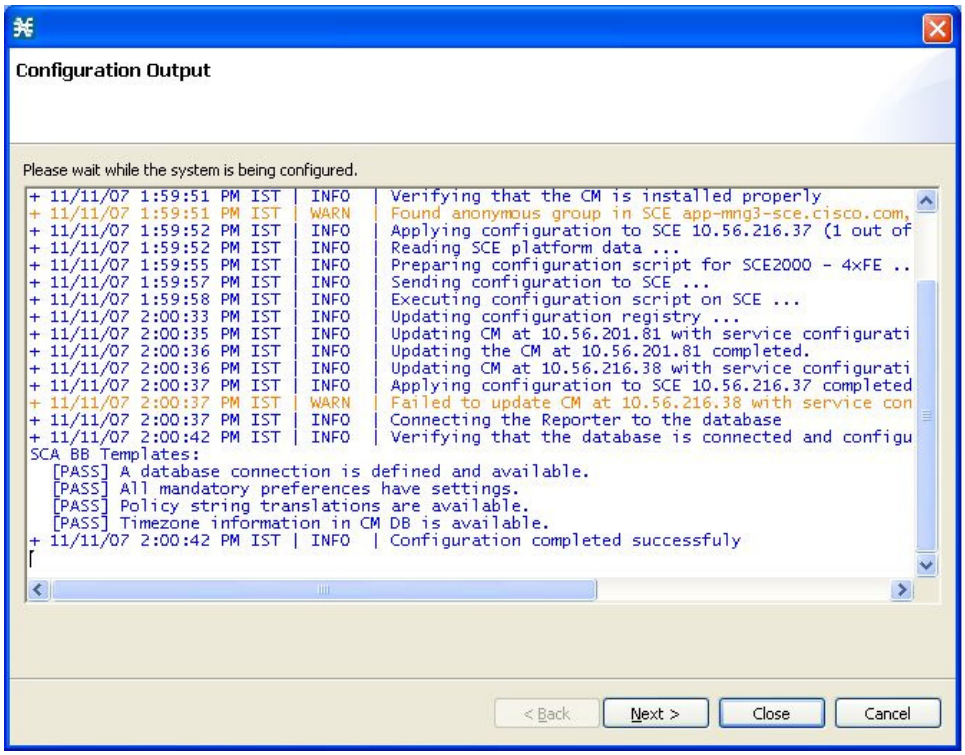


The actions that the wizard is about to take are listed on the page.

Step 15 Click **Finish**.

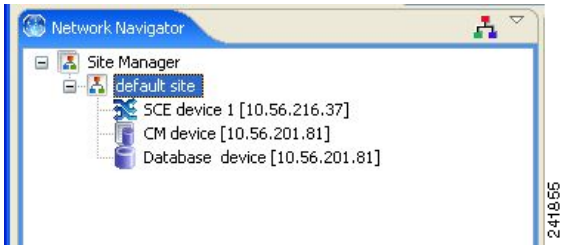
The Configuration Output page of the Usage Analysis wizard opens (see Figure 4-38).

Figure 4-38 Configuration Output



New devices are added to the default site of the Site Manager tree in the Network Navigator (see Figure 4-39).

Figure 4-39 Site Manager Tree



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

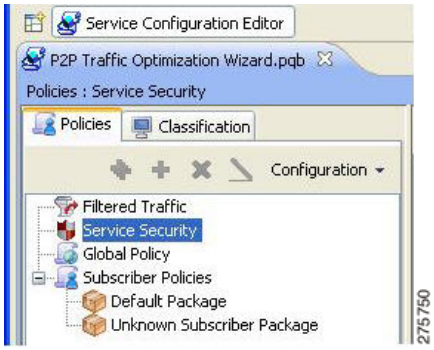
- The wizard cannot connect to any of the SCE devices that you listed in Step 4.
- You defined a CM in Step 8, but the wizard cannot connect to it.
- You defined a database in Step 10, but the wizard cannot connect to it.

If you defined a CM in Step 8, the 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 *Cisco SCE8000 GBE Software Configuration Guide*.

A new service configuration named Usage Analysis is created, and opens in the Service Configuration Editor (see Figure 4-40).

Figure 4-40 Service Configuration Editor



The service configuration has the following characteristics:

- Report Only mode.
- The maximum Transaction RDR rate is set as the default value (250) divided by the number of SCE devices. (To configure the Transaction RDR see How to Manage Transaction RDRs, page 8-5; the content and structure of the Transaction RDR is listed in "Transaction RDR" in the "Raw Data Records: Formats and Field Contents" chapter of *Cisco Service Control Application for Broadband Reference Guide.*)

The service configuration is applied to the SCE devices.

If you defined a database in Step 10:

- The SCA BB Reporter tool is connected to the selected database.
- The first SCE platform entered in Step 4 is selected as the source of service configuration data.
- The Next button is enabled.

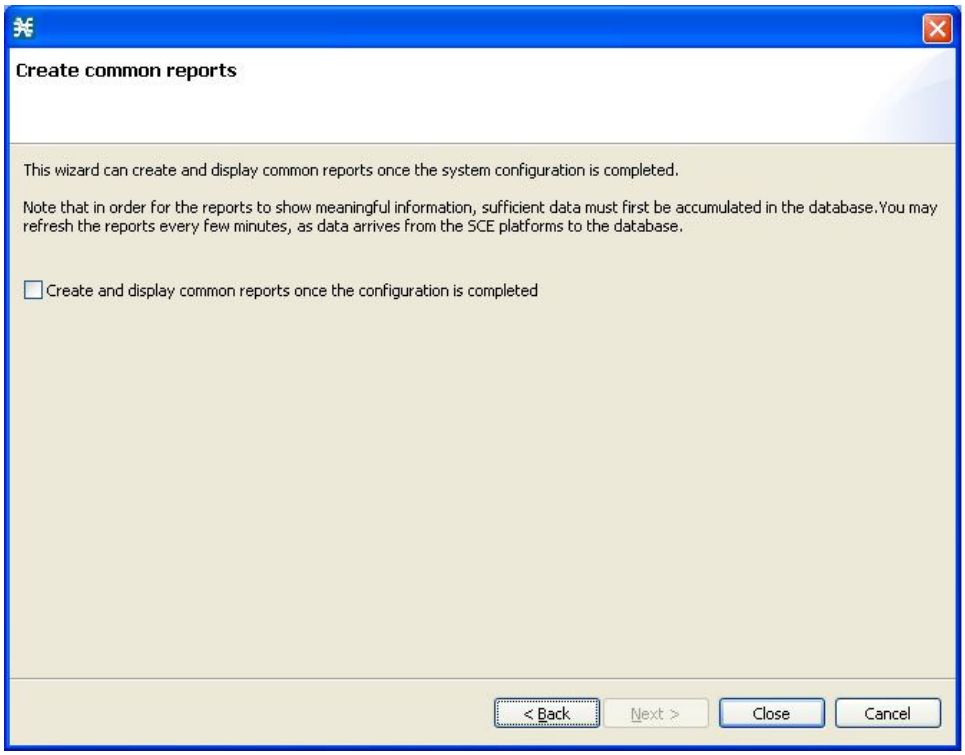
Step 16 If you did not define a database in Step 10, click **Close**.

The Usage Analysis wizard closes.

Step 17 Click **Next**.

The Create common reports page of the Usage Analysis wizard opens (see Figure 4-41).

Figure 4-41 Create Common Reports



Step 18 To create reports, check the **Create and display common reports** check box.

Note Report instances are created for four predefined report types:

- Global Bandwidth per Service
- Global Active Subscribers per Service
- Top P2P Protocols
- Global Hourly Call Minutes per Service (VoIP)

Step 19 Click **Close**.

The wizard closes.

The Reporter tool opens in the Console.

Report instances of each of the four report types open in the Report View of the Reporter tool.

How to Use the P2P Traffic Optimization Wizards

There are two wizards for optimizing P2P traffic:

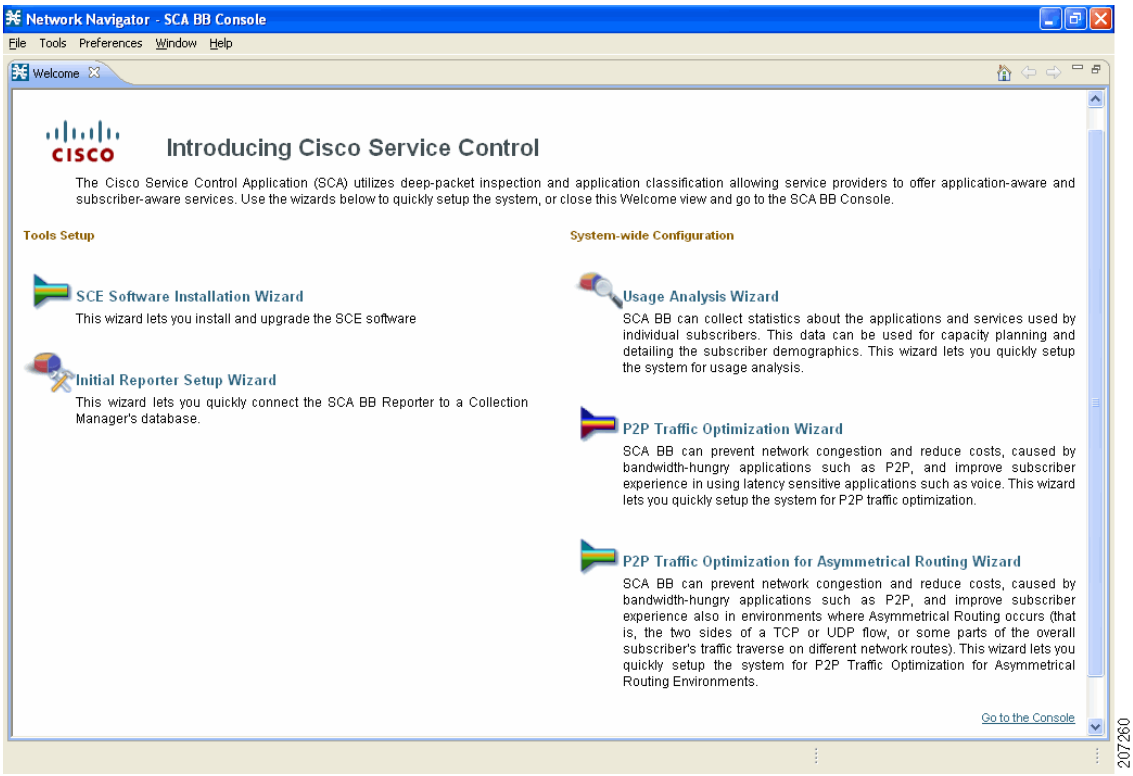
- The P2P Traffic Optimization wizard allows you to create a simple model of devices, connect to them, and limit P2P traffic to a specified percentage of total available bandwidth.
- The P2P Traffic Optimization at a Peering Point wizard allows you to create a simple model of devices, connect to them, limit P2P traffic to a specified percentage of total available bandwidth, and enable asymmetric routing classification mode.

