Configure Secure Access for RA-VPNaaS Posture Assessment with ISE

Contents

Introduction

This document describes how to configure Posture Assessment for Remote Access VPN users with Identity Service Engine (ISE) and Secure Access.

Prerequisites

- Configure User Provisioning
- Cisco ISE connected to Secure Access through the tunnel

Requirements

Cisco recommends that you have knowledge of these topics:

- Identity Service Engine
- Secure Access
- Cisco Secure Client
- ISE Posture
- Authentication, Authorization, and Accounting

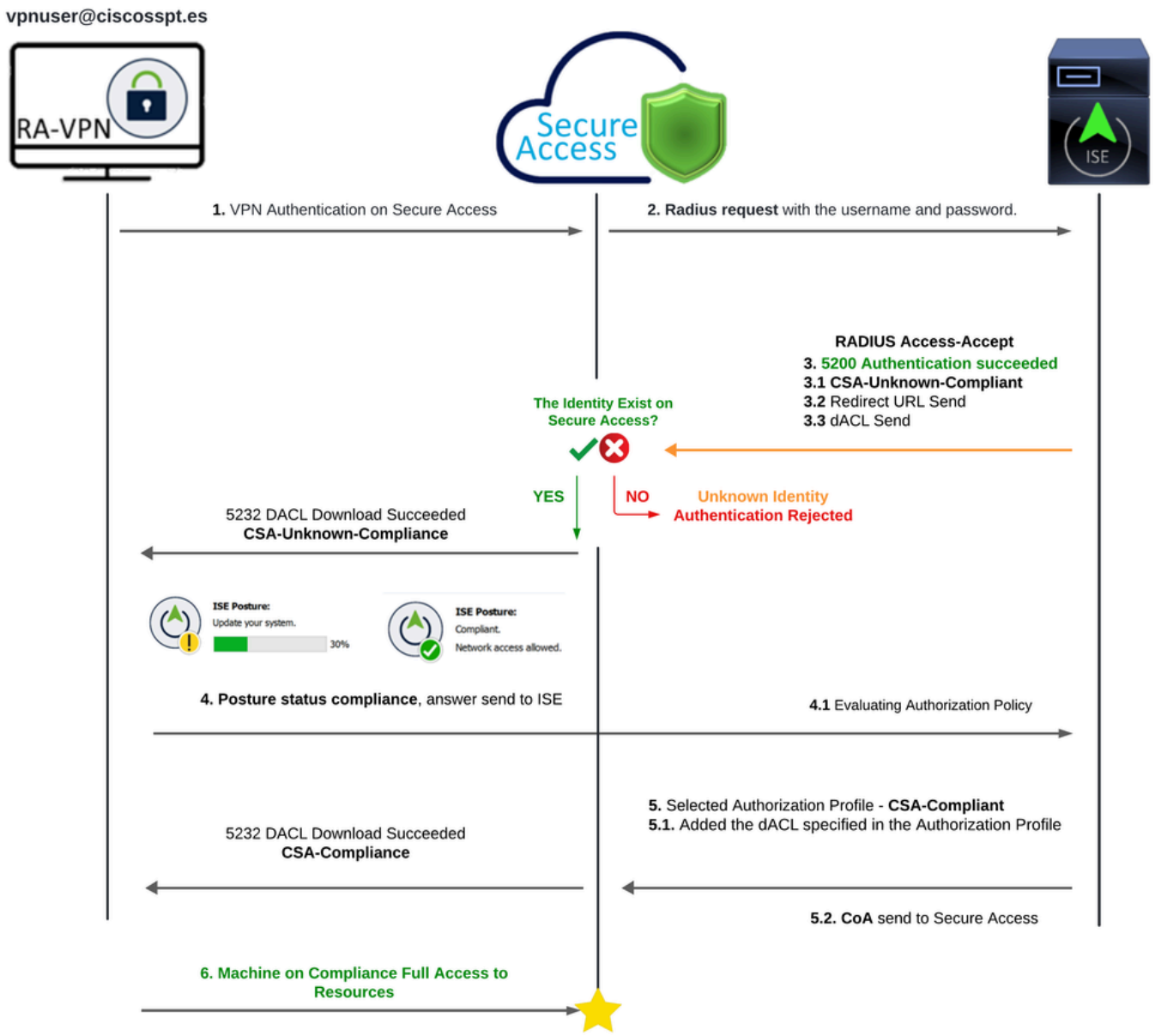
Components Used

The information in this document is based on:

- Identity Service Engine (ISE) Version 3.3 Patch 1
- Secure Access
- Cisco Secure Client - Anyconnect VPN Version 5.1.2.42

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. If your network is live, ensure that you understand the potential impact of any command.

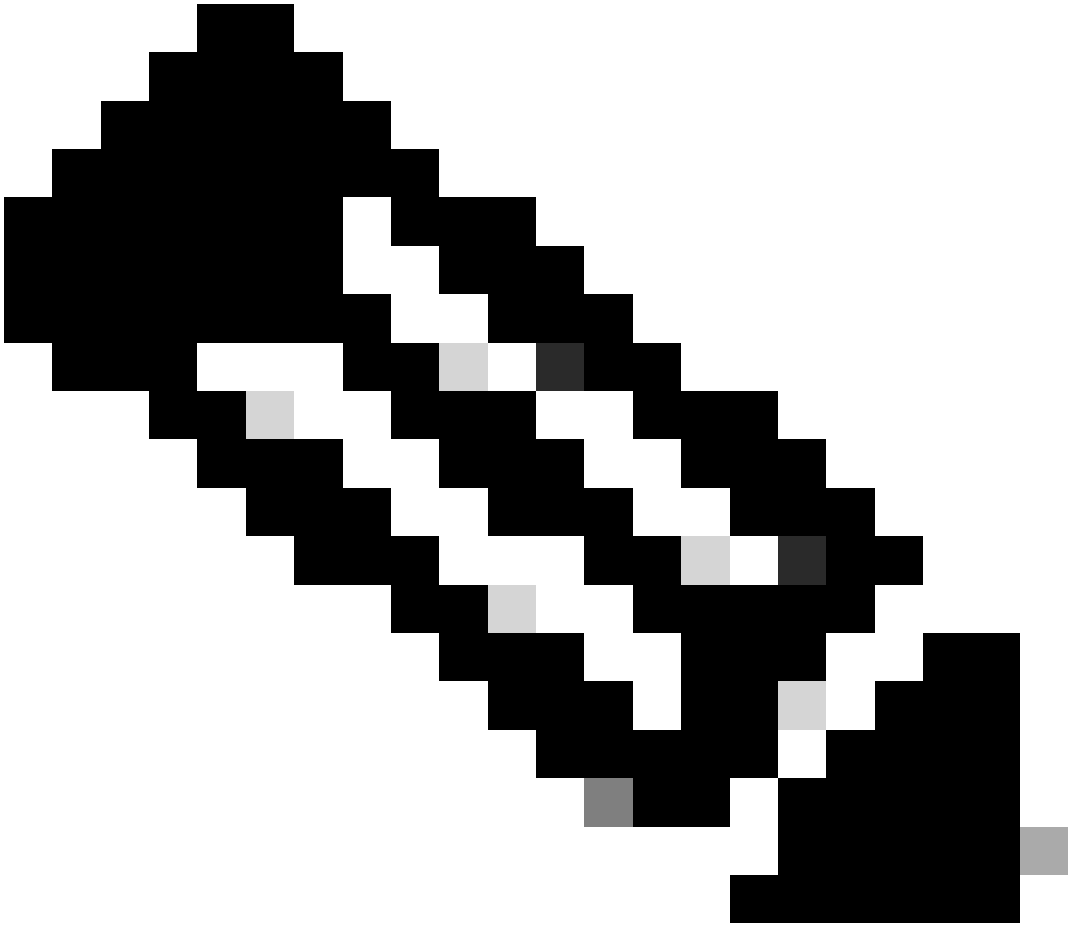
Background Information



Secure Access - ISE - Diagram

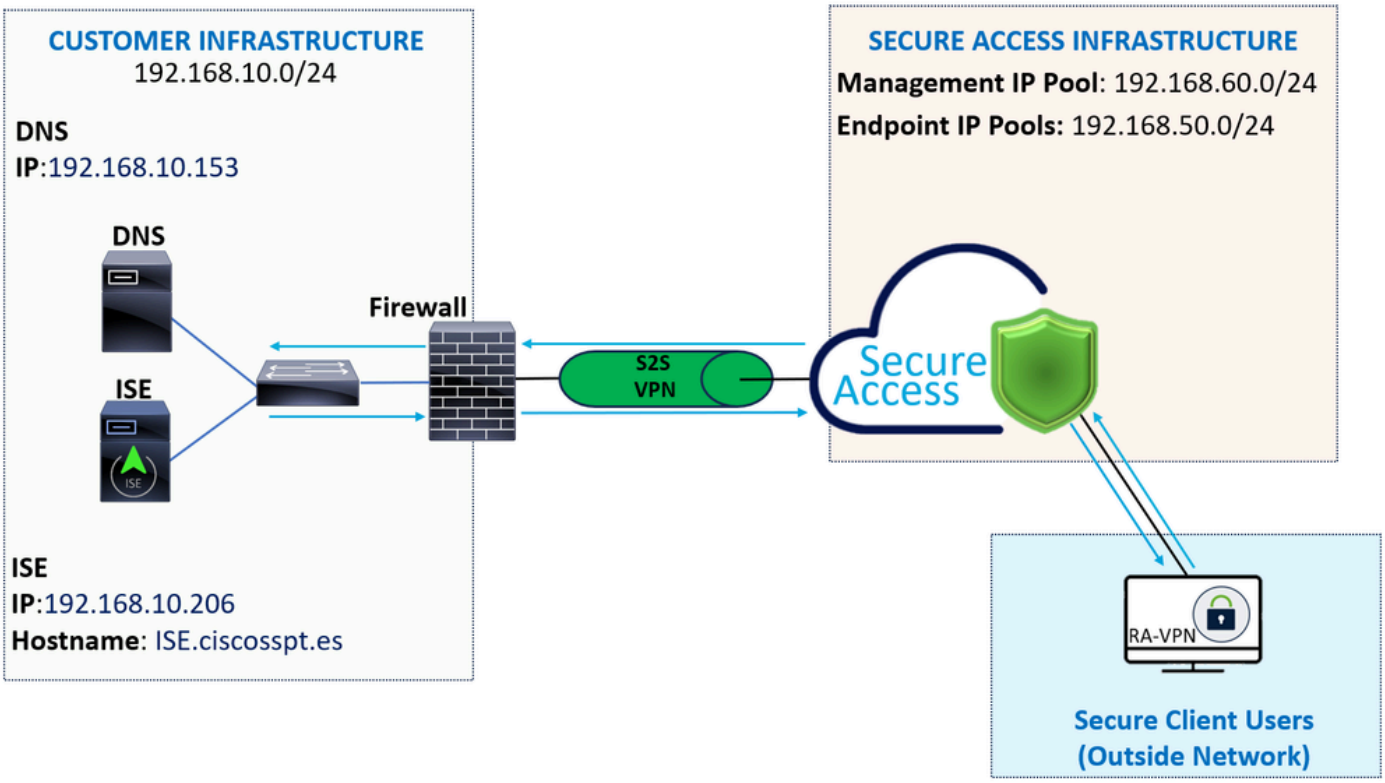
Integrating Cisco Secure Access with Identity Services Engine (ISE) provides a comprehensive security approach, leveraging different authentication protocols, including MS-CHAPv2, to secure connections. Cisco Secure Access, with its advanced Security Service Edge (SSE) solution, enhances secure connectivity across hyper-distributed environments, offering features like VPN as a Service (VPNaaS), which can be safeguarded using ISE capabilities.

This integration allows for a seamless and secure access experience, enabling users to connect to any application, anywhere, with optimized performance and security. The utilization of Cisco ISE advanced features, such as Posture Assessment, further strengthens this security model by evaluating the compliance of PCs against internal user policies before allowing access. This ensures that only devices meeting the organization security requirements can access network resources, reducing the risk of vulnerabilities.

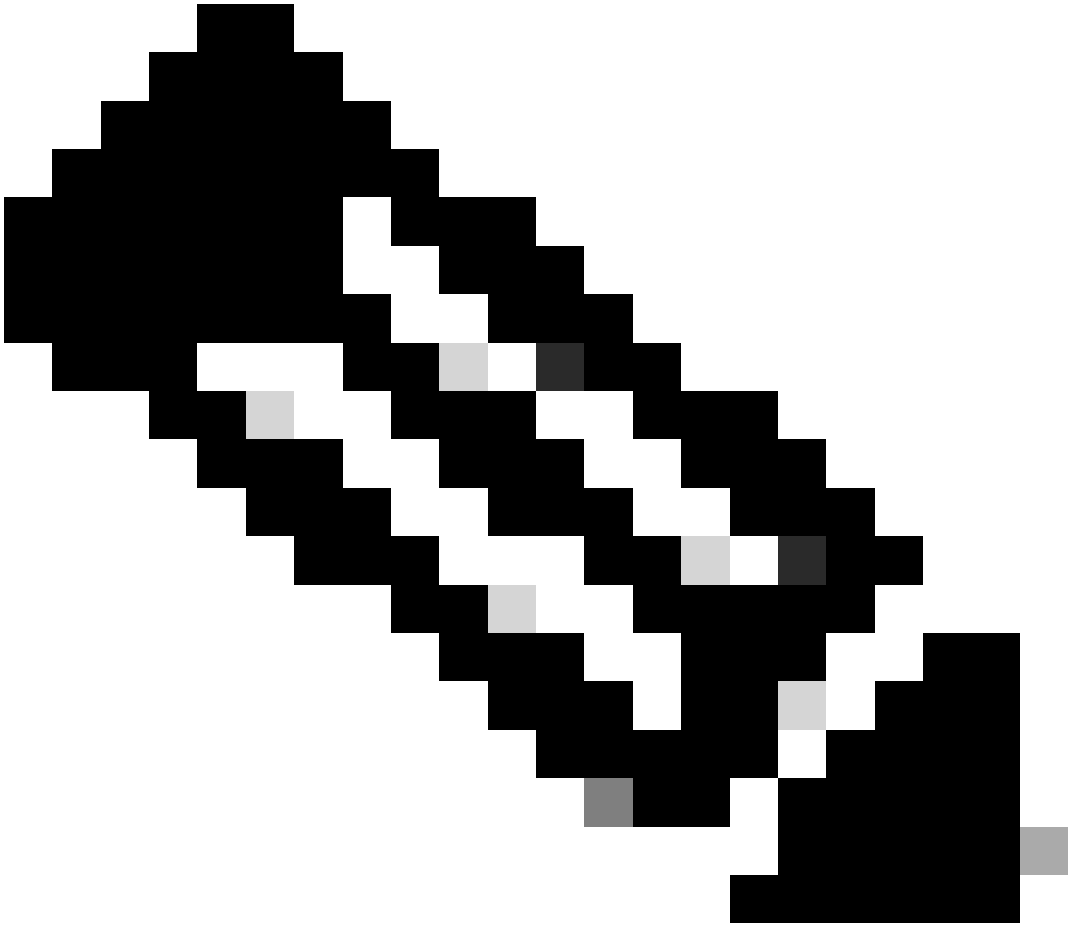


Note: To configure the RADIUS integration, you need to make sure you have communication between both platforms.

Network Diagram


CUSTOMER INFRASTRUCTURE
192.168.10.0/24
DNS
IP:192.168.10.153
DNS
ISE
Firewall
ISE
IP:192.168.10.206
Hostname: ISE.ciscosspt.es
S2S
VPN
SECURE ACCESS INFRASTRUCTURE
Management IP Pool: 192.168.60.0/24
Endpoint IP Pools: 192.168.50.0/24
Secure
Access
RA-VPN
Secure Client Users
(Outside Network)

Configure



Note: Before you begin the configuration process, you must complete the First Steps with Secure Access and ISE Integration.

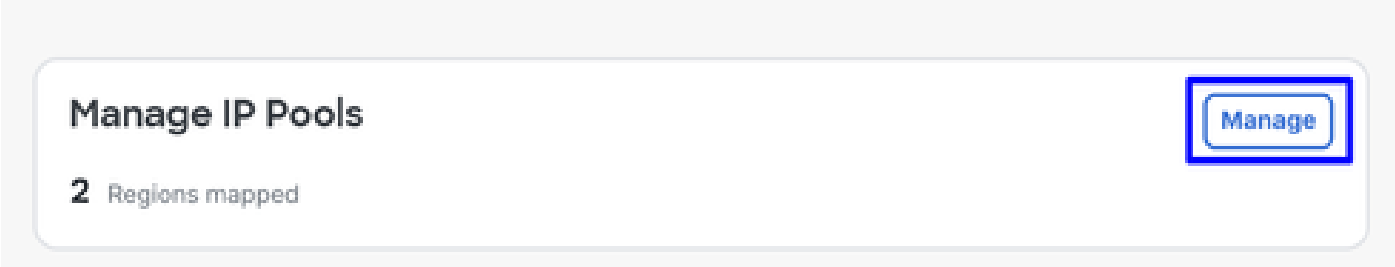
Secure Access Configuration

Configure Radius Group on the IP Pools

To configure the VPN Profile using Radius, proceed with the next steps:

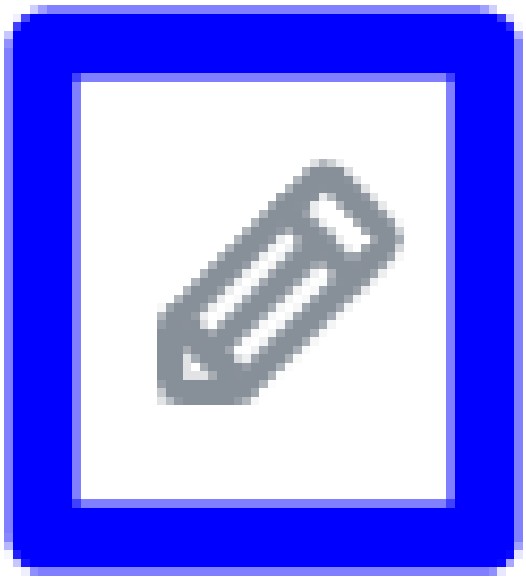
Navigate to your Secure Access Dashboard.

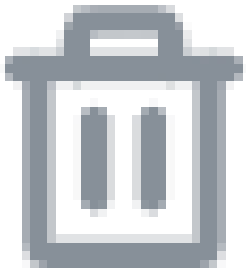
- Click on **Connect** > **Enduser Connectivity** > **Virtual Private Network**
- Under your Pool Configuration (**Manage IP Pools**), clickManage



- Choose the **IP Pool Region** and configure the **Radius Server**

- Click the pencil to edit





- Now, under the IP Pool section configuration drop-down under **Radius Group (Optional)**
- Click Add RADIUS Group

RADIUS Groups (optional)

Associate one RADIUS group per AAA method to this IP pool.

No RADIUS groups created

Add RADIUS Group

← Edit RADIUS Group

Add group of RADIUS servers, which will be used to control access to your VPN profiles

☑ Change of authorization (CoA) mode ⓘ

CoA Port: 1700

☑ Accounting

Port

1813

Accounting mode

◉ Single

○ Simultaneous

Accounting update

☑ Interim accounting update

Update interval

1 hour(s)

Settings ⌄

RADIUS Servers

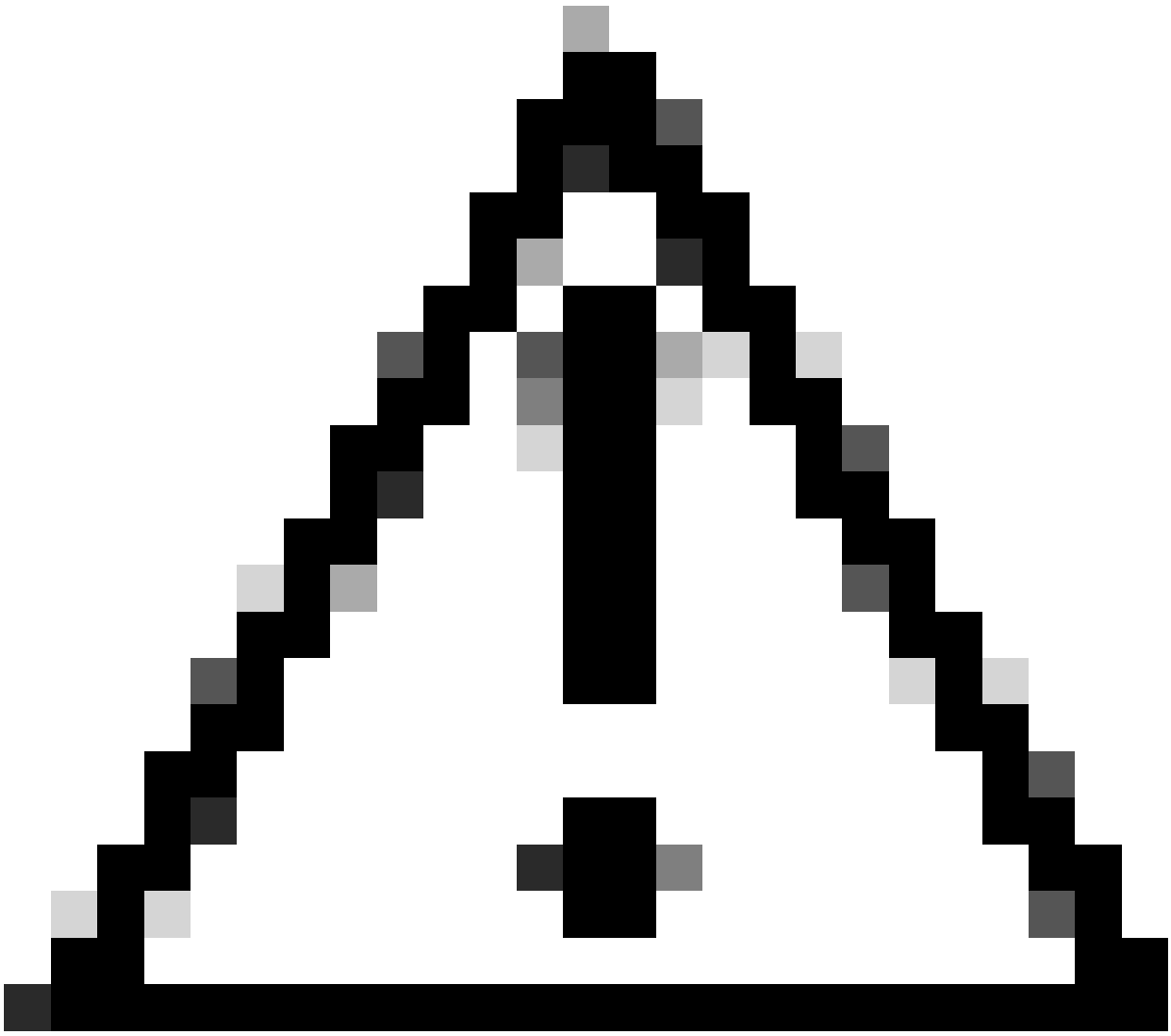
You can add up to 8 servers in each group

Assign servers

ISE_CSA × ⌄ + Add

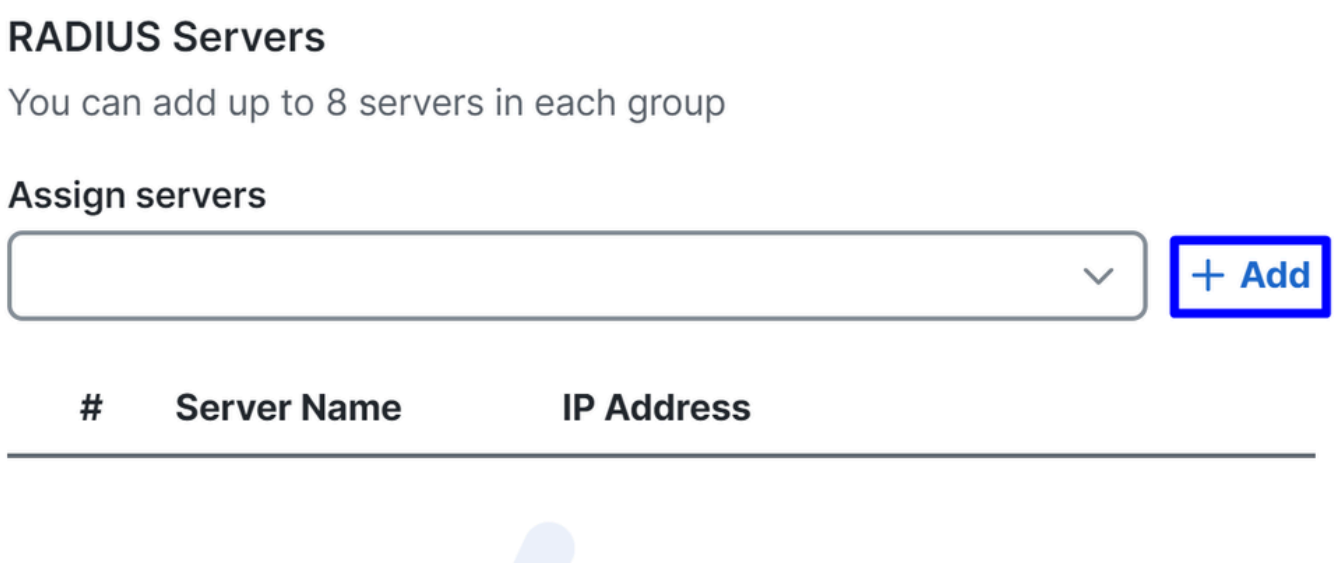
#	Server Name	IP Address
1	ISE_CSA	192.168.10.206

- **Authentication**: Mark the checkbox for **Authentication** and select the port, by default, is 1812
  - In the case that your authentication requires Microsoft Challenge Handshake Authentication Protocol Version 2 (MCHAPv2) mark the checkbox
- **Authorization**: Mark the checkbox for Authorization and select the port, by default, is 1812
  - Mark the checkbox for **Authorization mode Only** and**Change of Authorization (CoA) mode** to permit the posture and changes from ISE
- **Accounting**: Mark the checkbox for Authorization and select the port, by default, is 1813
  - Choose **Single or Simultaneous** (In single mode, accounting data is sent to only one server. In simultaneous mode, accounting data to all servers in the group)
  - Mark the checkbox for **Accounting update** to enable the periodic generation of RADIUS interim-accounting-update messages.

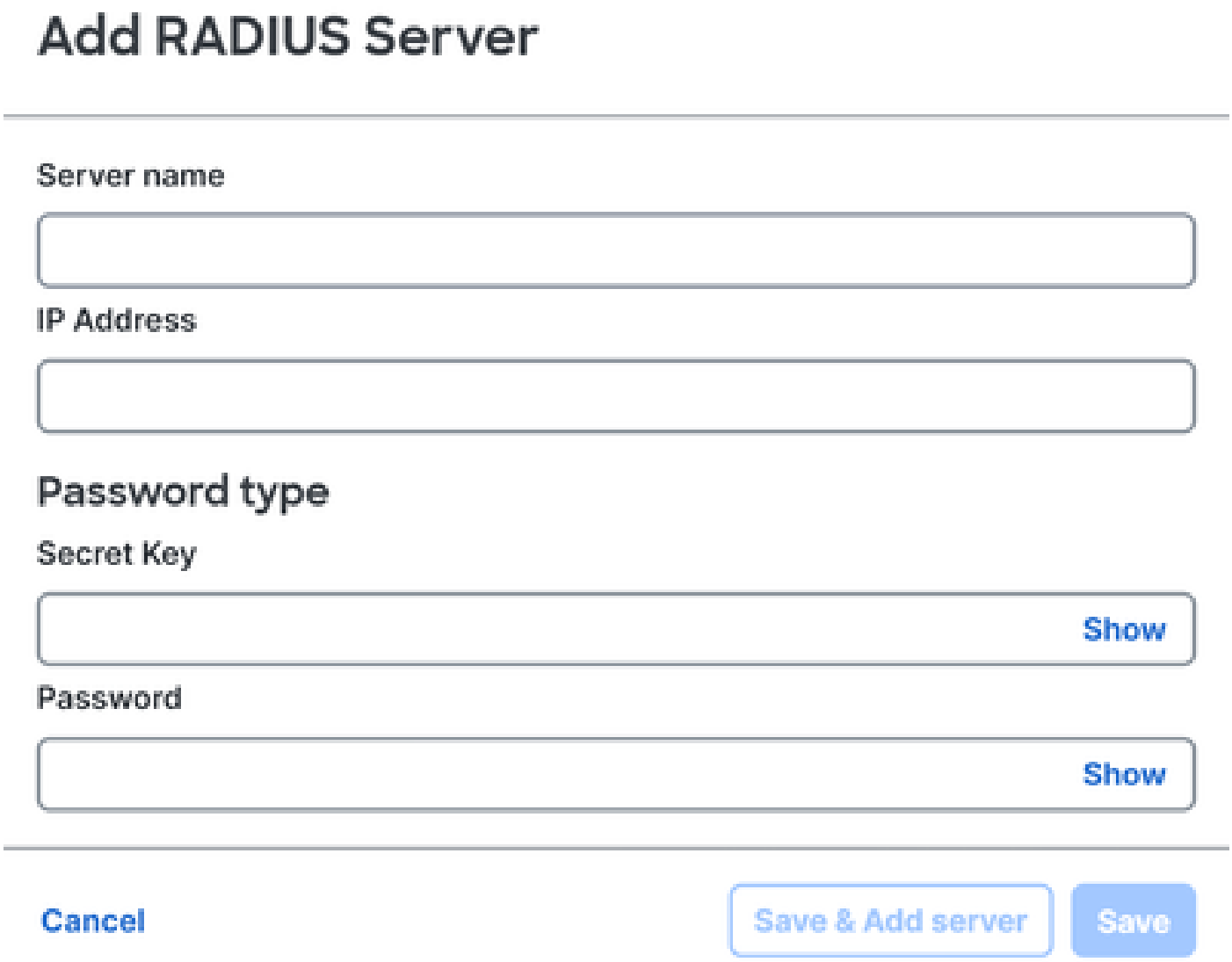


Caution: Both the Authentication and **Authorization** methods, when selected, must use the same port.

- After that, you need to configure the **RADIUS Servers** (ISE) that is used to authenticate via AAA on the section **RADIUS Servers**:
- Click on + Add

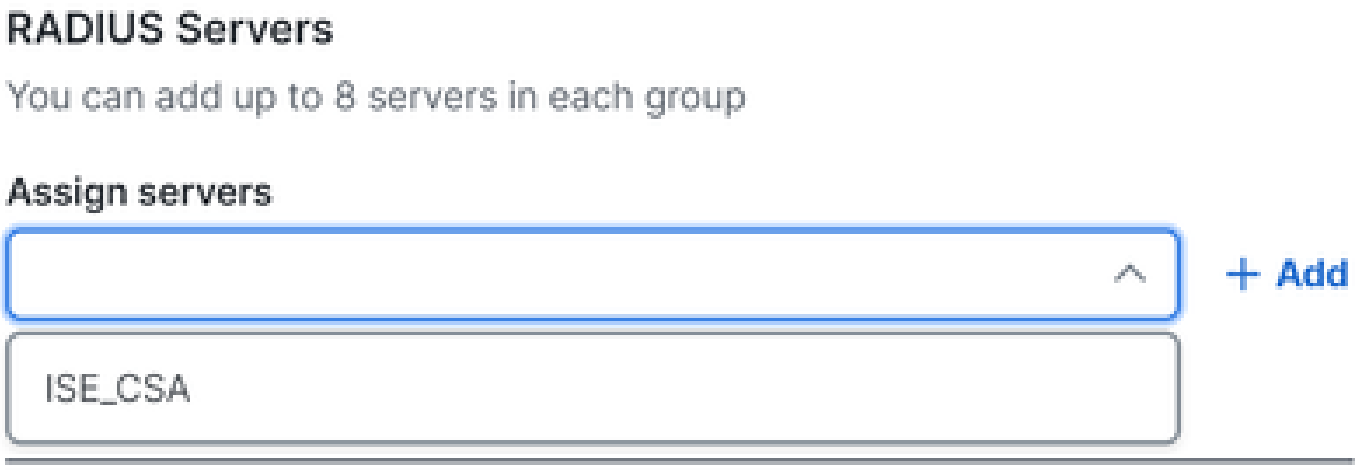


- Then, configure the next options:



- Server Name: Configure a name to identify your ISE Server.
- **IP Address**: Configure the IP of your Cisco ISE device that is reachable through Secure Access
- **Secret Key**: Configure your RADIUS secret Key

- **Password**: Configure your Radius password
- Click **Save** and assign your Radius Server under the Assign Server option and select your ISE server:



- Click **Save** again to save all the configuration done

← Edit RADIUS Group

Add group of RADIUS servers, which will be used to control access to your VPN profiles

☑ Change of authorization (CoA) mode ⓘ

CoA Port: 1700

☑ Accounting

Port

1813

Accounting mode

◉ Single

○ Simultaneous

Accounting update

☑ Interim accounting update

Update interval

1 hour(s)

Settings ⌄

RADIUS Servers

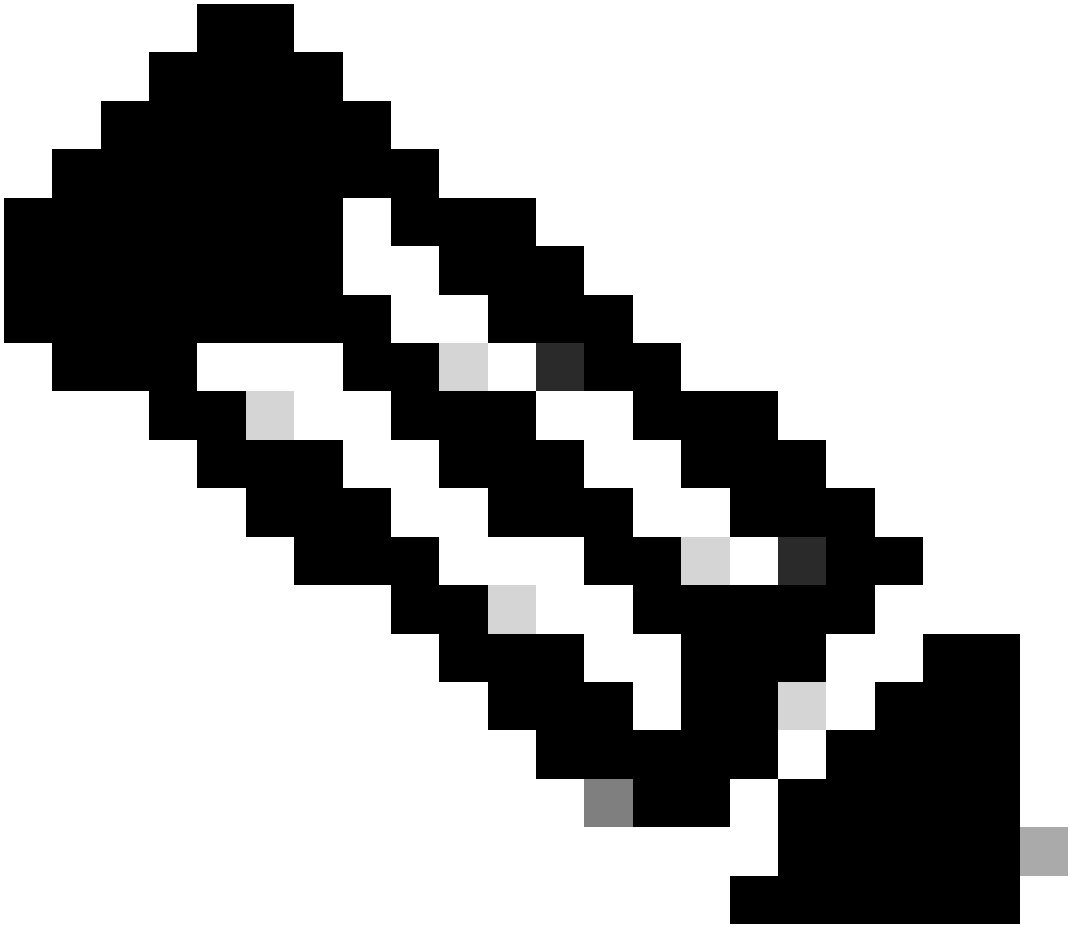
You can add up to 8 servers in each group

Assign servers

ISE_CSA × ⌄ + Add

#	Server Name	IP Address
1	ISE_CSA	192.168.10.206

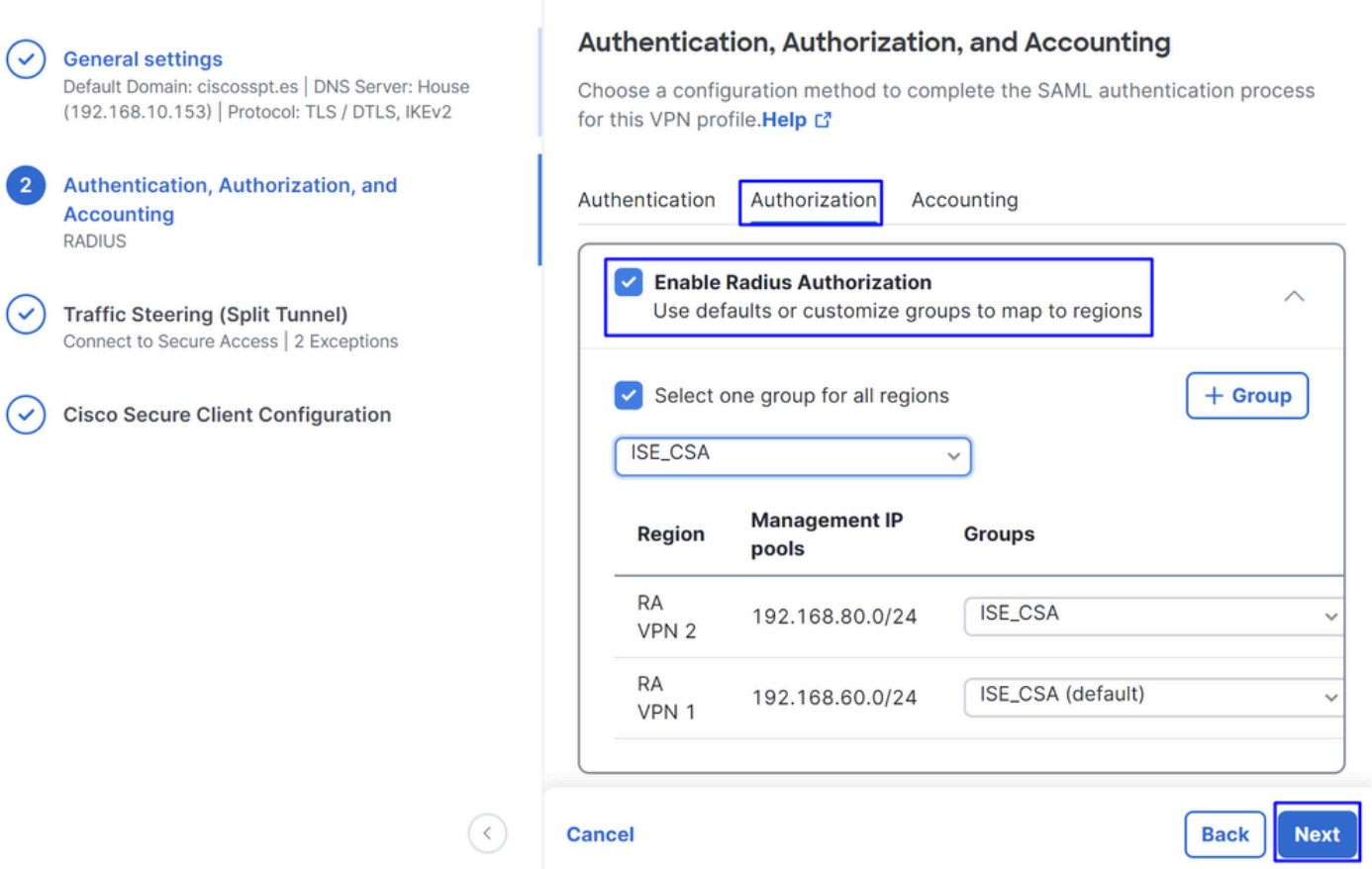
    - **Protocols**: Choose **Radius**
    - **Map authentication groups to regions**: Choose the regions and choose your **Radius Groups**
- Click **Next**



> **Note**: You must checkbox all regions and select the radius groups if you have multiple regions. If you do not do that, then your **Next** button is greyed out.

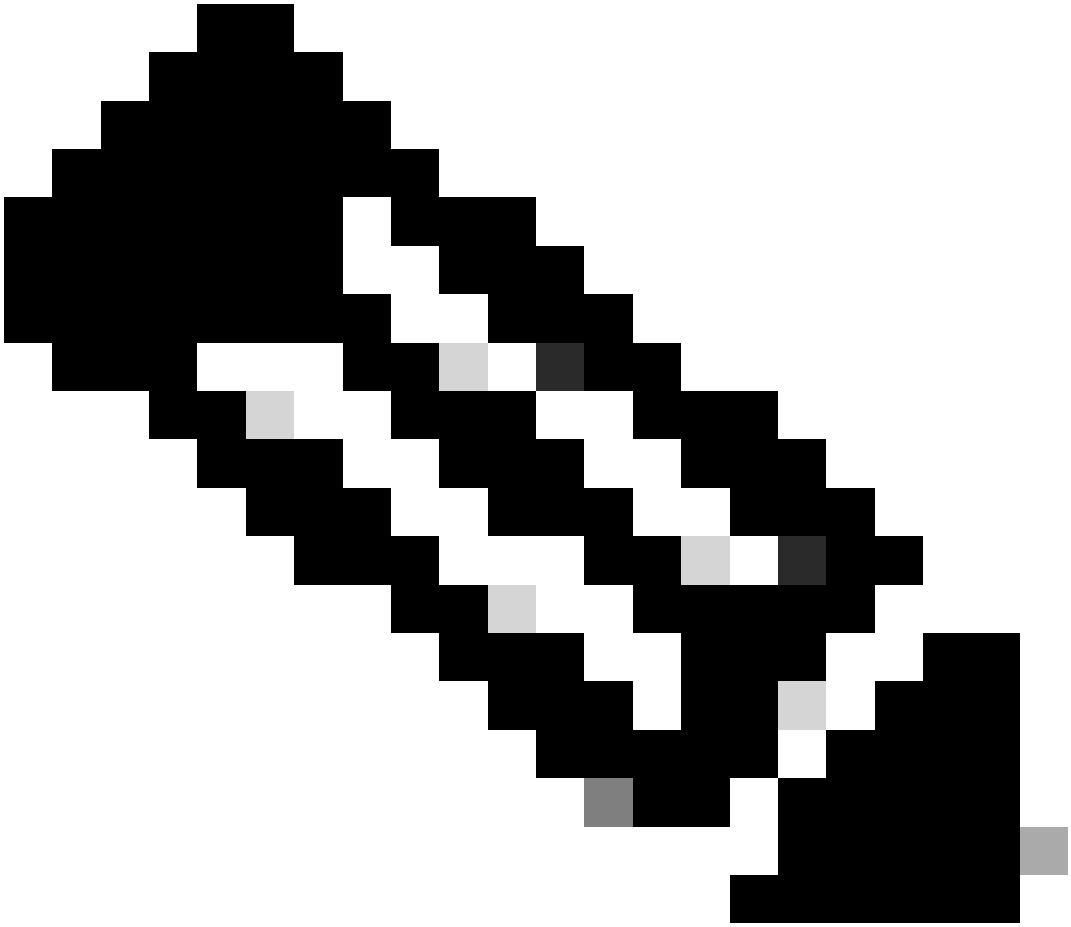
After you configure all the Authentication parts, please proceed with the Authorization.

