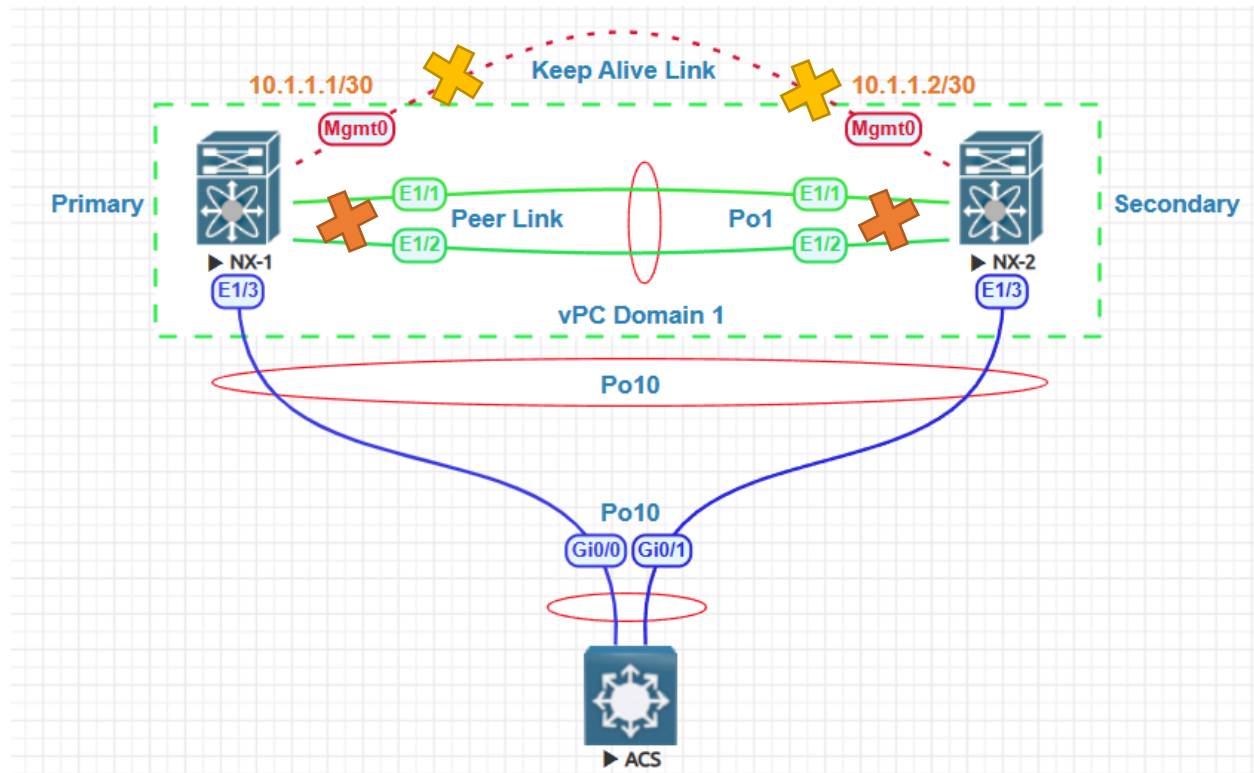


## Keep-Alive Link failure, followed by Peer-Link Lab:

The Dual-Active or Split Brain vPC failure scenario occurs when the **Peer Keepalive Link** fails followed by the **Peer-Link**.