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

Step 1 From the Console main menu, choose **Help > Welcome**.

The Welcome view opens (see Figure 4-42).

Figure 4-42 Welcome - Introducing Cisco Service Control



Step 2 Click **P2P Traffic Optimization Wizard** or **P2P Traffic Optimization for Asymmetrical Routing Wizard**.

The Welcome page of the selected wizard appears (see Figure 4-43 or Figure 4-44).

Figure 4-43 P2P Traffic Optimization

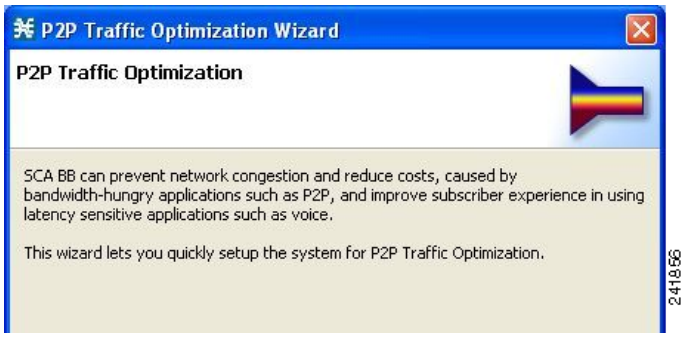
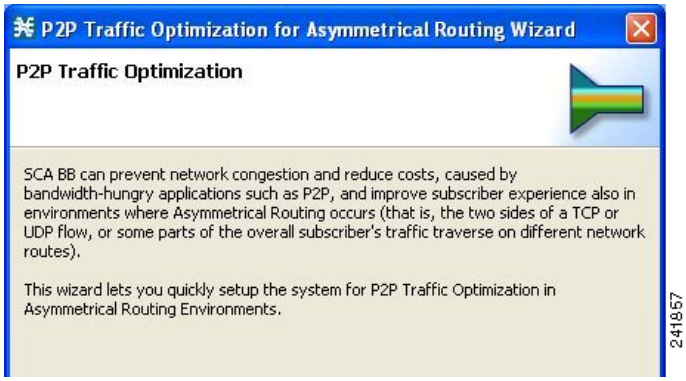


Figure 4-44 P2P Traffic Optimization for Asymmetrical Routing



Note You can also execute the P2P Traffic Optimization wizard from the Network Navigator tool.

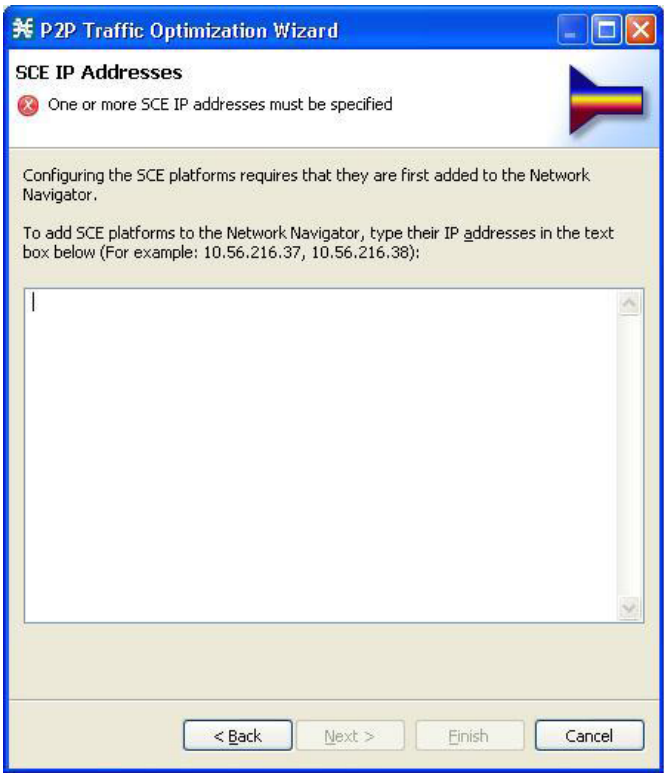
1. Select one or more devices in the Site Manager tree.
2. Right-click one of the selected devices.
3. From the popup menu that appears, choose **Configuration Wizards > P2P Traffic Optimization Wizard** or **Configuration Wizards > P2P Traffic Optimization for Asymmetrical Routing Wizard**.

Note You can set only one CM and one Reporter database in the wizard. If you select more than one CM or Reporter database, only one CM and one Reporter database is selected and a warning message is displayed. Click **OK** to continue.

Step 3 Click **Next**.

The SCE IP Addresses page of the P2P Traffic Optimization wizard opens (see Figure 4-45).

Figure 4-45 SCE IP Addresses



Step 4 In the edit box, enter the IP addresses of the SCE devices that should be added to the model.

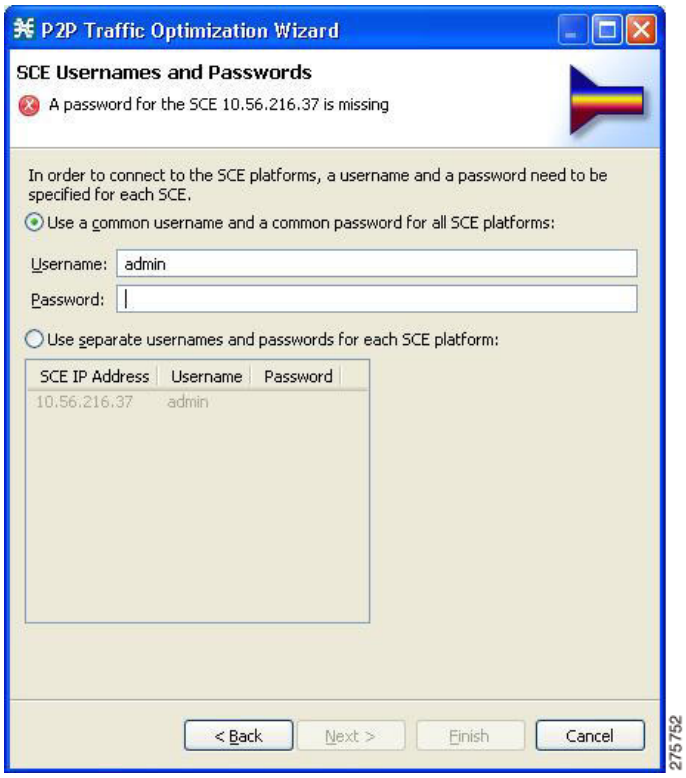
If you started from the Network Navigator, the IP addresses of the SCE devices that you selected are displayed in the edit box. You can add additional addresses.

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

Step 5 Click **Next**.

The SCE Usernames and Passwords page of the P2P Traffic Optimization wizard opens (see Figure 4-46).

Figure 4-46 SCE Usernames and Passwords



Step 6 Enter the usernames and passwords for the SCE devices.

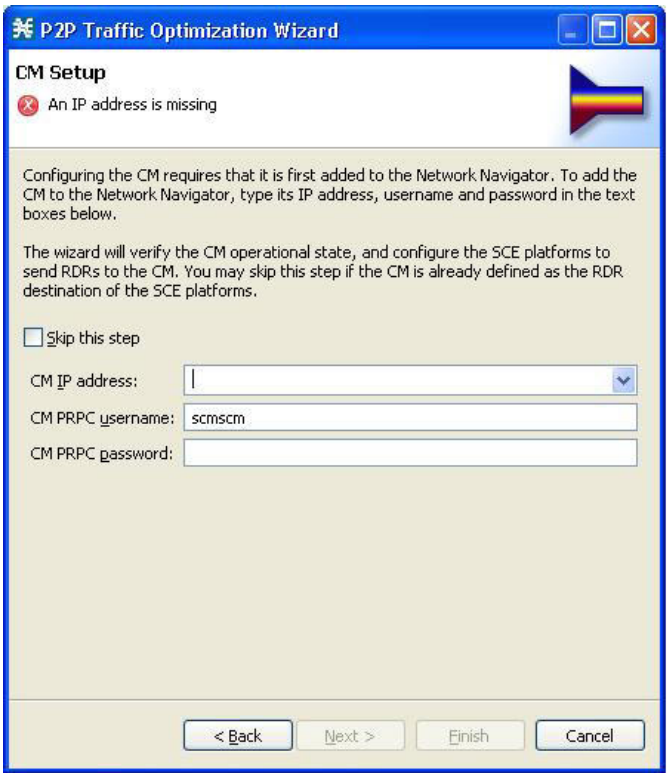
Do one of the following:

- To use the same username and password for all the 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 SCE device, click the **Use separate usernames and passwords for each SCE platform** radio button, and, for each SCE device, enter the username and password in the appropriate cell of the SCE device table.

