

SCE SCOS, PQI, and SPQI Installation and Upgrade Procedures



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Introduction

This document describes the steps to upgrade or downgrade the Cisco Service Control Engine (SCE) Service Control Operating System (SCOS) software, the SCE Application Software (PQI) (also known as the engage application), and the Protocol Pack (also known as the SPQI).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Service Control Operating System (SCOS)
- Cisco Service Control Engine (SCE) command-line interface (CLI)
- Cisco SCE GUI

Components Used

The information in this document is based on these software and hardware versions:

- SCOS for Release 3.7.0

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Cisco Service Control Operating System Software

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Release 3.7.0

File Information	Release Date	Size	
SCOS Package for SCE1000 scos-v370-b222-sce1000-k9.pkg	28-JUN-2011	108.01 MB	Download Add to cart Publish
SCOS Package for SCE2000 scos-v370-b222-sce2000-k9.pkg	28-JUN-2011	108.01 MB	Download Add to cart Publish
SCOS Package for SCE8000 scos-v370-b222-sce8000-k9.pkg	28-JUN-2011	124.71 MB	Download Add to cart Publish

Latest Releases
3.8.0
3.7.5-p1
3.6.6
3.5.5

All Releases
3.X.X
3.8
3.7
3.7.5
3.7.2
3.7.5-p1
3.7.1
3.7.0
3.6
3.5
3.1

- Protocol Pack #25 for Release 3.7.0

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Release PP25

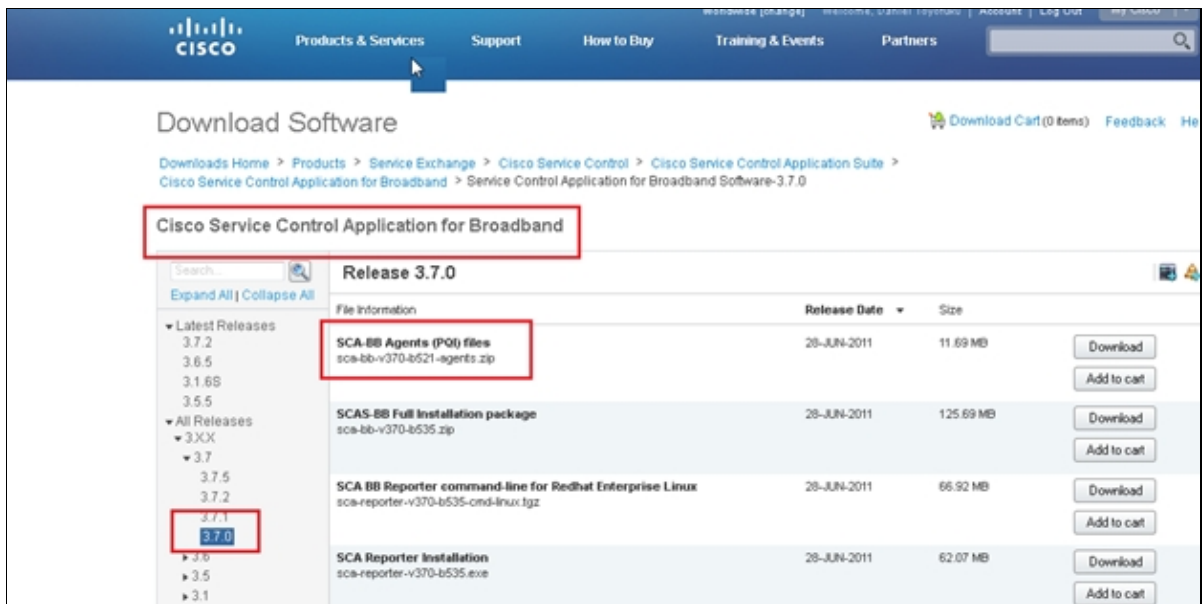
SCA BB Protocol Book Reference Guide
SCA BB Protocol Pack Notes

File Information	Release Date	Size	
SCA BB Protocol Pack #25 for release 3.7.0 sca-bb-v370-pp25-b3.zip	30-AUG-2011	6.14 MB	Download Add to cart
SCA BB Protocol Pack #25 for release 3.5.5 sca-bb-v355-pp25-b69.zip	11-JUL-2011	6.63 MB	Download Add to cart
SCA BB Protocol Pack #25 for release 3.6.5 / 3.6.6 sca-bb-v365-pp25-b30.zip	11-JUL-2011	5.79 MB	Download Add to cart

PP29
PP28
PP27

All Releases
Protocol Packs
9
8
7
6
5
4
30
29
28
27
26
25
PP25
24

- Cisco Service Control Application for Broadband (SCA-BB) Agents (PQI) Files for Release 3.7.0



Back up Current SCE Configuration

This procedure describes how to back up the current SCE configuration before you attempt an installation or upgrade.

1. Open the SCA BB console.
 1. In the **No Service Configuration Is Open** window, click **No**.
 2. In the **Network Navigator** tab, add the SCE IP addresses. (If the addresses have already been added, go to the next step.)
 1. Right-click the **Site Manager**, and choose **New**.
 2. Navigate to **Site > New > SCE**.
 3. In the **Create New SCE** window, enter the **IP Address** and **Name**.
 3. Right-click the SCE to be upgraded, and choose **Retrieve Service Configuration**.
 4. Enter **User/Password** in the Password Management dialog box.
 5. After the configuration is retrieved, select **File > Save As**.
 6. Enter the filename, and click **Save**. This saves a copy of the SCA BB configuration (PQB) file to the laptop.
2. Log in to the SCE CLI.
 1. Log the output of your terminal session.
 2. At the enable prompt, enter the **show running-config** command.
3. Repeat Steps 1 and 2 to update all SCEs.

Install or Upgrade SCOS and PQI

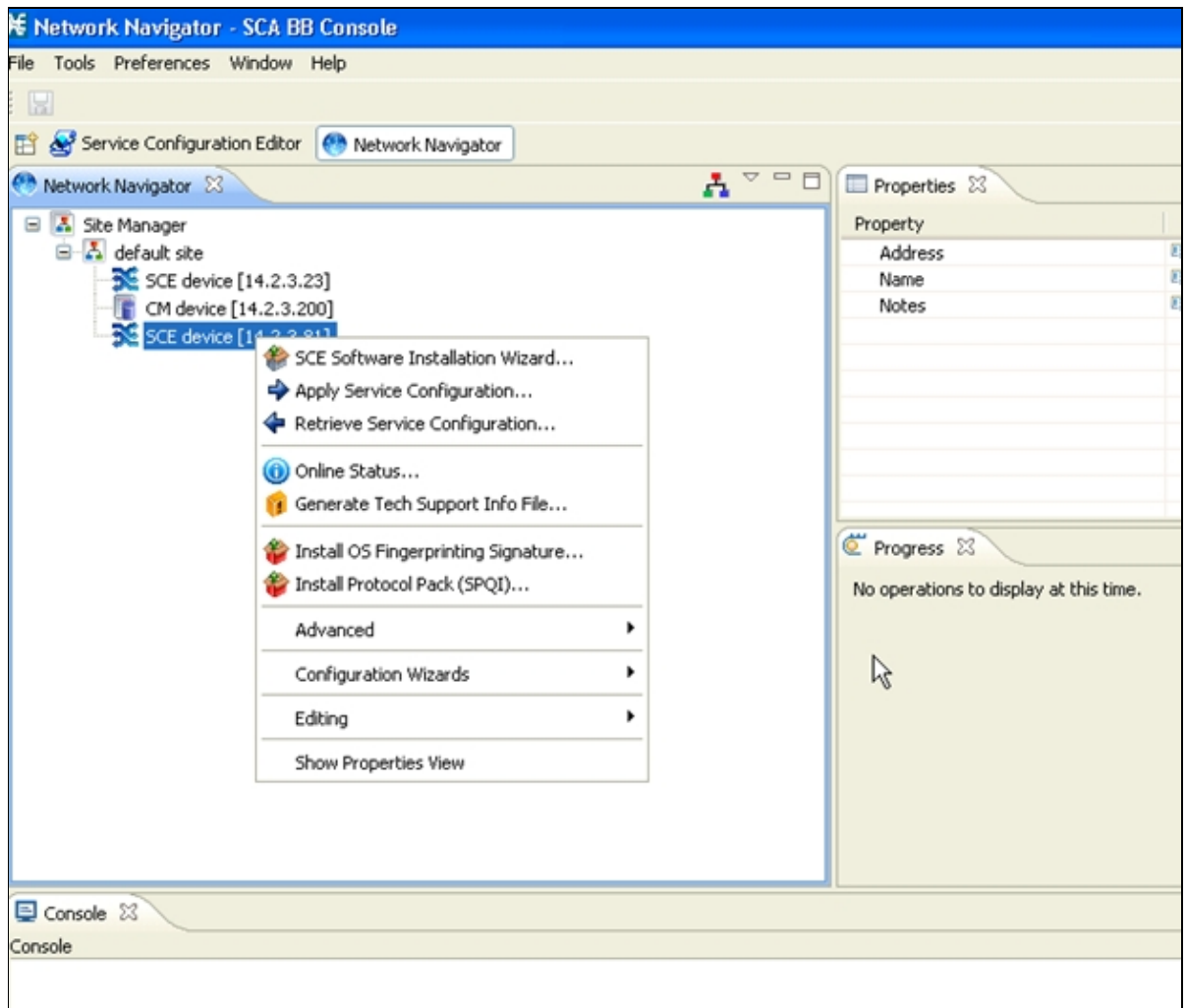
The SCE SCOS and PQI (engage) applications can be upgraded with either the CLI or the GUI. Before you upgrade to a new SCOS, always backup the current SCA BB configuration (PQB) file.

