



CHAPTER 6

Using the Service Configuration Editor

Published: August 08, 2013, OL-26821-06

Introduction

To configure a Cisco Service Control Engine (Cisco SCE) platform to handle traffic, you must define a service configuration and apply it to the platform. Use the Service Configuration Editor tool to create, define, and manage service configurations.

This module describes how to use the Service Configuration Editor tool.

- [Service Configurations, page 6-1](#)
- [Managing Service Configurations, page 6-2](#)

Service Configurations

A *service configuration* is a data structure that defines how the Cisco SCE platform analyses network traffic, what rules apply to the traffic, and what actions the Cisco SCE platform takes to enforce these rules.

A service configuration consists of the following two main elements:

- **Services**—Define the categories to which transactions are classified
- **Packages**—Define how the Cisco SCE platform acts upon transactions from different services

Service configurations are stored as PQB files.

Managing Service Configurations

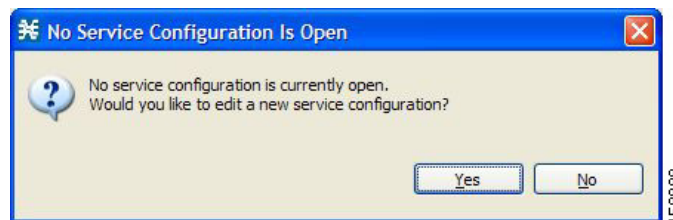
This section explains how to:

- Manage service configurations
- Export and import service configuration data
- Apply service configurations to Cisco SCE platforms and retrieve them

Opening the Service Configuration Editor Tool

If no service configurations are open when you open or switch to the Service Configuration Editor tool, a No Service Configuration Is Open dialog box appears (see [Figure 6-1](#)).

Figure 6-1 No Service Configuration Is Open



- To create a new service configuration (see [How to Add New Service Configurations, page 6-2](#)), click **Yes**.
- To open an existing service configuration (see [How to Open Existing Service Configurations, page 6-4](#)), click **No**.

The Configuration option is included in the main menu only when at least one service configuration is open.

You can have many service configurations open at a time; each is displayed in its own view, and you click a view to make the service configuration of the view active.

When a service configuration has unsaved changes, an asterisk precedes its name on the view.

How to Add New Service Configurations

You can add a new service configuration whenever necessary.



Note

You cannot add a second new service configuration until you have saved the first one.

When a new service configuration opens, it contains the default service configuration supplied with SCA BB. This includes a default package, which contains a default service rule.


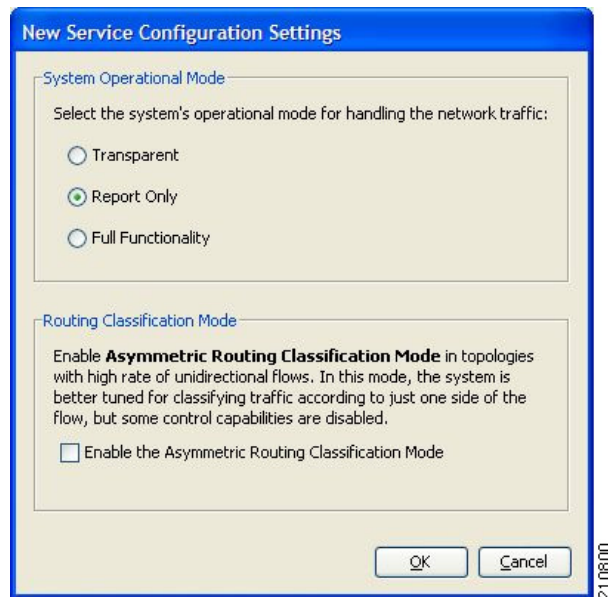
- Step 1** In the Console toolbar, click  (New Service Configuration).
A New Service Configuration Settings dialog box appears (Figure 6-2).

