配置裝置感測器以進行ISE分析

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簡介

本文檔介紹如何配置裝置感測器,以便在ISE上用於分析目的。

必要條件

需求

思科建議您瞭解以下主題:

- Radius通訊協定
- 思科發現協定(CDP)、鏈路層發現協定(LLDP)和動態主機配置協定(DHCP)
- 思科身分辨識服務引擎(ISE)
- Cisco Catalyst交換器2960

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- Cisco ISE版本1.3修補3
- Cisco Catalyst交換器2960s版本15.2(2a)E1
- Cisco IP電話8941版本SCCP 9-3-4-17

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。

背景資訊

裝置感測器是訪問裝置的一項功能。它允許收集有關已連線終端的資訊。大多數情況下,裝置感測 器收集的資訊可能來自以下協定:

- CDP
- LLDP
- DHCP



注意:在某些平台上,還可以使用H323、會話初始協定(SIP)、組播域解析(MDNS)或 HTTP協定。裝置感測器功能的配置可能因協定而異。示例在裝有03.07.02.E軟體的Cisco Catalyst 3850上提供。

收集資訊後,即可將其封裝在radius計量中並傳送到效能分析伺服器。在本文中,ISE用作分析伺服 器。

設定

步驟 1.標準AAA配置

要配置身份驗證、授權和記帳(AAA),請參閱以下步驟:

1. 使用aaa new-model命令啟用AAA,並在交換機上全局啟用802.1X。

2. 配置Radius伺服器並啟用動態授權(授權更改-CoA)。

3. 啟用CDP和LLDP協定。

4. 增加交換機埠身份驗證配置

```
!
aaa new-model
1
aaa authentication dot1x default group radius
aaa authorization network default group radius
aaa accounting update newinfo
aaa accounting dot1x default start-stop group radius
1
aaa server radius dynamic-author
client 1.1.1.1 server-key xyz
!
dot1x system-auth-control
1
lldp run
cdp run
!
interface GigabitEthernet1/0/13
description IP_Phone_8941_connected
switchport mode access
switchport voice vlan 101
authentication event fail action next-method
authentication host-mode multi-domain
authentication order dot1x mab
authentication priority dot1x mab
authentication port-control auto
mab
dot1x pae authenticator
dot1x timeout tx-period 2
spanning-tree portfast
```

end ! radius-server host 1.1.1.1 auth-port 1812 acct-port 1813 key xyz !



注意:在較新的軟體版本中,預設情況下啟用命令radius-server vsa send accounting。如果您看不到以記賬方式傳送的屬性 ,請確認指令是否已啟用。

步驟 2.配置裝置感測器

- LLDP SystemDescription屬性
- CDP CachePlatform屬性

alulu					
cisco Identity Services Engine		🏠 Home	Operations 🔻	Policy 🔻 Guest Acc	cess 🛛 🔻 Administration 🖡
🛃 Authentication 🛛 🧕 Authorization	🔣 Profi	ing 💽 Posture	😡 Client Provision	ning 🚊 TrustSec	🐴 Policy Elements
Authentication Authorization Profiling Cisco-IP-Phone-7940 Cisco-IP-Phone-7941 Cisco-IP-Phone-7942 Cisco-IP-Phone-7945 Cisco-IP-Phone-7945 Cisco-IP-Phone-7945 Cisco-IP-Phone-7960 Cisco-IP-Phone-7960 Cisco-IP-Phone-7961 Cisco-IP-Phone-7962 Cisco-IP-Phone-7962 Cisco-IP-Phone-7962 Cisco-IP-Phone-7962 Cisco-IP-Phone-7962 Cisco-IP-Phone-7962 Cisco-IP-Phone-7962 Cisco-IP-Phone-7962 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone-796 Cisco-IP-Phone	Profil P P P P P P	ing Posture Profiler Policy List > Cisco-IP-I Profiler Policy Polic * Minimum Certain * Except * Network Scan (NM/ Create an Identity Group for * Par * Associated Svs	Client Provision Phone-8941 * Name Cisco-IP-F y Enabled ty Factor 70 ion Action NONE AP) Action NONE the policy Yes, cr No, us rent Policy Cisco-IP-f CoA Type Global Se stem Type Cisco Pro	hing TrustSec hone-8941 reate matching Identity Group I Phone ttings vided	Policy Elements Description Policy for Cisco (Valid Range 1 to 65535)
Cisco IP-Phone-7970 Cisco-IP-Phone-7971 Cisco-IP-Phone-7975 Cisco-IP-Phone-7985 Cisco-IP-Phone-8831 Cisco-IP-Phone-8841 Cisco-IP-Phone-8851 Cisco-IP-Phone-8861 Cisco-IP-Phone-8941 Cisco-IP-Phone-8941 Cisco-IP-Phone-8945		Rules If Condition CiscolPPh If Condition CiscolPPh Save Reset	one8941Check1 one8941Check2	Conditions Detail	s × Phone8941Check2 or Cisco IP Phone 8941 IpSystemDescription INS Cisco IP Phone 8941