The best way to make sure the PQB file is upgraded as well is to push the service configuration file with the old SCA BB version just before the upgrade and retrieve the configuration from the new SCA BB version as soon as the SCE is upgraded. This way, the new SCA BB has the upgraded version.

Upgrade SCOS and PQI with GUI

This procedure describes how to upgrade the SCOS and PQI with the GUI.

1. On the SCA BB console, go to the *Network Navigator*, and select the SCE platforms to be upgraded. In this example, select *SCE-01 14.2.3.81*.
2. Right-click *SCE device [14.2.3.81]*, and choose *SCE Software Installation Wizard*.



3. The SCE Software Installation Wizard appears. Click *Next*.



4. In the SCE IP Addresses window, verify that the IP addresses for all of the SCE platforms to be upgraded appear. Add any IP addresses if necessary.

 SCE Software Installation Wizard

SCE IP Addresses

Configuring the SCE platforms requires that they are first added to the Network Navigator.

To add SCE platforms to the Network Navigator, type their IP addresses in the text box below (For example: 10.56.216.37, 10.56.216.38):

14.2.3.81



< Back Next > Finish Cancel

5. Enter the username and password required to connect to the SCE platform. Click **Next**.

SCE Software Installation Wizard

SCE Usernames and Passwords

In order to connect to the SCE platforms, a username and a password need to be specified for each SCE.

☒ Use a common username and a common password for all SCE platforms:

Username:

Password:

☐ Use separate usernames and passwords for each SCE platform:

SCE IP Address	Username	Password
14.2.3.81	admin	•••••

< Back Next > Finish Cancel

6. In the SCE Firmware (PKG) Installation window, choose the location of the SCE firmware. Click *Next*.

 SCE Software Installation Wizard

SCE Firmware (PKG) Installation

Configure the SCE firmware installation options.



☒ Install SCE Firmware from a Local File

File name: 

☐ Use local FTP server (requires less disk space)

☐ Install SCE Firmware from a Remote File (FTP)

(e.g. ftp://user:password@10.56.216.129:21/scos.pkg)

FTP URL: 

