在ACI中配置帶內管理

簡介

本文檔介紹以應用為中心的基礎設施(ACI)中的帶內(INB)管理的配置。

必要條件

需求

思科建議您瞭解以下主題:

*瞭解ACI訪問策略

- *瞭解ACI合約
- * 瞭解L3out外部網路例項配置檔案(外部EPG)配置

在ACI中配置INB之前,需要完成交換矩陣發現。

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- 應用策略基礎設施控制器(APIC)
- 瀏覽器
- 運行5.2 (8e)的ACI

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除(預設))的組態來啟動。如果您的網路運作中,請確保您瞭解任何指令可能造成的影響。

設定

配置分為三個主要步驟:

- 1. 在連線枝葉和APIC的埠上配置INB的VLAN
- 2. 關聯管理租戶中的INB EPG並將INB地址分配給所有裝置。
- 3. 透過L3out或租戶VRF洩漏INB地址。

網路圖表



1. 在枝葉介面中配置INB的VLAN

1.1.建立VLAN池

導航到APIC Web GUI路徑; Fabric > Access Policies > Pools > VLAN。

System T	enants	Fabric	Virtual Networking
Inventor	y Fab	oric Policies	Access Policies
Policies			
C ► Quick Start			
E Interface C	onfiguratior	ו	
Switch Con	figuration		
> 🚞 Switches			
> 🚞 Modules			
> 🚞 Interfaces			
> 📰 Policies			
> 📰 Physical an	d External [Domains	
∨ 🗖 Pools			
> 🚞 VLAN	- Cro		
> 🚞 Multicas	t Addr	ate vlan Pool	
> 🚞 VSAN			
> 🚞 VSAN At	ttributes		
> 🗖 VXLAN			

			O Pools - VLAN Create VLAN P	ool					\otimes	
igu			Name:			D				
ırat			Description:	optional						
			Allocation Mode:	Dynamic Allocation	Static Allocat	ion				1
			Encap Blocks:					Ť	+	10
	rnal Domains			VLAN Range	Description	Allocation Mode	Role		_	10
	Create Ranges					\otimes				
	Туре:	VLAN								
ddr	Description:	optional)
oute	Range:	VLAN V	- VLAN 🗸	0						
	Allocation Mode:	Dynamic Allocation	Integer value	Static Allocation						
	Allocation Mode.	Bynamic Allocation	nent allocivioue nom parent	Static Allocation						
	Role:	External or On the wire enco	apsulations Internal			Ca	ncel S	ubmit		
							[2321-23	99] (Stat	tic Allo	bca
				C	ancel 0	ĸ	[1000-10	991 (Stati	ic Allo	Ca
				C	ancel	K	[2321-23 [1000-10:	99] (Stat 99] (Stat	tic A ic A	

Name - VLAN池的名稱。此名稱可以是1到64個字母數字字元。

Description - VLAN池的說明。說明可以是0到128個字母數字字元。

分配模式-對於INB,此VLAN池的分配方法必須為static。

Encap Blocks —分配的VLAN池的範圍。

範圍- VLAN池的開始VLAN ID和結束VLAN ID。起始ID必須小於或等於結束ID。

1.2.建立物理域

導航到APIC Web GUI路徑; Fabric > Access Policies > Physical and External Domains > Physical Domains。



Create Physical	Domain						? ×
Name:			0				
Associated Attachable Entity Profile:	select a value		\sim				
VLAN Pool:	select an option		\sim				
Security Domains:			_		Ċ	+	
	Select	Name		Description			
				Cancel		Sub	mit

名稱-物理域的名稱。此名稱可以是1到64個字母數字字元。

VLAN池-選擇步驟1.1中建立的VLAN池。

1.3.建立可附加存取實體設定檔

導航到APIC Web GUI路徑; Fabric > Access Policies > Policies > Global > Attachable Access Entity Profile。



Create Attachab	le Access Entity Profile			۲
STEP 1 > Profile				1. Profile
Name:	9			
Description:	optional			
Enable Infrastructure VLAN:				
Association to Interfaces:				
Domains (VMM, Physical or External) To Be Associated				1 +
To Interfaces:	Domain Profile	Encaps	sulation	
	select an option			
		Update Car	ncel	
EPG DEPLOYMENT (All Se	lected EPGs will be deployed on all the interfaces asso	ciated.)		
				+
Application EPGs		Encap	Primary Encap	Mode
			Previous Canc	el Finish

