Catalyst 9800 WLC met LDAP-verificatie voor 802.1X en Web-auth configureren

Inhoud

Inleiding

Dit document beschrijft hoe u een Catalyst 9800 kunt configureren om clients met een LDAP-server te verifiëren als de database voor gebruikersreferenties.

Voorwaarden

Vereisten

Cisco raadt kennis van de volgende onderwerpen aan:

- Microsoft Windows-servers
- Active Directory of een andere LDAP-database

Gebruikte componenten

C9800 EAC op C9100 access point (AP) dat Cisco IOS®-XE versie 17.3.2a draait

Microsoft Active Directory (AD)-server met QNAP Network Access Storage (NAS) die fungeert als LDAP-database

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u zorgen dat u de potentiële impact van elke opdracht begrijpt.

LDAP configureren met een Webauth-SSID

Netwerkdiagram

Dit artikel is gebaseerd op een zeer eenvoudige opzet:

Een EWC AP 9115 met IP 192.168.1.15

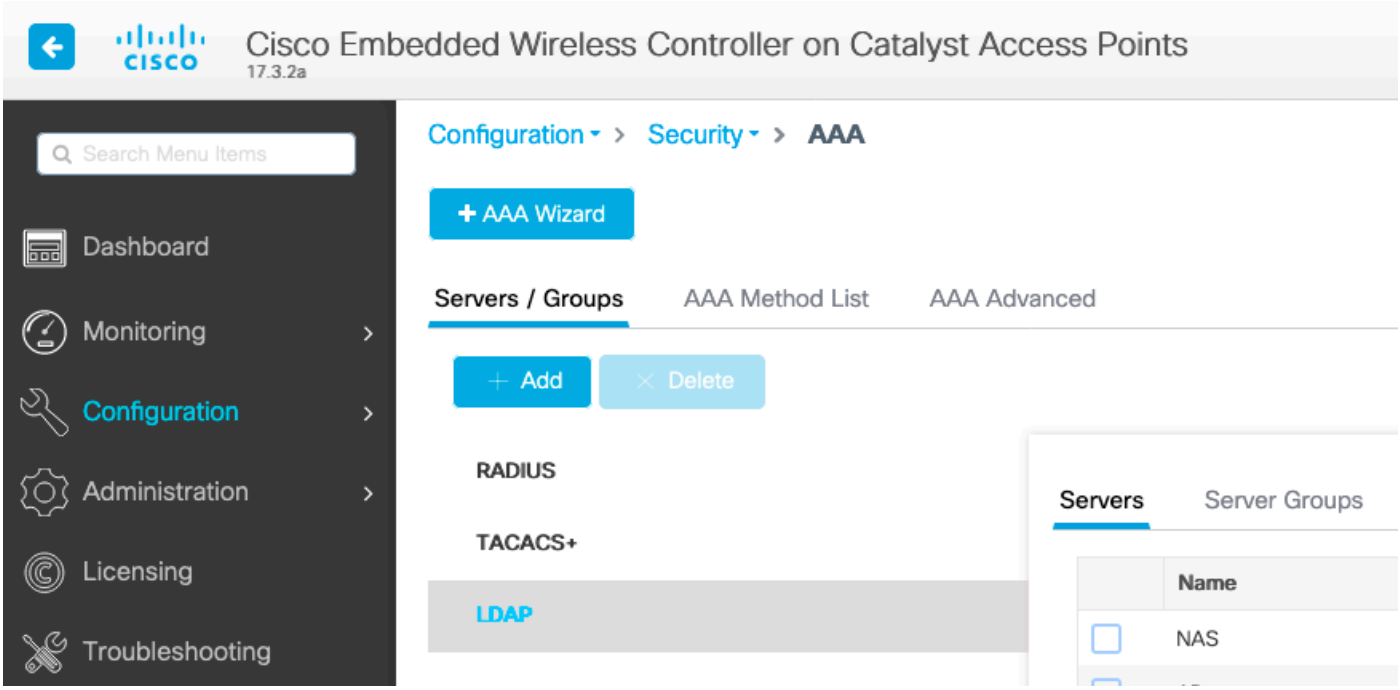
Een Active Directory-server met IP 192.168.1.192

Een client die verbinding maakt met het interne toegangspunt van de EWC

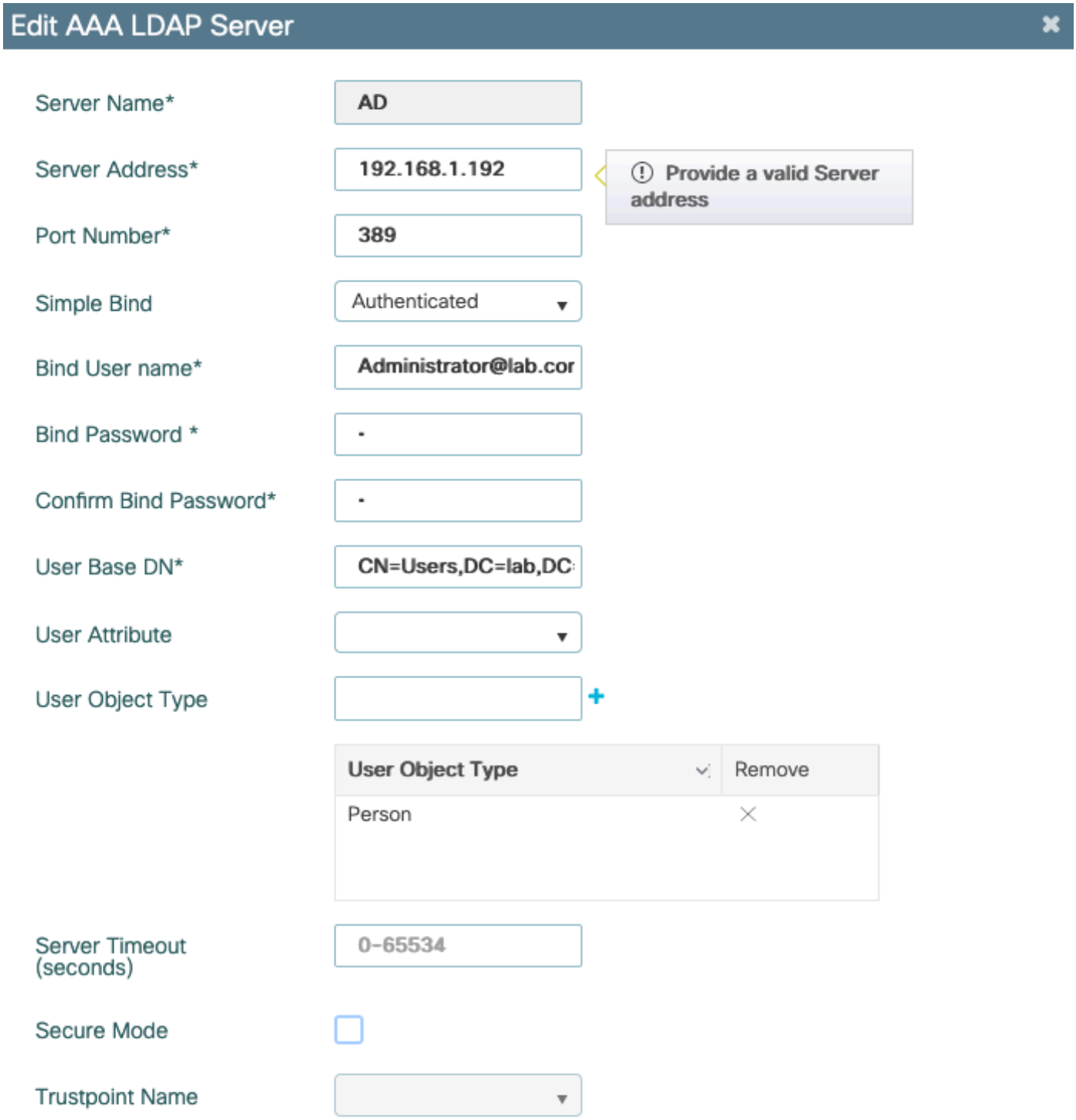
De controller configureren

Stap 1. De LDAP-server configureren

Navigeer naar **Configuration > Security > AAA> servers/groepen > LDAP** en klik op **+ Add**



Kies een naam voor uw LDAP-server en vul de gegevens in. Voor uitleg over elk veld raadpleegt u de sectie "LDAP-servergegevens begrijpen" van dit document.



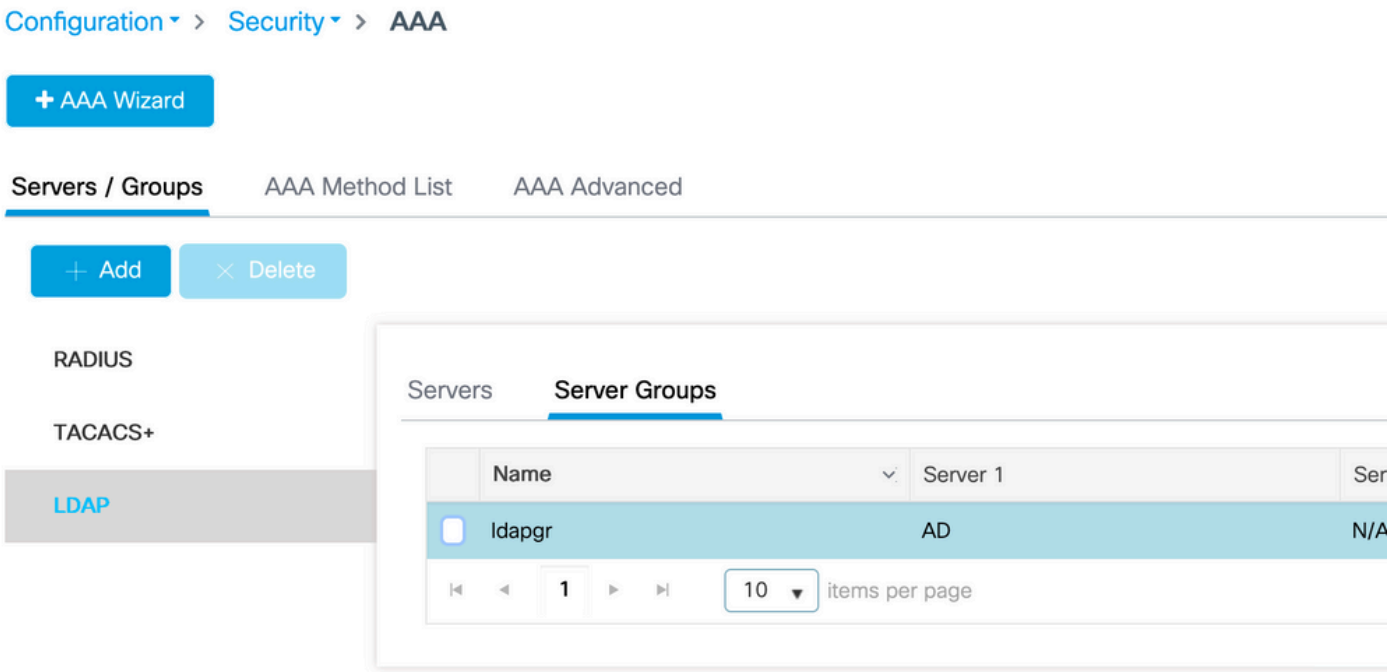
Opslaan door op **Bijwerken** te klikken **en op apparaat toe te passen**

CLI-opdrachten:

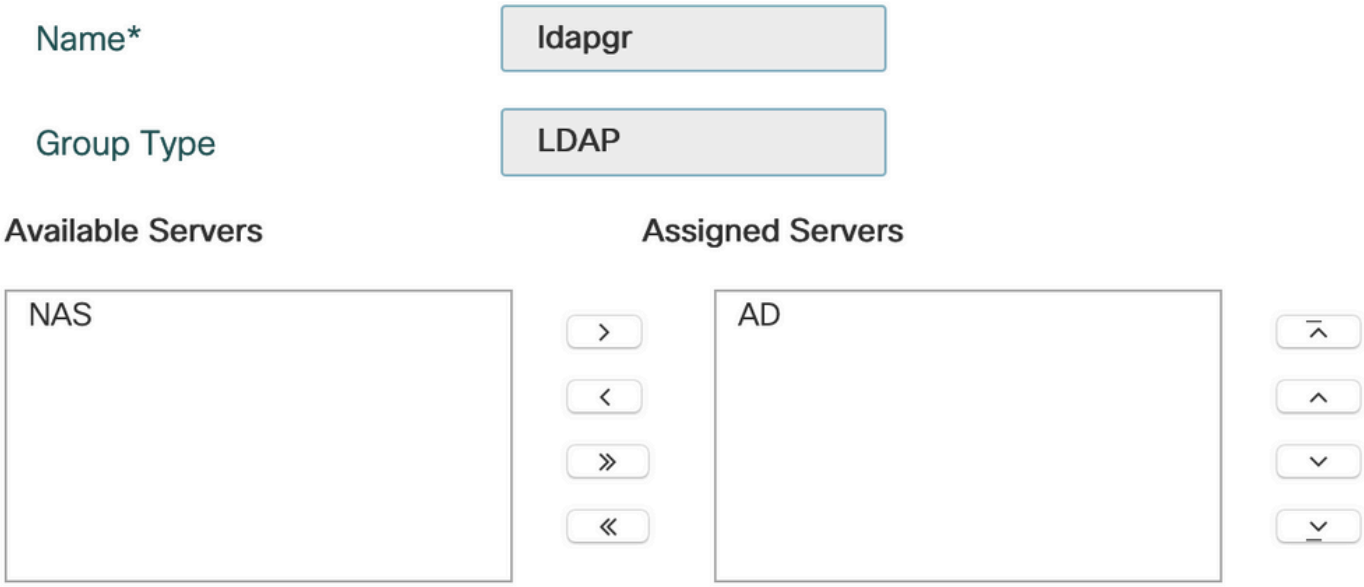
```
ldap server AD ipv4 192.168.1.192 bind authenticate root-dn Administrator@lab.com password 6
WCGYHKTDQPV]DeaHLSPF_GZ[E_MNi_AAB base-dn CN=Users,DC=lab,DC=com search-filter user-object-type
Person
```

Stap 2. Een LDAP-servergroep configureren.

Ga naar **Configuratie > Beveiliging > AAA > Servers/groepen > LDAP > Servergroepen** en klik op **+ADD**



Voer een naam in en voeg de LDAP-server toe die u in de vorige stap hebt geconfigureerd.



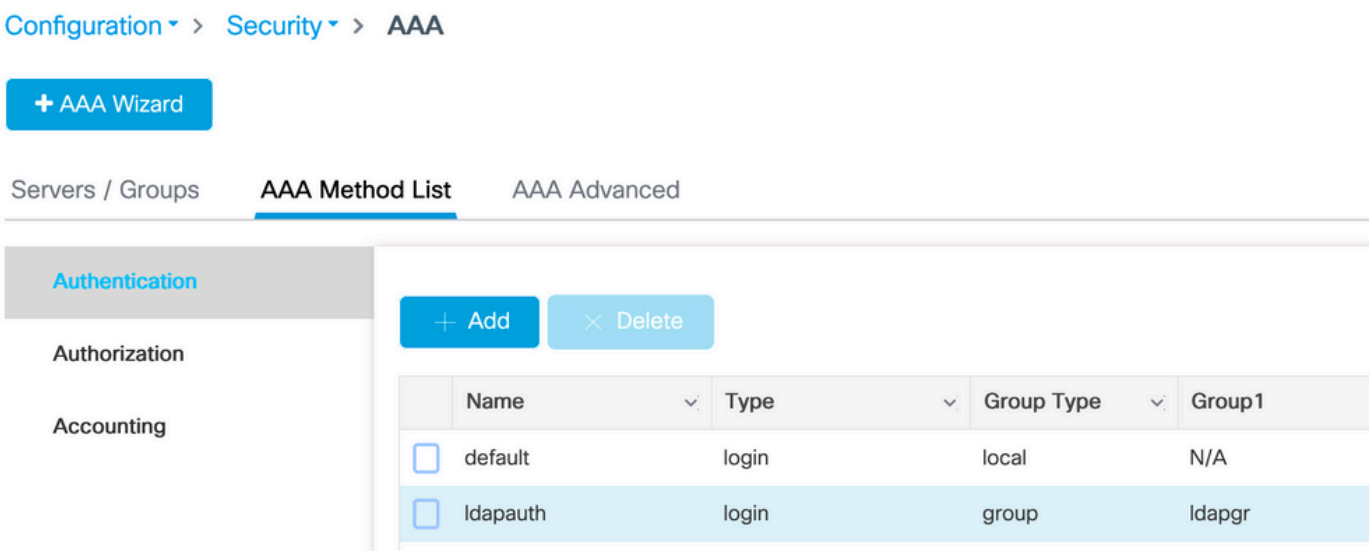
Klik op **Bijwerken en** klik op **Opslaan**.

CLI-opdrachten:

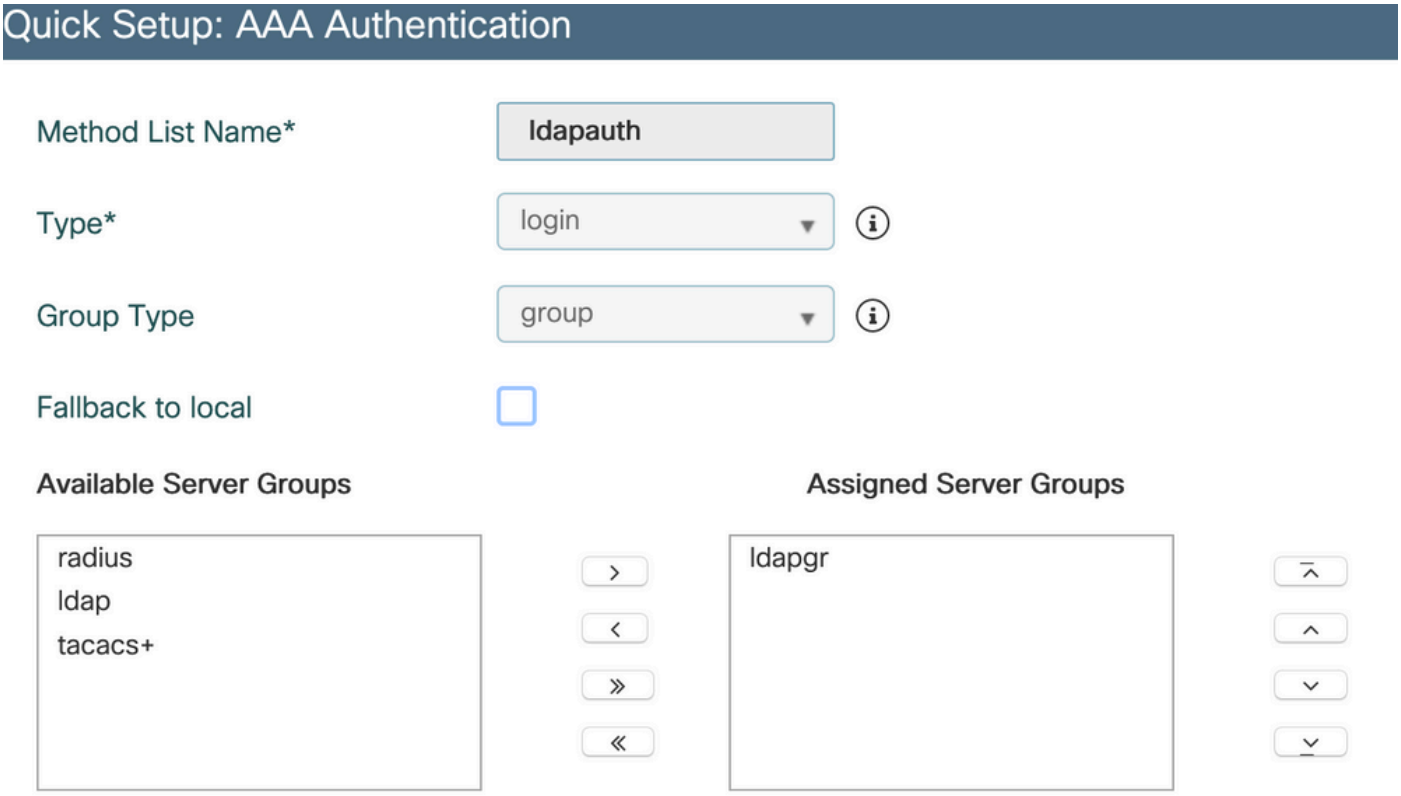
```
aaa group server ldap ldapgr server AD
```

Stap 3. AAA-verificatiemethode configureren

Navigeer naar **Configuratie > Beveiliging > AAA > AAA-methodelijst > Verificatie** en klik op **+Add**



Voer een naam in, kies het **inlogtype** en wijs de eerder ingestelde LDAP-servergroep aan.

