

Provision Secure Firewall ASA to CSM

Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Background Information](#)

[Configure](#)

[Configurations](#)

[Configure ASA for HTTPS Management](#)

[Provision Secure Firewall ASA to CSM](#)

[Verify](#)

Introduction

This document describes the process to provision Secure Firewall Adaptive Security Appliance (ASA) to Cisco Security Manager (CSM).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Secure Firewall ASA
- CSM

Components Used

The information in this document is based on these software and hardware versions:

- Secure Firewall ASA version 9.18.3
- CSM version 4.28

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

CSM helps to enable consistent policy enforcement and rapid troubleshooting of security events, offering summarized reports across the security deployment. Using its centralized interface, organizations can scale efficiently and manage a wide range of Cisco security devices with improved visibility.

Configure

In the next example, a virtual ASA is provisioned to a CSM for centralized management.

Configurations

Configure ASA for HTTPS Management

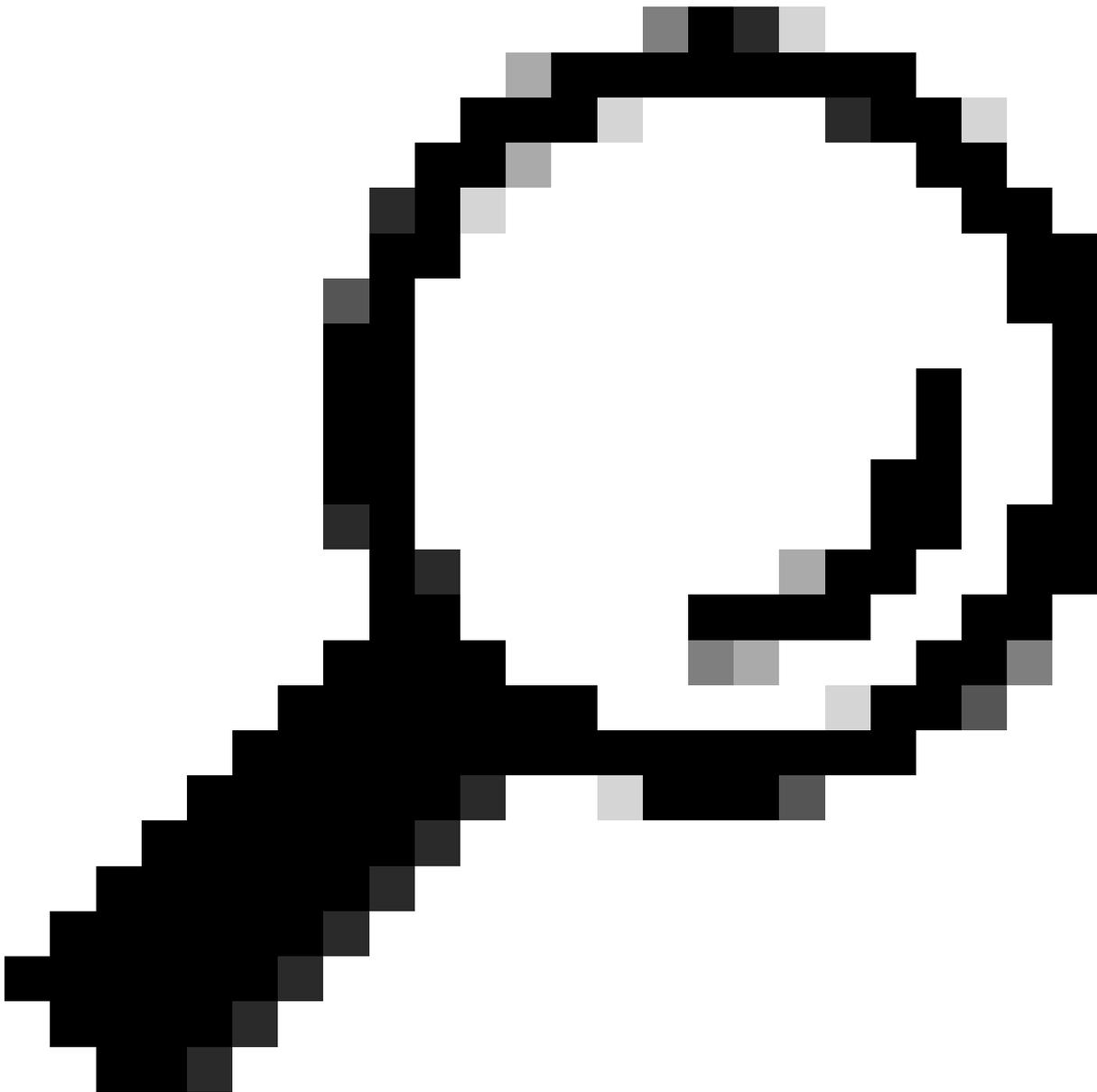
Step 1. Create a user with all privileges.