☐ Skip SCE Firmware Installation

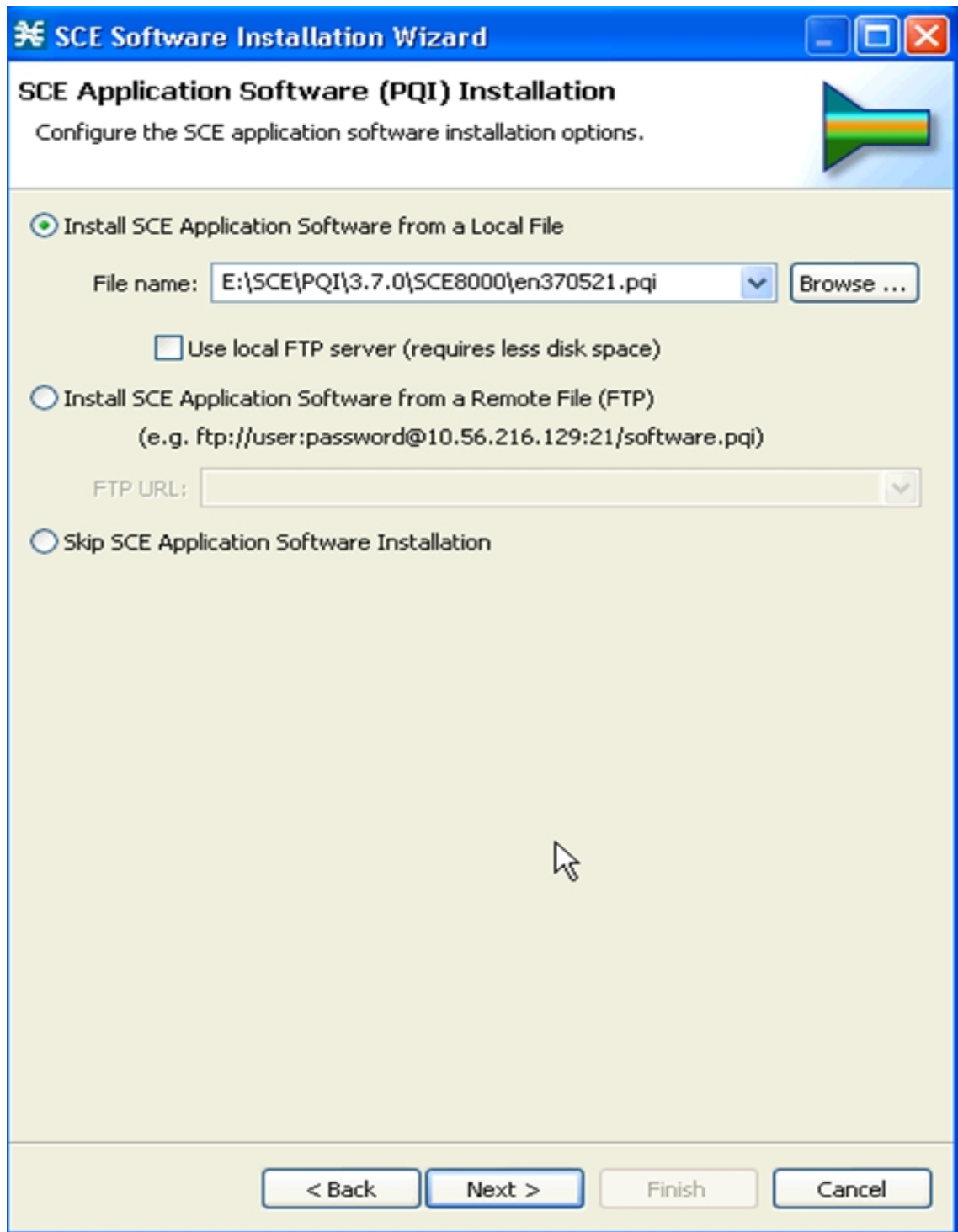
☐ Erase SCE Startup Configuration

☐ Clean SCE file system if there is no disk space

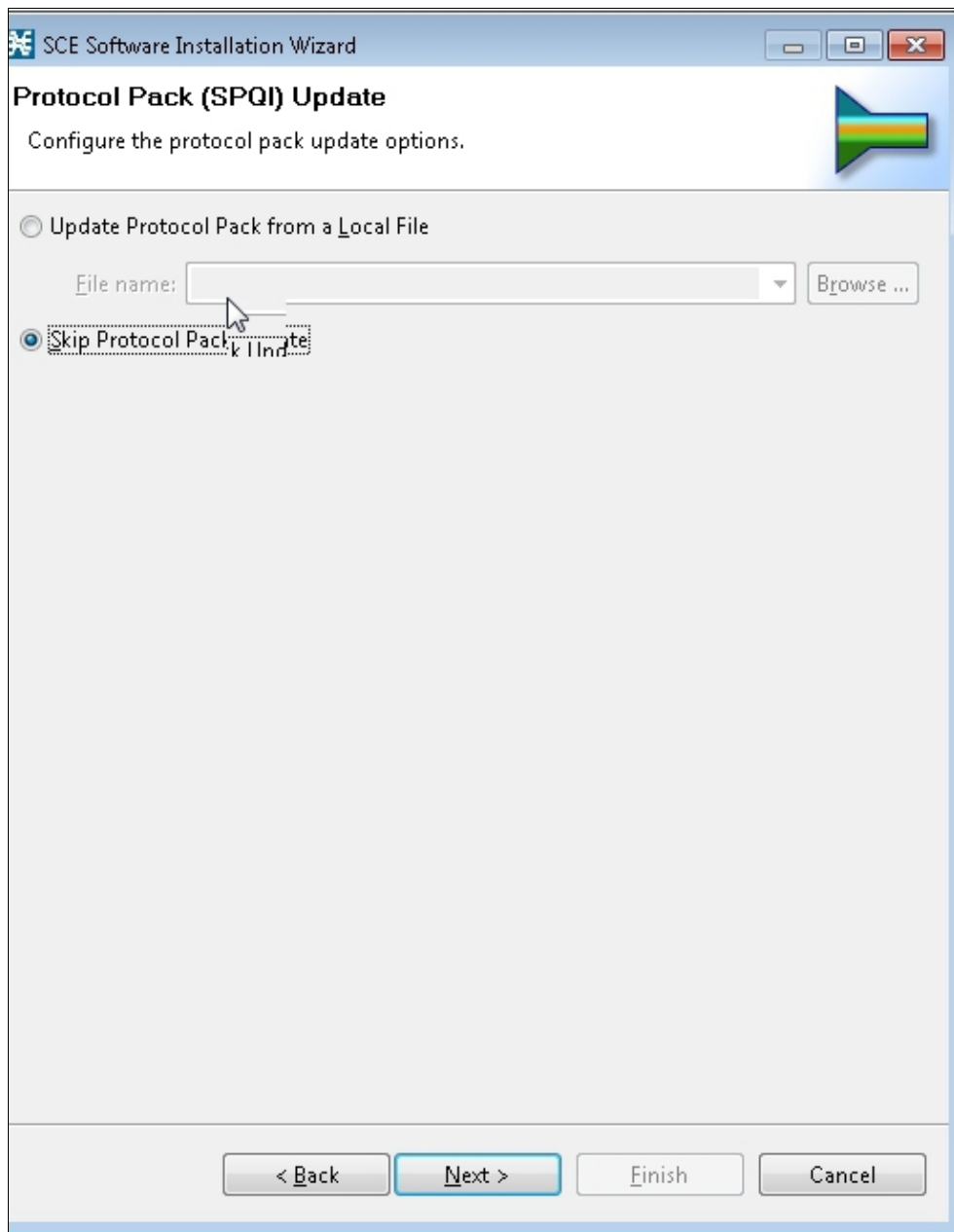
☒ Set SCE Clock Same As Local Clock



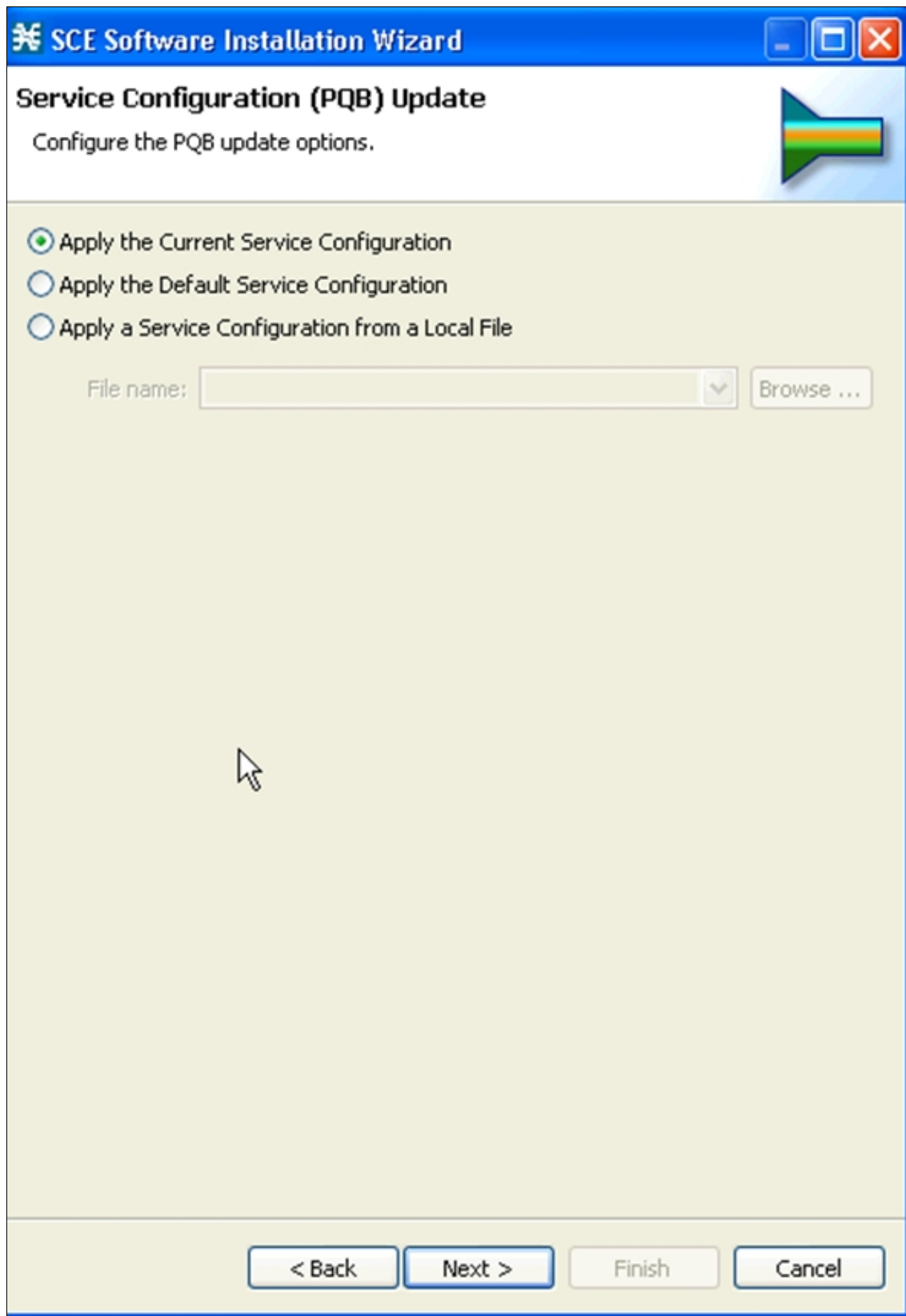
7. In the SCE Application Software (PQI) Installation window, choose ***Install SCE Application Software from a Local File***, browse to the PQI file you downloaded previously, and click ***Next***.



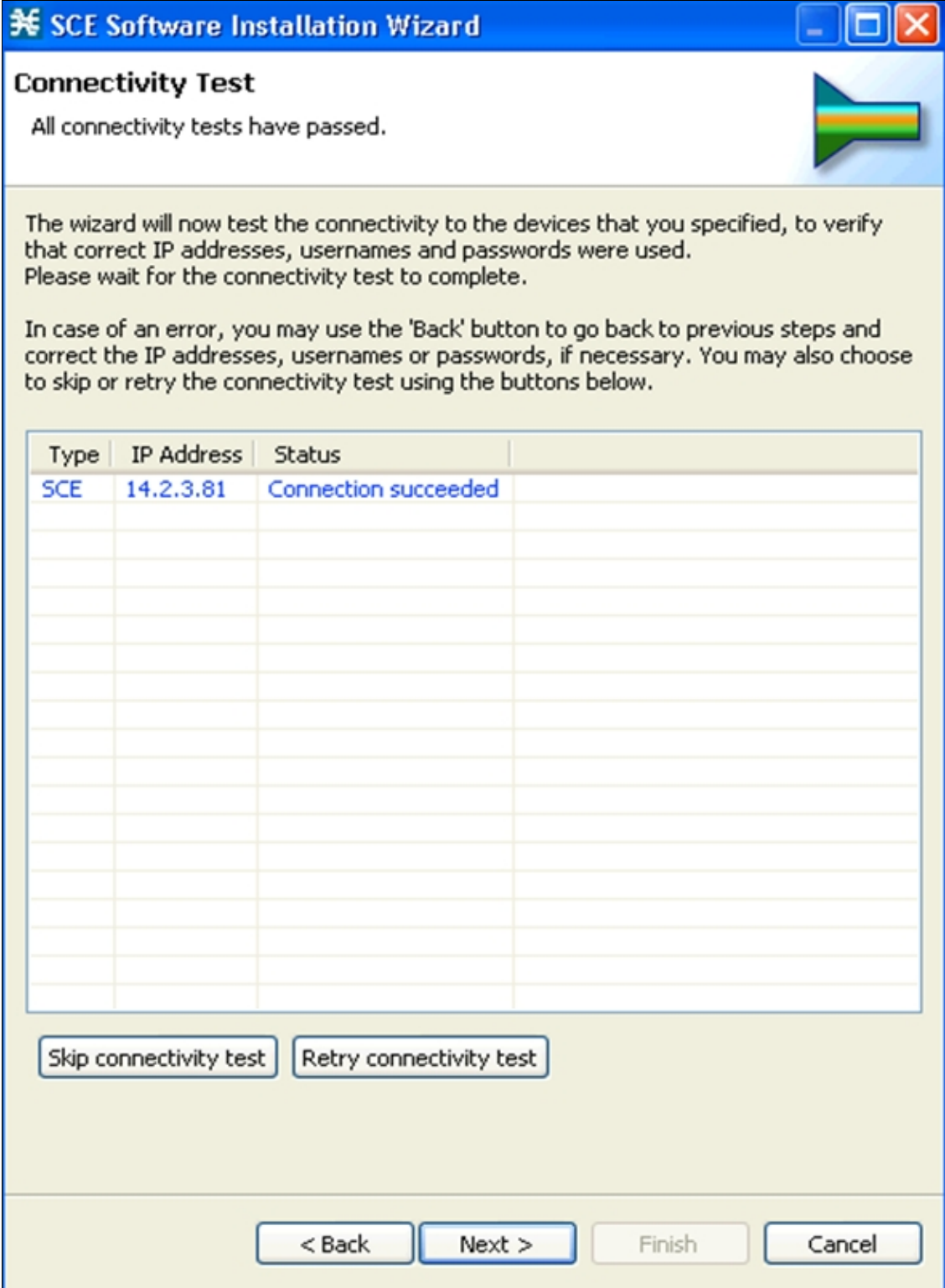
8. In the Protocol Pack (SPQI) Update window, click ***Skip Protocol Pack Update***, and click ***Next***.