Figure 6-2 *New Service Configuration Settings*



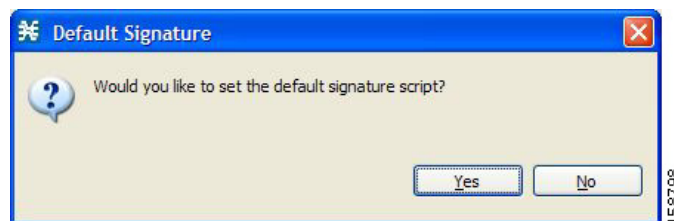
- Step 2** Select an operational mode for the service configuration.
Step 3 Select a routing classification mode for the system.

Selecting asymmetric routing classification mode gives more accurate protocol classification in topologies with a high rate of unidirectional flows. Several classification, reporting, and control features are not supported when this mode is enabled (see [Asymmetric Routing Classification Mode](#), page 10-56).

- Step 4** Click **OK**.

If you have set a default DSS file (see [The Default DSS File](#), page 7-53), a Default Signature message appears (Figure 6-3).

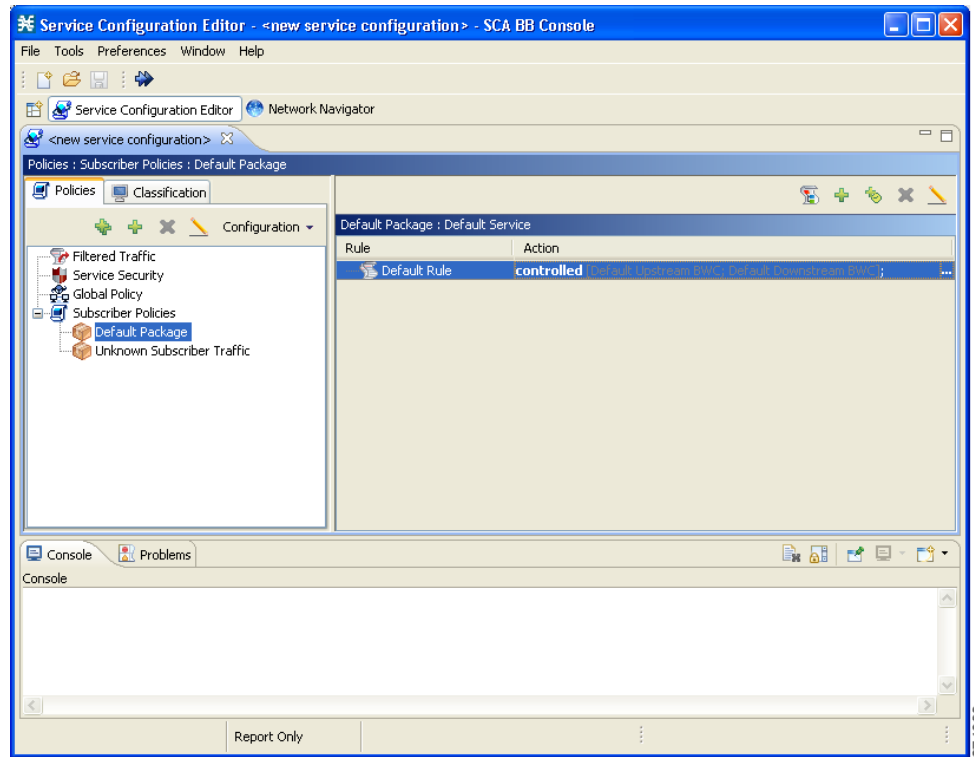
Figure 6-3 *Default Signature*



- (Recommended) Click **Yes** to import the default DSS file.
- Click **No** to continue without importing the default DSS file.

The new service configuration is added to the Console window, open on the Network Traffic tab, and becomes the active service configuration (Figure 6-4).

Figure 6-4 Service Configuration Editor



How to Open Existing Service Configurations

You can open a saved service configuration for viewing or for editing, or to apply it to a Cisco SCE platform.