Authorization



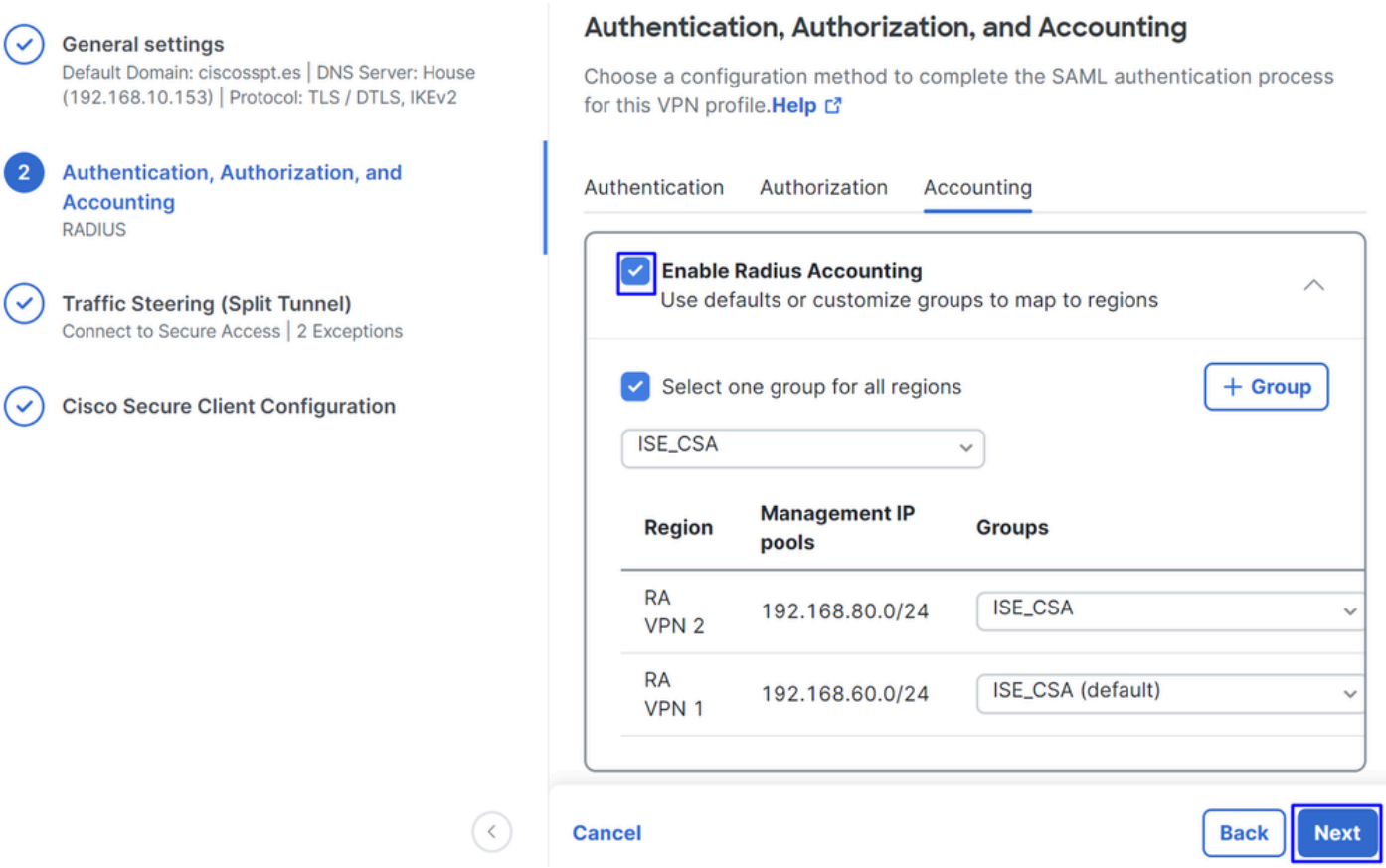
- **Authorization**
  - **Enable Radius Authorization**: Mark the checkbox to enable the radius Authorization
  - **Select one group for all regions**: Mark the checkbox to use one specific radius server for all the Remote Access - Virtual Private Network (RA-VPN) Pools, or define it for every pool separately
- Click **Next**

After you configure all the **Authorization** part, please proceed with the **Accounting**.



Note: If you do not enable **Radio Authorization,** posture cannot work.

Accounting

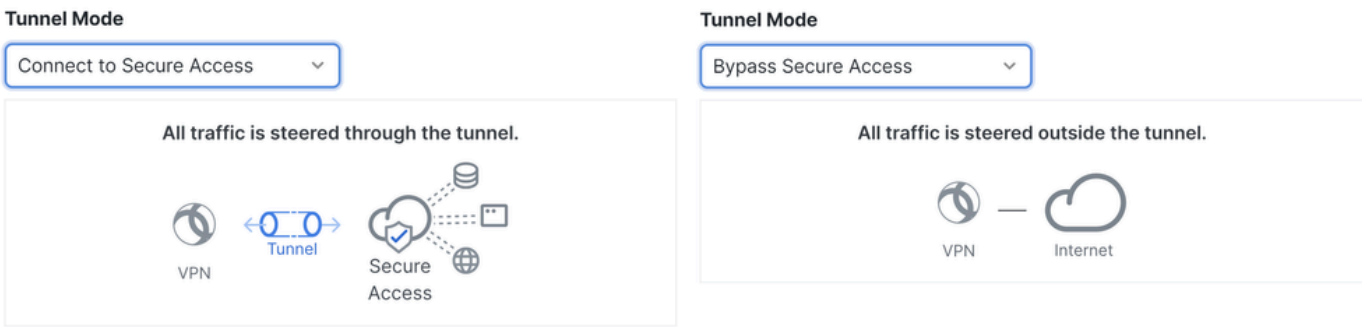


- **Accounting**
  - **Map Authorization groups to regions**: Choose the regions and choose your **Radius Groups**
- Click **Next**

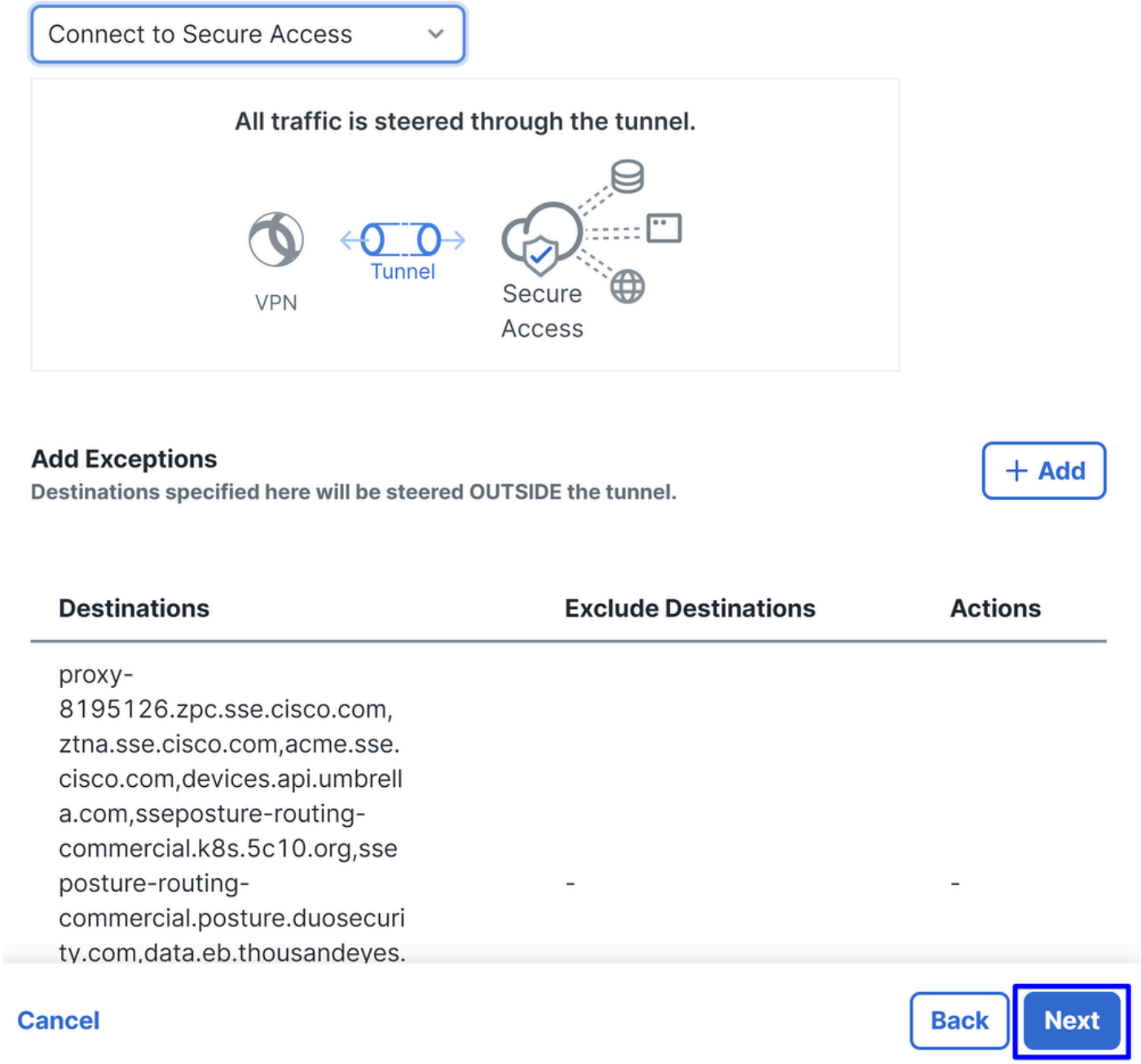
After you have done configured the Authentication, Authorization and Accounting please continue withTraffic Steering.

Traffic Steering

Under traffic steering, you need to configure the type of communication through Secure Access.



- If you choose **Connect to Secure Access**, all your internet traffic routes through **Secure Access**



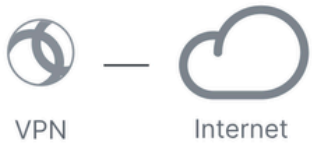
If you want to add exclusions for internet domains or IPs, please Click on the + **Add** button, then click **Next.**

- If you decide to **Bypass Secure Access,** all your internet traffic passes through your internet provider, not throughSecure Access (No Internet Protection)

Tunnel Mode

Bypass Secure Access

All traffic is steered outside the tunnel.



Add Exceptions

Destinations specified here will be steered INSIDE the tunnel.

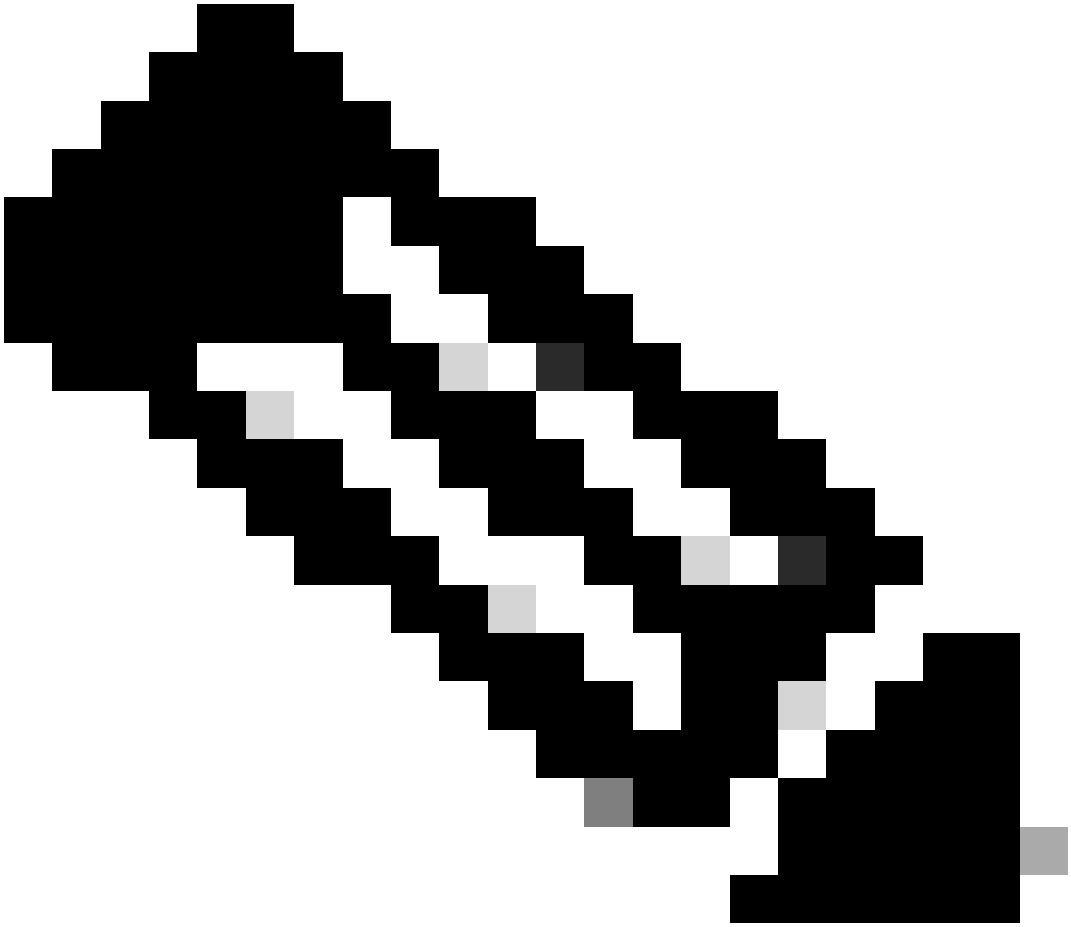
+ Add

Destinations	Exclude Destinations	Actions

No matches found

Cancel

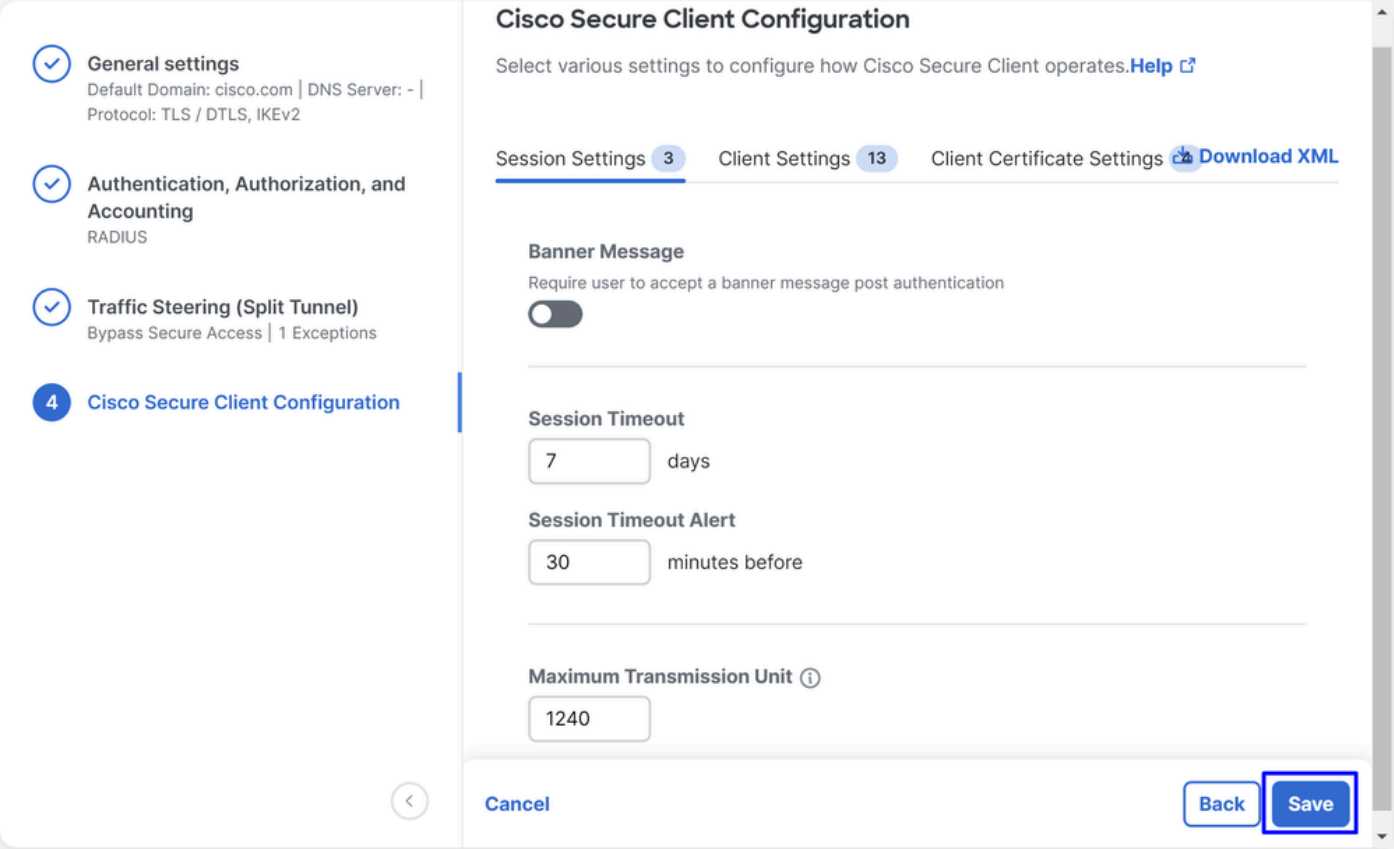
Back Next



Note: Please add **enroll.cisco.com** for ISE posture when you choose **Bypass Secure Access.**

In this step, you select all the private network resources that you want to access through the VPN. To do so, click **+ Add**, then click **Next** when you have added all the resources.

Cisco Secure Client Configuration



In this step, you can maintain everything as default and click **Save**, but if you want to customize your configuration more, please check [Cisco Secure Client Administrator Guide](#).

ISE Configurations

Configure Network Devices List

To configure the authentication through Cisco ISE, you need to configure the permitted devices that can make queries to your Cisco ISE:

- Navigate to **Administration** > **Network Devices**
- Click on + **Add**

Network Devices List > CSA

Network Devices

Name CSA

Description

IP Address * IP : 192.168.60.0 / 24

Device Profile Cisco

RADIUS Authentication Settings

RADIUS UDP Settings

Protocol **RADIUS**

Shared Secret ····· Show

Use Second Shared Secret

Second Shared Secret Show

CoA Port 1700 Set To Default

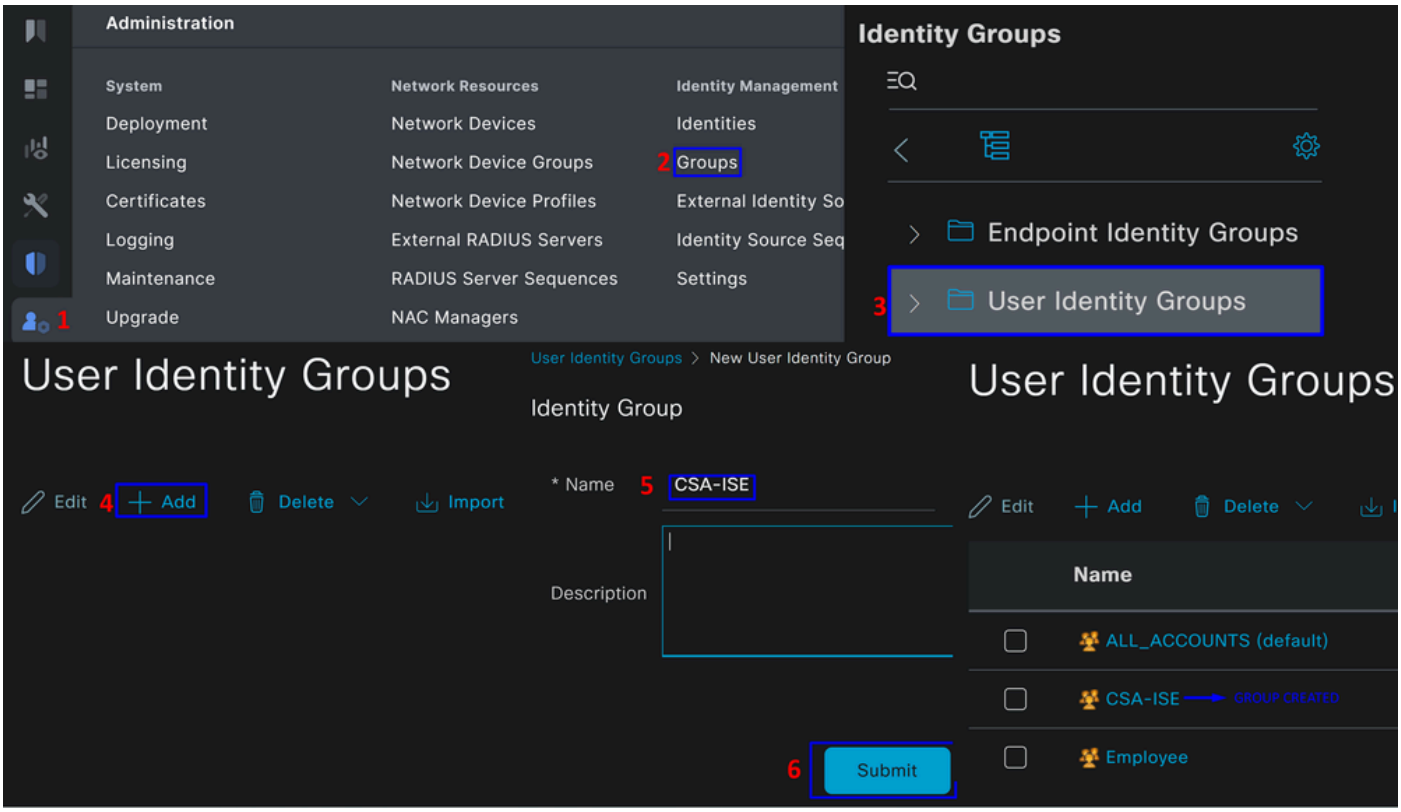
- **Name**: Use a name to Identify Secure Access
- **IP Address**: Configure the Management Interface of the step, IP Pool Region
- **Device Profile**: Choose Cisco
  - **Radius Authentication Settings**
    - Shared Secret: Configure the same shared secret configured on the step, Secret Key
    - **CoA Port**: Let it as default; 1700 is also used in Secure Access

After that click **Save**, to verify if the integration works properly, proceed to create a local user for integration verification.

Configure a Group

To configure a group for use with local users, proceed with these steps:

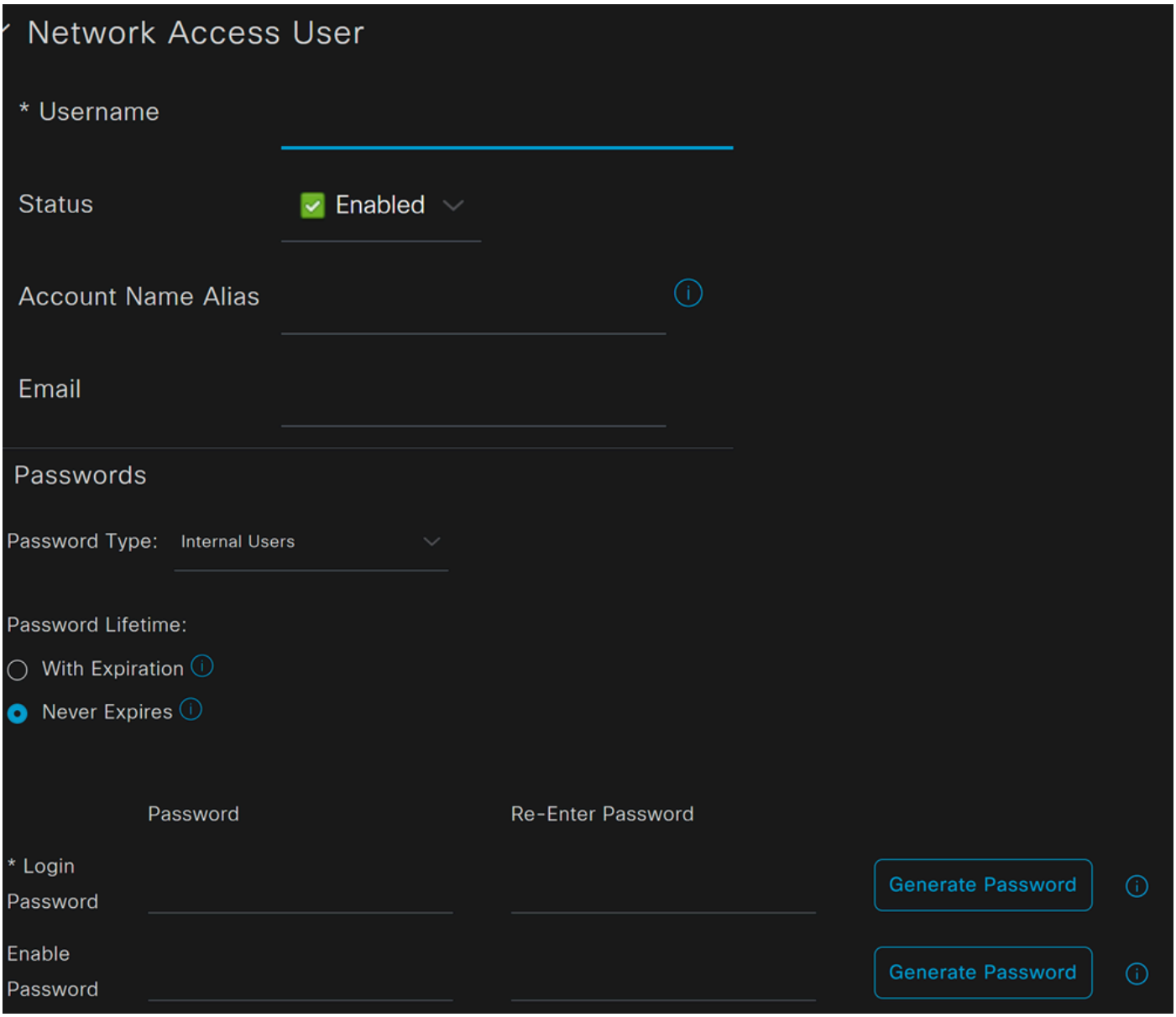
- Click in **Administration > Groups**
- Click **User Identity Groups**
- Click + Add
- Create a Namefor the Group and click **Submit**

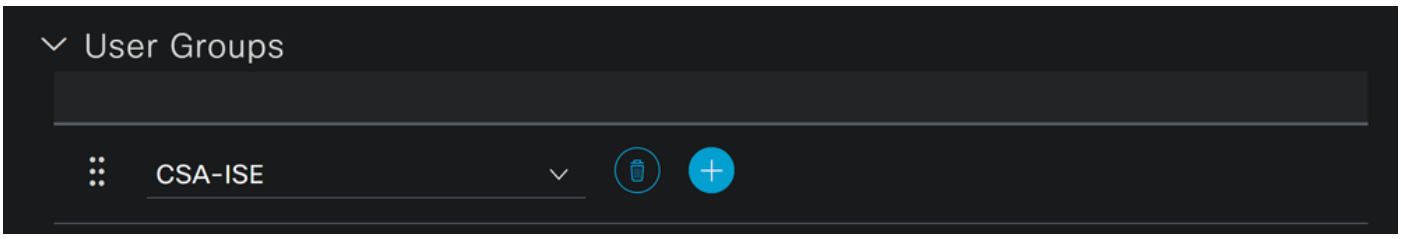


Configure Local User

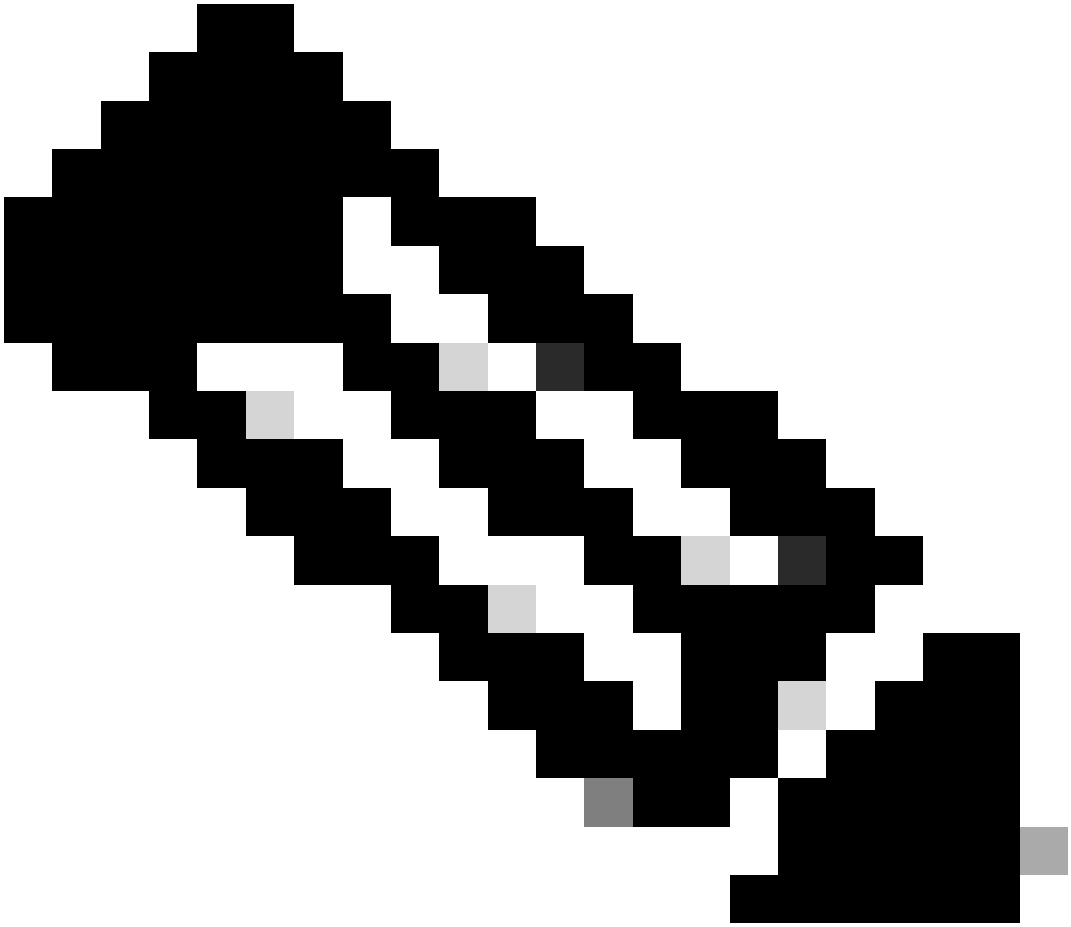
To configure a local user to verify your integration:

- Navigate to **Administration > Identities**
- Click on **Add +**





- **Username**: Configure the username with a known UPN provisioning in Secure Access; this is based on the step, [Prerequisites]
- **Status**: Active
- **Password Lifetime**: You can configure it **With Expiration** or Never Expires, depending on you
- **Login Password**: Create a password for the user
- **User Groups**: Choose the group created on the step, [Configure a Group]



Note: The authentication-based on UPN is set to change in upcoming versions of Secure Access.

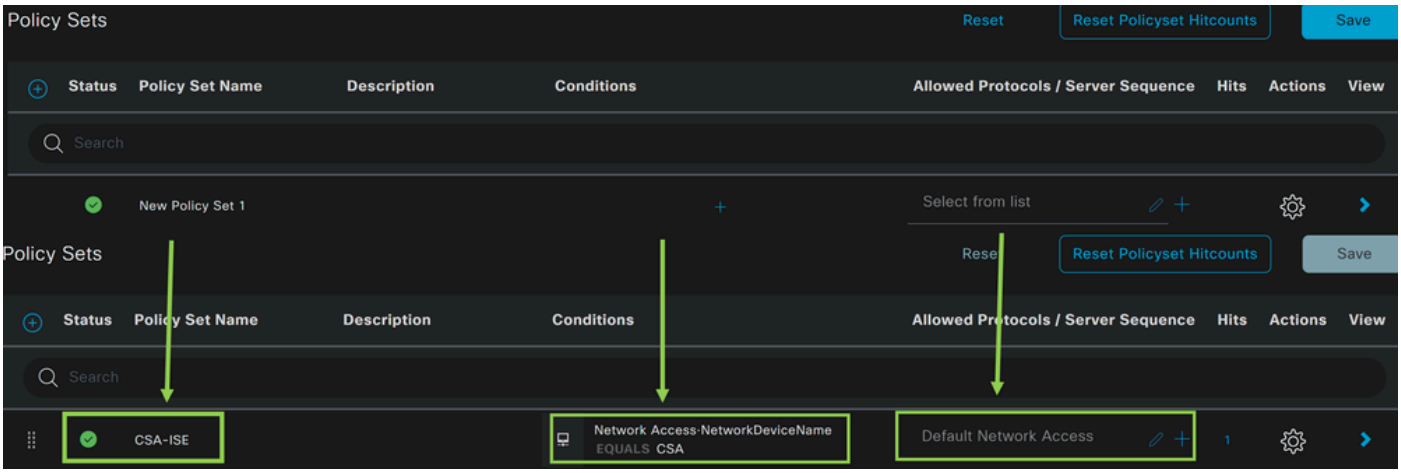
After that, you can **Save** the configuration and continue with the step, **Configure Policy Set**.

Configure Policy Set

Under the policy set, configure the action that ISE takes during authentication and authorization. This scenario demonstrates the use case for configuring a simple policy to provide user access. First, ISE verifies the origin of the RADIUS authentications and checks if the identities exist in the ISE user database to provide access

To configure that policy, navigate to your Cisco ISE Dashboard:

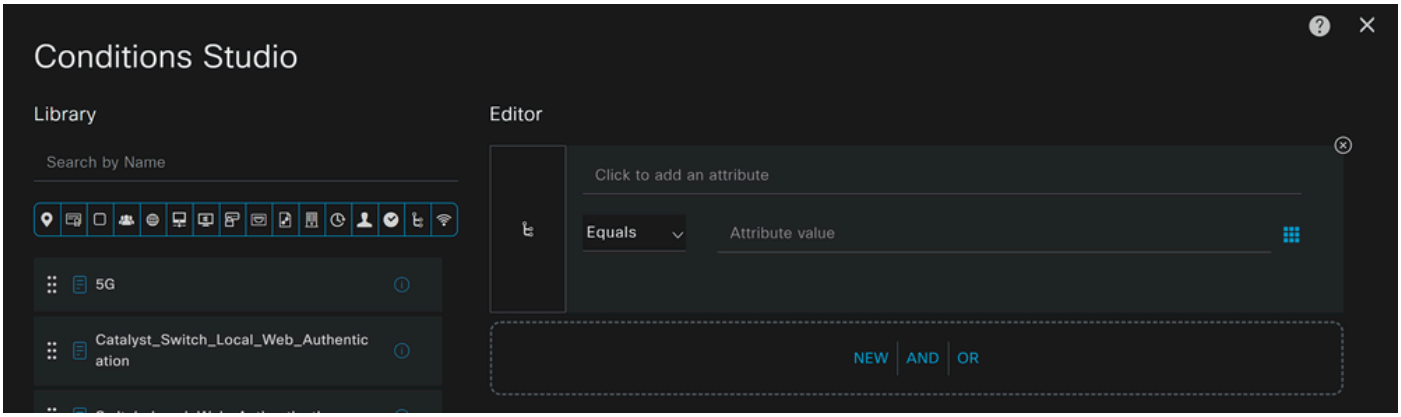
- Click on Policy > Policy Sets
- Click on + to add a new policy set



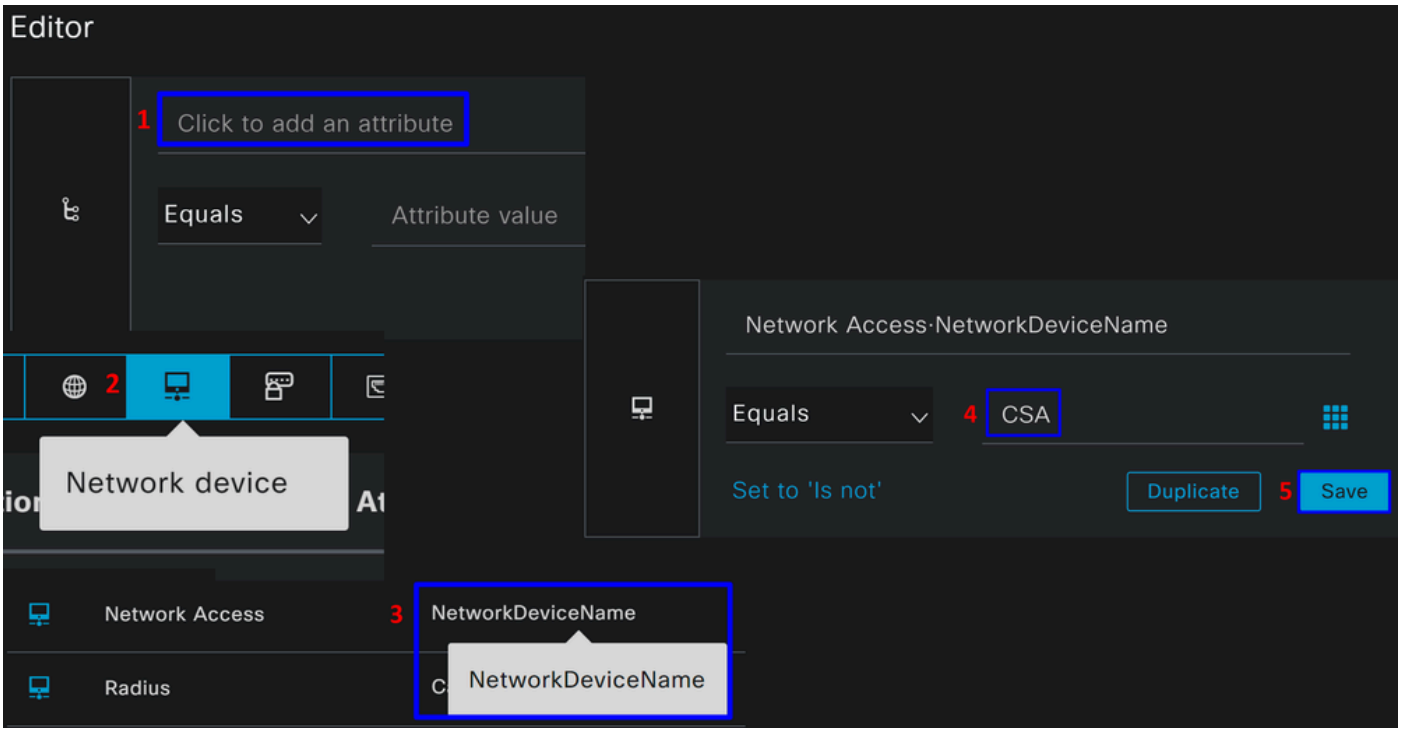
In this case, create a new policy set instead of working under the default one. Next, configure the Authentication and Authorization based on that policy set. The configured policy permits access to the network device defined in the step [Configure Network Devices List]() to verify these authentications come from CSA Network Device List then get into the policy as **Conditions**. And finally, the allowed Protocols, as **Default Network Access**.

