



Configuring Smart Call Home

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Information About Smart Call Home

Smart Call Home provides e-mail-based notification of critical system events. Cisco Nexus Series switches provide a range of message formats for optimal compatibility with pager services, standard e-mail, or XML-based automated parsing applications. You can use this feature to page a network support engineer, e-mail a Network Operations Center, or use Cisco Smart Call Home services to automatically generate a case with the Technical Assistance Center (TAC).

If you have a service contract directly with Cisco, you can register your devices for the Smart Call Home service. Smart Call Home provides fast resolution of system problems by analyzing Smart Call Home messages sent from your devices and providing background information and recommendations. For issues that can be identified as known, particularly GOLD diagnostics failures, Automatic Service Requests will be generated by the Cisco TAC.

Smart Call Home offers the following features:

- Continuous device health monitoring and real-time diagnostic alerts.
- Analysis of Smart Call Home messages from your device and, where appropriate, Automatic Service Request generation, routed to the appropriate TAC team, including detailed diagnostic information to speed problem resolution.
- Secure message transport directly from your device or through a downloadable Transport Gateway (TG) aggregation point. You can use a TG aggregation point in cases that require support for multiple devices or in cases where security requirements mandate that your devices may not be connected directly to the Internet.

- Web-based access to Smart Call Home messages and recommendations, inventory and configuration information for all Smart Call Home devices, and field notices, security advisories, and end-of-life information.

Smart Call Home Overview

You can use Smart Call Home to notify an external entity when an important event occurs on your device. Smart Call Home delivers alerts to multiple recipients that you configure in destination profiles.

Smart Call Home includes a fixed set of predefined alerts on your switch. These alerts are grouped into alert groups and CLI commands that are assigned to execute when an alert in an alert group occurs. The switch includes the command output in the transmitted Smart Call Home message.

The Smart Call Home feature offers the following:

- Automatic execution and attachment of relevant CLI command output.
- Multiple message format options such as the following:
 - Short Text—Text that is suitable for pagers or printed reports.
 - Full Text—Fully formatted message information that is suitable for human reading.
 - XML—Matching readable format that uses the Extensible Markup Language (XML) and the Adaptive Messaging Language (AML) XML schema definition (XSD). The XML format enables communication with the Cisco TAC.
- Multiple concurrent message destinations. You can configure up to 50 e-mail destination addresses for each destination profile.

Smart Call Home Destination Profiles

A Smart Call Home destination profile includes the following information:

- One or more alert groups—The group of alerts that trigger a specific Smart Call Home message if the alert occurs.
- One or more e-mail destinations—The list of recipients for the Smart Call Home messages that are generated by alert groups assigned to this destination profile.
- Message format—The format for the Smart Call Home message (short text, full text, or XML).
- Message severity level—The Smart Call Home severity level that the alert must meet before the switch generates a Smart Call Home message to all e-mail addresses in the destination profile. The switch does not generate an alert if the Smart Call Home severity level of the alert is lower than the message severity level set for the destination profile.

You can also configure a destination profile to allow periodic inventory update messages by using the inventory alert group that will send out periodic messages daily, weekly, or monthly.

Cisco Nexus switches support the following predefined destination profiles:

- CiscoTAC-1—Supports the Cisco-TAC alert group in XML message format.
- full-text-destination—Supports the full text message format.

- short-text-destination—Supports the short text message format.

Smart Call Home Alert Groups

An alert group is a predefined subset of Smart Call Home alerts that are supported in all Cisco Nexus devices. Alert groups allow you to select the set of Smart Call Home alerts that you want to send to a predefined or custom destination profile. The switch sends Smart Call Home alerts to e-mail destinations in a destination profile only if that Smart Call Home alert belongs to one of the alert groups associated with that destination profile and if the alert has a Smart Call Home message severity at or above the message severity set in the destination profile.

The following table lists the supported alert groups and the default CLI command output included in Smart Call Home messages generated for the alert group.

