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Nortel Secure Network Access Switch

Upgrades — Software Release 2.0

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This section contains the Nortel Networks software license.

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New in this release

The following sections detail what's new in Nortel Secure Network Access Switch Upgrades — Software Release 2.0, (NN47230-401) for Release 2.0.

- [“Features” \(page 9\)](#)
- [“Other changes” \(page 9\)](#)

Features

This is the first standard release of the document.

Other changes

No changes.

Introduction

This guide enables network installers and system administrators to configure and manage a network with an Nortel Secure Network Access Solution (SNAS). This guide assumes a familiarity with the following topics:

- networks, Ethernet bridging, and IP routing
- networking concepts and terminology
- windowing systems and graphical user interfaces (GUI)
- network topologies

Navigation

- [“Nortel Secure Network Access Solution upgrade preparation”](#) (page 13)
- [“Nortel Secure Network Access Solution upgrade installation”](#) (page 19)
- [“Nortel Secure Network Access Solution upgrade uninstallation ”](#) (page 27)

Nortel Secure Network Access Solution upgrade preparation

This chapter provides the information about the Nortel Secure Network Access Solution (SNAS) upgrade preparation.

Upgrading software is an important task in the life cycle of the device. The upgrade procedure requires proper planning and support before software can be updated. This section describes the actions that should be taken before an upgrade takes place.

Navigation

- [“Planning an upgrade” \(page 13\)](#)
- [“Configuration backup” \(page 14\)](#)
- [“Upgrade paths” \(page 17\)](#)
- [“Software versions” \(page 17\)](#)

Planning an upgrade

Upgrading device software is an important aspect of network maintenance that should be performed with a minimum of disruption to the network. Use the following points as a guideline when planning for an upgrade:

1. Assess the interoperability of the software with other network devices and software.
 - Will any adjustments need to be made to other network devices because of the software upgrade?
2. Assess the impact of the upgrade.
3. Create a comprehensive testing and fall back plan.
4. Plan the upgrade for a time frame that will cause a minimum of disruption for the end user.
5. Verify the upgrade with a comprehensive test plan.

Job aid: for assessing the impact of the upgrade

- Will the device configuration require manual migration or is it handled automatically?
- Will systems need to be taken offline to perform the upgrade?
- Will retraining be required to configure and manage new capabilities?
- Will a new test plan be required to verify proper operation?

Configuration backup

Before you begin the upgrade process, it is important to backup the current cluster configuration.

Configuration backup navigation

- [“Performing configuration backup using the CLI ” \(page 14\)](#)
- [“Performing configuration backup using the BBI” \(page 15\)](#)

Performing configuration backup using the CLI

Backup the cluster configuration using the CLI before you begin the upgrade process.

Procedure steps

Step	Action
1	Use the <code>/cfg/ptcfg</code> command to initiate the file transfer process. <pre>>> Main# /cfg/ptcfg</pre>
2	Enter the file transfer protocol to be used. TFTP, FTP, SCP, and SFTP are supported by the Nortel SNAS. <pre>Select protocol (tftp/ftp/scp/sftp) [tftp]:</pre> <p>TFTP is the default.</p>
3	Enter the hostname or IP address of the file transfer server. <pre>Enter hostname or IP address of server:</pre>
4	Enter the name of the file that will store the configuration on the file transfer server. <pre>Enter filename on server:</pre>
5	Enter a password to encrypt the configuration file. You must use password if the configuration is to be imported into a cluster. Confirm password.

```

Password for private keys in cfg:
Reconfirm password for private keys:

```

- 6 If applicable, enter the user name and password the device will need to access the file transfer server.

```

FTP User (anonymous) :
Password:

```

The device indicates the success of the operation by outputting `sent` and the file size to the screen.

```

sent 10339 bytes

```

```

--End--

```

Performing configuration backup using the BBI

Backup the configuration using the BBI before you begin the upgrade process.

Procedure steps

Step	Action
1	Click the Config tab.
2	Select Operation and Configuration from the Navigation pan. The Export/Import Cluster Configuration screen appears.



- 3 To export the Cluster Configuration, click **Export**.
- 4 To import the Cluster Configuration, click **Import**.

--End--

Variable definition

Use the following data to export or import the cluster configuration.

