

Virtual Port Channel Security Policy - Virtual Port Channel default

Properties

Description: optional

Pairing Type: explicit

Explicit VPC Protection Groups:

▲ Name

Create VPC Explicit Protection Group

Name: LEAF101-102\_ProtectionGroup

ID: 100

VPC Domain Policy: default

Switch 1: 101

Switch 2: 102

## Leaf Interface Profile - LEAF101-102\_IFP



### Properties

Name: LEAF101-102\_IFP

Description:

Alias:

Interface Selector:

## Create Access Port Selector

Name:

Description:

Interface IDs:

valid values: All or Ranges. For Example:  
1/13, 1/15 or 2/22-2/24, 2/16-3/16, or  
1/21-23/1-4, 1/24/1-2

Connected To Fex: ☐

Interface Policy Group:



web - PuTTY

```
login as: admin
admin@web's password:
Last login: Sat Sep 14 15:28:04 2019 from 10.0.1.99
[admin@web ~]$ ping app
PING app (10.0.1.2) 56(84) bytes of data.
64 bytes from app (10.0.1.2): icmp_seq=1 ttl=64 time=0.504 ms
64 bytes from app (10.0.1.2): icmp_seq=2 ttl=64 time=0.310 ms
64 bytes from app (10.0.1.2): icmp_seq=3 ttl=64 time=0.341 ms
64 bytes from app (10.0.1.2): icmp_seq=4 ttl=64 time=0.304 ms
^C
--- app ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 2999ms
rtt min/avg/max/mdev = 0.304/0.364/0.504/0.084 ms
[admin@web ~]$
```

EPG - Web\_EPG

Summary Policy **Operational**

**Client Endpoints**

Configured Access Policies

Contracts

MAC/IP	Endpoint Name	Learning Source	Hosting Server	Reporting Controller Name	Interface (learned)	Encap	ESG/uSeg
> 00:50:56:00:00:01	WEB_VM	learned vmm	192.168.10.62	vCenter	Pod-1/Node-101-102/Server_IPG ...	vlan-135	

Name	Alias	Type	Segment	VRF
------	-------	------	---------	-----

DB\_BD  
Exchan  
Presale  
Share

## Create Bridge Domain

STEP 1 > Main

1. Main

2. L3 Configurations

Name: Backup\_BD

Alias:

Description: optional

Annotations: Click to add a new annotation

Type: fc regular

Advertise Host Routes: ☐

VRF: Presales\_VRF

Bridge Domain - Backup\_BD



### Properties

Unicast  
Operational Value for Unicast  
Custom MAC  
Virtual MAC

## Create Subnet

Gateway IP: 10.0.4.254/24  
address/mask

Treat as virtual IP address: ☐

Make this IP address primary: ☐

Scope: ☐ Advertised Externally

☐ Shared between VRFs

## Application EPGs

▲ Name

App\_EPG

DB\_EPG

Exchange\_EPG

SharedServices

Web\_EPG


### Create Application EPG

#### STEP 1 > Identity

Name: Backup\_EPG

Alias:

Description: optional

Annotations:  Click to add a new annotation

Contract Exception Tag:

QoS class: Level3 (Default)

Custom QoS: select a value

Data-Plane Policer: select a value

Intra EPG Isolation:

Enforced

Unenforced

Preferred Group Member:

Exclude

Include

Flood in Encapsulation:

Disabled

Enabled

Bridge Domain: Backup\_BD



Client End-Points

0  
VMM

Static EPG Members

## Add VMM Domain Association

VMM Domain Profile: vCenter\_VMM

Deploy Immediacy: Immediate On Demand

Resolution Immediacy: Immediate On Demand Pre-provision

Delimiter:

Enhanced Lag Policy: select an option

Allow Micro-Segmentation: ☐

Untagged VLAN Access: ☐

VLAN Mode: Dynamic Static

### BACKUP\_VM

Summary Monitor Configure Permissions Data

Guest OS: CentOS 4/5 or later  
Compatibility: ESXi 5.0 and later  
VMware Tools: Not running, not installed  
[More Info](#)

DNS Name:  
IP Addresses:  
Host: 192.168.10.62

Launch Web Console

Launch Remote Console

VMware Tools is not installed on this virtual machine.

