# 在ACI平台上配置智慧許可策略並對其進行故障排除

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簡介 <u>什麼是思科智慧許可策略(SLP)?</u> 您對智慧許可和/或智慧帳戶管理是否陌生? 什麼是ID令牌? 從CSSM生成ID令牌 SLP許可證和產品狀態 SLP支援的方法 方法1.直接連線到CSSM 方法2.思科傳輸閘道 方法3. HTTP/HTTPS代理 方法4.內部部署 方法5.思科智慧許可實用程式 方法6.離線方法 思科ACI智慧許可策略故障排除 故障 顯示命令 記錄檔 已知問題 1.由於通訊問題(DNS未配置)註冊失敗 2.思科ACI智慧許可證策略升級注意事項 3.錯誤— 無法傳送Call Home HTTP消息(Quo Vadis Root CA)

# 簡介

本文說明如何使用思科智慧許可策略,以及如何在Cisco Application Centric Infrastructure(ACI)平台上配置、排除故障和管理軟體許可證。

# 什麼是思科智慧許可策略(SLP)?

思科智慧許可是一個軟體管理平台,用於管理所有思科產品許可證。根據您的反饋,思科智慧許可 已得到增強,並且已提議一個名為SLP的新平台。SLP旨在簡化智慧許可並使您能夠進行配置和維 護。在ACI版本5.2(4)中引入。

## 您對智慧許可和/或智慧帳戶管理是否陌生?

瀏覽並註冊新的管理員訓練課程和錄製內容: 思科社群 - 聰明活用思科智慧型帳戶/智慧型授權和 My Cisco Entitlements 您可在此處建立智慧型帳戶:<u>智慧型帳戶</u>

您可在此處管理智慧型帳戶:Smart Software Licensing

# 什麼是ID令牌?

用於將產品安全註冊到智慧帳戶和虛擬帳戶。ID標籤是用於在註冊產品時建立標識的「組織識別符 號」。SLP中的這些令牌使用不同的註冊方法,本文檔稍後將對此進行說明。

## 從CSSM生成ID令牌

若要生成,請訪問此<u>連結</u>並導航至 Manage Licenses > Inventory > General > New Token 如下圖所示。

Cisco Software	e Central		cisco			Q	Ŵ	⊕us en
Cisco Software Cen	ntral > Smart Software Licensing				till: Internal	TestDemoAccount62.cisco.com		
Smart Sof	ftware Licensing					Support Help		
Alerts Inventor	y   Convert to Smart Licensing	Reports   Preference	s   On-Prem Accounts   Activit	у				
Virtual Accou	Int: ACI-BGL-SMART							
General	Licenses Product Instances	Event Log						_
Virtual Acco	ount							
Description: Default Virtua	ACI :	SMART LICENSING ACC	OUNT FOR BGL TAC					
Product Ins The registration	tance Registration Tokens	s new product instances to	o this virtual account.					
Token	Expiration Date	Uses	Export-Controlled	Description	Created By	Actions		
			No Records Found					
The token will be	e expired when either the expiration o	r the maximum uses is re	sached			No Records to Display		

生成後,您可以在以下操作中複製或下載:

Alerts Inventory	Convert to Smart Licensi	ing Reports Preferen	ices   On-Prem Accounts   Ac	tivity		
/irtual Accou	nt: ACI-BGL-SMART	r				
General	Licenses Product Inst	tances Event Log				
Description: Default Virtual Product Insi The registration t	Account: ance Registration To okens below can be used to re	ACI SMART LICENSING AV	CCOUNT FOR BGL TAC			
Advent Weber	- Evaluation Date	Uses	Export-Controlled	Description	Created By A	Actions
New Token. Token	Expiration Date					Actions -
New Token. Token Nm12ZGMzNzg	NDY 2022-Dec-19 10:	28:28 (in 90 days)	Allowed	TAC	maveer P	

# SLP許可證和產品狀態

在ACI SLP中,不再需要為期90天的評估期和產品註冊。不再需要產品註冊。您需要盡最大努力報告許可證使用情況。此外,客戶端檢視上的許可證授權狀態也將被消除。許可證權利現在有兩個狀態:正在使用或尚未使用。由於APIC控制器僅管理當前使用的許可證,因此在APIC UI/CLI上,您只能檢視每個正在使用中的許可證授權。

## SLP支援的方法

配置智慧許可證策略的方法不同,具體如下:

1.線上模式

2.離線模式

在ACI SLP中,介紹資源利用率測量報告(RUM報告)的概念。RUM報告是包含許可證使用情況報告的XML格式檔案。所以,術語 license usage report 和 Rum report可互換;兩者都參考報告許可證使用情況。在聯機模式下,使用者需要配置網路並使APIC控制器直接或間接連線到CSSM,在聯機模式下,APIC可以自動向CSSM傳送RUM報告並獲得來自CSSM的確認。

在離線模式下,由於APIC完全隔離,並且沒有任何與CSSM的直接或間接網路連線,因此使用者需 要定期從APIC下載RUM報告,將其匯入CSSM,從CSSM下載確認並將其匯入APIC。

根據APIC與CSSM的連線,您可以決定是使用聯機模式還是離線模式,因此,聯機模式中還有多種 方法,說明如下:

#### 方法1.直接連線到CSSM



此方法是最常用的網路模式。思科APIC必須具有網際網路連線,以便思科APIC能夠將RUM報告直 接傳送到CSSM。必須配置DNS並且CSSM主機名(tools.cisco.com)必須可執行ping。

#### 要配置:

步驟1.登入Cisco APIC GUI。

步驟2.在選單欄中,導航至 System > Smart Licensing > Actions > Configure Network Settings.

