# 使用AMP和狀態服務配置ISE 2.1以威脅為中心的 NAC(TC-NAC)

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# 簡介

本文描述如何在身份服務引擎(ISE)2.1上配置具有高級惡意軟體防護(AMP)的以威脅為中心的 NAC。威脅嚴重性級別和漏洞評估結果可用於動態控制終端或使用者的訪問級別。安全評估服務也 將在本文檔中介紹。

**附註**:本文檔的目的是描述ISE 2.1與AMP的整合,說明我們從ISE調配AMP時需要安全評估 服務。

# 必要條件

思科建議您瞭解以下主題的基本知識:

- 思科身分識別服務引擎
- 高級惡意軟體防護

### 採用元件

本文中的資訊係根據以下軟體和硬體版本:

- 思科身分識別服務引擎版本2.1
- •無線區域網路控制器(WLC)8.0.121.0
- AnyConnect VPN客戶端4.2.02075
- Windows 7 Service Pack 1



網路圖表



#### 詳細流程

1.客戶端連線到網路,分配AMP\_Profile並將使用者重定向到Anyconnect調配門戶。如果在電腦上未 檢測到Anyconnect,則安裝所有配置的模組(VPN、AMP、安全狀態)。每個模組的配置與該配置 檔案一起推送

2.安裝Anyconnect後,運行狀態評估

3. AMP Enabler模組安裝FireAMP聯結器

4. 當客戶端嘗試下載惡意軟體時, AMP聯結器會拋出警告消息並將其報告給AMP雲

5. AMP雲將此資訊傳送到ISE

## 配置AMP雲

#### 步驟1.從AMP雲下載聯結器

若要下載聯結器,請導覽至Management > Download Connector。然後選擇type和**Download** FireAMP(Windows、Android、Mac、Linux)。 在這種情況下,選擇了**Audit**,並且選擇了FireAMP for Windows的安裝檔案。

AMP for End	DOINTS 1 detection	3 Installs Announcements & Supp (7 days)	oort ? Help 🏯 My Account 🔅 Log Out
Dashboard Analysis - Outbreak Cor	trol - Reports Management -	Accounts - Se	arch Q)
Download Connecto	or		
FireAMP Windows     No computers require updates	Audit Policy     Flash Scan on Install     Redistributable	🗰 FireAMP Mac	Audit Policy for FireAMP Mac     Flash Scan on Install
	Audit Policy for FireAMP Li     Flash Scan on Install	FireAMP Android	Show URL     Download     Default FireAMP Android
Show GPG Public Key	Show URL Download		Show URL Download

**附註**:下載此檔案會生成一個在示例中名為Audit\_FireAMPSetup.exe的.exe檔案。在使用者要求配置AMP後,此檔案被傳送到Web伺服器以供使用。

### 配置ISE

#### 步驟1.配置狀態策略和條件

導航到Policy > Policy Elements > Conditions > Posture > File Condition。您可以看到已建立了一 個簡單的檔案存在條件。如果端點要符合狀態模組驗證的策略,則檔案必須存在:

cisco Identity Services Engine	Home   Context	Visibility	▼ Policy	<ul> <li>Administration</li> </ul>	Work Centers
Authentication Authorization Profi	ling Posture Client	Provisioning  Policy Element	ents		
Dictionaries Conditions Result	ts				
G	Ella Conditions List a	The Condition			
Authentication	File Condition	File_Condition			
Authorization	* Name	File_Condition			
Profiling	Description				
✓ Posture	* Operating System	Windows All 💠			
Anti-Malware Condition	Compliance Module	Any version			
Anti-Spyware Condition	* File Type	FileExistence	•		
Anti-Virus Condition	* File Path	ABSOLUTE_PATH	*	C:\test.bd	0
Application Condition	<ul> <li>File Operator</li> </ul>	Exists	*		
Compound Condition	Saug Rocot				
Disk Encryption Condition	Jane Meser				
File Condition					
Patch Management Condition					
Registry Condition					
Service Condition					
USB Condition					
Dictionary Simple Condition					
Dictionary Compound Condition					
> Guest					
Common					

## 此條件用於需求 :

cisco	Identity	Services En	gine i	Home	Context Visibility	Operation	• •	Policy	Administratio	n 🔹 Work Cente	n			
Authen	tication	Authorization	Profiling	Posture	Client Provisioning	* Policy E	lements							
Diction	aries 1	Conditions	<ul> <li>Results</li> </ul>											
			•											
+ Auther	ntication			Require	ments									
				N	lame	Opera	ting Syst	iems	Com	pliance Module	Conditions	F	lemediatio	n Actions
+ Author	rization			Ar	v_AV_Installation_Win	for	Window	s Al	using	3.x or earlier	met if	ANY_av_win_inst	then	Message Text Only
+ Profile	10			- FI	e_Requirement		Window	s All		Any version		File_Condition		Message Text Only
				~	ny_AV_Definition_Win	for	Window	s All	using	3.x or earlier	met if	ANY_av_win_def	then	AnyAVDetRemediationWi n
· Postur	•			A	y_AM_Installation_Mac	for	Mac OS	ж	using	4.x or later	met if	ANY_am_mac_inst	then	Message Text Only
+ Rem	ediation	Actions		A	v_AS_Installation_Win	for	Window	s All	using	3.x or earlier	met if	ANY_as_win_inst	then	Message Text Only
Requi	rements			~	ty_AS_Definition_Win	for	Window	s All	using	3.x or earlier	met if	ANY_as_win_def	then	AnyASDefRemediationWi n
+ Client	Provisio	ning		Ar	v_AV_Installation_Mac	for	Mac OS	ж	using	3.x or earlier	met if	ANY_av_mac_inst	then	Message Text Only
				~	vy_AV_Definition_Mac	for	Mac OS	ж	using	3.x or earlier	met if	ANY_av_mac_def	then	AnyAVDetRemediationMa c
				A	v_AS_Installation_Mac	for	Mac OS	ж	using	3.x or earlier	met if	ANY_as_mac_inst	then	Message Text Only
				~	vy_AS_Definition_Mac	for	Mac OS	ж	using	3.x or earlier	met if	ANY_as_mac_def	then	AnyASDelRemediationMa c
				A	y_AM_Installation_Win	for	Window	s All	using	4.x or later	met if	ANY_am_win_inst	then	Message Text Only
				A	ny_AM_Definition_Win	for	Window	s All	using	4.x or later	met if	ANY_am_win_def	then	AnyAMDefRemediationWin
				A	ty_AM_Definition_Mac	for	Mac OS	×	using	4.x or later	met if	ANY_am_mac_def	then	AnyAMDefRemediationM ac
				u	SB_Block	for	Window	s Al	using	4.x or later	met if	USB_Check	then	USB_Block

