Smart Call Home Quick Start Configuration Guide for Cisco Catalyst® 3850 Switches

Smart Call Home offers proactive diagnostics and real-time alerts on select Cisco devices, which provides higher network availability and increased operational efficiency. Smart Call is a secure connected service of Cisco SMARTnet for the Cisco Catalyst 3850 Series Switches.

This document provides information on how to configure and register a Cisco Catalyst 3850 Series Switches for Smart Call Home by using one of the transport options. It is assumed that the device has the necessary DNS configuration (ip domain-name and ip name-server for DNS look-ups or ip host for static entries) in order to resolve host-names that may appear in destination addresses. For switch stacks, configure the Call Home feature only on the master switch. Events are published on the master switch, and the stack master sends Call Home messages. The four transport options are:

1. HTTPS transport from the CAT3850 to Cisco
2. HTTP from CAT3850 to Transport Gateway and HTTPS from TG to Cisco
3. Email from the CAT3850 to a Transport Gateway (TG) - HTTPS transport to Cisco

Note: For security reasons, Cisco recommends that customers make use of one of the HTTPS transport options, due to the additional payload encryption that HTTPS offers. The Transport Gateway is downloadable from Cisco and is available for customers that require an aggregation point or a proxy for connection to the internet.

Requirements for Smart Call Home:

o Cisco IOS release 16.1.1(ED) or later is required to support Call Home.

o A CCO ID associated with an appropriate Cisco SMARTnet Service contract for your company.

o Cisco SMARTnet Service for the device to be registered.

Resources for Smart Call Home:

Configuring Smart Call Home

Smart Call Home Support Forum

Smart Call Home User Guide

Call Home Configuration - HTTPS

The following is a sample configuration that shows the minimum steps that are required to configure Call Home on a Cisco Catalyst 3850 Series Switches, which enables them to securely communicate with the Smart Call Home System. This sample also uses a command to start the registration process; all commands are in blue.

1. **Configure HTTP Source Interface –**

   ```
   SWITCH(config)#ip http client source-interface <interface type> <number>
   ```

   Note: The Configure HTTP Source Interface command is an optional command that is used to configure source interface for HTTPS client connections.

2. **Enable Call Home** - In global configuration mode enter the **service call-home** command to activate the call-home feature and enter the **call-home** configuration command to enter call-home configuration mode.

   ```
   SWITCH#configure terminal
   SWITCH(config)#service call-home
   SWITCH(config)#call-home
   ```

3. **Configure the mandatory contact email address** -

   ```
   SWITCH(cfg-call-home)#contact-email-addr username@domain-name
   ```

4. **Activate the default CiscoTAC-1 Profile and set the transport option to HTTP-**

   ```
   SWITCH(cfg-call-home)#profile CiscoTAC-1
   SWITCH(cfg-call-home-profile)#destination transport-method http
   SWITCH(cfg-call-home-profile)#active
   ```
.
5. **Install a security certificate –**

   Installation of security certificate and configuring a trustpoint is required only in the case when your device does not come with a built-in security certificate or if the PKI trustpool feature is not enabled. To check if the PKI trustpool feature is enabled on your device, type this command in EXEC mode - *show crypto pki trustpool.*

   (Optional) Obtain the Cisco server certificate from the Security Certificate. Copy the Cisco Server Certificate from the Smart Call home User Guide - References. Configure a trust-point and prepare to enroll the certificate via the terminal, using copy and paste when prompted.

   ```
   SWITCH(config)#crypto pki trustpoint cisco
   SWITCH(ca-trustpoint)#enroll terminal
   SWITCH(ca-trustpoint)#revocation-check crl none
   SWITCH(ca-trustpoint)#exit
   SWITCH(config)#crypto pki authenticate cisco

   Enter the base 64 encoded CA certificate.
   End with a blank line or the word "quit" on a line by itself

   [paste the certificate here and accept it]

   % Do you accept this certificate? [yes/no]: yes
   Trustpoint CA certificate accepted.
   % Certificate successfully imported
   ```

6. **Exit and Save the configuration** -

   ```
   SWITCH(config)#end
   SWITCH#copy running-config startup-config
   ```

7. **Send a Call Home Inventory message to start the registration process** -

```
SWITCH#call-home send alert-group inventory profile CiscoTAC-1
Sending inventory info call-home message ...
Please wait. This may take some time ...
```

8. **Receive an email from Cisco and follow the link to complete registration for Smart Call home**.

```
SWITCH#call-home send alert-group inventory profile CiscoTAC-1
Sending inventory info call-home message ...
Please wait. This may take some time ...
```

8. **Receive an email from Cisco and follow the link to complete registration for Smart Call home**.

Call Home Configuration - HTTP to Transport Gateway and HTTPS to Cisco

The following is a sample configuration that shows the minimum steps that are required to configure Call Home on a Cisco Catalyst 3850 Series Switches. These steps enable the devices to use HTTP to communicate with the Transport Gateway, which will use HTTPS to communicate with the Smart Call Home System. This sample uses a command to start the registration process, and assumes that the Transport Gateway software has been installed, configured and registered with Smart Call Home. All commands are in blue.

1. **Configure HTTP Source Interface –**

   ```
   SWITCH(config)#ip http client source-interface < interface type> <number>
   ```

   Note: Configure HTTP Source Interface is an optional command that is used to configure the source interface for HTTP(S) client connections.

2. **Enable Call Home** - In global configuration mode enter the **service call-home** command to activate the call-home feature and enter the **call-home** configuration command to enter call-home configuration mode.