Command Line (CLI) syntax:

```
configure terminal  
username < user string > password < password > privilege < level number >
```

This translates into the next command example, which has the user **csm-user** and password **cisco123** as follows:

```
ciscoasa# configure terminal  
ciscoasa(config)# username csm-user password cisco123 privilege 15
```



Tip: Externally authenticated users are accepted for this integration as well.

Step 2. Enable HTTP server.

Command Line (CLI) syntax:

```
configure terminal  
http server enable
```

Step 3. Allow HTTPS access for the CSM server IP address.

Command Line (CLI) syntax:

```
configure terminal
http < hostname > < netmask > < interface name >
```

This translates into the next command example, which allows any network to access the ASA through HTTPS on the **outside** interface (GigabitEthernet0/0):

```
ciscoasa# configure terminal
ciscoasa(config)# http 0.0.0.0 0.0.0.0 outside
```

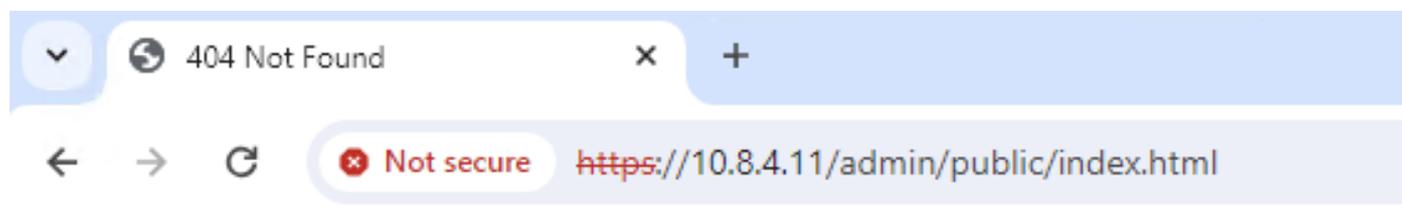
Step 4. Validate that HTTPS is reachable from the CSM server.

Open any web browser and type the next syntax:

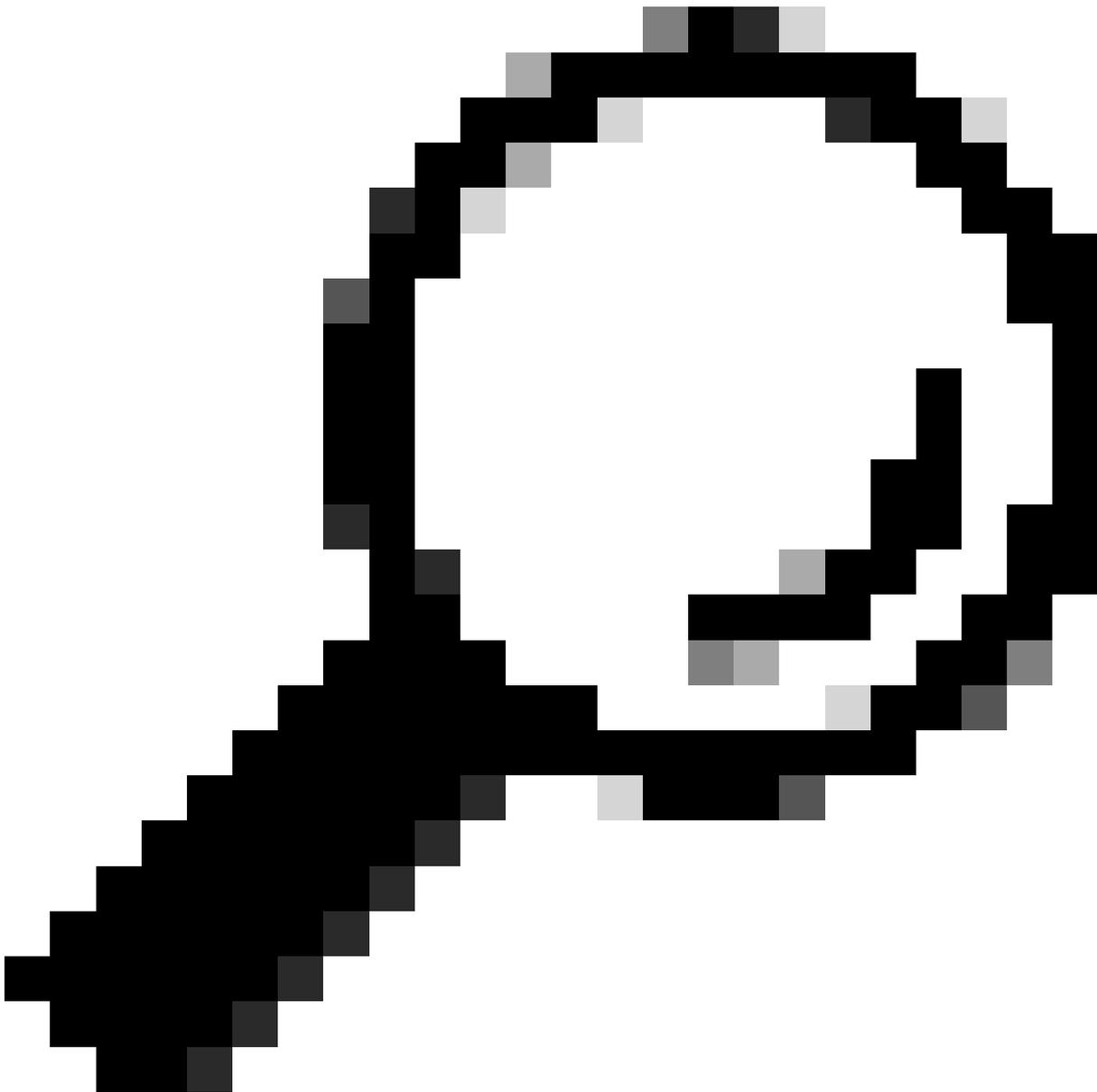
```
https://< ASA IP address >/
```

This translates into the next example for the **outside** interface IP address that was allowed for HTTPS access on the previous step:

```
https://10.8.4.11/
```



ASA HTTPS Response



Tip: Error **404 Not Found** is expected on this step as this ASA does not have the Cisco Adaptive Security Device Manager (ASDM) installed, but the HTTPS response is there as the page redirects to URL **/admin/public/index.html**.

