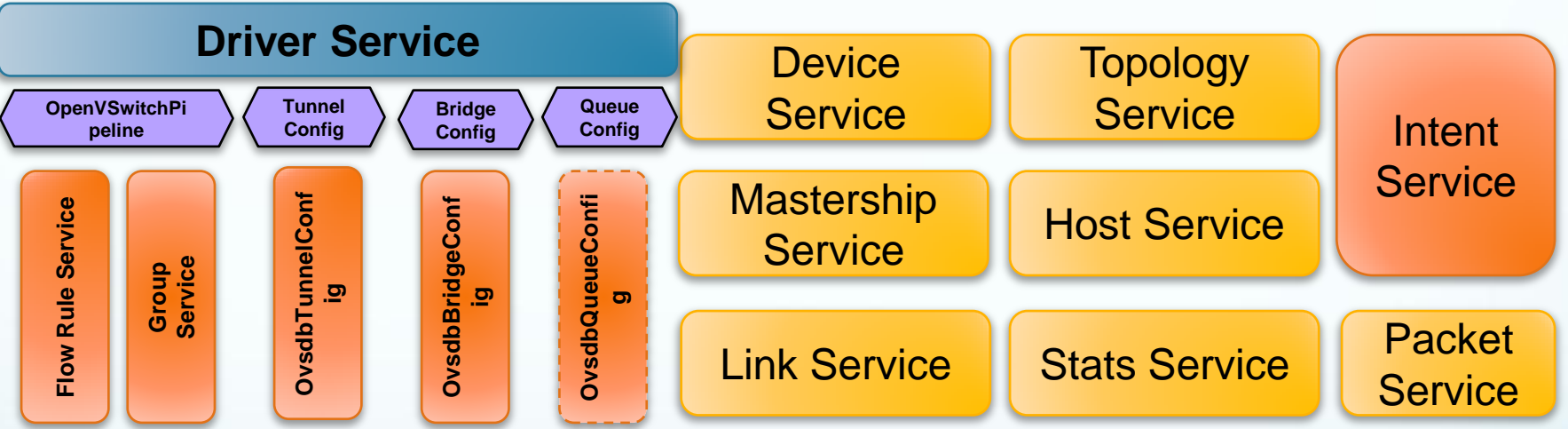


# ONOS Architecture

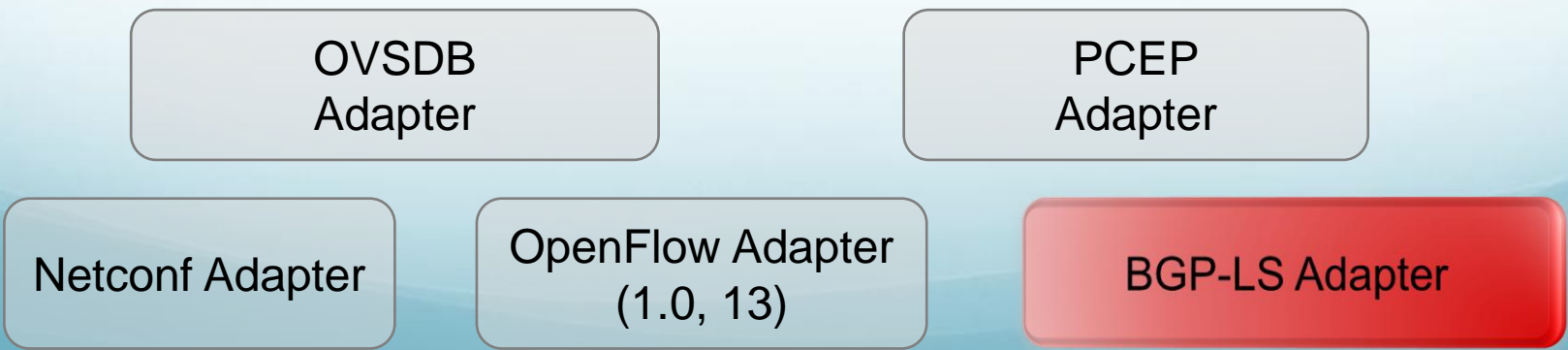
Applications  
(distributed)



Core Services  
(distributed)



