

Replace Extreme X670V/X770 Switch

Cloud Execution Environment

OPERATING INSTRUCTIONS

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Replace Extreme X670V/X770 Switch



1 Introduction

This Operational Instruction describes the replacement of the Extreme switch. The document is valid for both X670V and X770 switches.

1.1 Prerequisites

This section provides information on the documents, tools and conditions that apply to the procedure.

1.1.1 Documents

Before starting this procedure, ensure that you have read the following documents:

- Personal Health and Safety Information
- System Safety Information

The following documents are used in the procedure:

- The installation documentation provided by the manufacturer of the switch:
 - Summit Family Hardware Installation Guide
 - Pluggable Hardware Installation Guide

Access the Extreme support documentation at the Extreme Networks Partner Web for Ericsson (extranet), Reference [1].

- Extreme X670V Configuration or Extreme X770 Configuration, depending on the switch type
- SW Installation in Multi-Server Deployment
- SW Installation in Single Server Deployment

Address variables are summarized in the table below. For more information, refer to the IP and VLAN plan, Reference [2].

Switch Role	Network/VLAN	IPv4 Address Variable
	cee_ctrl_sp	<fuel_static_ip>
Traffic	cee_ctrl_sp	<traffic_switch_a_static_ip>
Traffic	cee_ctrl_sp	<traffic_switch_b_static_ip>
Storage	cee_ctrl_sp	<storage_switch_a_static_ip>
Storage	cee_ctrl_sp	<storage_switch_b_static_ip>



Note: The procedure depends on whether the role of the switch is **traffic** or **storage**.

Mixed switches have both traffic and storage switch functions.

- If there are only two X670V switches, then both are mixed switches.
- If there are four X670V switches, or four X770 switches, then there are two traffic switches combined with two storage switches.

Traffic switches and **mixed** switches are operated using Neutron, but **storage** switches are not. In the procedures below, the affected steps start with the following text: Not applicable for storage switches.

The steps that are handled by Neutron for **traffic** and **mixed** switches, but must be done manually for **storage** switches start with the following text: Only applicable for storage switches.

Variables used in the commands are listed below:

Variable	Value
<user_name>	Example: admin
<switch_name>	<cee_region_name>_TRAFFIC_SWA_X770
	<cee_region_name>_TRAFFIC_SWB_X770
	<cee_region_name>_TRAFFIC_SWA_X670V
	<cee_region_name>_TRAFFIC_SWB_X670V
	<cee_region_name>_STORAGE_SWA_X770
	<cee_region_name>_STORAGE_SWB_X770
	<cee_region_name>_STORAGE_SWA_X670V
	<cee_region_name>_STORAGE_SWB_X670V

1.1.2

Conditions

Before starting this procedure, ensure that the following conditions are met:

- Two persons are available for the operations. The procedure requires two people to maneuver the switch and to attach the mounting hardware.
- A replacement switch is available. The replacement switch is of the same type as the one that is to be removed. It has been verified visually that the new switch is undamaged.
- The CEE region name for the replacement switch is known.
- Site access is granted.
- A work order is received, or this instruction is referred from another instruction.



- The Extreme switch admin user password is known.

1.1.3 Tools and Equipment

Ensure that the following tools and equipment available:

- A Torx T30 screwdriver or a torque wrench with a T30 bit
- A Phillips screwdriver
- A flat-head screwdriver
- An Electrostatic Discharge (ESD) wrist strap (part number LYB 250 01/14)
- Thermal protective gloves for the removal of the power supplies
- Cable straps
- Side cutting pliers
- An RJ45-to-RS-232 adapter cable for console connection
- A USB-to-RS-232 adapter cable for console connection
- Two cat6 Ethernet cables
 - One for console connection connected through the two mentioned adapters
 - One to be connected directly to the management port



2 Procedure

The procedure contains the following activities:

1. Removal of the faulty switch from the cabinet, see Section 2.1 on page 4.
2. Hardware installation of the replacement switch in the cabinet, see Section 2.2 on page 7.
3. Software upgrade and initial configuration, see Section 2.3 on page 9.
4. Restore network settings, see Section 2.4 on page 9.

Start the procedure with Section 2.1 on page 4.

2.1 Removal of the Faulty Switch



Warning!

High energy levels are present in this unit. Improper handling of the unit can lead to short circuits that can result in serious injury. Exercise care when working with this unit.