Service configuration files have the extension PQB.

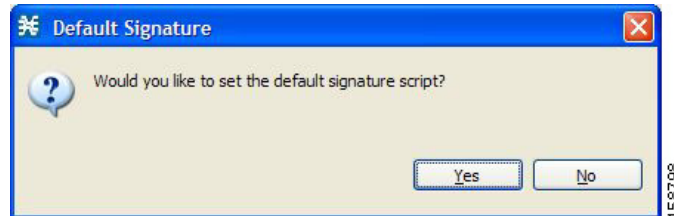
-
- Step 1** In the Console toolbar, click the **Open A Service Configuration File** (📁) icon. Alternatively, you can choose **File > Open Service Configuration** from the Console main menu.
- An Open dialog box appears.
- Step 2** Browse to a service configuration file.

Step 3 Click **Open**.

The Open dialog box closes.

If the default DSS file has not been imported into the service configuration, a Default Signature message appears (Figure 6-5).

Figure 6-5 **Default Signature**



If the default DSS file has not been imported into the service configuration, a Default Signature message appears.

- (Recommended) Click **Yes** to import the default DSS file.
- Click **No** to continue without importing the default DSS file.

The service configuration is loaded into the Console:

- This service configuration becomes the active service configuration.
- The title of the Console window includes the name of the service configuration.

How to Save the Current Service Configuration

You can save the active service configuration.

- [How to Save the Current Service Configuration to a Service Configuration File, page 6-5](#)
- [How to Save the Current Service Configuration to the File from Which it Was Loaded, page 6-6](#)

How to Save the Current Service Configuration to a Service Configuration File

Step 1 From the Console main menu, choose **File > Save As**.

A Save As dialog box appears.

Step 2 If prompted, enter your password.

Step 3 Browse to the folder where you want to save the file containing the service configuration.


Step 4 In the File name field, enter a new file name, or select an existing PQB file.

Step 5 Click **Save**.

The service configuration is saved to the selected file. If the file exists, it is overwritten.


During processing, a Saving Service Configuration File message appears.

How to Save the Current Service Configuration to the File from Which it Was Loaded

Step 1 In the Console toolbar, click the **Save** () icon.

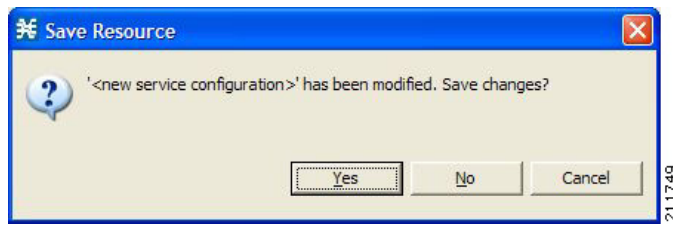
If the current service configuration was not loaded from a PQB file (that is, if it is new, or it was retrieved from a SCE platform), the Save As dialog box opens as in the previous procedure.

How to Close Service Configurations

Step 1 On the service configuration view, click the **Close** () icon.

- If there are no unsaved changes, the service configuration view closes.
- If there are unsaved changes a Save Resource message appears (Figure 6-6).

Figure 6-6 Save Resource



- Click **Yes**:
 - If this is an existing edited service configuration, the changes are saved and the service configuration view closes.
 - If this is a new service configuration, a Save As dialog box opens.

Enter a name for the service configuration and click **Save**.

The Save As dialog box closes, the changes are saved, and the service configuration view closes.