To create the **condition** that matches the policy set, proceed with the next instructions:

- Click on +
- Under **Condition Studio**, the information available includes:

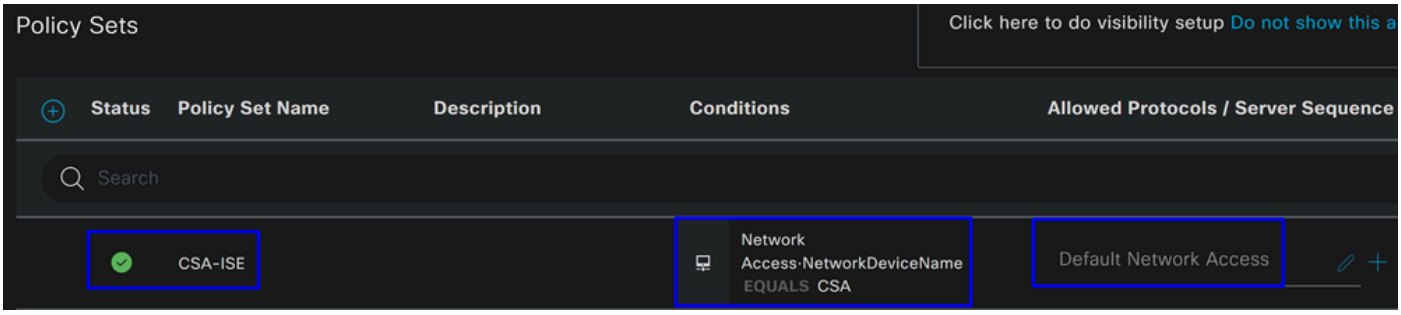


1. To create the Conditions, click on Click to add an attribute
2. Click on the **Network Device** button
3. Under the options behind, click on **Network Access - Network Device Name** option
4. Under the Equals option, write the name of the **Network Device** under the step, [Configure Network Devices List]()
5. Click **Save**

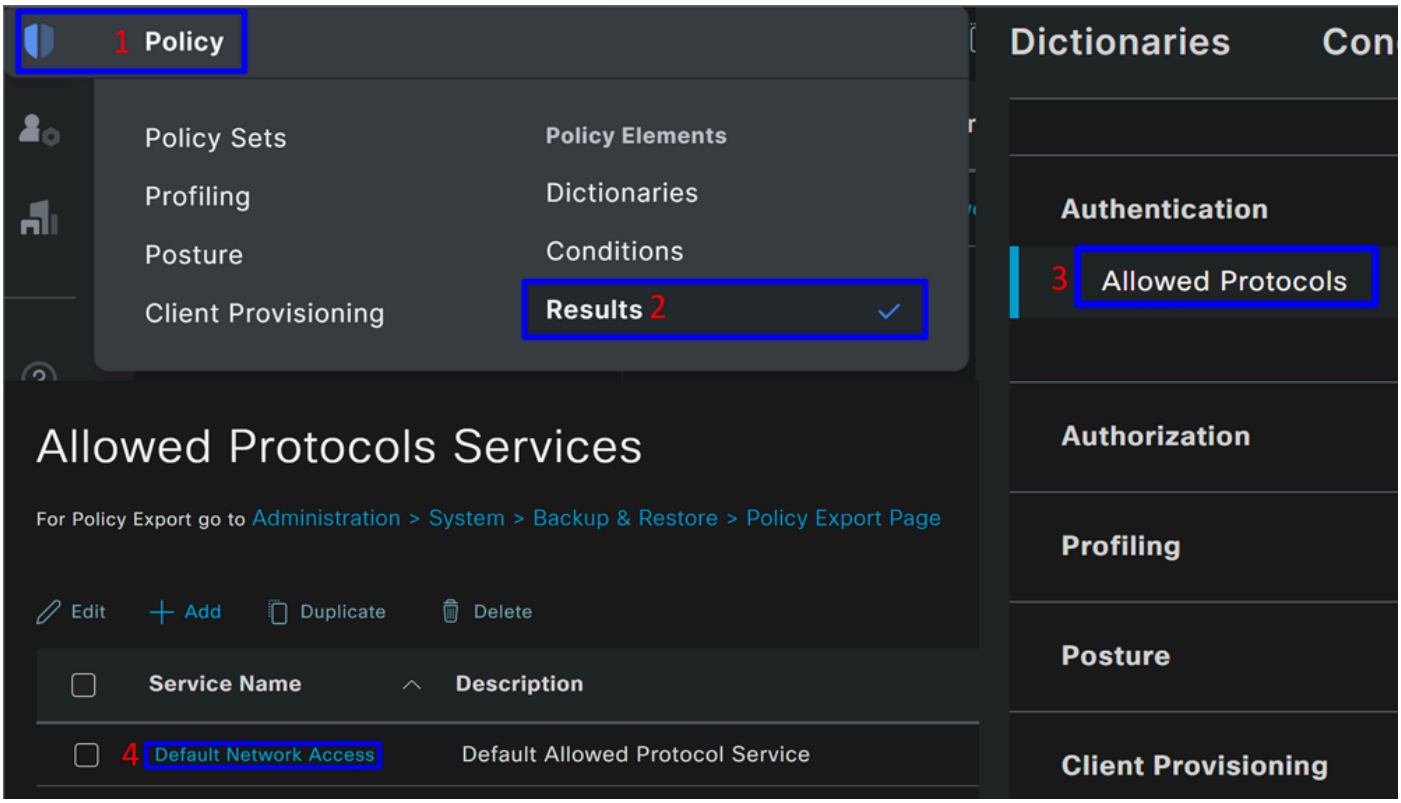


This policy only approves the request from the source CSA to continue the **Authentication** and **Authorization** setup under the policy set **CSA-ISE**, and also verifies the protocols permitted based on the **Default Network Access** for the allowed protocols.

The result of the Policy defined must be:



- To verify the **Default Network Access Protocols** allowed, proceed with the next instructions:
  - Click onPolicy > Results
  - Click on **Allowed Protocols**
  - Click on **Default Network Access**

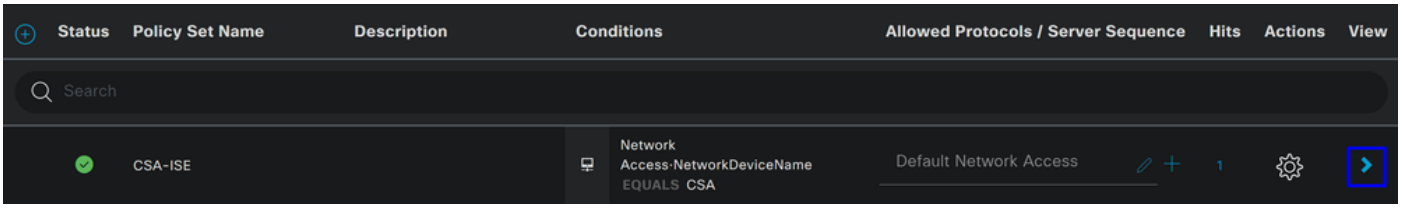


- Then, you see all the protocols permitted on **Default Network Access**

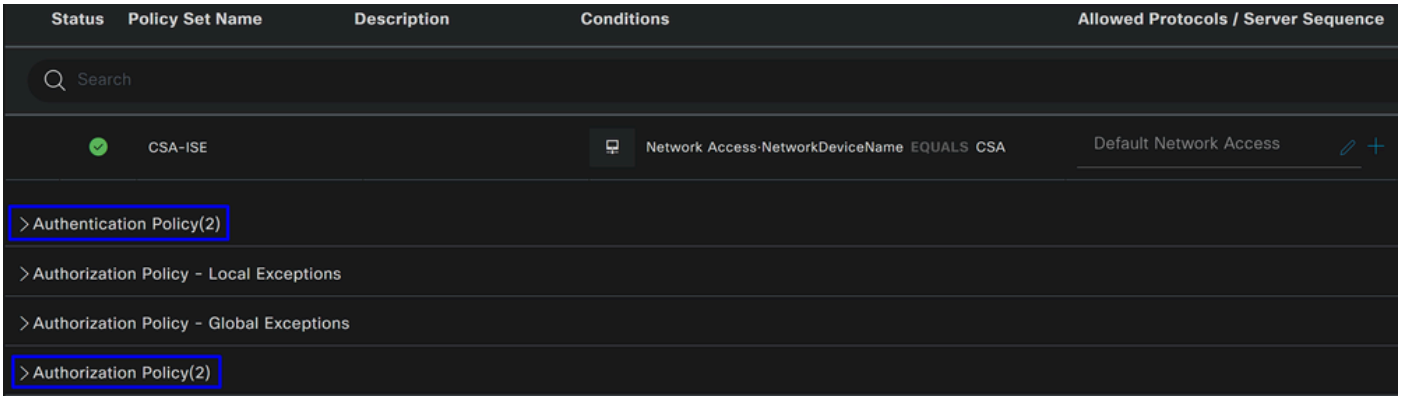
Configure Policy Set Authentication and Authorization

To create the Authentication and **Authorization** Policy under the **Policy Set,** proceed with the next steps:

- Click on >



- After that, you see the Authentication and **Authorization** policies displayed:



Authentication Policy

For the authentication policy, you can configure in many ways. In this case, you see a policy for the device

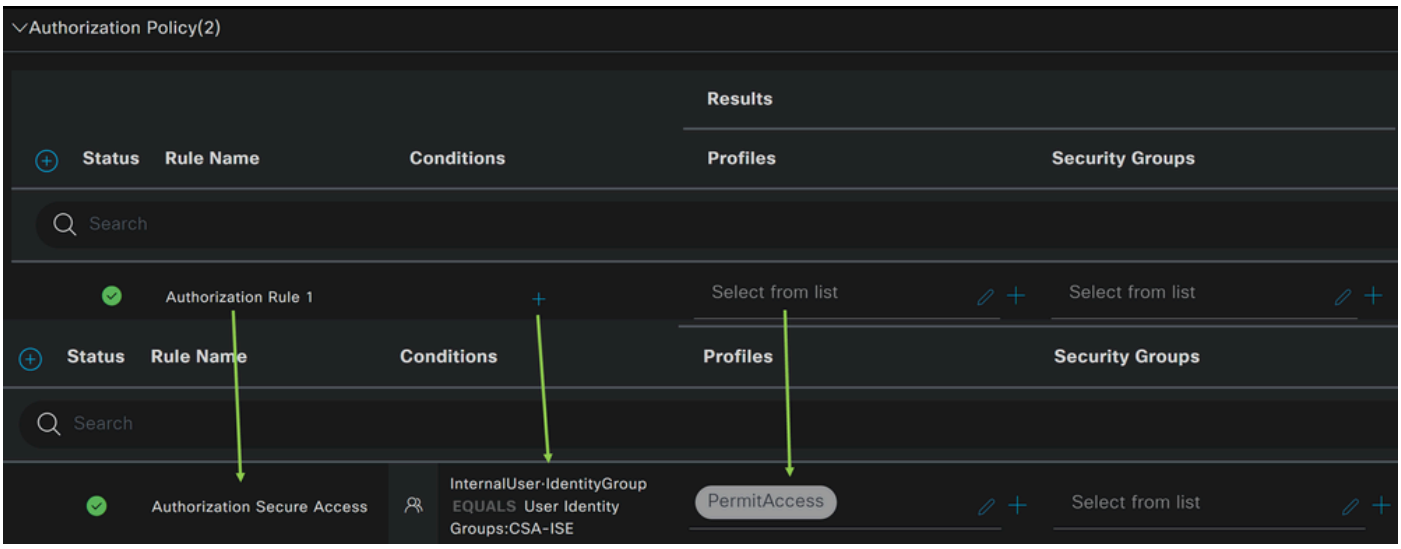
defined in the step Configure Network Devices List, and verify the authentication based on specific criteria:

- Users authenticated through the **Network Device CSA** have an authentication successful or rejected.

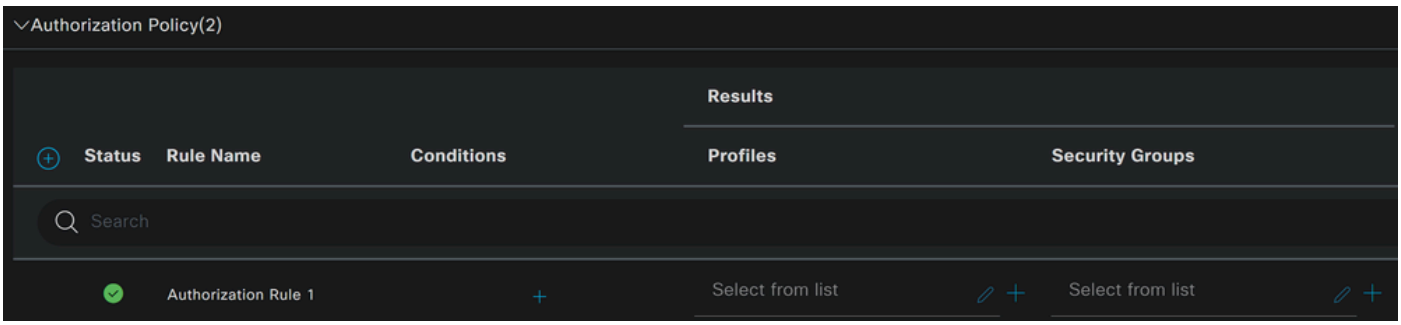
The policy is the same one defined under the step Configure Policy Set.

Authorization Policy

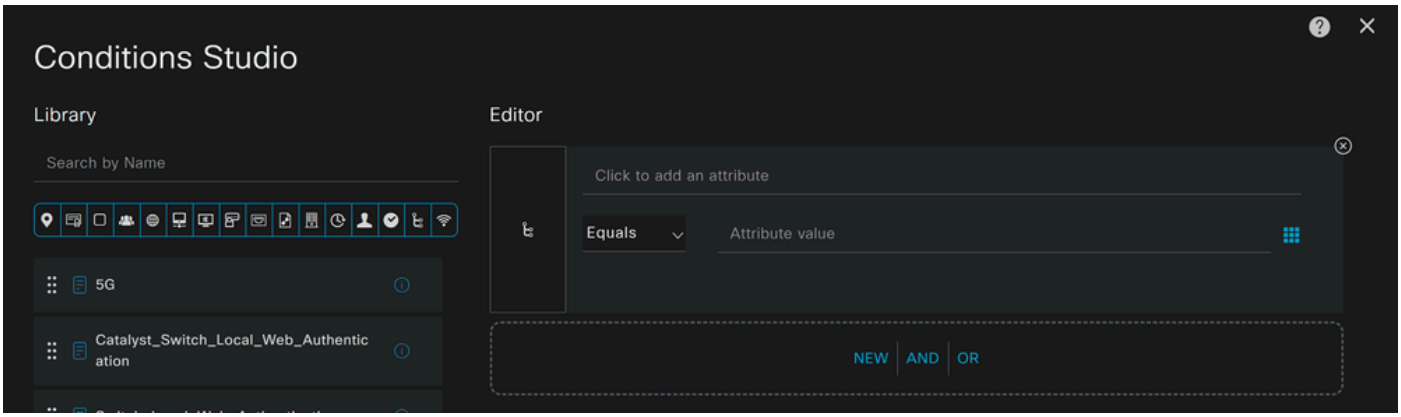
You can configure the authorization policy in many ways. In this case, authorize only the users in the group defined in the step Configure a Group.See the next example to configure your authorization policy:



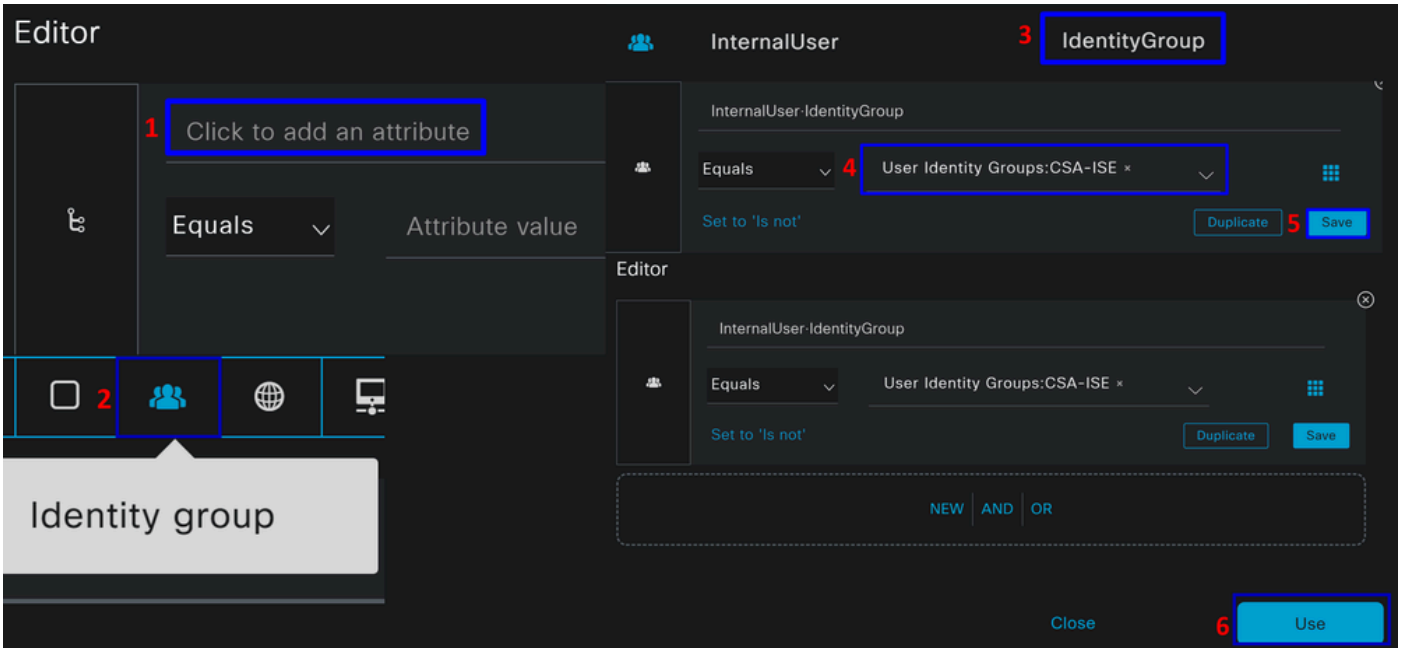
- Click on **Authorization Policy**
- Click on + to define the policy for authorization like this:



- For the next step, change the Rule Name, Conditions and Profiles
- When setting the **Name** configure a name to easily identify the authorization policy
- To configure the **Condition**, click on the +
- Under **Condition Studio**, you find the information:

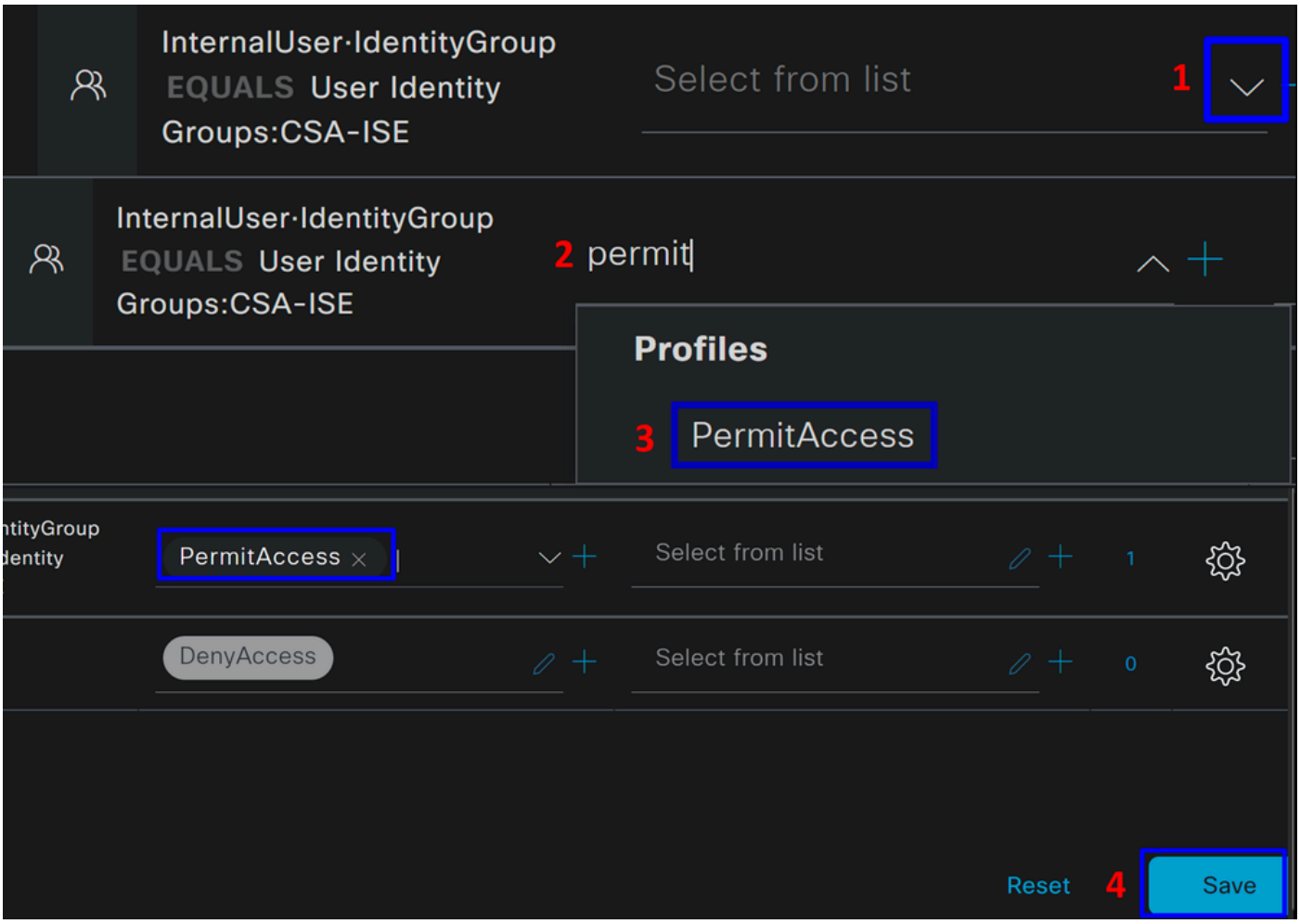


1. To create the Conditions, click on Click to add an attribute
2. Click on the **Identity Group** button
3. Under the options behind, click on **Internal User - IdentityGroup** option
4. Under the **Equals** option, use the dropdown to find the **Group** approved for authentication in the step, [Configure a Group]
5. Click **Save**
6. Click **Use**



After that, you need to define the **Profiles**, which help approve user access under the authorization policy once the user authentication matches the group selected on the policy.

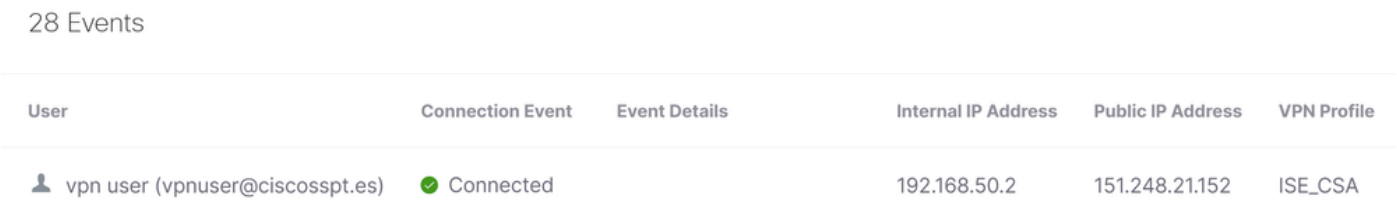
1. Under the **Authorization Policy**, click on the dropdown button on **Profiles**
2. Search for permit
3. Select **PermitAccess**
4. Click Save



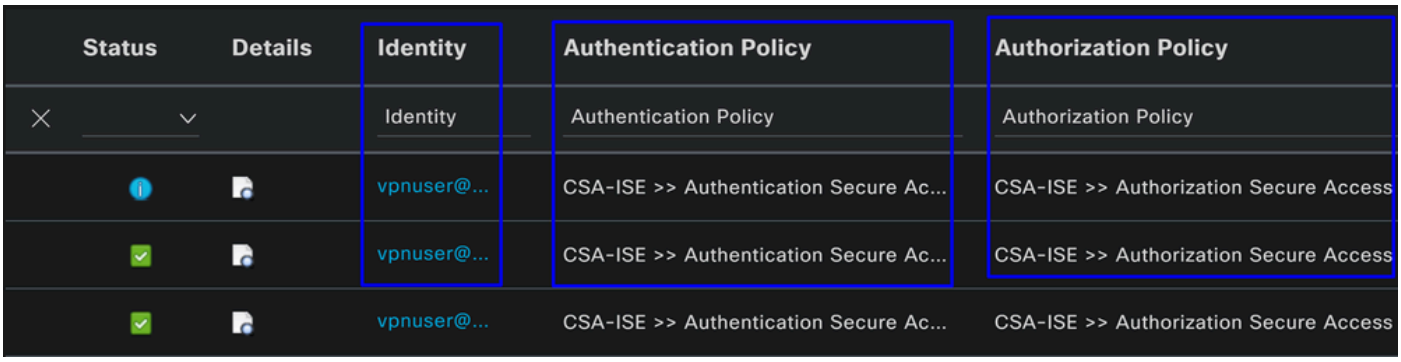
After that, you have defined your **Authentication** and **Authorization** policy. Authenticate to verify whether the user connects without a problem and whether you can see the logs on Secure Access and ISE.

To connect to the VPN, you can use the profile created on Secure Access and connect through Secure Client with the ISE profile.

- **How is the log displayed in Secure Access when the authentication gets approved?**
  - Navigate to the Secure Access Dashboard
  - Click on **Monitor > Remote Access Log**



- **How is the log displayed in ISE when the authentication gets approved?**
  - Navigate to the **Cisco ISE Dashboard**
  - Click on **Operations > Live Logs**



Configure Radius Local or Active Directory Users

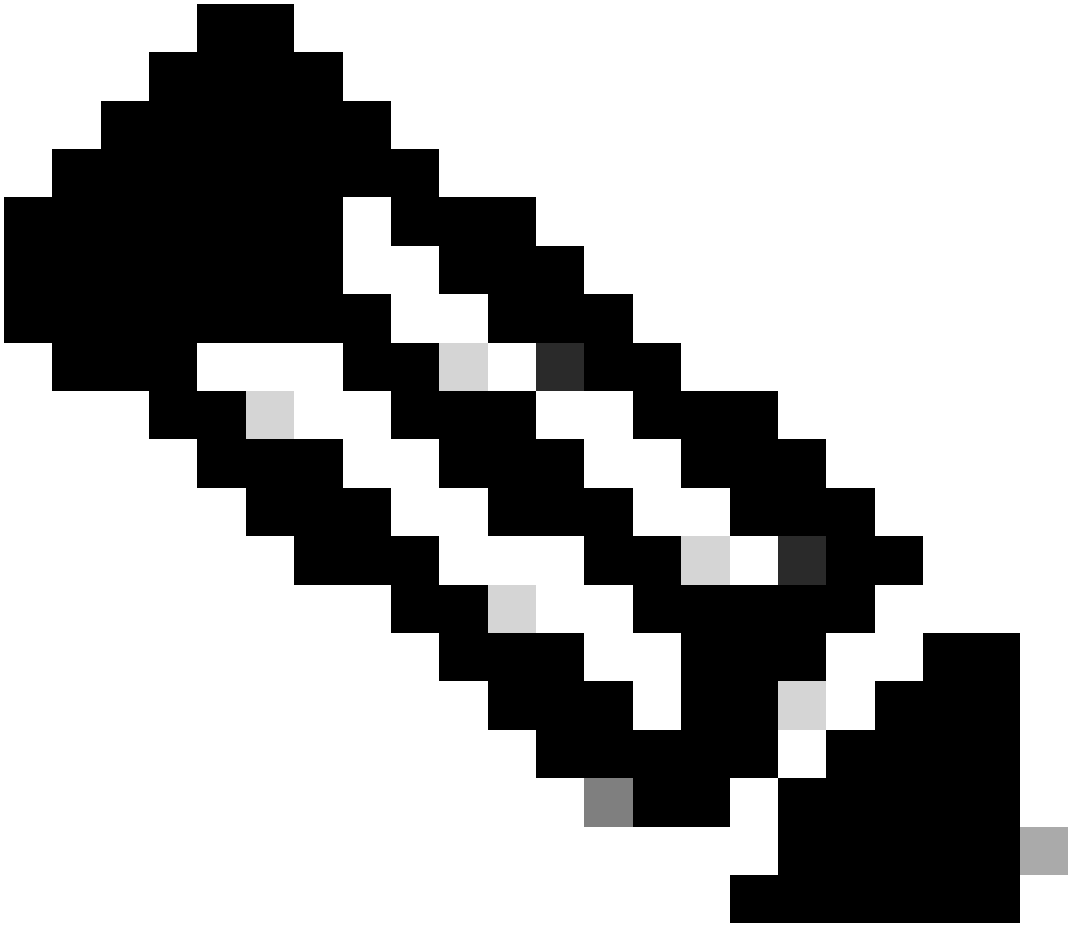
Configure ISE Posture

In this scenario, create the configuration to verify endpoint compliance before granting or denying access to internal resources.

To configure it, proceed to the next steps:

Configure Posture Conditions

- Navigate to your ISE Dashboard
- Click on **Work Center** > **Policy Elements** > **Conditions**
- Click on **Anti-Malware**

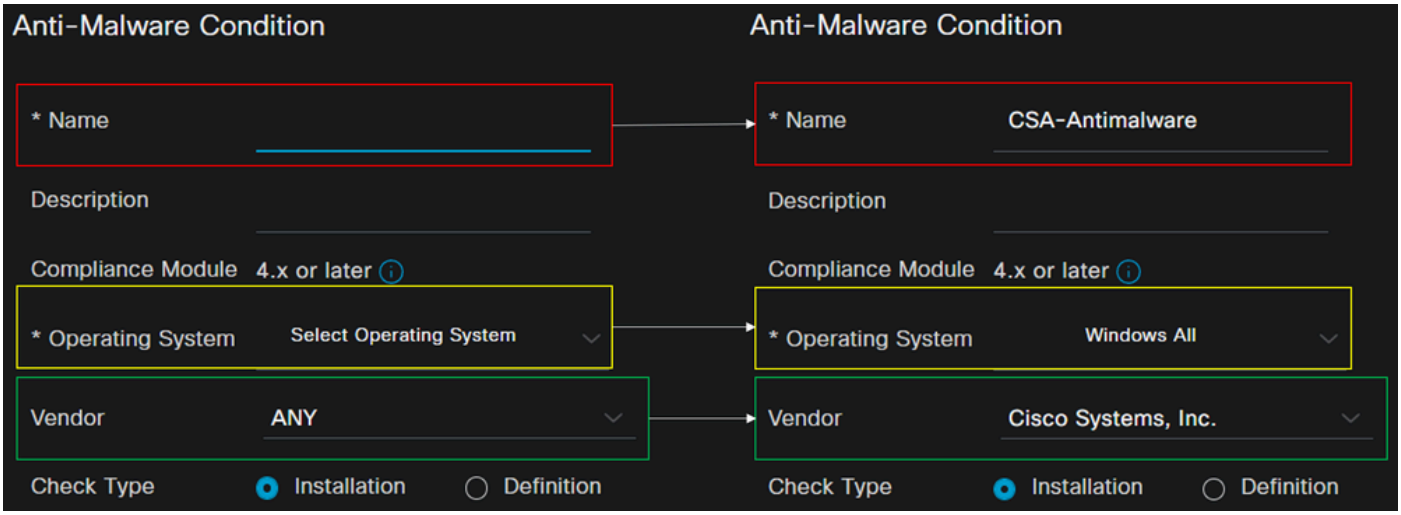


Note: There, you find many options to verify the posture of your devices and make the correct assessment based on your internal policies.

Conditions

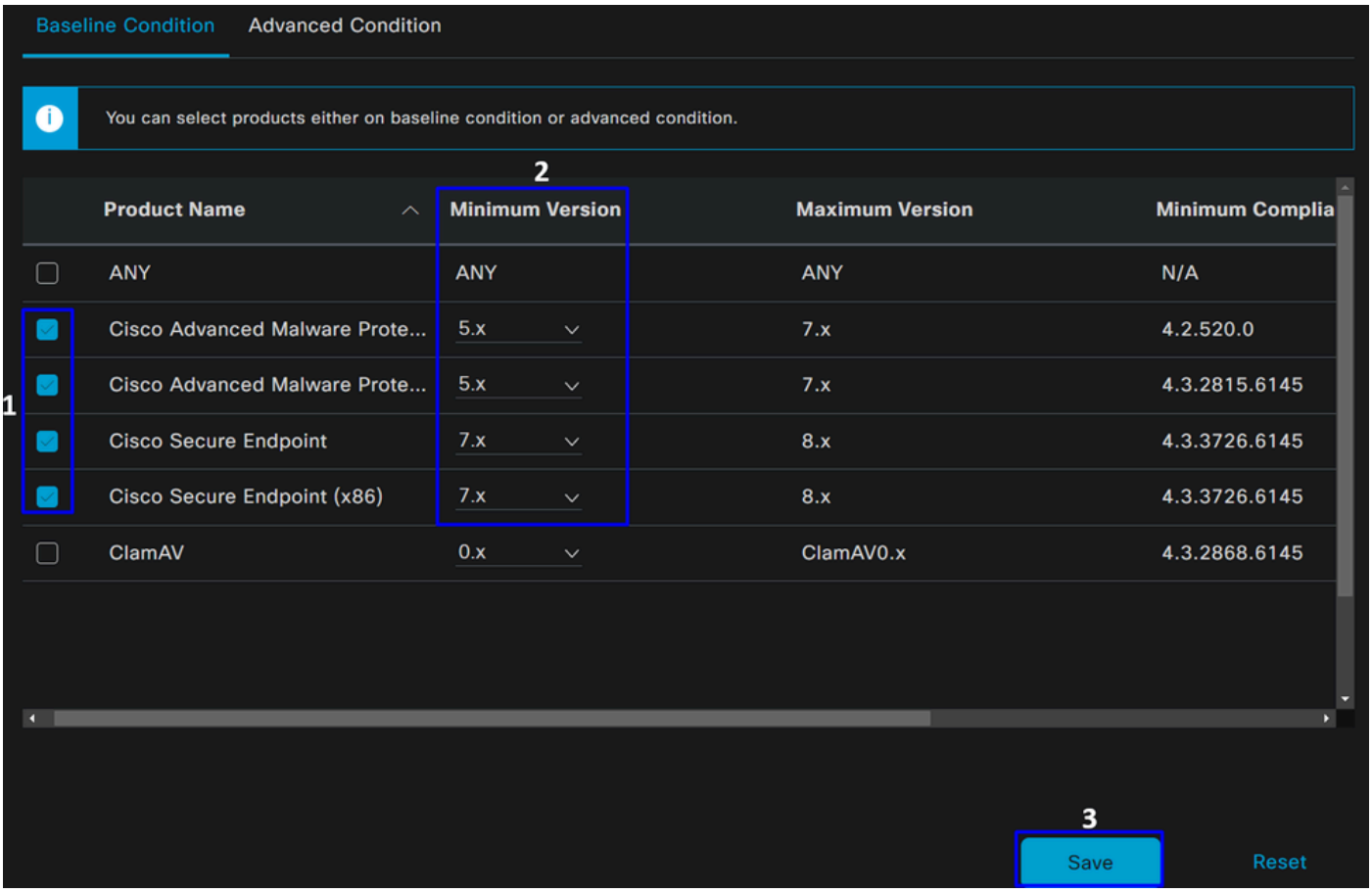
- Anti-Malware
- Anti-Spyware
- Anti-Virus
- Application
- Compound
- Dictionary Compound
- Dictionary Simple
- Disk Encryption
- External DataSource
- File
- Firewall

to detect the antivirus installation on the system; you can also choose the operating system version if needed.



- **Name**: Use a name to recognize the anti-malware condition
- **Operating System**: Choose the operative system that you want to put under the condition
- **Vendor**: Choose a vendor or ANY
- **Check Type**: You can verify if the agent is installed or the definition version for that option.

- For **Products for Selected Vendor**, you configure what you want to verify about the antimalware on the device.

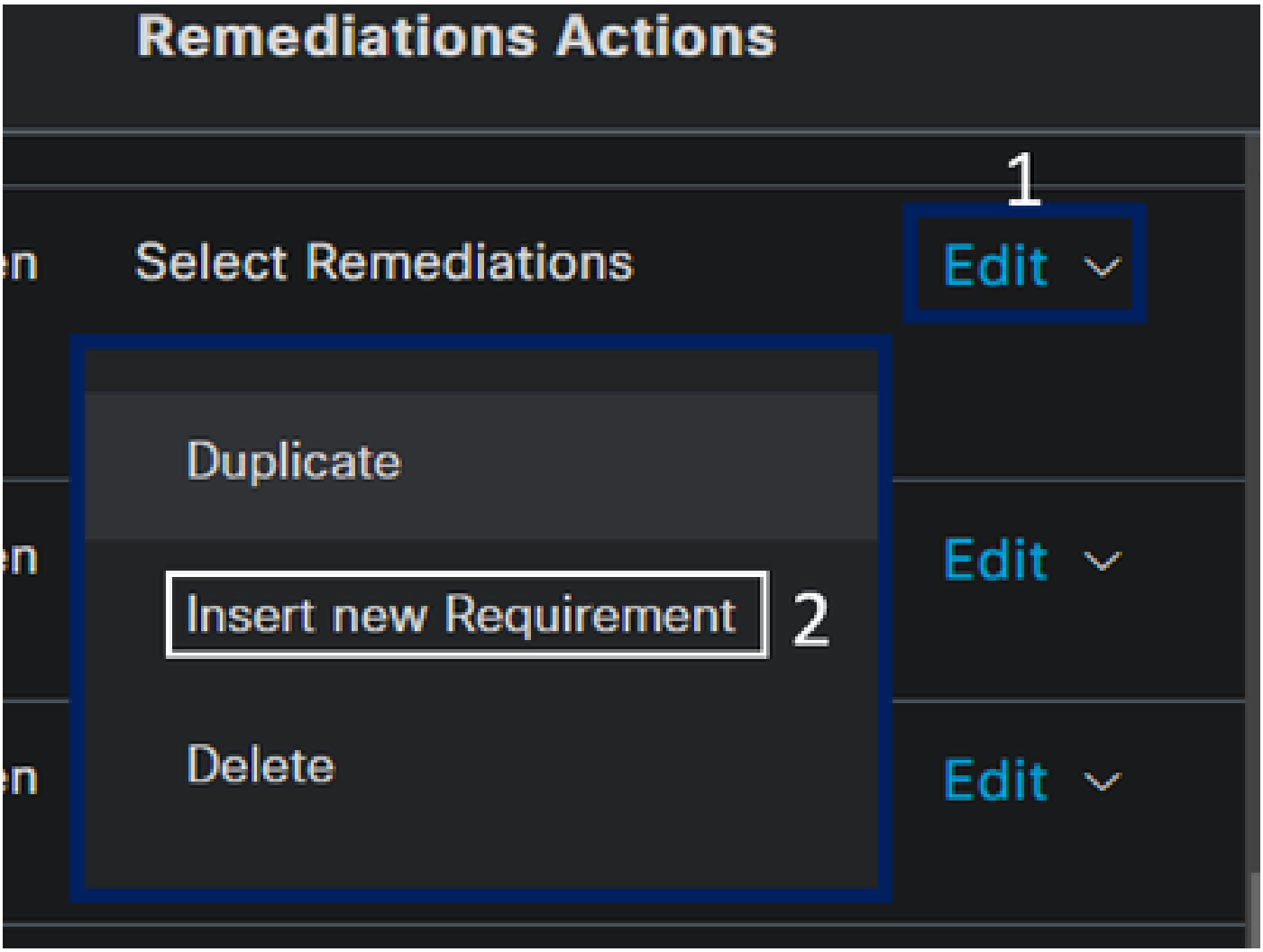


1. Mark the checkbox for the conditions that you wanted to evaluate
2. Configure the minimum version to verify
3. Click Save to continue with the next step

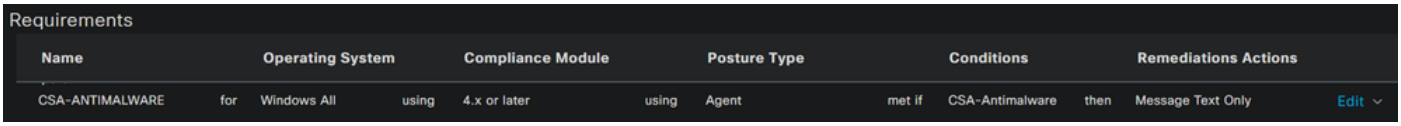
Once you configure it, you can proceed with the step, **Configure Posture Requirements.**

Configure Posture Requirements

- Navigate to your ISE Dashboard
- Click on **Work Center > Policy Elements > Requeriments**
- Click on **Edit** of any one of the requirements and click **Insert new Requirement**



- Under the new requirement, configure the next parameters:



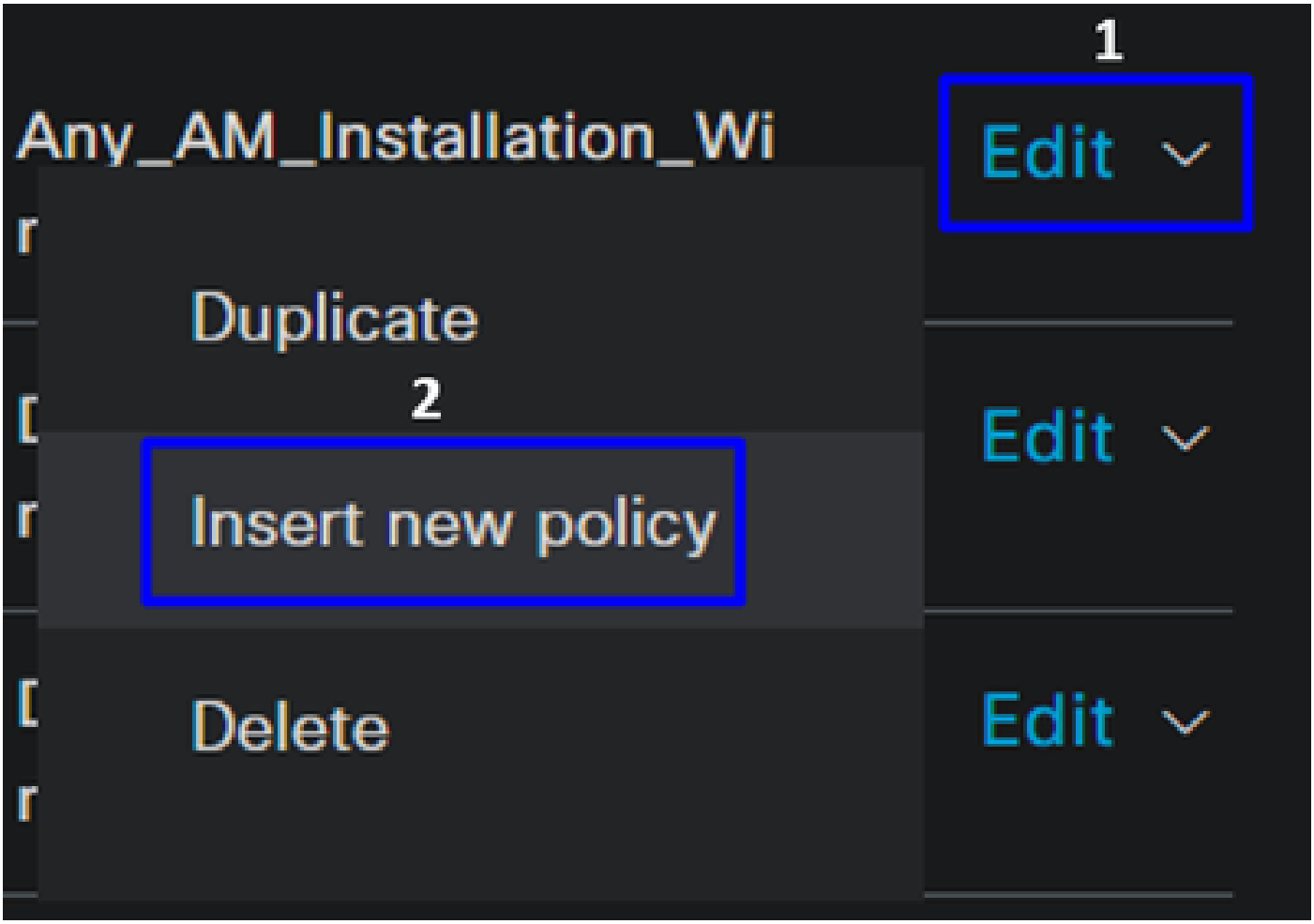
- **Name**: Configure a name to recognize the antimalware requirement
- **Operating System**: Choose the operating system that you choose under the condition step, Operating System
- **Compliance Module**: You need to make sure to select the same compliance module that you have under the condition step, Anti-Malware Condition
- **Posture Type**: Choose Agent
- **Conditions**: Choose the condition or conditions that you created under the step, Configure Posture Conditions
- **Remediations Actions**: Choose **Message Text Only** for this example, or if you have another remediation action, use it

- Click **Save**

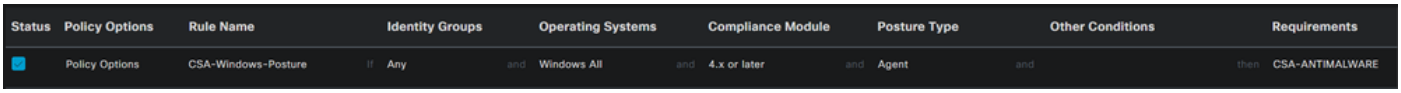
Once you configure it, you can proceed with the step, **Configure Posture Policy**

Configure Posture Policy

- Navigate to your ISE Dashboard
- Click on **Work Center** > **Posture Policy**
- Click on **Edit** of any one of the policies and click **Insert new Policy**



- Under the new policy, configure the next parameters:



Status	Policy Options	Rule Name		Identity Groups		Operating Systems		Compliance Module		Posture Type		Other Conditions		Requirements
☑	Policy Options	CSA-Windows-Posture	If	Any	and	Windows All	and	4.x or later	and	Agent	and		then	CSA-ANTIMALWARE

- **Status**: Mark the checkbox no enable the policy
- **Rule Name**: Configure a name to recognize the policy configured
- **Identity Groups**: Choose the identities that you want to evaluate
- **Operating Systems**: Choose the operating system based on the condition and requirement configured before
- **Compliance Module**: Choose the compliance module based on the condition and requirement configured before
- Posture Type: Choose Agent
- **Requeriments**: Choose the requirements configured on the step, [Configure Posture Requirements]
- Click **Save**

Configure Client Provisioning

To provide the users with the ISE module, configure the client provisioning to equip the machines with the ISE posture module. This enables you to verify the machines posture once the agent is installed. To continue with this process, here are the next steps:

Navigate to your ISE Dashboard.

