

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

## 目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[設定](#)

[網路圖表](#)

[詳細流程](#)

[配置AMP雲](#)

[步驟1.從AMP雲下載聯結器](#)

[配置ISE](#)

[步驟1.配置狀態策略和條件](#)

[步驟2.配置狀態配置檔案](#)

[步驟3.配置AMP配置檔案](#)

[步驟2.將應用和XML配置檔案上傳到ISE](#)

[步驟3.下載AnyConnect合規性模組](#)

[步驟4.新增AnyConnect配置](#)

[步驟5.配置客戶端調配規則](#)

[步驟6.配置授權策略](#)

[步驟7.啟用TC-NAC服務](#)

[步驟8.配置AMP介面卡](#)

[驗證](#)

[終端](#)

[AMP雲端](#)

[ISE](#)

[疑難排解](#)

## 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

### 需求

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

## 設定

### 網路圖表



### 詳細流程

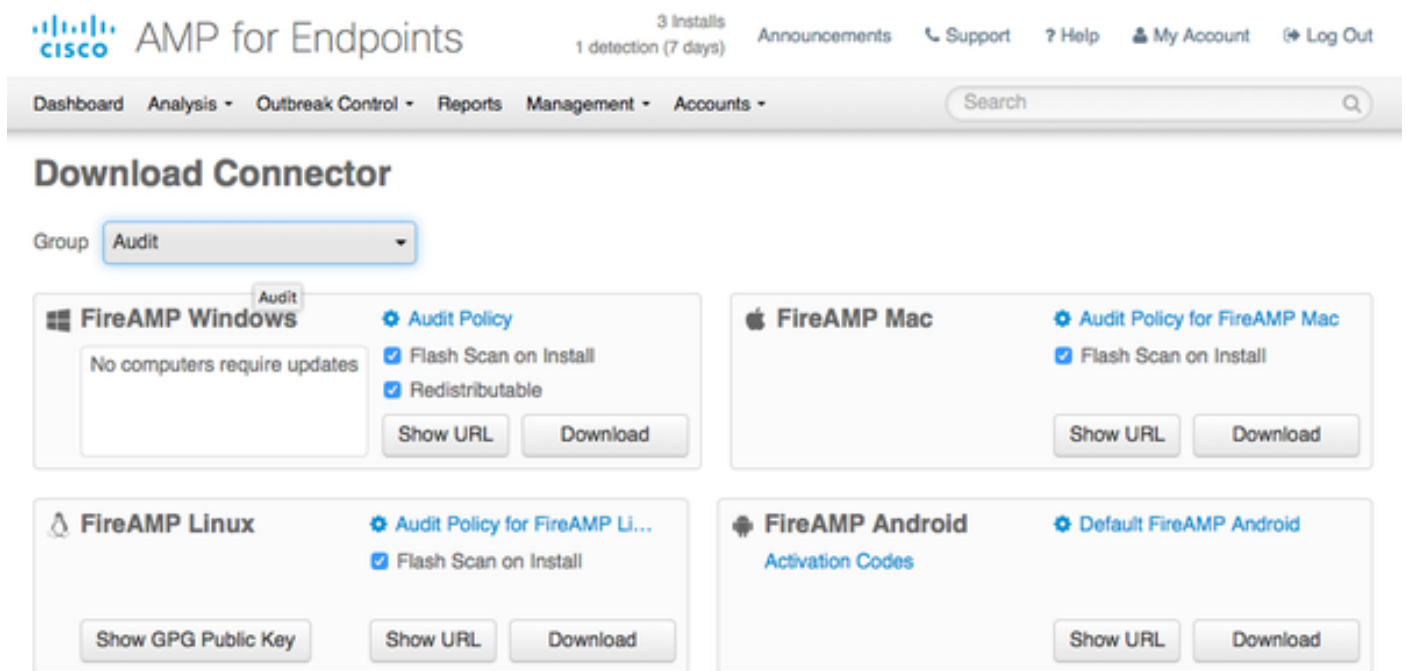
1. 客戶端連線到網路，分配AMP\_Profile並將使用者重定向到Anyconnect調配門戶。如果在電腦上未檢測到Anyconnect，則安裝所有配置的模組（VPN、AMP、安全狀態）。每個模組的配置與該配置檔案一起推送
2. 安裝Anyconnect後，運行狀態評估
3. AMP Enabler模組安裝FireAMP聯結器
4. 當客戶端嘗試下載惡意軟體時，AMP聯結器會拋出警告消息並將其報告給AMP雲

## 5. AMP雲將此資訊傳送到ISE

### 配置AMP雲

#### 步驟1.從AMP雲下載連結器

若要下載連結器，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。



**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：

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

Authentication Authorization Profiling Posture Client Provisioning Policy Elements

Dictionarys Conditions Results

File Conditions List > File\_Condition

### File Condition

\* Name: File\_Condition

Description:

\* Operating System: Windows All

Compliance Module: Any version

\* File Type: FileExistence

\* File Path: ABSOLUTE\_PATH C:\test.bt

\* File Operator: Exists

Save Reset

- Authentication
- Authorization
- Profiling
- Posture
  - Anti-Malware Condition
  - Anti-Spyware Condition
  - Anti-Virus Condition
  - Application Condition
  - Compound Condition
  - Disk Encryption Condition
  - 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：

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

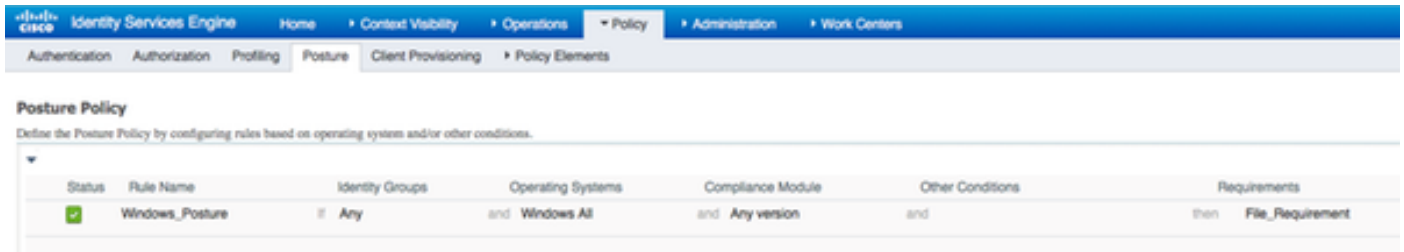
Authentication Authorization Profiling Posture Client Provisioning Policy Elements

