

在ISE中配置使用OCSP的EAP-TLS身份驗證

目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[網路圖表](#)

[背景資訊](#)

[組態](#)

[C1000中的配置](#)

[Windows PC中的配置](#)

[步驟 1. 配置使用者身份驗證](#)

[步驟 2. 確認使用者端憑證](#)

[Windows Server中的配置](#)

[步驟 1. 新增使用者](#)

[步驟 2. 確認OCSP服務](#)

[ISE中的配置](#)

[步驟 1. 增加裝置](#)

[步驟 2. 新增Active Directory](#)

[步驟 3. 增加證書身份驗證配置檔案](#)

[步驟 4. 增加身份源隔離](#)

[步驟 5. ISE中的確認證書](#)

[步驟 6. 增加允許的協定](#)

[步驟 7. 增加策略集](#)

[步驟 8. 增加身份驗證策略](#)

[步驟 9. 增加授權策略](#)

[驗證](#)

[步驟 1. 確認身份驗證會話](#)

[步驟 2. 確認Radius即時日誌](#)

[疑難排解](#)

[1. 調試日誌](#)

[2. TCP轉儲](#)

[相關資訊](#)

簡介

本文檔介紹為即時客戶端證書撤銷檢查設定使用OCSP的EAP-TLS身份驗證所需的步驟。

必要條件

需求

思科建議您瞭解以下主題：

- 思科身份服務引擎的配置
- Cisco Catalyst的配置
- 線上憑證狀態通訊協定

採用元件

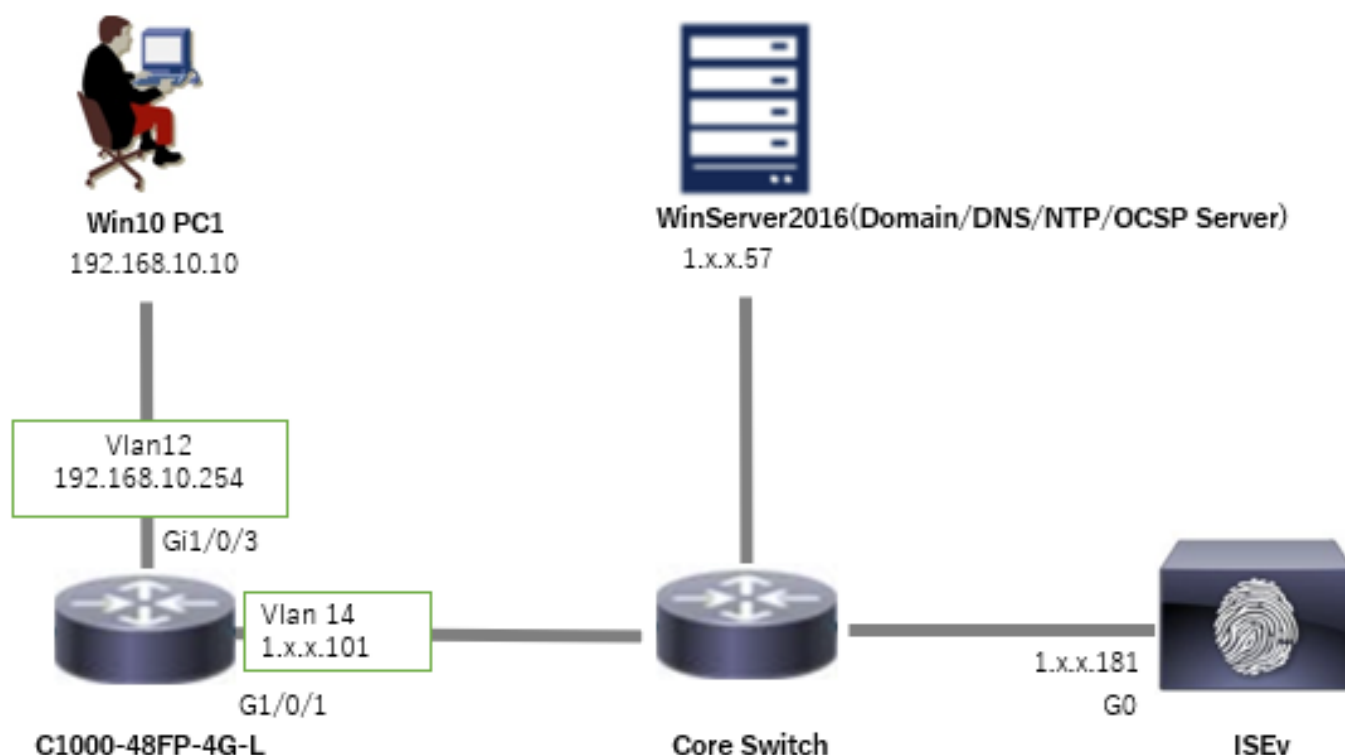
本文中的資訊係根據以下軟體和硬體版本：

- 身分辨識服務引擎虛擬3.2修補程式6
- C1000-48FP-4G-L 15.2(7)E9
- Windows Server 2016
- Windows 10

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。

網路圖表

下圖顯示本文檔示例中使用的拓撲。



網路圖表

背景資訊

在EAP-TLS中，使用者端將其數位憑證顯示給伺服器，作為驗證程式的一部分。本文檔介紹ISE如

何透過根據AD伺服器檢查證書公用名(CN)並確認證書是否已使用OCSP (線上證書狀態協定) 撤銷來驗證客戶端證書，OCSP提供即時協定狀態。

在Windows Server 2016上配置的域名是ad.rem-xxx.com，本文檔中用作示例。

本文檔中引用的OCSP (線上證書狀態協定) 和AD(Active Directory)伺服器用於證書驗證。

- Active Directory FQDN : winserver.ad.rem-xxx.com
- CRL分發URL : <http://winserver.ad.rem-xxx.com/ocsp-ca.crl>
- 授權URL : <http://winserver.ad.rem-xxx.com/ocsp>

這是憑證鏈結，其中包含檔案中使用的每個憑證的一般名稱。

- CA : ocspp-ca-common-name
- 客戶端證書 : clientcertCN
- 伺服器憑證 : ise32-01.ad.rem-xxx.com
- OCSP簽名證書 : ocsppSignCommonName

組態

C1000中的配置

這是C1000 CLI中的最小配置。

```
aaa new-model

radius server ISE32
address ipv4 1.x.x.181
key cisco123

aaa group server radius AAASERVER
server name ISE32

aaa authentication dot1x default group AAASERVER
aaa authorization network default group AAASERVER
aaa accounting dot1x default start-stop group AAASERVER
dot1x system-auth-control

interface Vlan12
ip address 192.168.10.254 255.255.255.0

interface Vlan14
ip address 1.x.x.101 255.0.0.0

interface GigabitEthernet1/0/1
Switch port access vlan 14
Switch port mode access

interface GigabitEthernet1/0/3
switchport access vlan 12
switchport mode access
authentication host-mode multi-auth
authentication port-control auto
```