名稱-可附加訪問授權配置檔案的名稱。此名稱可以是1到64個字母數字字元。

Association to Interfaces -取消選中。在最後一個步驟中,在步驟1.6中手動分配到枝葉介面。

要與介面關聯的域(VMM、物理或外部)-選擇步驟1.2中建立的物理域。

1.4.建立枝葉接入埠策略組

導航到APIC Web GUI路徑; Fabric > Access Policies > Interfaces > Leaf Interfaces > Policy Groups > Leaf Access Port Policy Group。



Create Leaf Access	Port Policy Group	р			\times)
Name:		0				
Description: 0	otional					
Attached Entity Profile: se	elect an option	\sim	Link Level Policy: sel	ect a value	\sim	
CDP Policy: se	elect a value	\sim	LLDP Policy: sys	stem-lldp-enabled	~ 🕑	
Advanced Settings						
802.1x Port Authentication	select a value	\sim	MCP:	select a value	\sim	
Transceiver policy	select a value	\sim	Monitoring Policy:	select a value	\sim	
CoPP Policy	select a value	\sim	PoE Interface:	select a value	\sim	
DWDM	select a value	\sim	Port Security:	select a value	\sim	
Egress Data Plane Policing	select a value	\sim	Priority Flow Control:	select a value	\sim	
Fibre Channel Interface	select a value	\sim	Slow Drain:	select a value	\sim	
Ingress Data Plane Policing	select a value	\sim	Storm Control Interface:	select a value	\sim	
L2 Interface	select a value	\sim	STP Interface Policy:	select a value	\sim	
Link Flap Policy	select a value	\sim	SyncE Interface Policy:	select a value	\sim	
Link Level Flow Control Policy	select a value	\sim				
MACsec	select a value	\sim				
NetFlow Monitor Policies:					1 +	
N	letFlow IP Filter Type		NetFlow Monit	or Policy		
				Cancel	Submit	

名稱-枝葉接入埠策略組的名稱。此名稱可以是1到64個字母數字字元。

附加實體設定檔-選擇步驟1.3中建立的附加實體設定檔。

鏈路層發現協定(LLDP)策略-必須選擇Enable Policy。

1.5.建立枝葉接入埠策略組

導航到APIC Web GUI路徑; Fabric > Access Policies > Interfaces > Leaf Interfaces > Profiles。



	©=0	Leaf Interfaces - Profiles
		Create Leaf Interface Profile Name: • Description: optional Interface Selectors: •
	Create Access	Port Selector
	Des	cription: optional
ns	Interf	'ace IDs: Image: Second Se
	Connected Interface Policy	I To Fex: y Group: select an option
		sel Submit
		Cancel

名稱-枝葉介面配置檔案的名稱。此名稱可以是1到64個字母數字字元。

介面選擇器-在介面和介面策略之間建立對應關係。

名稱-接入埠選擇器的名稱。此名稱可以是1到64個字母數字字元。

介面ID -介面ID與APIC互連。在文檔拓撲中,此介面ID是1/47或1/48。

介面策略組-選擇步驟1.4中建立的連線實體配置檔案。



注意:在本文檔的拓撲中,將三個APIC連線到枝葉的介面不相同。 由於APIC 3未連線到Eth1/47介面,因此無法建立1/47-1/48的介面ID。 必須為Eth1/47和Eth1/48建立單獨的介面配置檔案。

1.6.將介面配置檔案應用於枝葉

導航到APIC Web GUI路徑;Fabric > Access Policies > Switches > Leaf Switches > Profiles。



Create Leaf Pro	ofile			\bigotimes
STEP 1 > Profile			1. Profile 2. Associations	
Name:	Leaf-APIC-48			
Description:	optional			
Leaf Selectors:			1	+
	Name	Blocks	Policy Group	
	APIC-48	101-102,111-112	Select an option	\sim
		Update Cancel		
			ous Cancel Next	

名稱-枝葉配置檔案的名稱。此名稱可以是1到64個字母數字字元。

枝葉選擇器-選擇將介面配置推送到其中的枝葉ID。

名稱-葉組的名稱。

塊-選擇交換機節點ID。

Create Leaf Pro	ofile								\times
STEP 2 > Associations	5				1. Profile	2	2. Association	าร	
Interface Selector							(Ċ	+
Fromes.	Select	Name		Descriptio	n				
		system-port-pro	ofile-node-102						
		system-port-pro	ofile-node-111						
		system-port-pro	ofile-node-112						
		test							
		Leaf-48							
Module Selector Profiles:							(Õ	+
	Select	Name	Description						
				Prev	vious	Cance	I Fini	sh	