#### VM Hardware

#### Related Objects

Host

Networks

## Edit Settings

BACKUP\_VM

### Virtual Hardware

### VM Options

CPU 1  
Memory 2 GB  
Hard disk 1 8 GB  
SCSI controller  
Network adapter

## Select Network

Filter	
Name	Distributed Switch
quarantine	vCenter_VMM
SalesleCommerce_APIApp_EPG	vCenter_VMM
SalesleCommerce_APIBackup_EPG	vCenter_VMM

Create L4-L7 Devices

?
✕

Cisco ACI device package functionality for L4-L7 devices will be deprecated starting in Cisco APIC 5.2 release. The use of configurations without device package is recommended.

General

Name: FW

Service Type: Firewall

Device Type: PHYSICAL VIRTUAL

VMM Domain: vCenter\_VMM

Trunking Port: ☐

VM Instantiation Policy: select an option

Promiscuous Mode: ☐

Context Aware: Multiple Single

Function Type: GoThrough GoTo L1 L2

Devices

The configuration can comprise a single device, two devices (such as an active-standby HA pair), or two or more standalone devices in a scale-out pool.

Name	VM Name	vCenter Name	Interfaces
FW_concrete	ASAv	vCenter	concrete_backup_int concrete_db_int

Cluster Interfaces:

Name	Concrete Interfaces	Enhanced Lag Policy
db_int	FW_concrete/concrete_db_int	
backup_int	FW_concrete/concrete_backup_int	

asav - PuTTY

```

ciscoasa# show int gig0/0
Interface GigabitEthernet0/0 "DB", is up, line protocol is up
  Hardware is net_el000_em, BW 1000 Mbps, DLY 10 usec
    Auto-Duplex(Full-duplex), Auto-Speed(1000 Mbps)
    Input flow control is unsupported, output flow control is unsupported
    MAC address 0050.5600.00aa, MTU 1500
    IP address 10.0.2.253, subnet mask 255.255.255.0
    823 packets input, 56417 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    0 pause input, 0 resume input
    0 L2 decode drops
    16 packets output, 960 bytes, 0 underruns
    0 pause output, 0 resume output
    0 output errors, 0 collisions, 0 interface resets
    0 late collisions, 0 deferred
    0 input reset drops, 0 output reset drops
    input queue (blocks free curr/low): hardware (0/0)
    output queue (blocks free curr/low): hardware (0/0)
  Traffic Statistics for "DB":
    795 packets input, 39830 bytes
    16 packets output, 448 bytes
    59 packets dropped
    1 minute input rate 0 pkts/sec, 10 bytes/sec
    1 minute output rate 0 pkts/sec, 0 bytes/sec
ciscoasa# show int gig0/1
Interface GigabitEthernet0/1 "Backup", is up, line protocol is up
  Hardware is net_el000_em, BW 1000 Mbps, DLY 10 usec
    Auto-Duplex(Full-duplex), Auto-Speed(1000 Mbps)
    Input flow control is unsupported, output flow control is unsupported
    MAC address 0050.5600.00bb, MTU 1500
    IP address 10.0.4.253, subnet mask 255.255.255.0
  
```

L4-L7 Policy-Based Redirect

Name	Description	Hashing Algorithm	Threshold Enable	Resilient Hashing Enabled	Min Threshold (Percentage)	Max Threshold (Percentage)
------	-------------	-------------------	------------------	---------------------------	----------------------------	----------------------------

Create L4-L7 Policy-Based Redirect



Name: DB\_PBR

Description: optional

Destination Type: L1 L2 L3

Rewrite source MAC: ☐

IP SLA Monitoring Policy: select an option

Enable Pod ID Aware Redirection: ☐

Hashing Algorithm: Destination IP Source IP Source IP, Destination IP and Protocol number

Enable Anycast: ☐

Resilient Hashing Enabled: ☐

L3 Destinations:

IP	DestinationMAC Name	Redirect Health Group	Additional IPv4/IPv6	Description	Oper Status
10.0.2...	00:50:56:00:00:aa				Enabled