How to Export Service Configuration Data

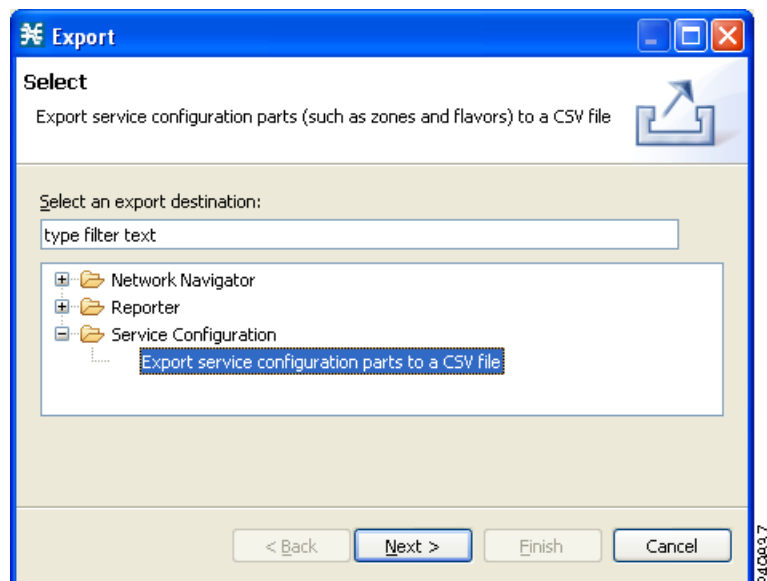
You can export service configuration data from the current service configuration to CSV files. The CSV file formats are described in the “CSV File Formats” chapter of *Cisco Service Control Application Suit for Broadband Reference Guide*.

Each type of service configuration element is exported to a separate file.

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

The Export dialog box appears (Figure 6-7).

Figure 6-7 Export

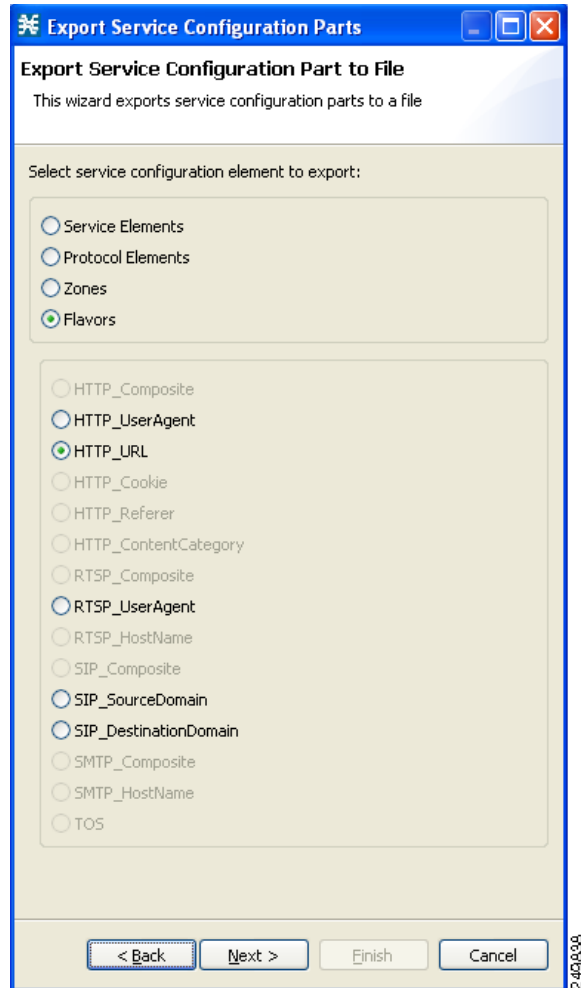


Step 2 From the export destination list, select **Export service configuration parts to CSV file**.

Step 3 Click **Next**.

The Export Service Configuration Parts dialog box appears (Figure 6-8).

Figure 6-8 Export Service Configuration Parts to File

**Step 4** Select one of the **Select service configuration element to export** radio buttons.

The radio buttons are:

- **Service Elements**
- **Protocol Elements**
- **Zones**
- **Flavors**

If you select **Flavors**, the flavors in the flavor area of the dialog box are enabled.