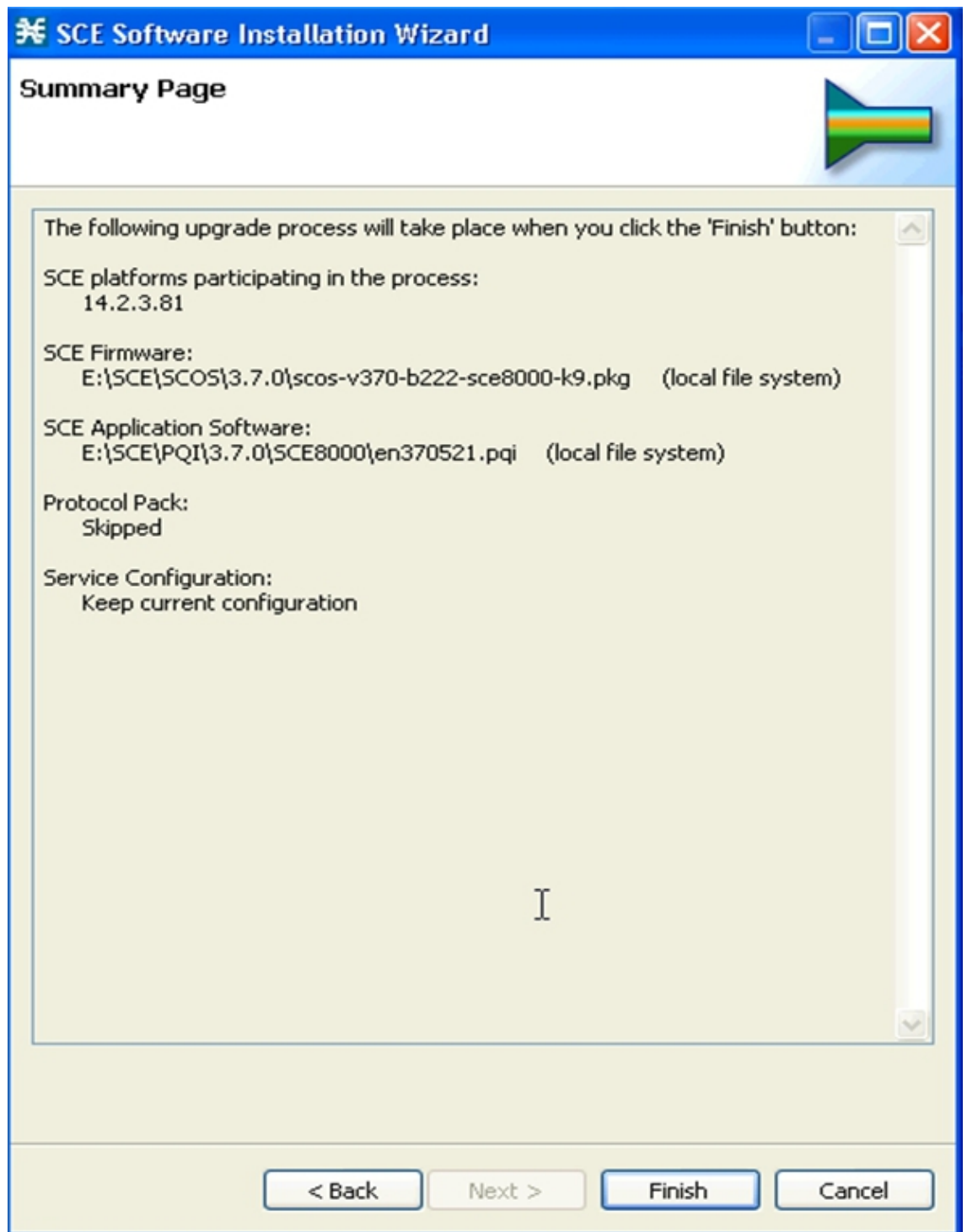
9. In the Service Configuration (PQB) Update window, click ***Apply the Current Service Configuration***, and click ***Next***.



10. The Connectivity Test window appears. The connectivity test verifies the connections to the defined devices.



11. The Summary Page window summarizes the information you have entered. Verify that all the IP addresses and file locations are correct.
 1. Click **Back** to edit any information.
 2. Click **Finish** to begin the upgrade process.



12. Click **Finish**.

Upgrade SCOS with CLI

This example shows how to upgrade the system SCOS.

```
SCE> enable 10
Password: cisco
SCE#config
SCE(config)# boot system ftp://mm:mm@x.x.x.x/name.pkg
Verifying package file...
Package file verified OK.
SCE(config)# do copy running-config startup-config
```

```
script return val is 0
Extracted OK.
```

Use the **enable 10** command to upgrade the SCE platform embedded firmware. The firmware package (pkg) file is verified for the system and is checked to ensure it is not corrupted. The actual upgrade takes place after you enter the **copy running-config startup-config** command and reboot the SCE device.

If you are manually transferring the pkg file to the device, ensure the pkg file is in the /apps/data/scos directory (the default SCOS directory) before you save the running configuration. The SCE device expects the pkg file to be located in that directory; otherwise, the upgrade fails.

Upgrade PQI with CLI

This example shows how to upgrade the PQI (engage) application.

```
SCE> enable 10
Password: cisco
SCE#config
SCE(config)#interface linecard 0
SCE(config if)#pqi uninstall file filename
SCE(config if)#pqi install file ftp://mm:mm@x.x.x.x/name.pqi
SCE(config if)#
```

Always run the **pqi uninstall file** command before you install a new PQI file to prevent the accumulation of old files on the disk. Use the **show pqi last-installed** command to find the filename of the PQI file that was last installed.

Wait about five minutes to let the system stabilize before you enter additional CLI commands.

If you want to monitor the stabilization process and determine when it is complete, enter the **show version** command, and look for the line that begins with 'Management agent interface.' Reenter the **show version** command, and notice that this line changes to indicate that the management agent is going through shut down and start up. When you see the management agent version number, the system has stabilized, and you can reboot the device.

Determine Current Protocol Pack Version

Each SCE SCOS version comes with a default Protocol Pack version. To verify the current version and display the configuration, log in to the SCE CLI, and enter the **show version** command:

```
SCE#show version
System version: Version 3.7.0
Build time: Jun 10 2011, 21:01:04 (Change-list 680641)
Software version is: Version 3.7.0 Build 222
Cryptography class: K9
Hardware information is:
[output omitted]

SML Application information is:
Application file: /tffs0/app/en370521.sli
Application name: Engage SML Version 3.7.0 build 26
  Using Lib - PL_V3.7.0_B26 (Compatible with 3.6.5 Protocol Pack 24 build 18)
  Using Lib - Classifier_V3.7.0_B26
```

```
Application help: Entry point of Engage
Original source file: /auto/srbu-proj1-bgl/apps/users/aninatar/autoBuild/App/SML/
  Engage/V3.7.0/src/com/pcube/AppTemplate/Main/template_app_main.san
Compilation date: Sat, May 26, 2012 at 02:04:03
```

Compiler version: SANC v3.20 Build 14 built on: Tue 08/04/2009 06:58:22.;SME
plugin v1.1

Capacity option used: 'EngageDefaultSCE8000'.