Table 1: Alert Groups and Executed Commands

| Alert Group | Description | Executed Commands |
|---------------------|--|---|
| Cisco-TAC | All critical alerts from the other alert groups destined for Smart Call Home. | Execute commands based on the alert group that originates the alert. |
| Diagnostic | Events generated by diagnostics. | show diagnostic result module all detail show moduleshow version show tech-support platform callhome |
| Supervisor hardware | Events related to supervisor modules. | show diagnostic result module all detail show moduleshow version show tech-support platform callhome |
| Linecard hardware | Events related to standard or intelligent switching modules. | show diagnostic result module all detail show moduleshow version show tech-support platform callhome |
| Configuration | Periodic events related to configuration. | show version show module show running-config all show startup-config |
| System | Events generated by a failure of a software system that is critical to unit operation. | show system redundancy status show tech-support |
| Environmental | Events related to power, fan, and environment-sensing elements such as temperature alarms. | show environment show logging last 1000 show module show version show tech-support platform callhome |

| Alert Group | Description | Executed Commands |
|-------------|---|---|
| Inventory | Inventory status that is provided whenever a unit is cold booted, or when FRUs are inserted or removed. This alert is considered a noncritical event, and the information is used for status and entitlement. | show module show version show license usage show inventory show sprom all show system uptime |

Smart Call Home maps the syslog severity level to the corresponding Smart Call Home severity level for syslog port group messages.

You can customize predefined alert groups to execute additional **show** commands when specific events occur and send that **show** output with the Smart Call Home message.

You can add **show** commands only to full text and XML destination profiles. Short text destination profiles do not support additional **show** commands because they only allow 128 bytes of text.

Smart Call Home Message Levels

Smart Call Home allows you to filter messages based on their level of urgency. You can associate each destination profile (predefined and user defined) with a Smart Call Home message level threshold. The switch does not generate any Smart Call Home messages with a value lower than this threshold for the destination profile. The Smart Call Home message level ranges from 0 (lowest level of urgency) to 9 (highest level of urgency), and the default is 0 (the switch sends all messages).

Smart Call Home messages that are sent for syslog alert groups have the syslog severity level mapped to the Smart Call Home message level.



Note Smart Call Home does not change the syslog message level in the message text.

The following table shows each Smart Call Home message level keyword and the corresponding syslog level for the syslog port alert group.

Table 2: Severity and Syslog Level Mapping

| Smart Call Home Level | Keyword | Syslog Level | Description |
|-----------------------|--------------|---------------|---|
| 9 | Catastrophic | N/A | Network-wide catastrophic failure. |
| 8 | Disaster | N/A | Significant network impact. |
| 7 | Fatal | Emergency (0) | System is unusable. |
| 6 | Critical | Alert (1) | Critical conditions that indicate that immediate attention is needed. |
| 5 | Major | Critical (2) | Major conditions. |

| Smart Call Home Level | Keyword | Syslog Level | Description |
|-----------------------|--------------|-----------------|---|
| 4 | Minor | Error (3) | Minor conditions. |
| 3 | Warning | Warning (4) | Warning conditions. |
| 2 | Notification | Notice (5) | Basic notification and informational messages. |
| 1 | Normal | Information (6) | Normal event signifying return to normal state. |
| 0 | Debugging | Debug (7) | Debugging messages. |

Call Home Message Formats

Call Home supports the following message formats:

- Short text message format
- Common fields for all full text and XML messages
- Inserted fields for a reactive or proactive event message
- Inserted fields for an inventory event message
- Inserted fields for a user-generated test message

The following table describes the short text formatting option for all message types.

Table 3: Short Text Message Format

| Data Item | Description |
|-------------------------|--|
| Device identification | Configured device name |
| Date/time stamp | Time stamp of the triggering event |
| Error isolation message | Plain English description of triggering event |
| Alarm urgency level | Error level such as that applied to a system message |

The following table describes the common event message format for full text or XML.

