Configuración de Catalyst 9800 WLC con autenticación LDAP para 802.1X y autenticación Web

Contenido

Introducción

Este documento describe cómo configurar un Catalyst 9800 para autenticar clientes con un servidor LDAP como base de datos para credenciales de usuario.

Prerequisites

Requirements

Cisco recomienda que tenga conocimiento sobre estos temas:

- Servidores de Microsoft Windows
- Active Directory o cualquier otra base de datos LDAP

Componentes Utilizados

EWC C9800 en punto de acceso (AP) C9100 que ejecuta la versión 17.3.2a de Cisco IOS®-XE

Servidor Microsoft Active Directory (AD) con almacenamiento de acceso a la red (NAS) de QNAP que actúa como base de datos LDAP

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Si tiene una red en vivo, asegúrese de entender el posible impacto de cualquier comando.

Configuración de LDAP con un SSID de Webauth

Diagrama de la red

Este artículo fue escrito en base a una configuración muy simple:

Un EWC AP 9115 con IP 192.168.1.15

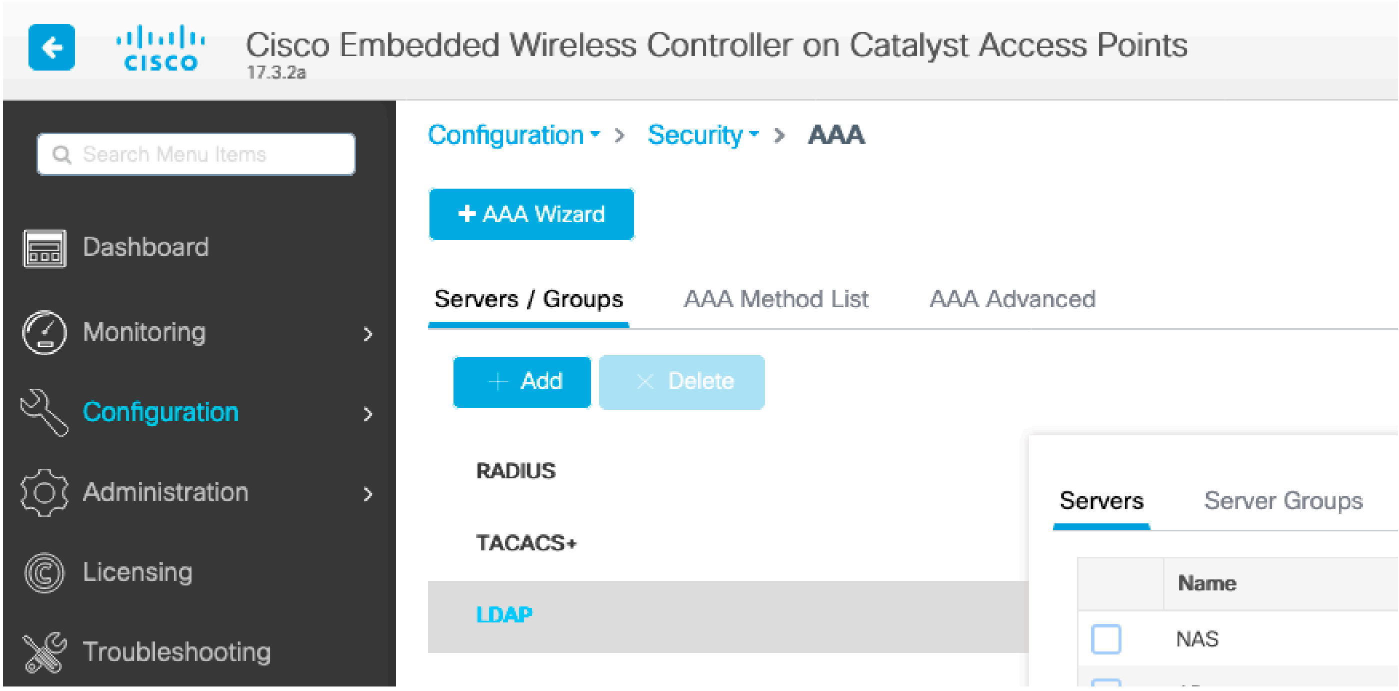
Un servidor de Active Directory con IP 192.168.1.192

Un cliente que se conecta al AP interno del EWC

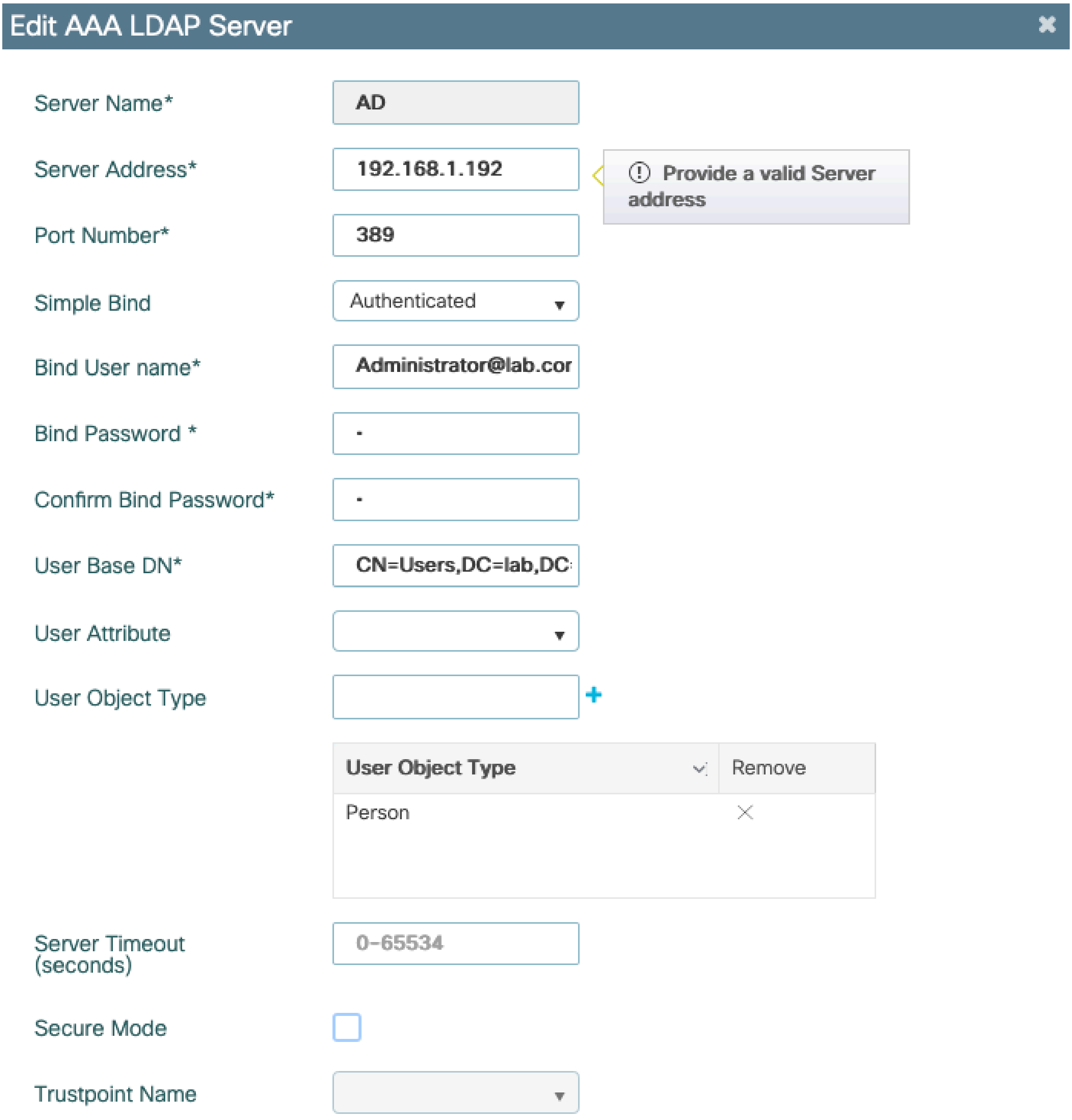
Configuración del controlador

Paso 1. Configuración del servidor LDAP

Navegue hasta **Configuration > Security > AAA> Servers/Groups > LDAP** y haga clic en **+ Add**



Elija un nombre para su servidor LDAP y rellene los detalles. Para obtener una explicación sobre cada campo, consulte la sección "Comprensión de los detalles del servidor LDAP" de este documento.



Edit AAA LDAP Server

Server Name*	AD
Server Address*	192.168.1.192
Port Number*	389
Simple Bind	Authenticated
Bind User name*	Administrator@lab.cor
Bind Password *	·
Confirm Bind Password*	·
User Base DN*	CN=Users,DC=lab,DC:
User Attribute	
User Object Type	
Server Timeout (seconds)	0-65534
Secure Mode	□
Trustpoint Name	

Provide a valid Server address

User Object Type	Remove
Person	×

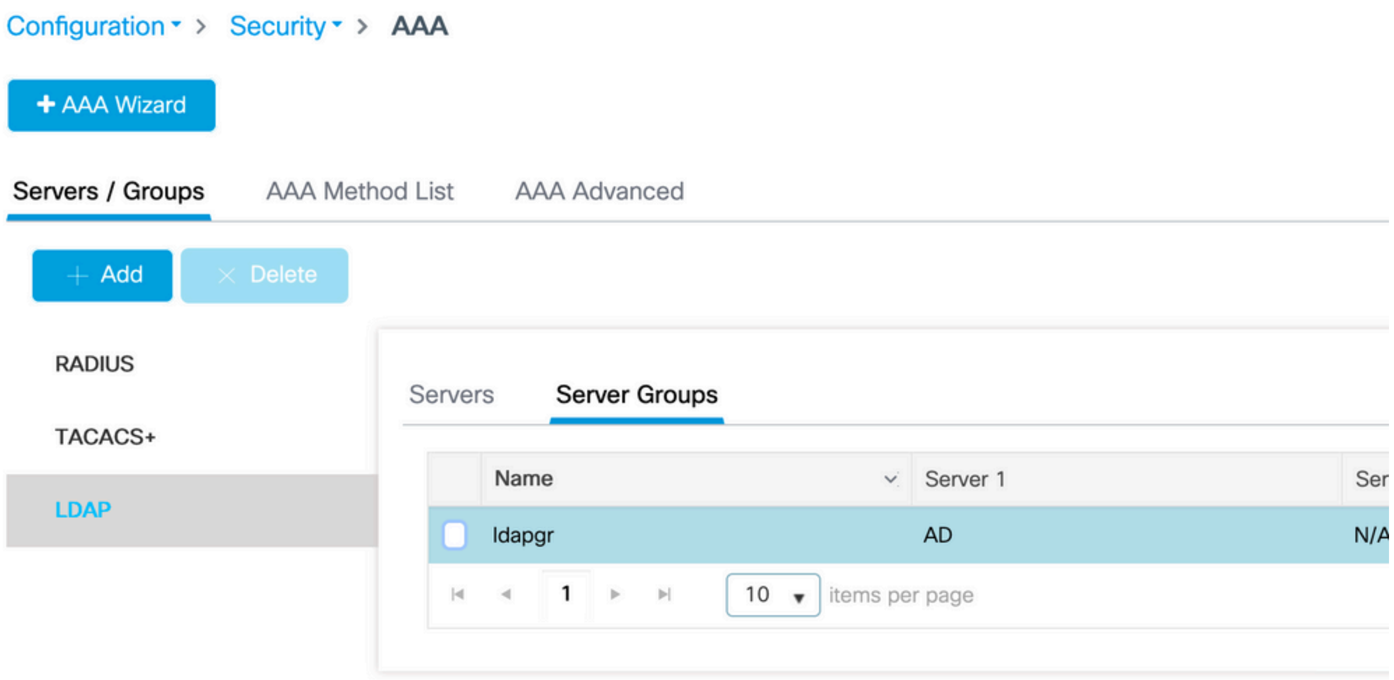
Guardar haciendo clic en **Actualizar y aplicar al dispositivo**

Comandos CLI:

```
ldap server AD ipv4 192.168.1.192 bind authenticate root-dn Administrator@lab.com password 6
WCGYHKTDQPV]DeaHLSPF_GZ[E_MNi_AAB base-dn CN=Users,DC=lab,DC=com search-filter user-object-type
Person
```

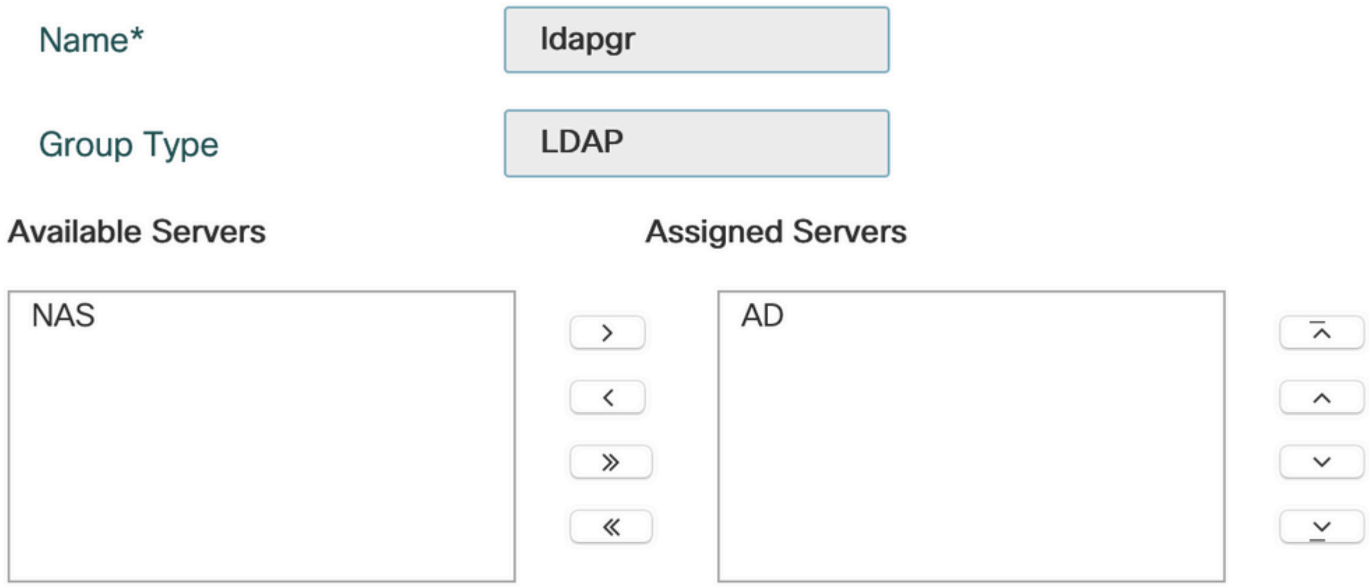
Paso 2. Configure un grupo de servidores LDAP.

Navegue hasta **Configuration > Security > AAA > Servers/ Groups > LDAP > Server Groups** y haga clic en **+ADD**



	Name	Server 1	Ser
□	ldapgr	AD	N/A

Introduzca un nombre y agregue el servidor LDAP que configuró en el paso anterior.



Name* ldapgr

Group Type LDAP

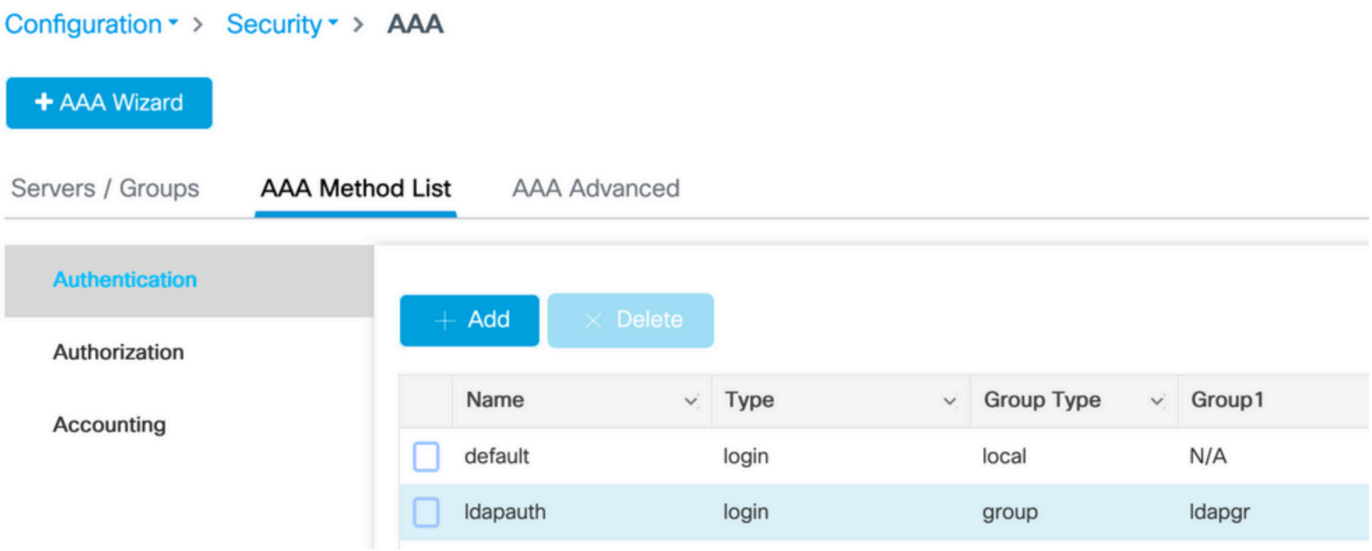
Haga clic en **Update and apply** para guardar.

Comandos CLI:

```
aaa group server ldap ldapgr server AD
```

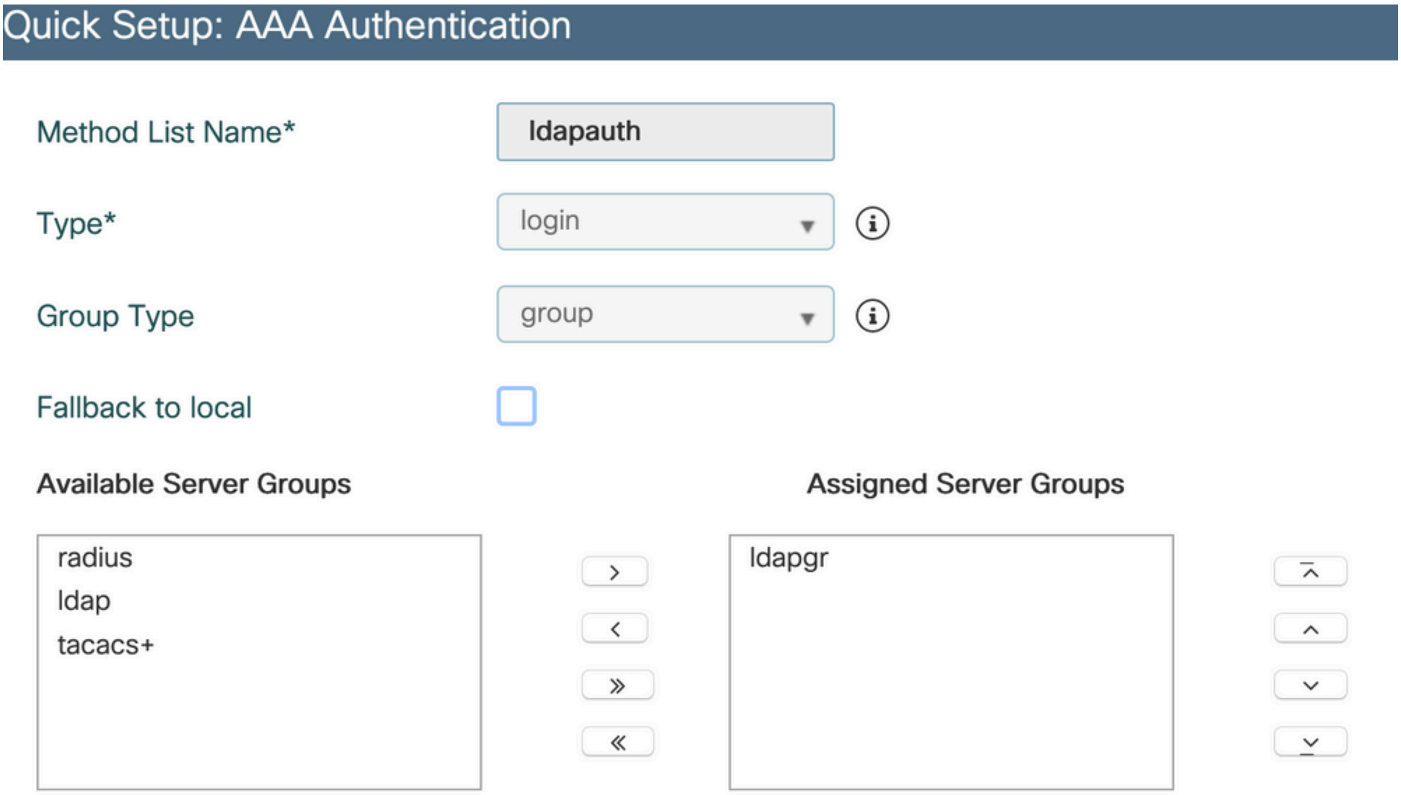
Paso 3. Configuración del método de autenticación AAA

Navegue hasta **Configuration > Security > AAA > AAA method List > Authentication** y haga clic en **+Add**



	Name	Type	Group Type	Group1
□	default	login	local	N/A
□	ldapauth	login	group	ldapgr

Ingrese un nombre, elija el tipo de **Login** y apunte al grupo de servidores LDAP configurado previamente.



Method List Name*	ldapauth
Type*	login
Group Type	group
Fallback to local	□

Available Server Groups: radius, ldap, tacacs+

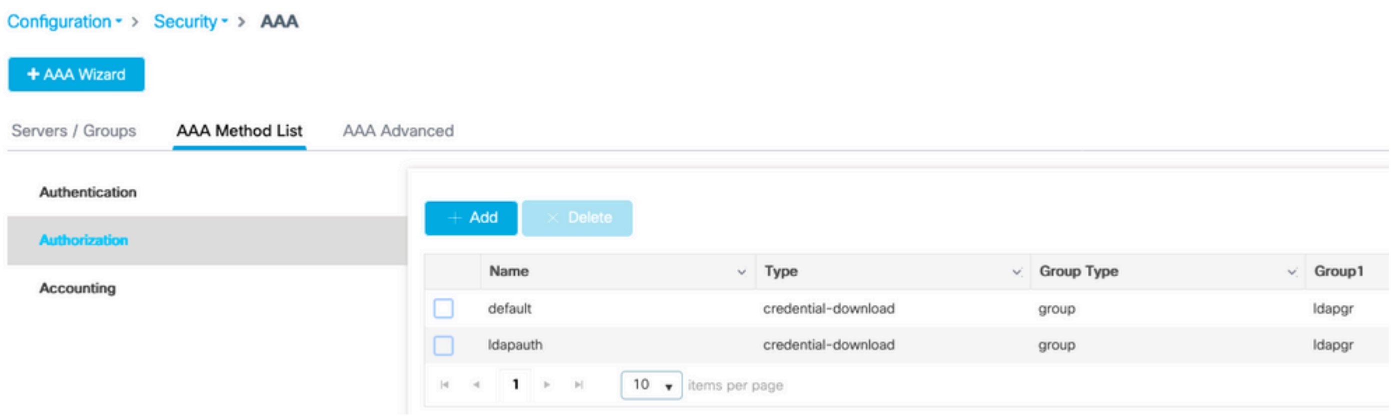
Assigned Server Groups: ldapgr

Comandos CLI:

```
aaa authentication login ldapauth group ldapgr
```

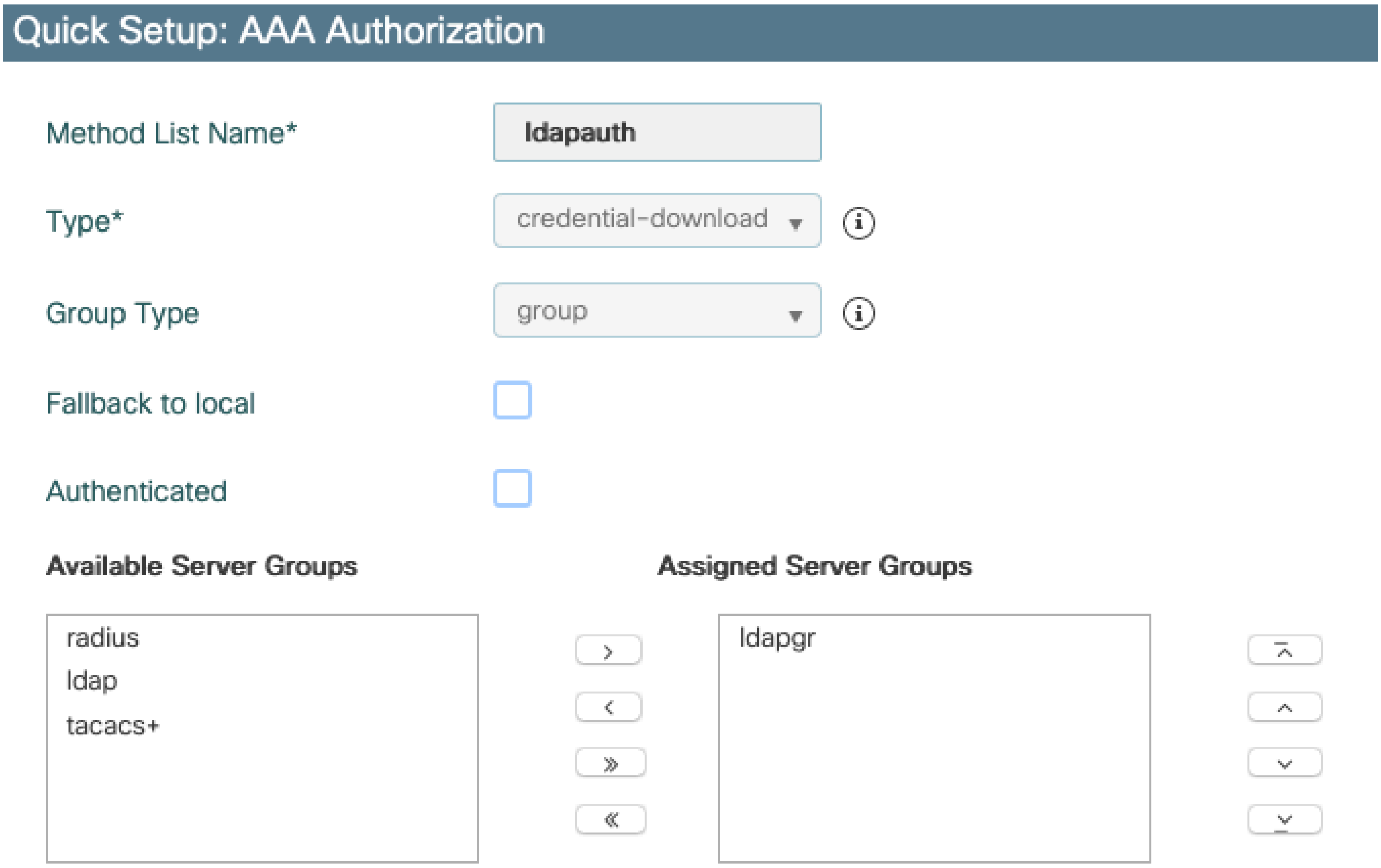
Paso 4. Configuración de un método de autorización AAA

Navegue hasta **Configuration > Security > AAA** > AAA method list > Authorization y haga clic en +Add



☐	Name	Type	Group Type	Group1
☐	default	credential-download	group	ldapgr
☐	ldapauth	credential-download	group	ldapgr

Cree una regla de tipo de descarga de credenciales con el nombre que desee y señale al grupo de servidores LDAP creado anteriormente


Quick Setup: AAA Authorization

Method List Name*: ldapauth

Type*: credential-download

Group Type: group

Fallback to local: ☐

Authenticated: ☐

Available Server Groups: radius, ldap, tacacs+

Assigned Server Groups: ldapgr

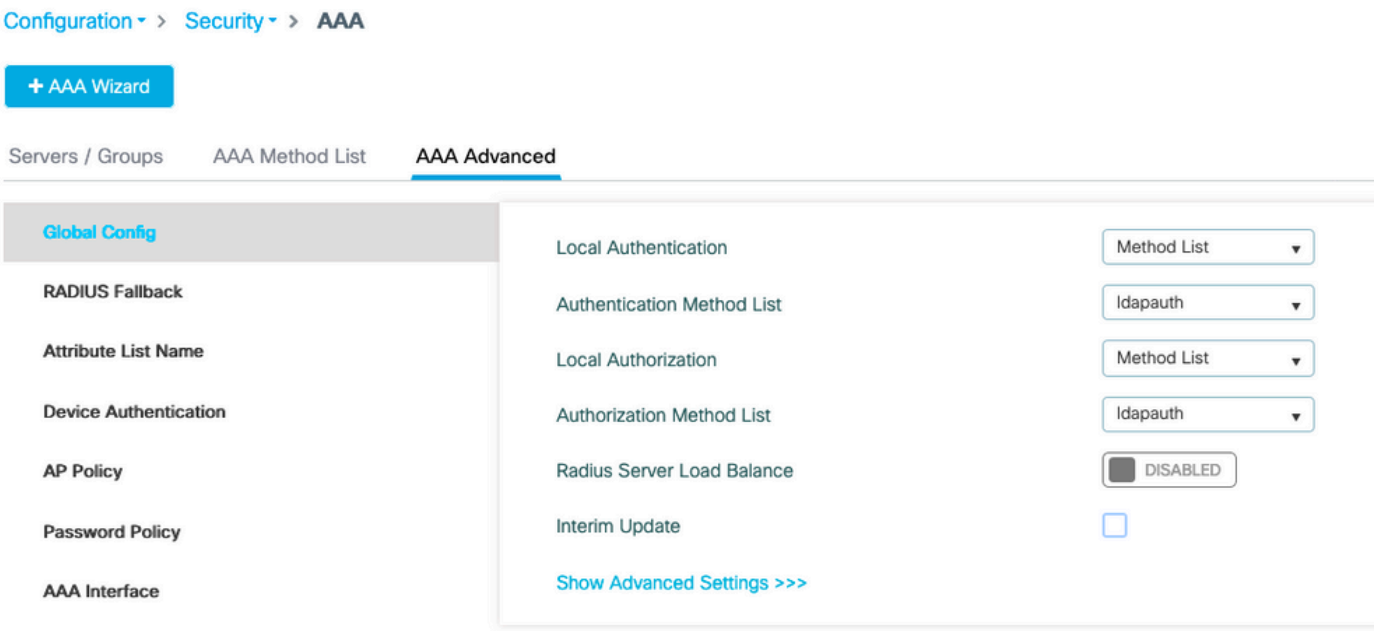
Comandos CLI:

```
aaa authorization credential-download ldapauth group ldapgr
```

Paso 5. Configuración de la autenticación local

Vaya a **Configuration > Security > AAA > AAA Advanced > Global Config**

Establezca la autenticación local y la autorización local en **Lista de métodos** y elija el método de autenticación y autorización configurado anteriormente.



