在ACI平台上配置智能许可策略并对其进行故障排除

目录

简介 <u>什么是思科智能许可策略(SLP)?</u> 您是否刚刚开始使用智能许可和/或智能帐户管理? 什么是ID标记? 从CSSM生成ID令牌 SLP许可证和产品状态 支持SLP的方法 方法1.直接连接到CSSM 方法2.思科传输网关 方法3. HTTP/HTTPS代理 方法4.内部部署 方法5.思科智能许可实用程序 方法6.离线方法 思科ACI智能许可策略故障排除 故障 显示命令 日志 已知问题 1.由于通信问题(DNS未配置)注册失败 2.思科ACI智能许可证策略升级注意事项 3.错误 — 无法发送Call Home HTTP消息(Quo Vadis Root CA)

简介

本文档介绍如何使用思科智能许可策略,以及在思科以应用为中心的基础设施(ACI)平台上配置、故障排除和管理软件许可证。

什么是思科智能许可策略(SLP)?

思科智能许可是一个管理所有思科产品许可证的软件管理平台。根据您的反馈,思科智能许可已进 行了增强,并推荐了一个名为SLP的新平台。SLP旨在简化智能许可,使您能够进行配置和维护。 在ACI版本5.2(4)中引入。

您是否刚刚开始使用智能许可和/或智能帐户管理?

访问并注册新的管理员培训课程和录制: <u>思科社区 — 借助思科智能帐户/智能许可和"我的思科"授权实现智能化</u> 可以在此处创建智能帐户:智能帐户

智能帐户可在此处管理:智<u>能软件许可</u>

什么是ID标记?

用于将产品安全地注册到智能帐户和虚拟帐户。ID令牌是用于在注册产品时建立身份的"组织标识符 "。SLP中的这些令牌使用不同的注册方法,本文档稍后将对此进行说明。

从CSSM生成ID令牌

要生成,请访问此<mark>链接</mark>并导航至 Manage Licenses > Inventory > General > New Token 如图所示.

Cisco Softwa	are Centr	al		cisco			Q	MV	⊕US EN
Cisco Software	Central > Smart	t Software Licensing				ED Internal	TestDemoAccount62.cisco.com		
Alerts Inven	tory Convert	t to Smart Licensing Re	ports Preferenc	es On-Prem Accounts Activi	ty				
Virtual Acc	ount: ACI-B	GL-SMART							
General Virtual Ac	Licenses	Product Instances	Event Log						
Description Default Vir	n: tual Account:	ACI SMA No	RT LICENSING AC	COUNT FOR BGL TAC					
Product I The registrati	nstance Reg	jistration Tokens can be used to register nev	v product instances	to this virtual account.					
New Tok	.en								
Token		Expiration Date	Uses	Export-Controlled No Records Found	Description	Created By	Actions		
The token wil	I be expired when	n either the expiration or the	e maximum uses is	reached			No Records to Display		

生成后,您可以在操作中复制或下载:

Smart Software	Licensing				Support Help
lerts Inventory Conv	ert to Smart Licensing Reports	Preferences On-P	rem Accounts Activit	ly	
/irtual Account: ACI-	BGL-SMART				
General Licenses	Product Instances Eve	nt Log			
Description: Default Virtual Account: Product Instance Re The registration tokens belo	ACI SMART LICE No egistration Tokens w can be used to register new produc	INSING ACCOUNT FO	R BGL TAC		
Token	Expiration Date	Uses	Export-Controlled	Description	Created By Actions
Nml2ZGMzNzgtNDY 2	2022-Dec-19 10:28:28 (in 90 days)		Allowed	TAC	maveer Actions -
The token will be expired w?	en either the expiration or the maxim	um uses is reached			Copy Download

SLP许可证和产品状态

在ACI SLP中,不再需要为期90天的评估期和产品注册。不再需要产品注册。您需要尽力报告许可 证使用情况。除此之外,客户端视图上的许可证授权状态也将被消除。许可证授权现在有两个状态 :使用中或未使用。由于APIC控制器仅管理当前使用的许可证,因此在APIC UI/CLI上,您只能看 到每个正在使用的许可证授权。

支持SLP的方法

配置智能许可证策略的方法有以下不同:

1.在线模式

2.脱机模式

在ACI SLP中,介绍资源利用率测量报告(RUM报告)的概念。RUM报告是包含许可证使用情况报告的XML格式文件。因此,术语 license usage report 和 Rum report可互换;两者均指报告许可证使用情况。在在线模式下,用户需要配置网络并使APIC控制器直接或间接连接到CSSM,在在线模式下,APIC也可以自动向CSSM发送RUM报告并从中获取确认。

在脱机模式下,由于APIC完全隔离,且没有与CSSM建立任何直接或间接的网络连接,因此用户需 要定期从APIC下载RUM报告,将其导入CSSM,从CSSM下载确认并将其导入APIC。

根据APIC与CSSM的连接,您可以决定使用在线模式还是离线模式,因此,在线模式下也有多种方 法,解释如下:

方法1.直接连接到CSSM



此方法是最常用的网络模式。思科APIC必须具有Internet连接,以便思科APIC可以直接向CSSM发送RUM报告。必须配置DNS且CSSM主机名(tools.cisco.com)必须可执行ping操作。

要配置:

步骤1.登录到Cisco APIC GUI。

步骤2.在菜单栏中,导航至 System > Smart Licensing > Actions > Configure Network Settings.

步骤3.选择 Direct connect to CSSM.

步骤4. URL和端口号在此不可更改。

步骤6.单击 oĸ.

cisco APIC				admin 🔇 💿 🟠 🐼 😰
System Tenants Fabric	Virtual Networking Adr	in Operations Apps Integrations		
QuickStart Dashboard Control	lers System Settings Sma	t Licensing Faults History Config Zones Active Sessions Security		
Smart Licensing		Configure Network Settings	×	
General Faults		Smart License Mode		
		Direct connect to CSSM		
Network Settings Cisco Smart Software Manager O	Smart Acc	unt 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
		WaTZDVzF0a29TemNHdno5eEJVR29LRGZ4UWtJ%0Ab2xOTT0%3D%0A	for 10/25/40+G	
ACI_LEAF_BASE_10G	⊘ In Use		X and FX TORs 8GC-FXP	3
		Cancel OK		
Last Login Time: 2022-09-04T13:58 UTC+00:00				Current System Time: 2022-09-04T14:13 UTC+00:00
	in Announte anu in a			Show all

成功与CSSM同步后,智能帐户和虚拟帐户名称将在智能许可页面上更新,如图所示。

cisco APIC			admin 🔇 🚭 🛟 😂 🕲			
System Tenants Fabric	Virtual Networking Admin Operations	Apps Integrations				
QuickStart Dashboard Controllers	System Settings Smart Licensing Faults	I History Config Zones Active Session	ns Security			
Smart Licensing						
General Faults						
Network Settings Smart Account Name Virtual Account Name Product Instance Name Direct connect to Cisco Smart Software Manager (CSSM) InternalTestDemoAccount62.cisco.com ACI-BGL-SMART apic1						
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		
ast Login Time: 2022-09-04T13:58 UTC+00:00				Current System Time: 2022-09-04T14:19 UTC+00:00		

方法2.思科传输网关

使用此方法,思科APIC不需要互联网连接。思科APIC在传输网关的帮助下将RUM报告发送到 CSSM。思科传输网关中间件必须已安装在数据中心并可到达APIC。对于传输网关模式,URL格式 为: http #/,其中IP或主机名是传输网关的IP或主机名。如果端口号不是默认的HTTP端口80或 HTTPS端口443,则必须输入端口号。除此之外,还需要产品实例ID令牌,该令牌可从CSSM虚拟 帐户获取。

要安装和配置传输网关,用户可以参考思科传输网关的文档

-System > Smart Licensing > Actions > Configure Network Settings.步骤3.选择Cisco Transport Gateway。步骤 4.使用正确的IP(Cisco传输网关的IP)和端口编辑URL;http://.**步骤5.粘贴产品实例ID令牌,该令牌** 已从您的CSSM虚拟帐户获得。步骤6.单击

-OK- cisco APIC			admin 🔇 🕶 👯 😂 😰
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 ×	
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	
		Product Instance ID Token	
Filter by attributes		NDVmZDRjNTktMjQxMC00NWZiLWFjY2ltMTYzYTBkYTEwMTY1LTE2OTM	
License Name	Status		Instance Count
ACI_LEAF_BASE_10G	⊘ In Use	Cancel	for 10/25/40+G X and FX TORs 3 BGC-FXP