出於我們的目的,只需獲得其中一項就足夠了,因為這兩者均提供了增加70的確定性工廠,並且要求分析為Cisco-IP-Phone-8941的最 低確定性工廠為70:

cisco Identity Services Engine		🟠 Home	Operations 🗸	Policy 🔹 🧃	Guest Access 🔻	Administration
🛃 Authentication 🧕 Authorization	Refiling	💽 Posture	Client Provision	ning 🚊 T	TrustSec 🤞	B Policy Elements
Profiling	Profiler P Profile	olicy List > Cisco-IP- Policy	* Name Cisco-IP-P	hone-8941		Description Policy for Ci
Cisco-IP-Phone-7941	- - -	Polic * Minimum Certair * Except	inty Factor 70		(Valid	Range 1 to 65535)
Cisco-IP-Phone-7945 Cisco-IP-Phone-7945G Cisco-IP-Phone-7960 Cisco-IP-Phone-7961 Cisco-IP-Phone-7962 Cisco-IP-Phone-7965	Create a	* Network Scan (NM In Identity Group for * Par * Associated Sys	AP) Action NONE the policy Yes, cru No, use rent Policy Cisco-IP-P CoA Type Global Set stem Type Cisco Prov	eate matching Id e existing Identity rhone tings ided	tentity Group dentity Group hierarchy tentity tentity	/
Cisco-IP-Phone-7970 Cisco-IP-Phone-7971 Cisco-IP-Phone-7975 Cisco-IP-Phone-7985 Cisco-IP-Phone-8831 Cisco-IP-Phone-8841 Cisco-IP-Phone-8851	E If Co Save	ndition CiscolPPh ndition CiscolPPh Reset	one8941Check1 one8941Check2	◆ Then Cer ◆ Then Cer	rtainty Factor Incr rtainty Factor Incr	eases 70 eases 70
Cisco-IP-Phone-8861						



註:要分析為特定Cisco IP電話,您必須滿足所有父配置檔案的最低條件。這意味著分析器必須匹配思科裝置(最低確定 係數10)和思科IP電話(最低確定係數20)。即使效能評測器符合這兩個設定檔,它仍必須被評測為特定的Cisco IP電話 ,因為每個IP電話型號的最小確定性因子為70。裝置會指定給具有最高確定因數的設定檔。

2. 配置兩個過濾器清單-一個用於CDP,另一個用於LLDP。這些選項指示哪些屬性必須包含在Radius記帳消息中。此步驟是可選的。

3. 為CDP和LLDP建立兩個過濾器規格。在filter-spec中,您可以指示必須包括在記帳消息中或從中排除的屬性清單。在本範例中,包括下列屬性:

• CDP中的裝置名稱

來自LLDP的系統說明

如果需要,可以配置透過RADIUS傳輸到ISE的其他屬性。此步驟也是可選的。

4. 增加命令device-sensor notify all-changes。每當為當前會話增加、修改或刪除TLV時,它都會觸發更新。

5. 要實際傳送透過裝置感測器功能收集的資訊,您必須使用device-sensor accounting命令明確告知交換機完成此步驟。

! device-sensor filter-list cdp list cdp-list tlv name device-name

tlv name platform-type ! device-sensor filter-list lldp-list tlv name system-description ! device-sensor filter-spec lldp include list lldp-list device-sensor