Logger status: Enabled

Platform: SCE8000

Management agent interface version: SCE Agent 3.7.0 Build 206

Software package file: ftp://ftpserver/scos-v370-b222-sce8000-k9.pkg

ILOAKBTS1 uptime is 27 weeks, 2 days, 13 hours, 49 minutes, 36 seconds

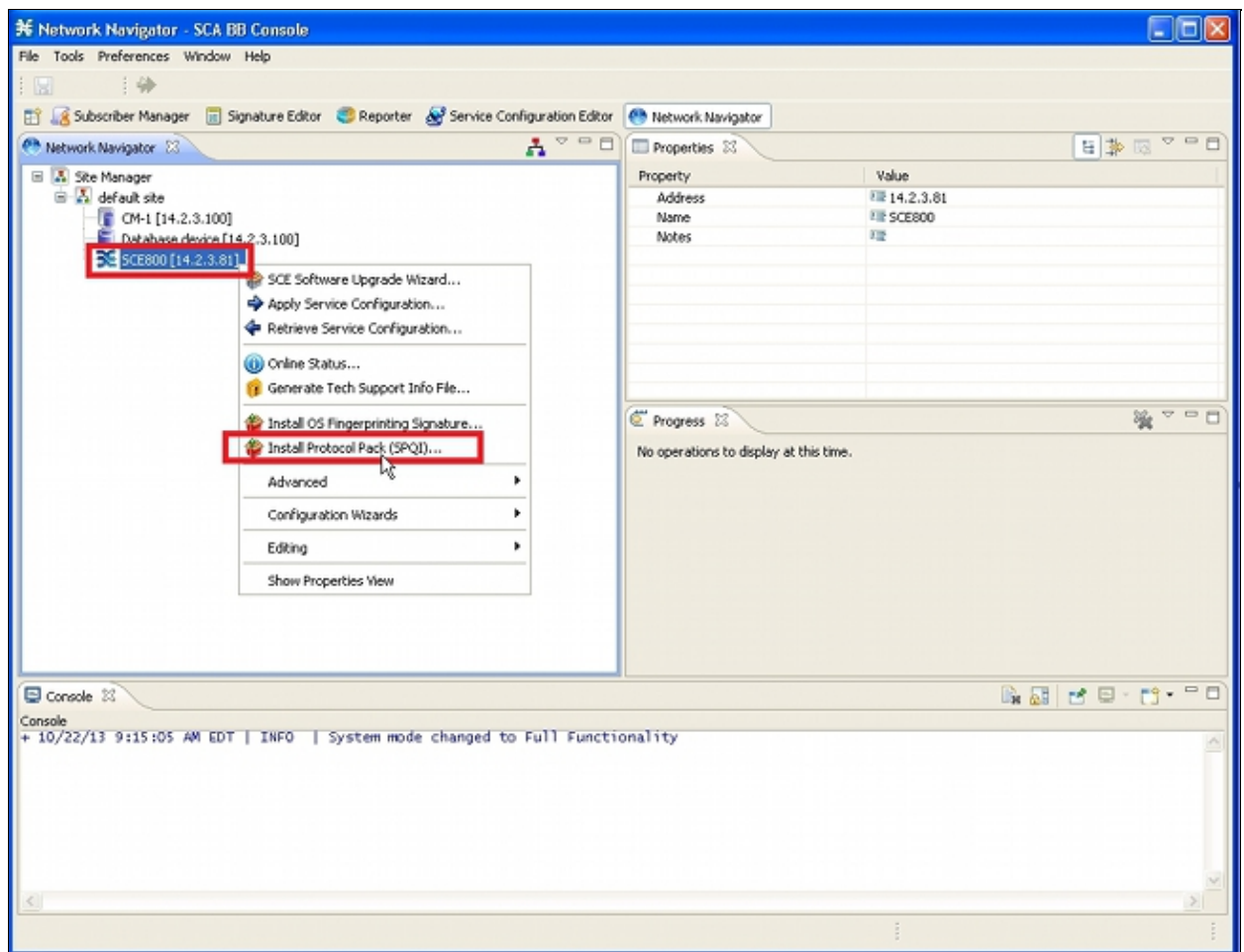
ILOAKBTS1#

Install SPQI

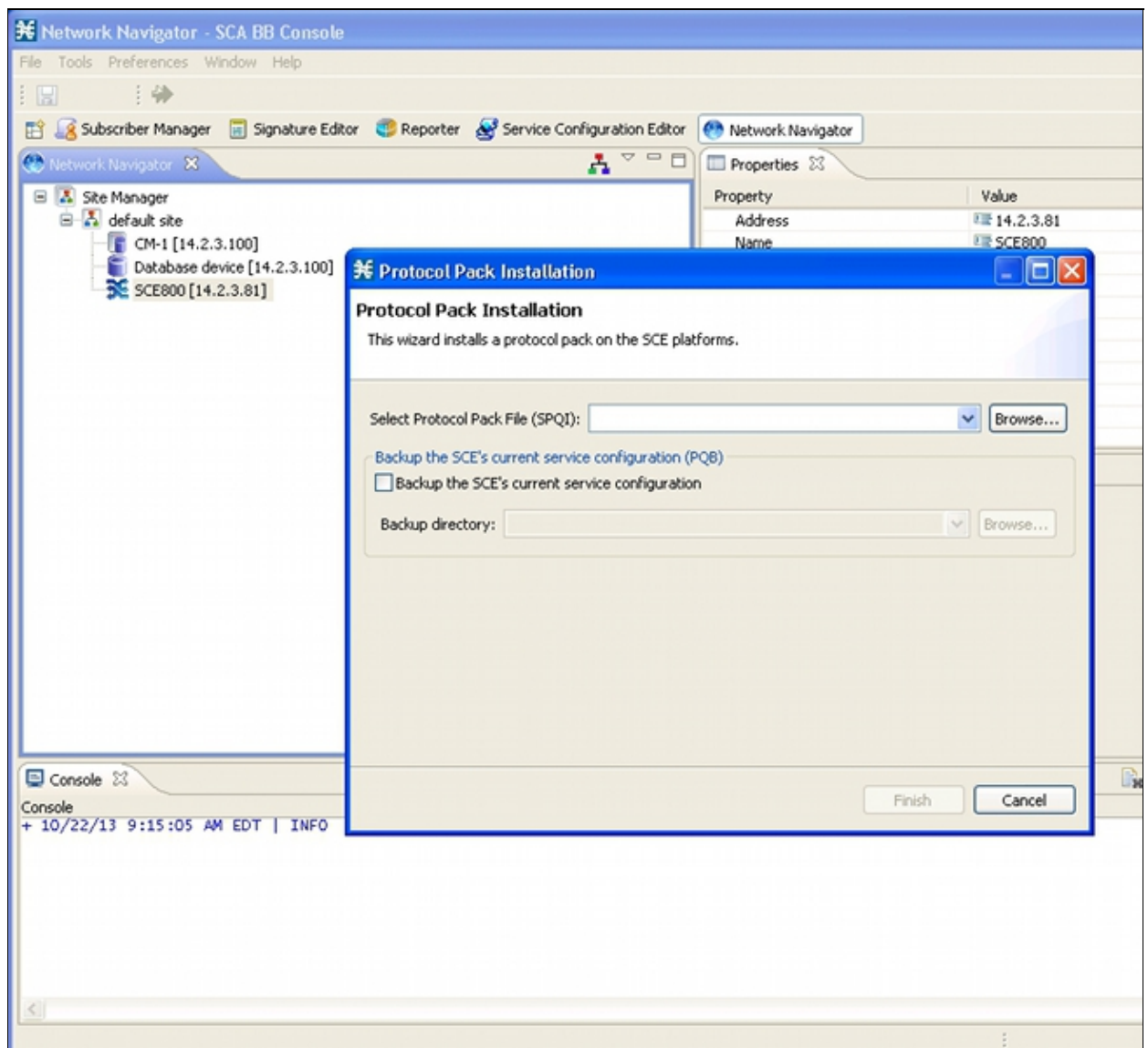
Protocol Pack Upgrade

The SCE Software Upgrade Wizard allows you to install the Protocol Pack (SPQI):

1. Double-click the **SCA BB Console version 3.7.0** icon on the Management Client desktop in order to open the SCA BB console.
2. Select the **Network Navigator** tab.
3. Right-click the SCE platforms to be upgraded.



