配置&對Catalyst 9800上的可下載ACL進行故障排除

目錄

簡介

本檔案介紹如何在Catalyst 9800無線LAN控制器(WLC)上設定可下載ACL(dACL)並疑難排解。

背景資訊

dACL在Cisco IOS®和IOS XE®交換器中已支援多年。dACL是指發生驗證時，網路裝置從RADIUS伺服器動態下載ACL專案，而不是具有ACL的本地副本並僅分配ACL名稱。更完整的思科ISE配置示例可供使用。本文檔重點介紹自17.10版以來支援用於中央交換的dACL的Cisco Catalyst

9800。

必要條件

本文檔的思想是通過一個基本SSID配置示例演示Catalyst 9800上的dACL使用情況，展示如何完全自定義這些dACL。

在Catalyst 9800無線控制器上，可下載ACL是

- 從Cisco IOS XE Dublin 17.10.1版本開始受支持。
- 僅支援具有本地模式接入點的集中式控制器（或Flexconnect集中式交換）。 FlexConnect本地交換不支援dACL。

需求

思科建議您瞭解以下主題：

- Catalyst無線9800組態型號。
- Cisco IP存取控制清單(ACL)。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- Catalyst 9800-CL（v.都柏林17.12.03）。
- ISE(v. 3.2)。

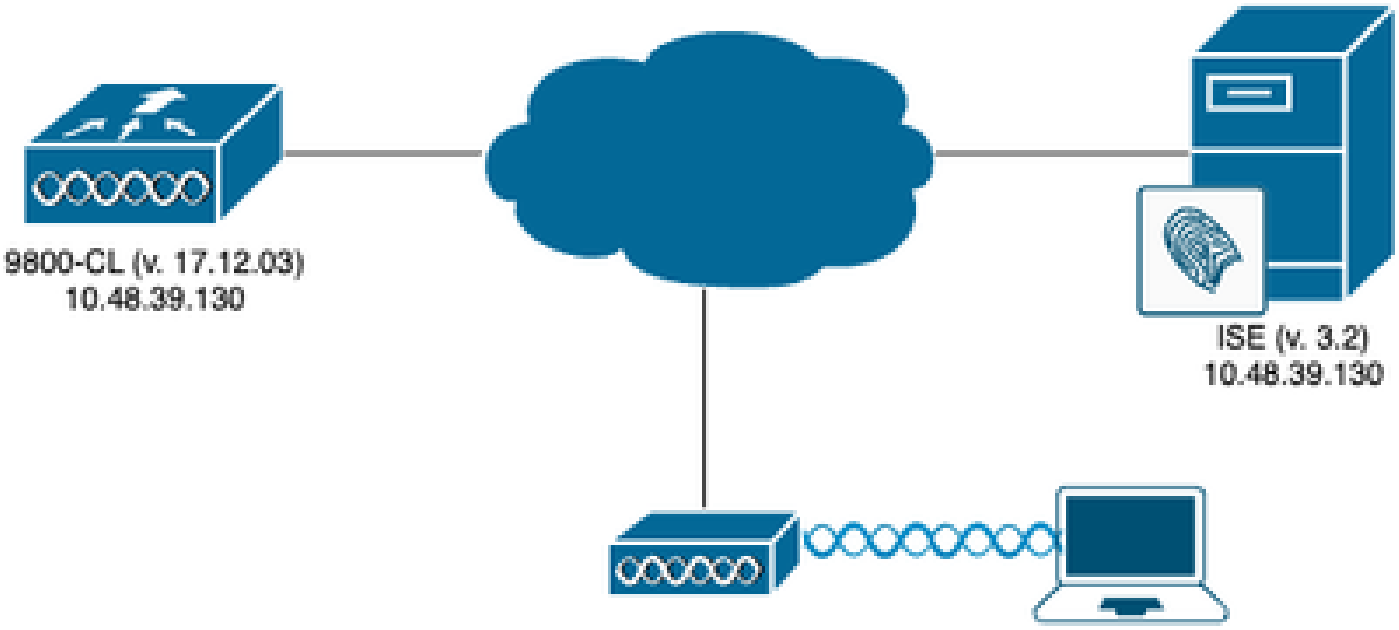
本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

設定

在本配置指南中，即使方法不同（例如WLAN身份驗證、策略配置等），最終結果也是相同的。在此公開的場景中，兩個使用者標識被定義為USER1和USER2。兩者均被授予訪問無線網路的許可權。分別將ACL_USER1和ACL_USER2分配給Catalyst 9800從ISE下載的dACL。

將dACL與802.1x SSID一起使用

網路圖表



WLC組態

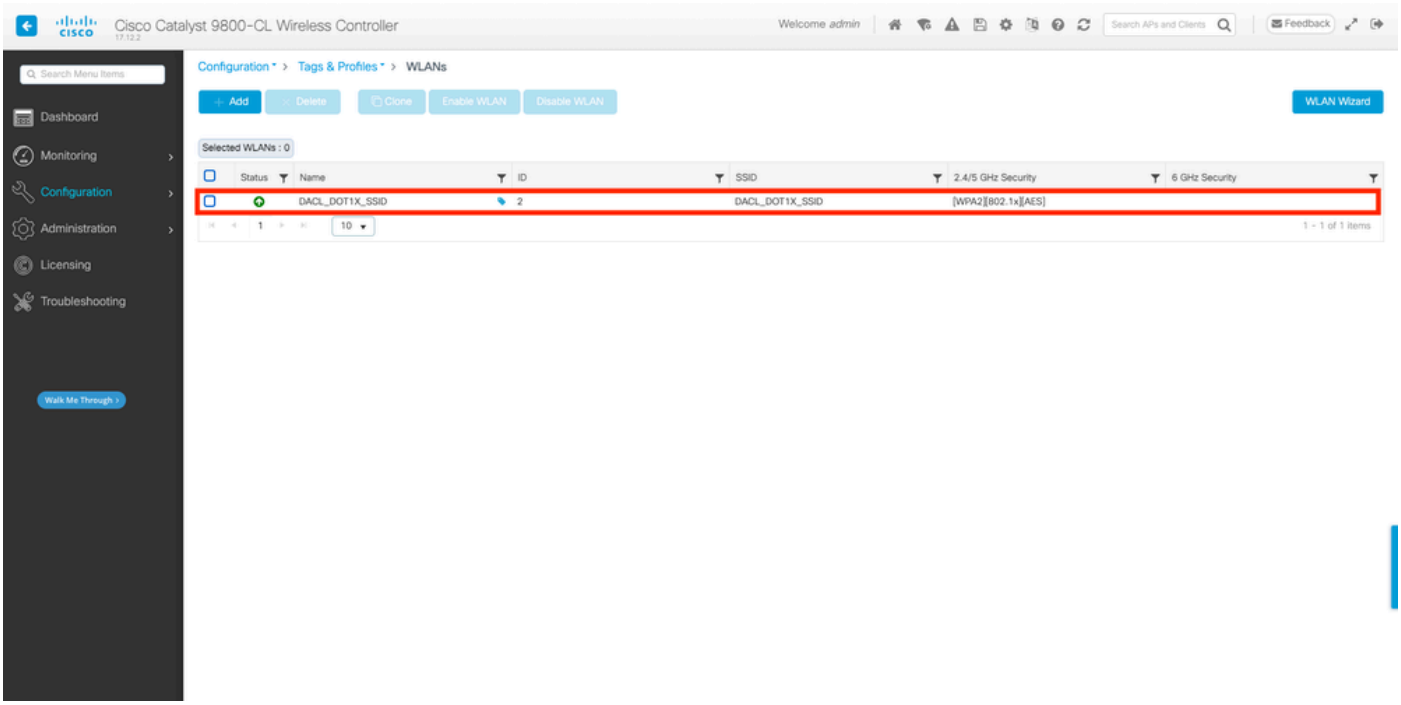
有關Catalyst 9800上的802.1x SSID配置和故障排除的詳細資訊，請參閱在Catalyst 9800無線控制器系列上配置802.1X身份驗證配置指南。

步驟1.配置SSID。

使用ISE作為RADIUS伺服器配置802.1x身份驗證SSID。在本文檔中，SSID命名為「DACL_DOT1X_SSID」。

在 GUI 上：

導覽至Configuration > Tags & Profiles > WLAN，然後建立類似以下所示的WLAN:



在CLI上：

```
WLC#configure terminal
WLC(config)#wlan DACL_DOT1X_SSID 2 DACL_DOT1X_SSID
WLC(config-wlan)#security dot1x authentication-list DOT1X
WLC(config-wlan)#no shutdown
```

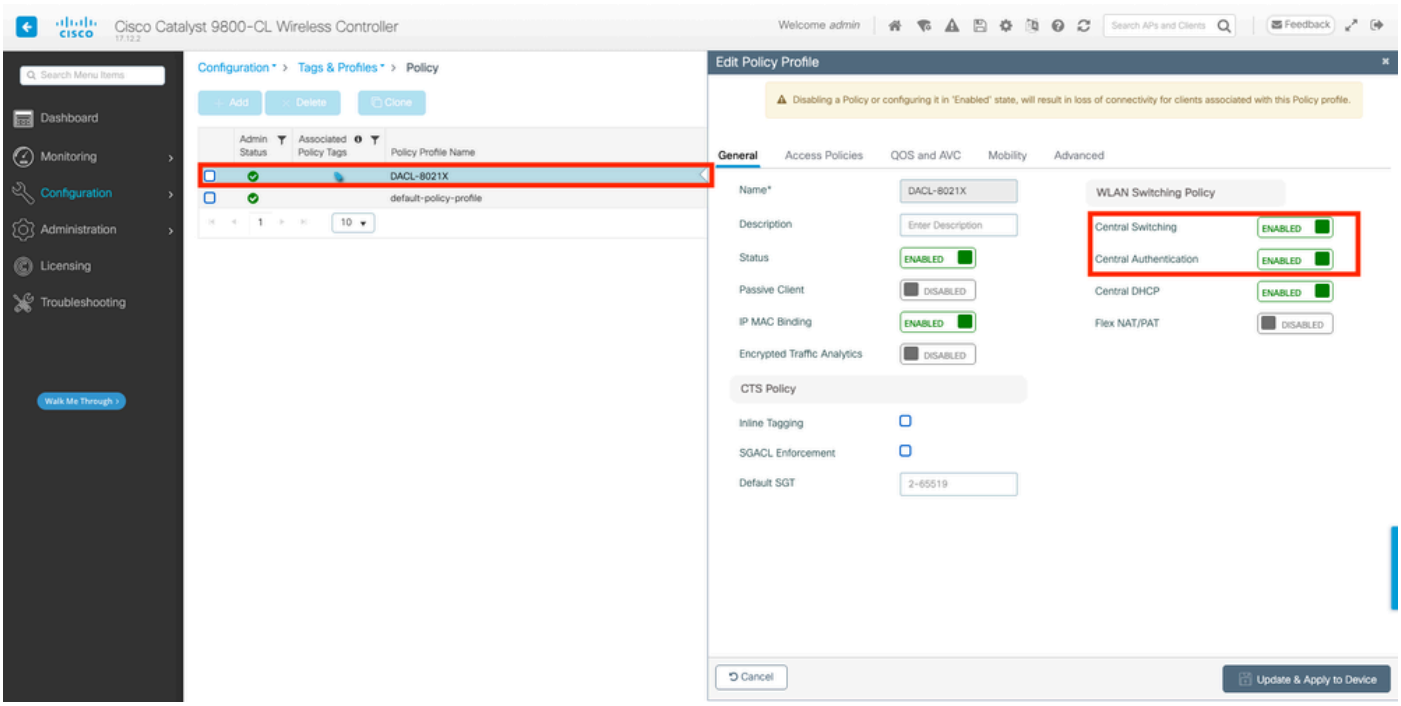
步驟2.配置策略配置檔案。

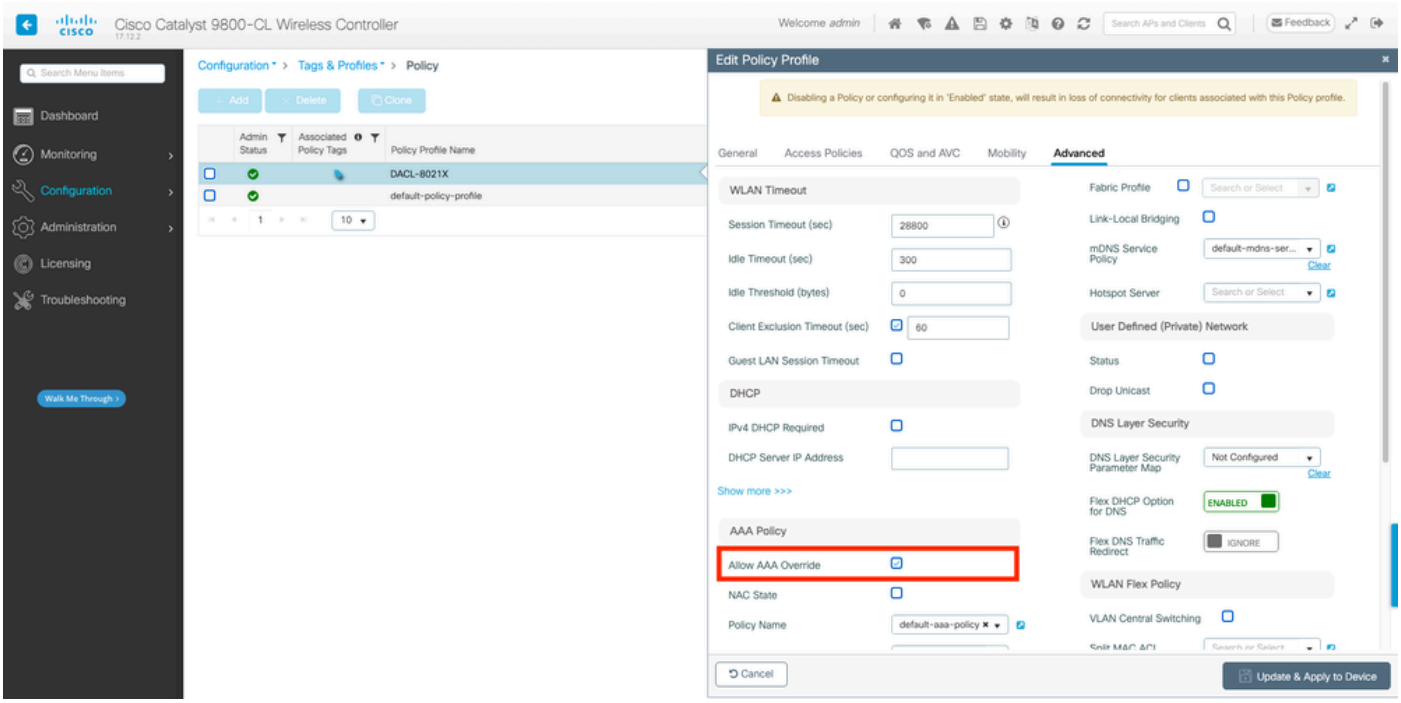
配置策略配置檔案以及上面定義的SSID。在此策略配置檔案中，確保從「高級」頁籤配置AAA覆蓋，如螢幕截圖所示。在此文檔中，使用的策略配置檔案是「DACL-8021X」。

如必要條件部分所述，dACL僅支援集中交換/身份驗證部署。確保策略配置檔案以這種方式配置。

在 GUI 上：

導航到Configuration > Tags & Profiles > Policy，選擇使用的策略配置檔案並按所示進行配置。





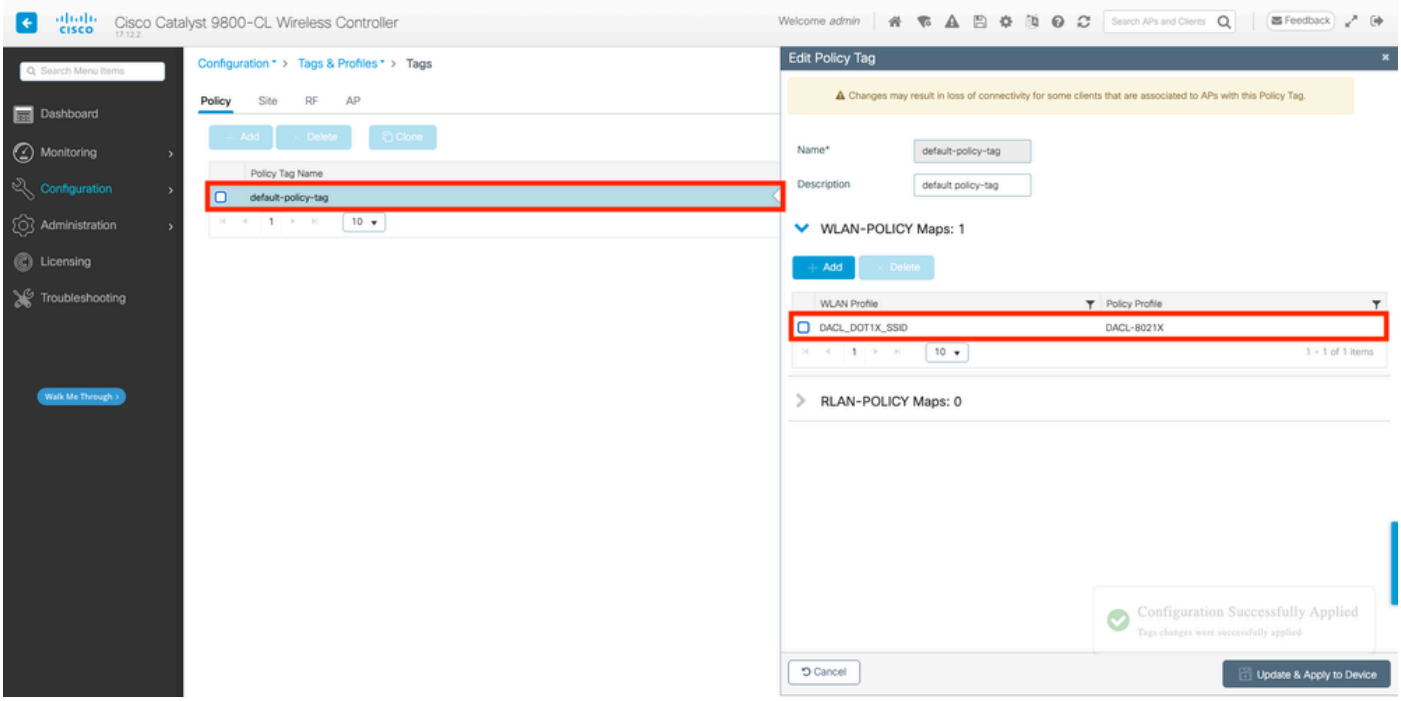
在CLI上：

```
WLC#configure terminal
WLC(config)#wireless profile policy DACL-8021X
WLC(config-wireless-policy)#aaa-override
WLC(config-wireless-policy)#vlan VLAN_1413
WLC(config-wireless-policy)#no shutdown
```

步驟3.將策略配置檔案和SSID分配給使用的策略標籤。

在 GUI 上：

導航到Configuration > Tags & Profiles > Tags。在Policy tags頁籤中，建立（或選擇）使用的標籤，並將步驟1-2期間定義的WLAN和策略配置檔案分配給它。



在CLI上：

```
WLC#configure terminal
WLC(config)#wireless tag policy default-policy-tag
WLC(config-policy-tag)#description "default policy-tag"
WLC(config-policy-tag)#wlan DACL_DOT1X_SSID policy DACL-8021X
```