Do the following to remove the faulty switch from the cabinet:

1. Inform the Operation and Maintenance Center (OMC) that work is in progress on the node, with possible disturbance to the service.
2. Not applicable for storage switches.

Set the device status to unsupervised.

- a. Check the `<switch_name>`:

```
neutron device-list
```

- b. Switch the device status to unsupervised in Neutron:

```
neutron device-update <switch_name> ⇒ --status=UNSUPERVISED
```

Example:

```
neutron device-update RegionOne_TRAFFIC_SWA_X770⇒
```




`--status=UNSUPERVISED`

3. Not applicable for storage switches.

Verify that the device status has changed to unsupervised:

`neutron device-show <switch_name>`

Contact the next level of maintenance support if the device status does not change.

4. Open the door of the cabinet housing the switch to be replaced.
5. Locate the switch to be replaced. Confirm that the switch is identical with the one specified in the work order.
6. Put the ESD wrist strap on your wrist and connect the cable to the grounding point.



Do!

Use an ESD wrist strap to avoid damage to components mounted on printed board assemblies.

7. Switch off the circuit breakers feeding the two power supplies in the switch.
8. Note down the positions and connections of cables and Small Form-Factor Pluggable (SFP) modules at the faulty switch. This information is needed when installing the new replacement switch.
9. Cut and remove any securing cable straps that obstruct the disconnection of the switch cables or the removal of the switch using the side cutting pliers.



Danger!

Never look directly into the end of a fiber optic cable or other laser source. Equipment that transmits laser light can cause permanent eye damage. Switch off the laser before starting work on laser equipment.

10. Disconnect the optical data cables from the SFP modules of the switch.



Note: When disconnecting optical cables, pull the connector body directly from the SFP module socket. Take care not to apply lateral or vertical forces to the connector. Do not touch the tip of the connector.

Note: Handle the optical cables with care to prevent damage. Never bend the optical cables sharper than the manufacturer specified minimum bend radius. Never bend the optical cables near a connector strain relief boot, nor over a sharp edge. Bundle the optical cables loosely using cable straps.

11. Remove the SFP modules as described in the Pluggable Hardware Installation Guide provided by the manufacturer of the switch, refer to Reference [1]. The SFP modules are reused in the replacement switch.

Note: Use protective caps on the SFP modules when optical cables are not connected to them.

12. Disconnect the console cables if connected.

13. To complete the removal of the switch, follow the instructions in the Summit Family Hardware Installation Guide provided by the manufacturer of the switch, refer to Reference [1].

Note: This step includes disconnecting the cables from the power supplies. The power supplies are then removed from the switch. The grounding cable is disconnected from the grounding stud at the front of the switch, and then the switch can be removed from the cabinet.

Note: The screws fastening the switch to the cabinet can be removed by using a Torx T30 screwdriver.

Note: Do not wear an ESD wrist strap when disconnecting or connecting power supply cables. This is to avoid electrical shock if there is a damaged power supply cable or cable connector.

14. When the faulty switch is removed from the cabinet, remove the mounting brackets from both sides of the switch. Figure 1 shows the removal from one side.

- a. Remove the long slider brackets by pulling them off the switch.
- b. Remove the shorter brackets by removing the fastening screws using a Phillips screwdriver.