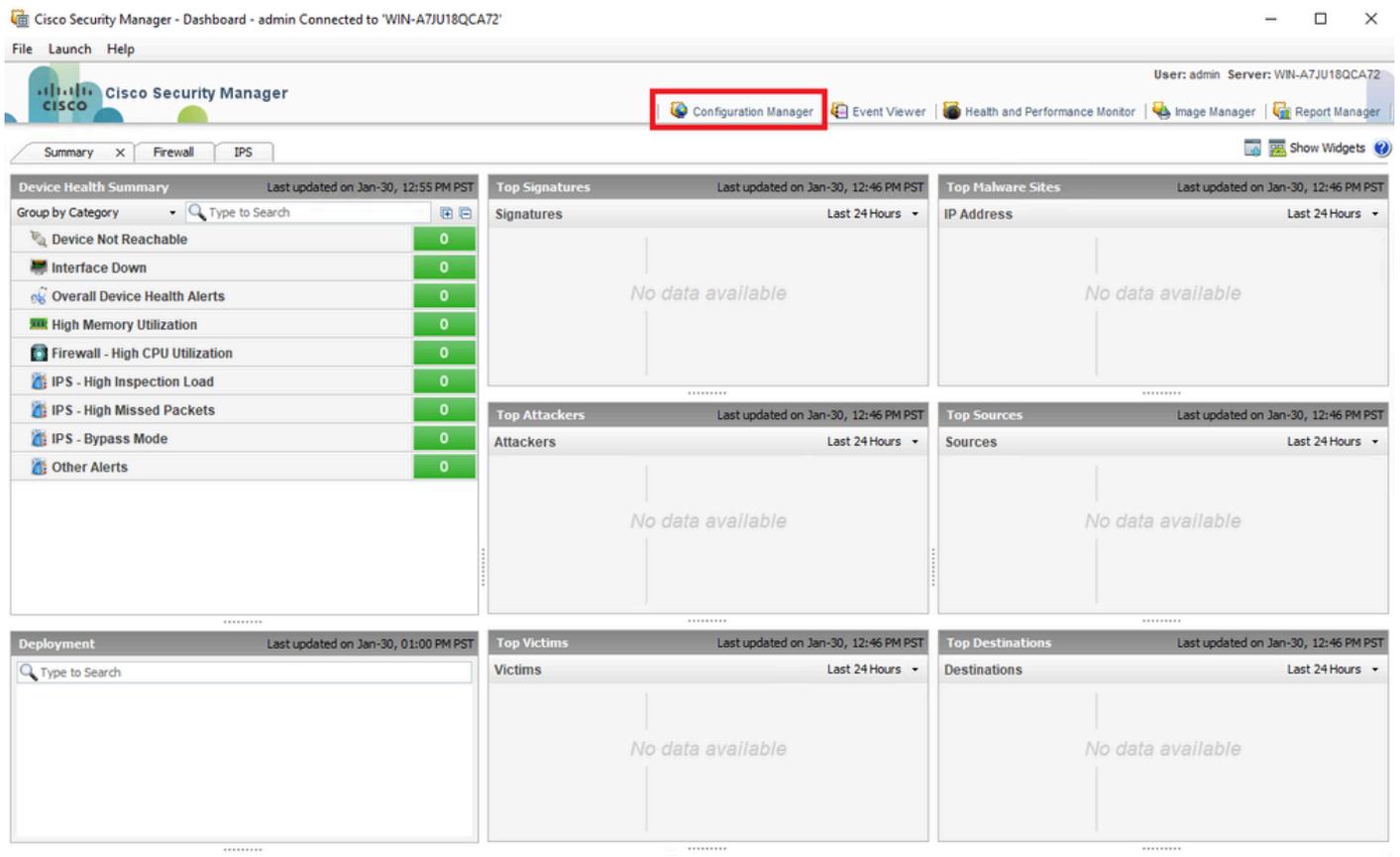
Provision Secure Firewall ASA to CSM

Step 1. Open and Log into the CSM Client.