方法3. HTTP/HTTPS代理使用此方法,思科APIC不需要互联网连接。思科APIC从Web代理向 CSSM发送RUM报告。确保Web代理服务器配置为允许智能许可消息。此外,防火墙必须具有通过 通信到达目的地的规则(<u>https://tools.cisco.com/its/service/oddce/services/DDCEService</u>影响。在代理模式下,用户 需要配置代理IP和端口。除此之外,还需要产品实例ID令牌,可以从用户的CSSM虚拟帐户获得该 令牌。要配置:步骤1.登录到Cisco APIC GUI。步骤2.在菜单栏中,导航至System > Smart Licensing > Actions > Configure Network Settings.步骤3.选择Cisco HTTP/HTTPS Proxy.步骤4.请提供代理的IP地址和端口号。 步骤5.粘贴产品实例ID令牌,该令牌可以从您的CSSM虚拟帐户获取。步骤6.单击

elistic APIC			admin 🔇 🗩 🐉 🕲 🔍
System Tenants Fabric QuickStart Dashboard Controlle	Virtual Networking Admin rs System Settings Smart Li	Operations Apps Integrations ensing Faults History Config Zones Active Sessions Security	
Smart Licensing General Faults Network Settings HTTP/HTTPS Proxy	Smart Accoun -	Configure Network Settings × Smart License Mode HTTP/HTTPS Proxy ✓ URL https://tools.cisco.com/its/service/oddce/services/DDCEService IP Address• 10.1.1.2	Actions ~ O 2
License Name	Status	Port+	Instance Count
ACI_LEAF_BASE_10G	⊘ In Use	443 Product Instance ID Token NDVmZDRjNTktMjQxMC00NWZiLWFjY2ltMTYzYTBkYTEwMTY1LTE2OTM	for 10/25/40+G X and FX TORs 3 BGC-FXP
		Cancel	

方法4.内部部署使用此方法,思科APIC不需要互联网连接,而内部需要Internet连接。思科 APIC通过内部向CSSM发送RUM报告。内部中间件必须已安装在数据中心中。在思科ACI智能许可 (SL)中,此模式之前称为思科智能软件管理器卫星(管理器卫星)。 配置:

步骤1.登录到Cisco APIC GUI。步骤2.在菜单栏中,导航至

System > Smart Licensing > Actions > Configure Network Settings.步骤3.选择 Cisco Smart Software Manager On-

п.	-		-	
1		40	в	-

cisco APIC		admin 🔇 🗊 🏠 🕄 🖽
System Tenants Fabric Virtual Networking Admin	Operations Apps Integrations	
QuickStart Dashboard Controllers System Settings Smart Lice	nsing Faults History Config Zones Active Sessions	Security
Smart Licensing	Configure Network Settings	×
Smart Licensing is not configured	Smart License Mode	
	Cisco Smart Software Manager On-Prem	~
Ensure this product has either access to the internet, a Smar Ear Direct Connect, Transport Gateway or HTTP/HTTPs Prov	Direct connect to CSSM	ay is installed on your network.
product instance ID token.	Cisco Smart Software Manager On-Prem	
For Smart Software Manager On-Prem, you need to log on M	HTTP/HTTPS Proxy	
Learn more about Smart Software Licensing	Cisco Transport Gateway	
Configure Network Settings	Cisco Smart Licensing Utility (CSLU)	
	Offline	
General Faults		
Filter by attributes		
License Name Status	Entitlement Tag D	escription Instance Count
Last Login Time: 2022-09-04T07:31 UTC+00:00	regid.2018- A	CI Base License for 10/25/40+G Leaf Current System Time: 2022-09-04T10:56 UTC+00:00

您必须提供本地思科智能软件管理器的URL。要获取URL,请登录思科智能软件管理器本地GUI。 导航至 Inventory > General 并点击 CSLU TransportURL 链接