L4-L7 Policy-Based Redirect

Name	Description	Hashing Algorithm	Threshold Enable	Resilient Hashing Enabled	Min Threshold (Percentage)	Max Threshold (Percentage)
------	-------------	-------------------	------------------	---------------------------	----------------------------	----------------------------

Create L4-L7 Policy-Based Redirect



Name: Backup\_PBR

Description: optional

Destination Type: L1 L2 L3

Rewrite source MAC: ☐

IP SLA Monitoring Policy: select an option

Enable Pod ID Aware Redirection: ☐

Hashing Algorithm: Destination IP Source IP Source IP, Destination IP and Protocol number

Enable Anycast: ☐

Resilient Hashing Enabled: ☐

L3 Destinations:

IP	DestinationMAC Name	Redirect Health Group	Additional IPv4/IPv6	Description	Oper Status
10.0.4...	00:50:56:00:00:bb				Enabled



L4-L7 Service Graph Template - FW\_SGT

L4-L7 Service Graph Template - FW\_SGT

## STEP 1 > Contract

## 1. Contract

Endpoint Group Type

Group Type:

Endpoint Policy Group (EPG)

Endpoint Security Group (ESG)

Endpoint Group Configuration

Configure an Intra-Endpoint Contract:

☐

Consumer EPG / External Network:

Sales/eCommerce\_AP/epg-DB\_EPG

Provider EPG / Internal Network:

Sales/eCommerce\_AP/epg-Backup\_EPG

Contract Information

Contract Type:

New Contract

Select Existing Contract Subject

Contract Name:

FW\_Ct

No Filter (Allow All Traffic):

☒

Apply L4-L7 Service Graph Template to EPG/ESG(s)

STEP 2 > Graph

1. Contract2. Graph

Service Graph Template: Sales/FW\_SGT

Consumer

EPG  
DB\_EPG

C

FW

N1

P

Provider

EPG  
Backup\_EPG

type: GeneralRoute Peering

BD: Sales/DB\_BD  
BD that connects the two devices

L3 Destination (VIP):

Redirect Policy: Sales/DB\_PBR

Service EPG Policy: select an option

Cluster Interface: db\_int

Provider Connector

Type: GeneralRoute Peering

BD: Sales/Backup\_BD  
BD that connects the two devices

L3 Destination (VIP):

Redirect Policy: Sales/Backup\_PBR

Function Node - N1

Policy

Properties

Name: N1

Function Type: GoTo

Devices: FW





Cluster Interfaces:

Name	Concrete Interfaces	Encap
backup_int	FW_concrete/[concrete_backup_int]	unknown
db_int	FW_concrete/[concrete_db_int]	unknown

Function Connectors:


Name	Encap	Class ID	L3OutPBR Service pcTag
consumer	vlan-167	32772	any
provider	vlan-168	16388	any

## Logical Interface Context - consumer




### Properties

Connector Name: consumer

Cluster Interface:  


Associated Network: Bridge Domain L3Out

Bridge Domain:  

Preferred Contract Group: Exclude

Permit Logging: ☐





L3 Destination (VIP): ☐

L4-L7 Policy-Based Redirect:  

L4-L7 Service EPG Policy:


Custom QoS Policy:

## Logical Interface Context - provider




### Properties

Connector Name: provider

Cluster Interface:  


Associated Network: Bridge Domain L3Out

Bridge Domain:  

Preferred Contract Group: Exclude

Permit Logging: ☐

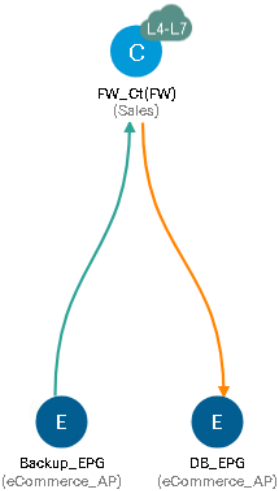
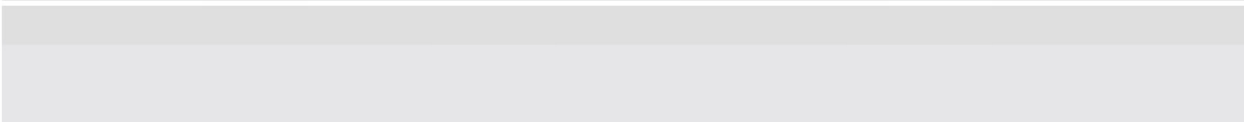
L3 Destination (VIP): ☐