此要求用於Microsoft Windows系統的終端安全評估策略:

ohah cisco	Identity	Services Engin	0 Home	Context Visibility	Operations      Policy	Administration	Work Centers	
Auth	entication	Authorization	Profiling Pos	ture Client Provisionin	g      Policy Elements			
Post	tre Polic	<b>y</b> Policy by configuring	rules based on op	serating system and/or other	conditions.			
٠								
	Status	Rule Name		Identity Groups	Operating Systems	Compliance Mod	le Other Conditions	Requirements
	2	Windows_Posture		Any	and Windows All	and Any version	and	then File_Requirement

#### 步驟2.配置狀態配置檔案

- 導航到Policy > Policy Elements > Results > Client Provisioning > Resources並新增網路准入 控制(NAC)代理或AnyConnect代理狀態配置檔案
- 選擇Anyconnect

cisco Identity Services Engine	Home  Context Visibility  Operations  Policy
Authentication Authorization Profiling	g Posture Client Provisioning   Policy Elements
Dictionaries Conditions Results	
Authentication	ISE Posture Agent Profile Settings > New Profile
Authorization	Posture Agent Profile Settings AnyConnect
▶ Profiling	* Name: AC Posture Profile Description:
▶ Posture	
- Client Provisioning	Agent Behavior
Resources	Parameter

• 在Posture Protocol部分新增\*以允許代理連線到所有伺服器

Posture Protocol

Parameter	Value	Notes	
PRA retransmission time	120 socs		
Discovery host			
Server name rules	•	need to be blank by default to force admin to enter a value. *** means agent will connect to all	

#### 步驟3.配置AMP配置檔案

AMP配置檔案包含Windows Installer所在位置的資訊。Windows Installer先前從AMP雲下載。它應該可以從客戶端電腦訪問。安裝程式所在的HTTPS伺服器的證書也應受客戶端電腦信任。

cisco	Identi	ty Services I	Engine	Home >	Context Visibility	<ul> <li>Operations</li> </ul>	▼ Policy	Administration	<ul> <li>Work Centers</li> </ul>
Authe	ntication	Authorizat	ion Profiling	Posture	Client Provisionin	Policy Elem	ients		
Diction	naries	Conditions							
> Autho	enticatio	on	G	AMP Enable	er Profile Settings > bler Profile	New Profile			
+ Autho	orizatio	n							
<ul> <li>Profil</li> </ul>	ing			D	* Name: AMP Pr Description:	ofile			
+ Postu	ure								
- Client	t Provis	ioning		Install AM	4P Enabler	Uninstall AMP	Enabler		
Reso	ources			Window	s Installer: https://	win2012ek.example	e.com/Downlo	ads/Audit_FireAMPSetu	p. Check Check
				Window	vs Settings				
				Add to 3	Start Menu 🗹				
				Add	to Desktop				
				Add to Cor	ntext Menu 🗹				
				Submit	Cancel				

步驟2.將應用和XML配置檔案上傳到ISE

- 從思科官方網站手動下載該應用: anyconnect-win-4.2.02075-k9.pkg
- 在ISE上,導航到Policy > Policy Elements > Results > Client Provisioning > Resources,並從 本地磁**盤新增代理資源**
- 選擇Cisco Provided Packages,然後選擇anyconnect-win-4.2.02075-k9.pkg

cisco Identity Services Engine	Home   Context Visibility	Operations      Policy      Adm	nistration + Work Centers		
Authentication Authorization Profiling	g Posture Client Provisioning	Policy Elements			
Dictionaries + Conditions + Results					
0					
Authentication	Agent Resources From Local De Agent Resources From L	sx > Agent Resources From Local Disk			
+ Authorization					
Profiling	Category	Cisco Provided Packages	<b>*</b> 0		
> Posture		Browse anyconnect-win-4.2.0	2075-k9.pkg		
- Client Provisioning					
Resources		* AnyConnect Uploaded Resource	5		
		Name -	Type	Version	Description
		AnyConnectDesktopWindows 4.2.207	AnyConnectDesktopWindows	4.2.2075.0	AnyConnect Secure Mobility Clien
	Submit Cancel				