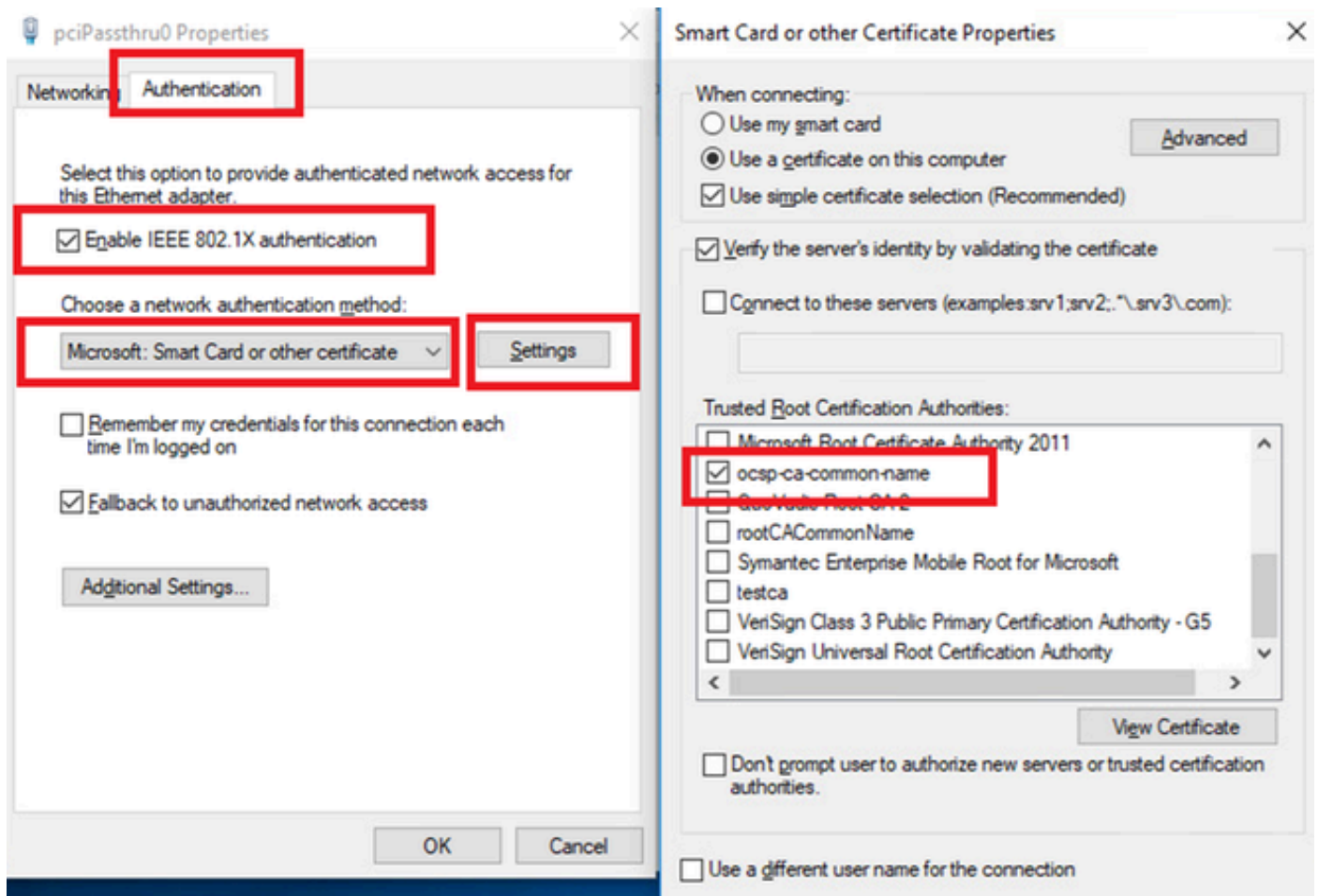
dot1x pae authenticator
spanning-tree portfast edge

Windows PC中的配置

步驟 1. 配置使用者身份驗證

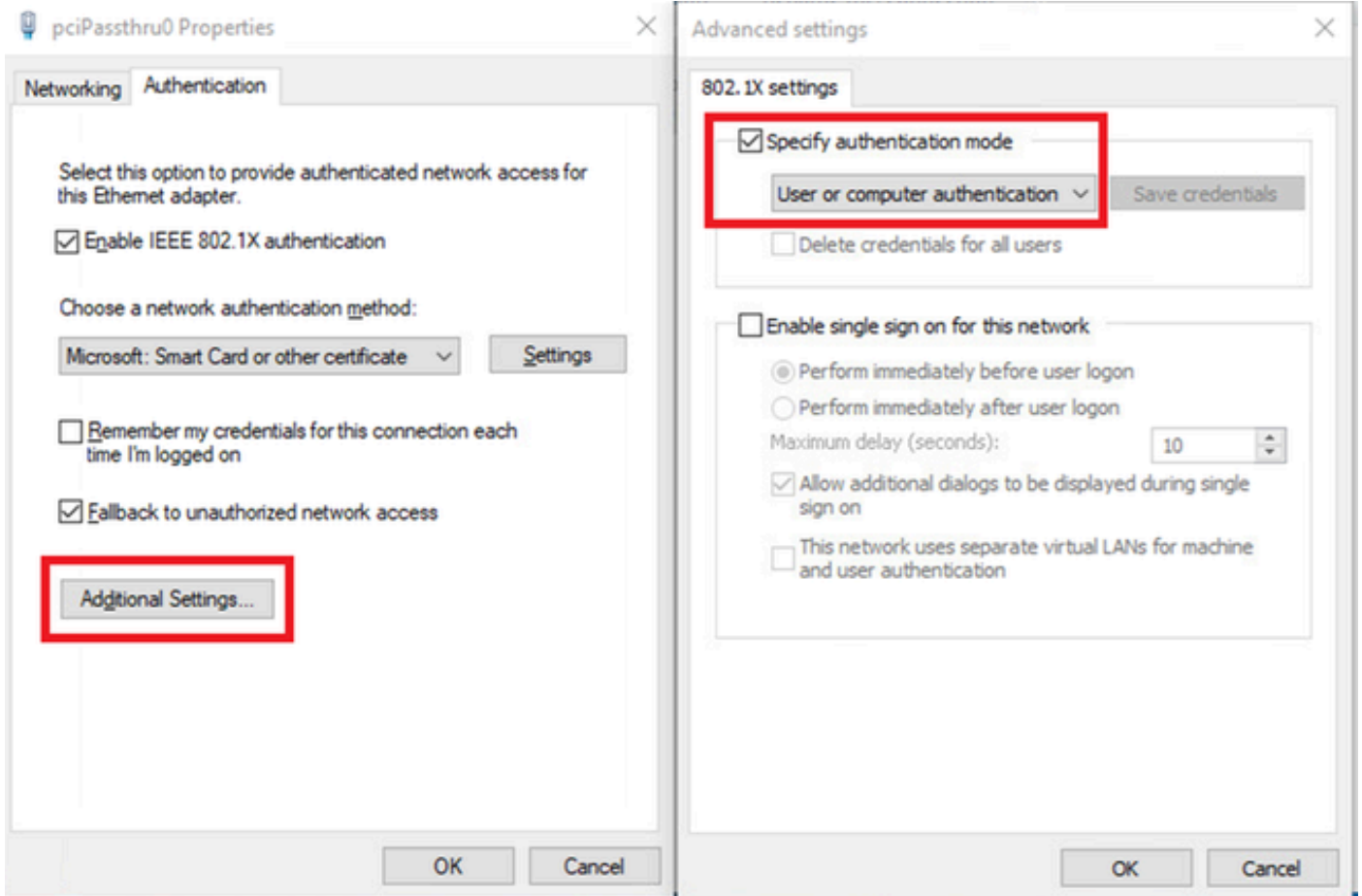
導覽至Authentication，checkEnable IEEE 802.1X authentication，然後選擇Microsoft：智慧卡或其他憑證。

按一下「設定」按鈕，選中「使用此電腦上的證書」，然後選擇Windows PC的受信任CA。



啟用憑證驗證

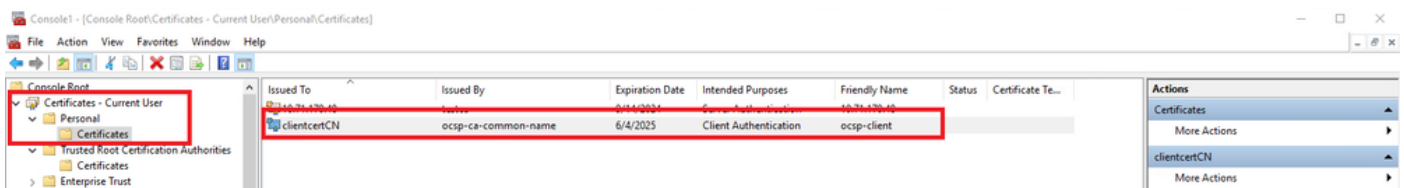
導覽至Authentication，checkAdditional Settings。從下拉清單中選擇使用者或電腦身份驗證。



