配置用於CER的SNMPv3並對其進行故障排除

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簡介

本檔案介紹如何設定和疑難排解Cisco Emergency Responder(CER)的簡單網路管理通訊協定 (SNMP)第3版。

必要條件

需求

思科建議您瞭解以下主題:

- 思科整合通訊管理員(CUCM)
- 思科緊急回應端
- SNMP通訊協定

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- CUCM:11.5.1.14900-8
- CER:11.5.4.50000-6
- 交換器:WS-C3560CX-12PC-S

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。如果您的網路正在作用,請確保您已瞭解任何指令可能造成的影響。

背景資訊

Emergency Responder使用SNMP獲取有關交換機埠的資訊。一旦獲取了此資訊,CER管理員使用 者就可以將埠分配給緊急響應位置(ERL),因此緊急響應人員可以識別連線到這些埠的電話並更新 其ERL分配。

SNMP V3提供涵蓋消息完整性、身份驗證和加密的其他安全功能。此外,SNMP V3控制使用者對 MIB樹特定區域的訪問。

Emergency Responder僅讀取SNMP資訊,它不會將更改寫入交換機配置,因此您只需配置 SNMP讀取社群字串。

在CER中按交換機埠跟蹤有一些條件:

- CER讀取交換機介面、埠和VLAN(僅用於CAM)、Cisco Discovery Protocol(CDP)資訊。
- CER從CUCM獲取註冊電話。
- CER檢視從CUCM傳送的裝置名稱,並搜尋MAC是否屬於交換機埠。如果找到MAC,CER將使 用電話的埠位置更新其資料庫。

設定

為交換機配置SNMP字串時,還必須為Unified Communications Manager伺服器配置SNMP字串。 Emergency Responder必須能夠針對電話註冊到的所有Unified CM伺服器進行SNMP查詢,才能獲 取電話資訊。

CER為IP以10.0或10.1開頭的裝置提供了使用模式,例如10.0.*.*或10.1.*.*。如果要包含所有可能的 地址,可以使用子網*.*.*.*。

CER配置

要在Cisco Emergency Responder中為電話跟蹤配置SNMPv3,請執行以下步驟:

步驟1。如圖所示,確保SNMP主代理、CER和Cisco電話跟蹤引擎服務已啟動。

ab	In Cisco Emergency Respo	nder Serviceability	Nav	gation Cisco ER Serviceability
cis	Co For Cisco Unified Communications S	olutions	Logged in as: administrator	Search Documentation About
Tools *	SNMP System Monitor System Logs	Help 🔻		
Contro	ol Center			
- Contr	ol Center Services			
Sta	art Stop Restart Refresh			
	Service Name			Status
0	A Cisco DB Replicator	•		Started
0	CER Provider	•		Started
0	Cisco Audit Log Agent	►		Started
0	Cisco CDP	►		Started
0	Cisco CDP Agent	►		Started
0	Cisco Certificate Expiry Monitor	►		Started
0	Cisco DRF Local	▶		Started
0	Cisco DRF Master	>		Started
0	Cisco Emergency Responder	►		Started
0	Cisco IDS	*		Started
0	Cisco Phone Tracking Engine	►		Started
0	Cisco Tomcat	•		Started
0	Host Resources Agent	▶		Started
0	MIB2 Agent	•		Started
0	Platform Administrative Web Service	►		Started
0	SNMP Master Agent	•		Started
0	System Application Agent	•		Started
Sta	art Stop Restart Refresh			

步驟2。若要設定用於交換器和CUCM節點的SNMP設定,請導覽至**CER Admin > Phone tracking >** SNMPv2/v3。您可以設定SNMP使用者名稱、驗證和隱私資訊,如下圖所示。

SNMPv3 Settings						
Status						
Please modify information	for the selected S	NMPv3 User				
Modify SNMPv3 User De	etails —					
User Information						
IP Address/Host Name *	10.1.61.10					
User Name *	cersnmpv3					
Authentication Inform	nation					
Authentication Requ	ired =					
Password ••••••		Reenter Pas	ssword 🐽	•••••	Protocol MD5 SHA	
Privacy Information-						
Privacy Required *						
Password ••••••	•••••	Reenter Pas	ssword •••	•••••	Protocol DES AES12	8
Cother Information						
Timeout (in seconds) *	10 10					
Maximum Retry Attempt	s * 2					
Update Cancel Ch	anges					
SNMPv3 Settings						
Add New						
IP Address/Host Name	User Name	Authentication	Privacy	Timeout (in seconds)	Maximum Retry Attempts	Delete
10.1.61.10	cersnmpv3	MD5	DES	<u>10</u>	2	1