- 導航到Policy > Policy Elements > Results > Client Provisioning > Resources,並從本地磁盤 新增代理資源
- 選擇Customer Created Packages,然後鍵入AnyConnect Profile。選擇 VPNDisable\_ServiceProfile.xml

cisco Identity Services Engine	Home   Context Visibility	Operations     Policy	Administration     Work Centers
Authentication Authorization Profili	ng Posture Client Provisioning	✓ Policy Elements	
Dictionaries Conditions Result	S		
Authentication     Authorization	Agent Resources From Local Disk Agent Resources From Loc	> Agent Resources From Loc cal Disk	al Disk
Profiling	Category	Customer Created Packages	• ()
Posture	Туре	AnyConnect Profile	*
Client Provisioning	* Name	VPNDisable ServiceProfile	
Resources			
	Description	Browse VPNDisable	e_ServiceProfile.xml
	Submit Cancel		

**附註**:VPNDisable\_ServiceProfile.xml用於隱藏VPN標題,因為此示例不使用VPN模組。以下 是VPNDisable\_ServiceProfile.xml的內容:

<AnyConnectProfile xmIns="<u>http://schemas.xmIsoap.org/encoding/"</u> xmIns:xsi="<u>http://www.w3.org/2001/XMLSchema-instance"</u> xsi:schemaLocation="<u>http://schemas.xmIsoap.org/encoding/</u> AnyConnectProfile.xsd"> <客戶端初始化> <ServiceDisable>true</ServiceDisable> </ClientInitialization> </AnyConnectProfile>

#### 步驟3.下載AnyConnect合規性模組

- 導航到Policy > Policy Elements > Results > Client Provisioning > Resources,然後從Cisco站 **點新增代理資源**
- 選擇AnyConnect Windows Compliance Module 3.6.10591.2, 然後按一下Save

#### **Download Remote Resources**

	Name 🔺	Description
	AgentCustomizationPackage 1.1.1.6	This is the NACAgent Customization Package v1.1.1.6 for Windows
	AnyConnectComplianceModuleOSX 3.6.10591.2	AnyConnect OS X Compliance Module 3.6.10591.2
✓	AnyConnectComplianceModuleWindows 3.6.10591.2	AnyConnect Windows Compliance Module 3.6.10591.2
	ComplianceModule 3.6.10591.2	NACAgent ComplianceModule v3.6.10591.2 for Windows
	MACComplianceModule 3.6.10591.2	MACAgent ComplianceModule v3.6.10591.2 for MAC OSX
	MacOsXAgent 4.9.0.1006	NAC Posture Agent for Mac OSX (ISE 1.2 release)
	MacOsXAgent 4.9.0.1007	NAC Posture Agent for Mac OSX v4.9.0.1007 (with CM 3.6.7873.2)- ISE
	MacOsXAgent 4.9.0.655	NAC Posture Agent for Mac OSX (ISE 1.1.1 or later)
	MacOsXAgent 4.9.0.661	NAC Posture Agent for Mac OS X v4.9.0.661 with CM v3.5.7371.2 (ISE
	MacOsXAgent 4.9.4.3	NAC Posture Agent for Mac OSX v4.9.4.3 - ISE 1.2 , ISE 1.1.3 and Abov
	MacOsXAgent 4.9.5.3	NAC Posture Agent for Mac OSX v4.9.5.3 - ISE 1.2 Patch 12, ISE 1.3 rele
	MacOsXSPWizard 1.0.0.18	Supplicant Provisioning Wizard for Mac OsX 1.0.0.18 (ISE 1.1.3 Release)
	MacOsXSPWizard 1.0.0.21	Supplicant Provisioning Wizard for Mac OsX 1.0.0.21 (for ISE 1.2 release
	MacOsXSPWizard 1.0.0.27	Supplicant Provisioning Wizard for Mac OsX 1.0.0.27 (for ISE 1.2 release
	MacOsXSPWizard 1.0.0.29	Supplicant Provisioning Wizard for Mac OsX 1.0.0.29 (for ISE 1.2 release
	MacOsXSPWizard 1.0.0.30	Supplicant Provisioning Wizard for Mac OsX 1.0.0.30 (for ISE 1.2 Patch
	MasOnWEDMEssed 1 0 0 26	Cumuliaant Depuisioning Wigned for Mag OrV 1 0 0 26 (for ISE 1 2 1 Data)

For AnyConnect software, please download from http://cisco.com/go/anyconnect. Use the "Agent resource from local disk" add option, to import into ISE

Save Cancel

#### 步驟4.新增AnyConnect配置

- 導航到Policy > Policy Elements > Results > Client Provisioning > Resources,然後新增 AnyConnect Configuration
- •配置名稱並選擇合規性模組和所有所需的AnyConnect模組(VPN、AMP和安全狀態)
- 在**設定檔選擇**中,選擇之前為每個模組設定的設定檔



#### 步驟5.配置客戶端調配規則

在客戶端調配規則中引用之前建立**的AnyConnect配**置

cisco	Identity	Services Engin	10 Hor	mo •	Context Visibility	Operations	* Policy	Administration	Work Centers		
Auth	entication	Authorization	Profiling	Posture	Client Provisioning	Policy Elem	ents				
Client Define t For Age For Nat	lient Provisioning Policy efine the Client Provisioning Policy to determine what users will receive upon login and user session initiation: or Agent Configuration: version of agent, agent profile, agent compliance module, and/or agent customization package. or Native Supplicant Configuration: wizard profile and/or wizard. Drag and drop rules to change the order.										
٠											
		Rule Name		ld	dentity Groups	Operating Sys	items	Other Condition	6		Results
1	<b>2</b> \	Mindows_Posture	_AMP	1 A	kny and	Windows All	1	and Condition(s)		then	AnyConnect Configuration AMP

