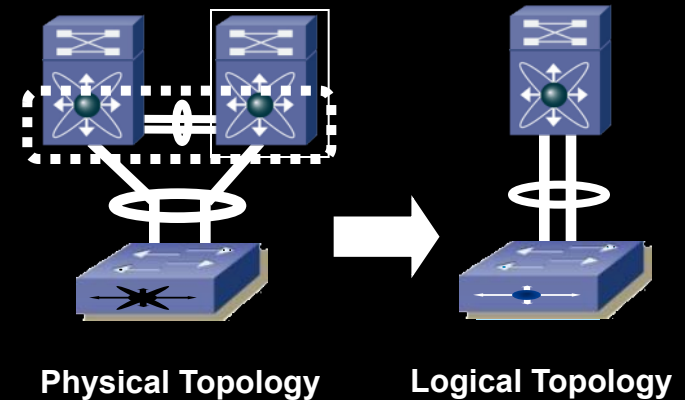


FabricPath vs. VPC

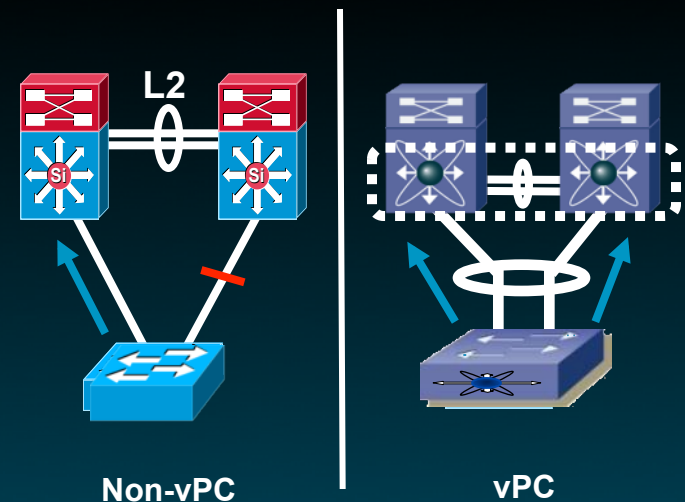


Virtual Port Channel - vPC

- vPC is a Port-channeling concept extending link aggregation to two separate physical switches
- Allows the creation of resilient L2 topologies based on Link Aggregation.
 - Eliminates the need for STP in the access-distribution
- Provides increased bandwidth
 - All links are actively forwarding
- vPC maintains independent control planes