Dictionarys Conditions Results

### Requirements

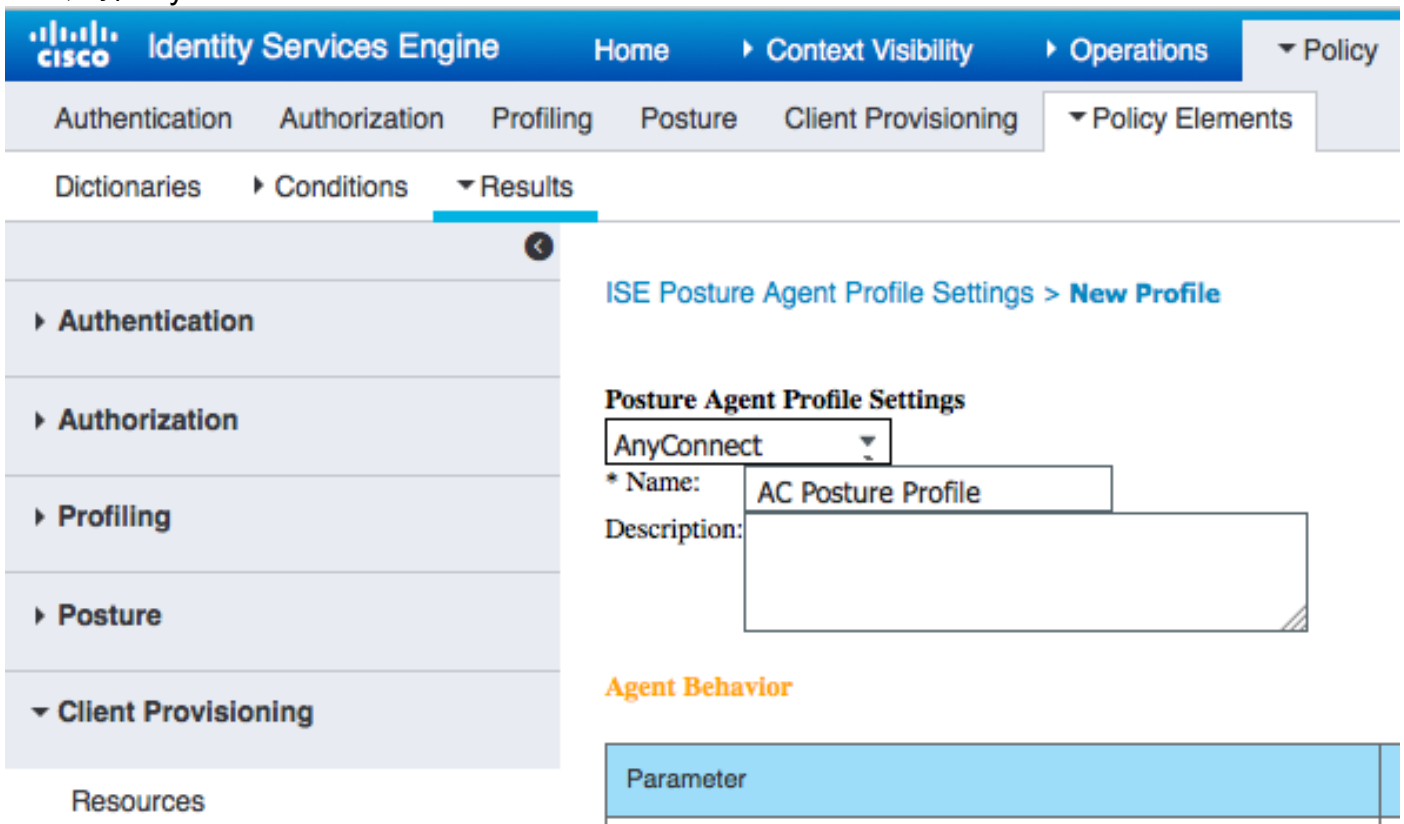
Name	Operating Systems	Compliance Module	Conditions	Remediation Actions
Any_AV_Installation_Win	for Windows All	using 3.x or earlier	met if ANY_av_win_inst	then Message Text Only
File_Requirement	for Windows All	using Any version	met if File_Condition	then Message Text Only
Any_AV_Definition_Win	for Windows All	using 3.x or earlier	met if ANY_av_win_def	then AnyAVDefRemediationWin
Any_AM_Installation_Mac	for Mac OSX	using 4.x or later	met if ANY_am_mac_inst	then Message Text Only
Any_AS_Installation_Win	for Windows All	using 3.x or earlier	met if ANY_as_win_inst	then Message Text Only
Any_AS_Definition_Win	for Windows All	using 3.x or earlier	met if ANY_as_win_def	then AnyASDefRemediationWin
Any_AV_Installation_Mac	for Mac OSX	using 3.x or earlier	met if ANY_av_mac_inst	then Message Text Only
Any_AV_Definition_Mac	for Mac OSX	using 3.x or earlier	met if ANY_av_mac_def	then AnyAVDefRemediationMac
Any_AS_Installation_Mac	for Mac OSX	using 3.x or earlier	met if ANY_as_mac_inst	then Message Text Only
Any_AS_Definition_Mac	for Mac OSX	using 3.x or earlier	met if ANY_as_mac_def	then AnyASDefRemediationMac
Any_AM_Installation_Win	for Windows All	using 4.x or later	met if ANY_am_win_inst	then Message Text Only
Any_AM_Definition_Win	for Windows All	using 4.x or later	met if ANY_am_win_def	then AnyAMDefRemediationWin
Any_AM_Definition_Mac	for Mac OSX	using 4.x or later	met if ANY_am_mac_def	then AnyAMDefRemediationMac
USB_Block	for Windows All	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：



### 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



- 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 secs	
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。

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

Authentication Authorization Profiling Posture Client Provisioning Policy Elements

Dictionaries Conditions Results

AMP Enabler Profile Settings > New Profile

### AMP Enabler Profile

\* Name:

Description:

Install AMP Enabler  Uninstall AMP Enabler

Windows Installer:

MAC Installer:

**Windows Settings**

Add to Start Menu

Add to Desktop

Add to Context Menu

## 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

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

Authentication Authorization Profiling Posture Client Provisioning Policy Elements

Dictionaries Conditions Results

Agent Resources From Local Disk > Agent Resources From Local Disk

### Agent Resources From Local Disk

Category:  ⓘ

anyconnect-win-4.2.02075-k9.pkg

▼ AnyConnect Uploaded Resources

Name	Type	Version	Description
AnyConnectDesktopWindows 4.2.207...	AnyConnectDesktopWindows	4.2.2075.0	AnyConnect Secure Mobility Clen...

- 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

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 xmlns="http://schemas.xmlsoap.org/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://schemas.xmlsoap.org/encoding/ 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

<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	AgentCustomizationPackage 1.1.1.6	This is the NACAgent Customization Package v1.1.1.6 for Windows
<input type="checkbox"/>	AnyConnectComplianceModuleOSX 3.6.10591.2	AnyConnect OS X Compliance Module 3.6.10591.2
<input checked="" type="checkbox"/>	AnyConnectComplianceModuleWindows 3.6.10591.2	AnyConnect Windows Compliance Module 3.6.10591.2
<input type="checkbox"/>	ComplianceModule 3.6.10591.2	NACAgent ComplianceModule v3.6.10591.2 for Windows
<input type="checkbox"/>	MACComplianceModule 3.6.10591.2	MACAgent ComplianceModule v3.6.10591.2 for MAC OSX
<input type="checkbox"/>	MacOsXAgent 4.9.0.1006	NAC Posture Agent for Mac OSX (ISE 1.2 release)
<input type="checkbox"/>	MacOsXAgent 4.9.0.1007	NAC Posture Agent for Mac OSX v4.9.0.1007 (with CM 3.6.7873.2)- ISE
<input type="checkbox"/>	MacOsXAgent 4.9.0.655	NAC Posture Agent for Mac OSX (ISE 1.1.1 or later)
<input type="checkbox"/>	MacOsXAgent 4.9.0.661	NAC Posture Agent for Mac OS X v4.9.0.661 with CM v3.5.7371.2 (ISE
<input type="checkbox"/>	MacOsXAgent 4.9.4.3	NAC Posture Agent for Mac OSX v4.9.4.3 - ISE 1.2 , ISE 1.1.3 and Abov
<input type="checkbox"/>	MacOsXAgent 4.9.5.3	NAC Posture Agent for Mac OSX v4.9.5.3 - ISE 1.2 Patch 12, ISE 1.3 rel
<input type="checkbox"/>	MacOsXSPWizard 1.0.0.18	Supplicant Provisioning Wizard for Mac OsX 1.0.0.18 (ISE 1.1.3 Release)
<input type="checkbox"/>	MacOsXSPWizard 1.0.0.21	Supplicant Provisioning Wizard for Mac OsX 1.0.0.21 (for ISE 1.2 release
<input type="checkbox"/>	MacOsXSPWizard 1.0.0.27	Supplicant Provisioning Wizard for Mac OsX 1.0.0.27 (for ISE 1.2 release
<input type="checkbox"/>	MacOsXSPWizard 1.0.0.29	Supplicant Provisioning Wizard for Mac OsX 1.0.0.29 (for ISE 1.2 release
<input type="checkbox"/>	MacOsXSPWizard 1.0.0.30	Supplicant Provisioning Wizard for Mac OsX 1.0.0.30 (for ISE 1.2 Patch
<input type="checkbox"/>	MacOsXSPWizard 1.0.0.36	Supplicant Provisioning Wizard for Mac OsX 1.0.0.36 (for ISE 1.2 Patch

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



Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

Authentication Authorization Profiling Posture Client Provisioning Policy Elements

Dictionary Conditions Results

Authentication Authorization Profiling Posture Client Provisioning Resources

AnyConnect Configuration > AnyConnect Configuration AMP

\* Select AnyConnect Package: AnyConnectDesktopWindows 4.2.2075.0

\* Configuration Name: AnyConnect Configuration AMP

Description:

DescriptionValue

\* Compliance Module: AnyConnectComplianceModuleWindows 3.6.10591.2

AnyConnect Module Selection

- ISE Posture
- VPN
- Network Access Manager
- Web Security
- AMP Enabler
- ASA Posture
- Network Visibility
- Start Before Logon
- Diagnostic and Reporting Tool

Profile Selection

- \* ISE Posture: AC Posture Profile
- VPN: VPNDisable\_ServiceProfile
- Network Access Manager
- Web Security
- AMP Enabler: AMP Profile
- Network Visibility
- Customer Feedback

## 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

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

Authentication Authorization Profiling Posture Client Provisioning Policy Elements

Client Provisioning Policy

Define the Client Provisioning Policy to determine what users will receive upon login and user session initiation:  
 For Agent Configuration: version of agent, agent profile, agent compliance module, and/or agent customization package.  
 For Native Supplicant Configuration: wizard profile and/or wizard. Drag and drop rules to change the order.