在本示例中,10.1.61.10是交換機的IP,10.1.61.158是呼叫管理器的IP。CER中的SNMPv3配置如 圖所示。

SNMPv3 Settings						
Add New						
IP Address/Host Name	User Name	Authentication	Privacy	Timeout (in seconds)	Maximum Retry Attempts	Delete
10.1.61.10	cersnmpv3	MD5	DES	10	2	1
10.1.61.158	cucmsnmpv3	MDS	DES	10	2	1

附註:您可以在IP Address/Hostname 中指定*.*.*或其他萬用字元/範圍,以便包含多個伺服器,否則,您可以配置特定IP地址。

步驟3。若要在LAN交換器上設定交換器IP,請導覽至CER Admin > Phone tracking > LAN switch detail > Add LAN Switch,如下圖所示。

LAN Switch Details			Export
Status Please enter any change for the current LAN St	witch		
LAN Switch Details			
Switch Host Name / IP Address *	10.1.61.10		
Description	switchlab		
Enable CAM based Phone Tracking			
Use port description as port location			
Use SNMPV3 for Discovery			
	Update Cancel Changes Locate Switch-Ports		
LAN Switches			
Add LAN Switch			
	Switch Host Name / IP Address	Edit	Delete
10.1.61.10		1	8
Add LAN Switch			

通訊管理器配置

在CUCM中,SNMP連線分為兩個級別:SNMP主代理和Cisco CallManager SNMP服務。必須在所 有已啟用CallManager服務的節點中啟用這兩個服務。要配置Cisco Unified Communications Manager伺服器,請執行以下步驟。

步驟1。若要檢查Cisco CallManager SNMP服務的狀態,請導航至**Cisco Unified Serviceability >** Tools > Feature services。選擇伺服器,並確保Cisco CallManager SNMP服務的狀態已啟用,如下 圖所示。

Performance and Honitaring Services							
	Nervice Name	Matuki	Activation Nature	start time	Up Time		
0	Osco Serviceability Reporter	Sharbed	Activated	Mem Jul 1 18:11:14 2018	11. 6aya 12:12:43		
0	Cisco CallManuper Cours Service	Sharbed	Activated	Man Jul 1 18:11:16 2019	11 days 12:12:41		

步驟2。若要檢查SNMP主代理的狀態,請導覽至Cisco Unified Serviceability > Tools > Network services。選擇伺服器並驗證SNMP主代理服務是否如圖所示。

Platform Services						
	Service Name	States	Start Time	Up Time		
0	Platform Administrative Web Service	Running	Mon Jul 1 10:18:49 2019	11 days 12:11:17		
0	A Geco DB	Running	Mon Jul 5 30:30:37 2019	11 days 12:19:49		
0	A Cisco DB Replicator	Running	Mon Jul 1 10:10:18 2019	11 days 12:19:48		
0	Master Agent	Running	Mon Jul 5 10:30:23 2019	11 days 12:19:43		

步驟3.要在CUCM中配置SNMPv3,請導航至Cisco Unified Serviceability > SNMP > V3 > User。選 擇伺服器並配置使用者名稱、身份驗證資訊和隱私資訊,如下圖所示。

Cisco Unified Service	aahility	Navigation Cisco Unified Serviceability				
CISCO For Cisco Unified Communica	tions Solutions		administrator Abo			
Alarm • Trace • Tools • Snmp • CallHi	ome - Help -	_	doministrator Abov			
NMP User Configuration						
🔲 Save 🖽 Clear All 🏊 Cancel						
Status						
Status : Ready						
Server* 10.1.61.158CUCM Voice/Video	~					
User Information						
User Name* cucmsnmpv3						
Authentication Information						
Authentication Required						
Password ••••••	Reenter Password	•••••	Protocol 🖲 MD5 🔿 SHA			
Privacy Information						
Privacy Required						
Password ••••••	Reenter Password	•••••	Protocol 🖲 DES 🔿 AES12			
Host IP Addresses Information						
Accept SNMP Packets from any host	O Accept SN	MP Packets only from t	hese hosts			
	Host IP A	Address	Insert			
	Host IP A	Addresses	~			
			Kernove			
Access Privileges						
Access Privileges* ReadOnly	~					
ONotify access privilege is required in orde	r to configure Notification	Destinations.				