步驟4. Allow Vendor Specific Attribute。

可在ISE和WLC之間的RADIUS交換中透過廠商專用屬性(VSA)傳遞可下載ACL。使用這些CLI指令，可以在WLC上啟用對這些屬性的支援。

在CLI上：

```
WLC#configure terminal
WLC(config)#radius-server vsa send authentication
```

步驟5.設定預設授權清單。

使用dACL時，必須通過RADIUS實施網路授權，WLC才能授權對配置的802.1x SSID進行身份驗證的任何使用者。

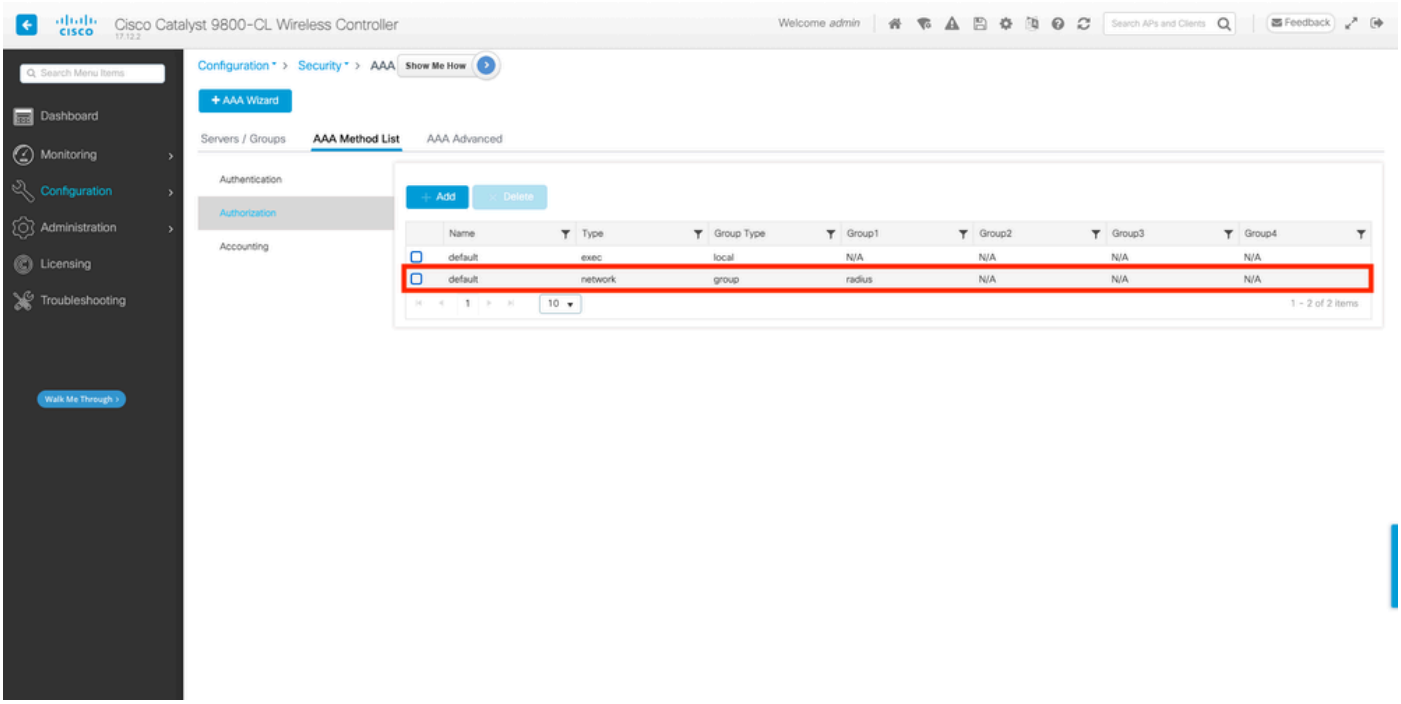
實際上，此處的RADIUS伺服器端不僅會處理驗證，而且會處理授權階段。因此，這種情況下需要授權清單。

也就是：dACL要求使用「aaa authorization network」方法。

您可以使用命令「aaa authorization network default group radius」來使用預設組radius:

在 GUI 上：

導航到Configuration > Security > AAA，然後從AAA Method List > Authorization頁籤建立與所示方法類似的授權方法。



在CLI上：

```
WLC#configure terminal
WLC(config)#aaa authorization network default group radius
```

附註：

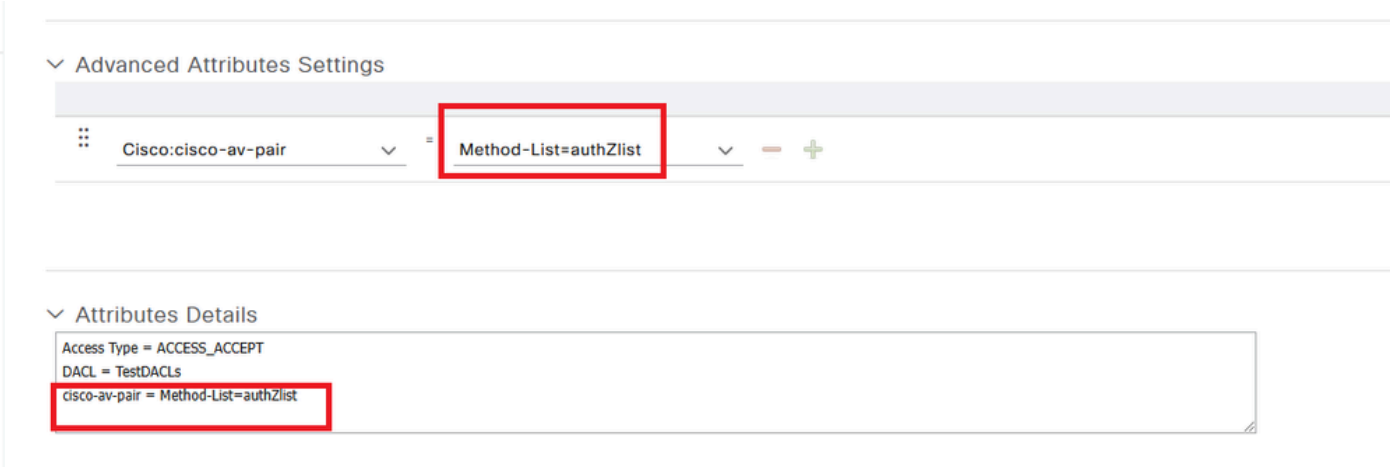
如果不想定義預設方法，則需要定義命名方法。在這種情況下，必須首先呼叫ISE需要使用的AAA授權方法清單，否則WLC將無法下載ACL。

在WLC上：

```
<#root>

WLC(config)# aaa authorization network
authZlist
 group authz-server-group
```

在ISE上：

將此屬性與dACL一起傳送：cisco-av-pair = Method-List=authZlist



ISE 組態

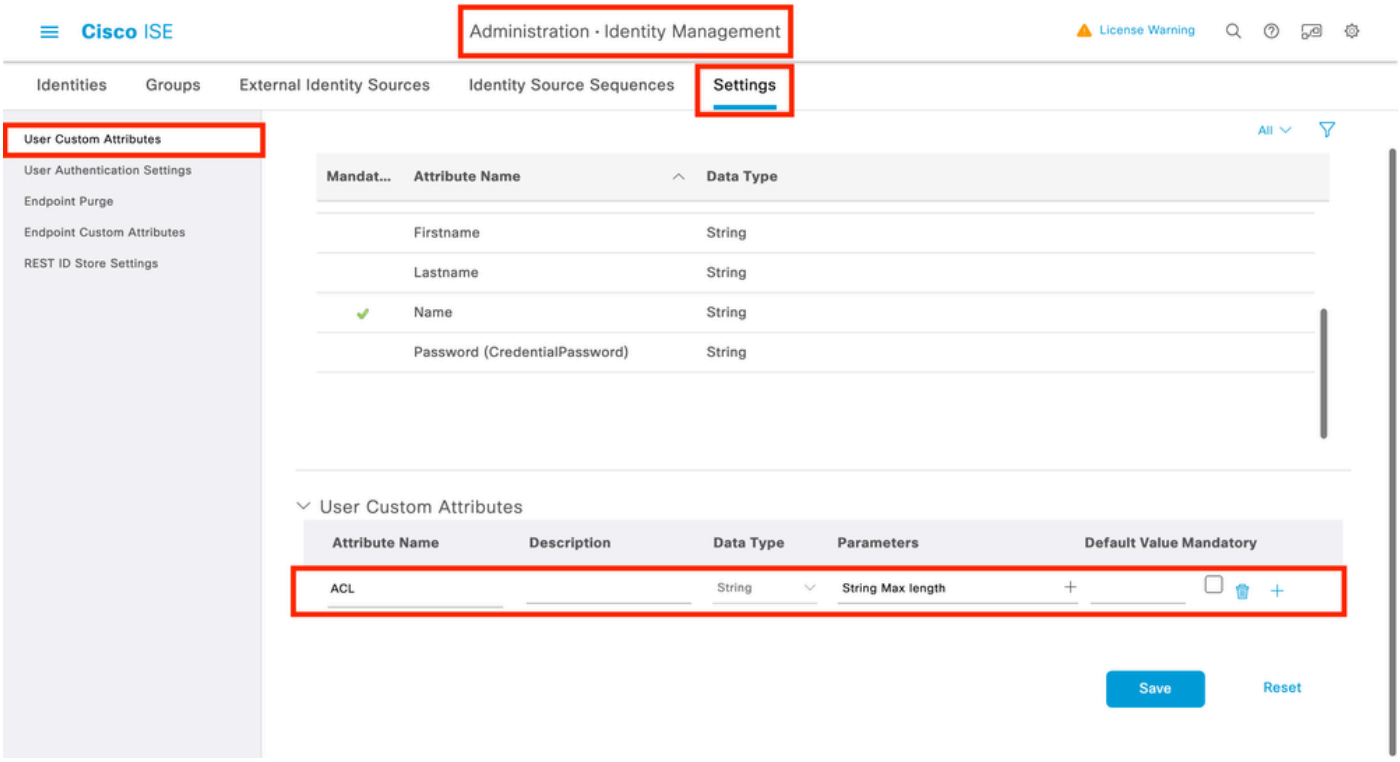
在使用ISE在無線環境中實施dACL時，可以採用兩種常見配置：

1. 每使用者dACL配置。這樣，每個特定身份都通過自定義身份欄位分配了一個dACL。
2. 每結果dACL配置。當選擇此方法時，系統會根據使用者與使用的策略集匹配的授權策略為其分配特定dACL。

每使用者dACL

步驟1.定義dACL自定義使用者屬性

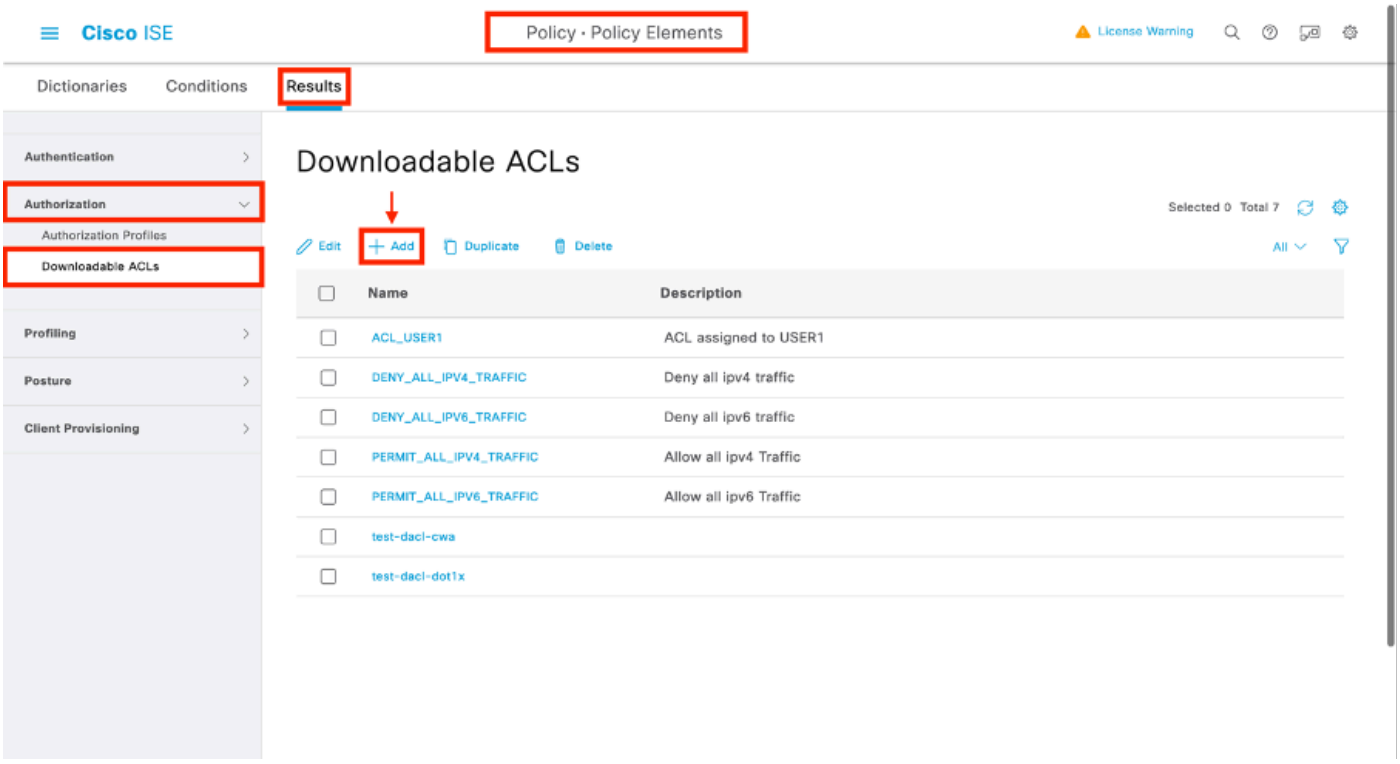
為了能夠將dACL分配給使用者身份，必須首先在建立的身份上配置此欄位。預設情況下，在ISE上，「ACL」欄位未為建立的任何新身份定義。要克服此問題，可以使用「自定義使用者屬性」並定義新的配置欄位。為此，請導航到管理>身份管理>設定>使用者自定義屬性。使用「+」按鈕可新增與所示屬性類似的新屬性。在此示例中，自定義屬性的名稱為ACL。



配置完該配置後，使用「儲存」按鈕儲存更改。

步驟2.配置dACL

導航到Policy > Policy Elements > Results > Authorization > Downloadable ACLs以檢視並定義ISE上的dACL。使用「新增」按鈕建立一個新按鈕。



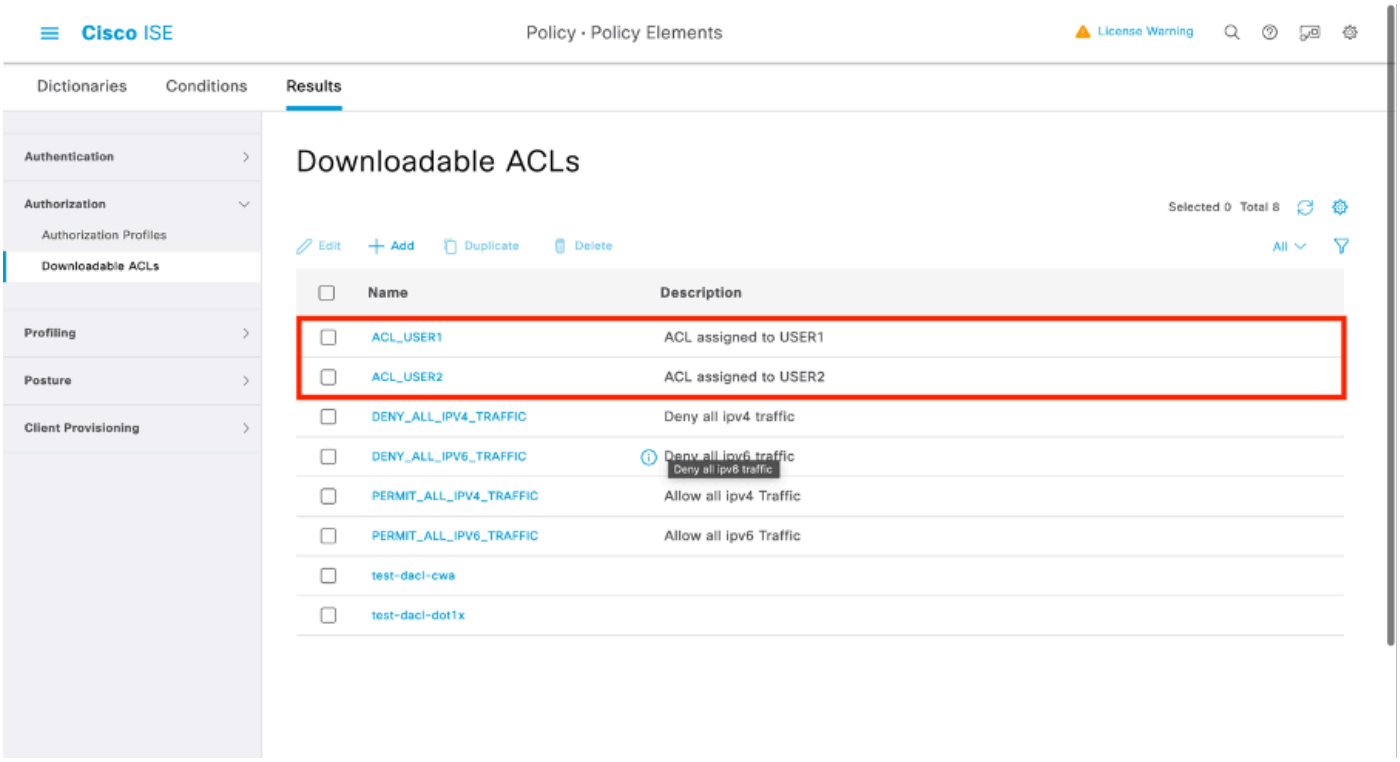
此時會開啟「新可下載ACL」配置表單。在此頁面上，設定以下欄位：

- 名稱:定義的dACL的名稱。
- 說明（可選）：有關所建立dACL用法的簡要說明。
- IP版本：定義dACL中使用的IP協定版本（版本4、6或兩者）。
- DACL內容：dACL的內容（根據Cisco IOS XE ACL語法）。