Interface Selector Profiles —選擇步驟1.5中建立的連線的實體配置檔案。



注意:在本文檔的示例中,必須配置兩個交換機配置檔案。 第一種方法是選擇枝葉101-102、枝葉111-112,並將介面配置檔案分配給Eth1/48。 第二種方法是選擇枝葉111-112並將介面配置檔案分配給Eth1/47。

有關訪問策略的更多故障排除詳細資訊,請參閱<u>ACI訪問策略故障排除</u>。

2. 在管理租戶中分配INB地址

2.1.建立網橋域(BD) INB子網

導航到APIC Web GUI路徑; Tenants > mgmt > Networking > Bridge Domains > inb。



註:本文檔使用預設BD和預設VRF。

您也可以建立新的VRF和BD以執行類似的配置。



	Create Subnet	\bigotimes
ł	Gateway IP: 192.168.6.254/24 address/mask	
	Treat as virtual IP address: 📃	-
n	Make this IP address primary: 📃	
	Scope: Advertised Externally	
Fe	Description: optional	
s		
r	Subnet Control: No Default SVI Gateway	
	IP Data-plane Learning: Disabled Enabled	
	L3 Out for Route Profile: select a value	
	ND RA Prefix Policy: select a value	15
	Policy Tags: 🕂 Click to add a new tag	
v		
4		
	Cancel	

Gateway IP - The INB subnet gateway.

Scope - Choose according to the route leakage method you use. Here choose to use L3out, and then click Advertised Externally.

2.2.建立INB EPG

導航到APIC Web GUI路徑; Tenants > mgmt > Node Management EPGs。



Create In-Band	Management EPG	3
Name:	default	
Annotations:	Click to add a new annotation	
Encap:	vlan-10	
Bridge Domain:	e.g., vian-1	
Static Poutes:		
State Routes.		
	IP Address	
	Cancel Submit	
N		

名稱- INB EPG的名稱。

Encap-選擇您在步驟1.1中建立的VLAN集區中的VLAN。

網橋域-選擇步驟2.1中建立的BD。

2.3. 為裝置分配靜態 INB IP地址

導航到APIC Web GUI路徑; Tenants > mgmt > Node Management Addresses > Static Node Management Addresses。



Create Static Node Ma	inagement Addresses
Node Range: 1	- <u>3</u>
Config: Out-Of-Ba	nd Addresses ddresses
In-Band IP Addresses	
In-Band Management EPG:	default
In-Band IDVA Address	192 168 6 1/24
in-Balla in V4 Address.	address/mask
In-Band IPV4 Gateway:	192.168.6.254
In-Band IPV6 Address:	
	address/mask
In-Band IPV6 Gateway:	
	Cancel