Table 4: Common Fields for All Full Text and XML Messages

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|--------------------------------|--|--------------------|
| Time stamp | Date and time stamp of event in ISO time notation: <i>YYYY-MM-DD HH:MM:SS</i> <i>GMT+HH:MM</i> | /aml/header/time |

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|--------------------------------|--|--------------------------|
| Message name | Name of message. Specific event names are listed in the preceding table. | /aml/header/name |
| Message type | Name of message type, such as reactive or proactive. | /aml/header/type |
| Message group | Name of alert group, such as syslog. | /aml/header/group |
| Severity level | Severity level of message. | /aml/header/level |
| Source ID | Product type for routing. | /aml/header/source |
| Device ID | <p>Unique device identifier (UDI) for the end device that generated the message. This field should be empty if the message is nonspecific to a device. The format is <i>type@Sid@serial</i>:</p> <ul style="list-style-type: none"> • <i>type</i> is the product model number from backplane IDPROM. • <i>@</i> is a separator character. • <i>Sid</i> is C, identifying the serial ID as a chassis serial number. • <i>serial</i> is the number identified by the Sid field. <p>An example is WS-C6509@C@12345678</p> | /aml/ header/deviceID |
| Customer ID | Optional user-configurable field used for contract information or other ID by any support service. | /aml/ header/customerID |
| Contract ID | Optional user-configurable field used for contract information or other ID by any support service. | /aml/ header /contractID |
| Site ID | Optional user-configurable field used for Cisco-supplied site ID or other data meaningful to alternate support service. | /aml/ header/siteID |

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|--|--|---------------------------------|
| Server ID | <p>If the message is generated from the device, this is the unique device identifier (UDI) of the device.</p> <p>The format is <i>type@Sid@serial</i>:</p> <ul style="list-style-type: none"> • <i>type</i> is the product model number from backplane IDPROM. • <i>@</i> is a separator character. • <i>Sid</i> is C, identifying the serial ID as a chassis serial number. • <i>serial</i> is the number identified by the Sid field. <p>An example is WS-C6509@C@12345678</p> | /aml/header/serverID |
| Message description | Short text that describes the error. | /aml/body/msgDesc |
| Device name | Node that experienced the event (hostname of the device). | /aml/body/sysName |
| Contact name | Name of person to contact for issues associated with the node that experienced the event. | /aml/body/sysContact |
| Contact e-mail | E-mail address of person identified as the contact for this unit. | /aml/body/sysContactEmail |
| Contact phone number | Phone number of the person identified as the contact for this unit. | /aml/body/sysContactPhoneNumber |
| Street address | Optional field that contains the street address for RMA part shipments associated with this unit. | /aml/body/sysStreetAddress |
| Model name | Model name of the device (the specific model as part of a product family name). | /aml/body/chassis/name |
| Serial number | Chassis serial number of the unit. | /aml/body/chassis/serialNo |
| Chassis part number | Top assembly number of the chassis. | /aml/body/chassis/partNo |
| Fields specific to a particular alert group message are inserted here. | | |
| The following fields may be repeated if multiple CLI commands are executed for this alert group. | | |

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|--------------------------------|---|------------------------------------|
| Command output name | Exact name of the issued CLI command. | /aml/attachments/attachment/name |
| Attachment type | Specific command output. | /aml/attachments/attachment/type |
| MIME type | Either plain text or encoding type. | /aml/attachments/attachment/mime |
| Command output text | Output of command automatically executed. | /aml/attachments/attachment/atdata |

The following table describes the reactive event message format for full text or XML.

Table 5: Inserted Fields for a Reactive or Proactive Event Message

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|------------------------------------|--|-----------------------------|
| Chassis hardware version | Hardware version of chassis. | /aml/body/chassis/hwVersion |
| Supervisor module software version | Top-level software version. | /aml/body/chassis/swVersion |
| Affected FRU name | Name of the affected FRU that is generating the event message. | /aml/body/fru/name |
| Affected FRU serial number | Serial number of the affected FRU. | /aml/body/fru/serialNo |
| Affected FRU part number | Part number of the affected FRU. | /aml/body/fru/partNo |
| FRU slot | Slot number of the FRU that is generating the event message. | /aml/body/fru/slot |
| FRU hardware version | Hardware version of the affected FRU. | /aml/body/fru/hwVersion |
| FRU software version | Software version(s) that is running on the affected FRU. | /aml/body/fru/swVersion |

The following table describes the inventory event message format for full text or XML.