指定驗證模式

步驟 2. 確認使用者端憑證

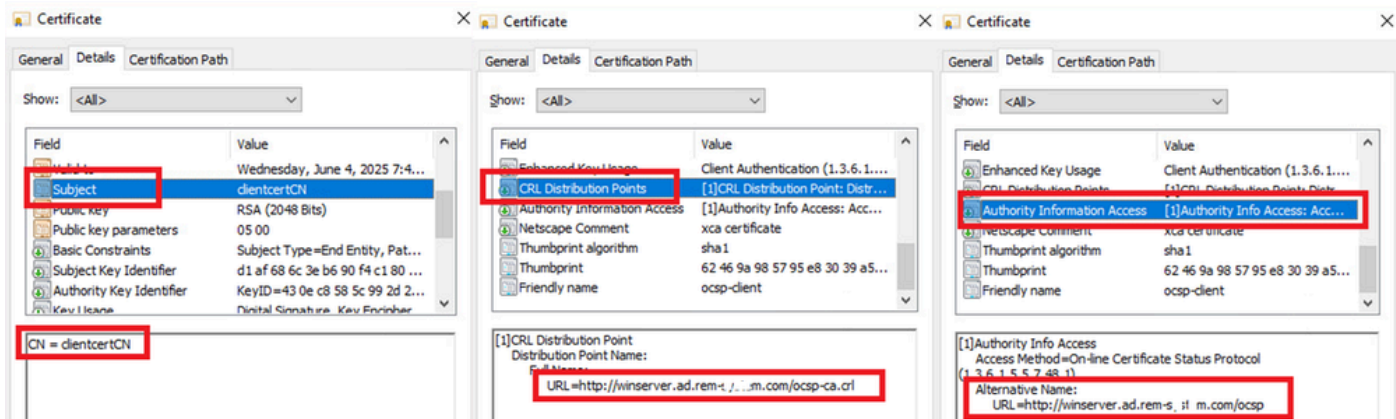
導航到證書- Current User > Personal > Certificates，然後檢查用於身份驗證的客戶端證書。



確認使用者端憑證

按兩下客戶端證書，導航到Details，檢查Subject、CRL分發點、Authority Information Access的詳細資訊。

- 主題：CN = clientcertCN
- CRL分發點：<http://winserver.ad.rem-xxx.com/ocsp-ca.crl>
- 授權資訊存取：<http://winserver.ad.rem-xxx.com/ocsp>

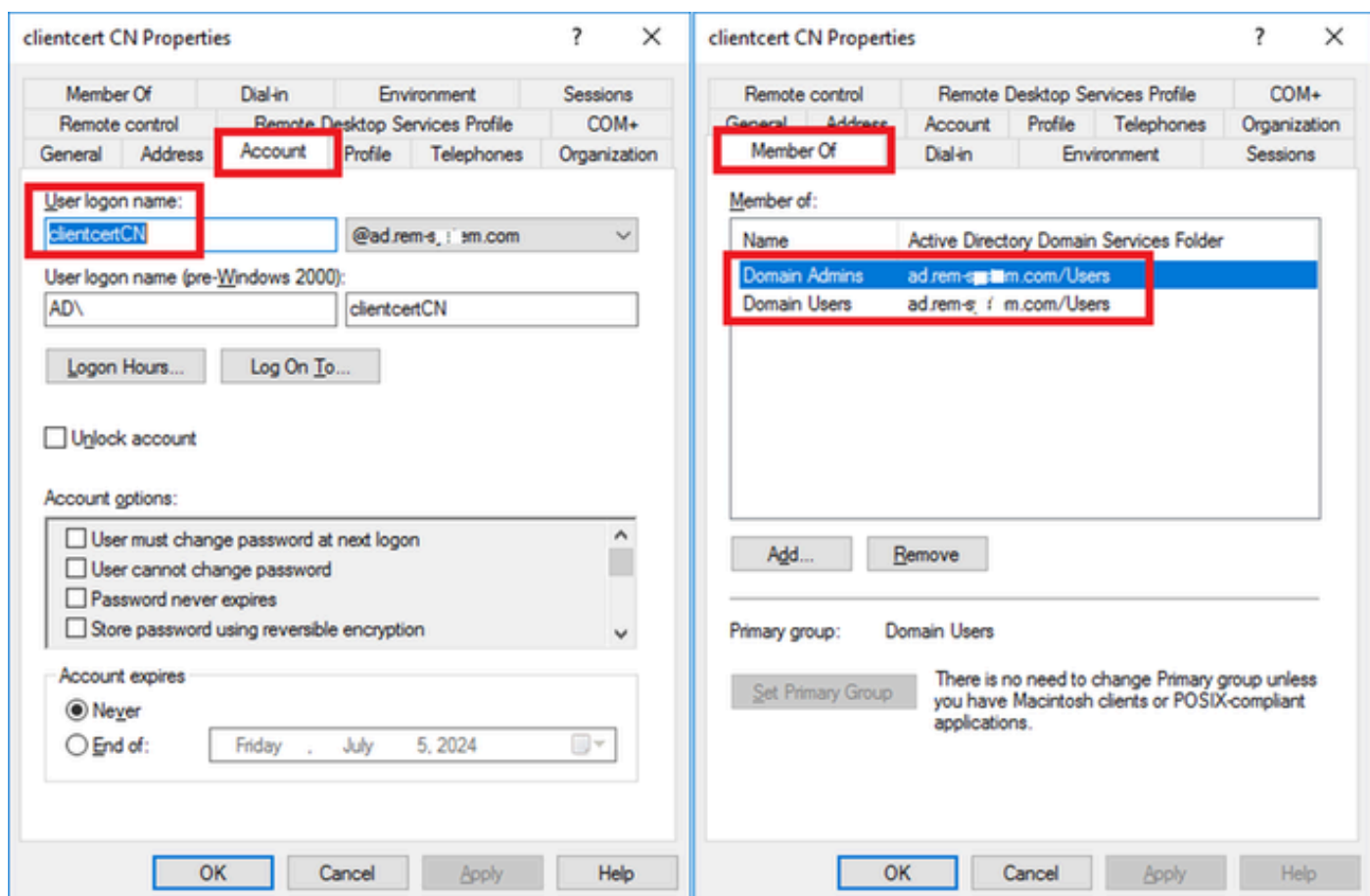


客戶端證書的詳細資訊

Windows Server中的配置

步驟 1. 新增使用者

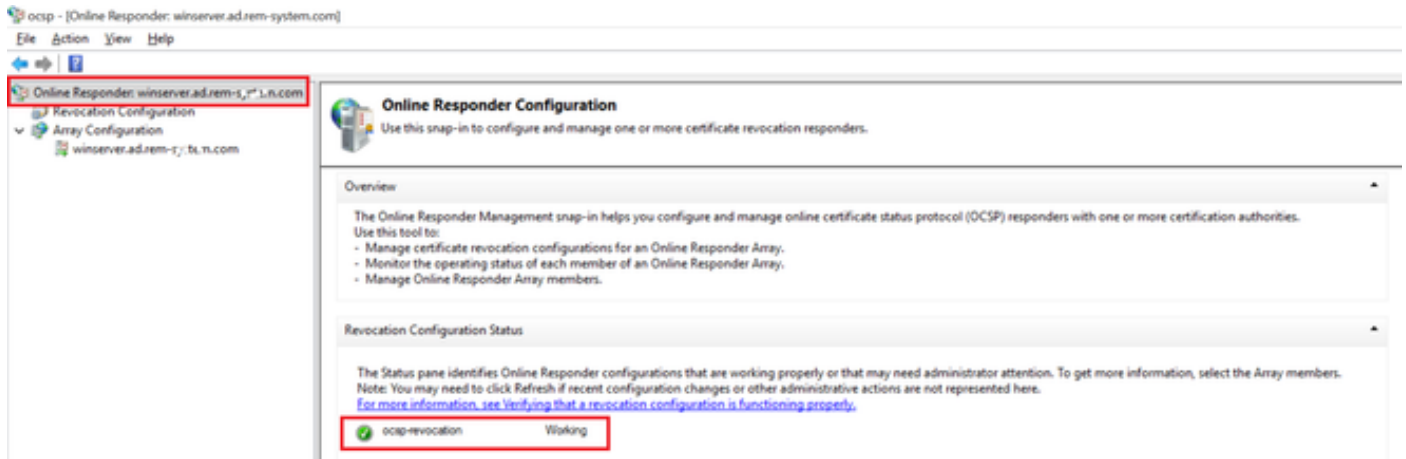
導覽至Active Directory Users and Computers，然後按一下Users。增加clientcertCN作為使用者登入名。