步驟 3.在ISE上配置分析

1. 在Administration > Network Resources > Network Devices 中增加交換機作為網路裝置。在Authentication Settings:

cisco Identity Services Engine	Home Operations ▼ Policy ▼ Guest Access ▼ Administration ▼
🔆 System 🦉 Identity Management	Network Resources 🛛 🛃 Device Portal Management 🖓 pxGrid Services 🔂 Feed Service
Network Devices Network Device Groups	External RADIUS Servers RADIUS Server Sequences TrustSec AAA Servers NAC Managers
Network Devices	Network Devices List > deskswitch Network Devices * Name test_switch Description * IP Address: 1.1.1.1 / 32 Model Name * Software Version * * Network Device Group Location All Locations Set To Default
	Device Type All Device Types Set To Default Authentication Settings Enable Authentication Settings
	Protocol RADIUS
	* Shared Secret Show
	Enable KeyWrap 🔲 🕡
	* Key Encryption Key Show
	* Message Authenticator Code Key Show
	Key Input Format 💿 ASCII 🔵 HEXADECIMAL
	SNMP Settings
	Advanced TrustSec Settings
	Save Reset

2. 在Administration > System > Deployment > ISE node > Profiling Configuration中的效能分析節點上啟用Radius探測。如果所有PSN節點 都必須用於效能分析,請在所有PSN節點上啟用探測:

cisco Identity Services Engine	Administration ▼ Policy ▼ Guest Access ▼ Administration ▼
💀 System 🦉 Identity Management	Network Resources 🛛 🛃 Device Portal Management 🕞 pxGrid Services 🕞 Feed Service
Deployment Licensing Certificates	Logging Maintenance Backup & Restore Admin Access Settings
Deployment Image: Deployment Image: Deployment	Deployment Nodes List > ise13 Edit Node General Settings Profing Configuration NETFLOW DHCP DHCPSPAN HTTP V RADIUS Description The RADIUS probe colects well as CDP, LLDP, DHCP, HTTP and MDM from IOS Sensor. Network Scan (NMAP) DNS

3. 配置ISE身份驗證規則。在示例中,使用ISE上預配置的預設身份驗證規則:

cisco Identity Ser	vices Engine		🟠 Home	Operations 🛛 🔻	Policy 🔻	Guest Access	▼ Administration ▼
Authentication	o Authorization	🛃 Profiling	💽 Posture	🔊 Client Provisio	ning	🚍 TrustSec	🚯 Policy Elements

Authentication Policy

Define the Authentication Policy by selecting the protocols that ISE should use to communicate with the network devices, and the identity sources that it should use for authentication. For Policy Export go to Administration > System > Backup & Restore > Policy Export Page Policy Type \bigcirc Simple o Rule-Based



4. 配置ISE授權規則。使用「已分析的思科IP電話」規則,該規則在ISE上已預配置:

cisco Idei	ntity Services Engine		🟠 Home	Operations •	Policy •	Guest Access	 Administ 	ration 🔻	
💄 Authentica	tion 🥑 Authorization	🛃 Profiling	💽 Posture	Client Provision	ing 🧝	TrustSec	🔒 Policy Elem	ents	
Authorization	Authorization Policy								
Define the Authori	zation Policy by configuring rules ba	sed on identity gro	ups and/or other co	nditions. Drag and d	rop rules to cl	hange the order.			
First Matched Rul	First Matched Rule Applies *								
Exceptions	(0)								
Standard									
Status	Rule Name	Con	ditions (identity grou	ips and other conditi	ons)		Perr	nissions	
	Wireless Black List Default	if Bla	acklist AND Wireless	_Access			then	Blackhole_Wireless_Access	
	Profiled Cisco IP Phones	í Cis	co-IP-Phone				then	Cisco_IP_Phones	