Step 7 Click **Next**.

The CM Setup page of the P2P Traffic Optimization wizard opens (see Figure 4-47).

Figure 4-47 CM Setup



Step 8 Define the SCSM Collection Manager (CM) 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.

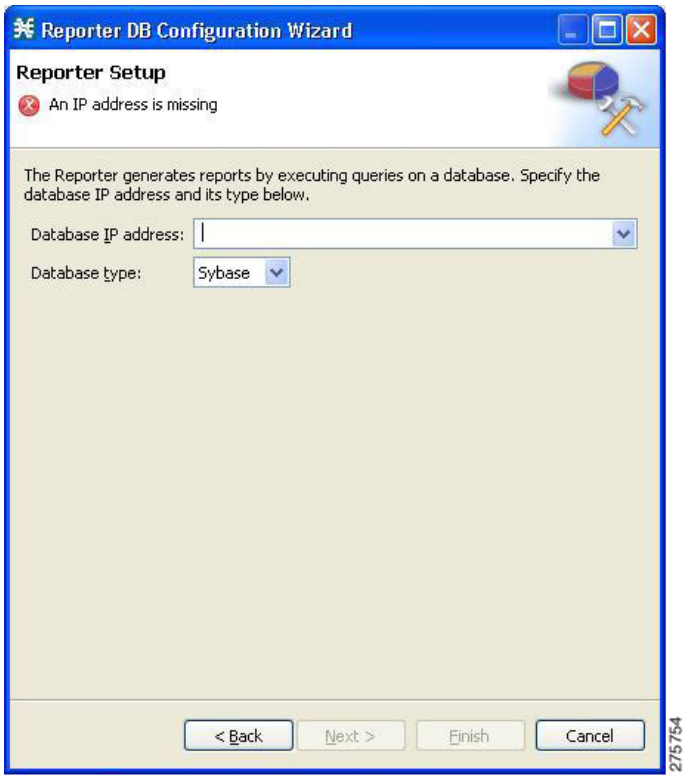
  If you started from the Network Navigator, this information is retrieved and displayed. You can modify these parameters.

- Check the **Skip this step** check box.

Step 9 Click **Next**.

The Reporter Setup page of the P2P Traffic Optimization wizard opens (see Figure 4-48).

Figure 4-48 Reporter Setup



Step 10 Define the database to which the Reporter tool should connect.

Do one of the following:

- Enter the IP address of the database and select the database type.

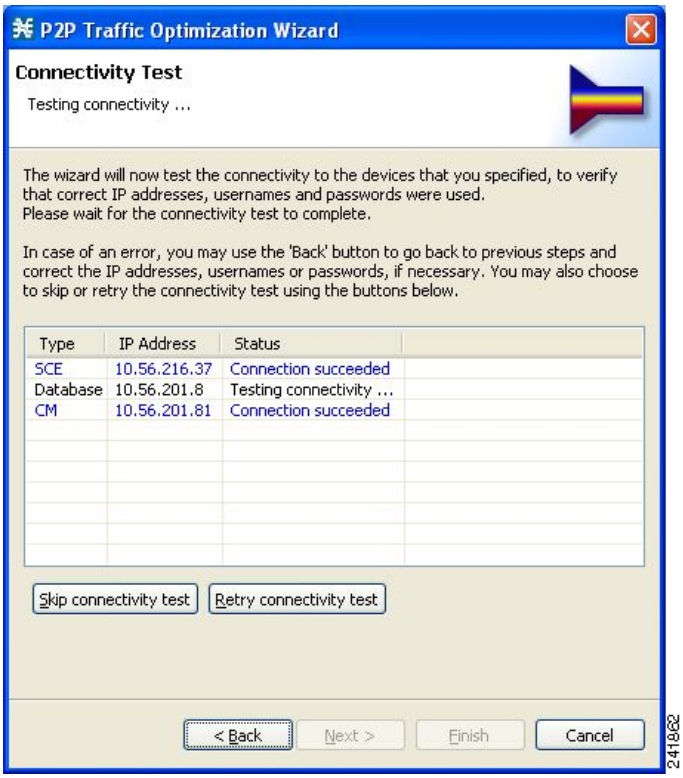
  If you started from the Network Navigator, this information is retrieved and displayed. You can modify these parameters.

- Check the **Skip this step** check box.

Step 11 Click **Next**.

The Connectivity Test page of the P2P Traffic Optimization wizard opens (see Figure 4-49).

Figure 4-49 Connectivity Test



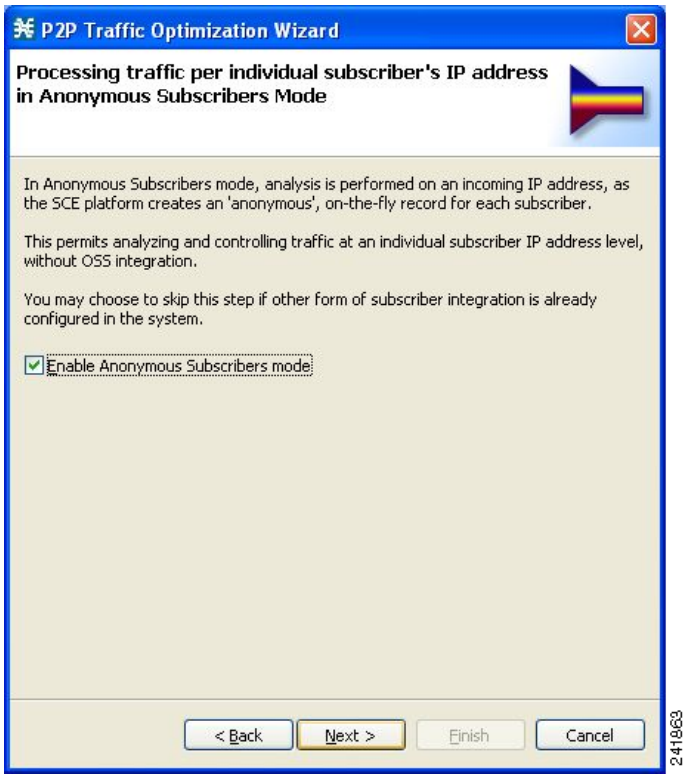
The wizard tests to see that the connections to the defined devices can be made.

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 connectivity test.** The connections are validated when you click **Finish** at the end of the wizard.

Step 12 Click **Next**.

The Anonymous Subscribers page of the P2P Traffic Optimization wizard opens (see Figure 4-50).

Figure 4-50 Anonymous Subscribers

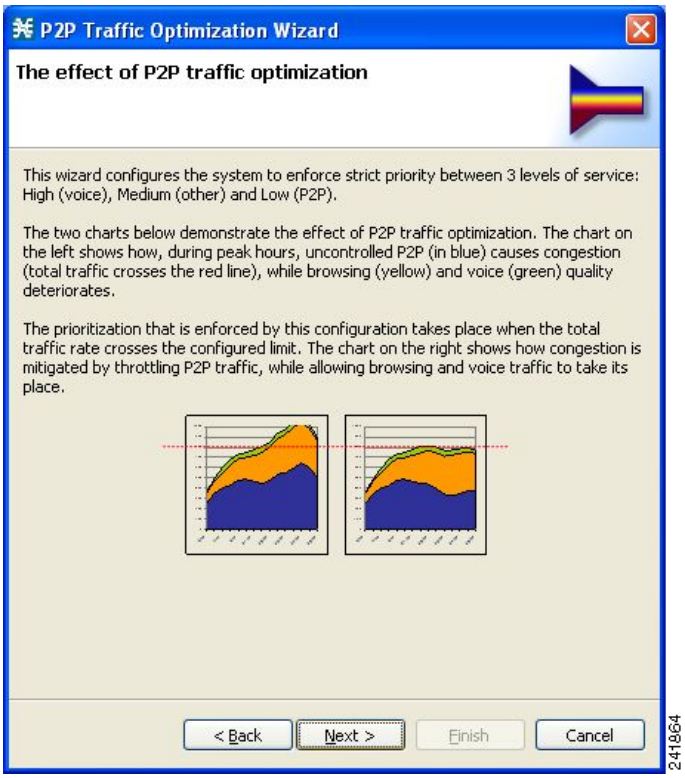


Step 13 To disable anonymous subscriber mode, uncheck the **Enable Anonymous Subscribers mode** check box.

Step 14 Click **Next**.

The effect of P2P traffic optimization page of the P2P Traffic Optimization wizard opens (see Figure 4-51).

Figure 4-51 Effect of P2P Traffic Optimization

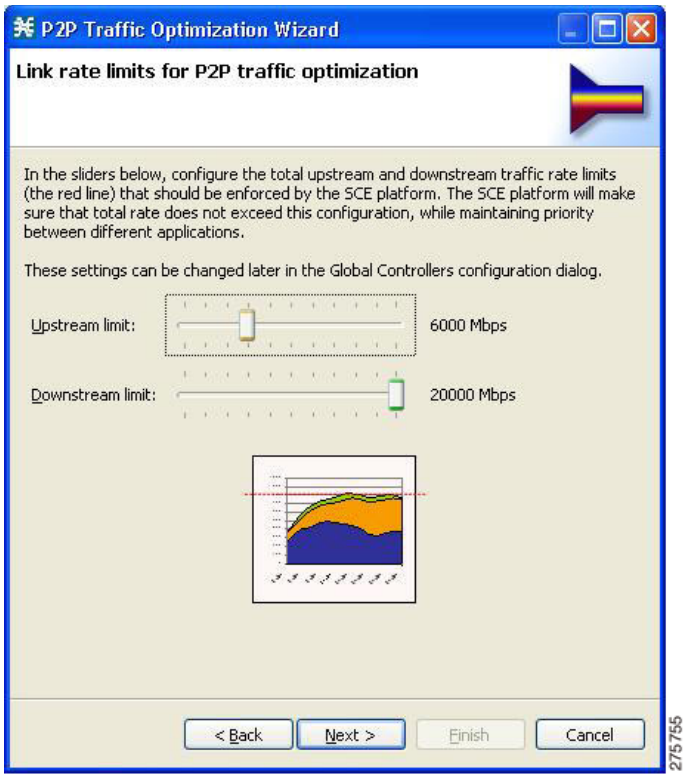


This page explains why you should optimize (limit) P2P traffic.

