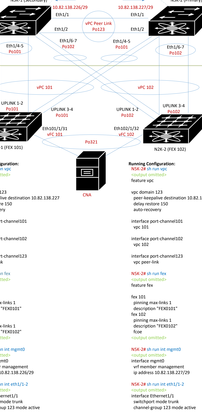
vPC Domain 123



Running Configuration:
```
N5K-1# sh run ntp
!Command: show running-config ntp
!Time: Wed Jan 12 07:12:31 2022

version 7.0(3)I7(6)
feature ntp

ntp server 10.82.138.226 prefer
ntp peer 10.82.138.228
ntp source-interface mgmt0
ntp logging
```

Running Configuration:
```
N5K-2# sh run ntp
!Command: show running-config ntp
!Time: Wed Jan 12 07:12:31 2022

version 7.0(3)I7(6)
feature ntp

ntp server 10.82.138.226
ntp peer 10.82.138.228
ntp source-interface mgmt0
ntp logging
```

vpc domain 123
peer-keepalive destination 10.82.138.227
delay restore 150
auto-recovery

```
interface port-channel101
vpc 101

interface port-channel102
vpc 102

interface port-channel123
vpc peer-link

N5K-1# sh run fex
!Command: show running-config fex
!Time: Wed Jan 12 07:12:31 2022

version 7.0(3)I7(6)
feature fex

fex 101
  pinning max links 1
  description "FEX0101"
  type
  fex 102
  pinning max links 1
  description "FEX0102"
  type

N5K-1# sh run int mgmt0
!Command: show running-config interface mgmt0
!Time: Wed Jan 12 07:12:31 2022

interface mgmt0
  vrf member management
  ip address 10.82.138.226/29

N5K-1# sh run int eth1/1-2
!Command: show running-config interface Ethernet1/1-2
!Time: Wed Jan 12 07:12:31 2022

interface Ethernet1/1
  switchport mode trunk
  channel-group 123 mode active

interface Ethernet1/2
  switchport mode trunk
  channel-group 123 mode active

N5K-1# sh run int po123
!Command: show running-config interface port-channel123
!Time: Wed Jan 12 07:12:31 2022

interface port-channel123
  switchport mode trunk
  spanning-tree port type network
  speed 10000
  vpc peer-link

N5K-1# sh run int eth1/4-5
!Command: show running-config interface Ethernet1/4-5
!Time: Wed Jan 12 07:12:31 2022

interface Ethernet1/4
  switchport mode fex-fabric
  fex associate 101
  channel-group 101

interface Ethernet1/5
  switchport mode fex-fabric
  fex associate 101
  channel-group 101

N5K-1# sh run po101
!Command: show running-config interface port-channel101
!Time: Wed Jan 12 07:12:31 2022

interface port-channel101
  switchport mode fex-fabric
  fex associate 101
  vpc 101

N5K-1# sh run int eth1/5-7
!Command: show running-config interface Ethernet1/5-7
!Time: Wed Jan 12 07:12:31 2022

interface Ethernet1/5
  switchport mode fex-fabric
  fex associate 102
  channel-group 102

interface Ethernet1/6
  switchport mode fex-fabric
  fex associate 102
  channel-group 102

interface Ethernet1/7
  switchport mode fex-fabric
  fex associate 102
  channel-group 102

N5K-1# sh run po102
!Command: show running-config interface port-channel102
!Time: Wed Jan 12 07:12:31 2022

interface port-channel102
  switchport mode fex-fabric
  fex associate 102
  vpc 102

N5K-1# sh run int eth101/1/1-2
!Command: show running-config interface Ethernet101/1/1
!Time: Wed Jan 12 07:12:31 2022

interface Ethernet101/1/1
  switchport mode trunk
  channel-group 321

N5K-1# sh run int eth101/1/2
!Command: show running-config interface Ethernet101/1/2
!Time: Wed Jan 12 07:12:31 2022

interface Ethernet101/1/2
  switchport mode trunk
  channel-group 321

N5K-1# sh run po321
!Command: show running-config interface port-channel321
!Time: Wed Jan 12 07:12:31 2022

interface port-channel321
  switchport mode trunk
  speed 10000

N5K-1# sh run vlt 101
!Command: show running-config vlt
!Time: Wed Jan 12 07:12:31 2022

vlt domain 101
  peer-keepalive destination 10.82.138.229
  peer-gateway
  auto-recovery
  interface vPC-101
  bind interface Ethernet101/1/1
  switchport trunk allowed vlan 101
```

Additional VLAN/VSAN config:
```
feature fcoe
vlan 1, 10-20
vlan 101
  fcoe vsan 101
vsan database
  vsan 101 interface vfc101
  vsan 101 interface vfc-po101
zone default-zone permit vsan 101
```