驗證

要驗證分析是否工作正常,請參閱在ISE上使用Operations > Authentications:

aludu									T ,
cisco Ident	ty Services	Engine		🟠 Home 🛛 Operat	ions 🔹 Policy 🖛	Guest Access	Administration •		
Authenticatio	ns 📋	Reports	Endpoint Protection Ser	ice 💦 💊 Trouble	shoot				
Mis	configured Supp	licants (i)	м	configured Network Dev	rices (i)	RA	DIUS Drops (1)		Client Stopped Responding
	0			0			0		0
🚺 Show Live Sessions	🎡 Add or Rem	iove Columns	🝷 🍪 Refresh 🛛 😳 Reset Repeat Cou	its					Refresh
Time	▼ Status	Details R	Identity Endpoint ID	Endpoint Profile	Authentication Policy (Authorization Policy	Authorization Profiles	Identity Group	Event ()
2015-11-25 18:49:51	.737 🕕	0	20:88:C0:DE:06:/ 20:88:C0:DE:06:/	E Cisco-IP-Phone-894	1				Session State is Started
2015-11-25 18:49:42	.433 🔽	0	#ACSACL#-IP-PE						DACL Download Succeeded
2015-11-25 18:49:42	.417 🔽	0	20:88:C0:DE:06:/ 20:88:C0:DE:06:/	E Cisco-IP-Phone-894	1 Default >> MAB >> D	Default >> Profiled Cis	Cisco_IP_Phones	Cisco-IP-Phone	Authentication succeeded
2015-11-25 18:49:42	.401 🔽	0	20:88:C0:DE:06:/	E					Dynamic Authorization succeeded
2015-11-25 18:49:10	.802 🔽	ò	20:88:C0:DE:06:/ 20:88:C0:DE:06:/	E Cisco-Device	Default >> MAB >> D	Default >> Default	PermitAccess	Profiled	Authentication succeeded
2015-11-25 18:49:10	.780 🔽	ò	20:88:C0:DE:06:/	E					Dynamic Authorization succeeded
2015-11-25 18:49:00	.720 🔽	<u>o</u>	20:88:C0:DE:06:/ 20:88:C0:DE:06:/	E	Default >> MAB >> D	Default >> Default	PermitAccess		Authentication succeeded

首先,使用MAB (18:49:00)對裝置進行身份驗證。10秒後(18:49:10),它被重新存檔為Cisco-Device,最後在第一次身份驗證後的42秒 後(18:49:42),它接收了Cisco-IP-Phone-8941配置檔案。因此,ISE會返回特定於IP電話(Cisco_IP_Phones)的授權配置檔案和可下載 ACL,允許所有流量(permit ip any)。請注意,在此場景中,未知裝置具有基本的網路訪問許可權。這可以透過將Mac地址增加到 ISE內部終端資料庫或允許對以前未知的裝置進行非常基本的網路訪問來實現。



注意:在此示例中,初始分析大約需要40秒。在下次身份驗證時,ISE已經知道配置檔案,並且會立即應用正確的屬性 (加入語音域和DACL的許可權),除非ISE收到新的/更新的屬性,並且必須重新對裝置進行配置檔案。