   ```
   SWITCH#configure terminal
   SWITCH(config)#service call-home
   SWITCH(config)#call-home
   ```

3. **Configure the mandatory contact email address** -

   ```
   SWITCH(cfg-call-home)#contact-email-addr username@domain-name
   ```

4. **De-activate the default CiscoTAC-1 Profile if it is active** -

   ```
   SWITCH(cfg-call-home)#profile CiscoTAC-1
   SWITCH(cfg-call-home-profile)#no active
   ```

5. **Configure a user profile** - The profile's alert-group subscriptions will be similar to the default CiscoTAC-1 profile with the destination HTTP transport-method, and with a destination HTTP address provided by the Transport Gateway (Refer to <u>Configure the HTTP Server</u> section).

   ```
   SWITCH(cfg-call-home-profile)#profile Your_profile_name
   SWITCH(cfg-call-home-profile)#active
   SWITCH(cfg-call-home-profile)#destination transport-method http
   SWITCH(cfg-call-home-profile)#destination address http <http://url_from_TG> SWITCH(cfg-
   call-home-profile)#subscribe-to-alert-group diagnostic severity minor SWITCH(cfg-call-
   home-profile)#subscribe-to-alert-group environment severity minor SWITCH(cfg-call-home-
   profile)#subscribe-to-alert-group syslog severity major pattern ".*"
   SWITCH(cfg-call-home-profile)#subscribe-to-alert-group configuration periodic monthly 23 15:00
   SWITCH(cfg-call-home-profile)#subscribe-to-alert-group inventory periodic monthly 23 15:00
   ```

6. **Exit and Save the configuration** -

   ```
   SWITCH(cfg-call-home-profile)#end
   SWITCH#copy running-config startup-config
   ```

7. **Send a Call Home Inventory message to start the registration process** -

   ```
   SWITCH#call-home send alert-group inventory profile Your_profile_name
   Sending inventory info call-home message ...
   Please wait. This may take some time ...
   ```

8. **Receive the email from Cisco and follow the link to complete registration for Smart Call home**.

Call Home Configuration - Email to Transport Gateway and HTTPS to Cisco

The following is a sample configuration that shows the minimum steps that are required to configure Call Home on a Cisco Catalyst 3850 Series Switches. These steps enable the devices to send Email to a Transport Gateway, which will use HTTPS to securely communicate with the Smart Call Home System. The sample uses a command to start the registration process, and assumes that the Transport Gateway software has been installed, configured and registered with Smart Call Home. All commands are in blue.

1. **Enable Call Home** - In global configuration mode enter the **service call-home** command to activate the call-home feature and enter the **call-home** configuration command to enter call-home configuration mode.

   ```
   SWITCH#configure terminal
   SWITCH(config)#service call-home
   SWITCH(config)#call-home
   ```

2. **Configure the mandatory contact email address** -

   ```
   SWITCH(cfg-call-home)# contact-email-addr username@domain-name
   ```

3. **Configure the mandatory email server information -** The mail-server address is an IP address or domain-name of a SMTP server that Call Home will send email messages to.

   ```
   SWITCH(cfg-call-home)#mail-server <address> priority <server_priority_number>
   ```

4. **De-activate the default CiscoTAC-1 Profile if it is active** -

   ```
   SWITCH(cfg-call-home)#profile CiscoTAC-1
   SWITCH(cfg-call-home-profile)#no active
   ```

5. **Configure a user profile** - The profile's alert-group subscriptions will be similar to the default CiscoTAC-1 profile with the destination email transport-method and with a destination email address, which is for the email account used by the Transport Gateway.

   ```
   SWITCH(cfg-call-home-profile)#profile Your_profile_name
   SWITCH(cfg-call-home-profile)#active
   SWITCH(cfg-call-home-profile)#destination transport-method email
   SWITCH(cfg-call-home-profile)#destination address email <account_for_TG@yourCompany.com>
   SWITCH(cfg-call-home-profile)#subscribe-to-alert-group diagnostic severity minor
   SWITCH(cfg-call-home-profile)#subscribe-to-alert-group environment severity minor
   SWITCH(cfg-call-home-profile)#subscribe-to-alert-group syslog severity major pattern ".*"
   SWITCH(cfg-call-home-profile)#subscribe-to-alert-group configuration periodic monthly 23 15:00
   SWITCH(cfg-call-home-profile)#subscribe-to-alert-group inventory periodic monthly 23 15:00
   ```

6. **Exit and Save the configuration** -

   ```
   SWITCH(cfg-call-home-profile)#end
   SWITCH#copy running-config startup-config
   ```

7. **Send a Call Home Inventory message to start the registration process** -

   ```
   SWITCH#call-home send alert-group inventory profile Your_profile_name
   Sending inventory info call-home message ...
   Please wait. This may take some time ...
   ```

8. **Receive the email from Cisco and follow the link to complete registration for Smart Call home**.

Downloading Cisco Transport Gateway Software

To download Cisco Transport Gateway software, go to the Download Software web page. On that page the Related Information section on the right lists the different OS versions (Linux, Solaris, Windows) of Transport Gateway software. Find the correct OS version of Transport Gateway software in the list and then click either **Download Now** or **Add to cart**.

After you have downloaded the correct OS version of Transport Gateway software, then refer to the Transport Gateway Installation/Configuration/Registration sections of the Smart Call Home Users' Guide for information on how to install the downloaded code then configure and register the Transport Gateway.