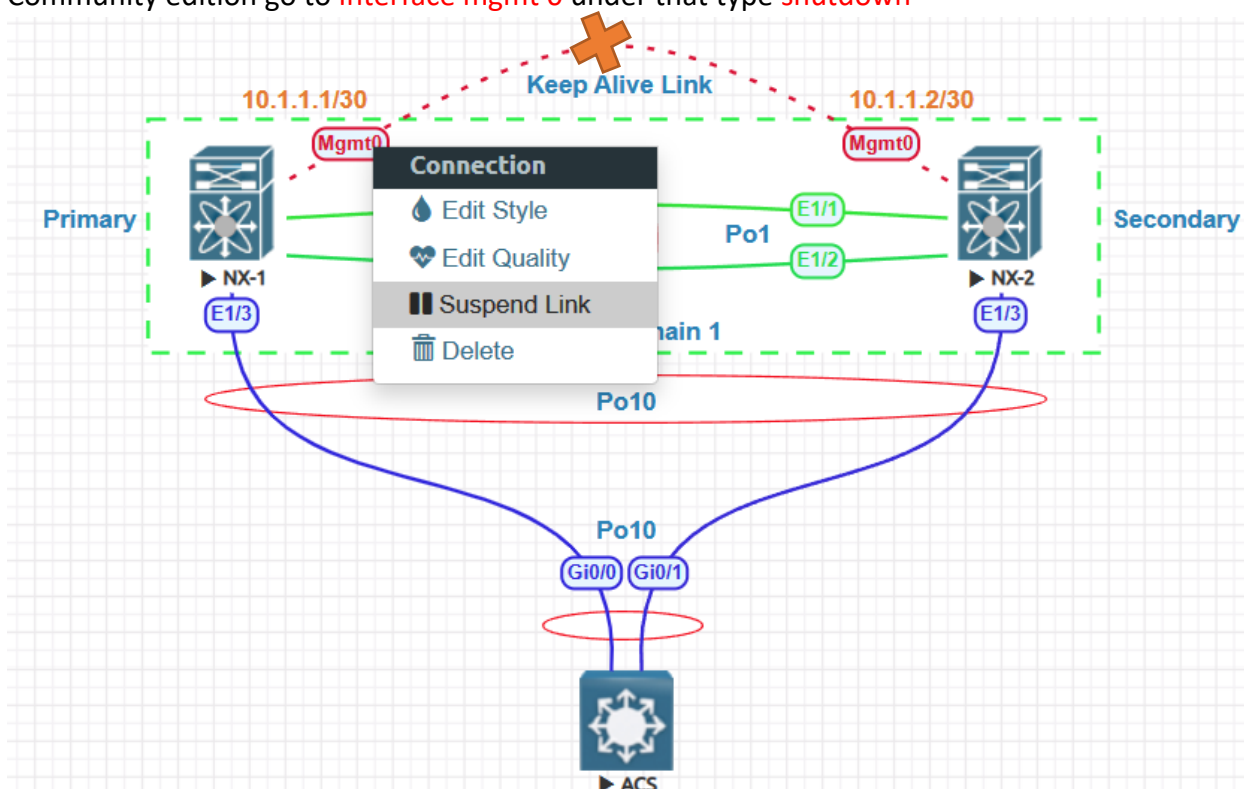
NX-1 Role	Primary
NX-2 Role	Secondary
NX-1 Priority	20
NX-2 Priority	30
Peer Links	E1/1 and E1/2
Keep Alive Link	Mgmt0
NX-1 Mgmt0 IP Address	10.1.1.1/30
NX-2 Mgmt0 IP Address	10.1.1.2/30
vPC Domain	1
Peer Link Portchannel	1
Member Portchannel	10
Member Ports	E1/3
Member Ports vPC	10
ACS Switch Ports	G0/0 and G0/1
ACS Switch Images	viosl2-adventerprisek9-m.ssa.high_iron_20190423
Nexus Images Version	9300v 9.3.6
Nexus EVE-NG Image	nxosv9k-9.3.6

<b>NX-1 Switch Configuration</b>
<b>Change hostname</b>
switch(config)# hostname NX-1
<b>Enable Features for vPC</b>
NX-1(config)# feature vpc NX-1(config)# feature lacp
<b>Configure Keep Alive Link</b>
NX-1(config)# interface mgmt 0 NX-1(config-if)# ip address 10.1.1.1/30 NX-1(config-if)# no shutdown
<b>Configure vPC Domain &amp; Set Priorities</b>
NX-1(config)# vpc domain 1 NX-1(config-vpc-domain)# role priority 20 NX-1(config-vpc-domain)# peer-keepalive destination 10.1.1.2 source 10.1.1.1 vrf management NX-1(config-vpc-domain)# exit
<b>Configure Peer Link</b>
NX-1(config)# interface ethernet 1/1-2 NX-1(config-if-range)# switchport mode trunk NX-1(config-if-range)# spanning-tree port type network NX-1(config-if-range)# channel-group 1 mode active NX-1(config-if-range)# no shutdown
<b>Configure Peer Link Port-Channel</b>
NX-1(config)# interface port-channel 1 NX-1(config-if)# no shutdown NX-1(config-if)# switchport NX-1(config-if)# switchport mode trunk NX-1(config-if)# spanning-tree port type network NX-1(config-if)# vpc peer-link
<b>Configure Member Ports</b>
NX-1(config)# interface ethernet 1/3 NX-1(config-if)# channel-group 10 mode active NX-1(config-if)# no shutdown NX-1(config-if)# exit
<b>Configure Member Port-Channel</b>
NX-1(config)# interface port-channel 10 NX-1(config-if)# no shutdown NX-1(config-if)# switchport NX-1(config-if)# switchport mode trunk NX-1(config-if)# vpc 10