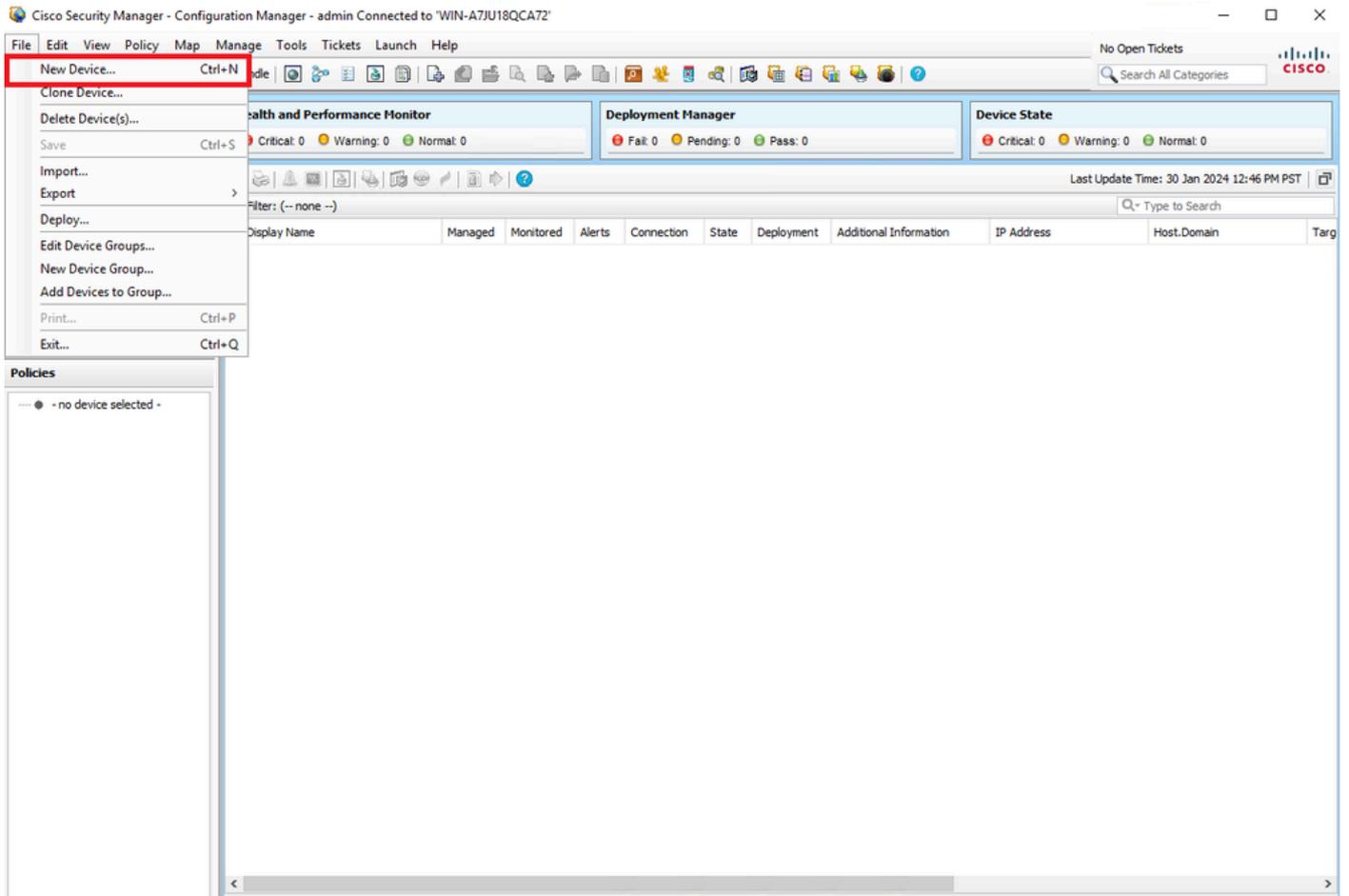
CSM Client Log In

Step 2. Open the Configuration Manager.



CSM Client Dashboard

Step 3. Navigate to **Devices > New Device**.



CSM Configuration Manager

Step 4. Select the adding option that fills the requirement according to the desired result. As the configured ASA is already setup in the network, the best option for this example is **Add Device From Network** and click on **Next**.

Please choose how you would like to add the device:

Add Device From Network

When you add a device that is live on the network, Cisco Security Manager makes a secure connection with the device and discovers its identifying information and properties.

Add from Configuration File(s)

You can add one or more device configurations from multiple files. When you add a device using its configuration file, Cisco Security Manager discovers the device's identifying information, properties and policies from the file.

Add New Device

You can add a device that is not yet on the network by specifying the device's identifying information and credentials.

Add Device From File

You can add devices from an inventory file that is in the CSV (comma-separated values) format used by Cisco Security Manager, CiscoWorks Common Services DCR, or CS-MARS



Back

Next

Finish

Cancel

Help

Device Add Method

Step 5. Complete the required data according to the configuration on the Secure Firewall ASA, and the discovery settings. Then, click on **Next**.

Identity

IP Type: Static

Host Name: ciscoasa

Domain Name:

IP Address: 10.8.4.11

Display Name:* ciscoasa

OS Type:* ASA

Transport Protocol: HTTPS

System Context

Discover Device Settings

Perform Device Discovery

Discover: Policies and Inventory

Platform Settings

Firewall Policies

NAT Policies

IPS Policies

RA VPN Policies

Discover Policies for Security Contexts

Back Next Finish Cancel Help

ASA Settings

Step 6. Complete the required credentials from both the configured CSM user on ASA and the **enable** password.