Table 6: Inserted Fields for an Inventory Event Message

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|------------------------------------|--|-----------------------------|
| Chassis hardware version | Hardware version of the chassis. | /aml/body/chassis/hwVersion |
| Supervisor module software version | Top-level software version. | /aml/body/chassis/swVersion |
| FRU name | Name of the affected FRU that is generating the event message. | /aml/body/fru/name |
| FRU s/n | Serial number of the FRU. | /aml/body/fru/serialNo |
| FRU part number | Part number of the FRU. | /aml/body/fru/partNo |

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|--------------------------------|---|-------------------------|
| FRU slot | Slot number of the FRU. | /aml/body/fru/slot |
| FRU hardware version | Hardware version of the FRU. | /aml/body/fru/hwVersion |
| FRU software version | Software version(s) that is running on the FRU. | /aml/body/fru/swVersion |

The following table describes the user-generated test message format for full text or XML.

Table 7: Inserted Fields for a User-Generated Test Message

| Data Item (Plain Text and XML) | Description (Plain Text and XML) | XML Tag (XML Only) |
|--------------------------------|--|--------------------------------|
| Process ID | Unique process ID. | /aml/body/process/id |
| Process state | State of process (for example, running or halted). | /aml/body/process/processState |
| Process exception | Exception or reason code. | /aml/body/process/exception |

Guidelines and Limitations for Smart Call Home

- If there is no IP connectivity, or if the interface in the virtual routing and forwarding (VRF) instance to the profile destination is down, the switch cannot send Smart Call Home messages.
- Operates with any SMTP e-mail server.

Prerequisites for Smart Call Home

- You must have e-mail server connectivity.
- You must have access to contact name (SNMP server contact), phone, and street address information.
- You must have IP connectivity between the switch and the e-mail server.
- You must have an active service contract for the device that you are configuring.

Default Call Home Settings

Table 8: Default Call Home Parameters

| Parameters | Default |
|---|---------|
| Destination message size for a message sent in full text format | 4000000 |
| Destination message size for a message sent in XML format | 4000000 |

| Parameters | Default |
|--|--|
| Destination message size for a message sent in short text format | 4000 |
| SMTP server port number if no port is specified | 25 |
| Alert group association with profile | All for full-text-destination and short-text-destination profiles. The cisco-tac alert group for the CiscoTAC-1 destination profile. |
| Format type | XML |
| Call Home message level | 0 (zero) |

Configuring Smart Call Home

Registering for Smart Call Home

Before you begin

- Know the sMARTnet contract number for your switch
- Know your e-mail address
- Know your Cisco.com ID

SUMMARY STEPS

1. In a browser, navigate to the Smart Call Home web page:
2. Under **Getting Started**, follow the directions to register Smart Call Home.

DETAILED STEPS

Step 1 In a browser, navigate to the Smart Call Home web page:

<http://www.cisco.com/go/smartcall/>

Step 2 Under **Getting Started**, follow the directions to register Smart Call Home.

What to do next

Configure contact information.

Configuring Contact Information

You must configure the e-mail, phone, and street address information for Smart Call Home. You can optionally configure the contract ID, customer ID, site ID, and switch priority information.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **snmp-server contact** *sys-contact*
3. switch(config)# **callhome**
4. switch(config-callhome)# **email-contact** *email-address*
5. switch(config-callhome)# **phone-contact** *international-phone-number*
6. switch(config-callhome)# **streetaddress** *address*
7. (Optional) switch(config-callhome)# **contract-id** *contract-number*
8. (Optional) switch(config-callhome)# **customer-id** *customer-number*
9. (Optional) switch(config-callhome)# **site-id** *site-number*
10. (Optional) switch(config-callhome)# **switch-priority** *number*
11. (Optional) switch# **show callhome**
12. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|---|--|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# snmp-server contact <i>sys-contact</i> | Configures the SNMP sysContact. |
| Step 3 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 4 | switch(config-callhome)# email-contact <i>email-address</i> | <p>Configures the e-mail address for the primary person responsible for the switch.</p> <p>The <i>email-address</i> can be up to 255 alphanumeric characters in an e-mail address format.</p> <p>Note You can use any valid e-mail address. The address cannot contain spaces.</p> |
| Step 5 | switch(config-callhome)# phone-contact <i>international-phone-number</i> | <p>Configures the phone number in international phone number format for the primary person responsible for the device. The <i>international-phone-number</i> can be up to 17 alphanumeric characters and must be in international phone number format.</p> <p>Note The phone number cannot contain spaces. Use the plus (+) prefix before the number.</p> |
| Step 6 | switch(config-callhome)# streetaddress <i>address</i> | Configures the street address for the primary person responsible for the switch. |