Local Authentication: Method List

Authentication Method List: ldapauth

Local Authorization: Method List

Authorization Method List: ldapauth

Radius Server Load Balance: DISABLED

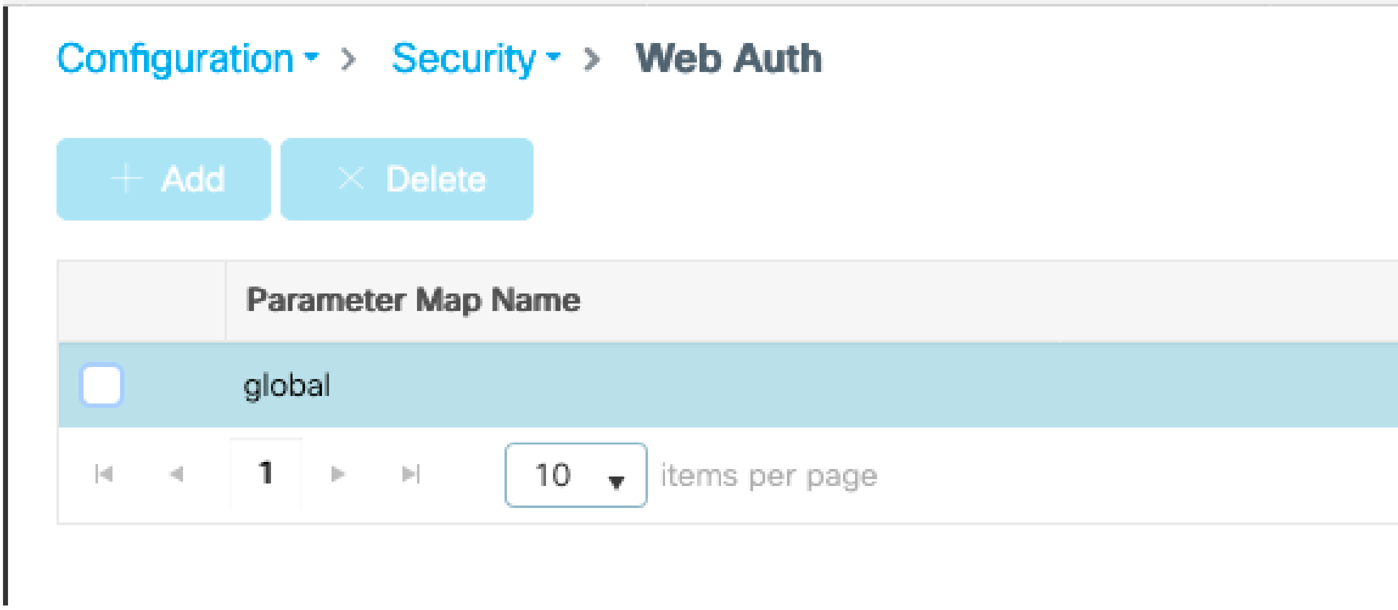
Interim Update: □

Comandos CLI:

```
aaa local authentication ldapauth authorization ldapauth
```

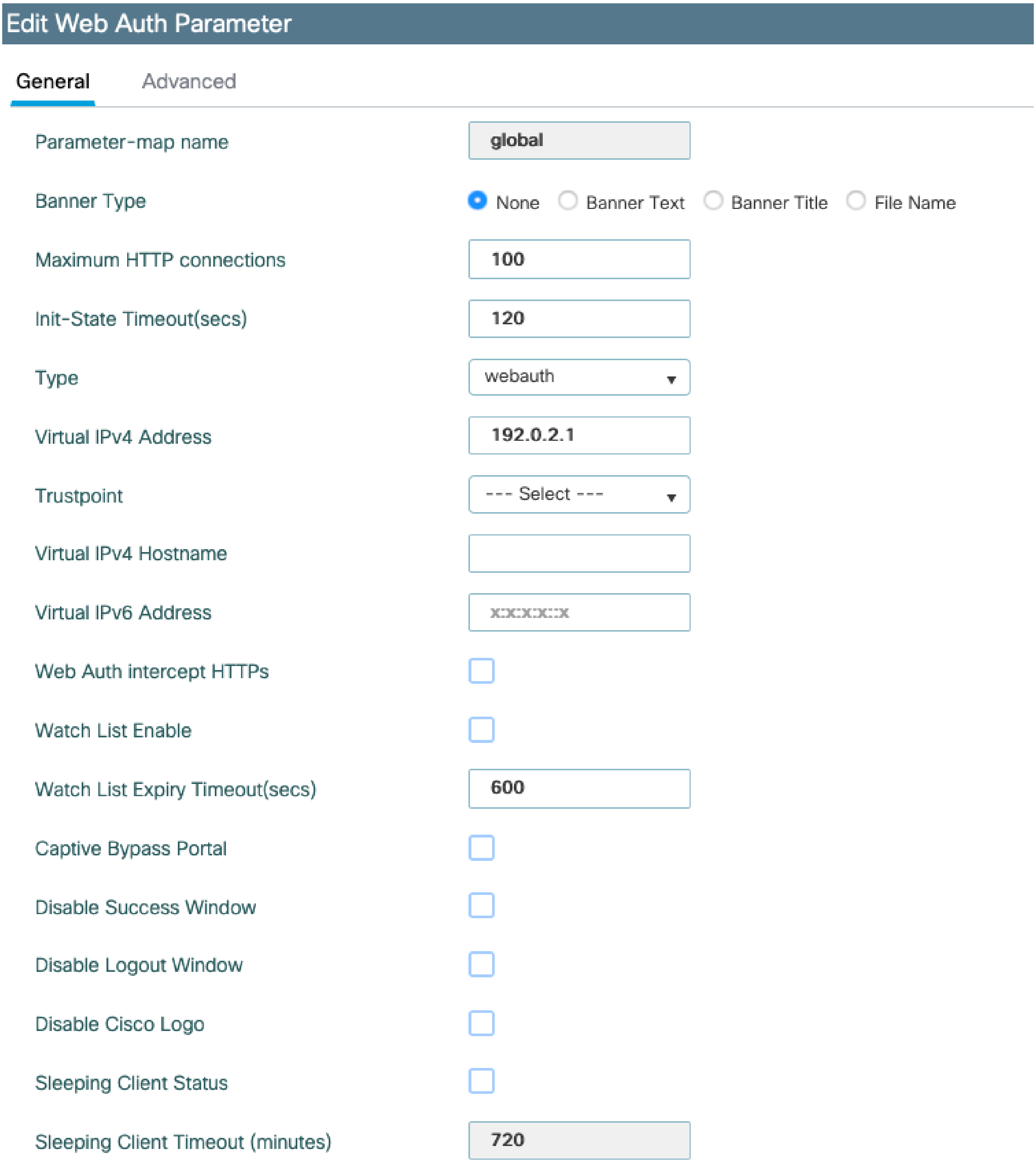
Paso 6. Configure el mapa de parámetros de webauth

Navegue hasta **Configuration > Security > Web Auth** y edite el mapa **global**



	Parameter Map Name
□	global

Asegúrese de configurar una dirección IPv4 virtual como 192.0.2.1 (esa IP/subred específica está reservada para la IP virtual no enrutable).



Edit Web Auth Parameter

Parameter-map name	global
Banner Type	● None ○ Banner Text ○ Banner Title ○ File Name
Maximum HTTP connections	100
Init-State Timeout(secs)	120
Type	webauth ▾
Virtual IPv4 Address	192.0.2.1
Trustpoint	--- Select --- ▾
Virtual IPv4 Hostname	
Virtual IPv6 Address	x:x:x:x::x
Web Auth intercept HTTPs	□
Watch List Enable	□
Watch List Expiry Timeout(secs)	600
Captive Bypass Portal	□
Disable Success Window	□
Disable Logout Window	□
Disable Cisco Logo	□
Sleeping Client Status	□
Sleeping Client Timeout (minutes)	720

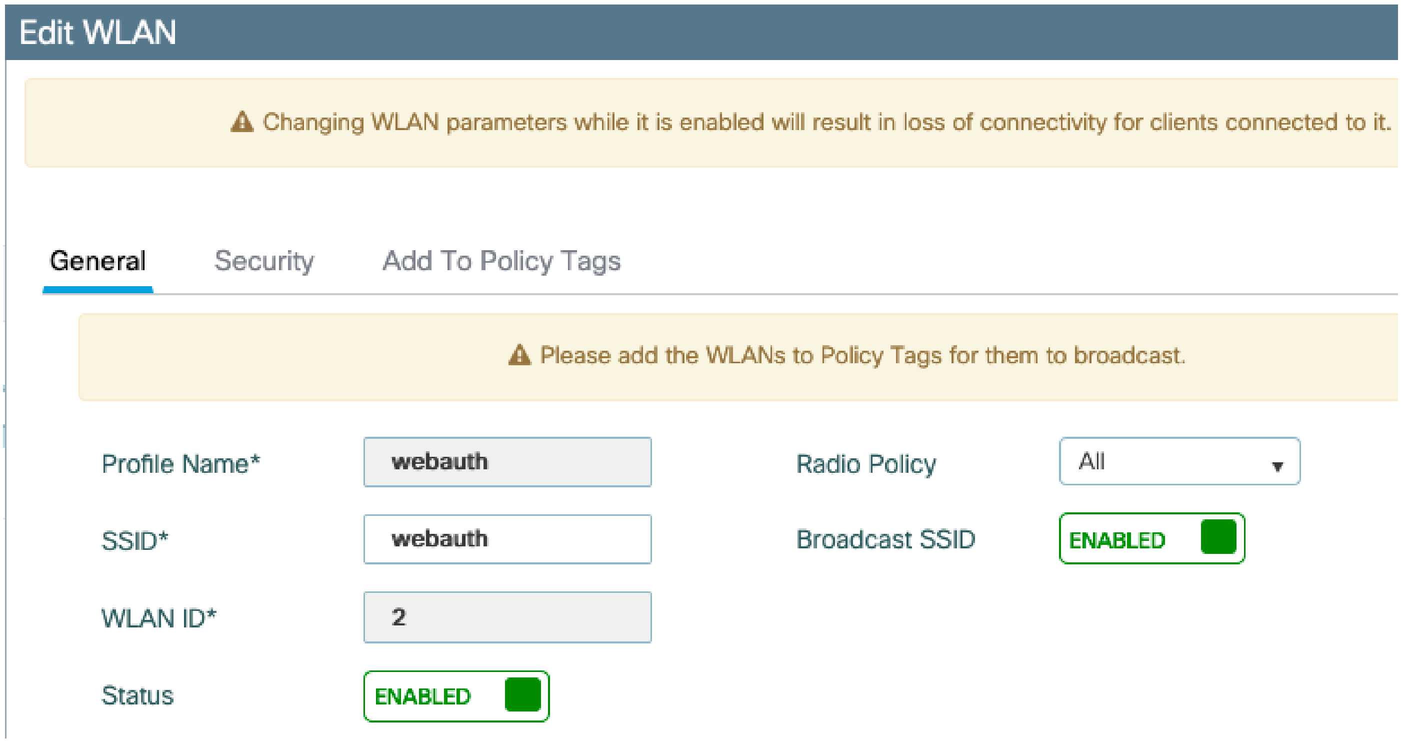
Haga clic en **Apply** para guardar.

Comandos CLI:

```
parameter-map type webauth global type webauth virtual-ip ipv4 192.0.2.1
```

Paso 7. Configuración de una WLAN de webauth

Navegue hasta **Configuration > WLANs** y haga clic en **+Add**



Edit WLAN

⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

General | Security | Add To Policy Tags

⚠ Please add the WLANs to Policy Tags for them to broadcast.

Profile Name*: webauth

SSID*: webauth

WLAN ID*: 2

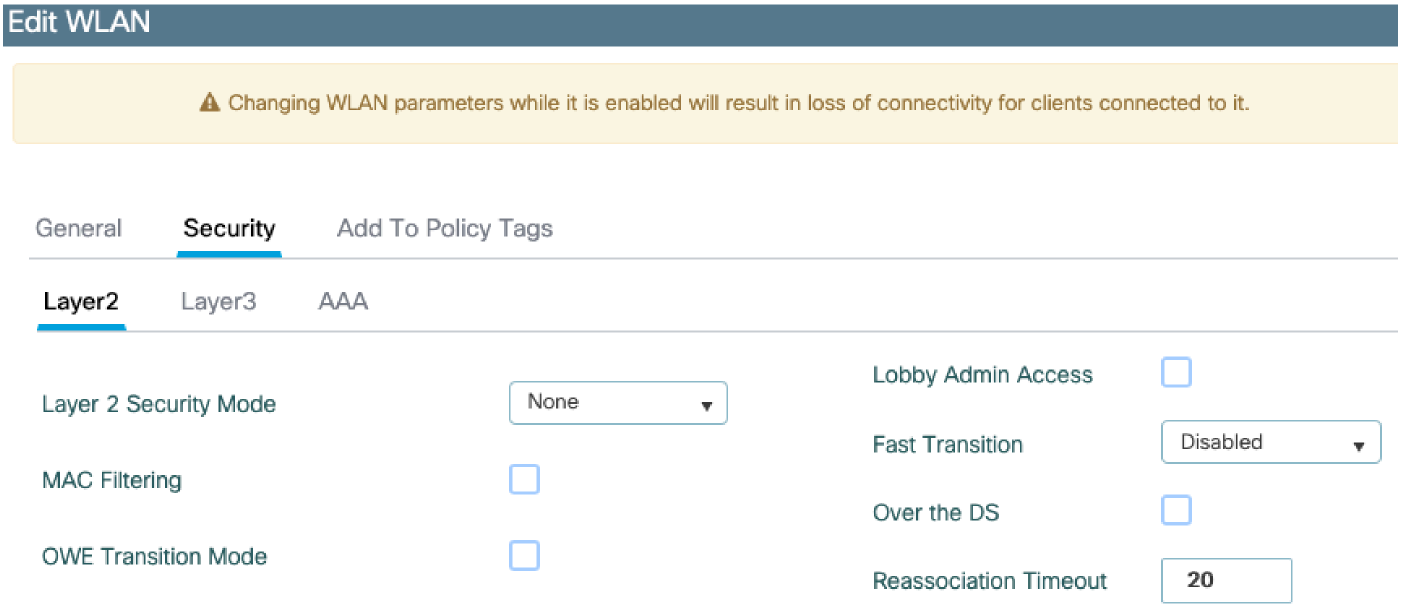
Status: ENABLED

Radio Policy: All

Broadcast SSID: ENABLED

Configure el nombre, asegúrese de que está en el estado habilitado y, a continuación, vaya a la ficha **Seguridad**.

En la subpestaña **Capa 2**, asegúrese de que no haya seguridad y de que la Transición rápida esté inhabilitada.



Edit WLAN

⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

General | Security | Add To Policy Tags

Layer2 | Layer3 | AAA

Layer 2 Security Mode: None

MAC Filtering: □

OWE Transition Mode: □

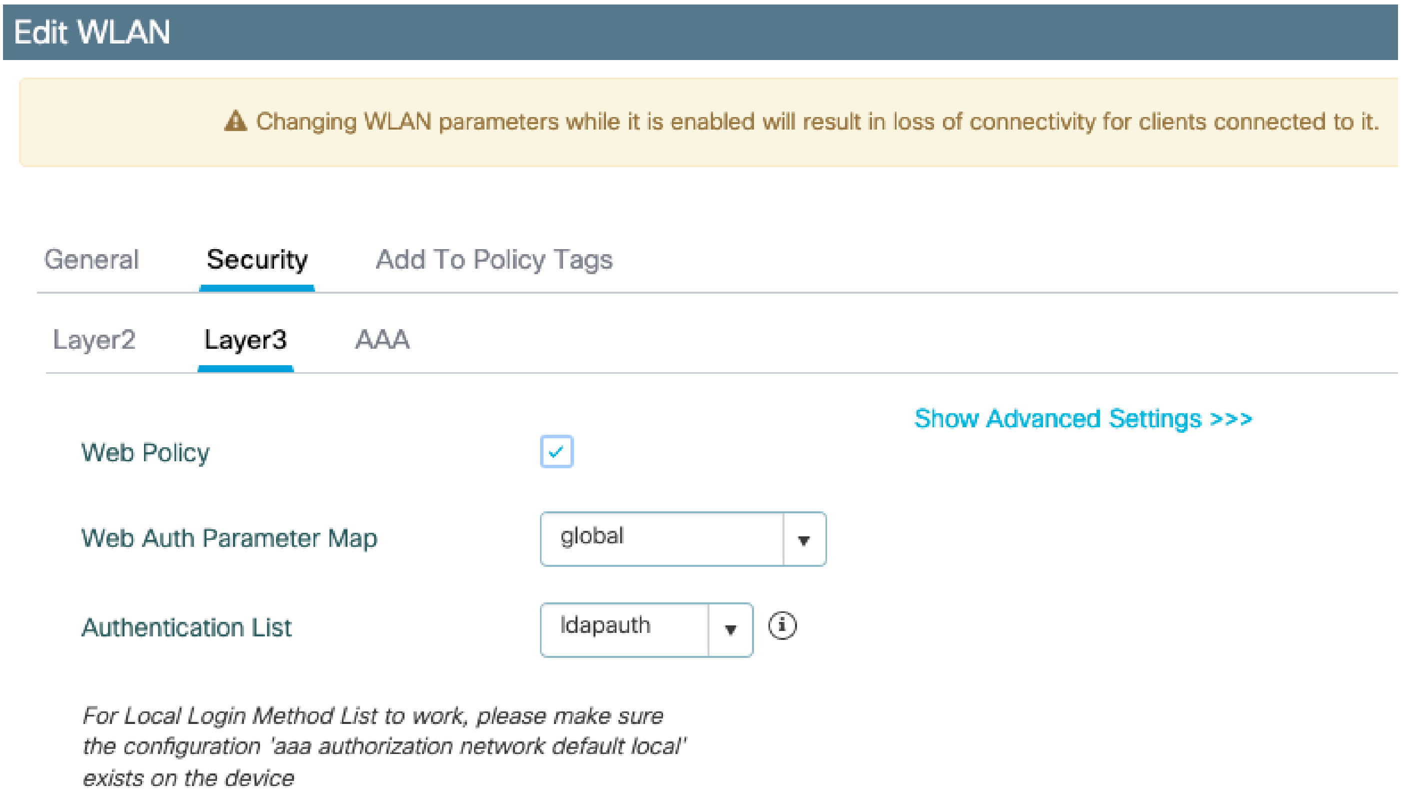
Lobby Admin Access: □

Fast Transition: Disabled

Over the DS: □

Reassociation Timeout: 20

En la pestaña **Layer3**, habilite la **política web**, establezca el mapa de parámetro en **global** y establezca la lista de autenticación en el método de inicio de sesión aaa configurado previamente.


Edit WLAN
⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.
General
Security
Add To Policy Tags
Layer2
Layer3
AAA
Show Advanced Settings >>>

Web Policy ☑

Web Auth Parameter Map: global

Authentication List: ldapauth

For Local Login Method List to work, please make sure the configuration 'aaa authorization network default local' exists on the device

Guardar haciendo clic en **Aplicar**

Comandos CLI:

```
wlan webauth 2 webauth no security ft adaptive no security wpa no security wpa wpa2 no security
wpa wpa2 ciphers aes no security wpa akm dot1x security web-auth security web-auth
authentication-list ldapauth security web-auth parameter-map global no shutdown
```

Paso 8. Asegúrese de que se transmite el SSID

Navegue hasta **Configuration > Tags** y asegúrese de que el SSID esté incluido en el servicio del perfil de política actual por el SSID (la etiqueta de política predeterminada para una nueva configuración si aún no ha configurado etiquetas). De forma predeterminada, default-policy-tag no difunde los nuevos SSID que cree hasta que los incluya manualmente.

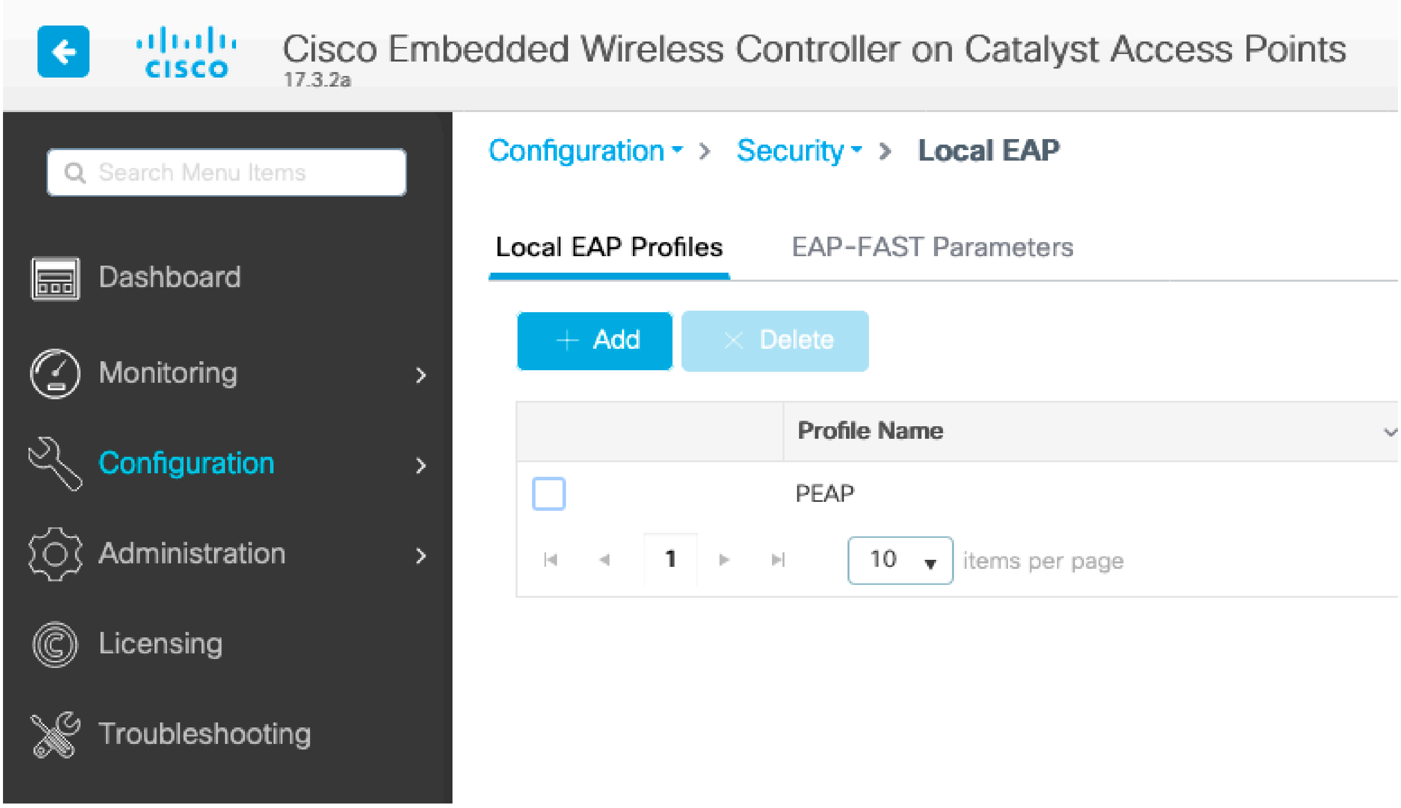
En este artículo no se trata la configuración de los perfiles de política y se asume que está familiarizado con esa parte de la configuración.

Configuración de LDAP con un SSID dot1x (mediante EAP local)

La configuración de LDAP para un SSID 802.1X en el 9800 generalmente requiere también la configuración de EAP local. Si fuera a utilizar RADIUS, sería su servidor RADIUS establecer una conexión con la base de datos LDAP y eso está fuera del alcance de este artículo.Antes de intentar esta configuración se recomienda configurar EAP local con un usuario local configurado en el WLC primero, se proporciona un ejemplo de configuración en la sección de referencias al final de este artículo. Una vez hecho esto, puede intentar mover la base de datos de usuarios hacia LDAP.

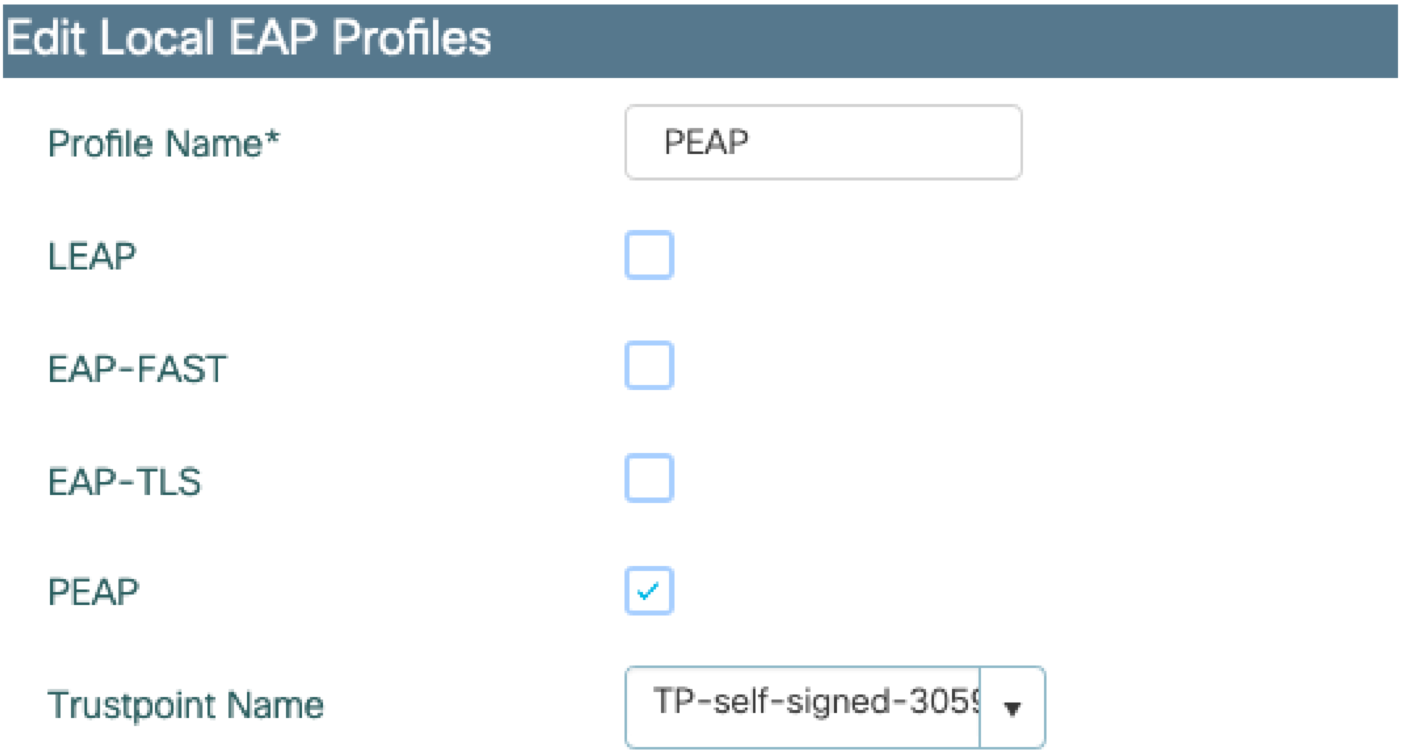
Paso 1. Configuración de un perfil EAP local

Navegue hasta **Configuration > Local EAP** y haga clic en **+Add**



	Profile Name
□	PEAP

Elija cualquier nombre para su perfil. Active al menos PEAP y seleccione un nombre de punto de confianza. De forma predeterminada, su WLC solo tiene certificados autofirmados, por lo que realmente no importa cuál escoja (normalmente TP-self-signed-xxxx es el mejor para este propósito), pero como las nuevas versiones de SO de los smartphones confían cada vez menos en los certificados autofirmados, considere instalar un certificado firmado públicamente de confianza.



