Understand Smart Licensing Support Using Smart Transport

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Introduction

This document describes information 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:

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

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 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, which adds an extra point of failure

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Information

Overview of Smart Transport:

- Smart Transport assists in removing the dependency on Call Home when communicating with Cisco Smart Software Manager (CSSM) Server.

- Smart Transport was already supported on ASAv from an earlier release. Now, it is added for 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 version 2.16. Use 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>**

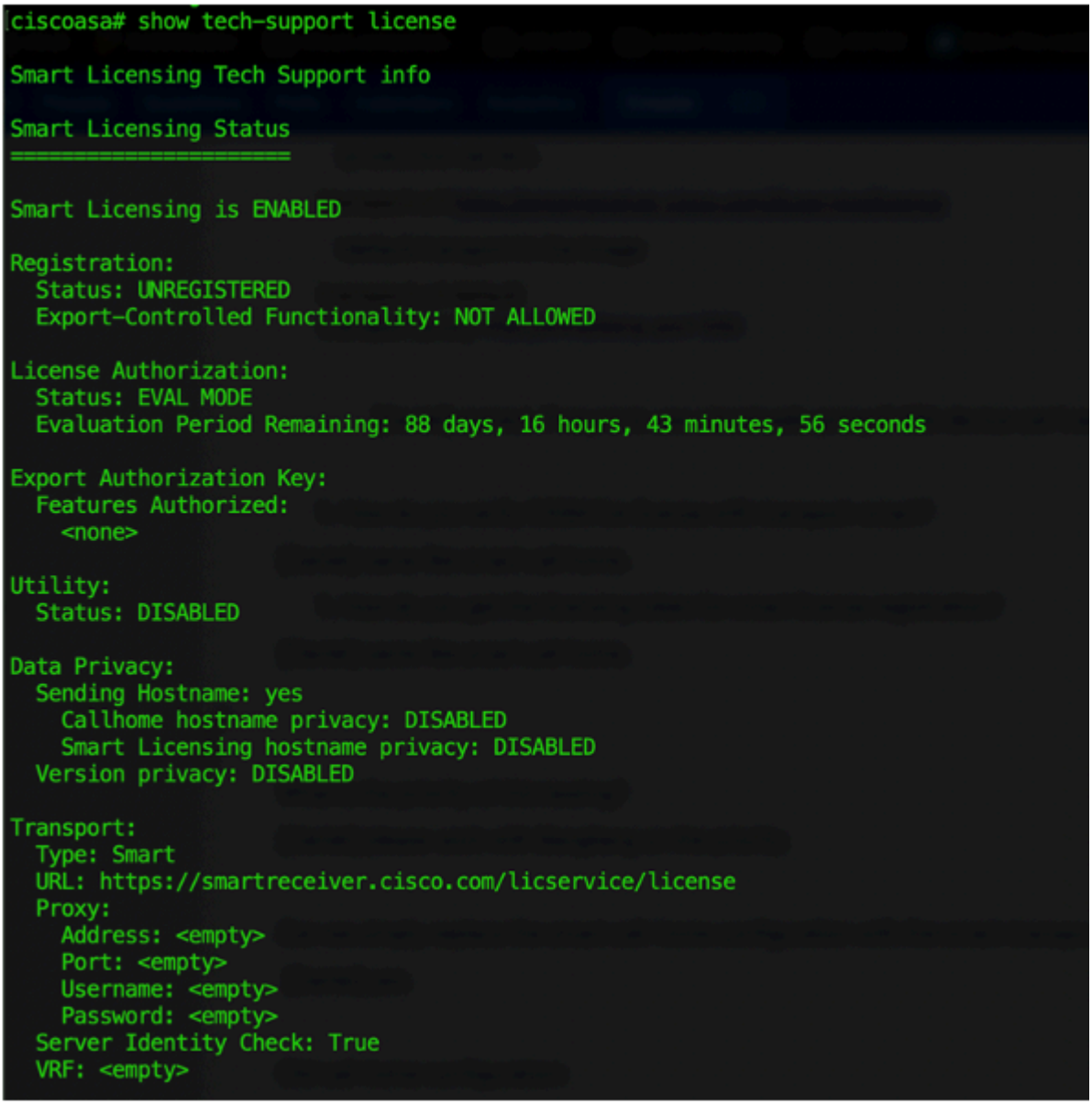
tb-05 /license/transport# **set http-proxy-server-port <port>**

