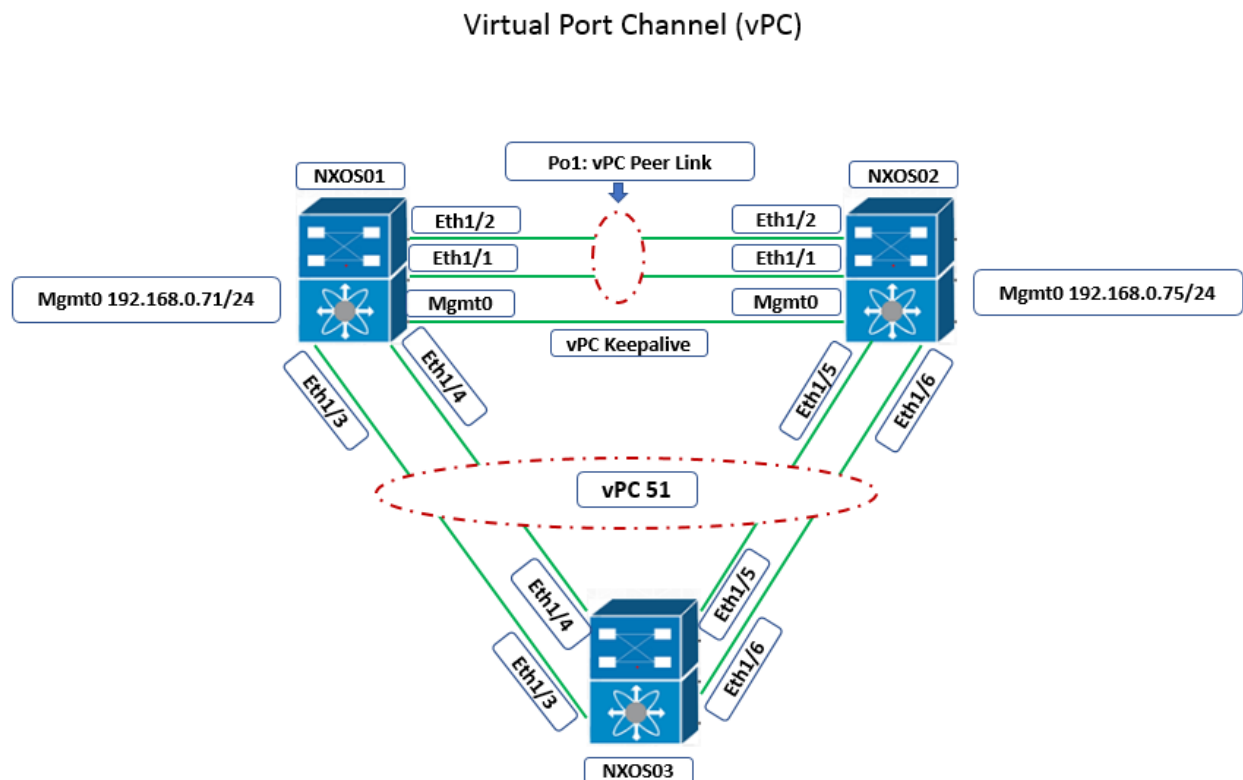


Nexus 7K Virtual Port Channels (vPC)

Platform: <https://racks.uninets.com>

Lab Name: Nexus 9k NXOSv

Topology



Task

- Erase the previous configuration on switches NXOS01, NXOS02, NXOS03 and NXOS04 using command “write erase” and reload both switches, assign hostname the same hostname to both switches. Use provisioning documents if required
- Configure a vPC between NXOS01, NXOS02, and NXOS03 as follows:
 - NXOS01 and NXOS02 are the vPC Peers.
 - Configure Eth1/1 and Eth1/2 ports between the vPC peers as Port-Channel 1, and use this as the vPC Peer Link.
 - Configure NXOS01 mgmt0 interface with IP address 192.168.0.71 and NXOS02 mgmt0 with IP address 192.168.0.75. Use the mgmt0 ports for the Peer Keepalive Link.