| | Command or Action | Purpose |
|----------------|--|---|
| | | The <i>address</i> can be up to 255 alphanumeric characters. Spaces are accepted. |
| Step 7 | (Optional) switch(config-callhome)# contract-id <i>contract-number</i> | Configures the contract number for this switch from the service agreement. The <i>contract-number</i> can be up to 255 alphanumeric characters. |
| Step 8 | (Optional) switch(config-callhome)# customer-id <i>customer-number</i> | Configures the customer number for this switch from the service agreement. The <i>customer-number</i> can be up to 255 alphanumeric characters. |
| Step 9 | (Optional) switch(config-callhome)# site-id <i>site-number</i> | Configures the site number for this switch. The <i>site-number</i> can be up to 255 alphanumeric characters in free format. |
| Step 10 | (Optional) switch(config-callhome)# switch-priority <i>number</i> | Configures the switch priority for this switch. The range is from 0 to 7, with 0 being the highest priority and 7 the lowest. The default is 7. Note Switch priority is used by the operations personnel or TAC support personnel to decide which Call Home message should be responded to first. You can prioritize Call Home alerts of the same severity from each switch. |
| Step 11 | (Optional) switch# show callhome | Displays a summary of the Smart Call Home configuration. |
| Step 12 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to configure the contact information for Call Home:

```
switch# configuration terminal
switch(config)# snmp-server contact personname@companyname.com
switch(config)# callhome
switch(config-callhome)# email-contact personname@companyname.com
switch(config-callhome)# phone-contact +1-800-123-4567
switch(config-callhome)# street-address 123 Anystreet St., Anycity, Anywhere
```

What to do next

Create a destination profile.

Creating a Destination Profile

You must create a user-defined destination profile and configure the message format for that new destination profile.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome)# **destination-profile** {ciscoTAC-1 {**alert-group** *group* | **email-addr** *address* | **http** *URL* | **transport-method** {**email** | **http**}} | *profilename* {**alert-group** *group* | **email-addr** *address* | **format** {**XML** | **full-txt** | **short-txt**} | **http** *URL* | **message-level** *level* | **message-size** *size* | **transport-method** {**email** | **http**}} | **full-txt-destination** {**alert-group** *group* | **email-addr** *address* | **http** *URL* | **message-level** *level* | **message-size** *size* | **transport-method** {**email** | **http**}} | **short-txt-destination** {**alert-group** *group* | **email-addr** *address* | **http** *URL* | **message-level** *level* | **message-size** *size* | **transport-method** {**email** | **http**}}}
4. (Optional) switch# **show callhome destination-profile** [*profile name*]
5. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|--|---|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 3 | switch(config-callhome)# destination-profile {ciscoTAC-1 { alert-group <i>group</i> email-addr <i>address</i> http <i>URL</i> transport-method { email http }} <i>profilename</i> { alert-group <i>group</i> email-addr <i>address</i> format { XML full-txt short-txt } http <i>URL</i> message-level <i>level</i> message-size <i>size</i> transport-method { email http }} full-txt-destination { alert-group <i>group</i> email-addr <i>address</i> http <i>URL</i> message-level <i>level</i> message-size <i>size</i> transport-method { email http }} short-txt-destination { alert-group <i>group</i> email-addr <i>address</i> http <i>URL</i> message-level <i>level</i> message-size <i>size</i> transport-method { email http }}} | Creates a new destination profile and sets the message format for the profile. The profile-name can be any alphanumeric string up to 31 characters. For further details about this command, see the command reference for your platform. |
| Step 4 | (Optional) switch# show callhome destination-profile [<i>profile name</i>] | Displays information about one or more destination profiles. |
| Step 5 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to create a destination profile for Smart Call Home:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# destination-profile Noc101 format full-text
```

Modifying a Destination Profile

You can modify the following attributes for a predefined or user-defined destination profile:

- Destination address—The actual address, pertinent to the transport mechanism, to which the alert should be sent.
- Message formatting—The message format used for sending the alert (full text, short text, or XML).
- Message level—The Call Home message severity level for this destination profile.
- Message size—The allowed length of a Call Home message sent to the e-mail addresses in this destination profile.



Note You cannot modify or delete the CiscoTAC-1 destination profile.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome)# **destination-profile** {*name* | **full-txt-destination** | **short-txt-destination**} **email-addr** *address*
4. **destination-profile** {*name* | **full-txt-destination** | **short-txt-destination**} **message-level** *number*
5. switch(config-callhome)# **destination-profile** {*name* | **full-txt-destination** | **short-txt-destination**} **message-size** *number*
6. (Optional) switch# **show callhome destination-profile** [**profile** *name*]
7. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|---|--|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 3 | switch(config-callhome)# destination-profile { <i>name</i> full-txt-destination short-txt-destination } email-addr <i>address</i> | Configures an e-mail address for a user-defined or predefined destination profile. You can configure up to 50 e-mail addresses in a destination profile. |
| Step 4 | destination-profile { <i>name</i> full-txt-destination short-txt-destination } message-level <i>number</i> | Configures the Smart Call Home message severity level for this destination profile. The switch sends only alerts that have a matching or higher Smart Call Home severity level to destinations in this profile. The range for the <i>number</i> is from 0 to 9, where 9 is the highest severity level. |

| | Command or Action | Purpose |
|--------|--|--|
| Step 5 | switch(config-callhome)# destination-profile { <i>name</i> full-txt-destination short-txt-destination } message-size <i>number</i> | Configures the maximum message size for this destination profile. The range is from 0 to 5000000 for full-txt-destination and the default is 2500000. The range is from 0 to 100000 for short-txt-destination and the default is 4000. The value is 5000000 for CiscoTAC-1, which is not changeable. |
| Step 6 | (Optional) switch# show callhome destination-profile [profile <i>name</i>] | Displays information about one or more destination profiles. |
| Step 7 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to modify a destination profile for Smart Call Home:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# destination-profile full-text-destination email-addr
person@example.com
switch(config-callhome)# destination-profile full-text-destination message-level 5
switch(config-callhome)# destination-profile full-text-destination message-size 10000
switch(config-callhome)#
```