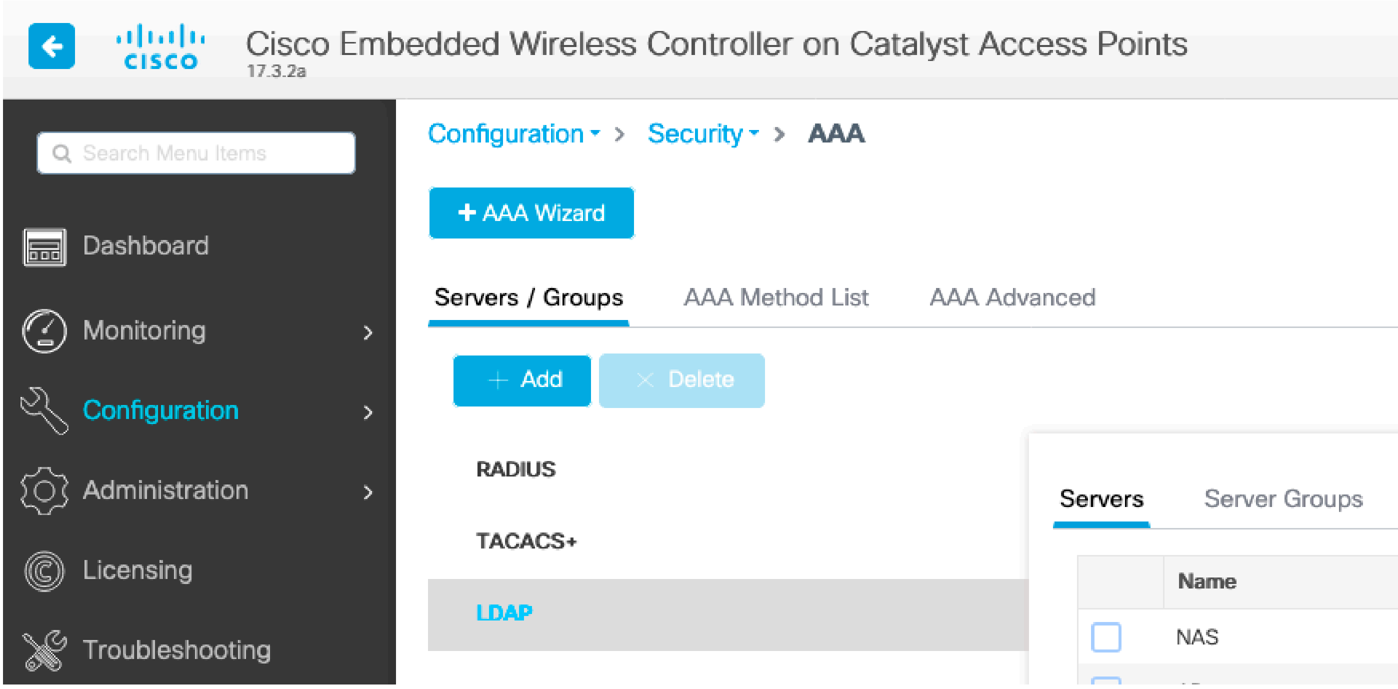
Profile Name*	PEAP
LEAP	□
EAP-FAST	□
EAP-TLS	□
PEAP	☑
Trustpoint Name	TP-self-signed-305 ▾

Comandos CLI:

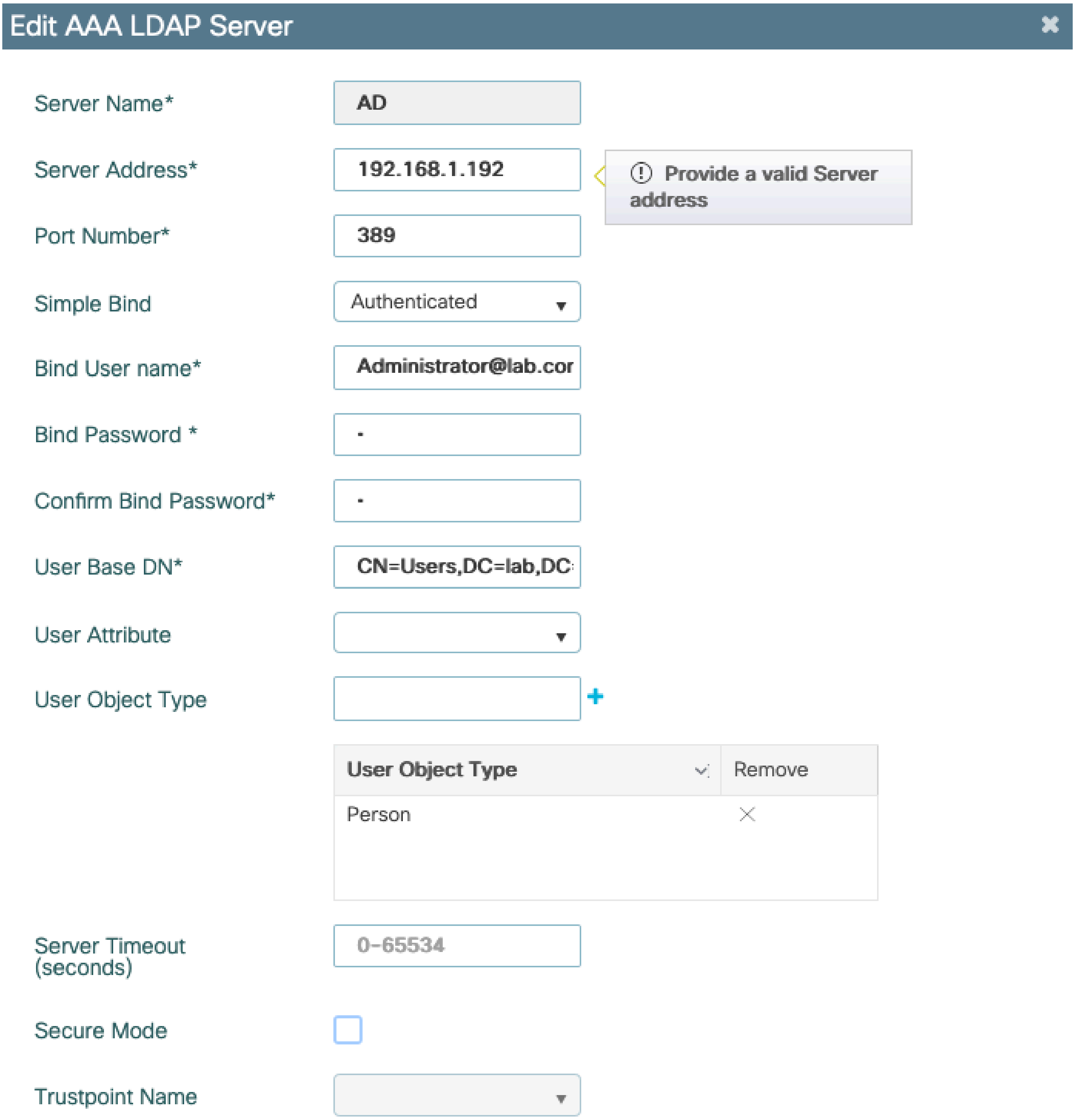
```
eap profile PEAP method peap pki-trustpoint TP-self-signed-3059261382
```

Paso 2. Configuración del servidor LDAP

Navegue hasta **Configuration > Security > AAA> Servers/Groups > LDAP** y haga clic en **+ Add**



Elija un nombre para su servidor LDAP y rellene los detalles. Para obtener una explicación sobre cada campo, consulte la sección "Comprensión de los detalles del servidor LDAP" de este documento.



Edit AAA LDAP Server

Server Name*	AD
Server Address*	192.168.1.192
Port Number*	389
Simple Bind	Authenticated
Bind User name*	Administrator@lab.cor
Bind Password *	·
Confirm Bind Password*	·
User Base DN*	CN=Users,DC=lab,DC
User Attribute	
User Object Type	
Server Timeout (seconds)	0-65534
Secure Mode	□
Trustpoint Name	

Provide a valid Server address

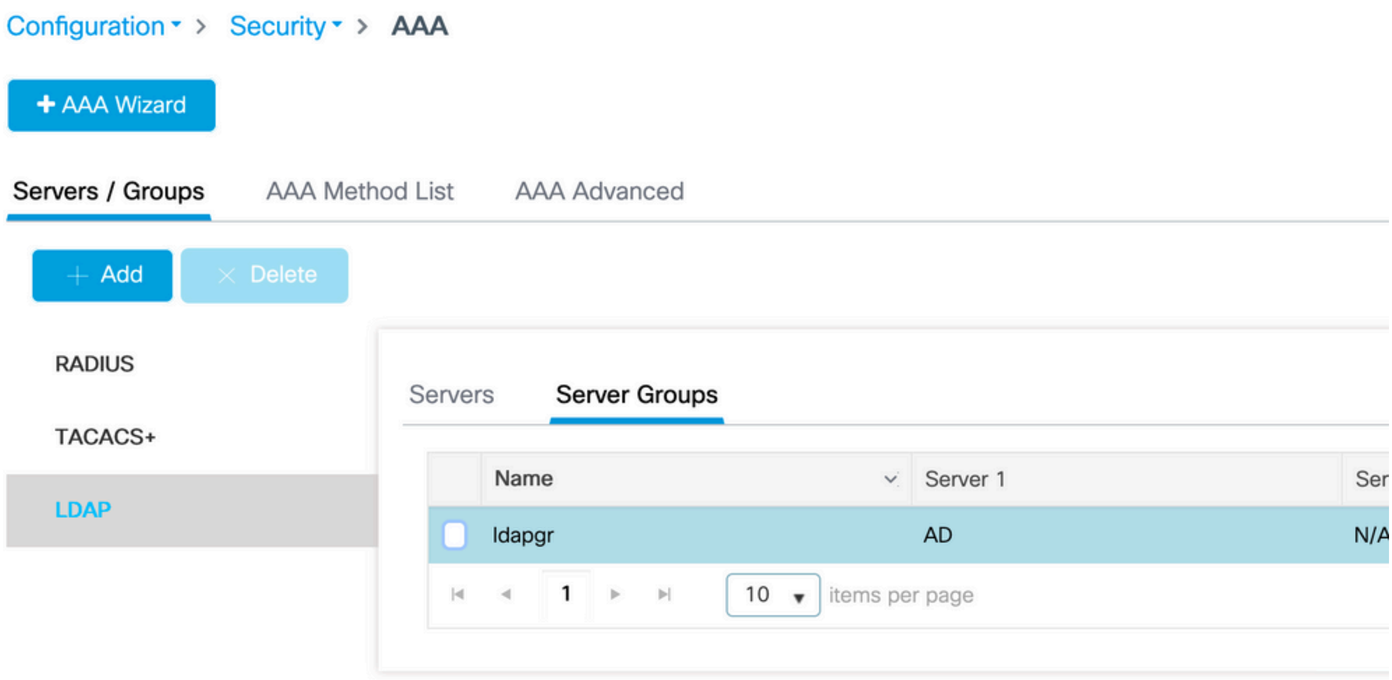
User Object Type	Remove
Person	×

Guardar haciendo clic en **Actualizar y aplicar al dispositivo**

```
ldap server AD ipv4 192.168.1.192 bind authenticate root-dn Administrator@lab.com password 6
WCGYHKTDQPV]DeaHLSPF_GZ[E_MNi_AAB base-dn CN=Users,DC=lab,DC=com search-filter user-object-type
Person
```

Paso 3. Configure un grupo de servidores LDAP.

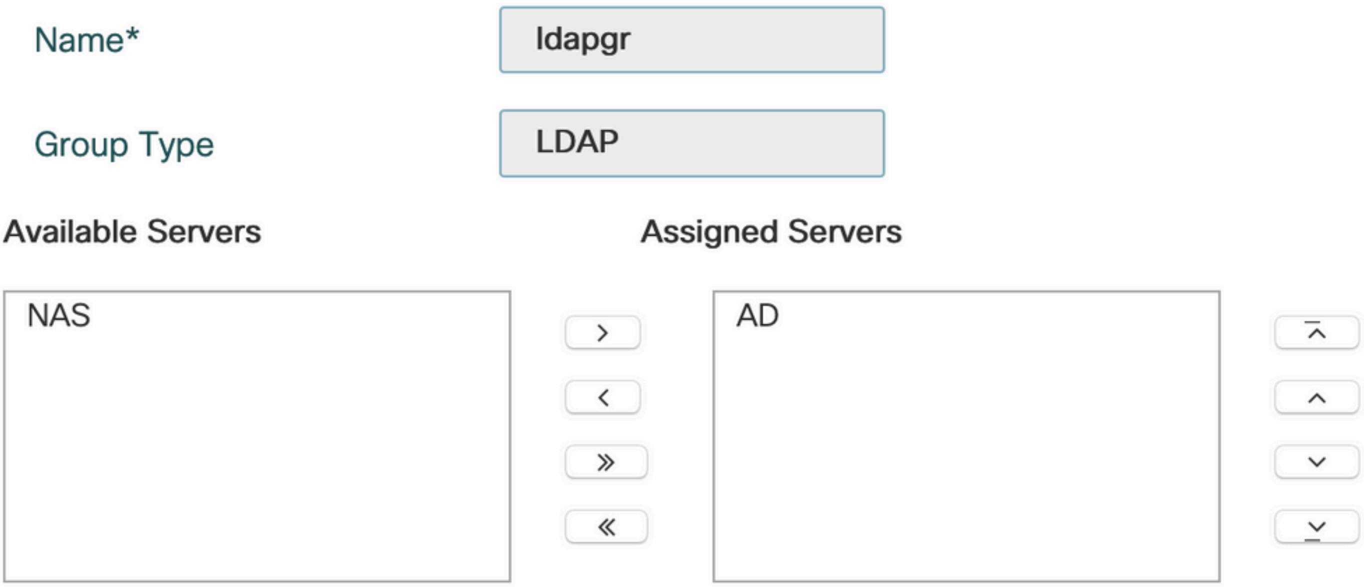
Navegue hasta **Configuration > Security > AAA > Servers/ Groups > LDAP > Server Groups** y haga clic en **+ADD**



	Name	Server 1	Ser
□	ldapgr	AD	N/A

1 — 10 items per page

Introduzca un nombre y agregue el servidor LDAP que configuró en el paso anterior.



Name*	ldapgr
Group Type	LDAP

Available Servers: NAS

Assigned Servers: AD

Haga clic en **Update and apply** para guardar.

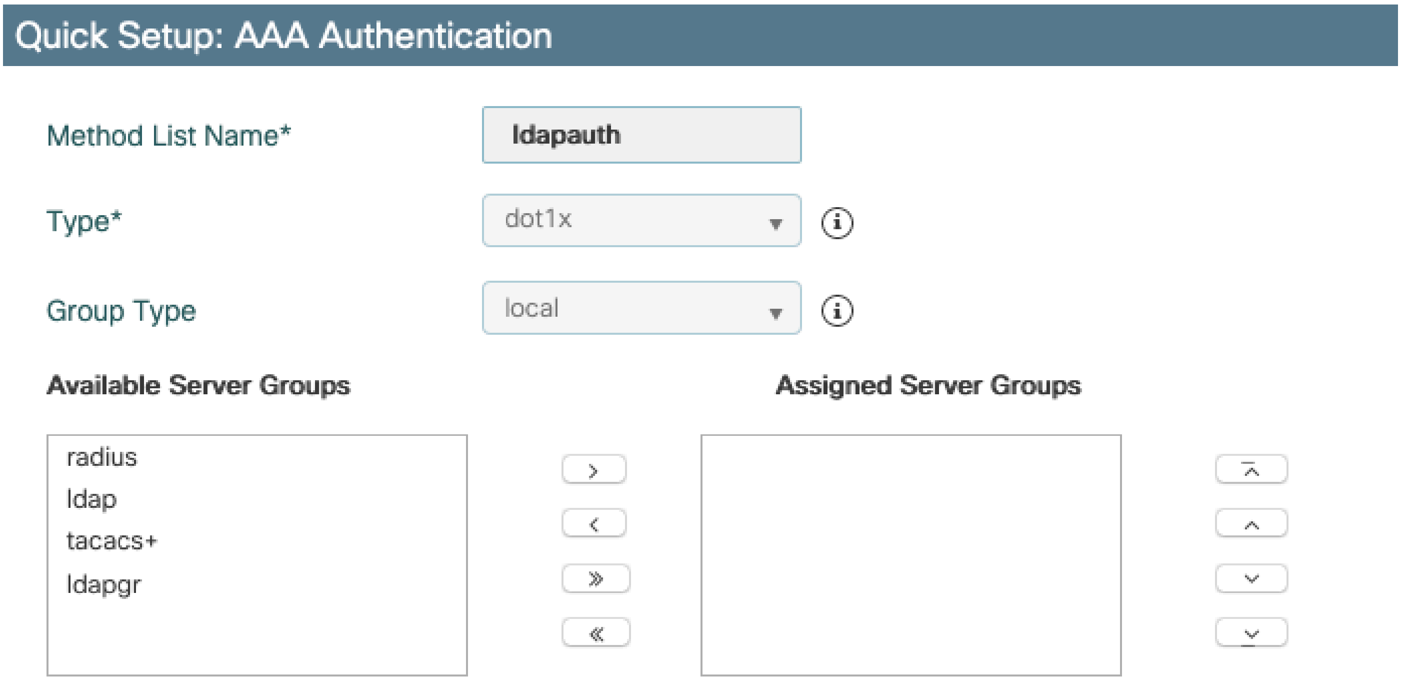
Comandos CLI:

```
aaa group server ldap ldapgr server AD
```

Paso 4. Configure un método de autenticación AAA

Navegue hasta **Configuration > Security > AAA > AAA Method List > Authentication** y haga clic en **+Add**

Configure un método de autenticación de tipo **dot1x** y señale solo a local. Sería tentador apuntar al grupo de servidores LDAP, pero es el propio WLC el que actúa como el autenticador 802.1X aquí (aunque la base de datos de usuarios está en LDAP, pero ese es el trabajo del método de autorización).


Quick Setup: AAA Authentication

Method List Name*: ldapauth

Type*: dot1x

Group Type: local

Available Server Groups: radius, ldap, tacacs+, ldapgr

Assigned Server Groups:

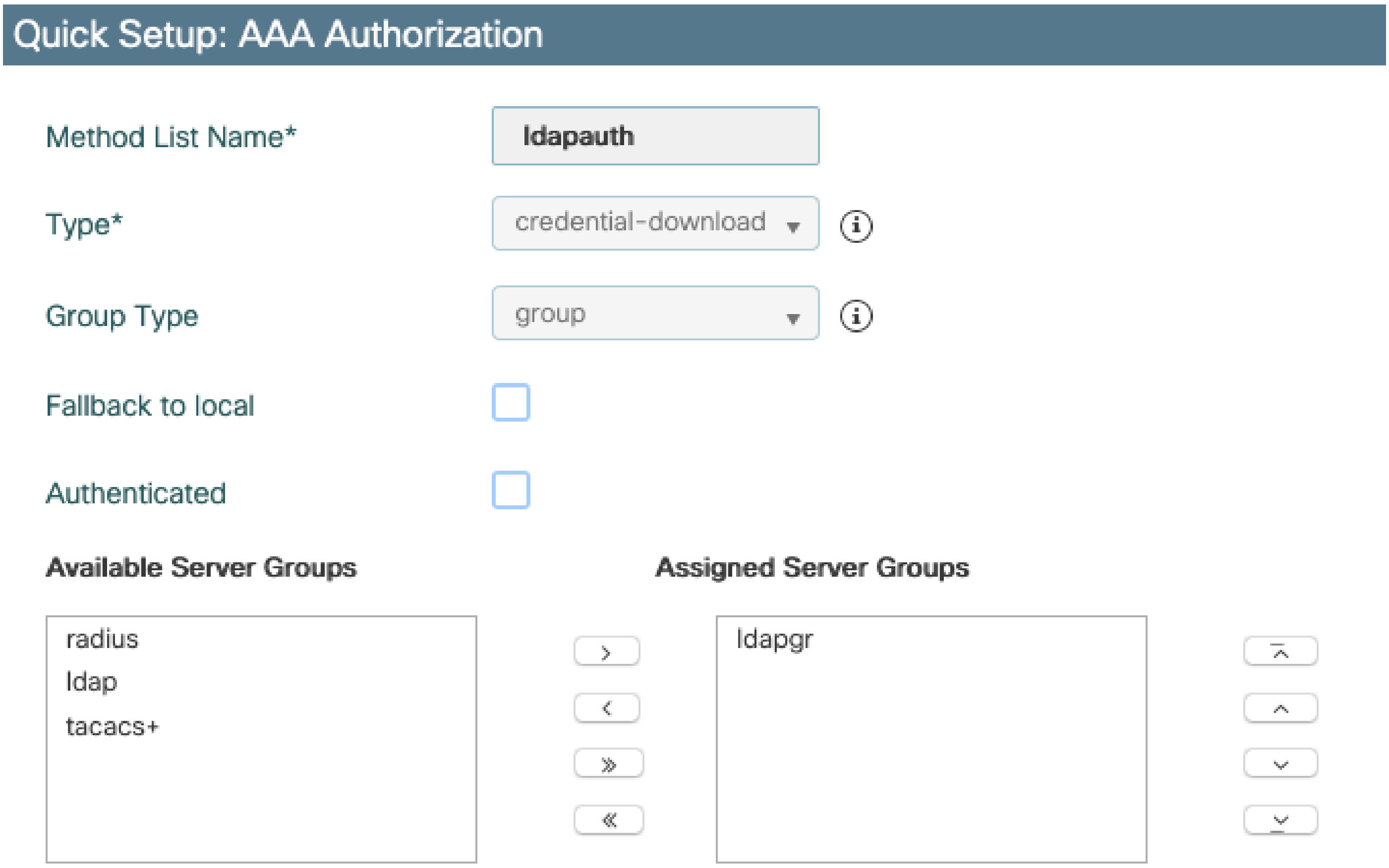
Comando CLI:

```
aaa authentication dot1x ldapauth local
```

Paso 5. Configure un método de autorización AAA

Vaya a **Configuration > Security > AAA > AAA Method List > Authorization** y haga clic en **+Add**.

Cree un método de autorización de tipo **credential-download** y haga que apunte al grupo LDAP.



Quick Setup: AAA Authorization

Method List Name*: ldapauth

Type*: credential-download

Group Type: group

Fallback to local: □

Authenticated: □

Available Server Groups	Assigned Server Groups
radius ldap tacacs+	ldapgr

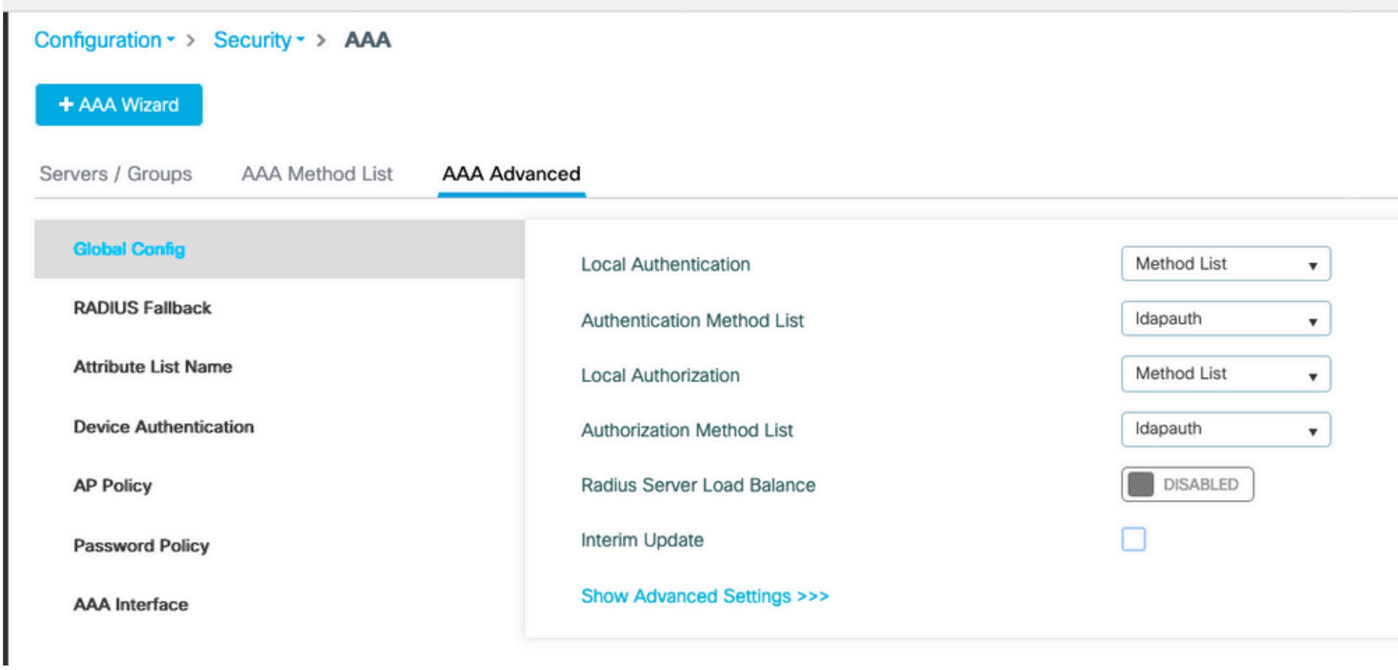
Comando CLI:

```
aaa authorization credential-download ldapauth group ldapgr
```

Paso 6. Configure los detalles de autenticación local

Vaya a **Configuration > Security > AAA > AAA Method List > AAA advanced**

Elija **Lista de métodos** para autenticación y autorización y elija el método de autenticación dot1x apuntando localmente y el método de autorización de descarga de credenciales apuntando hacia LDAP



Local Authentication	Method List
Authentication Method List	ldapauth
Local Authorization	Method List
Authorization Method List	ldapauth
Radius Server Load Balance	DISABLED
Interim Update	□

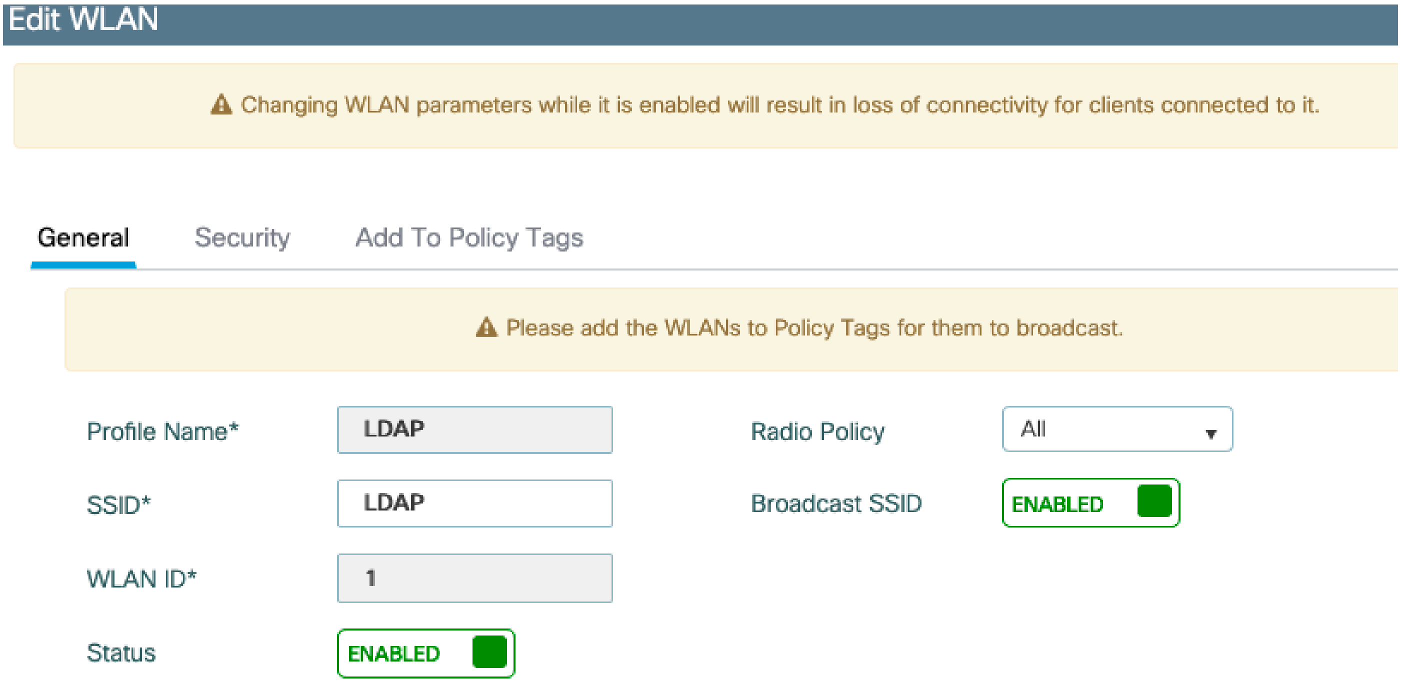
Comando CLI:

```
aaa local authentication ldapauth authorization ldapauth
```

Paso 7. Configuración de una WLAN dot1x

Navegue hasta **Configuration > WLAN** y haga clic en **+Add**

Elija un perfil y un nombre SSID y asegúrese de que está activado.



⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

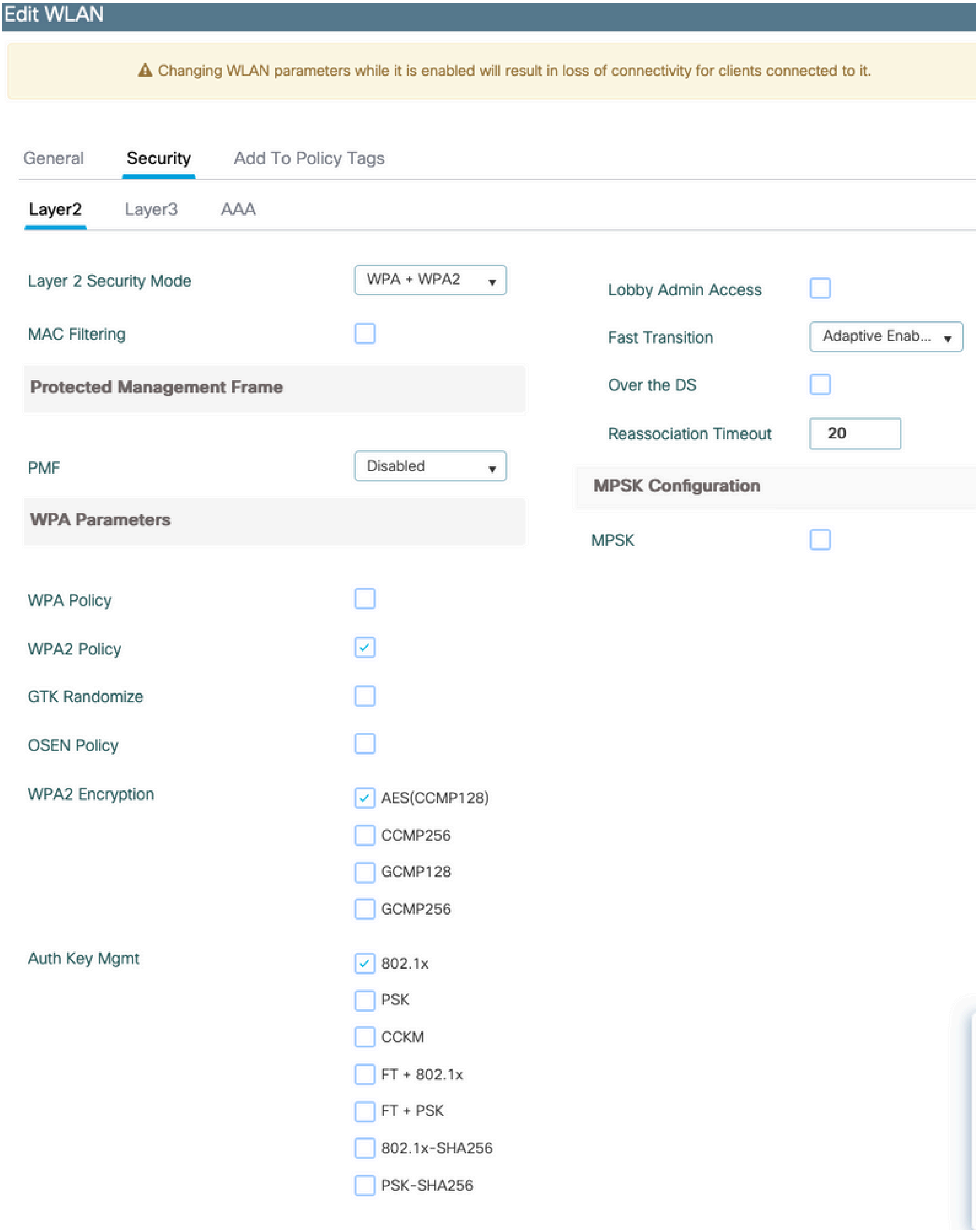
⚠ Please add the WLANs to Policy Tags for them to broadcast.

Profile Name*	LDAP	Radio Policy	All
SSID*	LDAP	Broadcast SSID	ENABLED
WLAN ID*	1		
Status	ENABLED		

Vaya a la ficha **Seguridad** de capa 2.

Elija WPA+WPA2 como **modo de seguridad de capa 2**

Asegúrese de que WPA2 y AES están activados en los **parámetros WPA** y que se activa **802.1X**



Edit WLAN

⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

General | **Security** | Add To Policy Tags

Layer2 | Layer3 | AAA

Layer 2 Security Mode: WPA + WPA2

MAC Filtering: □

Protected Management Frame

PMF: Disabled

WPA Parameters

WPA Policy: □

WPA2 Policy: ☑

GTK Randomize: □

OSEN Policy: □

WPA2 Encryption: ☑ AES(CCMP128) □ CCMP256 □ GCMP128 □ GCMP256

Auth Key Mgmt: ☑ 802.1x □ PSK □ CCKM □ FT + 802.1x □ FT + PSK □ 802.1x-SHA256 □ PSK-SHA256

Lobby Admin Access: □

Fast Transition: Adaptive Enab...

Over the DS: □

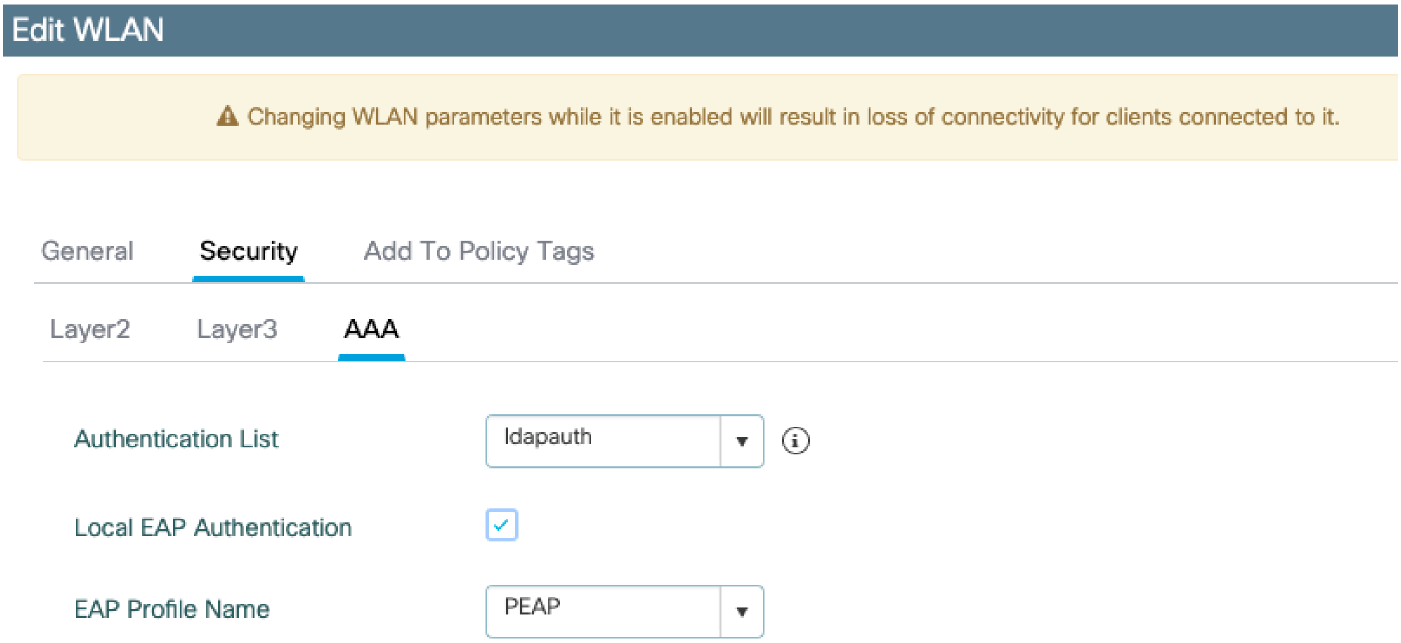
Reassociation Timeout: 20

MPSK Configuration

MPSK: □

Vaya a la subpestaña **AAA**.

Elija el método de autenticación dot1x creado anteriormente, habilite la autenticación EAP local y elija el perfil EAP configurado en el primer paso.


Edit WLAN

⚠ Changing WLAN parameters while it is enabled will result in loss of connectivity for clients connected to it.

Authentication List: ldapauth

Local EAP Authentication: ☑

EAP Profile Name: PEAP

Guardar haciendo clic en Aplicar

Comandos CLI:

```
wlan LDAP 1 LDAP local-auth PEAP security dot1x authentication-list ldapauth no shutdown
```

Paso 8. Verifique que se transmita la WLAN

Navegue hasta **Configuration > Tags** y asegúrese de que el SSID esté incluido en el servicio del perfil de política actual por el SSID (la etiqueta de política predeterminada para una nueva configuración si aún no ha configurado etiquetas). De forma predeterminada, default-policy-tag no difunde los nuevos SSID que cree hasta que los incluya manualmente.

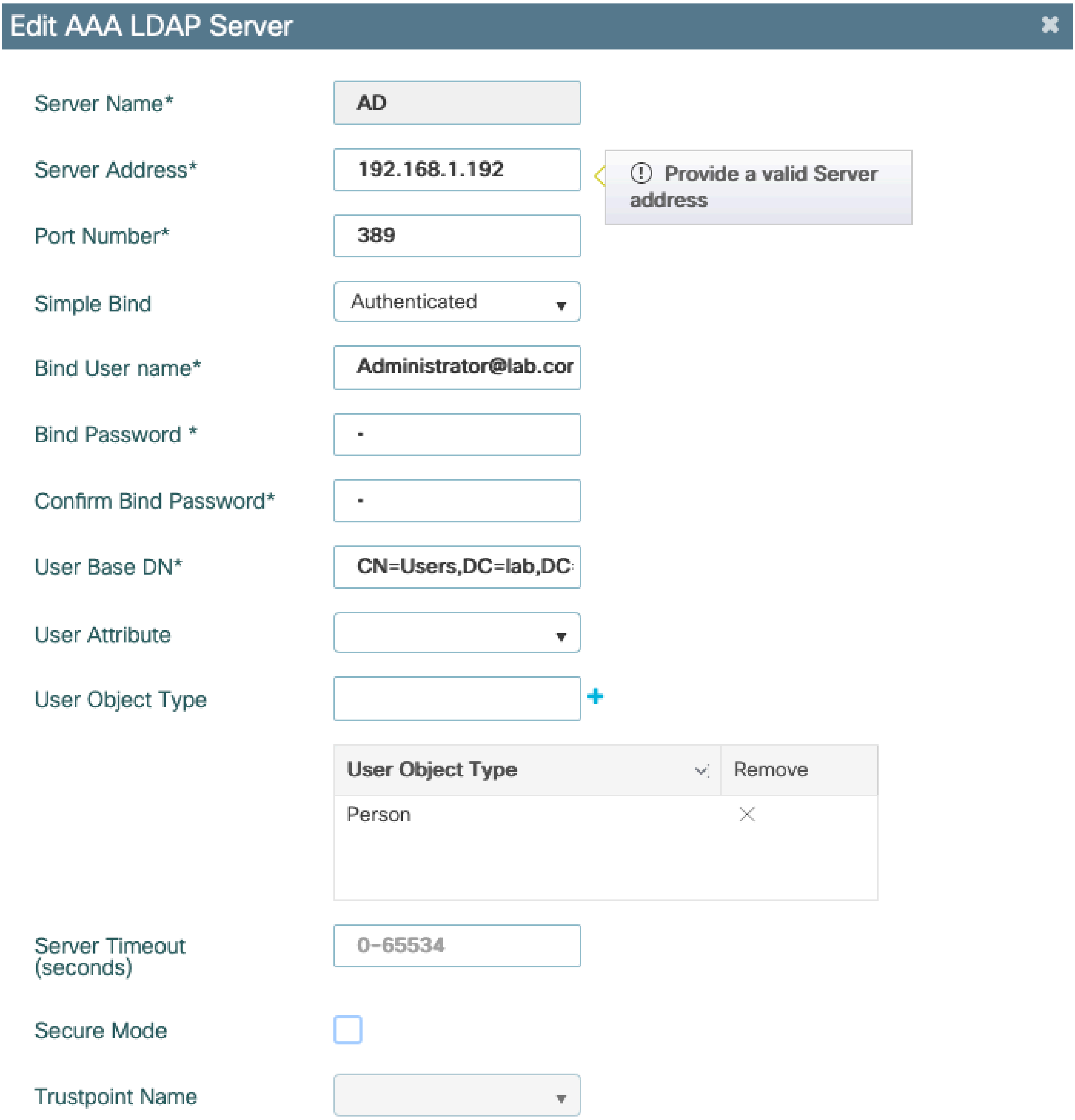
En este artículo no se trata la configuración de los perfiles de política y se asume que está familiarizado con esa parte de la configuración.

Si usa Active Directory, debe configurar el servidor AD para enviar el atributo "userPassword". Este atributo debe enviarse al WLC. Esto se debe a que el WLC hace la verificación, no el servidor de AD. También puede tener problemas de autenticación con el método PEAP-mschapv2, ya que la contraseña nunca se envía en texto sin formato y, por lo tanto, no se puede comprobar con la base de datos LDAP; sólo el método PEAP-GTC funcionaría con ciertas bases de datos LDAP.

Comprender los detalles del servidor LDAP

Comprender los campos de la interfaz de usuario web del 9800

Este es un ejemplo de un Active Directory muy básico que actúa como servidor LDAP configurado en el 9800



Edit AAA LDAP Server

Server Name*	AD
Server Address*	192.168.1.192
Port Number*	389
Simple Bind	Authenticated
Bind User name*	Administrator@lab.cor
Bind Password *	-
Confirm Bind Password*	-
User Base DN*	CN=Users,DC=lab,DC
User Attribute	
User Object Type	

Provide a valid Server address

User Object Type	Remove
Person	×

Server Timeout (seconds)	0-65534
Secure Mode	□
Trustpoint Name	

Esperamos que el nombre y la dirección IP se expliquen por sí solos.

Puerto: 389 es el puerto predeterminado para LDAP, pero su servidor puede utilizar otro.

Enlace simple: es muy raro tener una base de datos LDAP hoy en día que soporte un enlace no autenticado (eso significa que cualquiera puede hacer una búsqueda LDAP en ella sin ningún formulario de autenticación). El enlace simple autenticado es el tipo de autenticación más común y lo que Active Directory permite de forma predeterminada. Puede introducir un nombre de cuenta y una contraseña de administrador para poder realizar búsquedas en la base de datos de usuarios desde allí.

Enlazar nombre de usuario: Debe señalar a un nombre de usuario con privilegios de administrador en Active Directory. AD tolera el formato "user@domain" mientras que muchas otras bases de datos LDAP esperan un formato "CN=xxx,DC=xxx" para el nombre de usuario. Más adelante en este artículo se proporciona un ejemplo con otra base de datos LDAP que no sea AD.

Contraseña de enlace: Introduzca la contraseña que el nombre de usuario del administrador ha introducido anteriormente.

DN base de usuario: Introduzca aquí la "raíz de búsqueda", que es la ubicación en el árbol LDAP donde comienzan las búsquedas. En este ejemplo, todos nuestros usuarios se encuentran en el grupo "Usuarios", cuyo DN es "CN=Users,DC=lab,DC=com" (ya que el dominio LDAP de ejemplo es lab.com). Más adelante en esta sección se proporciona un ejemplo de cómo averiguar este DN base de usuario.

Atributo de usuario: Esto puede dejarse vacío, o apuntar a un mapa de atributo LDAP que indica qué campo LDAP cuenta como nombre de usuario para su base de datos LDAP. Sin embargo, debido a la ID de bug de Cisco CSCvv11813 , el WLC intenta una autenticación con el campo CN no importa qué.

Tipo de objeto de usuario: Esto determina el tipo de objetos que se consideran usuarios. Normalmente, se trata de "Persona". Podría ser "Computers" (Equipos) si tiene una base de datos AD y autentica cuentas de computadora, pero nuevamente LDAP provee mucha personalización.

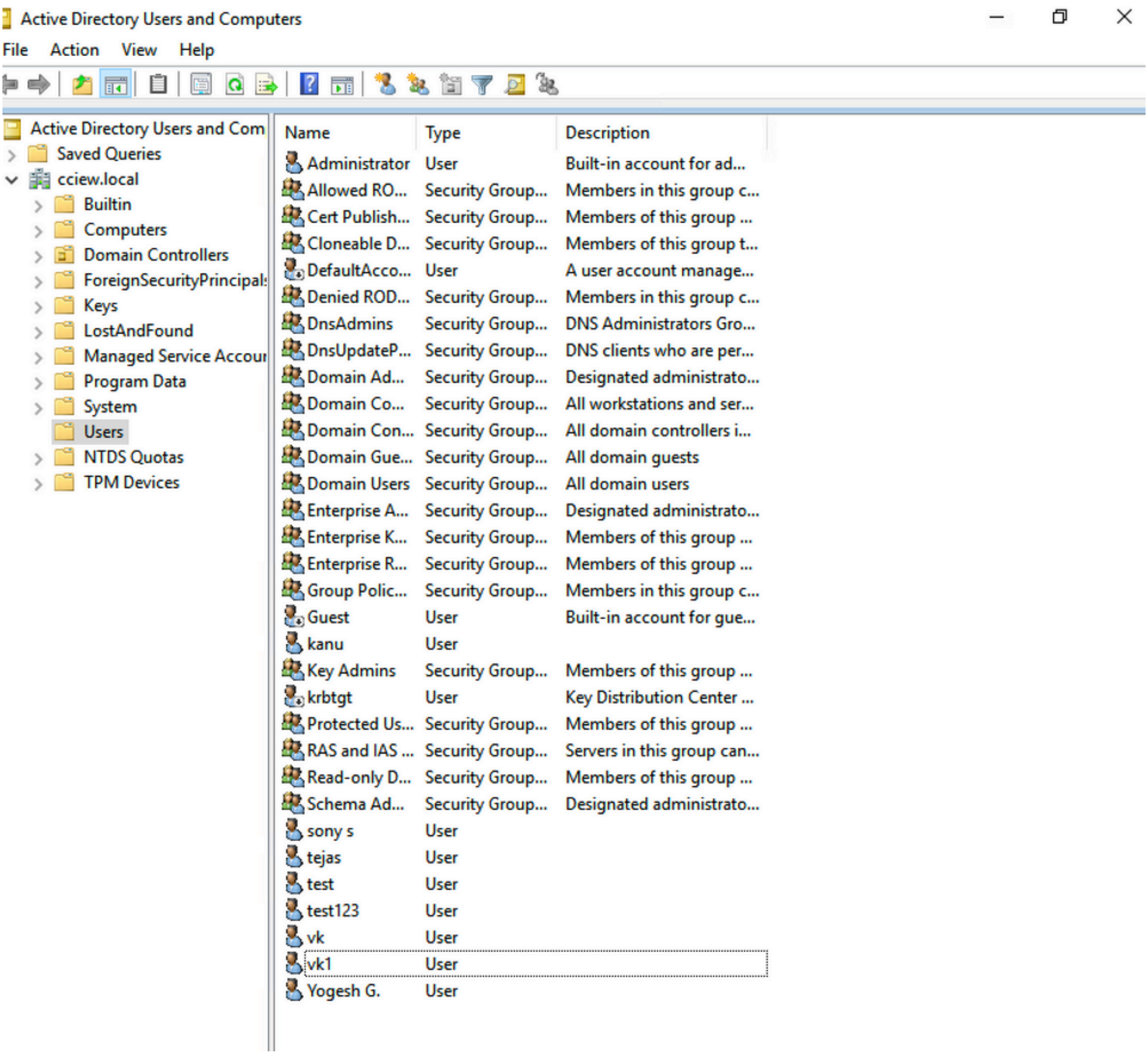
El modo seguro habilita LDAP seguro sobre TLS y requiere que seleccione un punto de confianza en el 9800 para utilizar un certificado para el cifrado TLS.

Autenticación LDAP 802.1x con el atributo sAMAaccountName.

Esta mejora se introduce en la versión 17.6.1.

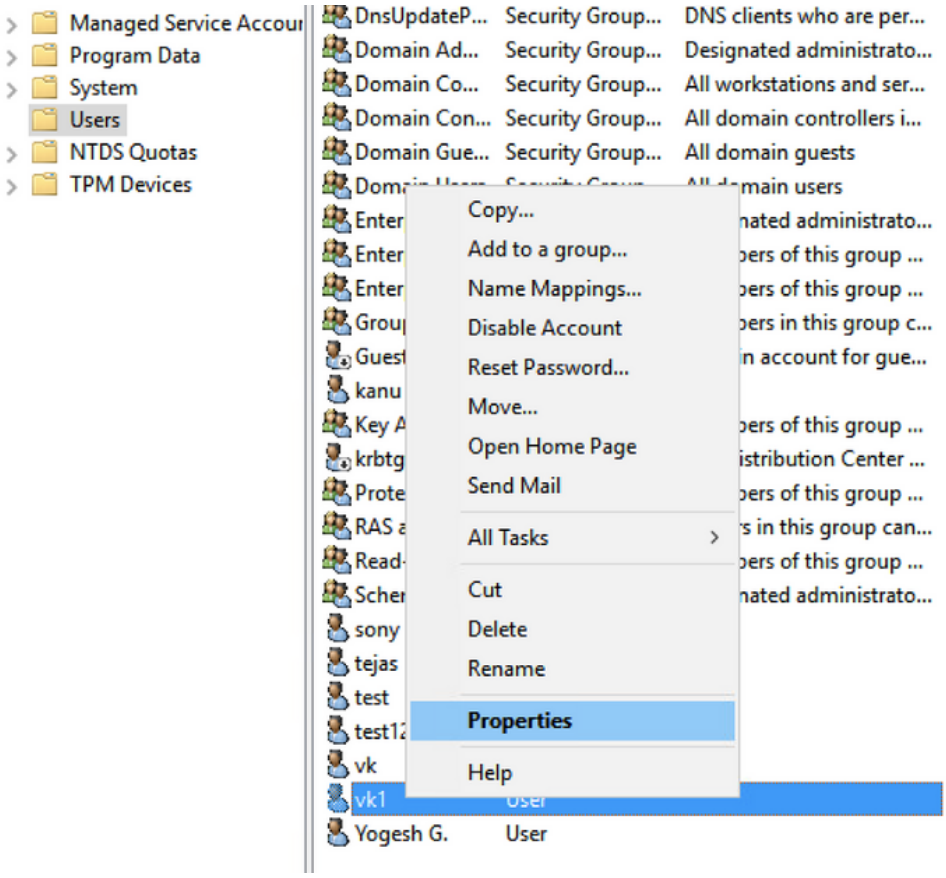
Configure el atributo "userPassword" para el usuario.

Paso 1. En el servidor de Windows, desplácese hasta Usuarios y equipos de Active Directory

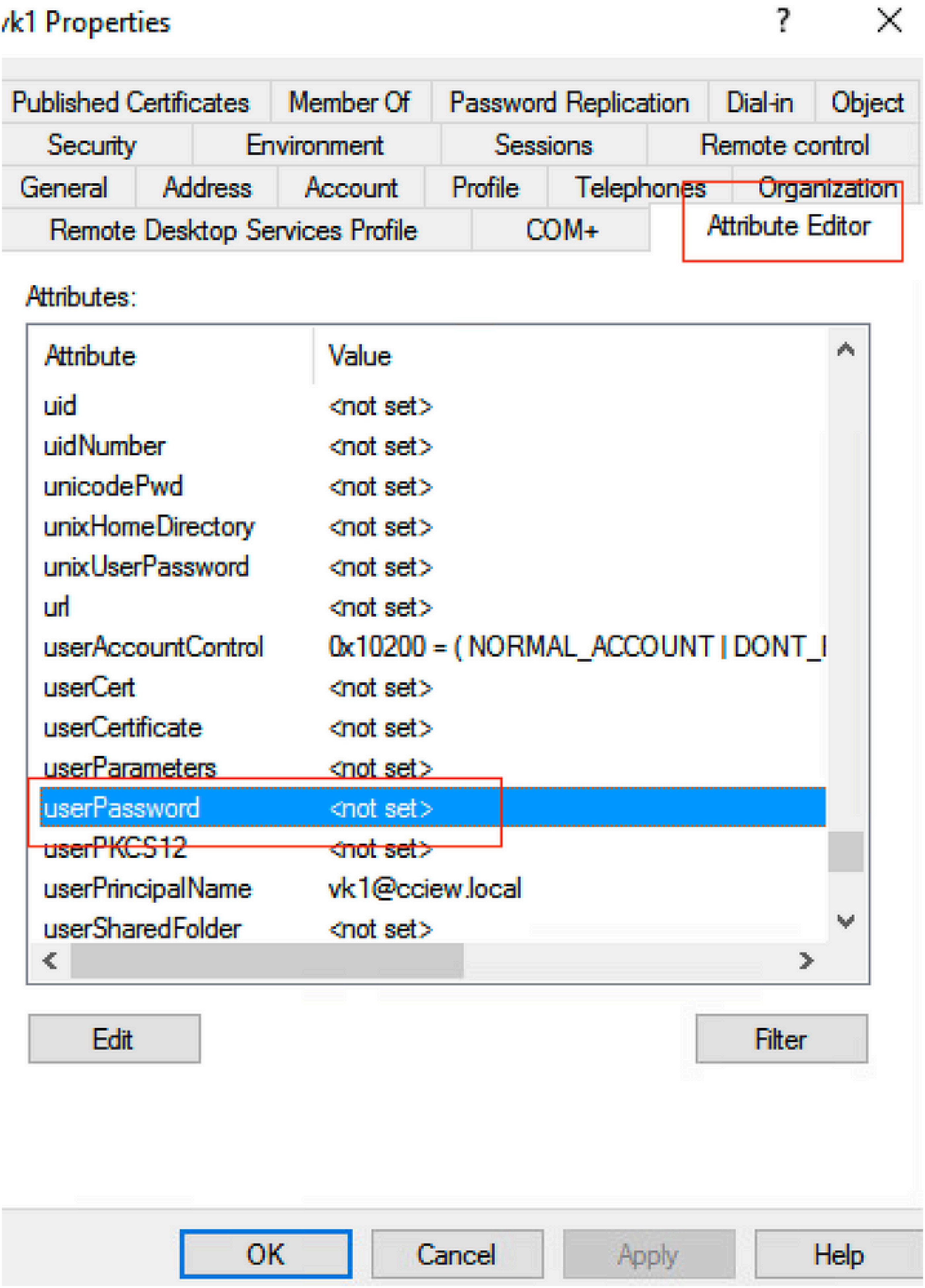


Name	Type	Description
Administrator	User	Built-in account for ad...
Allowed RO...	Security Group...	Members in this group c...
Cert Publish...	Security Group...	Members of this group ...
Cloneable D...	Security Group...	Members of this group t...
DefaultAcco...	User	A user account manage...
Denied ROD...	Security Group...	Members in this group c...
DnsAdmins	Security Group...	DNS Administrators Gro...
DnsUpdateP...	Security Group...	DNS clients who are per...
Domain Ad...	Security Group...	Designated administrato...
Domain Co...	Security Group...	All workstations and ser...
Domain Con...	Security Group...	All domain controllers i...
Domain Gue...	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
Enterprise A...	Security Group...	Designated administrato...
Enterprise K...	Security Group...	Members of this group ...
Enterprise R...	Security Group...	Members of this group ...
Group Polic...	Security Group...	Members in this group c...
Guest	User	Built-in account for gue...
kanu	User	
Key Admins	Security Group...	Members of this group ...
krbtgt	User	Key Distribution Center ...
Protected Us...	Security Group...	Members of this group ...
RAS and IAS ...	Security Group...	Servers in this group can...
Read-only D...	Security Group...	Members of this group ...
Schema Ad...	Security Group...	Designated administrato...
sony s	User	
tejas	User	
test	User	
test123	User	
vk	User	
vk1	User	
Yogesh G.	User	

Paso 2. Haga clic con el botón derecho en el nombre de usuario correspondiente y seleccione las propiedades


