Cisco Support Community Presents
Tech-Talk Series

Introduction to EVN / VNET

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What

will it do?

2

Why

do we need it?

3

How

will we implement it?

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EVN at a Glance

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EVN Components

- VRF Lite
- VNET Trunks (equivalent to dot1q tag)
- Automatic creation of hidden dot1q sub-interfaces
- Configuration inheritance of main interface
- Separate Routing Sub-interfaces
- Support for Route Leaking
- IPv4 and IPv6

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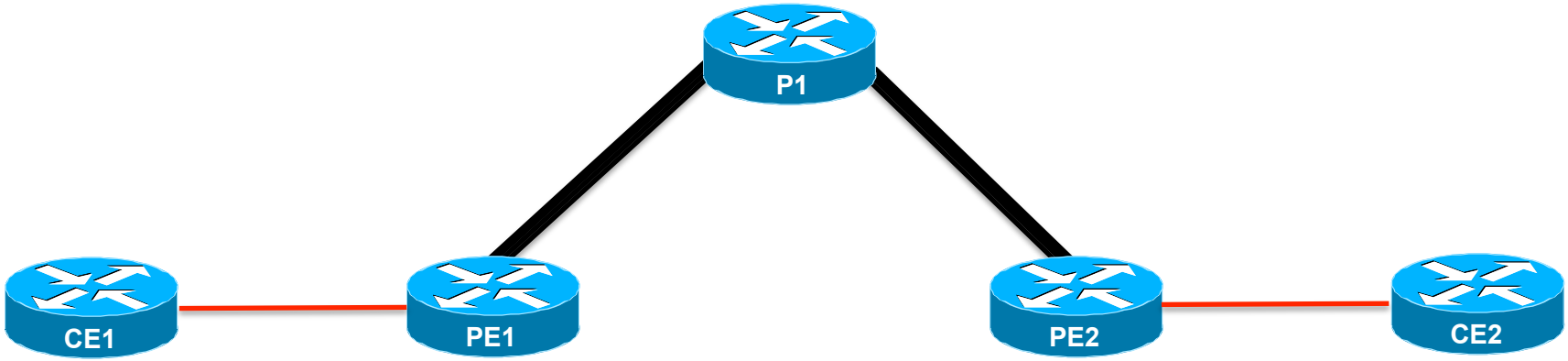
Sample Topology



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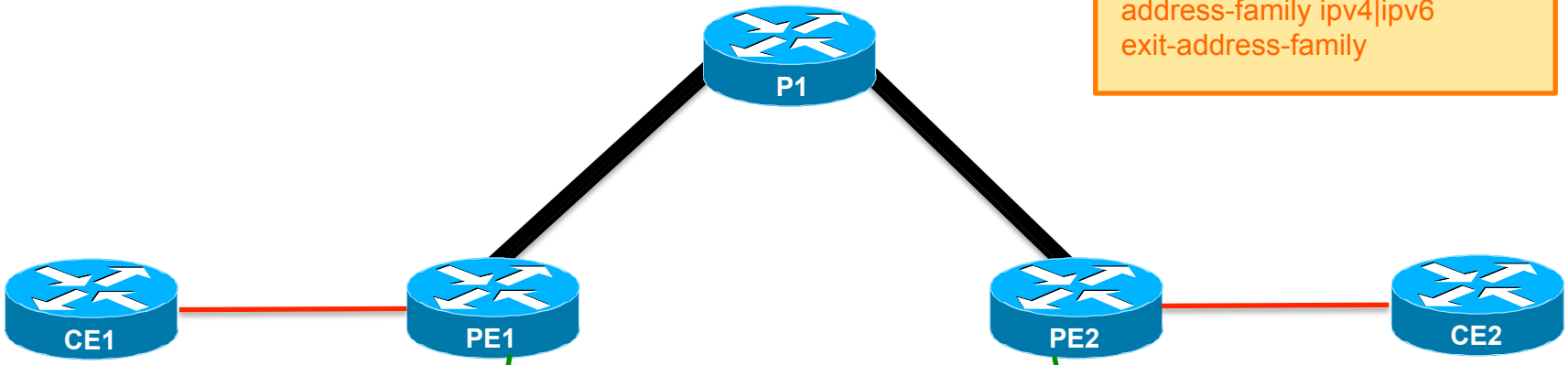
Creating VRF

```
vrf definition [name]
 vnet tag [2-4094]
 !
 address-family ipv4|ipv6
 exit-address-family
```




```
vrf definition CUST-A
 vnet tag 100
 !
 address-family ipv4
 exit-address-family
```

```
vrf definition CUST-A
 vnet tag 100
 !
 address-family ipv4
 exit-address-family
```