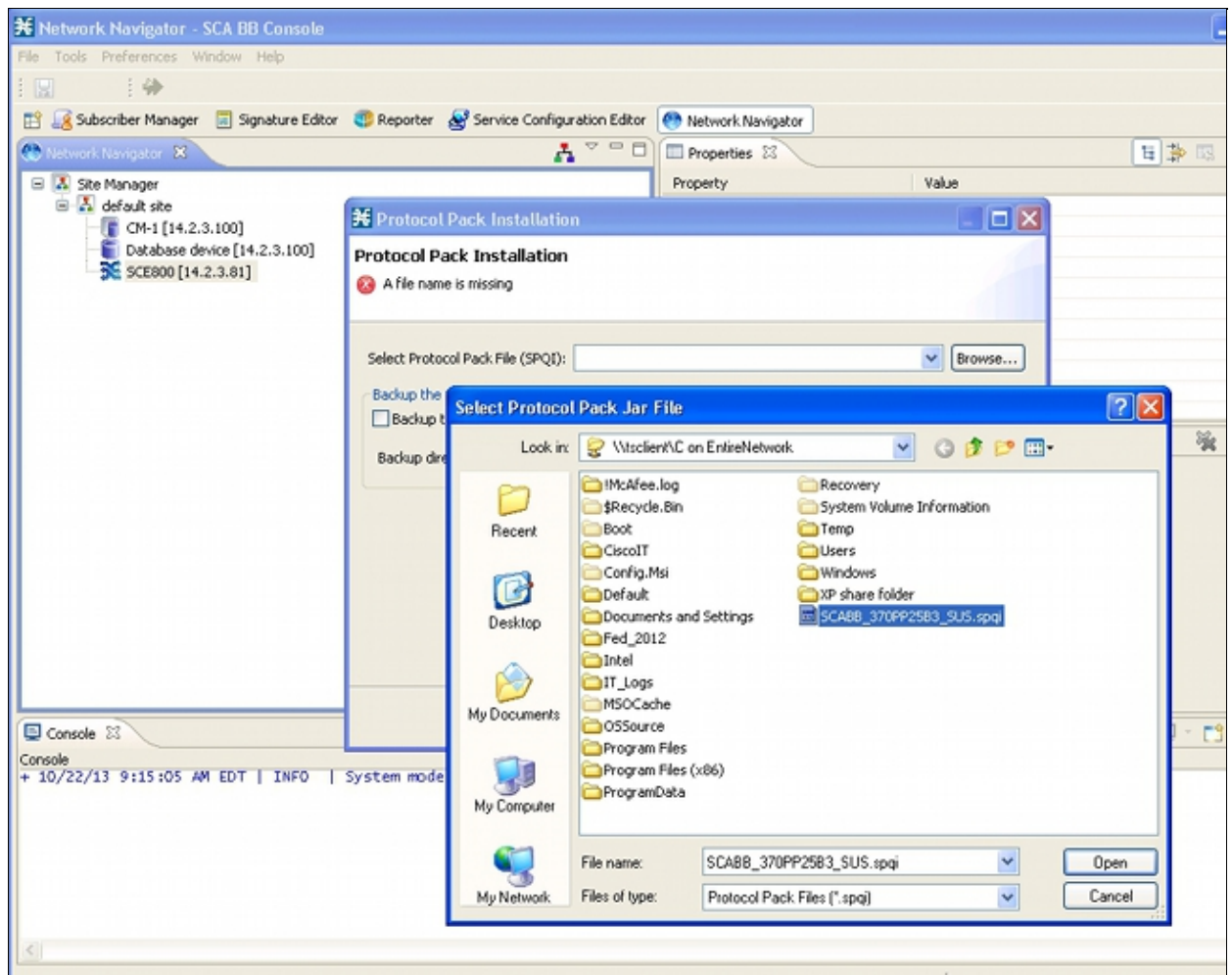
4. Choose **Install Protocol Pack (SPQI)**. The Protocol Pack Installation dialog box appears.



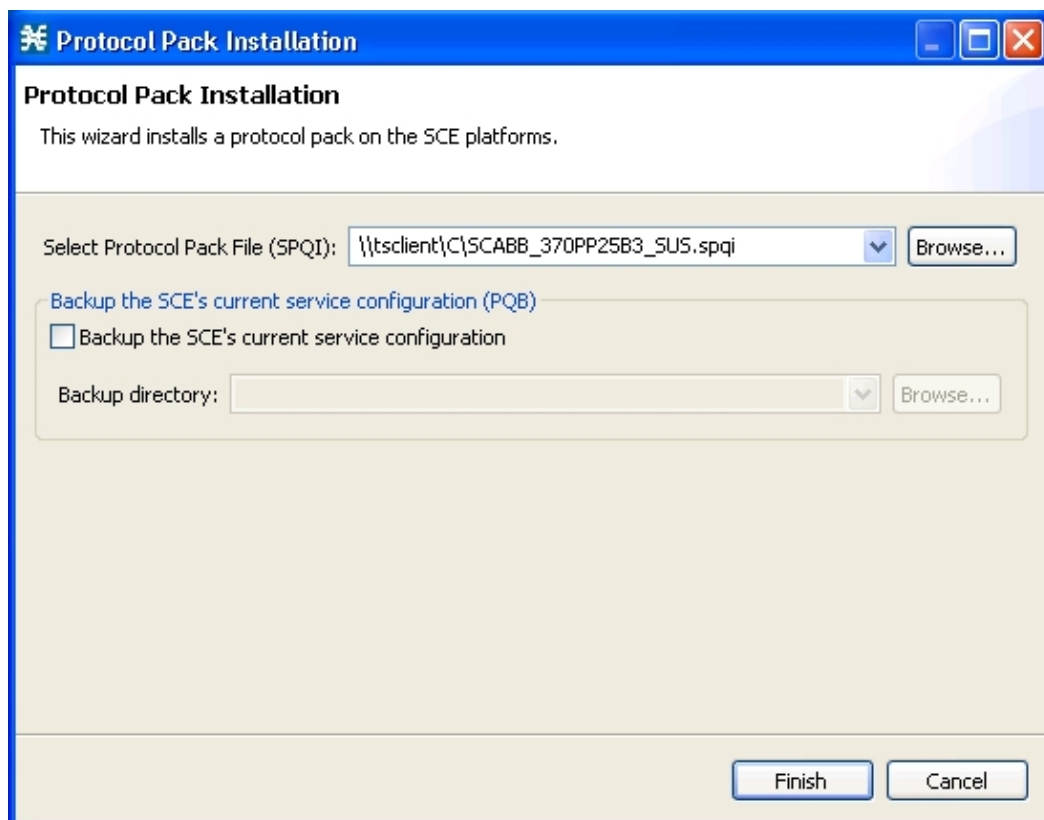
5. Click **Browse** to display the Select file dialog box.
6. From the File of type drop-down list, select ***.spqi**. Browse to the SPQI file to be installed.

Note: Select the SPQI file to be installed under the SCE8000 directory.

In this example, the SCABB_370PP25B3-SUS.spqi file is located in the directory of the client machine where the SPQI file was unzipped.



7. Click **Open**. The Protocol Pack Installation window appears and displays the SPQI file that you selected. Do not check the **Backup the SCE's current service configuration** check box.



8. Click **Finish**. The Password Management window appears. Click **Install**.

Password Management

Password Required for Install Operation

This wizard gets the password for the device SCE8000 [14.2.3.81].

Target: SCE8000 [14.2.3.81]
Type: SCE
Service: RPC
User: admin
Password: ●●●●●●●●

The Site Master Password can help you remember some or all of your element's passwords by storing them as part of the site's data, and entering them for you automatically when you connect to an element.

☐ Enable Site Master Password

Change Site Master Password

Install Cancel

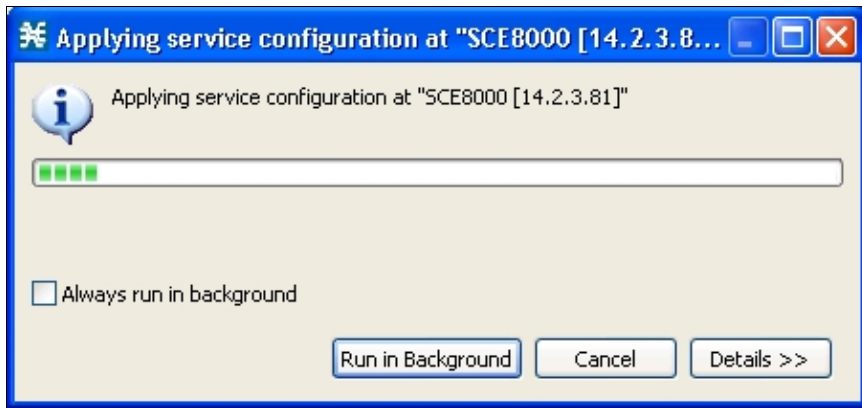
9. Verify that the Protocol Pack has been upgraded from 24 to 25.

10. In the CLI, check the version of the SCE platform to be upgraded.

```
SCE#show version
```

```
SML Application information is:  
Application file: /tffs0/release_.sli  
Application name: Engage SML Version 3.7.0 build 26 (Protocol Pack 25 build 3)  
Using Lib - PL_V3.7.0_B1  
Using Lib - Classifier_V3.7.0_B1  
Application help: Entry point of Engage
```

11. Retrieve and re-apply the service configuration in order to verify that the SCE and SCA BB console are synchronized with Protocol Pack #25, build 3.