Primary Credentials

Username:

Password:* Confirm:*

Enable Password: Confirm:*

HTTP Credentials

Use Primary Credentials

Username:

Password:

Confirm:

HTTP Port:

HTTPS Port: Use Default

IPS RDEP Mode: ▾

Certificate Common Name: Confirm:

ASA Credentials

Step 7. Select the desired groups or skip this step if none is required and click on **Finish**.

Select the groups that this device belongs to:

Department:

Location:

test:

Set Values as Default

Back

Next

Finish

Cancel

Help

CSM Group Selection

Step 8. A ticket request is generated for control purposes, click on **OK**.

Select the groups that this device belongs to:

Department:

Location:

test:

Set Values as Default

Ticket Required ✕

You must have an editable ticket opened in order to perform this action. You may:
Create a new ticket:

Ticket:

Description:

CSM Ticket Creation

Step 9. Validate that discovery finishes without errors and click on **Close**.

100%

Status: Discovery completed with warnings
Devices to be discovered: 1
Devices discovered successfully: 1
Devices discovered with errors: 0

Discovery Details

Type	Name	Severity	State	Discovered From
	ciscoasa		Discovery Completed with Warnings	Live Device

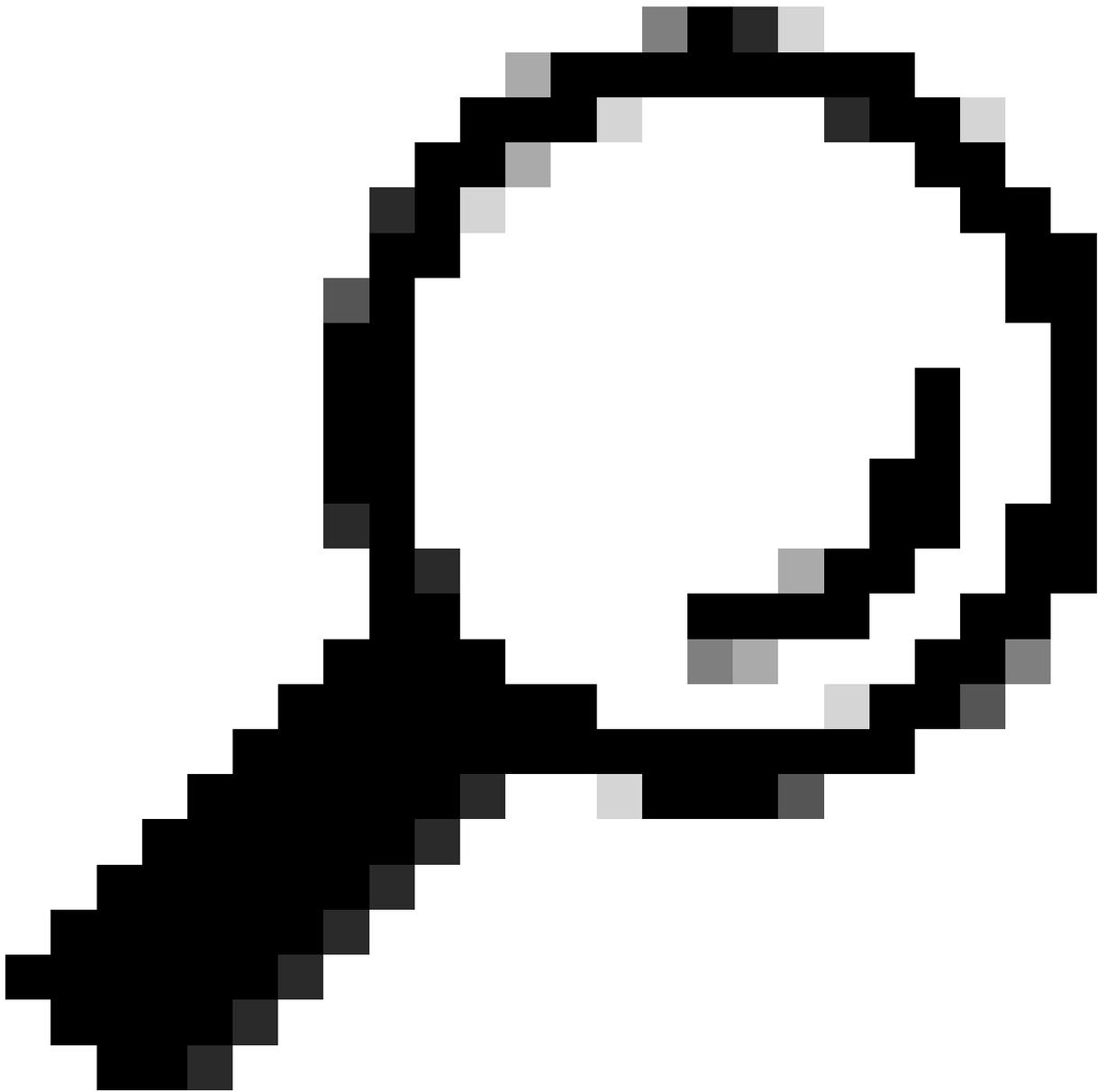
Messages	Severity	Description
CLI not discovered		Policy discovery does not support the following CLI in your configuration: Line 5:service-module 0 keepalive-timeout 4 Line 6:service-module 0 keepalive-counter 6 Line 8:license smart Line 12:no mac-address auto Line 50:no failover wait-disable Line 55:no asdm history enable Line 57:no arp permit-nonconnected
Policies discovered		
Existing policy objects reused		
Value overrides created for device		
Policies discovered		
Add Device Successful		Action If you wish to manage these commands in CS Manager, please use the "Flex Config" function