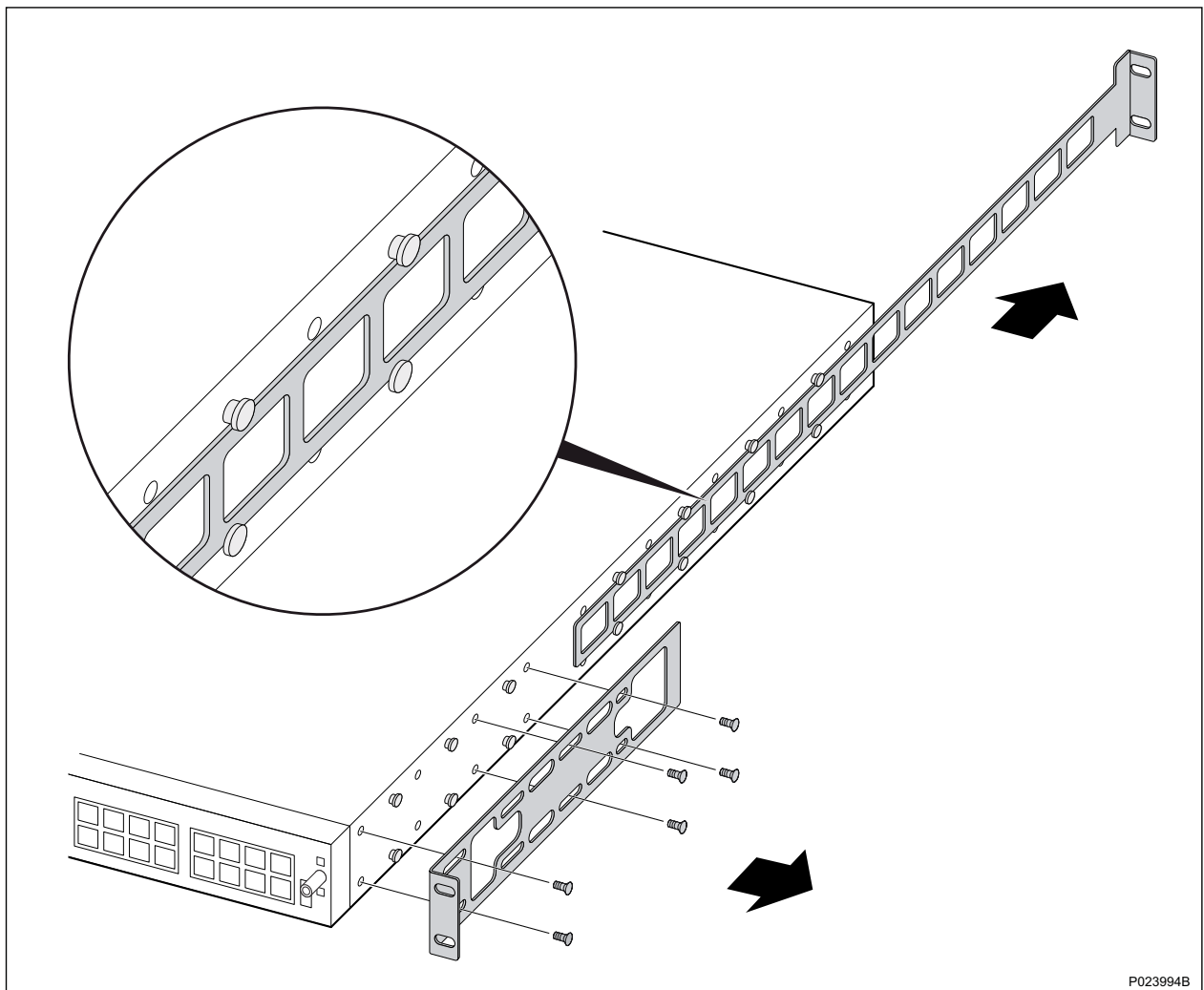


Figure 1 Removing the Mounting Brackets

Note: The mounting brackets and the screws are reused for the replacement switch.

15. Continue with Section 2.2 on page 7.

2.2 Hardware Installation of the Replacement Switch

Do the following:

1. Note down the serial number of the new switch.
2. Install the mounting brackets on the replacement switch.
 - a. Fix the shorter brackets to the switch with the screws by using the Phillips screwdriver.



- b. Install the long slider brackets by sliding them between the two rows of pegs on the sides of the switch.
3. Install the replacement switch in the cabinet by following the instructions in the Summit Family Hardware Installation Guide provided by the manufacturer of the switch, refer to Reference [1].

Note: This step includes the mounting of the switch in the cabinet. The grounding cable is then connected to the grounding stud at the front of the switch. The power supplies are installed in the switch, and then the cables are connected to the power supplies.

Note: Use a torque wrench with a Torx T30 bit to tighten the screws fastening the switch to the cabinet. Tightening torque is 10 Nm.

Note: Do not wear an ESD wrist strap when disconnecting or connecting power supply cables. This is to avoid electrical shock, if there is a damaged power supply cable or cable connector.
4. Put the ESD wrist strap back on your wrist and ensure that the cable is connected to the grounding point.
5. Install the SFP modules in the positions noted down before the removal in Step 8. Refer to the Pluggable Hardware Installation Guide provided by the manufacturer of the switch, Reference [1].



Danger!

Never look directly into the end of a fiber optic cable or other laser source. Equipment that transmits laser light can cause permanent eye damage. Switch off the laser before starting work on laser equipment.