cisco Identity Serv	vices Engine	<u>^</u>	Home Operations V Policy V	Guest Access	Elense wannig 🐴 T
Authentications	📋 Reports	Relation Service	Troubleshoot		
Misconfigured O	d Supplicants 🕧	Misco	nfigured Network Devices ① 0	RADIUS Drops ®	Client Stopped Respo 0
🔝 Show Live Sessions 🛛 🎡 Add	or Remove Column	s 🔻 🛞 Refresh 🛛 😨 Reset Repeat Counts			R
Time v Statu	us • Details R.	. Identity () Endpoint ID ()	Endpoint Profile Authentication Policy	I Authorization Policy I Authorization Profiles I I	dentity Group () Event ()
2015-11-25 18:55:39.772		0 20:BB:C0:DE:06:/ 20:BB:C0:DE:06:AE	Cisco-IP-Phone-8941		Session State is Started
2015-11-25 18:55:38.721	1	#ACSACL#-IP-PE			DACL Download Succeeded
2015-11-25 18:55:38.707	a 🔒	20:BB:C0:DE:06:/ 20:BB:C0:DE:06:AE	Cisco-IP-Phone-8941 Default >> MAB >> D.	. Default >> Profiled Cis Cisco_IP_Phones C	isco-IP-Phone Authentication succeeded
2015-11-25 18:49:42.433		#ACSACL#-IP-PE			DACL Download Succeeded
2015-11-25 18:49:42.417	a 🔒	20:88:C0:DE:06:/ 20:88:C0:DE:06:AE	Cisco-IP-Phone-8941 Default >> MAB >> D.	. Default >> Profiled Cis Cisco_IP_Phones C	isco-IP-Phone Authentication succeeded

在Administration > Identity Management > Identities > Endpoints > tested endpoint中,您可以看到Radius探測器收集了哪些型別的屬性及 其值:

cisco Identity Services Engine	🟠 Home	Operations V Policy V Guest Access V Administration V
🔆 System 🦉 Identity Management	📰 Network Resources 🛛 🛃 D	evice Portal Management 🛛 🙀 pxGrid Services 🛛 🙀 Feed Service
Identities Groups External Identity S	ources Identity Source Sequen	ces Settings
Identities		10 220 20 42
✓ admin	NAS-IP-Address	10.229.20.43
	NAS-Port	
	NAS-Port-Id	Gigabitethernet1/0/13
Endpoints	NAS-Port-Type	Etnernet
Latest Manual Network Scan Results	NetworkDeviceGroups	Location#All Locations, Device Type#All Device Types
	NetworkDeviceName	deskswitch
	OUI	Cisco Systems, Inc
	OriginalUserName	20bbc0de06ae
	PolicyVersion	2
	PostureApplicable	Yes
	PostureAssessmentStatus	NotApplicable
	SelectedAccessService	Default Network Access
	SelectedAuthenticationIdent	ityStores Internal Endpoints
	SelectedAuthorizationProfiles	Cisco_IP_Phones
	Service-Type	Call Check
	StaticAssignment	false
	StaticGroupAssignment	false
	StepData	5= Radius.Service-Type, 6= Radius.NAS-Port-Type, 7=MAB, 10=Intern
	Total Certainty Factor	210
	UseCase	Host Lookup
	User-Name	20-BB-C0-DE-06-AE
	UserType	Host
	cdpCachePlatform	Cisco IP Phone 8941
	cdpUndefined28	00:02:00
	IdpSystemDescription	Cisco IP Phone 8941, V3, SCCP 9-3-4-17

如您所觀察,在此場景中計算出的總確定性因子為210。它來自一個事實,即終端還匹配思科裝置配置檔案(總確定性因子為30)和 思科IP電話配置檔案(總確定性因子為40)。由於分析工具與配置檔案Cisco-IP-Phone-8941中的兩個條件匹配,因此此配置檔案的確 定性因子為140(根據分析策略,每個屬性為70)。總和:30+40+70+70=210。

步驟 1.驗證CDP/LLDP收集的資訊

switch#sh cdp neighbors g1/0/13 detail ------ Device ID: SEP20BBC0DE06AE Entry address(es): Platform: Cisco IP Phone 8941 , Capabil

switch# switch#sh lldp neighbors g1/0/13 detail

Chassis id: 0.0.0.0 Port id: 20BBC0DE06AE:P1 Port Description: SW Port System Name: SEP20BBC0DE06AE.