If you select **Zones** or **Flavors**, you have a choice to export the data in Standard format or Easy format.

In Easy format for flavor CSV files, lines in the files are in single URL format. for example, `http://*.cisco.com/files*`. Similarly, in Easy format for zone CSV files, lines in the files contains only zone items. For example, `1.0.0.0/32`.

For more details on Standard format and Easy format, see the *Cisco Service Control Application for Broadband Reference Guide*.



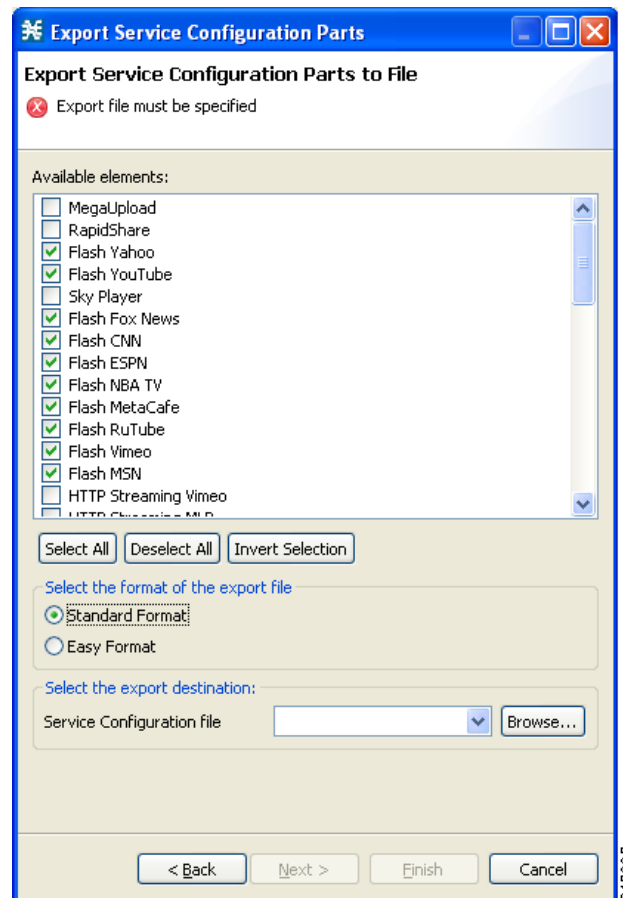
Note Only those flavors for which a flavor type is defined in this service configuration are enabled.

Step 5 If you selected Flavors, select one of the **flavor type** radio buttons.

Step 6 Click **Next**.

The second screen of the Export Service Configuration Parts dialog box opens (Figure 6-9).

Figure 6-9 Export Service Configuration Parts to File



The Available elements pane lists all elements in the service configuration of the selected type.

Step 7 Select the elements to export, using the check boxes and the select buttons.

Step 8 (Only for Zones and Flavors) Select the format of the export file.

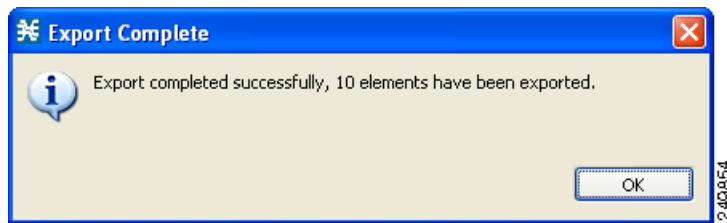
Step 9 In the Select the export destination area, click **Browse**.

An Open dialog box appears.

Step 10 Browse to the folder where you want to save the file containing the service configuration elements.

- Step 11** In the File name field, enter a new file name, or select an existing CSV file.
(Only for Zones and Flavors) For Easy format, you must select the folder and the file name is the Zone or Flavor name.
- Step 12** Click **Open** to select the file.
If the file exists, it is overwritten.
The Open dialog box closes.
- Step 13** Click **Finish**.
The selected service configuration elements are exported to the file.
An Export Complete message appears (Figure 6-10).