Managed Service Accour
Program Data
System
Users
NTDS Quotas
TPM Devices
DnsUpdateP... Security Group... DNS clients who are per...
Domain Ad... Security Group... Designated administrato...
Domain Co... Security Group... All workstations and ser...
Domain Con... Security Group... All domain controllers i...
Domain Gue... Security Group... All domain guests
Dom main users
Enter nated administrato...
Enter bers of this group ...
Enter bers of this group ...
Grou bers in this group c...
Guest n account for gue...
kanu
Key A bers of this group ...
krbtg istribution Center ...
Prote bers of this group ...
RAS s in this group can...
Read bers of this group ...
Scher nated administrato...
sony
tejas
test
test12
vk
vk1 User
Yogesh G. User
Copy...
Add to a group...
Name Mappings...
Disable Account
Reset Password...
Move...
Open Home Page
Send Mail
All Tasks
Cut
Delete
Rename
Properties
Help

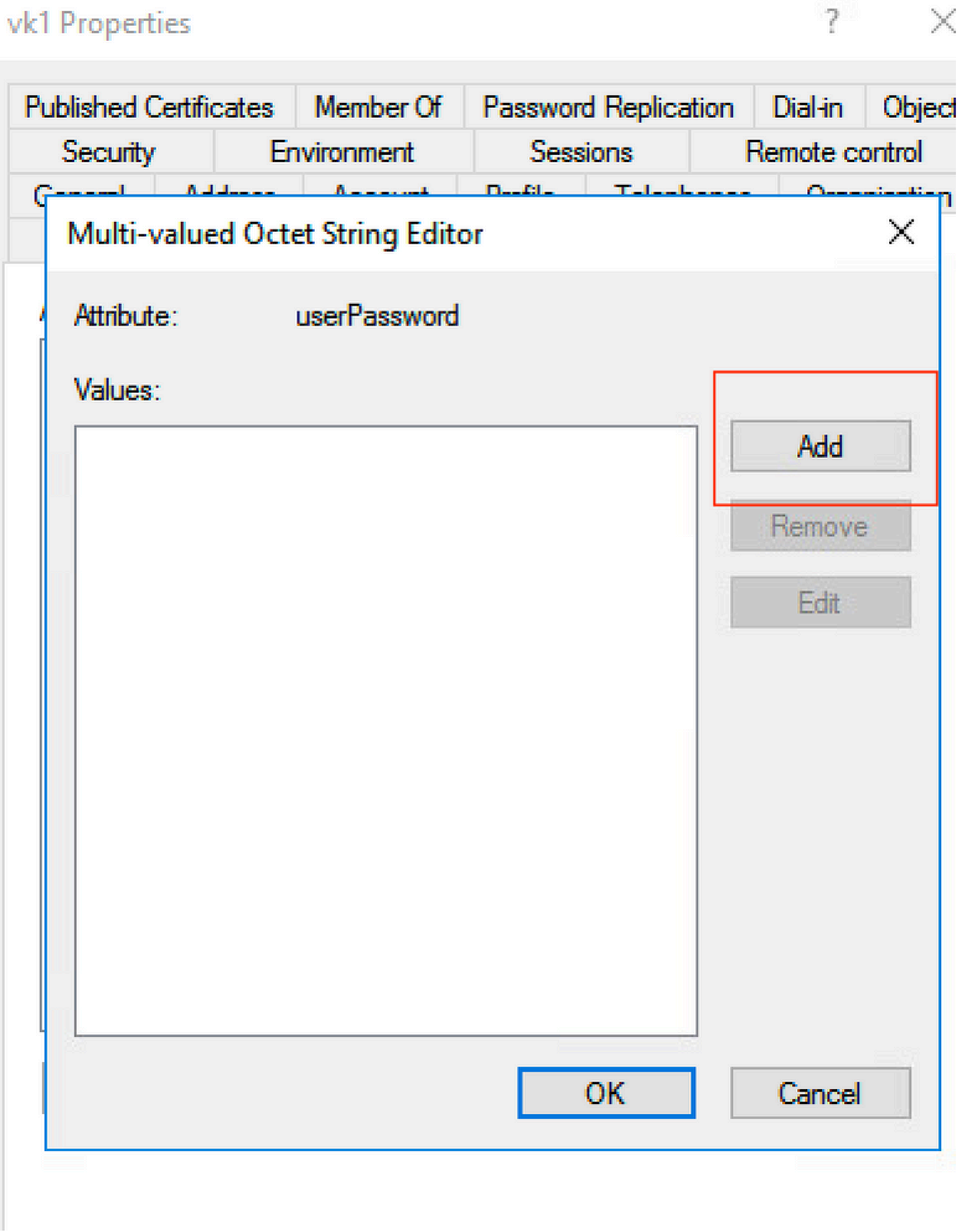
Paso 3. Seleccione el editor de atributos en la ventana de propiedades



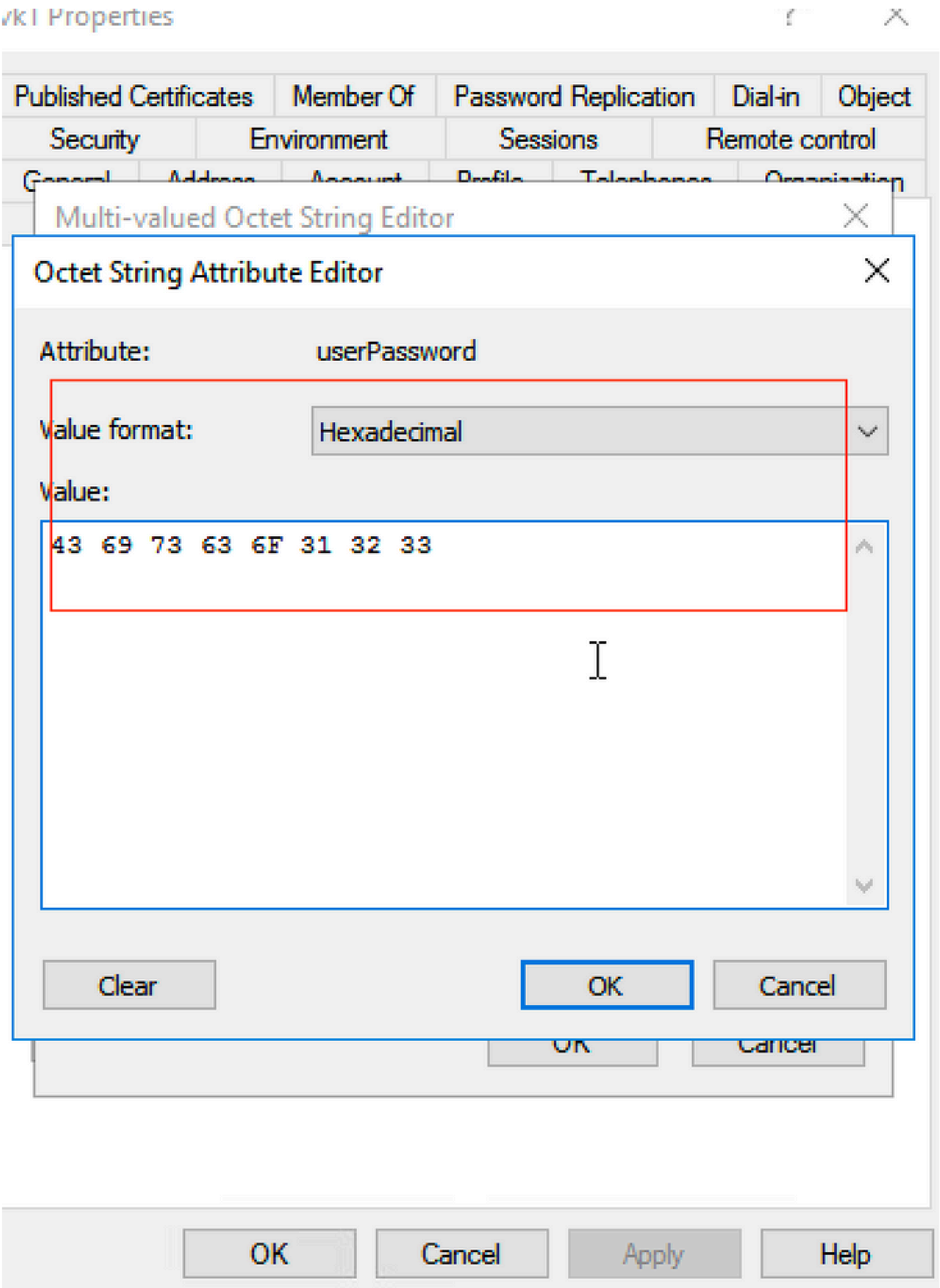
Attribute	Value
uid	<not set>
uidNumber	<not set>
unicodePwd	<not set>
unixHomeDirectory	<not set>
unixUserPassword	<not set>
url	<not set>
userAccountControl	0x10200 = (NORMAL_ACCOUNT | DONT_I
userCert	<not set>
userCertificate	<not set>
userParameters	<not set>
userPassword	<not set>
userPKCS12	<not set>
userPrincipalName	vk1@cciew.local
userSharedFolder	<not set>

Paso 4. Configure el atributo "userPassword". Se trata de la contraseña del usuario, que debe

configurarse en hexadecimal.



Attribute: userPassword



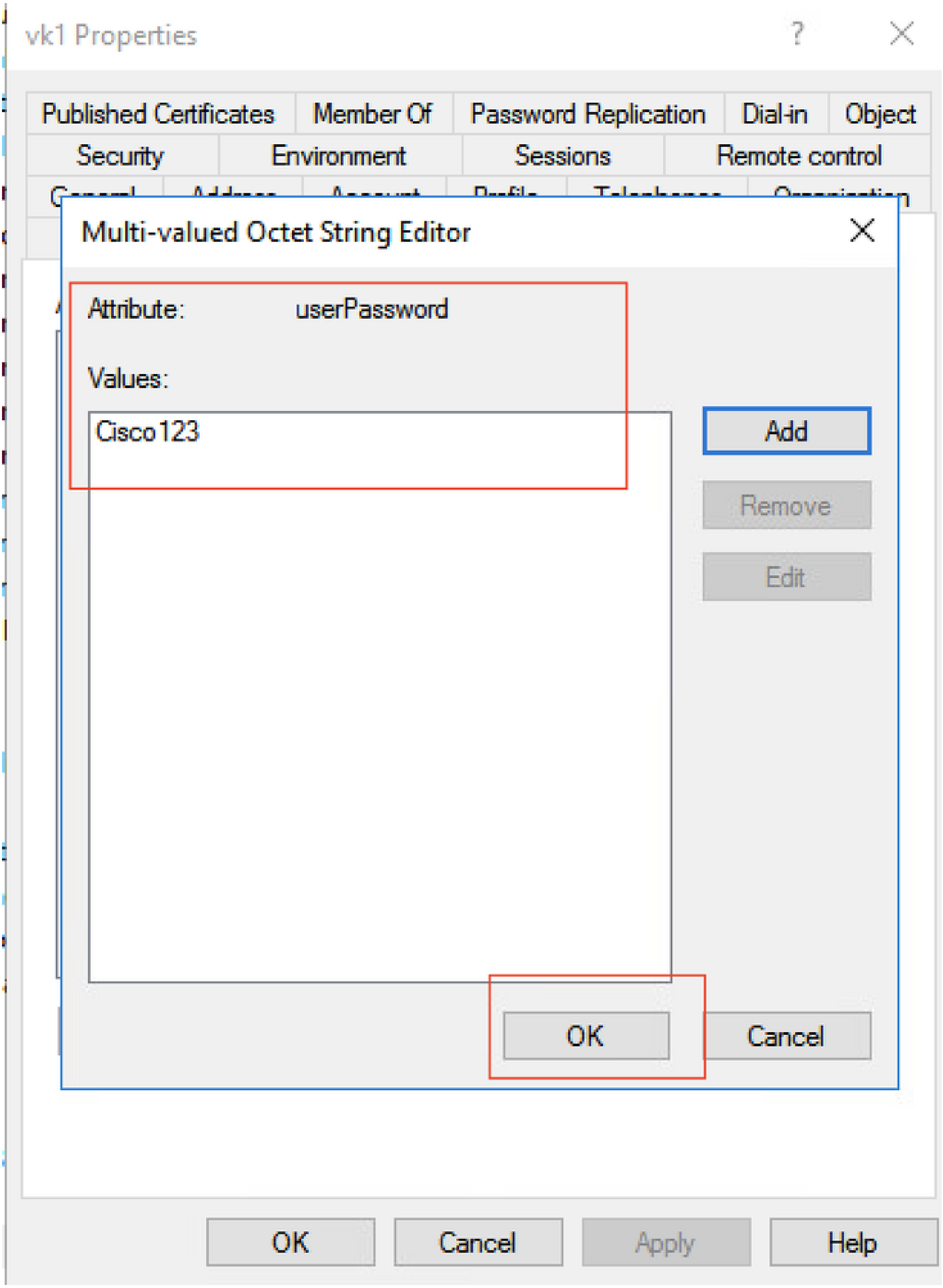
Attribute: userPassword

Value format: Hexadecimal

Value:

```
43 69 73 63 6F 31 32 33
```

Haga clic en Aceptar, compruebe si muestra la contraseña correcta

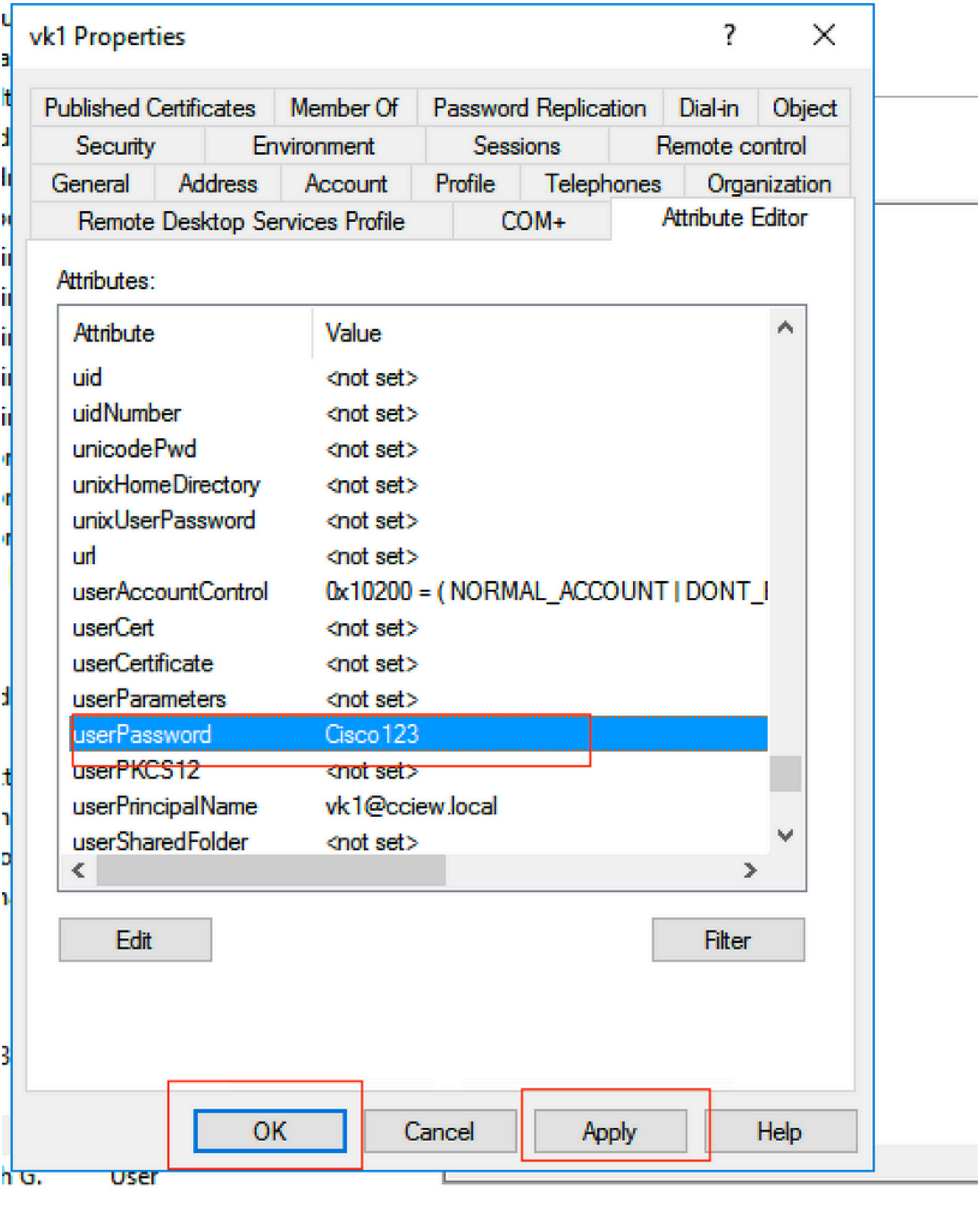


Attribute: userPassword

Values:

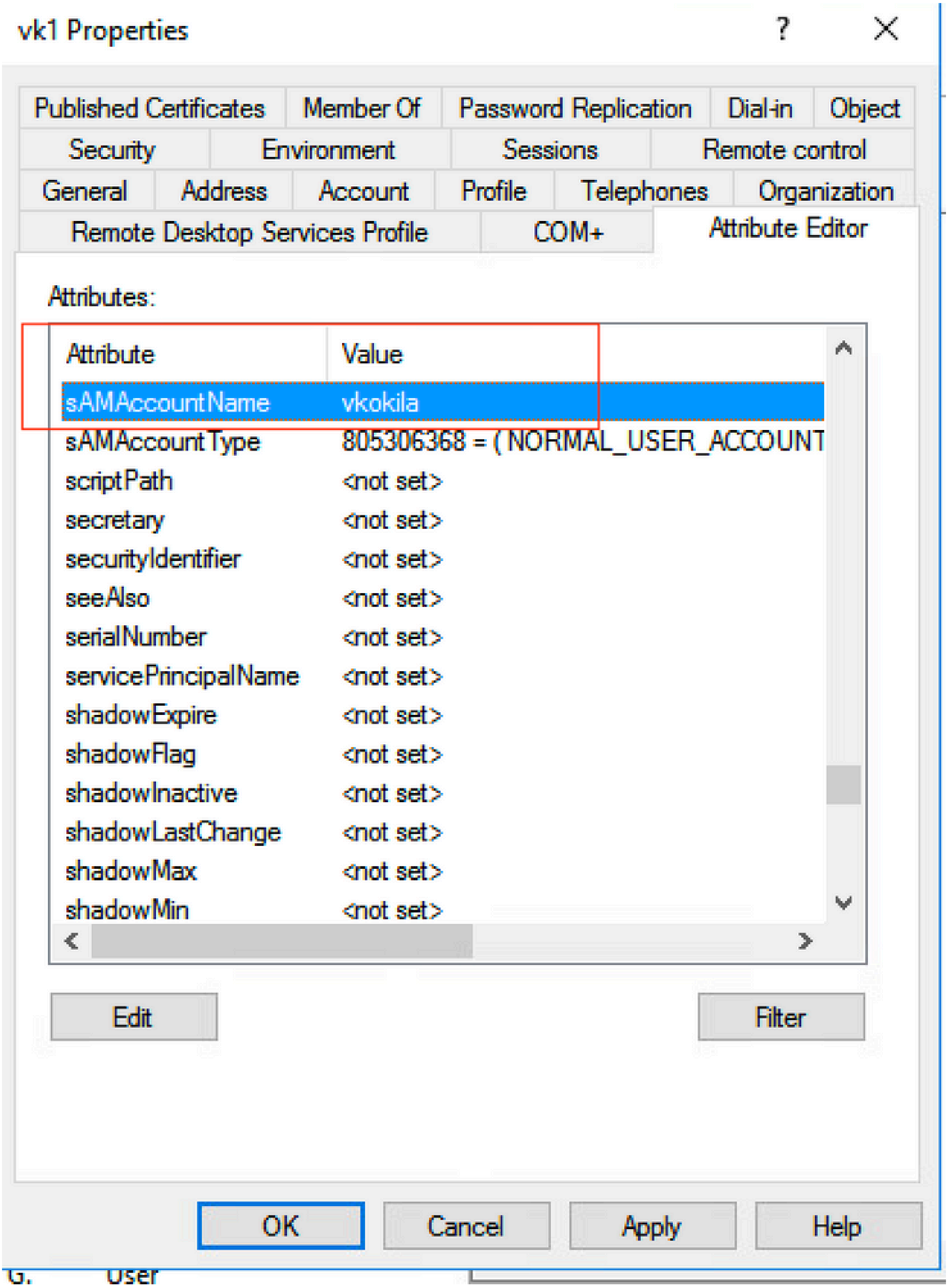
Cisco123

Paso 5. Haga clic en Aplicar y luego en Aceptar



Attribute	Value
uid	<not set>
uidNumber	<not set>
unicodePwd	<not set>
unixHomeDirectory	<not set>
unixUserPassword	<not set>
url	<not set>
userAccountControl	0x10200 = (NORMAL_ACCOUNT | DONT_I
userCert	<not set>
userCertificate	<not set>
userParameters	<not set>
userPassword	Cisco123
userPKCS12	<not set>
userPrincipalName	vk1@cciew.local
userSharedFolder	<not set>

Paso 6. Verifique el valor del atributo "sAMAccountName" para el usuario y el nombre de usuario para la autenticación.



Attributes:

Attribute	Value
sAMAccountName	vkokila
sAMAccountType	805306368 = (NORMAL_USER_ACCOUNT
scriptPath	<not set>
secretary	<not set>
securityIdentifier	<not set>
seeAlso	<not set>
serialNumber	<not set>
servicePrincipalName	<not set>
shadowExpire	<not set>
shadowFlag	<not set>
shadowInactive	<not set>
shadowLastChange	<not set>
shadowMax	<not set>
shadowMin	<not set>

Configuración de WLC:

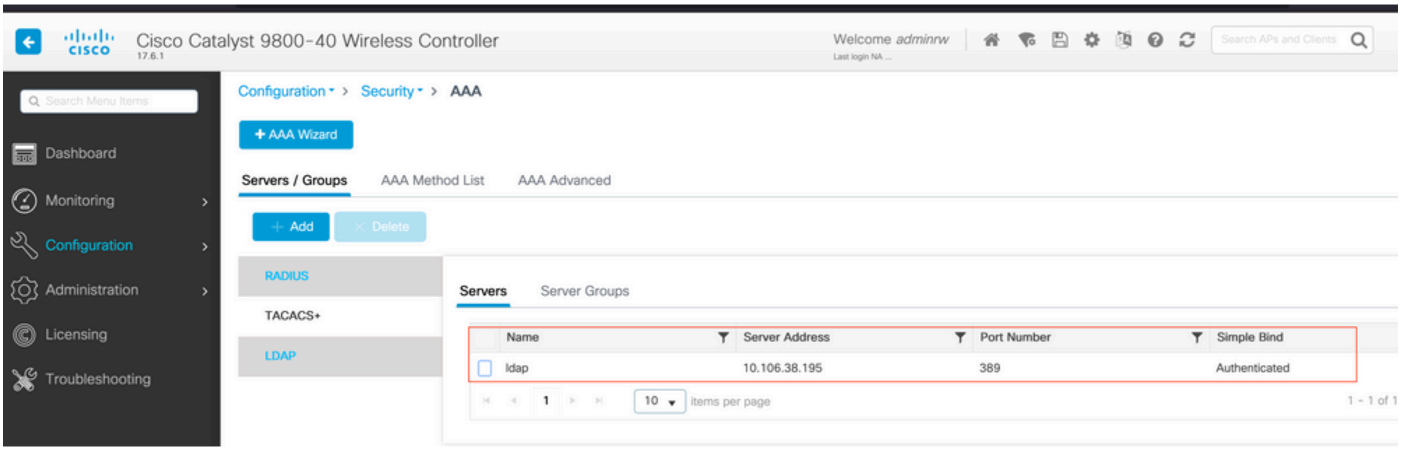
Paso 1. Crear MAPA de atributo LDAP

Paso 2. Configure el atributo "sAMAccountName" y escriba como "username"

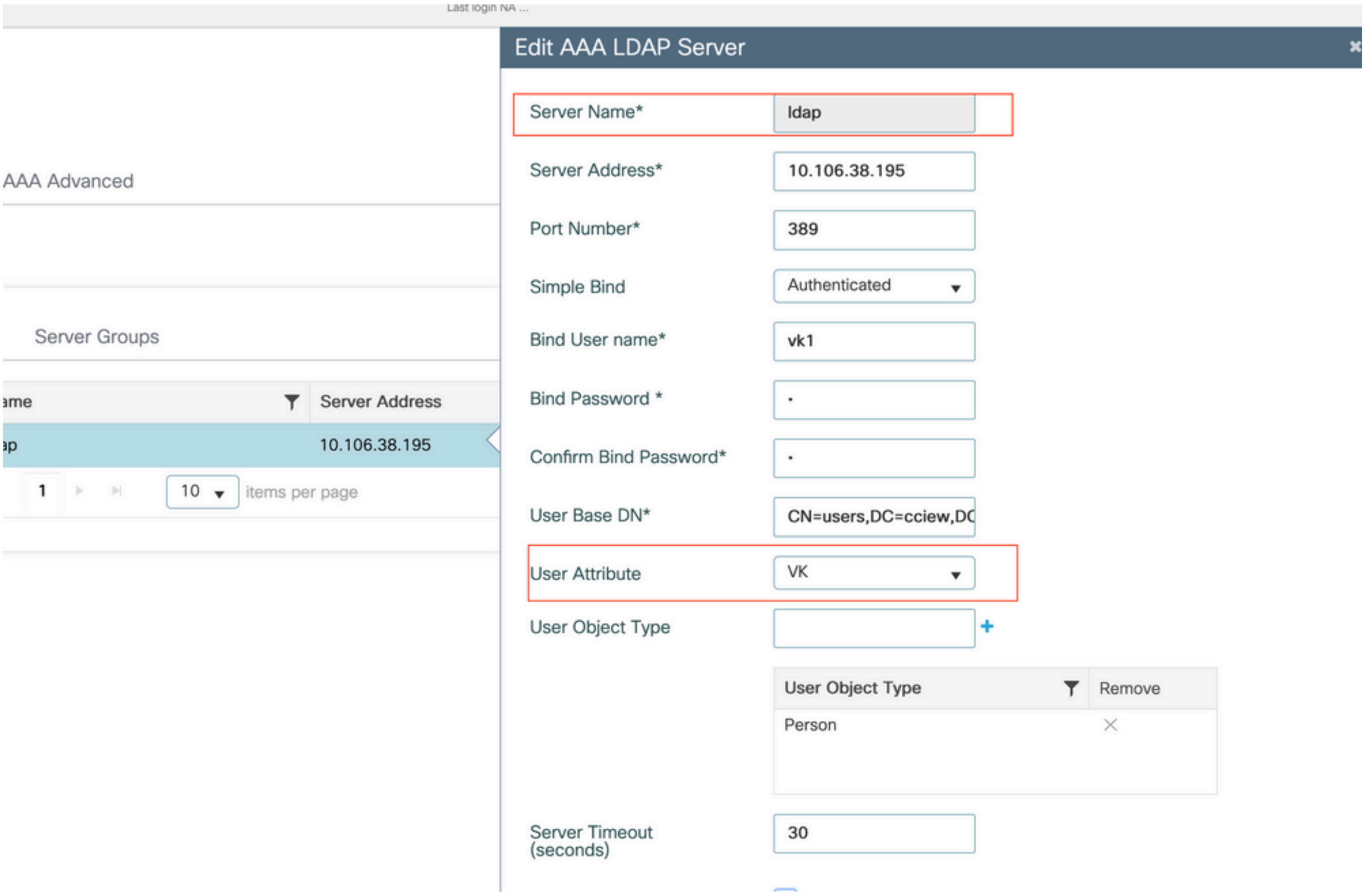
Paso 3. Elija el atributo creado MAP en la configuración del servidor LDAP.

```
ldap attribute-map VK

 map type sAMAccountName username




ldap server ldap

 ipv4 10.106.38.195

 attribute map VK

 bind authenticate root-dn vk1 password 7 00271A1507545A545C

 base-dn CN=users,DC=cciew,DC=local

 search-filter user-object-type Person
```

Verificar desde interfaz Web:



Name	Server Address	Port Number	Simple Bind
ldap	10.106.38.195	389	Authenticated



Last login NA ...

AAA Advanced

Server Groups

ame	Server Address
ap	10.106.38.195

1 · 10 items per page

Edit AAA LDAP Server

Server Name*	ldap
Server Address*	10.106.38.195
Port Number*	389
Simple Bind	Authenticated
Bind User name*	vk1
Bind Password *	·
Confirm Bind Password*	·
User Base DN*	CN=users,DC=cciew,DC
User Attribute	VK
User Object Type	

User Object Type	Remove
Person	×

Server Timeout (seconds): 30

Verificación

Para verificar su configuración, verifique los comandos CLI con los de este artículo.

Las bases de datos LDAP no suelen proporcionar registros de autenticación, por lo que puede resultar difícil saber qué está pasando. Visite la sección Troubleshooting de este artículo para ver cómo tomar seguimientos y capturar sabueso para ver si se establece una conexión con la base de datos LDAP o no.

Troubleshoot

Para solucionar este problema, lo mejor es dividirlo en dos partes. La primera parte es validar la parte EAP local. La segunda es validar que el 9800 se está comunicando correctamente con el servidor LDAP.