Alerts Inventory ocal Virtual Account: Default General License	Convert to Smart Licensing Reports	https://10.197.2	40.220/cslulv1/pi/ACI-BGL-SMA opy selected text to clipboard. Event Log	RT-1		
Local Virtual Account Description Default Local Virtual Account:	This is the default virtual Yes	account created during	company account creation.			
Product Instance Registration Token The registration tokens below can be used to Smart Transport Registration URL.For produ Smart Call Home, you must configure the "d destination URL value. New Token Token	ns o register new product instances to this Local Vir cts that support Smart Licensing Using Policy th estination address http" on the product to use th Expiration Date	tual Account. For products at use calu as transport, you e Smart Call Home Registra Uses	that support Smart Transport, you unual configure the "licence am ation URL. The recommended m Description	u must configure the "license smart u art transport calu" to use the CSLU T ethod is Smart Transport. Please con Export-Controlled	rf* on the product to use th ansport URL. For legacy pr uilt your Products Configur Created By	e roducts that still use ation Guide for setting the Actions
The token will be expired when either the expi	ration or maximum number of uses is reached.					No Records to Display

步骤4.复制CSLU URL并将其粘贴到Cisco APIC GUI中的URL字段。您无需指定产品实例ID令牌。 Cisco APIC使用内置证书与思科智能软件管理器内部通信。

cisco	APIC										admin		Ð
System QuickStart	Tenants	Fabric	Virtual Networkin I System Setting	ng Admir s Smart Ll	Operations	Apps	Integrations I Config Zones	I Active Sessions	s I Security				
Smar _{General}	t Licer _{Faults}	nsing			Config Smart Licen	gure Ne se Mode	twork Se	ettings	×			Actions >	?
Network Cisco Sn	Settings nart Software	Manager On-	Prem		URL+ https://10	.197.240.220	/cslu/v1/pi/ACI-	BGL-SMART-1	~	Product i apic1			
Filter by a								Ca	ancel OK				
License	Name		Status			_					Instance Cour	ıt	
ACI_LEA	F_BASE_10G		⊘ In Use			regid.20 01.com. f9d1-4f	18- cisco.ACI_LEAF. 11-b694-a1e2a	_BASE_10G,1.0_7 5901141	ACI Base Licens 70 Models: All EX a N9K-C9348GC-	e for 10/25/40+G Leaf nd FX TORs except FXP	3		
Last Login Time:	2022-09-05T10:22	2 UTC+00:00									Current Sys	tem Time: 2022-09-05T11:19 UT	TC+00:00

成功同步后,智能软件管理器内部资产将使用使用的许可证进行更新。

ocal '	Virtual Account	: Default								
	General	Licenses	Product Instances	SL Using Policy	Event	Log				
By N	Name By Tag	Available Actions -	Manage License Tags	(+)	Sea	irch by License	٩			
								10 -	Showing Page 1 of 1(1 Rec	cords) (4 44 🕪 🕅
	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 Red	cords) (4 📢 🕪)(

Contacts Help Terms & Conditions Privacy Statement Cookies Trademarks

方法5.思科智能许可实用程序使用此方法,思科APIC不需要互联网连接。思科APIC通过 CSLU向CSSM发送RUM报告。数据中心必须已安装Microsoft Windows版本的中间件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>此处IP或主机名是 CSLU IP地址或主机名。不支持HTTPS。

要配置:步骤1.登录到Cisco APIC GUI。步骤2.在菜单栏中,导航至 Inventory System > Smart Licensing > Actions > Configure Network Settings .步骤3.选择 Cisco Smart Licensing Utility (CSLU).