<b>NX-2 Switch Configuration</b>
<b>Change hostname</b>
switch(config)# hostname NX-2
<b>Enable Features for vPC</b>
NX-2(config)# feature vpc NX-2(config)# feature lacp
<b>Configure Keep Alive Link</b>
NX-2(config)# interface mgmt 0 NX-2(config-if)# ip address 10.1.1.2/30 NX-2(config-if)# no shutdown
<b>Configure vPC Domain &amp; Set Priorities</b>
NX-2(config)# vpc domain 1 NX-2(config-vpc-domain)# role priority 20 NX-2(config-vpc-domain)# peer-keepalive destination 10.1.1.1 source 10.1.1.2 vrf management NX-2(config-vpc-domain)# exit
<b>Configure Peer Link</b>
NX-2(config)# interface ethernet 1/1-2 NX-2(config-if-range)# switchport mode trunk NX-2(config-if-range)# spanning-tree port type network NX-2(config-if-range)# channel-group 1 mode active NX-2(config-if-range)# no shutdown
<b>Configure Peer Link Port-Channel</b>
NX-2(config)# interface port-channel 1 NX-2(config-if)# no shutdown NX-2(config-if)# switchport NX-2(config-if)# switchport mode trunk NX-2(config-if)# spanning-tree port type network NX-2(config-if)# vpc peer-link
<b>Configure Member Ports</b>
NX-2(config)# interface ethernet 1/3 NX-2(config-if)# channel-group 10 mode active NX-2(config-if)# no shutdown NX-2(config-if)# exit
<b>Configure Member Port-Channel</b>
NX-2(config)# interface port-channel 10 NX-2(config-if)# no shutdown NX-2(config-if)# switchport NX-2(config-if)# switchport mode trunk NX-2(config-if)# vpc 10

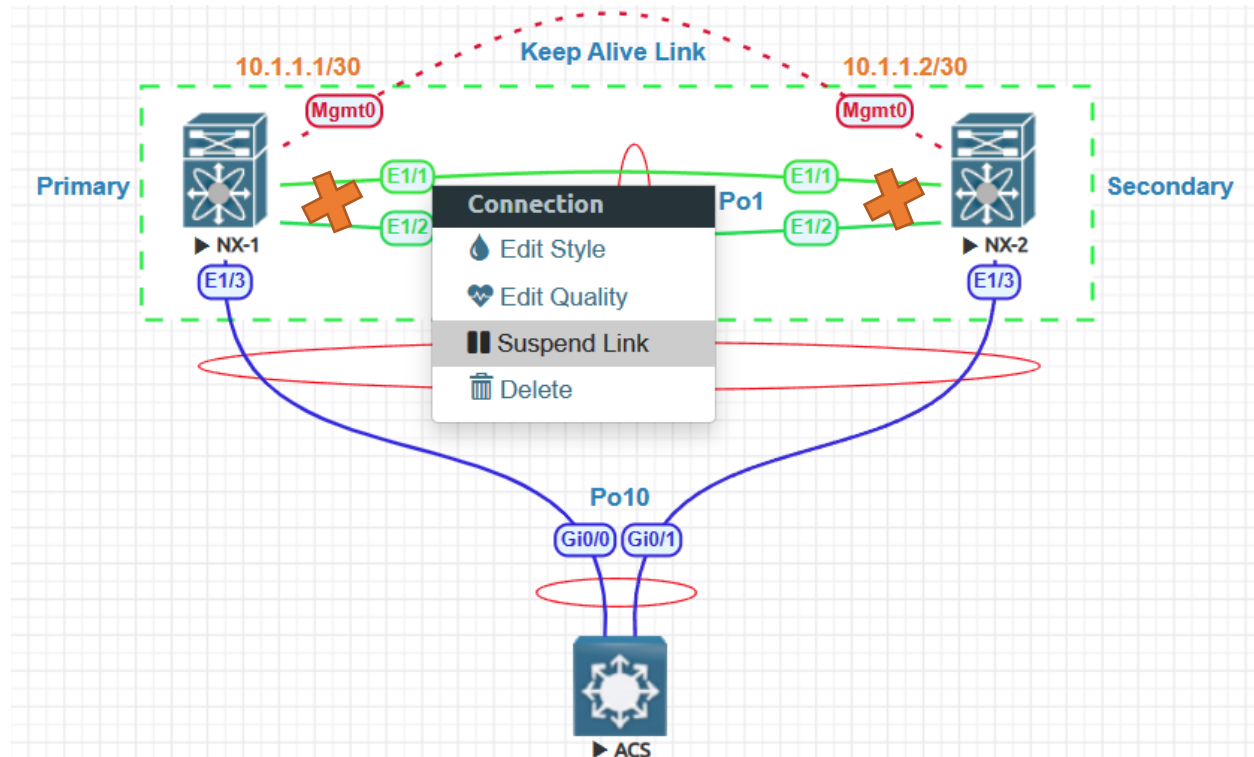
ACS Switch Configuration
Change hostname
Switch(config)#hostname ACS
Configure Port-channel
ACS(config)#interface range g0/0-1 ACS(config-if-range)#switchport trunk encapsulation dot1q ACS(config-if-range)#switchport mode trunk ACS(config-if-range)#channel-protocol lacp ACS(config-if-range)#channel-group 10 mode active ACS(config-if-range)#no shutdown