Generate Report

Abort

Close

Help



Tip: Warnings are accepted as a successful output, as not all ASA functionalities are supported by CSM.

Step 10. Validate that the ASA now appears as registered on the CSM client and displays the correct information.

Cisco Security Manager - Configuration Manager - admin Connected to 'WIN-A7JU18QCA72' - Ticket: admin_30.Jan.2024_13.20.26

File Edit View Policy Map Manage Tools Tickets Launch Help

admin_30.Jan.2024... Search All Categories CISCO

Devices

Filter: -- none --

- Department
 - Location
 - test
 - All
 - ciscoasa

Policies

- Firewall
 - AAA Rules (Unified)
 - Access Rules (Unified)
 - Inspection Rules (Unified)
 - Botnet Traffic Filter Rules
 - Settings
 - Transparent Rules
 - Web Filter Rules
- NAT
 - Site to Site VPN
- Remote Access VPN
 - Interfaces
 - VxLan
 - Identity Options
- TrustSec
- Platform
 - FlexConfigs

Device: ciscoasa
Policy Assigned: -- local --
Policy: Interfaces
Assigned To: local device

Interfaces Bridge Groups

Interface	Name	Status	Security L...	IP Address	VLAN ID	Secondar...	Type	Interface...	Member of	MTU	Route Map	Path Moni...	Policy Ro...	Description
GigabitEthe...	outside	Enabled	0	10.8....			Physical Int...	All-Interfac...		1500				
GigabitEthe...		Disabled					Physical Int...							
GigabitEthe...		Disabled					Physical Int...							
Managemen...	management	Enabled	0				Physical Int...	All-Interfaces		1500				

Advanced...

Save

ASA Information Registered

Verify

A HTTPS debug is available on ASA for troubleshooting purposes. The next command is used:

```
debug http
```

This is an example of a successful CSM registration debug:

```
ciscoasa# debug http
debug http enabled at level 1.
ciscoasa# HTTP: processing handoff to legacy admin server [/admin/exec//show%20version]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20version HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive
```

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HTTP: processing GET URL '/admin/exec//show%20version' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/config]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/config HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

███e
HTTP: processing GET URL '/admin/config' from host 10.8.4.12
HTTP: Authentication username = ''
HTTP: processing handoff to legacy admin server [/admin/exec//show%20version]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20version HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

███^u
HTTP: processing GET URL '/admin/exec//show%20version' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//sh%20module%20%7c%20in%20(CX%20Security%20Services%20Processor-%7ccxsc%20ASA)
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//sh%20module%20%7c%20in%20(CX%20Security%20Services%20Processor-%7ccxsc%20ASA)
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