使用者登入名稱

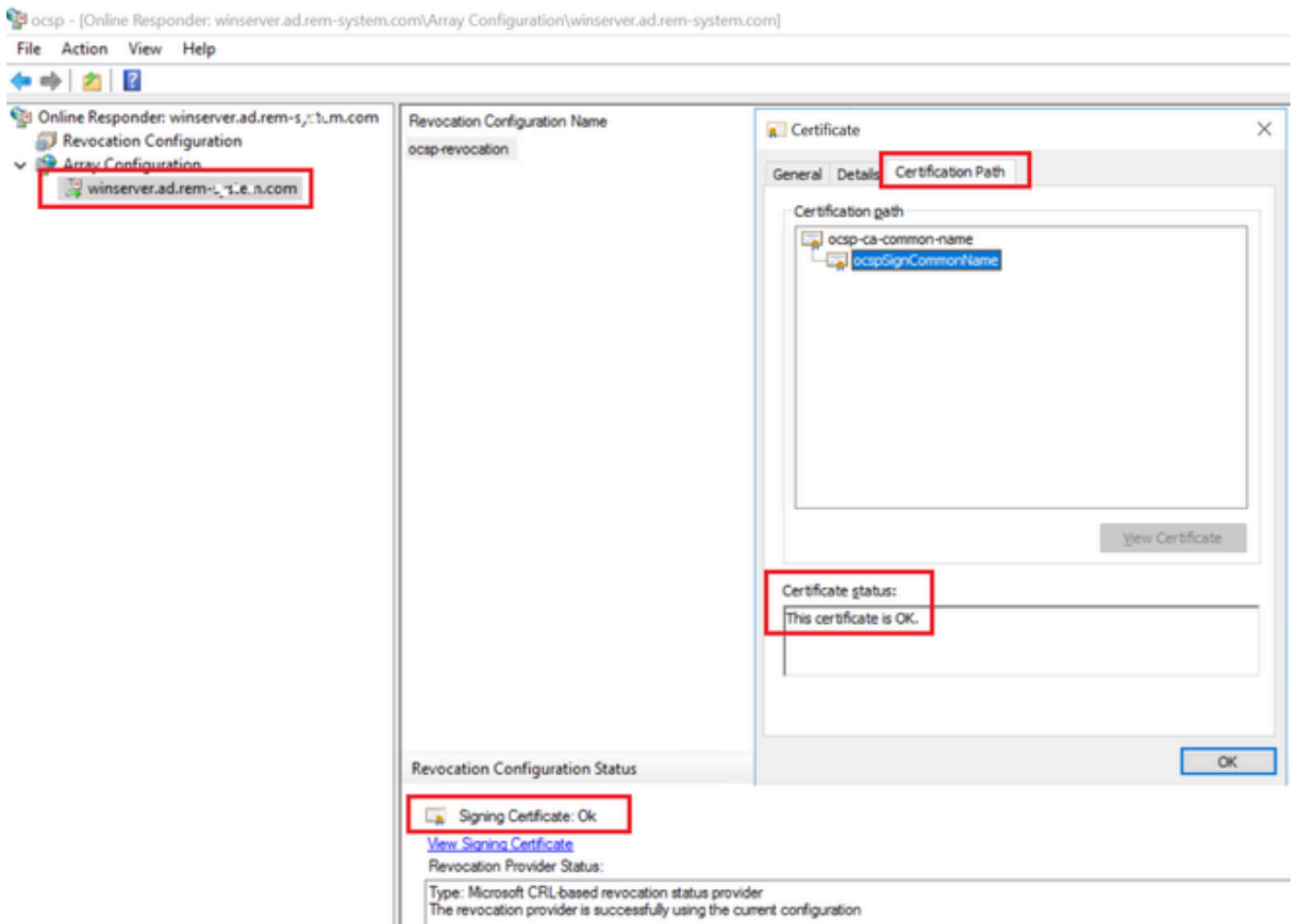
步驟 2. 確認OCSP服務

導航到Windows，點選線上響應程式管理。確認OCSP伺服器的狀態。



OCSP伺服器的狀態

按一下winserver.ad.rem-xxx.com，檢查OCSP簽名證書的狀態。

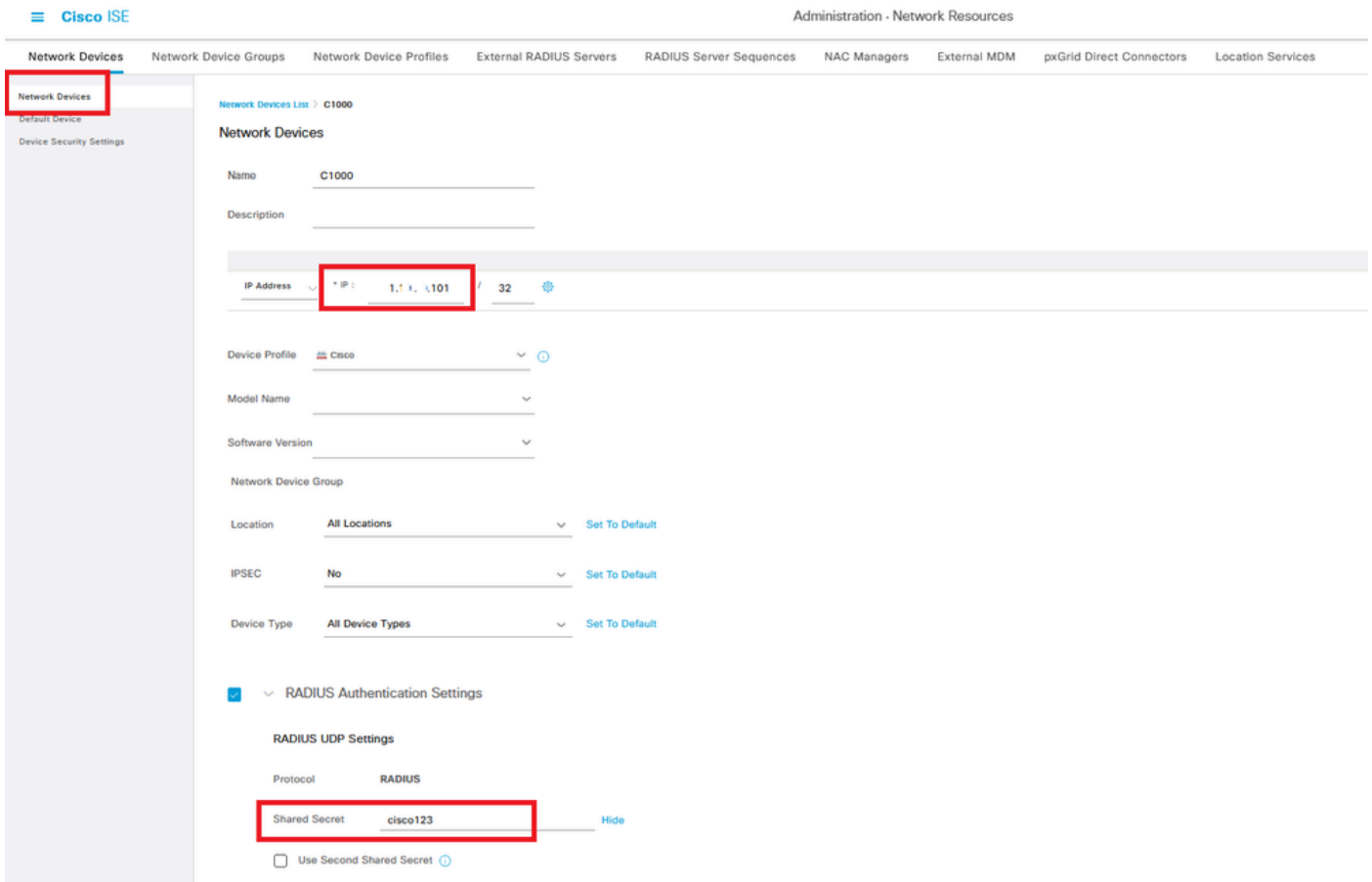


OCSP簽名證書的狀態

ISE中的配置

步驟 1.增加裝置

導航到管理>網路裝置，點選增加按鈕，增加C1000裝置。

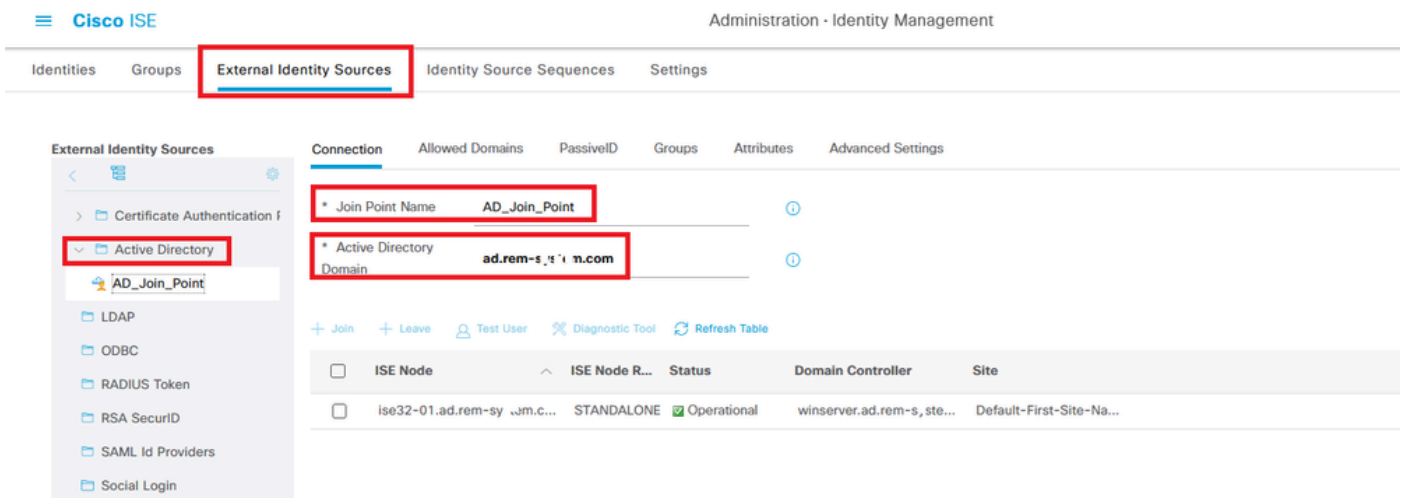


增加裝置

步驟 2. 新增Active Directory