交換器組態

為了按交換機埠跟蹤電話,交換機中的SNMP配置必須與CER伺服器中的配置相匹配。使用這些命 令配置交換機。

snmp-server group <GroupName> v3 auth read <Name_of_View>

snmp-server user <User> <GroupName> v3 auth [sha/md5] <authentication_password> priv [DES/AES128] <privacy_password>

snmp-server view <Name_of_View> iso included

範例:

Switch(config)#snmp-server group Grouptest v3 auth read Viewtest Switch(config)#snmp-server user cersnmpv3 Grouptest v3 auth md5 ciscol23 priv des ciscol23 Switch(config)#snmp-server view Viewtest iso included

若要驗證您的組態,請使用show run | s snmp,如示例所示。

Switch#show run | s snmp snmp-server group Grouptest v3 auth read Viewtest snmp-server view Viewtest iso included

驗證

運行Cisco CallManager服務的每個CUCM還必須運行SNMP服務。如果所有配置都正確,則當您按 一下**Cisco Unified Communications Manager List**超連結時,必須看到所有CallManager節點,並且 電話必須通過switchport進行跟蹤。

步驟1。若要驗證CUCM節點清單,請導航至CER Admin > Phone tracking > Cisco Unified Communications Manager。按一下超級連結,如下圖所示。