#### 步驟6.配置授權策略

首先,重定向到客戶端調配門戶。使用安全狀態的標準授權策略。

-thete Identity Services Engine	Home   Context Visibility   Operations   Policy   Administration   Work Centers
Authentication Authorization Pr	Alling Posture Client Provisioning   Policy Elements
Dictionaries Conditions Ret	ults
	0
Authentication	Authorization Profile
* Authorization	*Name AMD Durfin
- Automation	
Authorization Profiles	Description
Downloadable ACLs	ACCESS_ACCEPT T
Profiling	Network Device Profile dtt Cisco 💌 🕀
Posture	Service Template
Client Provisioning	Track Movement
	Passive Identity Tracking
	Common Tasks
	Web Redirection (CWA, MDM, NSP, CPP) ①
	Client Provisioning (Posture)  ACL ACL_WEBAUTH_REDIRECT Value Client Provisioning Portal (defa +
	Display Certificates Renewal Message
	State IPMost name/EODN
	Advanced Attributes Settings
	Select an item

之後,一旦符合要求,就會分配完全訪問許可權

ice Ider	tity Services Engine	9 Home	<ul> <li>Context Visibility</li> </ul>	Operations      Policy	<ul> <li>Administration</li> </ul>	<ul> <li>Work Centers</li> </ul>	
uthentica	tion Authorization	Profiling Po	osture Client Provisionin	ng Policy Elements			
thoriza	tion Policy						
ine the A Policy E	uthorization Policy by o sport go to Administration	onfiguring rules on > System > E	based on identity groups a lackup & Restore > Policy	ind/or other conditions. Drag an Export Page	d drop rules to change	the order.	
st Match	ed Rule Applies	*					
Except	tions (1)						
Standar	đ						
Stat	us Rule Name		Conditions	(identity groups and other cond	sitions)		Permissions
2	Wireless Black L	ist Default	i Blacklist /	ND Wreless_Access		then	Blackhole_Wireless_Access
	Profiled Cisco IP	Phones	/ Cisco-IP-P	hone		then	Cisco_IP_Phones
	Profiled Non Cis	co IP Phones	i Non_Cisco	Profiled_Phones		then	Non_Cisco_IP_Phones
2. 🖸	Compliant_Devic	ces_Access	ii (Network)	Access_Authentication_Passed	AND Compliant_Devic	then	PermitAccess
1. 🗹	Non_Compliant_	Devices_Acces	s // Session:Po	ostureStatus NOT_EQUALS Co	mpliant	then	AMP_Profile
0	Employee_EAP-	TLS	I (Wireless_) MAC_in_S	802.1X AND BYOD_is_Registe AN )	red AND EAP-TLS AN	D then	PermitAccess AND BYOD
0	Employee_Onbo	arding	i (Wireless_)	802.1X AND EAP-MSCHAPv2		then	NSP_Onboard AND BYOD
	WI-FI_Guest_Ao	cess	if (Guest_Flo	w AND Wireless_MAB )		then	PermitAccess AND Guests
	WI-FI_Redirect_1	to_Guest_Login	if Wireless_N	MAB		then	Cisco_WebAuth
	Basic_Authentic	ated_Access	I Network_A	coess_Authentication_Passed		then	VA_Scan
	Default		if no matches,	then DenyAccess			

## 步驟7.啟用TC-NAC服務

在管理>部署>編輯節點下啟用TC-NAC服務。選中**啟用以威脅為中心的NAC服務**覈取方塊。

Deployment Nodes List > ISE21-3ek	
General Settings Profiling Configuration	
Hostname TSF21-3ek	
FODN ISE21-3ek.examp	e.com
IP Address 10.62.145.25	
Node Type Identity Services I	Engine (ISE)
Personas	
Administration	Role STANDALONE Make Primary
V Monitoring	Personas           Role         PRIMARY           Other Monitoring Node
Policy Service	
C Enable Session Services	Include Node in Node Group None *
C Enable Profiling Service	
Enable Threat Centric NAC Service	<sup>(1)</sup>

導航到Administration > Threat Centric NAC > Third Party Vendors > Add。按一下Save

dentity Ser	vices Engine	Home	Context Visibility	<ul> <li>Operations</li> </ul>	Policy	▼ Administratio	n 🕨	Work Centers		
System Iden	ntity Management	Network F	Resources + Devi	ce Portal Management	pxGrid S	ervices + Feed	d Service	PassiveID	Threat Centric NAC     ■	
Third Party Vendors	3									
Vendor Instances a Input fields marked	> New d with an asterisk (*)	are required.								
	Vendor • AMP :	THREAT				Ŧ				
Instance	Name AMP	THREAT								
				C	ancel	ave				

## 它應過渡到Ready to Configure狀態。按一下Ready to Configure

disco Ide	entity Services Engine	Home Context	Visibility • Op	erations   Policy	* Administration	Work Centers	
<ul> <li>System</li> </ul>	n Identity Management	Network Resources	Device Portal	Management pxGrid S	ervices + Feed Ser	vice + PassiveID -	Threat Centric N
Third Party Vendors							
Vendor 0 Select	r Instances ted fresh + Add ⊜Trash •	• & Edit				▼ Filter •	0-
	Instance Name	Vendor Na	Туре	Hostname	Conne	ctivity Status	
0	Instance Name QualysVA	Vendor Na Qualys	Type VA	Hostname qualysguard.qg2.apps.r	Qualys.com Connec	ted Active	