在本文檔中，使用的dACL是「ACL_USER1」，此dACL允許除目的地為10.48.39.186和10.48.39.13的流量以外的任何流量。

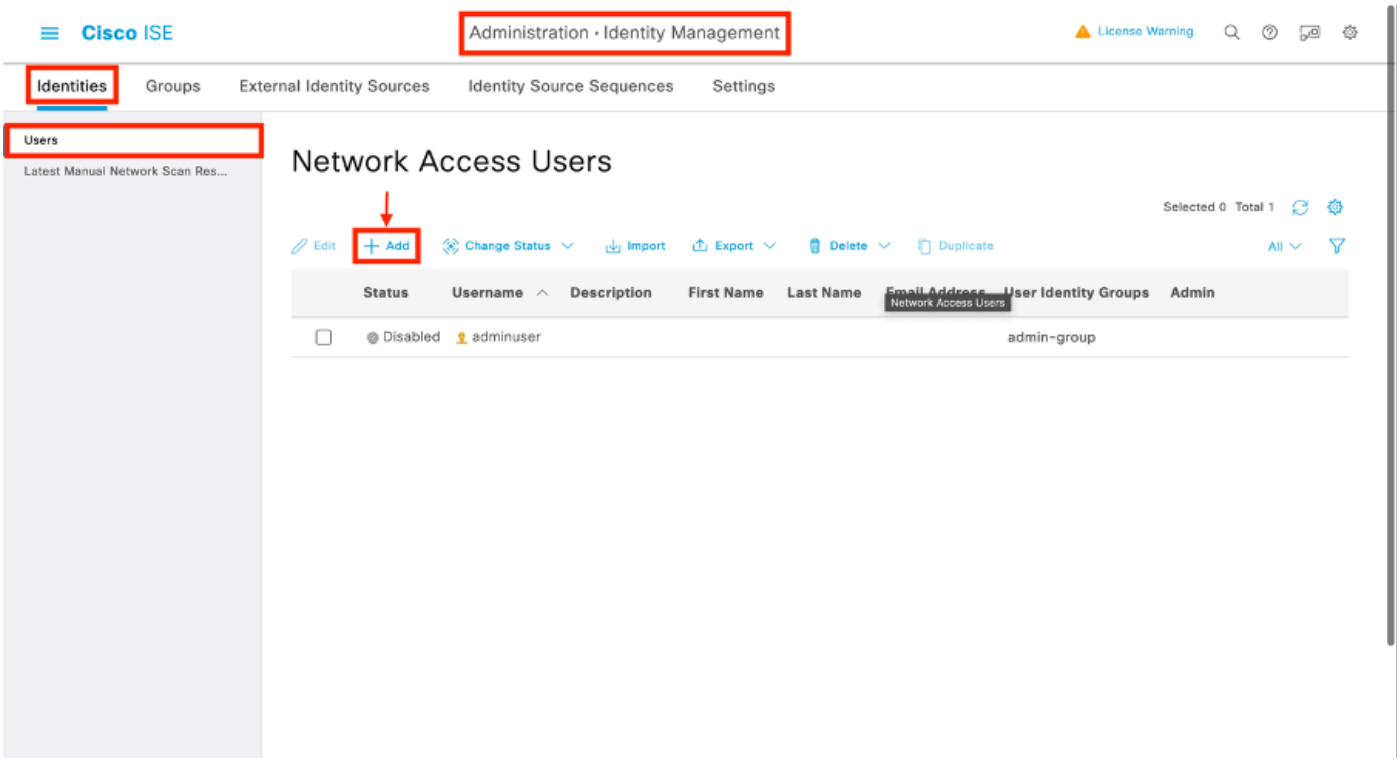
配置欄位後，使用「提交」按鈕建立dACL。

重複該步驟，為第二個使用者ACL_USER2定義dACL，如圖所示。

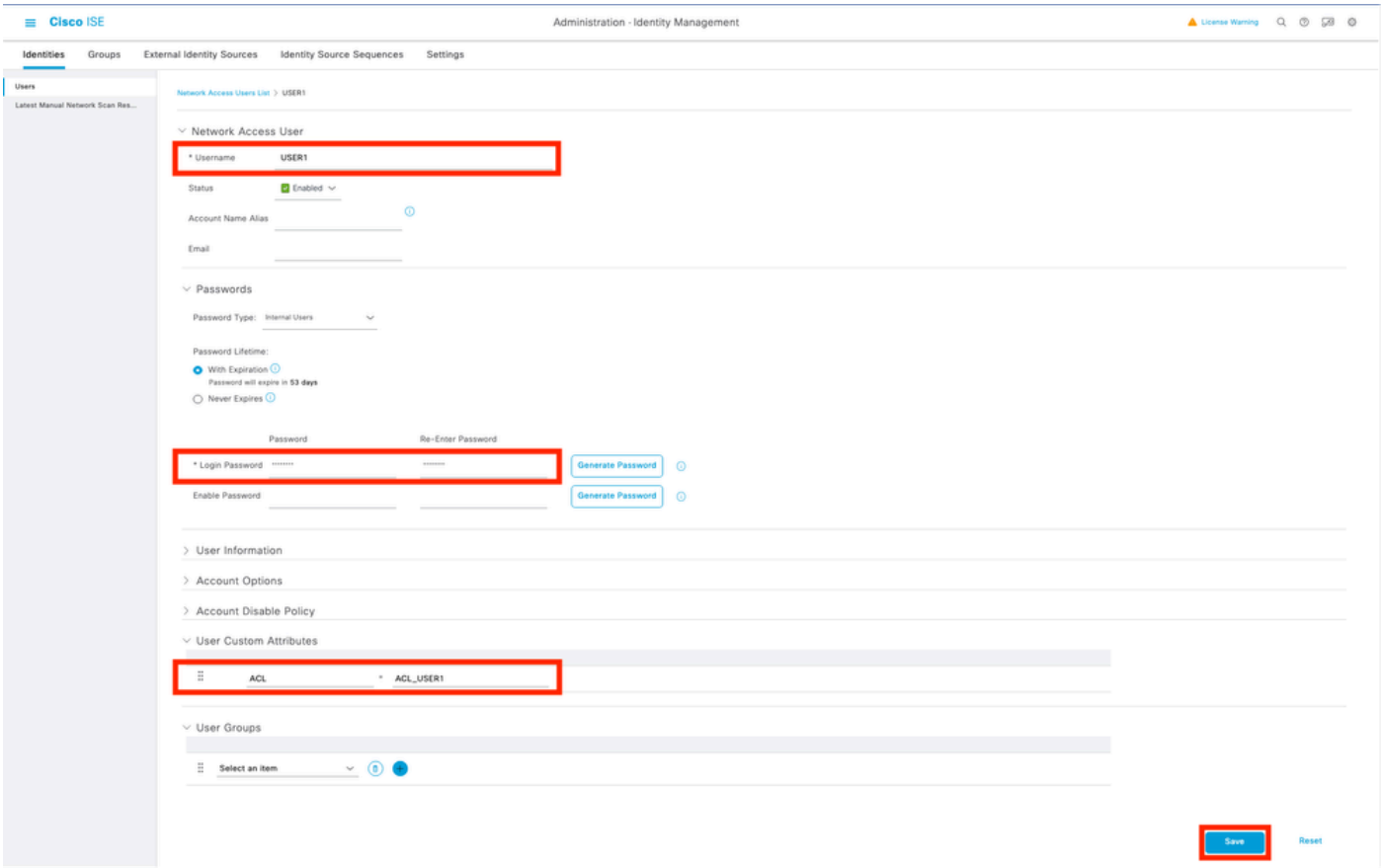


步驟3.將dACL分配給建立的身份

建立dACL後，您可以使用步驟1中建立的使用者自定義屬性將其分配給任何ISE身份。為此，請導航到管理>身份管理>身份>使用者。像往常一樣，使用「新增」按鈕建立使用者。

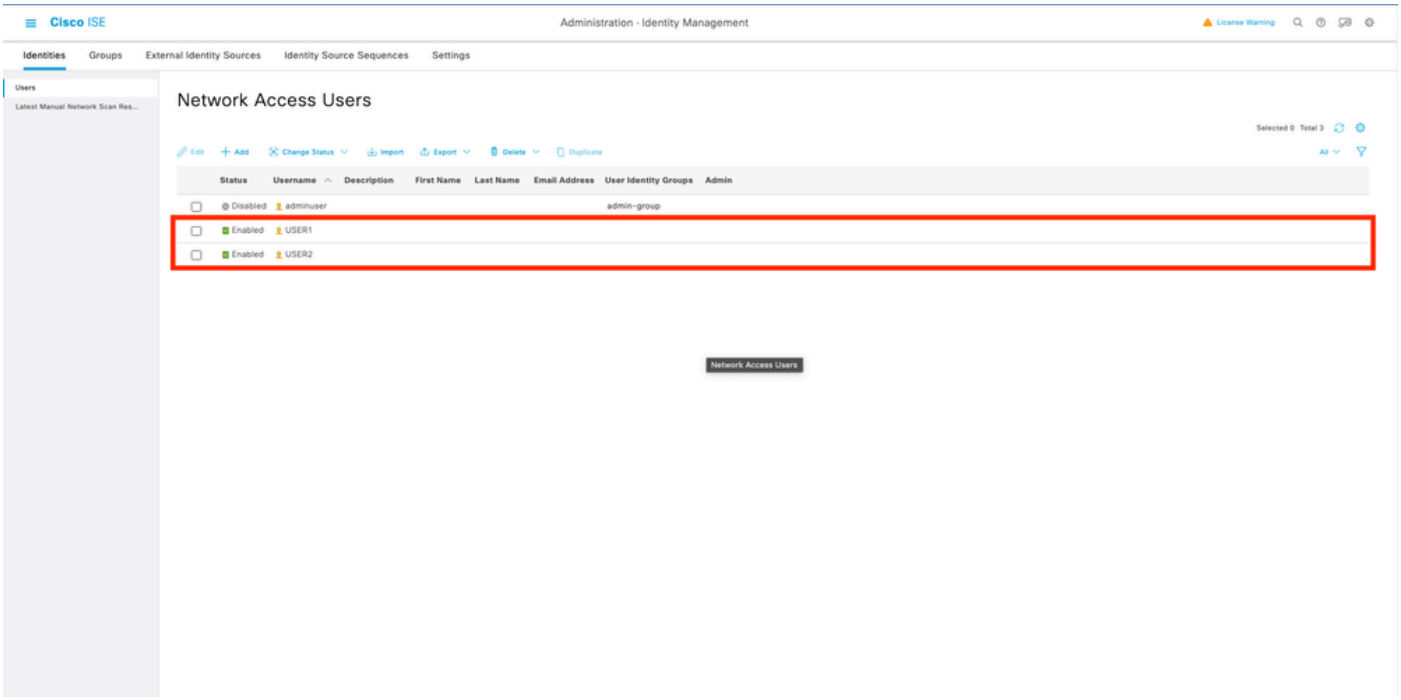


在「新網路訪問使用者」配置表單上，定義建立使用者的使用者名稱和密碼。使用自定義屬性「ACL」將步驟2中建立的dACL分配給身份。在示例中，定義使用ACL_USER1的身份USER1。



正確配置欄位後，使用「提交」按鈕建立身份。

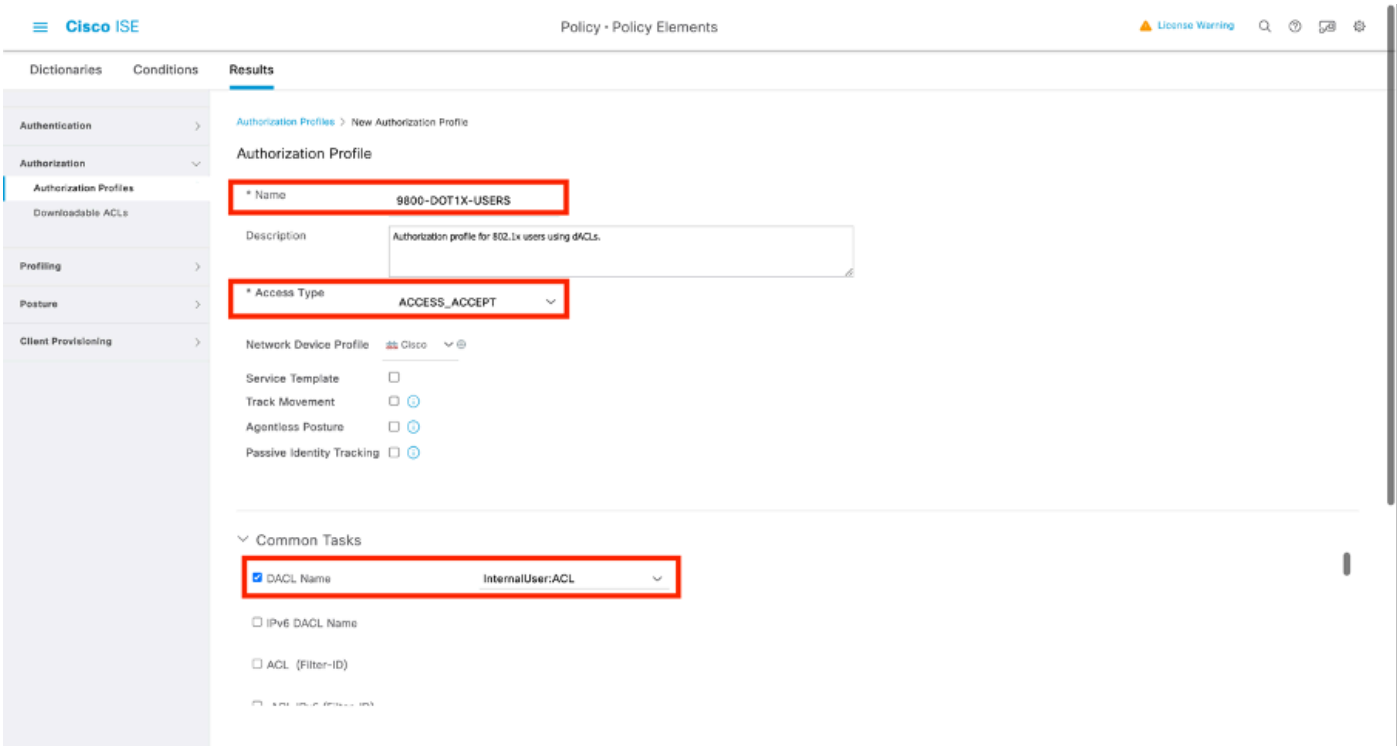
重複此步驟以建立USER2並為其分配ACL_USER2。



步驟4. 配置授權策略結果。

配置身份和為其分配的dACL後，仍必須配置授權策略，以便將自定義使用者屬性「ACL」與現有授權公共任務相匹配。為此，請導航至Policy > Policy Elements > Results > Authorization > Authorization Profiles。使用「新增」按鈕定義新的授權策略。

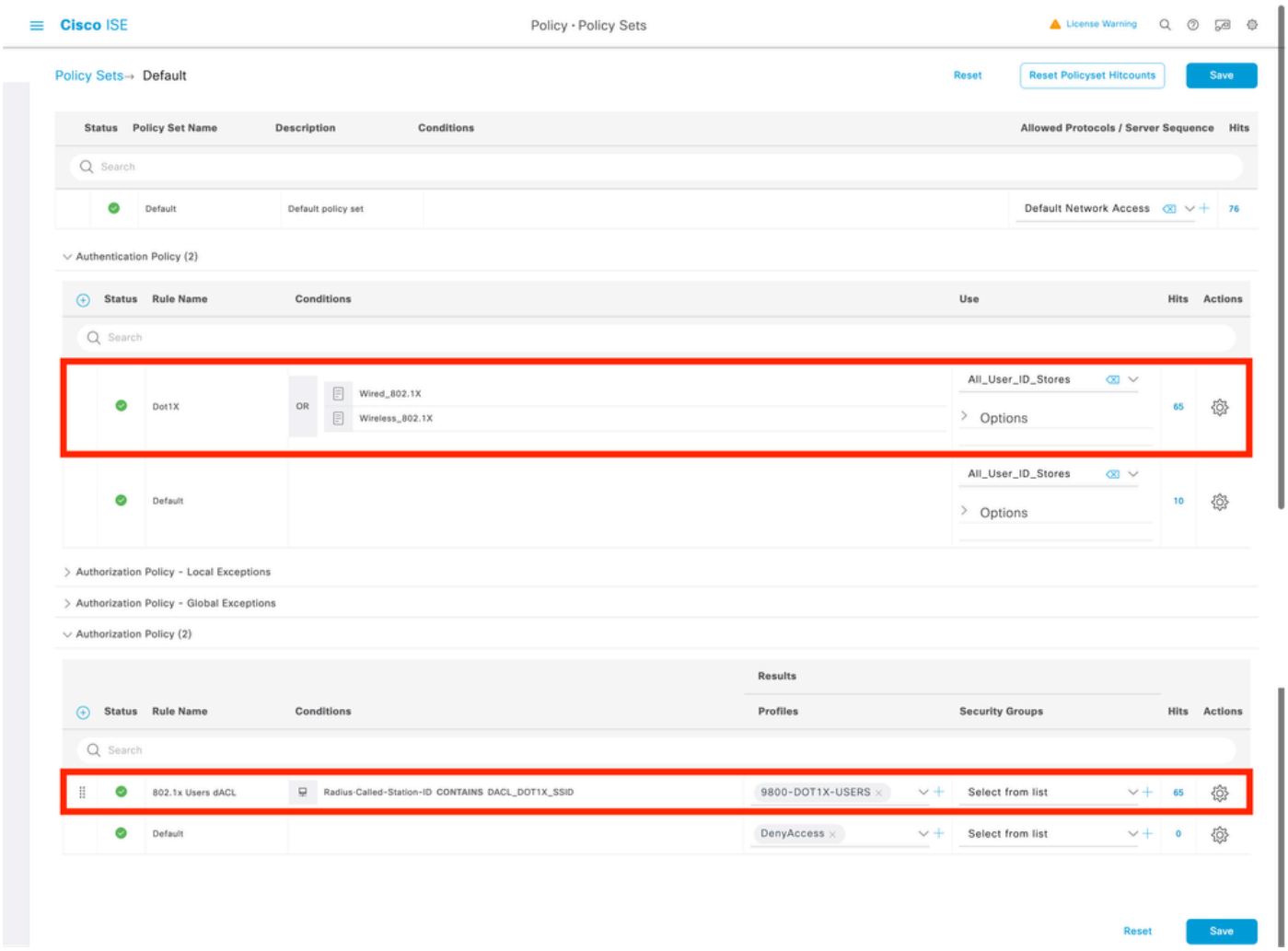
- 名稱:授權策略的名稱，此處為「9800-DOT1X-USERS」。
- 訪問型別：匹配此策略時使用的訪問型別，這裡為ACCESS_ACCEPT。
- 常見任務：將「DACL名稱」與InternalUser:<建立的自定義屬性的名稱>匹配，供內部使用者使用。根據本文檔中使用的名稱，配置檔案9800-DOT1X-USERS配置了dACL並配置為InternalUser:ACL。



步驟5.在策略集中使用授權配置檔案。

一旦授權配置檔案被正確定義，它仍需要成為用於驗證和授權無線使用者的策略集的一部分。導航到Policy > Policy Sets，然後開啟使用的策略集。

這裡，身份驗證策略規則「Dot1X」匹配通過有線或無線802.1x建立的任何連線。授權策略規則「802.1x Users dACL」在使用的SSID上實現一個條件（即Radius-Called-Station-ID CONTAINS DACL_DOT1X_SSID）。 如果對「DACL_DOT1X_SSID」WLAN執行授權，則使用步驟4中定義的配置檔案「9800-DOT1X-USERS」對使用者進行授權。