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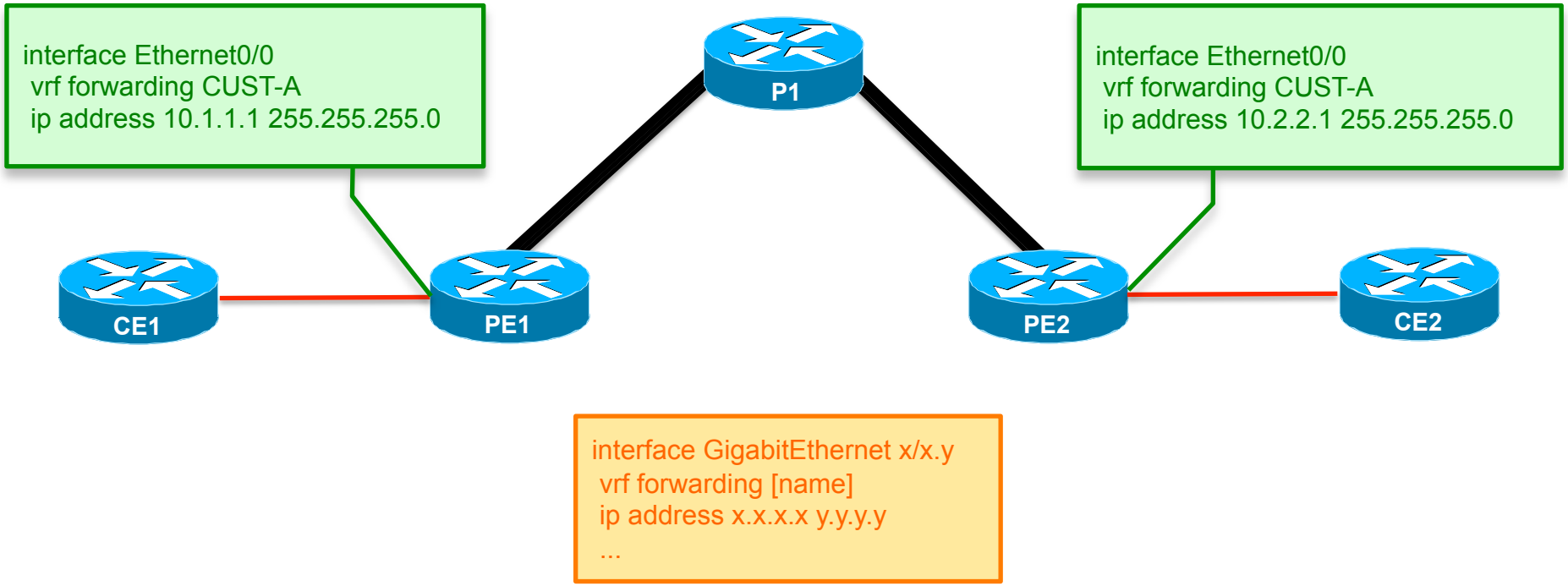
Assigning edge interfaces to VRF