Field	Description
Export/Import Cluster Configuration	
File System	Select the protocol or local to import the file. Fields appear based on the selected file system.
File System: Protocol	

Protocol	Select the protocol to export/import the file. Values: tftp, ftp, scp, and sftp (default: tftp)
	<div style="border: 1px solid black; padding: 5px;"> <p>ATTENTION The User and Password get prefixed with the selected protocol type.</p> </div>
	<div style="border: 1px solid black; padding: 5px;"> <p>ATTENTION The User and Password is not displayed while selecting the tftp protocol.</p> </div>
Server	Specify the hostname or IP address of the server.
File	Specify the filename on the server. Specifies the name of the file to be exported or imported. All the exported file names automatically gets appended with the prefix 'NSNAS-2.0.0.XX'
FTP User	Specify the FTP User name.
FTP Password	Specify the FTP password.
File System: Local	
File	To select the file name, click the browse button to specify the name of the file to be imported.
	<div style="border: 1px solid black; padding: 5px;"> <p>ATTENTION In File System: Local the File field is not appears in the Export cluster configuration page.</p> </div>
Secret key	Specify a secret key to encrypt/decrypt settings.

Upgrade paths

There are no restrictions or notes for implementation between Release 1.6.1 of the Nortel SNAS software and the next release.

Software versions

The SNAS software comes in two versions:

- **Upgrade package**—the upgrade package is the preferred delivery mechanism for updating the device software. This method allows the software to propagate throughout the cluster members with the current configuration retained. The upgrade package file name will always follow the naming convention of **NSNAS-x.x.x-upgrade_complete.pkg** where the **x.x.x** represents the current version number.
- **Boot image**—the boot image file will install the software and return a device to a factory default configuration. The file is only used when a device designated to join a cluster is running a software version inconsistent with the current cluster version. Install the

software using this file before joining the device to the cluster. The boot image file name will always follow the naming convention of ***NSNAS-x.x.x-boot.img*** where the ***x.x.x*** represents the current version number.

Nortel Secure Network Access Solution upgrade installation

This chapter provides the information about the Nortel Secure Network Access Solution (SNAS) upgrade installation.

Navigation

- [“Nortel SNAS upgrade software installation” \(page 19\)](#)
- [“Upgrading to SNAS 2.0” \(page 22\)](#)
- [“Verifying the upgrade” \(page 23\)](#)
- [“Applying the license” \(page 24\)](#)
- [“Applying the keycode” \(page 24\)](#)

Nortel SNAS upgrade software installation

Software upgrades are an important aspect of maintaining the device and ensuring that the feature set is up to date. This section describes the procedures to upgrade the device software and enable Application Acceleration.

Prerequisites

- It is advisable to keep at least one previous release of software on the device after performing the software upgrade. This facilitates a downgrade to a previous version should it become necessary. For information on uninstalling an upgrade, see [“Uninstalling the upgrade” \(page 27\)](#).

Nortel SNAS upgrade software installation navigation

- [“Performing the upgrade using CLI” \(page 20\)](#)
- [“Performing the upgrade using BBI” \(page 21\)](#)

Performing the upgrade using CLI

Install software using the CLI before you begin the upgrade software installation.

ATTENTION

Before you begin the download process, transfer the software package to an TFTP, FTP, SCP, or SFTP server that the unit can access.

Procedure steps

Step	Action
------	--------

1	Log into the CLI.
---	-------------------

2	Enter the command <code>/boot/software/download</code> .
---	--

```
>> Main# /boot/software/download
```

3	The CLI presents a series of prompts to gather the information required to download the software. The following information is required to initiate download:
---	---

- Host name or IP address of the TFTP, FTP, SCP, or SFTP server the software package resides on.
- Software package file name.
- User name and password of file transfer server.
- Administrative password of the unit that the software package is being installed on if the user is not logged in as the admin user or a user of equal privilege.

The following diagram illustrates the prompts.

```
Select protocol (tftp/ftp/scp/sftp) [tftp]:  
<protocol>  
Enter hostname or IP address of server: <host/ip>  
Enter filename on server: <file_name>
```

As demonstrated, the administrative password is only required if the user is not logged in as the admin user or a user of equal privilege.

Once all of the information are entered correctly, software download initiates.