I)	1.1	1.	ADIC
-	100	0	APIC



	System Settings Smart Licens	ing Faults History Confi	g Zones Active Sessions Security			
art Licensing		Configure Networ	k Settings ×			ctions ~
l Faults		Smart License Mode				
		Cisco Smart Licensing Utility (CS	LU) ~			
ork Settings Smart Licensing Utility (CSLU)	Smart Account InternalTestDe	JRL • http://10.197.240.115:8182/cslu	/v1/pi	Product In apic1		
by attributes			Cancel OK			
ise Name	Status				Instance Count	
EAF_BASE_10G	⊘ In Use	regid.2018- 01.com.cisco.ACI f9d1-4f11-b694-	ACI Base License for LLEAF_BASE_10G,1.0_7(Models: All EX and FX a1e2a5901141 N9K-C9348GC-FXP	TORs except	3	
一个URL中,端	日在CSLU G	UI首选项下作 :	为产品实例服务端口 易	ए क्र.		
o Smart License Utility 2.1.0					-	- 0
Product Instances Data Ed	it Help					
						Log out fro
C3						Log out iro
Inventory	Preferences	Scheduler				
Preferences						
Cisco Connectivity			CSLU Connectivity			
Cisco Is Available	Prox	v is Off	Product Instance Service Port *			
Cisco Is Available	Prox	y is Off	Product Instance Service Port * 8182			_
Cisco Is Available Cisco Connection Timeout (seco 10	nds) *	y is Off	Product Instance Service Port * 8182 REST API Port *			_
Cisco Is Available Cisco Connection Timeout (seco 10	nds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180			-
Cisco Is Available Cisco Connection Timeout (seco 10 Cisco Response Timeout (secon	ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180			-
Cisco Is Available Cisco Connection Timeout (seco 10 Cisco Response Timeout (secon 90	ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account			-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) *	ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900	ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900	ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis Virtual Account ACI-BGL-SMART	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900 Cisco URL *	ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cls Virtual Account ACI-BGL-SMART	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900 Cisco URL * https://swapi.cisco.com/s	e Proxi nds) * ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis Virtual Account ACI-BGL-SMART UValidate Device	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900 Cisco URL * https://swapi.cisco.com/s	ds) *	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis Virtual Account ACI-BGL-SMART UValidate Device CSLU Working Directory	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900 Cisco URL * https://swapi.cisco.com/s OAuth URL https://cloudsso.cisco.com	e Prox ds) * ds) * services/api/smart-acco m/as/	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis Virtual Account ACI-BGL-SMART UValidate Device CSLU Working Directory C:\Users\acibgl\AppData\Roam	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900 Cisco URL * https://swapi.cisco.com/s OAuth URL https://cloudsso.cisco.co	e Prox nds) * ds) * services/api/smart-acco m/as/	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis Virtual Account ACI-BGL-SMART UVItual Account CSLU Working Directory C:\Users\acibgl\AppData\Roam Default Connection Method	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900 Cisco URL * https://swapi.cisco.com/s OAuth URL https://cloudsso.cisco.co Rum Upload Interval (days) 90	e Prox nds) * ds) * services/api/smart-acco m/as/	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis Virtual Account ACI-BGL-SMART UValidate Device CSLU Working Directory C:\Users\acibgl\AppData\Roam Default Connection Method Product Instance Initiated Only	sco.com		-
Cisco Is Available Cisco Connection Timeout (secon 10 Cisco Response Timeout (secon 90 Cisco Retry Interval (seconds) * 900 Cisco URL * https://swapi.cisco.com/s OAuth URL https://cloudsso.cisco.co Rum Upload Interval (days) 90	e Proxi nds) * ds) * eervices/api/smart-acco m/as/	y is Off	Product Instance Service Port * 8182 REST API Port * 8180 Smart Account InternalTestDemoAccount62.cis Virtual Account ACI-BGL-SMART Utiliate Device CSLU Working Directory C:\Users\acibgl\AppData\Roam Default Connection Method Product Instance Initiated Only	ing\CSLU		-

成功后,同步许可页面将使用智能帐户名称和虚拟帐户名称进行更新,如图所示。

cisco	APIC										admin Q	
System	Tenants	Fabric	Virtual Networking	Admin	Operations	Apps	Integrations					
QuickStart	Dashboard	I Controllers	I System Settings	Smart Lice	nsing Faults	History	I Config Zones	Active Sessions	I Security			
Smar	t Licer	nsing									(Actions ~
General	Faults											
Network S	Settings		S	mart Account	Vame		Virtua	al Account Name		Product Ins	tance Name	
Cisco Smi	art Licensing (Utility (CSLU)	II.	itemailestDem	oAccount62.cis	co.com	ACI-E	BGL-SMART		apici		
Filter by at	ttributes											
License N	lame		Status			Entitlem	ent Tag		Description		Instance Count	
ACI_LEAF	BASE_10G		⊘ In Use			regid.20 01.com.	18- cisco.ACI_LEAF_E	BASE_10G,1.0_7c	ACI Base License f Models: All EX and	or 10/25/40+G Leaf FX TORs except	3	
						f9d1-4f1	11-b694-a1e2a59	901141	N9K-C9348GC-FX	P		