導航到管理>外部身份源> Active Directory，點選連線頁籤，將Active Directory增加到ISE。

- 連線點名稱：AD_Join_Point
- Active Directory域：ad.rem-xxx.com



新增Active Directory

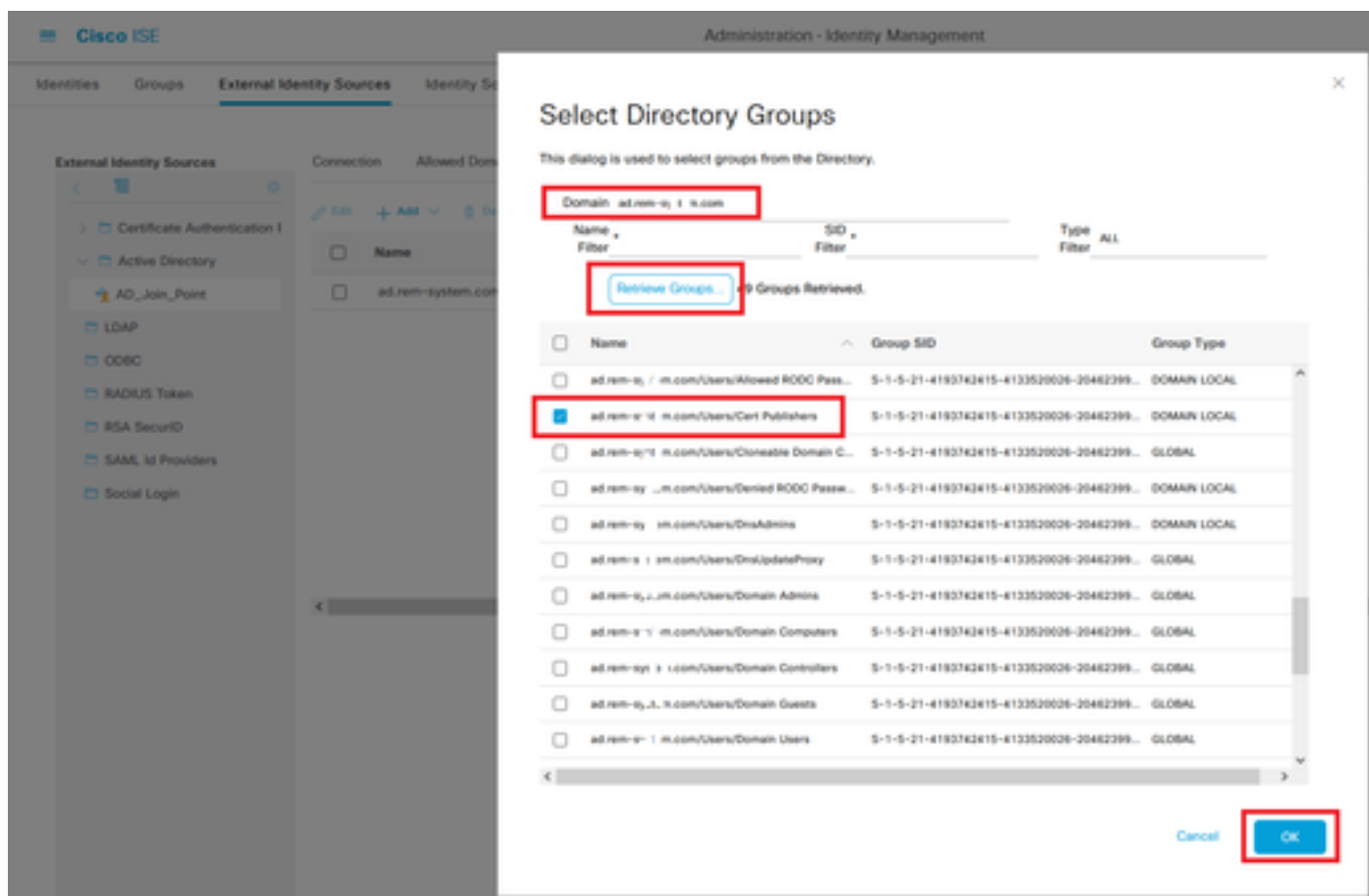
導航到組頁籤，從下拉選單中選擇從目錄選擇組。

External Identity Sources

Connection Allowed Domains PassivelD **Groups** Attributes Advanced SettingsEdit **+ Add** ^ Delete Group Update SID Values **Select Groups From Directory** ^ SID