4	Use the <code>/boot/software/cur</code> command to confirm the download completed successfully.
---	---

```
>> Main# /boot/software/cur
Version Name Status
-----
2.0.0.20 NSNAS old
2.0.0.21 NSNAS permanent
```

- 5 When the software download is complete, enter the command `/boot/software/activate`.

```
>> Main# /boot/software/activate
```

- 6 At the prompt, enter the version number of the software package downloaded to the unit and confirm its activation as the new device software. An example of a version number would be 2.0.0.21.

```
>> Main# /boot/software/activate
Enter software version to activate: <version_name>
Confirm action 'activate'? [y/n]:
```

--End--

Nortel recommends that you maintain at least one previous release of software on the device after performing the software upgrade. This facilitates a downgrade to a previous version should it become necessary. For information on uninstalling an upgrade, see [“Uninstalling the upgrade” \(page 27\)](#).

Performing the upgrade using BBI

Install software using the BBI before you begin the upgrade software installation.

Procedure steps

Step	Action
1	Log in to the BBI.
2	Select the Config tab.
3	Select Operation and Image Update from the menu. The Image Update screen appears.

The screenshot shows the Nortel Secure Network Access Switch web interface. The top navigation bar includes 'Apply | Diff | Revert | Logout | Help'. The main content area is titled 'Image Update' and shows a table of installed packages:

Version	Name	Status	Actions
2.0.0.44	NSNAS	old	Activate Delete
2.0.0.45	NSNAS	permanent	

Below the table is the 'Upload New Package' section, which includes a 'File:' input field with a 'Browse...' button and a 'Submit' button. A warning message states: 'Warning: The time it takes to upload a package is dependent upon the speed of the Internet connection. Slow connections may take many minutes.'

- 4 In the **Upload New Package** area, click **Browse**.
 - 5 Select the software package from a location on the administrative computer.
- ATTENTION**
 Uploading a package from a file transfer server is not an option in the BBI.
- 6 Click **OK**.
 - 7 Select the file, click **Submit**.
 - 8 Once the file is transferred to the device, it appears in the **Installed Packages** area.
 - 9 Click the **Activate** button beside the package to make it the active device software.

--End--

Upgrading to SNAS 2.0

Secure Network Access Switch running on prior versions of SNAS software can be upgraded to SNAS Release 2.0. SNAS Release 2.0 includes a new SNAS quick setup wizard that pre-configures many of the sophisticated features, embedded by default with Release 2.0.

The new SNAS quick setup wizard:

- is available only for network administrator who creates a 'new' SNAS cluster while configuring the SNAS
- includes sample configurations for Nortel Health System Agent, Nortel Health Desktop Agent and enables the new BBI for web management
- helps the network administrators in configuring the SNAS with the new capabilities of SNAS Release 2.0

With the help of Nortel Health Policy Administrator tool, the network administrator can associate a SRS rule to a specific OS (Windows 2000, XP, and Windows Server 2003). After upgrade from Release 1.6.1 to 2.0 the existing rules gets applied for all the Operating Systems. If the admin is creating a SRS rule, specific to Operating System in Release 2.0 and performs the downgrade followed by upgrade i.e. Release 2.0 -> 1.6.1 -> 2.0, all the SRS rules are applied to Operating Systems.

Verifying the upgrade

Verification of the upgrade must happen immediately, following a successful upgrade procedure. Use the following table as a starting point for a comprehensive test plan unique to your individual network environment.

Table 1
Upgrade verification

Verification Step	Interface	Action
Verify that the new software is active.	Command Line	Use <code>/info/local</code> to determine the active software version.
	Browser-based	Click Config and select Operation, Image Update from the menu. The current software version will be marked with a status of permanent .
Verify host connection.	Command Line	Use <code>/info/contlist</code> to verify all hosts are connected to the cluster.
	Browser-based	Click Monitor and select Cluster > Hosts to verify all hosts are connected to the cluster.
Verify DNS and NTP connectivity if applicable.	Command Line	Use <code>/info/sys</code> to verify DNS and NTP connectivity.
	Browser-based	Click Config and select Network > DNS to confirm DNS connectivity. Select Network > NTP to confirm NTP connectivity.

Table 1
Upgrade verification (cont'd.)

Verification Step	Interface	Action
Verify host policies.	Command Line	Use <code>/info/sys</code> to verify host policies.
	Browser-based	Click CONFIG and select Cluster > Host(s) to verify host profiles.

Applying the license

The Nortel SNAS ships with support for up to 200 authenticated user sessions. To support additional users on your Nortel SNAS switch, you must obtain a Nortel SNA software license file. The software license file contains a software license key that you must enter into the Nortel SNAS switch to activate support for the additional users. The file can support an additional 100, 250, 500, or 1000 users.