方法6.离线方法在离线模式下,思科APIC被隔离,无需与CSSM进行直接或间接的网络连接。由 于思科APIC无法通过网络连接到达CSSM,因此您必须每12个月从思科APIC下载RUM报告并将报 告导入CSSM。然后,您必须从CSSM下载确认并将确认导入思科APIC。要配置:步骤1.登录到 Cisco APIC GUI。步骤2.在菜单栏中,导航至 System > Smart Licensing.步骤3.在工作窗格中,导航至 -Actions > Download Rum Report.

RUM报告文件会自动下载到浏览器的默认文件夹中。

cisco	APIC										admin 🗨 🗩 👯	•
System QuickStart	Tenants	Fabric	Virtual Networking s I System Settings	Admin	Operations	Apps ts I History	Integrations	Active Sessions	i Security			
Sma	rt Licer	nsing									Actions A	00
General	Faults	0									Configure Network Settings Download Rum Report Import Acknowledgement	
Network Offline	k Settings		Si -	mart Account M	Name		Virtua -	al Account Name		Product Ins apic1	itance Name	
Filter by	attributes											
License	e Name		Status			Entitlem	ent Tag		Description		Instance Count	
ACI_LE	AF_BASE_10G		⊘ In Use			regid.201 01.com.c f9d1-4f1	18- cisco.ACI_LEAF_I 1-b694-a1e2a59	BASE_10G,1.0_7c 901141	ACI Base Licens Models: All EX a N9K-C9348GC-I	e for 10/25/40+G Leaf nd FX TORs except FXP	3	

下载报告后(LicenseUsageRumReport.xml),即可将其导入CSSM。步骤4.登录 Software.cisco.com并导航至Manage License。步骤5.从"菜单"中单击 Reports并选择 Usage Data Files选 项,如图所示。

Cisco Software Central > Smart Software Licensing	9			db	InternalTestDemoAccount62.c	isco.con
Smart Software Licensing					Supp	ort Hel
Alerts Inventory Convert to Smart Licensing	Reports Preferences	On-Prem Accounts Acti	ivity			
Reports						
Report Usage Data Files Reportin	ng Policy Synch File	for Device Controllers				
Devices can be configured to report the features th This usage then determines which licenses are new	at they are using. aded, in order to be compliar	nt.				
Upload Usage Data			Search by File N	lame, Virtual Account	c	2
⊕ Usage Data File	Reported	Virtual Account	Reporting Status	Devices	Acknowledgement	
LicenseUsageRumReport.xml	2022-Sep-05	ACI-BGL-SMART	1 No Errors	1	Download	

步骤6.单击 Upload Usage Data并选择文件LicenseUsageRumReport.xml如图所示

Cisco Software Central	alia) cisco	i 		Q	W	
Cisco Software Central > Smart Software Licens Smart Software Licensing Alerts Inventory Convert to Smart Licensing	Upload Usage Data Please select the Usage File you wish to upload. • Usage Data File: Browse LicenseUsageRur	nReport.xml	111 InternalTestDemoAco	count62.cisco.com Support Help		
Report Usage Data Files Repo	P Berr and Indian	Uplead Data Canc	et			
This usage then determines which licenses are need	ded, in order to be compliant.					
This usage then determines which licenses are need Upload Usage Data	ded, in order to be compliant.	Search by File Name,	Virtual Account	٩,		
This usage then determines which licenses are need Upload Usage Data Usage Data File LicenseUsageRumReport.xml	Reported Virtual Account 2022-Sep-05 ACI-BGL-SMART	Search by File Name, Reporting Status	Virtual Account Devices Acknowledgen 1 Download	o, nent		