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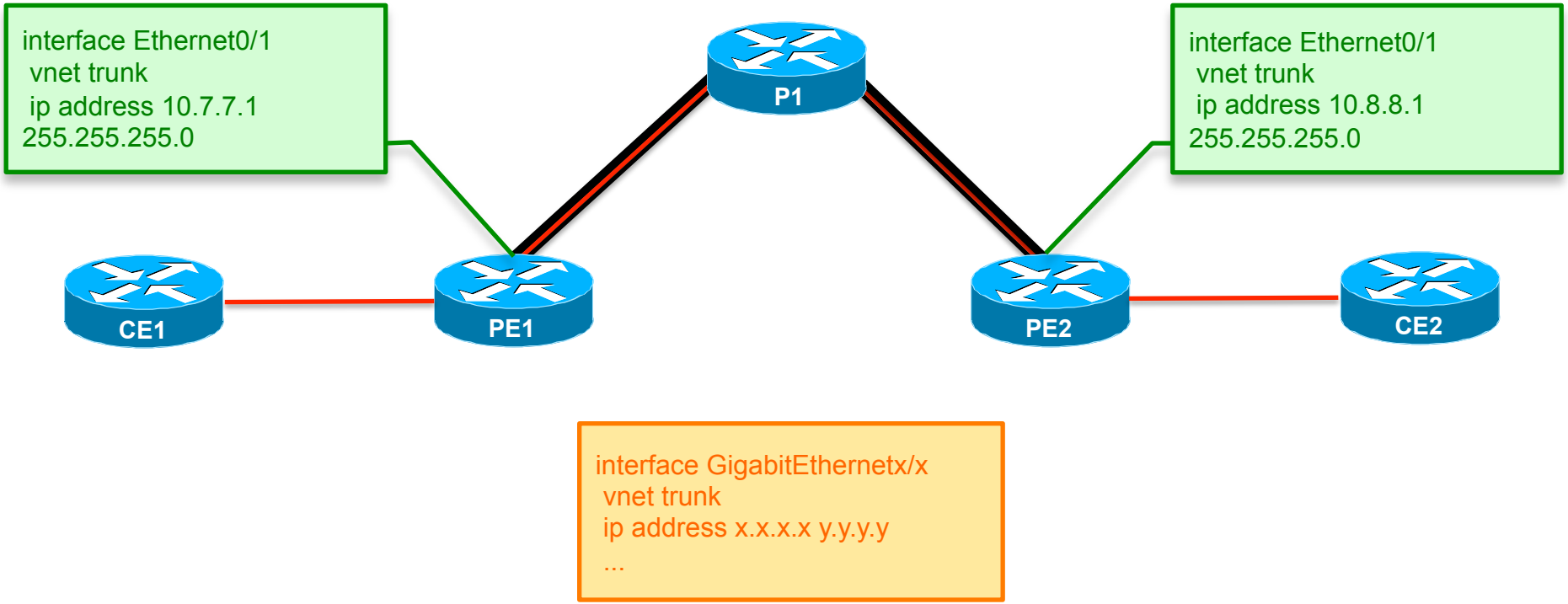
Defining VNET Trunks