Cómo verificar el proceso de autenticación en el controlador

Puede recopilar un seguimiento Radioactive para obtener las "depuraciones" de la conexión de cliente.

Simplemente vaya a **Troubleshooting > Radioactive Trace**. Agregue la dirección MAC del cliente (preste atención a que su cliente puede estar usando una MAC aleatoria y no su propia MAC, puede verificar esto en el perfil SSID en el dispositivo del cliente) y presione start.

Una vez reproducido el intento de conexión, puede hacer clic en "Generar" y obtener los registros de los últimos X minutos. Asegúrese de hacer clic en **internal**, ya que algunas líneas de registro

LDAP no aparecen si no se pueden mantener.

Este es un ejemplo de seguimiento radiactivo de un cliente que se autentica satisfactoriamente en un SSID de autenticación web. Algunas partes redundantes fueron removidas para mayor claridad :

```
2021/01/19 21:57:55.890953 {wncd_x_R0-0}{1}: [client-orch-sm] [9347]: (note): MAC:
2e1f.3a65.9c09 Association received. BSSID f80f.6f15.66ae, WLAN webauth, Slot 1 AP
f80f.6f15.66a0, AP7069-5A74-933C 2021/01/19 21:57:55.891049 {wncd_x_R0-0}{1}: [client-orch-sm]
[9347]: (debug): MAC: 2e1f.3a65.9c09 Received Dot11 association request. Processing
started,SSID: webauth, Policy profile: LDAP, AP Name: AP7069-5A74-933C, Ap Mac Address:
f80f.6f15.66a0 BSSID MAC0000.0000.0000 wlan ID: 2RSSI: -45, SNR: 0 2021/01/19 21:57:55.891282
{wncd_x_R0-0}{1}: [client-orch-state] [9347]: (note): MAC: 2e1f.3a65.9c09 Client state
transition: S_CO_INIT -> S_CO_ASSOCIATING 2021/01/19 21:57:55.891674 {wncd_x_R0-0}{1}: [dot11-
validate] [9347]: (info): MAC: 2e1f.3a65.9c09 WiFi direct: Dot11 validate P2P IE. P2P IE not
present. 2021/01/19 21:57:55.892114 {wncd_x_R0-0}{1}: [dot11] [9347]: (debug): MAC:
2e1f.3a65.9c09 dot11 send association response. Sending association response with
resp_status_code: 0 2021/01/19 21:57:55.892182 {wncd_x_R0-0}{1}: [dot11-frame] [9347]: (info):
MAC: 2e1f.3a65.9c09 WiFi direct: skip build Assoc Resp with P2P IE: Wifi direct policy disabled
2021/01/19 21:57:55.892248 {wncd_x_R0-0}{1}: [dot11] [9347]: (info): MAC: 2e1f.3a65.9c09 dot11
send association response. Sending assoc response of length: 179 with resp_status_code: 0,
DOT11_STATUS: DOT11_STATUS_SUCCESS 2021/01/19 21:57:55.892467 {wncd_x_R0-0}{1}: [dot11] [9347]:
(note): MAC: 2e1f.3a65.9c09 Association success. AID 2, Roaming = False, WGB = False, 11r =
False, 11w = False 2021/01/19 21:57:55.892497 {wncd_x_R0-0}{1}: [dot11] [9347]: (info): MAC:
2e1f.3a65.9c09 DOT11 state transition: S_DOT11_INIT -> S_DOT11_ASSOCIATED 2021/01/19
21:57:55.892616 {wncd_x_R0-0}{1}: [client-orch-sm] [9347]: (debug): MAC: 2e1f.3a65.9c09 Station
Dot11 association is successful. 2021/01/19 21:57:55.892730 {wncd_x_R0-0}{1}: [client-orch-sm]
[9347]: (debug): MAC: 2e1f.3a65.9c09 Starting L2 authentication. Bssid in state
machine:f80f.6f15.66ae Bssid in request is:f80f.6f15.66ae 2021/01/19 21:57:55.892783 {wncd_x_R0-
0}{1}: [client-orch-state] [9347]: (note): MAC: 2e1f.3a65.9c09 Client state transition:
S_CO_ASSOCIATING -> S_CO_L2_AUTH_IN_PROGRESS 2021/01/19 21:57:55.892896 {wncd_x_R0-0}{1}:
[client-auth] [9347]: (note): MAC: 2e1f.3a65.9c09 L2 Authentication initiated. method WEBAUTH,
Policy VLAN 1,AAA override = 0 2021/01/19 21:57:55.893115 {wncd_x_R0-0}{1}: [auth-mgr] [9347]:
(info): [2e1f.3a65.9c09:capwap_90000004] Session Start event called from SANET-SHIM with
conn_hdl 14, vlan: 0 2021/01/19 21:57:55.893154 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Wireless session sequence, create context with method WebAuth
2021/01/19 21:57:55.893205 {wncd_x_R0-0}{1}: [auth-mgr-feat_wireless] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] - authc_list: ldapauth 2021/01/19 21:57:55.893211 {wncd_x_R0-
0}{1}: [auth-mgr-feat_wireless] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] - authz_list:
Not present under wlan configuration 2021/01/19 21:57:55.893254 {wncd_x_R0-0}{1}: [client-auth]
[9347]: (info): MAC: 2e1f.3a65.9c09 Client auth-interface state transition: S_AUTHIF_INIT ->
S_AUTHIF_AWAIT_L2_WEBAUTH_START_RESP 2021/01/19 21:57:55.893461 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:unknown] auth mgr attr change notification is received for attr
(952) 2021/01/19 21:57:55.893532 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received for attr (1263)
2021/01/19 21:57:55.893603 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received for attr (220)
2021/01/19 21:57:55.893649 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received for attr (952)
2021/01/19 21:57:55.893679 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Retrieved Client IIF ID 0xd3001364 2021/01/19 21:57:55.893731
{wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Allocated audit
session id 000000000000009C1CA610D7 2021/01/19 21:57:55.894285 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Device type found in cache Samsung Galaxy S10e
2021/01/19 21:57:55.894299 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Device type for the session is detected as Samsung Galaxy S10e
and old device-type not classified earlier &Device name for the session is detected as Unknown
Device and old device-name not classified earlier & Old protocol map 0 and new is 1057
2021/01/19 21:57:55.894551 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received for attr (1337)
2021/01/19 21:57:55.894587 {wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info):
```

```
[2e1f.3a65.9c09:capwap_90000004] Check aaa acct configured 2021/01/19 21:57:55.894593
{wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info): [0000.0000.0000:capwap_90000004]
access_session_acct_filter_spec is NULL 2021/01/19 21:57:55.894827 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received
for attr (1337) 2021/01/19 21:57:55.894858 {wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]:
(info): [2e1f.3a65.9c09:capwap_90000004] Check aaa acct configured 2021/01/19 21:57:55.894862
{wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info): [0000.0000.0000:capwap_90000004]
access_session_acct_filter_spec is NULL 2021/01/19 21:57:55.895918 {wncd_x_R0-0}{1}: [auth-mgr-
feat_wireless] [9347]: (info): [0000.0000.0000:unknown] retrieving vlanid from name failed
2021/01/19 21:57:55.896094 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] SM Reauth Plugin: Received valid timeout = 86400 2021/01/19
21:57:55.896807 {wncd_x_R0-0}{1}: [webauth-sm] [9347]: (info): [ 0.0.0.0]Starting Webauth, mac
[2e:1f:3a:65:9c:09],IIF 0 , audit-ID 000000000000009C1CA610D7 2021/01/19 21:57:55.897106
{wncd_x_R0-0}{1}: [webauth-acl] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
0.0.0.0]Applying IPv4 intercept ACL via SVM, name: IP-Adm-V4-Int-ACL-global, priority: 50, IIF-
ID: 0 2021/01/19 21:57:55.897790 {wncd_x_R0-0}{1}: [epm-redirect] [9347]: (info):
[0000.0000.0000:unknown] URL-Redirect-ACL = IP-Adm-V4-Int-ACL-global 2021/01/19 21:57:55.898813
{wncd_x_R0-0}{1}: [webauth-acl] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
0.0.0.0]Applying IPv6 intercept ACL via SVM, name: IP-Adm-V6-Int-ACL-global, priority: 52, IIF-
ID: 0 2021/01/19 21:57:55.899406 {wncd_x_R0-0}{1}: [epm-redirect] [9347]: (info):
[0000.0000.0000:unknown] URL-Redirect-ACL = IP-Adm-V6-Int-ACL-global 2021/01/19 21:57:55.903552
{wncd_x_R0-0}{1}: [client-auth] [9347]: (info): MAC: 2e1f.3a65.9c09 Client auth-interface state
transition: S_AUTHIF_AWAIT_L2_WEBAUTH_START_RESP -> S_AUTHIF_L2_WEBAUTH_PENDING 2021/01/19
21:57:55.903575 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [9347]: (note): Authentication Success.
Resolved Policy bitmap:11 for client 2e1f.3a65.9c09 2021/01/19 21:57:55.903592 {wncd_x_R0-0}{1}:
[client-auth] [9347]: (info): MAC: 2e1f.3a65.9c09 Client auth-interface state transition:
S_AUTHIF_L2_WEBAUTH_PENDING -> S_AUTHIF_L2_WEBAUTH_PENDING 2021/01/19 21:57:55.903709
{wncd_x_R0-0}{1}: [client-auth] [9347]: (info): MAC: 2e1f.3a65.9c09 Client auth-interface state
transition: S_AUTHIF_L2_WEBAUTH_PENDING -> S_AUTHIF_L2_WEBAUTH_DONE 2021/01/19 21:57:55.903774
{wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Device type for
the session is detected as Samsung Galaxy S10e and old Samsung Galaxy S10e &Device name for the
session is detected as Unknown Device and old Unknown Device & Old protocol map 1057 and new is
1025 2021/01/19 21:57:55.903858 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Device type for the session is detected as Samsung Galaxy S10e
and old Samsung Galaxy S10e &Device name for the session is detected as Unknown Device and old
Unknown Device & Old protocol map 1057 and new is 1025 2021/01/19 21:57:55.903924 {wncd_x_R0-
0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Device type for the session
is detected as Samsung Galaxy S10e and old Samsung Galaxy S10e &Device name for the session is
detected as Unknown Device and old Unknown Device & Old protocol map 1057 and new is 1025
2021/01/19 21:57:55.904005 {wncd_x_R0-0}{1}: [client-orch-sm] [9347]: (debug): MAC:
2e1f.3a65.9c09 L2 Authentication of station is successful., L3 Authentication : 1 2021/01/19
21:57:55.904173 {wncd_x_R0-0}{1}: [client-orch-sm] [9347]: (note): MAC: 2e1f.3a65.9c09 Mobility
discovery triggered. Client mode: Flex - Local Switching 2021/01/19 21:57:55.904181 {wncd_x_R0-
0}{1}: [client-orch-state] [9347]: (note): MAC: 2e1f.3a65.9c09 Client state transition:
S_CO_L2_AUTH_IN_PROGRESS -> S_CO_MOBILITY_DISCOVERY_IN_PROGRESS 2021/01/19 21:57:55.904245
{wncd_x_R0-0}{1}: [mm-transition] [9347]: (info): MAC: 2e1f.3a65.9c09 MMIF FSM transition:
S_MA_INIT -> S_MA_MOBILITY_DISCOVERY_PROCESSED_TR on E_MA_MOBILITY_DISCOVERY 2021/01/19
21:57:55.904410 {wncd_x_R0-0}{1}: [mm-client] [9347]: (info): MAC: 2e1f.3a65.9c09 Invalid
transmitter ip in build client context 2021/01/19 21:57:55.904777 {wncd_x_R0-0}{1}: [mm-client]
[9347]: (debug): MAC: 2e1f.3a65.9c09 Received mobile_announce, sub type: 0 of XID (0) from
(WNCD[0]) 2021/01/19 21:57:55.904955 {wncd_x_R0-0}{1}: [mm-client] [9347]: (debug): MAC:
2e1f.3a65.9c09 Add MCC by tdl mac: client_ifid 0x90000006 is assigned to client 2021/01/19
21:57:55.905072 {wncd_x_R0-0}{1}: [mm-client] [9347]: (debug): MAC: 0000.0000.0000 Sending
mobile_announce_nak of XID (0) to (WNCD[0]) 2021/01/19 21:57:55.905157 {wncd_x_R0-0}{1}: [mm-
client] [9347]: (debug): MAC: 2e1f.3a65.9c09 Received mobile_announce_nak, sub type: 1 of XID
(0) from (WNCD[0]) 2021/01/19 21:57:55.905267 {wncd_x_R0-0}{1}: [mm-transition] [9347]: (info):
MAC: 2e1f.3a65.9c09 MMIF FSM transition: S_MA_INIT_WAIT_ANNOUNCE_RSP -> S_MA_NAK_PROCESSED_TR on
E_MA_NAK_RCVD 2021/01/19 21:57:55.905283 {wncd_x_R0-0}{1}: [mm-client] [9347]: (info): MAC:
2e1f.3a65.9c09 Roam type changed - None -> None 2021/01/19 21:57:55.905317 {wncd_x_R0-0}{1}:
[mm-client] [9347]: (info): MAC: 2e1f.3a65.9c09 Mobility role changed - Unassoc -> Local
2021/01/19 21:57:55.905515 {wncd_x_R0-0}{1}: [mm-client] [9347]: (note): MAC: 2e1f.3a65.9c09
Mobility Successful. Roam Type None, Sub Roam Type MM_SUB_ROAM_TYPE_NONE, Client IFID:
0x90000006, Client Role: Local PoA: 0x90000004 PoP: 0x0 2021/01/19 21:57:55.905570 {wncd_x_R0-
0}{1}: [client-orch-sm] [9347]: (debug): MAC: 2e1f.3a65.9c09 Processing mobility response from
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MMIF. Client ifid: 0x90000006, roam type: None, client role: Local 2021/01/19 21:57:55.906210
{wncd_x_R0-0}{1}: [ewlc-qos-client] [9347]: (info): MAC: 2e1f.3a65.9c09 Client QoS add mobile cb
2021/01/19 21:57:55.906369 {wncd_x_R0-0}{1}: [ewlc-qos-client] [9347]: (info): MAC:
2e1f.3a65.9c09 No QoS PM Name or QoS Level received from SANet for pm_dir:0. Check client is
fastlane, otherwise set pm name to none 2021/01/19 21:57:55.906399 {wncd_x_R0-0}{1}: [ewlc-qos-
client] [9347]: (info): MAC: 2e1f.3a65.9c09 No QoS PM Name or QoS Level received from SANet for
pm_dir:1. Check client is fastlane, otherwise set pm name to none 2021/01/19 21:57:55.906486
{wncd_x_R0-0}{1}: [client-auth] [9347]: (note): MAC: 2e1f.3a65.9c09 ADD MOBILE sent. Client
state flags: 0x12 BSSID: MAC: f80f.6f15.66ae capwap IFID: 0x90000004 2021/01/19 21:57:55.906613
{wncd_x_R0-0}{1}: [client-orch-state] [9347]: (note): MAC: 2e1f.3a65.9c09 Client state
transition: S_CO_MOBILITY_DISCOVERY_IN_PROGRESS -> S_CO_DPATH_PLUMB_IN_PROGRESS 2021/01/19
21:57:55.907326 {wncd_x_R0-0}{1}: [dot11] [9347]: (note): MAC: 2e1f.3a65.9c09 Client datapath
entry params - ssid:webauth,slot_id:1 bssid ifid: 0x0, radio_ifid: 0x90000002, wlan_ifid:
0xf0400002 2021/01/19 21:57:55.907544 {wncd_x_R0-0}{1}: [ewlc-qos-client] [9347]: (info): MAC:
2e1f.3a65.9c09 Client QoS dpath create params 2021/01/19 21:57:55.907594 {wncd_x_R0-0}{1}: [avc-
afc] [9347]: (debug): AVC enabled for client 2e1f.3a65.9c09 2021/01/19 21:57:55.907701
{wncd_x_R0-0}{1}: [dpath_svc] [9347]: (note): MAC: 2e1f.3a65.9c09 Client datapath entry created
for ifid 0x90000006 2021/01/19 21:57:55.908229 {wncd_x_R0-0}{1}: [client-orch-state] [9347]:
(note): MAC: 2e1f.3a65.9c09 Client state transition: S_CO_DPATH_PLUMB_IN_PROGRESS ->
S_CO_IP_LEARN_IN_PROGRESS 2021/01/19 21:57:55.908704 {wncd_x_R0-0}{1}: [client-iplearn] [9347]:
(info): MAC: 2e1f.3a65.9c09 IP-learn state transition: S_IPLEARN_INIT -> S_IPLEARN_IN_PROGRESS
2021/01/19 21:57:55.918694 {wncd_x_R0-0}{1}: [client-auth] [9347]: (info): MAC: 2e1f.3a65.9c09
Client auth-interface state transition: S_AUTHIF_L2_WEBAUTH_DONE -> S_AUTHIF_L2_WEBAUTH_DONE
2021/01/19 21:57:55.922254 {wncd_x_R0-0}{1}: [dot11k] [9347]: (info): MAC: 2e1f.3a65.9c09
Neighbor AP fc5b.3984.8220 lookup has failed, ap contextnot available on this instance
2021/01/19 21:57:55.922260 {wncd_x_R0-0}{1}: [dot11k] [9347]: (info): MAC: 2e1f.3a65.9c09
Neighbor AP 88f0.3169.d390 lookup has failed, ap contextnot available on this instance
2021/01/19 21:57:55.962883 {wncd_x_R0-0}{1}: [client-iplearn] [9347]: (note): MAC:
2e1f.3a65.9c09 Client IP learn successful. Method: IP Snooping IP: 192.168.1.17 2021/01/19
21:57:55.963827 {wncd_x_R0-0}{1}: [client-iplearn] [9347]: (info): MAC: 2e1f.3a65.9c09 Client IP
learn successful. Method: IPv6 Snooping IP: fe80::2c1f:3aff:fe65:9c09 2021/01/19 21:57:55.964481
{wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] auth mgr attr
change notification is received for attr (8) 2021/01/19 21:57:55.965176 {wncd_x_R0-0}{1}:
[client-iplearn] [9347]: (info): MAC: 2e1f.3a65.9c09 IP-learn state transition:
S_IPLEARN_IN_PROGRESS -> S_IPLEARN_COMPLETE 2021/01/19 21:57:55.965550 {wncd_x_R0-0}{1}: [auth-
mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is
received for attr (10) 2021/01/19 21:57:55.966127 {wncd_x_R0-0}{1}: [client-iplearn] [9347]:
(info): MAC: 2e1f.3a65.9c09 IP-learn state transition: S_IPLEARN_COMPLETE -> S_IPLEARN_COMPLETE
2021/01/19 21:57:55.966328 {wncd_x_R0-0}{1}: [client-orch-sm] [9347]: (debug): MAC:
2e1f.3a65.9c09 Received ip learn response. method: IPLEARN_METHOD_IP_SNOOPING 2021/01/19
21:57:55.966413 {wncd_x_R0-0}{1}: [client-orch-sm] [9347]: (debug): MAC: 2e1f.3a65.9c09
Triggered L3 authentication. status = 0x0, Success 2021/01/19 21:57:55.966424 {wncd_x_R0-0}{1}:
[client-orch-state] [9347]: (note): MAC: 2e1f.3a65.9c09 Client state transition:
S_CO_IP_LEARN_IN_PROGRESS -> S_CO_L3_AUTH_IN_PROGRESS 2021/01/19 21:57:55.967404 {wncd_x_R0-
0}{1}: [client-auth] [9347]: (note): MAC: 2e1f.3a65.9c09 L3 Authentication initiated. LWA
2021/01/19 21:57:55.967433 {wncd_x_R0-0}{1}: [client-auth] [9347]: (info): MAC: 2e1f.3a65.9c09
Client auth-interface state transition: S_AUTHIF_L2_WEBAUTH_DONE -> S_AUTHIF_WEBAUTH_PENDING
2021/01/19 21:57:55.968312 {wncd_x_R0-0}{1}: [sisf-packet] [9347]: (debug): RX: ARP from
interface capwap_90000004 on vlan 1 Source MAC: 2e1f.3a65.9c09 Dest MAC: ffff.ffff.ffff ARP
REQUEST, ARP sender MAC: 2e1f.3a65.9c09 ARP target MAC: ffff.ffff.ffff ARP sender IP:
192.168.1.17, ARP target IP: 192.168.1.17, 2021/01/19 21:57:55.968519 {wncd_x_R0-0}{1}: [client-
iplearn] [9347]: (info): MAC: 2e1f.3a65.9c09 iplearn receive client learn method update. Prev
method (IP Snooping) Cur method (ARP) 2021/01/19 21:57:55.968522 {wncd_x_R0-0}{1}: [client-
iplearn] [9347]: (info): MAC: 2e1f.3a65.9c09 Client IP learn method update successful. Method:
ARP IP: 192.168.1.17 2021/01/19 21:57:55.968966 {wncd_x_R0-0}{1}: [client-iplearn] [9347]:
(info): MAC: 2e1f.3a65.9c09 IP-learn state transition: S_IPLEARN_COMPLETE -> S_IPLEARN_COMPLETE
2021/01/19 21:57:57.762648 {wncd_x_R0-0}{1}: [client-iplearn] [9347]: (info): MAC:
2e1f.3a65.9c09 iplearn receive client learn method update. Prev method (ARP) Cur method (IP
Snooping) 2021/01/19 21:57:57.762650 {wncd_x_R0-0}{1}: [client-iplearn] [9347]: (info): MAC:
2e1f.3a65.9c09 Client IP learn method update successful. Method: IP Snooping IP: 192.168.1.17
2021/01/19 21:57:57.763032 {wncd_x_R0-0}{1}: [client-iplearn] [9347]: (info): MAC:
2e1f.3a65.9c09 IP-learn state transition: S_IPLEARN_COMPLETE -> S_IPLEARN_COMPLETE 2021/01/19
21:58:00.992597 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]GET rcvd when in INIT state 2021/01/19
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21:58:00.992617 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]HTTP GET request 2021/01/19 21:58:00.992669
{wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]Parse GET, src [192.168.1.17] dst [192.168.1.15] url
[http://connectivitycheck.gstatic.com/generate_204] 2021/01/19 21:58:00.992694 {wncd_x_R0-0}{1}:
[webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Retrieved user-
agent = Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/60.0.3112.32 Safari/537.36 2021/01/19 21:58:00.993558 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received
for attr (1248) 2021/01/19 21:58:00.993637 {wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]:
(info): [2e1f.3a65.9c09:capwap_90000004] Check aaa acct configured 2021/01/19 21:58:00.993645
{wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info): [0000.0000.0000:capwap_90000004]
access_session_acct_filter_spec is NULL 2021/01/19 21:58:00.996320 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Device type for the session is detected as
Linux-Workstation and old Samsung Galaxy S10e &Device name for the session is detected as
Unknown Device and old Unknown Device & Old protocol map 1057 and new is 1057 2021/01/19
21:58:00.996508 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] DC
Profile-name has been changed to Linux-Workstation 2021/01/19 21:58:00.996524 {wncd_x_R0-0}{1}:
[auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] update event: Policy is not applied
for this Handle 0xB7000080 2021/01/19 21:58:05.808144 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]:
(info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]HTTP GET request 2021/01/19
21:58:05.808226 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Parse GET, src [192.168.1.17] dst [192.168.1.15]
url [http://connectivitycheck.gstatic.com/generate_204] 2021/01/19 21:58:05.808251 {wncd_x_R0-
0}{1}: [webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Retrieved
user-agent = Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/60.0.3112.32 Safari/537.36 2021/01/19 21:58:05.860465 {wncd_x_R0-0}{1}: [webauth-httpd]
[9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]GET rcvd when in GET_REDIRECT
state 2021/01/19 21:58:05.860483 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]HTTP GET request 2021/01/19 21:58:05.860534
{wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]Parse GET, src [192.168.1.17] dst [192.168.1.15] url
[http://connectivitycheck.gstatic.com/generate_204] 2021/01/19 21:58:05.860559 {wncd_x_R0-0}{1}:
[webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Retrieved user-
agent = Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/60.0.3112.32 Safari/537.36 2021/01/19 21:58:06.628209 {wncd_x_R0-0}{1}: [webauth-httpd]
[9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]GET rcvd when in GET_REDIRECT
state 2021/01/19 21:58:06.628228 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]HTTP GET request 2021/01/19 21:58:06.628287
{wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]Parse GET, src [192.168.1.17] dst [192.0.2.1] url
[https://192.0.2.1:443/login.html?redirect=http://connectivitycheck.gstatic.com/generate_204]
2021/01/19 21:58:06.628316 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Retrieved user-agent = Mozilla/5.0 (Linux; Android
11; SM-G970F) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Mobile Safari/537.36
2021/01/19 21:58:06.628832 {wncd_x_R0-0}{1}: [webauth-page] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Sending Webauth login form, len 8077 2021/01/19
21:58:06.629613 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004]
auth mgr attr change notification is received for attr (1248) 2021/01/19 21:58:06.629699
{wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004]
Check aaa acct configured 2021/01/19 21:58:06.629709 {wncd_x_R0-0}{1}: [auth-mgr-feat_template]
[9347]: (info): [0000.0000.0000:capwap_90000004] access_session_acct_filter_spec is NULL
2021/01/19 21:58:06.633058 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Device type for the session is detected as Samsung Galaxy S10e
and old Linux-Workstation &Device name for the session is detected as Unknown Device and old
Unknown Device & Old protocol map 1057 and new is 1057 2021/01/19 21:58:06.633219 {wncd_x_R0-
0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] DC Profile-name has been
changed to Samsung Galaxy S10e 2021/01/19 21:58:06.633231 {wncd_x_R0-0}{1}: [auth-mgr] [9347]:
(info): [2e1f.3a65.9c09:capwap_90000004] update event: Policy is not applied for this Handle
0xB7000080 2021/01/19 21:58:06.719502 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]GET rcvd when in LOGIN state 2021/01/19
21:58:06.719521 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]HTTP GET request 2021/01/19 21:58:06.719591
{wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]Parse GET, src [192.168.1.17] dst [192.0.2.1] url
[https://192.0.2.1:443/favicon.ico] 2021/01/19 21:58:06.719646 {wncd_x_R0-0}{1}: [webauth-httpd]
[9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Retrieved user-agent = Mozilla/5.0
(Linux; Android 11; SM-G970F) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Mobile
Safari/537.36 2021/01/19 21:58:06.720038 {wncd_x_R0-0}{1}: [webauth-error] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Parse logo GET, File "/favicon.ico" not found
2021/01/19 21:58:06.720623 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received for attr (1248)
2021/01/19 21:58:06.720707 {wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Check aaa acct configured 2021/01/19 21:58:06.720716
{wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info): [0000.0000.0000:capwap_90000004]
access_session_acct_filter_spec is NULL 2021/01/19 21:58:06.724036 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Device type for the session is detected as
Samsung Galaxy S10e and old Samsung Galaxy S10e &Device name for the session is detected as
Unknown Device and old Unknown Device & Old protocol map 1057 and new is 1057 2021/01/19
21:58:06.746127 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]GET rcvd when in LOGIN state 2021/01/19
21:58:06.746145 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]HTTP GET request 2021/01/19 21:58:06.746197
{wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]Parse GET, src [192.168.1.17] dst [192.0.2.1] url
[https://192.0.2.1:443/favicon.ico] 2021/01/19 21:58:06.746225 {wncd_x_R0-0}{1}: [webauth-httpd]
[9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Retrieved user-agent = Mozilla/5.0
(Linux; Android 11; SM-G970F) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Mobile
Safari/537.36 2021/01/19 21:58:06.746612 {wncd_x_R0-0}{1}: [webauth-error] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Parse logo GET, File "/favicon.ico" not found
2021/01/19 21:58:06.747105 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received for attr (1248)
2021/01/19 21:58:06.747187 {wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Check aaa acct configured 2021/01/19 21:58:06.747197
{wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info): [0000.0000.0000:capwap_90000004]
access_session_acct_filter_spec is NULL 2021/01/19 21:58:06.750598 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Device type for the session is detected as
Samsung Galaxy S10e and old Samsung Galaxy S10e &Device name for the session is detected as
Unknown Device and old Unknown Device & Old protocol map 1057 and new is 1057 2021/01/19
21:58:15.902342 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]GET rcvd when in LOGIN state 2021/01/19
21:58:15.902360 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info):
capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]HTTP GET request 2021/01/19 21:58:15.902410
{wncd_x_R0-0}{1}: [webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]Parse GET, src [192.168.1.17] dst [192.168.1.15] url
[http://connectivitycheck.gstatic.com/generate_204] 2021/01/19 21:58:15.902435 {wncd_x_R0-0}{1}:
[webauth-httpd] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]Retrieved user-
agent = Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/60.0.3112.32 Safari/537.36 2021/01/19 21:58:15.903173 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received
for attr (1248) 2021/01/19 21:58:15.903252 {wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]:
(info): [2e1f.3a65.9c09:capwap_90000004] Check aaa acct configured 2021/01/19 21:58:15.903261
{wncd_x_R0-0}{1}: [auth-mgr-feat_template] [9347]: (info): [0000.0000.0000:capwap_90000004]
access_session_acct_filter_spec is NULL 2021/01/19 21:58:15.905950 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] Device type for the session is detected as
Linux-Workstation and old Samsung Galaxy S10e &Device name for the session is detected as
Unknown Device and old Unknown Device & Old protocol map 1057 and new is 1057 2021/01/19
21:58:15.906112 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] DC
Profile-name has been changed to Linux-Workstation 2021/01/19 21:58:15.906125 {wncd_x_R0-0}{1}:
[auth-mgr] [9347]: (info): [2e1f.3a65.9c09:capwap_90000004] update event: Policy is not applied
for this Handle 0xB7000080 2021/01/19 21:58:16.357093 {wncd_x_R0-0}{1}: [webauth-httpd] [9347]:
(info): capwap_90000004[2e1f.3a65.9c09][ 192.168.1.17]POST rcvd when in LOGIN state 2021/01/19
21:58:16.357443 {wncd_x_R0-0}{1}: [sadb-attr] [9347]: (info): Removing ipv6 addresses from the
attr list -1560276753,sm_ctx = 0x50840930, num_ipv6 = 1 2021/01/19 21:58:16.357674 {wncd_x_R0-
0}{1}: [caaa-authen] [9347]: (info): [CAAA:AUTHEN:b7000080] DEBUG: mlist=ldapauth for type=0
2021/01/19 21:58:16.374292 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Authc success from WebAuth, Auth event success 2021/01/19
21:58:16.374412 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [9347]: (note): Authentication Success.
```
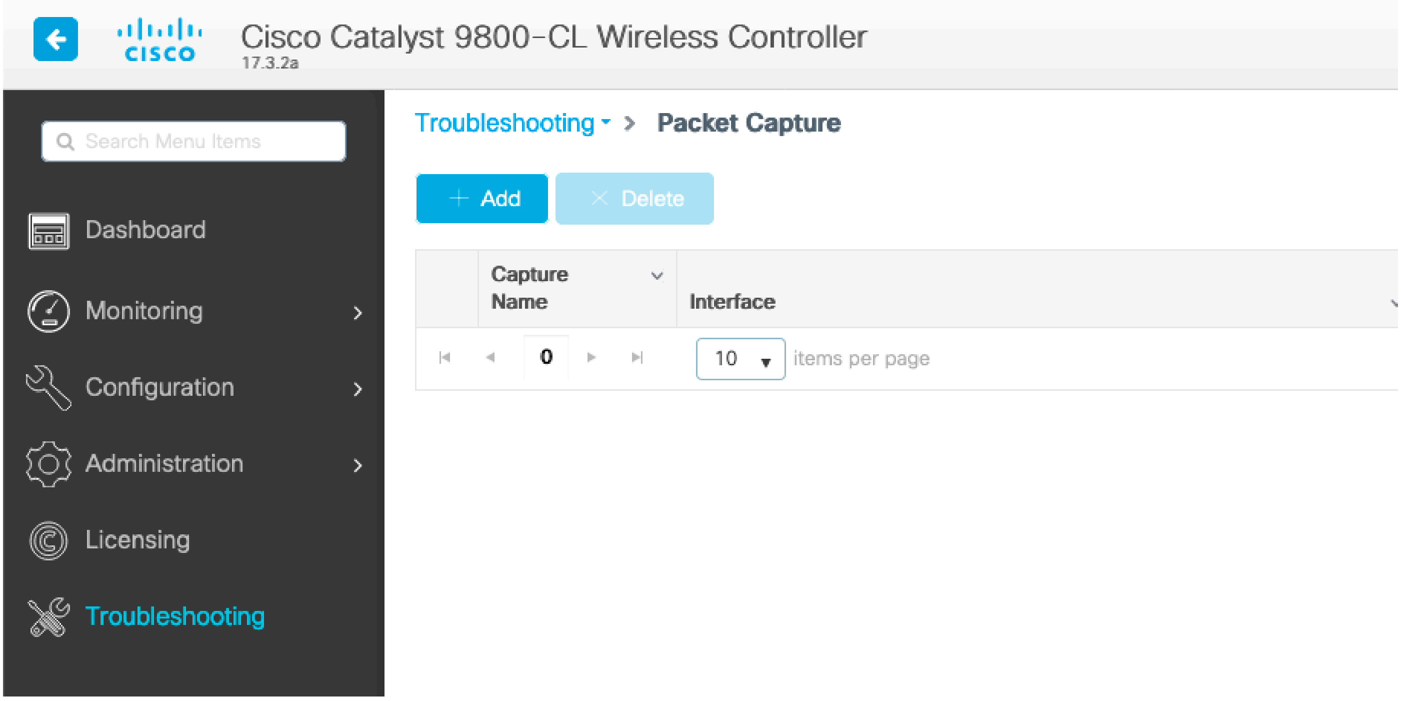

```
Resolved Policy bitmap:0 for client 2e1f.3a65.9c09 2021/01/19 21:58:16.374442 {wncd_x_R0-0}{1}:
[client-auth] [9347]: (info): MAC: 2e1f.3a65.9c09 Client auth-interface state transition:
S_AUTHIF_WEBAUTH_PENDING -> S_AUTHIF_WEBAUTH_PENDING 2021/01/19 21:58:16.374568 {wncd_x_R0-
0}{1}: [aaa-attr-inf] [9347]: (info): << username 0 "Nico">> 2021/01/19 21:58:16.374574
{wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]: (info): << sam-account-name 0 "Nico">> 2021/01/19
21:58:16.374584 {wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]: (info): << method 0 1 [webauth]>>
2021/01/19 21:58:16.374592 {wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]: (info): << clid-mac-addr 0
2e 1f 3a 65 9c 09 >> 2021/01/19 21:58:16.374597 {wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]: (info):
<< intf-id 0 2415919108 (0x90000004)>> 2021/01/19 21:58:16.374690 {wncd_x_R0-0}{1}: [auth-mgr]
[9347]: (info): [2e1f.3a65.9c09:capwap_90000004] auth mgr attr change notification is received
for attr (450) 2021/01/19 21:58:16.374797 {wncd_x_R0-0}{1}: [auth-mgr] [9347]: (info):
[2e1f.3a65.9c09:capwap_90000004] Received User-Name Nico for client 2e1f.3a65.9c09 2021/01/19
21:58:16.375294 {wncd_x_R0-0}{1}: [webauth-acl] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]Applying IPv4 logout ACL via SVM, name: IP-Adm-V4-LOGOUT-ACL, priority: 51, IIF-ID:
0 2021/01/19 21:58:16.376120 {wncd_x_R0-0}{1}: [epm-redirect] [9347]: (info):
[0000.0000.0000:unknown] URL-Redirect-ACL = IP-Adm-V4-LOGOUT-ACL 2021/01/19 21:58:16.377322
{wncd_x_R0-0}{1}: [webauth-page] [9347]: (info): capwap_90000004[2e1f.3a65.9c09][
192.168.1.17]HTTP/1.0 200 OK 2021/01/19 21:58:16.378405 {wncd_x_R0-0}{1}: [client-auth] [9347]:
(note): MAC: 2e1f.3a65.9c09 L3 Authentication Successful. ACL:[] 2021/01/19 21:58:16.378426
{wncd_x_R0-0}{1}: [client-auth] [9347]: (info): MAC: 2e1f.3a65.9c09 Client auth-interface state
transition: S_AUTHIF_WEBAUTH_PENDING -> S_AUTHIF_WEBAUTH_DONE 2021/01/19 21:58:16.379181
{wncd_x_R0-0}{1}: [ewlc-qos-client] [9347]: (info): MAC: 2e1f.3a65.9c09 Client QoS add mobile cb
2021/01/19 21:58:16.379323 {wncd_x_R0-0}{1}: [ewlc-qos-client] [9347]: (info): MAC:
2e1f.3a65.9c09 No QoS PM Name or QoS Level received from SANet for pm_dir:0. Check client is
fastlane, otherwise set pm name to none 2021/01/19 21:58:16.379358 {wncd_x_R0-0}{1}: [ewlc-qos-
client] [9347]: (info): MAC: 2e1f.3a65.9c09 No QoS PM Name or QoS Level received from SANet for
pm_dir:1. Check client is fastlane, otherwise set pm name to none 2021/01/19 21:58:16.379442
{wncd_x_R0-0}{1}: [client-auth] [9347]: (note): MAC: 2e1f.3a65.9c09 ADD MOBILE sent. Client
state flags: 0x8 BSSID: MAC: f80f.6f15.66ae capwap IFID: 0x90000004 2021/01/19 21:58:16.380547
{wncd_x_R0-0}{1}: [errmsg] [9347]: (info): %CLIENT_ORCH_LOG-6-CLIENT_ADDED_TO_RUN_STATE:
Username entry (Nico) joined with ssid (webauth) for device with MAC: 2e1f.3a65.9c09 2021/01/19
21:58:16.380729 {wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]: (info): [ Applied attribute :bsn-vlan-
interface-name 0 "1" ] 2021/01/19 21:58:16.380736 {wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]:
(info): [ Applied attribute : timeout 0 86400 (0x15180) ] 2021/01/19 21:58:16.380812 {wncd_x_R0-
0}{1}: [aaa-attr-inf] [9347]: (info): [ Applied attribute : url-redirect-acl 0 "IP-Adm-V4-
LOGOUT-ACL" ] 2021/01/19 21:58:16.380969 {wncd_x_R0-0}{1}: [ewlc-qos-client] [9347]: (info):
MAC: 2e1f.3a65.9c09 Client QoS run state handler 2021/01/19 21:58:16.381033 {wncd_x_R0-0}{1}:
[rog-proxy-capwap] [9347]: (debug): Managed client RUN state notification: 2e1f.3a65.9c09
2021/01/19 21:58:16.381152 {wncd_x_R0-0}{1}: [client-orch-state] [9347]: (note): MAC:
2e1f.3a65.9c09 Client state transition: S_CO_L3_AUTH_IN_PROGRESS -> S_CO_RUN 2021/01/19
21:58:16.385252 {wncd_x_R0-0}{1}: [ewlc-qos-client] [9347]: (info): MAC: 2e1f.3a65.9c09 Client
QoS dpath run params 2021/01/19 21:58:16.385321 {wncd_x_R0-0}{1}: [avc-afc] [9347]: (debug): AVC
enabled for client 2e1f.3a65.9c09
```

