Migrating Switches in a vPC Topology

This chapter describes how to migrate from one pair of switches to another in a vPC topology. It contains the following sections:

vPC Forklift Upgrade

In a vPC topology, you can migrate from a pair of Cisco Nexus 3500 platform switches to a different pair of Cisco Nexus 3500 platform switches. For more information, see the *vPC Forklift Upgrade Scenario* section in the *Cisco Nexus 3500 Series NX-OS Interfaces Configuration Guide* on Cisco.com.

vPC Upgrade and Downgrade Process

The following list summarizes the upgrade and downgrade process in a vPC topology.

Note In vPC topologies, the two peer switches must be upgraded individually. An upgrade on one peer switch does not automatically update the vPC peer switch.

1. Switch A and B are running a Cisco NX-OS release. Switch A is the primary switch and switch B is the secondary switch. Use the **copy r s** command on both the switches.

```
secondary_switch# show vpc role
vPC Role status
----------------------------------------------------
vPC role : secondary
vPC system-mac : 00:23:04:ee:be:64
vPC system-priority : 32667
vPC local system-mac : 70:df:2f:eb:1c:ab
vPC local role-priority : 100
vPC peer system-mac : 70:df:2f:eb:86:1f
vPC peer role-priority : 90
secondary_switch#

primary_switch# show vpc role
vPC Role status
```

```
-------------------------------------------------
vPC role : primary
vPC system-mac : 00:23:04:ee:be:64
vPC system-priority : 32667
vPC local system-mac : 70:df:2f:eb:86:1f
vPC local role-priority : 90
vPC peer system-mac : 70:df:2f:eb:1c:ab
vPC peer role-priority : 100
BF-Leaf-2#

secondary_switch# copy r s v
[########################################] 100%
Copy complete.

primary_switch# copy r s v
[########################################] 100%
Copy complete.
```

2. Bring down the peer link (PL) on switch A. Switch B brings down its vPC legs.

```
primary_switch# conf t
Enter configuration commands, one per line. End with CNTL/Z.
primary_switch(config)# int port-channel 100
primary_switch(config-if)# shutdown

Reload switch B with H_dev image (change bootvar /reload)

secondary_switch(config)# boot nxos nxos.9.0.42.bin
Performing image verification and compatibility check, please wait....
secondary_switch(config)#
secondary_switch(config)# copy r s v
[########################################] 100%
Copy complete.


secondary_switch# reload
This command will reboot the system. (y/n)? [n] y


After reload
---------------------
secondary_switch# show vpc
Legend:
(*) - local vPC is down, forwarding via vPC peer-link
vPC domain id : 100
Peer status : peer link is down
vPC keep-alive status : peer is alive
Configuration consistency status : failed
Per-vlan consistency status : success
Configuration inconsistency reason: Consistency Check Not Performed
Type-2 inconsistency reason : Consistency Check Not Performed
vPC role : none established
Number of vPCs configured : 20
Peer Gateway : Enabled
Dual-active excluded VLANs : -
Graceful Consistency Check : Disabled (due to peer configuration)
Auto-recovery status : Disabled
Delay-restore status : Timer is off.(timeout = 90s)
Delay-restore SVI status : Timer is off.(timeout = 10s)
Operational Layer3 Peer-router : Disabled
vPC Peer-link status
---------------------------------------------------------------------
id Port Status Active vlans
-- ---- ------ --------------------------------------------------
```

```
1 Po100 down -

secondary_switch#

primary_switch(config-if)# show vpc
Legend:
(*) - local vPC is down, forwarding via vPC peer-link
vPC domain id : 100
Peer status : peer link is down
vPC keep-alive status : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role : primary
Number of vPCs configured : 20
Peer Gateway : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs and BDs : -
Graceful Consistency Check : Enabled
Auto-recovery status : Enabled, timer is off.(timeout = 240s)
Operational Layer3 Peer-router : Disabled
vPC Peer-link status
---------------------------------------------------------------------
id Port Status Active vlans
-- ---- ------ --------------------------------------------------
1 Po100 down -
```