Step 15 Click **Next**.

The Link rate limits for P2P traffic optimization page of the P2P Traffic Optimization wizard opens (see Figure 4-52).

Figure 4-52 Link Rate Limits



Step 16 Use the sliders to configure the upstream and downstream link rate limits.

The scale of each slider is the percentage of the aggregated bandwidth of both links.

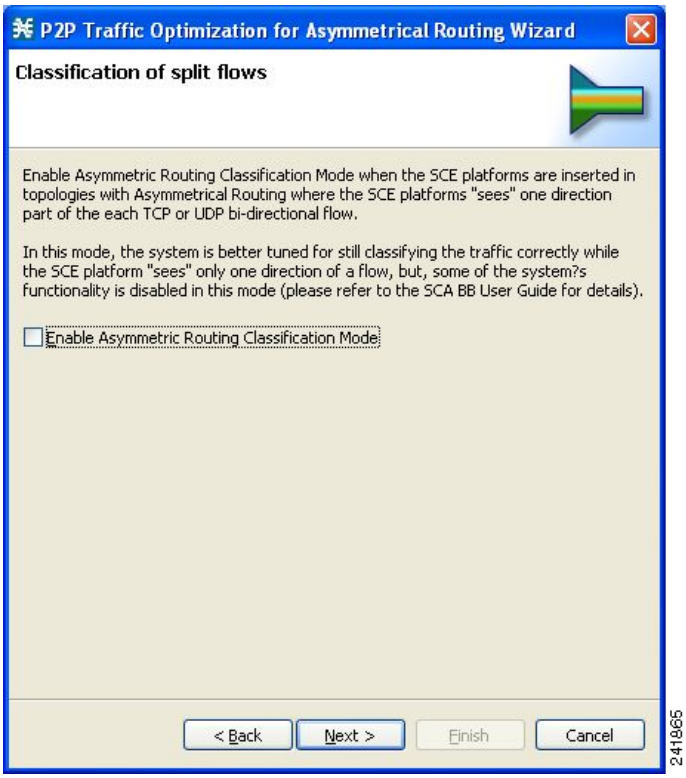
Step 17 If you are running the P2P Traffic Optimization wizard, go to Step 20.

If you are running the P2P Traffic Optimization for Asymmetrical Routing wizard, continue at the next step.

Step 18 Click **Next**.

The Classification of split flows page of the P2P Traffic Optimization wizard opens (see Figure 4-53).

Figure 4-53 Classification of Split Flows

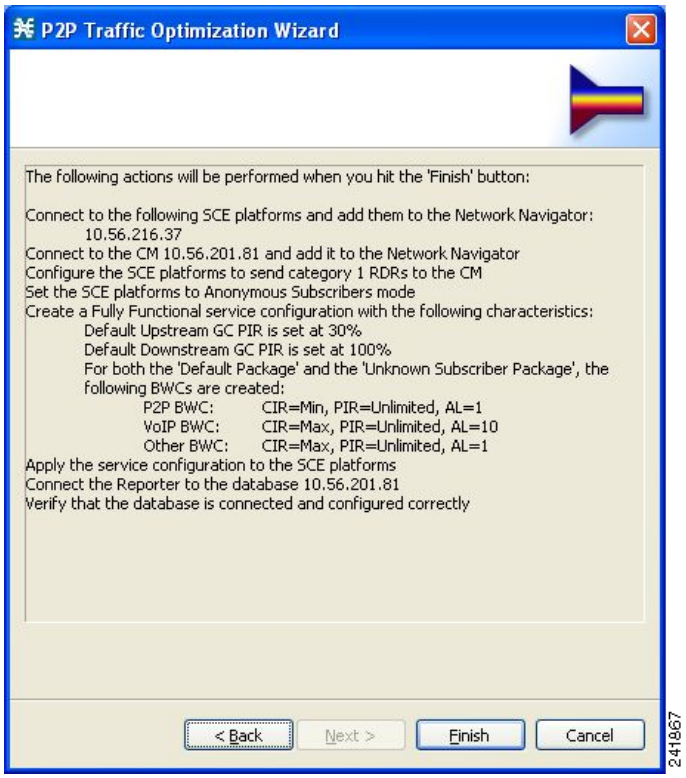


Step 19 To enable asymmetric routing classification mode, check the **Enable Asymmetric Routing Classification Mode** check box.

Step 20 Click **Next**.

The Confirmation page of the P2P Traffic Optimization wizard opens (see Figure 4-54).

Figure 4-54 Confirmation



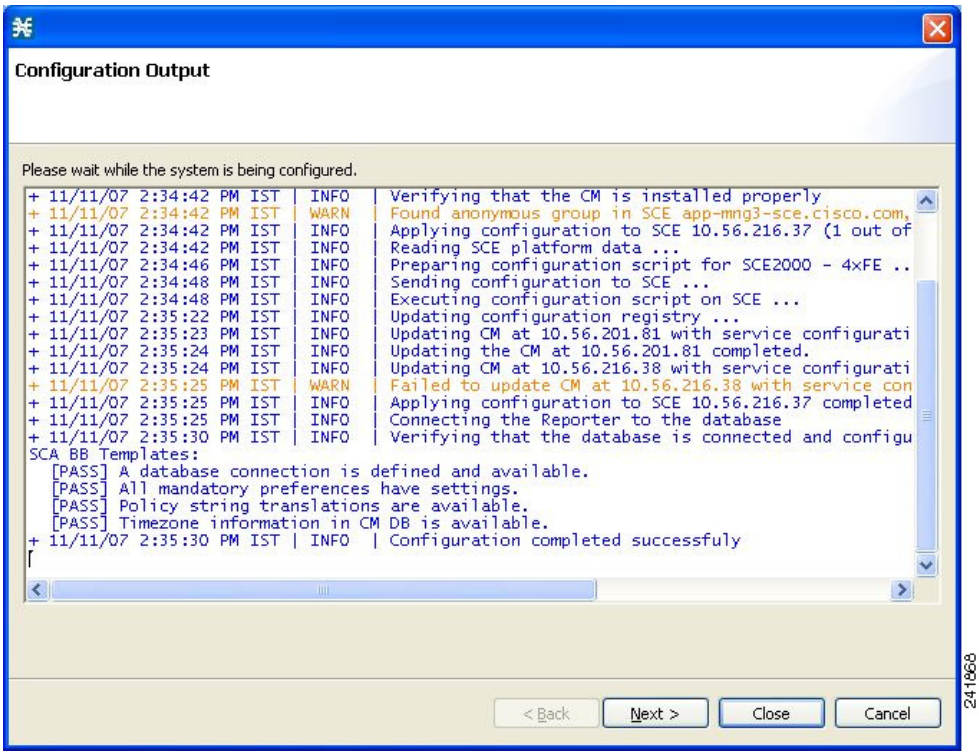
The actions that the wizard is about to take are listed on the page.

For an explanation of the bandwidth controller parameters, see Subscriber BWC Parameters, page 9-29.

Step 21 Click **Finish**.

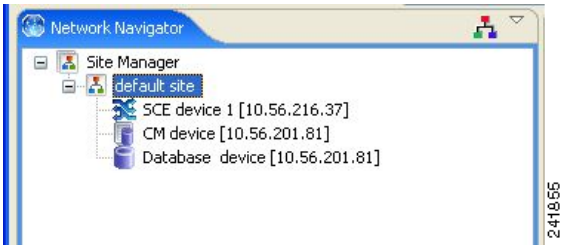
The Configuration Output page of the P2P Traffic Optimization wizard opens (see Figure 4-55).

Figure 4-55 Configuration Output



New devices are added to the default site of the Site Manager tree in the Network Navigator (see Figure 4-56).

Figure 4-56 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 SCE devices that you listed in Step 4.
- You defined a CM in Step 8, but the wizard cannot connect to it.
- You defined a database in Step 10, but the wizard cannot connect to it.

If you defined a CM in Step 8, the 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 "Raw Data Records: Formats and Field Contents" chapter of *Cisco Service Control Application for Broadband Reference Guide.*

A new service configuration named P2P Traffic Optimization (or P2P Traffic Optimization for Asymmetrical Routing) is created, and opens in the Service Configuration Editor (see Figure 4-57).

Figure 4-57 Service Configuration Editor

The service configuration has the following characteristics:

- Full functionality mode.
- The upstream and downstream default AGCs are set with the link limit values defined in Step 16.
- For both the default package and the Unknown Subscriber Traffic package, the following upstream and downstream BWCs are created (Table 4-2):

Table 4-2 BWCs for Default and Unknown Subscriber Traffic Packages

Packages	CIR	PIR	AL
P2P	0	<value set in global controller>	1
VoIP	<value set in global controller>	<value set in global controller>	10
P2P	<value set in global controller>	<value set in global controller>	1

The service configuration is applied to the SCE devices.

If you defined a database in Step 10:

1. The SCA BB Reporter tool is connected to the selected database.
2. The first SCE platform entered in Step 4 is selected as the source of service configuration data.
3. The Next button is enabled.

