N7K-A

N9K-A

Eth8/8   Eth1/49

Int VLAN 10
172.16.10.1/24

Int VLAN 10
172.16.30.1/24

OSPF AREA 0

N7K-A PTP Config:

```
N7K-A-Pod8# conf t
Enter configuration commands, one per line.  End with CNTL/Z.
N7K-A-Pod8(config)# vlan 10
N7K-A-Pod8(config-vlan)# int vlan 10
N7K-A-Pod8(config-if)# no shut
N7K-A-Pod8(config-if)# ip address 172.16.30.1/24
N7K-A-Pod8(config-if)# router ospf 0
N7K-A-Pod8(config-router)# int vlan 10
N7K-A-Pod8(config-if)# ip router ospf 0 area 0
N7K-A-Pod8(config-if)# feature ptp
N7K-A-Pod8(config)# ptp source 172.16.30.1
N7K-A-Pod8(config)# ptp domain 10
N7K-A-Pod8(config)# ptp priority1 1
N7K-A-Pod8(config)# ptp priority2 10
N7K-A-Pod8(config)# int eth8/8
N7K-A-Pod8(config-if)# no shut
N7K-A-Pod8(config-if)# ptp announce interval 2
ERROR: PTP is not enabled on some of the interfaces
N7K-A-Pod8(config-if)# ptp
N7K-A-Pod8(config-if)# ptp announce interval 2
N7K-A-Pod8(config-if)# ptp announce timeout 2
N7K-A-Pod8(config-if)# ptp sync interval -1
```

N9K-A PTP Config:

```
N9K-A-Pod8# conf t
Enter configuration commands, one per line.  End with CNTL/Z.
N9K-A-Pod8(config)# vlan 10
N9K-A-Pod8(config-vlan)# int vlan 10
N9K-A-Pod8(config-if)# no shut
N9K-A-Pod8(config-if)# ip address 172.16.10.1/24
N9K-A-Pod8(config-if)# router ospf 0
N9K-A-Pod8(config-router)# int vlan 10
N9K-A-Pod8(config-if)# ip router ospf 0 area 0
N9K-A-Pod8(config)# feature ptp
N9K-A-Pod8(config)# ptp source 172.16.10.1
N9K-A-Pod8(config)# ptp domain 10
N9K-A-Pod8(config)# ptp prio
priority1    priority2
N9K-A-Pod8(config)# ptp priority1 1
N9K-A-Pod8(config)# ptp priority2 50
N9K-A-Pod8(config)# int eth1/49
N9K-A-Pod8(config-if)# no shut
N9K-A-Pod8(config-if)# ptp
N9K-A-Pod8(config-if)#   ptp announce interval 2
N9K-A-Pod8(config-if)#       ptp announce timeout 2
N9K-A-Pod8(config-if)#       ptp sync interval -1
```

N7K-A PTP Verifications:

```
N7K-A-Pod8(config-if)# show ptp clock
PTP Device Mode : boundary-clock
PTP Device Encapsulation : layer-3
PTP Source IP Address : 172.16.30.1
PTP SwitchLatency Estimated : 5000 (ns)
Clock Identity : 50:87:89:ff:fe:42:bd:49
Clock Domain : 10
Two-Step Clock Mode : Enabled
Slave-Only Clock Mode : Disabled
Number of PTP ports : 1
Priority1 : 1
Priority2 : 10
Clock Quality :
        Class : 248
        Accuracy : 254
        Offset (log variance) : 65535
Offset From Master : 0 (ns)
Mean Path Delay : 0 (ns)
Steps removed : 0
Local clock time : Tue Jan  3 19:22:25 2023
```

```
N7K-A-Pod8(config-if)# show ptp port int eth8/8
PTP Port Dataset: Eth8/8
Port identity: clock identity: 50:87:89:ff:fe:42:bd:49
Port identity: port number: 1820
PTP version: 2
Port state: Master
Port mode: boundary-clock
Port encapsulation: layer-3
PTP vlan: 1
Delay request interval(log mean): 2
Announce receipt time out: 2
Peer mean path delay: 0
Announce interval(log mean): 2
Sync interval(log mean): -1
Delay Mechanism: End to End
Peer delay request interval(log mean): 2
```

```
N7K-A-Pod8(config-if)# show ptp parent

PTP PARENT PROPERTIES

Parent Clock:
Parent Clock Identity: 50:87:89:ff:fe:42:bd:49
Parent Port Number: 0
Parent Statistics: not available
Observed Parent Offset (log variance): N/A
Observed Parent Clock Phase Change Rate: N/A

Grandmaster Clock:
Grandmaster Clock Identity: 50:87:89:ff:fe:42:bd:49
Grandmaster Clock Quality:
        Class: 248
        Accuracy: 254
        Offset (log variance): 65535
Grandmaster Priority1: 1
Grandmaster Priority2: 10
N7K-A-Pod8(config-if)# show ptp corrections

PTP past corrections
-----------------------------------------------------
Slave Port        SUP Time              Correction(ns)
---------    -------------------    -----------------
```

```
N7K-A-Pod8(config-if)# show ptp brief

PTP port status
---------------------
Port          State
------    --------------
Eth8/8      Master
```