步骤7.选择拥有许可证的虚拟帐户。

Cisco Software Central		cisco	н Э		Q	Ŵ	₩ ^{US} EN	
Cisco Software Central > Smart Software Licens	Select Virtual Account Some of the usage data files do no virtual account is unrecognized.	nts ot include the name of th	e virtual account that the data refers to,	or the	InternalTestDemoAccount62.cisco.com Support Help			
Alerts Inventory Convert to Smart Licensin Reports	Alerts Inventory Convert to Smart Licensin; Please select an account:							
Report Usage Data Files Report Devices can be configured to report the features This usage then determines which licenses are the Upload Usage Data Upload Usage Data	eueu, in oruer to ce compliant.	_	Ok Car Search by File Nar	ncel me, Virtual Account	٩			
Usage Data File LicenseUsageRumReport.xml	Reported V 2022-Sep-05	firtual Account	Reporting Status No Errors	Devices 1	Acknowledgement Download			
Contacts Feedback	Help Site Map	Terms & Condit	ons Privacy Statement	Cookie Policy	Showing 1 Record	_		

提交后,您必须等待,直到报告状态变为 Ne Errors确认字段可以选择下载。步骤8.下载选项可用后 ,点击-Download-和Acknowledgement 下载为文件名ACK_LicenseUsageRumReport.xml如图所示

Internal resubernowccountoz.cisco.com	(D) I				Cisco Software Central > Smart Software Licensing
Support Help					Smart Software Licensing
			On-Prem Accounts Activit	eports Preferences	Alerts Inventory Convert to Smart Licensing R
					Reports
			or Device Controllers	olicy Synch File fo	Report Usage Data Files Reporting Po
				ey are using. I, in order to be compliant.	Devices can be configured to report the features that the
٩	Name, Virtual Account	Search by File N			Upload Usage Data
Acknowledgement	Devices	Reporting Status	Virtual Account	Reported	(+) Usage Data File
Download	1	1 No Errors	ACI-BGL-SMART	2022-Sep-05	LicenseUsageRumReport.xml
φ	Support He	ame, Virtual Account Q Devices Acknowledgement 1 Download	Support He Search by File Name, Virtual Account Reporting Status Devices Acknowledgement Ito Errors 1 Download	Support He On-Prem Accounts Activity r Device Controllers	Support He aports On-Prem Accounts Activity seports Synch File for Device Controllers wilcy Synch File for Device Controllers ey are using. Search by File Name, Virtual Account Q Reported Virtual Account Reporting Status 2022-Sep-05 ACI-BGL-SMART

<mark>您需要将确认导入到APIC:步骤9.登录到Cisco APIC GUI。步骤10.在菜单栏中,导航至_{System > Smart} Licensing.步骤11.在工作窗格中,导航至Actions > Import Acknowledgement.步骤12.单击Choose File,导航到您 下载确认文件的位置,选择文件并单击 Open.步骤13.单击 OK.</mark>

cisco	APIC										admin 🗨 🗗 🚰	•
System	Tenants	Fabric	Virtual Networking	Admin	Operations	Apps	Integrations					
QuickStart	Dashboard	I Controllers	I System Settings	Smart Lice	ensing Faults	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 In:	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	18- isco.ACI_LEAF_BA 1-b694-a1e2a590	SE_10G,1.0_7c 1141	ACI Base License for 10/25/ Models: All EX and FX TORs N9K-C9348GC-FXP	40+G Leaf except	3	

成功后,同步许可页面将使用智能帐户名称和虚拟帐户名称进行更新,如图所示。

cisco	APIC										admin Q		•
System	Tenants	Fabric	Virtual Networking	Admin	Operations	Apps	Integrations						
QuickStart	Dashboard	I Controllers	I System Settings	Smart Lice	nsing Faults	I History	I Config Zones	Active Sessions	I Security				
Smart	Licer	ising									Ċ	Actions ~	0?
General F	aults												
Network Se Offline	ettings		Sn Int	nart Account № ernalTestDem	Name oAccount62.c	isco.com	Virti	ial Account Name -BGL-SMART		Product Inst apic1	tance Name		
Filter by att	tributes												
License Na	ame		Status			Entitlen	nent Tag		Description		Instance Count		
ACI_LEAF_	_BASE_10G		⊘ In Use			regid.20 01.com f9d1-4f	018- .cisco.ACI_LEAF. /11-b694-a1e2a	BASE_10G,1.0_70	ACI Base License for 10/25/4 Models: All EX and FX TORS N9K-C9348GC-FXP	40+G Leaf except	3		
Last Login Time: 20	22-09-05T08:47	UTC+00:00									Current System T	ime: 2022-09-05	T10:20 UTC+00:0