System Description: Cisco IP Phone 8941, V3, SCCP 9-3-4-17

Time remaining: 164 seconds System Capabilities: B,T Enabled Capabilities: B,T Management Addresses - not advertised Auto Negotiation - supported, enabled Physical media capabilities: 1000baseT(FD) 100base-TX(FD) 100base-TX(HD) 10base-T(HD) 10base-T(HD) Media Attachment Unit type: 16 Vlan ID: - not advertised

MED Information:

MED Codes: (NP) Network Policy, (LI) Location Identification (PS) Power Source Entity, (PD) Power Device (IN) Inventory

H/W revision: 3 F/W revision: 0.0.1.0 S/W revision: SCCP 9-3-4-17 Serial number: PUC17140FBO Manufacturer: Cisco Systems , Inc. Model: CP-8941 Capabilities: NP, PD, IN Device type: Endpoint Class III Network Policy(Voice): VLAN 101, tagged, Layer-2 priority: 0, DSCP: 0 Network Policy(Voice Signal): VLAN 101, tagged, Layer-2 priority: 3, DSCP: 24 PD device, Power source: Unknown, Power Priority: Unknown, Wattage: 3.8 Location - not advertised

Total entries displayed: 1

• 檢查交換器上驗證作業階段的狀態(必須成功):

piborowi#show authentication sessions int g1/0/13 details Interface: GigabitEthernet1/0/13 MAC Address: 20bb.c0de.06ae IPv6 Address: Unknown IPv4 A

• 檢查CDP和LLDP協定是否已啟用。檢查是否有任何與CDP/LLDP/等相關的非預設命令,以及這些命令如何影響從終端檢 索屬性

```
switch#sh running-config all | in cdp run
cdp run
switch#sh running-config all | in lldp run
lldp run
```

• 驗證您的終端是否支援CDP/LLDP/等,請在配置指南中進行驗證。

步驟 2.檢查裝置感測器快取

switch#show device-sensor cache interface g1/0/13 Device: 20bb.c0de.06ae on port GigabitEthernet1/0/13 ------ Proto

如果在此欄位中看不到任何資料或資訊不完整,請驗證「device-sensor」命令,特別是filter-lists和filter-specs。

步驟 3.檢查Radius記賬中是否存在屬性

可以在交換機上使用debug radius驗證或在交換機與ISE之間執行資料包捕獲。

Radius調試:

<#root>

Mar 30 05:34:58.716: RADIUS(00000000): Send Accounting-Request to 1.1.1.1:1813 id 1646/85, len 378 Mar 30 05:34:58.716: RADIUS: authenticator 1 cdp-tlv

= " Mar 30 05:34:58.716: RADIUS: Vendor, Cisco [26] 23 Mar 30 05:34:58.716: RADIUS: Cisco AVpair [1] 17
cdp-tlv

= " Mar 30 05:34:58.721: RADIUS: Vendor, Cisco [26] 59 Mar 30 05:34:58.721: RADIUS: Cisco AVpair [1] 53
lldp-tlv

資料包捕獲:

Filter:	radius.code==4	 Expression Clear App 	ly Save Filter Filter				
No	Time	Source	Destination	Protocol Le	nath Info		
	27 2015-11-25 21:51:52.233942	10, 229, 20, 43	10, 62, 145, 51	RADIUS	432 Accounting-Request(4)	(id=86.	1=390)
	77 2015-11-25 21:52:02.860652	10,229,20,43	10.62.145.51	RADIUS	333 Accounting-Request(4)	(id=87.	1=291)
					, , , , , , , , , , , , , , , , , , , ,		,
۰.					III		
🗄 Fra	ame 27: 432 bytes on wire (3456 bits), 432 by	tes captured (3456 bits))				
🗉 Eth	mernet II, Src: 58:f3:9c:6e:45:c3 (58:f3:9c:6	e:45:c3), Dst: 00:50:56	:9c:49:54 (00:50:56:9c:49:	54)			
🗉 Int	ernet Protocol Version 4, Src: 10.229.20.43	(10.229.20.43), Dst: 10.	62.145.51 (10.62.145.51)				
. Use	er Datagram Protocol, Src Port: 1646 (1646),	Dst Port: 1813 (1813)					
🗆 Rad	ius Protocol						
0	ode: Accounting-Request (4)						
F	Packet identifier: 0x56 (86)						
L	ength: 390						
4	Authenticator: 7008a6239a5f3ddbcee380d648c478	2d					
	The response to this request is in frame 28]						
	Attribute Value Pairs						
6	AVP: 1=40 t=Vendor-Specific(26) v=ciscoSyst	ems(9)					
- 1	USA: 1=34 t=Cisco-AVPair(1): cdp-tlv=\000	\006\000\024cisco IP Ph	one 8941				
E	AVP: 1=23 t=Vendor-Specific(26) v=ciscoSyst	ems(9)					
		\034\000\003\000\002\000	0				
6	AVP: 1=59 t=Vendor-Specific(26) v=ciscoSyst	ems(9)					
- L		0\006\000&cisco IP Phone	e 8941, V3, SCCP 9-3-4-17				
8	AVP: 1=19 t=User-Name(1): 20-BB-CO-DE-06-AE						
	AVP: 1=49 t=Vendor-Specific(26) v=ciscoSyst	ems(9)					
	AVP: 1=19 t=Vendor-Specific(26) v=ciscoSyst	ems(9)					
8	AVP: 1=18 t=Vendor-Specific(26) v=ciscoSyst	ems(9)					
8	AVP: 1=19 t=Called-Station-Id(30): F0-29-29	-49-67-0D					
6	AVP: 1=19 t=Calling-Station-Id(31): 20-BB-C	0-DE-06-AE					
	AVP: 1=6 t=NAS-IP-Address(4): 10.229.20.43						
8	<pre>AVP: l=6 t=NAS-Port(5): 60000</pre>						
8	AVP: 1=23 t=NAS-Port-Id(87): GigabitEtherne	t1/0/13					
6	AVP: 1=6 t=NAS-Port-Type(61): Ethernet(15)						
	AVP: 1=10 t=Acct-Session-Id(44): 00000018						
8	AVP: 1=6 t=Acct-Terminate-Cause(49): Unknow	in(0)					
8	AVP: 1=6 t=Acct-Status-Type(40): Stop(2)						
0	AVP: 1=6 t=Event-Timestamp(55): Mar 30, 201	1 07:37:53.00000000 Cer	ntral European Daylight Ti	me			
	AVP: 1=6 t=Acct-Session-Time(46): 175						
8	AVP: 1=6 t=Acct-Input-Octets(42): 544411						
8	AVP: 1=6 t=Acct-Output-Octets(43): 3214015						
8	AVP: 1=6 t=Acct-Input-Packets(47): 1706						
0	AVP: 1=6 t=Acct-Output-Packets(48): 35467						
8	AVP: 1=6 t=Acct-Delay-Time(41): 0						

步驟 4.驗證ISE上的分析器調試

如果屬性是從交換機傳送的,可以檢查它們是否在ISE上接收。要檢查此配置,請為正確的PSN節點(Administration > System > Logging > Debug Log Configuration > PSN > profiler > debug)啟用分析器調試,並再次執行終端身份驗證。

請查詢以下資訊:

• 調試指示radius探測功能已接收屬性:

<#root>

2015-11-25 19:29:53,641 DEBUG [RADIUSParser-1-thread-1][] cisco.profiler.probes.radius.RadiusParser -:::-MSG_CODE=[3002], VALID=[true], PRRT_TIMESTAMP=[2015-11-25 19:29:53.637 +00:00], ATTRS=[Device IP Address=10.229.20.43, RequestLatency=7, NetworkDeviceName=deskswitch, User-Name=20-BB-C0-DE-06-AE, NAS-IP-Address=10.229.20.43, NAS-Port=60000, Called-Station-ID=F0-29-29-49-67-0D, Calling-Station-ID=20-BB-C0-DE-06-AE, Acct-Status-Type=Interim-Update, Acct-Delay-Time=0, Acct-Input-Octets=362529, Acct-Output-Octets=2871426, Acct-Session-Id=00000016, Acct-Input-Packets=1138, Acct-Output-Packets=32272,