每結果dACL

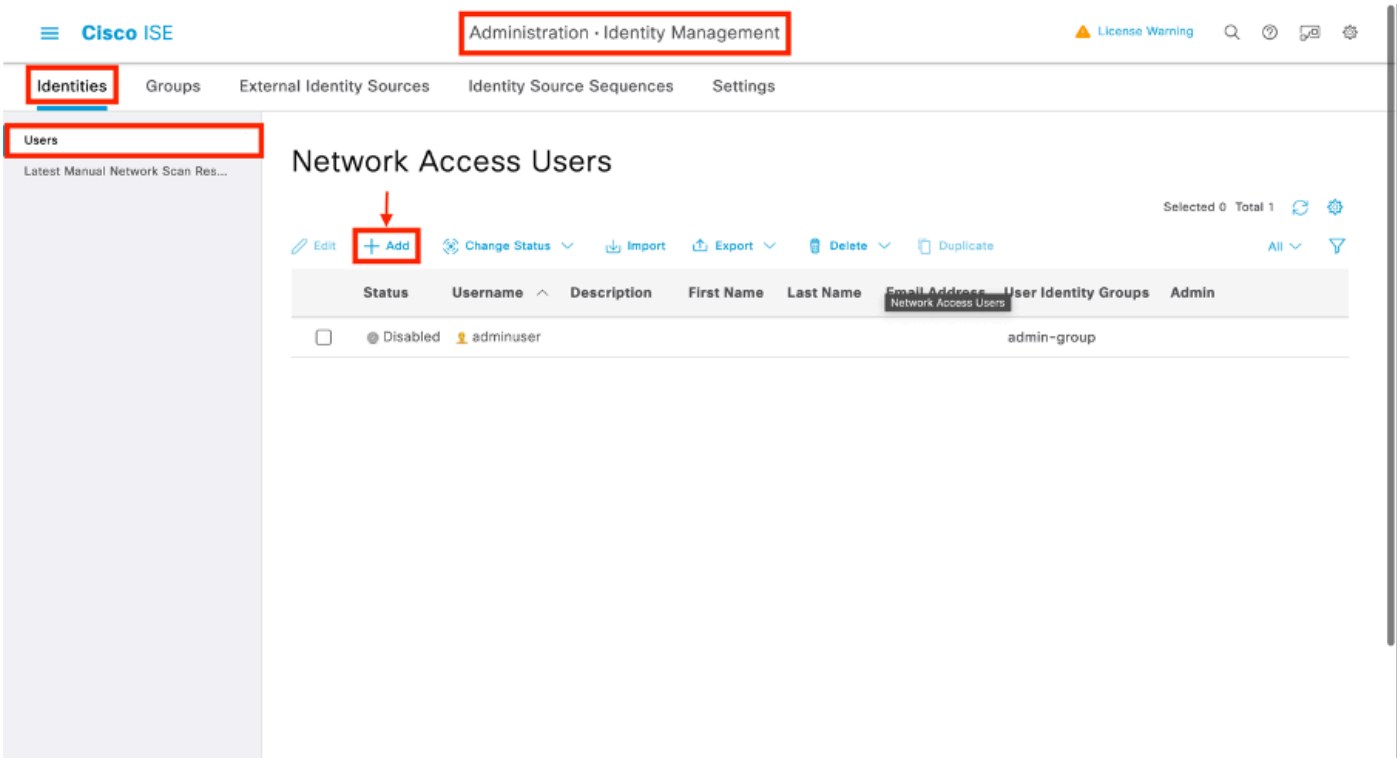
為避免將特定dACL分配給ISE上建立的每個身份這一艱鉅任務，可以選擇將dACL應用於特定策略結果。然後基於與所用策略集的授權規則匹配的任何條件應用此結果。

步驟1.配置dACL

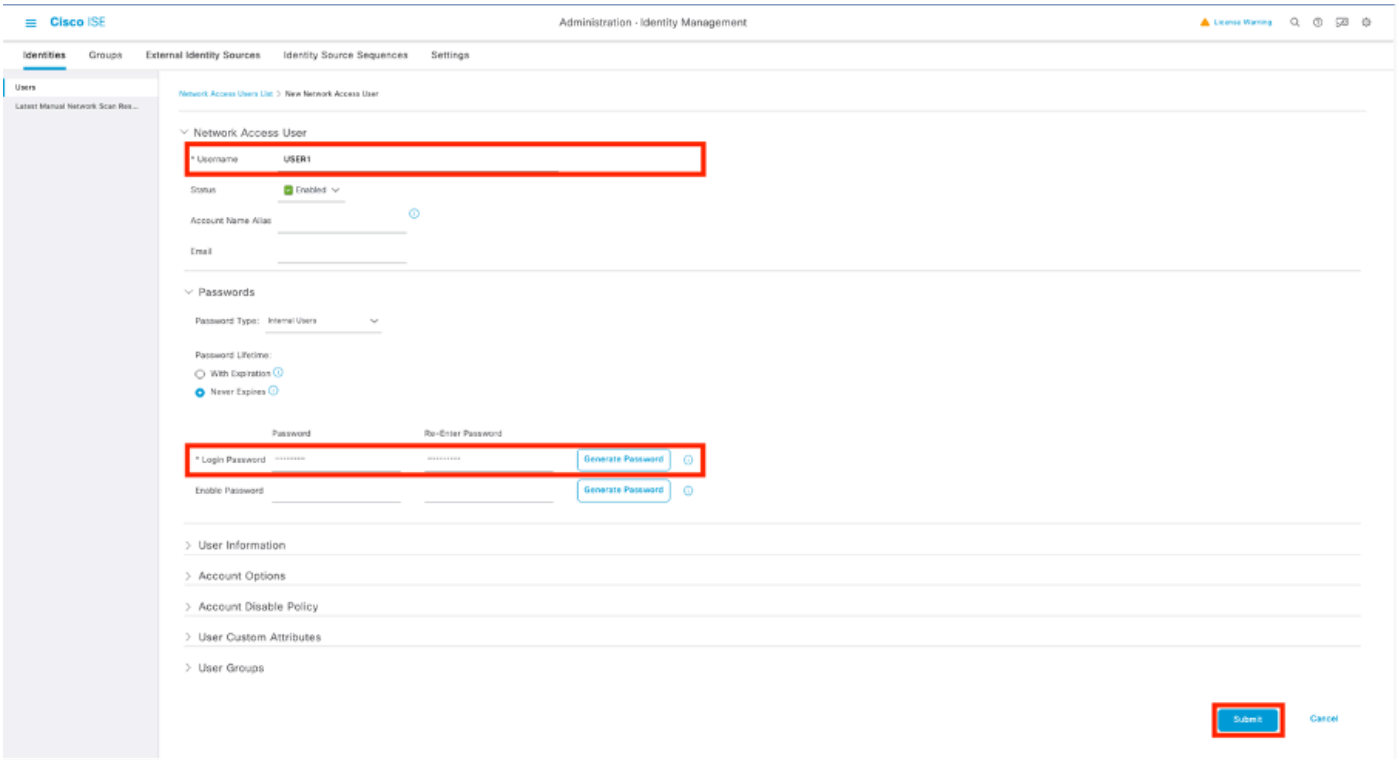
從每使用者dACL部分執行相同的步驟2，以便定義所需的dACL。這裡是ACL_USER1和ACL_USER2。

步驟2.創建身份

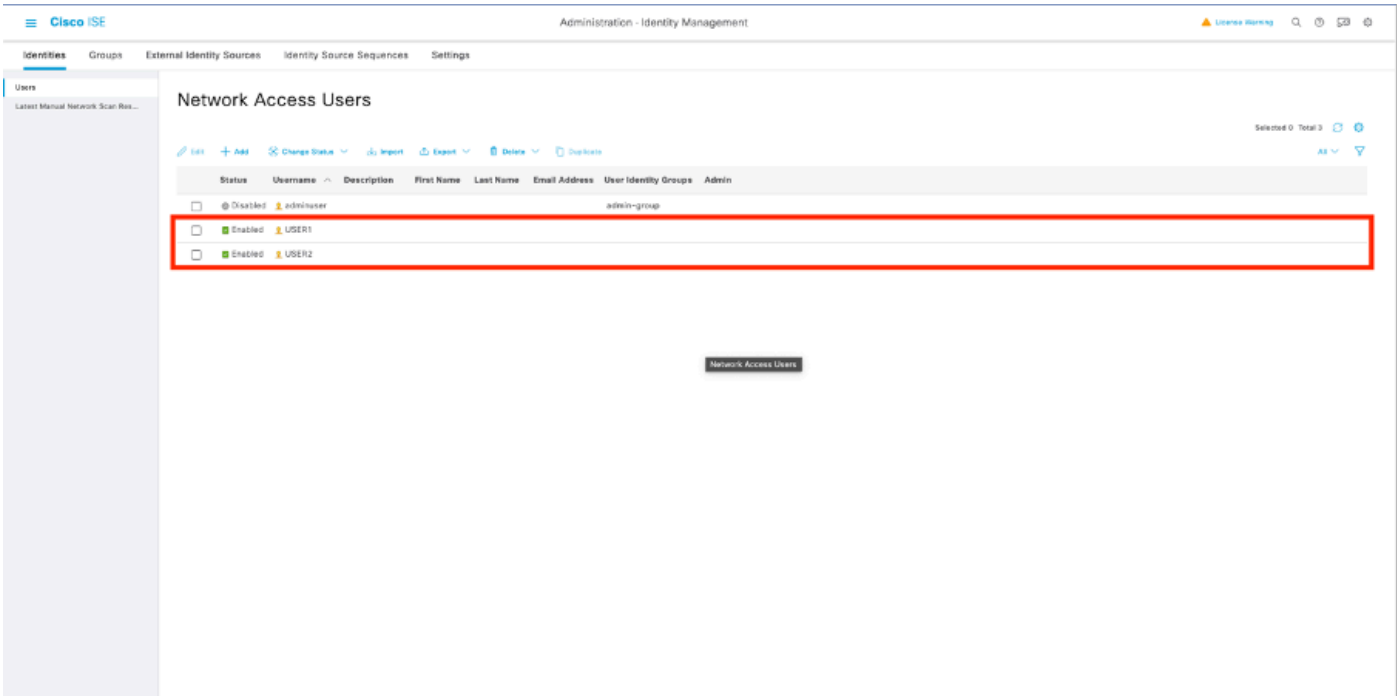
導航到管理>身份管理>身份>使用者，然後使用「新增」按鈕建立使用者。



在「新網路訪問使用者」配置表單上，定義建立使用者的使用者名稱和密碼。



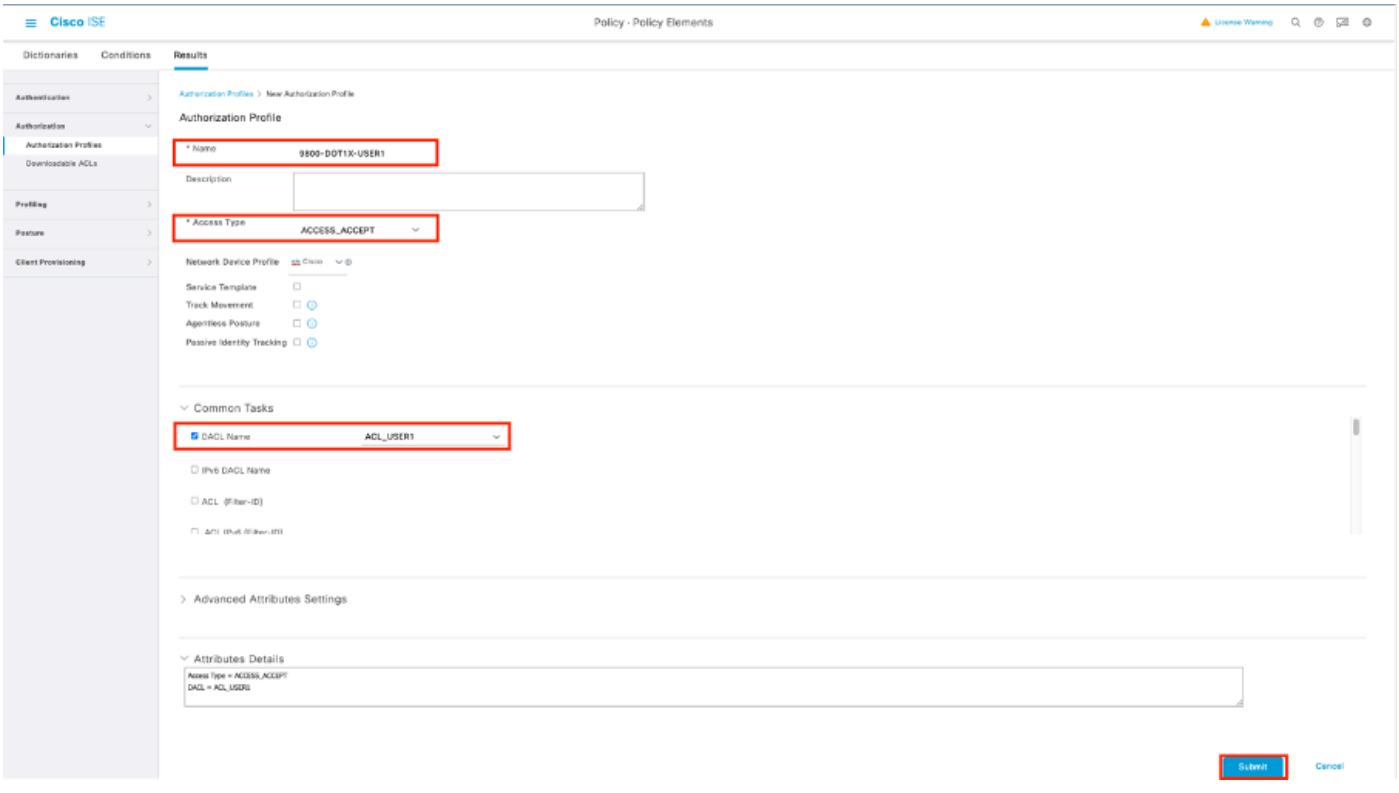
重複此步驟以建立USER2。



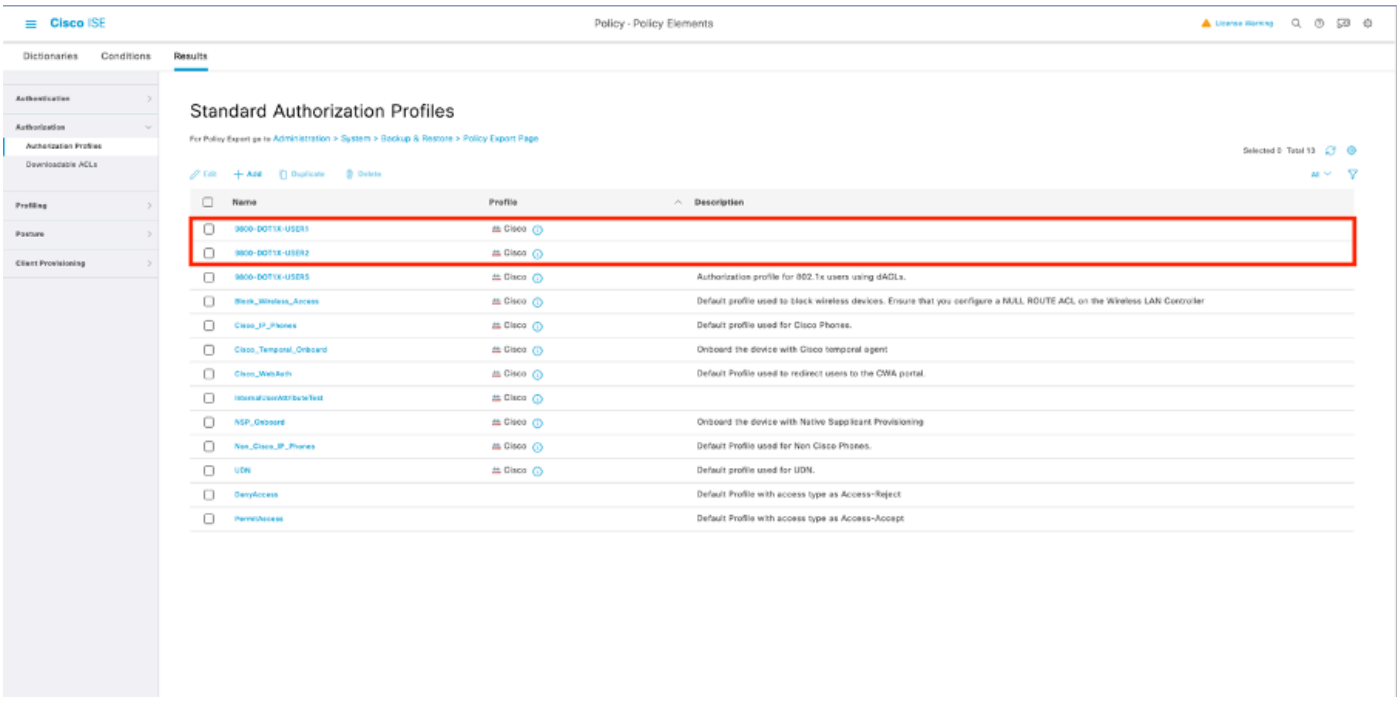
步驟4.配置授權策略結果。

配置身份和dACL後，仍必須配置授權策略，才能向匹配條件以使用此策略的使用者分配特定dACL。為此，請導航至Policy > Policy Elements > Results > Authorization > Authorization Profiles。使用「新增」按鈕定義新的授權策略並填寫這些欄位。

- 名稱:授權策略的名稱，此處為「9800-DOT1X-USER1」。
- 訪問型別：匹配此策略時使用的訪問型別，這裡為ACCESS_ACCEPT。
- 常見任務：將內部使用者的「DACL名稱」與「ACL_USER1」進行匹配。根據本文檔中使用的名稱，配置檔案9800-DOT1X-USER1配置了配置為「ACL_USER1」的dACL。