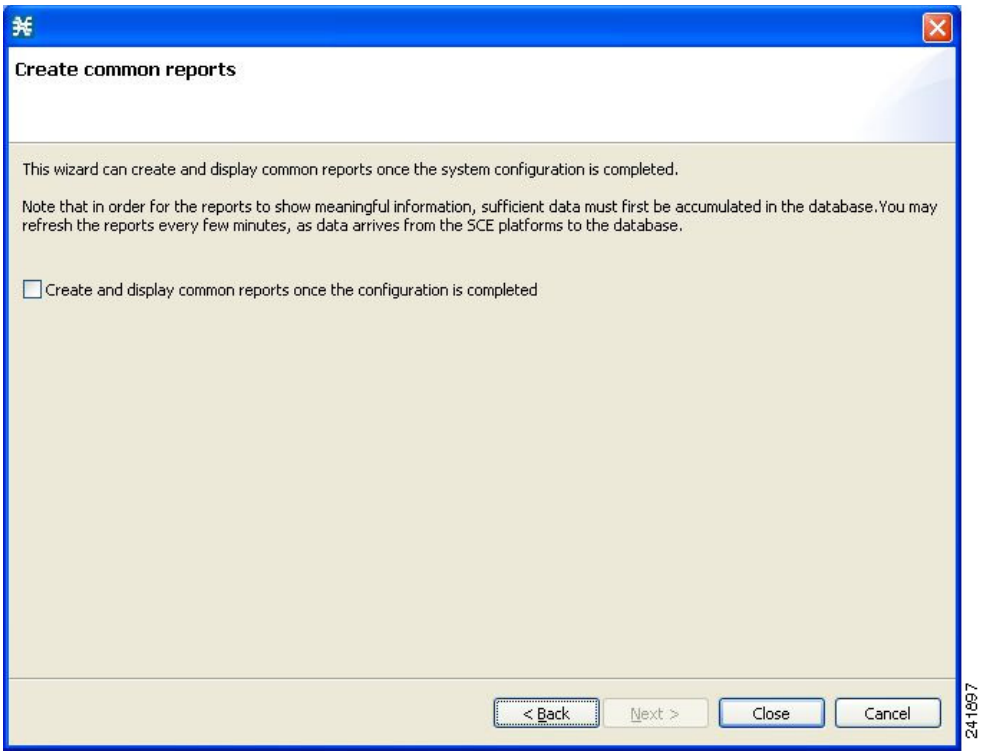
Step 22 If you did not define a database in Step 10, click **Finish**.

The P2P Traffic Optimization wizard closes.

Step 23 Click **Next**.

The Create common reports page of the P2P Traffic Optimization wizard opens (see Figure 4-58).

Figure 4-58 Create Common Reports



Step 24 To create reports, check the **Create and display common reports** check box.

Note Report instances are created for four predefined report types:

- Global Bandwidth per Service
- Global Active Subscribers per Service
- Top P2P Protocols
- Global Hourly Call Minutes per Service (VoIP)

Step 25 Click **Close**.

The wizard closes.

The Reporter tool opens in the Console.

Report instances of each of the four report types open in the Report View of the Reporter tool.

How to Use the Reporter DB Configuration Wizard

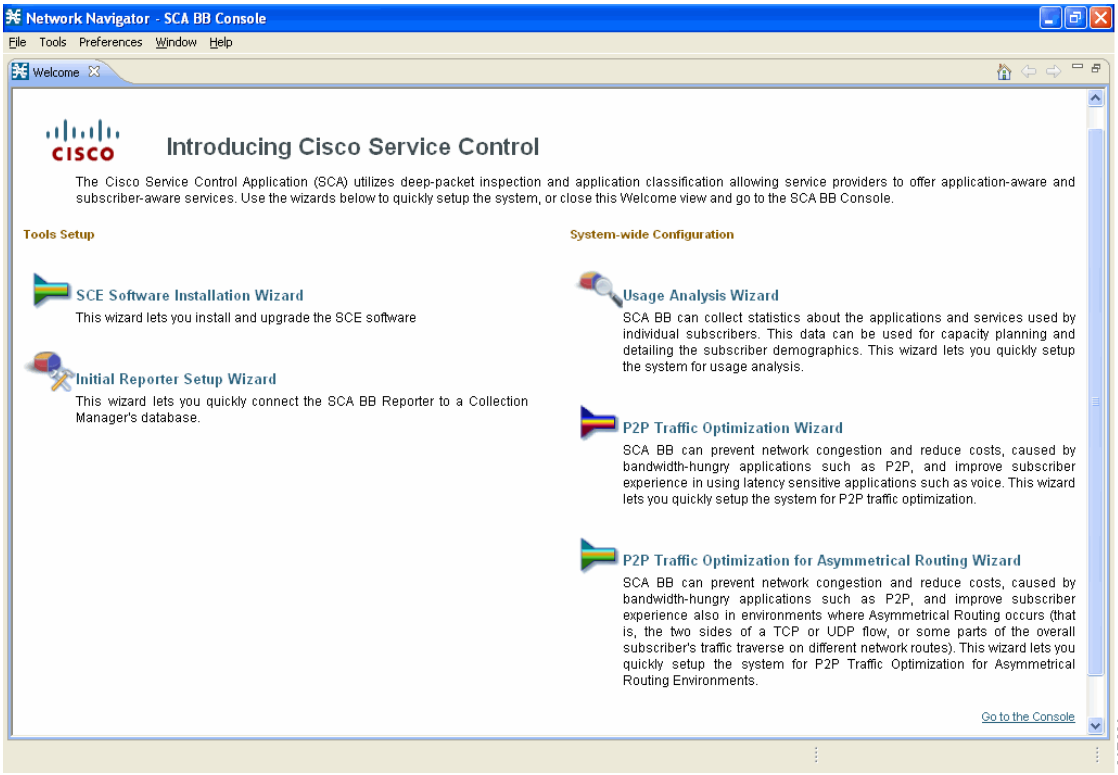
The Reporter DB Configuration wizard allows you to connect the Reporter to a database.

Caution You should run the Reporter DB Configuration wizard only after you have applied a service configuration to the SCE platform.

Step 1 From the Console main menu, choose **Help > Welcome**.

The Welcome view opens (see Figure 4-59).

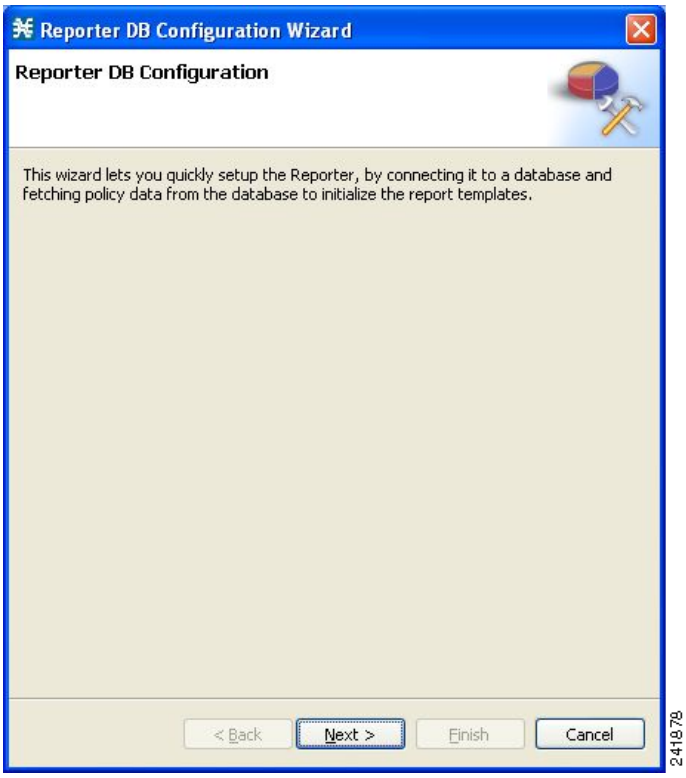
Figure 4-59 Welcome - Introducing Cisco Service Control



Step 2 Click **Initial Reporter Setup Wizard**.

The Welcome page of the Reporter DB Configuration wizard appears (see Figure 4-60).

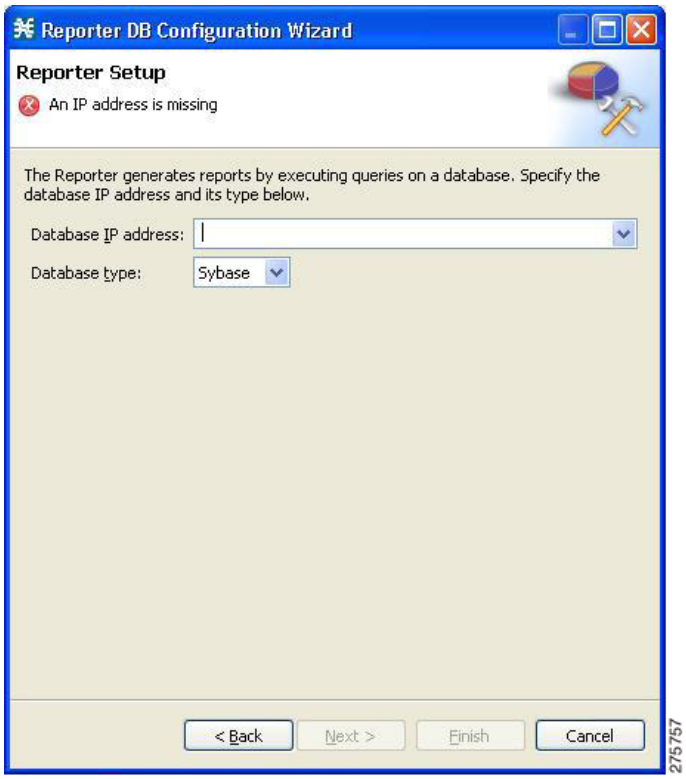
Figure 4-60 Reporter DB Configuration



Step 3 Click **Next**.

The Reporter Setup page of the Reporter DB Configuration wizard opens (see Figure 4-61).