National Communications Manager Close Unified Communications Manager Close Clos	Cisco Unified Communications Manager Clusters							
Prease enter any change for the current Cisco Unified Communications Manager * 10.161.158 Scoup Crit Manager 1 10.161.159 Scoup Crit Manager 2 ************************************	Status							
Nodity Cisco Unified Communications Manager Cluster Cisco Unified Communications Manager * 10.1.61.158 Cisco Unified Communications Manager * 11 Manager User Name * CER Tit Manager Passanol * CER Sacklo CTI Manager 2 Idehony Ports Secure Connection ** TTP Server Paddress ** CAPF Server Port ** Backup Cti Paddress ** CAPF Server Port ** Secure Authentication String for Publisher ** Instance 1D for Subscriber ** Secure Authentication String for Subscriber ** AXL Pasmaned	Please enter any change for the current Cisco Unified Communications Manager							
Hoddy Cisco Unified Communications Manager 1 ID.1.61.158 Cisco Intergency Responder Administration - Mesla Firefax CTI Manager 4 ID.1.61.158 Cisco Intergency Responder Administration - Mesla Firefax III CTI Manager 1 ID.1.61.159 IIII Cisco Intergency Responder Administration - Mesla Firefax IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII								
Cisco Unified Communications Manager * 101.61.158 Cisco Index Communications Managers List CIT Manager * ID1.61.158 Cisco Index Communications Managers List CIT Manager * ID1.61.158 Cisco Index Communications Managers List CIT Manager * ID1.61.158 Cisco Index Communications Managers List CIT Manager * ID1.61.159 Cisco Emergency Responder Administration * Moella Firefax IIII * IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Modify Cisco Unified Communications Manager Cluster							
CIT Manager ** 10.1.61.158 CIT Manager User Name * CER TI Manager 1 10.1.61.159 Backup CIT Manager 2 10.1.61.159 Seckup CIT Manager 2 10.1.61.159 Seckup CIT Manager 3 500 umber of Telephony Ports 2 Secure Connection Parameters 10.1.61.159 Enable Secure Connection ** Cisco Emergency Responder Administration ** TTP Server IP Address ** 10.1.61.159 Backup TTP Server IP Address ** 10.1.61.159 CAPF Server IP Address ** 3004 Secure Authentication String for Publisher ** 10.1.61.159 Instance ID for Subscriber ** 10.1.61.159 Secure Authentication String for Publisher ** 10.1.61.159 AUL Desroed 10.1.61.159 Statings- 10.1.61.159	Cisco Unified Communications Manager *	10.1.61.158 <u>Cisco</u>	nified Communications Managers List					
CIT Manager Vaser Name* CER CIT Manager Password* Interface Backlip CIT Manager 1 10.16.1519 Backlip CIT Manager 2 Interface Backlip CIT Manager 1 Interface CAPP Server IP Address ** Interface Secure Authentication	CTI Manager *	10.1.61.158						
CTT Manager Password* Backkip CTT Manager 1 Sackkip CTT Manager 2 Telephony Ports Sockip CTT Manager 2 Telephony Ports Sockip CTT Manager 2 Telephony Ports Sockip CTT Manager 2 The Seckip CTT Manager 2 Telephony Ports Sockip CTT Manager 2 The Seckip CTT Manager 2 Telephony Ports Sockip CTT Manager 2 Telephony Ports Sockip CTT Manager 2 The Seckip CTT Manager 2 Seckip CTT Manager 2 Telephony Ports Seckip CTT Manager 2 Core Communications Managers Seckip CTT Manager 1 Seckip CTT Manager 1 Seckip CTT Manager 2 Secure Authentication String for Publisher ** Instance ID for Subscriber ** Secure Authentication String for Subscriber ** Secure Authentication String for Subscriber ** AXL Pearmanne AXL Pearmanne <th>CTI Manager User Name *</th> <th>CER</th> <th></th>	CTI Manager User Name *	CER						
Backup CTI Manager 1 10.1.61.159 Backup CTI Manager 2 Imager 2 Belgehony Ports 500 Wither of Telephony Ports 2 Secure Connection Parameters Imager 2 Enable Secure Connection ** Imager 2 TTP Server IP Address ** Imager 2 Secure Connection ** Imager 2 TTP Server IP Address ** Imager 2 CAPF Server IP Address ** Imager 2 CAPF Server IP Address ** Imager 2 Instance ID for Publisher** Imager 2 Secure Authentication String for Subscriber** Imager 2 AXL Settings Imager 2 AXL Pert Number B443	CTI Manager Password *	•••••	6 Cisco Emergency Responder Administration - Mazilla Firefox - D X					
Backup CTI Manager 2 Image: Comparison of Stars Service Connection Parameters Soo Elable Secure Connection ** 2 Image: Cisco Unified Communications Solutions Secure Connection ** Image: Cisco Unified Communications Managers Image: Cisco Unified Communications Managers TTP Server IP Address ** Image: Cisco Unified Communications Managers Image: Cisco Unified Communications Managers CAPF Server IP Address ** Image: Cisco Unified Communications Managers Image: Cisco Unified Communications Managers CAPF Server IP Address ** Image: Cisco Unified Communications Managers Image: Cisco U	BackUp CTI Manager 1	10.1.61.159						
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Number of Telephony Ports 2 Secure Connection Parameters Enable Secure Connection ** TTTP Server IP Address ** TTTP Server IP Address GAPF Server IP Address CAPF Server Part ** Instance ID for Publisher ** Secure Authentication String for Subscriber ** AXL Settings AXL Nemme AXL Port Number Baskup TAT Settings Settings	Telephony Port Begin Address	500	I. J. Cisco Emergency Responder Administration					
Secure Connection Parameters List of Cisco Unified Communications Managers Image: Cisco Unified Communications Manager TTTP Server IP Address ** 60 Image: Cisco Unified Communications Manager Ima	Number of Telephony Ports	2	CISCO For Cisco Unified Communications Solutions					
Enable Secure Connection ** TFTP Server IP Address ** TFTP Server IP Address ** CAPF Server IP Address ** CAPF Server Pot ** CAPF Server Pot ** Secure Authentication String for Publisher ** Natance ID for Subscriber ** Secure Authentication String for Subscriber ** AXL Settings- AXL Settings- AXL Port Number Bata String Secure Atta String Secure String	Secure Connection Parameters		List of Clean United Communications Managana					
TFTP Server IP Address ** TFTP Server Port ** Backup TFTP Server IP Address CAPF Server IP Address ** CAPF Server Port ** Instance ID for Publisher ** Secure Authentication String for Publisher ** Instance ID for Subscriber ** Secure Authentication String for Subscriber ** AXL Settings- AXL Settings- AXL Port Number Baseword SHMP Settings-	Enable Secure Connection **		List of Cisco Unified Communications Managers					
TFTP Server Pott** 69 Backup TFTP Server IP Address 10.1.61.158 CAPF Server IP Address ** 100.1.61.158 CAPF Server IP Address ** 100.1.61.158 CAPF Server Pott ** 300.4 Instance ID for Publisher ** 100.1.61.158 Secure Authentication String for Publisher ** 100.1.61.158 Instance ID for Subscriber ** 100.1.61.158 Secure Authentication String for Subscriber ** 100.1.61.158 AXL Persword 100.1.61.158 AXL Port Number 8443 Secure Sec	TFTP Server IP Address **		Cisco Unified Communications Manager					
Backup TFTP Server IP Address CAPF Server IP Address ** CODE CODE CODE CODE CODE CODE CODE CODE	TFTP Server Port **	69	10.1.61.159					
CAPF Server IP Address ** CAPF Server Port ** CAPF Server Port ** Cose Cose Cose Cose Cose Cose Cose Cose	Backup TFTP Server IP Address		10.1.61.158					
CAPF Server Port ** Instance ID for Publisher ** Secure Authentication String for Publisher ** Instance ID for Subscriber ** Secure Authentication String for Subscriber ** Secure Authentication String for Subscriber ** AXL Settings AXL Vername AXL Port Number B443 SNMP Settings	CAPF Server IP Address **		Close					
Instance ID for Publisher** Secure Authentication String for Publisher ** Instance ID for Subscriber ** Secure Authentication String for Subscriber** AXL Settings AXL Settings AXL Parsword AXL Por Number B443 SNMP Settings	CAPF Server Port **	3804						
Secure Authentication String for Publisher ** Instance ID for Subscriber ** Secure Authentication String for Subscriber** AXL Settings AXL Settings AXL Vername AXL Password AXL Port Number 8443 Test AXL Connectivity	Instance ID for Publisher**							
Instance ID for Subscriber ** Secure Authentication String for Subscriber* AXL Overname AXL Vaername AXL Password AXL Password AXL Port Number 8443 SNMP Settings	Secure Authentication String for Publisher **							
Secure Authentication String for Subscriber** AXL Settings AXL Vername AXL Vername AXL Password AXL Password AXL Port Number 8443 Test AXL Connectivity	Instance ID for Subscriber **							
AXL Settings AXL Viername AXL Viername AXL Viername AXL Password AXL Password AXL Port Number 8443 Test AXL Connectivity	Secure Authentication String for Subscriber**							
AXIL Userame administrator AXIL Password AXIL Password AXIL Port Number B443 Test AXIL Connectivity SNMP Settings	AXI. Settings							
AXL Password AXL Password AXL Port Number 8443 Test AXL Connectivity SNMP Settings	AXL Username	administrator						
AXL Port Number B443 Test AXL Connectivity SNMP Settings	AXL Password							
SNMP Settings	AXL Port Number	8443	Test AXL Connectivity					
ALLE ALLER .	c SNMP Settings							
Use SNMPV3 for discovery	Use SNMPV3 for discovery							