L4-L7 Policy-Based Redirect:  

L4-L7 Service EPG Policy:

Custom QoS Policy:

Contract - FW\_Ct



Contract Subject - Subject

Policy

GeneralSubject

Property

Name: Subject

Alias:

Description: optional

Global Alias:

Apply Both Directions: true

Reverse Filter Ports: ☒

Filters:

Name	Tenant	Action	Priority	Directives	State
default	common	Permit	default level		formed

L4-L7 Service Graph: 

FW\_SGT

QoS Priority: 

Unspecified

Target DSCP: 

Unspecified

Target DSCP Marking works only if the QoS Priority is set or QoS Class is set on the Contract

Wan SLA Policy: 

select an option

ASAv

Summary

Monitor

Configure

Permissions

Data

Guest OS: Other 2.6.x Linux (64-bit)

Compatibility: ESXi 6.0 and later (6.5 recommended)

VMware Tools: Not running, not installed

More info

Powered On

DNS Name:

IP Addresses:

Host: 192.168.10.62

Launch Web Console

Launch Remote Console

VMware Tools is not installed on this virtual machine.

VM Hardware

Related Objects

Host

Networks

Edit Settings

ASAv

Virtual Hardware

VM Options

ADD NEW DEVICE

CPU	1	
Memory	2	GB
Hard disk 1	1	GB
Hard disk 2	8	GB
SCSI controller 0	LSI Logic Parallel	
Network adapter 1	VM Network	Connected
Network adapter 2	SalesFWctxPresales_VRFDB	Connected
Network adapter 3	SalesFWctxPresales_VRFBa	Connected

SalesFWctxPresales\_VRFBBackup\_BD|backup\_int

Summary Monitor Configure Permissions Ports Hosts VMs

Settings

Properties

Policies

Traffic filtering and ...

More

Alarm Definitions

## Policies

### Security

Promiscuous mode	Reject
MAC address changes	Accept
Forged transmits	Accept

### Ingress traffic shaping

Status	Disabled
Average bandwidth	--
Peak bandwidth	--
Burst size	--

### Egress traffic shaping

Status	Disabled
Average bandwidth	--
Peak bandwidth	--
Burst size	--

### VLAN

Type	VLAN
VLAN ID	168



Summary

Monitor

Configure

Permissions

Ports

Hosts

VMs

## ▼ Settings

Properties

Policies

Traffic filtering and ...

## ▼ More

Alarm Definitions

## Policies

## Security

Promiscuous mode	Reject
MAC address changes	Accept
Forged transmits	Accept

## Ingress traffic shaping

Status	Disabled
Average bandwidth	--
Peak bandwidth	--
Burst size	--

## Egress traffic shaping

Status	Disabled
Average bandwidth	--
Peak bandwidth	--
Burst size	--

## VLAN

Type	VLAN
VLAN ID	167

## VPC Interface - 693



### Properties

ID: 693

Description:

Local Operational State: Up

Configured Access VLAN: vlan-135

Configured Trunk VLANs: 100,134-136,167-168

Configured VLANs: 100,134-136,167-168

Up VLANs: 100,134-136,167-168

Suspended VLANs:

Peer Configured VLANs: 100,134-136,167-168

Peer Up VLANs: 100,134-136,167-168

Remote Operational State: Up

vlan-167

uni/tn-Sales/LDevInst-[uni/tn-Sales/IDevVip-FW]-ctx-Presales\_VRF/G-FWctxPresales\_VRF-N-DB\_BD-C-db\_int