Node Range -要分配給INB地址的節點ID。 分配的INB地址隨節點ID依次增加。

配置-選擇帶內地址。

帶內管理EPG-選擇步驟2.2中建立的EPG。

帶內IPV4地址-第一個分配的INB地址。

帶內IPV4網關-將其配置為步驟2.1中增加的子網的地址。

System	Tenants	Fabric	Virtual Ne	etworking A	dmin Ope	erations A	Apps Integra	tions	
ALL TENANT	S Add Te	enant Ten	ant Search: n	ame or descr	comm	on mgmt			
mgmt		Ē	30	Static Node I	Managemen	t Addresses	5		
Quick S	tart								
∽ 🗰 mgmt				Node ID	Name	🔺 Туре	EPG	IPV4 Address	IPV4 Gateway
> 🖬 Appl	ication Profiles			pod-2/node-3	f6apic3	In-Band	default	192.168.6.3/24	192.168.6.254
	vorking tracts			pod-1/node-1	f6apic1	In-Band	default	192.168.6.1/24	192.168.6.254
> 🗖 Polic	cies			pod-1/node-2	f6apic2	In-Band	default	192.168.6.2/24	192.168.6.254
> 🚞 Serv	ices			pod-1/node-101	f6leaf101	In-Band	default	192.168.6.101/24	192.168.6.254
🚞 Seci	urity		1	pod-1/node-102	f6leaf102	In-Band	default	192.168.6.102/24	192.168.6.254
> 🚞 Nod	e Management	EPGs		pod-2/node-112	f6leaf112	In-Band	default	192.168.6.112/24	192.168.6.254
> 🚞 Exte	rnal Manageme	ent Network In:	stance Pr	pod-2/node-111	f6leaf111	In-Band	default	192.168.6.111/24	192.168.6.254
	e Management	Addresses		pod-1/node-202	f6spine202	In-Band	default	192 168 6 202/24	192 168 6 254
E d	efault			pod-1/pode-201	f6spine201	In-Band	default	192.168.6.201/24	192 168 6 254
s 🗖 s	tatic Node Mar	nagement Add	resses	pou-mode-zon	rospinezor	in-band	Gerauit	132.100.0.201/24	132.100.0.234
> 🚞 Man	aged Node Cor	nnectivity Grou	aps	pod-2/node-212	f6spine212	In-Band	default	192.168.6.212/24	192.168.6.254
> 🚞 IP Ad	ddress Pools			pod-2/node-211	f6spine211	In-Band	default	192.168.6.211/24	192.168.6.254



注意:完成步驟2.3中的配置後,所有枝葉和APIC均可透過INB通訊。

3. 洩漏INB地址

您可以透過任何路由洩漏方法將INB子網共用給其他網路。INB EPG可以視為一種特殊的EPG。配置路由洩漏時,與常規EPG沒有區別。

本文檔僅將L3out配置為示例。

3.1.在管理租戶中建立L3out



在本例中,物理介面用於運行簡單開放最短路徑優先(OSPF)協定的路由器。



注意:如果要瞭解有關L3out的更多詳細資訊,請參閱L3out白皮書;ACI交換矩陣L3Out白皮書。

ate L3Out	
	1. Identity 2. Nodes And Interfaces 3. Protocols 4. External EPG
	Protocol
L	Ø Route R
Leaf	Router
Identity	
A Layer 3 Outside (L3Out) network configuration defines networks using static routing and dynamic routing protoc	how the ACI fabric connects to external layer 3 networks. The L3Out supports connecting to externa ols (BGP, OSPF, and EIGRP).
Prerequisites: • Configure an L3 Domain and Fabric Access Policies for • Configure a BGP Route Reflector Policy for the fabric in	r interfaces used in the L3Out (AAEP, VLAN pool, Interface selectors). hfra MP-BGP.
Name: INB-L3out VRF: Inb CB L3 Domain: F6_inb CB Use for GOLF:	BGP EIGRP OSPF Area Send redistributed LSAs into NSSA area Control: ♥ Originate summary LSA Suppress forwarding address in translated LSA
Name: INB-L3out VRF: Inb C L3 Domain: F6_inb C Use for GOLF:	OSPF Area Type: NSSA area Regular area Stub area OSPF Area Cost: 1

名稱- INB L3out的名稱。

VRF-選擇L3out路由所在的VRF。在本文檔中,使用最簡單的配置,並且選擇了管理租戶中的VRF INB。

L3域-根據實際情況建立和選擇。有關L3域的詳細資訊,請參閱L3out白皮書。

OSPF -在本示例中,L3out運行OSPF協定。根據實際情況選擇動態路由協定或使用靜態路由。

Create L3Out	00
1. Identity 2. Nodes And Interfaces 3. Protocols	4. External EPG
Nodes and Interfaces	
The L3Out configuration consists of node profiles and interface profiles. An L3Out can span across multiple nodes in the fabric. All nodes used by in a single node profile and is required for nodes that are part of a VPC pair. Interface profiles can include multiple interfaces. When configuring d separate interface profile is required for the IPv4 and IPv6 configuration, that is automatically taken care of by this wizard.	y the L3Out can be included ual stack interfaces a
Use Defaults: 🔽	
Interface Types	
Layer 3: Routed Routed Sub SVI Floating SVI	
Layer 2: Port Direct Port Channel	
Nodes	
Node ID Router ID Loopback Address f2leaf102 (Node-102) 192.168.1.6 192.168.1.6 uny Loopback 192.168.1.6 192.168.1.6	
Interface IP Address MTU (bytes) eth1/40 v 192.168.2.1/24 1500 +	
address/mask	
Previous	Cancel Next