步驟3.選擇 Direct connect to CSSM.

步驟4.在此不能更改URL和埠號。

#### 步驟6.按一下 oĸ.

cisco APIC				admin 🔇 💿 🌺 🕸 🔍
System Tenants Fabric	Virtual Networking Adn	in Operations Apps Integrations		
QuickStart   Dashboard   Controlle	ers I System Settings I Sma	t Licensing   Faults   History   Config Zones   Active Sessions   Security		
Smart Licensing		Configure Network Settings		Actions ~ C ?
General Faults		Smart License Mode		
		Direct connect to CSSM V		
Network Settings Cisco Smart Software Manager On	Smart Acco	URL URL https://tools.cisco.com/its/service/oddce/services/DDCEService	Product apic1	Instance Name
		Port Number		
Filter by attributes		443		
License Name	Status	Product Instance ID Token		Instance Count
ACI_LEAF_BASE_10G	⊘ In Use	WaTZDVzF0a29TemNHdno5eEJVR29LRGZ4UWtJ%0Ab2xOTT0%3D%0A	for 10/25/40+G X and FX TORs	3
		Cancel	8GC-FXP	
Last Login Time: 2022-09-04T13:58 UTC+00:00				Current System Time: 2022-09-04T14:13 UTC+00:00
				Chow all

#### 成功與CSSM同步後,智慧帳戶和虛擬帳戶名稱將在智慧許可頁面上更新,如下圖所示。

cisco APIC				admin 🔇 🖬 🛟 🔕 🕲
System Tenants Fabric Virtu	al Networking Admin Operations	Apps Integrations		
QuickStart   Dashboard   Controllers   Smart Licensing General Faults	System Settings   Smart Licensing   Faults	History   Config Zones   Active Sessior	ns I Security	
Network Settings Direct connect to Cisco Smart Software M (CSSM)	Smart Account Name fanager InternalTestDemoAccount62.cis	Virtual Account Name co.com ACI-BGL-SMART	Product apic1	Instance Name
Filter by attributes				
License Name	Status	Entitlement Tag	Description	Instance Count
ACI_LEAF_BASE_10G	⊘ In Use	regid.2018- 01.com.cisco.ACI_LEAF_BASE_10G,1.0_7 f9d1-4f11-b694-a1e2a5901141	ACI Base License for 10/25/40+G Leaf Models: All EX and FX TORs except N9K-C9348GC-FXP	3
Last Login Time: 2022-09-04T13:58 UTC+00:00				Current System Time: 2022-09-04T14:19 UTC+00:00

## 方法2.思科傳輸閘道

使用此方法,思科APIC不需要網際網路連線。思科APIC在傳輸網關的幫助下將RUM報告傳送到 CSSM。思科傳輸網關中介軟體必須已安裝在資料中心並可連線到APIC。對於傳輸網關模式 ,URL格式為: http://,其中IP或主機名是傳輸網關的IP或主機名。如果埠號不是預設的HTTP埠 80或HTTPS埠443,則必須輸入埠號。此外,還需要產品例項ID令牌,該令牌可以從您的CSSM虛 擬帳戶獲得。

若要安裝和設定傳輸閘道,使用者可以參考思科傳輸閘道的檔案

<u>→https://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart\_call\_home/user\_guides/SCH\_Ch</u> <u>4.pdf</u>要配置:步驟1.登入Cisco APIC GUI。步驟2.在選單欄中,導航至 -<del>System > Smart Licensing > Actions > Configure Network Settings.步驟3.選擇Cisco Transport Gateway。步驟 4.使用正確的IP(Cisco傳輸閘道的IP)和連線埠編輯URL;http ://.**步驟5.貼上產品例項ID令牌,該令 牌已從您的CSSM虛擬帳戶獲得。步驟6.按一下**</del>

- <del>OK.</del>			
cisco APIC			
System Tenants Fabric	Virtual Networking Admin	Operations Apps Integrations	
QuickStart   Dashboard   Controllers	System Settings Smart Lic	ensing   Faults   History   Config Zones   Active Sessions   Security	
Smart Licensing		Configure Network Settings ×	Actions ~
General Faults		Smart License Mode	
		Cisco Transport Gateway	
Network Settings	Smart Account	URL• ●	Product Instance Name
Cisco Transport Gateway		https://10.1.1.1:80/Transportgateway/services/DeviceRequestHandler	apic1
		Product Instance ID Token	
Filter by attributes		NDVmZDRjNTktMjQxMC00NWZiLWFjY2ltMTYzYTBkYTEwMTY1LTE2OTM	
License Name	Status		Instance Count
ACI_LEAF_BASE_10G	⊘ In Use	Cancel OK	for 10/25/40+G K and FX TORs 3 BGC-FXP