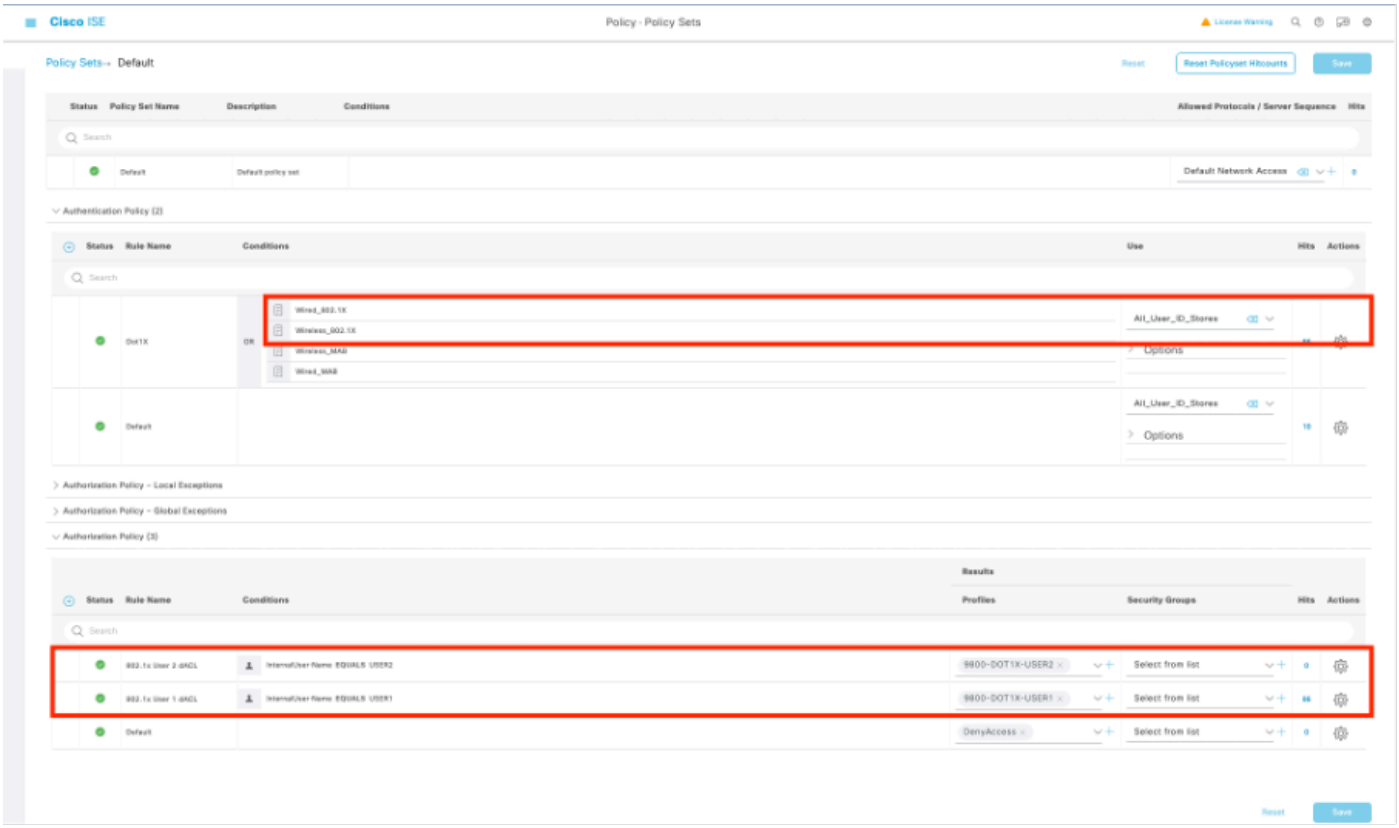
重複此步驟以建立策略結果「9800-DOT1X-USER2」，並將「ACL_USER2」分配為DACL。



步驟5.在策略集中使用授權配置檔案。

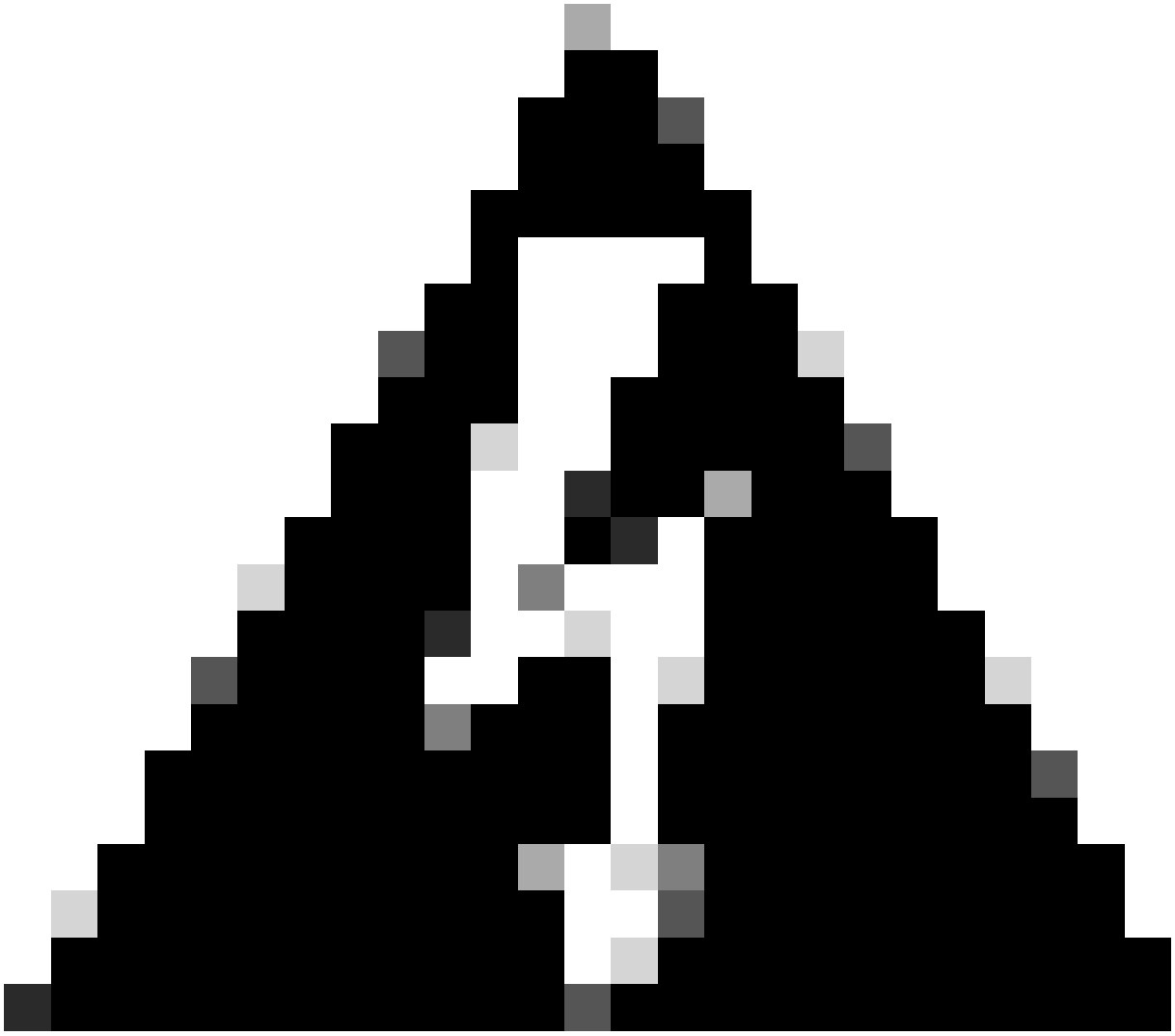
一旦授權配置檔案得到正確定義，它仍需要成為用於驗證和授權無線使用者的策略集的一部分。導航到Policy > Policy Sets，然後開啟使用的策略集。

這裡，身份驗證策略規則「Dot1X」匹配通過有線或無線802.1X建立的任何連線。授權策略規則「802.1X User 1 dACL」對使用的使用者名稱實施條件（即InternalUser-Name CONTAINS USER1）。 如果使用使用者名稱USER1執行授權，則使用步驟4中定義的配置檔案「9800-DOT1X-USER1」對使用者進行授權，因此，此結果中的dACL(ACL_USER1)也會應用於使用者。對使用者名稱USER2配置相同的方法，該使用者名稱使用「9800-DOT1X-USER1」。



有關將dACL與CWA SSID一起使用的說明

如[在Catalyst 9800 WLC上設定中央Web驗證(CWA)和ISE設定指南所述，CWA依賴MAB和特定結果來驗證和授權用](#)戶。可下載的ACL可以像上述那樣從ISE端新增到CWA配置中。



警告：可下載ACL只能用作網路訪問清單，不支援將其用作預身份驗證ACL。因此，在CWA工作流程中使用的任何預先驗證ACL都必須在WLC設定中定義。

驗證

若要驗證已進行的設定，可以使用以下命令。

```
# show run wlan
# show run aaa
# show aaa servers
# show ap config general
# show ap name
```

```
        config general
# show ap tag summary
# show ap name
```

```
         tag detail
# show wlan { summary | id | nme | all }
# show wireless tag policy detailed



# show wireless profile policy detailed



# show access-lists { acl-name }
```

以下引用了與此範例對應的WLC組態相關部分。

```
aaa new-model
!
!
aaa group server radius authz-server-group
 server name DACL-RADIUS
!
aaa authentication login default local
aaa authentication dot1x default group radius
aaa authentication dot1x DOT1X group radius
aaa authorization exec default local
aaa authorization network default group radius
!
!
aaa server radius dynamic-author
 client




!
aaa session-id common
!
[...]
vlan 1413
 name VLAN_1413
!
[...]
radius server DACL-RADIUS
 address ipv4
```

```
        auth-port 1812 acct-port 1813
 key 6 aHaOSX[QbbEHURGW`cXiG^UE]CR]^PVANfcbROb
!
!
[...]
wireless profile policy DACL-8021X
 aaa-override
 vlan VLAN_1413
 no shutdown
[...]
wireless tag policy default-policy-tag
 description "default policy-tag"
 wlan DACL_DOT1X_SSID policy DACL-8021X
[...]
wlan DACL_DOT1X_SSID 2 DACL_DOT1X_SSID
 security dot1x authentication-list DOT1X
 no shutdown
```

將顯示RADIUS伺服器配置，並使用show running-config all命令顯示。

```
WLC#show running-config all | s radius-server
radius-server attribute 77 include-in-acct-req
radius-server attribute 77 include-in-access-req
radius-server attribute 11 default direction out
radius-server attribute nas-port format a
radius-server attribute wireless authentication call-station-id ap-macaddress-ssid
radius-server dead-criteria time 10 tries 10
radius-server cache expiry 24 enforce hours
radius-server transaction max-tries 8
radius-server retransmit 3
radius-server timeout 5
radius-server ipc-limit in 10
radius-server ipc-limit done 10
radius-server vsa send accounting
radius-server vsa send authentication
```

疑難排解

核對表

- 確保客戶端可以正確連線到配置的802.1X SSID。
- 確保RADIUS access-request/accept包含適當的屬性 — 值對(AVP)。
- 確保客戶端使用正確的WLAN/策略配置檔案。

WLC One Stop-Shop反射

要檢查dACL是否正確分配到特定無線客戶端，可以使用show wireless client mac-address <H.H.H> detail命令，如下所示。從這裡可以看到各種有用的故障排除資訊，即：客戶端使用者名稱、狀態、策略配置檔案、WLAN，以及這裡最重要的ACS-ACL。

<#root>

WLC#show wireless client mac-address 08be.ac14.137d detail

Client MAC Address : 08be.ac14.137d
Client MAC Type : Universally Administered Address
Client DUID: NA
Client IPv4 Address : 10.14.13.240

Client Username : USER1

AP MAC Address : f4db.e65e.7bc0
AP Name: AP4800-E

Client State : Associated
Policy Profile : DACL-8021X

Wireless LAN Id: 2

WLAN Profile Name: DACL_DOT1X_SSID
Wireless LAN Network Name (SSID): DACL_DOT1X_SSID

BSSID : f4db.e65e.7bc0
Association Id : 1
Authentication Algorithm : Open System
Client Active State : In-Active
[...]
Client Join Time:
  Join Time Of Client : 03/28/2024 10:04:30 UTC

Client ACLs : None
Policy Manager State: Run

Last Policy Manager State : IP Learn Complete
Client Entry Create Time : 35 seconds
Policy Type : WPA2
Encryption Cipher : CCMP (AES)
Authentication Key Management : 802.1x
EAP Type : PEAP
VLAN Override after Webauth : No

VLAN : VLAN_1413

[...]
Session Manager:
  Point of Attachment : capwap_90000012
  IIF ID   : 0x90000012
  Authorized   : TRUE
  Session timeout   : 28800
  Common Session ID: 8227300A0000000C8484A22F
  Acct Session ID : 0x00000000
  Last Tried Aaa Server Details:
      Server IP : 10.48.39.134

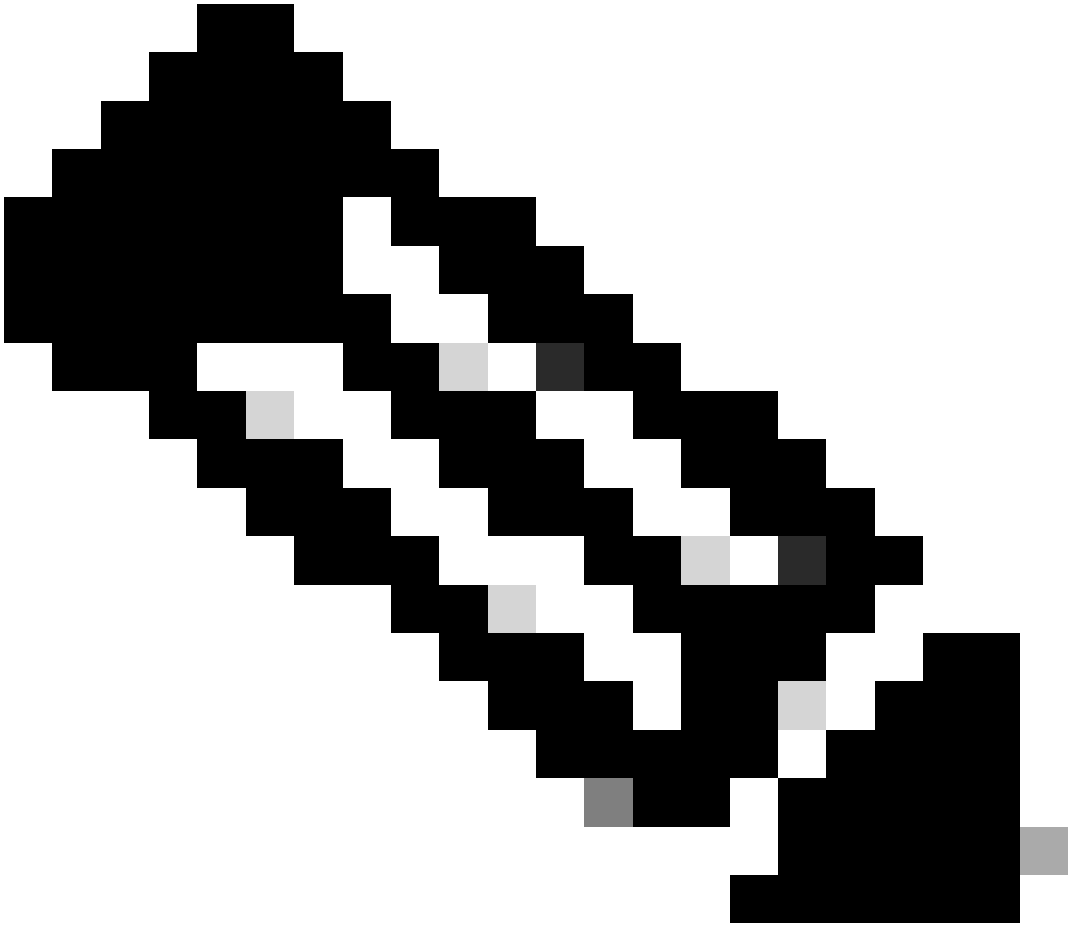
```
  Auth Method Status List
      Method : Dot1x

          SM State         : AUTHENTICATED

          SM Bend State    : IDLE
  Local Policies:

      Service Template : wlan_svc_DACL-8021X_local (priority 254)
          VLAN             : VLAN_1413
          Absolute-Timer   : 28800

  Server Policies:

          ACS ACL          : xACSACLx-IP-ACL_USER1-65e89aab

  Resultant Policies:

          ACS ACL          : xACSACLx-IP-ACL_USER1-65e89aab
          VLAN Name        : VLAN_1413
          VLAN             : 1413
          Absolute-Timer   : 28800

[...]
```

WLC Show命令

若要檢視目前屬於Catalyst 9800 WLC組態的所有ACL，可以使用show access-lists命令。此命令列出所有在本地定義的ACL或由WLC下載的dACL。WLC從ISE下載的任何dACL的格式為 xACSACLx-IP-

-

.



附註：只要客戶端關聯並在無線基礎設施中使用可下載ACL，可下載ACL就會保留在配置中。只要最後一個使用dACL的客戶端離開基礎架構，就會從配置中刪除dACL。

```
WLC#show access-lists
Extended IP access list IP-Adm-V4-Int-ACL-global
[...]
Extended IP access list IP-Adm-V4-LOGOUT-ACL
[...]
Extended IP access list implicit_deny
[...]
Extended IP access list implicit_permit
[...]
Extended IP access list meraki-fqdn-dns
[...]
Extended IP access list preauth-ise
[...]
Extended IP access list preauth_v4
[...]
Extended IP access list xACSACLx-IP-ACL_USER1-65e89aab
    1 deny ip any host 10.48.39.13
```

```
    2 deny ip any host 10.48.39.15
    3 deny ip any host 10.48.39.186
    4 permit ip any any (56 matches)
IPv6 access list implicit_deny_v6
[...]
IPv6 access list implicit_permit_v6
[...]
IPv6 access list preauth_v6
[...]
```

條件式偵錯和無線電主動式追蹤

在排除配置故障時，可以為應該用定義的dACL分配的客戶端收集放射性跟蹤。這裡突出顯示了在客戶端08be.ac14.137d的客戶端關聯過程中放射性痕跡的關注部分的日誌。

<#root>

```
24/03/28 10:43:04.321315612 {wncd_x_R0-0}{1}: [client-orch-sm] [19620]: (note): MAC: 08be.ac14.137d Asso

2024/03/28 10:43:04.321414308 {wncd_x_R0-0}{1}: [client-orch-sm] [19620]: (debug): MAC: 08be.ac14.137d

2024/03/28 10:43:04.321464486 {wncd_x_R0-0}{1}: [client-orch-state] [19620]: (note): MAC: 08be.ac14.137d

[...]

2024/03/28 10:43:04.322185953 {wncd_x_R0-0}{1}: [dot11] [19620]: (note): MAC: 08be.ac14.137d Association

2024/03/28 10:43:04.322199665 {wncd_x_R0-0}{1}: [dot11] [19620]: (info): MAC: 08be.ac14.137d DOT11 state

[...]

2024/03/28 10:43:04.322860054 {wncd_x_R0-0}{1}: [client-orch-sm] [19620]: (debug): MAC: 08be.ac14.137d S

2024/03/28 10:43:04.322881795 {wncd_x_R0-0}{1}: [client-orch-state] [19620]: (note): MAC: 08be.ac14.137d

[...]

2024/03/28 10:43:04.323379781 {wncd_x_R0-0}{1}: [client-auth] [19620]: (info): MAC: 08be.ac14.137d Clien

[...]

2024/03/28 10:43:04.330181613 {wncd_x_R0-0}{1}: [client-auth] [19620]: (info): MAC: 08be.ac14.137d Clien

2024/03/28 10:43:04.353413199 {wncd_x_R0-0}{1}: [auth-mgr-feat_wireless] [19620]: (info): [08be.ac14.13
2024/03/28 10:43:04.353414496 {wncd_x_R0-0}{1}: [auth-mgr-feat_wireless] [19620]: (info): [08be.ac14.13

2024/03/28 10:43:04.353438621 {wncd_x_R0-0}{1}: [client-auth] [19620]: (note): MAC: 08be.ac14.137d L2 Au

2024/03/28 10:43:04.353443674 {wncd_x_R0-0}{1}: [client-auth] [19620]: (info): MAC: 08be.ac14.137d Clien
```

```
[...]

2024/03/28 10:43:04.381397739 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Send Access-Request to

2024/03/28 10:43:04.381411901 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: authenticator e9 8b e

2024/03/28 10:43:04.381425481 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: User-Name [1] 7 "USER1

2024/03/28 10:43:04.381430559 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Service-Type [6] 6 Fra
2024/03/28 10:43:04.381433583 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 27
2024/03/28 10:43:04.381437476 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 21 "
2024/03/28 10:43:04.381440925 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Framed-MTU [12] 6 148
2024/03/28 10:43:04.381452676 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: EAP-Message [79] 12 .
2024/03/28 10:43:04.381466839 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Message-Authenticator
2024/03/28 10:43:04.381482891 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: EAP-Key-Name [102] 2
2024/03/28 10:43:04.381486879 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 49
2024/03/28 10:43:04.381489488 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 43 "
2024/03/28 10:43:04.381491463 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 20

2024/03/28 10:43:04.381494016 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 14 "m

2024/03/28 10:43:04.381495896 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 32
2024/03/28 10:43:04.381498320 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 26 "
2024/03/28 10:43:04.381500186 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 20

2024/03/28 10:43:04.381502409 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 14 "v

2024/03/28 10:43:04.381506029 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: NAS-IP-Address [4] 6 1

2024/03/28 10:43:04.381509052 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: NAS-Port-Type [61] 6
2024/03/28 10:43:04.381511493 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: NAS-Port [5] 6 3913
2024/03/28 10:43:04.381513163 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 39

2024/03/28 10:43:04.381515481 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 33 "c

2024/03/28 10:43:04.381517373 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 41

2024/03/28 10:43:04.381519675 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 35 "w

2024/03/28 10:43:04.381522158 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Called-Station-Id [30]
2024/03/28 10:43:04.381524583 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Calling-Station-Id [3
2024/03/28 10:43:04.381532045 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Airespace [26]
2024/03/28 10:43:04.381534716 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Airespace-WLAN-ID [1]

2024/03/28 10:43:04.381537215 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Nas-Identifier [32] 17

2024/03/28 10:43:04.381539951 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: wlan-group-cipher [18
2024/03/28 10:43:04.381542233 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: wlan-pairwise-cipher[
2024/03/28 10:43:04.381544465 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: wlan-akm-suite [188]
2024/03/28 10:43:04.381619890 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Started 5 sec timeout
[...]

2024/03/28 10:43:04.392544173 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Received from id 1812/

2024/03/28 10:43:04.392557998 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: authenticator 08 6d f
2024/03/28 10:43:04.392564273 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: State [24] 71 ...
```

2024/03/28 10:43:04.392615218 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: EAP-Message [79] 8 ..
2024/03/28 10:43:04.392628179 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Message-Authenticator
2024/03/28 10:43:04.392738554 {wncd_x_R0-0}{1}: [radius] [19620]: (info): Valid Response Packet, Free t
2024/03/28 10:43:04.726798622 {wncd_x_R0-0}{1}: [dot1x] [19620]: (info): [08be.ac14.137d:capwap_9000001

2024/03/28 10:43:04.726801212 {wncd_x_R0-0}{1}: [dot1x] [19620]: (info): [08be.ac14.137d:capwap_9000001

2024/03/28 10:43:04.726896276 {wncd_x_R0-0}{1}: [dot1x] [19620]: (info): [08be.ac14.137d:capwap_9000001

2024/03/28 10:43:04.726905248 {wncd_x_R0-0}{1}: [dot1x] [19620]: (info): [08be.ac14.137d:capwap_9000001

[...]