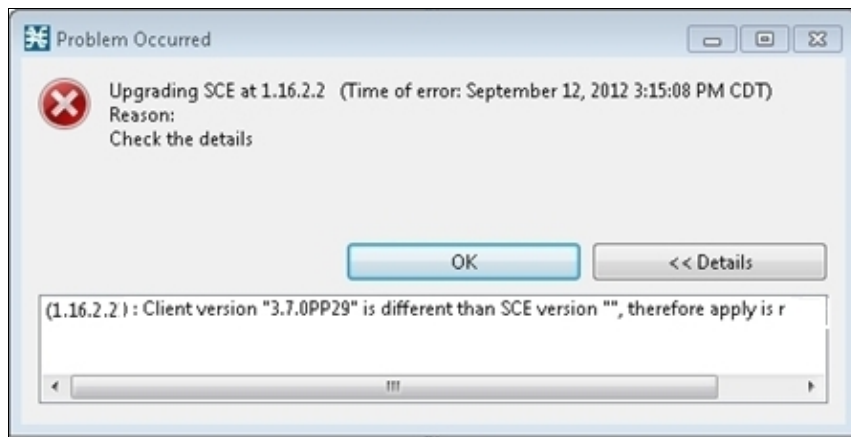
Protocol Pack Downgrade

To downgrade the Protocol Pack, reinstall the PQI (engage) application with the process described in Upgrade SCOS and PQI with GUI. This resets the Protocol Pack to the default version that came with the SCOS.

Common Issues

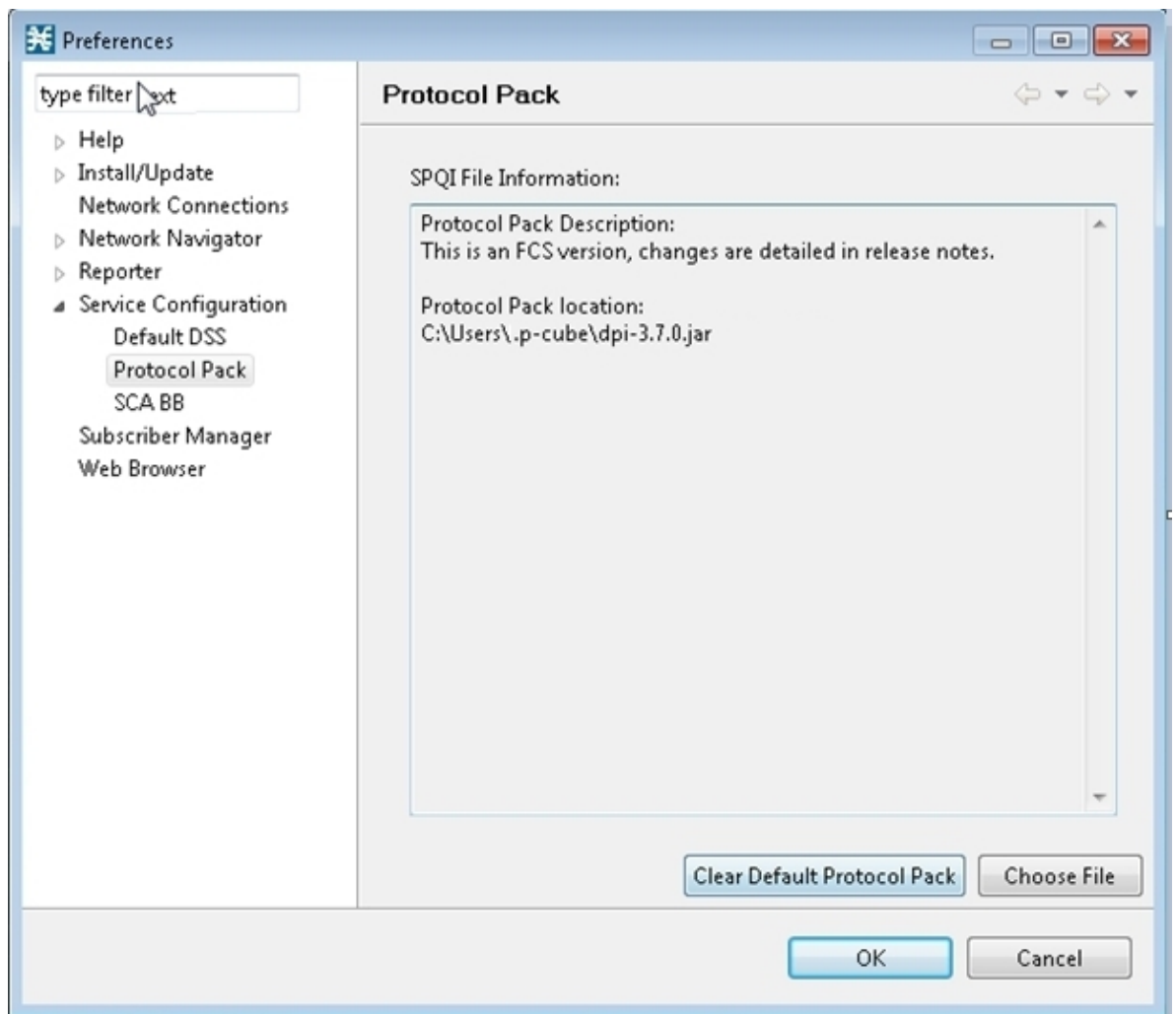
Mismatch Between SCA BB and SCE Versions for PQB File

When the SCA BB and SCE configuration files are not synchronized, you might see this error message when you try to apply a service configuration from SCA BB to the SCE.



This procedure describes how to clear the Protocol Pack to resolve this issue.

1. Open the SCA BB console.
2. Click **Windows > Preferences**.
3. Under **Service Configuration**, select **Protocol Pack**.
4. Click **Clear Default Protocol Pack**.
5. Click **OK**.



6. Ensure a PQB file exists on the SCE.

```

F340-26-24-COMM.cisco.com - PuTTY
SCE8000-1_385#dir
File list for /apps/data/scos/engage/
 4096   Tue Oct 22 03:59:12 201   .           DIR
 4096   Wed Sep 11 08:28:19 201   ..          DIR
28361   Tue Oct 22 04:01:25 201   tmp.pqb
531812  Tue Oct 22 04:01:25 201   batch.ser
 3673   Mon Jul 22 17:51:31 201   temp.dss
  204   Wed Nov 10 08:47:22 201   script.cli
33244   Wed Sep 11 09:10:09 201   myengag2.pqb
52104   Wed Sep 11 09:10:09 201   myengag1.pqb
28361   Wed Sep 11 09:10:09 201   myengag3.pqb
31532   Tue Apr 17 11:36:45 201   myengagtest.pqb
      10 File(s)              717483 bytes
      713277440 total bytes used
      665337856 total bytes free

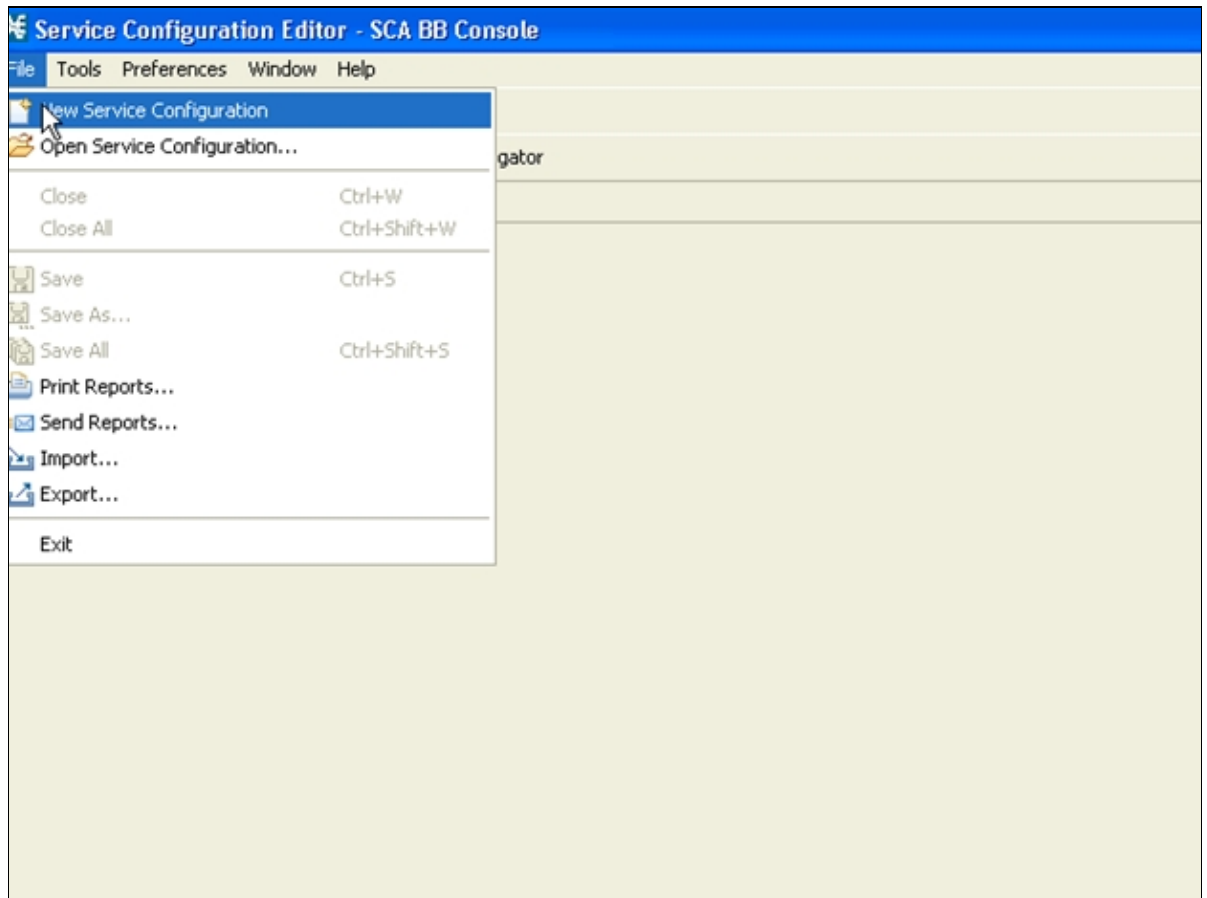
SCE8000-1_385#
SCE8000-1_385#
SCE8000-1_385#
SCE8000-1_385#
SCE8000-1_385#