方法3. HTTP/HTTPS代理使用此方法,思科APIC不需要網際網路連線。思科APIC從Web代理 向CSSM傳送RUM報告。確保Web代理伺服器配置為允許智慧許可消息。此外,防火牆必須具有通 過通訊到達目的地的規則(https://tools.cisco.com/its/service/oddce/services/DDCEService)。在代理模式下,使用 者需要配置代理IP和埠。除此之外,產品例項ID令牌是必需的,並且可以從使用者的CSSM虛擬帳 戶獲得。要配置:步驟1.登入Cisco APIC GUI。步驟2.在選單欄中,導航至System > Smart Licensing > Actions > Configure Network Settings.步驟3.選擇Cisco HTTP/HTTPS Proxy.步驟4.請提供代理的IP地址和埠號。步 驟5.貼上產品例項ID令牌,該令牌可以從您的CSSM虛擬帳戶獲得。步驟6.按一下

cisco APIC				admin 🔇 🗖 🛟 🐼 🛡
System Tenants Fabric QuickStart   Dashboard   Controller	Virtual Networking Admir s   System Settings   Smart Li	Operations Apps Integrations  censing   Faults   History   Config Zones   Active Sessions   Security		
Smart Licensing General Faults		Configure Network Settings ×	-	Actions ~ O ?
Network Settings HTTP/HTTPS Proxy		URL https://tools.cisco.com/its/service/oddce/services/DDCEService IP Address +	Product I apic1	Instance Name
Filter by attributes		10.1.1.2		
License Name	Status	Port. 443	( 10/05/40-0	Instance Count
ACI_LEAF_BASE_10G	⊘ In Use	Product Instance ID Token NDVmZDRjNTktMjQxMC00NWZiLWFjY2ItMTY2YTBkYTEwMTY1LTE2OTM	X and FX TORs BGC-FXP	3
		Cancel OK		

方法4.內部部署通過此方法,思科APIC不需要網際網路連線,而本地需要網際網路連線。思科 APIC通過內部向CSSM傳送RUM報告。必須在資料中心中安裝內部中介軟體。在思科ACI智慧許可 (SL)中,此模式之前稱為思科智慧軟體管理器衛星(Manager衛星)。 配置:

步驟1.登入Cisco APIC GUI。步驟2.在選單欄中, 導航至

System > Smart Licensing > Actions > Configure Network Settings.步驟3.選擇 Cisco Smart Software Manager On-

Prem.

cisco APIC			admin 🔇 🗗 🌺 🐼 🔍
System Tenants Fabric Virtual Networking Admin	Operations Apps Integrations		
QuickStart   Dashboard   Controllers   System Settings   Smart Lice	ansing   Faults   History   Config Zones   Active Sessions	I Security	
Smart Licensing	Configure Network Settings	×	
<ul> <li>Smart Licensing is not configured</li> <li>Ensure this product has either access to the internet, a Smar</li> <li>For Direct Connect, Transport Gateway or HTTP/HTTPs Prox product instance ID token.</li> <li>For Smart Software Manager On-Prem, you need to log on M</li> <li>Learn more about Smart Software Licensing</li> <li>Configure Network Settings</li> </ul>	Smart License Mode         Cisco Smart Software Manager On-Prem         Direct connect to CSSM         Cisco Smart Software Manager On-Prem         HTTP/HTTPS Proxy         Cisco Transport Gateway         Cisco Smart Licensing Utility (CSLU)         Offline	→ ay is installed on your net mart Software Manager a	twork. and navigate to a Virtual Account to obtain a
General Faults Filter by attributes License Name Status	Entitlement Tag	Description	Instance Count
Last Login Time: 2022-09-04T07:31 UTC+00:00	regid.2018-	ACI Base License for 10/25/40+G Leaf	Current System Time: 2022-09-04T10:56 UTC+00:00

您必須提供本地思科智慧軟體管理器的URL。要獲取URL,請登入思科智慧軟體管理器本地GUI。 導航至 Inventory > General 然後按一下 CSLU TransportURL連結。

	ry Convert to :	Smart Licensing Repor	ts https://10.197.2	40.220/cslu/v1/pi/ACI-BGL-SMA	RT-1		
cal Virtual Account:	Default		Press ctrl + c to c	opy selected text to clipboard.			
General	Licenses	Product Instances	SL Using Policy	Event Log	_		
Local Virtual Account							
Description		This is the default virtua	I account created during	company account creation.			
Default Local Virtual Ac	count:	Yes					
The registration tokens below Smart Transport Registration	can be used to register ne URL.For products that sup configure the "destination a	w product instances to this Local N port Smart Licensing Using Policy ddress http* on the product to use	firtual Account. For products that use cslu as transport, you the Smart Call Home Registra	that support Smart Transport, yo u must configure the "license sm ation URL. The recommended m	w must configure the "license smar art transport cslu" to use the CSLU ethod is Smart Transport. Please co	t url* on the product to use th Transport URL. For legacy pr insult your Products Configur	e oducts that still use ation Guide for setting the
Smart Call Home, you must o destination URL value.							
Smart Call Home, you must of destination URL value. New Token Token	Expiration	Date	Uses	Description	Export-Controlled	Created By	Actions