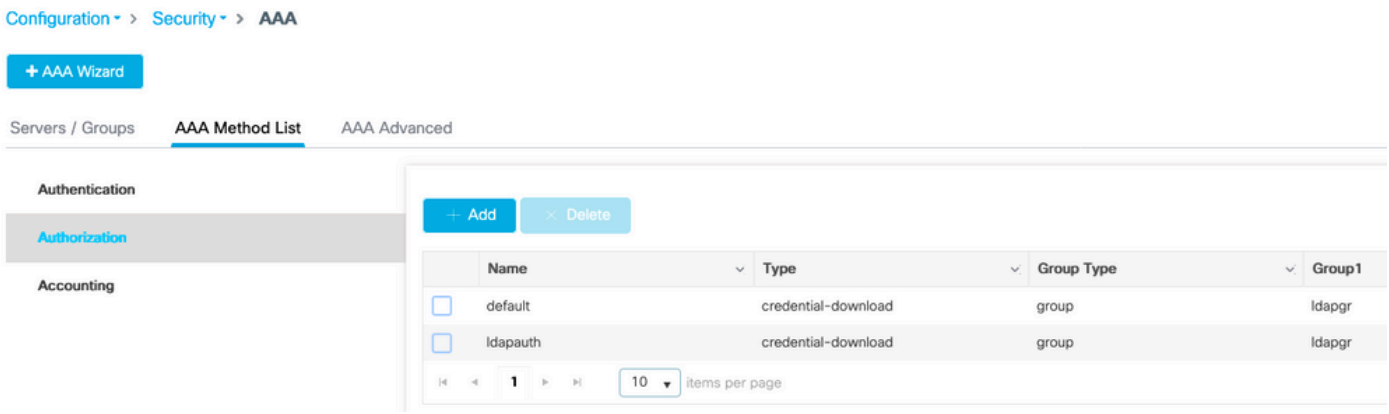


CLI-opdrachten:

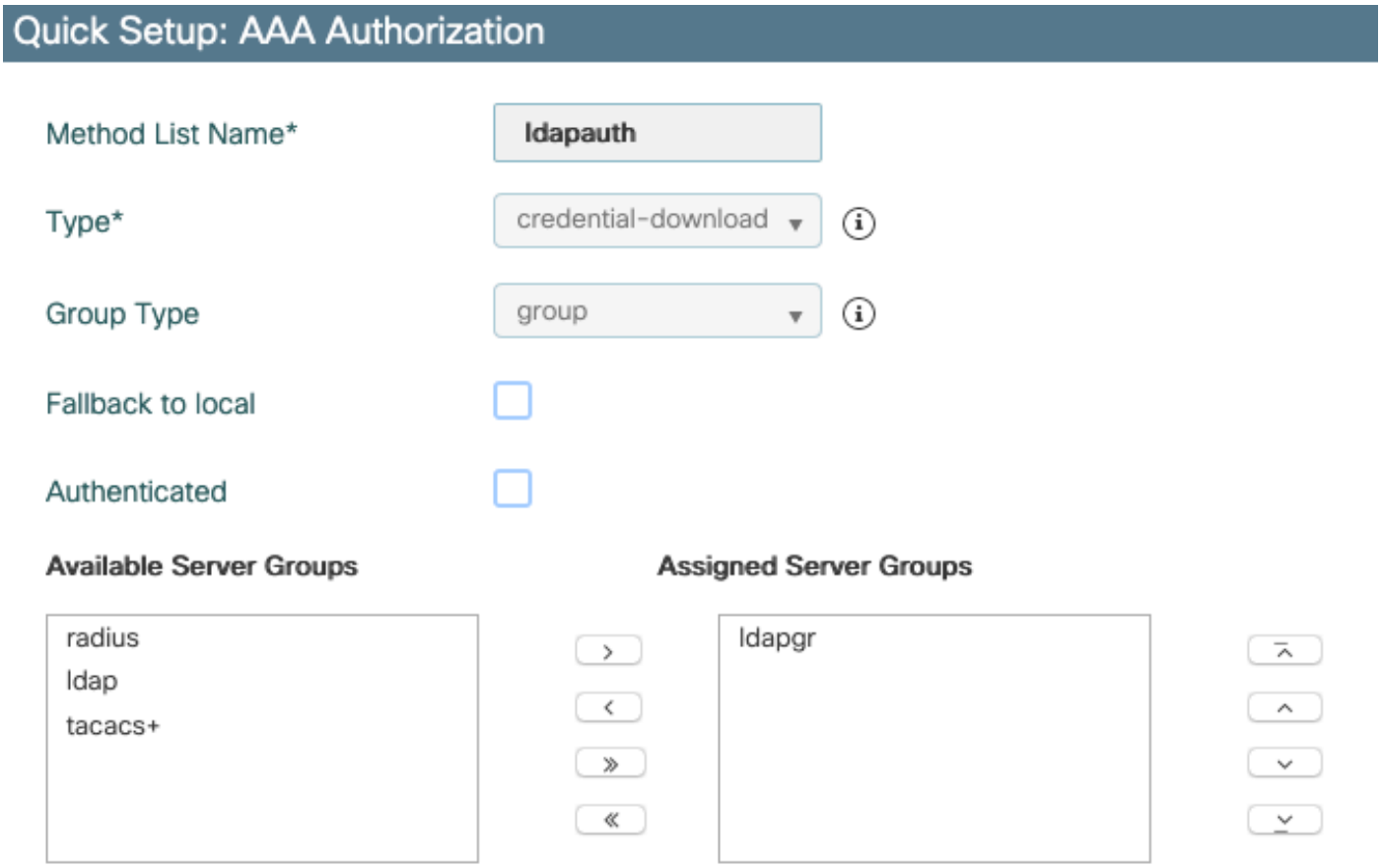
```
aaa authentication login ldapauth group ldapgr
```

Stap 4. Een AAA-autorisatiemethode configureren

Navigeren naar **Configuratie > Beveiliging > AAA > AAA-methodelijst > Autorisatie** en klik op **+Add**



Maak een credential-download type regel van de naam van uw keus en wijs het aan de eerder gemaakte LDAP servergroep



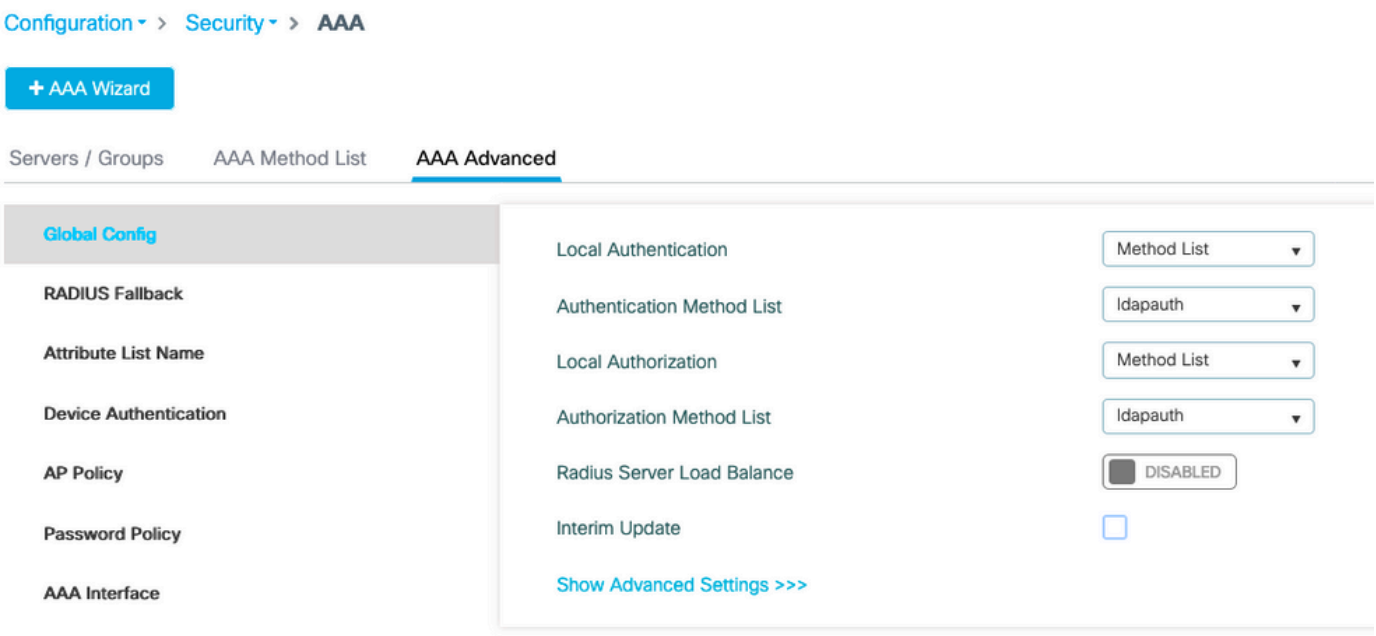
CLI-opdrachten:

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

Stap 5. Lokale verificatie configureren

Naar **configuratie** navigeren **> Beveiliging > AAA > Geavanceerd AAA > Globale configuratie**

Stel lokale verificatie en lokale autorisatie in op **methodelijst** en kies de verificatie- en autorisatiemethode die eerder is geconfigureerd.

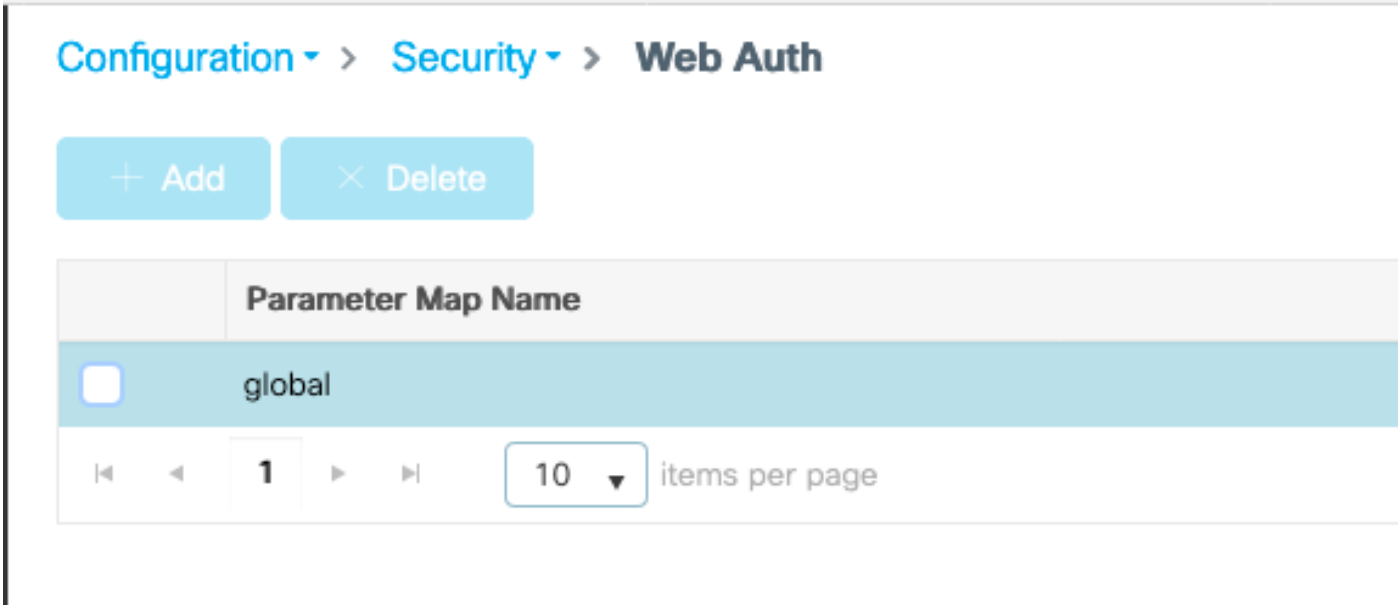


CLI-opdrachten:

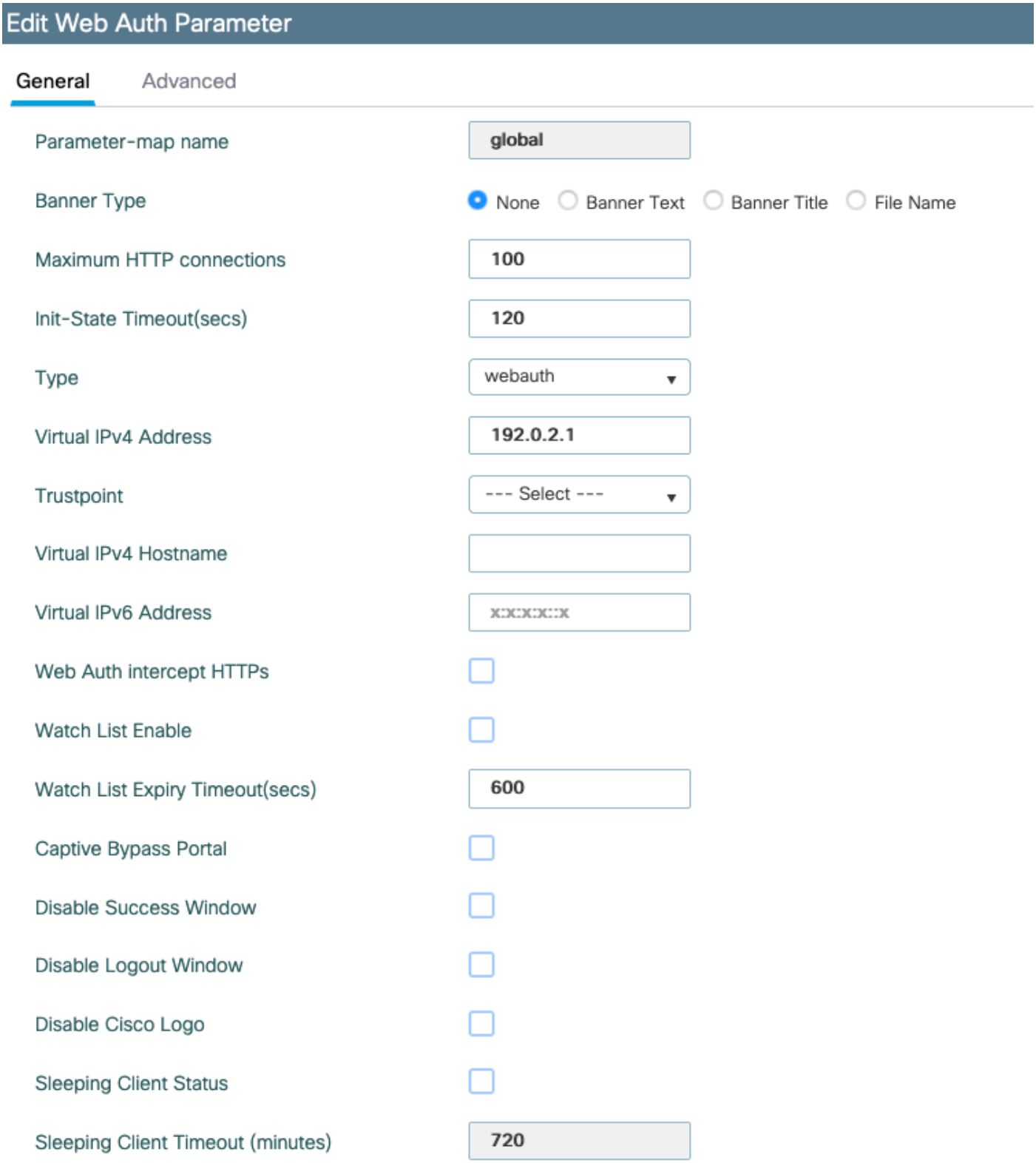
```
aaa local authentication ldapauth authorization ldapauth
```

Stap 6. Configureer de webauth parameter-map

Navigeer naar **Configuration > Security > Web Auth** en bewerk de **globale** kaart



Zorg ervoor dat u een virtueel IPv4-adres configureert zoals 192.0.2.1 (dat specifieke IP/subnettoegang is gereserveerd voor niet-routeerbare virtuele IP).



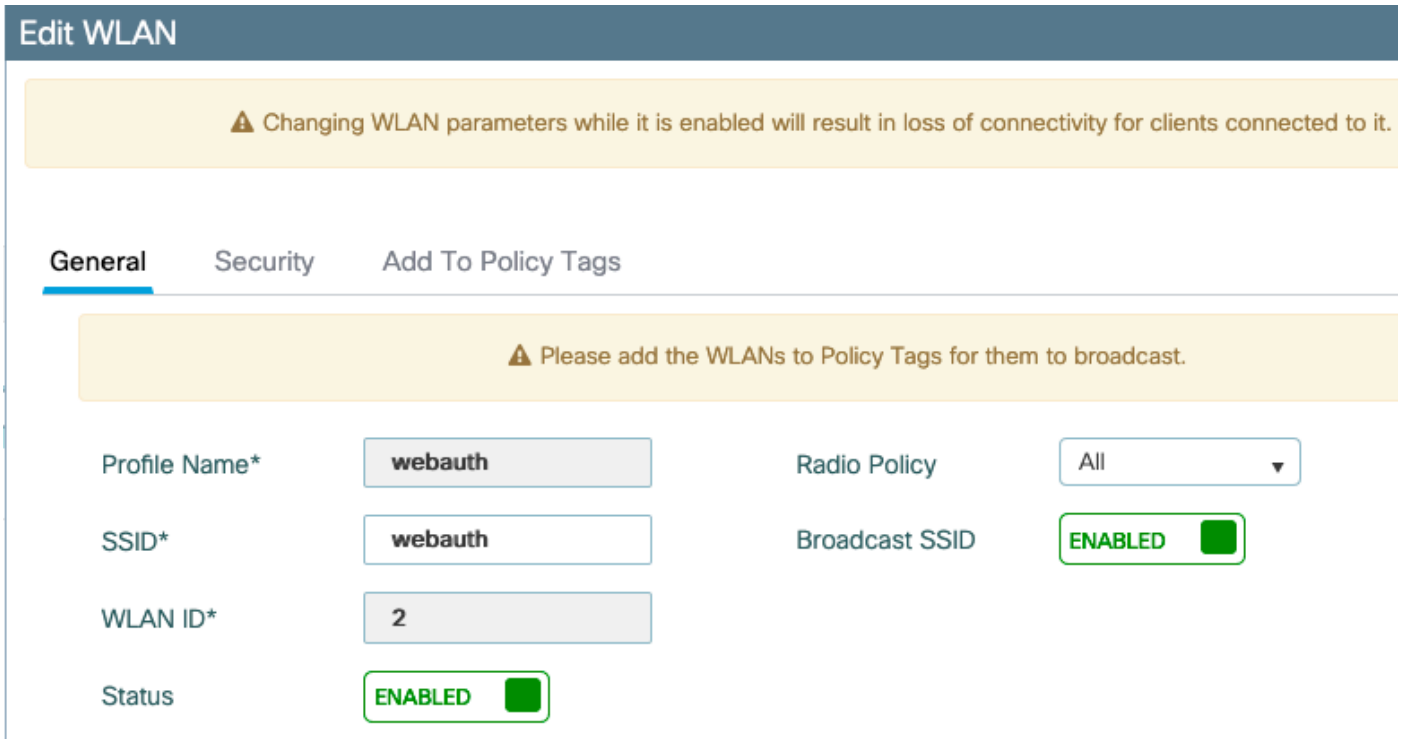
Klik op **Toepassen** om op te slaan.