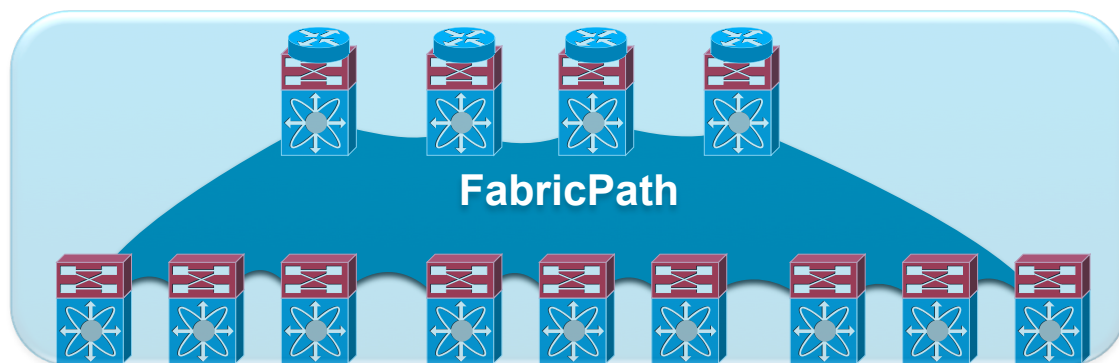
Virtual Port Channel



Increased BW with vPC

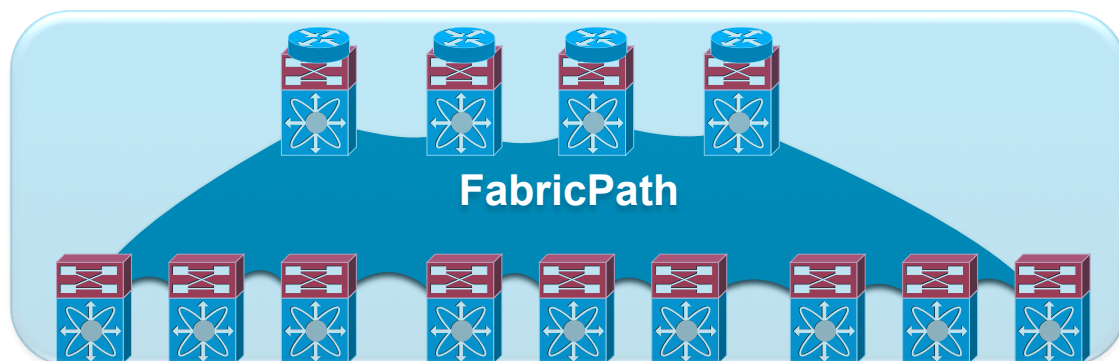
FabricPath: not just about bandwidth

- FabricPath is generally associated with bandwidth and scale

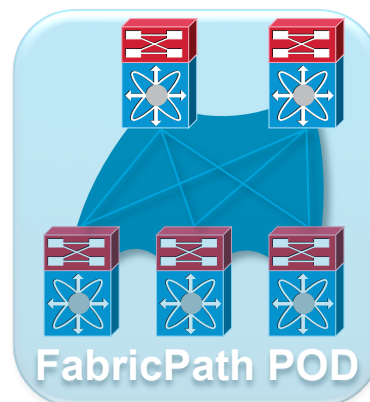


FabricPath: not just about bandwidth

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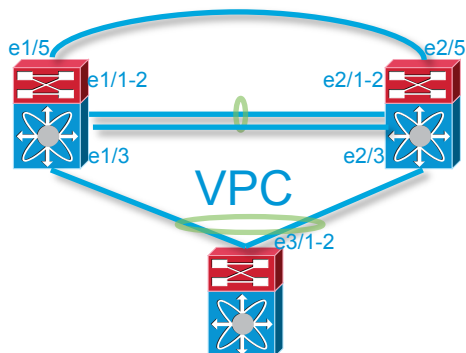
- FabricPath has significant benefits, even at VPC scale



FabricPath is simple to configure/manage

```
interface e1/5
  ip address 192.168.1.1/24
  vrf membership vpc-keepalive
vpc domain 1
  peer-keepalive destination 192.168.1.2
  source 192.168.1.1 vrf vpc-keepalive
interface port-channel 1000
  switchport mode trunk
  vpc peer-link
interface e1/1-2
  switchport mode trunk
  channel-group 1000 mode active
interface e1/3
  switchport mode trunk
  channel-group 1 mode active
interface port-channel1
  vpc 1
```

```
interface e2/5
  ip address 192.168.1.2/24
  vrf membership vpc-keepalive
vpc domain 1
  peer-keepalive destination 192.168.1.1
  source 192.168.1.2 vrf vpc-keepalive
interface port-channel 1000
  switchport mode trunk
  vpc peer-link
interface e2/1-2
  switchport mode trunk
  channel-group 1000 mode active
interface e2/3
  switchport mode trunk
  channel-group 1 mode active
interface port-channel1
  vpc 1
```



```
interface e3/1-2
  switchport mode trunk
  channel-group 1 mode passive
```

VPC Configuration

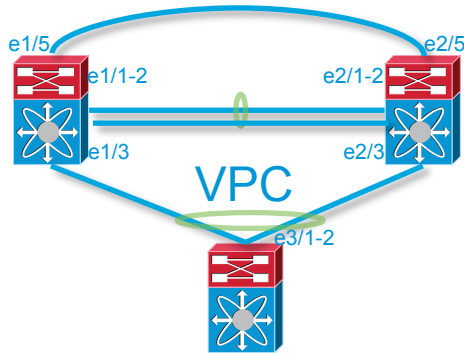
FabricPath is simple

```

interface e1/5
  ip address 192.168.1.1/24
  vrf membership vpc-keepalive
vpc domain 1
  peer-keepalive destination 192.168.1.2
    source 192.168.1.1 vrf vpc-keepalive
interface port-channel 1000
  switchport mode trunk
  vpc peer-link
interface e1/1-2
  switchport mode trunk
  channel-group 1000 mode active
interface e1/3
  switchport mode trunk
  channel-group 1 mode active
interface port-channel1
  vpc 1
  