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

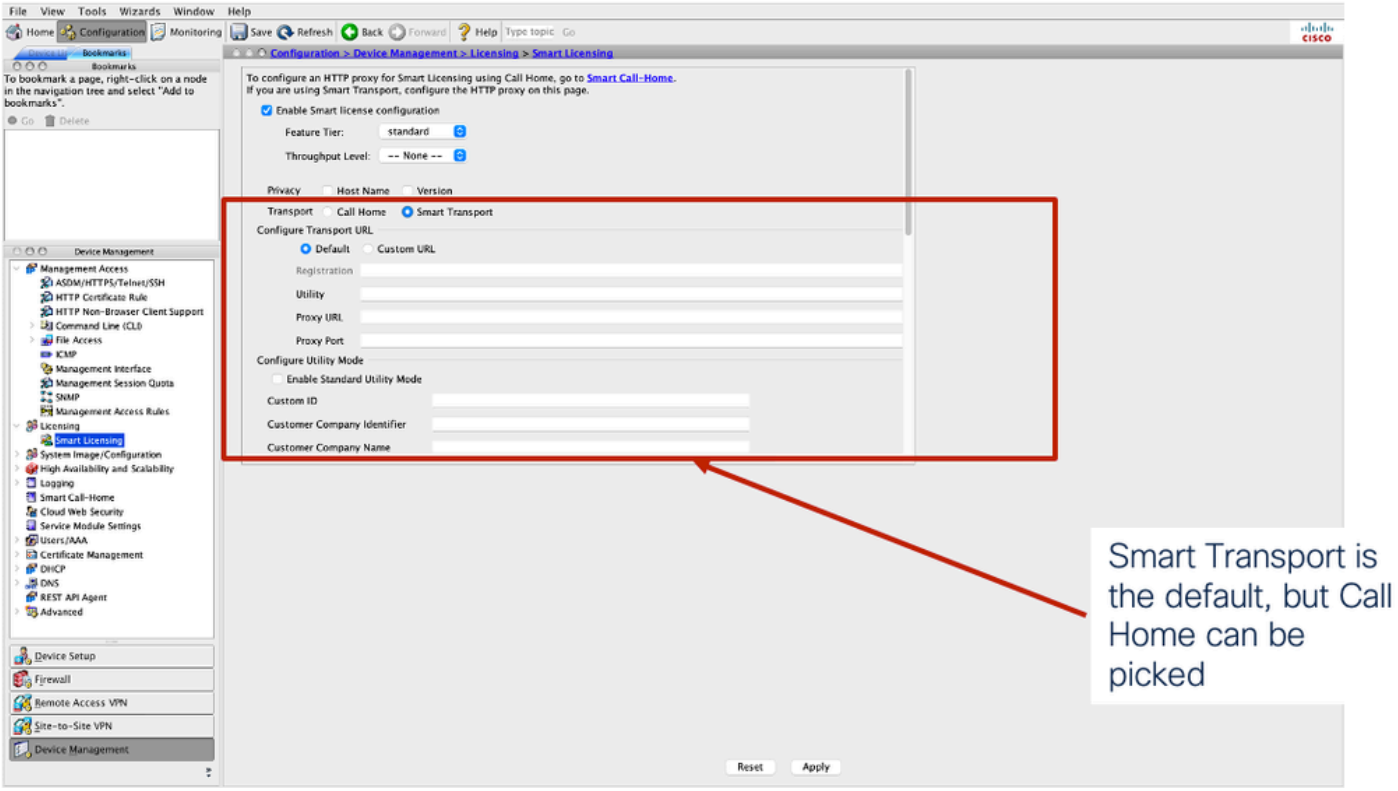
Verify

Check Transport the Type through ASA CLI and ASDM

ciscoasa# **show tech-support license**



ASDM



Check the Configuration through FXOS CLI

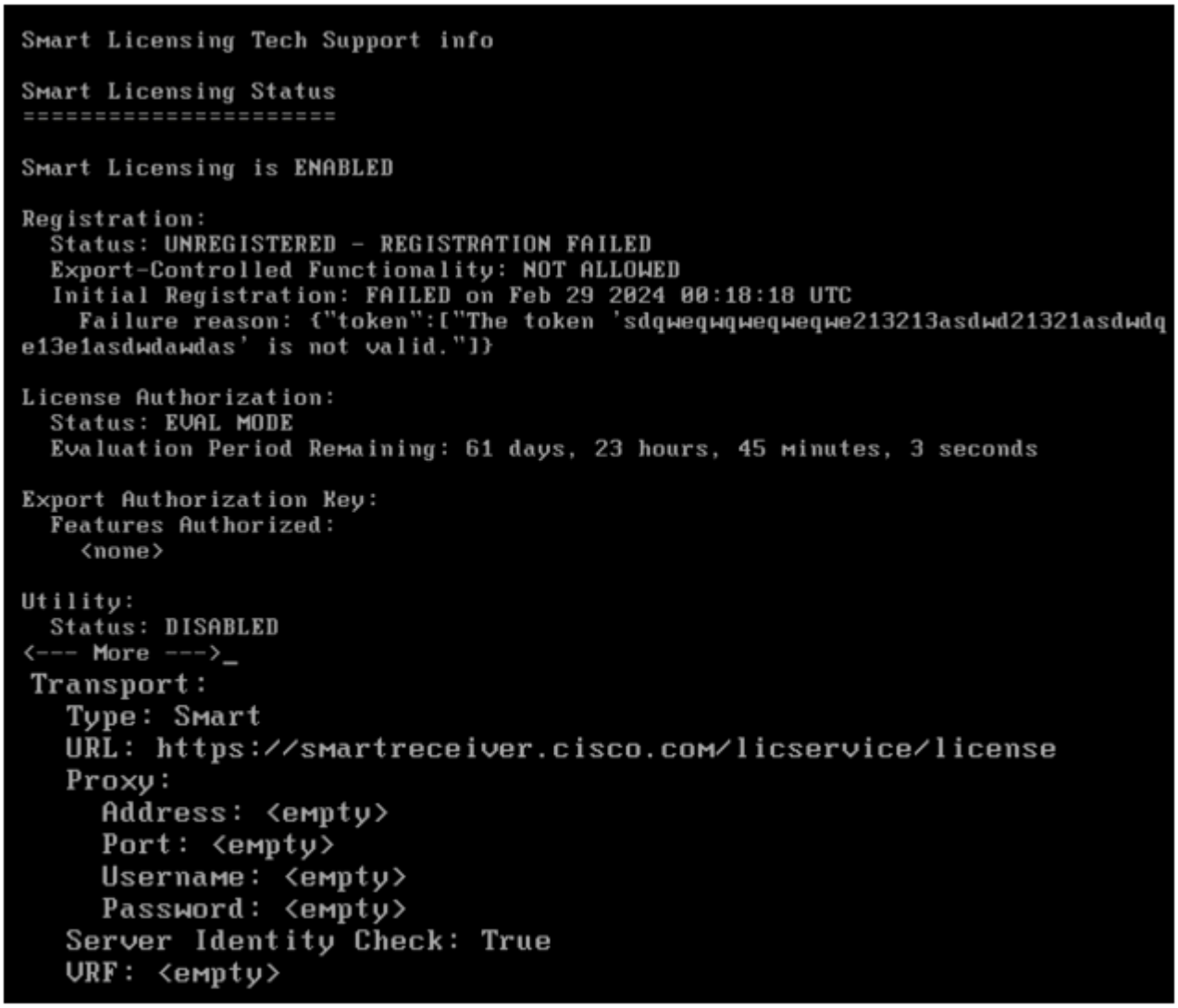
```
tb-05 /license/transport # show license transport
Transport:
  Type: Smart
  URL: https://smartreceiver.cisco.com/licservice/license
  Proxy:
    Address: http://proxy.esl.cisco.com
    Port: 80
    Username: <empty>
    Password: <empty>
  Server Identity Check: True
  VRF: <empty>
```

Troubleshoot

1. **Verify Smart License Settings**

The troubleshooting steps are the same as the 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. The transport settings can be found from the Transport section.

ciscoasa# **show tech-support license**



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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 the default URL is configured. The next screenshot shows a positive case.

ping smartreceiver.cisco.com

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

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

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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.



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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.

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5. **Troubleshooting Firepower 9300/4100**

Check the transport settings 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