Rule Name	Identity Groups	Operating Systems	Other Conditions	Results
Windows_Posture_AMP	If Any	and Windows All	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。

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

Authentication Authorization Profiling Posture Client Provisioning Policy Elements

Dictionarys Conditions Results

Authentication

Authorization

Authorization Profiles

Downloadable ACLs

Profiling

Posture

Client Provisioning

Authorization Profiles > AMP\_Profile

### Authorization Profile

\* Name AMP\_Profile

Description

\* Access Type ACCESS\_ACCEPT

Network Device Profile Cisco

Service Template

Track Movement

Passive Identity Tracking

#### Common Tasks

Web Redirection (CWA, MDM, NSP, CPP)

Client Provisioning (Posture) ACL ACL\_WEBAUTH\_REDIRECT Value Client Provisioning Portal (defa

Display Certificates Renewal Message

Static IP/Host name/FQDN

#### 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

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

Authentication Authorization Profiling Posture Client Provisioning Policy Elements

### Authorization Policy

Define the Authorization Policy by configuring rules based on Identity groups and/or other conditions. Drag and drop rules to change the order.  
For Policy Export go to [Administration > System > Backup & Restore > Policy Export Page](#)

First Matched Rule Applies

Exceptions (1)

Standard

Status	Rule Name	Conditions (Identity groups and other conditions)	Permissions
<input checked="" type="checkbox"/>	Wireless Black List Default	if <b>Blacklist</b> AND Wireless_Access	then Blackhole_Wireless_Access
<input checked="" type="checkbox"/>	Profiled Cisco IP Phones	if <b>Cisco-IP-Phone</b>	then Cisco_IP_Phones
<input checked="" type="checkbox"/>	Profiled Non Cisco IP Phones	if Non_Cisco_Profiled_Phones	then Non_Cisco_IP_Phones
2. <input checked="" type="checkbox"/>	Compliant_Devices_Access	if (Network_Access_Authentication_Passed AND Compliant_Devices )	then PermitAccess
1. <input checked="" type="checkbox"/>	Non_Compliant_Devices_Access	if Session:PostureStatus NOT_EQUALS Compliant	then AMP_Profile
<input type="checkbox"/>	Employee_EAP-TLS	if (Wireless_802.1X AND BYOD_is_Registered AND EAP-TLS AND MAC_in_SAN )	then PermitAccess AND BYOD
<input type="checkbox"/>	Employee_Onboarding	if (Wireless_802.1X AND EAP-MSCHAPv2 )	then NSP_Onboard AND BYOD
<input checked="" type="checkbox"/>	Wi-Fi_Guest_Access	if (Guest_Flow AND Wireless_MAB )	then PermitAccess AND Guests
<input checked="" type="checkbox"/>	Wi-Fi_Redirect_to_Guest_Login	if Wireless_MAB	then Cisco_WebAuth
<input checked="" type="checkbox"/>	Basic_Authenticated_Access	if Network_Access_Authentication_Passed	then VA_Scan
<input checked="" type="checkbox"/>	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

### Edit Node

General Settings Profiling Configuration

Hostname **ISE21-3ek**  
FQDN **ISE21-3ek.example.com**  
IP Address **10.62.145.25**  
Node Type **Identity Services Engine (ISE)**

#### Personas

Administration Role **STANDALONE**

Monitoring Role **PRIMARY**  Other Monitoring Node

Policy Service

Enable Session Services  Include Node in Node Group **None**

Enable Profiling Service

Enable Threat Centric NAC Service

## 步驟8.配置AMP介面卡

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

Third Party Vendors

Vendor Instances > New  
Input fields marked with an asterisk (\*) are required.

Vendor \* AMP : THREAT

Instance Name \* AMP\_THREAT

Cancel Save

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

Third Party Vendors

Vendor Instances

0 Selected

Refresh Add Trash Edit Filter

<input type="checkbox"/>	Instance Name	Vendor Na...	Type	Hostname	Connectivity	Status
<input type="checkbox"/>	QualysVA	Qualys	VA	qualysguard.qg2.apps.qualys.com	Connected	Active
<input type="checkbox"/>	AMP_THREAT	AMP	THREAT		Disconnected	Ready to configure

