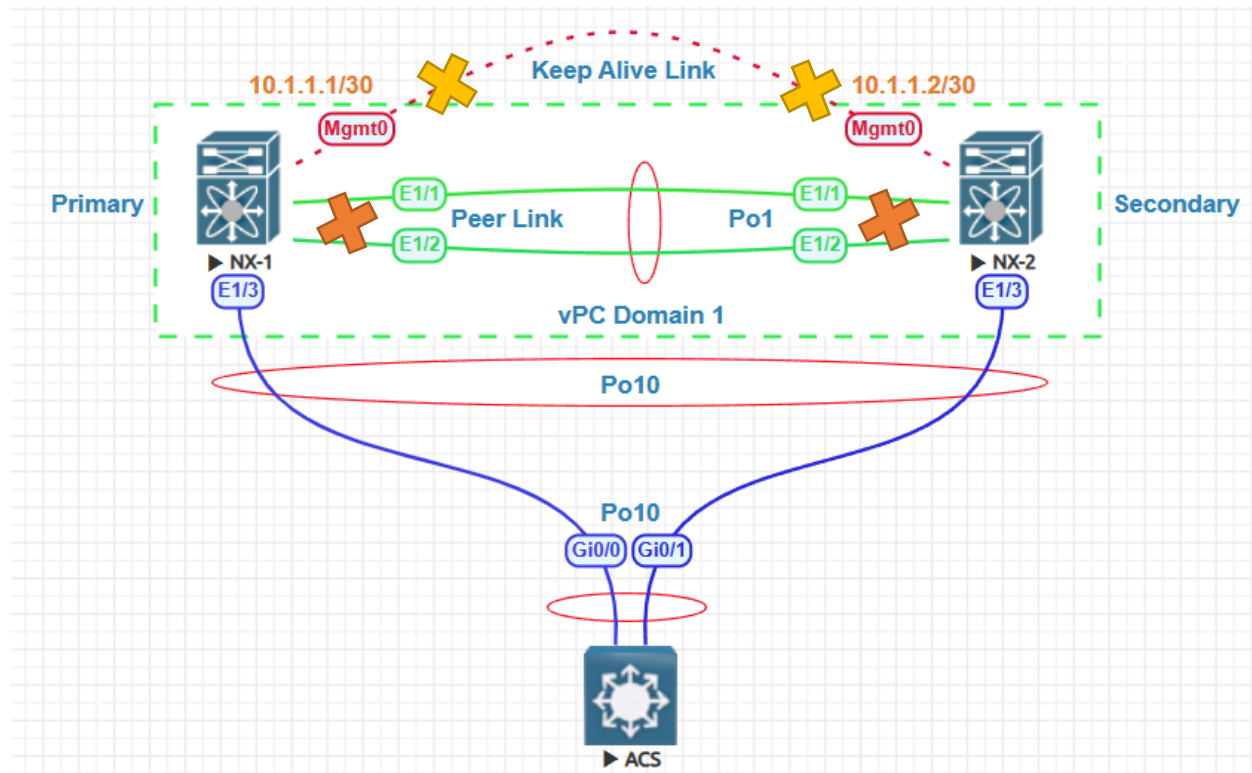


Peer-link Failure, followed by Keep-Alive Link Lab:

If the vPC Peer Link is down and after some time Keep-Alive Link also goes down. vPC Member Ports/Interface VLAN's on the Secondary goes into shutdown state after Peer Link is Down.



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

NX-1 Switch Configuration
Change hostname
switch(config)# hostname NX-1
Enable Features for vPC
NX-1(config)# feature vpc NX-1(config)# feature lacp
Configure Keep Alive Link
NX-1(config)# interface mgmt 0 NX-1(config-if)# ip address 10.1.1.1/30 NX-1(config-if)# no shutdown
Configure vPC Domain & Set Priorities
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
Configure Peer Link
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
Configure Peer Link Port-Channel
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
Configure Member Ports
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
Configure Member Port-Channel
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

NX-2 Switch Configuration
Change hostname
switch(config)# hostname NX-2
Enable Features for vPC
NX-2(config)# feature vpc NX-2(config)# feature lacp
Configure Keep Alive Link
NX-2(config)# interface mgmt 0 NX-2(config-if)# ip address 10.1.1.2/30 NX-2(config-if)# no shutdown
Configure vPC Domain & Set Priorities
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
Configure Peer Link
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
Configure Peer Link Port-Channel
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
Configure Member Ports
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
Configure Member Port-Channel
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