## 選擇Cloud,然後按一下Next

cisco	Identity Services Engine	Home	Contex	t Visibility	<ul> <li>Operations</li> </ul>	Policy	▼ Ad	ministration	•	Work Centers	
<ul> <li>Syst</li> </ul>	em Identity Management	Network R	lesources	+ Device	Portal Management	pxGrid Se	rvices	Feed Serv	rice	PassiveID	Threat Centric NAC     ■
Third F	Party Vendors										
Vend	or instances > AMP										
Clo	ud										
US	S Cloud						Ŧ				
Wh	ich public cloud would you like to	connect to			Can	zel Next					

按一下FireAMP連結並在FireAMP中以admin身份登入。



## 在Applications面板中按一下Allow以授權流事件匯出請求。執行此操作後,您將重定向回思科ISE

Analysis • Outbreak Control • Reports Management	Accounts      Search
pplications the AMP Adaptor 62f6204b-751f-4ef5-9d93-e9f02500d842 (IRI tefense Center with URL of https://ise21-3ek.example.com/admii fapi/62f6204b-751f-4ef5-9d93-e9f02500d842/authorize, is equesting the following authorizations: Streaming event export. Allow Deny	Applications external to FireAMP, such as Sourcefire's Defense Center, can be authorized to access your business' data. Here an application is asking for your authorization to gain access to some specific services. Review the requested authorizations and approve or deny the request as appropriate. Deny the request if you don't recognize the application or you did not initiate this request for integration from the application. Authorization can always be revoked at a later time from the FireAMP web console, and the application completely deregistered from the system.
vent Export Groups All groups select you are going to authorize the request, please select which roups will have their events exported to this application:	ed.
went Export Groups All groups select you are going to authorize the request, please select which roups will have their events exported to this application:	ed. Search Groups
went Export Groups All groups select you are going to authorize the request, please select which roups will have their events exported to this application:	ed. Search Groups Audit Audit Group for Cisco - ekorneyc
vent Export Groups All groups select you are going to authorize the request, please select which roups will have their events exported to this application:	ed.          Search Groups         Audit         Audit Group for Cisco - ekorneyc         Domain Controller         Domain Controller Group for Cisco - ekorneyc
Vent Export Groups All groups select you are going to authorize the request, please select which roups will have their events exported to this application:	ed. Search Groups Audit Audit Group for Cisco - ekomeyc Domain Controller Domain Controller Group for Cisco - ekomeyc Protect Protect Protect Group for Cisco - ekomeyc
Vent Export Groups All groups select you are going to authorize the request, please select which roups will have their events exported to this application:	ed.          Search Groups         Audit         Audit Group for Cisco - ekorneyc         Domain Controller         Domain Controller         Domain Controller         Protect         Protect Group for Cisco - ekorneyc         Server         Server         Server Group for Cisco - ekorneyc

選擇要監控的事件(例如,可疑下載、與可疑域的連線、執行的惡意軟體、Java危害)。介面卡例 項配置的摘要顯示在配置摘要頁面中。介面卡例項轉變為「已連線/活動」狀態。

dentity Services Engine	Home	sibility	Policy     Administration	Work Centers	
System Identity Management	Network Resources	Device Portal Manageme	nt pxGrid Services + Feed Se	rvice PassiveID	Threat Centric NAC     ■
Third Party Vendors					
Vendor Instances 0 Selected C Refresh + Add Trash	• G' Edit				T Filter - O-
Instance Name	Vendor Name	Туре	Hostname	Connectivity	Status
AMP_THREAT	AMP	THREAT	https://api.amp.sourcefire.com	Connected	Active
QUALYS_VA	Qualys	VA	qualysguard.qg2.apps.qualys.com	Connected	Active

# 驗證

## 終端

通過PEAP(MSCHAPv2)連線到無線網路。

Windows Security	<b>—</b>
Network Authentication Please enter user credentials	
alice	
	OK Cancel

連線到客戶端調配門戶之後。



由於客戶端電腦上未安裝任何內容,因此ISE會提示AnyConnect客戶端安裝。



應從客戶端電腦下載並運行網路設定助理(NSA)應用程式。



#### NSA負責安裝所需的元件和配置檔案。

Network Setup Assistant					
nhuhu cisco	Trusted and Secure Connection You are connected to ISE21-3ek.example.com				
	whose identity has been certified. Your connection to this website is encrypted. Connect Cancel (c) 2014 Cisco Systems, Inc. Cisco, Cisco Systems and Cisco Systems logo are registered trademarks of Cisco Systems, Inc and/or its affiliates in the U.S. and certain other countries.				