Figure 4-61 Reporter Setup



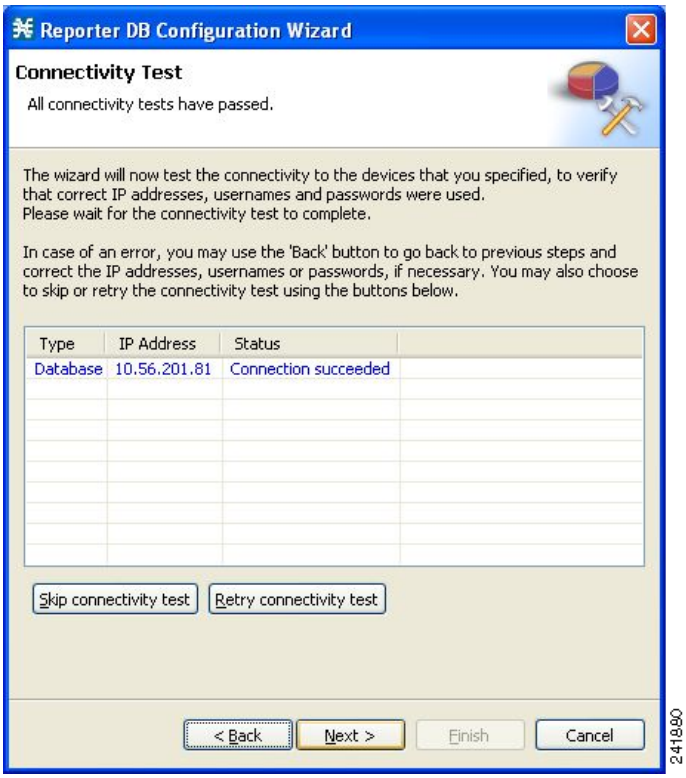
Step 4 In the Configure the IP address of the database field, enter the IP address of the database.

Step 5 From the Select the correct database type drop-down list, select the type of the database.

Step 6 Click **Next**.

The Connectivity Test window of the Reporter DB Configuration wizard opens (see Figure 4-62).

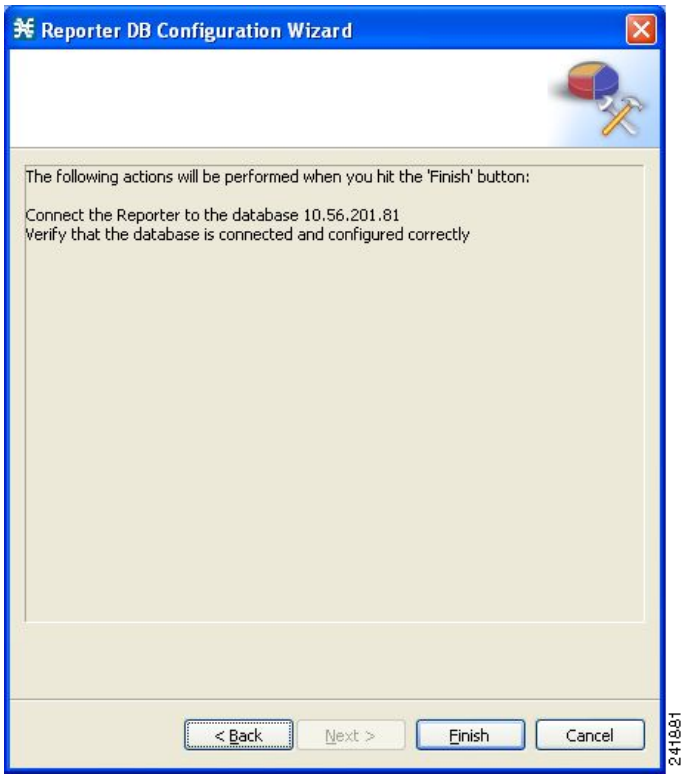
Figure 4-62 Connectivity Test



Step 7 Click **Next**.

The Confirmation window of the Reporter DB Configuration wizard opens (see Figure 4-63).

Figure 4-63 Confirmation

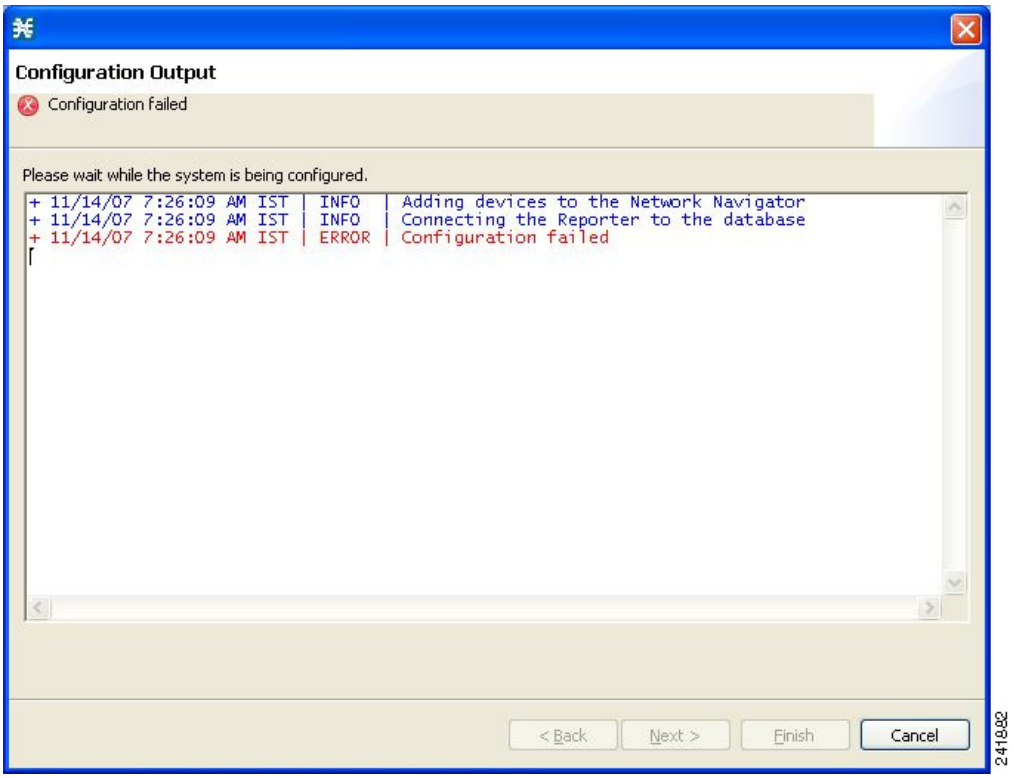


The actions that the wizard is about to take are listed on the page.

Step 8 Click **Finish**.

The Configuration Output page of the Reporter DB Configuration wizard opens (see Figure 4-64).

Figure 4-64 Configuration Output



The wizard attempts to connect the SCA BB Reporter tool to the selected database. The operation fails if the wizard cannot connect to the database.

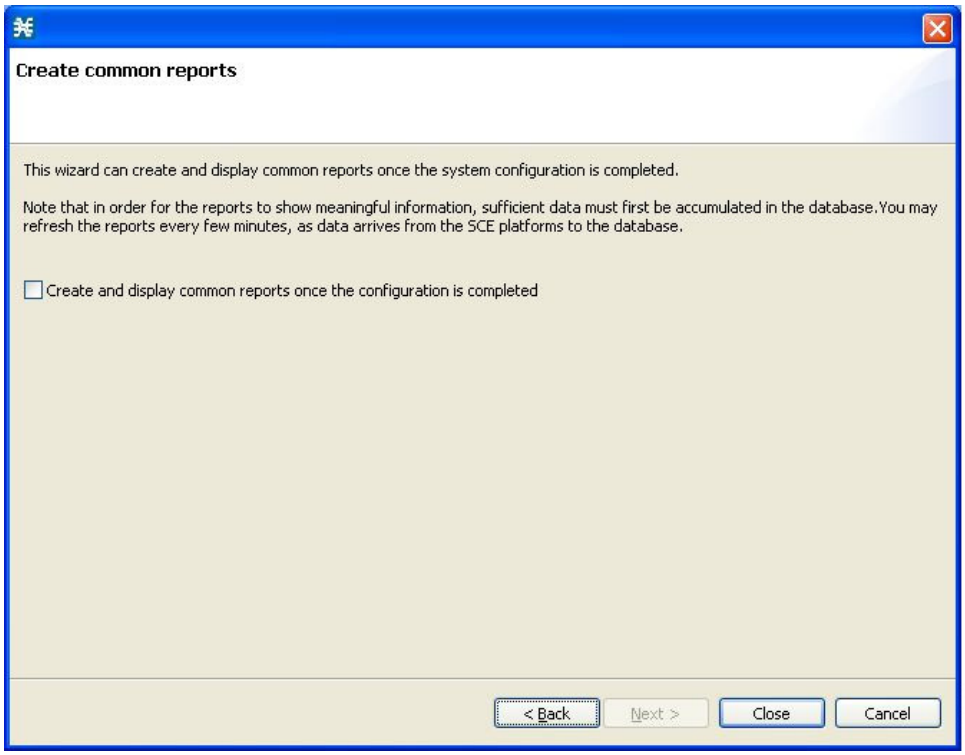
The database is queried for its service configuration data and the first SCE device in the response is chosen as the source of service configuration data.

The database device is added to the Site Manager tree in the Network Navigator.

Step 9 Click **Next**.

The Create common reports page of the Reporter DB Configuration wizard opens (see Figure 4-65).

Figure 4-65 Create Common Reports



Step 10 To create reports, check the **Create and display common reports** check box.

Note Report instances are created for four predefined report types:

- Global Bandwidth per Service
- Global Active Subscribers per Service
- Top P2P Protocols
- Global Hourly Call Minutes per Service (VoIP)

Step 11 Click **Close**.