Basic Verification Commands:
```
N5K-1# show VLAN brief | include management
PING 10.82.138.229 (10.82.138.229): 56 data bytes
64 bytes from 10.82.138.229: seq=0 ttl=254 time=0.9 ms
64 bytes from 10.82.138.229: seq=1 ttl=254 time=0.821 ms
64 bytes from 10.82.138.229: seq=2 ttl=254 time=0.854 ms
64 bytes from 10.82.138.229: seq=3 ttl=254 time=0.694 ms
64 bytes from 10.82.138.229: seq=4 ttl=254 time=0.812 ms

--- 10.82.138.227 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.614/0.747/0.9 ms

N5K-1# sh vlan brief

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Po101, Po123, Eth1/1, Eth1/2
                                                Eth1/3, Eth1/8, Eth1/9, Eth1/10
                                                Eth1/11, Eth1/12, Eth1/13
                                                Eth1/14, Eth1/15, Eth1/16
                                                Eth1/17, Eth1/18, Eth1/19
                                                Eth1/20, Eth1/21, Eth1/22
                                                Eth1/23, Eth1/24, Eth1/25
                                                Eth1/26, Eth1/27, Eth1/28
                                                Eth1/29, Eth1/30, Eth1/31
                                                Eth1/32, Eth1/33, Eth1/34
                                                Eth1/35, Eth1/36, Eth1/37
                                                Eth1/38, Eth1/39, Eth1/40
                                                Eth1/41, Eth1/42, Eth1/43
                                                Eth1/44, Eth1/45, Eth1/46
                                                Eth1/47, Eth1/48, Eth1/49
                                                Eth1/50, Eth1/51, Eth1/52
                                                Eth101/1/1, Eth101/1/2
                                                Eth101/1/3, Eth101/1/4
                                                Eth101/1/5, Eth101/1/6
                                                Eth101/1/7, Eth101/1/8
                                                Eth101/1/9, Eth101/1/10
                                                Eth101/1/11, Eth101/1/12
                                                Eth101/1/13, Eth101/1/14
                                                Eth101/1/15, Eth101/1/16
                                                Eth101/1/17, Eth101/1/18
                                                Eth101/1/19, Eth101/1/20
                                                Eth101/1/21, Eth101/1/22
                                                Eth101/1/23, Eth101/1/24
                                                Eth101/1/25, Eth101/1/26
                                                Eth101/1/27, Eth101/1/28
                                                Eth101/1/29, Eth101/1/30
                                                Eth101/1/31, Eth101/1/32
                                                Eth101/1/33, Eth101/1/34
10   VLAN0010                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
11   VLAN0011                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
12   VLAN0012                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
13   VLAN0013                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
14   VLAN0014                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
15   VLAN0015                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
16   VLAN0016                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
17   VLAN0017                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
18   VLAN0018                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
19   VLAN0019                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
20   VLAN0020                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2
102  VLAN0102                         active    Po123, Po101, Eth1/1, Eth1/2
                                                Eth101/1/1, Eth101/1/2

N5K-1# sh vpc role

vPC Role status
---------------------------------------------------------------------------
vPC role                              : secondary
Dual Active Detection Status          : 0
vPC system-mac                        : 23:04:00:64:be:7b
vPC system-priority                   : 32667
vPC local system-mac                  : 00:3a:9c:64:31:fc
vPC local role-priority               : 32667

N5K-1# sh vpc peer-keepalive

vPC keep-alive status      : peer is alive
--Peer is alive for        : (118883) seconds, (293) msec
--Send status              : Success
--Last send at             : 2022.12.09 02:06:30 223 ms
--Sent on interface        : mgmt0
--Receive status           : Success
--Last receive at          : 2022.12.09 02:06:30 224 ms
--Received on interface    : mgmt0
--Last update from peer     : (0) seconds, (500) msec

vPC Keep-alive parameters
--Destination              : 10.82.138.227
--Keepalive interval        : 1000 msec
--Keepalive timeout         : 5 seconds
--Keepalive hold timeout    : 3 seconds
--Keepalive vrf             : management
--Keepalive udp port        : 3200
--Keepalive tos             : 192

N5K-1# sh vpc