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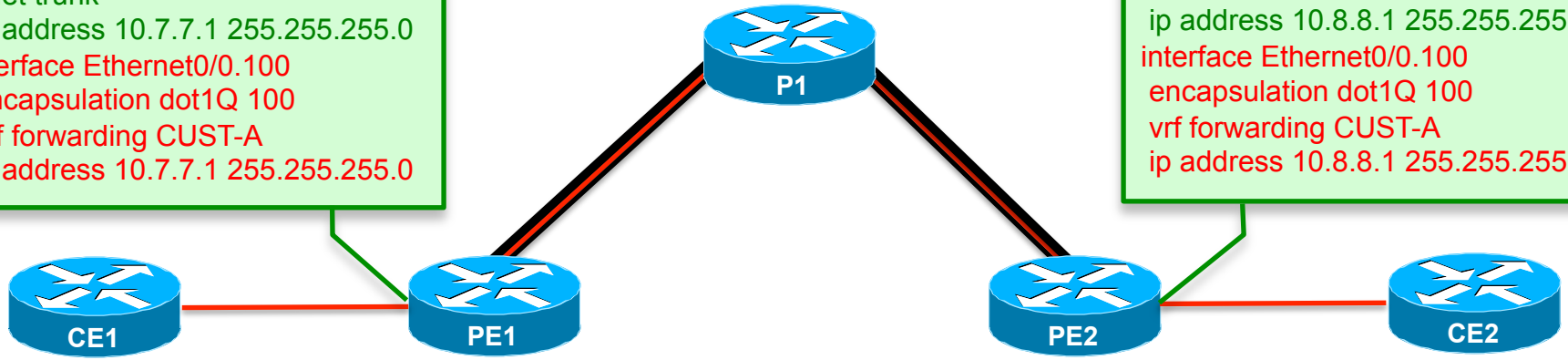
Actual Configuration of VNET Trunks

```
interface Ethernet0/0
 vnet trunk
 ip address 10.7.7.1 255.255.255.0
interface Ethernet0/0.100
 encapsulation dot1Q 100
 vrf forwarding CUST-A
 ip address 10.7.7.1 255.255.255.0
```

```
interface Ethernet0/0
 vnet trunk
 ip address 10.8.8.1 255.255.255.0
interface Ethernet0/0.100
 encapsulation dot1Q 100
 vrf forwarding CUST-A
 ip address 10.8.8.1 255.255.255.0
```



- New sub-interface is created per VRF
- “show derived-config” displays this configuration
- Sub interface inherits ip address from main interface
- Dot1q tag is derived from VRF configuration
- Allowed on both Physical and Port-channel
- Co-existence with manually created sub-interface is not supported

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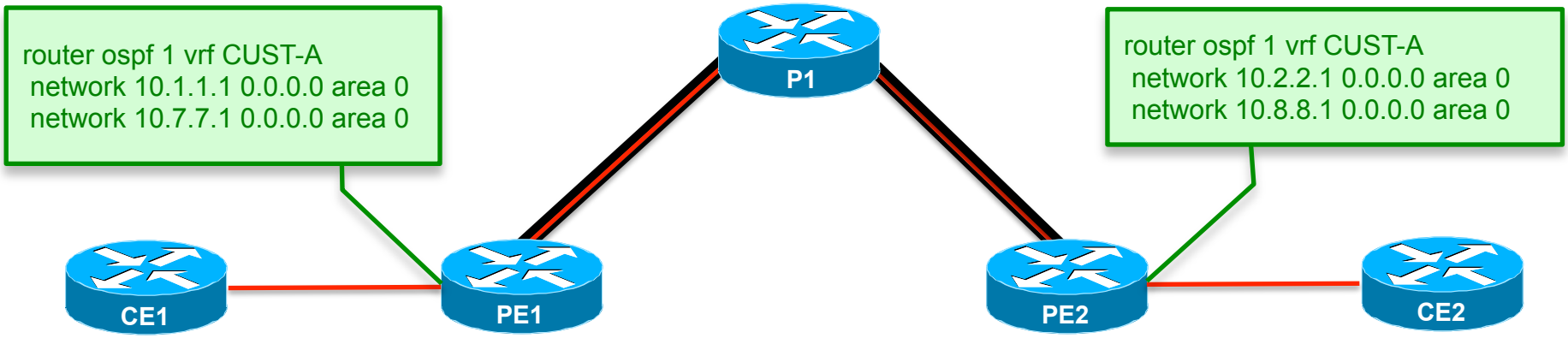
Configure Routing Protocol



router ospf x vrf [name]
network x.x.x.x y.y.y.y area x
...