███^2^aware_123
HTTP: processing GET URL '/admin/exec//sh%20module%20%7c%20in%20(CX%20Security%20Services%20Processor-%7ccxsc%20ASA)
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//sh%20module%20%7c%20in%20(FirePOWER)]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//sh%20module%20%7c%20in%20(FirePOWER) HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//sh%20module%20%7c%20in%20(FirePOWER)' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//sh%20cluster%20info]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//sh%20cluster%20info HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

███^
HTTP: processing GET URL '/admin/exec//sh%20cluster%20info' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//sh%20inventory]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//sh%20inventory HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//sh%20inventory' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//sh%20vm]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//sh%20vm HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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2██^^u
HTTP: processing GET URL '/admin/exec//sh%20vm' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/config]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/config HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/config' from host 10.8.4.12
HTTP: Authentication username = ''
HTTP: processing handoff to legacy admin server [/admin/exec//show%20version]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20version HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//show%20version' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20inventory]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20inventory HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

■u
HTTP: processing GET URL '/admin/exec//show%20inventory' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20password%20encryption]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20password%20encryption HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

■^^
HTTP: processing GET URL '/admin/exec//show%20password%20encryption' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20running-config%20all%20tunnel-group]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20running-config%20all%20tunnel-group HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

2^e

HTTP: processing GET URL '/admin/exec//show%20running-config%20all%20tunnel-group' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20running-config%20all%20group-policy]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20running-config%20all%20group-policy HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

2^e

HTTP: processing GET URL '/admin/exec//show%20running-config%20all%20group-policy' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20crypto%20ca%20trustpool%20detail]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20crypto%20ca%20trustpool%20detail HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

2^2^e

HTTP: processing GET URL '/admin/exec//show%20crypto%20ca%20trustpool%20detail' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20snmp-server%20engineID]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20snmp-server%20engineID HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//show%20snmp-server%20engineID' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20version]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20version HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//show%20version' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20failover]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20failover HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//show%20failover' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//dir%20%20recursive%20all-filedystems]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//dir%20%20recursive%20all-filedystems HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//dir%20%20recursive%20all-filedystems' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20asdm%20image]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20asdm%20image HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2
Connection: keep-alive

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███^

HTTP: processing GET URL '/admin/exec//show%20asdm%20image' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20running-config%20webvpn]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20running-config%20webvpn HTTP/1.1
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM
Cache-Control: no-cache
Pragma: no-cache
Host: 10.8.4.11
Accept: text/html, image/gif, image/jpeg, *; q=.2, */*; q=.2

Connection: keep-alive

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HTTP: processing GET URL '/admin/exec//show%20running-config%20webvpn' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20vpn-sessiondb%20full%20webvpn]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20vpn-sessiondb%20full%20webvpn HTTP/1.1
Host: 10.8.4.1110.8.4.11
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM

■^2■^1

HTTP: processing GET URL '/admin/exec//show%20vpn-sessiondb%20full%20webvpn' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20vpn-sessiondb%20full%20ra-ikev1-ipsec]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20vpn-sessiondb%20full%20ra-ikev1-ipsec HTTP/1.1
Host: 10.8.4.1110.8.4.11
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM

■

HTTP: processing GET URL '/admin/exec//show%20vpn-sessiondb%20full%20ra-ikev1-ipsec' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20vpn-sessiondb%20full%20ra-ikev2-ipsec]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20vpn-sessiondb%20full%20ra-ikev2-ipsec HTTP/1.1
Host: 10.8.4.1110.8.4.11
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM

■

HTTP: processing GET URL '/admin/exec//show%20vpn-sessiondb%20full%20ra-ikev2-ipsec' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec
HTTP: processing handoff to legacy admin server [/admin/exec//show%20vpn-sessiondb%20full%20anyconnect]
HTTP: admin session verified = [0]
HTTP MSG: GET /admin/exec//show%20vpn-sessiondb%20full%20anyconnect HTTP/1.1
Host: 10.8.4.1110.8.4.11
Authorization: Basic OmNpc2NvMTIz
User-Agent: CSM

■1

HTTP: processing GET URL '/admin/exec//show%20vpn-sessiondb%20full%20anyconnect' from host 10.8.4.12
HTTP: Authentication username = ''
Exited from HTTP Cli Exec