CLI-opdrachten:

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

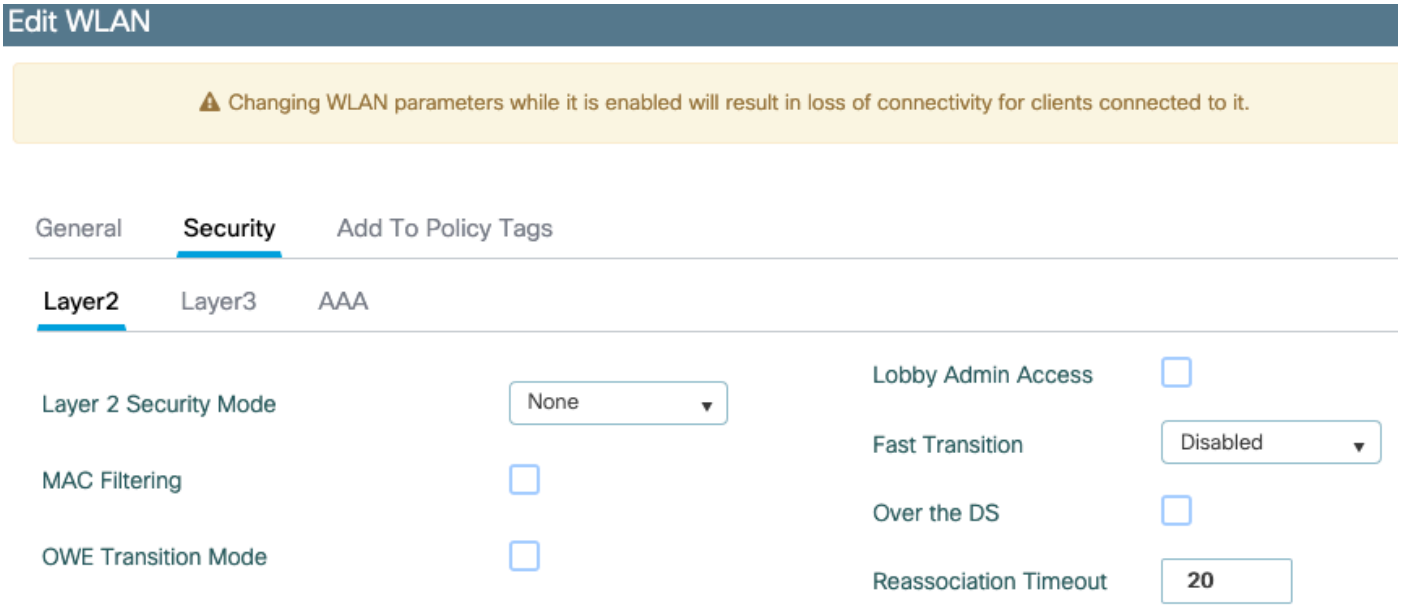
Stap 7. Een webauth configureren WLAN

Navigeer naar **Configuration > WLAN's** en klik op **+Add**

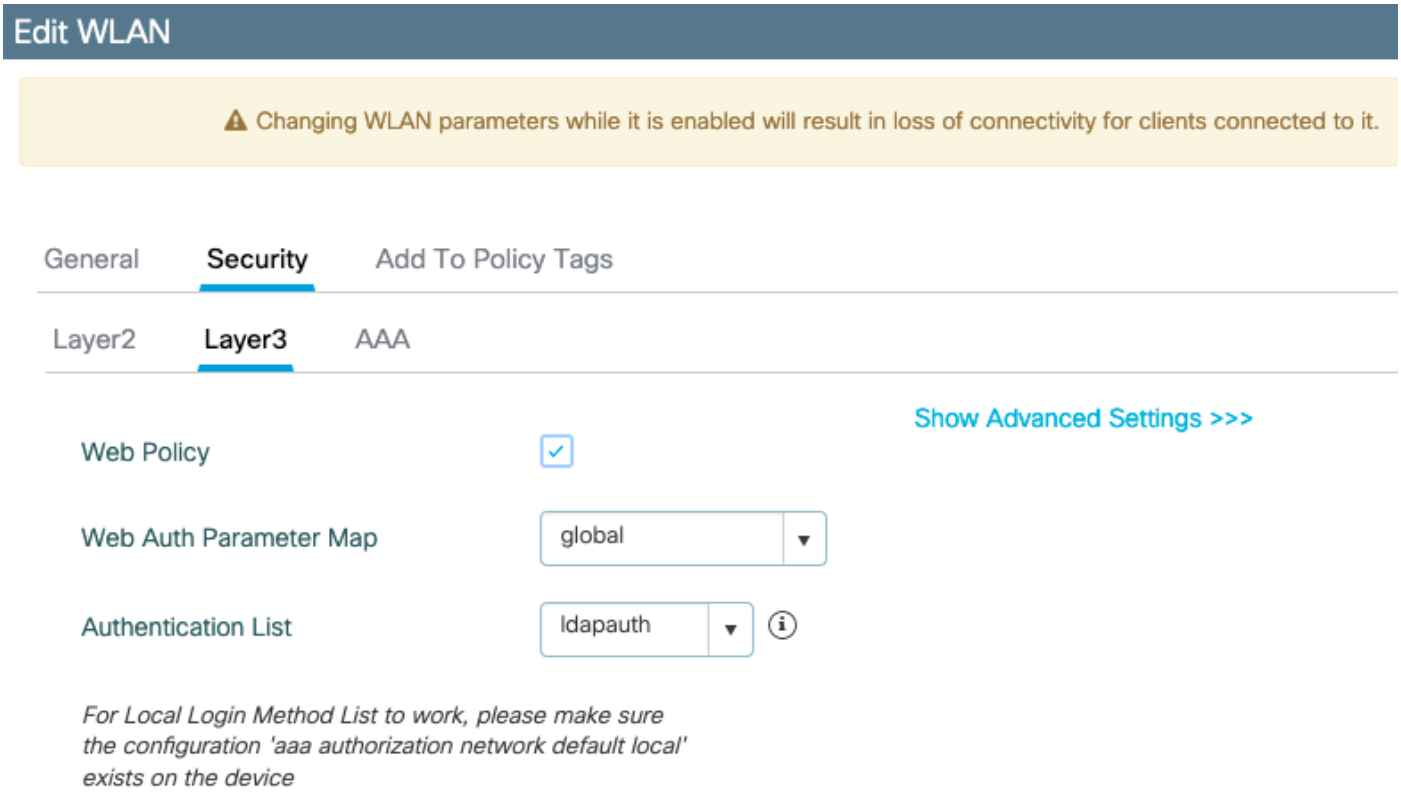


Configureer de naam, zorg ervoor dat deze in de ingeschakelde staat staat staat staat en ga vervolgens naar het tabblad **Beveiliging**.

Zorg er in **Layer 2**-subtabblad voor dat er geen beveiliging is en dat Fast Transition is uitgeschakeld.



In het tabblad **Layer 3**, **webbeleid** inschakelen, de parameterkaart instellen op **globaal** en de verificatielijst instellen op de eerder ingestelde aaa-inlogmethode.



Opslaan door op **Toepassen** te klikken

CLI-opdrachten:

```
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
```

Stap 8. Controleer of de SSID wordt uitgezonden

Navigeer naar **Configuration > Tags** en zorg ervoor dat de SSID is opgenomen in het beleidsprofiel dat momenteel wordt gebruikt door de SSID (de standaard-beleidstag voor een nieuwe configuratie als u nog geen tags hebt geconfigureerd). Standaard worden nieuwe SSID's die u maakt niet uitgezonden door de standaard-policy-tag totdat u ze handmatig opneemt.

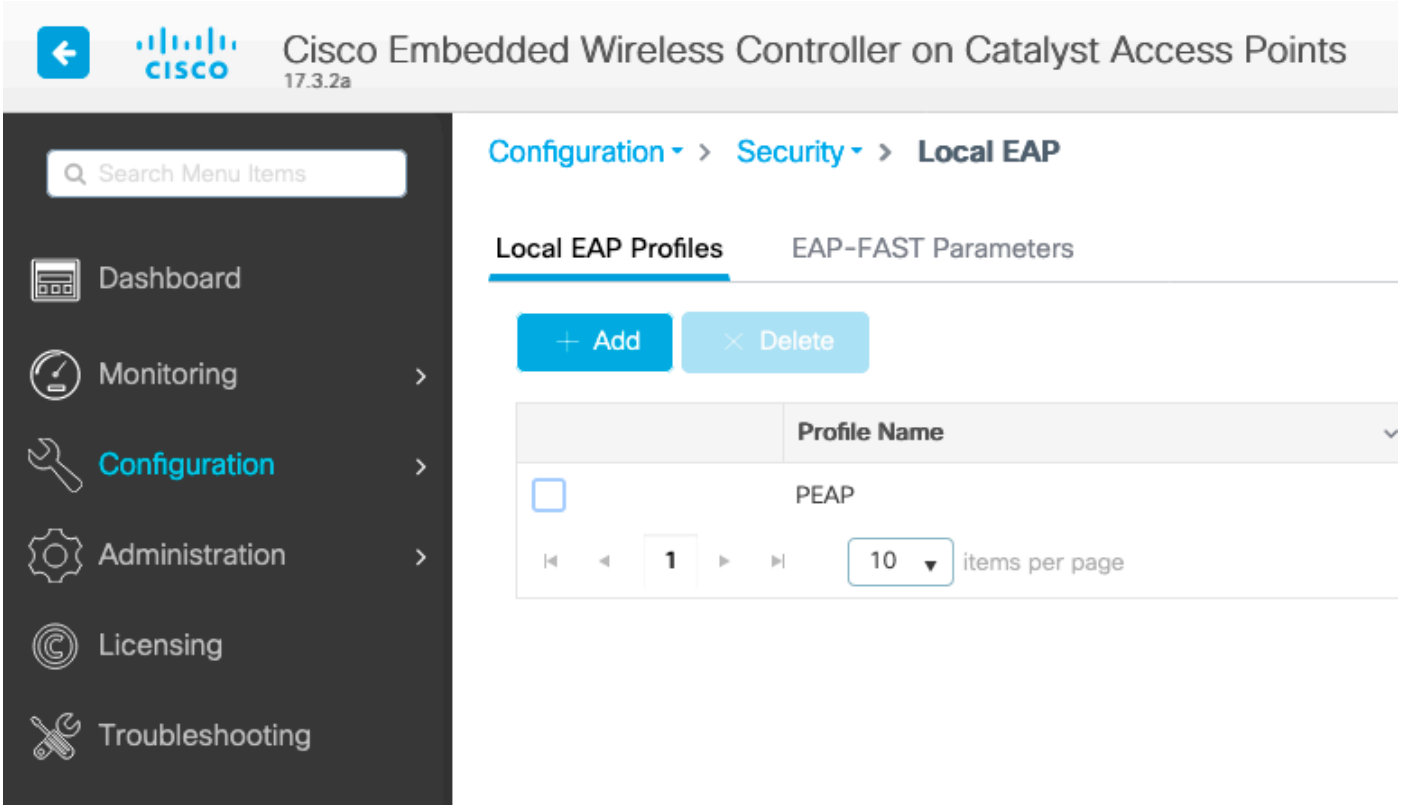
Dit artikel behandelt niet de configuratie van beleidsprofielen en veronderstelt u met dat deel van de configuratie vertrouwd bent.

LDAP configureren met een dot1x SSID (met behulp van Local EAP)

Voor het configureren van LDAP voor een 802.1X SSID op de 9800 is doorgaans ook het configureren van Local EAP vereist. Als u RADIUS zou gebruiken, dan zou het uw RADIUS-server zijn om een verbinding te maken met de LDAP-database en dat is buiten het bereik van dit artikel. Alvorens deze configuratie te proberen, is het raadzaam om Local EAP te configureren met een lokale gebruiker die eerst op de WLC is geconfigureerd, een configuratievoorbeeld wordt gegeven in de sectie referenties aan het eind van dit artikel. Als u klaar bent, kunt u proberen de gebruikersdatabase naar LDAP te verplaatsen.

Stap 1. Een lokaal EAP-profiel configureren

Navigeer naar **Configuratie > Lokale EAP** en klik op **+Add**



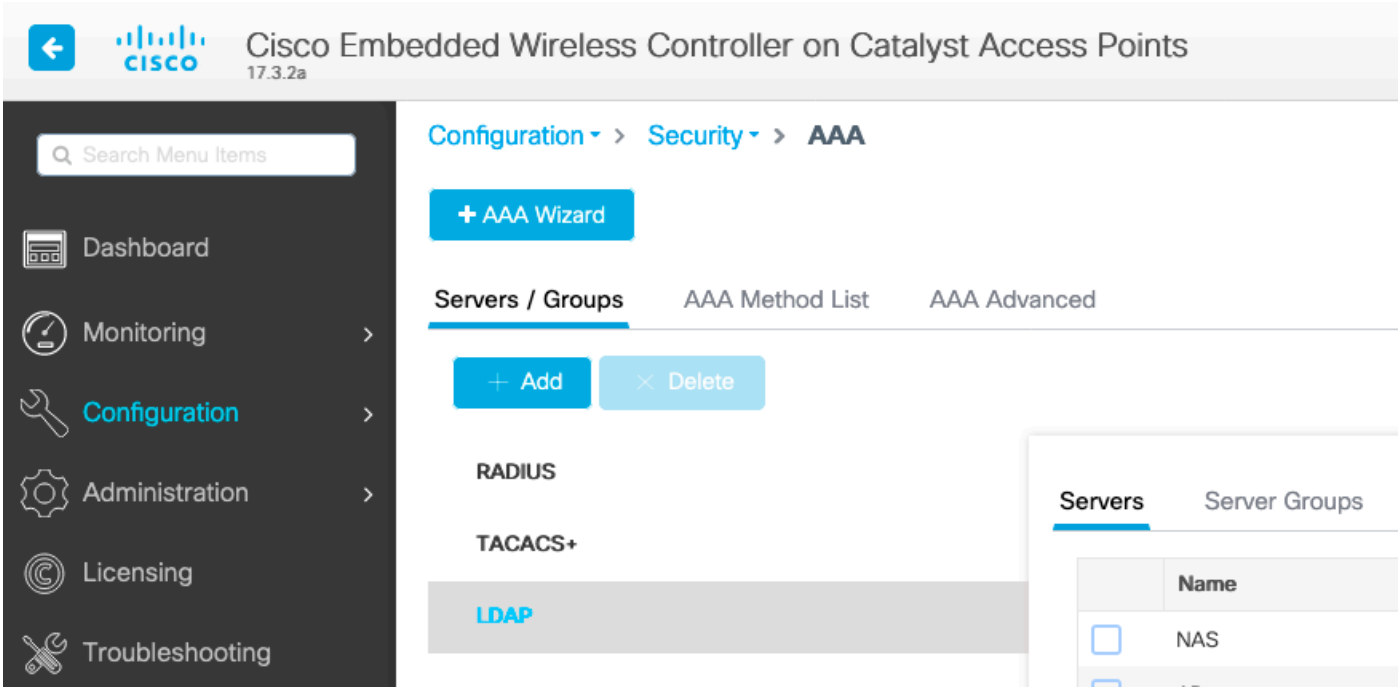
Kies een naam voor uw profiel. Schakel ten minste PEAP in en kies een Trustpoint Name. Standaard heeft uw WLC alleen zelf-ondertekende certificaten, dus het maakt niet echt uit welke u kiest (meestal TP-self-signed-xxxx is de beste voor dit doel), maar als nieuwe smartphones OS versies vertrouwen minder en minder zelf-ondertekende certificaten, overwegen het installeren van een betrouwbaar publiek ondertekend certificaat.

CLI-opdrachten:

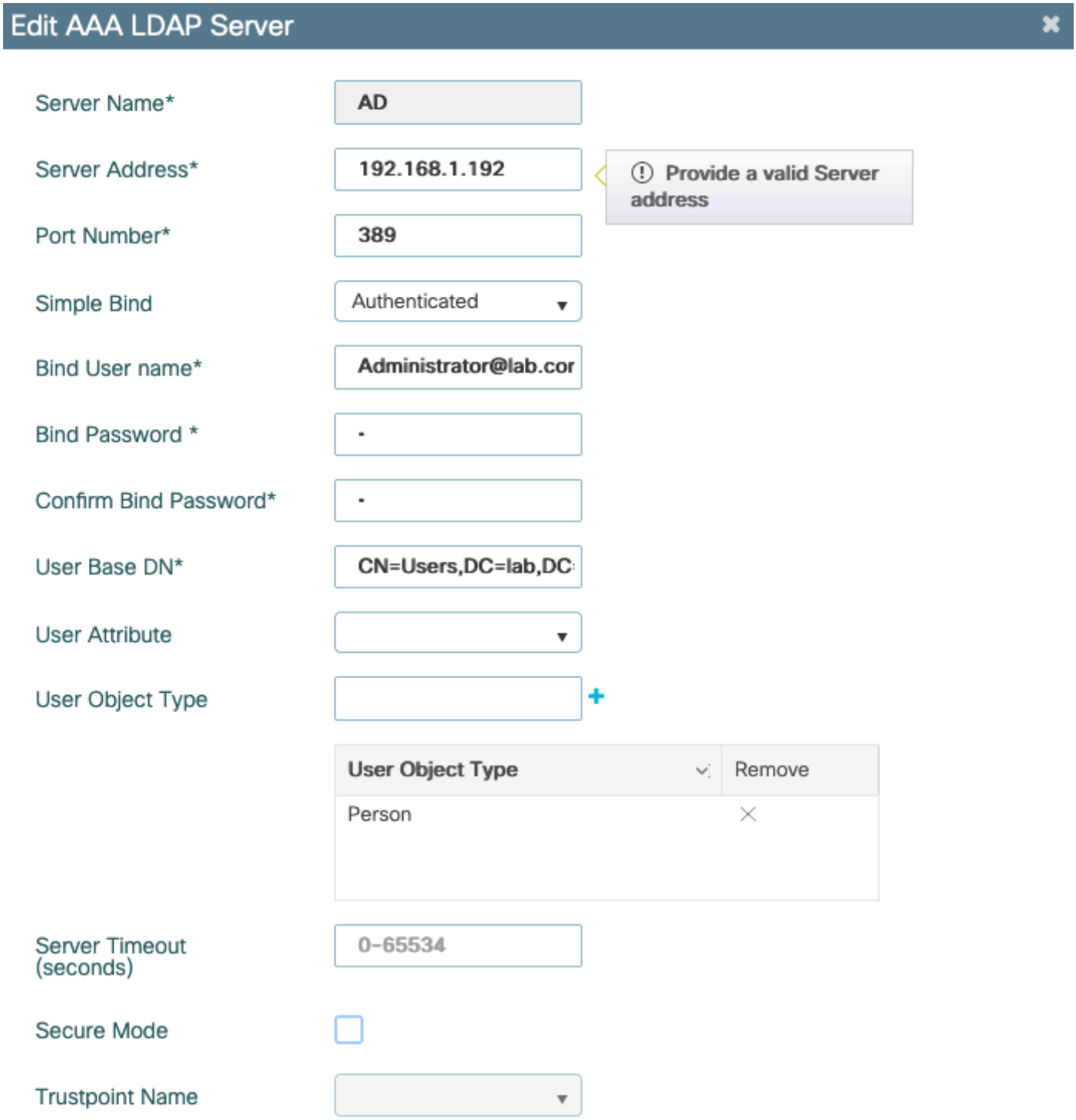
```
eap profile PEAP method peap pki-trustpoint TP-self-signed-3059261382
```

Stap 2. De LDAP-server configureren

Navigeer naar **Configuration > Security > AAA> servers/groepen > LDAP** en klik op **+ Add**



Kies een naam voor uw LDAP-server en vul de gegevens in. Voor uitleg over elk veld raadpleegt u de sectie "LDAP-servergegevens begrijpen" van dit document.

