# Understand Smart Licensing Support Using Smart Transport

## Contents

## Introduction

This document describes insight on Support Smart Licensing using Smart Transport.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Smart Licensing Using Call Home
- Adaptive Security Appliance (ASA)
- Firepower eXtensible Operating System (FXOS)

### Components Used

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

- Firepower 1000/3100/4200/4112/41x5/9300
- Adapative Security Appliance Virtual (Supported Since ASA 9.20)
- Adaptive Security Appliance Version 9.22 and ASDM 7.22.1
- Firepower eXtensible Operating System Version 2.16
- Cisco Security Manager 4.29

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.

# Problem

Call Home is the current default type for Smart Licensing to communicate to the Cisco Smart Software Manager (CSSM) server. Call Home has these issues:

- Call Home as a transport is moving to End of Life (EOL).
- Call Home introduces additional hop in the communication. This adds an extra point of failure.

# Information

Overview of Smart Transport:

- Smart Transport helps remove the dependency on Call Home while communicating with the Cisco Smart Software Manager (CSSM) server.

- Smart Transport was already supported on ASAv from an earlier release. Now it is added for the hardware platforms.

- Smart transport is the default type:
  - The smart agent supports the registration of both Call Home and Smart Transport types.
  - If you prefer to switch back to Call Home, you can.

# Configure

## Configure Smart Transport through ASA CLI

Register smart token as shown on Licensing page.

ciscoasa(config)# **license smart register idtoken ?**

exec mode commands/options:

  WORD < 256 char  Enter the ID token

Configure Smart Transport type.

ciscoasa(config)# **license smart**

ciscoasa(config-smart-lic)# **transport type smart**

ciscoasa(config-smart-lic)# **transport url [default|utility]**

ciscoasa(config-smart-lic)# **transport proxy <proxy server url>**

## Firepower 9300/4100 FXOS CLI

Smart transport becomes the default after FXOS is upgraded to 2.16. Use the CLI to switch to Call Home if desired. The same CLI can set the transport type to smart as well.

tb-05 /license/transport # **set transport**

callhome   Callhome

smart      Smart

tb-05 /license/transport # **set transport smart**

tb-05 /license/transport # **set transport-url**  https://smartreceiver.cisco.com/licservice/license

Configure proxy settings

tb-05 /license/transport# **set http-proxy-server-url <url>**

tb-05 /license/transport# **set http-proxy-server-port <port>**

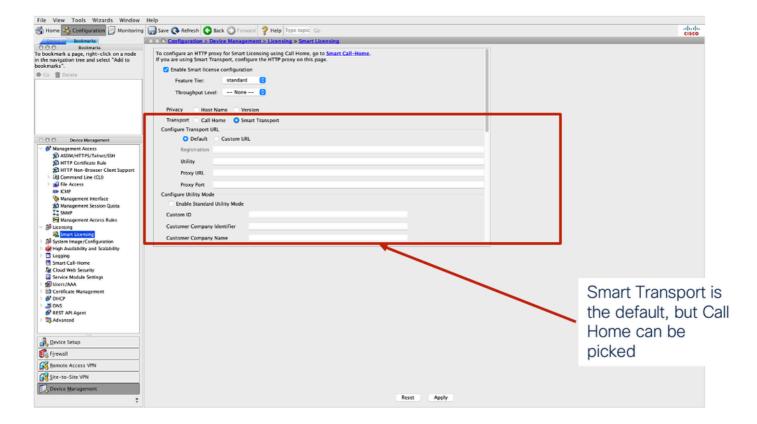tb-05 /license/transport# **set http-proxy-server-enable {on | off}**

# Verify

## Check Transport Type Through ASA CLI and ASDM

ciscoasa# **show tech-support license**

```
ciscoasa# show tech-support license

Smart Licensing Tech Support info

Smart Licensing Status
======================

Smart Licensing is ENABLED

Registration:
  Status: UNREGISTERED
  Export-Controlled Functionality: NOT ALLOWED

License Authorization:
  Status: EVAL MODE
  Evaluation Period Remaining: 88 days, 16 hours, 43 minutes, 56 seconds

Export Authorization Key:
  Features Authorized:
    <none>

Utility:
  Status: DISABLED

Data Privacy:
  Sending Hostname: yes
    Callhome hostname privacy: DISABLED
    Smart Licensing hostname privacy: DISABLED
  Version privacy: DISABLED

Transport:
  Type: Smart
  URL: https://smartreceiver.cisco.com/licservice/license
  Proxy:
    Address: <empty>
    Port: <empty>
    Username: <empty>
    Password: <empty>
  Server Identity Check: True
  VRF: <empty>
```