根據網路規劃配置介面。

Creat	te L3Out								\bigotimes
			1. Identity	2.1	Nodes And Inte	rfaces	3. Protocols	4. External EPG	
Protoc	ol Associations								
	OSPF								
	Node ID: 102								
	Interface					Hide Policy 🗌			
	1/40	Policy:							
							Previous	Cancel Next	

對於OSPF,預設網路型別為broadcast。本示例將網路型別更改為點對點。

			8
1. Identity	2. Nodes And Interfaces	3. Protocols	4. External EPG

The L3Out Network or External EPG is used for traffic classification, contract associations, and route control policies. Classification is matching external networks to this EPG for applying contracts. Route control policies are used for filtering dynamic routes exchanged between the ACI fabric and external devices, and leaked into other VRFs in the fabric.





在本示例中,只有一個L3out和一個EPG,並且可以使用預設的所有外部網路的預設EPG選項。



注意:如果同一VRF中有多個L3out EPG,請仔細配置此選項。有關詳細資訊,請參閱L3out白皮書。

配置路由器後,OSPF鄰居狀態可以更改為FULL。

admin-Infra# show lldp neighbors Capability codes: (R) Router, (B) Bridge, (T) Telephone, (C) DOCSIS Ca

如果需要對L3out進行故障排除,請參閱<u>對ACI外部轉發進行故障排除</u>。

導航到APIC Web GUI路徑; Tenants > mgmt > Networking > Bridge Domains > inb。

System	Tenants	Fabric	Virt	ual Network	king	Admin	Operati	ions	Apps	Integration	IS						
ALL TENANT	S Add Te	enant	Tenant Sea	rch: name or	descr		common	mgmt	guangx	il guang:	kil2	infra					
mgmt		\bigcirc	•	Bridge	Domair	n - inb											۵
C Quick St						Summar	y P	olicy	Operatio	nal Stat	ts	Health	Faults	Histor	y Pol	icy View	er
> 🚍 Appli Netw BI	cation Profiles rorking ridge Domains			8						Genera		L3 Configu	rations	Advance	ed/Trouble	shooting O	J +
~ @ →) inb	ay Labels		Proper	ties			Addres	5			IP Address	IP	Control	Selector		
> ~	ND Proxy Subnets 106.20	Subnets						106.20	1.254/24		Advert.	False	False				
> 🖿 vi > 🖿 u	RFs 2Outs			•	EP	Move Detec Associate	tion Mode d L3 Outs	e: 🗌 GARP s: 🔺 L3 O	based detec	ction						1	ł
	NB-L3outs	ode Profile						INB-L3	out]	Ur	odate	Cancel				$\mathbf{>}$
~ >	External E E all-sub	PGs net-epg p for impor	t and ex			L3Out for Ro	ute Profile	e: select a	value								
> 🖬 si > 🖬 di	R-MPLS VRF L: ot1Q Tunnels	3Outs			L	.ink-local IPv	6 Address	s: :: /: select a	value	\checkmark							
> 🖬 Cont > 🖬 Polici	racts ies											Show	w Usage	Rese	et	Submit	

關聯的L3out -選擇步驟3.1中建立的管理L3out的名稱。

3.3.建立合約

導航到APIC Web GUI路徑; Tenants > mgmt > Contracts > Standard。



Create Contrac	t				×
Name:	ALL				
Alias:]	
Scope:	VRF		\sim		
QoS Class:	Unspecified		\sim		
Target DSCP:	Unspecified		\sim		
Description:	optional				
Annotations:	Click to add	a new annotati	on		
Subjects:					+
	Name	Descr	iption		_
	ALL				

Submit

Cancel

Create Contrac	t Subject			\bigotimes
Alias				
Description	optional			
Target DSCP:	Unspecified	\sim		
Apply Both Directions: Reverse Filter Ports:				
Wan SL	A Policy: select an option	\sim		
Filter Chain				
L4-L7 Service Graph:	select an option	\sim		
QoS Priority:				
				_
Filters				1 +
Name	Directives	Action	Priority	
common/any	\sim	V Permit	default level	\sim
		Update Cancel		
			Cancel	ОК

在本例中,合約允許所有流量。如果您需要有關合約的更多詳細資訊,請參閱合約白皮書;<u>思科ACI合約指南白皮書</u>。

3.4.對INB EPG應用合約

導航到APIC Web GUI路徑; Tenants > mgmt > Node Management EPGs > In-Band EPG - default。