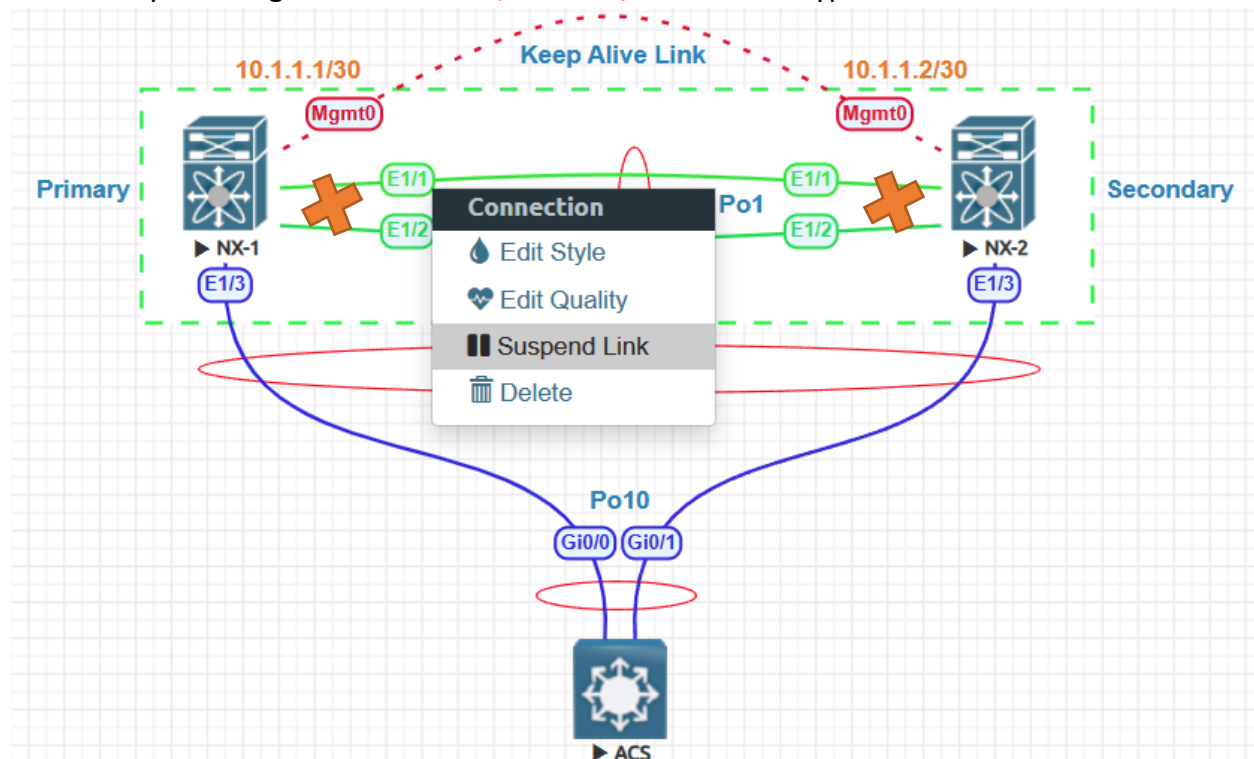
Change hostname

```
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 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
```