安裝完成後,AnyConnect狀態模組將執行合規性檢查。

🕙 Cisco AnyC	onnect Secure Mobility Client	
	<b>System Scan:</b> Searching for policy server. This could take up to 30 seconds.	
	AMP Enabler: Downloading AMP for Endpoints	
<b>\$</b> ()		citado cisco
S Cisco AnyCo	onnect Secure Mobility Client	
	Scanning system 10%	
<b>1</b>	AMP Enabler: Downloading AMP for Endpoints	
A O		ahaha

當提供完全訪問許可權時,如果終端符合要求,則從AMP配置檔案中前面指定的Web伺服器下載並 安裝AMP。



AMP聯結器顯示。

SOURCE					
	Scan	Now			
	History				
	Jett	ingo			
	Status: Scanned: Policy:	Connected 6/30/2016 5:07:27 Audit Policy	PM		
			About		

要測試AMP的實際應用,需要下載zip檔案中包含的Eicar字串。檢測到威脅並將其報告給AMP雲。

Opening eicar_com.zip	II not provide any help to remove these files
You have chosen to open:	V scanner to seek such help.
icar_com.zip	
which is: Compressed (zipped) Folder (184 bytes) from: https://secure.eicar.org	
What should Firefox do with this file?	
Open with Windows Explorer (default)	eicarcom2.zip
⊙ Şave File	300 01(5)
Do this <u>a</u> utomatically for files like this from now on.	eicarcom2.zip 308 Bytes
OK Cancel	SOURCE
We understand (from the many emails we receive) that it might be o	ifficult for you to Warning!
After all, your scanner believes it is a virus infected file and does not must refer to our standard answer concerning support for the test fi	allow you to acce
will not provide AV scanner specific support. The best source to get s which you purchased.	uch information f swi9880a.zip.part has been detected as W32.EICAR.16g1.
Please contact the support people of your vendor. They have the req	uired expertise to
Needless to say that you should have read the user's manual first be	ore contacting th
	G 2 of 2 O

## AMP雲端

驗證可以使用AMP雲威脅控制面板的詳細資訊。

cisco AMP for Ends	points selections (	Installs Announcements & Support 7 days)	7 Help 🛔 My Account	t+ Log Out
Dashboard Analysis - Outbreak Cor	trol - Reports Management -	Accounts - Search	1	Q)
Dashboard			Group Filter Select	Groups -
Overview Events Heat Map				Refresh Al 🗌 🗆 Auto Refresh 🛛 🕶
Indications of Compromise	Hosts Detecting Malware (7	days)	Hosts Detecting Net	vork Threats (7 days)
ekomeyo-PC.example.com 0 * Mark Resolved	Computer	Count	Computer	Count
Threat Detected	ekorneyc-PC.example.com	4		twork threat detections to display:
	HARISHA-PC.example.com	,		
	Malware Threats (7 days)		Network Threats (7 d	aya)
	Detection Name	Count	Remote IP	Count
	W32.EICAR.16g1	5		twork threat detections to display.

## 要獲取有關威脅、檔案路徑和指紋的詳細資訊,可以按一下檢測到惡意軟體的主機。

	cisco AMP for E	Altestats Announcements & Support 7 Help & My Account (# Log Out 5 detections (7 days)					
	Dashboard Analysis - Outb	sak Control - Reports Management - Accounts - (Search Q)					
Overview Events	Heat Map						
E Filter: (New)	Ð	Sel	ect a Filter				
Event Type	Threat Detected	+ Group All Groups	+				
Filters	Computer: e8e02e6a-a885-47ba-aeec-2a	03bea4241					
Sort	Time 🗘	Not Subscribed •	Reset Sove filter as				
ekorneyc-PC.ex	ample.com detected 0M90PRx0.zlp.pa	t as W32_EICAR.16g1 BY QY C. Quarantine: Not Seen	2016-06-30 16:27:30 UTC				
File Detection	Detection	T W32.DCAR.16g1					
Connector Info	Fingerprint (SHA-256)	Y 2546dcff6e9eedad 0 *					
Comments	Flename	Y 0M90PRx0.zip.part					
	Flepath	C1Users/admin/AppData/Local/Temp/0M90PRx0.zip.part					
	File Size (bytes) 184						
	Parent Fingerprint (SHA-256)	¥ 3147bld832dx89c2 0 -					
	Parent Filename	T firefox.exe					

# 要檢視或註銷ISE例項,您可以導航到Accounts > Applications

AMP for Endpoints	Installs 7 days) Announcements & Support ? Help 🍐 My Account (+ Log Out				
Dashboard Analysis - Outbreak Control - Reports Management -	Accounts • Search Q				
Applications	These are applications external to FireAMP, such as Sourcefire's Defense Center, that you have authorized to access your business' data.				
AMP Adaptor 4d4047dc-4791-477d-955f-6a0f182ae65b	Here you can deauthorize registered applications, thus revoking their access to specific functionality, or you can deregister the applications, thus deauthorizing them and completely removing them from the FireAMP system.				
AMP Adaptor fe80e16e-cde8-4d7f-a836-545416ae56f4 IRF	You can currently authorize Defense Center appliances to receive streaming FireAMP events for integration with the Defense Center.				