System Tenants Fabric Virtual Network	ing Admin Operatio	ns Apps	Integrations						
ALL TENANTS Add Tenant Tenant Search: name or	descr common	mgmt gua	angxil guangxil2	infra					
mgmt (r) (s) (o)	In-Band EPG - de	fault							Q
Ouick Start ✓ Ⅲ mgmt							Policy Stats	Health Faults	History
> C Application Profiles								Policy	Operational
> The Networking	8 🗸 🛆 🕐								Ó <u>+</u>
> Policies	Properties Bridge Domain:	inh	isi 🖉						
> 🔤 Services	Resolved Bridge Domain:	inb							
V 🖬 Node Management EPGs	Provided Contracts:	Name	Tenant	Type		OoS Class	Match Type	State	
F In-Band EPG - default		mgmt/ALL	(2	1100		Unspecified	√ AtleastOne	unformed	
 Out-of-Band EPG - default External Management Network Instance Profiles 	•	Type of reast 4 or an			Update	Cancel			
> 🚞 Node Management Addresses									
Anaged Node Connectivity Groups	Consumed Contracts:	Name	Teese		Ture		OaS Class	Challe	
		mgmt/ALL	vacters to select	4	Type		Unspecified	unformed	
		Type of reast 4 crist			Update	Cancel			
	Contract Interfaces:								÷ 1
	ounder manages.								U T
							Show Usa	ge Reset	Submit

提供的合約-選擇步驟3.3中建立的合約。

已沖銷的合約-選擇步驟3.3中建立的合約。

3.5.對L3out EPG應用合約

導航到APIC Web GUI路徑; Tenants > mgmt > Networking > L3Outs > INB-L3out > External EPGs > all-subnet-epg。

System Tenants Fabric Virtua	al Networking Admin Operations Apps Integrations
ALL TENANTS Add Tenant Tenant Searc	ch: name or descr common mgmt guangxil guangxil2 infra
mgmt (*) 🗐 🕲	♥ External EPG - all-subnet-epg
O Quick Start ✓ ∰ mgmt	Policy Operational Health Faults History
> 🗖 Application Profiles	General Contracts Inherited Contracts Subject Labels EPG Labels
Hetworking Hetworking Hetworking	♥ Healthy 🛞 👽 🙆 🕥
> 🖬 VRFs	Name Tenant Tenant Contract Provided / QoS Class State Add Provided Contract Alias Type Consumed
> 🖿 L2Outs	No items have been found.
L3Outs	Select Actions to create a new item. Add Consumed Contract Interface
V 1NB-L3out	Table Contract
> Logical Node Profiles	Add Intra Ext-EPG Contract
	Delete
Beute map for import and ex	
> SR-MPLS VRF L3Outs	

增加提供的合約-在步驟3.3中建立的合約。

增加已使用的合約-在步驟3.3中建立的合約。

套用之後,您可在「已提供與已使用」中看到合約。

System	Tenants	Fabric	Virtual	Networking	Admin	Operations	Apps	Integration	S			
ALL TENANT	S Add Te	enant Tena	ant Search	name or desc	r I	common i	mgmt guang:	xil guangx	il2 infra			
mgmt		()	\odot	Extern	al EPG - all-	subnet-epg						Q
C► Quick St								Polic	Operatio	onal H	ealth Faults	History
> 🚞 Appli	cation Profiles					Ge	eneral Co	ntracts I	nherited Contra	cts Su	ubject Labels	EPG Labels
🗸 🖿 Netw	vorking			C Healthy			_					
> 🚞 Bi	ridge Domains			Vireality								
> 🚞 VI	RFs			Name	 Tenant 	Alias	Contract Type	Consumed	QoS Class	State	Label	Label
> 🚞 L2	2Outs			G Contract Ty	pe: Contract							
	3Outs				manat		Contract	Dravidad	Upppoolfied	formed		
× 🛧	INB-L3out			ALL	ingini		Contract	Provided	Unspecified	Tormed		
>	🚞 Logical N	ode Profiles		ALL	mgmt		Contract	Consumed	Unspecified	formed		
~	🚞 External E	PGs										
	= all-sub	net-epg										
>	🚞 Route ma	p for import and	d ex									

驗證

您可以在外部路由器中看到INB路由。

admin-Infra# show ip route vrf aci-inb IP Route Table for VRF "aci-inb" '*' denotes best ucast next-hop