Figure 6-10 Export Complete



- Step 14** Click **OK**.
The Export Service Configuration Parts dialog box closes.
-

How to Import Service Configuration Data

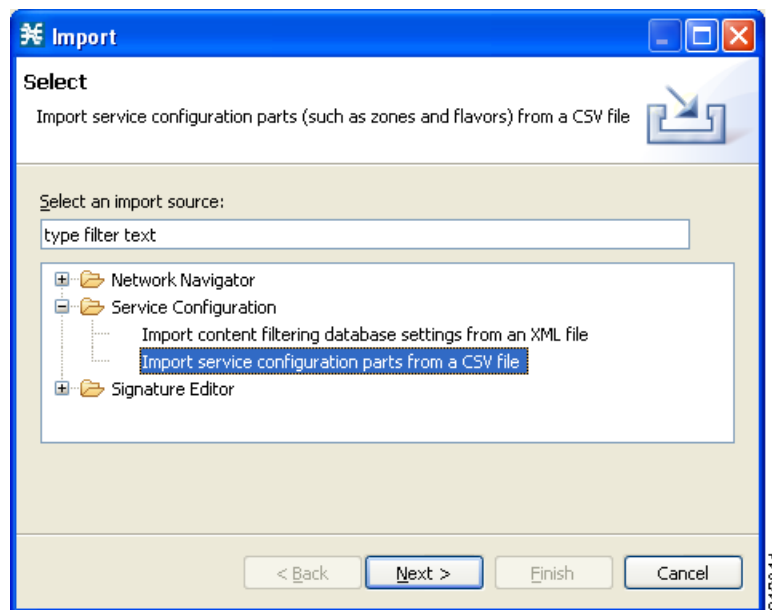
You can import service configuration data to the current service configuration from CSV files. The CSV file formats are described in the “CSV File Formats” chapter of *Cisco Service Control Application Suit for Broadband Reference Guide*.

Each type of service configuration element is imported from a separate file.

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

The Import dialog box appears (Figure 6-11).

Figure 6-11 Import

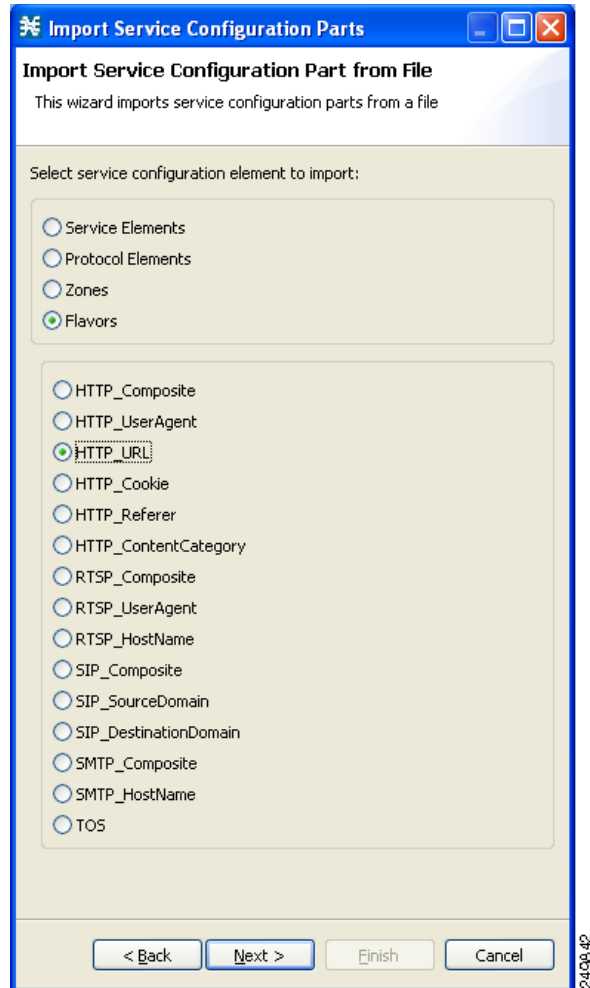


Step 2 From the Select an import source list, select **Import service configuration parts from CSV file**.