步驟2.若要確認是否按交換機埠跟蹤電話,請導航到CER Admin > ERL Membership > Switchport > Filter >, 然後點選Find。必須列出跟蹤的交換機IP地址和電話,如下圖所示。

Assign ERL to Selected Switch Ports Assign ERL Search ERL Edit Vie								
Switch IP Address		ERL Name	Switch IP Address	IfName	Location	Phone Extension	Phone IP Address	Phone Typ
■ 10.1.61.10								
			10.1.61.10	Gi0/1	View			
			10.1.61.10	Gi0/2	View			
			10.1.61.10	Gi0/3	View			
			10.1.61.10	Gi0/4	View			
			10.1.61.10	Gi0/S	View	100	10.1.61.24	Cisco 9971
2			10.1.61.10	Gi0/6	View			9
			10.1.61.10	Gi0/7	View			
			10.1.61.10	Gi0/8	View			
		ERL MEX	10.1.61.10	Gi0/9	View	103	10.1.61.12	Cisco 8945
			10.1.61.10	Gi0/10	View			
		ERL MEX	10.1.61.10	Gi0/11	<u>View</u>	107	10.1.61.16	Cisco 8945
			10.1.61.10	Gi0/12	View			
			10.1.61.10	Gi0/13	View			
			10.1.61.10	Gi0/14	View			