3. Configure vPC auto-recovery under the vPC domain on switch B. Enable **vpc upgrade** (exec command).

```
secondary_switch(config)# vpc domain 100
secondary_switch(config-vpc-domain)# auto-recovery
secondary_switch(config-vpc-domain)# end

secondary_switch# show running-config vpc
!Command: show running-config vpc
!Running configuration last done at: Wed May 16 06:34:10 2018
!Time: Wed May 16 06:34:14 2018
version 7.0(3)IHD8(1) Bios:version 01.11
feature vpc
vpc domain 100
peer-switch
role priority 100
peer-keepalive destination 10.1.31.30 source 10.1.31.29
delay restore 90
peer-gateway
auto-recovery
ipv6 nd synchronize
ip arp synchronize
interface port-channel100
vpc peer-link
interface port-channel2001
vpc 101

secondary_switch# show vpc upgrade                      >> Hidden command
vPC upgrade : FALSE
SVI Timer : 10
Delay Restore Timer : 90
Delay Orphan Port Timer : 0



secondary_switch# vpc upgrade   >> exec command

secondary_switch# show vpc upgrade
```

```
vPC upgrade : TRUE
SVI Timer : 0
Delay Restore Timer : 0
Delay Orphan Port Timer : 0
secondary_switch#
```

4. After L3 routes are learned on switch B, reload switch A with the new release image. Switch B takes over the primary role and brings up its vPC legs in approximately 5 seconds.

```
primary_switch(config)# show boot
Current Boot Variables:
sup-1
NXOS variable = bootflash:/nxos.7.0.3.F3.4.bin
No module boot variable set
Boot Variables on next reload:
sup-1
NXOS variable = bootflash:/nxos.7.0.3.F3.4.bin_new_tor_source
No module boot variable set
primary_switch(config)# end

primary_switch# show boot
Current Boot Variables:
sup-1
NXOS variable = bootflash:/nxos.7.0.3.F3.4.bin_new_tor_source
No module boot variable set
Boot Variables on next reload:
sup-1
NXOS variable = bootflash:/nxos.7.0.3.F3.4.bin_new_tor_source
No module boot variable set
primary_switch# reload
This command will reboot the system. (y/n)? [n] y

secondary_switch# show vpc
Legend:
(*) - local vPC is down, forwarding via vPC peer-link
vPC domain id : 100
Peer status : peer link is down
vPC keep-alive status : peer is not reachable through peer-keepalive
Configuration consistency status : failed
Per-vlan consistency status : success
Configuration inconsistency reason: Consistency Check Not Performed
Type-2 inconsistency reason : Consistency Check Not Performed
vPC role : primary
Number of vPCs configured : 20
Peer Gateway : Enabled
Dual-active excluded VLANs : -
Graceful Consistency Check : Disabled (due to peer configuration)
Auto-recovery status : Enabled, timer is off.(timeout = 240s)
Delay-restore status : Timer is off.(timeout = 0s)
Delay-restore SVI status : Timer is off.(timeout = 0s)
Operational Layer3 Peer-router : Disabled
vPC Peer-link status
---------------------------------------------------------------------
id Port Status Active vlans
-- ---- ------ --------------------------------------------------
1 Po100 down -
vPC status
```

5. When switch A comes back up, it brings up the peer link on switch A.

```
primary_switch# show vpc
Legend:
(*) - local vPC is down, forwarding via vPC peer-link
```

```
vPC domain id : 100
Peer status : peer adjacency formed ok
vPC keep-alive status : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role : primary, operational secondary
Number of vPCs configured : 20
Peer Gateway : Enabled
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status : Disabled
Delay-restore status : Timer is off.(timeout = 90s)
Delay-restore SVI status : Timer is off.(timeout = 10s)
Operational Layer3 Peer-router : Disabled
vPC Peer-link status
---------------------------------------------------------------------
id Port Status Active vlans
-- ---- ------ --------------------------------------------------
1 Po100 up 1,101-400
```

6. For downgrade, reload both the switches at the same time.