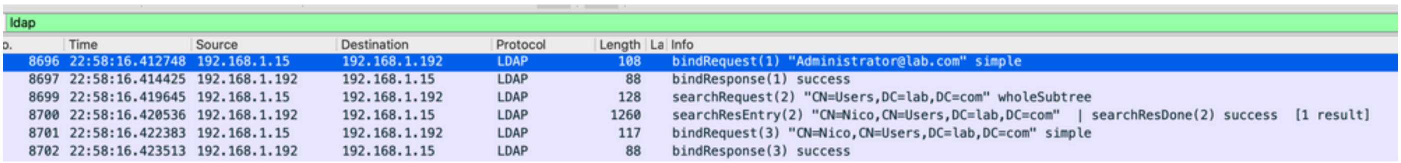
Cómo verificar la conectividad de 9800 a LDAP

Puede tomar una captura incrustada en el 9800 para ver qué tráfico se dirige hacia LDAP.

Para tomar una captura del WLC, navegue hasta **Troubleshooting > Packet Capture** y haga clic en **+Add**. Elija el puerto de enlace ascendente e inicie la captura.



A continuación se muestra un ejemplo de autenticación correcta para el usuario **Nico**



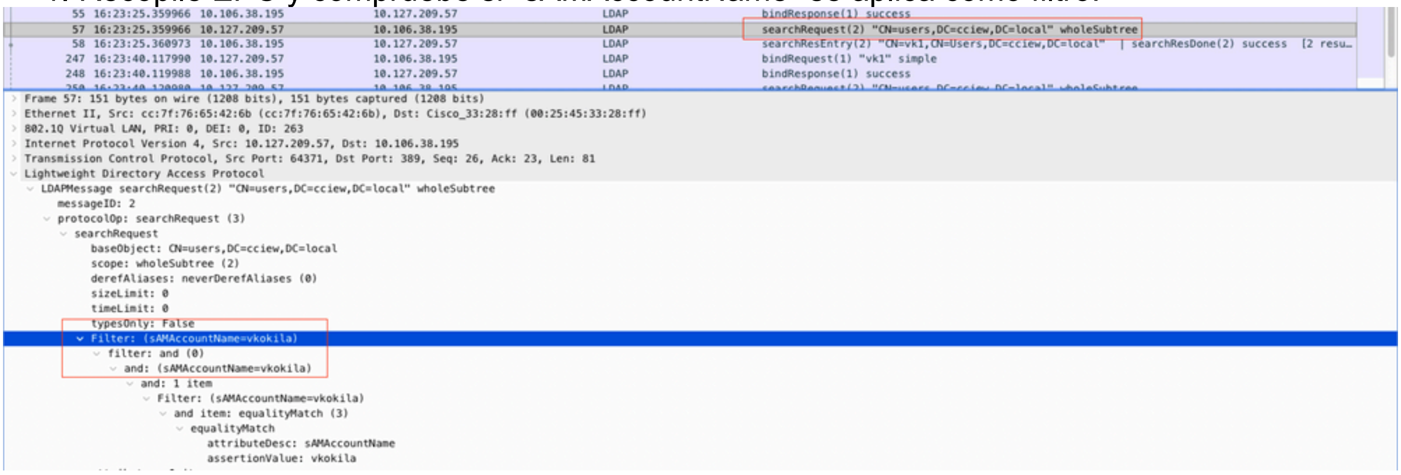
```
ldap
o.    Time             Source         Destination    Protocol  Length La Info
 8696 22:58:16.412748 192.168.1.15   192.168.1.192  LDAP       108    bindRequest(1) "Administrator@lab.com" simple
 8697 22:58:16.414425 192.168.1.192  192.168.1.15   LDAP        88    bindResponse(1) success
 8699 22:58:16.419645 192.168.1.15   192.168.1.192  LDAP       128    searchRequest(2) "CN=Users,DC=lab,DC=com" wholeSubtree
 8700 22:58:16.420536 192.168.1.192  192.168.1.15   LDAP      1260    searchResEntry(2) "CN=Nico,CN=Users,DC=lab,DC=com"  | searchResDone(2) success  [1 result]
 8701 22:58:16.422383 192.168.1.15   192.168.1.192  LDAP       117    bindRequest(3) "CN=Nico,CN=Users,DC=lab,DC=com" simple
 8702 22:58:16.423513 192.168.1.192  192.168.1.15   LDAP        88    bindResponse(3) success
```

Los primeros 2 paquetes representan el enlace del WLC a la base de datos LDAP, es decir, el WLC que autentica a la base de datos con el usuario administrador (para poder realizar una búsqueda).

Estos 2 paquetes LDAP representan el WLC haciendo una búsqueda en el DN base (aquí CN=Users,DC=lab,DC=com). El interior del paquete contiene un filtro para el nombre de usuario (aquí "Nico"). La base de datos LDAP devuelve los atributos de usuario como un resultado correcto

Los últimos 2 paquetes representan el WLC que intenta autenticarse con esa contraseña de usuario para probar si la contraseña es la correcta.

1. Recopile EPC y compruebe si "sAMAccountName" se aplica como filtro:

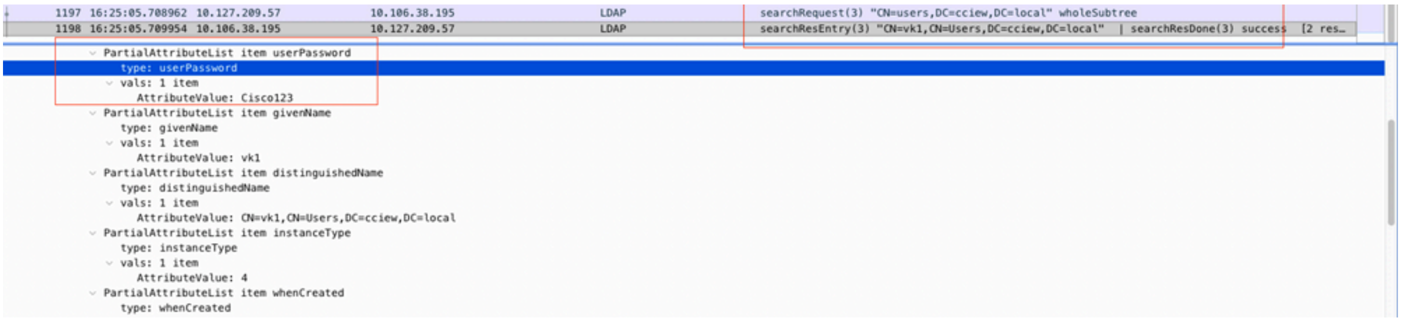


```
   55 16:23:25.359966 10.106.38.195    10.127.209.57    LDAP    bindResponse(1) success
   57 16:23:25.359966 10.127.209.57    10.106.38.195    LDAP    searchRequest(2) "CN=users,DC=cciew,DC=local" wholeSubtree
   58 16:23:25.360973 10.106.38.195    10.127.209.57    LDAP    searchResEntry(2) "CN=vk1,CN=Users,DC=cciew,DC=local"  | searchResDone(2) success  [2 resu…
  247 16:23:40.117990 10.127.209.57    10.106.38.195    LDAP    bindRequest(1) "vk1" simple
  248 16:23:40.119988 10.106.38.195    10.127.209.57    LDAP    bindResponse(1) success
  250 16:23:40.120980 10.127.209.57    10.106.38.195    LDAP    searchRequest(2) "CN=users,DC=cciew,DC=local" wholeSubtree
> Frame 57: 151 bytes on wire (1208 bits), 151 bytes captured (1208 bits)
> Ethernet II, Src: cc:7f:76:65:42:6b (cc:7f:76:65:42:6b), Dst: Cisco_33:28:ff (00:25:45:33:28:ff)
> 802.1Q Virtual LAN, PRI: 0, DEI: 0, ID: 263
> Internet Protocol Version 4, Src: 10.127.209.57, Dst: 10.106.38.195
> Transmission Control Protocol, Src Port: 64371, Dst Port: 389, Seq: 26, Ack: 23, Len: 81
v Lightweight Directory Access Protocol
  v LDAPMessage searchRequest(2) "CN=users,DC=cciew,DC=local" wholeSubtree
      messageID: 2
    v protocolOp: searchRequest (3)
      v searchRequest
          baseObject: CN=users,DC=cciew,DC=local
          scope: wholeSubtree (2)
          derefAliases: neverDerefAliases (0)
          sizeLimit: 0
          timeLimit: 0
          typesOnly: False
        v Filter: (sAMAccountName=vkokila)
          v filter: and (0)
            v and: (sAMAccountName=vkokila)
              v and: 1 item
                v Filter: (sAMAccountName=vkokila)
                  v and item: equalityMatch (3)
                    v equalityMatch
                        attributeDesc: sAMAccountName
                        assertionValue: vkokila
```

Si el filtro muestra "cn" y si "sAMAccountName" se está utilizando como nombre de usuario, la autenticación falla.

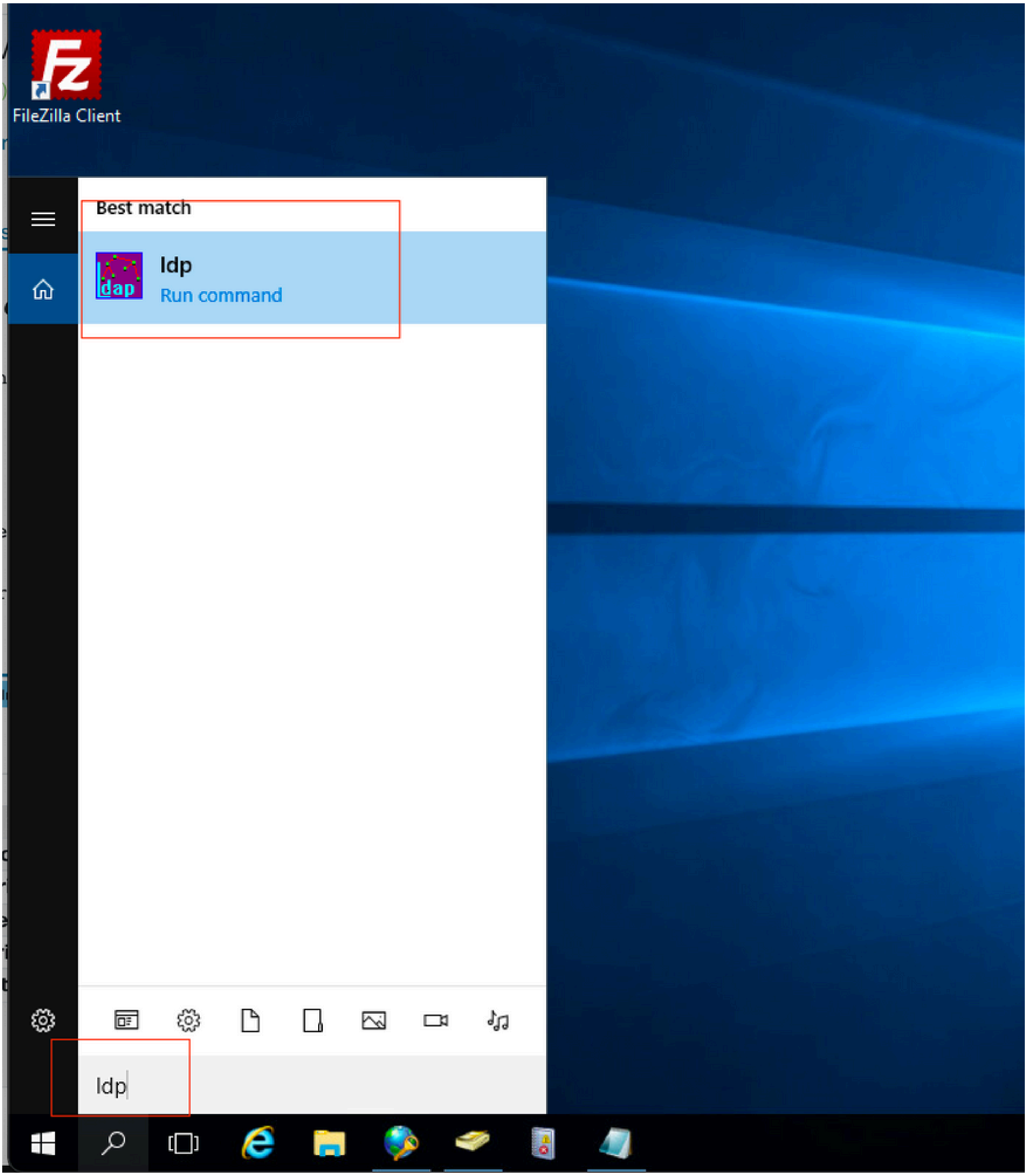
Vuelva a configurar el atributo de mapa ldap de la CLI del WLC.

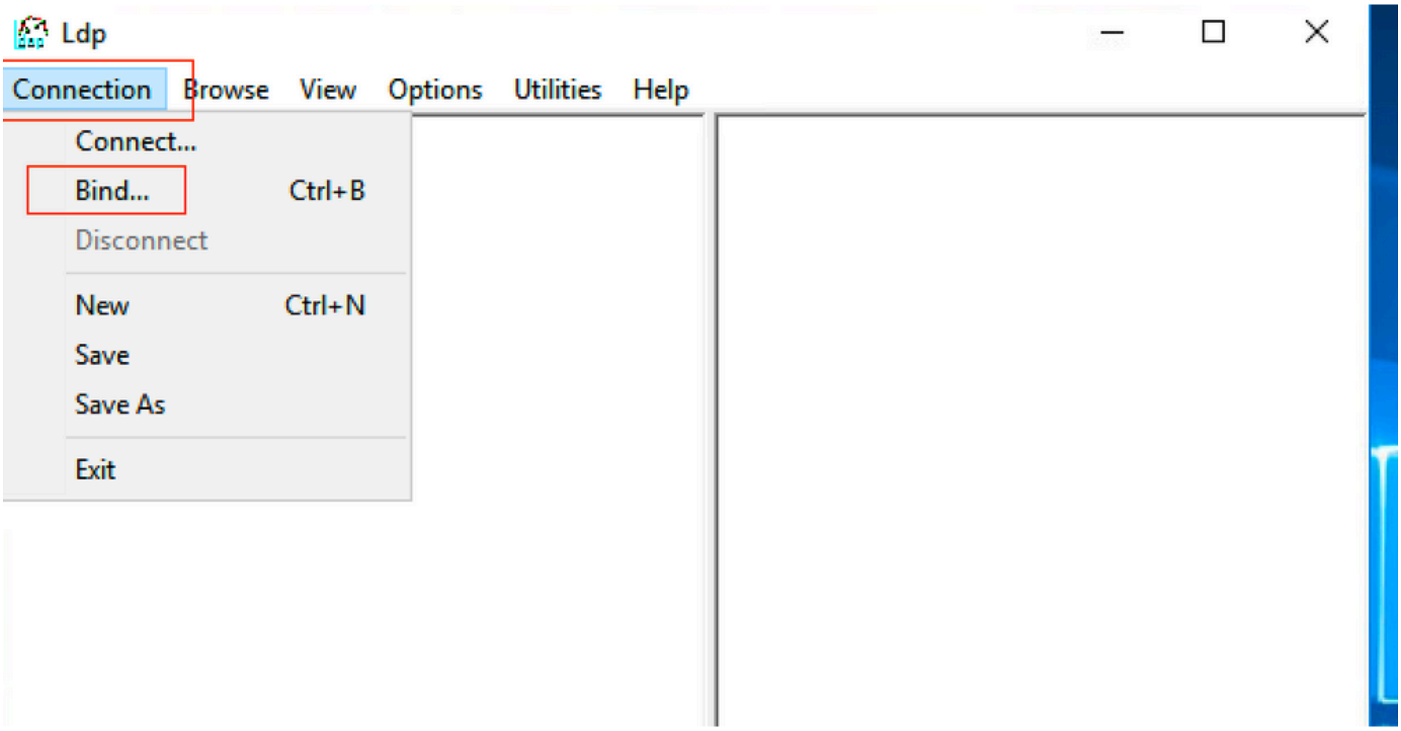
2. Asegúrese de que el servidor devuelve "userPassword" en texto sin formato; de lo contrario, la autenticación fallará.