```

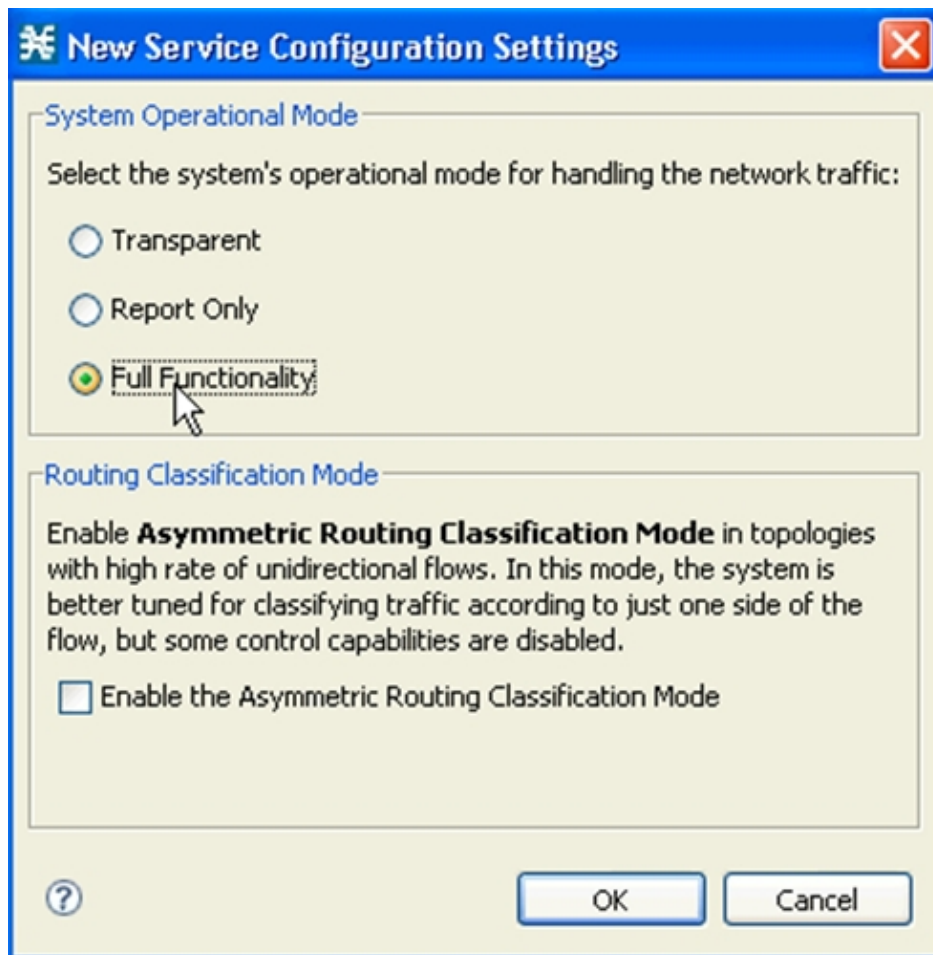
7. Retrieve and apply the service configuration onto the SCE from the SCA BB console.

Missing PQB file on SCE

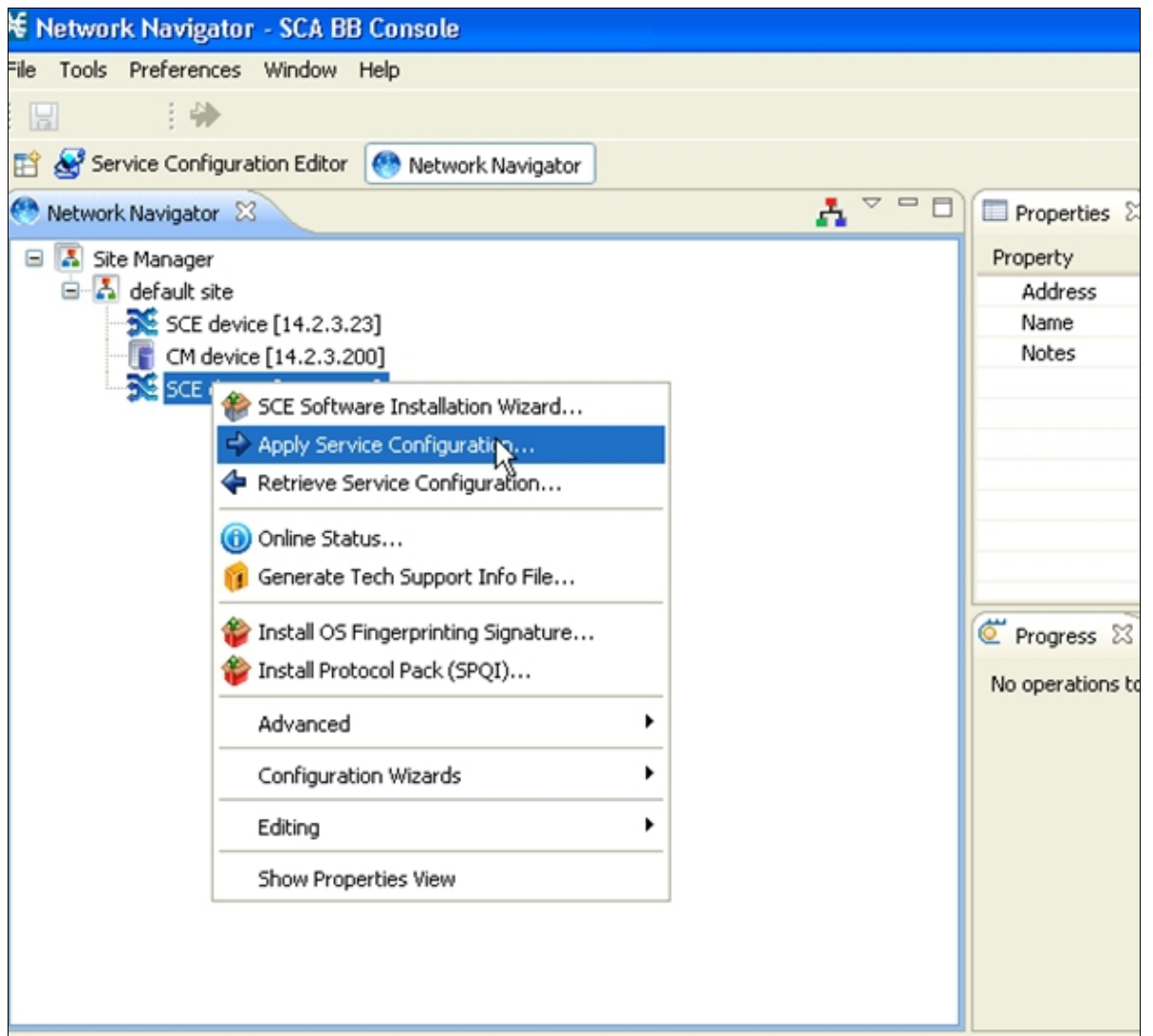
1. Open the SCA BB console, and navigate to **File > New Service Configuration**.



2. Click **Full Functionality** as the System Operational Mode.



3. Right-click the SCE device from *Network Navigator*, and choose *Apply Service Configuration*.



4. Enter a User and Password to log in to the SCE, then click **Apply** to apply the default service configuration to the SCE.

Password Management

Password Required for Apply to SCE Operation

This wizard gets the password for the device SCE device [14.2.3.81]. 

Target: SCE device [14.2.3.81]
Type: SCE
Service: R
User: admin
Password: ●●●●●

The Site Master Password can help you remember some or all of your element's passwords by storing them as part of the site's data, and entering them for you automatically when you connect to an element.

☐ Enable Site Master Password