步驟4.複製CSLU URL並將其貼上到Cisco APIC GUI中的URL欄位中。您無需指定產品例項ID令牌。思科APIC使用內建證書與思科智慧軟體管理器內部通訊。

cisco APIC				admin 🔍 🗩 🐎 🐼 💷
System         Tenants         Fabric         Virtual           QuickStart         I         Dashboard         Controllers         I         S	I Networking Admin ystem Settings   Smart Licer	Operations Apps Integrations sing   Faults   History   Config Zones   Active Sessions   Secu	urity	
Smart Licensing General Faults		Configure Network Settings Smart License Mode Cisco Smart Software Manager On-Prem	×	Actions > O
Network Settings Cisco Smart Software Manager On-Prem	Smart Accoun -	ang Hauts History Configure Network Settings   Smart License Mode Cisco Smart Software Manager On-Prem   URL • Product Instance Name   https://10.197.240.220/cslu/v1/pi/ACI-BGL-SMART-1     Cancel OK   Instance Count		
Filter by attributes		Cancel	ок	
License Name	Status			Instance Count
ACI_LEAF_BASE_10G	⊘ In Use	regid.2018- ACI Bas 01.com.cisco.ACI_LEAF_BASE_10G,1.0_7c Models f9d1-4f11-b694-a1e2a5901141 N9K-CS	se License for 10/25/40+G Leaf s: All EX and FX TORs except 9348GC-FXP	3
Last Login Time: 2022-09-05T10:22 UTC+00:00				Current System Time: 2022-09-05T11:19 UTC+00:00

## 成功同步後,將使用許可證更新智慧軟體管理器內部清單。

ocal Virtual Account: Default								
General Licenses	Product Instances	SL Using Policy	Event Lo	9				
By Name By Tag Available Actions -	Manage License Tags	Þ	Searc	h by License	٩			
						10 *	Showing Page 1 of 1(1 Re	cords) (4 📢 🕪 )(
License	Billing	Purchased	In Use	Substitution	Balance	Alerts		Actions
ACI Base License for 10G+ Leaf XF	Prepaid	3	3		0			Actions -
						10 *	Showing Page 1 of 1(1 Re	cords) (4 📢 ) 🕨 )(

Contacts Help Terms & Conditions Privacy Statement Cookies Trademarks

方法5.思科智慧許可實用程式使用此方法,思科APIC不需要網際網路連線。思科APIC通過 CSLU向CSSM傳送RUM報告。資料中心中必須已安裝Microsoft Windows版本的中介軟體CSLU。 CSLU的URL可以按照以下格式在APIC中配置:<u>http://ip\_or\_hostname:port/cslu/v1/pi</u>其中IP或主機名是 CSLU IP地址或主機名。不支援HTTPS。

要配置:步驟1.登入Cisco APIC GUI。步驟2.在選單欄中,導航至 Inventory System > Smart Licensing > Actions > Configure Network Settings .步驟3.選擇 Cisco Smart Licensing Utility (CSLU).