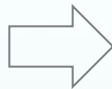
Protocol Adapter



# L3VPN Service By YANG

## (Network Model to NE Model)

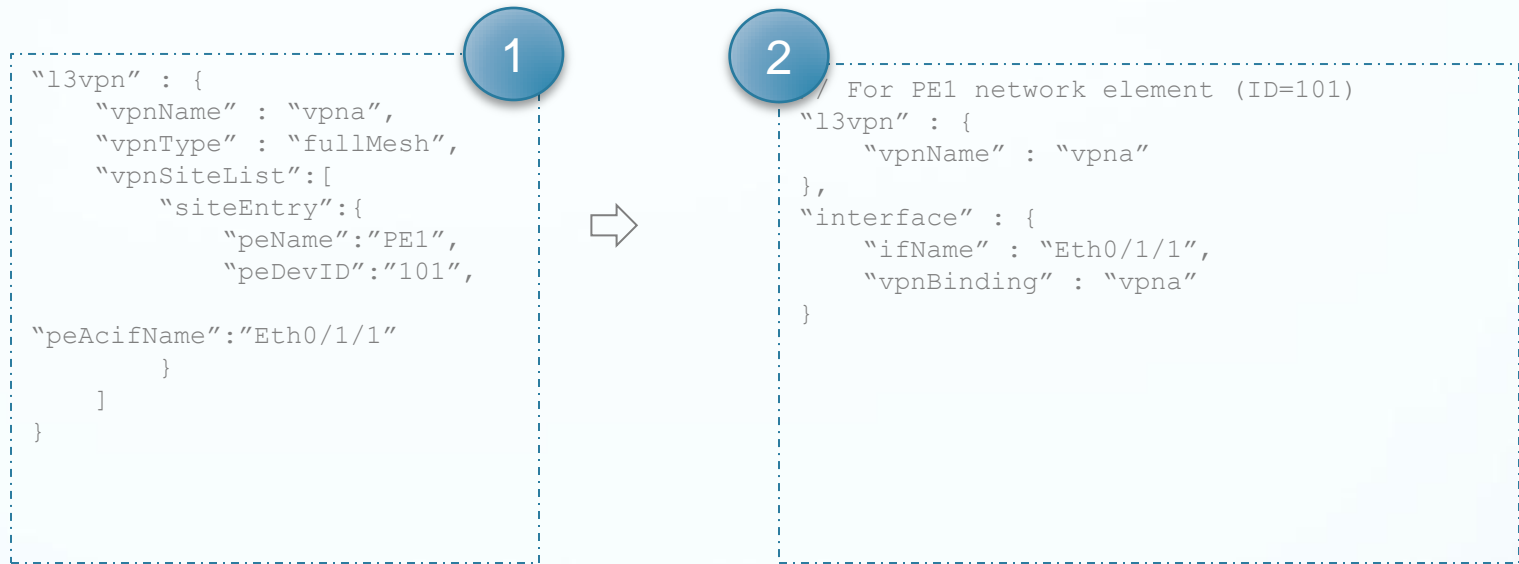
```
{
  "l3vpn" : {
    "vpnName" : "vpna",
    "vpnType" : "fullMesh",
    "vpnSiteList": [
      "siteEntry": {
        "peName": "PE1",
        "peDevID": "101",
        "peAcifName": "Eth0/1/1",
        "peAcIfAddr": "10.110.10.1"
      },
      "siteEntry": {
        "peName": "PE2",
        "peDevID": "102",
        "peAcifName": "Eth1/1/1",
        "peAcIfAddr": "10.111.10.1"
      },
      "siteEntry": {
        "peName": "PE3",
        "peDevID": "103",
        "peAcifName": "Eth2/1/1",
        "peAcIfAddr": "10.112.10.1"
      }
    ]
  }
}
```



```
// For PE1 network element (ID=101)
"l3vpn" : {
  "vpnName" : "vpna"
},
"interface" : {
  "ifName" : "Eth0/1/1",
  "vpnBinding" : "vpna"
}
// For PE2 network element (ID=102)
"l3vpn" : {
  "vpnName" : "vpna"
},
"interface" : {
  "ifName" : "Eth1/1/1",
  "vpnBinding" : "vpna"
}
// For PE3 network element (ID=103)
"l3vpn" : {
  "vpnName" : "vpna"
},
"interface" : {
  "ifName" : "Eth2/1/1",
  "vpnBinding" : "vpna"
}
```

# L3VPN Service In ONOS

## (One Thought)



# L3VPN In ONOS

## (Resources e.g. Tunnel, )

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```
"tunnelList" : [  
  "tunnel" : {  
    "name" : "PE1toPE2",  
    "SourceNode" : "PE1",  
    "SourceIf" :  
    "vpna_tnl_if",  
    "DestNode": "PE2"  
  }  
]
```

```
"tunnel" : {  
  "name": "PE2toPE3" ,  
  "SourceNode" : "PE2",  
  "SourceIf" :  
  "vpna_tnl_if",  
  "DestNode": "PE3"  
}
```

```
"tunnel" : {  
  "name": "PE3toPE1",  
  "SourceNode" : "PE3",  
  "SourceIf" :  
  "vpna_tnl_if",  
  "DestNode": "PE1"  
}  
]
```

```
"l3vpn" : {  
  "vpnName" : "vpna",  
  "vpnType" : "fullMesh",  
  "vpnSiteList": [  
    "siteEntry": {  
      "peName": "PE1",  
      "peDevID": "101",  
      "peAcifName": "Eth0/1/1"  
    }  
  ]  
}
```



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```
// For PE1 network element (ID=101)  
"l3vpn" : {  
  "vpnName" : "vpna"  
},  
"interface" : {  
  "ifName" : "Eth0/1/1",  
  "vpnBinding" : "vpna"  
},  
"route": {  
  "prefix" : "10.111.0.0",  
  "nextHop" : "PE2"  
  "outIf" : "vpna_tnl_if"  
}
```

# Topology of Example