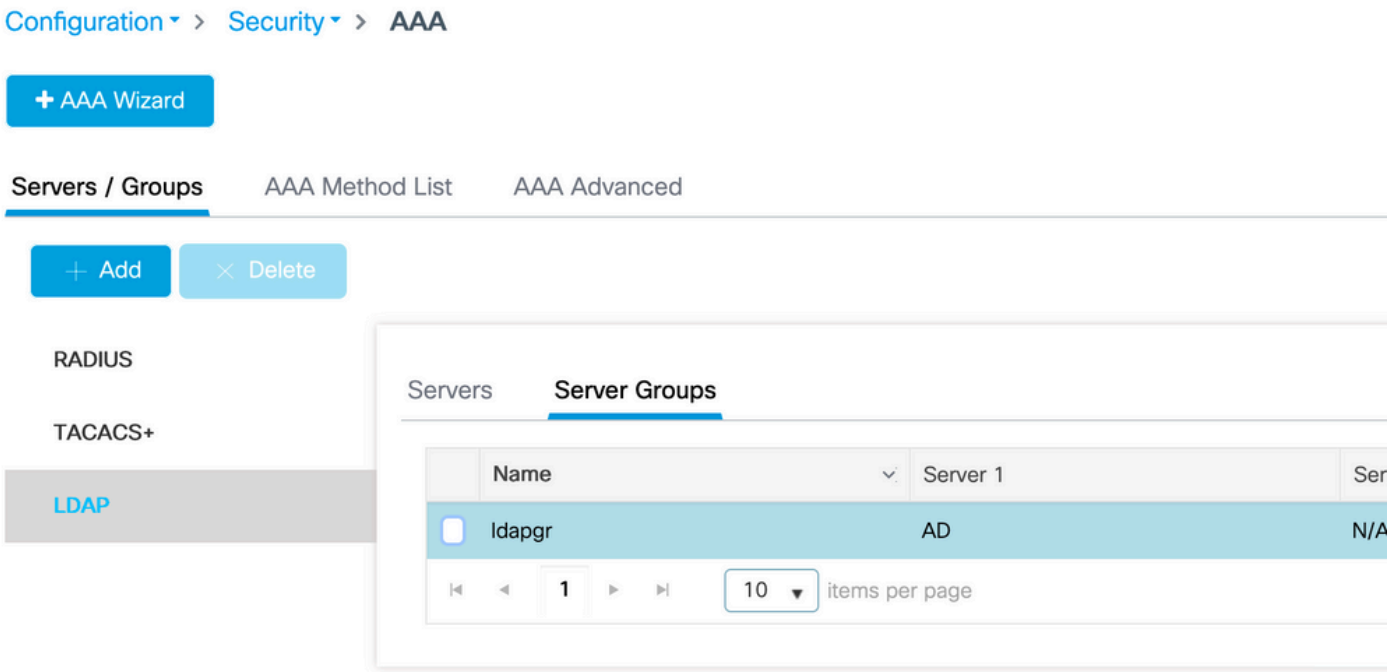


Opslaan door op **Bijwerken** te klikken **en op apparaat toe te passen**

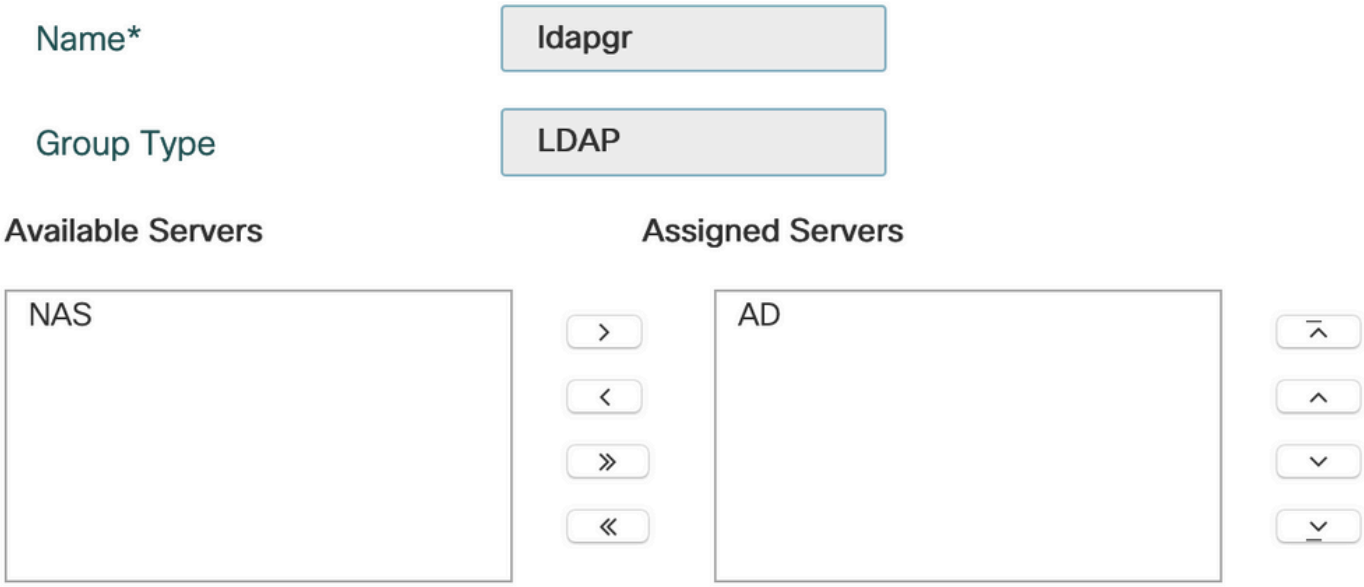
```
ldap server AD ipv4 192.168.1.192 bind authenticate root-dn Administrator@lab.com password 6
WCGYHKTDQPV]DeaHLSPF_GZ[E_MNi_AAB base-dn CN=Users,DC=lab,DC=com search-filter user-object-type
Person
```

Stap 3. Een LDAP-servergroep configureren.

Ga naar **Configuratie > Beveiliging > AAA > Servers/groepen > LDAP > Servergroepen** en klik op **+ADD**



Voer een naam in en voeg de LDAP-server toe die u in de vorige stap hebt geconfigureerd.



Klik op **Bijwerken en** klik op **Opslaan**.

CLI-opdrachten:

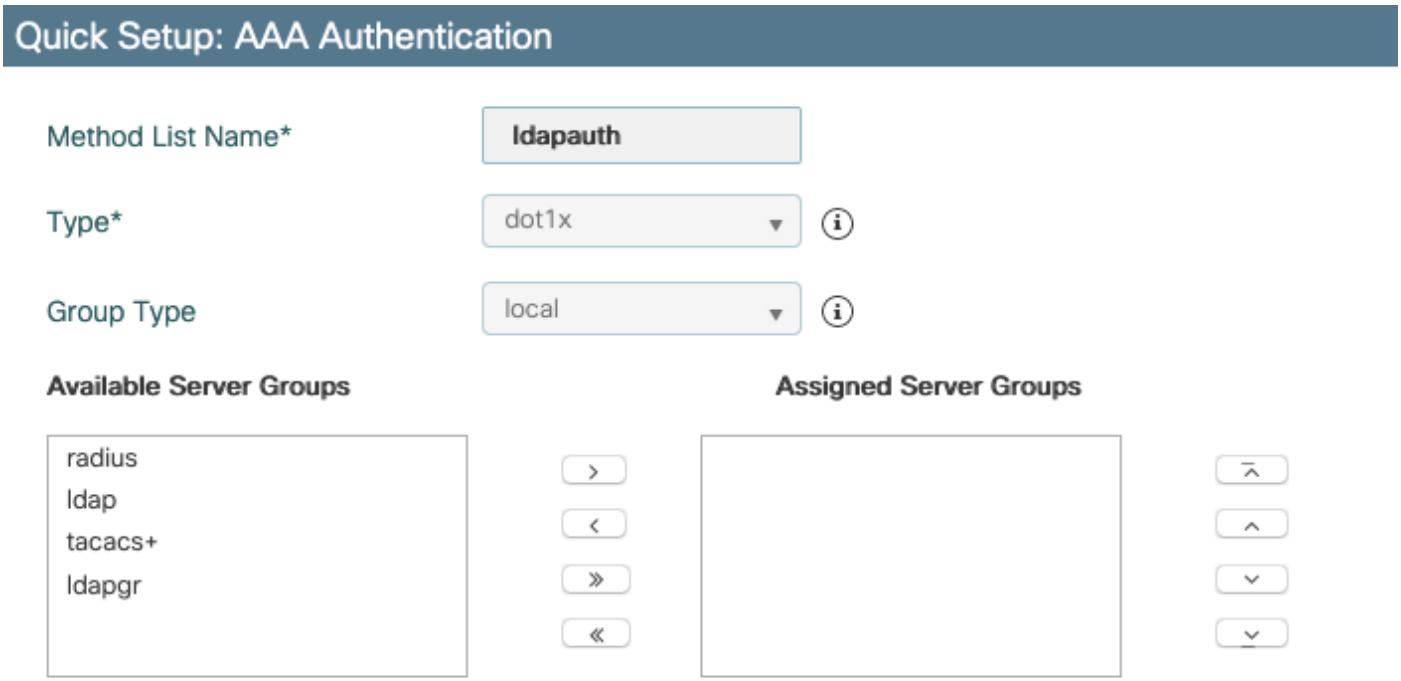
```
aaa group server ldap ldapgr server AD
```

Stap 4. Een AAA-verificatiemethode configureren

Navigeer naar **Configuratie > Beveiliging > AAA > AAA-methodelijst > Verificatie** en klik op **+Add**

Configureer een **dot1x**-verificatiemethode en wijs deze alleen op lokaal. Het zou verleidelijk zijn om naar de LDAP servergroep te wijzen, maar het is de WLC zelf die fungeert als de 802.1X authenticator hier (hoewel de gebruikersdatabase zich op LDAP bevindt, maar dat is de

autorisatiemethode taak).



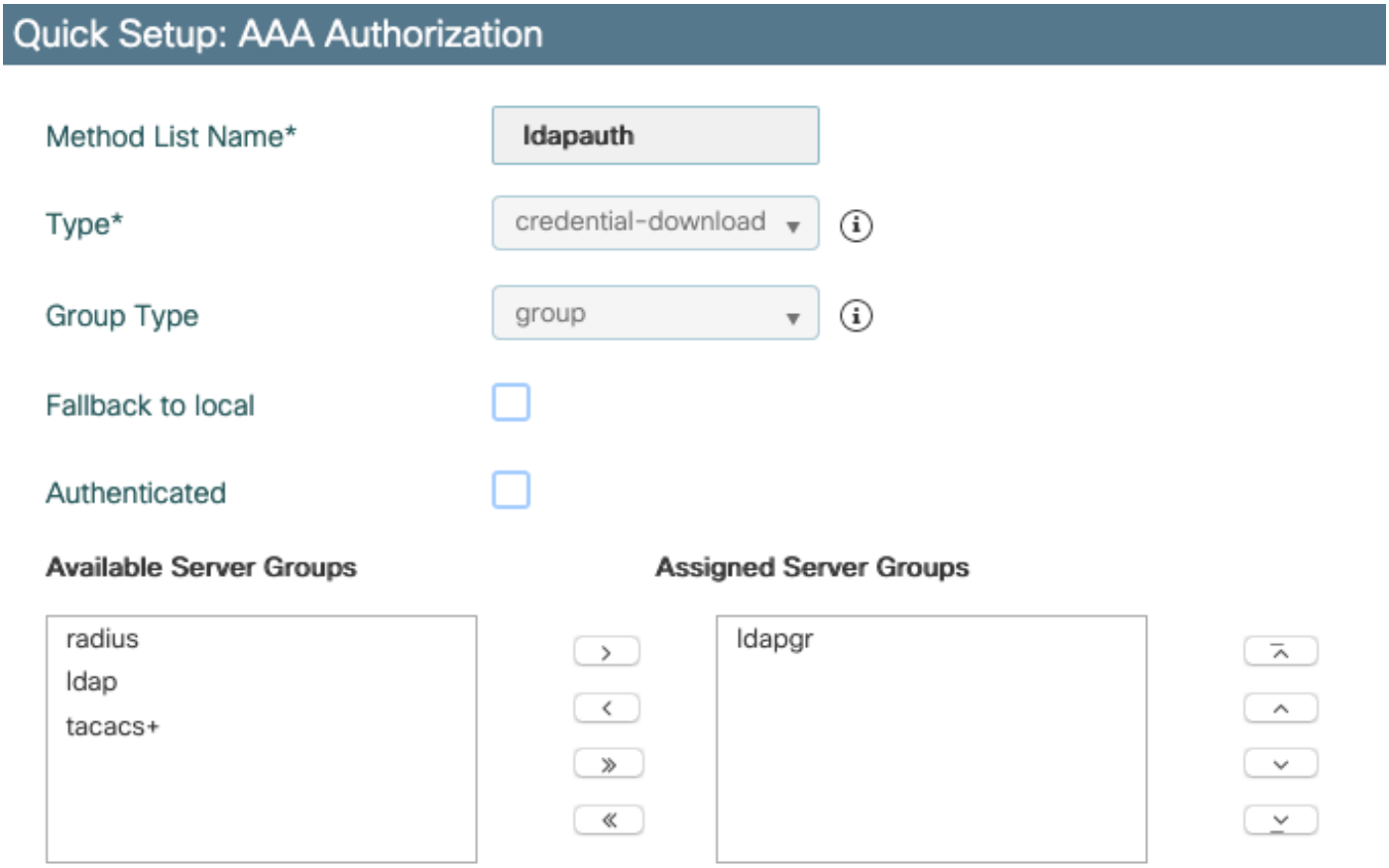
CLI-opdracht:

```
aaa authentication dot1x ldapauth local
```

Stap 5. Een AAA-autorisatiemethode configureren

Navigeer naar **Configuratie > Beveiliging > AAA > AAA-methodelijst > Autorisatie** en klik op **+Add**

Maak een **credential-download** type autorisatiemethode en maak het punt naar de LDAP groep.



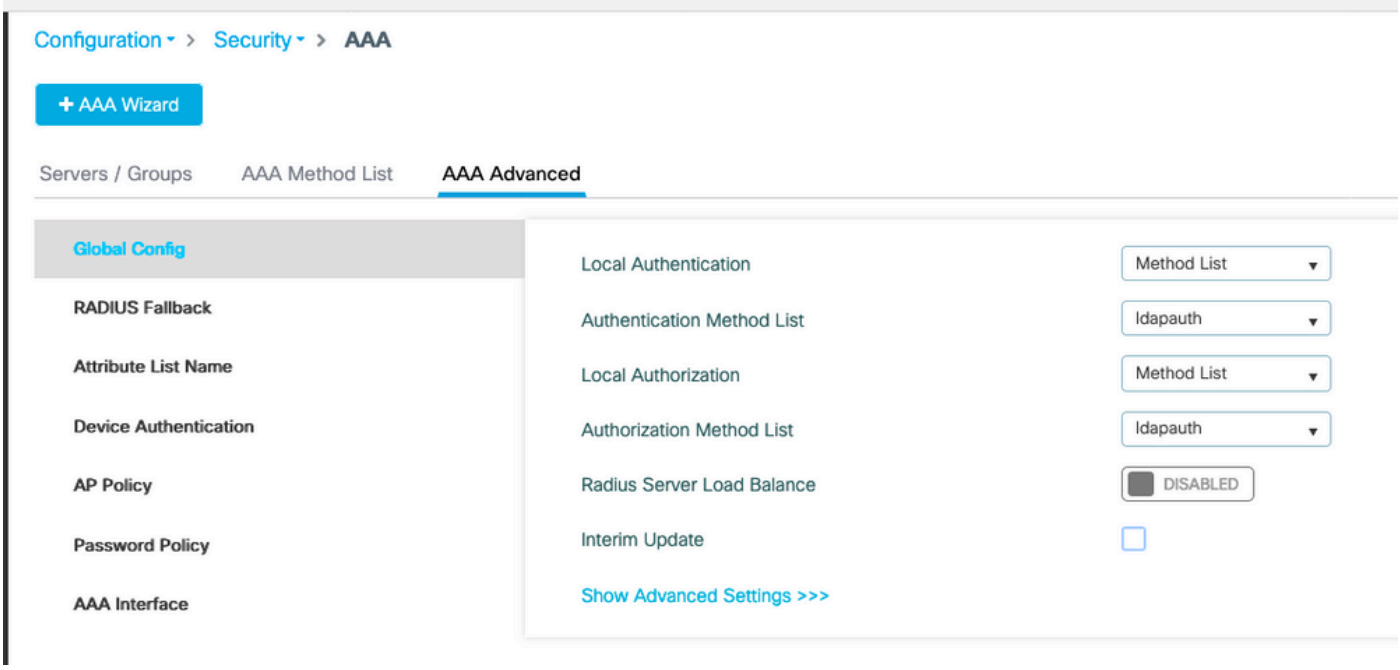
CLI-opdracht :

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

Stap 6. Lokale verificatiedetails configureren

Navigeren naar **Configuratie > Beveiliging > AAA > AAA-methodelijst > AAA geavanceerde**

Kies een **methodelijst** voor zowel de verificatie als de autorisatie en kies de verificatiemethode dot1x die lokaal wijst en de aanmeldingsmethode credential-download die naar LDAP wijst



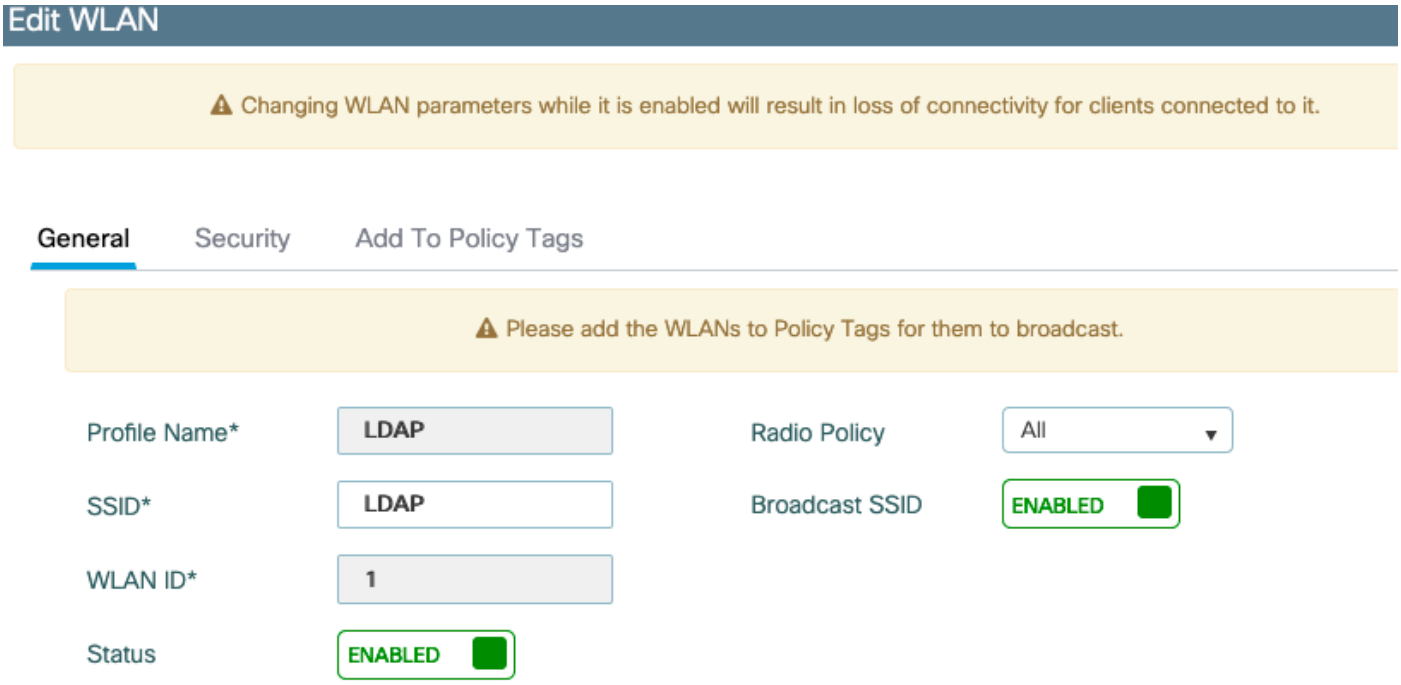
CLI-opdracht :

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

Stap 7. Een dot1x WLAN configureren

Navigeer naar **Configuration > WLAN** en klik op **+Add**

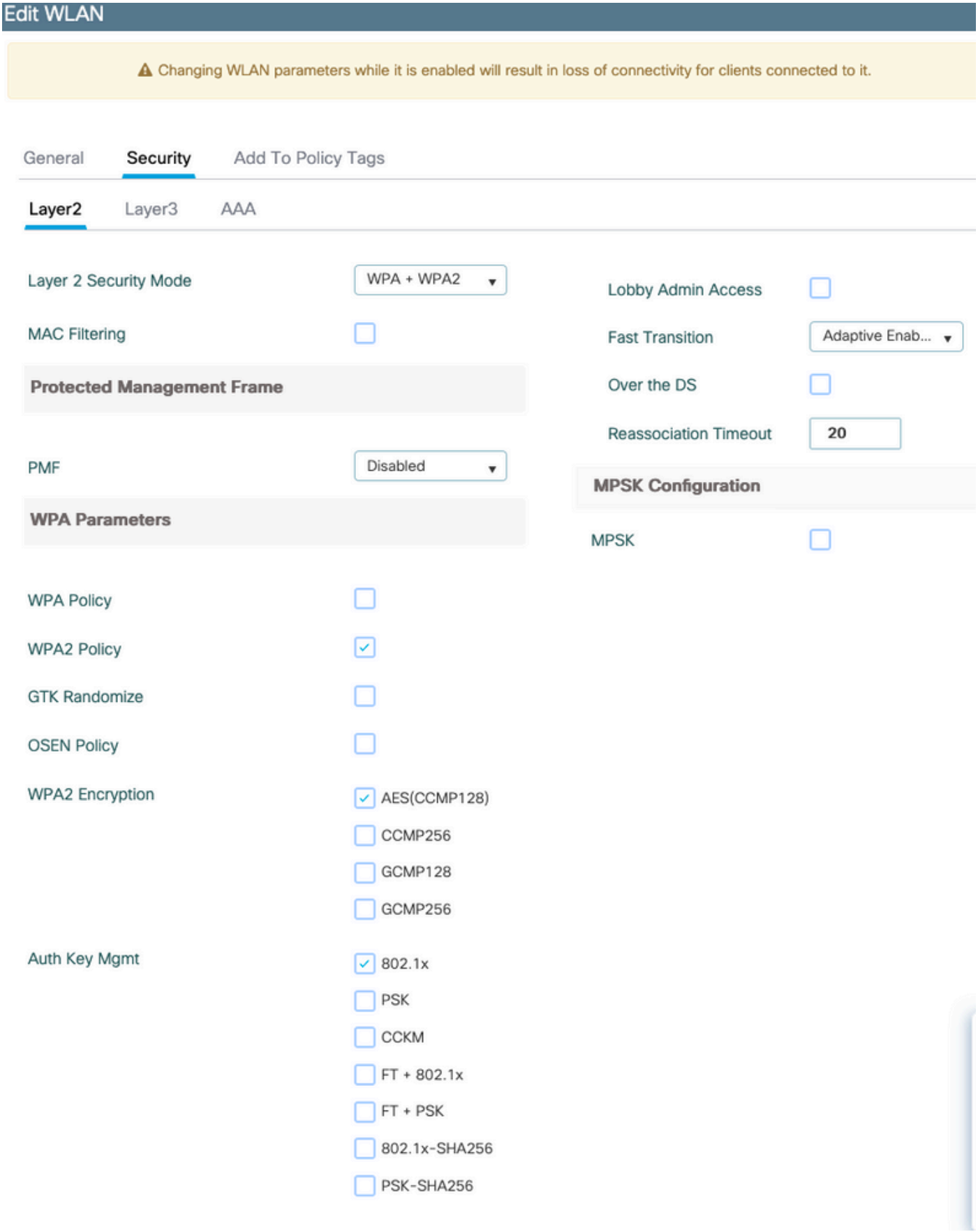
Kies een profiel en een SSID-naam en controleer of dit is ingeschakeld.