N9K-A PTP Verifications:

```
N9K-A-Pod8(config-if)# show ptp clock
PTP Device Type : boundary-clock
PTP Device Encapsulation : NA
PTP Source IP Address : 172.16.10.1
Clock Identity : 7c:ad:4f:ff:fe:40:20:87
Clock Domain : 10
Slave Clock Operation : Two-step
Master Clock Operation : Two-step
Slave-Only Clock Mode : Disabled
Number of PTP ports: 1
Priority1 : 1
Priority2 : 50
Clock Quality:
        Class : 248
        Accuracy : 254
        Offset (log variance) : 65535
Offset From Master : 20
Mean Path Delay : 264
Steps removed : 1
Correction range : 100000
MPD range : 1000000000
Local clock time : Tue Jan  3 19:14:15 2023
PTP Clock state            : Locked
```

```
N9K-A-Pod8(config-if)# show ptp parent

PTP PARENT PROPERTIES

Parent Clock:
Parent Clock Identity: 50:87:89:ff:fe:42:bd:49
Parent Port Number: 1820
Observed Parent Offset (log variance): N/A
Observed Parent Clock Phase Change Rate: N/A

Parent IP: 172.16.30.1
Grandmaster Clock:
Grandmaster Clock Identity: 50:87:89:ff:fe:42:bd:49
Grandmaster Clock Quality:
        Class: 248
        Accuracy: 254
        Offset (log variance): 65535
        Priority1: 1
        Priority2: 10
```

```
N9K-A-Pod8(config-if)# show ptp port interface eth1/49
PTP Port Dataset: Eth1/49
Port identity: clock identity: 7c:ad:4f:ff:fe:40:20:87
Port identity: port number: 192
PTP version: 2
Port state: Slave
VLAN info: 1
Delay request interval(log mean): 0
Announce receipt time out: 2
Peer mean path delay: 264
Announce interval(log mean): 2
Sync interval(log mean): -1
Delay Mechanism: End to End
Cost: 255
Domain: 10
N9K-A-Pod8(config-if)# show ptp corrections

PTP past corrections
-----------------------------------------------------------------------
Slave Port        SUP Time              Correction(ns)    MeanPath Delay(ns)
---------    -------------------    -----------------    -----------------
Eth1/49     Tue Jan  3 19:15:13 2023 770649         40             256
Eth1/49     Tue Jan  3 19:15:13 2023 269393         48             256
Eth1/49     Tue Jan  3 19:15:12 2023 769946         24             256
Eth1/49     Tue Jan  3 19:15:12 2023 268418         32             256
Eth1/49     Tue Jan  3 19:15:11 2023 771257         24             256
Eth1/49     Tue Jan  3 19:15:11 2023 269795         40             256
Eth1/49     Tue Jan  3 19:15:10 2023 769333         48             256
Eth1/49     Tue Jan  3 19:15:10 2023 268962         24             256
Eth1/49     Tue Jan  3 19:15:09 2023 769319         64             256
Eth1/49     Tue Jan  3 19:15:09 2023 267809        -80             256
Eth1/49     Tue Jan  3 19:15:08 2023 768516         32             256
```

```
N9K-A-Pod8(config-if)# show ptp brief

PTP port status
---------------------------------------------
Port                        State
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Eth1/49                     Slave
```

CISCO