2024/03/28 10:43:04.727138915 {wncd_x_R0-0}{1}: [dot1x] [19620]: (info): [08be.ac14.137d:capwap_9000001

2024/03/28 10:43:04.727148212 {wncd_x_R0-0}{1}: [auth-mgr] [19620]: (info): [08be.ac14.137d:capwap_90000

2024/03/28 10:43:04.727164223 {wncd_x_R0-0}{1}: [auth-mgr] [19620]: (info): [08be.ac14.137d:capwap_9000
2024/03/28 10:43:04.727169069 {wncd_x_R0-0}{1}: [auth-mgr] [19620]: (info): [08be.ac14.137d:capwap_9000

2024/03/28 10:43:04.727223736 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applying Attribute : use

2024/03/28 10:43:04.727233018 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applying Attribute : cl
2024/03/28 10:43:04.727234046 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applying Attribute : EA
2024/03/28 10:43:04.727234996 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applying Attribute : Me
2024/03/28 10:43:04.727236141 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applying Attribute : EA
M$®vf9∫Ø◇« %ÿOã@≤™ÇÑbWï6\Ë&\q·lU+QB-º®”≠∫JÑv"

2024/03/28 10:43:04.727246409 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applying Attribute : Cis

[...]

2024/03/28 10:43:04.727509267 {wncd_x_R0-0}{1}: [auth-mgr] [19620]: (info): [08be.ac14.137d:capwap_90000

2024/03/28 10:43:04.727513133 {wncd_x_R0-0}{1}: [auth-mgr] [19620]: (info): [08be.ac14.137d:capwap_90000

2024/03/28 10:43:04.727607738 {wncd_x_R0-0}{1}: [svm] [19620]: (info): SVM_INFO: SVM Apply user profile
2024/03/28 10:43:04.728003638 {wncd_x_R0-0}{1}: [svm] [19620]: (info): SVM_INFO: Activating EPM feature

2024/03/28 10:43:04.728144450 {wncd_x_R0-0}{1}: [epm-misc] [19620]: (info): [08be.ac14.137d:capwap_90000

2024/03/28 10:43:04.728161361 {wncd_x_R0-0}{1}: [epm] [19620]: (info): [08be.ac14.137d:capwap_90000012]
2024/03/28 10:43:04.728177773 {wncd_x_R0-0}{1}: [epm] [19620]: (info): [08be.ac14.137d:capwap_90000012]
2024/03/28 10:43:04.728184975 {wncd_x_R0-0}{1}: [epm] [19620]: (info): [08be.ac14.137d:capwap_90000012]

2024/03/28 10:43:04.728218783 {wncd_x_R0-0}{1}: [epm-acl] [19620]: (info): [08be.ac14.137d:capwap_900000

2024/03/28 10:43:04.729005675 {wncd_x_R0-0}{1}: [epm] [19620]: (info): [08be.ac14.137d:capwap_90000012]
2024/03/28 10:43:04.729019215 {wncd_x_R0-0}{1}: [svm] [19620]: (info): SVM_INFO: Response of epm is ASY
[...]

2024/03/28 10:43:04.729422929 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Send Access-Request to

2024/03/28 10:43:04.729428175 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: authenticator 20 06 3

2024/03/28 10:43:04.729432771 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: NAS-IP-Address [4] 6 1

2024/03/28 10:43:04.729435487 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: User-Name [1] 32 "#ACS

2024/03/28 10:43:04.729437912 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 32

2024/03/28 10:43:04.729440782 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 26 "a

2024/03/28 10:43:04.729442854 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 30

2024/03/28 10:43:04.729445280 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 24 "a

2024/03/28 10:43:04.729447530 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Message-Authenticator
2024/03/28 10:43:04.729529806 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Started 5 sec timeout

2024/03/28 10:43:04.731972466 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Received from id 1812/

2024/03/28 10:43:04.731979444 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: authenticator 2a 24 8

2024/03/28 10:43:04.731983966 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: User-Name [1] 32 "#ACS

2024/03/28 10:43:04.731986470 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Class [25] 75 ...
2024/03/28 10:43:04.732032438 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Message-Authenticator

2024/03/28 10:43:04.732048785 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 47

2024/03/28 10:43:04.732051657 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 41 "i

2024/03/28 10:43:04.732053782 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 47

2024/03/28 10:43:04.732056351 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 41 "i

2024/03/28 10:43:04.732058379 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 48

2024/03/28 10:43:04.732060673 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 42 "i

2024/03/28 10:43:04.732062574 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Vendor, Cisco [26] 36

2024/03/28 10:43:04.732064854 {wncd_x_R0-0}{1}: [radius] [19620]: (info): RADIUS: Cisco AVpair [1] 30 "i

2024/03/28 10:43:04.732114294 {wncd_x_R0-0}{1}: [radius] [19620]: (info): Valid Response Packet, Free t
[...]

2024/03/28 10:43:04.733046258 {wncd_x_R0-0}{1}: [svm] [19620]: (info): [08be.ac14.137d] Applied User Pro

2024/03/28 10:43:04.733058380 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: M
2024/03/28 10:43:04.733064555 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: M

2024/03/28 10:43:04.733065483 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: e
2024/03/28 10:43:04.733066816 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: m
2024/03/28 10:43:04.733068704 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: c
2024/03/28 10:43:04.733069947 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: i

2024/03/28 10:43:04.733070971 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: us

2024/03/28 10:43:04.733079208 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: c
2024/03/28 10:43:04.733080328 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: E
M$®vf9∫Ø◇« %ÿOã@≤™ÇÑbWï6\Ë&\q·lU+QB-º®”≠∫JÑv"
2024/03/28 10:43:04.733091441 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile: e

2024/03/28 10:43:04.733092470 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): Applied User Profile:Cis

[...]

2024/03/28 10:43:04.733396045 {wncd_x_R0-0}{1}: [auth-mgr] [19620]: (info): [08be.ac14.137d:capwap_90000

2024/03/28 10:43:04.733486604 {wncd_x_R0-0}{1}: [client-auth] [19620]: (note): MAC: 08be.ac14.137d L2 A

2024/03/28 10:43:04.734665244 {wncd_x_R0-0}{1}: [client-auth] [19620]: (info): MAC: 08be.ac14.137d Clien

2024/03/28 10:43:04.734894043 {wncd_x_R0-0}{1}: [client-keymgmt] [19620]: (info): MAC: 08be.ac14.137d E
2024/03/28 10:43:04.734904452 {wncd_x_R0-0}{1}: [client-keymgmt] [19620]: (info): MAC: 08be.ac14.137d C

2024/03/28 10:43:04.734915743 {wncd_x_R0-0}{1}: [dot1x] [19620]: (info): [08be.ac14.137d:capwap_9000001

2024/03/28 10:43:04.740499944 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.742238941 {iosrp_R0-0}{1}: [og] [26311]: (info): OG_PI_ACL_INFO: ogacl_configured: A

2024/03/28 10:43:04.744387633 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

[...]

2024/03/28 10:43:04.745245318 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: epm acl l

2024/03/28 10:43:04.745294050 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: Allocate

2024/03/28 10:43:04.745326416 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: Index in

2024/03/28 10:43:04.751291844 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.751943577 {iosrp_R0-0}{1}: [og] [26311]: (info): OG_PI_ACL_INFO: ogacl_configured: A

2024/03/28 10:43:04.752686055 {wncd_x_R0-0}{1}: [client-auth] [19620]: (info): MAC: 08be.ac14.137d Clien

2024/03/28 10:43:04.755505991 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.756746153 {wncd_x_R0-0}{1}: [mm-transition] [19620]: (info): MAC: 08be.ac14.137d MM
2024/03/28 10:43:04.757801556 {wncd_x_R0-0}{1}: [client-auth] [19620]: (note): MAC: 08be.ac14.137d ADD

2024/03/28 10:43:04.758843625 {wncd_x_R0-0}{1}: [client-orch-state] [19620]: (note): MAC: 08be.ac14.137d

2024/03/28 10:43:04.759064834 {wncd_x_R0-0}{1}: [client-iplearn] [19620]: (info): MAC: 08be.ac14.137d IP

2024/03/28 10:43:04.761186727 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: epm acl

2024/03/28 10:43:04.761241972 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: Index in

2024/03/28 10:43:04.763131516 {wncd_x_R0-0}{1}: [client-auth] [19620]: (info): MAC: 08be.ac14.137d Clien

2024/03/28 10:43:04.764575895 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.764755847 {iosrp_R0-0}{1}: [og] [26311]: (info): OG_PI_ACL_INFO: ogacl_configured: A

2024/03/28 10:43:04.769965195 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.770727027 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.772314586 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: epm acl

2024/03/28 10:43:04.772362837 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: Index in

2024/03/28 10:43:04.773070456 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.773661861 {iosrp_R0-0}{1}: [og] [26311]: (info): OG_PI_ACL_INFO: ogacl_configured: A

2024/03/28 10:43:04.775537766 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.777154567 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.778756670 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: epm acl

2024/03/28 10:43:04.778807076 {iosrp_R0-0}{1}: [buginf] [26311]: (debug): AUTH-FEAT-IAL-EVENT: Index in

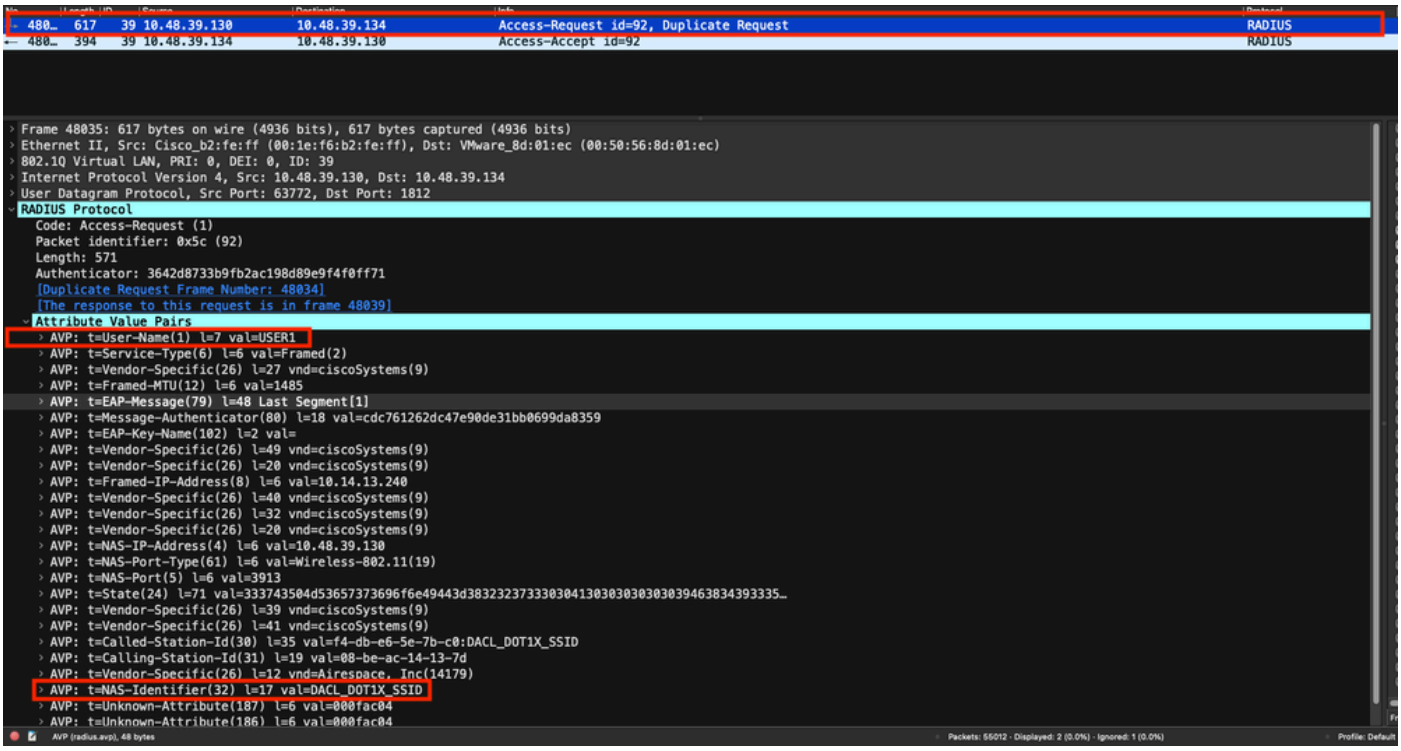
```
2024/03/28 10:43:04.778856100 {iosrp_R0-0}{1}: [mpls_ldp] [26311]: (info): LDP LLAF: Registry notificati

2024/03/28 10:43:04.779401863 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.779879864 {iosrp_R0-0}{1}: [og] [26311]: (info): OG_PI_ACL_INFO: ogacl_configured: A

2024/03/28 10:43:04.780510740 {iosrp_R0-0}{1}: [parser_cmd] [26311]: (note): id= console@console:user= c

2024/03/28 10:43:04.786433419 {wncd_x_R0-0}{1}: [sisf-packet] [19620]: (info): RX: DHCPv4 from interfac
2024/03/28 10:43:04.786523172 {wncd_x_R0-0}{1}: [sisf-packet] [19620]: (info): TX: DHCPv4 from interfac
2024/03/28 10:43:04.787787313 {wncd_x_R0-0}{1}: [sisf-packet] [19620]: (info): RX: DHCPv4 from interfac
2024/03/28 10:43:04.788160929 {wncd_x_R0-0}{1}: [sisf-packet] [19620]: (info): TX: DHCPv4 from interfac
2024/03/28 10:43:04.788491833 {wncd_x_R0-0}{1}: [client-iplearn] [19620]: (note): MAC: 08be.ac14.137d C
2024/03/28 10:43:04.788576063 {wncd_x_R0-0}{1}: [auth-mgr] [19620]: (info): [08be.ac14.137d:capwap_9000
2024/03/28 10:43:04.788741337 {wncd_x_R0-0}{1}: [webauth-sess] [19620]: (info): Change address update, (
2024/03/28 10:43:04.788761575 {wncd_x_R0-0}{1}: [auth-mgr-feat_acct] [19620]: (info): [08be.ac14.137d:ca
2024/03/28 10:43:04.788877999 {wncd_x_R0-0}{1}: [epm] [19620]: (info): [0000.0000.0000:unknown] HDL = 0x

2024/03/28 10:43:04.789333126 {wncd_x_R0-0}{1}: [client-iplearn] [19620]: (info): MAC: 08be.ac14.137d IP

2024/03/28 10:43:04.789410101 {wncd_x_R0-0}{1}: [client-orch-sm] [19620]: (debug): MAC: 08be.ac14.137d I

2024/03/28 10:43:04.789622587 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): [ Applied attribute : us

2024/03/28 10:43:04.789632684 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): [ Applied attribute : cl

2024/03/28 10:43:04.789642576 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): [ Applied attribute :Cis

2024/03/28 10:43:04.789651931 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): [ Applied attribute :bsn

2024/03/28 10:43:04.789653490 {wncd_x_R0-0}{1}: [aaa-attr-inf] [19620]: (info): [ Applied attribute : ty
2024/03/28 10:43:04.789735556 {wncd_x_R0-0}{1}: [ewlc-qos-client] [19620]: (info): MAC: 08be.ac14.137d (
2024/03/28 10:43:04.789800998 {wncd_x_R0-0}{1}: [rog-proxy-capwap] [19620]: (debug): Managed client RUN

2024/03/28 10:43:04.789886011 {wncd_x_R0-0}{1}: [client-orch-state] [19620]: (note): MAC: 08be.ac14.137d
```