Naar het tabblad **Beveiliging** Layer 2 gaan.

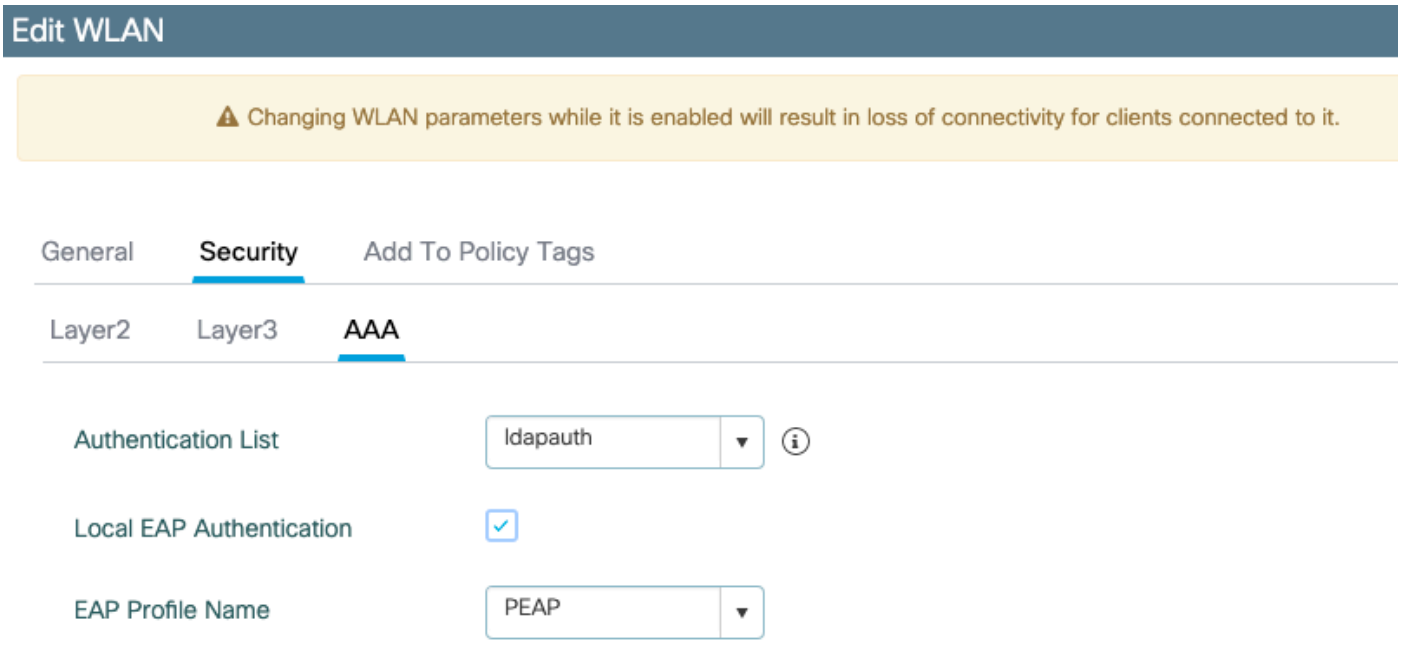
Kies WPA+WPA2 als **Layer 2-beveiligingsmodus**

Zorg ervoor dat WPA2 en AES zijn ingeschakeld in de **WPA-parameters** en schakel **802.1X in**



Naar het tabblad **AAA** gaan.

Selecteer de eerder gemaakte dot1x-verificatiemethode, schakel lokale EAP-verificatie in en kies het EAP-profiel dat in de eerste stap is geconfigureerd.



Opslaan door op Toepassen te klikken

CLI-opdrachten:

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

Stap 8. Controleer dat het WLAN wordt uitgezonden

Navigeer naar **Configuration > Tags** en zorg ervoor dat de SSID is opgenomen in het beleidsprofiel dat momenteel wordt gebruikt door de SSID (de standaard-beleidstag voor een nieuwe configuratie als u nog geen tags hebt geconfigureerd). Standaard worden nieuwe SSID's die u maakt niet uitgezonden door de standaard-policy-tag totdat u ze handmatig opneemt.

Dit artikel behandelt niet de configuratie van beleidsprofielen en veronderstelt u met dat deel van de configuratie vertrouwd bent.

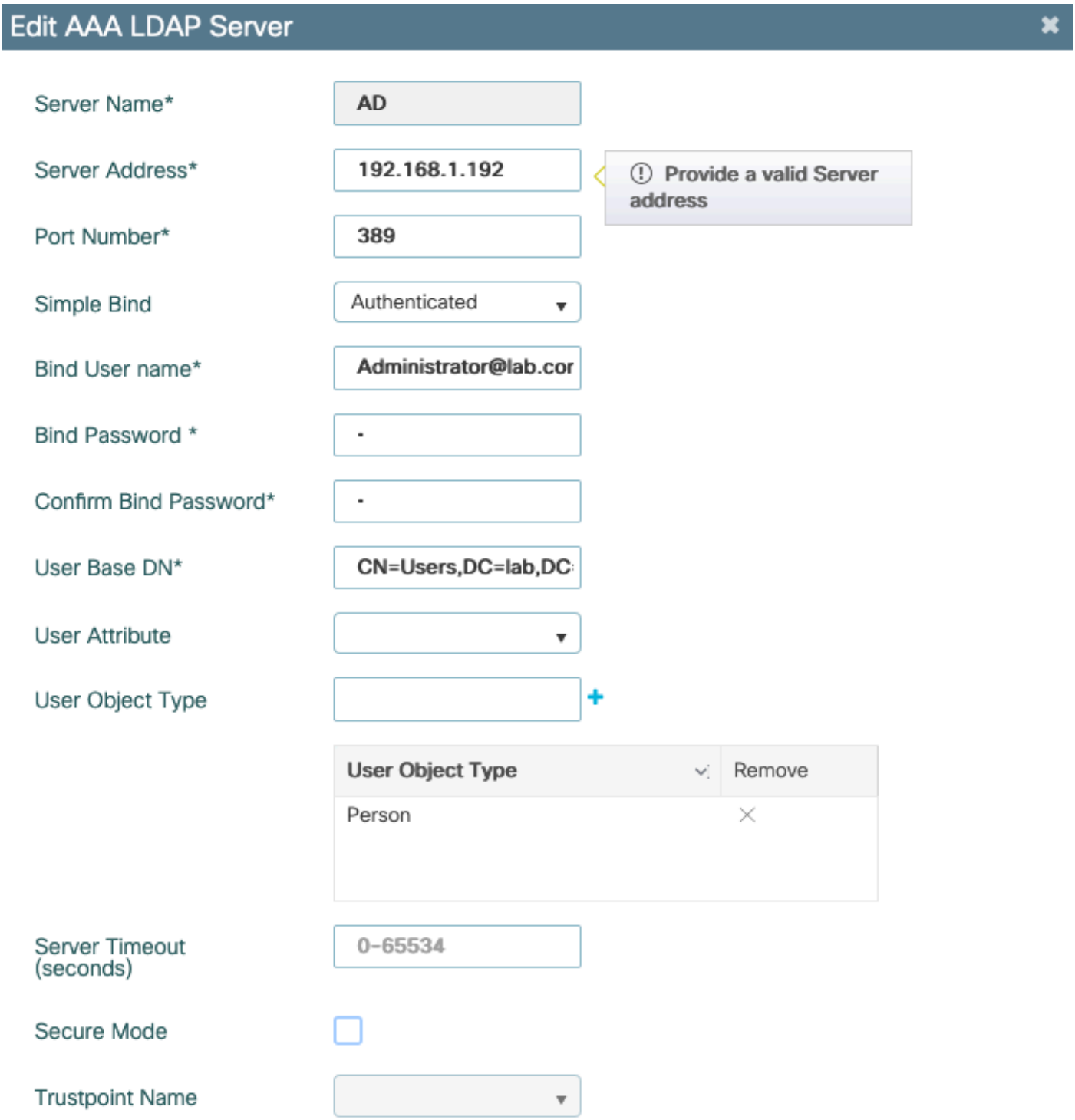
Als u Active Directory gebruikt, moet u de AD-server configureren om het kenmerk "userPassword" te verzenden. Deze eigenschap moet naar de WLC worden gezonden. Dit komt doordat de WLC de verificatie doet, niet de AD-server. Je kunt ook problemen hebben met het authenticeren met de PEAP-mschapv2 methode, omdat het wachtwoord nooit wordt verzonden in duidelijke tekst en daarom niet kan worden gecontroleerd met de LDAP database, alleen de PEAP-GTC methode zou werken met bepaalde LDAP databases.

LDAP-servergegevens begrijpen

De velden op de 9800 web UI begrijpen

Hier is een voorbeeld van een zeer fundamentele Active Directory die fungeert als LDAP server

geconfigureerd op de 9800



Naam en IP zijn hopelijk vanzelfsprekend.

Port: 389 is de standaardpoort voor LDAP, maar uw server kan een andere poort gebruiken.

Eenvoudige binding: het is zeer zeldzaam om een LDAP-databank vandaag de dag te hebben die niet-geverifieerde bind ondersteunt (dit betekent dat iedereen een LDAP-zoekopdracht kan uitvoeren op deze databank zonder enige authenticatieformulier). Geverifieerde eenvoudige bind is het meest gebruikelijke type van verificatie en wat Active Directory standaard toestaat. U kunt een naam en wachtwoord voor een beheerdersaccount invoeren om vanaf daar te kunnen zoeken in de gebruikersdatabase.

Bind Gebruikersnaam : U moet verwijzen naar een gebruikersnaam met beheerdersrechten in Active Directory. AD accepteert het "user@domain" formaat voor het terwijl veel andere LDAP databases een "CN=xxx, DC=xxx" formaat verwachten voor de gebruikersnaam. Een voorbeeld met een andere LDAP-database dan AD wordt later in dit artikel gegeven.

Bind wachtwoord: Voer het wachtwoord in dat de eerder ingevoerde beheerdersnaam bevat.

Gebruikersbasis-DN: Voer hier de "zoekwortel" in, dat is de locatie in uw LDAP-boom waar zoekopdrachten beginnen. In dit voorbeeld vallen al onze toepassingen onder de groep "Gebruikers", waarvan het DN "CN=Gebruikers, DC=lab, DC=com" is (aangezien het voorbeeld LDAP-domein lab.com is). Een voorbeeld van hoe u dit gebruikersbestand DN kunt vinden, vindt u later in deze sectie.

Gebruikerskenmerk : Dit kan leeg worden gelaten, of wijzen naar een LDAP attribuut-map die aangeeft welke LDAP-veld telt als gebruikersnaam voor uw LDAP-database. Vanwege Cisco-bug-id CSCv11813 De WLC probeert echter een authenticatie met het veld CN.

Objecttype gebruiker : Dit bepaalt het type objecten dat als gebruikers wordt beschouwd. Meestal is dit "Persoon". Het zou "Computers" kunnen zijn als je een AD-database hebt en computeraccounts autoriseert, maar ook daar zorgt LDAP voor veel aanpassingen.

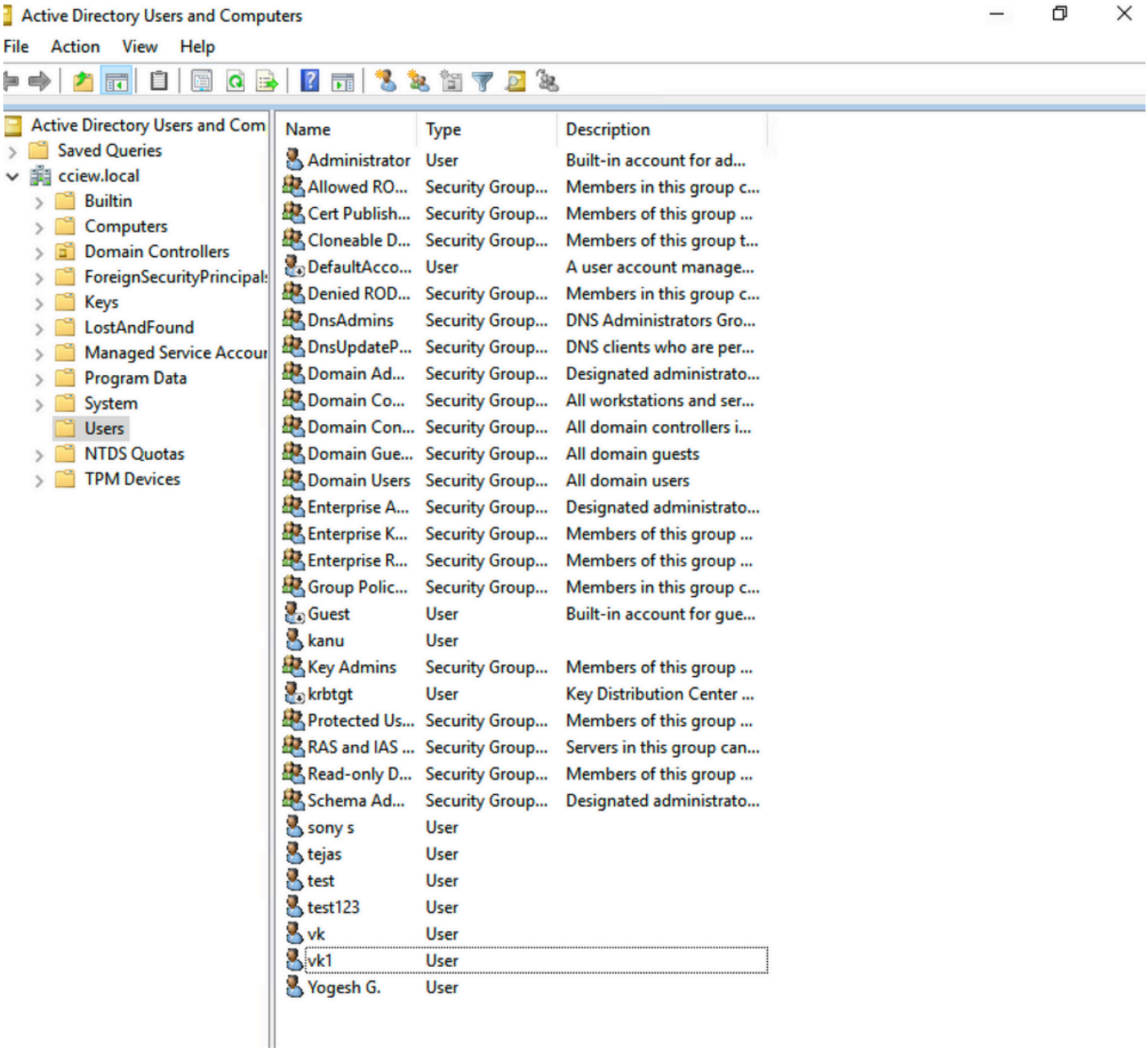
Secure Mode maakt Secure LDAP via TLS mogelijk en vereist dat u op de 9800 een Trustpoint selecteert om een certificaat te gebruiken voor de TLS-codering.

LDAP 802.1x-verificatie met het kenmerk AMAaccountName.

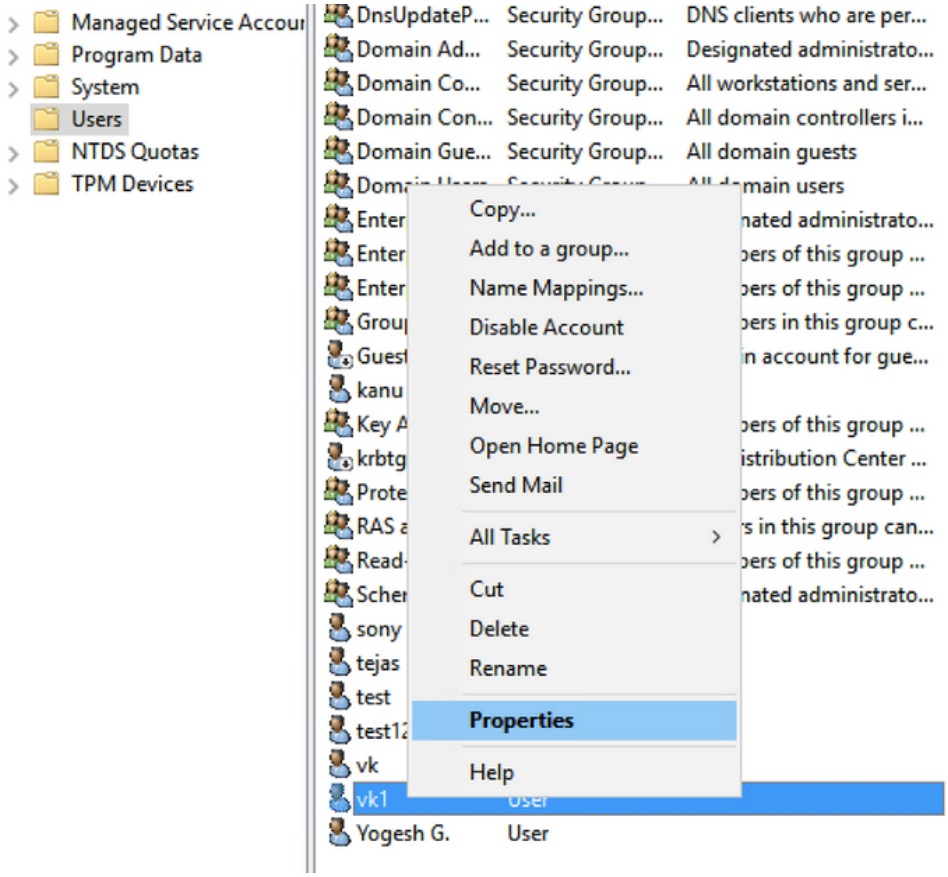
Deze verbetering is geïntroduceerd in versie 17.6.1.

Configureer het "userPassword"-kenmerk voor de gebruiker.