The wizard closes.

The Reporter tool opens in the Console.

Report instances of each of the four report types open in the Report View of the Reporter tool.

The Network Navigator Tool

The Network Navigator is a tool that allows you to create and manage a simple model of all local and remote devices that are part of the Cisco Service Control solution.

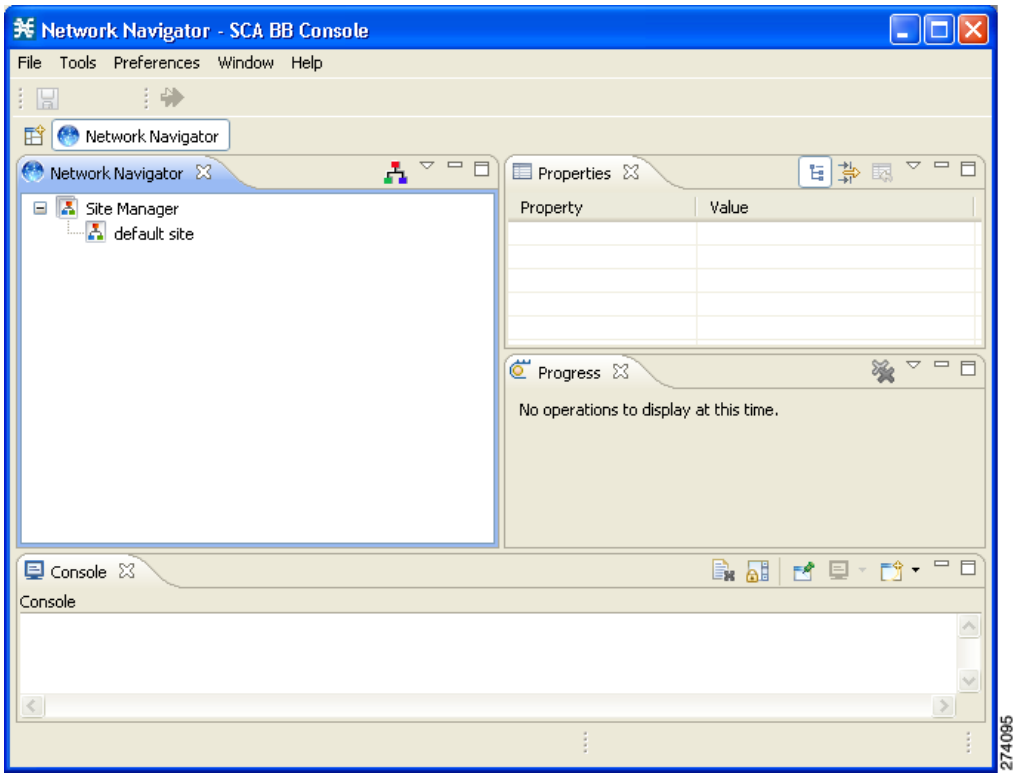
For more information about the Network Navigator, see Using the Network Navigator, page 5-1.

How to Open the Network Navigator Tool

Step 1 From the Console main menu, choose **Tools > Network Navigator**.

The Network Navigator tool opens (see Figure 4-66).

Figure 4-66 Network Navigator



How to Close the Network Navigator Tool

Step 1 Right-click the **Network Navigator** button.

Step 2 From the popup menu that appears, select **Close**.

The Network Navigator tool closes.

The Service Configuration Editor Tool

The Service Configuration Editor is a tool that allows you to create service configurations. A service configuration is a data structure that defines how the SCE platform analyses network traffic, what rules apply to the traffic, and what actions the SCE platform takes to enforce these rules.

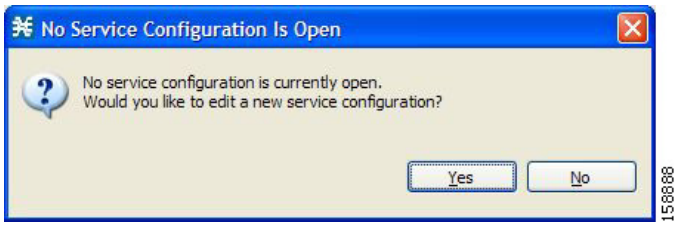
Most of this document discusses using the Service Configuration Editor. See Using the Service Configuration Editor, page 6-1.

How to Open the Service Configuration Editor Tool

Step 1 From the Console main menu, choose **Tools > Service Configuration Editor**.

A No Service Configuration Is Open dialog box appears (see Figure 4-67).

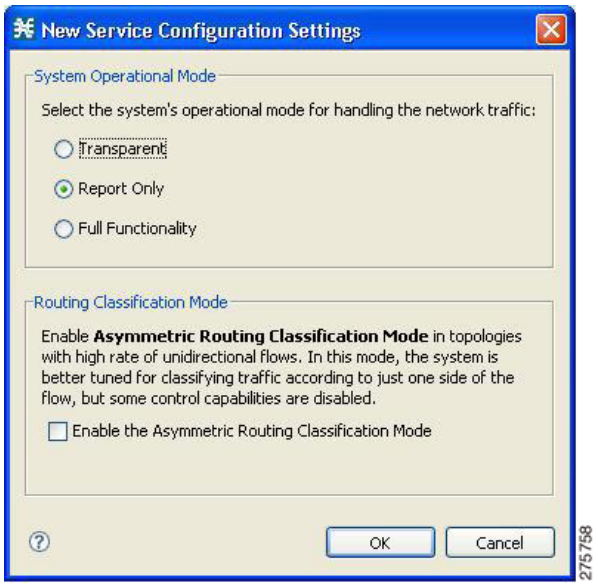
Figure 4-67 No Service Configuration Is Open



Step 2 Click **Yes**.

A New Service Configuration Settings dialog box appears (see Figure 4-68).

Figure 4-68 New Service Configuration Settings



Step 3 Select one of the **System Operational Mode** radio buttons.

- **Transparent**—The system does not generate RDRs and does not enforce active rules on the network traffic.
- **Report only**—The system generates RDRs only. No active rule enforcement is performed on the network traffic.
- **Full functionality**—The system enforces active rules on the network traffic and performs reporting functions (that is, generates RDRs).

Note You can change the system operational mode at any time.

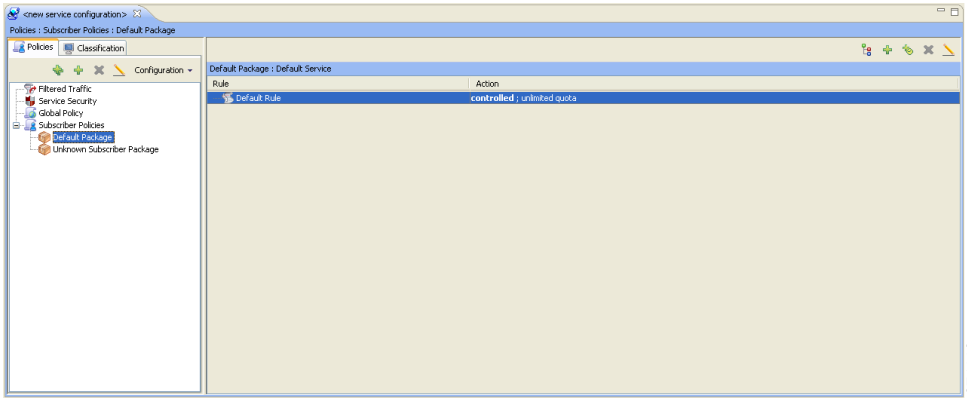
Step 4 (Optional, but highly recommended if your system has a high proportion of unidirectional flows) To switch to asymmetric routing classification mode, check the **Enable the Asymmetric Routing Classification Mode** check box.

Note It is recommended that you do not change the routing classification mode after creating a service configuration, as this causes loss of service configuration data. (See Asymmetric Routing Classification Mode, page 10-46.)

Step 5 Click **OK**.

A default service configuration opens in the Service Configuration Editor tool (see Figure 4-69).

Figure 4-69 Service Configuration Editor



How to Close the Service Configuration Editor Tool

Step 1 Right-click the **Service Configuration Editor** button.

Step 2 From the popup menu that appears, select **Close**.

The Service Configuration Editor tool closes.

The Signature Editor Tool

The *Signature Editor* is a tool that allows you to create and modify files that can add and modify protocols and protocol signatures in SCA BB.

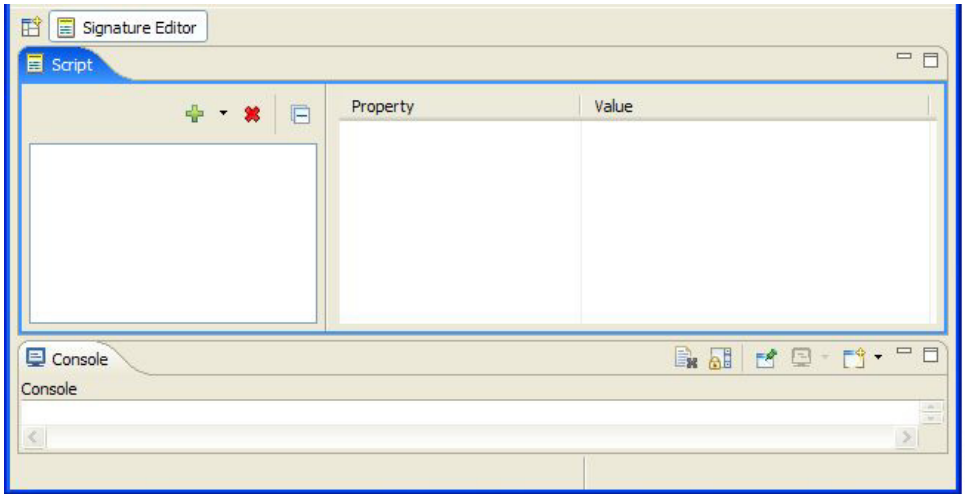
For more information about the Signature Editor, see Using the Signature Editor, page 12-1.