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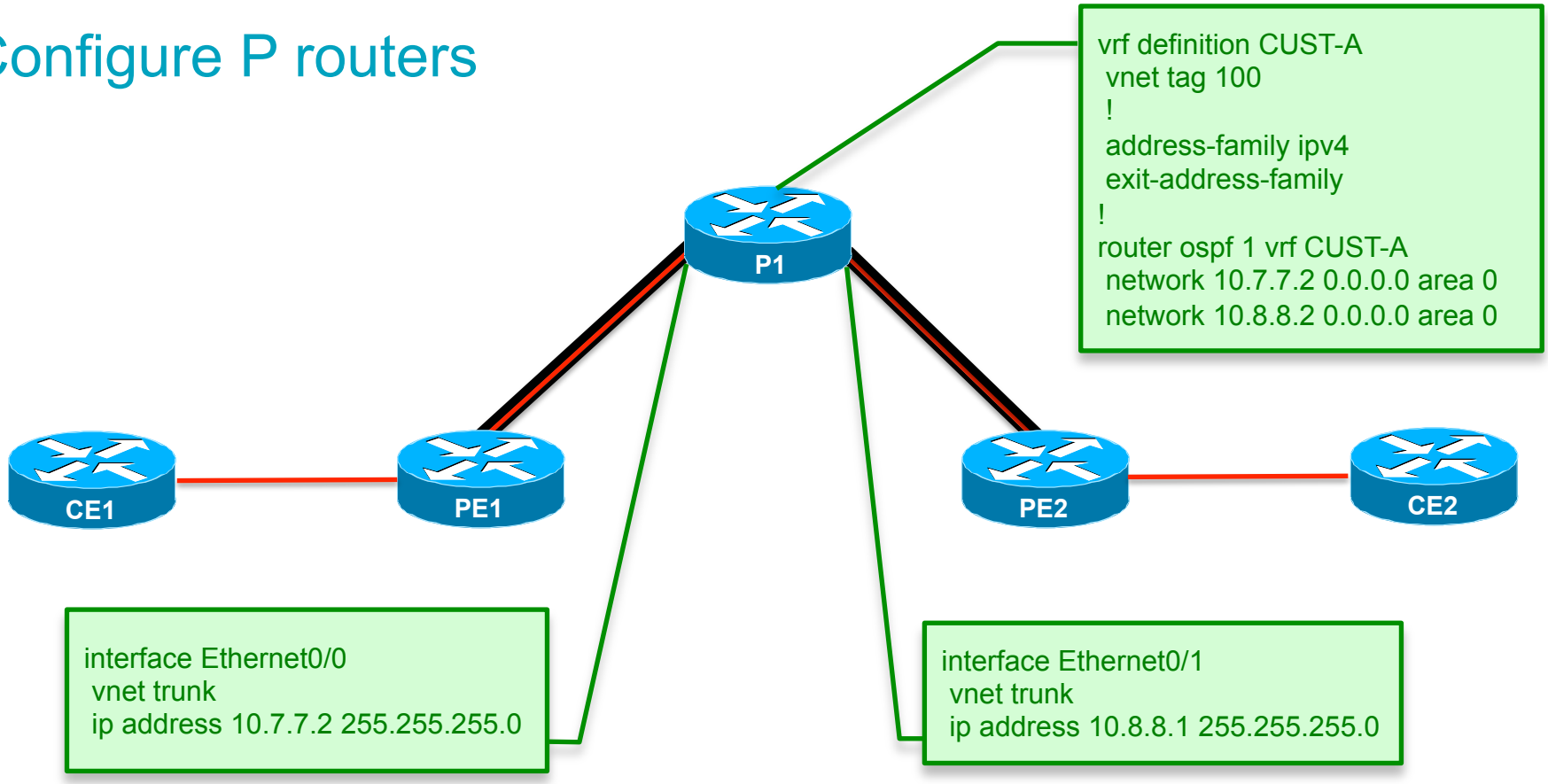
Configure P routers



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Advanced Features

- Route Replication
- Limiting VNET’s on Trunk
- Per VRF Trunk Attributes
- Different VNET Tags for Trunks

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References

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Thank you.