# AOS Linear Mesh [edit]

- In this use case, to prevent the half-duplex cost of a multi-hop mesh, a site can deploy what are essentially two separate mesh clusters, on two separate channels, where the middle point and portal are wired together, and there is a switch or bridge between this portal and point. This allows the entire multi-hop mesh to run at full WLAN speeds.
- While the 'cost' is higher due to the additional infrastructure in the middle, or at each hop, latency and maximum bandwidth is preserved.
- This would be used deployments where high throughput and/or low latency is required.
- Careful channel planning must be done to prevent ACI/CCI.
- Mesh convergence time can be long as the 'chain' of hops builds back to the controller
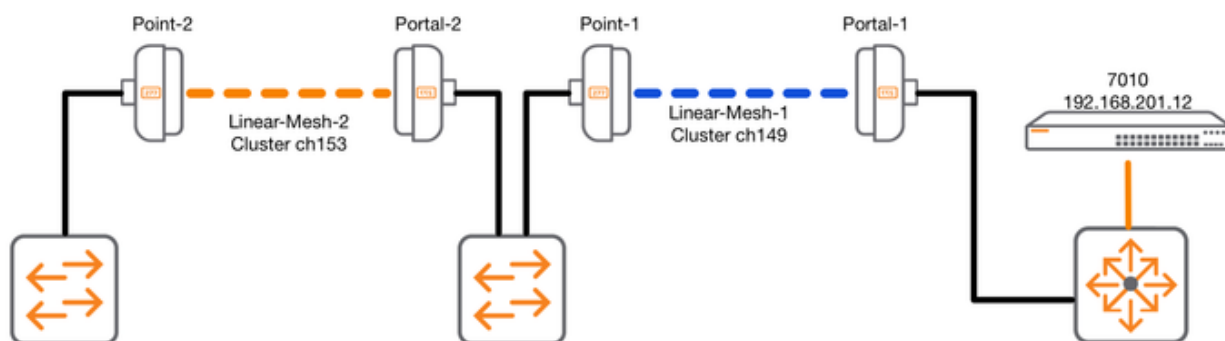

```
ap wired-ap-profile "linear-mesh-1"
   wired-ap-enable
   trusted
   forward-mode bridge
   switchport access vlan 201
!
ap wired-ap-profile "linear-mesh-2"
   wired-ap-enable
   trusted
   forward-mode bridge
   switchport access vlan 201
!
ap mesh-cluster-profile "linear-mesh-1"
   cluster "linear-mesh-1"
   opmode wpa2-psk-aes
   wpa-passphrase <WPA2-Mesh-Passphrase>
!
ap mesh-cluster-profile "linear-mesh-2"
   cluster "linear-mesh-2"
   opmode wpa2-psk-aes
   wpa-passphrase <WPA2-Mesh-Passphrase>
!
ap wired port profile "linear mesh 1"
```

```
ap wired-port-profile "linear-mesh-1
    wired-ap-profile "linear-mesh-1"
!
ap wired-port-profile "linear-mesh-2"
    wired-ap-profile "linear-mesh-2"
!
rf arm-profile "arm-disable"
    assignment disable
!
rf dot11a-radio-profile "ch149"
    channel 149
    tx-power 3
    arm-profile "arm-disable"
!
rf dot11a-radio-profile "ch153"
    channel 153
    tx-power 3
    arm-profile "arm-disable"
!
ap-group "linear-mesh-1"
    dot11a-radio-profile "ch149"
    enet0-port-profile "linear-mesh-1"
    mesh-cluster-profile "linear-mesh-1" priority 1
!
ap-group "linear-mesh-2"
    dot11a-radio-profile "ch153"
    enet0-port-profile "linear-mesh-2"
    mesh-cluster-profile "linear-mesh-2" priority 1
!
```