選擇Cloud，然後按一下Next

Third Party Vendors

Vendor Instances > AMP

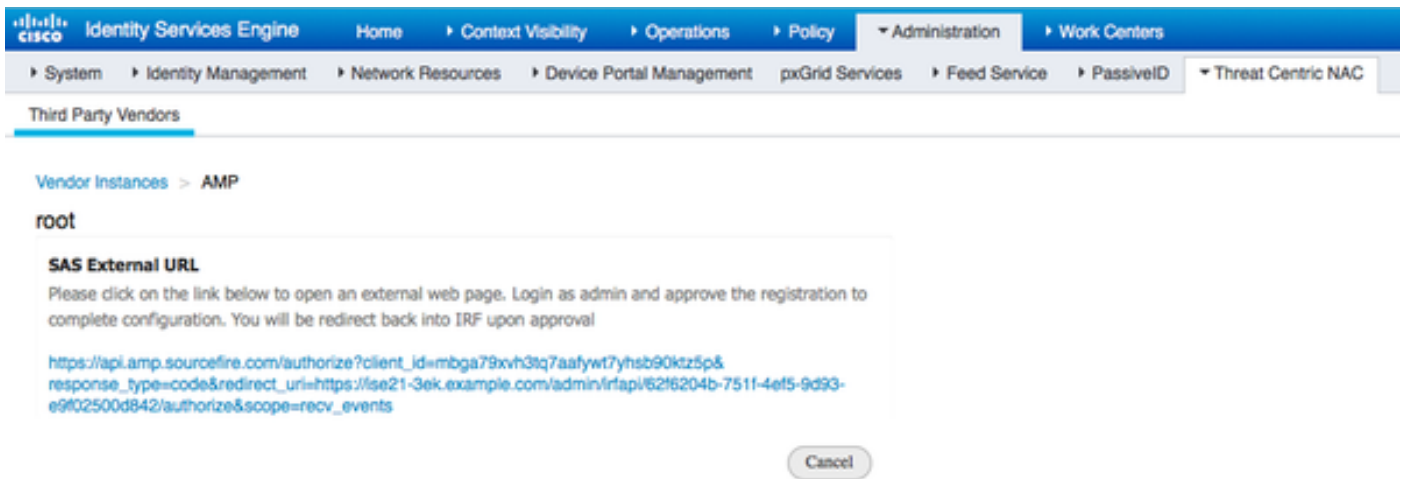
Cloud

US Cloud

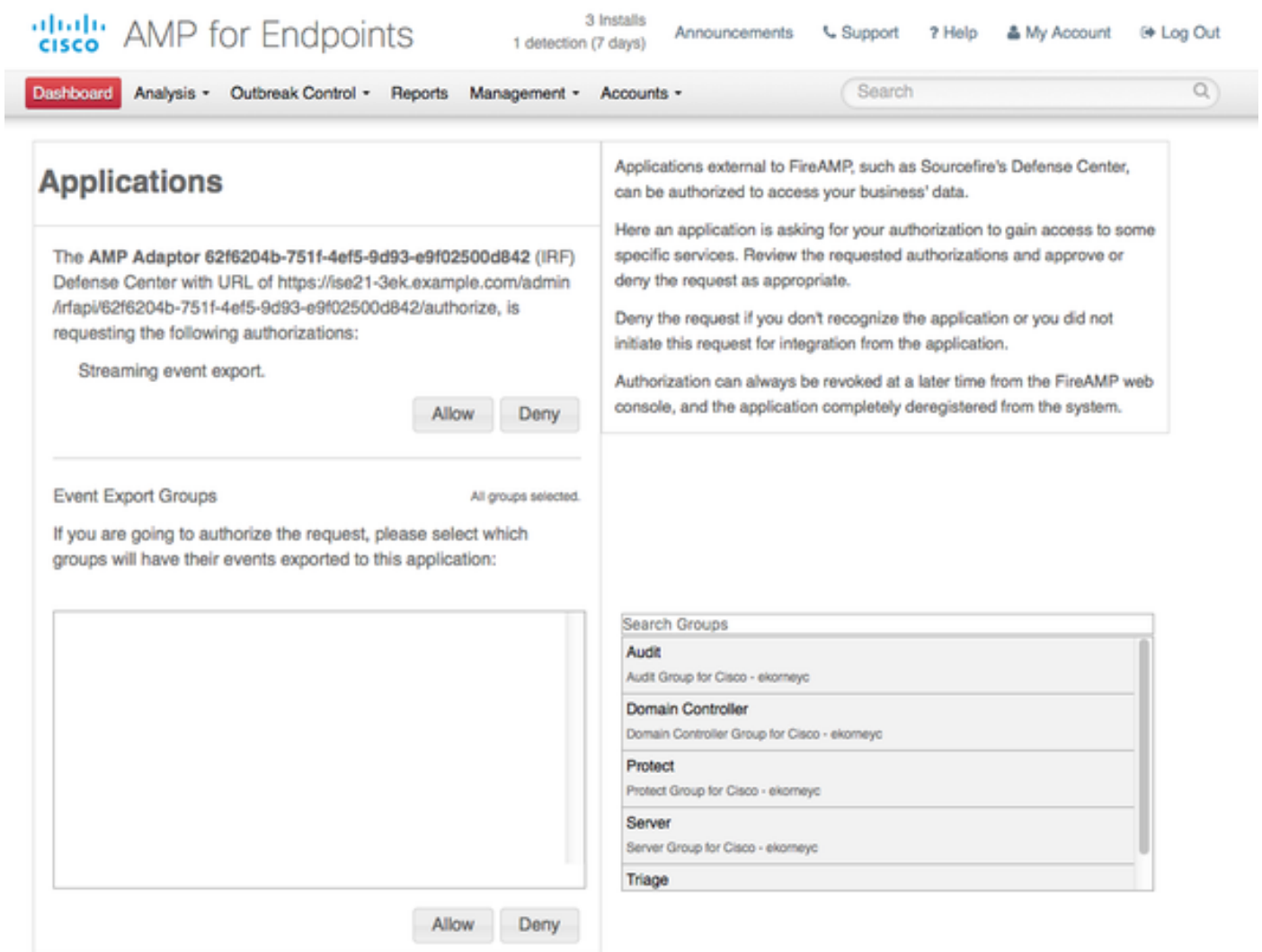
Which public cloud would you like to connect to

Cancel 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



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。

Identity Services Engine Home Context Visibility Operations Policy Administration Work Centers

System Identity Management Network Resources Device Portal Management pxGrid Services Feed Service PassiveID Threat Centric NAC

Third Party Vendors

**Vendor Instances**

0 Selected

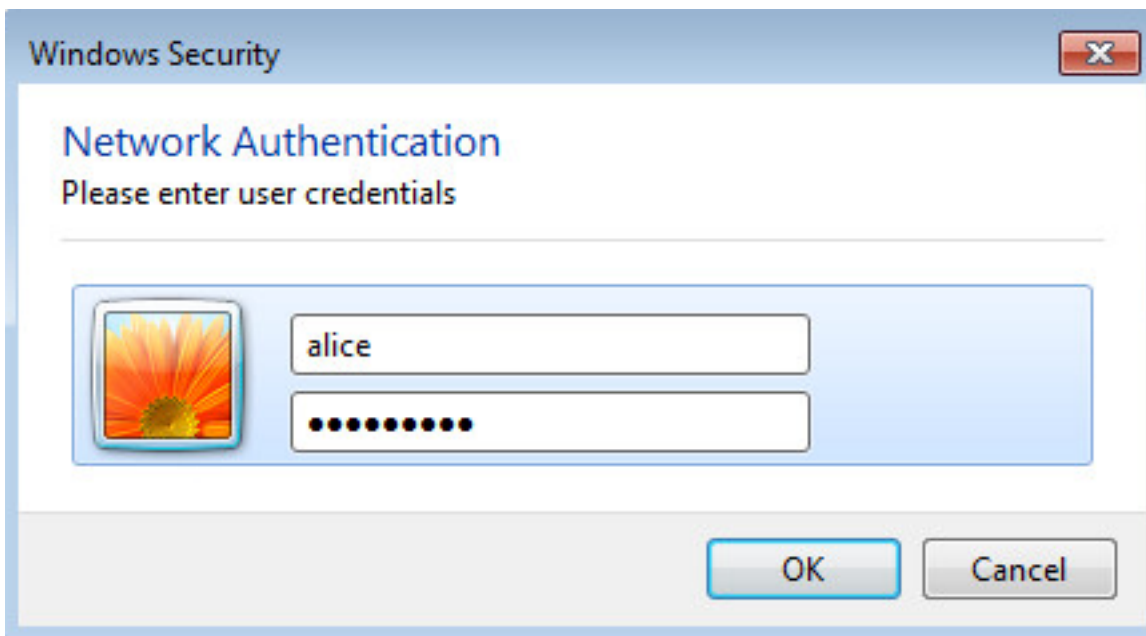
Refresh Add Trash Edit Filter Settings

Instance Name	Vendor Name	Type	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