```

```

interface e2/5
  ip address 192.168.1.2/24
  vrf membership vpc-keepalive
vpc domain 1
  peer-keepalive destination 192.168.1.1
    source 192.168.1.2 vrf vpc-keepalive
interface port-channel 1000
  switchport mode trunk
  vpc peer-link
interface e2/1-2
  switchport mode trunk
  channel-group 1000 mode active
interface e2/3
  switchport mode trunk
  channel-group 1 mode active
interface port-channel1
  vpc 1
  
```



```

interface e3/1-2
  switchport mode trunk
  channel-group 1 mode passive
  
```

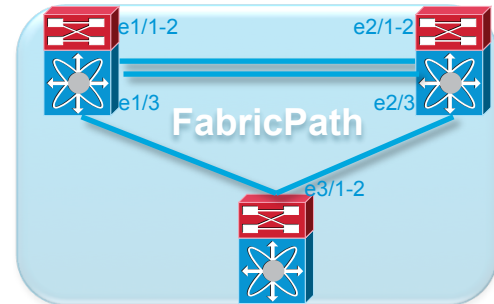
VPC Configuration

```

interface e1/1-3
  switchport mode fabricpath
  
```

```

interface e2/1-3
  switchport mode fabricpath
  
```

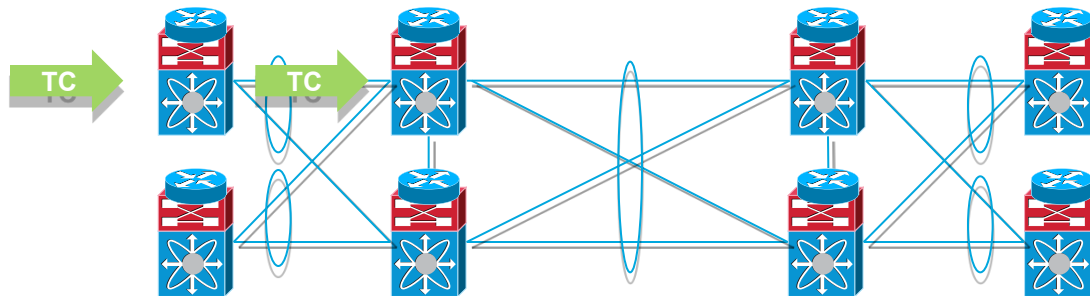


```

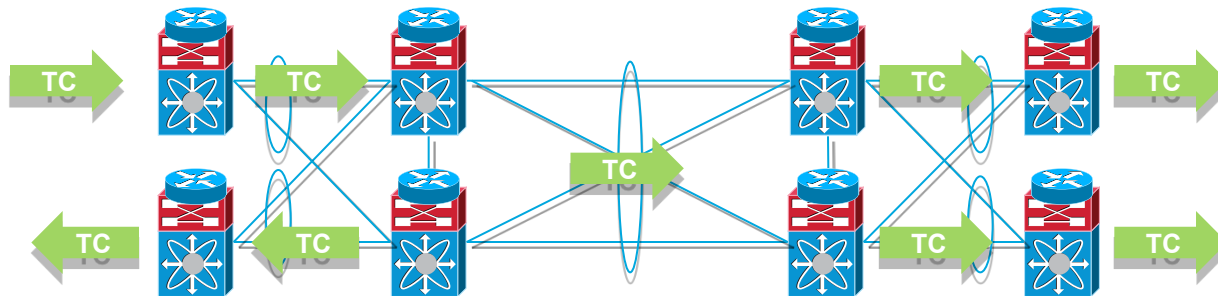
interface e3/1-2
  switchport mode fabricpath
  