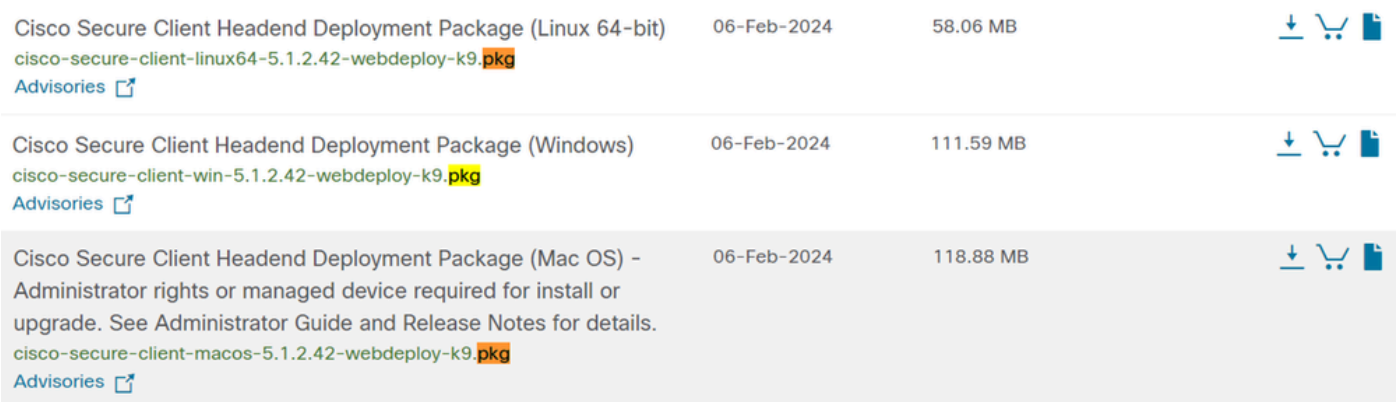
- Click on **Work Center** > **Client Provisioning**
- Choose **Resources**

There are three things that you need to configure under client provisioning:

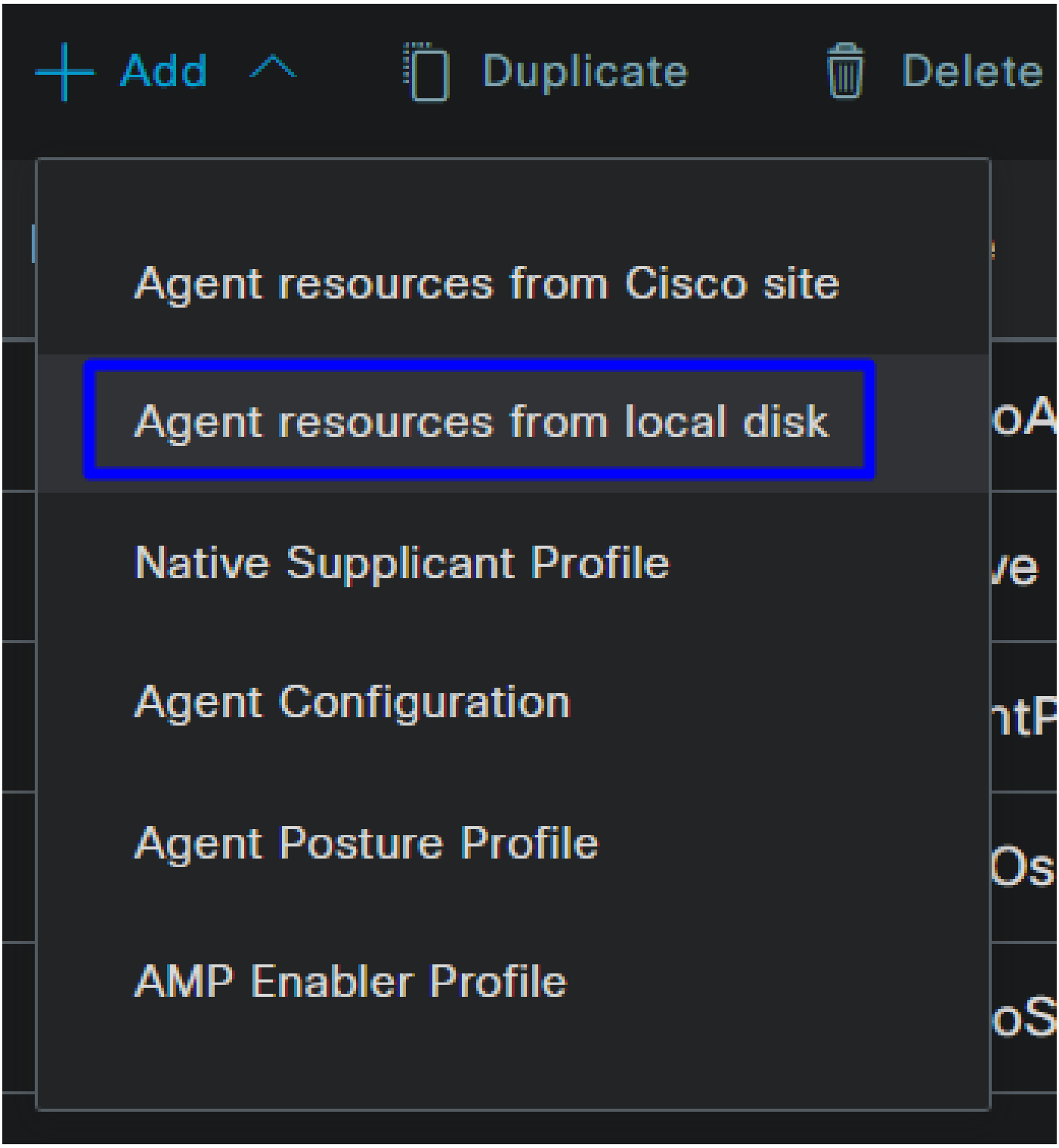
Resources to configure	Description
1. **Agent Resources**	Secure Client Web Provisioning Package.
2. **Compliance Module**	Cisco ISE Compliance Module
3. **Agent Profile**	Control of the provisioning profile.
3. **Agent Configuration**	Define which modules are provisioned by setting up the provisioning portal, utilizing the Agent Profile and Agent Resources.

Step 1 Download and Upload Agent Resources

- To add a new agent resource, navigate to the Cisco Download Portal and download the web deploy package; the web deploy file must be .pkg format.

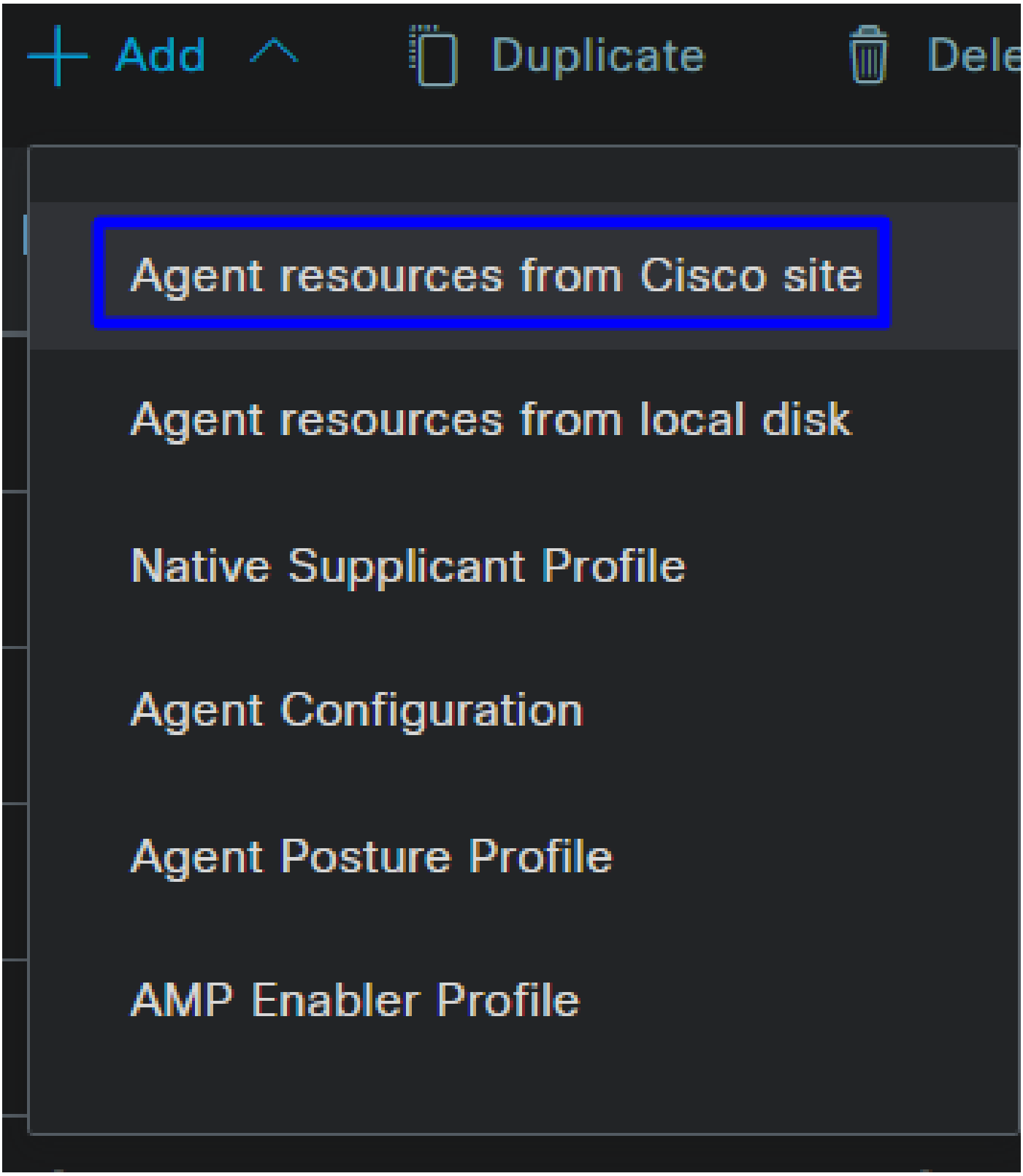


- Click on + Add > Agent resources from local disk and upload the packages

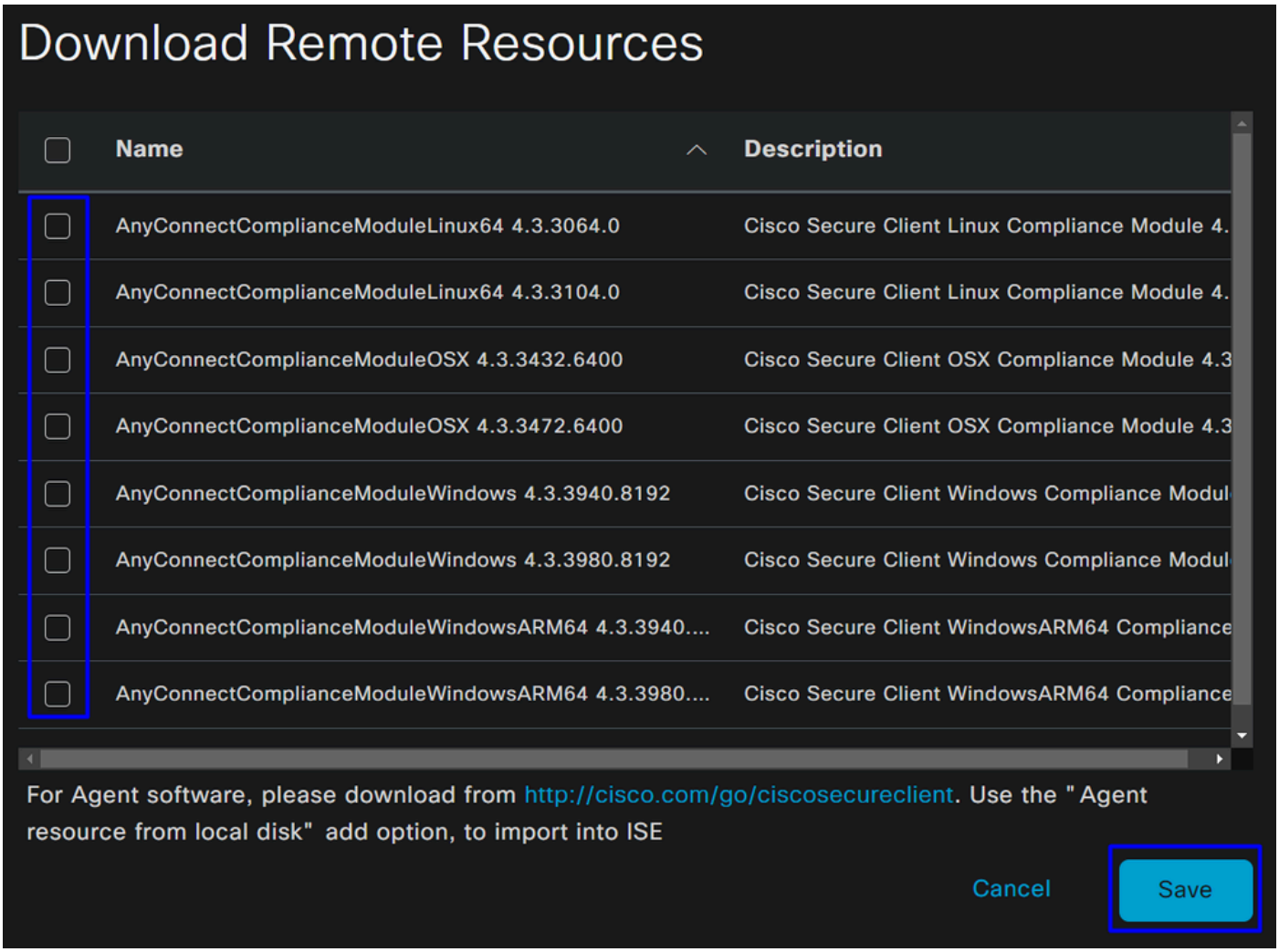


Step 2 Download the compliance module

- Click on + Add > Agent resources from Cisco Site

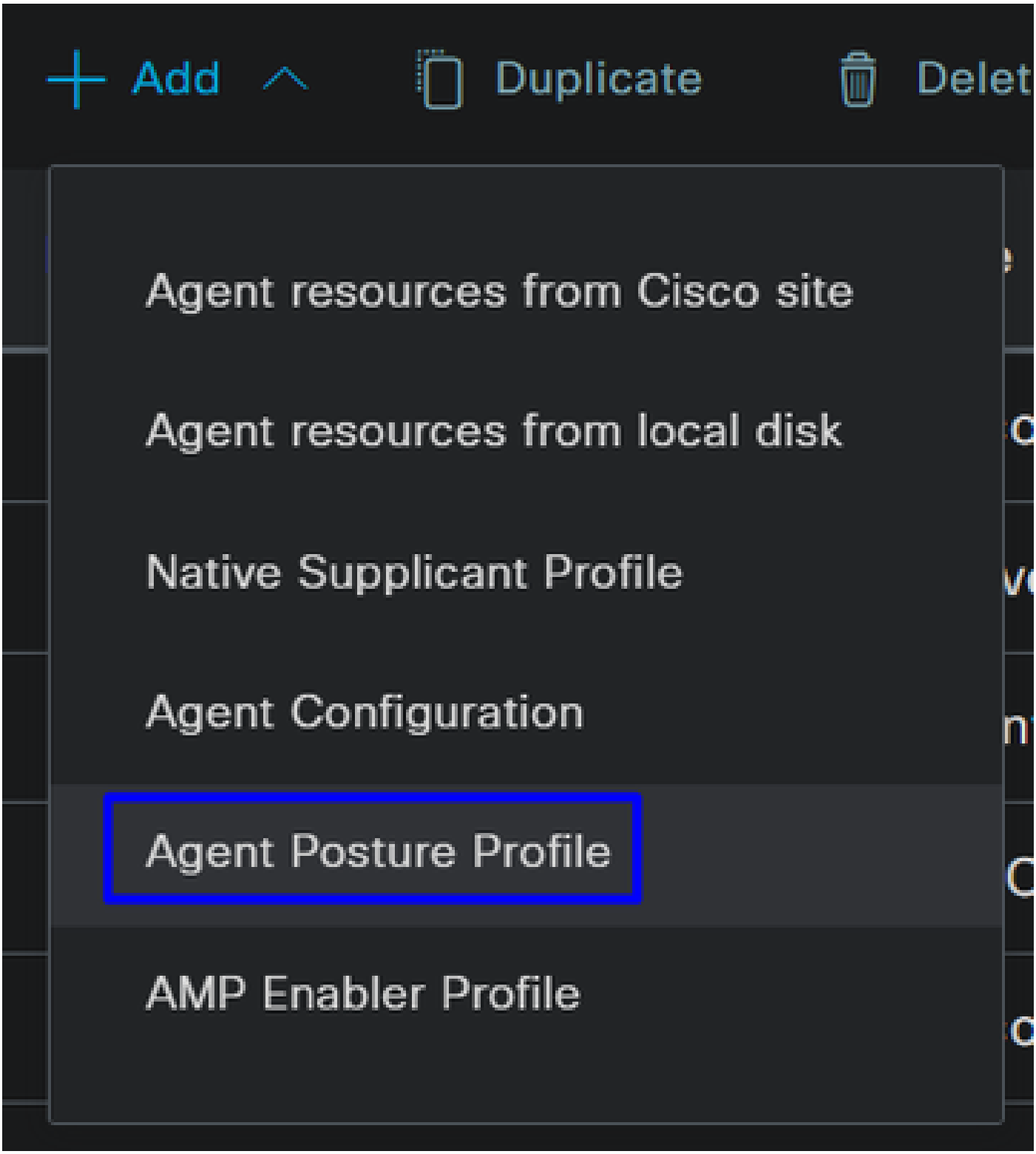


- Mark the checkbox for every compliance module needed and click **Save**

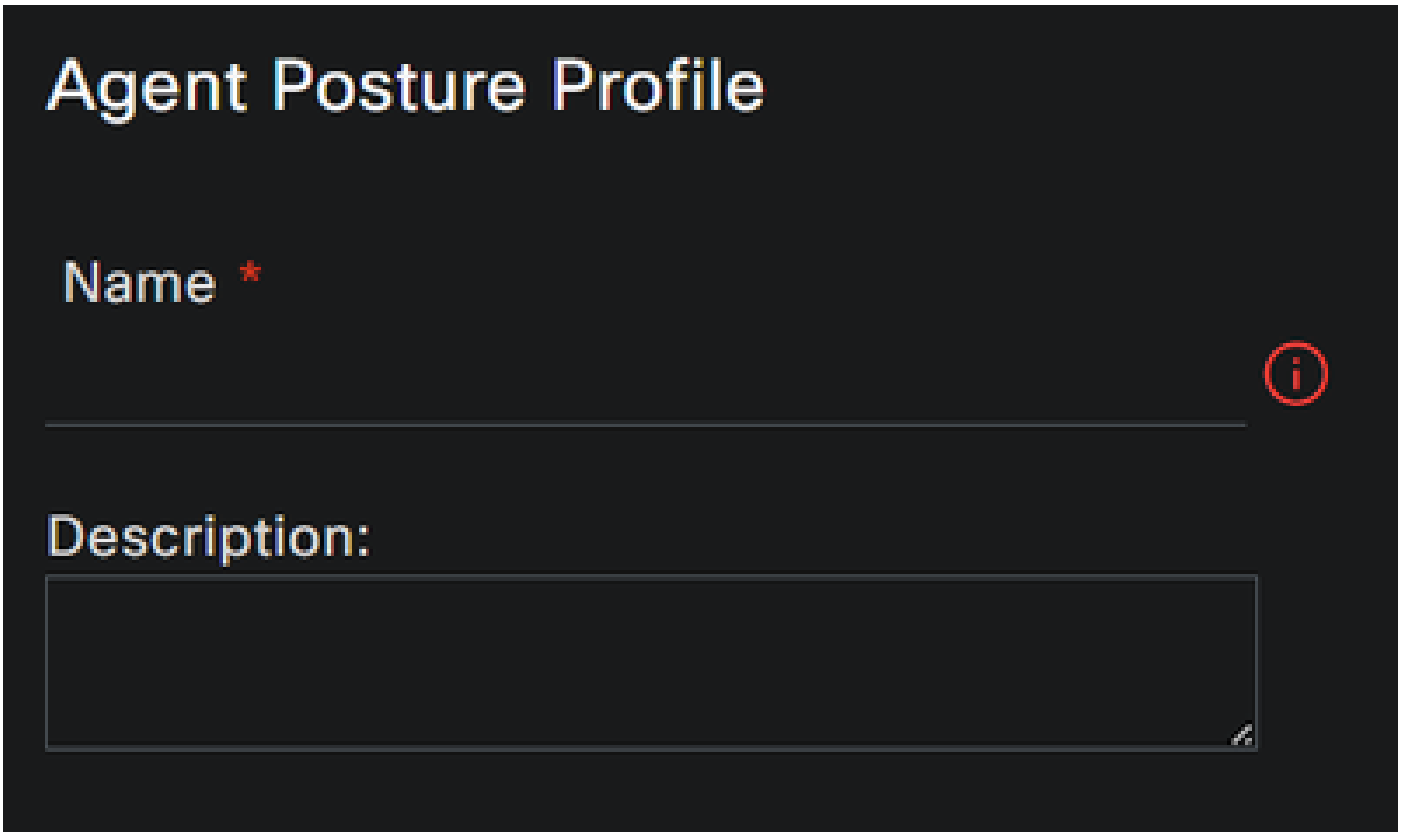


Step 3Configure the Agent Profile

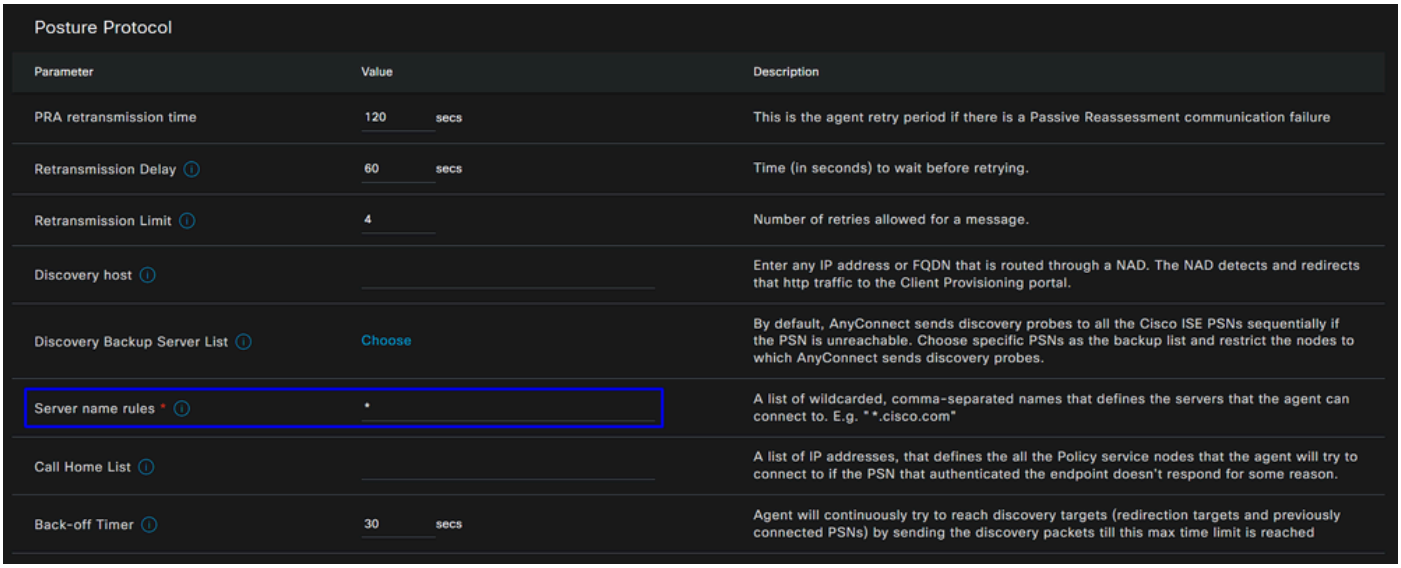
- Click on + Add > Agent Posture Profile



- Create a **Name** for the **Posture Profile**

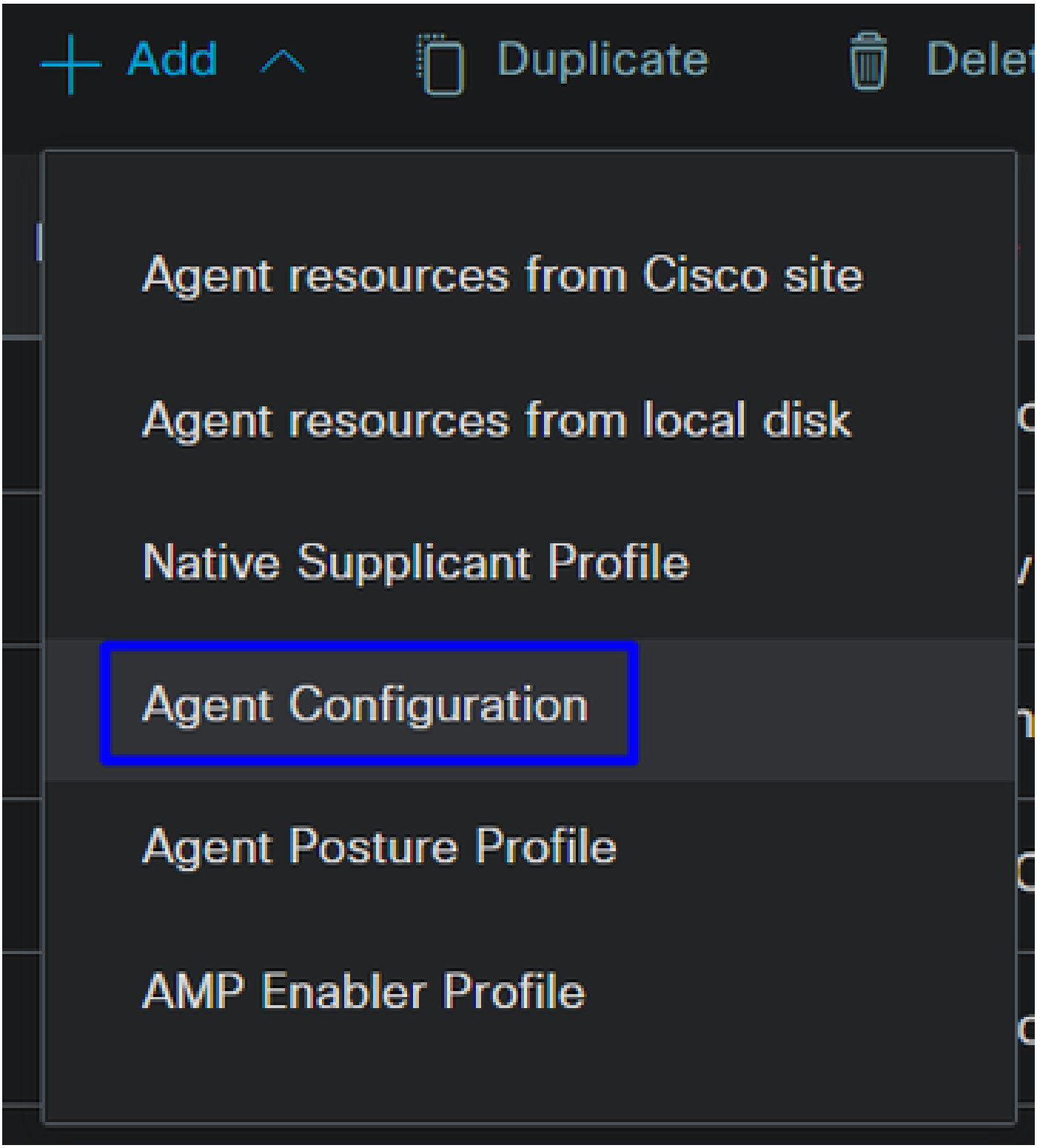


- Under Server name rules, put an * and click **Save** after that



Step 4 Configure the Agent Configuration

- Click on + Add > Agent Configuration



- After that, configure the next parameters:

Agent Configuration > New Agent Configuration

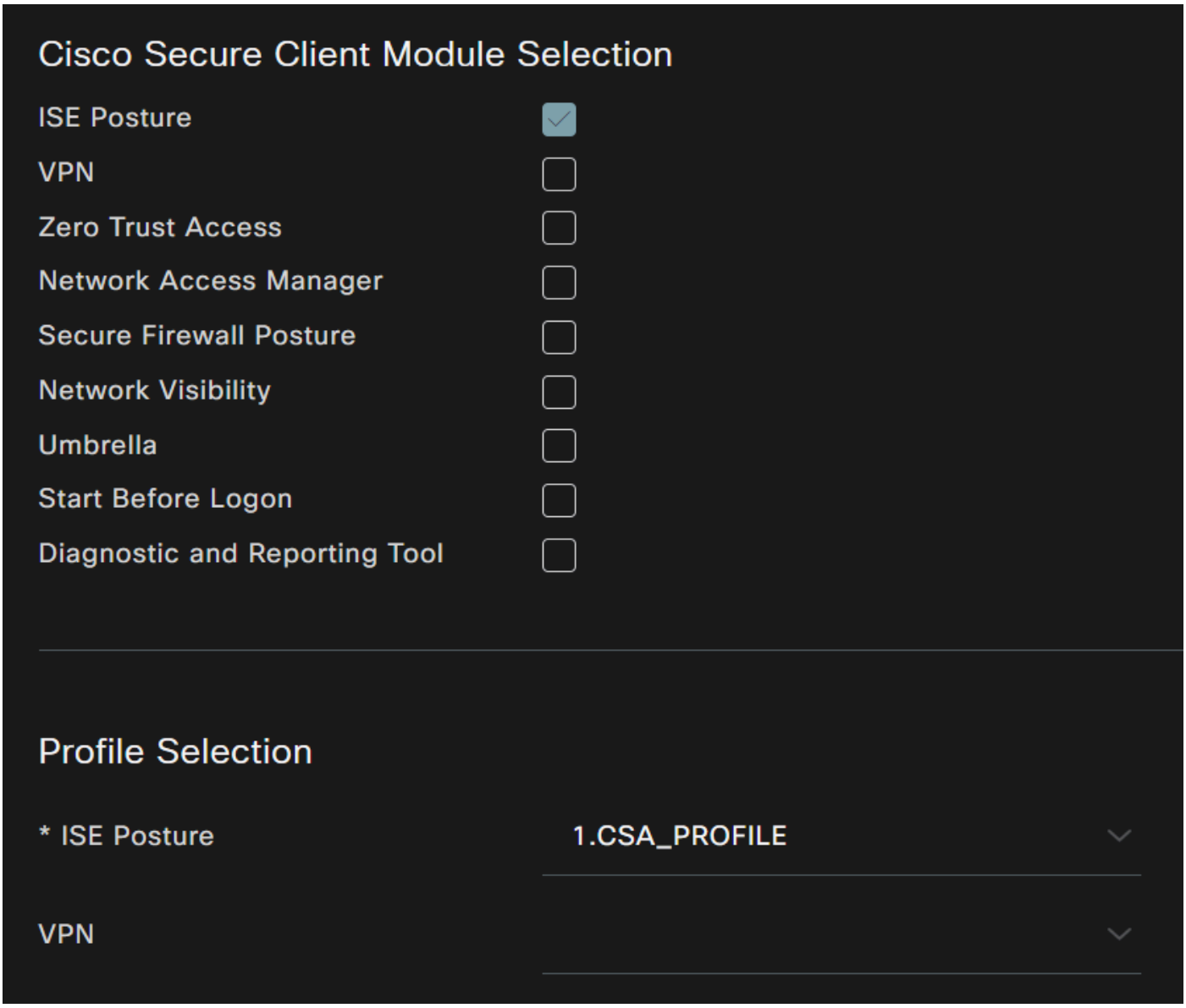
* Select Agent Package: CiscoSecureClientDesktopWindows 5.1

* Configuration Name:

Description:

Description Value Notes

* Compliance Module CiscoSecureClientComplianceModuleWi



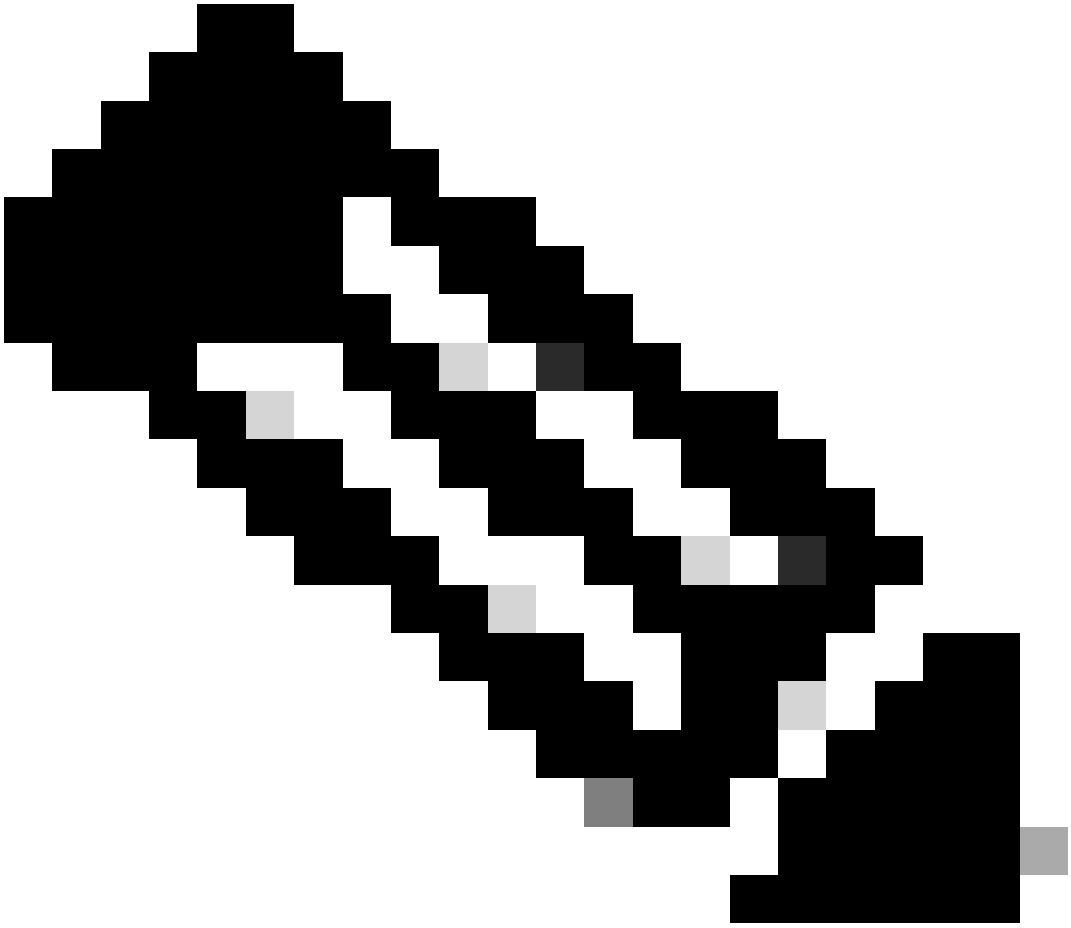
- Select Agent Package : Choose the package uploaded on the [Step1 Download and Upload Agent Resources]
- **Configuration Name**: Choose a name to recognize the **Agent Configuration**
- **Compliance Module**: Choose the Compliance Module downloaded on the [Step2 Download the compliance module]
- Cisco Secure Client Module Selection
  - **ISE Posture**: Mark the Checkbox
- **Profile Selection**
  - **ISE Posture**: Choose the ISE profile configured on the [Step3 Configure the Agent Profile]
- Click **Save**

Note: It is recommended that each operating system, Windows, Mac OS, or Linux, has one Client Configuration independent.

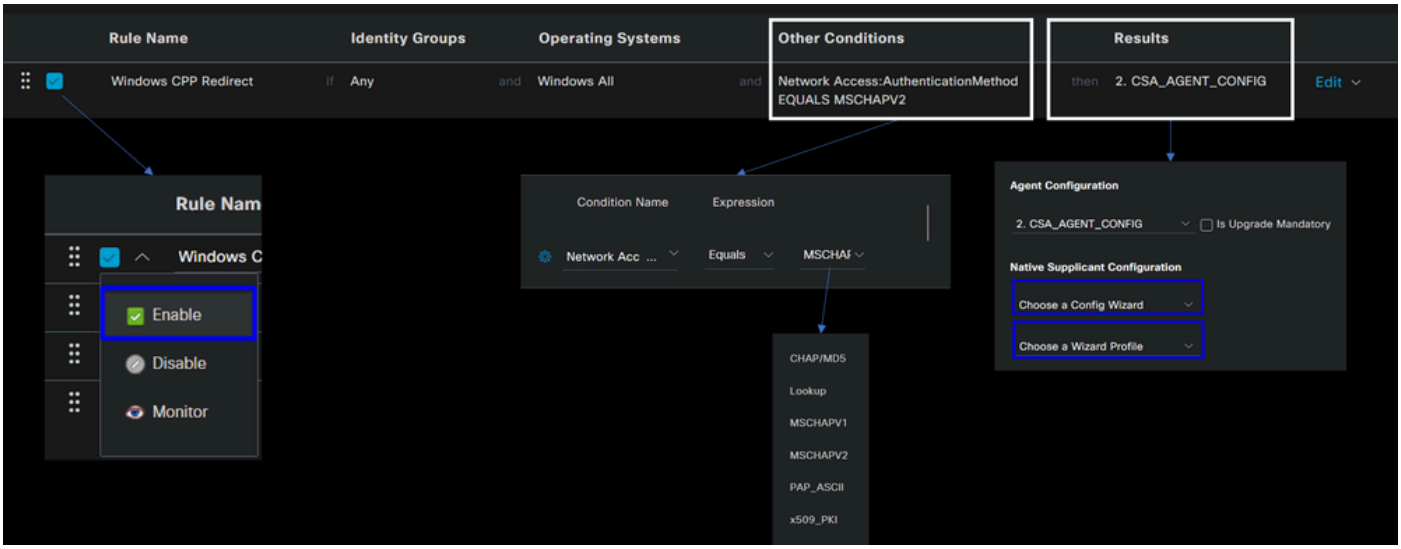
Configure Client Provisioning Policy

To enable the provisioning of the ISE posture and modules configured in the last step, you need to configure a policy to make the provisioning.

- Navigate to your ISE Dashboard
- Click on **Work Center** > **Client Provisioning**



Note: It is recommended that each operating system, Windows, Mac OS, or Linux, has one Client Configuration Policy.



- **Rule Name**: Configure the name of the policy based on the device type and identity group selection to

have an easy way to identify each policy

- **Identity Groups**: Choose the identities you want to evaluate on the policy
- **Operating Systems**: Choose the operating system based on the agent package selected on the step, Select Agent Package
- **Other Condition**: Choose **Network Access** based on the **Authentication Method**EQUALS to the method configured on the step, Add RADIUS Group or you can leave in blank
- **Result**: Choose the Agent Config configured on the Step 4 Configure the Agent Configuration
  - **Native Supplicant Configuration**: Choose Config Wizard and Wizard Profile
- Mark the policy as enabled if it is not listed as enabled on the checkbox.