6. Connect the optical data cables to the new switch in the positions noted down before the removal in Step 8.

Note: When connecting optical cables, hold the connector body, gently push the connector directly into the socket on the switch or SFP module. Do not touch the tip of the connector.

Note: Handle the optical cables with care to prevent damage. Never bend the optical cables sharper than the manufacturer specified minimum bend radius. Never bend the optical cables near a connector strain relief boot, nor over a sharp edge. Bundle the optical cables loosely using cable straps.
7. Switch on the circuit breakers that feed the two power supplies of the switch.



8. Continue with Section 2.3 on page 9.

2.3 Software Upgrade and Initial Configuration

1. Use the [Extreme X670V Configuration](#) or [Extreme X770 Configuration](#) installation instruction to perform the software upgrade and initial configuration for the replacement switch.

2.4 Configure Network Settings

Configure the network settings for the switch by performing the following steps:

1. Log on to the switch using a serial console cable.
2. Download the configuration file belonging to the replaced switch using TFTP:

```
tftp get <fuel_static_ip> vr "VR-Default" extreme_conf/⇒
<switch_config_file> /usr/local/cfg/⇒
ericsson_backup.cfg force-overwrite
```

where <switch_config_file> is one of the following:

```
<cee_region_name>_STORAGE_SWA_X770_ericsson_backup.cfg
<cee_region_name>_STORAGE_SWB_X770_ericsson_backup.cfg
<cee_region_name>_TRAFFIC_SWA_X770_ericsson_backup.cfg
<cee_region_name>_TRAFFIC_SWB_X770_ericsson_backup.cfg
<cee_region_name>_STORAGE_SWA_X670V_ericsson_backup.cfg
<cee_region_name>_STORAGE_SWB_X670V_ericsson_backup.cfg
<cee_region_name>_TRAFFIC_SWA_X670V_ericsson_backup.cfg
<cee_region_name>_TRAFFIC_SWB_X670V_ericsson_backup.cfg
<cee_region_name>_SWA_X670V_ericsson_backup.cfg
<cee_region_name>_SWB_X670V_ericsson_backup.cfg
```

Note: The local file must be ericsson_backup.cfg.

The switch name is displayed when you log on to the switch.

3. Select the downloaded configuration to be used by the switch:

```
use configuration <config_file>
```

Example:

```
use configuration ericsson_backup
```

4. Reboot the switch to activate the new configuration:
 - a. Use the **reboot** command.
 - b. Answer No when the question about saving the configuration is prompted. Do not save the configuration before rebooting.

Reboot can take about ten minutes.



5. Ensure that the switch has finished the boot process and is accessible again.
6. Only applicable for storage switches.

Reboot the storage switch again.

- a. Use the **reboot** command.
- b. Answer No when the question about saving the configuration is prompted. Do not save the configuration before rebooting

Reboot can take about ten minutes.

7. Only applicable for storage switches.

Ensure that the switch has finished the boot process and is accessible again.

8. Not applicable for storage switches.

Issue the following command:

```
neutron device-recover <switch_name>
```

Note: Neutron does not save the active configuration to the switch, and uses SOAP to recover VLAN and additional information instead of using the saved backup configuration. When rebooting or exiting from the switch, **do not** save the configuration, select No when prompted. The switch status changes are available in `neutron-server.log` as `Change device status`.

Switch names can be checked with **neutron device-list**

9. Not applicable for storage switches.

Wait five minutes until the status of the switch becomes ACTIVE. Check the switch status with:

```
neutron device-show <switch_name>
```

10. Continue with Section 2.5 on page 10.

2.5 Conclude Replacement

Do the following:

1. If any cable straps were cut, secure the cable bundles using new cable straps.
2. If a local management tool is used, disconnect the tool.
3. If the faulty switch is not yet packed, pack it using the packing material of the replacement switch.



4. Disconnect the ESD wrist strap from your wrist and, if necessary, from the cabinet grounding point.
5. Collect all tools and equipment.
6. Close the cabinet door and lock it if needed.
7. Report that the switch has been changed.
8. Carry out any remaining actions according to the work order, if applicable.
9. Follow the procedure for the return and disposal of the replacement parts.
10. The job is completed.



Reference List

- [1] Extreme Support Documentation, <http://www.extremenetworks.com/partners/partners-hub.aspx>
- [2] IP and VLAN plan, 2/102 62-CRA 119 1862/5 Uen