Event-Timestamp=1301458555, NAS-Port-Type=Ethernet, NAS-Port-Id=GigabitEthernet1/0/13,

cisco-av-pair=cdp-tlv=cdpCachePlatform=Cisco IP Phone 8941

cisco-av-pair=cdp-tlv=cdpUndefined28=00:02:00,

cisco-av-pair=lldp-tlv=lldpSystemDescription=Cisco IP Phone 8941\, V3\, SCCP 9-3-4-17,

cisco-av-pair=audit-session-id=0AE5182000002040099C216, cisco-av-pair=vlan-id=101, cisco-av-pair=method=mab, AcsSessionID=ise13/235487054/2511, SelectedAccessService=Default Network Acce Step=11004, Step=11017, Step=15049, Step=15008, Step=15004, Step=11005, NetworkDeviceGroups=Location#Al NetworkDeviceGroups=Device Type#All Device Types, Service-Type=Call Check, CPMSessionID=0AE51820000020 AllowedProtocolMatchedRule=MAB, Location=Location#All Locations, Device Type=Device Type#All Device Typ

• 值錯,指出已成功剖析屬性:

2015-11-25 19:29:53,642 DEBUG [RADIUSParser-1-thread-1][] cisco.profiler.probes.radius.RadiusParser -:::- Parsed IOS Sensor 1: cdpCachePlatform=[

<#root>

2015-11-25 19:29:53,643 DEBUG [forwarder-6][] cisco.profiler.infrastructure.probemgr.Forwarder -: 20:BB:C0:DE:06:AE:ProfilerCollection:- Endpoint A Attribute:cdpCachePlatform value:Cisco IP Phone 8941 Attribute:cdpUndefined28 value:00:02:00 Attribute: Attribute:SkipProfiling value:false



注意:轉發器將終端及其屬性資料儲存在思科ISE資料庫中,然後通知分析器您的網路中檢測到的新終端。分析器將終端 分類到終端身份組,並將具有匹配配置檔案的終端儲存在資料庫中。

步驟 5. 分析新屬性和裝置分配

通常,將新屬性增加到特定裝置的現有集合後,此裝置/終端會被增加到分析隊列,以檢查是否需要根據新屬性為其分配不同的配置 檔案:

<#root>

2015-11-25 19:29:53,646 DEBUG [EndpointHandlerWorker-6-31-thread-1][] cisco.profiler.infrastructure.profiling.ProfilerManager -:20:BB:C0:DE:06:AE:Profiling:-

Classify hierarchy 20:BB:C0:DE:06:AE

2015-11-25 19:29:53,656 DEBUG [EndpointHandlerWorker-6-31-thread-1][] cisco.profiler.infrastructure.profiling.ProfilerManager -: 20:BB:C0:DE:06:AE:Profiling:-

Policy Cisco-Device matched 20:BB:C0:DE:06:AE (certainty 30)

2015-11-25 19:29:53,659 DEBUG [EndpointHandlerWorker-6-31-thread-1][] cisco.profiler.infrastructure.profiling.ProfilerManager -: 20:BB:C0:DE:06:AE:Profiling:-

Policy Cisco-IP-Phone matched 20:BB:C0:DE:06:AE (certainty 40)

2015-11-25 19:29:53,663 DEBUG [EndpointHandlerWorker-6-31-thread-1][] cisco.profiler.infrastructure.profiling.ProfilerManager -: 20:BB:C0:DE:06:AE:Profiling:-

Policy Cisco-IP-Phone-8941 matched 20:BB:C0:DE:06:AE (certainty 140)

2015-11-25 19:29:53,663 DEBUG [EndpointHandlerWorker-6-31-thread-1][] cisco.profiler.infrastructure.profiling.ProfilerManager -: 20:BB:C0:DE:06:AE:Profiling:-

After analyzing policy hierarchy: Endpoint: 20:BB:C0:DE:06:AE EndpointPolicy:Cisco-IP-Phone-8941 for:21

相關資訊

- <u>https://www.cisco.com/c/en/us/solutions/enterprise/design-zone-security/index.html</u>
- https://www.cisco.com/en/US/docs/security/ise/1.0/user_guide/ise10_prof_pol.html
- 思科技術支援與下載

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)。