vlan-168

uni/tn-Sales/LDevInst-[uni/tn-Sales/IDevVip-FW]-ctx-Presales\_VRF/G-FWctxPresales\_VRF-N-Backup\_BD-C-backup\_int

```
ciscoasa# show access-list
access-list cached ACL log flows: total 0, denied 0 (deny-flow-max 4096)
    alert-interval 300
access-list web_ssh; 3 elements; name hash: 0x2a55cdc7
access-list web_ssh line 1 extended permit tcp any any eq ssh (hitcnt=1) 0x5bed985e
access-list web_ssh line 2 extended permit tcp any any eq www (hitcnt=1) 0x63e7e8c2
access-list web_ssh line 3 extended permit tcp any any eq https (hitcnt=1) 0x91145424
ciscoasa# show conn
2 in use, 3 most used

TCP DB 10.0.2.1:54228 Backup 10.0.4.1:22, idle 0:00:07, bytes 5046, flags UIOB
```

```
leaf-a# show vlan id 11 ext
```

VLAN Name	Encap	Ports
11 Sales:FWctxPresales_VRF:db_int:	vlan-102	Eth1/3, Po2

```
leaf-a# show vlan id 12 ext
```

VLAN Name	Encap	Ports
12 Sales:FWctxPresales_VRF:backup_int:	vlan-137	Eth1/3, Po2

```
leaf-a# vsh_lc -c "show system internal eltc info vlan 11" | egrep sclass
      sclass: 32773 ::: scope: 2654208
      sclass: 32773 ::: sglable: 15
      sclassprio: 0 ::: floodmetp: 11
      sclasslrn: 0 ::: bypselffwdchk: 0
      sclass: 32773
```

```
leaf-a# vsh_lc -c "show system internal eltc info vlan 12" | egrep sclass
      sclass: 32774 ::: scope: 2654208
      sclass: 32774 ::: sglable: 15
      sclassprio: 0 ::: floodmetp: 2
      sclasslrn: 0 ::: bypselffwdchk: 0
      sclass: 32774
```

```
leaf-a# show zoning-rule scope 2654208
```