從目錄選取群組

按一下「擷取群組」下拉式清單。Checkad.rem-xxx.com/Users/Cert Publishers 並按一下確定。



檢查憑證發行者

步驟 3. 增加證書身份驗證配置檔案

導航到 Administration > External Identity Sources > Certificate Authentication Profile，按一下 Add 按鈕以增加新的證書身份驗證配置檔案。

- 名稱：cert_authen_profile_test
- 身份庫：AD_Join_Point
- 使用 Identity From Certificate 屬性：使用者-一般名稱。
- 將使用者端憑證與辨識存放區中的憑證比對：僅用於解決辨識模糊問題。

The screenshot displays the 'External Identity Sources' configuration page in Cisco ISE. On the left, a sidebar lists various identity sources, with 'Certificate Authentication f' expanded to show 'cert_authen_profile_test'. The main area is titled 'Certificate Authentication Profile' and shows the configuration for 'cert_authen_profile_test'. The 'Name' field is set to 'cert_authen_profile_test'. The 'Identity Store' is set to 'AD_Join_Point'. Under 'Use Identity From', 'Certificate Attribute' is selected with 'Subject - Common Name' as the attribute. Under 'Match Client Certificate Against Certificate In Identity Store', 'Only to resolve identity ambiguity' is selected. Other options include 'Preloaded_Certificate_Prof', 'Active Directory', 'AD_Join_Point', 'LDAP', 'ODBC', 'RADIUS Token', 'RSA SecurID', 'SAML Id Providers', and 'Social Login'.

增加證書身份驗證配置檔案

步驟 4. 增加身份源隔離

導航到管理>身份源序列，增加身份源序列。

- 名稱：Identity_AD
- 選取「憑證驗證」 Profile: cert_authen_profile_test
- 身份驗證搜尋清單：AD_Join_Point

Identity Source Sequences List > Identity_AD

Identity Source Sequence

Identity Source Sequence

* Name Identity_AD

Description

Certificate Based Authentication

Select Certificate Authentication Profile cert_authen_profil

Authentication Search List

A set of identity sources that will be accessed in sequence until first authentication succeeds

Available	Selected
Internal Endpoints	AD_Join_Point
Internal Users	
Guest Users	
All_AD_Join_Points	

增加身份源序列

步驟 5. ISE 中的確認證書

導航到管理>證書>系統證書，確認伺服器證書由受信任CA簽署。

Deployment	Licensing	Certificates	Logging	Maintenance	Upgrade	Health Checks	Backup & Restore	Admin Access	Settings
		<input type="checkbox"/> Default self-signed saml server certificate - CN=SAML_ise32-01.ad.rem-sy		SAML			SAML_ise32-01.ad.rem-sy		SAML_ise32-01.ad.rem-sy
		<input type="checkbox"/> CN=ise32-01.ad.rem-sy		ISE Messaging Service			ise32-01.ad.rem-sy		Certificate Services Endpoint Sub CA - ise32-01
		<input type="checkbox"/> CN=ise32-01.ad.rem-sy		Not in use			ise32-01.ad.rem-sy		Certificate Services Endpoint Sub CA - ise32-01
		<input type="checkbox"/> CN=ise32-01.ad.rem-sy		Portal		Default Portal Certificate Group	ise32-01.ad.rem-sy		rootCACommonName
		<input type="checkbox"/> ise-server-cert-friendly-name		Admin, EAP Authentication, RADIUS DTLS, psGrid, Portal			ise32-01.ad.rem-sy		ocsp-ca-common-name

伺服器憑證

導航到管理>證書> OCSP 客戶端配置檔案，按一下「增加」按鈕增加新的 OCSP 客戶端配置檔案。

- 名稱：ocsp_test_profile
- 配置OCSP響應程式URL：<http://winserver.ad.rem-xxx.com/ocsp>

The screenshot shows the 'Edit OCSP Profile' configuration in Cisco ISE. Key settings include:

- Name:** ocsp_test_profile
- Server Connection:** Always Access Primary Server First
- Primary Server URL:** http://t.ad.rem-xxx.com/ocsp
- Response Cache:** Cache Entry Time To Live: 1440 Minutes

OCSP客戶端配置檔案

導航到管理>證書>受信任證書，確認受信任CA已導入到ISE。

Certificate Name	Issued By	Expiration Date	Status
Cisco Manufacturing CA SHA2	Infrastructure	Mon, 12 Nov 2012	Enabled
Cisco Root CA 2048	Infrastructure	Sat, 15 May 2004	Disabled
Cisco Root CA 2099	Cisco Services	Wed, 10 Aug 2016	Enabled
Cisco Root CA M1	Cisco Services	Wed, 19 Nov 2008	Enabled
Cisco Root CA M2	Infrastructure	Mon, 12 Nov 2012	Enabled
Cisco RXC-R2	Cisco Services	Thu, 10 Jul 2014	Enabled
CN=root_ca_common_name, OU=cisc...	Cisco Services	Thu, 16 May 2024	Enabled
CN=rootCACCommonName#rootCACom...	Cisco Services	Tue, 4 Jun 2024	Enabled
Default self-signed server certificate	Infrastructure	Thu, 2 May 2024	Enabled
DigiCert Global Root CA	Cisco Services	Fri, 10 Nov 2006	Enabled
DigiCert Global Root G2 CA	Cisco Services	Fri, 15 Jan 2020	Enabled
DigiCert root CA	Infrastructure	Mon, 10 Nov 2006	Enabled
DigiCert SHA2 High Assurance Server ...	Infrastructure	Tue, 22 Oct 2013	Enabled
IdenTrust Commercial Root CA 1	Cisco Services	Fri, 17 Jan 2014	Enabled
ocsp-ca-friendly-name	Cisco Services	Tue, 4 Jun 2024	Enabled

受信任的CA

選中CA並按一下Edit按鈕，輸入OCSP配置的詳細資訊以進行證書狀態驗證。

- 根據OCSP服務進行驗證：ocsp_test_profile
- 如果OCSP返回UNKNOWN狀態，則拒絕請求：檢查
- 如果OCSP響應程式無法訪問，則拒絕請求：檢查

Deployment Licensing **Certificates** Logging Maintenance Upgrade Health Checks Backup & Restore Admin Access Settings

Issuer

* Friendly Name

Status Enabled

Description

Subject CN=ocsp-ca-common-name

Issuer CN=ocsp-ca-common-name

Valid From Tue, 4 Jun 2024 13:52:00 JST

Valid To (Expiration) Sun, 4 Jun 2034 13:52:00 JST

Serial Number 1A 12 1D 58 59 6C 75 1B

Signature Algorithm SHA256withRSA

Key Length 2048

Usage

Trusted For: ⓘ

- Trust for authentication within ISE
- Trust for client authentication and Syslog
- Trust for certificate based admin authentication
- Trust for authentication of Cisco Services

Certificate Status Validation

To verify certificates, enable the methods below. If both are enabled, OCSP will always be tried first.

OCSP Configuration

- Validate against OCSP Service
- Reject the request if OCSP returns UNKNOWN status
- Reject the request if OCSP Responder is unreachable

Certificate Revocation List Configuration

Download CRL

CRL Distribution URL

Retrieve CRL Automatically 5 Minutes before expiration.

Every 1 Hours

If download failed, wait 10 Minutes before retry.