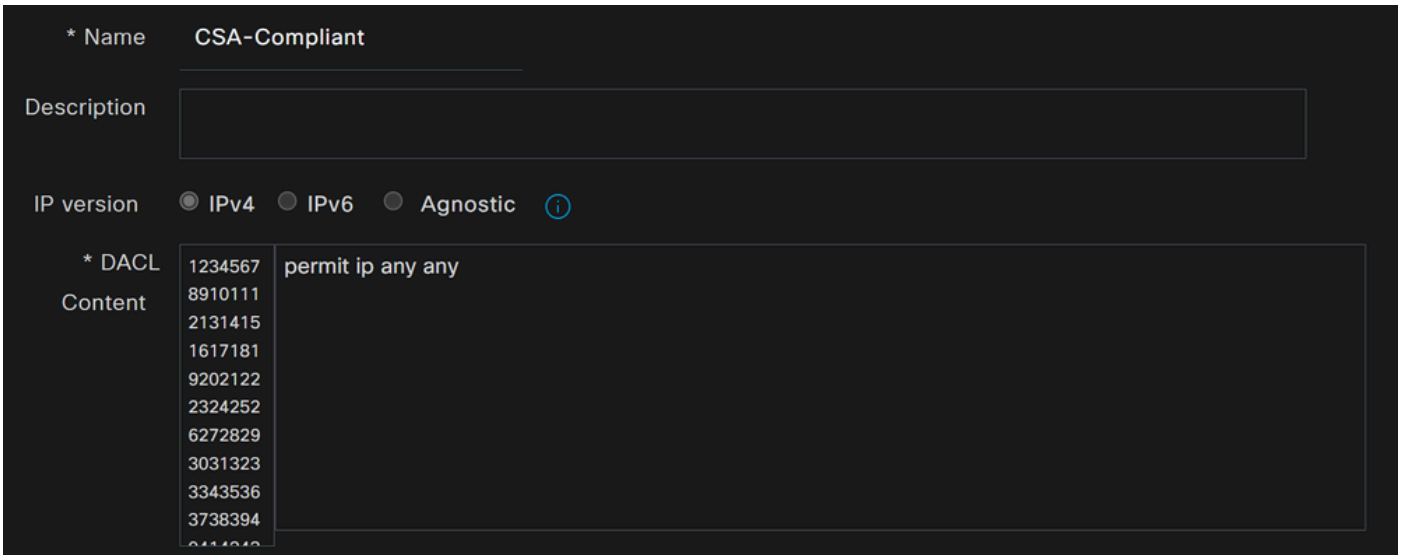
Create the Authorization Profiles

The authorization profile limits access to the resources depending on the users posture after the authentication pass. The authorization must be verified to determine which resources the user can access based on the posture.

Authorization Profile	Description
Compliant	User Compliant - Agent Installed - Posture Verified
Unknown Compliant	User Uknown Compliant - Redirect to install the agent - Posture Pending to be verified
DenyAccess	User Non Compliant - Deny Access

To configure the DACL, navigate to the ISE Dashboard:

- Click on **Work Centers** > **Policy Elements** > **Downloadable ACLs**
- Click on **+Add**
- Create the **Compliant DACL**



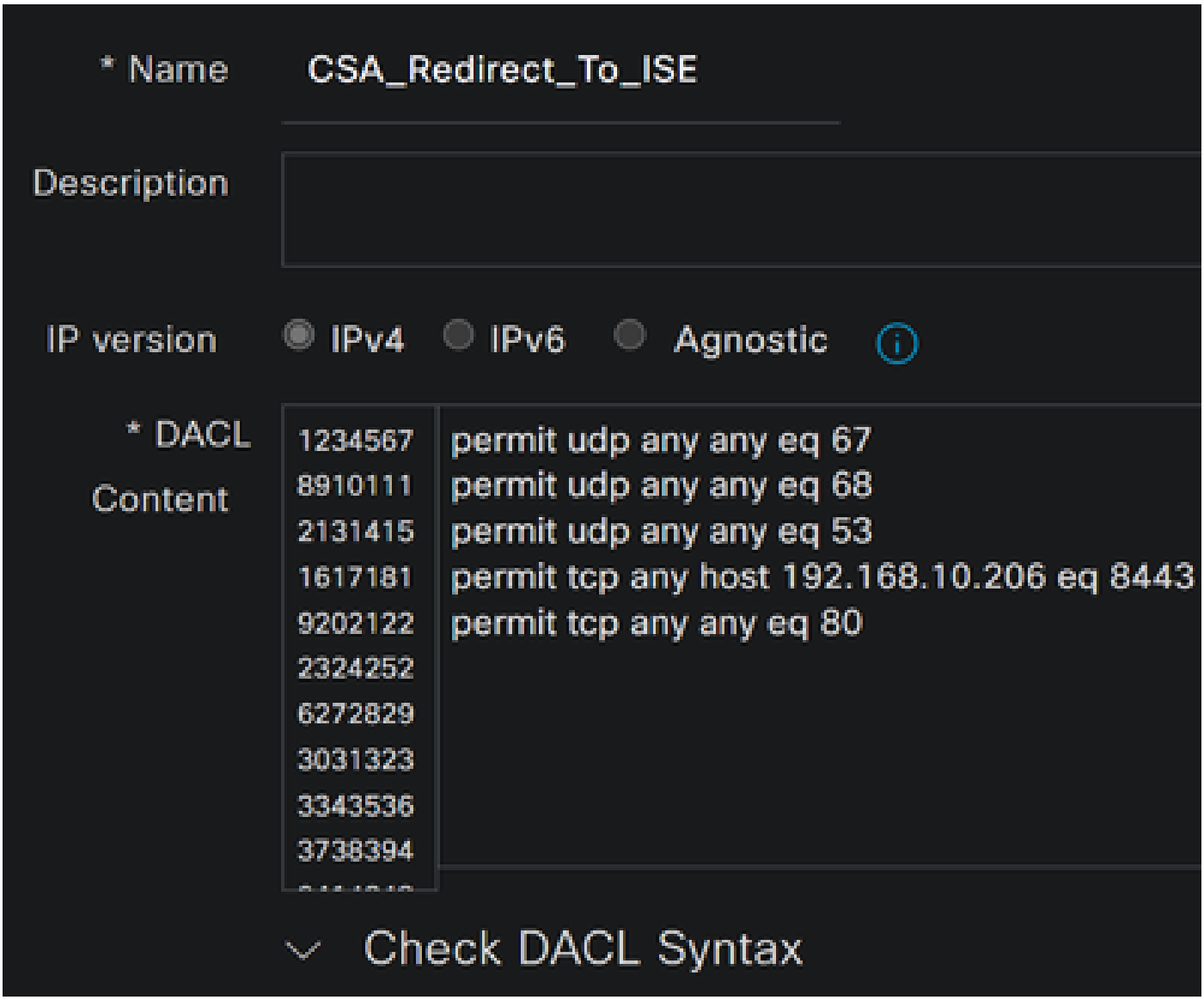
- **Name**: Add a name that makes reference to the DACL-Compliant

- **IP version**: Choose **IPv4**
- DACL Content: Create a Downloadable Access Control List (DACL) that gives access to all the resources of the network

```
permit ip any any
```

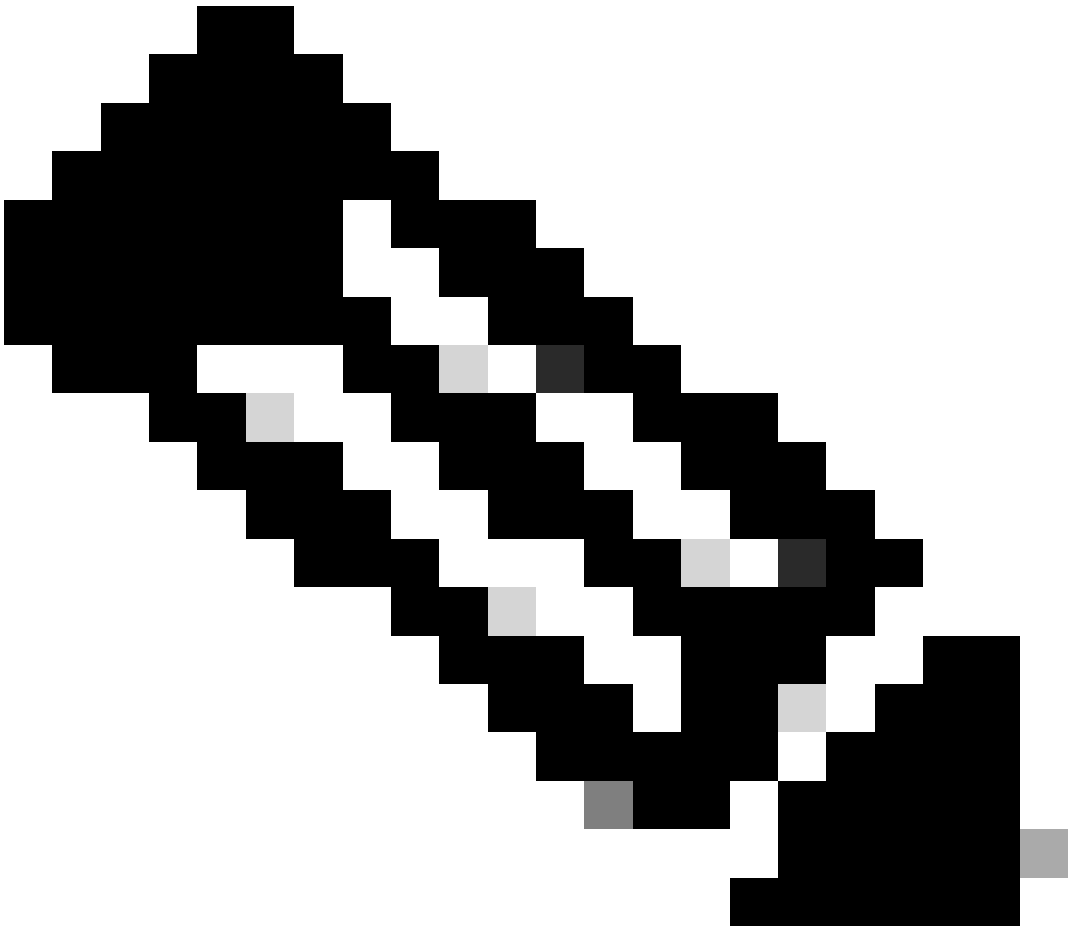
Click **Save** and create the Unknown Compliance DACL

- Click on **Work Centers** > **Policy Elements** > **Downloadable ACLs**
- Click on **+Add**
- Create the **Unknown Compliant DACL**



- **Name**: Add a name that makes reference to the DACL-Unknown-Compliant
- **IP version**: Choose **IPv4**
- **DACL Content**: Create a DACL that gives limited access to the network, DHCP, DNS, HTTP, and the provisioning portal over port 8443

```
permit udp any any eq 67
permit udp any any eq 68
permit udp any any eq 53
permit tcp any any eq 80
permit tcp any host 192.168.10.206 eq 8443
```



> **Note**: In this scenario, the IP address 192.168.10.206 corresponds to the Cisco Identity Services Engine (ISE) server, and port 8443 is designated for the provisioning portal. This means that TCP traffic to the IP address 192.168.10.206 via port 8443 is permitted, facilitating access to the provisioning portal.

At this point, you have the required DACL to create the authorization profiles.

To configure the authorization profiles, navigate to the ISE Dashboard:

- Click on **Work Centers** > **Policy Elements** > **Authorization Profiles**
- Click on **+Add**
- Create the **Compliant Authorization Profile**

Authorization Profile

* Name: CSA-Compliant

Description:

* Access Type: ACCESS_ACCEPT

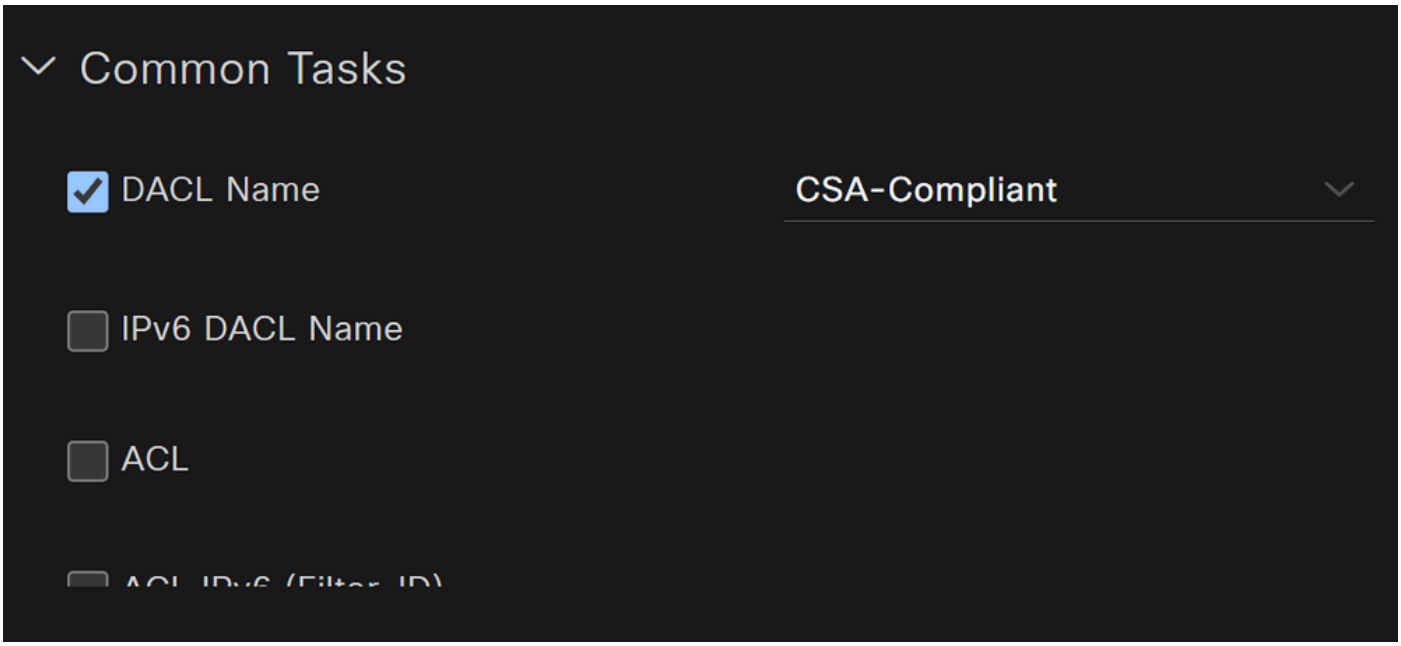
Network Device Profile: Cisco

Service Template: ☐

Track Movement: ☐

Agentless Posture: ☐

Passive Identity Tracking: ☐

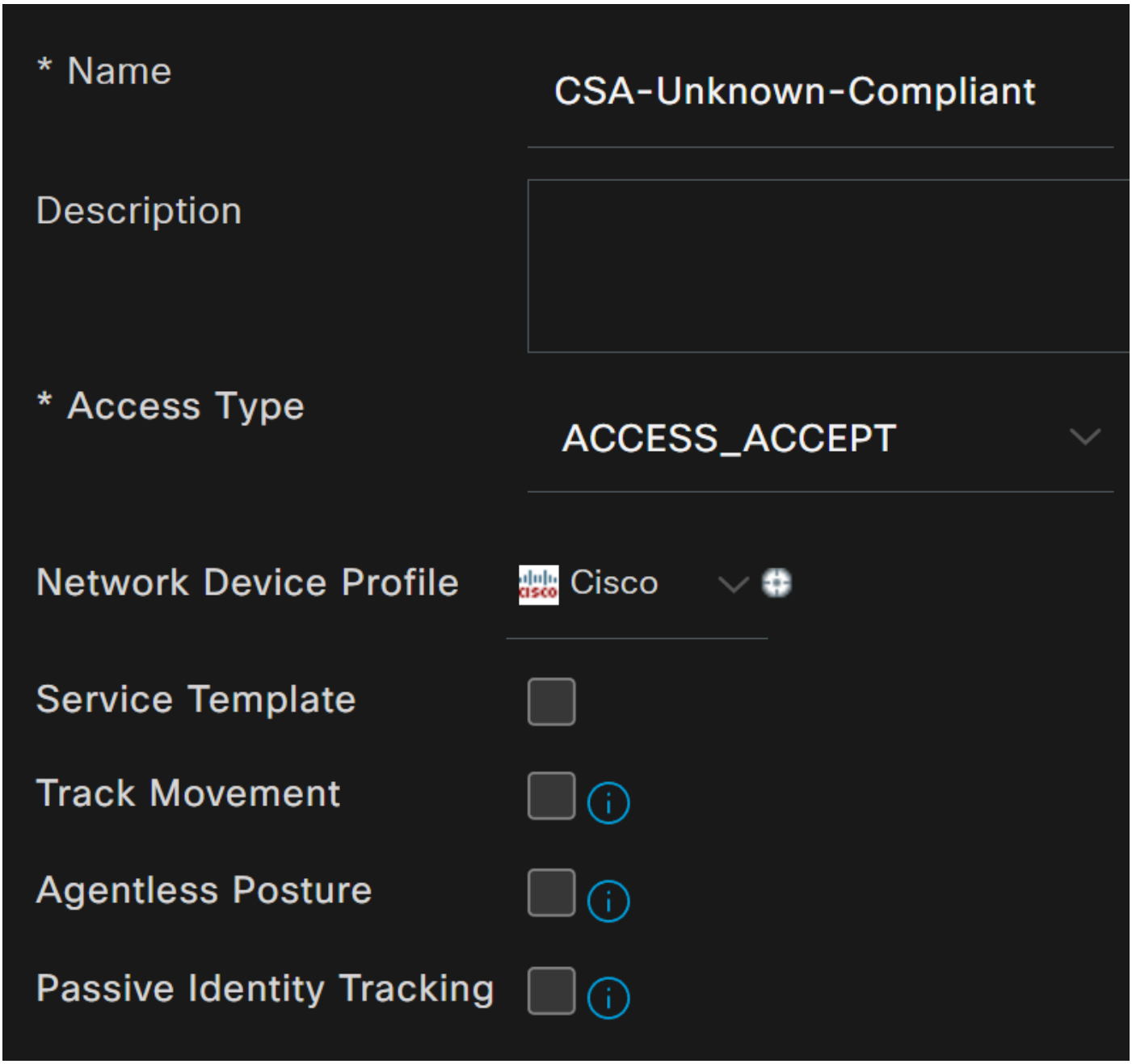


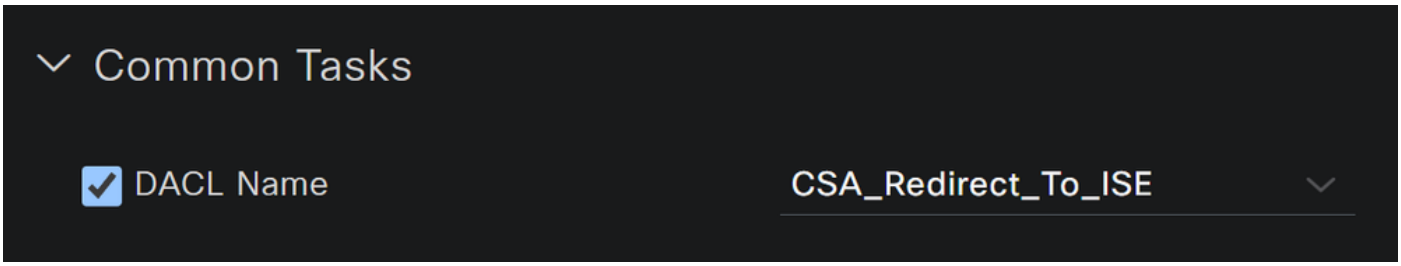
- **Name**: Create a name that makes reference to the compliant authorization profile
- Access Type: Choose **ACCESS_ACCEPT**

- **Common Tasks**
  - **DACL NAME**: Choose the DACL configured on the step [Compliant DACL]

Click **Save** and create the Unknown Authorization Profile

- Click on **Work Centers > Policy Elements > Authorization Profiles**
- Click on **+Add**
- Create the **Uknown Compliant Authorization Profile**





- **Name**: Create a name that makes reference to the unknown compliant authorization profile
- Access Type: Choose **ACCESS_ACCEPT**

- **Common Tasks**

- **DACL NAME**: Choose the DACL configured on the step [Unknown Compliant DACL]
- **Web Redirection (CWA,MDM,NSP,CPP)**
  - Choose **Client Provisioning (Posture)**
  - **ACL**: Must be redirect
  - **Value**: Choose the default provisioning portal, or if you defined another, choose it

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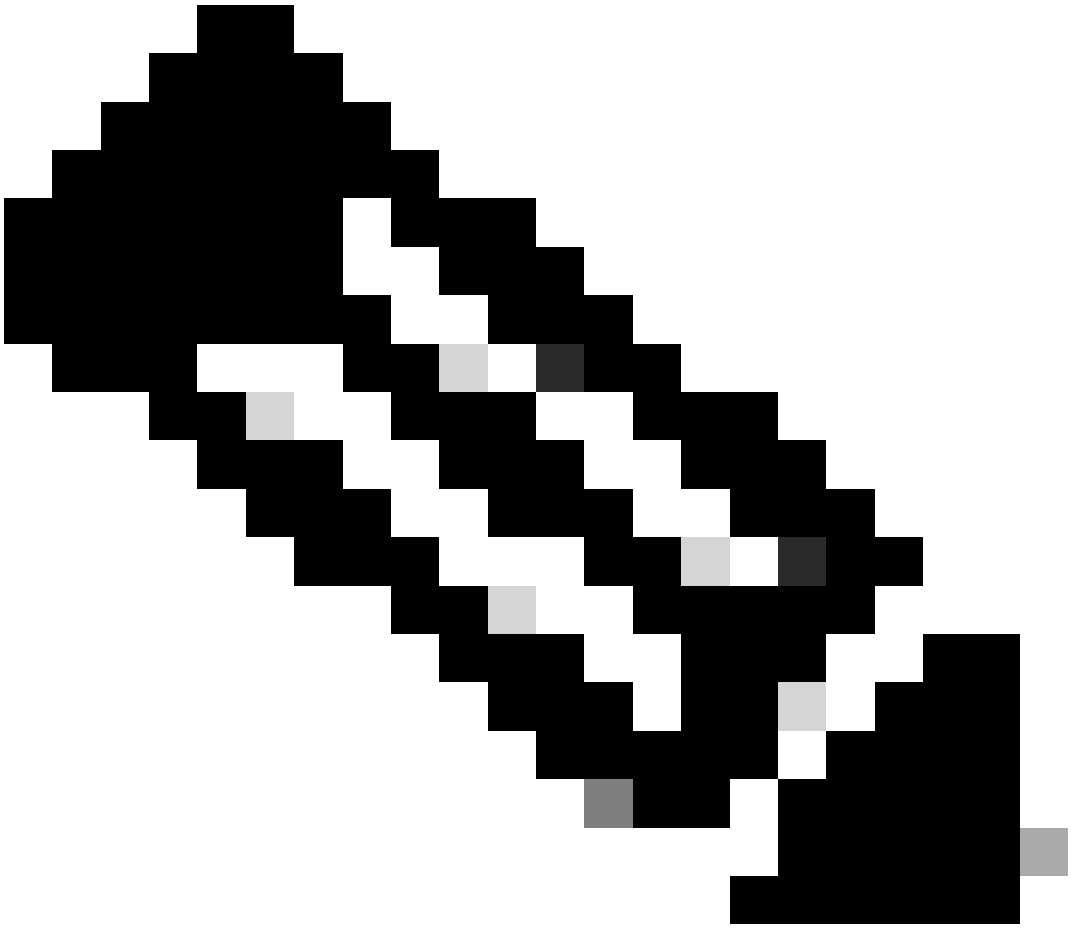
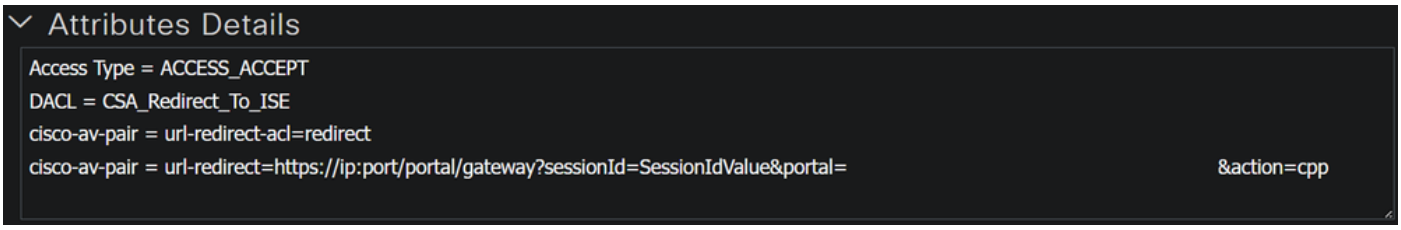


Note: The name for the redirection ACL on Secure Access for all the deployments is **redirect.**

After you define all of these values, you must have something similar under Attributes Details.



Click **Save** to end the configuration and continue with the next step.

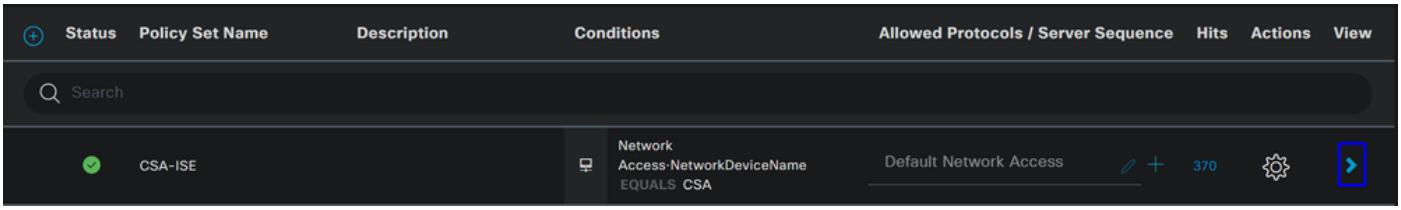
Configure Posture Policy Set

These three policies you create are based on the authorization profiles you configured; for **DenyAccess**, you do not need to create another one.

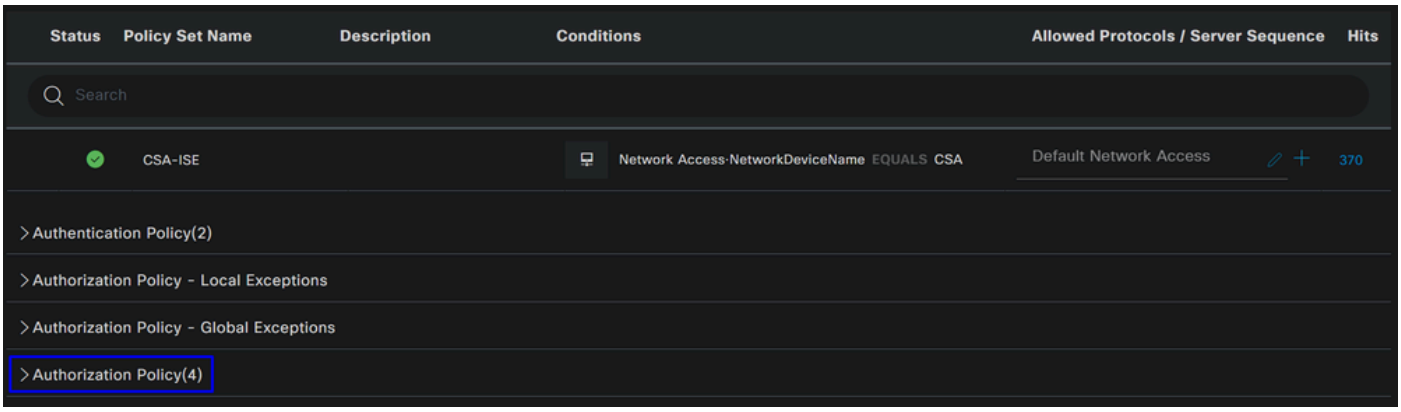
Policy Set - Authorization	Authorization Profile
Compliant	Authorization Profile - Compliant
Unknown Compliant	Authorization Profile - Uknown Compliant
Non Compliant	DenyAccess

Navigate to your ISE Dashboard

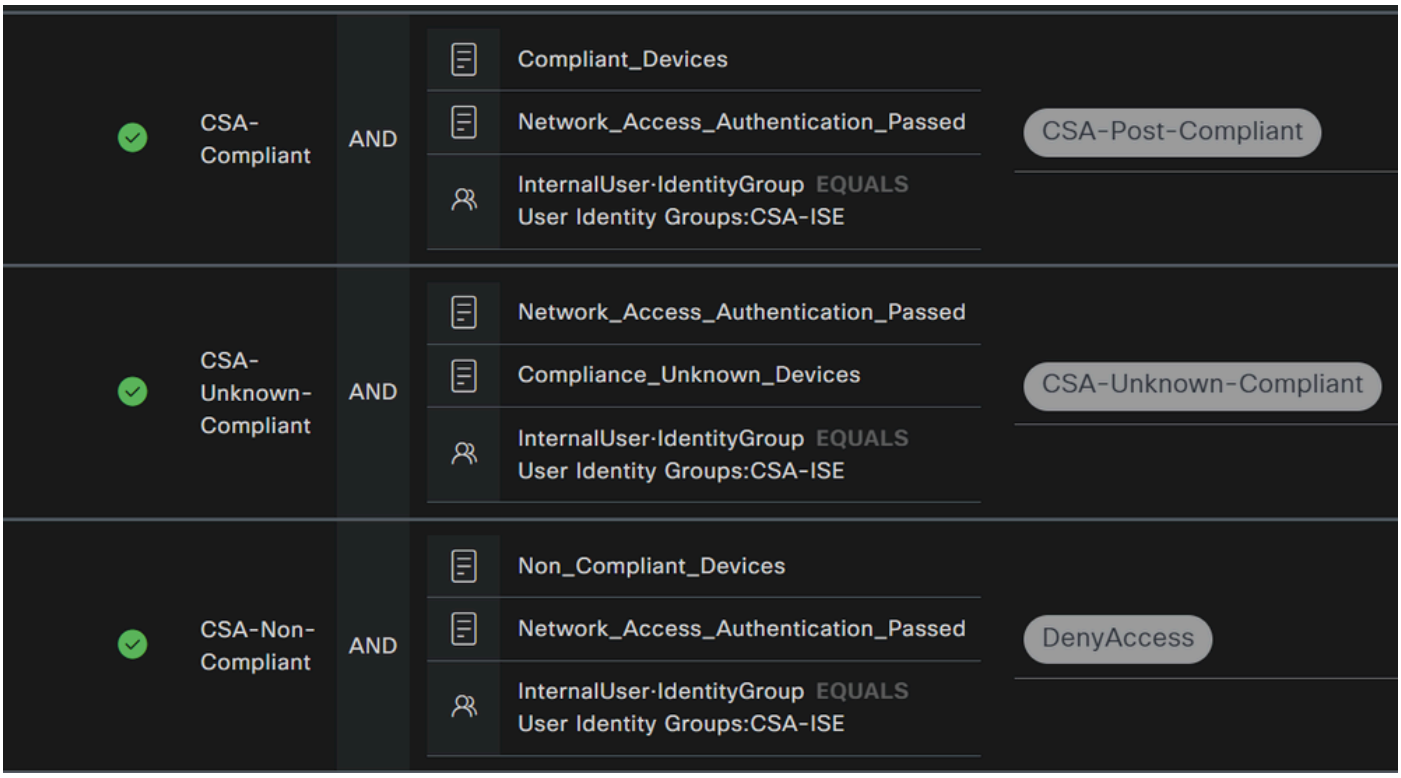
- Click on **Work Center** > **Policy Sets**
- Click on the> to access to the policy that you have created



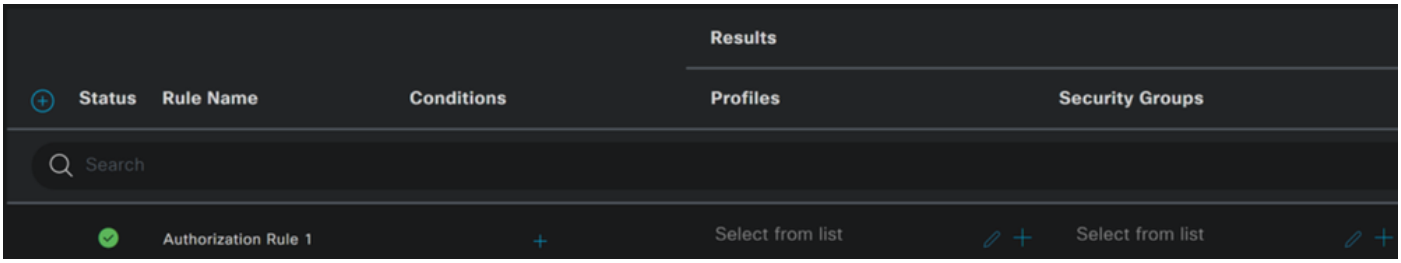
- Click on the Authorization Policy



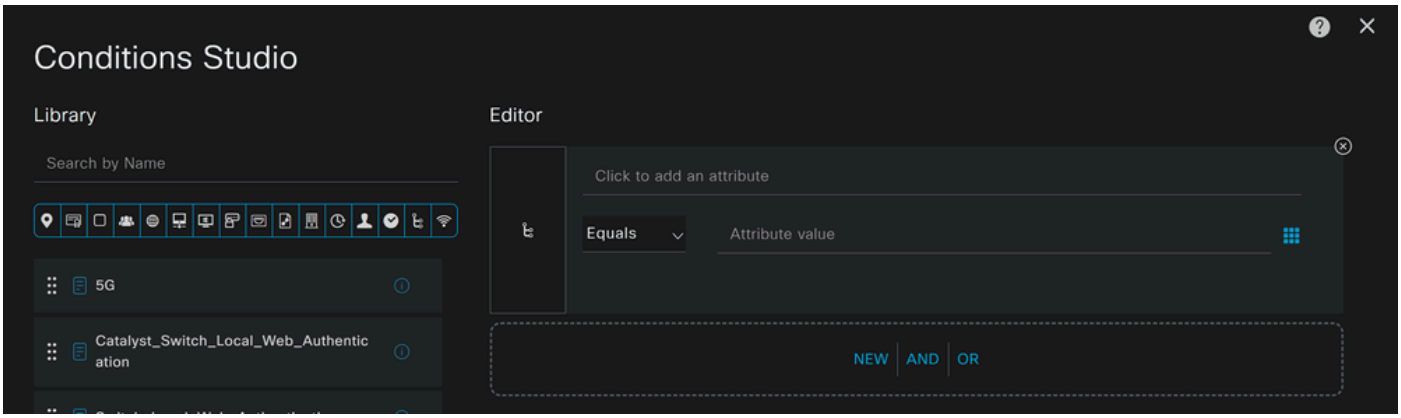
- Create the next three policies in the next order:



- Click on + to define the **CSA-Compliance** policy :

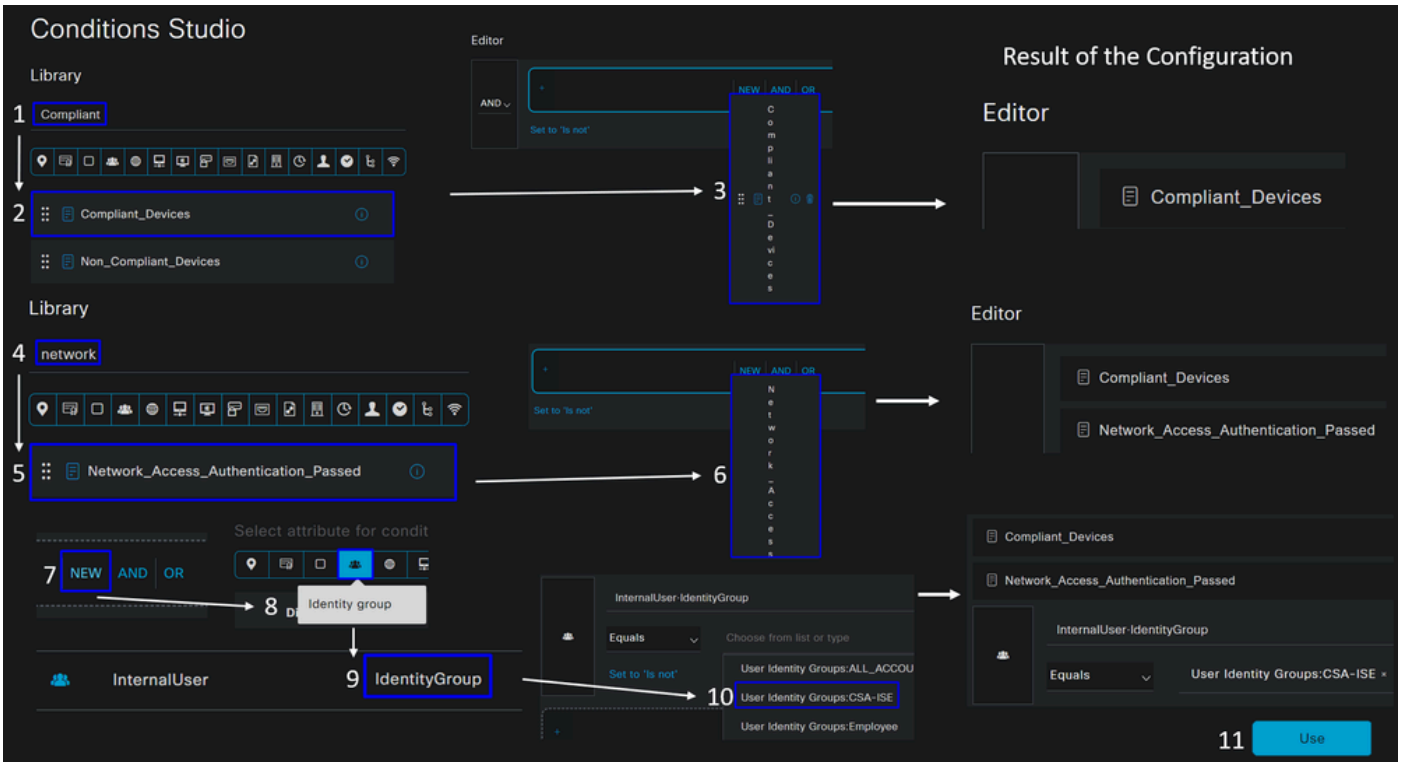


- For the next step, change the Rule Name, Conditions and Profiles
- When setting the **Name** configure a name to **CSA-Compliance**
- To configure the **Condition**, click on the +
- Under **Condition Studio**, you find the information:

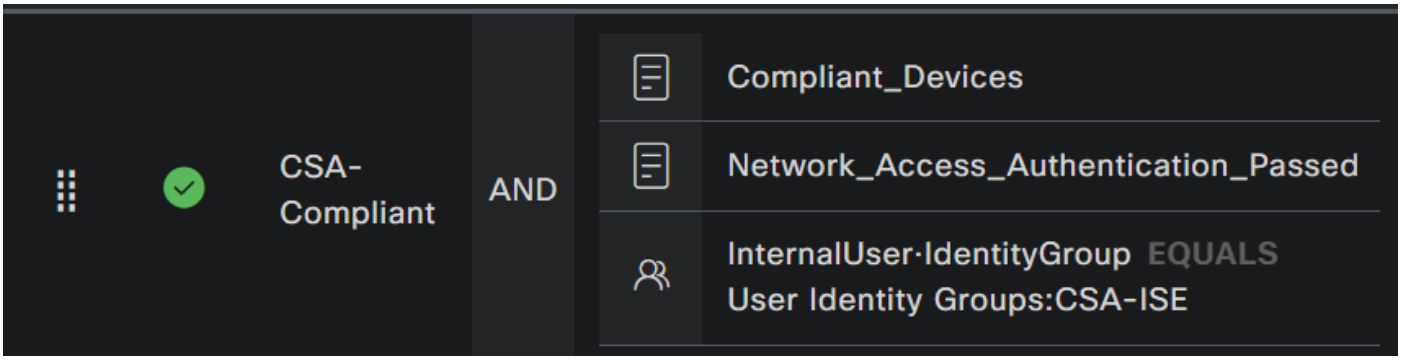


1. To create the condition, search for **compliant**
2. You must have displayed Compliant_Devices
3. Drag and drop under the **Editor**
4. To Create the second condition, search for **network**
5. You must have displayed Network_Access_Authentication_Passed

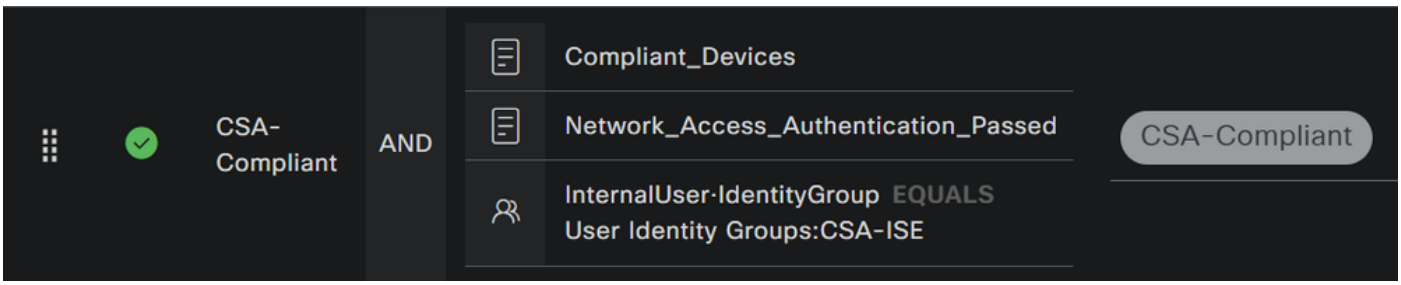
6. Drag and drop under the **Editor**
7. Click under the Editor in **New**
8. Click on the **Identity Group** icon
9. Choose **Internal User Identity Group**
10. Under **Equals**, choose the **User Identity Group** that you want to match
11. Click **Use**



- As a result, you have the next image

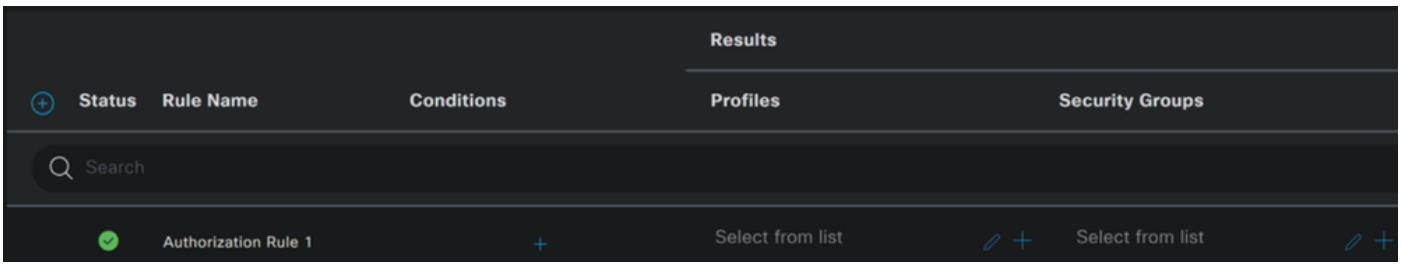


- Under **Profile** click under the drop-down button and choose the complaint authorization profile configured on the step, [Compliant Authorization Profile]