```

FabricPath Configuration

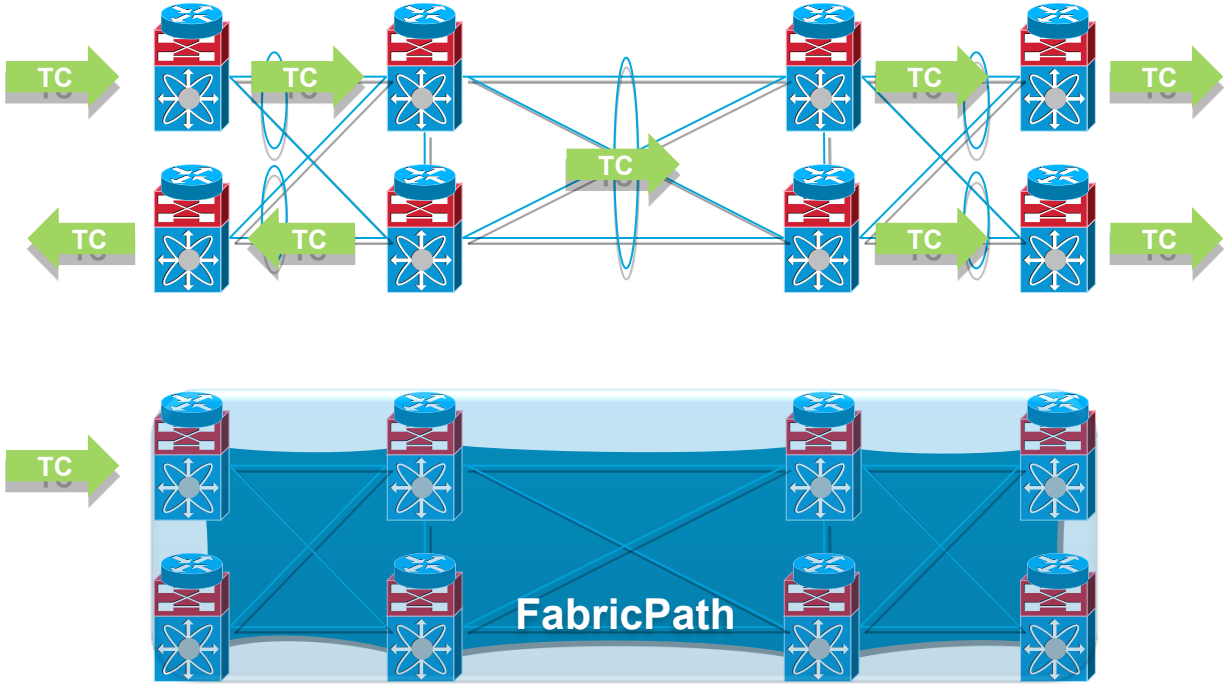
No STP at all



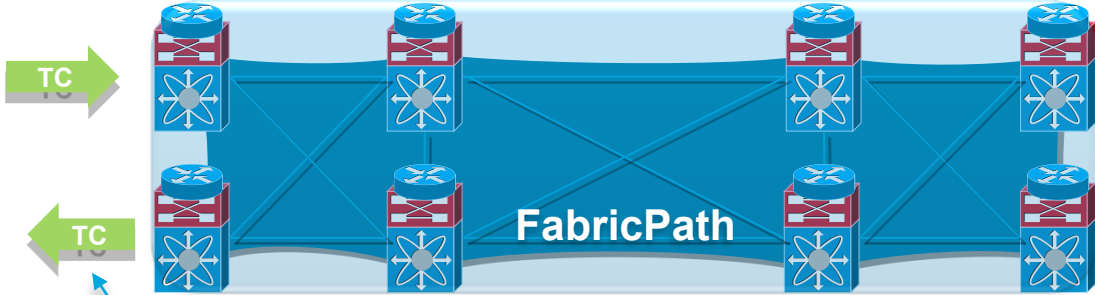
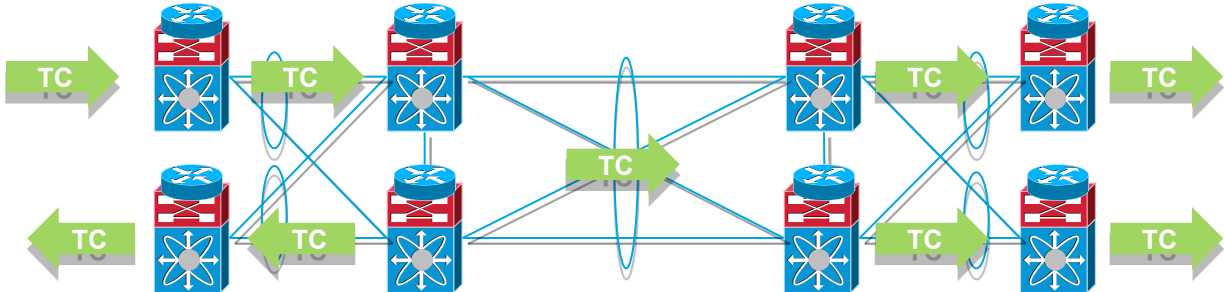
No STP at all