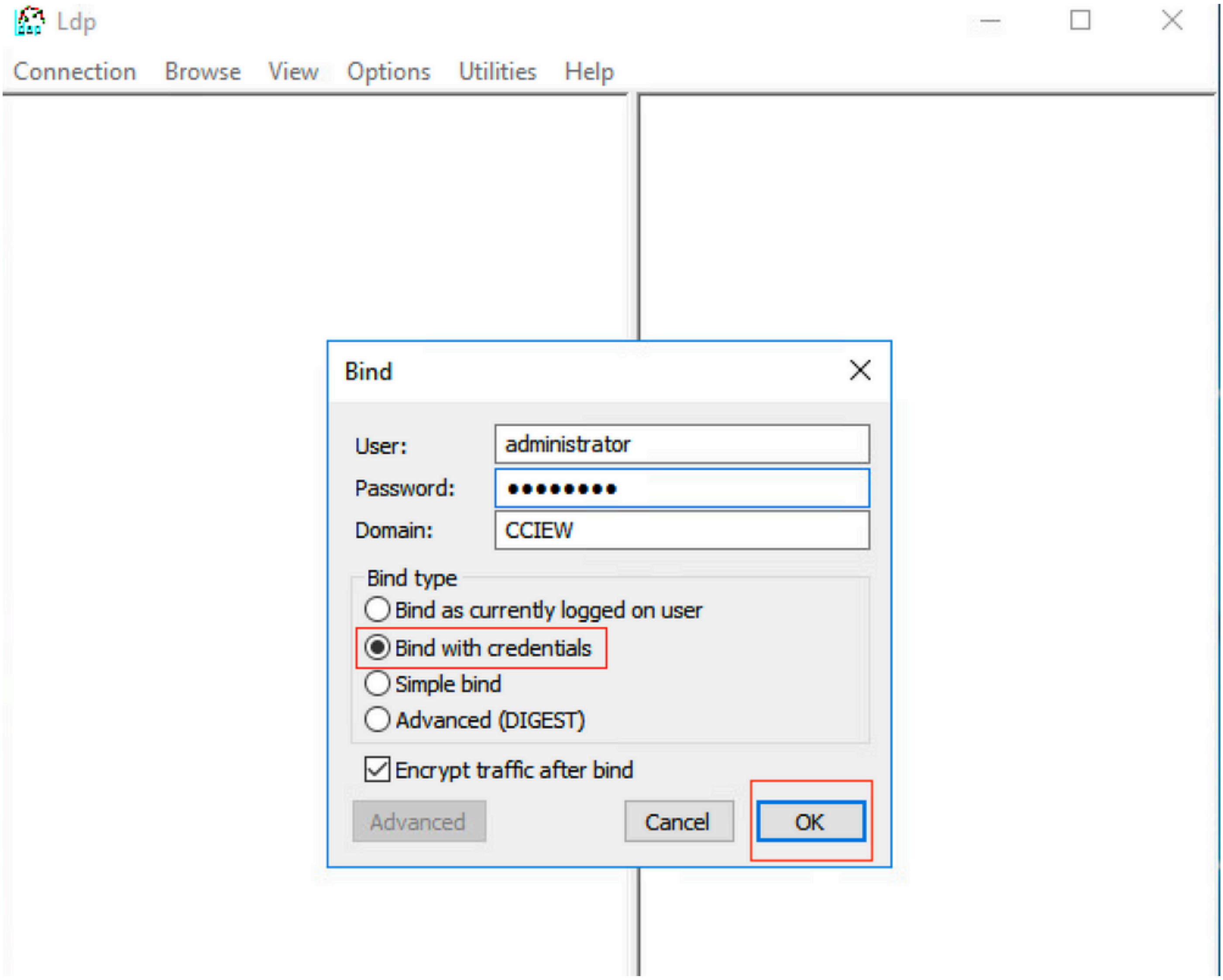


```
1197 16:25:05.708962 10.127.209.57    10.106.38.195    LDAP    searchRequest(3) "CN=users,DC=cciew,DC=local" wholeSubtree
1198 16:25:05.709954 10.106.38.195    10.127.209.57    LDAP    searchResEntry(3) "CN=vk1,CN=Users,DC=cciew,DC=local"  | searchResDone(3) success  [2 res…

    PartialAttributeList item userPassword
        type: userPassword
        vals: 1 item
            AttributeValue: Cisco123
    PartialAttributeList item givenName
        type: givenName
        vals: 1 item
            AttributeValue: vk1
    PartialAttributeList item distinguishedName
        type: distinguishedName
        vals: 1 item
            AttributeValue: CN=vk1,CN=Users,DC=cciew,DC=local
    PartialAttributeList item instanceType
        type: instanceType
        vals: 1 item
            AttributeValue: 4
    PartialAttributeList item whenCreated
        type: whenCreated
```

3. Utilice la herramienta ldp.exe en el servidor para validar la información de DN base.


FileZilla Client
Best match
ldp
Run command
ldp





User: administrator

Password: ●●●●●●●●●

Domain: CCIEW

Bind type

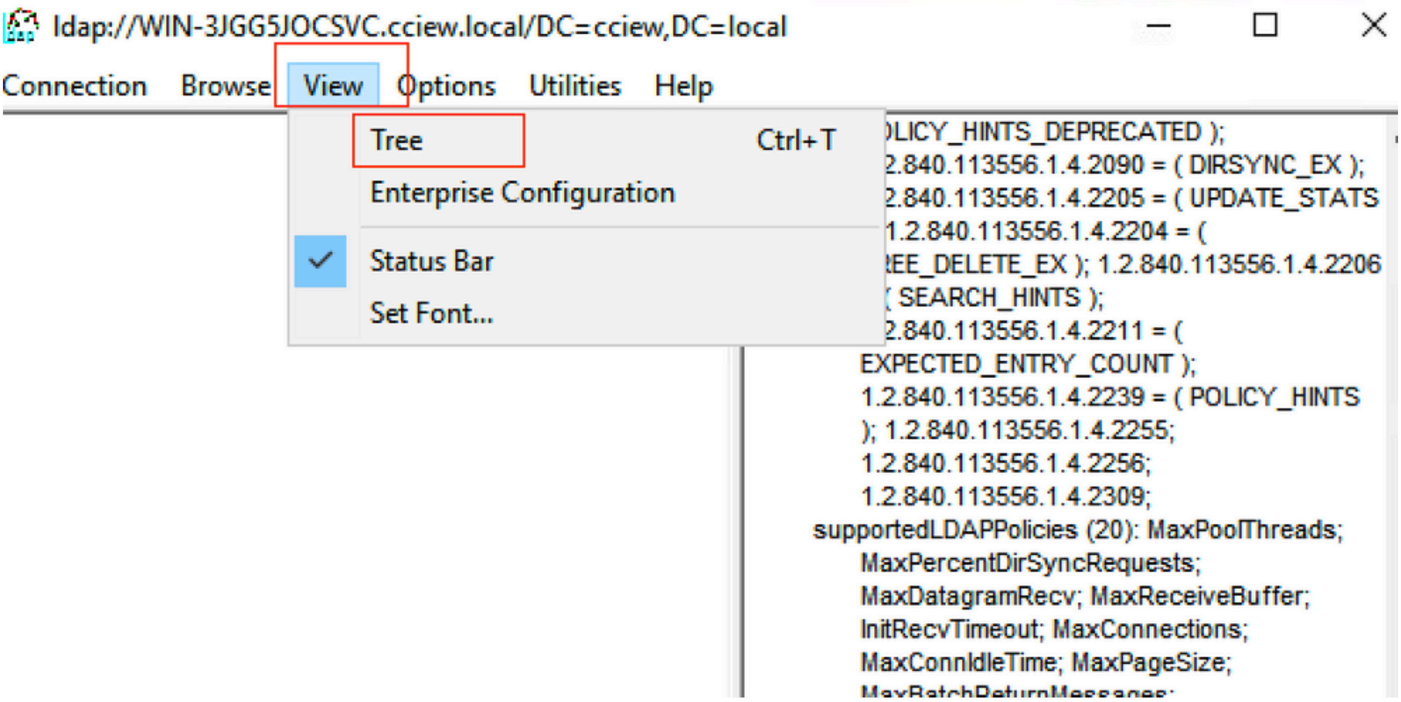
○ Bind as currently logged on user

● Bind with credentials

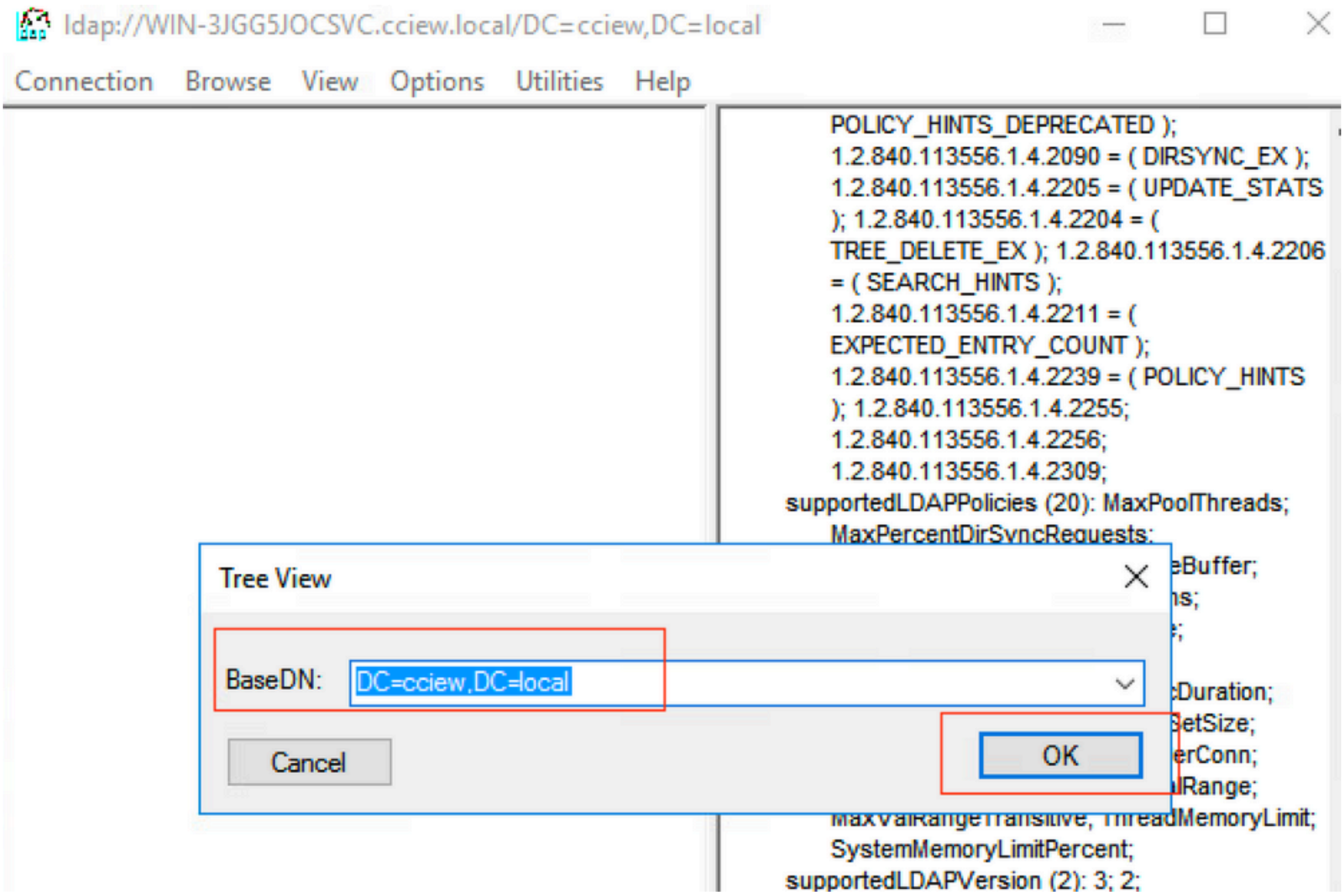
○ Simple bind

○ Advanced (DIGEST)

☑ Encrypt traffic after bind

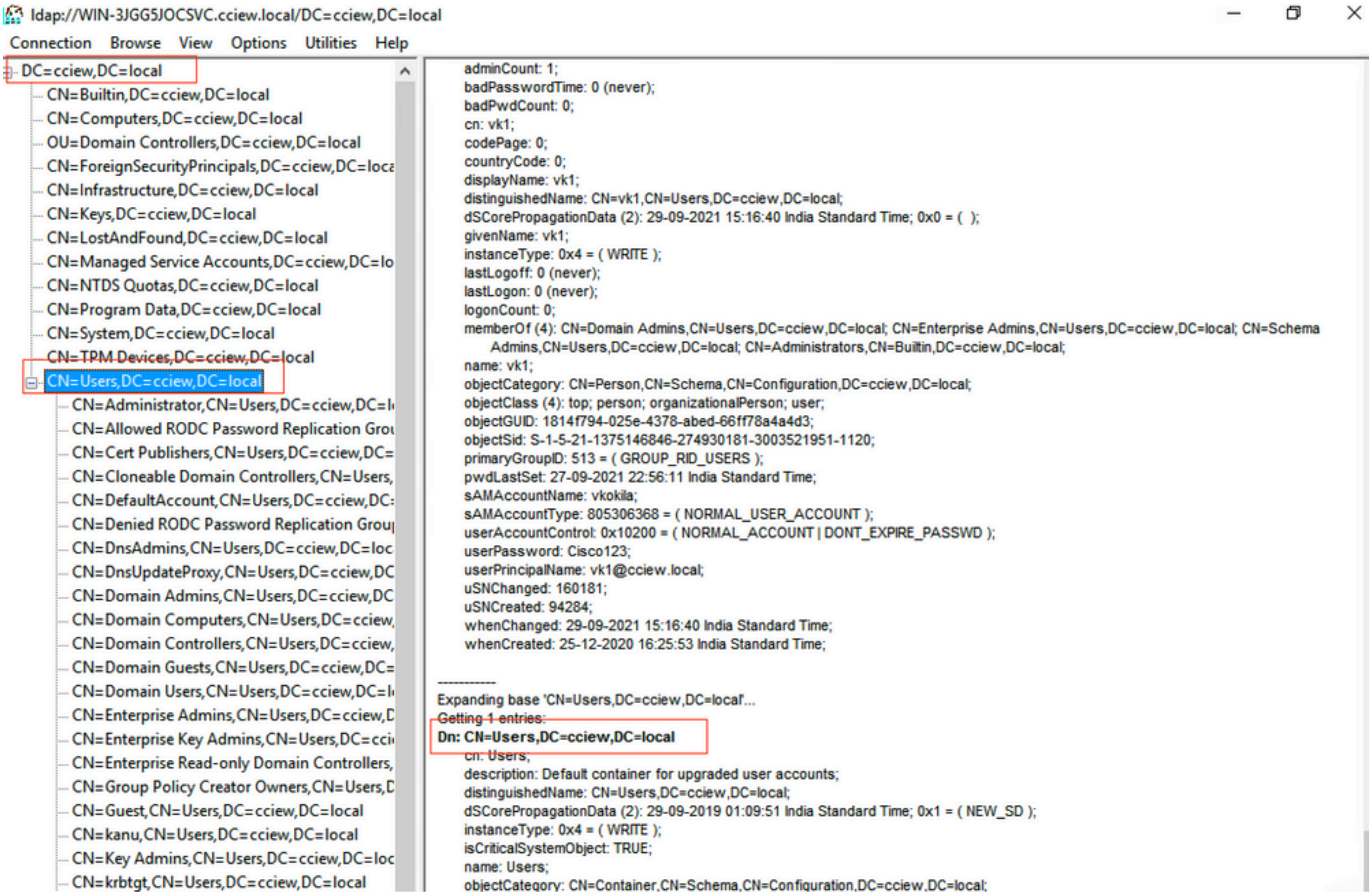


```
        )LICY_HINTS_DEPRECATED );
        2.840.113556.1.4.2090 = ( DIRSYNC_EX );
        2.840.113556.1.4.2205 = ( UPDATE_STATS
        1.2.840.113556.1.4.2204 = (
        REE_DELETE_EX ); 1.2.840.113556.1.4.2206
        ( SEARCH_HINTS );
        2.840.113556.1.4.2211 = (
        EXPECTED_ENTRY_COUNT );
        1.2.840.113556.1.4.2239 = ( POLICY_HINTS
        ); 1.2.840.113556.1.4.2255;
        1.2.840.113556.1.4.2256;
        1.2.840.113556.1.4.2309;
    supportedLDAPPolicies (20): MaxPoolThreads;
        MaxPercentDirSyncRequests;
        MaxDatagramRecv; MaxReceiveBuffer;
        InitRecvTimeout; MaxConnections;
        MaxConnIdleTime; MaxPageSize;
        MaxBatchReturnMessages;
```



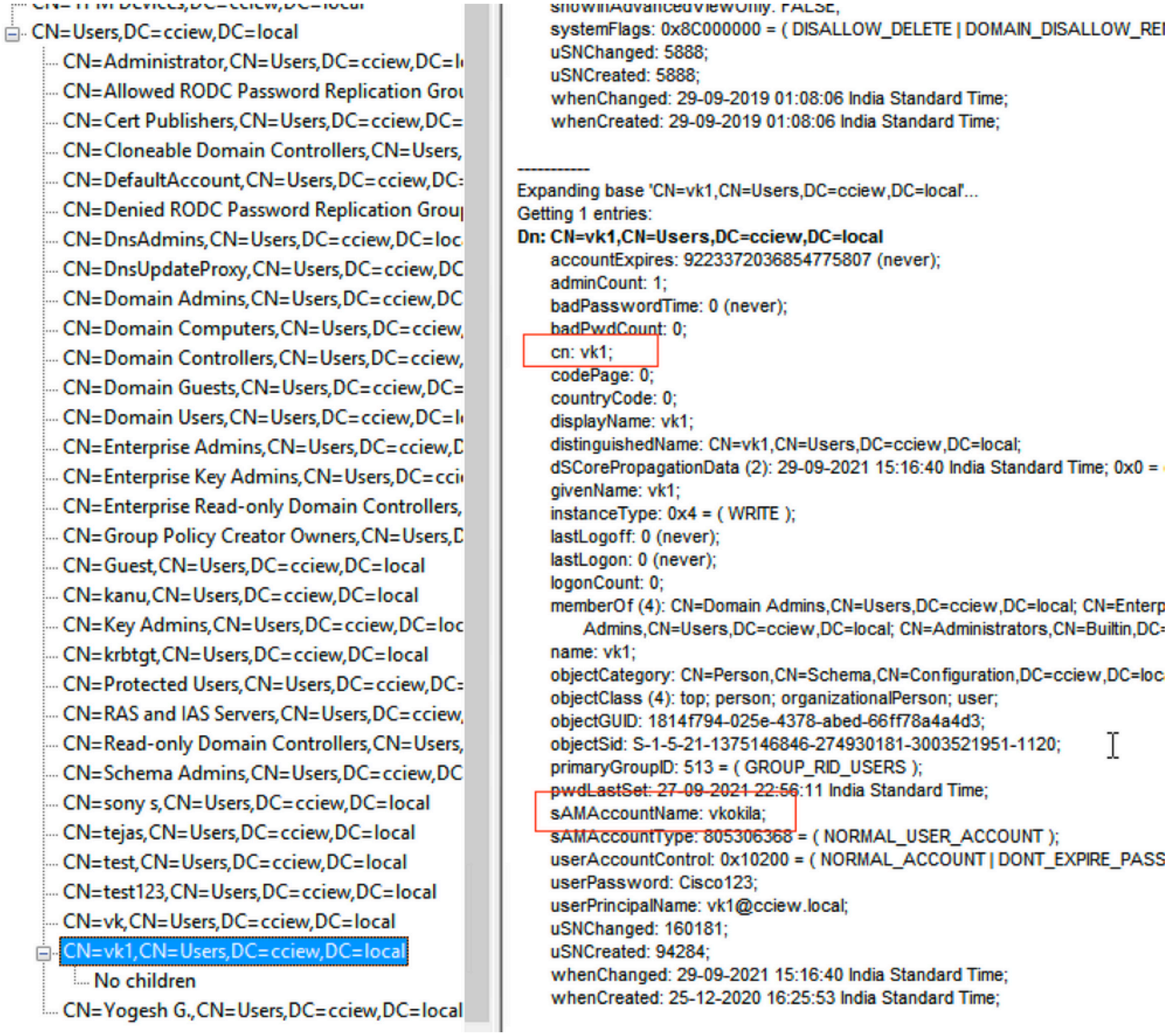
```
        POLICY_HINTS_DEPRECATED );
        1.2.840.113556.1.4.2090 = ( DIRSYNC_EX );
        1.2.840.113556.1.4.2205 = ( UPDATE_STATS
        ); 1.2.840.113556.1.4.2204 = (
        TREE_DELETE_EX ); 1.2.840.113556.1.4.2206
        = ( SEARCH_HINTS );
        1.2.840.113556.1.4.2211 = (
        EXPECTED_ENTRY_COUNT );
        1.2.840.113556.1.4.2239 = ( POLICY_HINTS
        ); 1.2.840.113556.1.4.2255;
        1.2.840.113556.1.4.2256;
        1.2.840.113556.1.4.2309;
    supportedLDAPPolicies (20): MaxPoolThreads;
        MaxPercentDirSyncRequests;
                                    eBuffer;
                                    ns;
                                    e;

                                    :Duration;
                                    SetSize;
                                    erConn;
                                    lRange;
        MaxValRangeTransitive; ThreadMemoryLimit;
        SystemMemoryLimitPercent;
    supportedLDAPVersion (2): 3; 2;
```

BaseDN: DC=cciew,DC=local



```
DC=cciew,DC=local
    CN=Builtin,DC=cciew,DC=local
    CN=Computers,DC=cciew,DC=local
    OU=Domain Controllers,DC=cciew,DC=local
    CN=ForeignSecurityPrincipals,DC=cciew,DC=loca
    CN=Infrastructure,DC=cciew,DC=local
    CN=Keys,DC=cciew,DC=local
    CN=LostAndFound,DC=cciew,DC=local
    CN=Managed Service Accounts,DC=cciew,DC=lo
    CN=NTDS Quotas,DC=cciew,DC=local
    CN=Program Data,DC=cciew,DC=local
    CN=System,DC=cciew,DC=local
    CN=TPM Devices,DC=cciew,DC=local
    CN=Users,DC=cciew,DC=local
        CN=Administrator,CN=Users,DC=cciew,DC=l
        CN=Allowed RODC Password Replication Grou
        CN=Cert Publishers,CN=Users,DC=cciew,DC=
        CN=Cloneable Domain Controllers,CN=Users,
        CN=DefaultAccount,CN=Users,DC=cciew,DC=
        CN=Denied RODC Password Replication Grou
        CN=DnsAdmins,CN=Users,DC=cciew,DC=loc
        CN=DnsUpdateProxy,CN=Users,DC=cciew,DC
        CN=Domain Admins,CN=Users,DC=cciew,DC
        CN=Domain Computers,CN=Users,DC=cciew,
        CN=Domain Controllers,CN=Users,DC=cciew,
        CN=Domain Guests,CN=Users,DC=cciew,DC=
        CN=Domain Users,CN=Users,DC=cciew,DC=l
        CN=Enterprise Admins,CN=Users,DC=cciew,D
        CN=Enterprise Key Admins,CN=Users,DC=cci
        CN=Enterprise Read-only Domain Controllers,
        CN=Group Policy Creator Owners,CN=Users,D
        CN=Guest,CN=Users,DC=cciew,DC=local
        CN=kanu,CN=Users,DC=cciew,DC=local
        CN=Key Admins,CN=Users,DC=cciew,DC=loc
        CN=krbtgt,CN=Users,DC=cciew,DC=local
```

```
    adminCount: 1;
    badPasswordTime: 0 (never);
    badPwdCount: 0;
    cn: vk1;
    codePage: 0;
    countryCode: 0;
    displayName: vk1;
    distinguishedName: CN=vk1,CN=Users,DC=cciew,DC=local;
    dSCorePropagationData (2): 29-09-2021 15:16:40 India Standard Time; 0x0 = (  );
    givenName: vk1;
    instanceType: 0x4 = ( WRITE );
    lastLogoff: 0 (never);
    lastLogon: 0 (never);
    logonCount: 0;
    memberOf (4): CN=Domain Admins,CN=Users,DC=cciew,DC=local; CN=Enterprise Admins,CN=Users,DC=cciew,DC=local; CN=Schema
        Admins,CN=Users,DC=cciew,DC=local; CN=Administrators,CN=Builtin,DC=cciew,DC=local;
    name: vk1;
    objectCategory: CN=Person,CN=Schema,CN=Configuration,DC=cciew,DC=local;
    objectClass (4): top; person; organizationalPerson; user;
    objectGUID: 1814f794-025e-4378-abed-66ff78a4a4d3;
    objectSid: S-1-5-21-1375146846-274930181-3003521951-1120;
    primaryGroupID: 513 = ( GROUP_RID_USERS );
    pwdLastSet: 27-09-2021 22:56:11 India Standard Time;
    sAMAccountName: vkokila;
    sAMAccountType: 805306368 = ( NORMAL_USER_ACCOUNT );
    userAccountControl: 0x10200 = ( NORMAL_ACCOUNT | DONT_EXPIRE_PASSWD );
    userPassword: Cisco123;
    userPrincipalName: vk1@cciew.local;
    uSNChanged: 160181;
    uSNCreated: 94284;
    whenChanged: 29-09-2021 15:16:40 India Standard Time;
    whenCreated: 25-12-2020 16:25:53 India Standard Time;

-----------
Expanding base 'CN=Users,DC=cciew,DC=local'...
Getting 1 entries:
Dn: CN=Users,DC=cciew,DC=local
    cn: Users;
    description: Default container for upgraded user accounts;
    distinguishedName: CN=Users,DC=cciew,DC=local;
    dSCorePropagationData (2): 29-09-2019 01:09:51 India Standard Time; 0x1 = ( NEW_SD );
    instanceType: 0x4 = ( WRITE );
    isCriticalSystemObject: TRUE;
    name: Users;
    objectCategory: CN=Container,CN=Schema,CN=Configuration,DC=cciew,DC=local;
```



```
CN=TPM Devices,DC=cciew,DC=local
CN=Users,DC=cciew,DC=local
    CN=Administrator,CN=Users,DC=cciew,DC=l
    CN=Allowed RODC Password Replication Grou
    CN=Cert Publishers,CN=Users,DC=cciew,DC=
    CN=Cloneable Domain Controllers,CN=Users,
    CN=DefaultAccount,CN=Users,DC=cciew,DC=
    CN=Denied RODC Password Replication Grou
    CN=DnsAdmins,CN=Users,DC=cciew,DC=loc
    CN=DnsUpdateProxy,CN=Users,DC=cciew,DC
    CN=Domain Admins,CN=Users,DC=cciew,DC
    CN=Domain Computers,CN=Users,DC=cciew,
    CN=Domain Controllers,CN=Users,DC=cciew,
    CN=Domain Guests,CN=Users,DC=cciew,DC=
    CN=Domain Users,CN=Users,DC=cciew,DC=l
    CN=Enterprise Admins,CN=Users,DC=cciew,D
    CN=Enterprise Key Admins,CN=Users,DC=cci
    CN=Enterprise Read-only Domain Controllers,
    CN=Group Policy Creator Owners,CN=Users,D
    CN=Guest,CN=Users,DC=cciew,DC=local
    CN=kanu,CN=Users,DC=cciew,DC=local
    CN=Key Admins,CN=Users,DC=cciew,DC=loc
    CN=krbtgt,CN=Users,DC=cciew,DC=local
    CN=Protected Users,CN=Users,DC=cciew,DC=
    CN=RAS and IAS Servers,CN=Users,DC=cciew,
    CN=Read-only Domain Controllers,CN=Users,
    CN=Schema Admins,CN=Users,DC=cciew,DC
    CN=sony s,CN=Users,DC=cciew,DC=local
    CN=tejas,CN=Users,DC=cciew,DC=local
    CN=test,CN=Users,DC=cciew,DC=local
    CN=test123,CN=Users,DC=cciew,DC=local
    CN=vk,CN=Users,DC=cciew,DC=local
    CN=vk1,CN=Users,DC=cciew,DC=local
        No children
    CN=Yogesh G.,CN=Users,DC=cciew,DC=local
```

```
    showInAdvancedViewOnly: FALSE;
    systemFlags: 0x8C000000 = ( DISALLOW_DELETE | DOMAIN_DISALLOW_REI
    uSNChanged: 5888;
    uSNCreated: 5888;
    whenChanged: 29-09-2019 01:08:06 India Standard Time;
    whenCreated: 29-09-2019 01:08:06 India Standard Time;

-----------
Expanding base 'CN=vk1,CN=Users,DC=cciew,DC=local'...
Getting 1 entries:
Dn: CN=vk1,CN=Users,DC=cciew,DC=local
    accountExpires: 9223372036854775807 (never);
    adminCount: 1;
    badPasswordTime: 0 (never);
    badPwdCount: 0;
    cn: vk1;
    codePage: 0;
    countryCode: 0;
    displayName: vk1;
    distinguishedName: CN=vk1,CN=Users,DC=cciew,DC=local;
    dSCorePropagationData (2): 29-09-2021 15:16:40 India Standard Time; 0x0 =
    givenName: vk1;
    instanceType: 0x4 = ( WRITE );
    lastLogoff: 0 (never);
    lastLogon: 0 (never);
    logonCount: 0;
    memberOf (4): CN=Domain Admins,CN=Users,DC=cciew,DC=local; CN=Enterp
        Admins,CN=Users,DC=cciew,DC=local; CN=Administrators,CN=Builtin,DC=
    name: vk1;
    objectCategory: CN=Person,CN=Schema,CN=Configuration,DC=cciew,DC=loc
    objectClass (4): top; person; organizationalPerson; user;
    objectGUID: 1814f794-025e-4378-abed-66ff78a4a4d3;
    objectSid: S-1-5-21-1375146846-274930181-3003521951-1120;
    primaryGroupID: 513 = ( GROUP_RID_USERS );
    pwdLastSet: 27-09-2021 22:56:11 India Standard Time;
    sAMAccountName: vkokila;
    sAMAccountType: 805306368 = ( NORMAL_USER_ACCOUNT );
    userAccountControl: 0x10200 = ( NORMAL_ACCOUNT | DONT_EXPIRE_PASS
    userPassword: Cisco123;
    userPrincipalName: vk1@cciew.local;
    uSNChanged: 160181;
    uSNCreated: 94284;
    whenChanged: 29-09-2021 15:16:40 India Standard Time;
    whenCreated: 25-12-2020 16:25:53 India Standard Time;
```

4. Comprobar las estadísticas del servidor y el atributo MAP

```
C9800-40-K9#show ldap server all

Server Information for ldap

================================

Server name              :ldap

Server Address           :10.106.38.195

Server listening Port    :389

Bind Root-dn             :vk1

Server mode              :Non-Secure

Cipher Suite             :0x00

Authentication Seq       :Search first. Then Bind/Compare password next

Authentication Procedure:Bind with user password
```

```
Base-Dn                 :CN=users,DC=cciew,DC=local

Object Class            :Person

Attribute map           :VK

Request timeout         :30

Deadtime in Mins        :0

State                   :ALIVE

---------------------------------

* LDAP STATISTICS *

Total messages  [Sent:2, Received:3]

Response delay(ms) [Average:2, Maximum:2]

Total search    [Request:1, ResultEntry:1, ResultDone:1]

Total bind      [Request:1, Response:1]

Total extended  [Request:0, Response:0]

Total compare   [Request:0, Response:0]

Search [Success:1, Failures:0]

Bind   [Success:1, Failures:0]

Missing attrs in Entry [0]

Connection   [Closes:0, Aborts:0, Fails:0, Timeouts:0]

----------------------------------

No. of active connections   :0

---------------------------------
```

Referencias

[Ejemplo de configuración de EAP local en 9800]

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