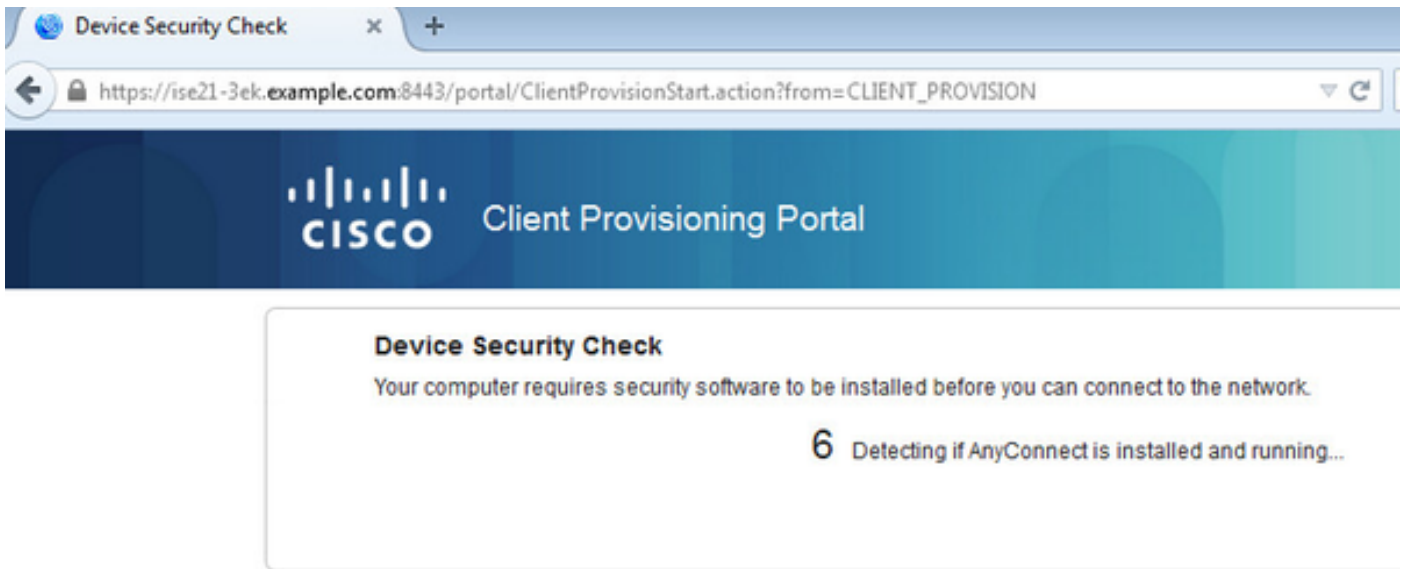
### 終端

通過PEAP(MSCHAPv2)連線到無線網路。

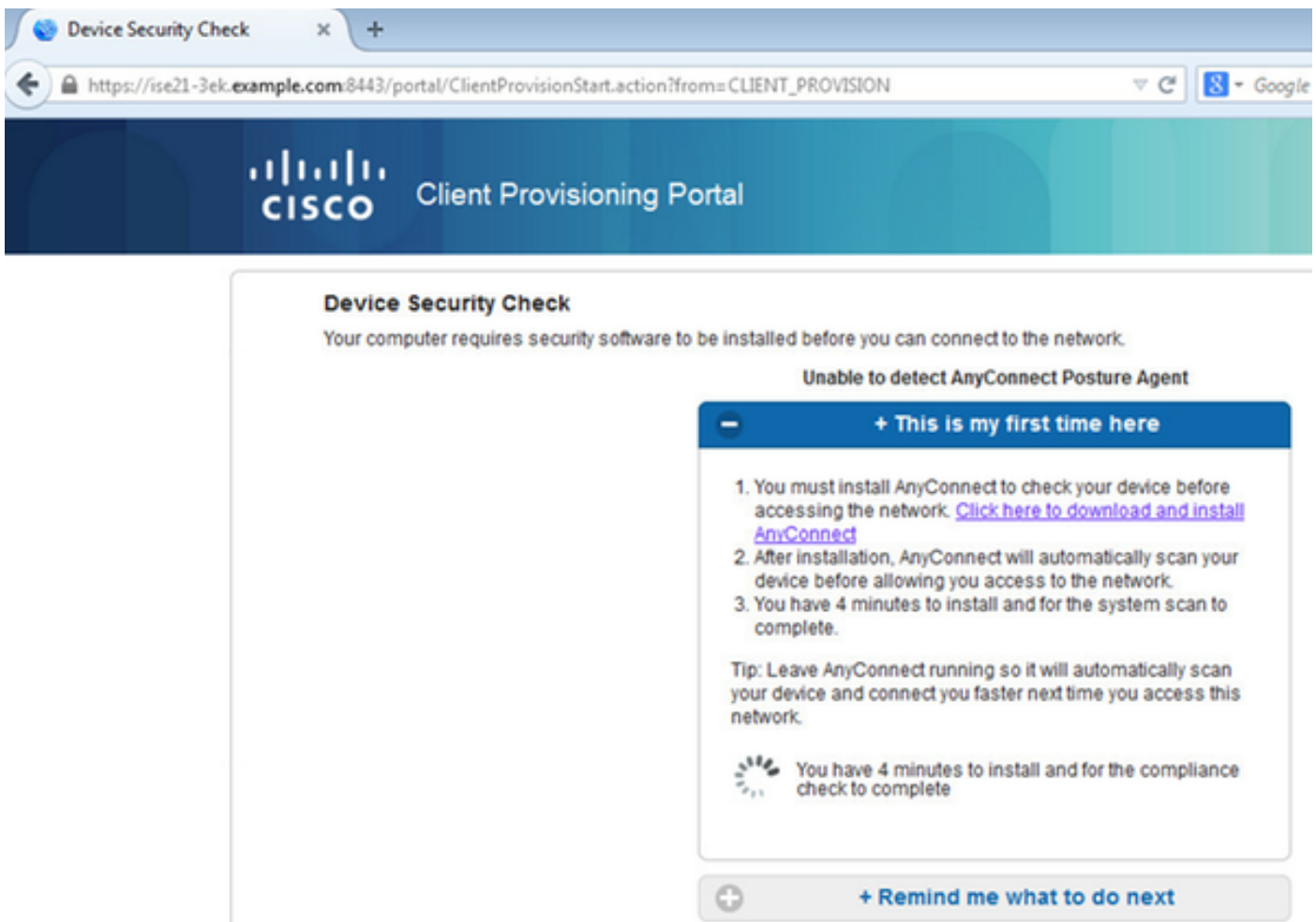


連線到客戶端調配門戶之後。

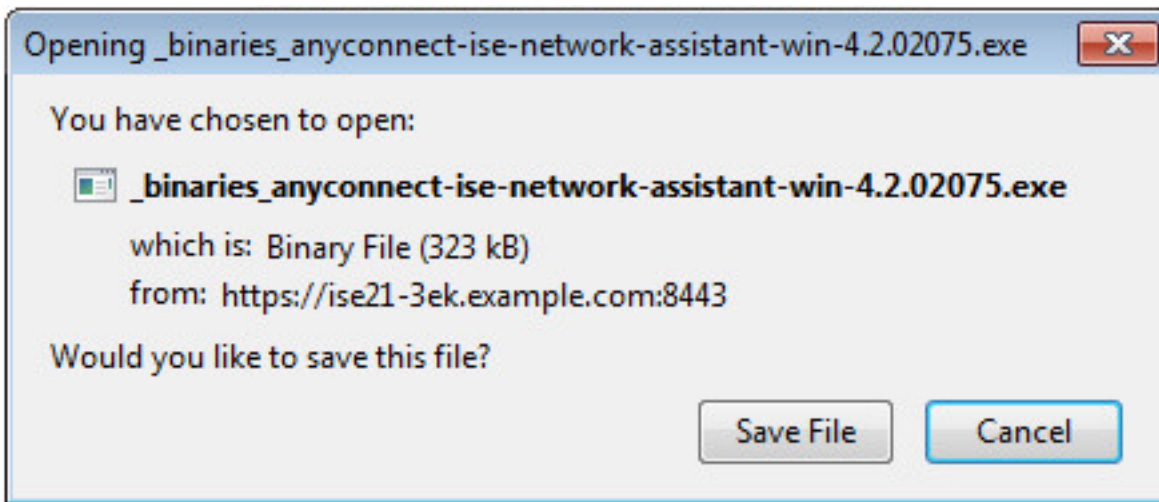




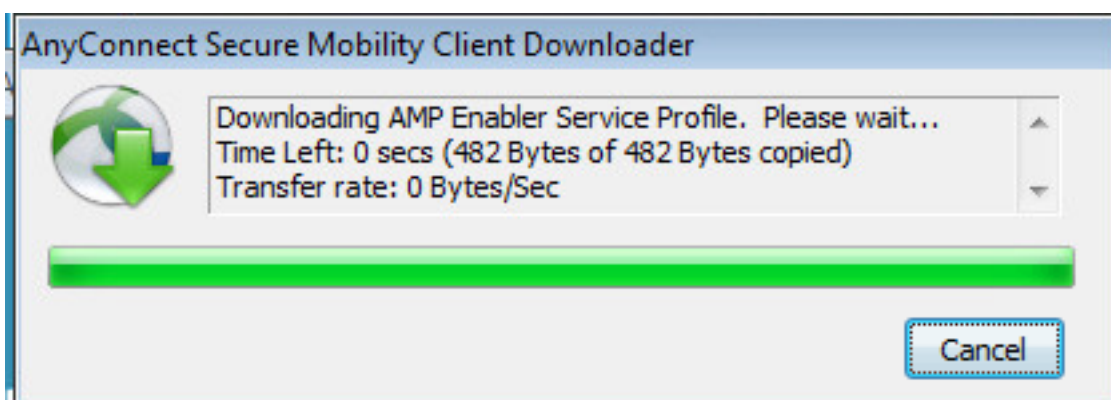
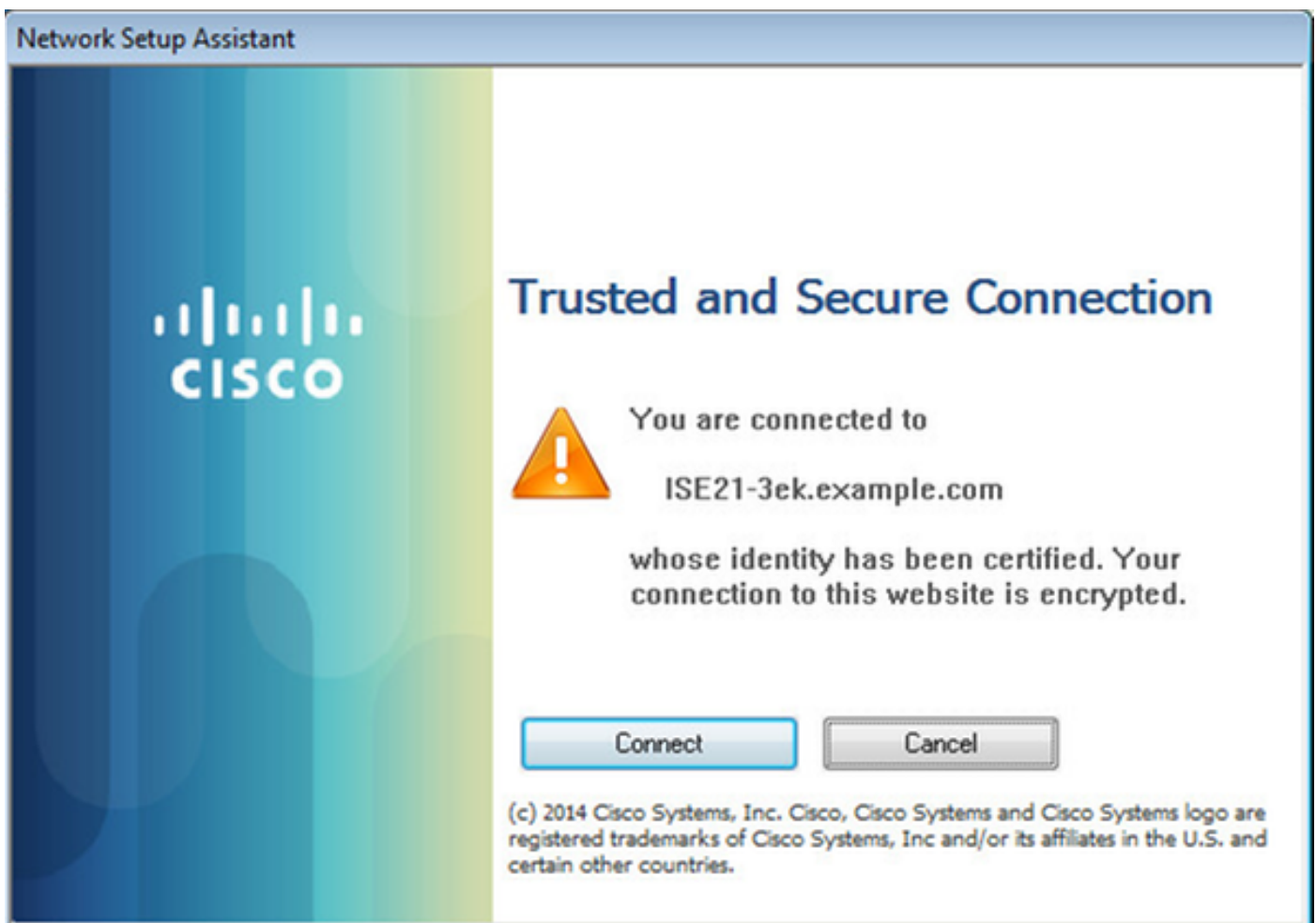
由於客戶端電腦上未安裝任何內容，因此ISE會提示AnyConnect客戶端安裝。