How to Open the Signature Editor Tool

Step 1 From the Console main menu, choose **Tools > Signature Editor**.

The Signature Editor tool opens (see Figure 4-70).

Figure 4-70 Signature Editor Tool



How to Close the Signature Editor Tool

Step 1 Right-click the **Signature Editor** button.

Step 2 From the popup menu that appears, select **Close**.

The Signature Editor tool closes.

The Subscriber Manager GUI Tool

The Subscriber Manager (SM) GUI is a tool that allows you to connect to an SCMS-SM and then manage subscribers, assign packages to subscribers, edit subscriber parameters, and manually add subscribers.

For more information about connecting to an SCMS-SM and using the SM GUI, see Using the Subscriber Manager GUI Tool, page 11-1.

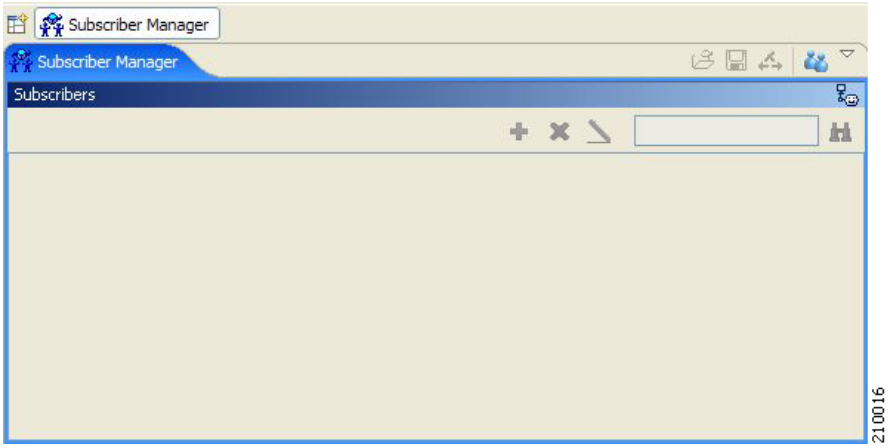
For more information about the SCMS-SM, see *Cisco Service Control Management Suite Subscriber Manager User Guide*.

How to Open the SM GUI Tool

Step 1 From the Console main menu, choose **Tools > Subscriber Manager**.

The SM GUI tool opens (see Figure 4-71).

Figure 4-71 Subscriber Manager



How to Close the SM GUI Tool

Step 1 Right-click the **Subscriber Manager** button.

Step 2 From the popup menu that appears, select **Close**.

The SM GUI tool closes.

The Reporter Tool

The Cisco Service Control Application (SCA) Reporter is a tool that allows you to query the Cisco Service Control Management Suite (SCMS) Collection Manager (CM) RDR database, and present the results in a chart or a table. This valuable tool helps you to understand the habits and resource consumption of the applications and subscribers that use your network. It also helps you evaluate the efficacy of various rules and the possible impact of their implementation on the network. You can view the reports in both tabular and chart formats, export them, save them, and edit their appearance.

You can run the SCA Reporter as a standalone or inside the Reporter tool in the Console.

Note From SCA Reporter, if you launch reports that retrieve large number of records (around 800,000 and above), the processing might take a considerable amount of time. There might be a delay in launch of the reports and the system might appear to be halted. In rare instances, the console may close. To avoid such issues, use the time range for the report query.

For more information about the SCA Reporter, see *Cisco Service Control Application Reporter User Guide.*

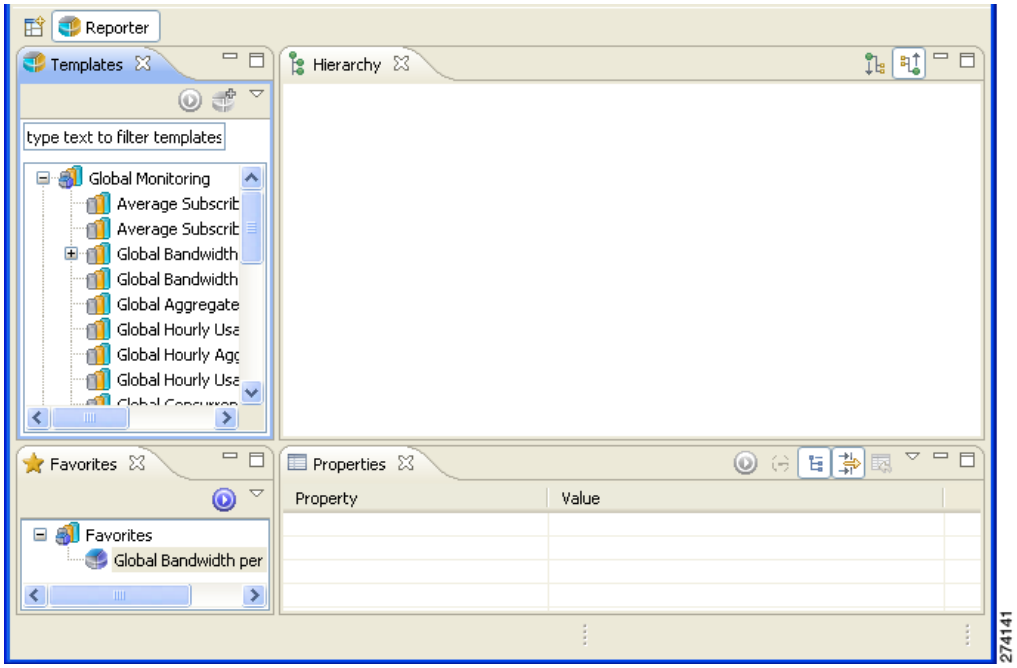
- How to Open the Reporter Tool, page 4-73
- How to Close the Reporter Tool, page 4-74

How to Open the Reporter Tool

Step 1 From the Console main menu, choose **Tools > Reporter**.

The Reporter tool opens (see Figure 4-72).

Figure 4-72 Reporter



Note You can use the SCA Reporter to generate reports only if the Console is connected to a database. (See How to Make Databases Accessible to the SCA Reporter, page 5-28.)

How to Close the Reporter Tool

Step 1 Right-click the **Reporter** button.

Step 2 From the popup menu that appears, select **Close**.

The Reporter tool closes.

Online Help

You can access relevant parts of this user guide from the Console.

- How to Access Online Help, page 4-74
- How to Search Online Help, page 4-74

How to Access Online Help

Step 1 From the Console main menu, choose **Help > Help Contents**.

Online help opens in a separate window.

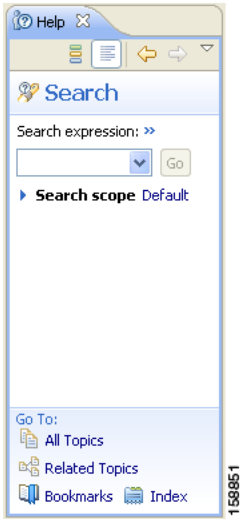
How to Search Online Help

You can also search online help from the current tool.

Step 1 From the Console main menu, choose **Help > Search**.

The Help view opens next to the current tool (see Figure 4-73).

Figure 4-73 Help



Step 2 Enter a word, phrase, or more complex search expression in the **Search expression** field.

The Go button is enabled.

Note Click **>>** (**Expand**) for an explanation of how to construct search expressions.

Step 3 Click **Go**.

Help topics containing your search expression are listed under Local Help.

Step 4 Click a help topic to view its contents.

Note You can bookmark topics for later reference.

Step 5 By clicking the appropriate link at the bottom of the Help view, you can switch to:

- All topics
- Related topics
- Bookmarks

Quick Start with the Console

This Quick Start section helps you get started with the Console. The section includes an example of using the Network Navigator tool and the Service Configuration Editor to apply the default service configuration to an SCE platform.

Example: How to Configure the Console and Apply the Default Service Configuration

In this example, you add an SCE device to the default site and apply the default service configuration to the SCE.

Step 1 Launch the Console.

Choose **Start > All Programs > Cisco SCA > SCA BB Console 3.6.5 > SCA BB Console 3.6.5**.

Step 2 If necessary, close the Welcome view.

Step 3 Open the Network Navigator.

From the Console main menu, choose **Tools > Network Navigator**.

This step sets up the Console for network device operations.

Note The Network Navigator tool is open the first time you launch the Console.

You should now be able to see the default site displayed in the Network Navigator view.

Step 4 Add an SCE device to the default site.

a. Right-click the default site, and, from the popup menu that appears, select **New > SCE**.

The Create new SCE wizard appears.

In the Address field, enter the actual IP address of an SCE platform.

b. Click **Finish**.

The Create new SCE wizard closes.

The new device is added to the site.

Step 5 Check the SCE platform version and operational state.

a. Right-click the SCE device and, from the popup menu that appears, select **Online Status**.

A Password Management dialog box appears.

b. Enter the username and password for managing the SCE.

c. Enter the SNMP RO Community String.

d. Click **Extract**.

The SCE online status is retrieved.

e. Check that the system and application versions are correct, and that the operational state is Active.

Step 6 Open the Service Configuration Editor.

- From the Console main menu, choose **Tools > Service Configuration Editor**.

The Service Configuration Editor opens.

A No Service Configuration Is Open dialog box appears.

Step 7 Create a new service configuration.

a. Click **Yes** in the No Editor Is Open dialog box.

A New Service Configuration Settings dialog box appears.

b. Click **OK**.

A default service configuration opens in the Service Configuration Editor tool.

Step 8 Apply the service configuration to the SCE platform.

a. From the toolbar, select  (**Apply Service Configuration to SCE Devices**).

A Password Management dialog box appears.

b. Enter the username and password for managing the SCE and click **Apply**.

The service configuration is applied to the SCE platform.