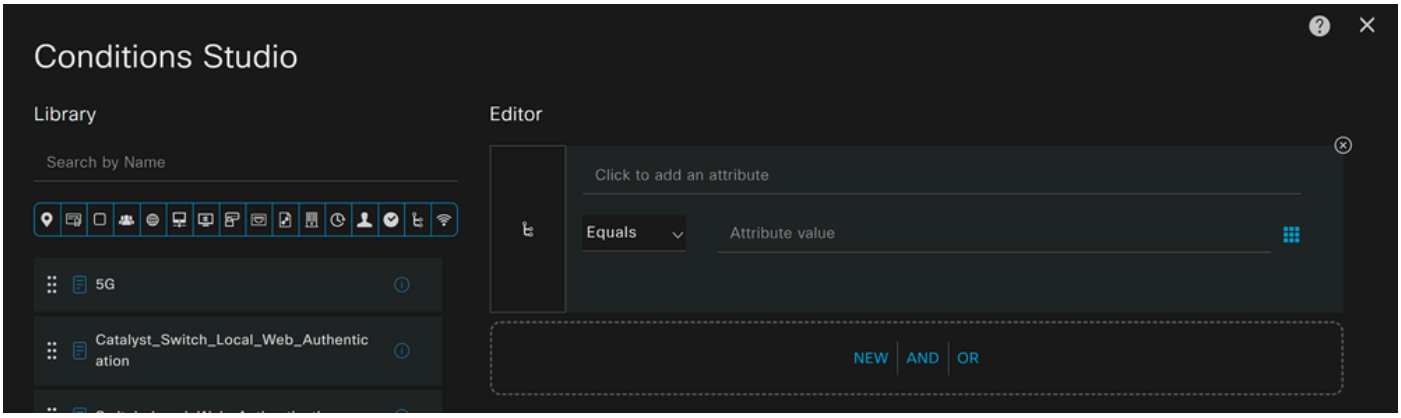


Now you have configured the **Compliance Policy Set.**

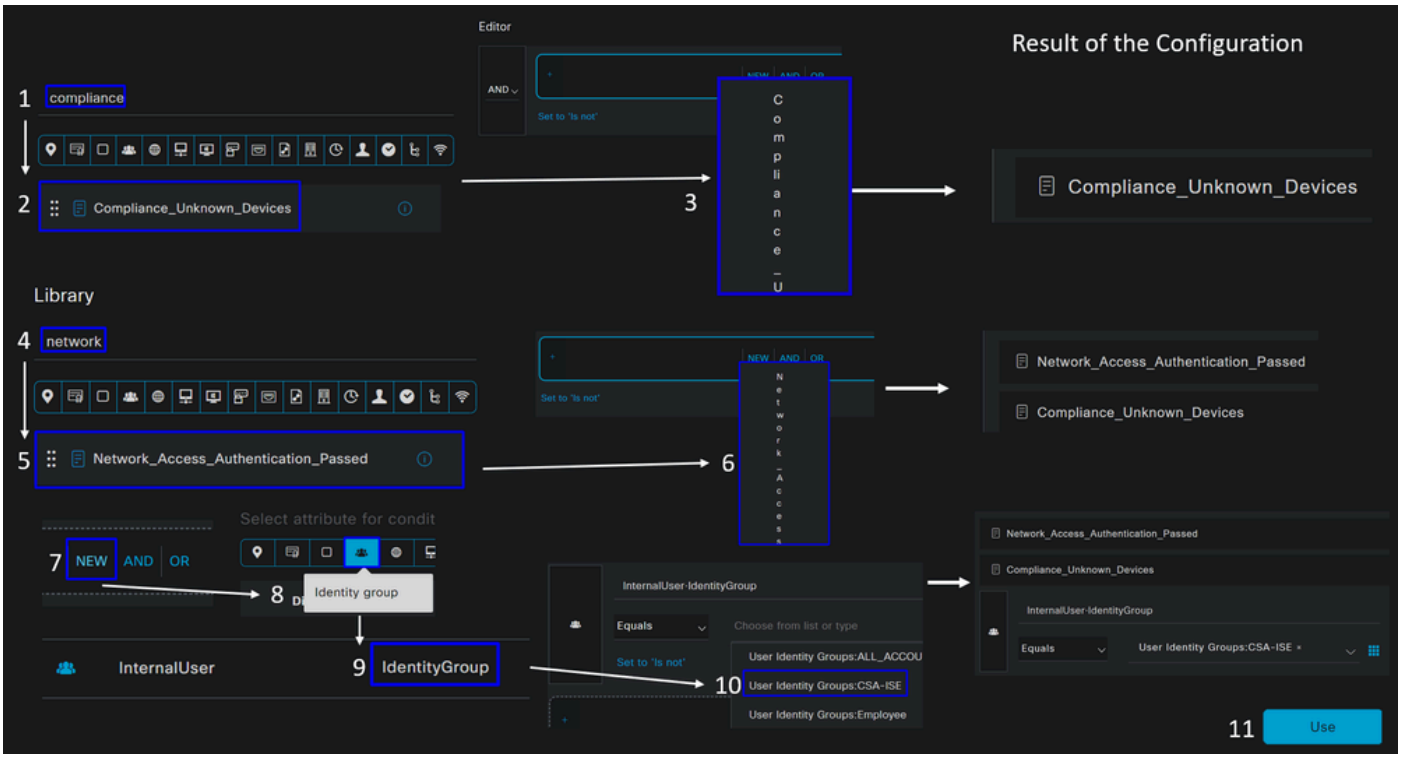
- Click on + to define the **CSA-Unknown-Compliance** policy :



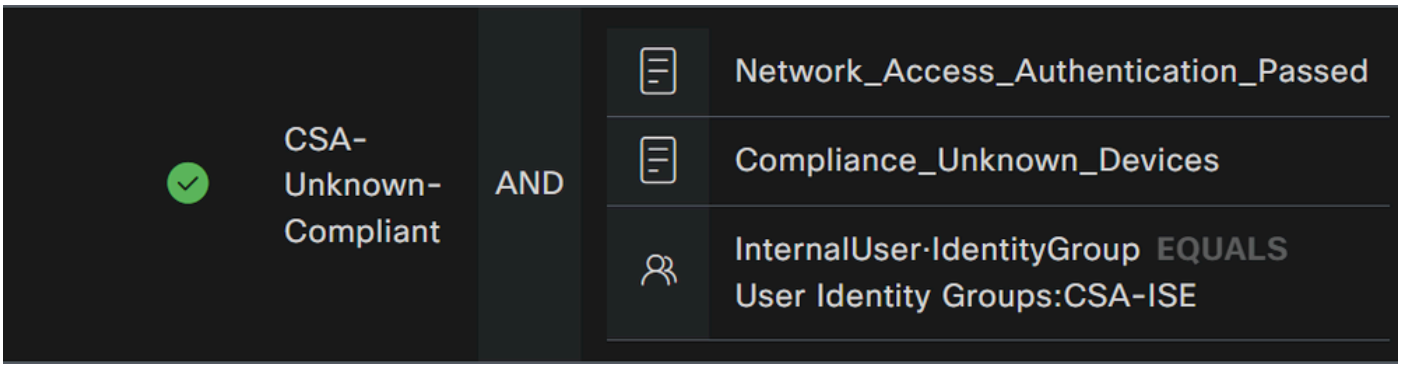
- For the next step, change the Rule Name, Conditions and Profiles
- When setting the **Name** configure a name to **CSA-Unknown-Compliance**
- To configure the **Condition**, click on the +
- Under **Condition Studio**, you find the information:



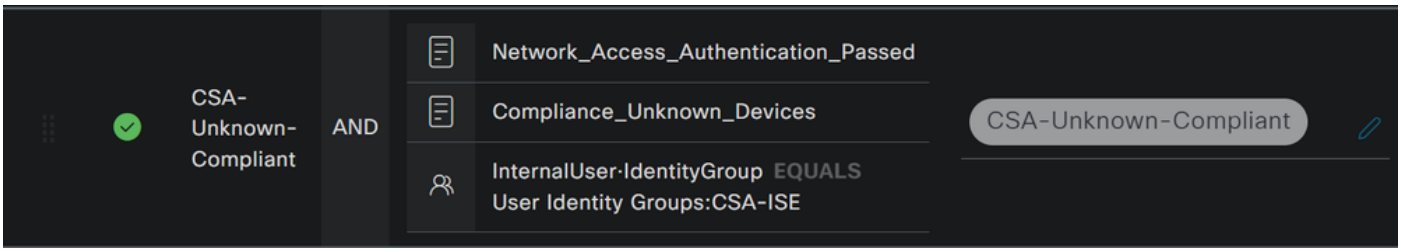
1. To create the condition, search for **compliance**
2. You must have displayed Compliant_Unknown_Devices
3. Drag and drop under the **Editor**
4. To Create the second condition, search for **network**
5. You must have displayed Network_Access_Authentication_Passed
6. Drag and drop under the **Editor**
7. Click under the Editor in **New**
8. Click on the **Identity Group** icon
9. Choose **Internal User Identity Group**
10. Under **Equals**, choose the **User Identity Group** that you want to match
11. Click **Use**



- As a result, you have the next image

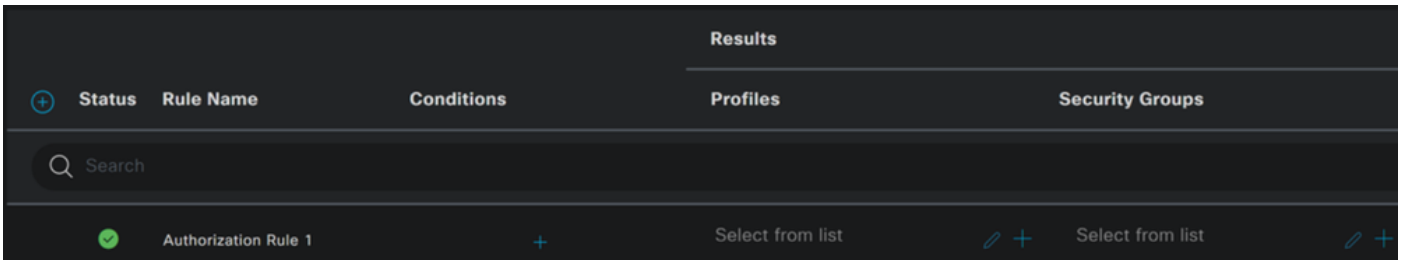


- Under **Profile** click under the drop-down button and choose the complaint authorization profile configured on the step, [Unknown Compliant Authorization Profile]

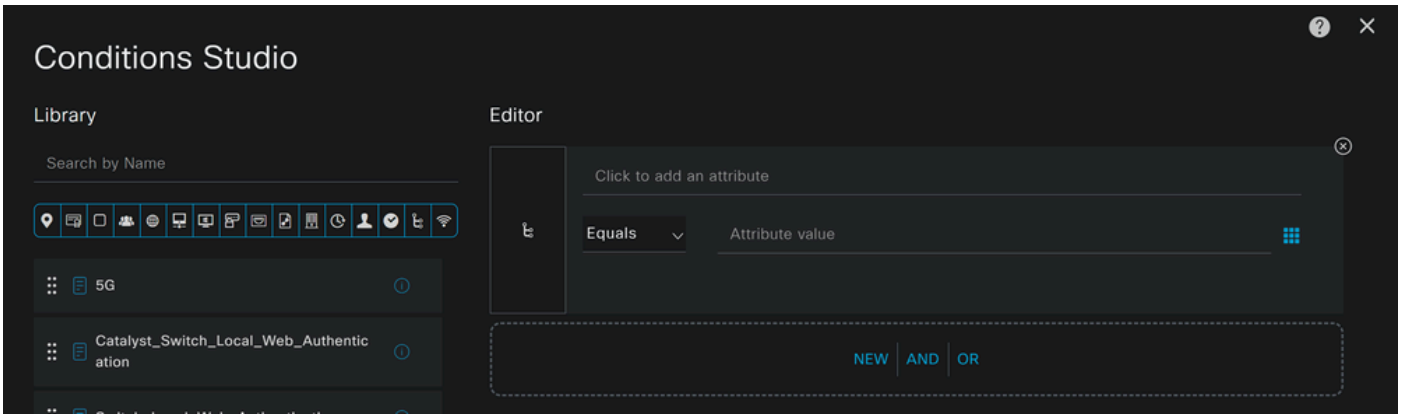


Now you have configured the **Unknown Compliance Policy Set.**

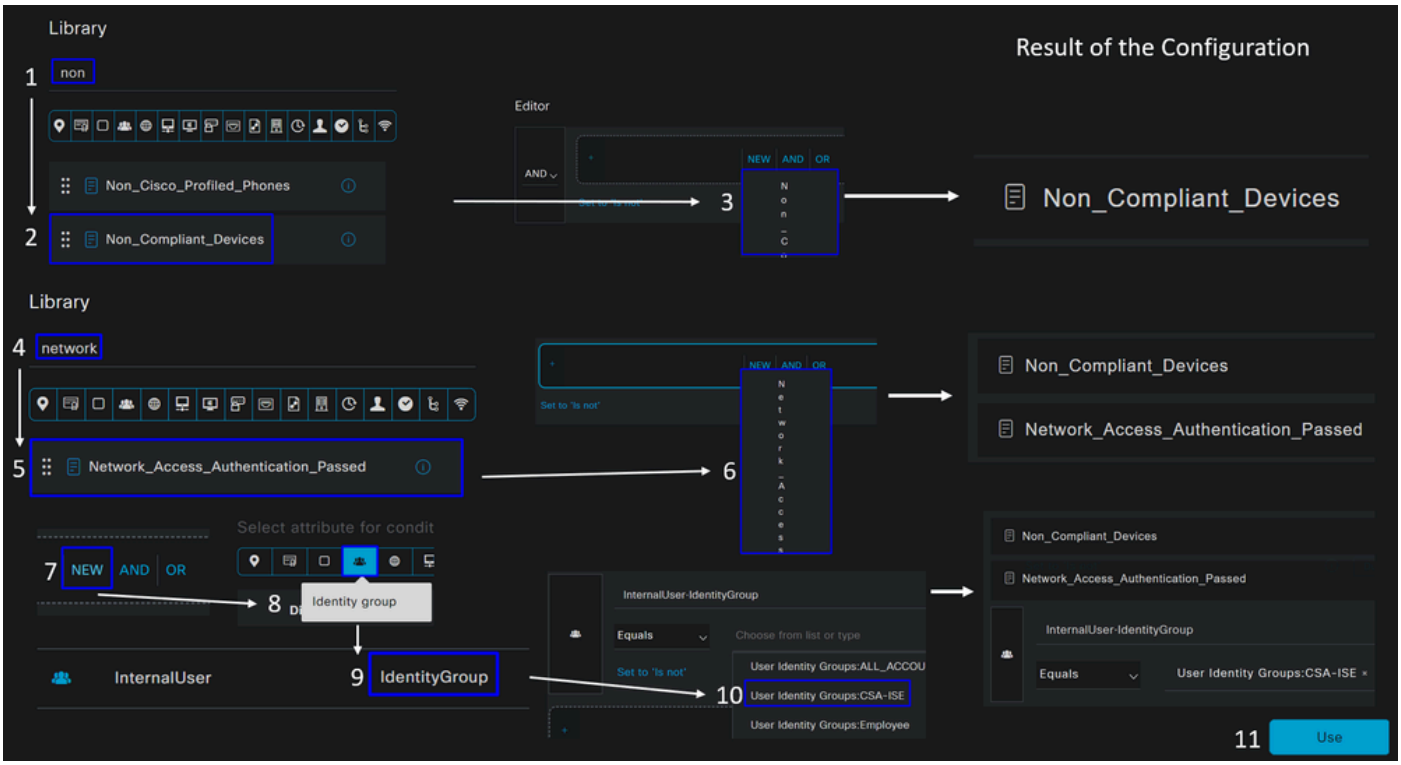
- Click on + to define the **CSA- Non-Compliant** policy:



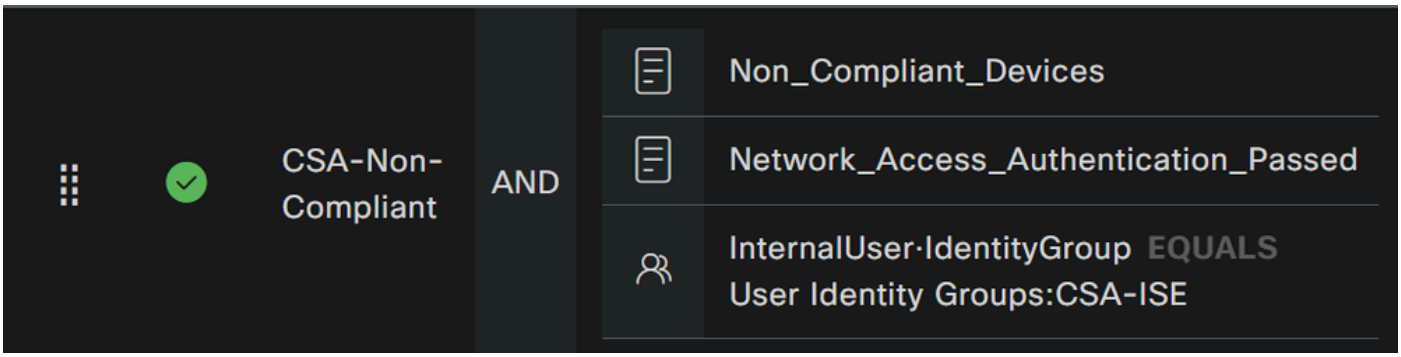
- For the next step, change the Rule Name, Conditions and Profiles
- When setting the **Name** configure a name to **CSA-Non-Compliance**
- To configure the **Condition**, click on the +
- Under **Condition Studio**, you find the information:



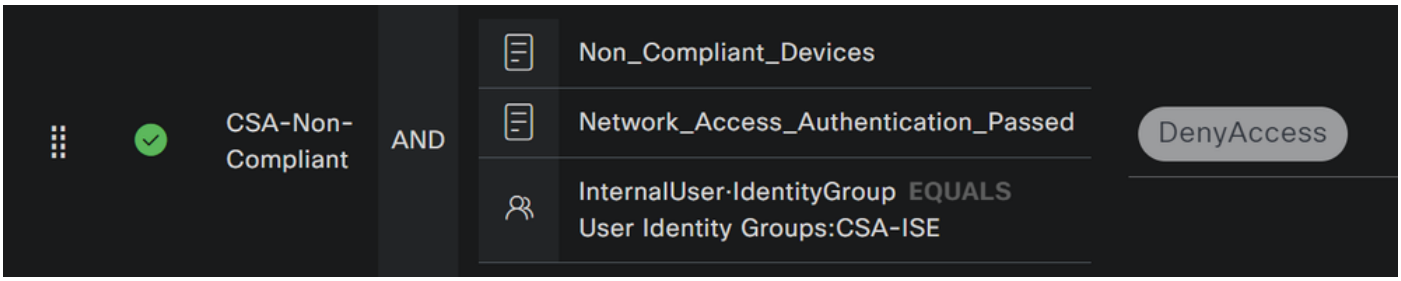
1. To create the condition, search for **non**
2. You must have displayed Non_Compliant_Devices
3. Drag and drop under the **Editor**
4. To Create the second condition, search for **network**
5. You must have displayed Network_Access_Authentication_Passed
6. Drag and drop under the **Editor**
7. Click under the Editor in **New**
8. Click on the **Identity Group** icon
9. Choose **Internal User Identity Group**
10. Under **Equals**, choose the **User Identity Group** that you want to match
11. Click **Use**



- As a result, you have the next image



- Under **Profile** click under the drop-down button and choose the complaint authorization profile **DenyAccess**



Once you end the configuration of the three profiles, you are ready to test your integration with posture.

Verify

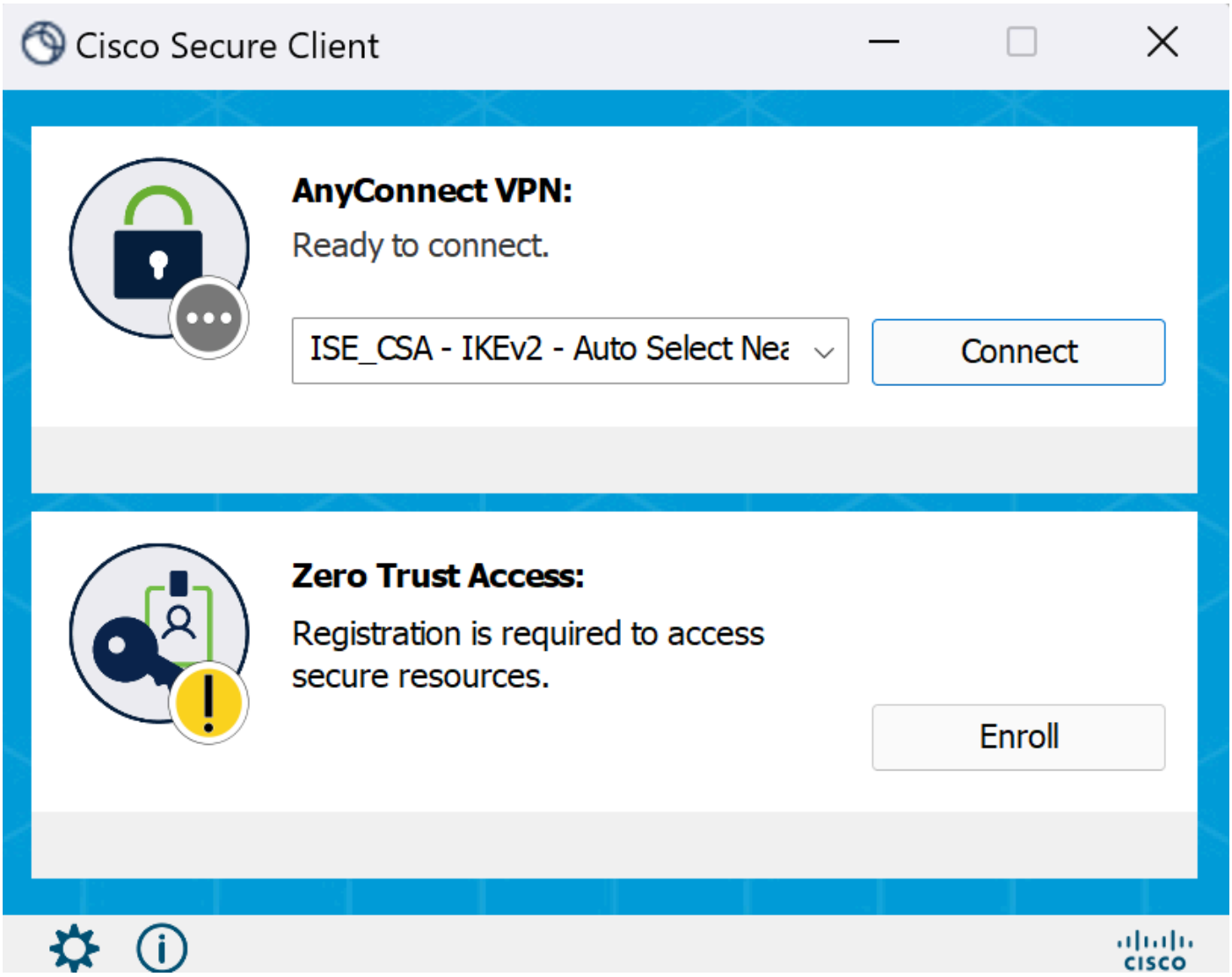
Posture Validation

Connection on the Machine

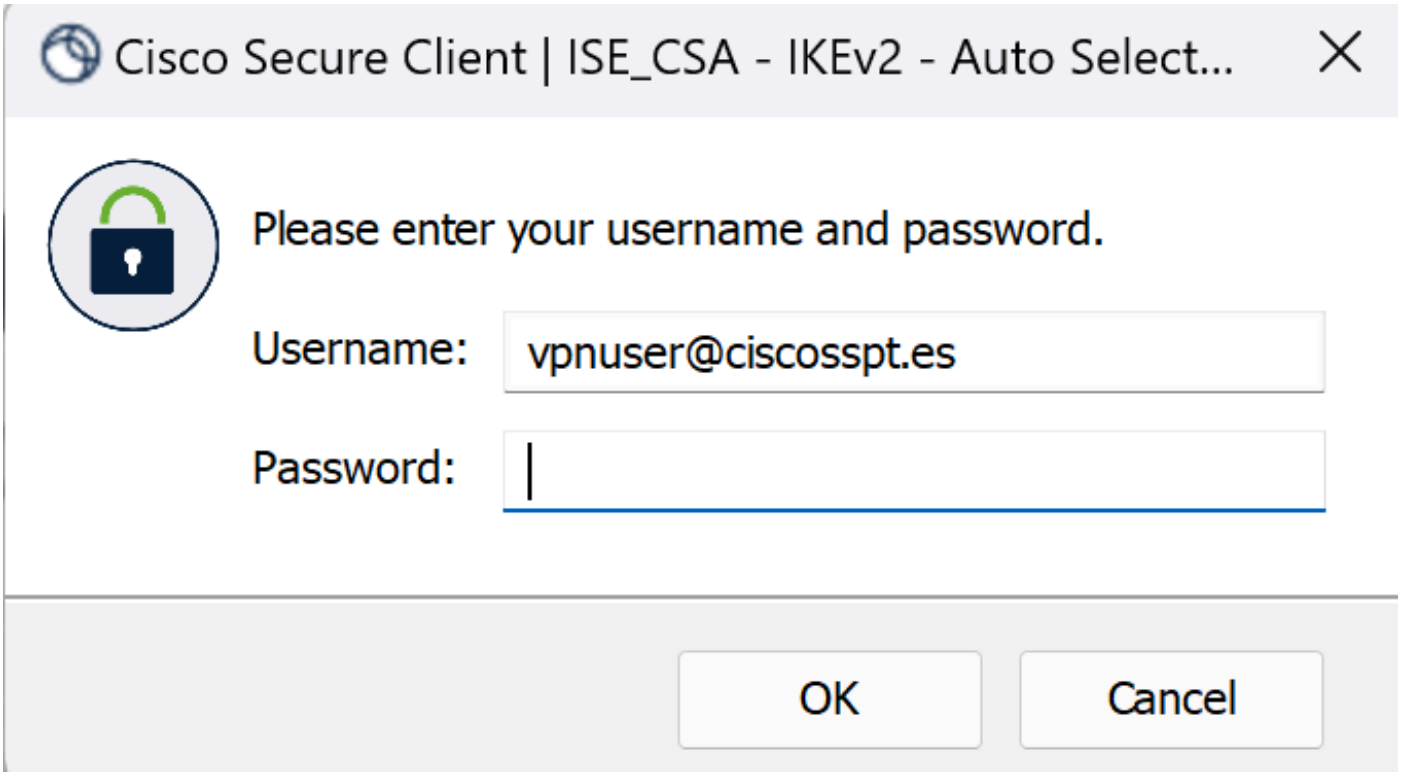
Connect to your FQDN RA-VPN domain provided on Secure Access via Secure Client.

Note: No ISE Module must be installed for this step.

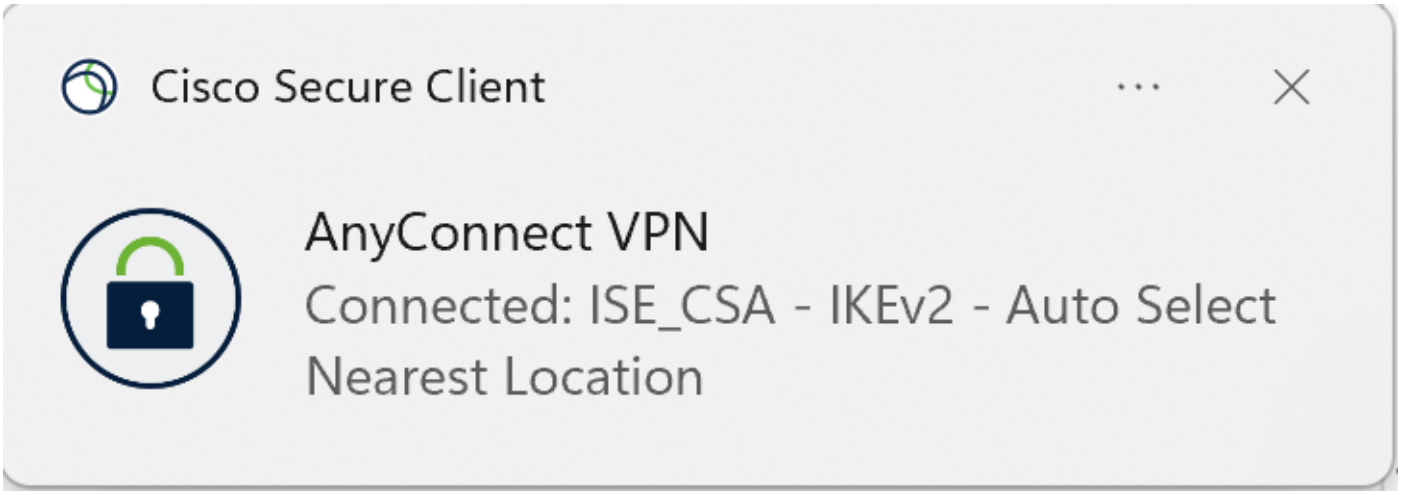
1. Connect using Secure Client.

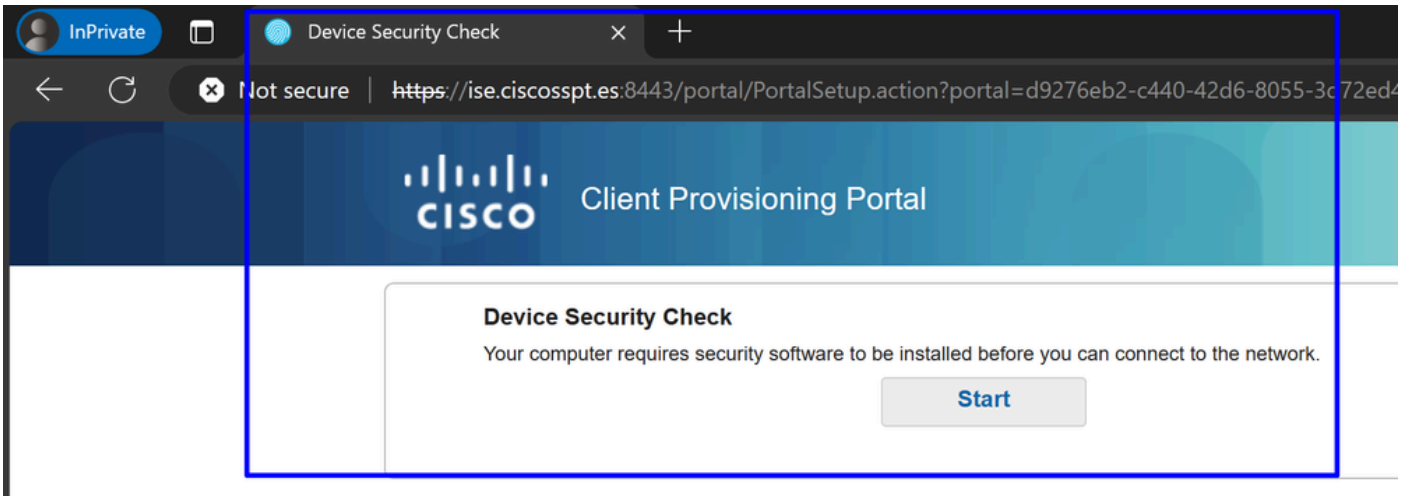


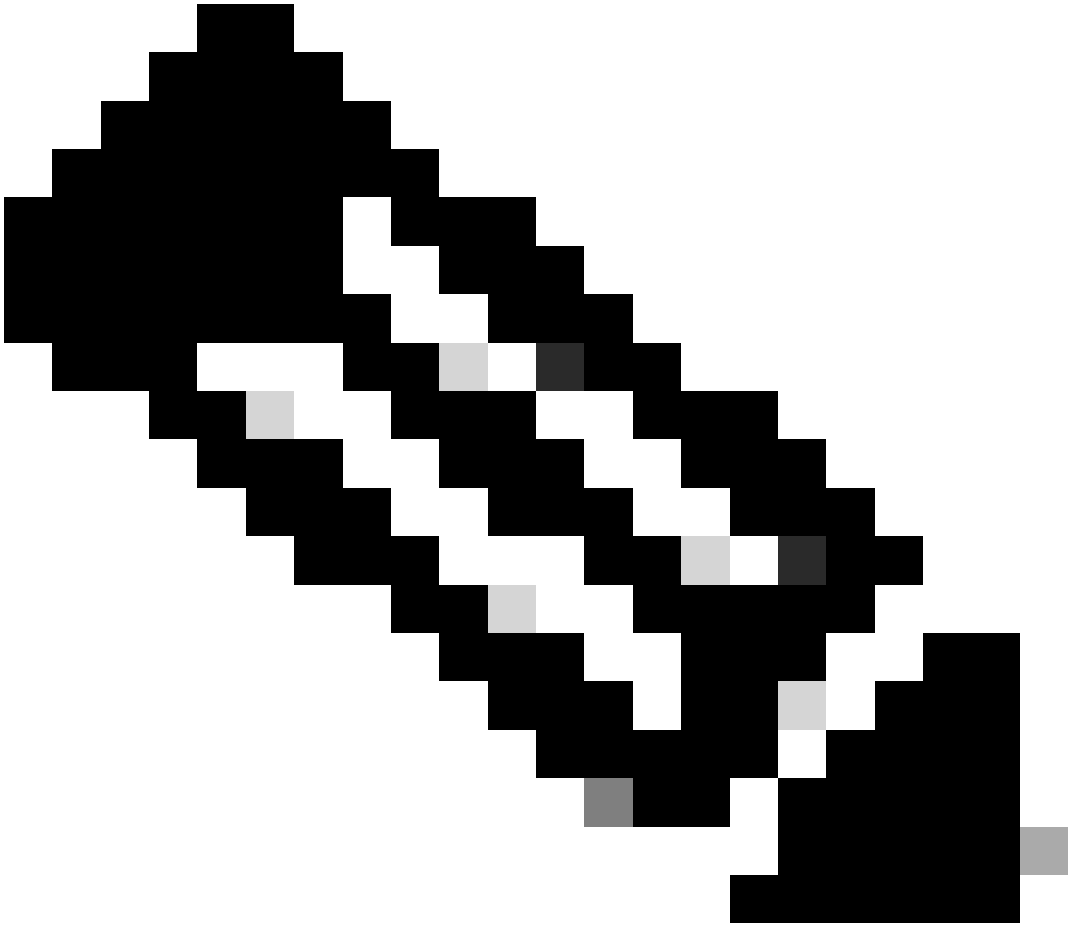
2. Provide the credentials in order to authenticate.



3. At this point, you get connected to the VPN, and mostly probably, you get redirected to ISE; if not, you can try navigating to **http:1.1.1.1**.



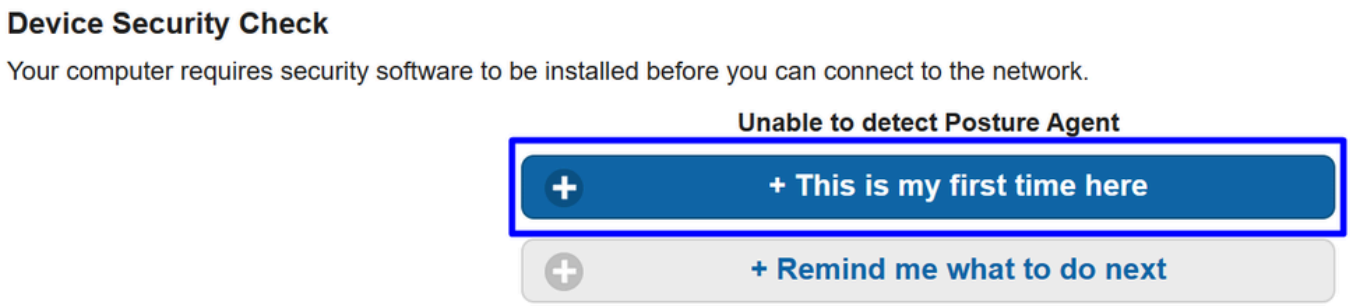




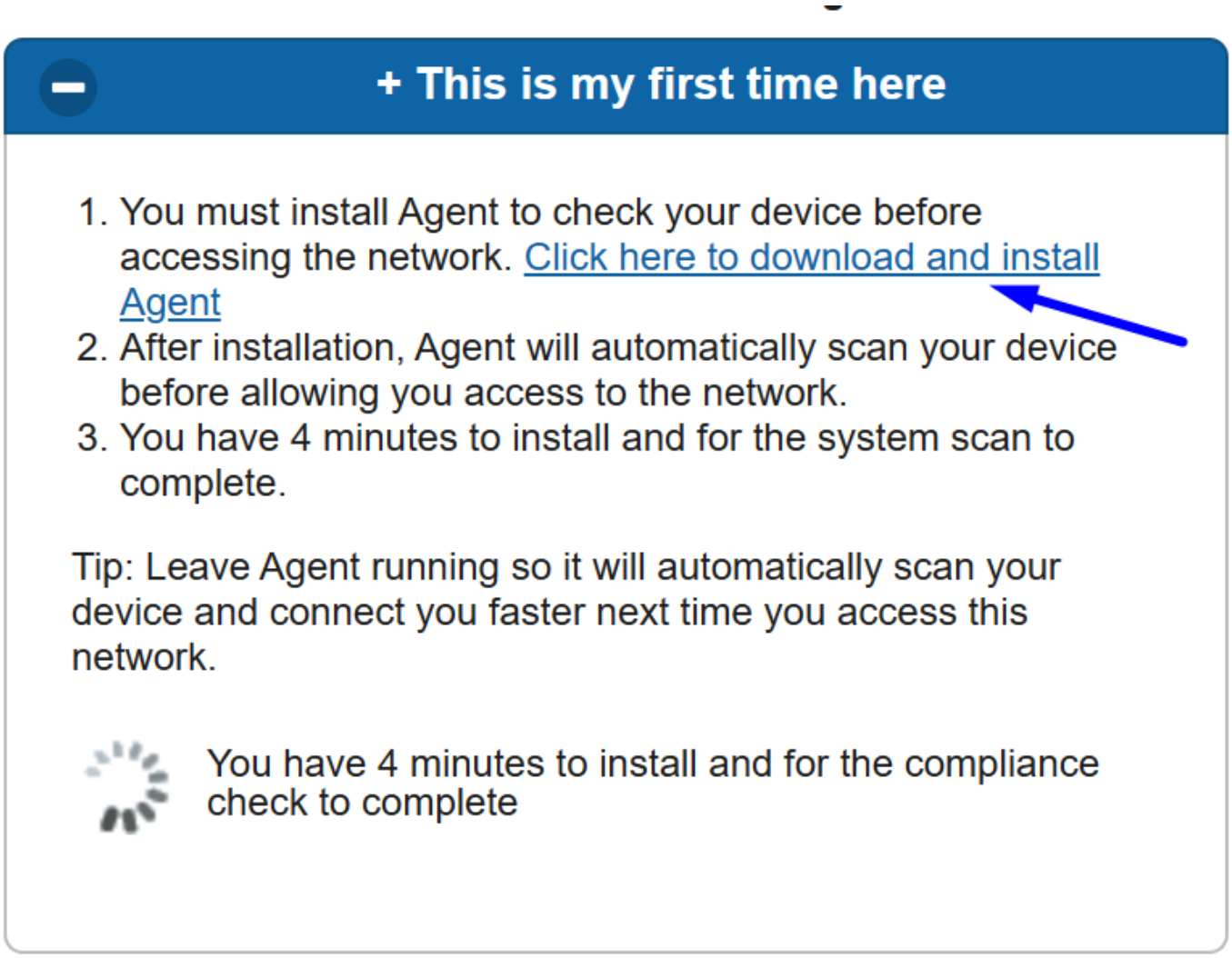
Note: At this point you are falling under the authorization - policy set CSA-Unknown-Compliance because you do not have the ISE Posture Agent installed on the machine, and you get redirected to the ISE Provisioning Portal to install the agent.