What to do next

Associate an alert group with a destination profile.

Associating an Alert Group with a Destination Profile

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome)# **destination-profile** *name* **alert-group** {**All** | **Cisco-TAC** | **Configuration** | **Diagnostic** | **Environmental** | **Inventory** | **License** | **Linecard-Hardware** | **Supervisor-Hardware** | **Syslog-group-port** | **System** | **Test**}
4. (Optional) switch# **show callhome destination-profile** [**profile** *name*]
5. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|--------|-----------------------------------|--|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |

| | Command or Action | Purpose |
|---------------|--|---|
| Step 3 | switch(config-callhome)# destination-profile <i>name</i> alert-group { All Cisco-TAC Configuration Diagnostic Environmental Inventory License Linecard-Hardware Supervisor-Hardware Syslog-group-port System Test } | Associates an alert group with this destination profile. Use the All keyword to associate all alert groups with the destination profile. |
| Step 4 | (Optional) switch# show callhome destination-profile [profile <i>name</i>] | Displays information about one or more destination profiles. |
| Step 5 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to associate all alert groups with the destination profile Noc101:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# destination-profile Noc101 alert-group All
switch(config-callhome)#
```

What to do next

Optionally, you can add **show** commands to an alert group and configure the SMTP e-mail server.

Adding Show Commands to an Alert Group

You can assign a maximum of five user-defined **show** commands to an alert group.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome)# **alert-group** {**Configuration** | **Diagnostic** | **Environmental** | **Inventory** | **License** | **Linecard-Hardware** | **Supervisor-Hardware** | **Syslog-group-port** | **System** | **Test**}
user-def-cmd *show-cmd*
4. (Optional) switch# **show callhome user-def-cmds**
5. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|-----------------------------------|--|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |

| | Command or Action | Purpose |
|--------|---|---|
| Step 3 | switch(config-callhome)# alert-group { Configuration Diagnostic Environmental Inventory License Linecard-Hardware Supervisor-Hardware Syslog-group-port System Test } user-def-cmd <i>show-cmd</i> | Adds the show command output to any Call Home messages sent for this alert group. Only valid show commands are accepted. Note You cannot add user-defined show commands to the CiscoTAC-1 destination profile. |
| Step 4 | (Optional) switch# show callhome user-def-cmds | Displays information about all user-defined show commands added to alert groups. |
| Step 5 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to add the **show ip routing** command to the Cisco-TAC alert group:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# alert-group Configuration user-def-cmd show ip routing
switch(config-callhome)#
```

What to do next

Configure Smart Call Home to connect to the SMTP e-mail server.