資料包捕獲

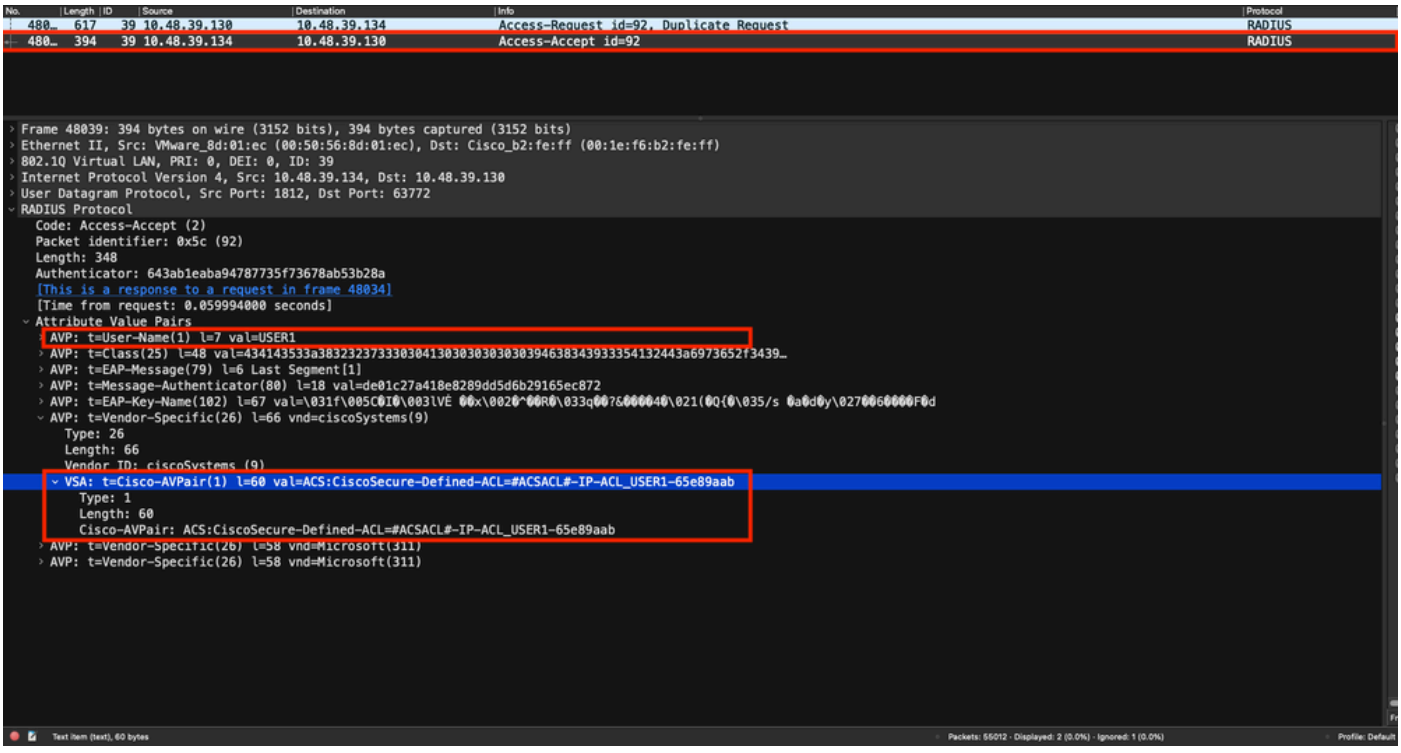
另一個有趣的反射是擷取和分析使用者端關聯的RADIUS流量封包擷取。可下載ACL依賴於RADIUS，不僅要將其分配給無線客戶端，還要由WLC下載。進行封包擷取以疑難排解dACL組態時，您必須在控制器用來與RADIUS伺服器通訊的介面上擷取。本檔案介紹如何在Catalyst 9800上配置輕鬆嵌入的資料包捕獲，該資料包捕獲已用於收集本文分析的捕獲。

RADIUS使用者端驗證

您可以看到從WLC傳送到RADIUS伺服器的使用者端RADIUS存取要求，以便驗證DACL_DOT1X_SSID SSID(AVP NAS-Identifier)上的使用者USER1（AVP使用者名稱）。

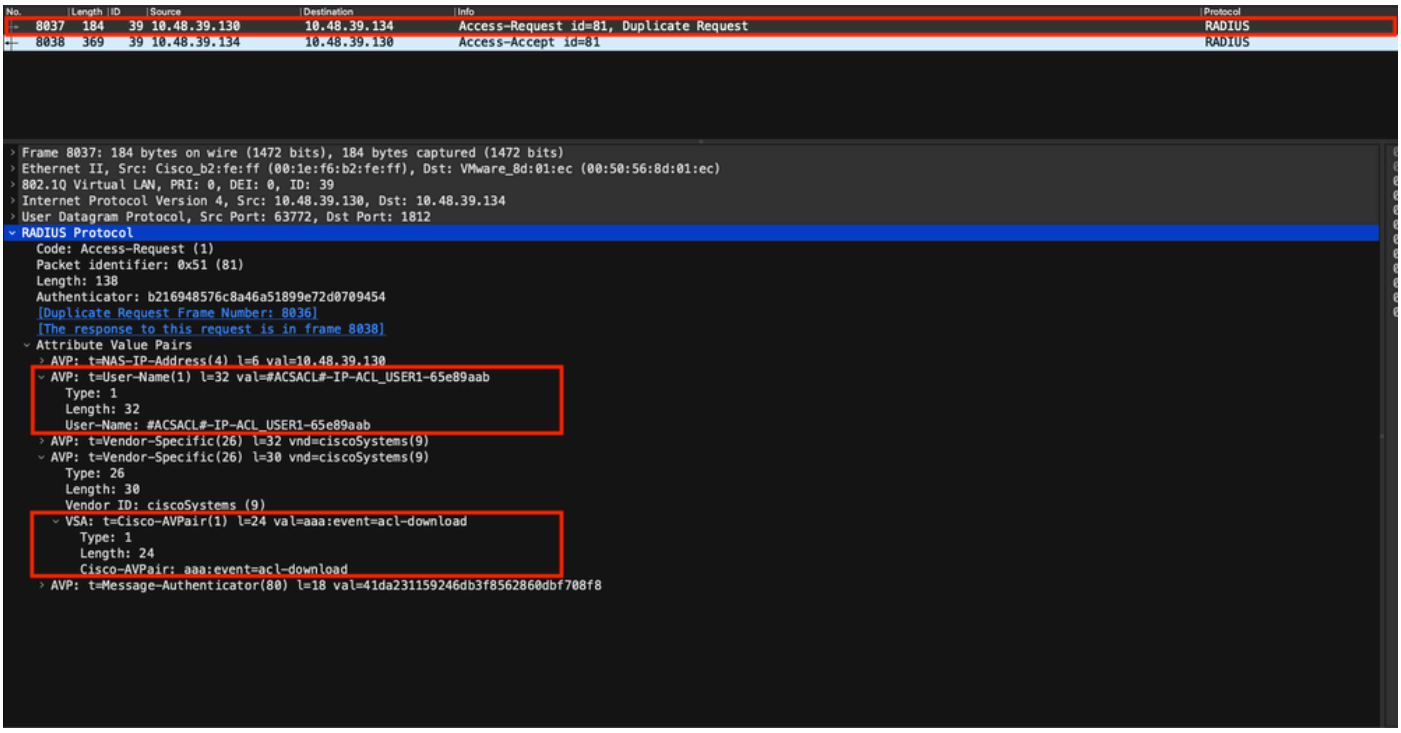


驗證成功後，RADIUS伺服器會回覆一個存取接受，但仍然是使用者USER1（AVP使用者名稱）並套用AAA屬性，特別是這裡為「#ACSACL#-IP-ACL_USER1-65e89aab」的廠商專用的AVP ACS:CiscoSecure-Defined-ACL。

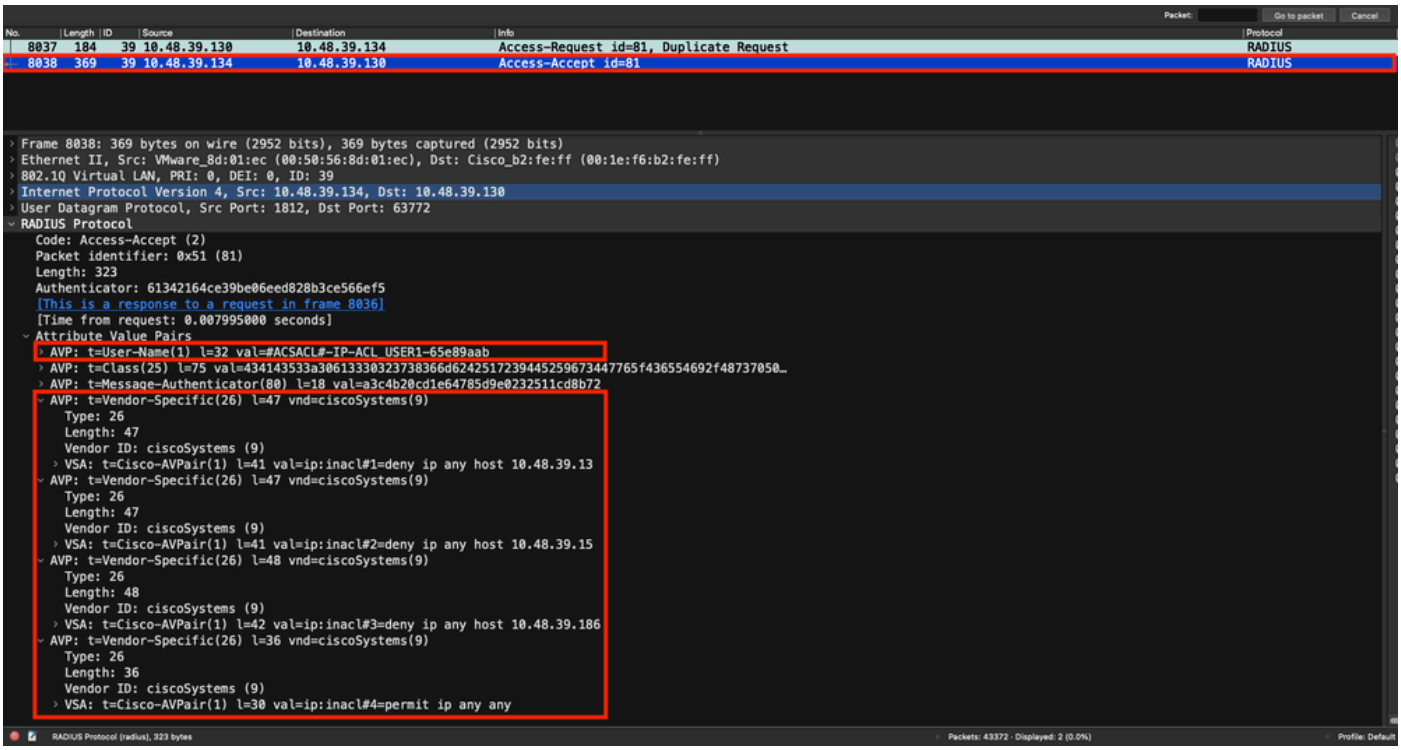


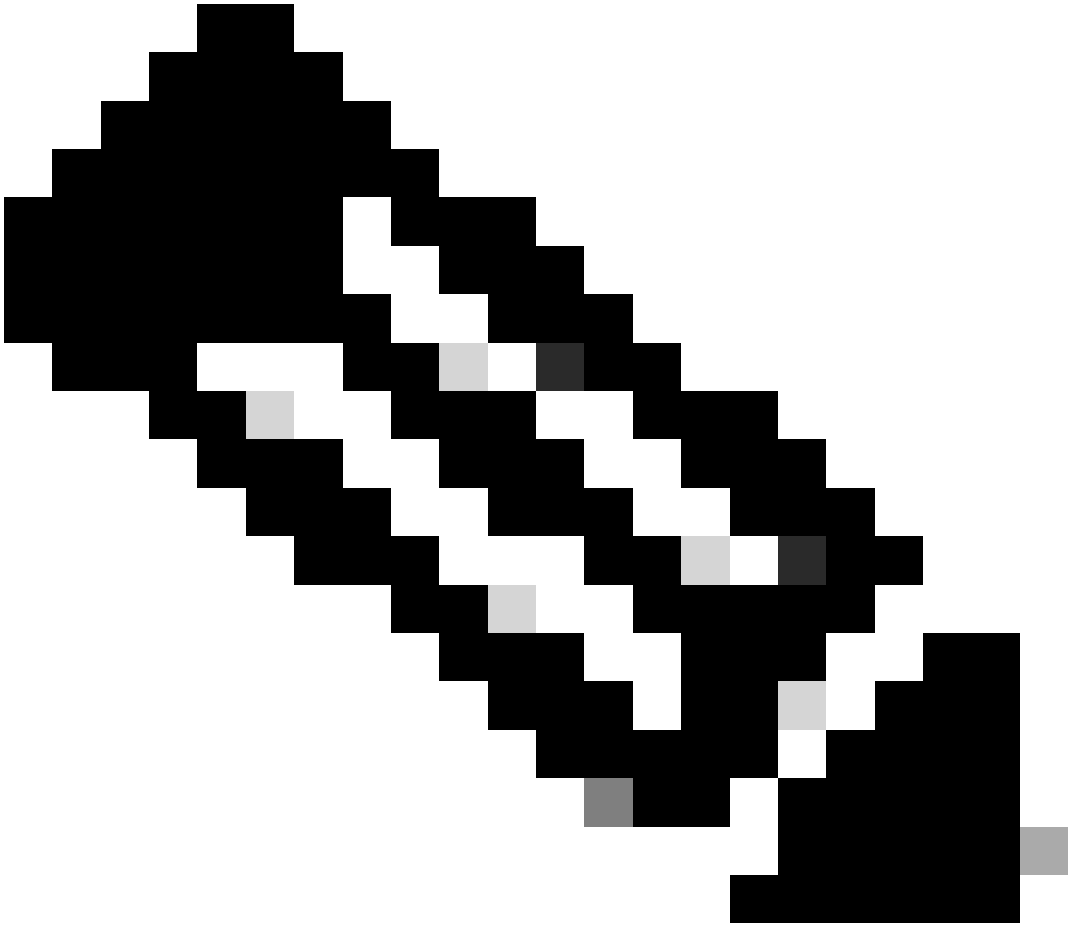
DACL下載

如果dACL已經是WLC組態的一部分，則只需將其指派給使用者，RADIUS作業階段就會結束。否則，WLC仍使用RADIUS下載ACL。為此，WLC會發出RADIUS存取要求，這次使用AVP使用者名稱的dACL名稱(「#ACSACL#-IP-ACL_USER1-65e89aab」)。此外，WLC通知RADIUS伺服器此存取接受使用Cisco AV配對aaa:event=acl-download發起ACL下載。



傳回控制器的RADIUS存取接受包含要求的dACL，如圖所示。每個ACL規則都包含在「ip:inacl#<X>=<ACL_RULE>」型別的其他Cisco AVP中，其中<X>是規則編號。



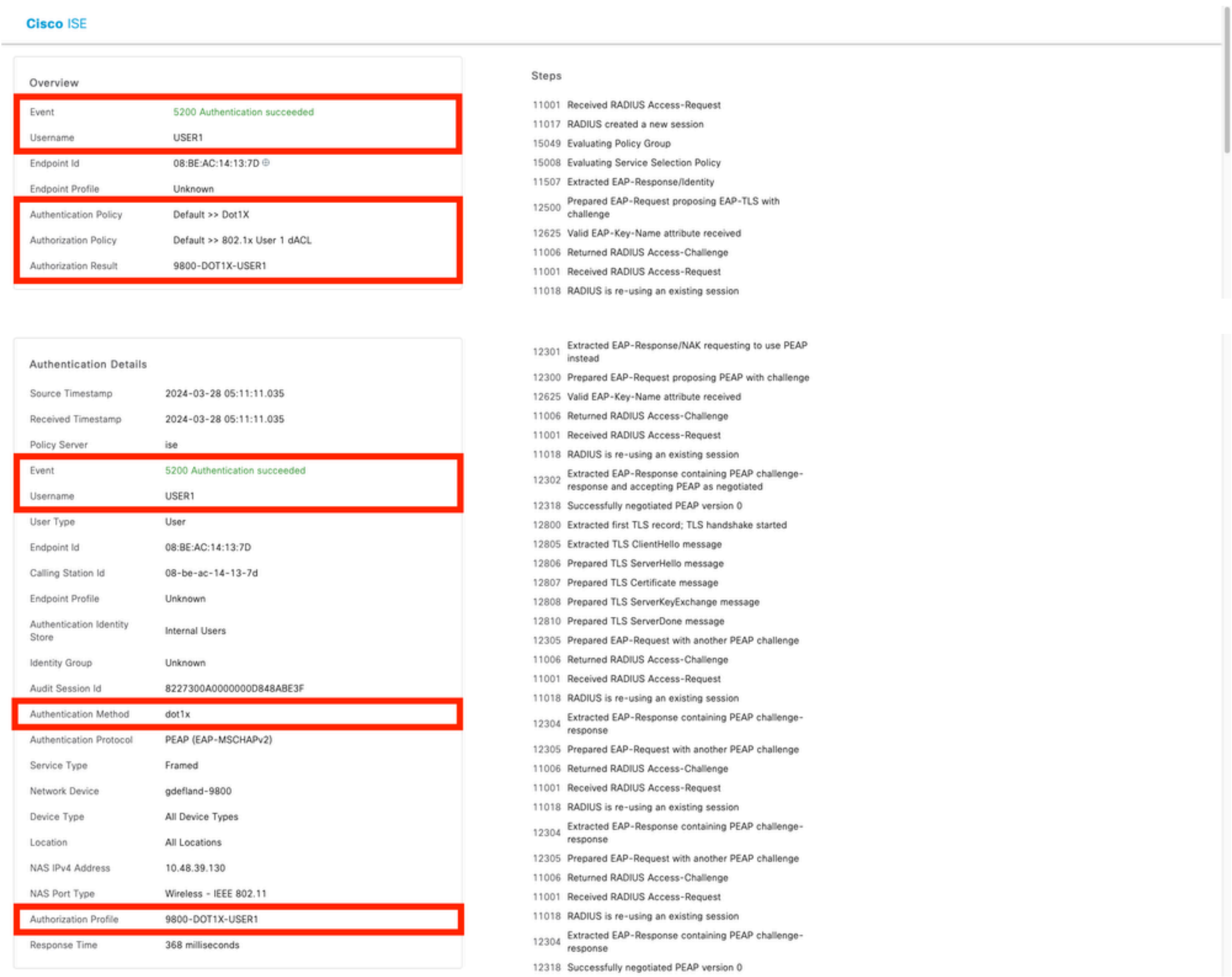


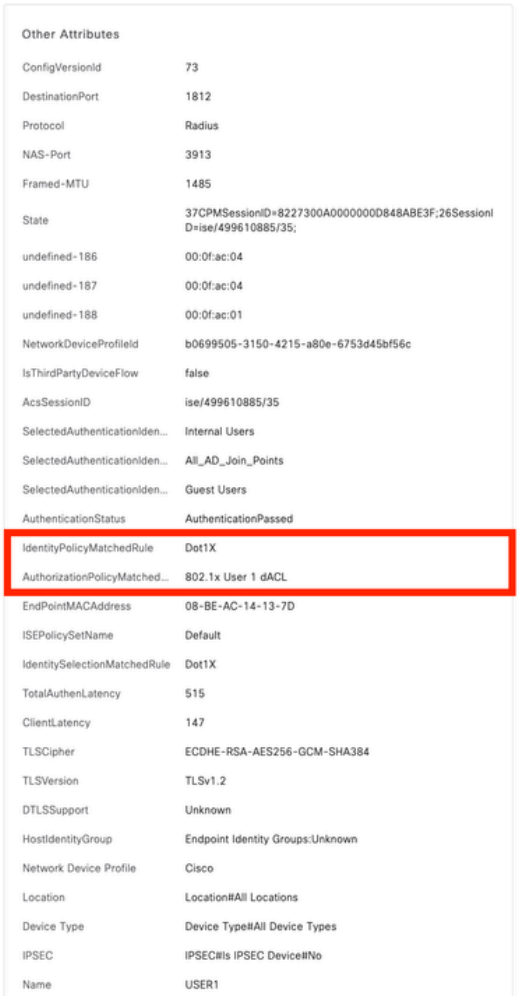
附註：如果下載ACL的內容在WLC上下載後進行修改，則在使用該ACL的使用者重新進行驗證之前，不會反映該ACL的變更（並且WLC會再次對這樣的使用者執行RADIUS驗證）。實際上，ACL名稱的雜湊部分的更改反映了ACL中的更改。因此，下次將此ACL指派給使用者時，其名稱必須不同，因此，該ACL不能是WLC組態的一部分，應該下載。但是，在ACL上發生變更之前進行驗證的使用者端會繼續使用先前的使用者端，直到他們完全重新進行驗證。