In EVE-NG Professional edition right click on **Mgmt0 Keep Alive** link to Suspend, in EVE-NG Community edition go to **interface mgmt 0** under that type **shutdown**



NX-1(config)# interface mgmt 0 NX-1(config-if)# shutdown
NX-2(config)# interface mgmt 0 NX-2(config-if)# shutdown

In EVE-NG Professional edition right click on E1/1 and E1/2 link to Suspend Peer-Link, in EVE-NG Community edition go to interface E1/1 and E1/2 under that type shutdown

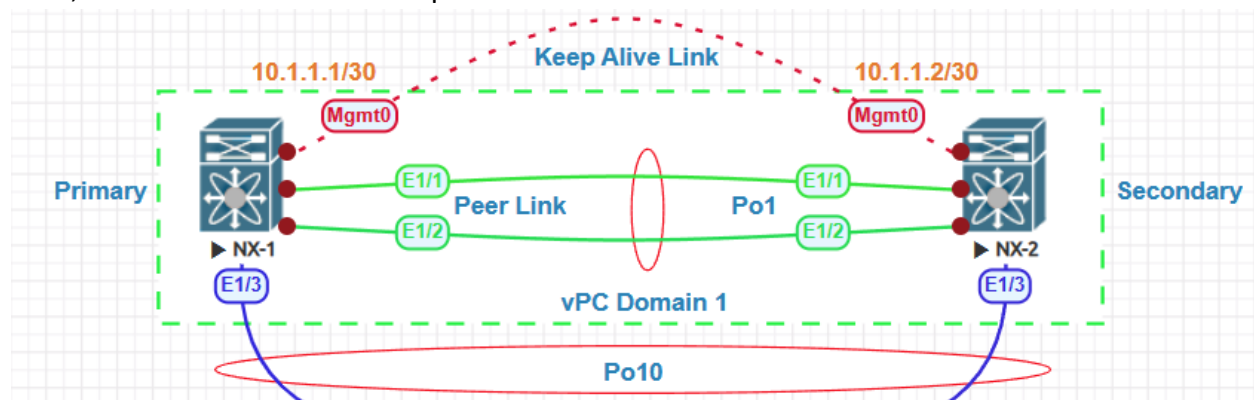


```

NX-1(config)# interface e1/1
NX-1(config-if)# shutdown
NX-1(config)# interface e1/2
NX-1(config-if)# shutdown

NX-2(config)# interface e1/1
NX-2(config-if)# shutdown
NX-2(config)# interface e1/2
NX-2(config-if)# shutdown
    
```

Now, vPC Peer-Link and vPC Keep Alive Link are down.



```
NX-1# show vpc role
```

```
vPC Role status
```

```
-----  
vPC role : primary  
Dual Active Detection Status : 0  
vPC system-mac : 00:23:04:ee:be:01  
vPC system-priority : 32667  
vPC local system-mac : 50:01:00:00:1b:08  
vPC local role-priority : 20  
vPC local config role-priority : 20  
vPC peer system-mac : 50:02:00:00:1b:08  
vPC peer role-priority : 30  
vPC peer config role-priority : 30  
NX-1#
```

```
NX-2# show vpc role
```

```
vPC Role status
```

```
-----  
vPC role : secondary, operational primary  
Dual Active Detection Status : 0  
vPC system-mac : 00:23:04:ee:be:01  
vPC system-priority : 32667  
vPC local system-mac : 50:02:00:00:1b:08  
vPC local role-priority : 30  
vPC local config role-priority : 30  
vPC peer system-mac : 50:01:00:00:1b:08  
vPC peer role-priority : 20  
vPC peer config role-priority : 20  
NX-2#
```