Rule ID	SrcEPG	DstEPG	FilterID	Dir	operSt	Scope	Name	Action	Priority
4123	0	16386	implicit	uni-dir	enabled	2654208		permit	any_dst_any(16)
4122	26	49154	11	uni-dir	enabled	2654208	Sales:FileServices_Ct	permit	fully_qual(7)
4102	26	49154	9	uni-dir	enabled	2654208	Sales:FileServices_Ct	permit	fully_qual(7)
4098	49154	26	10	uni-dir	enabled	2654208	Sales:FileServices_Ct	permit	fully_qual(7)
4124	49154	26	12	uni-dir	enabled	2654208	Sales:FileServices_Ct	permit	fully_qual(7)
4101	49154	16387	default	bi-dir	enabled	2654208		redir(destgrp-9)	src_dst_any(9)
4143	32774	16387	default	uni-dir	enabled	2654208		permit	src_dst_any(9)
4142	32773	49154	default	uni-dir	enabled	2654208		permit	src_dst_any(9)
4133	16387	49154	default	uni-dir-ignore	enabled	2654208		redir(destgrp-10)	src_dst_any(9)



```
leaf-a# show system internal epm endpoint ip 10.0.2.253
```

```
MAC : 0050.5600.00aa ::: Num IPs : 1
IP# 0 : 10.0.2.253 ::: IP# 0 flags : ::: l3-sw-hit: No
Vlan id : 11 ::: Vlan vnid : 8194 ::: VRF name : Sales:Presales_VRF
BD vnid : 16580486 ::: VRF vnid : 2654208
Phy If : 0x16000001 ::: Tunnel If : 0
Interface : port-channel2
Flags : 0x80004c05 ::: sclass : 32773 ::: Ref count : 5
EP Create Timestamp : 02/24/2022 07:08:19.382974
EP Update Timestamp : 02/24/2022 07:23:43.778625
EP Flags : local|vPC|IP|MAC|sclass|timer|

::::
```

```
leaf-a# show system internal epm endpoint ip 10.0.4.253
```

```
MAC : 0050.5600.00bb ::: Num IPs : 1
IP# 0 : 10.0.4.253 ::: IP# 0 flags : ::: l3-sw-hit: No
Vlan id : 12 ::: Vlan vnid : 8229 ::: VRF name : Sales:Presales_VRF
BD vnid : 15859683 ::: VRF vnid : 2654208
Phy If : 0x16000001 ::: Tunnel If : 0
Interface : port-channel2
Flags : 0x80004c05 ::: sclass : 32774 ::: Ref count : 5
EP Create Timestamp : 02/24/2022 07:08:32.382504
EP Update Timestamp : 02/24/2022 07:24:13.782101
EP Flags : local|vPC|IP|MAC|sclass|timer|

::::
```

```
leaf-a# show service redir info group 9
```

```
=====
LEGEND
TL: Threshold(Low) | TH: Threshold(High) | HP: HashProfile | HG: HealthGrp | BAC: Backup-Dest | TRA: Tracking | RES: Resiliency
=====
GrpID Name      destination                                     HG-name      BAC  operSt  operStQual
-----
9  destgrp-9     dest-[10.0.2.253]-[vxlan-2654208]             Not attached  N    enabled no-oper-grp
leaf-a# show service redir info group 10
```

```
=====
LEGEND
TL: Threshold(Low) | TH: Threshold(High) | HP: HashProfile | HG: HealthGrp | BAC: Backup-Dest | TRA: Tracking | RES: Resiliency
=====
GrpID Name      destination                                     HG-name      BAC  operSt  operStQual
-----
10 destgrp-10     dest-[10.0.4.253]-[vxlan-2654208]             Not attached  N    enabled no-oper-grp
leaf-a# show service redir info destination ip 10.0.2.253 vnid 2654208
```

```
=====
LEGEND
TL: Threshold(Low) | TH: Threshold(High) | HP: HashProfile | HG: HealthGrp | BAC: Backup-Dest | TRA: Tracking | RES: Resiliency
=====
Name            bdVnid      vMac      vrf      operSt  operStQual
-----
dest-[10.0.2.253]-[vxlan-2654208]  vxlan-16580486  00:50:56:00:00:AA  Sales:Presales_VRF  enabled  no-oper-d
```

```
leaf-a# show service redir info destination ip 10.0.4.253 vnid 2654208
```

```
=====
LEGEND
TL: Threshold(Low) | TH: Threshold(High) | HP: HashProfile | HG: HealthGrp | BAC: Backup-Dest | TRA: Tracking | RES: Resiliency
=====
Name            bdVnid      vMac      vrf      operSt  operStQual
-----
dest-[10.0.4.253]-[vxlan-2654208]  vxlan-15859683  00:50:56:00:00:BB  Sales:Presales_VRF  enabled  no-oper-d
```

```

leaf-a# contract_parser.py --vrf Sales:Presales_VRF --epg 32773
Key:
[prio:RuleId] [vrf:(str)] action protocol src-epg [src-l4] dst-epg [dst-l4] [flags][contract:(str)] [hit=count]

[9:4142] [vrf:Sales:Presales_VRF] permit any tn-Sales/G-FWctxPresales_VRF/C-db_int(32773) tn-Sales/ap-eCommerce_AF/epg-DB_EPG(49154) [contract:uni
leaf-a# contract_parser.py --vrf Sales:Presales_VRF --epg 32774
Key:
[prio:RuleId] [vrf:(str)] action protocol src-epg [src-l4] dst-epg [dst-l4] [flags][contract:(str)] [hit=count]

[9:4143] [vrf:Sales:Presales_VRF] permit any tn-Sales/G-FWctxPresales_VRF/C-backup_int(32774) tn-Sales/ap-eCommerce_AF/epg-Backup_EPG(16387) [cont
[hit=0]
leaf-a# show endpoint mac 00:50:56:00:00:AA
Legend:
S - static          s - arp          L - local          O - peer-attached
V - vpc-attached    a - local-aged    p - peer-aged      M - span
B - bounce          H - vtep          R - peer-attached-r1 D - bounce-to-proxy
E - shared-service  m - svc-mgr

+-----+-----+-----+-----+-----+
| VLAN/ | Encap | MAC Address | MAC Info/ | Interface |
| Domain | VLAN  | IP Address  | IP Info   |            |
+-----+-----+-----+-----+-----+
11      |      | 0050.5600.00aa LV |          | po2        |
Sales:Presales_VRF |      | 10.0.2.253 LV   |          | po2        |
+-----+-----+-----+-----+-----+

leaf-a# show endpoint mac 00:50:56:00:00:BB
Legend:
S - static          s - arp          L - local          O - peer-attached
V - vpc-attached    a - local-aged    p - peer-aged      M - span
B - bounce          H - vtep          R - peer-attached-r1 D - bounce-to-proxy
E - shared-service  m - svc-mgr

+-----+-----+-----+-----+-----+
| VLAN/ | Encap | MAC Address | MAC Info/ | Interface |
| Domain | VLAN  | IP Address  | IP Info   |            |
+-----+-----+-----+-----+-----+
12      |      | 0050.5600.00bb LV |          | po2        |
Sales:Presales_VRF |      | 10.0.4.253 LV   |          | po2        |
+-----+-----+-----+-----+-----+

spine# show coop internal info repo ep key 16580486 00:50:56:00:00:AA | egrep "Tunnel|EP" | head -n 3
EP bd vnid : 16580486
EP mac : 00:50:56:00:00:AA
Tunnel nh : 10.0.48.67
spine# show coop internal info repo ep key 15859683 00:50:56:00:00:BB | egrep "Tunnel|EP" | head -n 3
EP bd vnid : 15859683
EP mac : 00:50:56:00:00:BB
Tunnel nh : 10.0.48.67
spine# vsh -c "show isis database detail vrf overlay-1" | egrep 10.0.48.67
TEP Address : IPv4 DomainWide AppId 1 [10.0.48.67, 10.0.104.64, 0.0.0.0]
IP Internal : 10.0.48.67/32 Metric : 1 (I,U)
TEP Address : IPv4 DomainWide AppId 1 [10.0.48.67, 10.0.104.66, 0.0.0.0]
IP Internal : 10.0.48.67/32 Metric : 1 (I,U)
spine# acidiag fmvread | egrep 10.0.104.64
101 1 leaf-a FDO231008QJ 10.0.104.64/32 leaf active 0
spine# acidiag fmvread | egrep 10.0.104.66
102 1 leaf-b FDO23051Y6Q 10.0.104.66/32 leaf active 0

apic1# bash
admin@apic1:~> moquery -c vpcDom | egrep 'virtualIp|dn|'#
# vpc.Dom
dn : topology/pod-1/node-101/sys/vpc/inst/dom-100
virtualIp : 10.0.48.67/32
# vpc.Dom
dn : topology/pod-1/node-102/sys/vpc/inst/dom-100
virtualIp : 10.0.48.67/32

