

Saving and Restoring Configurations on IPX, IGX, and BPX Nodes (CWM Needed)

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Introduction

This document describes how to save and restore configurations on IPX, IGX, and BPX nodes for nonupgrade and upgrade cases.

The Save/Restore feature of the switch must be turned on as a separate feature. You can use the **cnfswfunc** command to enable the Save/Restore feature in the software, which is password-protected.

Prerequisites

Requirements

Readers of this document should have knowledge of these topics:

- Cisco WAN Manager
- IPX/IGX/BPX node configuration

Components Used

This document is not restricted to specific software and hardware versions.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Saving Configuration

You can transfer the configuration stored in the nonvolatile memory to a Cisco WAN Manager (formerly StrataView Plus) workstation after you enable the Save/Restore feature with the **cnfswfunc** command. To begin the save process:

Use the **savecnf BackupID NodeName SV_Node <SV_IP_ADDR>** command to save the configuration, where:

- *BackupID* is an 8-character name used as an identifier. A pull-down menu in the StrataView Topology window shows the BackupIDs of stored configurations for different times.
- *NodeName* is the name of the switch. The NodeName can be specified as an asterisk (*), which indicates all nodes in the network.
- *SV_Node* is the SV+ gateway node when the NWIP option is off. When the NWIP option is on, you must specify SV_NODE as an asterisk (*) and, in this case, the SV_IP_ADDR specifies the IP address of the SV+ station to which the **savecnf** command is destined.

The configuration save is completely non-intrusive to the operation of the node. While the upload takes place (which lasts about 5 to 10 minutes in Release 8.4), downloading of firmware can not be done. You can use the **dspcnf** command to display the status/progress of the operation during upload.

Note: The switch software "remembers" the state of the save/restore operation to prevent loss of configuration data. If the "Status" column of the **dspcnf** command output does not indicate "Clear," you must use the **savecnf clear NodeName** command to clear it.

Note: Because the software resources for the **savecnf** command competes with such things as the **getfwrev** command (for downloading firmware images), you may need to use the **getfwrev Card 0.0 NodeName** command to clear the logical lock the Card name is necessary only for Release 8.4 and later; omit this parameter if you are using Release 8.1.

Restoring Configuration (Nonupgrade Case)

Restoring a previously-saved configuration requires a node restart (that is, a rebuild) which disrupts network traffic. The nonupgrade case described in this section pertains only to cases in which the switch software currently running on the node is the same release as the version that performed the **savecnf**. If this is not the case, see the Restoring Configuration (Upgrade Case) section of this document.

Note: If the node that is being restored has lost its configuration, or some other disastrous event has happened to make the node (or network) unusable, see the Restoring Configuration (Upgrade Case) section of this document.

The **loadcnf BackupID NodeName SV_Node <SV_IP_ADDR>** command downloads the configuration identified as *BackupID* onto the node *NodeName* from the SV+ station called *SV_Node*.

As for the **savecnf** command, you can specify the *NodeName* as an asterisk (*), which indicates all the network nodes. You can specify the *SV_Node* as the SV+ gateway node when the NWIP option is off, or as an asterisk (*) if the NWIP option is turned on. If you specify an asterisk for *SV_Node*, you must specify the *SV_IP_ADDR* field.

The Actual Switch

When the alternative configuration is downloaded, the **dspcnf** command output displays the Configuration restore complete message in the Status column. When you see this message, use the **runcnf BackupID NodeName** command to install the new configuration in the NVRAM and automatically restart the active processor card.



Caution: Unexpected side-effects can occur when you restore configurations. After network updates (connection and topology) are exchanged after the rebuild, connections or trunks might be deleted automatically. This happens only when the differences between before you use the **runcnf** command and the newly-restored configuration are such that the two ends of a connection or trunk do not have the same view of the network.



Caution: Therefore, it is very important to understand the contents of the configuration that is being restored. When network-wide data such as trunks and connections change, the configuration of all nodes must be saved. Other less significant data, such as system parameters (**cnfsysparm**) and user IDs (**dspusers**), should also be considered at-risk items.

Restoring Configuration (Upgrade Case)

This section describes how to restore a node to a configuration that is has one of these characteristics:

- Associated with a different release of the software (such as 8.4 to 8.1)
- In the same release but so different from the existing configuration that the network operation will be affected (meaning that connections, trunks, or user-IDs have changed).

If the configuration is for a different release of the software, you must first download that software to the node. There are two possibilities, depending on whether the software exists in any of the cards (in ROM or RAM).

1. Use the **clrallcnf** command to take the node down to the boot code.
2. Use the **cnflan** command to configure the LAN address.
3. Use the **resetcc a** command to reset the active card.
4. Perform one of these steps:
 - a. Use the **dspcc s** command if the active card does not have the image to check the standby card.
 - b. Use the **switchcc** command if the active card has the image before you proceed to the next step.
5. Use the **lanbtld** command to load the software image in boot, if the software image (the release that is the same revision as the configuration that is being restored) does not exist on the node (in RAM or ROM).

If, for some reason, the node is in boot without having done a **clrallcnf**, you can achieve the same effect:

- On BPX patch memory locations 806 and 807 to value "CC".
- On IPX/IGX, patch memory locations 802 and 803 to value "CC".

The node must be physically isolated with these steps:

1. Pull out the trunk cards on the node.
2. Use the **setrev X.X.xx p** command to go on line.
3. Use the **cnfnwip** command to configure the network IP address.
4. Configure the configuration.

Use the **loadcnf** command as described in the Restoring Configuration (Nonupgrade Case) section to download the configuration.

Related Information

- [Cisco WAN Switching Solutions – Cisco Documentation](#)
 - [Guide to New Names and Colors for WAN Switching Products](#)
 - [Downloads – WAN Switching Software](#)
 - [Technical Support – Cisco Systems](#)
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