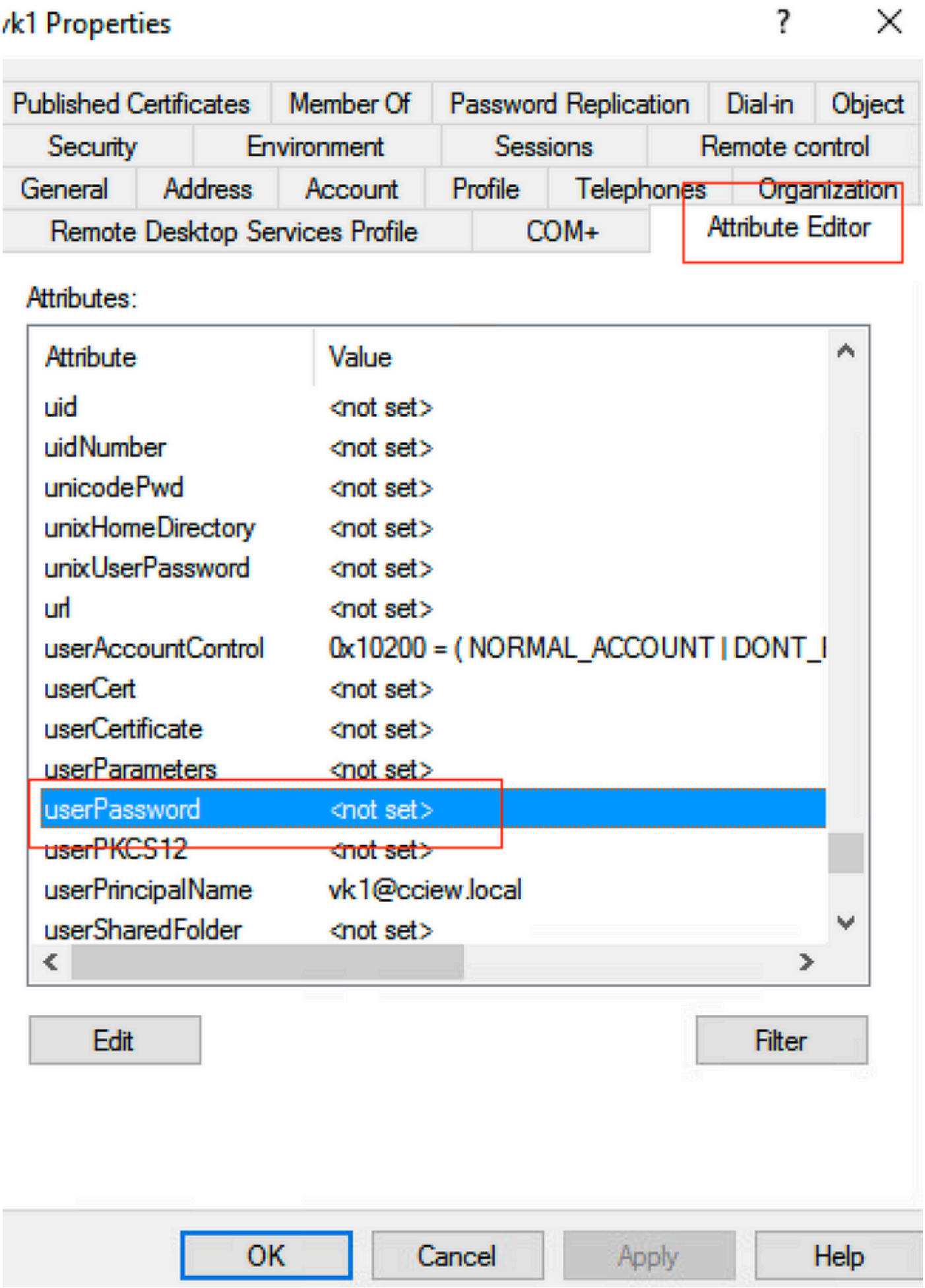
Stap 1. Ga op de Windows-server naar Active Directory-gebruikers en -computers



Stap 2. Klik met de rechtermuisknop op de respectievelijke gebruikersnaam en selecteer eigenschappen

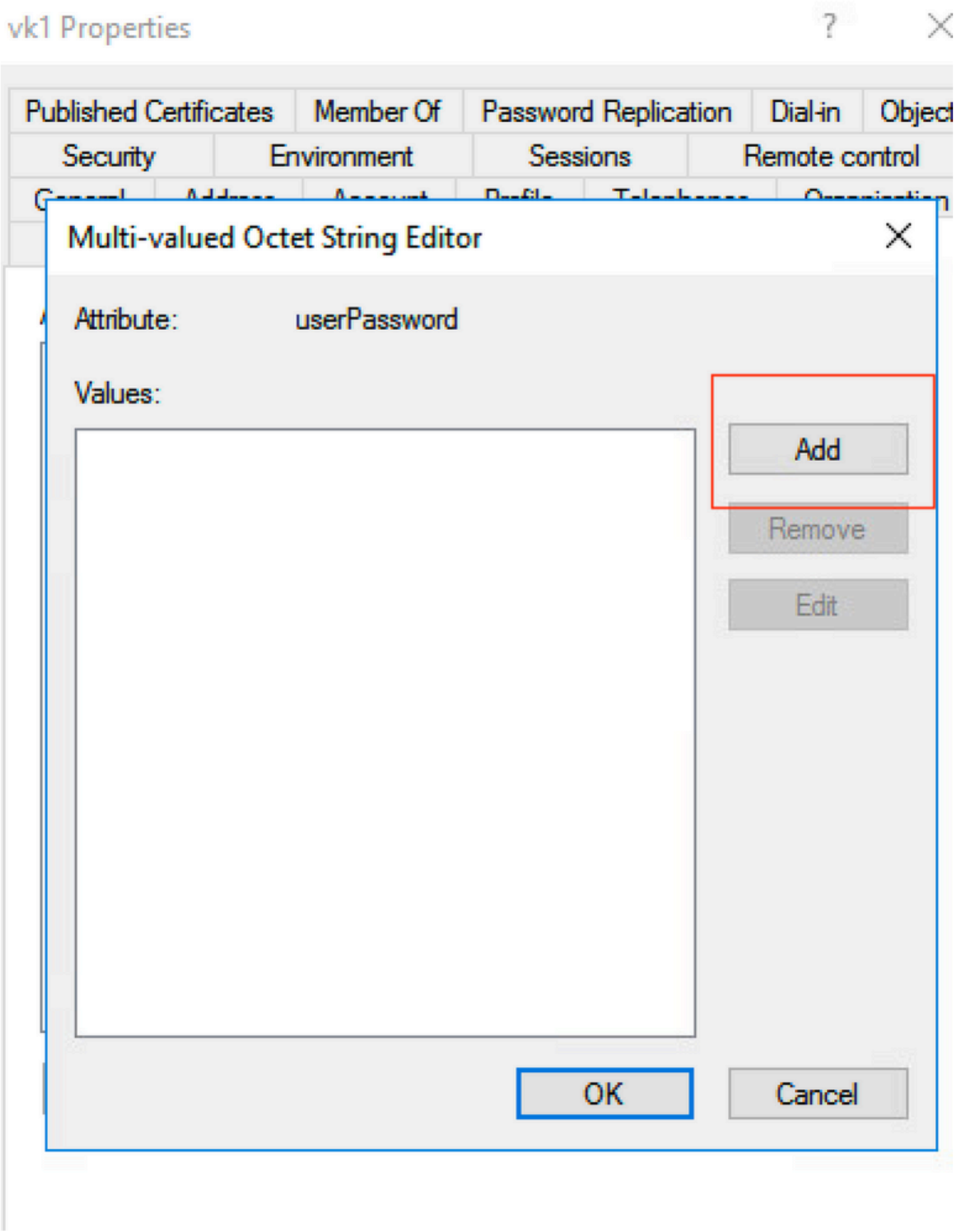


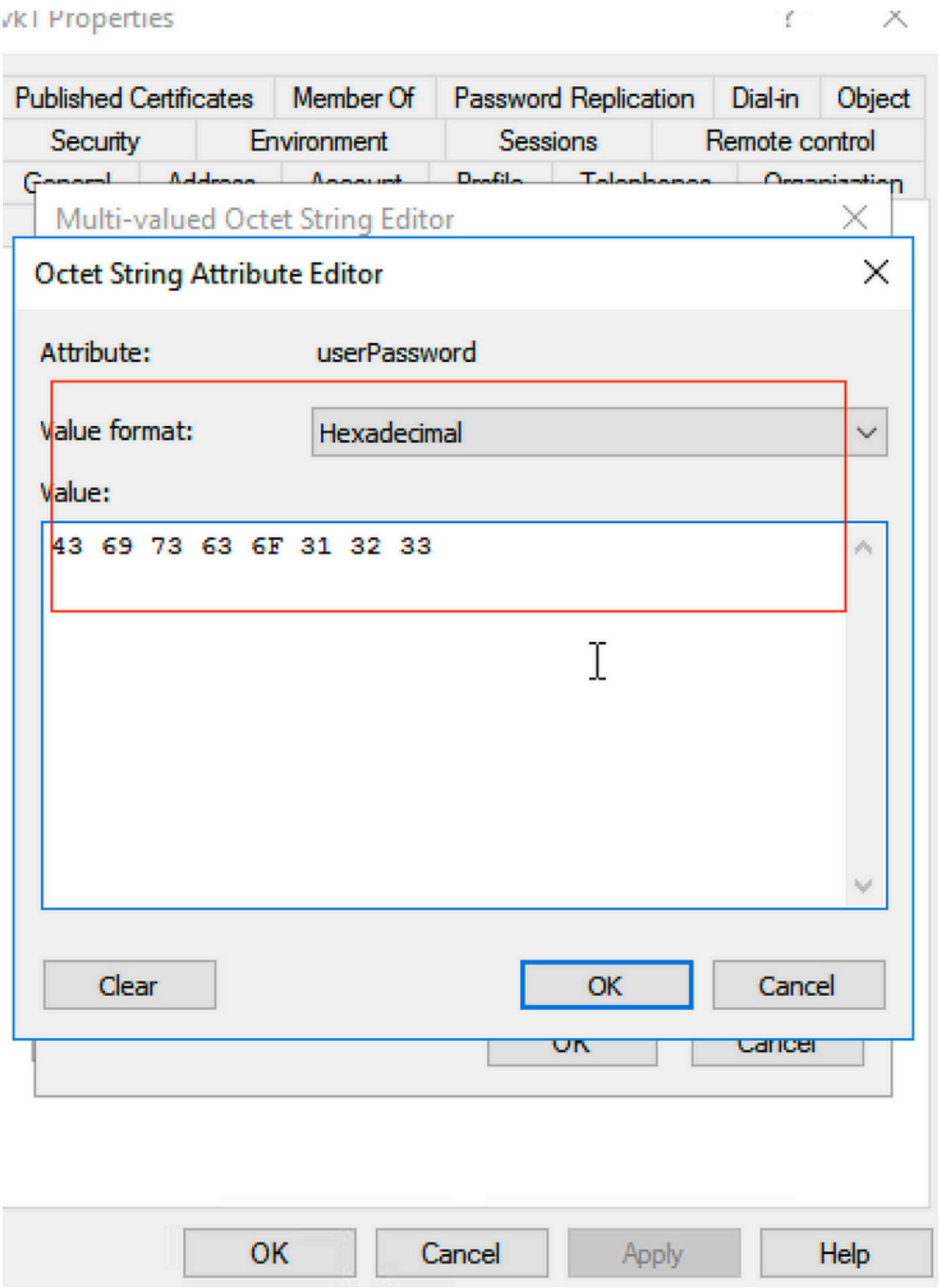
Stap 3. Selecteer de eigenschappeneditor in het eigenschappenvenster



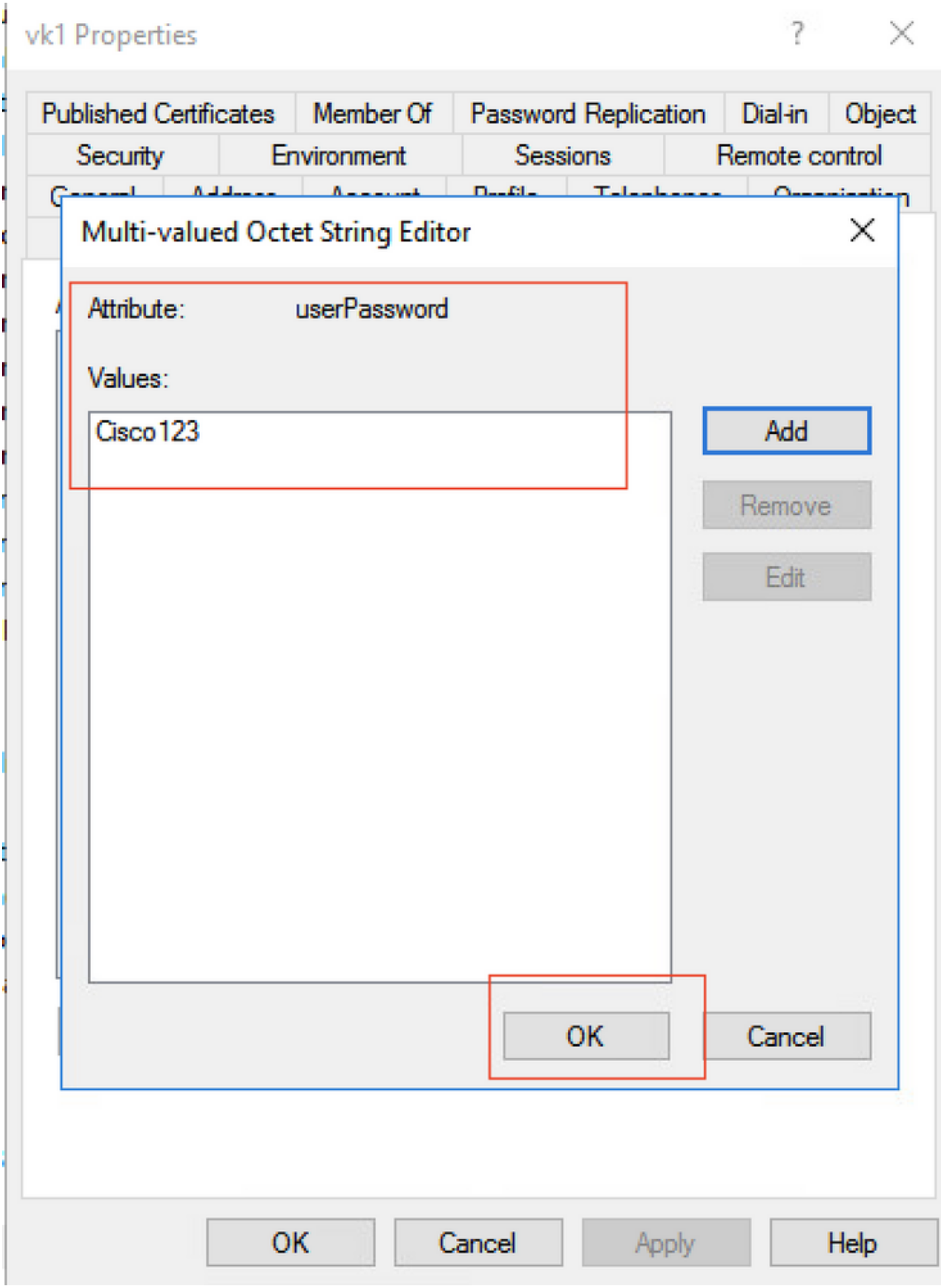
Stap 4. Configureer het kenmerk "userPassword". Dit is het wachtwoord voor de gebruiker, die in

Hex-waarde moet worden geconfigureerd.

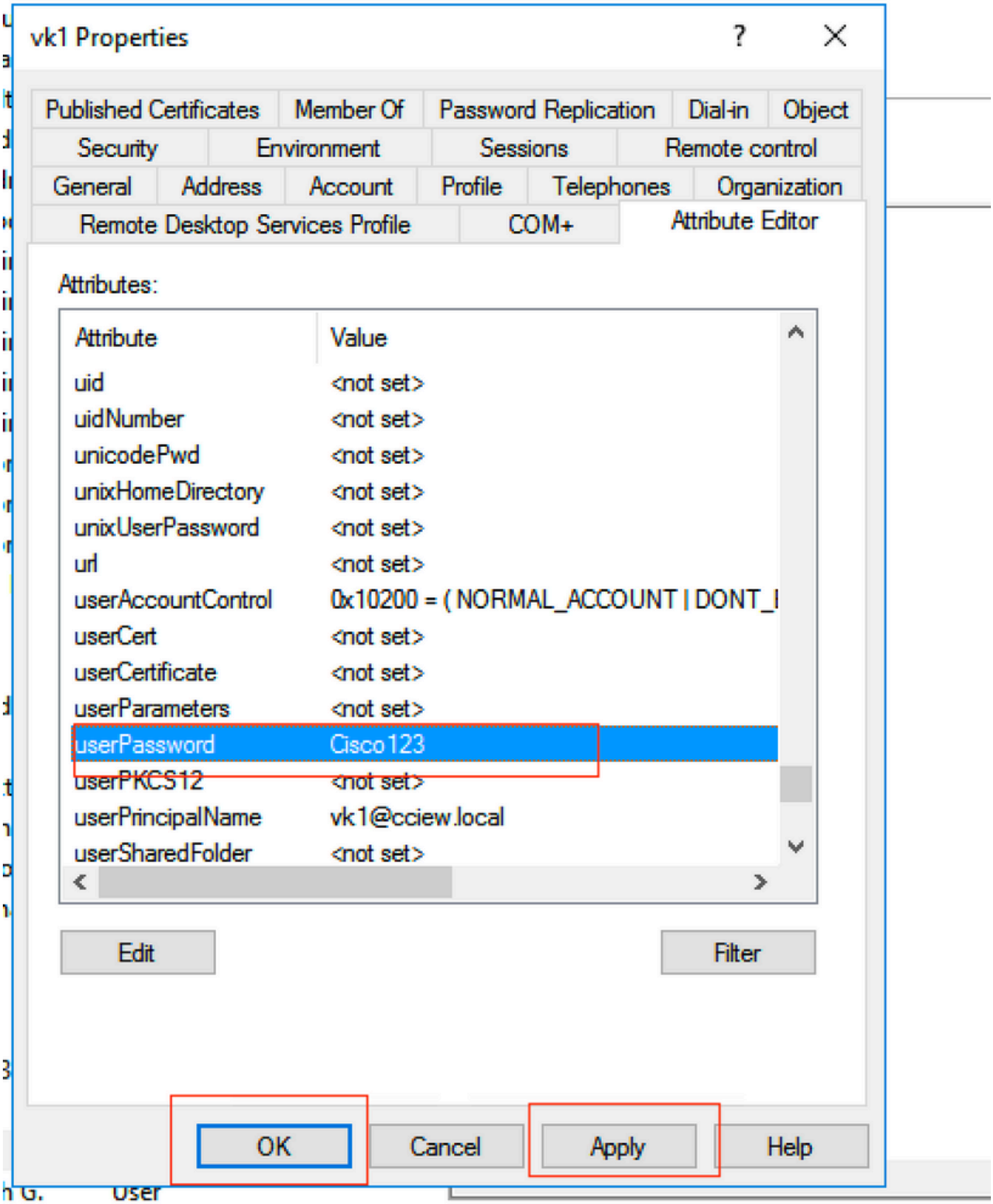




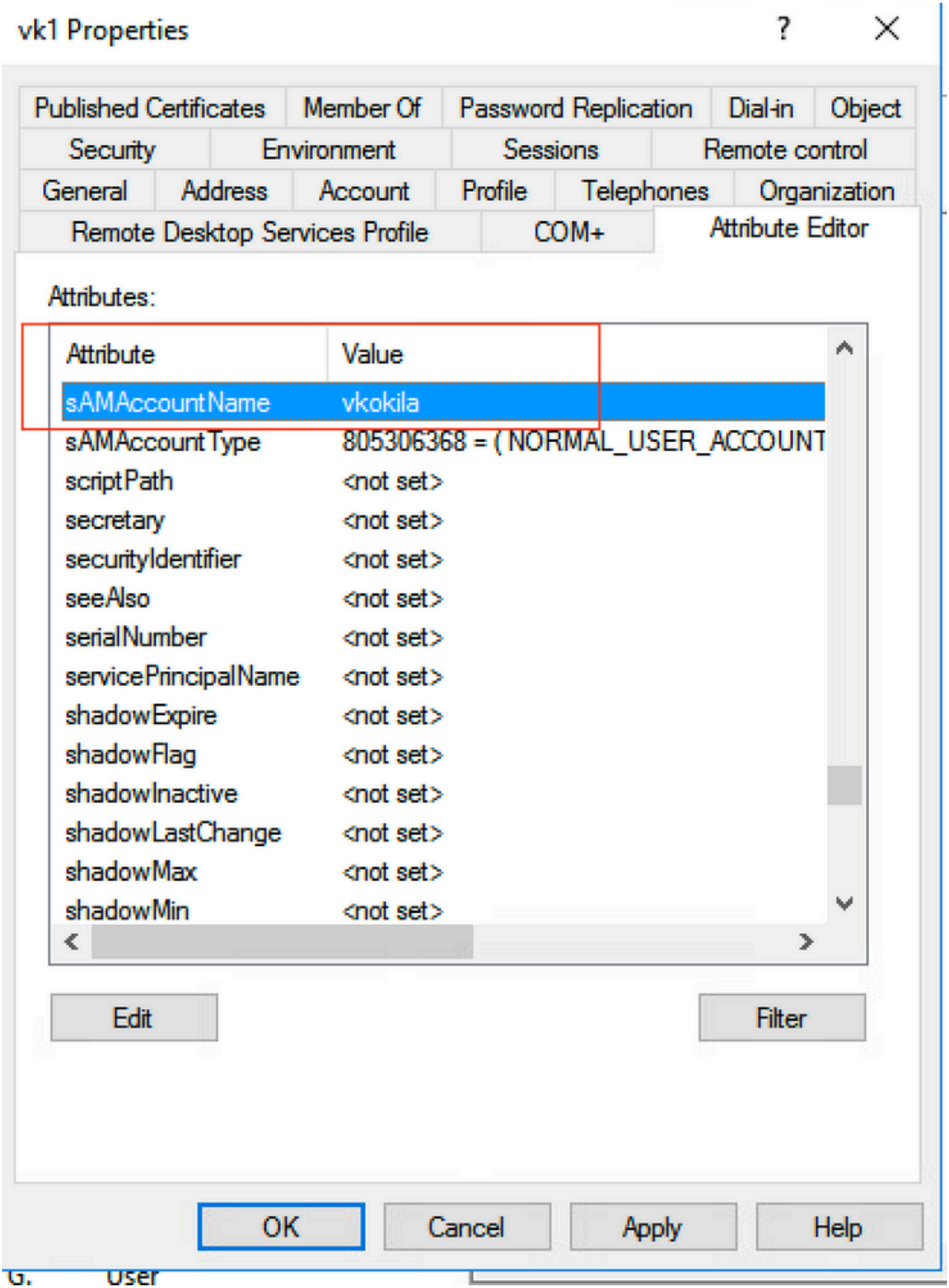
Klik op OK, controleer of het juiste wachtwoord wordt weergegeven



Stap 5. Klik op Toepassen en vervolgens op OK



Stap 6. Controleer de "sAMAaccountName "attribuut waarde voor de gebruiker en het zou de gebruikersnaam voor verificatie.