```

```
leaf-a# show system internal epm vlan 11
```

VLAN ID	Type	Access Encap (Type Value)	Fabric Encap	H/W id	BD VLAN	Endpoint Count
11	FD	vlan 802.1Q	102 8194	24	17	1

```
leaf-a# show system internal epm vlan 12
```

VLAN ID	Type	Access Encap (Type Value)	Fabric Encap	H/W id	BD VLAN	Endpoint Count
12	FD	vlan 802.1Q	137 8229	25	28	1

```
leaf-a# show vlan id 17 ext
```

VLAN Name	Encap	Ports
17 Sales:DB_BD	vxlan-16580486	Eth1/1, Eth1/3, Po2

```
leaf-a# show vlan id 28 ext
```

VLAN Name	Encap	Ports
28 Sales:Backup_BD	vxlan-15859683	Eth1/1, Eth1/3, Po2

```
leaf-a# vsh_lc -c "show system internal eltc info vlan 11" | egrep "sclass|service"
      sclass:      32773   :::      scope:      2654208
      sclass:      32773   :::      sglabel:      15
      sclassprio:    0     :::      floodmetptr:    11
      sclasslrnen:   0     :::      bypselffwdchk:    0
      is_service_epg: 1
      sclass:      32773
```

```
leaf-a# vsh_lc -c "show system internal eltc info vlan 12" | egrep "sclass|service"
      sclass:      32774   :::      scope:      2654208
      sclass:      32774   :::      sglabel:      15
      sclassprio:    0     :::      floodmetptr:    2
      sclasslrnen:   0     :::      bypselffwdchk:    0
      is_service_epg: 1
      sclass:      32774
```