魣難排解

SNMP Walk版本3

為了確認CUCM和交換機都響應CER,您可以使用SNMP walk v3命令。建議的Object Identifier(OID)是1.3.6.1.2.1.1.2.0,如示例所示。

從CER到CUCM的SNMP walk第3版示例:

admin:utils snmp walk 3 Enter the user name:: cucmsnmpv3 Enter the authentication protocol [SHA]:: Enter the authentication protocol pass phrase:: ******* Enter the authentication protocol pass phrase:: ******* Enter the privacy protocol pass phrase:: ******* Enter the privacy protocol pass phrase:: ******* Enter the ip address of the Server, use 127.0.0.1 for localhost.Note that you need to provide the IP address, not the hostname.:: 10.1.61.158 The Object ID (OID):: 1.3.6.1.2.1.1.2.0 Enter parameter as "file" to log the output to a file. [nofile]:: This command may temporarily impact CPU performance. Continue (y/n)?y SNMPv2-MIB::sysObjectID.0 = OID: SNMPv2-SMI::enterprises.9.1.1348

從CER到交換機的SNMP walk版本3示例:

admin:utils snmp walk 3 Enter the user name:: cersnmpv3 Enter the authentication protocol [SHA]:: MD5 Enter the authentication protocol pass phrase:: ******* Enter the privacy protocol [AES128]:: DES Enter the privacy protocol pass phrase:: ****** Enter the ip address of the Server, use 127.0.0.1 for localhost.Note that you need to provide the IP address, not the hostname.:: 10.1.61.10 The Object ID (OID):: 1.3.6.1.2.1.1.2.0 Enter parameter as "file" to log the output to a file. [nofile]:: This command may temporarily impact CPU performance. Continue (y/n)?y SNMPv2-MIB::sysObjectID.0 = OID: SNMPv2-SMI::enterprises.9.1.2134

在CER中具有根訪問許可權的SNMP walk v3示例:

snmpwalk -v3 -u <User> -l authPriv -A <auth_password> -a [MD5/SHA] -x [DES/AES128] -X <Priv_password> IP_Device <OID> 其中: -u:是snmp v3使用者。 -l:是身份驗證模式[noAuthNoPriv|authNoPriv|authPriv]。 -A:是身份驗證密碼。 -a:是身份驗證協定[MD5|SHA]。 -x:是隱私協定[DES/AES128]。 -X:是隱私協定密碼。

輸出的範例如圖所示。

forfægengelvifiget fieldelt sagesit och en færenet i soldere å genvedt en NA e 20120 af genvedt 11.1.01.01.01.0.1.0.1.0.1.0.1.0.0 Referensesterensesteretter forfægengelvifiget 如果收到以下錯誤「從提供的隱私密碼短語生成金鑰(Ku)時出錯」,請嘗試使用以下語法:

snmpwalk -v3 -l authPriv -u <User> -a [MD5/SHA] -A <auth_password> -x [DES/AES128] -X <Priv_password> IP_Device <OID> 驗證返回的OID是否是您的版本CER發行說明中支援的裝置之一。

https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cer/11_5_1/english/release_notes/guide/CE R_BK_C838747F_00_cisco-emergency-responder-version-1151.html#CER0_CN_SE55891C_00

CER傳送到交換機的某些OID是:

- 1.3.6.1.2.1.1.1.0 sysDescr
- 1.3.6.1.2.1.1.2.0 sysObjectID
- 1.3.6.1.2.1.1.5.0 sysName
- 1.3.6.1.2.1.1.3.0 sysUpTime

CER傳送到CUCM的一些OID是:

- 1.3.6.1.4.1.9.9.156.1.1.2.1.7 ccmEntry/ ccmInetAddress
- 1.3.6.1.2.1.1.2.0 sysObjectID
- 1.3.6.1.4.1.9.9.156.1.1.2.1.2 ccmName