ISE操作日誌

RADIUS使用者端驗證

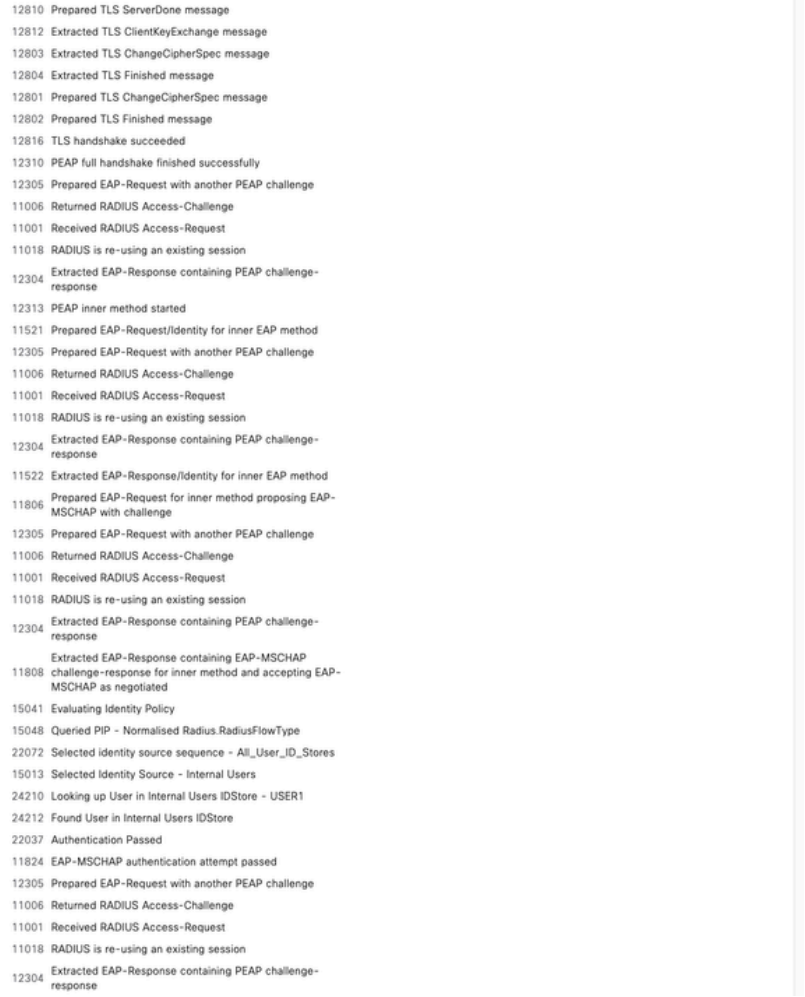
操作日誌顯示使用者「USER1」的成功身份驗證，可下載ACL「ACL_USER1」應用到該使用者。故障排除感興趣的部分用紅色框表示。


Cisco ISE
Overview
Event 5200 Authentication succeeded
Username USER1
Endpoint Id 08:BE:AC:14:13:7D
Endpoint Profile Unknown
Authentication Policy Default >> Dot1X
Authorization Policy Default >> 802.1x User 1 dACL
Authorization Result 9800-DOT1X-USER1
Authentication Details
Source Timestamp 2024-03-28 05:11:11.035
Received Timestamp 2024-03-28 05:11:11.035
Policy Server ise
Event 5200 Authentication succeeded
Username USER1
User Type User
Endpoint Id 08:BE:AC:14:13:7D
Calling Station Id 08-be-ac-14-13-7d
Endpoint Profile Unknown
Authentication Identity Store Internal Users
Identity Group Unknown
Audit Session Id 8227300A0000000D848ABE3F
Authentication Method dot1x
Authentication Protocol PEAP (EAP-MSCHAPv2)
Service Type Framed
Network Device gdefland-9800
Device Type All Device Types
Location All Locations
NAS IPv4 Address 10.48.39.130
NAS Port Type Wireless - IEEE 802.11
Authorization Profile 9800-DOT1X-USER1
Response Time 368 milliseconds
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
12301 Extracted EAP-Response/NAK requesting to use PEAP instead
12300 Prepared EAP-Request proposing PEAP 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
12302 Extracted EAP-Response containing PEAP challenge-response and accepting PEAP as negotiated
12318 Successfully negotiated PEAP version 0
12800 Extracted first TLS record; TLS handshake started
12805 Extracted TLS ClientHello message
12806 Prepared TLS ServerHello message
12807 Prepared TLS Certificate message
12808 Prepared TLS ServerKeyExchange message
12810 Prepared TLS ServerDone message
12305 Prepared EAP-Request with another PEAP challenge
11006 Returned RADIUS Access-Challenge
11001 Received RADIUS Access-Request
11018 RADIUS is re-using an existing session
12304 Extracted EAP-Response containing PEAP challenge-response
12305 Prepared EAP-Request with another PEAP challenge
11006 Returned RADIUS Access-Challenge
11001 Received RADIUS Access-Request
11018 RADIUS is re-using an existing session
12304 Extracted EAP-Response containing PEAP challenge-response
12305 Prepared EAP-Request with another PEAP challenge
11006 Returned RADIUS Access-Challenge
11001 Received RADIUS Access-Request
11018 RADIUS is re-using an existing session
12304 Extracted EAP-Response containing PEAP challenge-response
12318 Successfully negotiated PEAP version 0

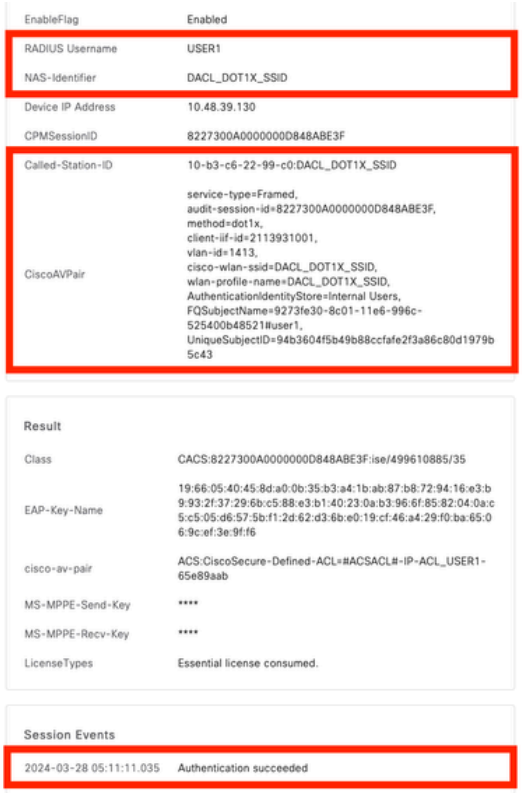


Other Attributes

ConfigVersionId	73
DestinationPort	1812
Protocol	Radius
NAS-Port	3913
Framed-MTU	1485
State	37CPMSessionID=8227300A0000000D848ABE3F;26SessionID=ise/499610885/35;
undefined-186	00:0f:ac:04
undefined-187	00:0f:ac:04
undefined-188	00:0f:ac:01
NetworkDeviceProfileId	b0699505-3150-4215-a80e-6753d45bf56c
IsThirdPartyDeviceFlow	false
AcsSessionID	ise/499610885/35
SelectedAuthenticationIden...	Internal Users
SelectedAuthenticationIden...	All_AD_Join_Points
SelectedAuthenticationIden...	Guest Users
AuthenticationStatus	AuthenticationPassed
IdentityPolicyMatchedRule	Dot1X
AuthorizationPolicyMatched...	802.1x User 1 dACL
EndPointMACAddress	08-BE-AC-14-13-7D
ISEPolicySetName	Default
IdentitySelectionMatchedRule	Dot1X
TotalAuthenLatency	515
ClientLatency	147
TLSCipher	ECDHE-RSA-AES256-GCM-SHA384
TLSVersion	TLSv1.2
DTLSSupport	Unknown
HostIdentityGroup	Endpoint Identity Groups:Unknown
Network Device Profile	Cisco
Location	Location#All Locations
Device Type	Device Type#All Device Types
IPSEC	IPSEC#Is IPSEC Device#No
Name	USER1



12810	Prepared TLS ServerDone message
12812	Extracted TLS ClientKeyExchange message
12803	Extracted TLS ChangeCipherSpec message
12804	Extracted TLS Finished message
12801	Prepared TLS ChangeCipherSpec message
12802	Prepared TLS Finished message
12816	TLS handshake succeeded
12310	PEAP full handshake finished successfully
12305	Prepared EAP-Request with another PEAP challenge
11006	Returned RADIUS Access-Challenge
11001	Received RADIUS Access-Request
11018	RADIUS is re-using an existing session
12304	Extracted EAP-Response containing PEAP challenge-response
12313	PEAP inner method started
11521	Prepared EAP-Request/Identity for inner EAP method
12305	Prepared EAP-Request with another PEAP challenge
11006	Returned RADIUS Access-Challenge
11001	Received RADIUS Access-Request
11018	RADIUS is re-using an existing session
12304	Extracted EAP-Response containing PEAP challenge-response
11522	Extracted EAP-Response/Identity for inner EAP method
11806	Prepared EAP-Request for inner method proposing EAP-MSCHAP with challenge
12305	Prepared EAP-Request with another PEAP challenge
11006	Returned RADIUS Access-Challenge
11001	Received RADIUS Access-Request
11018	RADIUS is re-using an existing session
12304	Extracted EAP-Response containing PEAP challenge-response
11808	Extracted EAP-Response containing EAP-MSCHAP challenge-response for inner method and accepting EAP-MSCHAP as negotiated
15041	Evaluating Identity Policy
15048	Queried PIP - Normalised Radius.RadiusFlowType
22072	Selected identity source sequence - All_User_ID_Stores
15013	Selected Identity Source - Internal Users
24210	Looking up User in Internal Users IDStore - USER1
24212	Found User in Internal Users IDStore
22037	Authentication Passed
11824	EAP-MSCHAP authentication attempt passed
12305	Prepared EAP-Request with another PEAP challenge
11006	Returned RADIUS Access-Challenge
11001	Received RADIUS Access-Request
11018	RADIUS is re-using an existing session
12304	Extracted EAP-Response containing PEAP challenge-response



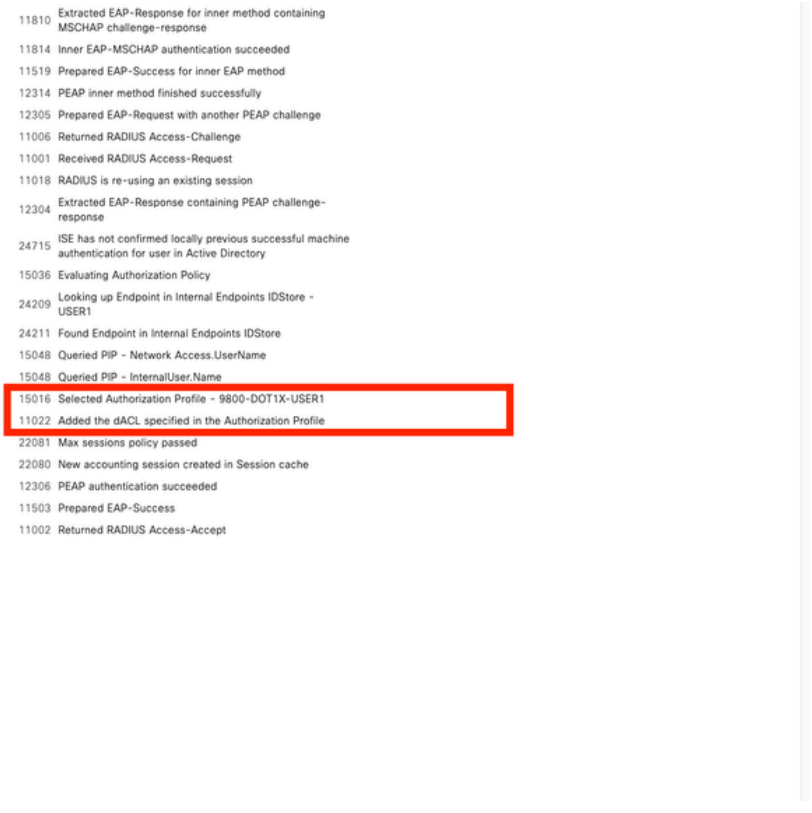
EnableFlag	Enabled
RADIUS Username	USER1
NAS-Identifier	DACL_DOT1X_SSID
Device IP Address	10.48.39.130
CPMSessionID	8227300A0000000D848ABE3F
Called-Station-ID	10-b3-c6-22-99-c0:DACL_DOT1X_SSID
CiscoAVPair	service-type=Framed, audit-session-id=8227300A0000000D848ABE3F, method=dot1x, client-iif-id=2113931001, vlan-id=1413, cisco-wlan-ssid=DACL_DOT1X_SSID, wlan-profile-name=DACL_DOT1X_SSID, AuthenticationIdentityStore=Internal Users, FQSubjectName=9273fe30-8c01-11e6-996c-525400b48521#user1, UniqueSubjectID=94b3604f5b49b88ccfafe2f3a86c80d1979b5c43

Result

Class	CACS:8227300A0000000D848ABE3F:ise/499610885/35
EAP-Key-Name	19:66:05:40:45:8d:a0:0b:35:b3:a4:1b:ab:87:b8:72:94:16:e3:b9:93:2f:37:29:6b:c5:88:e3:b1:40:23:0a:b3:96:6f:85:82:04:0a:c5:c5:05:d6:57:5b:f1:2d:62:d3:6b:e0:19:cf:46:a4:29:f0:ba:65:06:9c:ef:3e:9f:f6
cisco-av-pair	ACS:CiscoSecure-Defined-ACL=#ACSACL#-IP-ACL_USER1-65e89aab
MS-MPPE-Send-Key	****
MS-MPPE-Recv-Key	****
LicenseTypes	Essential license consumed.

Session Events

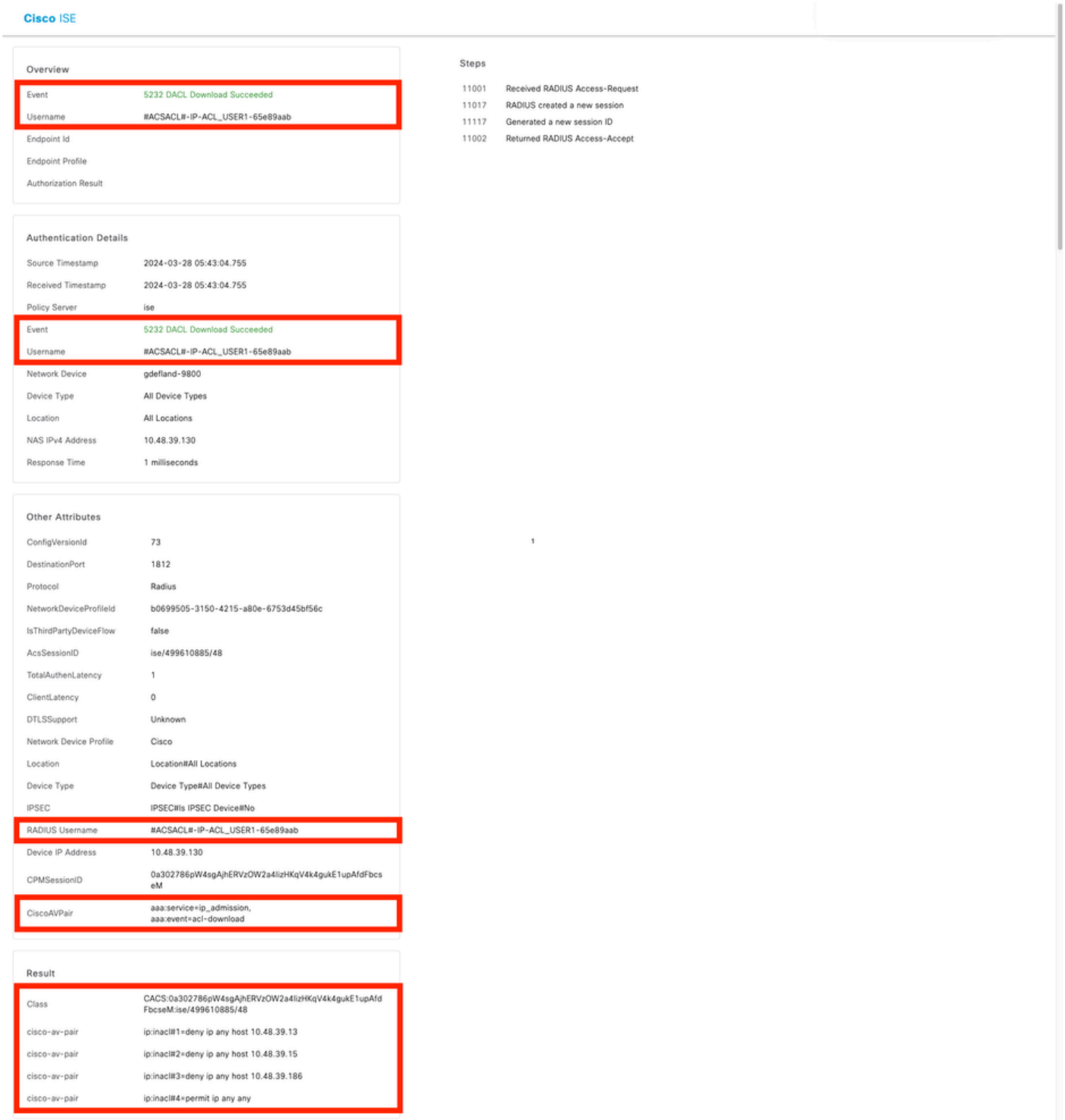
2024-03-28 05:11:11.035	Authentication succeeded



11810	Extracted EAP-Response for inner method containing MSCHAP challenge-response
11814	Inner EAP-MSCHAP authentication succeeded
11519	Prepared EAP-Success for inner EAP method
12314	PEAP inner method finished successfully
12305	Prepared EAP-Request with another PEAP challenge
11006	Returned RADIUS Access-Challenge
11001	Received RADIUS Access-Request
11018	RADIUS is re-using an existing session
12304	Extracted EAP-Response containing PEAP challenge-response
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 - USER1
24211	Found Endpoint in Internal Endpoints IDStore
15048	Queried PIP - Network Access.UserName
15048	Queried PIP - InternalUser.Name
15016	Selected Authorization Profile - 9800-DOT1X-USER1
11022	Added the dACL specified in the Authorization Profile
22081	Max sessions policy passed
22080	New accounting session created in Session cache
12306	PEAP authentication succeeded
11503	Prepared EAP-Success
11002	Returned RADIUS Access-Accept

DACL下載

操作日誌顯示ACL "ACL_USER1"成功下載。 故障排除感興趣的部分用紅色框表示。



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）。