在ISE本身上看到常規狀態流程,首先進行重定向以檢查網路合規性。只要終端符合要求,就會傳送CoA Reauth並分配具有PermitAccess的新配置檔案。

the loss	ly Services Engine	Home + Cor	must Visibility	* Operations	+ Policy	+ Administration	+ Work Cert	878							License W	iuming 📥
* RADIUS	TO-NAC Live Logs	NCACS Report	<ul> <li>Troublesho</li> </ul>	HE + Adaptive	Network Contr	çi										
Live Logs	Live Sessions															
		Macorfigured	Supplicants O		Maconfig	ured Network Dev	toes O		RAD	US Drops Ø	Client Stopped Responds			Pepeat	Counter Ø	
		0	)			0				14	3				0	
												Refresh	Every 1 minute	• Stow	Latest 20 records	·w
C Retreat	O Reset Repeat Cov	na Z Export To -														
Time		Status	Details	Repeat	klentity	En	Di Inioq		Endpoint P	Authentication Policy	Authorization Policy	Alte	vization Profiles		IP Address	
*			3		Identity	0	44.0014.80.48	×	Endpoint Prof.	Authentication Policy	Authorization Policy	Am	visation Profiles		P Address	-
20.20	2016 05:50 18.728 PM	•	a.		-	CD-	4.0014 80.48		Wedges?	Default to Dott X to Default	Default >=> Compliant_Devices_A.	Permi	Access		10.62.148.26	
Jun 30	2018 05:49:25:479 PM		0		alce	CD-	84.00.14.8D.48		Windows?	Default >> Dott X >> Default	Default >> Compliant, Devices, A.	Parts	Access			
Jun 30	2016 05:49:34:437 PM					GB	4.0014.80.48									
Jun 30	2014 05:42:56:506 PM				alce	08	A001480.48		Windows?	Default >> Dot1X >> Default	Default >> Non_Compliant_Devic.	AMP.)	Profile			

要檢視檢測到的威脅,您可以導航到Context Visibility > Endpoints > Compressed Endpoints

olarda Ciacle	Identity Service	s Engine	Home •0	Context Visibility	Operations	Policy	Administration	• Work Centers			License Warning 🔺 👘
End	points Network D	Devices									
	Authentication	BYOD	Compliance	Compromised 8	indpoints Er	dpoint Classificat	tion Guest	Vulnerable Endpo	ints		
							_				
	COMPROM	SED ENDP	OINTS BY	INCIDENTS			CC	OMPROMISED	ENDPOINTS B	Y INDICATORS	
	At endpoints CE	nnected Discor	nected				A1+	ndpoints Connected	Disconnected		
				_							
	Unknown	Insignificar	t Distracti	ng Painful	Demaging	Catastrophi	6	Unknown	None	Low Medium	n High
			IM	PACT LEVEL					LIKE	LY IMPACT LEVEL	
										Rows/Page 2 •	< <u>1 ₿</u> /1 ⊨ H
\$	Refresh + Ac	id 🔋 Trash =	<b>G</b> Edit	ANC - Chang	e Authorizaton +	Clear Threat	& Vulnerabilities	Export * Import	<ul> <li>MOM Actions +</li> </ul>	Revoke Certificate	
	MAC Addres	s IF Us	imame	IPv4 Add	iress	Threats	Source	т	hreat Severity	Logical NAD Location	Connectivity
×	MAC Address					Threats	Source	•	Threat Severity		Connectivity
	C0:4A:00.14	180:48 alo	0	10.62.148	.26	Threat Detected	AMP	P	simful	Location#All Locations	Connected

如果選擇終端並導航到Threat頁籤,將顯示更多詳細資訊。

dentity	Services Engine	Home	▼Context Visibility	<ul> <li>Operations</li> </ul>	Policy	Administration	<ul> <li>Work Centers</li> </ul>	
Endpoints I	Network Devices							
Endpoints >	C0:4A:00:14:8D:4B							
C0:4A:0	0:14:8D:4B	ØØ	8					
Attrik	MAC Address: C0:4A:00:14:8D:4B Username: alice Endpoint Profile: Windows7-Workstation Current IP Address: 10.62.148.26 Location: Attributes Authentication Threats Vulnerabilities							
Threat Dete	octed							
Type:	Type: INCIDENT							
Severity:	Severity: Painful							
Reported by	Reported by: AMP							
Reported at:	2016-06-30 11:27:4	8						

當檢測到終端的威脅事件時,您可以在「受危害的終端」頁面上選擇終端的MAC地址並應用ANC策略(如果已配置,例如隔離)。 或者,您可以發出「更改授權」以終止會話。

there identity Services Engine Home Context Vo	ability + Operations + Policy + Admin	North Conten						License
Endports Network Devices								
Authentication BYDD Compliance Comp	romised Endpoints Endpoint Classification	Quest Vulnerable 8	Indpoints					
COMPROMISED ENDPOINTS BY INCID At experts   Consolid   Decencied	ENTS	COMPROMIS At angleinis   Care	ED ENDPOINTS B	Y INDICATORS				
Unknown Insignificant Distracting MPACT LP	Deends Demograp Catalographic VEL	Unknown	None LN2	Lear Media LY MARKET LEVEL	n Ha			
1 Selected							Rows/Page	5 M H H H
Chefrein + Add BTresh - GEBR ANC -	Change Authorization = Clear Threads & Vulne	erabilities Export * im	MOM Actions *	Revoke Certificate				
O MAC Address Username I	CoA Session Results	Source	Threat Severity	Logical NAD Location	Connectivity	Hostname	Identity Group	Endpoint OS
× MAC ADDress	CoA Session Terminate	Dourse	Treat Severity		Connectivity			
O 24.77.50.30 CF 20 NostWildev-PC ava	CoA SAnet Session Query CoA Sanet Session Query	AMP	Paintul	Location#All Locations	Deconnected		Workstation	
CO-44.0014 (SD-48) allow	CoA Session termination with port shuldown	AMP	Pantul	Location#All Locations	Connected		Workstation	