WLC-configuratie:

Stap 1. Maak LDAP attribuut MAP

Stap 2. Het kenmerk "AccountName" configureren en als "gebruikersnaam" typen

Stap 3. Kies de gemaakte attribuut MAP onder de LDAP-serverconfiguratie.

```
ldap attribute-map VK

 map type sAMAccountName username



ldap server ldap

 ipv4 10.106.38.195

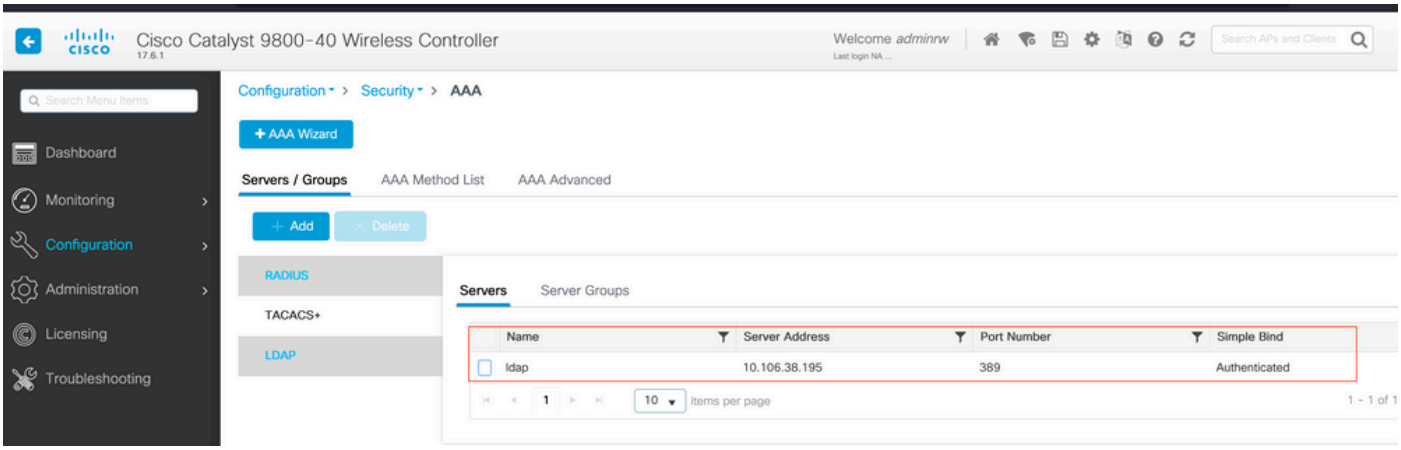
 attribute map VK

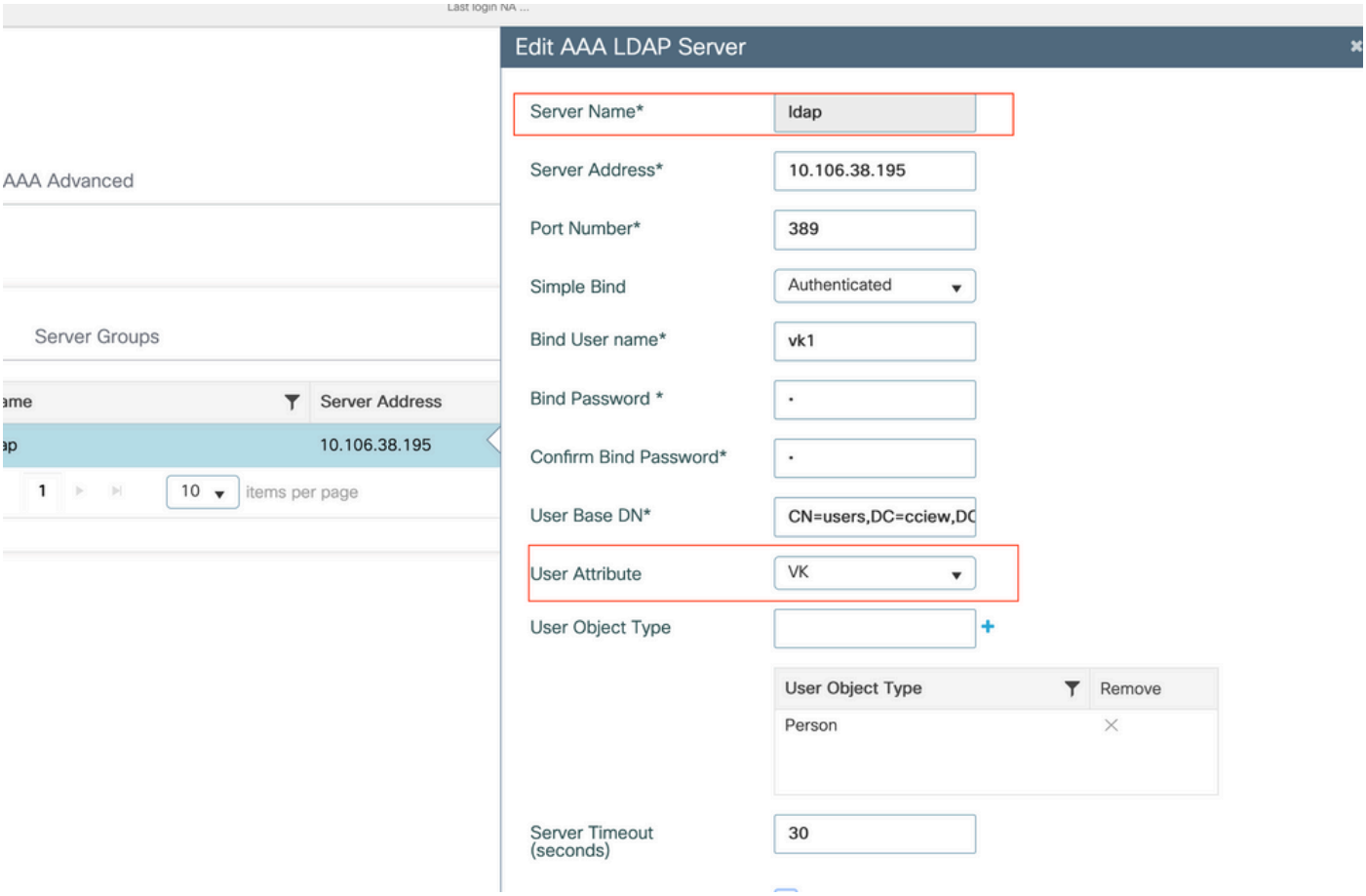
 bind authenticate root-dn vk1 password 7 00271A1507545A545C

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

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

Controleer via de webinterface:





Verifiëren

Om uw configuratie te verifiëren, controleer de CLI-opdrachten met de opdrachten uit dit artikel.

LDAP-databases bieden doorgaans geen verificatielogboeken, zodat het moeilijk is om te weten wat er gebeurt. Ga naar de sectie Probleemoplossing van dit artikel om te zien hoe u sporen kunt nemen en hoe u kunt snuiven vastleggen om te zien of er een verbinding is met de LDAP-database of niet.

Problemen oplossen

Om dit op te lossen, is het best om dit in twee delen te splitsen. Het eerste deel is het valideren van het lokale EAP-gedeelte. De tweede is controleren dat de 9800 goed communiceert met de LDAP-server.

Hoe het verificatieproces op de controller te verifiëren

U kunt een radioactief spoor verzamelen om de "debugs" van de clientverbinding te krijgen.

Ga simpelweg naar **Problemen oplossen > Radioactive Trace**. Voeg het client-MAC-adres toe (let op dat uw client een willekeurige MAC kan gebruiken en niet zijn eigen MAC, u kunt dit verifiëren in het SSID-profiel op het client-apparaat zelf) en start.

Nadat u de verbindingspoging hebt gereproduceerd, kunt u op "Generate" klikken en de logbestanden van de laatste X minuten verkrijgen. Zorg ervoor dat u op **intern** klikt omdat bepaalde LDAP-logregels niet verschijnen als u dit niet kunt doen.

Hier is een voorbeeld van radiocatief spoor van een cliënt die met succes op een Web authentificatie SSID voor authentiek verklaart. Sommige redundante onderdelen zijn voor de duidelijkheid verwijderd:

```
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 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 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-

