在ACI中配置配置區域功能

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簡介

本文檔介紹如何在思科以應用為中心的基礎設施(ACI)中配置「配置區域」功能。

概念

配置區域功能在ACI中用於鎖定部分交換矩陣交換機的配置更改。這意味著,如果您將交換矩陣交 換機分組到不同的區域A和區域B中,則我們可以將配置更改推送到區域A中的交換機,並保留區域 B中的交換機的更改。

此功能可將配置更改部署到交換機上的風險降至最低,因為交換機將配置推送到交換機組,而不是 交換矩陣中的每個交換機。

使用配置區域時的部署模式可以配置為;

- 1. Open -更新將立即傳送
- 2. 已鎖定 -新更新已推遲

必要條件

對ACI配置功能的基本瞭解包括介面策略組、介面選擇器、交換機配置檔案,所有這些都屬於思科 應用策略基礎設施控制器(APIC) GUI上的訪問策略部分。

配置區域功能僅適用於配置區域支援的策略(請參閱本文檔)部分中定義的策略

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/kb/b APIC Config Zones.html

設定和拓撲

本實驗使用節點ID分別為101和104的兩台枝葉交換機構建。

型號:N9K-C93180YC-FX

APIC版本5.2(5c)

- 1. IPG策略: config_zone_ipg
 - config_zone_aaep
 - 支援系統cdp
 - 系統lldp
- 2. 枝葉介面選擇器: config_zone_leaf_interface_profile
 - 連線埠7
 - config_zone_ipg
- 3. 交換機配置檔案: Leaf_101_104_Port7
 - 分葉101
 - 分葉104
 - config_zone_leaf_interface_profile



組態範例

在本實驗中,您將使用ACI中的配置區域功能將IPG介面策略組(MO infraAccPortGrp)更改延遲到枝葉104,而更改在部署後立即推送到節點101。

配置區域配置

您將首先在APIC上建立枝葉101和枝葉104的配置區域

A) Leaf101是枝葉101的配置區域名稱

B) Leaf104是枝葉104的配置區域名稱

步驟 1.為「Leaf101」建立配置區域。要配置,

導航到系統—>配置區域—>建立區域

System Tenants	Fabric Virtual Networking Admin	Operations Apps Integrations
QuickStart I Deshboen	d I Controllers I System Settings I Smart Licen	sing I Faults I History I Config Zones I Active Sessions I Security
Config Zones		
Select Zone:	select an option	Deployment Mode: Locked Coen
Description	Create Zone	
Node Type:	Post Los Switches	
Pads		0 = +
	* Pod D	
Pending Changes		o o
	Policy	Node Id

步驟 2. 您為枝葉101設定「打開」模式。

Create Zone		00
Name: L	.eaf101	
Description: o	ptional	
Deployment Mode:	Locked Open	
		ancel Submit

第3步:建立配置區域,但不對映枝葉。使用配置區域「Leaf101」對映交換機節點枝葉101

- 1. 選擇節點型別—>枝葉交換機
- 2. 使用+號增加交換機節點101

Config Zones						
Salest Zone	Seat101	0	Deployment Model	Locked Open		
Description						
Node Type:	Park Lastantes					
Los Datobes					Create Node Block	00
	* Saloh D	Name	Refer		Last Solicites (solic) solicites	
Panding Dianges:				0.0		
	Pulcy	16.04 W				Carried Submit

驗證:

確保枝葉交換機節點101已增加到配置區域「枝葉101」。

Config Zones							
Select Zone:	Leaf101			Deployment Mode:	Locked		Open
Description:							
Node Type:	Pods Leef Switches						
Leaf Switches:							
	 Switch ID 	Name		Role			
	101	bgl-aci07-leaf01		leaf			
Dending Changes						Ó	•
Hending Changes.	Policy		Node Id				

步驟 4.為「Leaf104」建立配置區域。將配置區域Leaf104的模式設定為「鎖定」。

onfig Zones									
This Zone's De	ployment Mode is currently set	to 'Locked'. Thi	s prevents pol	icy and configuration	updates 5	o participa	iting nodes a	nd pods while	in this stat
Select Zone:	Leaf104		· @	Deployment Mode:	Locked	Open)		
Description									
Node Type:	Pods Lost Detches								
Loaf Switches:									
	 Switch ID 	Nome		Rote					
Pending Charges:					0	•			
	Policy		Node Id						

步驟 5.將交換機節點Leaf 104增加到配置區域「Leaf104」。

Config Zones

This Zone's De	ployment Mode is currently set t	o 'Locked'. This	prevents polic	cy and configuration	updates to	participating	nodes and pod	s while in this
Select Zone:	Leaf104			Deployment Mode:	Locked	Open.)		
Description:								
Node Type:1	Pods Leaf Solution							
Leaf Switches:								
	+ Selch D	None		Role				
	104	bgr-ad07-tea/0	4	leaf				
Pending Changes:					Ó	0		
	Polcy		Node 15					