憑證狀態驗證

步驟 6. 增加允許的協定

導航到策略>結果>身份驗證>允許的協定，編輯預設網路訪問服務清單，然後選中允許EAP-TLS。

Dictionary Conditions **Results**

Authentication

Allowed Protocols

Authorization

Profiling

Posture

Client Provisioning

Allowed Protocols Services List > Default Network Access

Allowed Protocols

Name Default Network Access

Description Default Allowed Protocol Service

Allowed Protocols

Authentication Bypass

Process Host Lookup

Authentication Protocols

Allow PAP/ASCII

Allow CHAP

Allow MS-CHAPv1

Allow MS-CHAPv2

Allow EAP-MD5

Allow EAP-TLS

Allow Authentication of expired certificates to allow certificate renewal in Authorization Policy

Enable Stateless Session Resume

Session ticket time to live 2 Hours

Proactive session ticket update will occur after 90 % of Time To Live has expired

Allow LEAP

Allow PEAP

PEAP Inner Methods

Allow EAP-MS-CHAPv2

Allow Password Change Retries 1 (Valid Range 0 to 3)

Allow EAP-GTC

Allow Password Change Retries 1 (Valid Range 0 to 3)

Allow EAP-TLS

Allow Authentication of expired certificates to allow certificate renewal in Authorization Policy

Require cryptobinding TLV

Allow PEAPv0 only for legacy clients

允許EAP-TLS

步驟 7. 增加策略集

導航到策略>策略集，點選+ 增加策略集。

- 策略集名稱：EAP-TLS-Test
- 條件：網路訪問協定等於RADIUS
- 允許的協定/伺服器序列：預設網路訪問

Cisco ISE Policy - Policy Sets Evaluation Mode : 1 Days

Policy Sets

Reset Reset Policyset Hitcounts Save

Status	Policy Set Name	Description	Conditions	Allowed Protocols / Server Sequence	Hits	Actions	View
●	EAP-TLS-Test		Network Access-Protocol EQUALS RADIUS	Default Network Access	75		

增加策略集

步驟 8. 增加身份驗證策略

導航到策略集，點選EAP-TLS-Testto增加身份驗證策略。

- 規則名稱：EAP-TLS-Authentication
- 條件：網路訪問EapAuthentication 等於EAP-TLS 和Wired_802.1 X
- 使用：Identity_AD

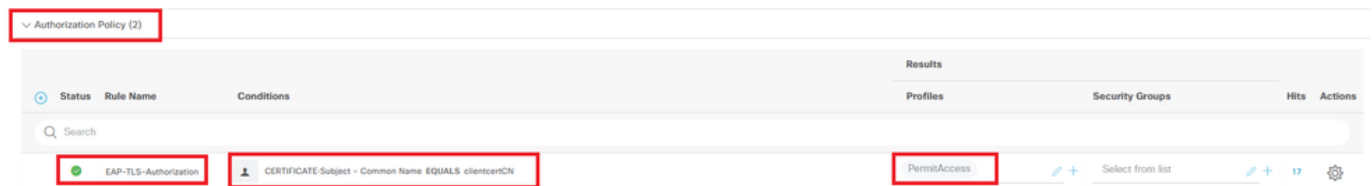


增加身份驗證策略

步驟 9.增加授權策略

導航到策略集，點選EAP-TLS-Test增加授權策略。

- 規則名稱：EAP-TLS-Authorization
- 條件：證書使用者-公用名等於clientcertCN
- 結果：PermitAccess



增加授權策略

驗證

步驟 1.確認身份驗證會話

運行show authentication sessions interface GigabitEthernet1/0/3 details命令，確認C1000中的身份驗證會話。

```
<#root>
```

```
Switch#
```

```
show authentication sessions interface GigabitEthernet1/0/3 details
```

```
Interface: GigabitEthernet1/0/3
MAC Address: b496.9114.398c
IPv6 Address: Unknown
IPv4 Address: 192.168.10.10
User-Name: clientcertCN
Status: Authorized
Domain: DATA
Oper host mode: multi-auth
Oper control dir: both
Session timeout: N/A
Restart timeout: N/A
```

Periodic Acct timeout: N/A
Session Uptime: 111s
Common Session ID: 01C2006500000933E4E87D9
Acct Session ID: 0x00000078
Handle: 0xB6000043
Current Policy: POLICY_Gi1/0/3

Local Policies:
Service Template: DEFAULT_LINKSEC_POLICY_SHOULD_SECURE (priority 150)

Server Policies:

Method status list:
Method State

dot1x Authc Success

步驟 2. 確認Radius即時日誌

在ISE GUI中導航到操作> RADIUS > 即時日誌，確認身份驗證的即時日誌。

Time	Status	Details	Repea...	Identity	Endpoint ID	Endpoint...	Authentication Policy	Authorization Policy	Authorizatio...	IP Address
Jun 05, 2024 09:43:36.3...	●		0	clientcertCN	B4-96-91:14.3...	Intel-Device	EAP-TLS-Test >> EAP-TLS-Authentication	EAP-TLS-Test >> EAP-TLS-Authorization	PermitAccess	192.168.10.10
Jun 05, 2024 09:43:33.2...	■			clientcertCN	B4-96-91:14.3...	Intel-Device	EAP-TLS-Test >> EAP-TLS-Authentication	EAP-TLS-Test >> EAP-TLS-Authorization	PermitAccess	

Radius即時日誌

確認身份驗證的詳細即時日誌。

Overview

Event	5200 Authentication succeeded
Username	clientcertCN
Endpoint Id	B4:96:91:14:39:8C @
Endpoint Profile	Intel-Device
Authentication Policy	EAP-TLS-Test >> EAP-TLS-Authentication
Authorization Policy	EAP-TLS-Test >> EAP-TLS-Authorization
Authorization Result	PermitAccess

Authentication Details

Source Timestamp	2024-06-05 09:43:33.268
Received Timestamp	2024-06-05 09:43:33.268
Policy Server	ise32-01
Event	5200 Authentication succeeded
Username	clientcertCN
Endpoint Id	B4:96:91:14:39:8C
Calling Station Id	B4-96-91-14-39-8C
Endpoint Profile	Intel-Device
Authentication Identity Store	AD_Join_Point
Identity Group	Profiled
Audit Session Id	01C2006500000933E4E87D9

Other Attributes

ConfigVersionId	167
DestinationPort	1645
Protocol	Radius
NAS-Port	50103
Framed-MTU	1500
State	37CPMSessionID=01C2006500000933E4E87D9;31SessionID=ise32-01/506864164/73;
AD-User-Resolved-Identities	clientcertCN@ad.rem-s;:rem.com
AD-User-Candidate-Identities	clientcertCN@ad.rem-sy;.em.com
TotalAuthenLatency	324
ClientLatency	80
AD-User-Resolved-DNs	CN=clientcert CN, CN=Users, DC=ad, DC=rem-s;:rem, DC=com
AD-User-DNS-Domain	ad.rem-s;:rem.com
AD-User-NetBios-Name	AD
IsMachineIdentity	false
AD-User-SamAccount-Name	clientcertCN
AD-User-Qualified-Name	clientcertCN@ad.rem-sy;:em.com
AD-User-SamAccount-Name	clientcertCN
AD-User-Qualified-Name	clientcertCN@ad.rem-sy;:em.com
TLSCipher	ECDHE-RSA-AES256-GCM-SHA384
TLSVersion	TLSv1.2
DTLSSupport	Unknown
Subject	CN=clientcertCN
Issuer	CN=ocsp-ca-common-name