4. Click Start to proceed with the agent provisioning.

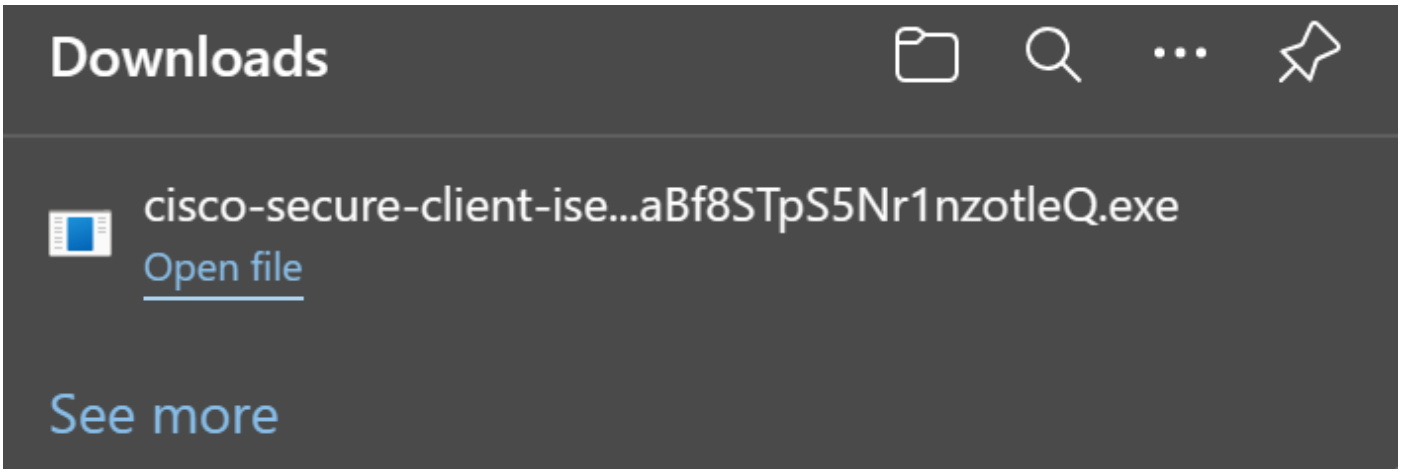
5. Click on + **This is my first time here.**

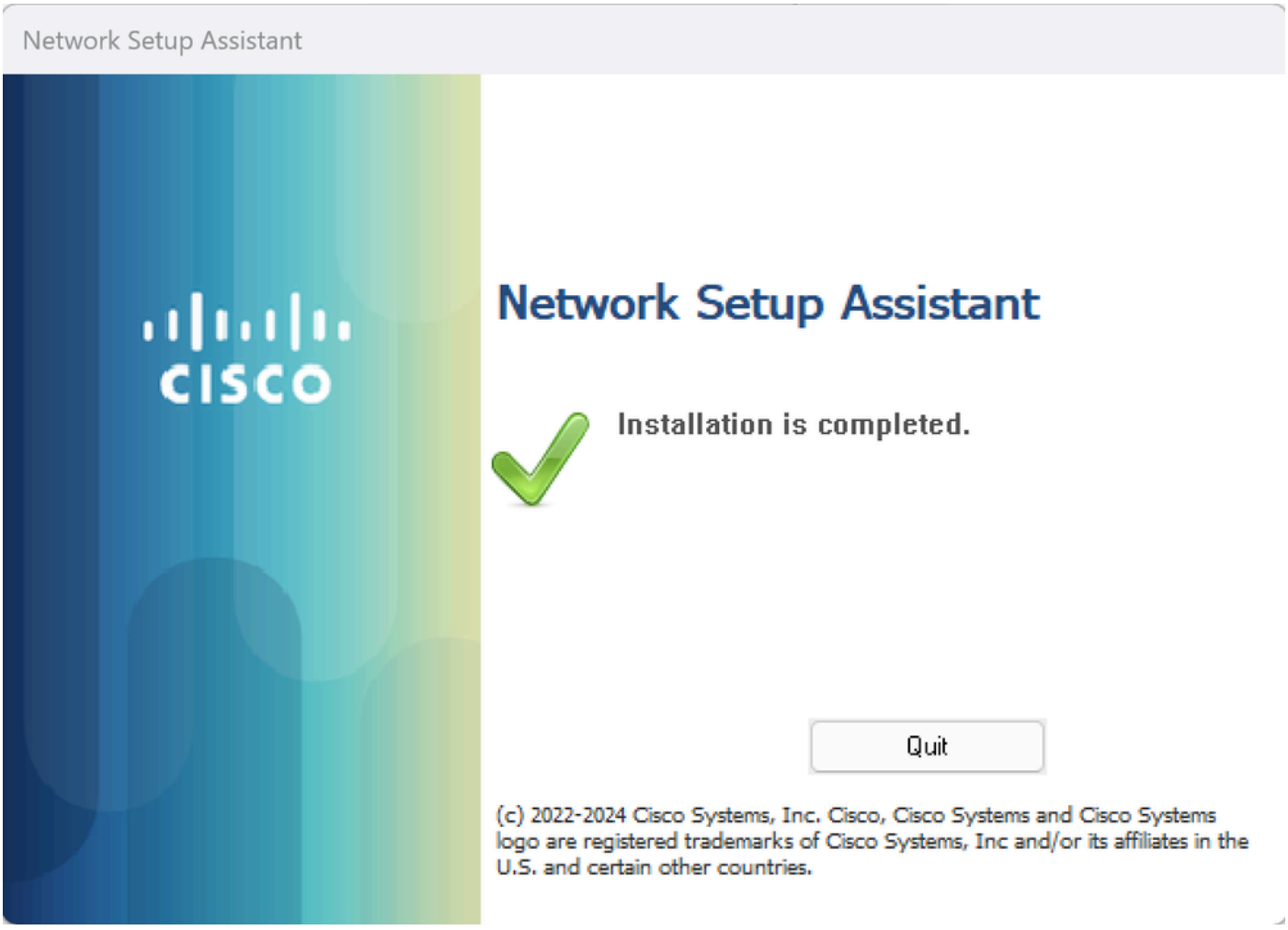


6. Click on **Click here to download and install agent**

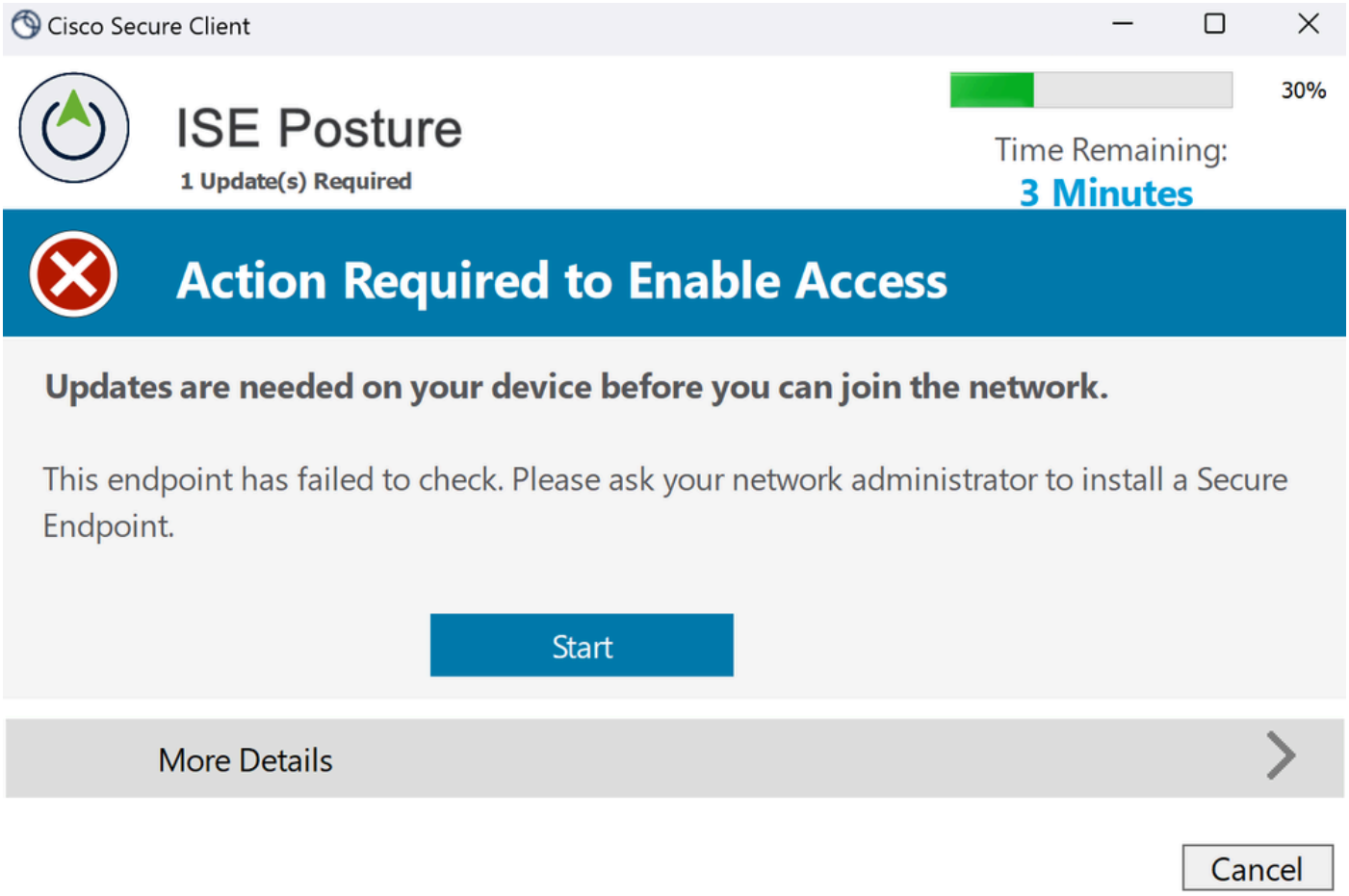


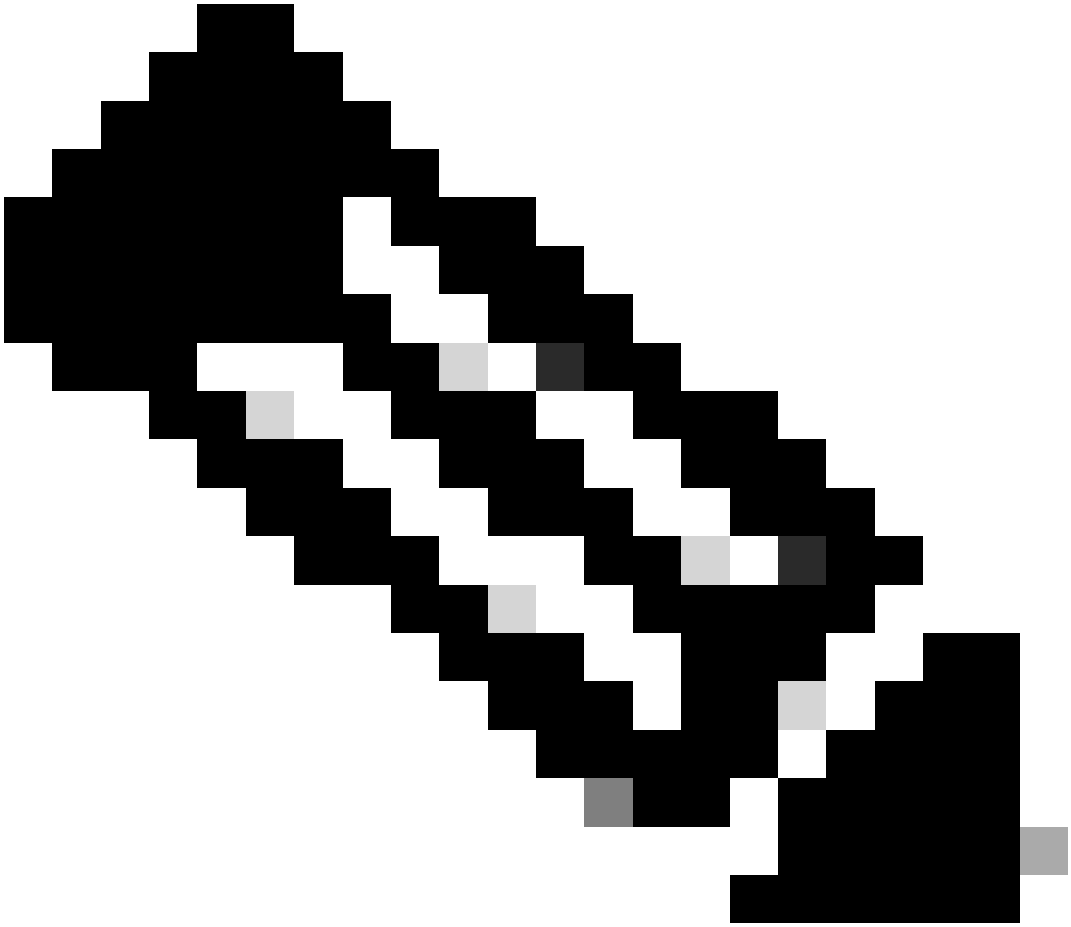
7. Install the agent





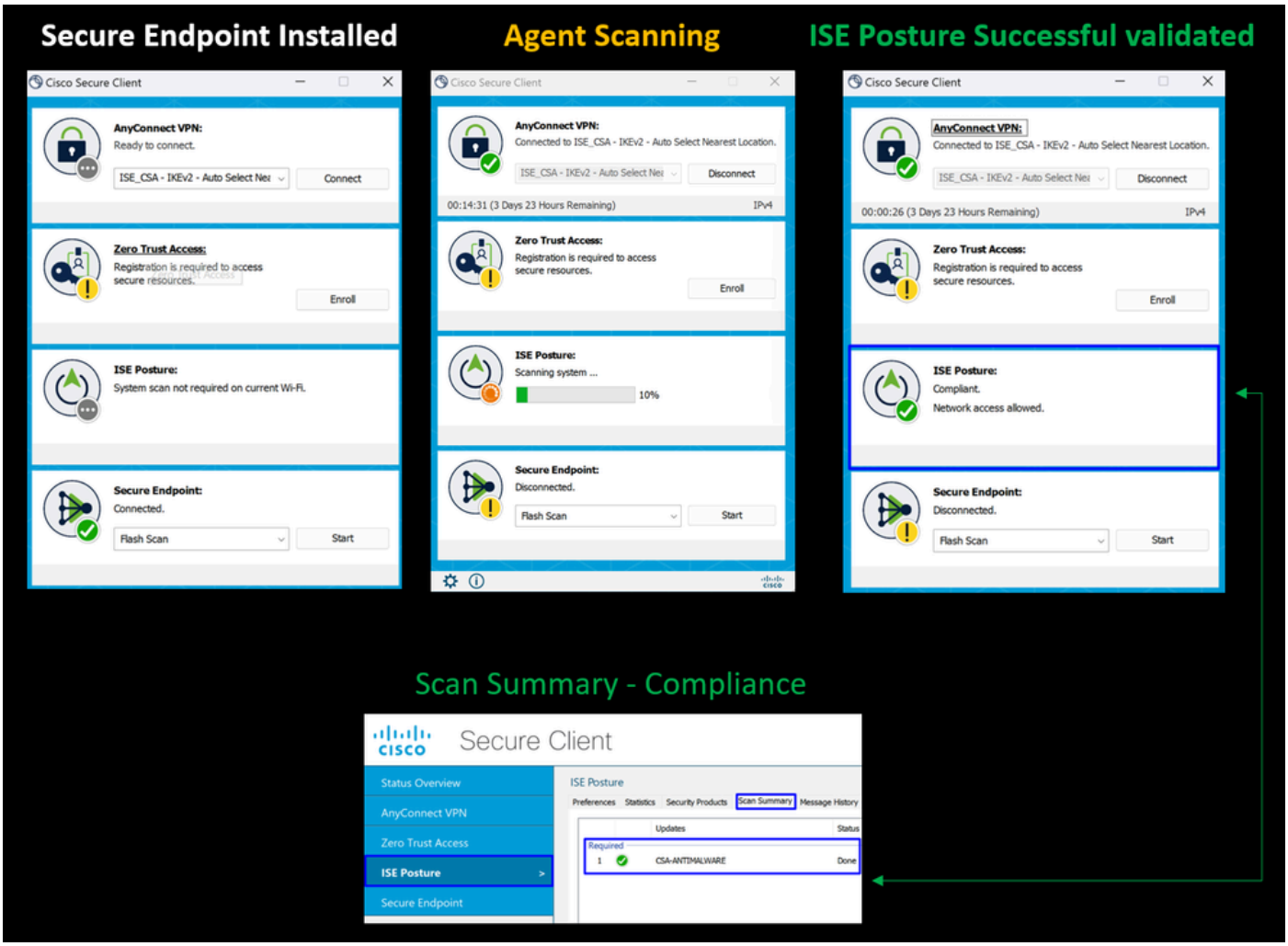
8. After you install the agent, the ISE Posture begins verifying the machines current posture. If the policy requirements are not met, a pop-up appears to guide you towards compliance.


Cisco Secure Client
ISE Posture
1 Update(s) Required
30%
Time Remaining:
3 Minutes
Action Required to Enable Access
Updates are needed on your device before you can join the network.
This endpoint has failed to check. Please ask your network administrator to install a Secure Endpoint.
Start
More Details
Cancel

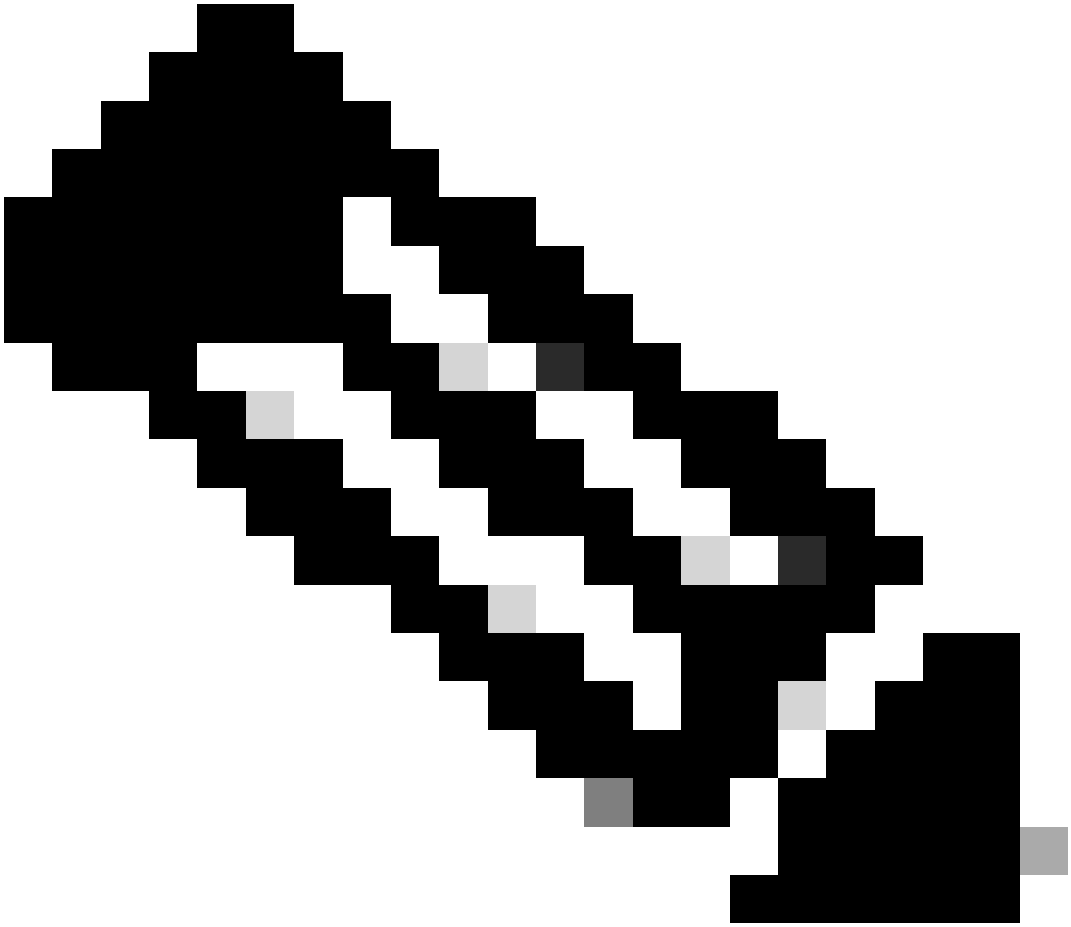


Note: If you Cancel or the remaining time ends, you automatically become non-compliant, fall under the authorization policy set CSA-Non-Compliance, and immediately get disconnected from the VPN.

9. Install the Secure Endpoint Agent and connect again to the VPN.



10. After the agent verifies the machine is in compliance, your posture changes to be on complaint and give access to all the resources on the network.

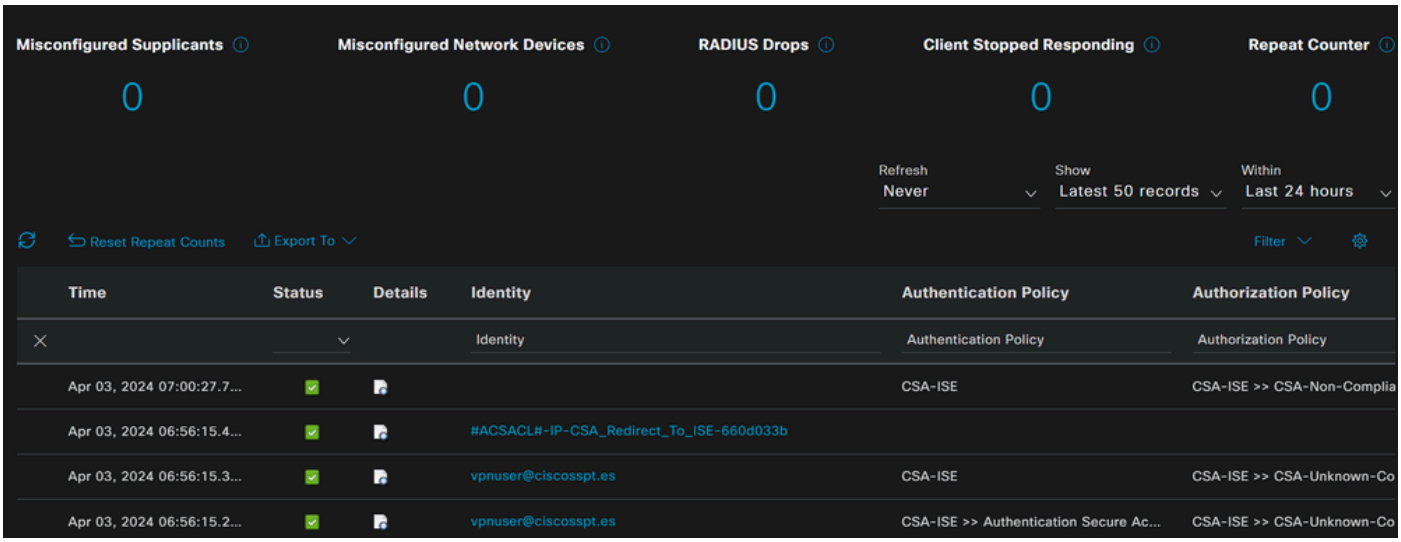


Note: After you become compliant, you fall under the authorization policy set CSA-Compliance, and you immediately have access to all your network resources.

How to Collect Logs in ISE

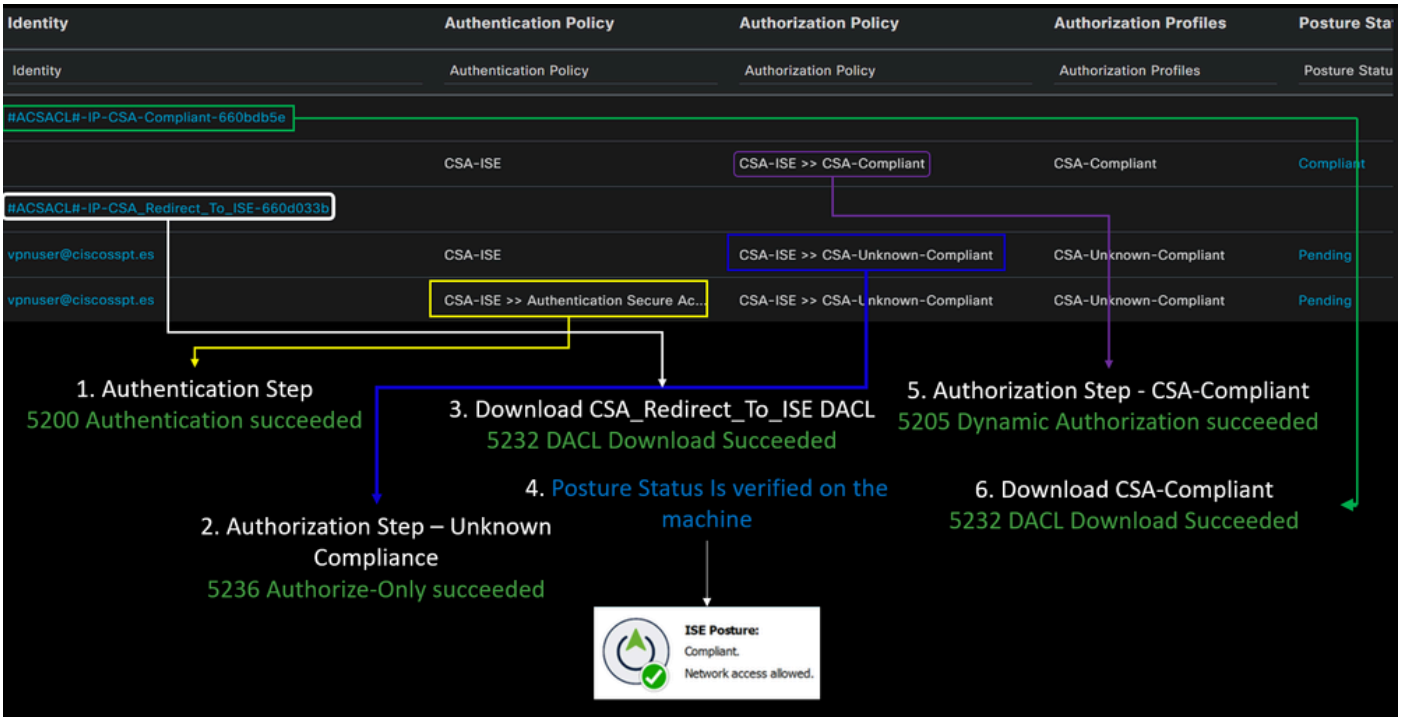
To verify the authentication outcome for a user, you have two examples of compliance and non-compliance. To review it in ISE, adhere to these instructions:

- Navigate to your ISE Dashboard
- Click on Operations > Live Logs

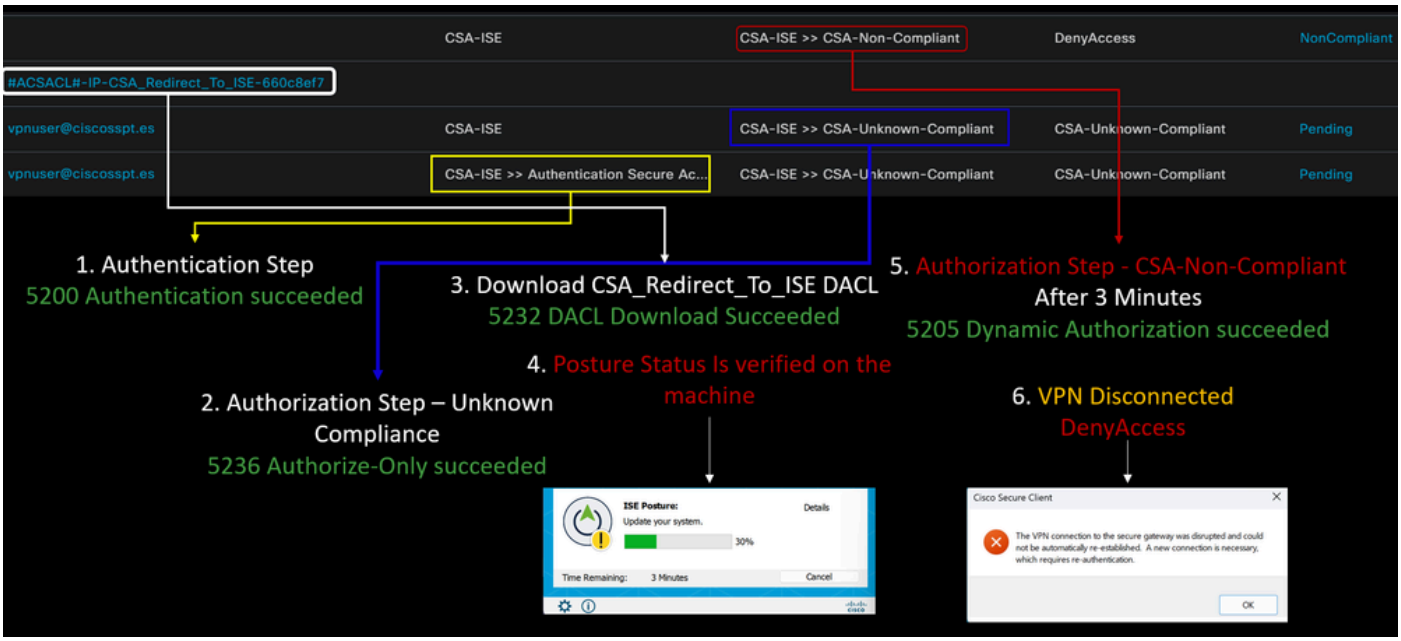


The next tho scenario demonstrates how successful compliance and Non-Compliance events are displayed under **Live Logs**:

Compliance



Non-Compliance



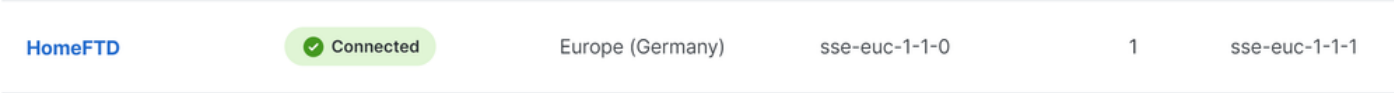
First Steps with Secure Access and ISE Integration

In the next example, Cisco ISE is under network 192.168.10.0/24, and the configuration of the networks reachable through the tunnel needs to be added under the tunnel configuration.

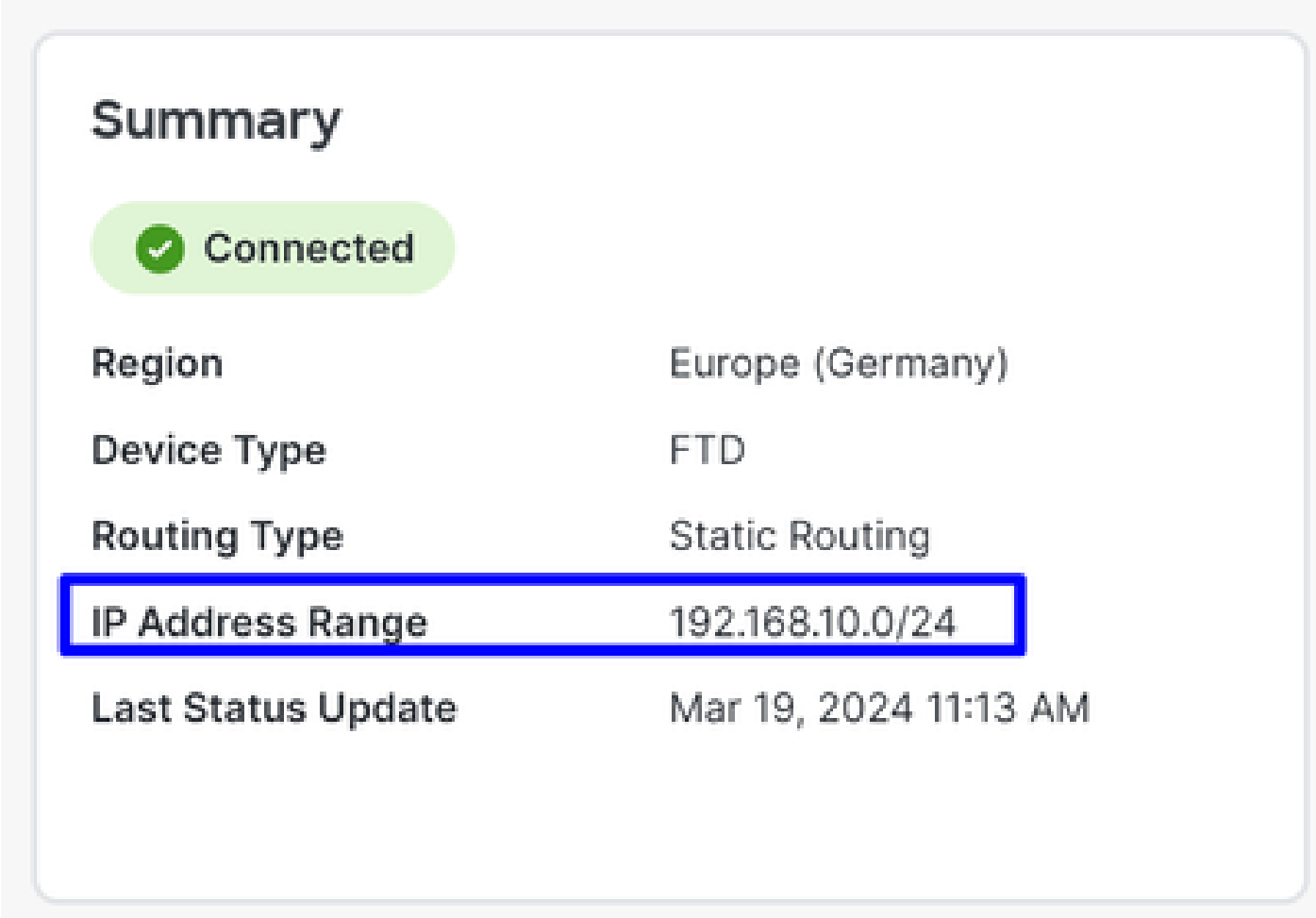
Step 1: Verify your Tunnel configuration:

To verify this, please navigate to your Secure Access Dashboard.

- Click on **Connect** > **Network Connections**
- Click on **Network Tunnel Groups** > Your Tunnel



- Under summary, verify the tunnel has configured the address space where your Cisco ISE is:

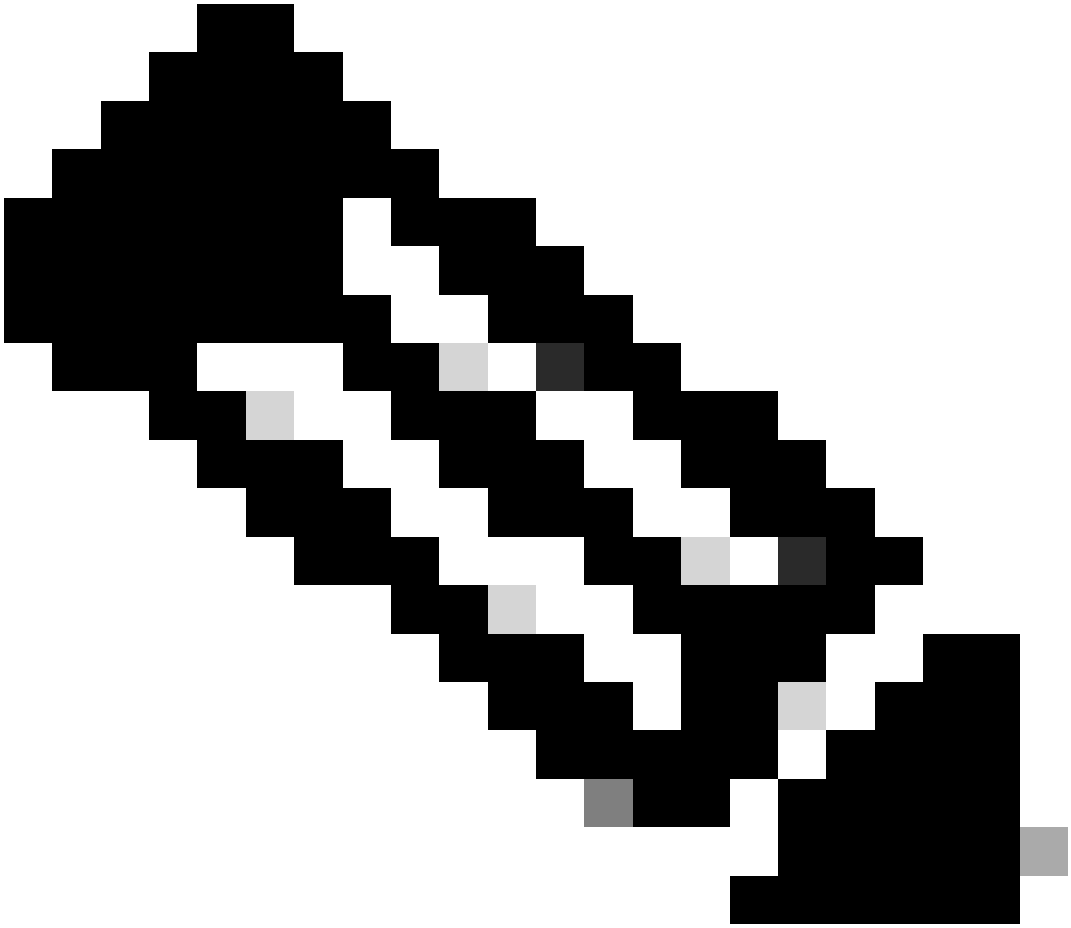


Step 2: Permit the traffic on your firewall.

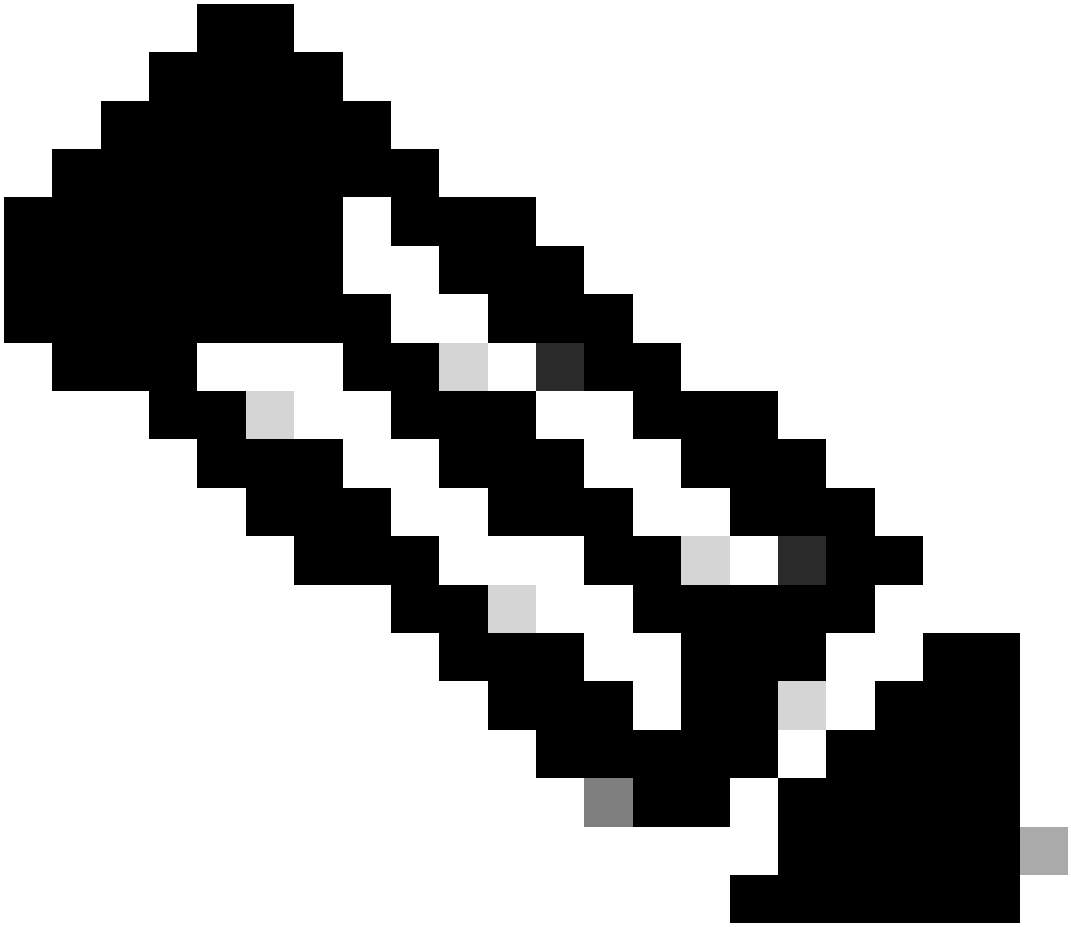
To permit Secure Access to use your ISE device for Radius authentication, you need to have configured a rule from Secure Access to your network with the Radius ports required:

Rule	Source	Destination	Destination Port
ISE to Secure Access Management Pool	ISE_Server	Management IP Pool (RA-VPN)	**COA** UDP 1700 (Default Port)
Secure Access Management IP Pool to ISE	Management IP Pool	ISE_Server	**Authentication, Authorization** UDP 1812 (Default Port) **Accounting** UDP 1813 (Default Port)
Secure Access Endpoint IP Pool to ISE	Endpoint IP Pool	ISE_Server	**Provisioning Portal** TCP 8443 (Default Port)

Secure Access Endpoint IP Pool to DNS SERVER	Endpoint IP Pool	DNS Server	**DNS** UDP and TCP 53



Note: If you want to know more ports related to ISE, check the User Guide - Port Reference.