思科ACI智能许可策略故障排除故障在ACI中,当您开始进行故障排除之前,当出现 特定问题情况或警告时,会引发故障。最好检查是否存在将我们重定向到正确方向的故障,下表列 出了智能许可故障:

F3057 这是一个警告错误,表明您尚未配置网络设置。即使您想要选择离线模式,也要配置离线网络设置。

F4290 此故障表示您输入的产品实例ID令牌是无效或过期的令牌。登录到CSSM并创建新的产品实例注册:

F4291 此故障表明ISP与ISP之间 思科APIC和CSSM或二者之间 思科APIC和传输服务器(网关、代理、内

F4310 此故障表示您导入了错误的RUM报告确认。确认与一个RUM报告唯一关联。导入的确认必须与您下

显示命令有两个CLI show 用手排除故障的命令。要使用这些命令,请以管理员用户身份登录集群中 的思科应用策略基础设施控制器(APIC)节点1。# show license all此show命令显示来自智能代理(SA)信 任存储的智能许可信息。"使用情况报告"部分显示上次发送的RUM报告和上次收到的确认的时间戳 ,以及何时发送下一个RUM报告以及何时轮询下一个确认。如果最后收到的确认消息的时间戳比最 后发送的RUM报告的时间戳新,则表明思科APIC成功发送了RUM报告并收到了确认。# show license tech support此show命令显示比show license all更详细的信息。控制台因长度而无法显示完整结果,但 您可以打开文件/tmp/SA_Show_Tech_Support.txt查看所有输出。

日志当智能许可出现问题时,请收集以下日志;

/var/log/dme/log/svc_ifc_licensemgr.bin.log
/var/log/dme/log/ch_dbg.log

来自APIC的技术支持。已知问题1.由于通信问题(DNS未配置)注册失败在Direct Connect to CSSM(直接连接到CSSM)模式下,如果您忘记在与tools.cisco.com的思科应用策略 基础设施控制器(APIC)通信上配置DNS,则会失败。确保在APIC中配置了DNS,并且可以ping tools.cisco.com要检查是否配置了DNS,请运行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

要检查ping是否有效,请在APIC控制器CLI上运行ping,ping必须适用于tools.cisco.com。 apicl# 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智能许可证策略升级注意事项如果您计划升级到思科应用策略基础设施控制器 (APIC)5.2(4)版本或更高版本,并且思科APIC已注册,并且网络或传输模式为Direct Connect to CSSM、Transport Gateway或HTTP/HTTPS Proxy,则可以直接将思科APIC从思科以应用为中心 的基础设施(ACI)智能许可(SL)升级到SLP。不需要执行任何特殊程序。升级后,思科APIC仍与 CSSM连接,可以向CSSM发送RUM报告而不出现任何问题。如果思科APIC已注册,并且网络或传 输模式为Manager Satellite,则不能直接将思科APIC从SL升级到SLP。这是因为Cisco Smart Software Manager On-Prem网络模式的传输类型和URL都已更改,取代了Manager Satellite。您必 须执行以下操作:

- 1. 将Manager Satellite升级到支持SLP的现有思科智能软件管理器的最新版本。升级后,确保内 部服务器与CSSM具有网络连接,并且内部服务器与CSSM之间的同步仍然有效。
- 2. 将思科APIC升级到5.2(4)或更高版本。升级后,思科APIC GUI显示网络模式是传输网关,而 不是Manager Satellite。您必须将网络模式重新配置为Cisco Smart Software Manager On-Prem,并从本地GUI复制正确的URL。

3.错误 — 无法发送Call Home HTTP消息(Quo Vadis Root CA)QuoVadis Root CA 2已停 用,可能会影响来自APIC的SSL通信,因此会引发故障"Fail to send out Call Home HTTP"。为了 检查相同内容,您可以在以下位置分析call home日志/var/log/dme/log/ch_dbg.log.如果打印这些行,请遵 循给定的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思科漏洞ID</u> CSCwa97230

关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言,希望全球的用户都能通过各 自的语言得到支持性的内容。

请注意:即使是最好的机器翻译,其准确度也不及专业翻译人员的水平。

Cisco Systems, Inc. 对于翻译的准确性不承担任何责任,并建议您总是参考英文原始文档(已提供 链接)。