Steps

11001	Received RADIUS Access-Request
11017	RADIUS created a new session
15049	Evaluating Policy Group
15008	Evaluating Service Selection Policy
11507	Extracted EAP-Response/Identity
12500	Prepared EAP-Request proposing EAP-TLS with challenge
12625	Valid EAP-Key-Name attribute received
11006	Returned RADIUS Access-Challenge
11001	Received RADIUS Access-Request
11018	RADIUS is re-using an existing session
12502	Extracted EAP-Response containing EAP-TLS challenge-response and accepting EAP-TLS as negotiated
12800	Extracted first TLS record; TLS handshake started
12545	Client requested EAP-TLS session ticket
12542	The EAP-TLS session ticket received from supplicant while the stateless session resume is disabled. Performing full authentication
12805	Extracted TLS ClientHello message
12806	Prepared TLS ServerHello message
12807	Prepared TLS Certificate message
12808	Prepared TLS ServerKeyExchange message
12809	Prepared TLS CertificateRequest message
12810	Prepared TLS ServerDone message
12505	Prepared EAP-Request with another EAP-TLS challenge
11006	Returned RADIUS Access-Challenge
11001	Received RADIUS Access-Request
11018	RADIUS is re-using an existing session
12504	Extracted EAP-Response containing EAP-TLS challenge-response
12988	Take OCSP servers list from OCSP service configuration - certificate for clientcertCN
12550	Sent an OCSP request to the primary OCSP server for the CA - External OCSP Server
12553	Received OCSP response - certificate for clientcertCN
12554	OCSP status of user certificate is good - certificate for clientcertCN
12811	Extracted TLS Certificate message containing client certificate
12812	Extracted TLS ClientKeyExchange message
12813	Extracted TLS CertificateVerify message
12803	Extracted TLS ChangeCipherSpec message
24432	Looking up user in Active Directory - AD_Join_Point
24325	Resolving identity - clientcertCN
24313	Search for matching accounts at join point - ad.rem-s;:em.com
24319	Single matching account found in forest - ad.rem-s;:em.com
24323	Identity resolution detected single matching account
24700	Identity resolution by certificate succeeded - AD_Join_Point
22037	Authentication Passed
12506	EAP-TLS authentication succeeded
24715	ISE has not confirmed locally previous successful machine authentication for user in Active Directory
15036	Evaluating Authorization Policy
24209	Looking up Endpoint in Internal Endpoints IDStore - clientcertCN
15036	Evaluating Authorization Policy
24209	Looking up Endpoint in Internal Endpoints IDStore - clientcertCN
24211	Found Endpoint in Internal Endpoints IDStore
15016	Selected Authorization Profile - PermitAccess
22081	Max sessions policy passed
22080	New accounting session created in Session cache
11503	Prepared EAP-Success
11002	Returned RADIUS Access-Accept

Crypto,2024-06-05 09:43:33,064,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, CryptoLib.CSSL.OCSP Callback -

starting OCSP request to primary

,SSL.cpp:1444

Crypto,2024-06-05 09:43:33,064,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

Start processing OCSP request

,

URL=<http://winserver.ad.rem-xxx.com/ocsp>

, use nonce=1,OcspClient.cpp:144

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

Received OCSP server response

,OcspClient.cpp:411

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, Crypto.OcspClient::pe

User certificate status: Good

,OcspClient.cpp:598

Crypto,2024-06-05 09:43:33,104,DEBUG,0x7f9822961700,NIL-CONTEXT,Crypto::Result=0, CryptoLib.CSSL.OCSP C

perform OCSP request succeeded

, status: Good,SSL.cpp:1684

// Radius session

Radius,2024-06-05 09:43:33,120,DEBUG,0x7f982d7b9700,cntx=0000017387,sesn=ise32-01/506864164/73,CPMSessi

Code=1(AccessRequest)

Identifier=238 Length=324

[1] User-Name - value: [

clientcertCN

]

[4] NAS-IP-Address - value: [1.x.x.101]

[5] NAS-Port - value: [50103]

[24] State - value: [37CPMSessionID=01C2006500000933E4E87D9;31SessionID=ise32-01/506864164/73;]

[87] NAS-Port-Id - value: [GigabitEthernet1/0/3]

Radius,2024-06-05 09:43:33,270,DEBUG,0x7f982d9ba700,cntx=0000017387,sesn=ise32-01/506864164/73,CPMSessi

Code=2(AccessAccept)

Identifier=238 Length=294

[1] User-Name - value: [clientcertCN]

Radius,2024-06-05 09:43:33,342,DEBUG,0x7f982d1b6700,cntx=0000017401,sesn=ise32-01/506864164/74,CPMSessi

Code=4(AccountingRequest)

Identifier=10 Length=286
 [1] User-Name - value: [clientcertCN]
 [4] NAS-IP-Address - value: [1.x.x.101]
 [5] NAS-Port - value: [50103]
 [40] Acct-Status-Type - value: [Interim-Update]
 [87] NAS-Port-Id - value: [GigabitEthernet1/0/3]
 [26] cisco-av-pair - value: [audit-session-id=01C20065000000933E4E87D9]
 [26] cisco-av-pair - value: [method=dot1x] ,RADIUSHandler.cpp:2455

Radius,2024-06-05 09:43:33,350,DEBUG,0x7f982e1be700,cntx=0000017401,sesn=ise32-01/506864164/74,CPMSession

Code=5(AccountingResponse)

Identifier=10 Length=20,RADIUSHandler.cpp:2455

2. TCP轉儲

在ISE中的TCP轉儲中，您會發現有關OCSP響應和Radius會話的資訊。

OCSP請求和響應：

No.	Time	Identification	Source	S.Port	Destination	D.Port	Time to Live	Protocol	Length	TCP.Se	Next sr	TCP.Ac	Info
140	2024-06-05 00:43:33.093523	0x0295 (661)	1.1.1.181	25844	1.1.1.157	80		64 OCSP	262	1	197	1	Request
141	2024-06-05 00:43:33.104108	0x0117 (279)	1.1.1.157	80	1.1.1.181	25844		128 OCSP	1671	1	1607	197	Response

OCSP請求和響應的資料包捕獲

```
> Frame 141: 1671 bytes on wire (13368 bits), 1671 bytes captured (13368 bits)
> Ethernet II, Src: VMware_98:c9:91 (00:50:56:98:c9:91), Dst: VMware_98:57:1c (00:50:56:98:57:1c)
> Internet Protocol Version 4, Src: 1.1.1.157, Dst: 1.1.1.181
> Transmission Control Protocol, Src Port: 80, Dst Port: 25844, Seq: 1, Ack: 197, Len: 1605
> Hypertext Transfer Protocol
  Online Certificate Status Protocol
    responseStatus: successful (0)
  responseBytes
    ResponseType Id: 1.3.6.1.5.5.7.48.1.1 (id-pkix-ocsp-basic)
  BasicOCSPResponse
    tbsResponseData
      responderID: byKey (2)
      producedAt: Jun 5, 2024 09:43:33.000000000
      responses: 1 item
        SingleResponse
          certID
            certStatus: good (0)
            thisUpdate: Jun 4, 2024 16:05:00.000000000
            nextUpdate: Jul 4, 2024 16:05:00.000000000
          responseExtensions: 1 item
```

擷取OCSP回應的詳細資訊

Radius會話：

146	2024-06-05 00:43:33.118175	0x9bc6 (39878)	1.1.1.181	67181	1.1.1.181	1645		255 RADIUS	366				Access-Request id=238
185	2024-06-05 00:43:33.270244	0x033d (829)	1.1.1.181	67181	1.1.1.181	1645		64 RADIUS	336				Access-Accept id=238
187	2024-06-05 00:43:33.341233	0x9bc7 (39879)	1.1.1.181	1646	1.1.1.181	1646		255 RADIUS	328				Accounting-Request id=10
188	2024-06-05 00:43:33.350936	0x037a (890)	1.1.1.181	1646	1.1.1.181	1646		64 RADIUS	62				Accounting-Response id=10
267	2024-06-05 00:43:36.359621	0x9bc8 (39880)	1.1.1.181	1646	1.1.1.181	1646		255 RADIUS	334				Accounting-Request id=11
268	2024-06-05 00:43:36.369035	0x0489 (1161)	1.1.1.181	1646	1.1.1.181	1646		64 RADIUS	62				Accounting-Response id=11

Radius會話的資料包捕獲

相關資訊

[配置使用ISE的EAP-TLS身份驗證](#)

[在ISE中配置TLS/SSL證書](#)

關於此翻譯

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