如果選擇了CoA Session Terminate,ISE會傳送CoA Disconnect,客戶端將失去對網路的訪問許可權。

<b></b>		
Othor	Attri	hutoc
oulei	~~~	Dutes

ConfigVersionId	72
Acct-Terminate-Cause	Admin Reset
Event-Timestamp	1467305830
NetworkDeviceProfileName	Cisco
Device CoA type	Cisco CoA
Device CoA port	1700
NetworkDeviceProfileId	403ea8fc-7a27-41c3-80bb-27964031a08d
IsThirdPartyDeviceFlow	false
AcsSessionID	cfec88ac-6d2c-4b54-9fb6-716914f18744
Network Device Profile	Cisco
Location	Location#All Locations
Device Type	Device Type#All Device Types
Device IP Address	10.62.148.120
CiscoAVPair	audit-session-id=0a3e9478000009ab5775481d

# 疑難排解

若要在ISE上啟用調試,請導航到Administration > System > Logging > Debug Log Configuration,選擇TC-NAC Node,並將**Log Level** of TC-NAC元件更改為**DEBUG** 

dentity Services Engine	Home  Context Visibility  Operations  Policy  Administration  Work Centers					
* System + Identity Management	Network Resources     Device Portal Management     pxGrid Service     Paed Service     PassiveID     Threat Centric NAC					
Deployment Licensing + Certificat	Logging Maintenance Upgrade Backup & Restore + Admin Access + Settings					
Local Log Settings Node List > ISE21-3ek.example.com Debug Level Configuration						
Logging Categories	/ Edit CReset to Default					
Message Catalog	Component Name   Log Level Description					
Debug Log Configuration	TC-NAC 0					
Collection Filters	O TC-NAC DEBUG TC-NAC log messages					

要檢查的日誌 — irf.log。您可以直接從ISE CLI對其進行跟蹤:

2016-06-30 18:27:48,617 DEBUG [IRF-AMQP-Dispatcher-Notification-0][] cisco.cpm.irf.amqp.NotificationDispatcher:processDelivery:53 -::: com.cisco.cpm.irf.service.IrfNotificationHandler\$MyNotificationHandler@3fac8043 Message{messageType=NOTIFICATION messageId=THREAT content='{:c0:4a 00:14:8d:4b[{" ":{"Impact\_Qualification":""},"":1467304068599vendor"AMP""":"**Threat Detected**"}]}', priority=0, timestamp=Thu Jun 30 18:27:48 CEST 2016, amqpEnvelope=Envelope(deliveryTag=79, redeliver=false exchange=irf.topic.events routingKey=irf.events.threat), ampProperties=#contentHeader<basic>(content-type=application/json content-encoding=null headts=null headts=null rement-mode=null priority=0, correlation-id=null EVENT timestamp=null type=NOTIFICATION user-id=null app-id=fe80e16e-cde8-4d7f-a836-545416ae56f4, cluster-id=null)} 2016-06-30 18:27:48,617 DEBUG [IRF-AMQP-Dispatcher-Notification-0][] cisco.cpm.irf.service.IrfNotificationHandler:handle:140 -:::: -Message{messageType=NOTIFICATION messageId=THREAT\_EVENT content='{"c0:4a:00:14:8d:4b":[{" ":{"Impact\_Qualification":"**Paulse**"},"":1467304068599vendor"**AMP**", "":Threat Detected"}]}', priority=0, timestamp=Thu Jun 30 18:27:48 CEST 2016, amqpEnvelope=Envelope(deliveryTag=79, redeliver=false exchange=irf.topic.events routingKey=irf.events.threat), amgpProperties=#contentHeader<basic>(content-type=application/json content-encoding=null headts=null delivery-mode=null priority=0, correlation-id=null reply - to=null timestamp=null type=NOTIFICATION user-id=null app-id=fe80e16e-cde8-4d7f-a836-545416ae56f4, cluster-id=null)} 2016-06-30 18:27:48,617 DEBUG [IRF-AMQP-Dispatcher-Notification-0][] cisco.cpm.irf.amqp.NotificationDispatcher:processDelivery:59 -::::: - 545416 Envelope(deliveryTag=79, redeliver=false exchange=irf.topic.events routingKey=irf.events.threat)#contentHeader<basic>content-type=application/json contentencoding=null headers=null delivery-mode=null priority=0, correlation-id=null reply-to=null expiration=null message-id=THREAT\_EVENT timestamp=null type=NOTIFICATION user-id=null appid=fe80e16e-cde8-4d7f-a88836-a556, id= 2016-06-30 18:27:48,706 DEBUG [IRF-EventProcessor-0][] cisco.cpm.irf.service.IrfEventProcessor:parseNotification:221 -:::: -Message{messageType=NOTIFICATION messageId=THREAT\_EVENT content='{"c0:4a:00:14:8d:4b":[{" ":{"Impact\_Qualification":""},"":1467304068599vendor"AMP""":Threat Detected"}]}', priority=0, timestamp=Thu Jun 30 18:27:48 CEST 2016, amqpEnvelope=Envelope(deliveryTag=79, redeliver=false exchange=irf.topic.events routingKey=irf.events.threat), amgpProperties=#contentHeader<basic>(content-type=application/json content-encoding=null headts=null delivery-mode=null priority=0, correlation-id=null reply - to=null timestamp=null type=NOTIFICATION user-id=null app-id=fe80e16e-cde8-4d7f-a836-545416ae56f4, cluster-id=null)}

#### 有關威脅的資訊將傳送到PAN

2016-06-30 18:27:48,724 DEBUG [IRF-EventProcessor-0][] cisco.cpm.irf.service.IrfEventProcessor:storeEventsInES:366 -:::: - PAN - **c0:4a:00:14:8d:4b** {incident={Impact\_Qualification=Pain},time-amp=1467304068599=PAN Title=}