I)	1.1	1.	ADIC
-	100	0	APIC

	System Settings   Smart Licens	sing Faults   History   Confi	g zones   Active Sessions   Security				~
art Licensing		Configure Network	< Settings ×			Actions ~ )	C
I Faults		Smart License Mode					
		Cisco Smart Licensing Utility (CSI	LU) ~				
ork Settings Smart Licensing Utility (CSLU)	Smart Account InternalTestDe	URL • 0 http://10.197.240.115:8182/cslu	/v1/pi	Product Instan apic1			
by attributes			Cancel OK				
se Name	Status		A OL Boos License	las 10/25/40×01 and	Instance Count		
EAF_BASE_10G	⊘ In Use	regid.2018- 01.com.cisco.ACI f9d1-4f11-b694-	_LEAF_BASE_10G,1.0_7( Models: All EX an a1e2a5901141 N9K-C9348GC-F	for 10/25/40+G Leaf d FX TORs except xP	3		
一個URL中,北	阜在CSLU GU	首選項下作為通	<del>툍品例項服務埠獲取</del>	0			
o Smart License Utility 2.1.0						- 0	
Product Instances Data E	dit Help						
						Log out f	
						Log out i	
3							
63							
loventory	Preferences	Scheduler					
Inventory Preferences	Preferences	Scheduler					
L≷ Inventory Preferences Cisco Connectivity Cisco Is Available Cisco Connection Timeout (seconol) Cisco Response Timeout (seconol) 90 Cisco Retry Interval (seconds) 900 Cisco URL * https://swapi.cisco.com	Preferences le Prox onds)*  r /services/api/smart-acco	y is Off	CSLU Connectivity Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62 Virtual Account ACI-BGL-SMART UValidate Device	.cisco.com			
Inventory  Preferences  Cisco Connectivity  Cisco Is Availabl  Cisco Connection Timeout (seco 10  Cisco Response Timeout (seco 90  Cisco Retry Interval (seconds) 900  Cisco URL *  https://swapi.cisco.com OAuth URL	Preferences le Prox onds)* nds)* //services/api/smart-acco	y is Off	CSLU Connectivity Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62 Virtual Account ACI-BGL-SMART  Virtual Account ACI-BGL-SMART	.cisco.com			
Inventory  Preferences  Cisco Connectivity  Cisco Is Available  Cisco Connection Timeout (seco 10  Cisco Response Timeout (seco 90  Cisco Retry Interval (seconds) 900  Cisco URL *  https://swapi.cisco.com  OAuth URL  https://cloudsso.cisco.c	Preferences le Prox onds) *  /services/api/smart-acco om/as/	y is Off	CSLU Connectivity Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62 Virtual Account ACI-BGL-SMART  Virtual Account CSLU Working Directory C:\Users\acibgl\AppData\Roo	.cisco.com			
Inventory  Preferences  Cisco Connectivity  Cisco Is Available  Cisco Connection Timeout (seco 10  Cisco Response Timeout (seco 90  Cisco Retry Interval (seconds) 900  Cisco URL *  https://swapi.cisco.com  OAuth URL  https://cloudsso.cisco.cl  Rum Upload Interval (days)	Preferences le Prox onds) *  /services/api/smart-acco om/as/	sy is Off	CSLU Connectivity Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62 Virtual Account ACI-BGL-SMART  Virtual Account CSLU Working Directory C:\Users\acibgl\AppData\Ro	.cisco.com			
Inventory  Preferences  Cisco Connectivity  Cisco Is Available  Cisco Connection Timeout (second)  Cisco Response Timeout (second)  900  Cisco Retry Interval (seconds)  900  Cisco URL*  https://swapi.cisco.com  OAuth URL  https://cloudsso.cisco.c  Rum Upload Interval (days)  90	Preferences	sy is Off	CSLU Connectivity Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62 Virtual Account ACI-BGL-SMART CValidate Device CSLU Working Directory C:\Users\acibgl\AppData\Ro Default Connection Method Product Instance Initiated Out	cisco.com aming\CSLU			

成功後,同步授權頁面將使用智慧帳戶名稱和虛擬帳戶名稱進行更新,如下圖所示。

cisco	APIC										admin Q	
System	Tenants	Fabric	Virtual Networking	Admin	Operations	Apps	Integrations					
QuickStart	Dashboard	I Controllers	s   System Setting	s   Smart Lic	ansing   Faults	History	I Config Zones	Active Sessions	I Security			
Smar	t Licer	nsing									(	
General	Faults											
Network S Cisco Sm	Settings art Licensing	Utility (CSLU)		Smart Account InternalTestDen	Name noAccount62.cls	co.com	Virtu ACI-	al Account Name BGL-SMART		Product Inst apic1	tance Name	
Filter by at	ttributes											
License N	lame		Status			Entitlem	ent Tag		Description		Instance Count	
ACI_LEAF	BASE_10G		⊘ In Use			regid.20 01.com. f9d1-4f1	18- cisco.ACI_LEAF_ 11-b694-a1e2a5	BASE_10G,1.0_7c 901141	ACI Base License for Models: All EX and I N9K-C9348GC-FXP	or 10/25/40+G Leaf FX TORs except	3	

方法6.離線方法在離線模式下,思科APIC被隔離,而不與CSSM進行直接或間接的網路連線。由 於思科APIC無法通過網路連線訪問CSSM,因此您每12個月必須從思科APIC下載RUM報告並將報 告匯入CSSM。然後,您必須從CSSM下載確認並將確認匯入思科APIC。要配置:步驟1.登入Cisco APIC GUI。步驟2.在選單欄中,導航至 System > Smart Licensing.步驟3.在「工作」窗格中,導航至 -Actions > Download Rum Report.

#### RUM報告檔案會自動下載到瀏覽器的預設資料夾中。

cisc	APIC										admin 🔇 🗊 👯	
Syste QuickS	tart   Dashboard	Fabric	Virtual Networking s I System Settings	Admin Op	erations	Apps History I	Integrations Config Zones I	Active Sessions	I Security			
Sm	nart Lice	nsing									Actions ~	00
Gene	ral Faults										Configure Network Settings Download Rum Report Import Acknowledgement	
Netv Offli	vork Settings ne		Sm -	art Account Name	9		Virtual -	Account Name		Product In: apic1	stance Name	
Filter	by attributes											
Lice	nse Name		Status			Entitlement	t Tag		Description		Instance Count	
ACI	LEAF_BASE_10G	i	⊘ In Use			regid.2018- 01.com.ciso f9d1-4f11-	- co.ACI_LEAF_BA b694-a1e2a590	ASE_10G,1.0_7c 1141	ACI Base Licer Models: All EX N9K-C9348G0	nse for 10/25/40+G Leaf and FX TORs except C-FXP	3	