No STP at all

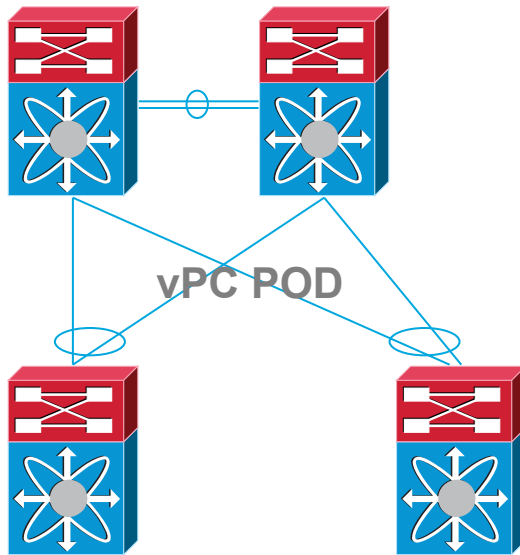


No STP at all

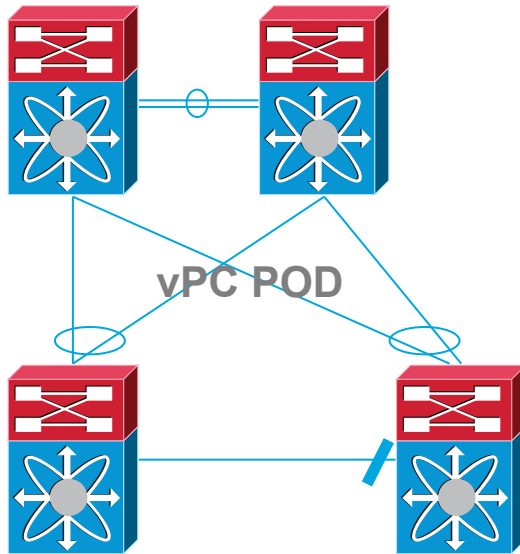


Optional, for STP interaction

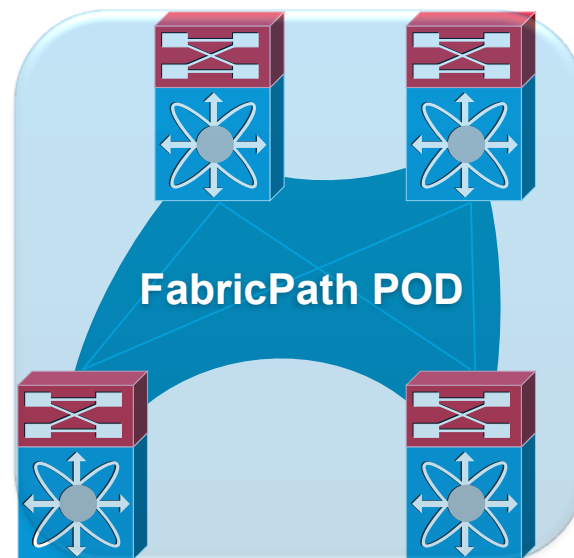
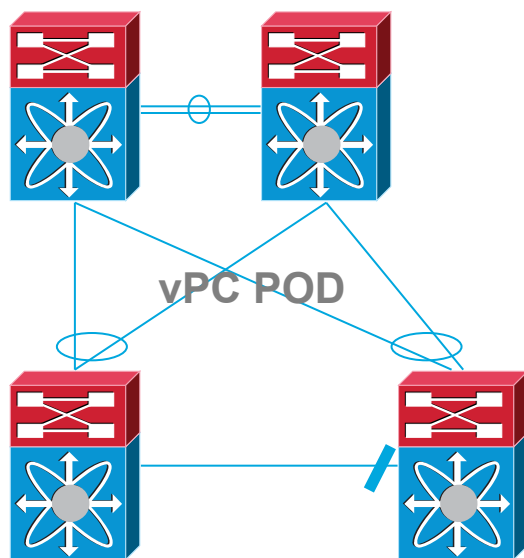
FabricPath: no design constraint