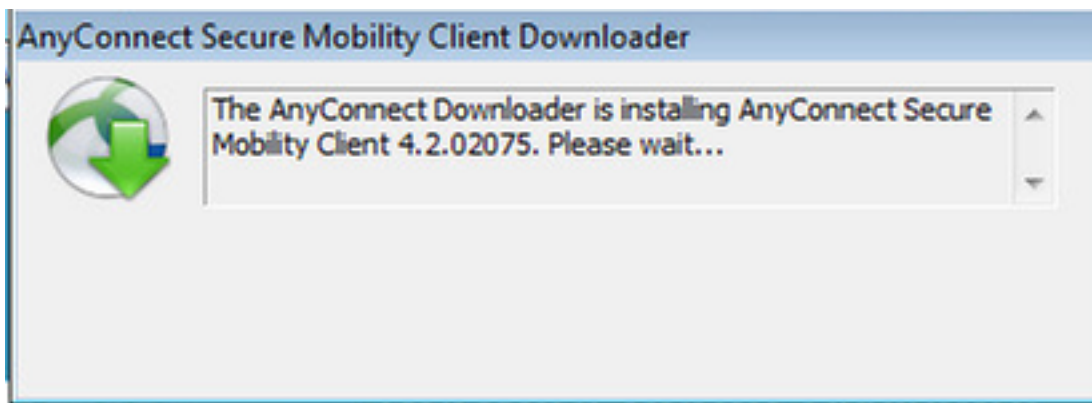


應從客戶端電腦下載並運行網路設定助理(NSA)應用程式。

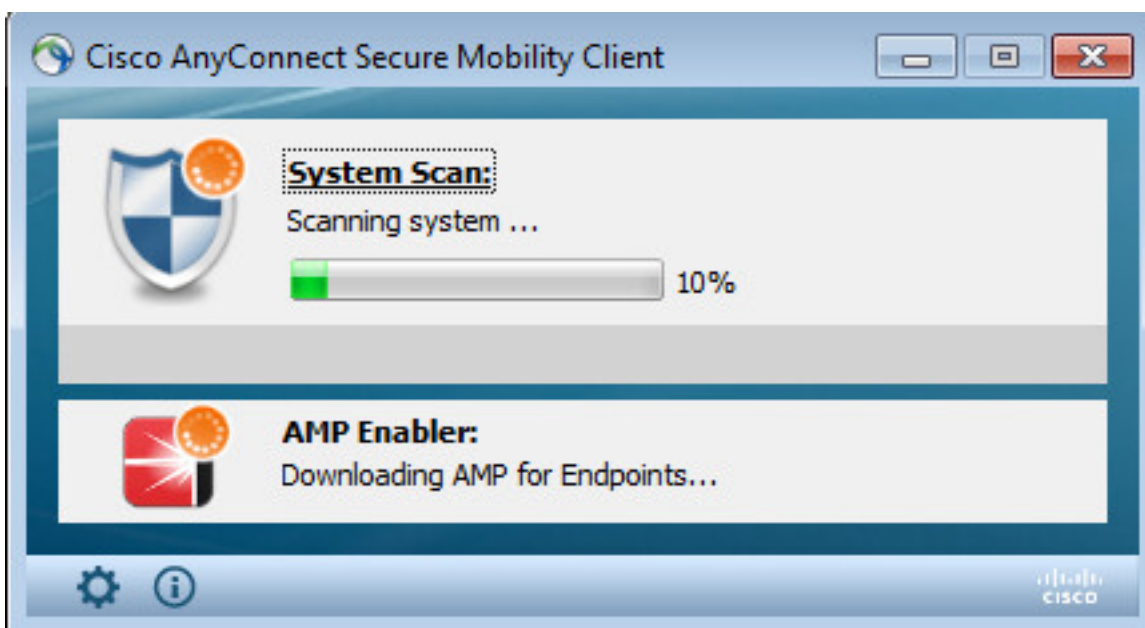
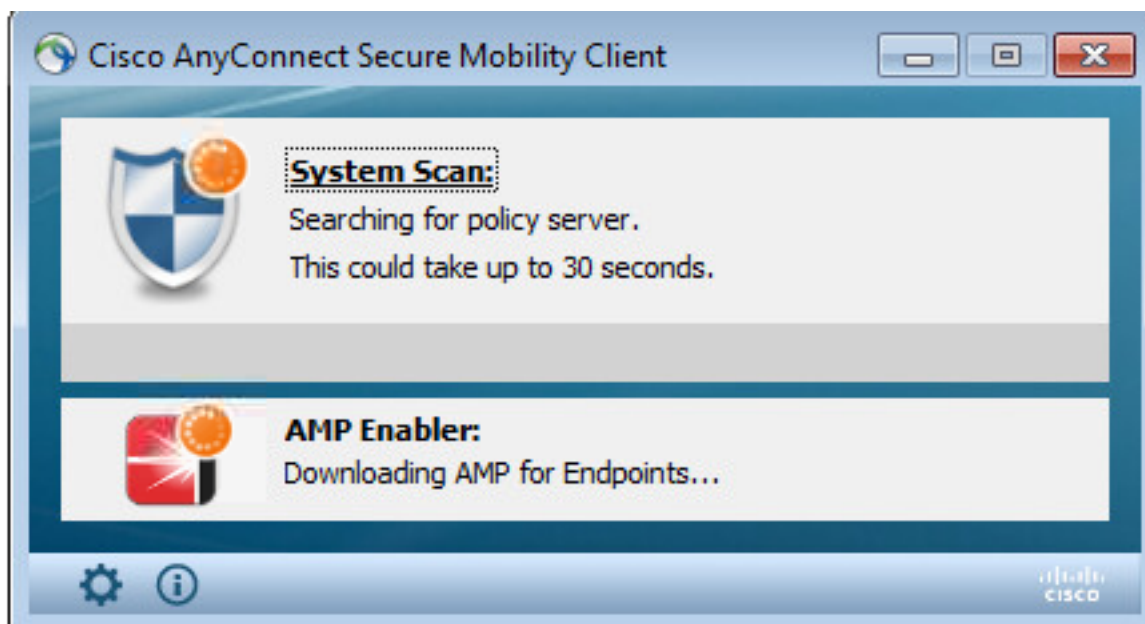