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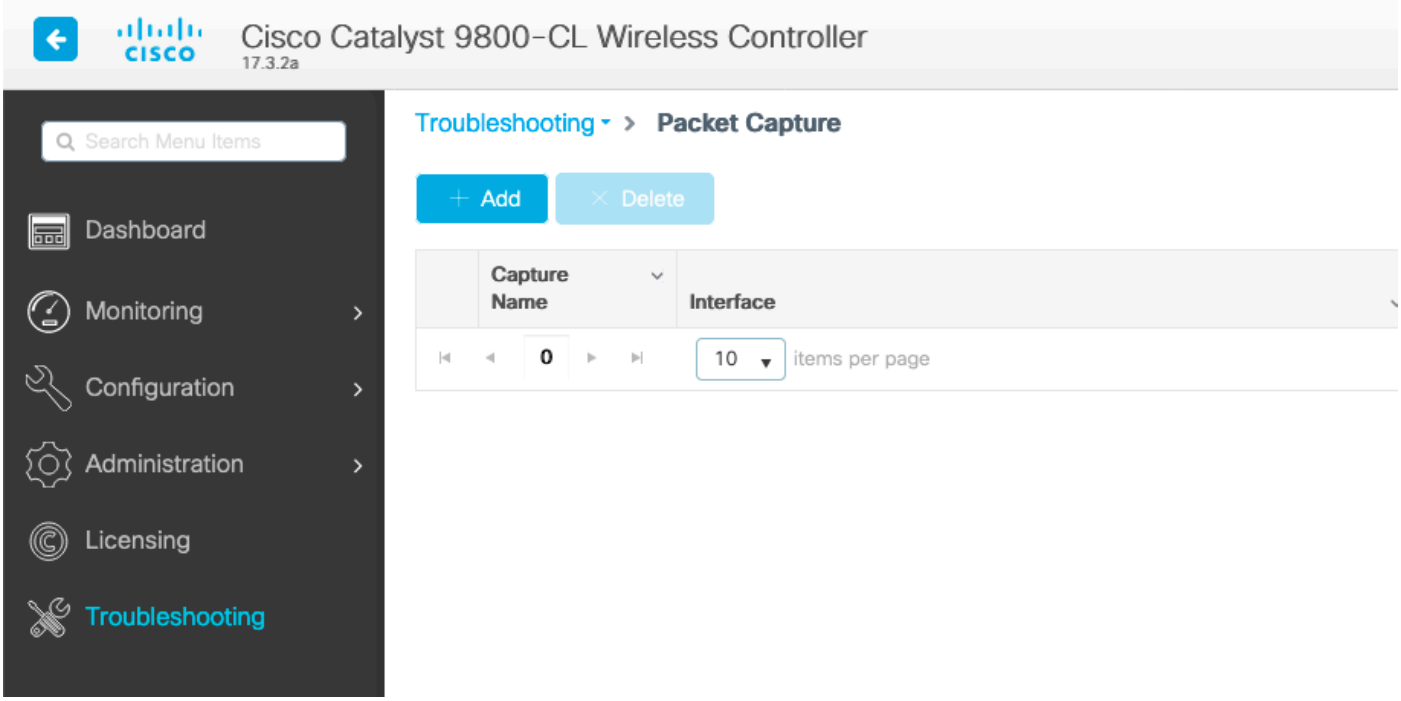
0}{1}: [aaa-attr-inf] [9347]: (info): << username 0 "Nico">> 2021/01/19 21:58:16.374574
{wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]: (info): << sam-account-name 0 "Nico">> 2021/01/19
21:58:16.374584 {wncd_x_R0-0}{1}: [aaa-attr-inf] [9347]: (info): << method 0 1 [webauth]>>
2021/01/19 21:58:16.374592 {wncd_x_R0-0}{1}: [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
```

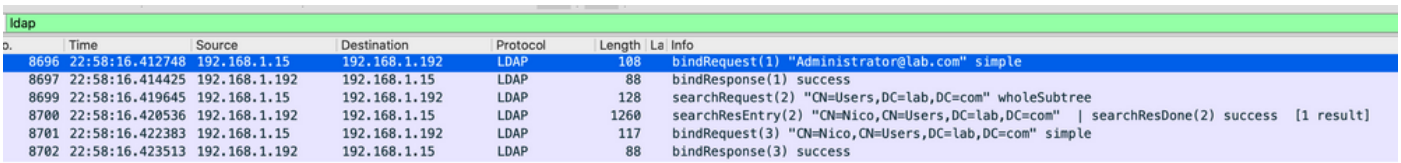
Hoe de 9800-LDAP-connectiviteit te verifiëren

Je kunt een ingebedde opname nemen in de 9800 om te zien welk verkeer naar LDAP gaat.

Om een opname van WLC te maken, navigeer naar **Problemen oplossen > Packet Capture** en klik op **+Add**. Kies de uplinkpoort en start het opnemen.



Hier is een voorbeeld van succesverificatie voor gebruiker **Nico**



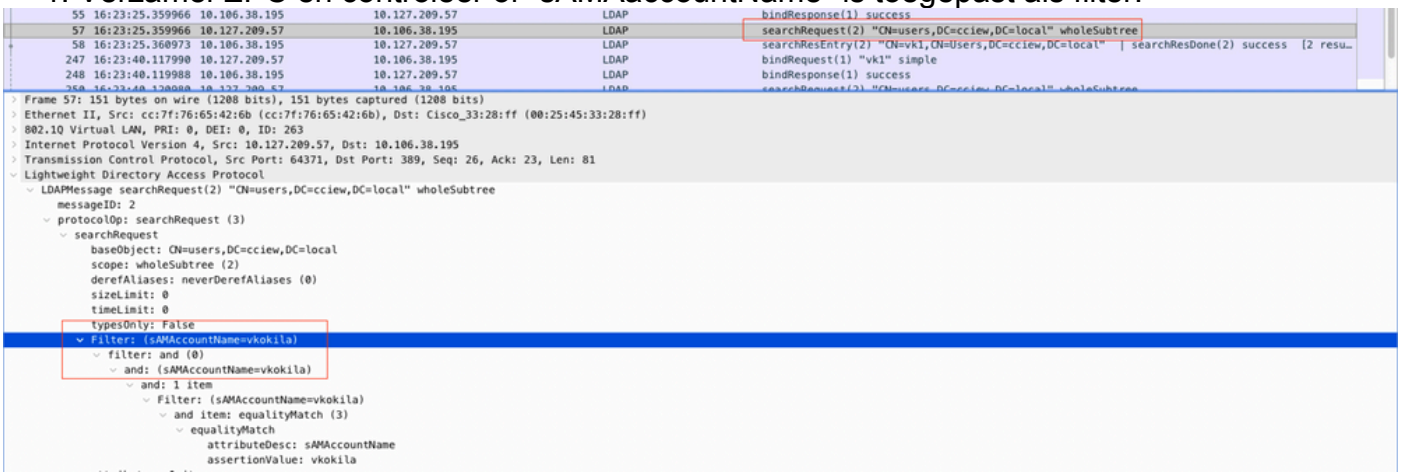
No.	Time	Source	Destination	Protocol	Length	La	Info
8696	22:58:16.412748	192.168.1.15	192.168.1.192	LDAP	108		bindRequest(1) "Administrator@lab.com" simple
8697	22:58:16.414425	192.168.1.192	192.168.1.15	LDAP	88		bindResponse(1) success
8699	22:58:16.419645	192.168.1.15	192.168.1.192	LDAP	128		searchRequest(2) "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

De eerste 2 pakketten vertegenwoordigen de WLC-binding aan de LDAP-dB, dat wil zeggen de WLC-authenticatie aan de database met de admin-gebruiker (om een zoekopdracht uit te kunnen voeren).

Deze 2 LDAP pakketten vertegenwoordigen WLC die een onderzoek in de basis DN doen (hier CN=users, DC=lab, DC=com). De binnenkant van het pakket bevat een filter voor de gebruikersnaam (hier "Nico"). De LDAP-database retourneert de gebruikerskenmerken als een succes

De laatste 2 pakketten vertegenwoordigen de WLC die probeert te verifiëren met dat gebruikerswachtwoord om te testen of het wachtwoord het juiste wachtwoord is.

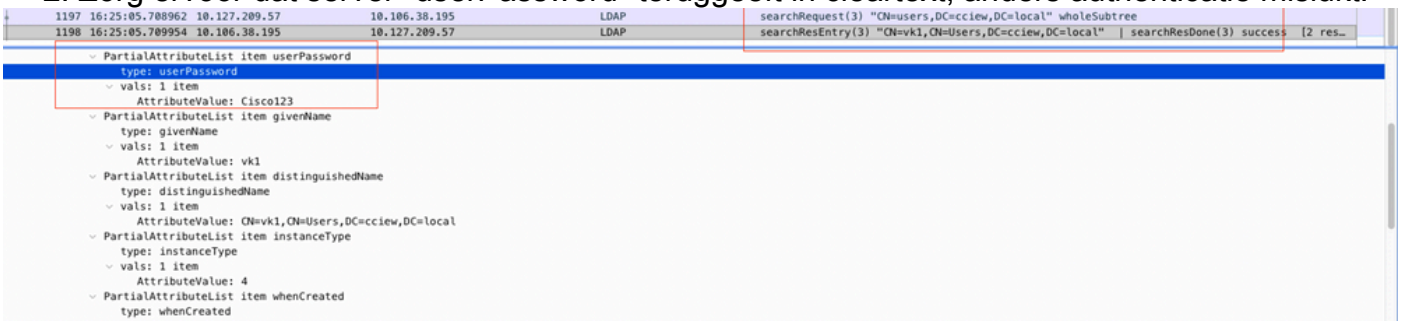
1. Verzamel EPC en controleer of "sAMAaccountName" is toegepast als filter:



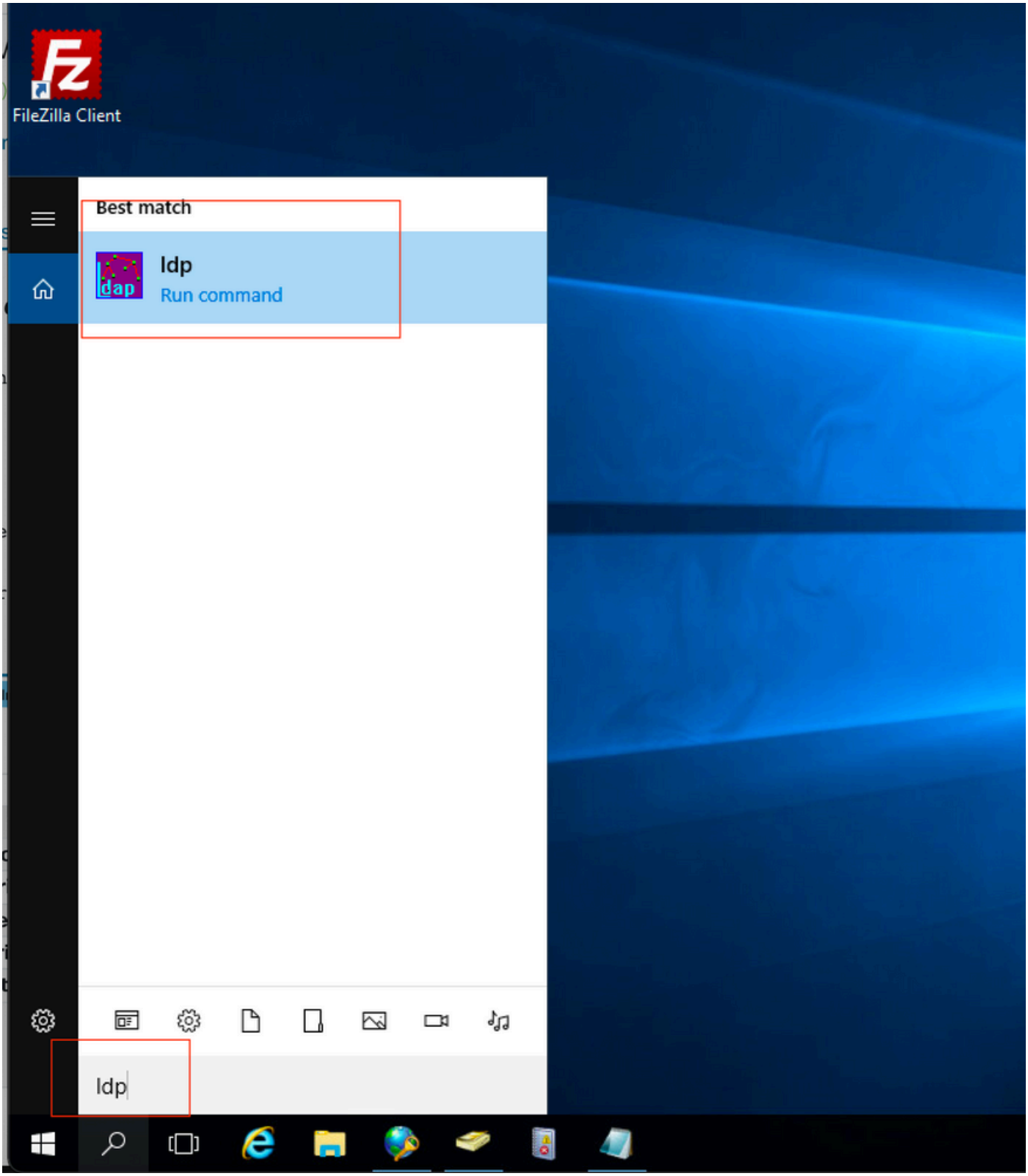
Als het filter "cn" toont en als "sAMAaccountName" wordt gebruikt als gebruikersnaam, mislukt de verificatie.

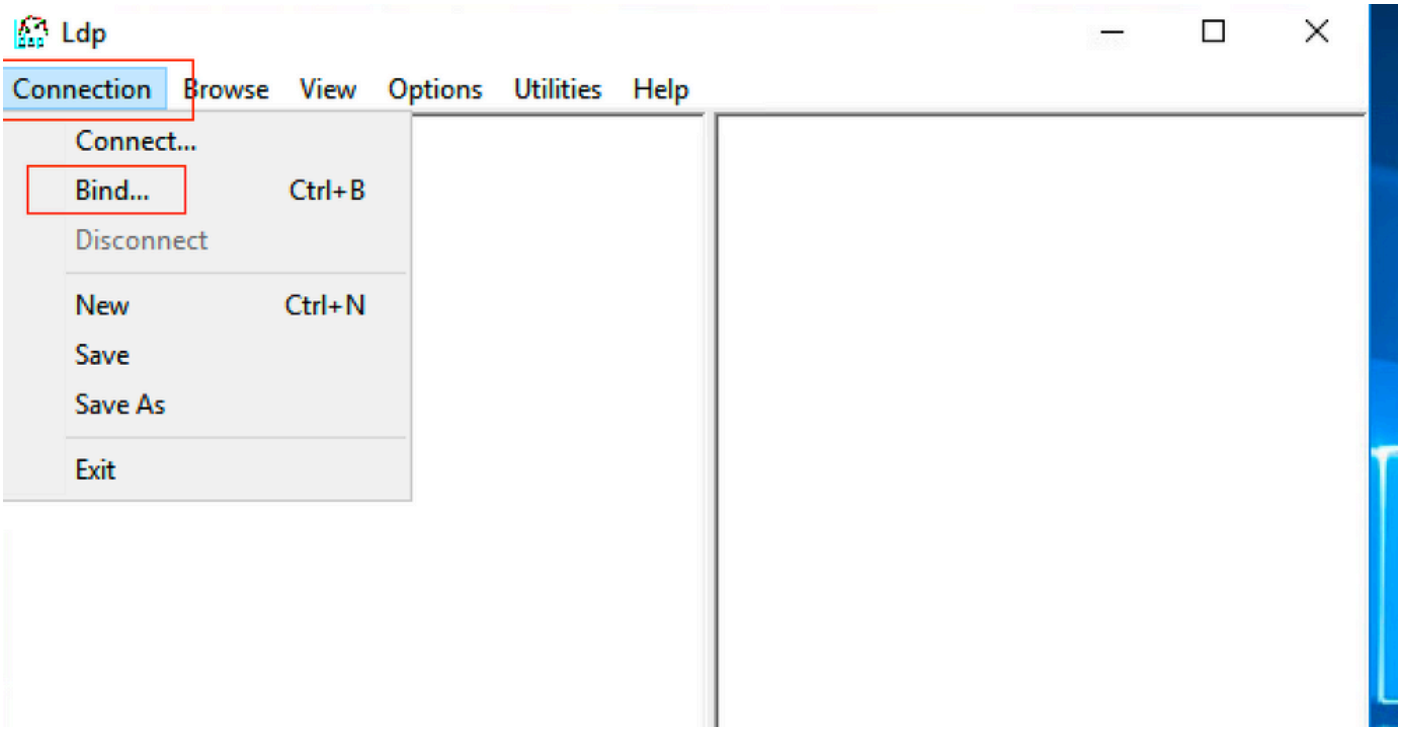
Herstel het kenmerk ldap map van de WLC-client.

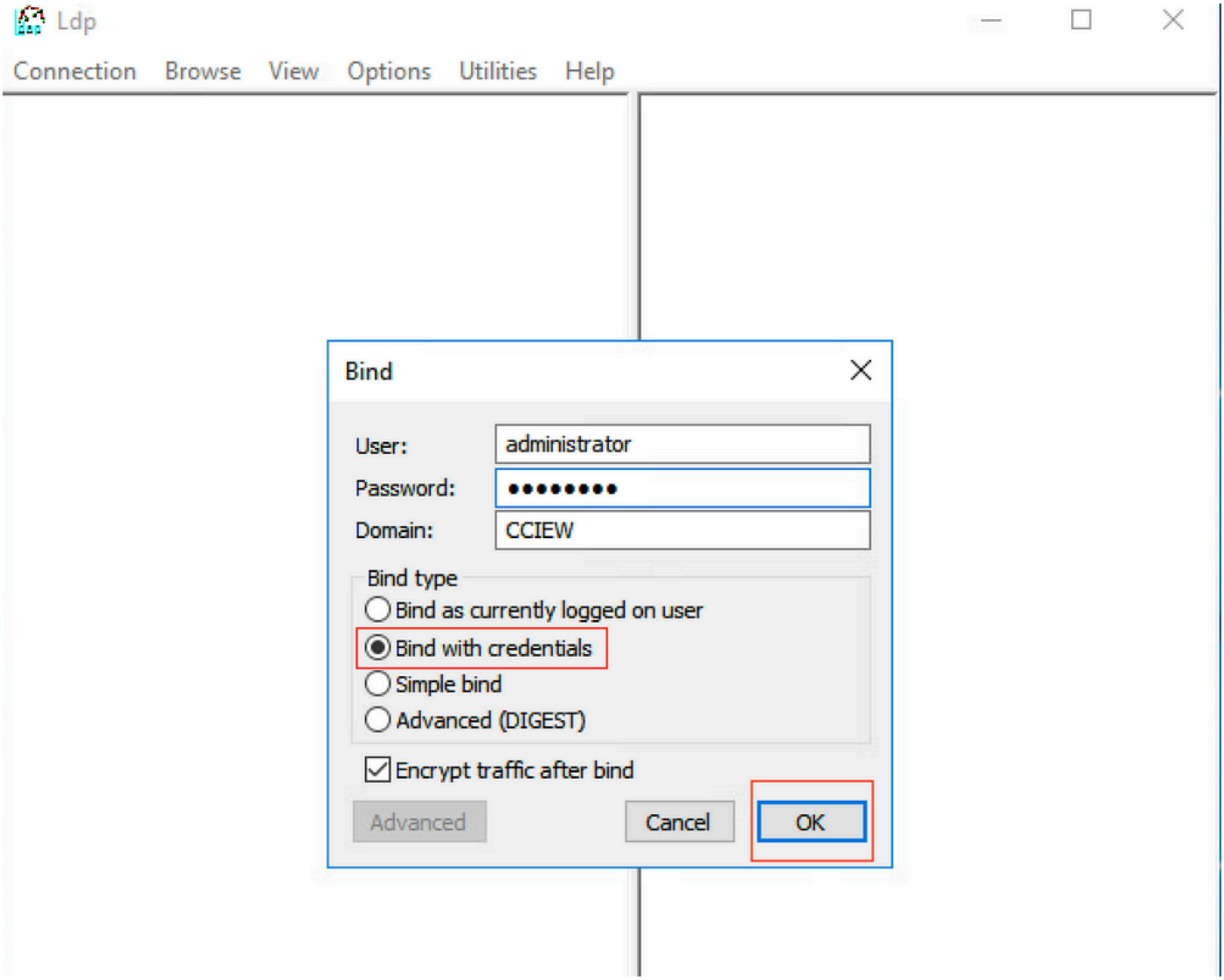
2. Zorg ervoor dat server "userPassword" teruggeeft in cleartext, anders authenticatie mislukt.

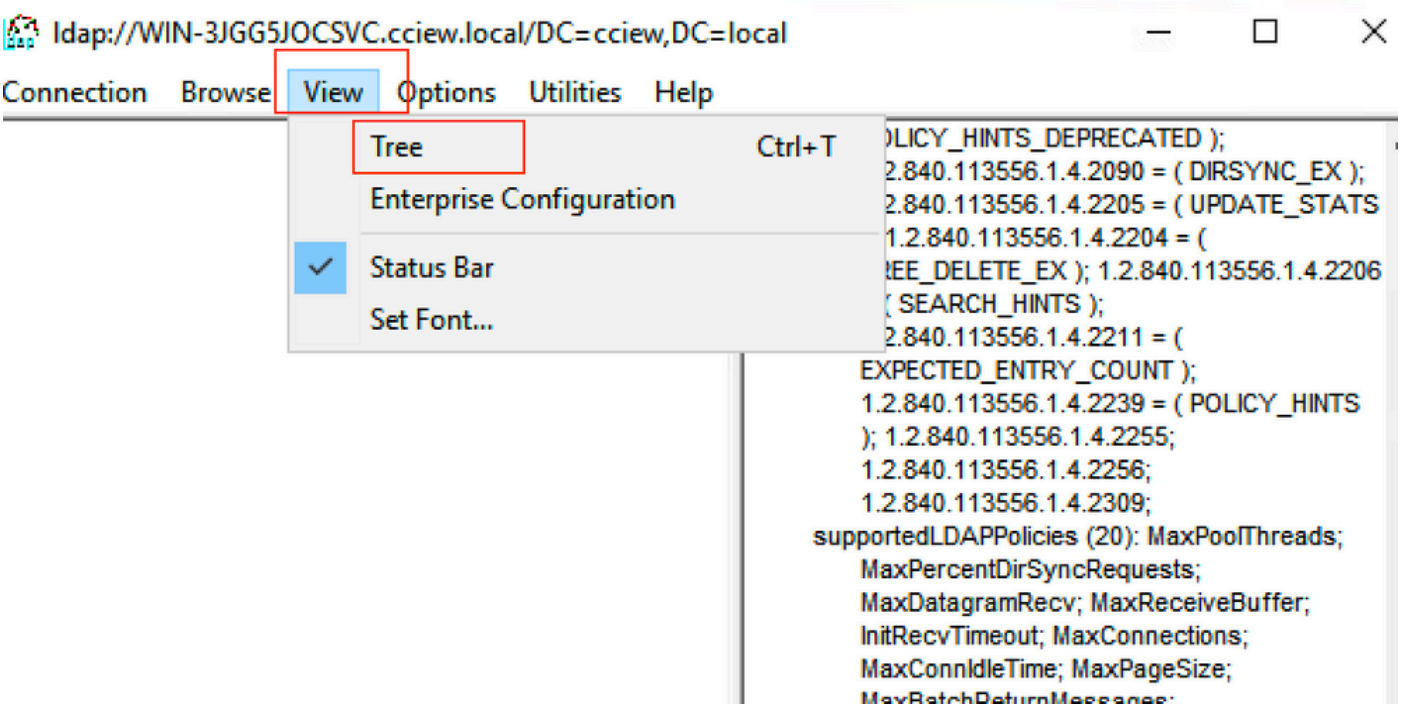


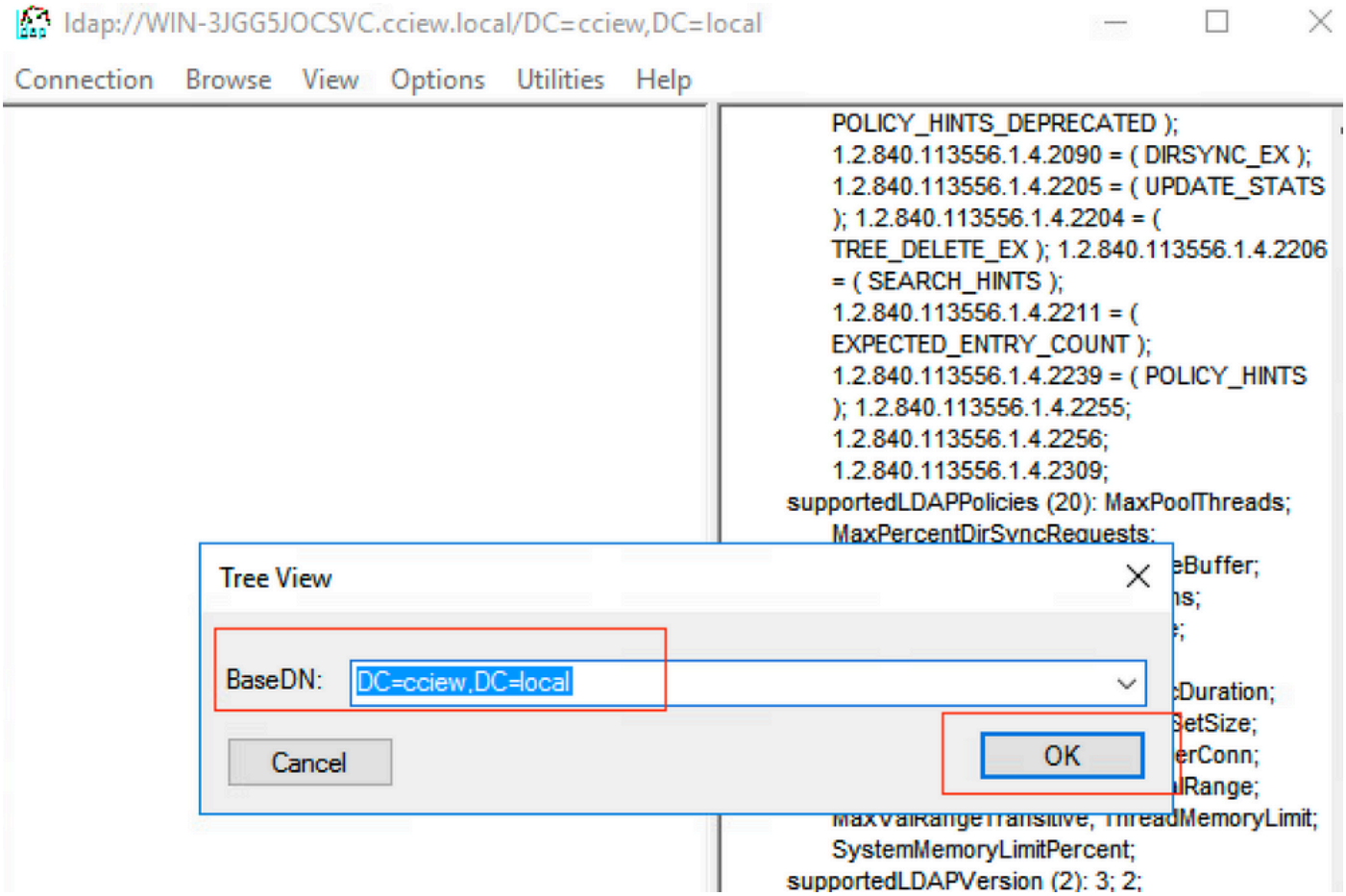
3. Gebruik het gereedschap ldp.exe op de server om Base-DN-informatie te valideren.


FileZilla Client
Best match
ldp
Run command
ldp


Ldp
Connection
Browse
View
Options
Utilities
Help
Connect...
Bind...
Ctrl+B
Disconnect
New
Ctrl+N
Save
Save As
Exit


Ldp
Connection
Browse
View
Options
Utilities
Help
Bind
User:
administrator
Password:
Domain:
CCIEW
Bind type
Bind as currently logged on user
Bind with credentials
Simple bind
Advanced (DIGEST)
Encrypt traffic after bind
Advanced
Cancel
OK


ldap://WIN-3JGG5JOCSVC.cciew.local/DC=cciew,DC=local
Connection
Browse
View
Options
Utilities
Help
Tree
Ctrl+T
Enterprise Configuration
Status Bar
Set Font...
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 = (
EE_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;


ldap://WIN-3JGG5JOCSVC.cciew.local/DC=cciew,DC=local
Connection
Browse
View
Options
Utilities
Help
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;
SystemMemoryLimitPercent;
supportedLDAPVersion (2): 3; 2;
Tree View
BaseDN:
DC=cciew,DC=local
Cancel
OK

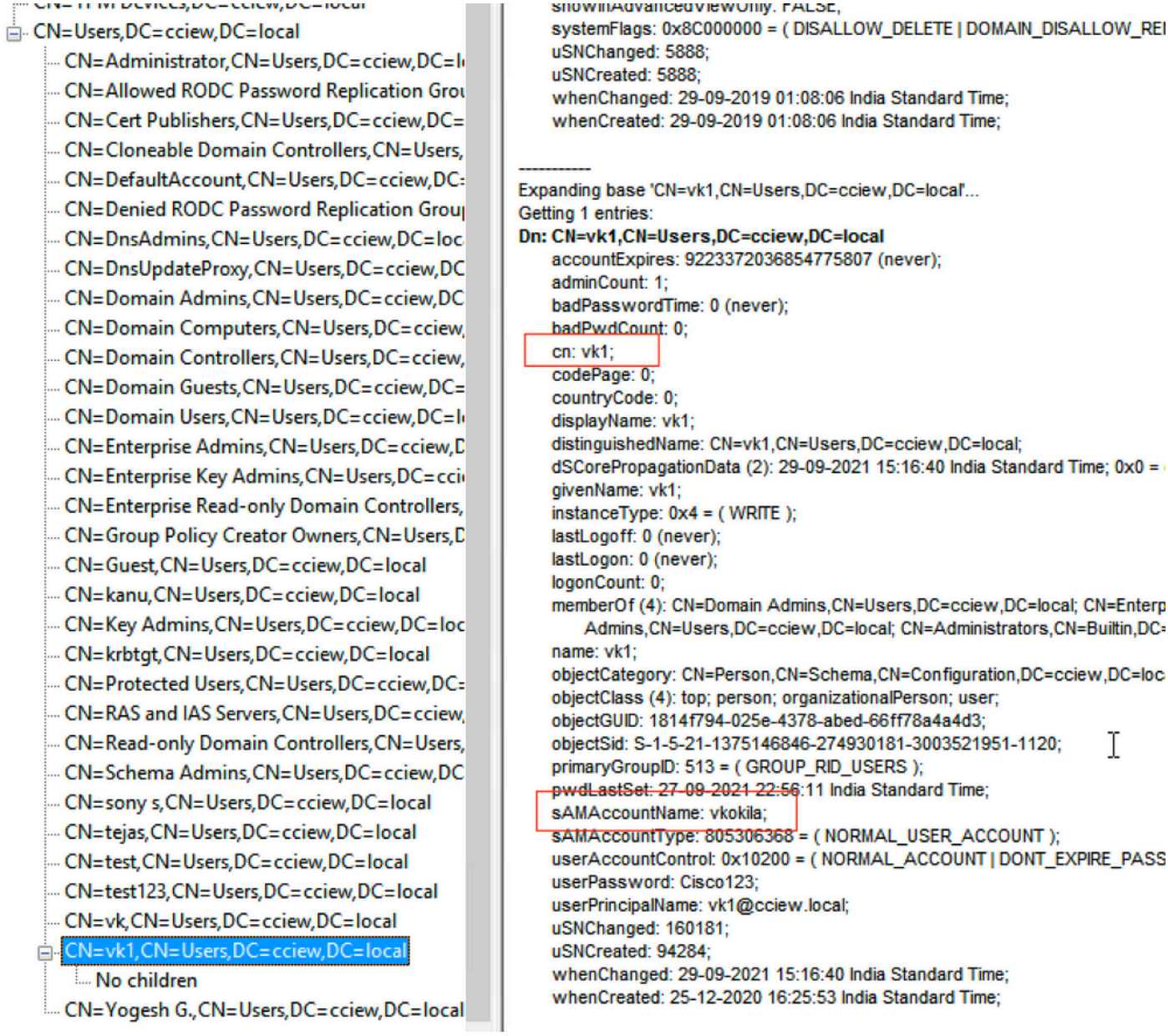
ldap://WIN-3JGG5JOCSVC.cciew.local/DC=cciew,DC=local

Connection Browse View Options Utilities Help

- 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;
```



4. Controleer serverstatistieken en attribuut 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

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

Referenties

[Lokale EAP-configuratie op 9800-voorbeeld]

Over deze vertaling

Cisco heeft dit document vertaald via een combinatie van machine- en menselijke technologie om onze gebruikers wereldwijd ondersteuningscontent te bieden in hun eigen taal. Houd er rekening mee dat zelfs de beste machinevertaling niet net zo nauwkeurig is als die van een professionele vertaler. Cisco Systems, Inc. is niet aansprakelijk voor de nauwkeurigheid van deze vertalingen en raadt aan altijd het oorspronkelijke Engelstalige document (link) te raadplegen.