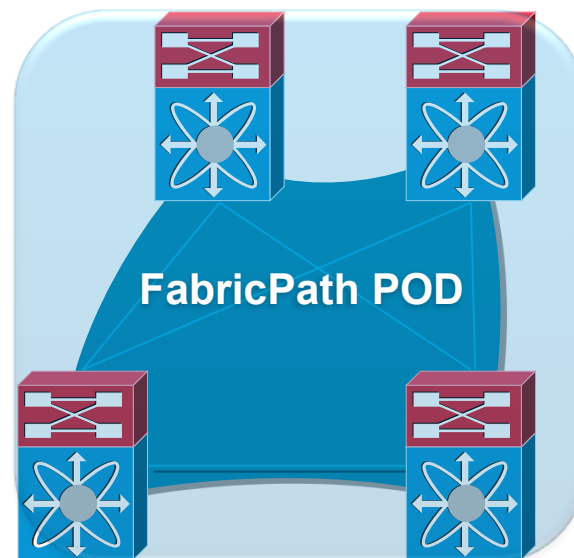
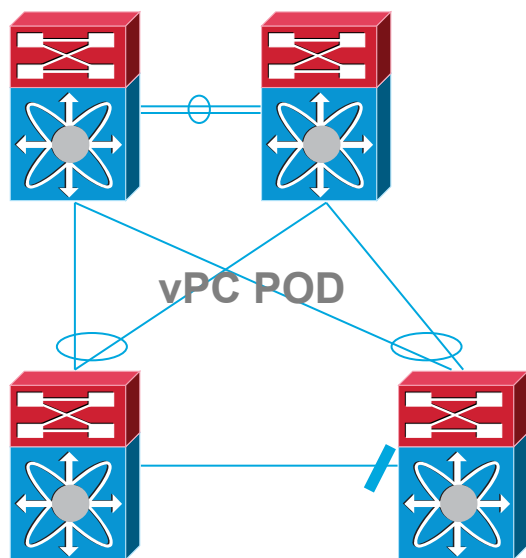
FabricPath: no design constraint



FabricPath: no design constraint

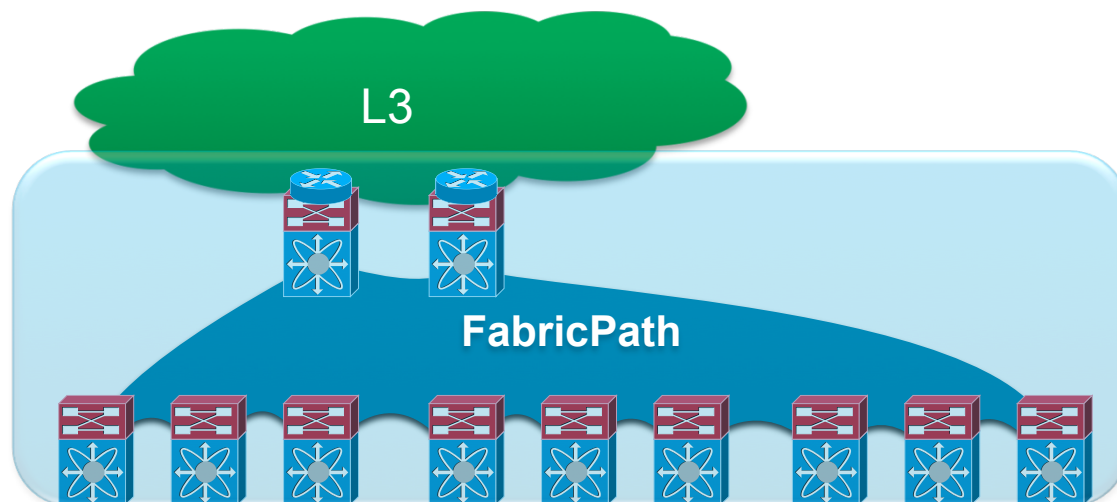


FabricPath: no design constraint



FabricPath scale, beyond bandwidth...

- FabricPath scales in term of mac address table usage
- FabricPath can handle more vlans than Classical Ethernet
- FabricPath leverages routing concepts to handle larger networks
- FabricPath provides flexibility in how the network can be designed then modified



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