下載報告後(LicenseUsageRumReport.xml),即可將其匯入CSSM。步驟4.登入 Software.cisco.com並導航至Manage License。步驟5.在「Menu(選單)」中按一下 Reports並選擇 -Usage Data Files選項,如下圖所示。

Cisco Software Central > Smart Software Licensing       Reports         Smart Software Licensing       Reports       Preferences       On-Prem Accounts       Activity         Reports       Reports       Reporting Policy       Synch File for Device Controllers       Image Data Files       Reporting Policy       Synch File for Device Controllers         Devices can be configured to report the features that they are using.       This usage then determines which licenses are needed, in order to be compliant.       Search by File Name, Virtual Account         Upload Usage Data File       Reported       Virtual Account       Reporting Status       Devices       Acc         LicenseUsageRumReport.xml       2022-Sep-05       Acl-BGL-SMART       No Errors       1       Devices	alTestDemoAccount62.cisco.com Support Help	
Smart Software Licensing         Aerts       Inventory       Convert to Smart Licensing       Reports       Activity         Reports         Report Usage Data Files       Reporting Policy       Synch File for Device Controllers         Devices can be configured to report the features that they are using.         This usage then determines which licenses are needed, in order to be compliant.         Uplead Usage Data File       Reported         Virtual Account       Reporting Status       Devices       Activity         LicenseUsageRumReport.xml       2022-Sep-05       ACI-BGL-SMART       ® No Errors       1       Devices	Support Help	
Alerts       Inventory       Convert to Smart Licensing       Reports       Activity         Reports         Reporting Policy       Synch File for Device Controllers         Devices can be configured to report the features that they are using.         This usage then determines which licenses are needed, in order to be compliant.         Upload Usage Data File       Reported       Virtual Account       Reporting Status       Devices       Account         @ Usage Data File       Reported       Virtual Account       Reporting Status       Devices       Account         Licensel/JsageRumReport.xml       2022-Sep-05       Acl-BGL-SMART       No Errors       1       Devices		
Image Data Files       Reporting Policy       Synch File for Device Controllers         Devices can be configured to report the features that they are using.         This usage then determines which licenses are needed, in order to be compliant.         Upload Usage Data File       Search by File Name, Virtual Account         Upload Usage Data File       Reported       Virtual Account       Reporting Status       Devices       Account         LicenseUsageRumReport.xml       2022-Sep-05       ACI-BGL-SMART       1       Devices		
Report       Usage Data Files       Reporting Policy       Synch File for Device Controllers         Devices can be configured to report the features that they are using. This usage then determines which licenses are needed, in order to be compliant.       Search by File Name, Virtual Account         Upload Usage Data File       Reported       Virtual Account       Reporting Status       Devices       Account         LicenseUsageRumReport.xml       2022-Sep-05       ACI-BGL-SMART       No Errors       1       Devices		
Devices can be configured to report the features that they are using.         This usage then determines which licenses are needed, in order to be compliant.         Upload Usage Data            ① Usage Data File             ① Usage Data File          LicenseUsageRumReport.xml         2022-Sep-05         ACI-BGL-SMART            ① No Errors		
Upload Usage Data         Search by File Name, Virtual Account           ① Usage Data File         Reported         Virtual Account         Reporting Status         Devices         Acc           LicenseUsageRumReport.xml         2022-Sep-05         ACI-BGL-SMART         ® No Errors         1         Devices		
Image: Usage Data File     Reported     Virtual Account     Reporting Status     Devices     Account       LicenseUsageRumReport.xml     2022-Sep-05     ACI-BGL-SMART     Image: No Errors     1     Devices	٩,	
LicenseUsageRumReport.xml 2022-Sep-05 ACI-BGL-SMART 1 Do	cknowledgement	
	ownload	
	Showing 1 Record	

步驟6.按一下 Upload Usage Data並選擇檔案LicenseUsageRumReport.xml如下圖所示。

Cisco Software Central	cisco	Q	US EN									
Cisco Software Central > Smart Software Licens Up Smart Software Licensing Alerts Inventory Convert to Smart Licensin Reports Report Usage Data Files Repo	bload Usage Data se select the Usage File you wish to upload. Isage Data File: Browse LicenseUsageRumReport.xml Upload Data Cancel	III InternalTestDemoAccount62.cisco.com Support Help										
Devices can be configured to report the features that the This usage then determines which licenses are needed	Devices can be configured to report the features that they are using. This usage then determines which licenses are needed, in order to be compliant.											
Usage Data File	Reported Virtual Account Reporting Status D	evices Acknowledgement										
LicenseUsageRumReport.xml	2022-Sep-05 ACI-BGL-SMART No Errors 1	Download										
		Showing 1 Record										
Contacts   Feedback	Help   Site Map   Terms & Conditions   Privacy Statement   Cook	ie Policy   Trademarks										