訪問策略配置

在上一節中,您建立了IPG策略:config_zone_ipg,該策略對映到枝葉介面選擇器「 config_zone_leaf_interface_profile」,您將對映到交換機配置檔案:Leaf_101_104_Port7。

執行上述步驟後,您可以看到更改被延遲到配置區域配置模式為「已鎖定」(枝葉104)的「交換 機」,而更改被立即推送到配置區域配置模式設定為「打開」(枝葉101)的節點。

請參閱代碼片段中埠E1/7的兩個枝葉上的介面策略組、介面選擇器和交換機配置檔案配置。

IPG策略

Loaf Access Port Policy (polijanos, ghnoo - guos							0	0 0
						Policy	Realts	Ha	lary
							0	4	\mathfrak{M}_{2}
Properties.									
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Description	e optional								
Ada									
Association Profes	enty, energies	9	UNLASS Palicy	dorfault.	0				
CDP Policy	autom city analysis	9	110P Policy	nyalam-hisp-analited	- 0				
Proportiest Description Attachest Detty Profile (201 Profile	a configcompp configcompp configcomparp configcomparp	9	Line Lovel Policy LLSP Policy	infaut system filly analogs			0	-	*

IPG策略連線到介面E1/7

Leaf Interfact	e Profile -	contro pare	i heaf i	interface.	peoffice.
		the second second second			

-67	161	- 16	19 64
10	101	- 18	
86 A	- 10-	- 28	

			Policy	Faults	10	and the
				0	1.	\mathfrak{M}_{2}
Properties						
Second and	entry, and test, here, photo-					
Description	optional					
Alast						
Interface Selectors:						+
	n Natre	Bucha	Policy Stream			
	port?	1,0	undg_anna_pp			

IPG分別連線到Leaf的101和104埠E1/7

Leaf Profile - Leaf_10	_104_Pot7						- 0	0 0
					Policy	Faults	100	eres.
						Ó	1.	$\mathfrak{M}_{\mathcal{T}}$
Properties								
Reprint Descriptions	optional							
Lond Selectors:								
	+ Nome	Booke		Policy Drosp				
	huf101	101						
	hof108	104						
Associated Interface								
Selector Problem	Toothe	Ossoription		State				
	configuration (and produce produce			formed				
Associated Medice								
Salacitor Proliters	Nome	Description		lineter .				
			The Asset (Appendixed Frank) Series Actives to county a television,					

配置區域功能測試,在兩個枝葉上使用介面配置

1. IPG更改被推送到枝葉101

驗證:

檢查擱置的變更:無(所有變更都會被推送)

Config Zones							
Select Zone:	Leaf101		 (a) 	Deployment Mode:	Locked		Öpen
Description:							
Node Type:	Pods Leaf Switches						
Leaf Switches:							
	 Switch ID 	Name		Role			
	101	bgl-aci07-leaf01		leaf			
Pending Changes:						Ô	•
	Policy		Node Id				

CDP由IPG策略啟用,並推送到枝葉101,因為配置為「OPEN」,

驗證:

<#root>

apic1#

fabric 101 show cdp neighbors int e1/7

Node 101 (leaf01)

Capability Codes: R - Router, T - Trans-Bridge, B - Source-Route-Bridge S - Switch, H - Host, I - IGMP, r - Repeater, V - VoIP-Phone, D - Remotely-Managed-Device, s - Supports-STP-Dispute Device-ID Local Intrfce Hldtme Capability Platform Port ID

```
switch1(FDO23331683)
```

2. 枝葉104的IPG策略更改被推遲。檢查掛起的更改;與IPG和介面選擇器相關的更改被視為掛起。

驗證:

Config Zones							
This Zone's De	ployment Mode is currently set to	'Locked'. This p	revents polic;	y and configuration	updates to	o particij	pating n
Select Zone:	Leaf104		0	Deployment Mode:	Locked	Open)
Description:							
Node Type:	Pods Leaf Switches						
Leaf Switches:							
	 Switch ID 	Nomo		Role			
	104	bgl-aci07-leaf04		leaf			
Pending Changes:					C	0	
	Policy		Node Id				
	uni/infra/funcorof/accoordoro-config.	zone_log	104				
	uni/infra/accoortionsf- confro_zone_leaf_interface_orofile		104				

您可以點選「待處理的更改」(Pending changes)來檢視有關正在更改的內容的詳細資訊,IPG配置 正在等待被推送到枝葉104。

驗證:

Bystem Tenants Guintant I Burtouri	Fabric Virtual Networking Ad	Leaf Access Port P	Policy Group -	config_zone,	.00	Policy	Faulta	0	00	l
Config Zones										
The Zone's De	playment Mode is currently set to "Locked" Last 101	Properties Name Description	config., cone., jag ingetional							
Description		Adams							- 1	
		Adapted Ently Profile	config., even, para	0	Loss Canal Phylicy	datast.		0	- 1	
	Party Cost Designers	COP-Policy:	nyahari -olip anabiasi		U.D* Philey	system-hip-endoed		ø	- 1	
Last Switches	+ Swith D Rame 104 Rep activ	Advanced Settings K0.1s.Put Automouture Cutt helicy	sellect a solue		MCP Mentoring Policy	national as services national as services				
		DelOw	reflect a value		Pull Interfaces	select a value			- 1	
		tyres out mare record	tariad a salue		Put security	teres a color			- 1	
		Prove Colorea Antoine	Carlor of Carlor		The Arts	and a second			- 1	
		1.1 interfaces	and the second second		Second Second Interface	and a state			- 1	
		Los Pap-Patro	patient a value		177 Interface Policy	print a spin			- 1	
Pending Dranges		University From Control Pallo	a factoria nature		Send Interface Pale	- Service - 12			- 1	
	Princy uncleful durated increasing a configuration and uncleful durated into a configuration of the contract o	BRCesci	ration a value							
	contractioner, and contraction of the	NetTra Munitar Policies							+	
			 Notifice if Filer 1,p 	-	Red to North	Patra				
					No lavia fava teori favid. Select itchers is create a reaction.					
						Shine Usage Con				

枝葉介面配置檔案更改處於掛起狀態,以便推送到枝葉104。

驗證:

cista APIC				
System Tenants Fabric Virtual Networking Ad	min Orientere	Apres Interpreting		
DARKING Derivated Controllers System Settings So	Leaf Interface P	hotile - contig_zon	o_leaf_interfacio_pr	offie OOO
Contro Zones				Pulicy Paults History
				0 1 %-
This Zone's Deployment Mode is summity set to "Locked"	Properties Name	config more text standards profile		
Select Date: Lastice	Description	optional		
Transferra I				
	interfacia Salacitorio			- +
Konin Tapa (Park) Last Santales		* Name	Burks	Putry Group
Last Induites		2017	10	config., 2014, 202
* Salah D Name				
104 hgt-sold?				
Panding Duringes Policy				
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units, and, and, endine, and				
				Divertising Close (Interit

CDP更改是介面策略組的一部分,由於配置被鎖定,這些更改「未推送」到枝葉104。 驗證:

<#root>

apic1#

fabric 104 show cdp neighbors interface ethernet 1/7

Node 104 (leaf04)

Note. CDP Neighbor entry not found

正在推送待處理的更改

現在,您可以將暫掛更改推送到枝葉104。我們需要使用(—>)按鈕來按下暫止的變更。按一下 (—>)按鈕,然後選取確定。 重新整理擱置變更,並確定未保留任何內容(如果有的話)。 驗證:

cisco	APIC								
System	Tenants	Fabric Vr	tual Networking	Admin	Operatio	es Apps	Integrations		
QuickStart.	I Deshboard	I Controllers I	System Settings	e I Smert Uk	ensing (A	euto i Hotory	Config Zones	I Active Sessions	I Security
Config Zo	oners								
<u>A</u> "	tiis Zone's Dep	ployment Mode is	currently set to	'Locked'. This	prevents po	licy and configura	tion updates to	participating noder	and pods while in this state.
	Select Zone:	Leaf104			0	Deployment Mor	tocked	Open)	
	Description:								
	Node Type:	Poin Loof S	atores						
	Leaf Switches:							+	
		 Switch ID 		Name		Role			
		104		0g1-aci07-leaf0	4	leaf			
Peo	ding-Changes:						0	•	
		Policy			Node 3d				
		uni/infra/functional/s	eccontore contre.	zone_los	104				
		contra pone leaf	nterface_profile		104				

確保最終將更改推送到枝葉104。

驗證:

Config Zones

This Zone's De	ployment Mode is currently :	set to 'Locked'. This prevents po	licy and configuration	updates to	partic
Select Zone:	Leaf104	v 🕲	Deployment Mode:	Locked	Oper
Description:					
Node Type:	Pods Leaf Switches				
Leaf Switches:					
	· Switch ID	Name	Role		
	104	bgl-aci07-leaf04	leaf		
Perdina Channes				С	0
	Policy	Node Id			

推送更改後,在枝葉104的埠E1/7上啟用了CDP。

驗證:

<#root>

apic1#

fabric 104 show cdp neighbors interface ethernet 1/7

 switch1(FDO23331683)

Eth1/7 141 R S S N9K-C93108TC- Eth1/17

在此配置示例中,我們已經瞭解了如何在ACI中使用配置區域功能。

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)。