Step 3 Click **Next**.

The Import Service Configuration Parts dialog box appears (Figure 6-12).

Figure 6-12 Import Service Configuration Parts from File



Step 4 Select one of the **Select service configuration element to import** radio buttons.

The radio buttons are:

- **Service Elements**
- **Protocol Elements**
- **Zones**
- **Flavors**

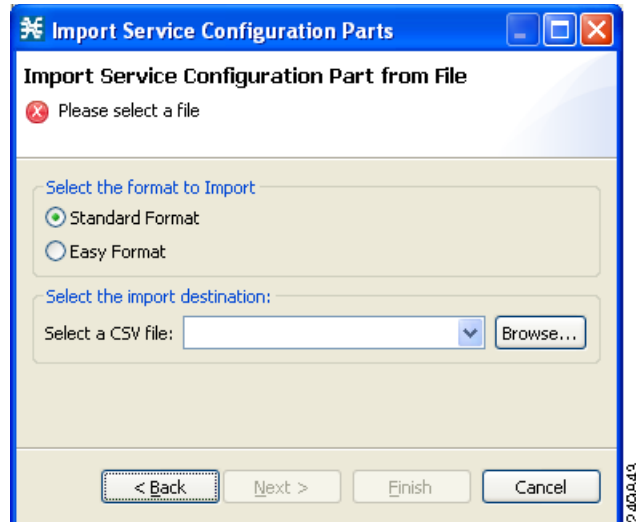
If you select Flavors, the flavors in the flavor area of the dialog box are enabled.

Step 5 If you selected Flavors, select one of the **flavor type** radio buttons.

Step 6 Click **Next**.

The second screen of the Import Service Configuration Parts dialog box opens (Figure 6-13).

Figure 6-13 Import Service Configuration Parts from File



Step 7 (Only for Zones and Flavors) Select the format to Import.

Step 8 Click **Browse**.

An Open dialog box appears.

Step 9 Browse to the folder containing the file to import, and select a CSV file.

Step 10 Click **Open** to select the file.

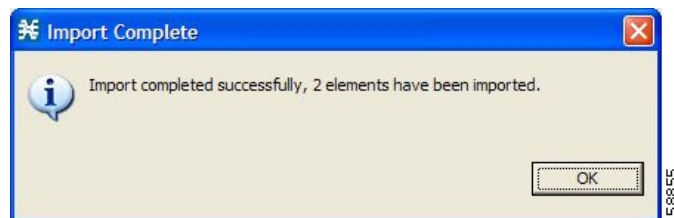
The Open dialog box closes.

Step 11 Click **Finish**.

The configuration elements are imported from the file.

An Import Complete message appears (Figure 6-14).

Figure 6-14 Import Complete



Step 12 Click **OK**.

The Import Service Configuration Parts dialog box closes.

Applying and Retrieving Service Configurations

For a new or edited service configuration to take effect, you must apply it to the Cisco SCE platform. Until you do, the Cisco SCE platform continues to enforce the previous service configuration.

You can use the Service Configuration Editor to apply a service configuration to a Cisco SCE platform, but not to retrieve a service configuration.

You can apply or retrieve a service configuration using:

- [The Network Navigator Tool, page 5-2](#)
- **servconf**, the Cisco SCA BB Service Configuration Utility (see [The Cisco SCA BB Service Configuration Utility, page 14-2](#))
- [How to Validate the Current Service Configuration, page 6-14](#)
- [How to Apply a Service Configuration to SCE Platforms, page 6-15](#)

How to Validate the Current Service Configuration

Use the Validate option to validate the new or updated service configuration currently displayed. The validation process checks for overall service configuration coherence, and points out possible pitfalls in the service configuration.