ASDM

Smart Transport is the default, but Call Home can be picked

## Check the Configuration Through FXOS CLI

```
[tb-05 /license/transport # show license transport
Transport:
  Type: Smart
  URL: https://smartreceiver.cisco.com/licservice/license
  Proxy:
    Address: http://proxy.esl.cisco.com
    Port: 80
    Username: <empty>
    Password: <empty>
  Server Identity Check: True
  VRF: <empty>
```

# Troubleshoot

1. Verify Smart License Settings

Troubleshooting steps are the same as other Smart Licensing troubleshooting steps. Invalid token, or other reasons can cause failed registration. The failure reason can be found from the Registration section of the CLI output. Transport settings can be found from the Transport section as well.

ciscoasa# **show tech-support license**

```
Smart Licensing Tech Support info

Smart Licensing Status
=====================

Smart Licensing is ENABLED

Registration:
  Status: UNREGISTERED - REGISTRATION FAILED
  Export-Controlled Functionality: NOT ALLOWED
  Initial Registration: FAILED on Feb 29 2024 00:18:18 UTC
    Failure reason: {"token":["The token 'sdqweqwqweqweqwe213213asdwd21321asdwdq
e13e1asdwdawdas' is not valid."]}

License Authorization:
  Status: EVAL MODE
  Evaluation Period Remaining: 61 days, 23 hours, 45 minutes, 3 seconds

Export Authorization Key:
  Features Authorized:
    <none>

Utility:
  Status: DISABLED
<--- More --->_
 Transport:
   Type: Smart
   URL: https://smartreceiver.cisco.com/licservice/license
   Proxy:
     Address: <empty>
     Port: <empty>
     Username: <empty>
     Password: <empty>
   Server Identity Check: True
   VRF: <empty>
```

2. Verify Connectivity

Incorrect route, DNS, and other configurations can cause connection failure to the configured Cisco Smart Software Manager (CSSM). For example, check the connectivity when default URL is configured. The screenshot shows a positive case.

# **ping smartreceiver.cisco.com**

A proxy server is needed when the device is not directly connected to external CSSM. The end user can enable logs for debugging purposes.

ciscoasa(config)# **debug http 1**

3. CSSM Communication Error

PISyslog: Error - %SMART_LIC-3-AGENT_REG_FAILED:Smart Agent for Licensing Registration with the Cisco Smart Software Manager (CSSM) failed: Communication message send error

The error from agentlog indicates CSSM communication error. Please check the next slide for how to check more logs.

```
2024-01-30 09:13:36.909: >> PISyslog: Error - %SMART_LIC-3-AGENT_REG_FAILED:Smart Agent for Licensing Registration with the Cisco Smart Software Manager (CSSM) failed: Communication message send error
2024-01-30 09:13:36.909: >> PIError: Tue Jan 30 09:13:36.909 UTC-SARegExp-Failed to send registration message to Cisco: Communication message send error
2024-01-30 09:13:36.909: >> PIError: Tue Jan 30 09:13:36.909 UTC-SARegExp-Registration error: Communication message send error, retry...  expirySeconds=1175
2024-01-30 09:13:36.909: Received SmartAgentNotifyRegisterFailed
2024-01-30 09:13:36.909: Processing registration result 0
```

4. Enable Debugs and Check Logs

ciscoasa# **debug license agent all**

ciscoasa(config)# **debug license 10**

ciscoasa(config)# **debug http 1**

Check agentlog

ciscoasa # **more disk0:/smart-log/agentlog**

Collect the log file for further investigation.

5. Troubleshooting Firepower 9300/4100

Check the transport setting from the output of the CLI.

4125-06 /license # **show license techsupport**

Enable debugs

/license/licdebug # **debug enable all**

Then collect the tech support after enabling debugging:

4125-06# **connect local-mgmt**

4125-06(local-mgmt)# **show tech-support chassis 1 detail**

# Related Information

[CLI Book 1: Cisco Secure Firewall ASA General Operations CLI Configuration Guide, 9.20](#)

[Troubleshoot ASA Smart License on FXOS Firepower Appliances](#)