注意:如果您的ACI版本較舊,主幹節點**不會響應**帶內ping,因為它們使用環回介面進行連線,而環回介面不響應地址解 析協定(ARP)。 設定帶內管理後,思科APIC始終優先於來自思科APIC(如TACACS)的任何流量。

對於專門向OOB地址傳送請求的主機,仍可訪問OOB。

疑難排解

首先,您必須檢查INB是否存在任何故障。

在Switch:

f6leaf102# show vrf mgmt:inb VRF-Name VRF-ID State Reason mgmt:inb 27 Up -- f6leaf102# f6leaf102# show

在APIC上:

f6apic1# ifconfig bond0.10: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1496 inet 192.168.6.1 netmas



注意:此Enforce Domain Validation功能檢查EPG使用的VLAN/Domain和介面配置。如果未啟用,枝葉在推送配置時忽略 域檢查。

啟用此功能後,便無法將其停用。建議打開此選項以避免配置不完整。

Syste	m T	enants	Fabric	Virtual Networking	Admin	Operations	Apps	Integrations		
QuickSt	art	Dashboard	Controlle	rs System Settings	Smart Licen	ising Faults	History	Config Zones	Active Sessions	Security
0	This of	bject was c	reated by ar	unknown orchestrator.	It is recomm	ended to only	modify this o	object using the app	opriate orchestra	ator.
System	n Setti	ngs			00	Fabric-	Nide Setti	ings Policy		
₽ AP	IC Conni	ectivity Prefe								
📱 AP	IC Passp	hrase								
≓ BD		d Exception								
≓ BG	P Route	Reflector				Propert	es			
🗐 Co	ntrol Pla	ne MTU				Dis	able Remote E	EP Learning: 🔲 To disabl	e remote endpoint learn	ing in VRFs containing external bridged/routed domains
🗐 co	OP Grou						Enforce Sul	bnet Check: 🔲 To disabl	e IP address learning on	the outside of subnets configured in a VRF, for all VRFs
📱 Da	te and T					Enfo	rce EPG VLAN	N Validation: 🗹 Validation	n check that prevents ov	verlapping VLAN pools from being associated to an EPG
En En	dpoint C	ontrols				E	nforce Domair	n Validation: 🗹 Validation	n check if a static path is	s added but no domain is associated to an EPG
🛱 Fal		urity					Spine O Aut	Opflex Client 🗹 To enford	e Opflex client certificat	te authentication on spine switches for GOLF and Linux
= Fal	bric-Wid	e Settings				Leaf Op	flex Client Aut	thentication: 🔲 To enform	e Opfiex client certificat	te authentication on leaf switches for GOLF and Linux
🗐 Glo	bal AES	Passphrase	Encryption Set	tings			Spine	SSL Opflex: 🗹 To enable	SSL Opflex transport fo	or spine switches
🗒 Glo	bal End	points (Beta)					Leaf	SSL Opflex: 🗹 To enable	SSL Opflex transport fo	or leaf switches
150	S Policy						SSL Opfle	ex Versions: TLSv1		
1 I O	ad Ralan							TLSV1.1		
		eer of Connective					Real	llocate Gipo: 🔲 Reallocat	e some non-stretched B	3D gipos to make room for stretched BDs
P Ne	rt Tracki	na				a la	estrict Infra V	LAN Traffic: 🗌 Enable to	restrict infra VLAN traff	fic to only specified networks paths. These enabled network paths are defined by infra security entry policies

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<u>相關資訊</u>

歡迎聯絡思科TAC以獲取進一步的故障排除幫助。

相關資訊

- <u>用於硬體流遙測導出的思科ACI帶內管理配置</u>
- 排除ACI外部轉發故障
- <u>排除ACIL3Out-子網0.0.0/0和系統PcTag 15故障</u>
- 排除ACI中的意外路由洩漏故障
- 排除ACI訪問策略故障
- <u>ACI交換矩陣L3Out白皮書</u>
- <u>思科ACI合約指南白皮書</u>

• <u>思科技術支援與下載</u>

關於此翻譯

思科已使用電腦和人工技術翻譯本文件,讓全世界的使用者能夠以自己的語言理解支援內容。請注 意,即使是最佳機器翻譯,也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準 確度概不負責,並建議一律查看原始英文文件(提供連結)。