The Validate process runs automatically when you select Apply Service Configuration to SCE devices. The Validation Results dialog box appears only if the procedure found errors or issued warnings about the current service configuration.

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

The Validation Results dialog box appears ([Figure 6-15](#) or [Figure 6-16](#)).

Figure 6-15 Validation Results - Service Configuration is valid

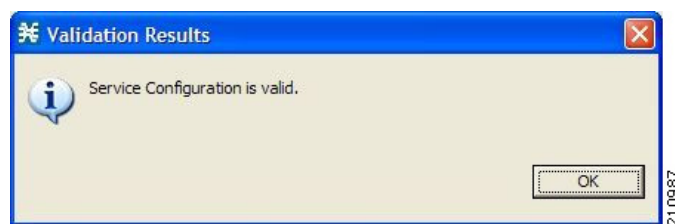
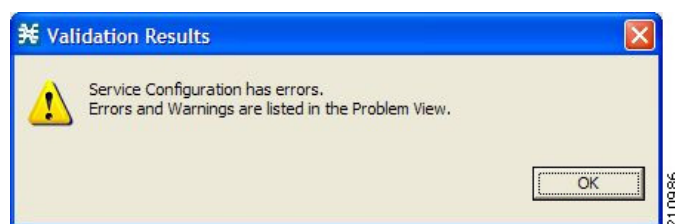


Figure 6-16 Validation Results - Service Configuration has errors



Any problems with the service configuration are listed in the Problems view.

- Step 2** Click **OK**.
The Service Configuration Validation dialog box closes.

How to Apply a Service Configuration to SCE Platforms

When you click **Apply Service Configuration to SCE Devices**, the validation process runs automatically on the current service configuration.

**Note**

You can use the **Validate** menu command to validate the service configuration manually.

**Caution**

If anomaly-based detection of malicious traffic is enabled, any access control list (ACL) that is configured on the Service Control Engine (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.

Workaround:

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.


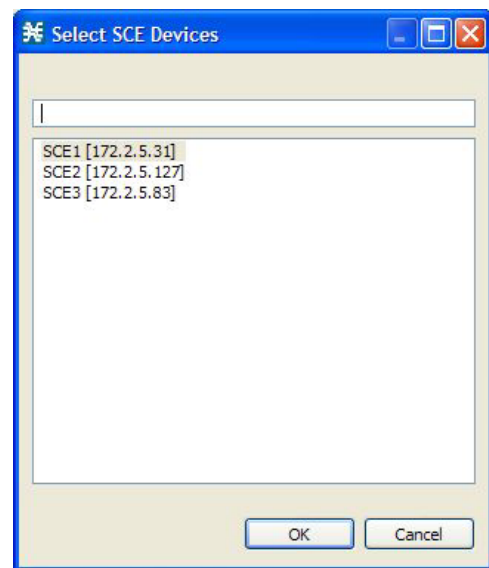
- Step 1** In the Console toolbar, click the **Apply Service Configuration to SCE Devices** ().
- The Select SCE Devices dialog box appears ([Figure 6-17](#)).

Figure 6-17 Select SCE Devices



All SCE platforms defined in the Network Navigator are listed in the dialog box.

- Step 2** Select one or more SCE platforms from the list.

Step 3 Click **OK**.

A Password Management dialog box appears for each platform selected.

Step 4 Enter the appropriate password.

Step 5 Click **Apply**.

The Password Management dialog box closes.

An Applying service configuration to SCE progress bar appears for each SCE platform selected.

The validation process runs on the service configuration.

- If there is a problem and the validation process ends with a warning or error, the Validation Results dialog box appears. Click **OK**, modify the service configuration based on the information provided in the Problems view, and then repeat this procedure.
 - If the validation process runs successfully, the service configuration is applied to the selected SCE platforms.
-