封包擷取

獲取資料包捕獲對於隔離電話跟蹤問題非常有用,這些是在CER中獲取資料包捕獲的步驟。

步驟1.使用utils network capture eth0 file ExampleName size all count 1000命令,通過CLI開始資料包捕獲,其中ExampleName是資料包捕獲的名稱。

步驟2.重現問題(發出911呼叫、SNMP漫遊、電話跟蹤更新等)。

步驟3.使用Ctrl+C停止封包擷取

步驟4.使用命令file list activivelog platform/cli/*確認資料包捕獲已儲存在CER中

步驟5.使用file get activelog platform/cli/ExampleName.cap 指令擷取封包擷取(需有SFTP伺服器 才能匯出檔案)。

啟用CER中的日誌

要在Emergency Responder Server中啟用日誌,請導航至CER Admin > System > Server Settings。啟用所有覈取方塊,不會對伺服器產生任何服務影響。

Server Settings For CERServerGroup

_ Status	
Ready	
-Select Server	
Publisher (primary)	
Subscriber(standby)	
Madife Comerce Cattings	
Sorver Name *	
Publisher	
Host Name mycerpubvicto	gut
Debug Package List Select All	Clear All
CER_DATABASE	CER_SYSADMIN
CER_REMOTEUPDATE	CER_TELEPHONY
CER_PHONETRACKINGENGINE	CER_AGGREGATOR
CER_ONSITEALERT	CER_GROUP
CER_CALLENGINE	CER_CLUSTER
CER_PROVIDER	CER_ACCESSPOINT
CER_AUDIT	CER_CREDENTIALPOLICY
Trace Package List Select All	Clear All
CER_DATABASE	CER_SYSADMIN
CER_REMOTEUPDATE	CER_TELEPHONY
CER_PHONETRACKINGENGINE	CER_AGGREGATOR
CER_ONSITEALERT	CER_GROUP
CER_CALLENGINE	CER_CLUSTER
CER_PROVIDER	CER_ACCESSPOINT
CER_AUDIT	CER_CREDENTIALPOLICY

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為了對交換機埠(CER > Admin > ERL成員資格> Switch Ports)中未顯示的交換機進行故障排除,必 須執行以下步驟:

- 1. 在Admin > Phone tracking > LAN Switch details中驗證配置。
- 2. 在Admin > Phone tracking > SNMP v2 / v3中驗證配置。
- 3. 驗證「Enable CAM based Phone Tracking」覈取方塊。如果是非Cisco交換機或CDP被禁用 ,請選中Enable CAM based Phone Tracking覈取方塊。
- 4. 驗證交換機上的SNMP配置。

5. 收集電話跟蹤日誌。

如果交換機埠顯示但電話沒有顯示,則必須執行以下步驟:

- 1. CER和通訊管理器上的SNMP配置。
- 2. 在Cisco Unified Communications Manager下確認IP/主機名。
- 3. 確認未顯示的電話是否屬於特定通訊管理器。
- 4. 確認已在群集中的所有CallManager節點上啟動兩個SNMP服務(SNMP主代理/CallManager SNMP服務)。
- 5. 通過SNMP walk確認CUCM的可達性。
- 6. 收集電話跟蹤日誌。

CER電話跟蹤日誌示例1:

305: Jun 30 12:05:17.385 EDT %CER-CER_PHONETRACKINGENGINE-7-DEBUG:SnmpSocketReader-47637:SnmpPrivacyParam encryptDESPrivParam Exception thrown while encrypting DES parameters :Cannot find any provider supporting DES/CBC/NoPadding

可能的原因:SNMPv3隱私資訊配置錯誤。

CER電話跟蹤日誌示例2:

Snmp exception while reading ccmVersion on <IP address CCM Node> 可能的原因: Cisco CallManager SNMP服務在某個CUCM節點中停用。

相關資訊

https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cer/11_5_1/english/administration/guide/CE R_BK_R00ED2C0_00_cisco-emergency-responder-administration-guide-1151/CER_BK_R00ED2C0_00_cisco-emergency-responder-administration-guide-1151_appendix_01101.html#CER0_RF_S51098E7_00

https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cer/10_0_1/english/administration/guide/CE R0_BK_CA66317A_00_cisco-emergency-responder-administration-10_0/CER0_BK_CA66317A_00_cisco-emergency-responder-administration-10_0_chapter_01100.pdf