NSA負責安裝所需的元件和配置檔案。

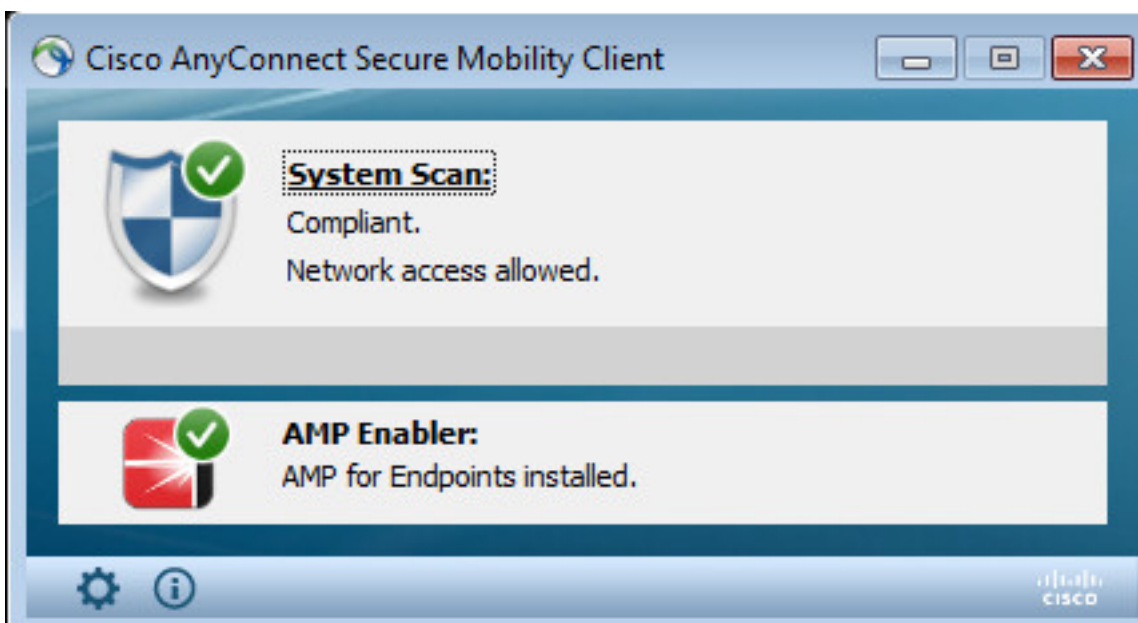
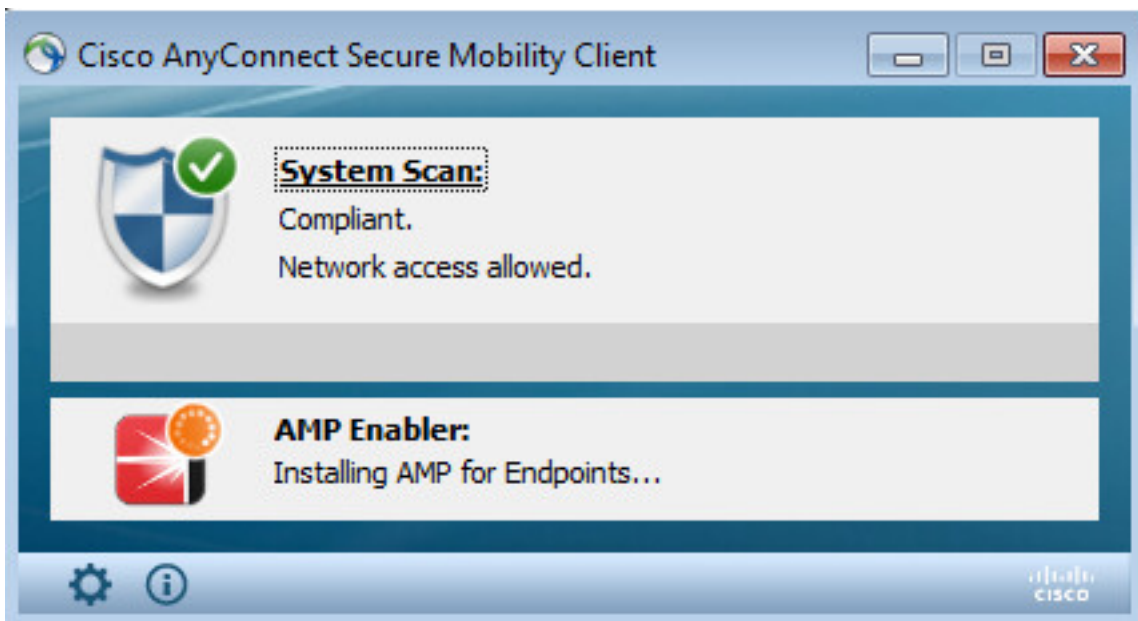
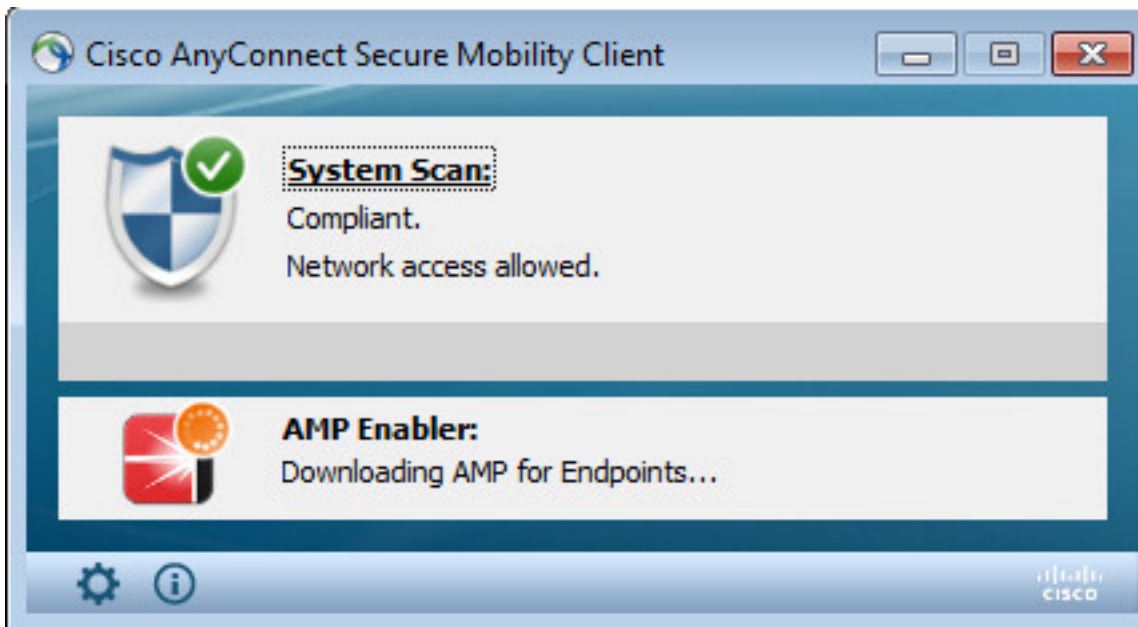