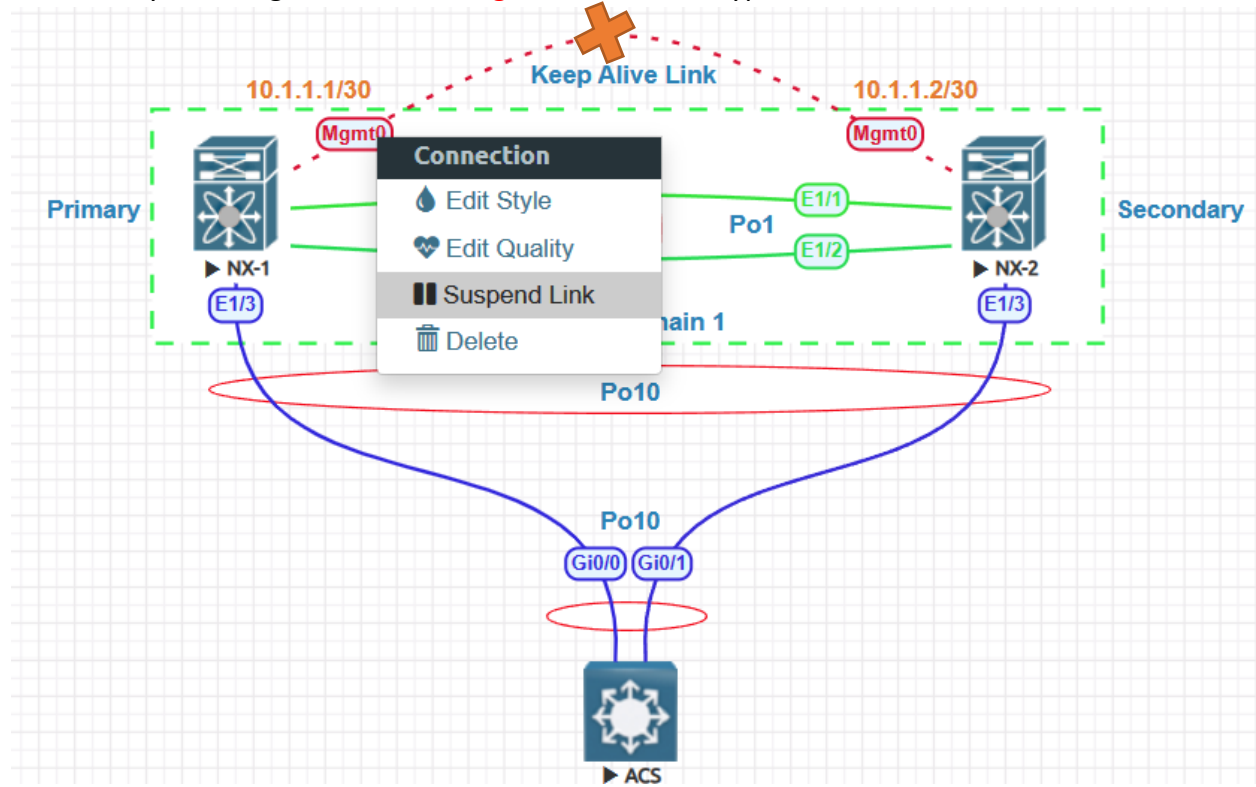
```
NX-2(config)# interface e1/1
```

```
NX-2(config-if)# shutdown
```

```
NX-2(config)# interface e1/2
```

```
NX-2(config-if)# shutdown
```

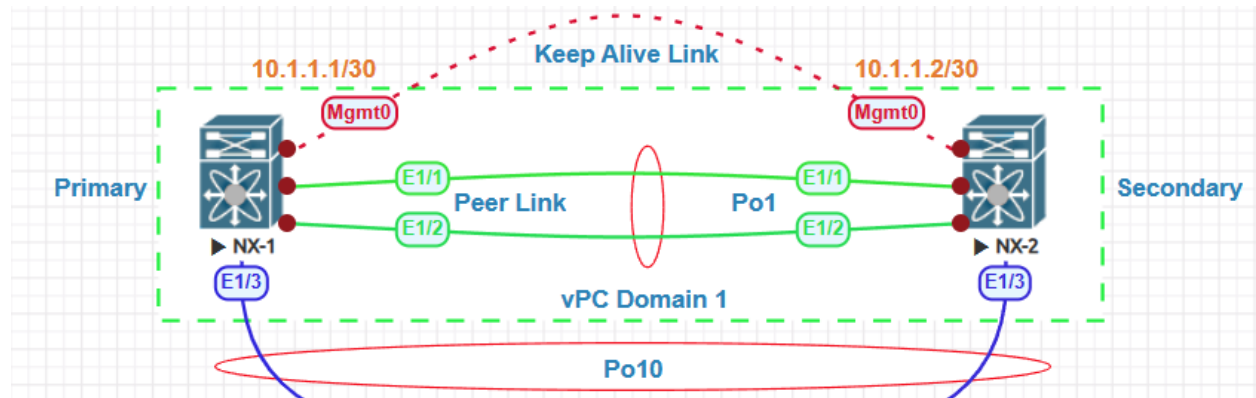
In EVE-NG Professional edition right click on **Mgmt0** Keep Alive link to Suspend, in EVE-NG Community edition go to **interface mgmt 0** under that type **shutdown**



```

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

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



NX-2# show vpc
Legend:

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

```
vPC domain id          : 1
Peer status            : peer link is down
vPC keep-alive status  : peer is not reachable through peer-keepalive
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 : -
```

NX-2# 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-Channel	Type	Protocol	Member Ports
1	Po1(SD)	Eth	LACP	Eth1/1(s) Eth1/2(s)
10	Po10(SD)	Eth	LACP	Eth1/3(D)

NX-2#

ACS#show etherchannel summary

Flags: D - down P - bundled in port-channel
I - stand-alone s - suspended
H - Hot-standby (LACP only)
R - Layer3 S - Layer2
U - in use N - not in use, no aggregation
f - failed to allocate aggregator

M - not in use, minimum links not met
m - not in use, port not aggregated due to minimum links not
u - unsuitable for bundling
w - waiting to be aggregated
d - default port

A - formed by Auto LAG

Number of channel-groups in use: 1
Number of aggregators: 1

Group	Port-channel	Protocol	Ports
10	Po10(SU)	LACP	Gi0/0(P) Gi0/1(s)