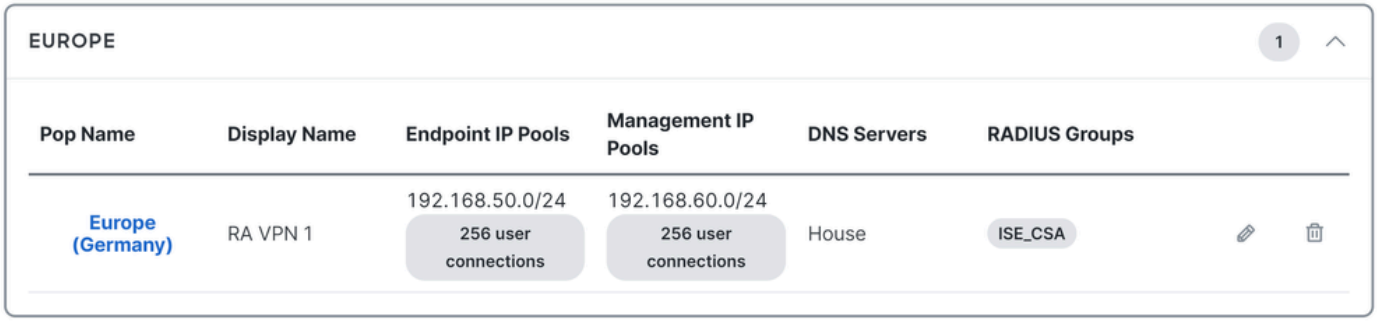
Note: A DNS Rule is needed if you have configured your ISE to be discovered through a name, such as ise.ciscosspt.es

---

Management Pool and Endpoint IP Pools

To verify your Management and Endpoint IP Pool, navigate to your Secure Access Dashboard:

- Click on **Connect > End User Connectivity**
- Click on Virtual Private Network
- Under **Manage IP Pools**
- Click on **Manage**

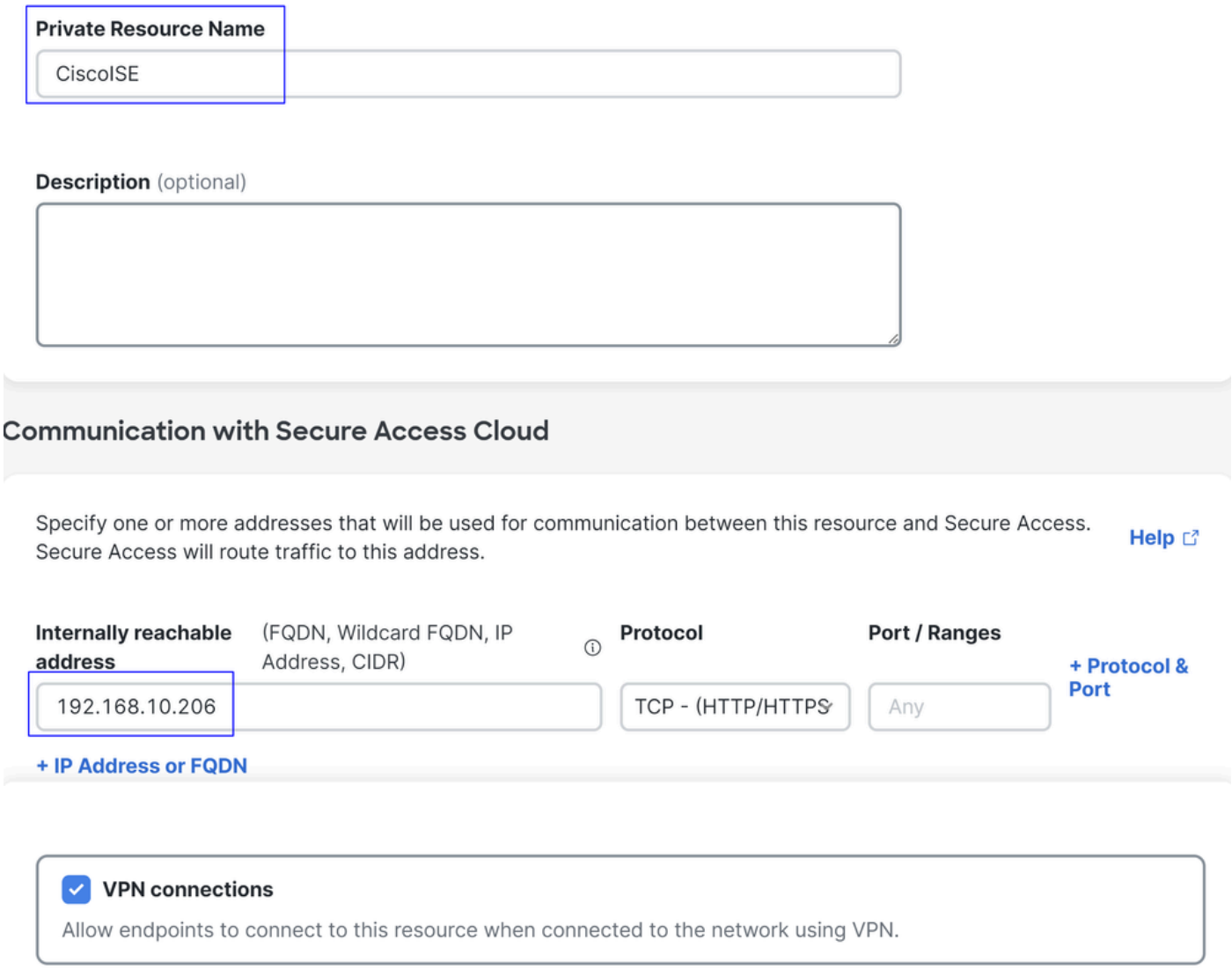


Step3: Verify your ISE is configured under Private Resources

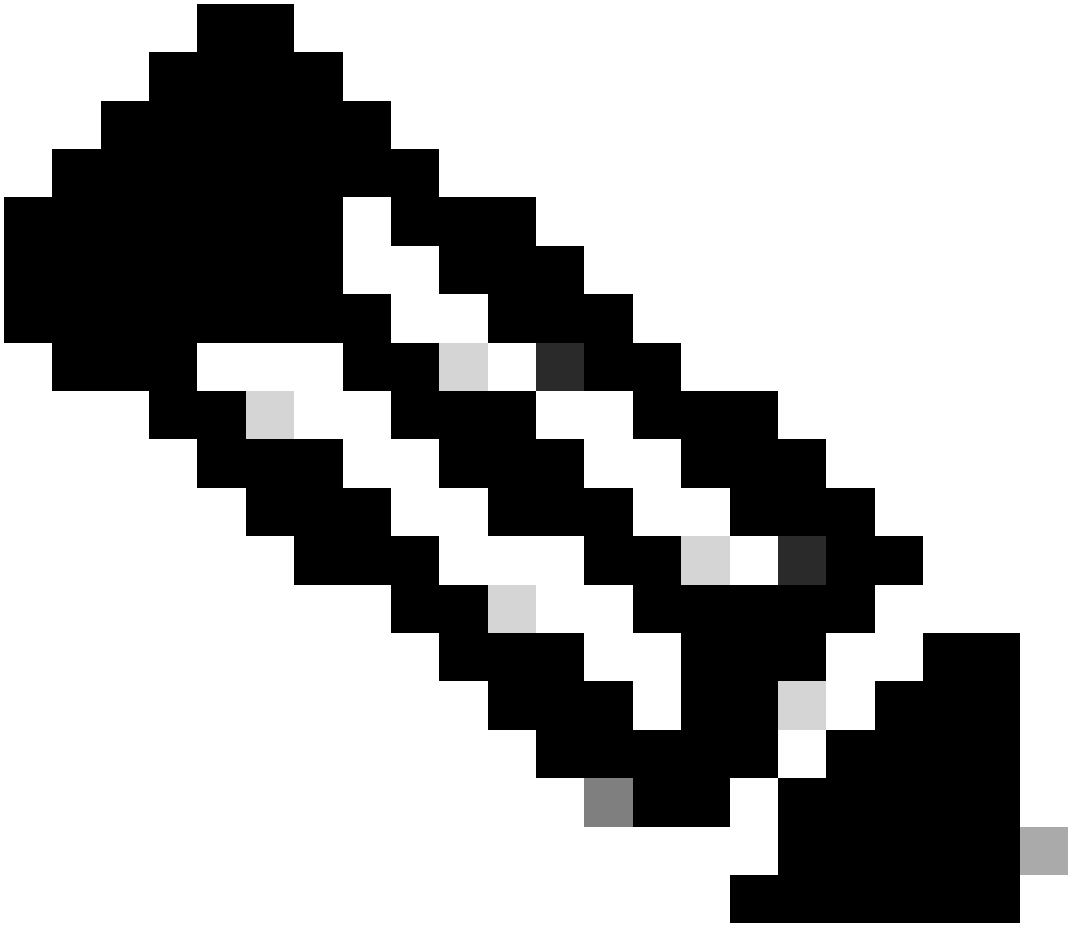
To permit the users connected through the VPN to navigate to **ISE Provisioning Portal**, you need to be sure you have configured your device as a Private Resource to provide access, which is used to permit the auto-provisioning of the ISE Posture Module through the VPN.

To verify that you have ISE configured correctly, navigate to your Secure Access Dashboard:

- Click on **Resources** > **Private Resources**
- Click the ISE Resource



If needed, you can restrict the rule to the provisioning portal port (8443).



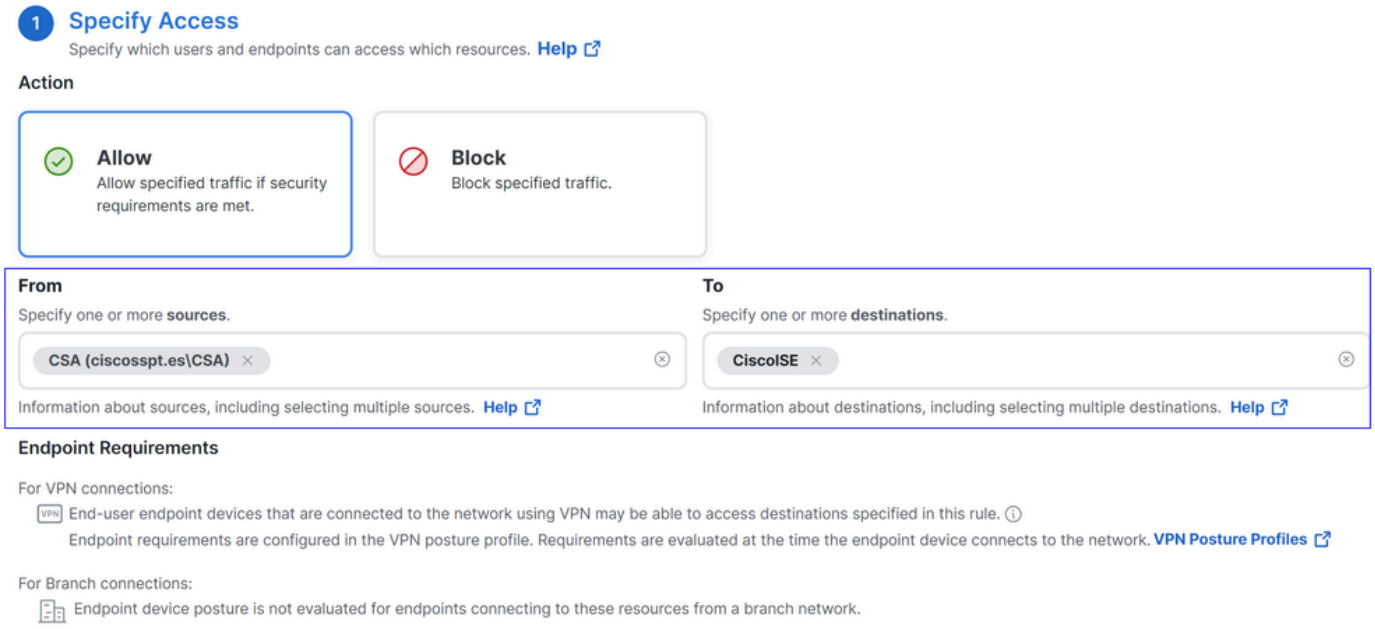
Note: Be sure you have marked the checkbox for VPN connections.

Step4: Permit ISE Access Under the Access Policy

To permit the users connected through the VPN to navigate to **ISE Provisioning Portal**, you need to be sure you have configured an **Access Policy** to permit the users configured under that rule to access the Private Resource configured in Step3.

To verify that you have ISE configured correctly, navigate to your Secure Access Dashboard:

- Click on **Secure > Access Policy**
- Click the rule configured to permit access to the VPN users to ISE

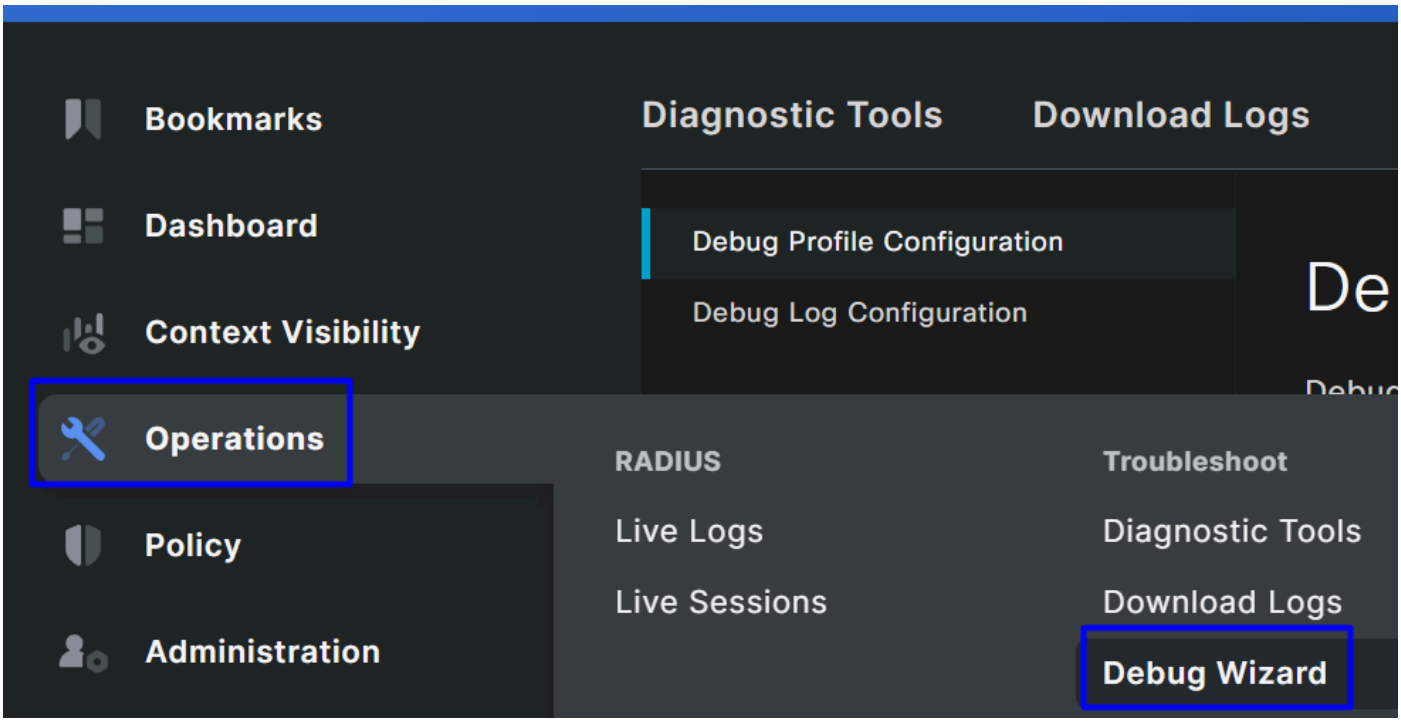


Troubleshoot

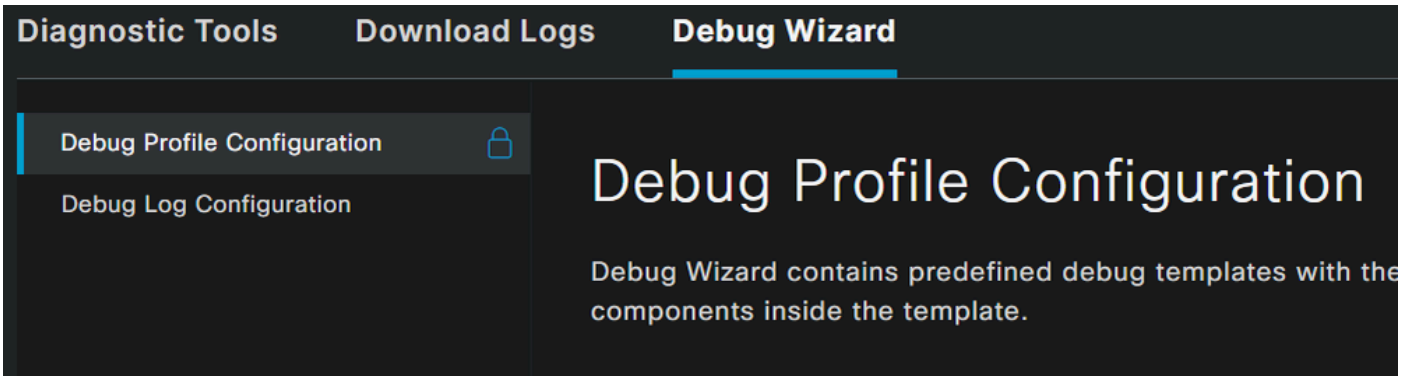
How to Download ISE Posture Debug Logs

To download ISE Logs to verify an issue related to posture, please proceed with the next steps:

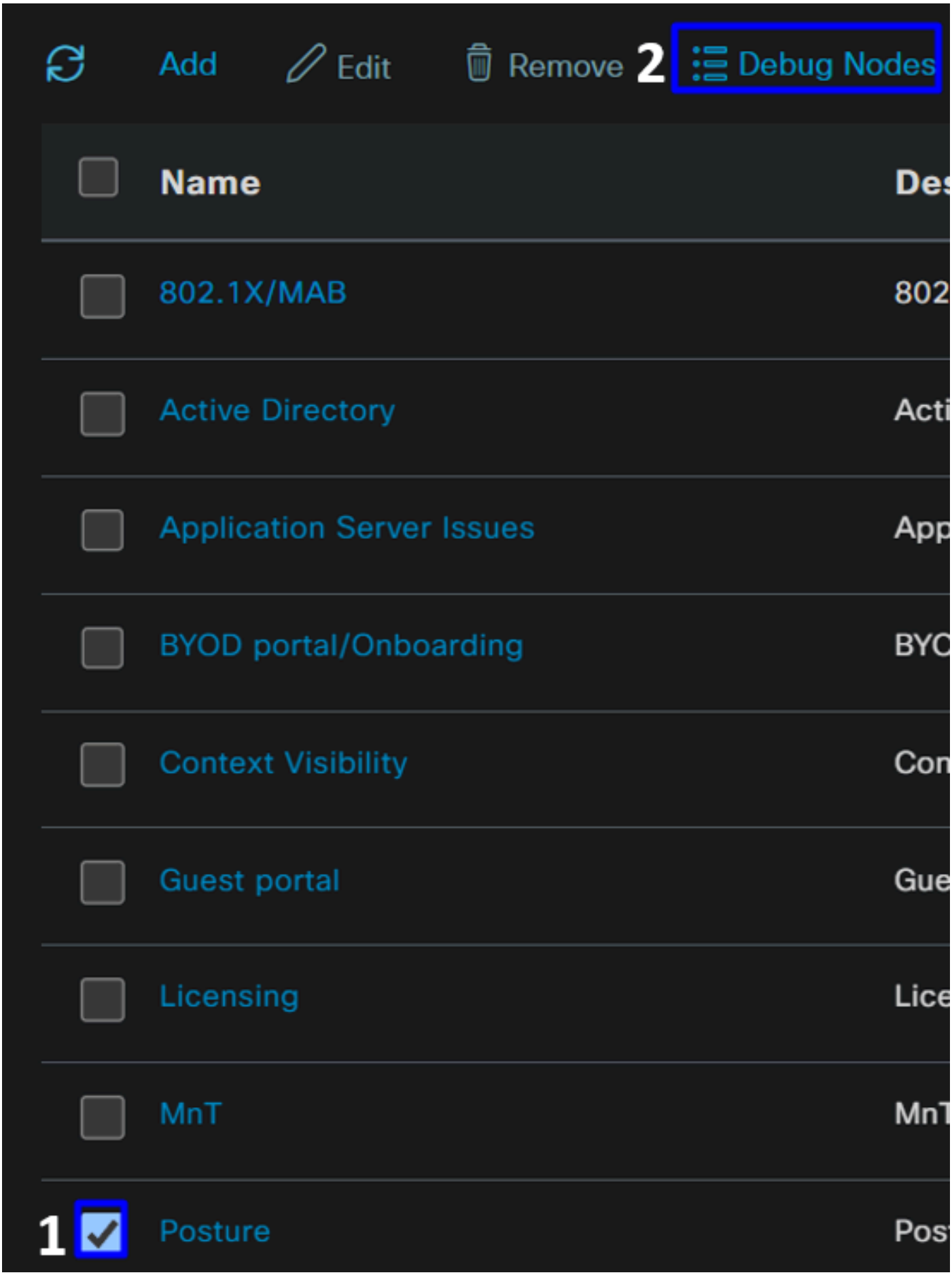
- Navigate to your ISE Dashboard
- Click on Operations > Troubleshoot > Debug Wizard



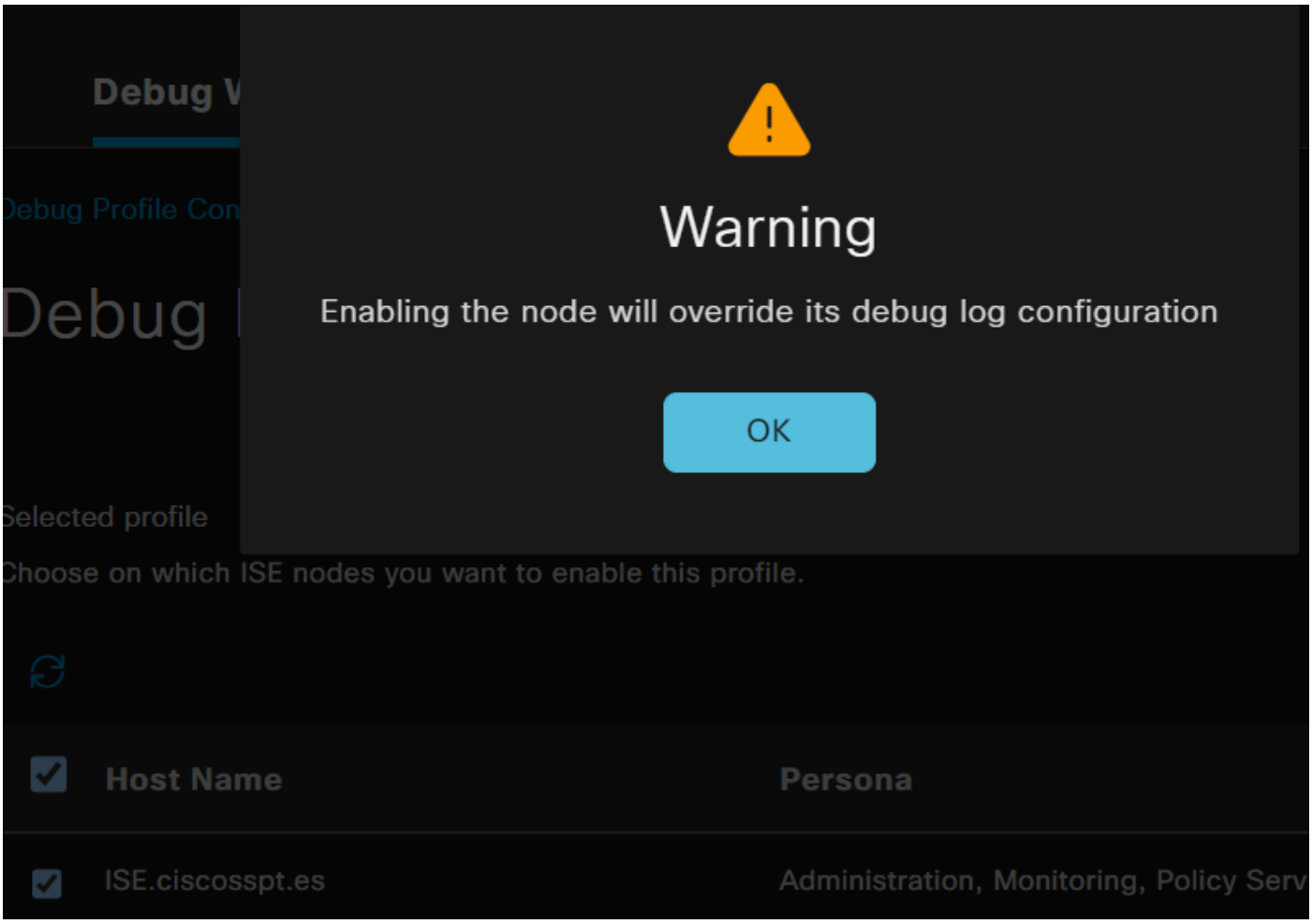
- Click on Debug Profile Configuration



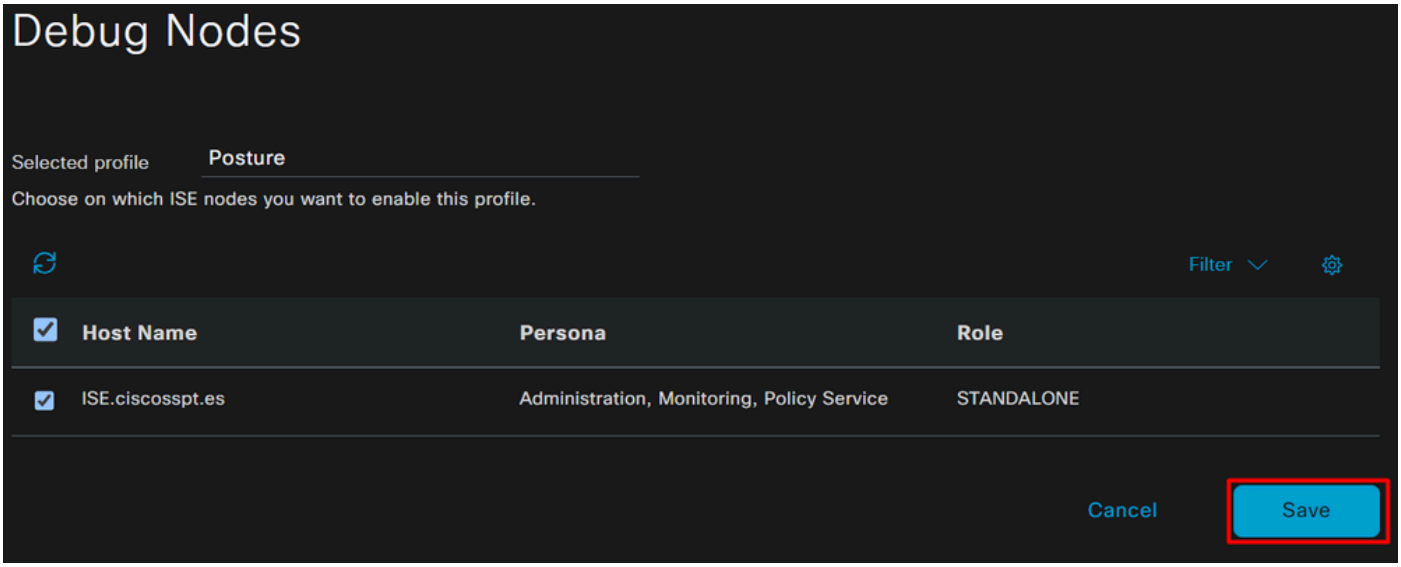
- Mark the checkbox for **Posture** > **Debug Nodes**



- Mark the checkbox for the ISE nodes on which you are to enable debug mode to troubleshoot your problem


Debug V
Debug Profile Con
Debug
Warning
Enabling the node will override its debug log configuration
OK
Selected profile
Choose on which ISE nodes you want to enable this profile.
Host Name
Persona
ISE.ciscosspt.es
Administration, Monitoring, Policy Serv

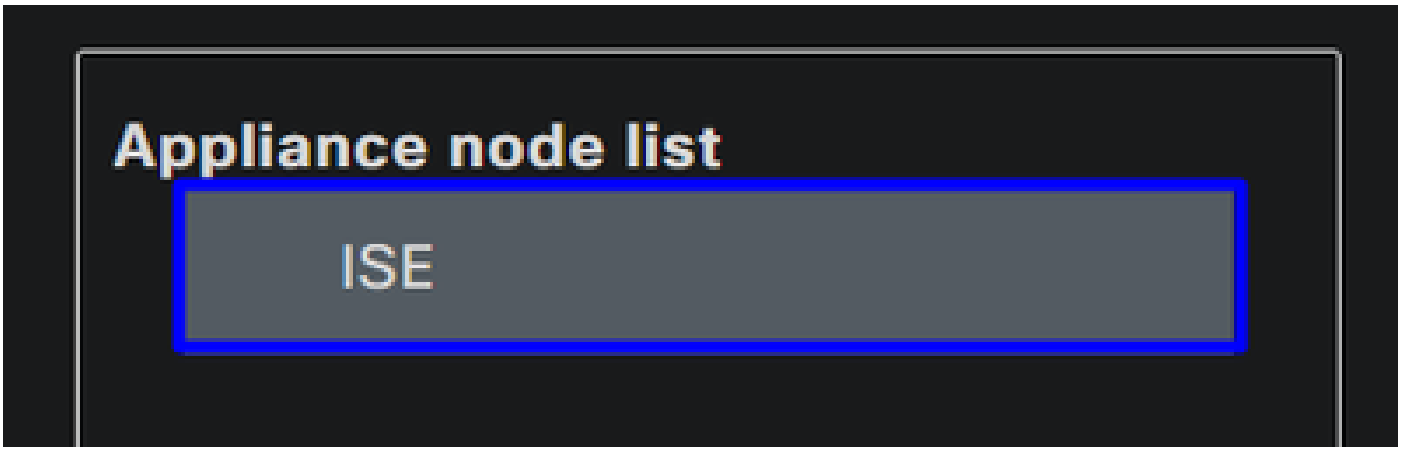
- Click Save


Debug Nodes
Selected profile
Posture
Choose on which ISE nodes you want to enable this profile.
Filter
Host Name
Persona
Role
ISE.ciscosspt.es
Administration, Monitoring, Policy Service
STANDALONE
Cancel
Save

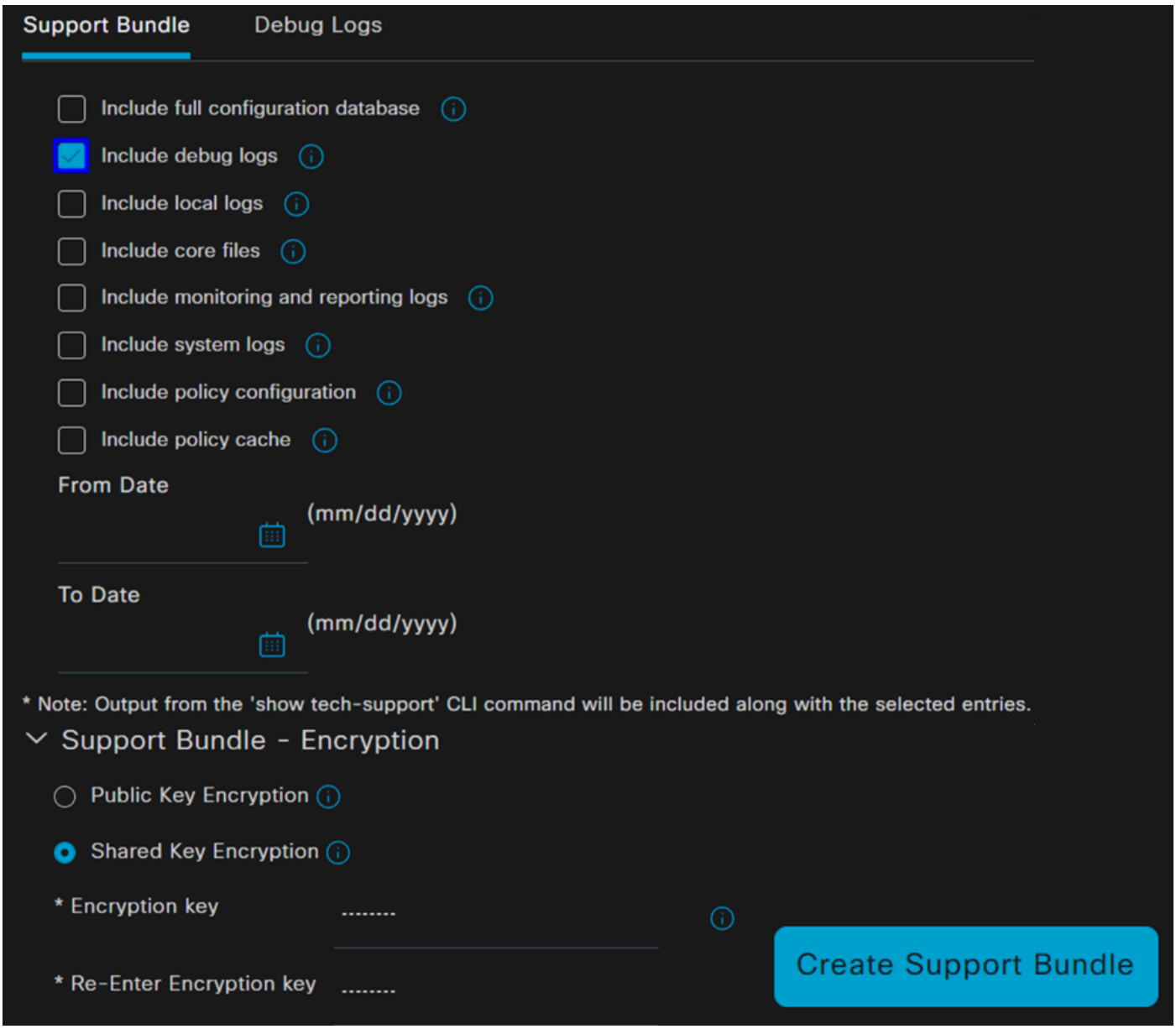
Caution: After this point, you must start reproducing your issue; **the debug logs can affect the performance of your device.**

After you get the issue reproduced, proceed with the next steps:

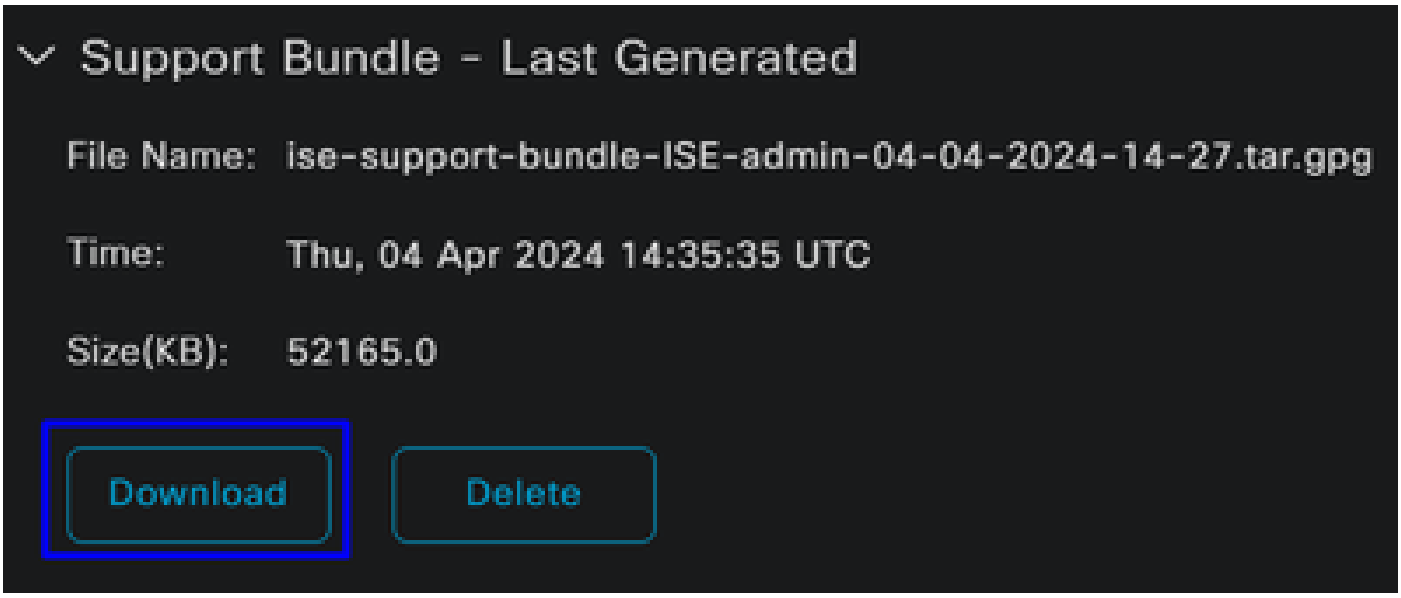
- Click on Operations > Download Logs
- Choose the node from where you want to take the logs

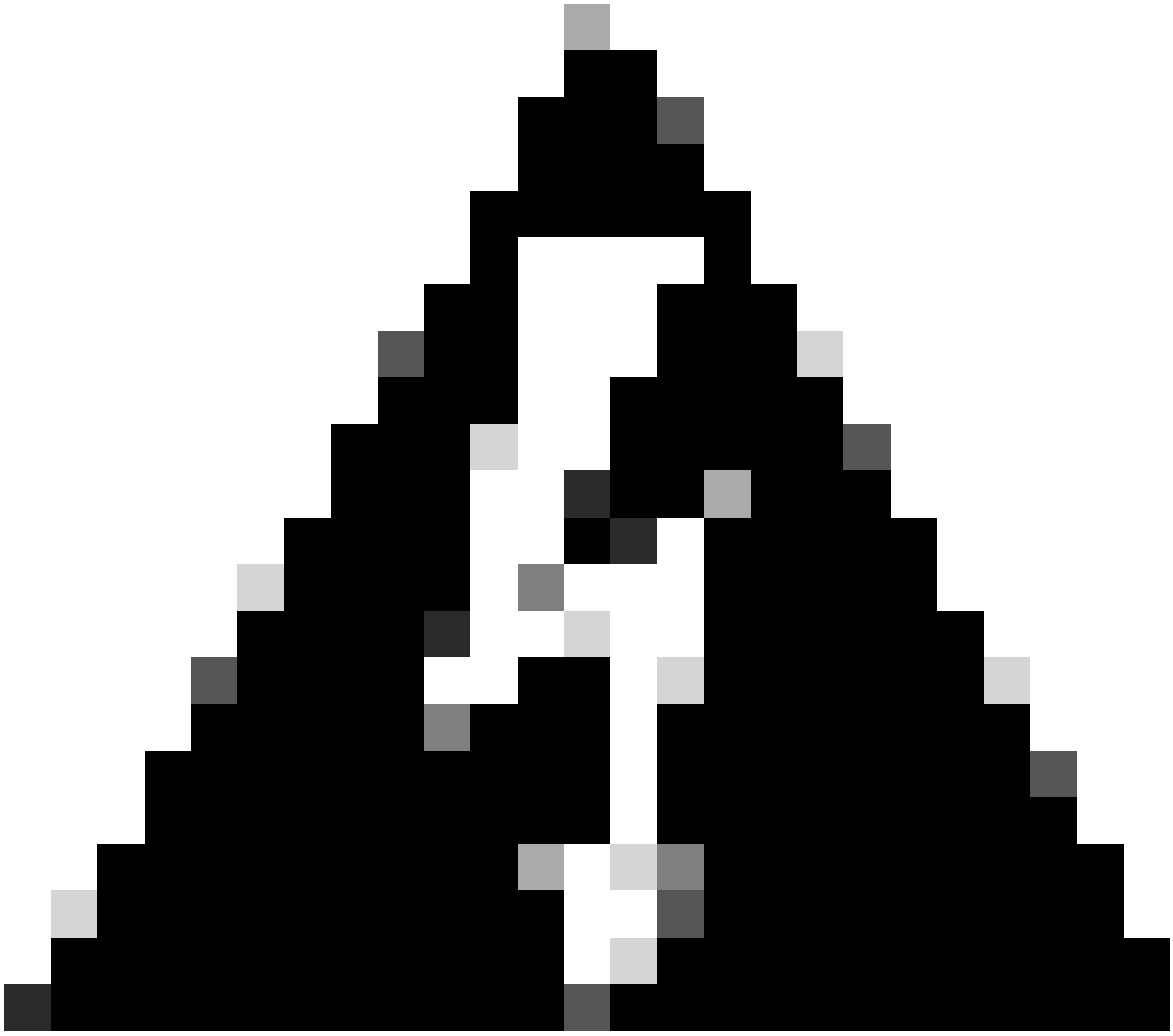


- Under **Support Bundle**, choose the next options:



- Include debug logs
- Under **Support Bundle Encryption**
  - **Shared Key Encryption**
    - Fill **Encryption key** and **Re-Enter Encryption key**
- Click **Create Support Bundle**
- Click **Download**





Warning: Disable the debug mode enabled on the step, [Debug Profile Configuration]

How to Verify Secure Access Remote Access Logs

Navigate to your Secure Access Dashboard:

- Click on Monitor > Remote Access Logs

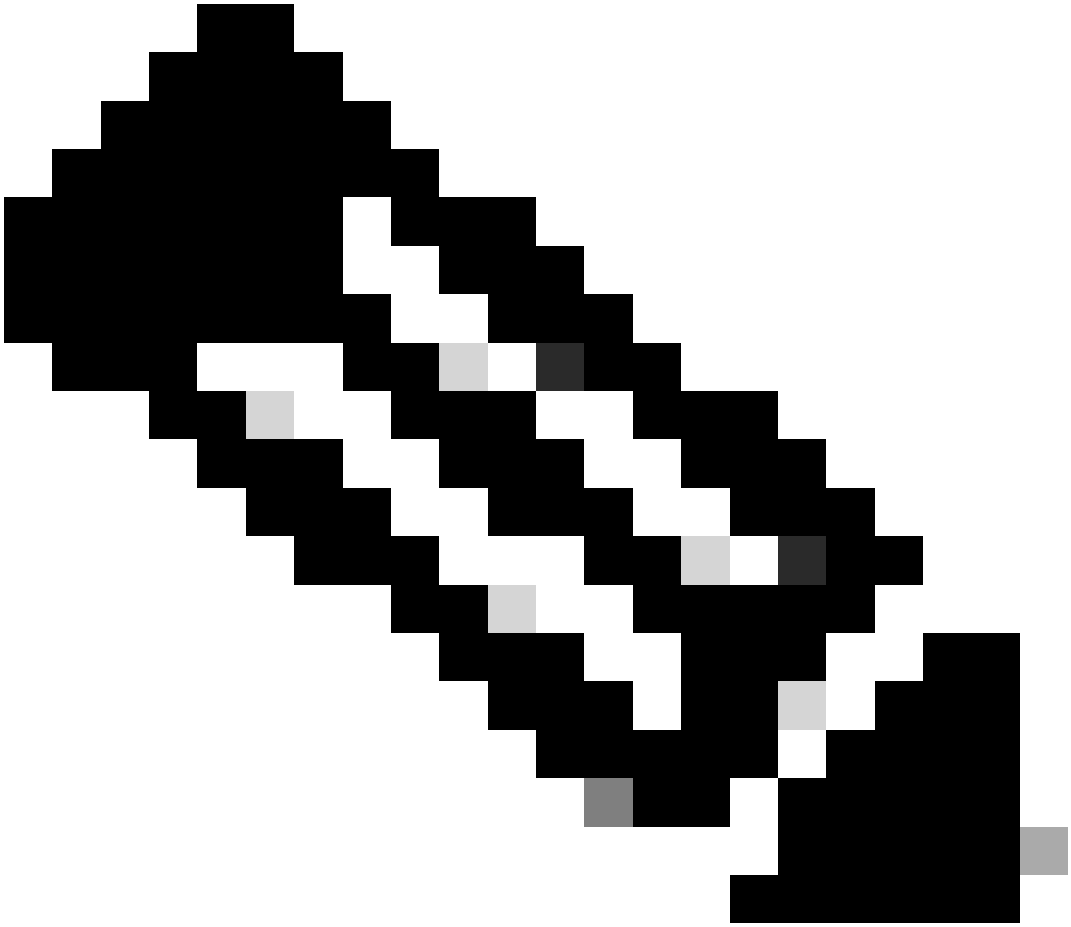
100 Events

User	Connection Event	Event Details	Internal IP Address
vpn user (vpnuser@ciscosspt.es)	Disconnected	User Requested	192.168.50.129
vpn user (vpnuser@ciscosspt.es)	Disconnected	Unknown	192.168.50.130
vpn user (vpnuser@ciscosspt.es)	Connected		192.168.50.130
vpn user (vpnuser@ciscosspt.es)	Connected		192.168.50.129
vpn user (vpnuser@ciscosspt.es)	Disconnected	User Requested	192.168.50.1
vpn user (vpnuser@ciscosspt.es)	Disconnected	Unknown	192.168.50.1
vpn user (vpnuser@ciscosspt.es)	Connected		192.168.50.1
Unknown Identity	Failed	AUTHORIZATION-CHECK	

Generate DART Bundle on Secure Client

To generate DART Bundle on your machine, verify the next article:

[Cisco Secure Client Diagnostic and Reporting Tool (DART)]



Note: Once you have collected the logs indicated in the troubleshooting section, please open a case with TAC to proceed with the analysis of the information.

Related Information

- Cisco Technical Support & Downloads
- Secure Access Documentation and User Guide
- Cisco Secure Client Software Download
- Cisco Identity Services Engine Administrator Guide, Release 3.3