安裝完成後，AnyConnect狀態模組將執行合規性檢查。



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。

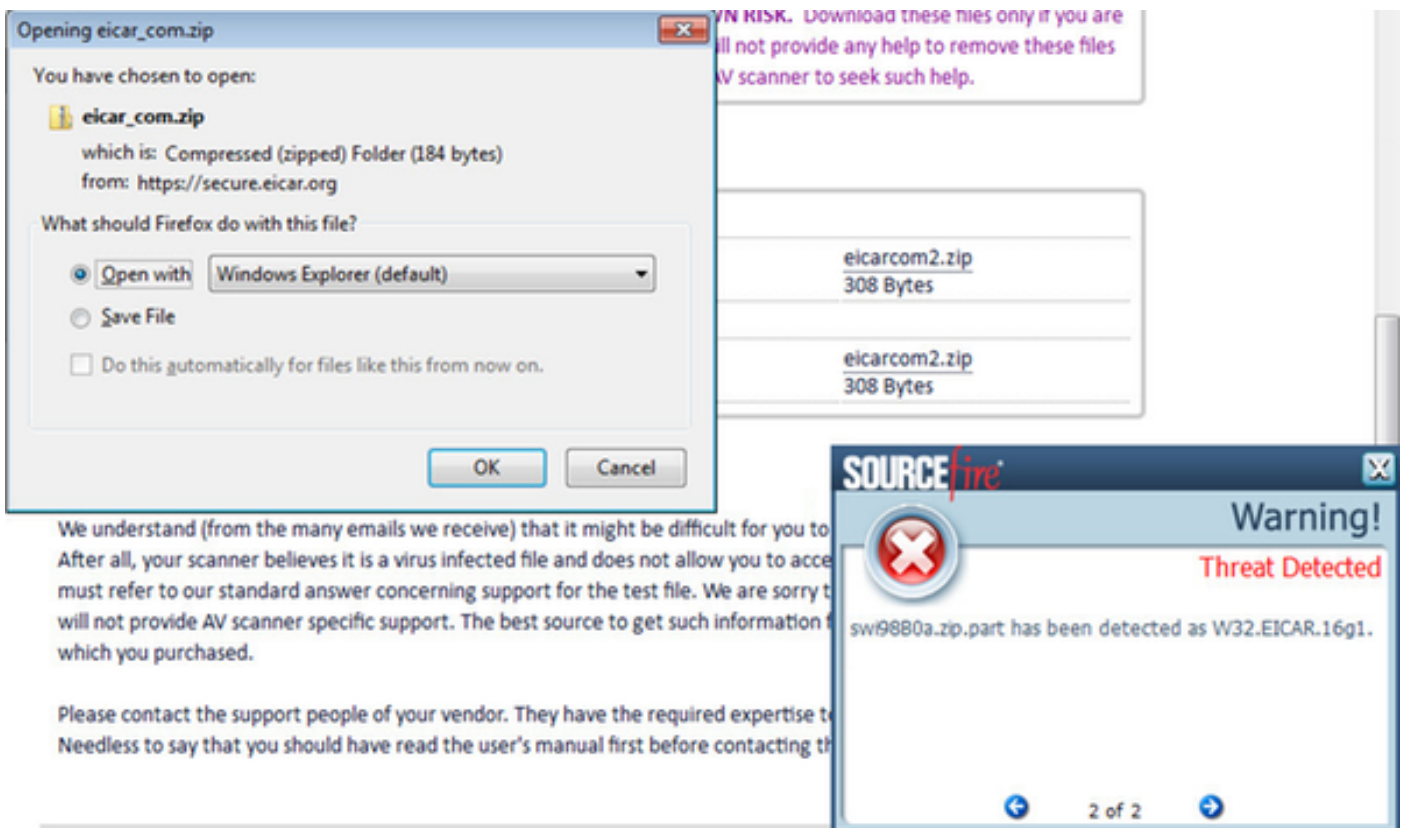


AMP 聯結器顯示。





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。



## AMP雲端

驗證可以使用AMP雲威脅控制面板的詳細資訊。

The screenshot shows the Cisco AMP for Endpoints dashboard. At the top, it displays '4 Installs' and '5 detections (7 days)'. The main navigation bar includes 'Dashboard', 'Analysis', 'Outbreak Control', 'Reports', 'Management', and 'Accounts'. The dashboard itself is titled 'Dashboard' and has tabs for 'Overview', 'Events', and 'Heat Map'. There are buttons for 'Refresh All' and 'Auto Refresh'. The dashboard is divided into several sections:

- Indications of Compromise:** Shows a threat detected on 'ekorneyc-PC.example.com'.
- Hosts Detecting Malware (7 days):** A table with columns 'Computer' and 'Count'. It lists 'ekorneyc-PC.example.com' with a count of 4 and 'HARISHA-PC.example.com' with a count of 1.
- Malware Threats (7 days):** A table with columns 'Detection Name' and 'Count'. It lists 'W32.EICAR.16g1' with a count of 5.
- Hosts Detecting Network Threats (7 days):** A table with columns 'Computer' and 'Count'. It states 'There are no recent network threat detections to display.'
- Network Threats (7 days):** A table with columns 'Remote IP' and 'Count'. It also states 'There are no recent network 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。

This screenshot shows a detailed view of a file detection event in the Cisco AMP for Endpoints dashboard. The top navigation and dashboard header are the same as in the previous screenshot. Below the header, there is a filter section with 'Filter: (New)' and a dropdown for 'Select a Filter'. The event type is 'Threat Detected' and the group is 'All Groups'. The filters are set to 'Computer: e8e02e6a-a885-47ba-aeec-2ac03bea4241' and the sort order is 'Time'. The event details are as follows:

- Event:** ekorneyc-PC.example.com detected 0M90PRx0.zip.part as W32.EICAR.16g1. The quarantine status is 'Not Seen' and the timestamp is '2016-06-30 16:27:30 UTC'.
- File Detection:** Detection: W32.EICAR.16g1.
- Connector Info:** Fingerprint (SHA-256): 2546dcff...6e9eedad.
- Comments:**
  - Filename: 0M90PRx0.zip.part
  - Filepath: C:\Users\admin\AppData\Local\Temp\0M90PRx0.zip.part
  - File Size (bytes): 184
  - Parent Fingerprint (SHA-256): 3147bd8...32de89c2.
  - Parent Filename: firefox.exe

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

The screenshot shows the 'Applications' page in the Cisco AMP for Endpoints interface. The top navigation bar is the same. The page title is 'Applications'. On the left, there is a list of applications:

- AMP Adaptor 4d4047dc-4791-477d-955f-6a0f182ae65b** (IRF) with 'Edit' and 'Deregister' buttons.
- AMP Adaptor fe80e16e-cde8-4d7f-a836-545416ae56f4** (IRF) with 'Edit' and 'Deregister' buttons.

On the right, there is explanatory text:

These are applications external to FireAMP, such as Sourcefire's Defense Center, that you have authorized to access your business' data.

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.

You can currently authorize Defense Center appliances to receive streaming FireAMP events for integration with the Defense Center.



# ISE

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 screenshot shows the ISE Live Logs interface. At the top, there are five summary cards: Misconfigured Supplicants (0), Misconfigured Network Devices (0), RADIUS Drops (14), Client Stopped Responding (3), and Repeat Counter (0). Below these is a table with columns: Time, Status, Details, Repeat, Identity, Endpoint ID, Endpoint P..., Authentication Policy, Authorization Policy, Authorization Profiles, and IP Address. The table contains four rows of log entries for the user 'alice' on 'Windows7...' devices, with various authorization policies and profiles.

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

The screenshot shows the 'Compromised Endpoints' page in ISE. It features two bar charts: 'COMPROMISED ENDPOINTS BY INCIDENTS' and 'COMPROMISED ENDPOINTS BY INDICATORS'. The incident chart shows a single bar for 'Painful' with a value of 1. The indicator chart shows a bar for 'Painful' with a value of 1. Below the charts is a table with columns: MAC Address, Username, IPv4 Address, Threats, Source, Threat Severity, Logical NAD Location, and Connectivity. The table contains one row for MAC address 'C0-AA-00-14-8D-4B', user 'alice', IP '10.62.148.26', with a 'Threat Detected' from 'AMP' having a 'Painful' severity.

如果選擇終端並導航到Threat頁籤，將顯示更多詳細資訊。

Endpoints > C0:4A:00:14:8D:4B

C0:4A:00:14:8D:4B   



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

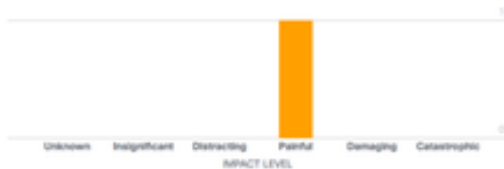
**Threat Detected**

Type: INCIDENT  
 Severity: Painful  
 Reported by: AMP  
 Reported at: 2016-06-30 11:27:48

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。

COMPROMISED ENDPOINTS BY INCIDENTS

All endpoints Connected Disconnected



COMPROMISED ENDPOINTS BY INDICATORS

All endpoints Connected Disconnected



1 Selected

Rows/Page 2

MAC Address	Username	Source	Threat Severity	Logical NAD Location	Connectivity	Hostname	Identity Group	Endpoint OS
24:77:69:3D:CF:20	host-NARISHA-PC.ena...	AMP	Painful	Location#A2 Locations	Disconnected		Workstation	
C0:4A:00:14:8D:4B	alice	AMP	Painful	Location#A2 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。

## Other Attributes

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

The screenshot shows the Cisco Identity Services Engine (ISE) Administration console. The breadcrumb navigation is Administration > System > Logging > Debug Log Configuration. The page title is "Node List > ISE21-3ek.example.com Debug Level Configuration". There are two buttons: "Edit" and "Reset to Default". Below this is a table with columns "Component Name", "Log Level", and "Description". The table contains one entry: TC-NAC with Log Level set to DEBUG and Description "TC-NAC log messages".

Component Name	Log Level	Description
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：

```
ISE21-3ek/admin# show logging application irf.log tail
```

威脅甚至從AMP雲接收

```
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),
amqpProperties=#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),
amqpProperties=#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 content-
encoding=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 app-
id=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),
amqpProperties=#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=}
```