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

vPC domain id                     : 123
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         : 67
Peer Gateway                      : Disabled
Dual-active excluded VLANs        : -
Graceful Consistency Check        : Enabled
Auto-recovery status              : Enabled (timeout = 240 seconds)

vPC Peer-link status
---------------------------------------------------------------------
id   Port   Status Consistency Reason                Active vlans
--   ----   ------ ----------- ------                ------------
101  Po101  up     success     success               -
102  Po102  up     success     success               -
262144 Po123  up     success     success               1,10-20,101

N5K-1# sh vpc consistency-parameters global

Legend:
Type 1 : vPC will be suspended in case of mismatch

Name                       Type  Local Value          Peer Value
-------------              ----  ----------------     ----------------
Qos                        1     (2), (3), (4), (5), (6), (7), (0), (1), (2),
                                 (3), (4), (5), (6), (7)
Network QoS (MTU)          1     (2538, 2538, 0, 0, 0, 0, 0, 0)       (2538, 2538, 0, 0, 0, 0, 0, 0)
Network Qos (Pause)        1     z0, (f, f, f, f, f, f)               (f, f, f, f, f, f)
Input Queuing (Bandwidth)  2     (50, 50, 0, 0, 0, 0)                 (50, 50, 0, 0, 0, 0)
Input Queuing (Absolute    2     (f, f, f, f, f, f)                   (f, f, f, f, f, f)
Priority)
Output Queuing (Bandwidth) 2     (50, 50, 0, 0, 0, 0)                 (50, 50, 0, 0, 0, 0)
Output Queuing (Absolute   2     (f, f, f, f, f, f)                   (f, f, f, f, f, f)
Priority)
Vlan to Int-operport Map   1     No Relevant Maps                     No Relevant Maps
MST Mode                   1     Rapid-PVST                           Rapid-PVST
STP Disabled               1     None                                 None
STP NetBios                1     **                                   **
STP Port Guard             1     Disabled                             Disabled
STP Port Type, Edge BPDU   1     Normal, Disabled,                    Normal, Disabled,
BPDUFilter, Edge BPDUGuard       Disabled                             Disabled
STP Mst Simulate PVST      1     Enabled                              Enabled
IGMP Snooping Group Limit  2     4000                                 4000
IGMP Snooping Max GR       2     1,10-20                              1,10-20
Local suspended VLANs      2     -                                    -

N5K-1# sh port-channel summ
Flags : D - Down    P - Up in port-channel (members)
        I - Individual  H - Hot-standby (LACP only)
        s - Suspended   r - Module-removed
        S - Switched    R - Routed
        U - Up (port-channel)
        M - Not in use. Min-links not met

Group Port-    Type     Protocol  Member Ports
Channel
---------------------------------------------------------------------
101 Po101(SU)  Eth       NONE     Eth1/4(P)  Eth1/5(P)
102 Po102(SU)  Eth       NONE     Eth1/5(P)  Eth1/7(P)
123 Po123(SU)  Eth       LACP     Eth1/1(P)  Eth1/2(P)
321 Po321(SU)  Eth       NONE     Eth101/1/1(P) Eth101/1/2(P)

N5K-1# sh int fex-fabric
Fabric    Fabric    Fex    FEX     Fex
Port      Port Port State Uplink  Model      Serial
---------------------------------------------------------------------
101       Eth1/4    Active  1       N2K-C2232PP-10GE  SSI15060CM
101       Eth1/5    Active  1       N2K-C2232PP-10GE  SSI15060CM
102       Eth1/5    Active  1       N2K-C2232PP-10GE  SSI15060J4
102       Eth1/7    Active  1       N2K-C2232PP-10GE  SSI15060J4

N5K-1# sh fex
Fex          Description   State  Model            Serial
----------------------------------------------------------------------
101          FEX0101       Online N2K-C2232PP-10GE SSI15060CM
102          FEX0102       Online N2K-C2232PP-10GE SSI15060J4

N5K-1# sh fex 101
FEX: 101 Description: FEX0101   state: Online
FEX-version: 7.0(3)N1(1) [Switch version: 7.0(3)N1(1)]
Extender Serial: SSI15060CM
Extender Model: N2K-C2232PP-10GE, Part No: 73-12533-03
Pinning-mode: static  Max-links: 1
Fabric port for control traffic: Eth1/4
FCoE Admin: false
FCoE Oper: true
FCoE FEX AA Configured: true
Fabric interface state:
Po101 - Interface Up. State: Active
Eth1/4 - Interface Up. State: Active
Eth1/5 - Interface Up. State: Active

N5K-1# sh fex 102
FEX: 102 Description: FEX0102   state: Online
FEX-version: 7.0(3)N1(1) [Switch version: 7.0(3)N1(1)]
Extender Serial: SSI15060J4
Extender Model: N2K-C2232PP-10GE, Part No: 73-12533-03
Pinning-mode: static  Max-links: 1
Fabric port for control traffic: Eth1/5
FCoE Admin: false
FCoE Oper: true
FCoE FEX AA Configured: true
Fabric interface state:
Po102 - Interface Up. State: Active
Eth1/5 - Interface Up. State: Active
Eth1/7 - Interface Up. State: Active

N5K-1# sh vsan membership
vsan 1 interfaces:

vsan 101 interfaces:
    vfc101

vsan 4079(evfp_isolated_vsan) interfaces:

vsan 4094(isolated_vsan) interfaces:
```

Additional FC/FCoE Verification Commands:
```
sh fcoe database
sh flogi database
sh fcns database
sh fcns jic summary
sh fcdomain vsan <vsan-id>
```

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