步驟7.選擇具有許可證的虛擬帳戶。

Cisco Software Central			Q	W	₩ <sup>US</sup> EN						
Cisco Software Central > Smart Software Licens Smart Software Licensing	Select Virtual Acc	ounts	virtual account that the data refers to	, or the	InternalTestDemoAccount62.cisco.com Support Help						
Alerts   Inventory   Convert to Smart Licensin	Alerts       Inventory       Convert to Smart Licensing         Please select an account is unrecognized.         Reports       Please select an account is         Alerts       Alerts         Reports       Select one account for all files:         Alerts       Select a virtual account per file:										
Reports											
Devices can be configured to report the features This usage then determines which licenses are the	Report         Usage Data Files         Repo           Devices can be configured to report the features         Ok         Cancel										
Upload Usage Data			Search by File N	ame, Virtual Account	Q						
Usage Data File	Reported	Virtual Account	Reporting Status	Devices	Acknowledgement						
LicenseUsageRumReport.xml	2022-Sep-05	ACI-BGL-SMART	1 No Errors	1	Download						
					Showing 1 Record						
Contacts   Feedback	Help   Site Ma	p   Terms & Condition	ns   Privacy Statement	Cookie Policy	Trademarks						

提交後,您必須等待報告狀態變為現實 No Errors確認欄位可以選擇下載。步驟8.下載選項可用後,點 選 Download 和Acknowledgement 以檔名下載ACK\_LicenseUsageRumReport.xml如下圖所示。

52.cisco.com	InternalTestDemoAccount62	db i					Cisco Software Central > Smart Software Licensing
upport Help	Sup						Smart Software Licensing
				Activity	On-Prem Accounts Ac	Reports   Preferences	Alerts   Inventory   Convert to Smart Licensing   F
							Reports
					or Device Controllers	Policy Synch File fo	Report Usage Data Files Reporting F
						hey are using. d. in order to be compliant	Devices can be configured to report the features that the This usage then determines which licenses are needed
0,		lame, Virtual Account	Search by File Nam				Upload Usage Data
	Acknowledgement	Devices	g Status	Reporting	Virtual Account	Reported	Usage Data File
	Download	1	ors	(i) No Erro	ACI-BGL-SMART	2022-Sep-05	LicenseUsageRumReport.xml

<mark>您需要將確認匯入到APIC:步驟9.登入Cisco APIC GUI。步驟10.在選單欄中,導航至</mark>System>Smart Licensing.步驟11.在「工作」窗格中,導航至Actions>Import Acknowledgement.步驟12.按一下Choose File,導 航至確認檔案下載位置,選擇檔案並按一下 Open.步驟13.按一下 OK.

cisco	APIC										admin 🔍 🗊 🐥	00
System	Tenants	Fabric	Virtual Networking	Admin	Operations	Apps	Integrations					
QuickStart	Dashboard	I Controllers	I System Settings	Smart Lice	ensing   Faults	I History	Config Zones	Active Sessions	I Security			
Smar	t Licer	nsing									Actions ^	00
General	Faults										Configure Network Settings	
											Download Rum Report	
											Import Acknowledgement	
Network	Settings		Sm	art Account	Name		Virtual	Account Name		Product Ins	stance Name	
Offline			-				-			apic1		
Filter by a	ittributes											
License	Name		Status			Entitleme	ent Tag		Description		Instance Count	
ACI_LEA	F_BASE_10G		⊘ In Use			regid.201 01.com.c f9d1-4f1	8- isco.ACI_LEAF_B 1-b694-a1e2a59	ASE_10G,1.0_7c 01141	ACI Base License for 10/25/ Models: All EX and FX TORs N9K-C9348GC-FXP	40+G Leaf except	3	

## 成功後,同步授權頁面將使用智慧帳戶名稱和虛擬帳戶名稱進行更新,如下圖所示。

cisco	APIC											admin Q	0 🔁 🔁 (	•
System	Tenants	Fabric	Virtual Networking	Admin	Operatio	ins Apj	os	Integrations						
QuickStart	Dashboard	I Controlle	rs I System Settings	Smart Lice	ensing   Fa	ults   Hist	ory	I Config Zones	Active Sessions	I Security				
Smar	t Licer	nsing										(	Actions >	00
General	Faults													
Network : Offline	Settings		Sn	nart Account ernalTestDem	Name noAccount®	2.cisco.com	1	Virtua ACI-F	I Account Name 3GL-SMART		Product Inst apic1	tance Name		
Filter by a	ttributes													
License !	Name		Status			Enti	tleme	ent Tag		Description		Instance Count		
ACI_LEAI	BASE_10G		⊘ In Use			regi 01.d f9d	d.201 :om.c	18- sisco.ACI_LEAF_E 1-b694-a1e2a59	BASE_10G,1.0_70	ACI Base License for 10/25/- Models: All EX and FX TORs N9K-C9348GC-FXP	40+G Leaf except	3		
Last Login Time: 2	022-09-05T08:47	UTC+00:00										Current System	m Time: 2022-09-05	10:20 UTC+00:0