- Configure all available links from NXOS01 and NXOS02 to NXOS03 in Port-Channel 51, and as vPC 51.
- All port channels should be trunks, and use LACP for negotiation.
- Keep saving your configuration using command “copy run start”

Configuration

NXOS03:

```
!
feature lacp
!
interface Ethernet1/3-6
  switchport mode trunk
  channel-group 51 mode active
  no shutdown
!
```

NXOS01:

```
!
feature vpc
feature lacp
!
Interface mgmt0
ip address 192.168.0.71/24
!
vpc domain 1
  peer-keepalive destination 192.168.0.75
!
interface Ethernet1/1-2
  switchport mode trunk
  channel-group 1 mode active
  no shutdown
!
interface port-channel1
  switchport
  switchport mode trunk
  spanning-tree port type network
  vpc peer-link
!
interface Ethernet1/3-4
  switchport mode trunk
  channel-group 51 mode active
  no shutdown
!
interface port-channel51
```

```
switchport
switchport mode trunk
vpc 51
!
```

NXOS02:

```
!
feature vpc
feature lacp
!
Interface mgmt0
ip address 192.168.0.75/24
!
vpc domain 1
peer-keepalive destination 192.168.0.71
!
interface Ethernet1/1-2
switchport mode trunk
channel-group 1 mode active
no shutdown
!
interface port-channel1
switchport
switchport mode trunk
spanning-tree port type network
vpc peer-link
!
interface Ethernet1/5-6
switchport mode trunk
channel-group 51 mode active
no shutdown
!
interface port-channel51
switchport
switchport mode trunk
vpc 51
!
```

Verification

```
NXOS03# show port-channel summary
```

```
Flags: D - Down      P - Up in port-channel (members)
       I - Individual H - Hot-standby (LACP only)
       s - Suspended r - Module-removed
       b - BFD Session Wait
       S - Switched  R - Routed
       U - Up (port-channel)
       p - Up in delay-lacp mode (member)
       M - Not in use. Min-links not met
```

```
-----
Group Port-   Type   Protocol Member Ports
Channel
-----
51  Po51(SU)  Eth    LACP    Eth1/3(P) Eth1/4(P) Eth1/5(P)
                               Eth1/6(P)
```

```
NXOS01# show port-channel summary
```

```
Flags: D - Down      P - Up in port-channel (members)
       I - Individual H - Hot-standby (LACP only)
       s - Suspended r - Module-removed
       b - BFD Session Wait
       S - Switched  R - Routed
       U - Up (port-channel)
       p - Up in delay-lacp mode (member)
       M - Not in use. Min-links not met
```

```
-----
Group Port-   Type   Protocol Member Ports
Channel
-----
1   Po1(SU)   Eth    LACP    Eth1/1(P) Eth1/2(P)
51  Po51(SU)  Eth    LACP    Eth1/3(P) Eth1/4(P)
```

```
NXOS01# show vpc
```

```
Legend:
```

```
(*) - local vPC is down, forwarding via vPC peer-link
```

```
vPC domain id          : 1
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
Number of vPCs configured : 1
Peer Gateway           : Disabled
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status   : Disabled
Delay-restore status    : Timer is off.(timeout = 30s)
Delay-restore SVI status : Timer is off.(timeout = 10s)
Operational Layer3 Peer-router : Disabled
```

```
vPC Peer-link status
```

```
-----
id  Port  Status Active vlans
-----
```

```
1   Po1  up    1
```

```
vPC status
```

```
-----
Id  Port      Status Consistency Reason          Active vlans
-----
```

51	Po51	up	success	success	1
----	------	----	---------	---------	---

```
Please check "show vpc consistency-parameters vpc <vpc-num>" for the consistency reason of down vpc and for type-2 consistency reasons for any vpc.
```

```
NXOS02# show port-channel summary
```

```
Flags: D - Down      P - Up in port-channel (members)
       I - Individual H - Hot-standby (LACP only)
       s - Suspended r - Module-removed
       b - BFD Session Wait
       S - Switched  R - Routed
       U - Up (port-channel)
       p - Up in delay-lACP mode (member)
       M - Not in use. Min-links not met
```

```
-----
Group Port-   Type   Protocol Member Ports
Channel
-----
1  Po1(SU)  Eth    LACP    Eth1/1(P) Eth1/2(P)
51 Po51(SU)  Eth    LACP    Eth1/5(P) Eth1/6(P)
```

```
NXOS02# show vpc
```

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

```
vPC domain id          : 1
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                : secondary
Number of vPCs configured : 1
Peer Gateway            : Disabled
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status    : Disabled
Delay-restore status     : Timer is off.(timeout = 30s)
Delay-restore SVI status : Timer is off.(timeout = 10s)
Operational Layer3 Peer-router : Disabled
```

vPC Peer-link status

```
-----  
id  Port  Status Active vlans  
--  ---  -----  
1   Po1   up    1
```

vPC status

```
-----  
Id  Port      Status Consistency Reason      Active vlans  
--  ---  -----  
51  Po51      up    success  success      1
```

Please check "show vpc consistency-parameters vpc <vpc-num>" for the consistency reason of down vpc and for type-2 consistency reasons for any vpc.

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