

Introduction

This document describes the steps needed to replace Supervisor 2E modules with Supervisor 3E modules.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Nexus operating system CLI
- vPC rules

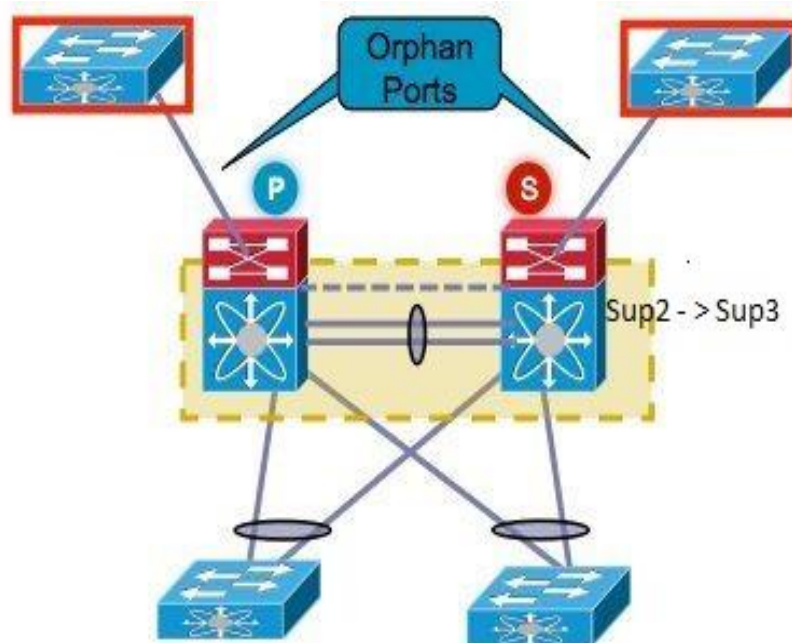
Components used

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

- Supervisor 3E module (Cisco NX-OS Release 8.3(1) or later)
- Supervisor 2E module

The information in this document was created from the devices in a specific lab environment. If your network is live, make sure that you understand the potential impact of any command.

Scenario 1 : vPC deployment



Identify the vPC operational primary device from the vPC pair and perform the following steps:

1. Back up the running configuration for all VDCs from the vPC primary device to the FTP/SFTP/TFTP server and on a USB flash drive. In this example, we name the backup configuration file as BackUpConfig and save it in an FTP server.
2. Identify the devices that are connected to orphan ports. There may be connectivity loss in case the environment is supported by orphan ports that do not have a redundant link back to the network.
3. Take a screenshot of the interface management and the default gateway IP address. This is required to download the configuration from the FTP server after replacing the Sup2E module with the Sup3E module.
4. Make a note of the installed licenses and copy the license files into the FTP server or the USB flash drive.
5. Gather CLI command outputs for the commands mentioned in the list below from both Cisco Nexus 7700 Series switches. Command outputs have to be gathered per VDC also. Save the outputs for verification after replacing the supervisor modules.
 - o show version
 - o show module
 - o show inventory
 - o show vpc
 - o show vpc role
 - o show port-channel summary
 - o show span sum
 - o show vlan sum
 - o show running-config vdc-all all
 - o show ip int brief vrf all
 - o show int status
 - o show cdp neighbour
 - o show trunk
6. Use the system mode maintenance shutdown command in all VDCs. This command brings down all the supported control plane protocols and shuts down the interfaces.

Note : If the switch is deployed with FEX, follow the instructions at [this link](#) to create a custom profile to perform system mode maintenance.

By default, the following protocols are currently supported in GIR mode:

- o Border Gateway Protocol Version 4 (BGPv4)
- o BGP Version 6 (BGPv6)
- o Multiprotocol BGP (MP-BGP) address families (Virtual Private Network Version 4 (VPNv4), VPNv6, and Layer 2 VPN (L2VPN) Ethernet VPN (EVPN))
- o Enhanced Interior Gateway Routing Protocol (EIGRP)
- o Enhanced Interior Gateway Routing Protocol Version 6 (EIGRPv6)
- o Intermediate System-to-Intermediate System (ISIS)
- o Open Shortest Path First (OSPF)
- o Open Shortest Path First Version 3 (OSPFv3)

- Virtual PortChannel (vPC and vPC+)
- Cisco FabricPath

For the protocols that are not part of the list above, create a custom maintenance mode profile as shown in [Custom Profile](#).

7. Ensure that all the configured protocols are suspended or brought down after using the system mode maintenance shutdown command.
8. Bring down the interfaces by using the system mode maintenance command.
9. At this stage, there should be no traffic on the isolated vPC device.
10. Copy the running configuration in this state by using the `show run vdc-all > bootflash: $fileName` command and save it to an external SFTP server or on a USB flash drive. In this example, we name this configuration as ConfigToRestore.
11. Power down the vPC isolated switch.
12. Replace the Sup2E modules with the Sup3E modules and connect the console and management ports. Note: Ensure that an appropriate baud rate has been configured.
13. Power up the chassis with the Sup3E modules.
14. Ensure that the supervisor and all I/O modules are in the “UP” state.
15. Configure the management and default gateway IP to access the FTP server.
16. Ensure that the Sup3E module is preloaded with the Cisco NX-OS Release 8.3(1) image. If not, download the latest Cisco NX-OS Release image (8.3(1) or later releases for the Sup3E module. Change the boot variable to the latest image, perform a write-erase and then reload the chassis to boot with the latest downloaded image.
17. Download the ConfigToRestore configuration file to bootflash.
18. Download the saved license files into bootflash and Install the required licences.
19. Ensure that the Sup3E module and all the I/O Modules are in the “UP” state by using show module command.
20. Use the copy bootflash: *ConfigToRestore* running configuration command.
21. Ensure that the configuration is applied without any errors.
22. Use the copy run start vdc-all command and reload the switch
23. Ensure that the switch is still isolated and no traffic is reaching this switch.
24. Check the LACP roles for vPC peer link on both switches.

If both the switches are with the same role, disable auto recovery by using the no auto-recovery command under the vPC domain on both peers and reload the switch. After reload, the switch comes up with the LACP role 'none established'. This avoids LACP role re-election.

Enter these commands to check the LACP role:

```
show system internal vpcm info all | i "LACP Role"
```

```
show system internal vpcm info all | i "LACP Peer"
```

25. Ensure that the sticky bit is set to false on this switch .

Use the `show sys internal vpcm info all | i i stick` command to check whether the sticky bit is set to false.

If the sticky bit is set to false, continue to Step 27. If the sticky bit is set to true, reconfigure the vPC role priority. To do this, you have to reapply the original configuration for the role priority. If the role priority is default, then reapply the default.

In the example given below, the role priority is 2000 and the same value is reapplied.

```
vpc domain 30
role priority 2100
```

Use the `show sys internal vpcm info all | i i stick` command to determine if the sticky bit is set to false.

If the sticky bit is still true, reload the VDC or the switch.

26. Use the `no system mode maintenance` command.
27. Verify that all the control plane protocols are brought up and interfaces are brought up.
28. Ensure that the current running configuration matches the backed up configuration file `BackUpConfig`.
29. Use the commands listed in Step 6 and to verify the configuration.
30. After this peer has been upgraded with the Sup3E module, repeat Steps 1 to 30 for the remote VPC peer.

Scenario 2 : Non vPC deployment

Refer [Migrating from Supervisor 2E Modules \(N77-SUP2E\) to Supervisor 3E Modules \(N77-SUP3E\)](#).