## 思科ACI智慧許可策略故障排除故障在ACI中,在開始進行故障排除之前,當出現特 定有問題的情況或警告時,將引發故障。檢查是否存在將我們重定向到正確方向的故障總是很好的 ,該表列出了智慧許可故障:

F3057 這是一個警告錯誤,表示您尚未配置網路設定。即使要選擇離線模式,也要配置「離線網路」設定。

F4290 此故障表示您輸入的產品例項ID令牌是無效或過期的令牌。登入到CSSM並建立新的產品例項註冊名

F4291 此故障表示路由器與思科APIC和CSSM之間或兩者之間思科APIC和傳輸伺服器(網關、代理、內

F4310 此故障表示您匯入了錯誤的RUM報告確認。確認與一個RUM報告唯一關聯。匯入的確認必須匹配您

顯示命令有兩種CLI show 排除故障的命令。若要使用這些命令,請以管理員使用者身份登入到群集中的思科應用策略基礎設施控制器(APIC)節點1。# show license all此show命令顯示智慧代理(SA)信任 儲存中的智慧許可資訊。「使用情況報告」部分顯示上次傳送的RUM報告和上次收到的確認的時間 戳,以及何時傳送下一個RUM報告以及何時輪詢下一個確認。如果上次收到的確認的時間戳比上次 傳送的RUM報告的時間戳新,則表明思科APIC已成功傳送RUM報告並收到確認。# show license tech support與show license all相比,此show命令顯示更詳細的資訊。控制檯因長度而無法顯示完整結 果,但您可以開啟檔案/tmp/SA\_Show\_Tech\_Support.txt來檢視所有輸出。

記錄檔當智慧許可存在問題時,請收集以下日誌:

/var/log/dme/log/svc\_ifc\_licensemgr.bin.log
/var/log/dme/log/ch\_dbg.log

來自APIC的技術支援。已知問題1.由於通訊問題(DNS未配置)註冊失敗在直接連線到 CSSM模式下,如果您忘記在思科應用策略基礎設施控制器(APIC)上配置DNS,則無法與

tools.cisco.com通訊。確保在APIC中配置了DNS,並且您可以ping tools.cisco.com要檢查是否配置 了DNS,請運行cat /etc/resolv.conf在APIC CLI上:

apic1# cat /etc/resolv.conf # Generated by IFC search apic.local nameserver 10.0.0.1 nameserver
XX.163.128.140

**若要檢查ping是否有效,請在APIC控制器CLI上運行ping,對於tools.cisco.com,ping必須<u>有效。</u> apic1# ping tools.cisco.com PING tools.cisco.com (XX.163.4.38) 56(84) bytes of data. 64 bytes from tools1.cisco.com (XX.163.4.38): icmp\_seq=1 ttl=235 time=250 ms 64 bytes from tools1.cisco.com (XX.163.4.38): icmp\_seq=2 ttl=235 time=249 ms 64 bytes from tools1.cisco.com (XX.163.4.38): icmp\_seq=3 ttl=235 time=249 ms** 

2.思科ACI智慧許可證策略升級注意事項如果您計畫升級至思科應用程式原則基礎架構控制器 (APIC)5.2(4)版本或更新版本,且思科APIC已經註冊,且網路或傳輸模式為Direct Connect to CSSM、Transport Gateway或HTTP/HTTPS Proxy,可以直接將Cisco APIC從思科應用中心基礎架 構(ACI)智慧授權(SL)升級為SLP。不需要執行任何特別程式。升級後,思科APIC仍與CSSM連線 ,可以向CSSM傳送RUM報告而不出現任何問題。如果思科APIC已經註冊,並且網路或傳輸模式為 Manager Satellite,則不能直接將思科APIC從SL升級到SLP。這是因為取代了Manager衛星的 Cisco Smart Software Manager內部網路模式的傳輸型別和URL都已更改。您必須執行以下操作:

- 1. 將Manager衛星升級到支援SLP的Cisco Smart Software Manager On Prem的最新版本。升級 後,請確保On Prem與CSSM具有網路連線,並且On Prem與CSSM之間的同步仍然有效。
- 2. <del>將思科APIC升級到5.2(4)版或更高版本。升級後,思科APIC GUI顯示網路模式為傳輸網關 ,而不是Manager衛星。您必須將網路模式重新設定為Cisco Smart Software Manager On-Prem,並從本地GUI複製正確的URL。</del>

3.錯誤 — 無法傳送Call Home HTTP消息(Quo Vadis Root CA)QuoVadis根CA 2已停用 ,可能會影響APIC的SSL通訊,因此會引發故障「Fail to send Call Home HTTP」。 為了檢查相同 內容,您可以在以下位置分析呼叫總部目誌/var/log/dme/log/ch\_dbg.log.如果列顯這些行,請遵循給定的 BUG和Field Notice:

-CH TRANS-ERROR: ch\_pf\_curl\_send\_msg[539], failed to perform, err code 60, err string "Peer certificate cannot be authenticated with given CA certificates" \*

CH-TRANS-DETAIL: ch\_pf\_http\_long\_buf\_dump[264], dump:"SSL certificate problem: self signed certificate in certificate chain"

<u>https://www.cisco.com/c/en/us/support/docs/field-notices/721/fn72115.html思科錯誤ID</u> CSCwa97230

#### 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)。