Procedure steps

Step	Action
1	Contact Nortel Customer Support and purchase part number. In North America, Nortel Customer Support can be contacted at 1-800-4NORTEL (1-800-466-7835). For phone numbers outside of North America, see http://www.nortel.com/callus .
2	Once this is purchased, Nortel Customer Support sends a certificate that contains a unique product code and an e-mail address. Send this unique product code and the device MAC address to the e-mail address provided. The device MAC address can be obtained by using the <code>/info/local</code> command in the CLI. <pre>>> Main# /info/local</pre>
3	After the unique product code and device MAC address is verified, a keycode is sent back to you. Use this keycode to enable additional authenticated user sessions.
--End--	

Applying the keycode

You can apply the keycode to the device through either the CLI or the BBI. To apply the keycode, perform one of the following procedures.

Applying the keycode navigation

- “Applying the keycode using the BBI” (page 25)
- “Applying the keycode using the CLI” (page 25)

Applying the keycode using the BBI

Apply the keycode using the BBI to enable additional authenticated user sessions.

Procedure steps

Step	Action
1	Select the Config tab.
2	Select Cluster , Host, and License from the BBI menu.
3	Paste the keycode in the text box labeled New License .
4	Click Save .
--End--	

Applying the keycode using the CLI

Apply the keycode using the CLI to enable additional authenticated user sessions.

Procedure steps

Step	Action
1	Enter the command <code>/cfg/sys/host <host_number>/license</code> .
	<pre>>> Main# /cfg/sys/host <host_number>/license</pre>
2	Enter the keycode on the line.
3	Press Enter on the keyboard to create a new line and type three periods (...).
4	Press Enter to input the keycode.
5	Use the <code>apply</code> command to save the license and enable the feature.
	<pre>>> Cluster Host 1# apply</pre>
--End--	

Nortel Secure Network Access Solution upgrade uninstallation

This chapter provides the information about the Nortel Secure Network Access Solution (SNAS) upgrade uninstallation.

Navigation

- [“Uninstalling the upgrade” \(page 27\)](#)

Uninstalling the upgrade

Uninstall upgrades through either the BBI or CLI.

Uninstalling the upgrade navigation

- [“Uninstalling the upgrade using the CLI” \(page 27\)](#)
- [“Uninstalling the upgrade using the BBI” \(page 28\)](#)

Uninstalling the upgrade using the CLI

Uninstall an upgrade using the CLI to remove the upgrade from the switch and revert to the previous software version.

Procedure steps

Step	Action
1	<p>Use the <code>/boot/software/cur</code> command to confirm the current software version. The version marked a status of permanent is the current version.</p> <pre>>> Main# /boot/software/cur Version Name Status ----- 2.0.0.20 NSNAS old 2.0.0.21 NSNAS permanent</pre>

- 2 Use the `/boot/software/activate` command to revert to a previous software version.

```
>> Main# boot/software/activate
Enter software version to activate: <Software version
to activate>
Confirm action 'activate'? [y/n]:
```

- 3 Use the `/boot/software/del` command to delete the old software package.

```
>> Main# boot/software/del
Confirm action 'del'? [y/n]: y
```

The `/boot/software/del` command deletes all software packages that are not currently in use.

--End--

Uninstalling the upgrade using the BBI

Uninstall an upgrade using the BBI to remove the upgrade from the switch and revert to the previous software version.

Procedure steps

Step	Action
1	Click the Config tab.
2	Select Operation, Image Update from the menu. The Image Update screen appears.

Manage: 2.0.0.45
Operation > Image Update

Image Update

Installed Packages

Version	Name	Status	Actions
2.0.0.44	NSNAS	old	Activate Delete
2.0.0.45	NSNAS	permanent	

Upload New Package

File: [Browse...](#)

Warning: The time it takes to upload a package is dependent upon the speed of the Internet connection. Slow connections may take many minutes.

[Submit](#)

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Previous versions of software are marked with a status of **old** and the software package currently in use has a status of **permanent**.

- 3 Revert to the desired software package by clicking the **Activate** button in the appropriate row of the **Installed Packages** table.
- 4 Click the **Delete** button in the row of the **Installed Packages** table that corresponds to the previously used package.

--End--

Nortel Secure Network Access Switch

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