Configuring E-Mail Server Details

You must configure the SMTP server address for the Smart Call Home functionality to work. You can also configure the from and reply-to e-mail addresses.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome)# **transport email smtp-server** *ip-address* [**port number**] [**use-vrf** *vrf-name*]
4. (Optional) switch(config-callhome)# **transport email from** *email-address*
5. (Optional) switch(config-callhome)# **transport email reply-to** *email-address*
6. (Optional) switch# **show callhome transport-email**
7. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|--------|-----------------------------------|-----------------------------------|
| Step 1 | switch# configure terminal | Enters global configuration mode. |

| | Command or Action | Purpose |
|---------------|---|---|
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 3 | switch(config-callhome)# transport email smtp-server ip-address [port number] [use-vrf vrf-name] | Configures the SMTP server as either the domain name server (DNS) name, IPv4 address, or IPv6 address. The <i>number</i> range is from 1 to 65535. The default port number is 25. Optionally, you can configure the VRF instance to use when communicating with this SMTP server. |
| Step 4 | (Optional) switch(config-callhome)# transport email from email-address | Configures the e-mail from field for Smart Call Home messages. |
| Step 5 | (Optional) switch(config-callhome)# transport email reply-to email-address | Configures the e-mail reply-to field for Smart Call Home messages. |
| Step 6 | (Optional) switch# show callhome transport-email | Displays information about the e-mail configuration for Smart Call Home. |
| Step 7 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to configure the e-mail options for Smart Call Home messages:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# transport email smtp-server 192.0.2.10 use-vrf Red
switch(config-callhome)# transport email from person@example.com
switch(config-callhome)# transport email reply-to person@example.com
switch(config-callhome)#
```

What to do next

Configure periodic inventory notifications.

Configuring Periodic Inventory Notifications

You can configure the switch to periodically send a message with an inventory of all software services currently enabled and running on the device with hardware inventory information. The switch generates two Smart Call Home notifications; periodic configuration messages and periodic inventory messages.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome)# **periodic-inventory notification [interval days] [timeofday time]**
4. (Optional) switch# **show callhome**

5. (Optional) switch(config)# copy running-config startup-config

DETAILED STEPS

| | Command or Action | Purpose |
|--------|---|--|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 3 | switch(config-callhome)# periodic-inventory notification [<i>interval days</i>] [<i>timeofday time</i>] | Configures periodic inventory messages. The <i>interval days</i> range is from 1 to 30 days. The default is 7 days. The <i>timeofday time</i> is in HH:MM format. |
| Step 4 | (Optional) switch# show callhome | Displays information about Smart Call Home. |
| Step 5 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to configure the periodic inventory messages to generate every 20 days:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# periodic-inventory notification interval 20
switch(config-callhome)#
```

What to do next

Disable duplicate message throttling.

Disabling Duplicate Message Throttling

You can limit the number of duplicate messages received for the same event. By default, the switch limits the number of duplicate messages received for the same event. If the number of duplicate messages sent exceeds 30 messages within a 2-hour time frame, the switch discards further messages for that alert type.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome) # **no duplicate-message throttle**
4. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|--|---|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 3 | switch(config-callhome) # no duplicate-message throttle | Disables duplicate message throttling for Smart Call Home. Duplicate message throttling is enabled by default. |
| Step 4 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to disable duplicate message throttling:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome) # no duplicate-message throttle
switch(config-callhome) #
```

What to do next

Enable Smart Call Home.

Enabling or Disabling Smart Call Home

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome) # **[no] enable**
4. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|--|---|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 3 | switch(config-callhome) # [no] enable | Enables or disables Smart Call Home. Smart Call Home is disabled by default. |
| Step 4 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to enable Smart Call Home:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# enable
switch(config-callhome)#
```

What to do next

Optionally, generate a test message.

Testing the Smart Call Home Configuration

Before you begin

Verify that the message level for the destination profile is set to 2 or lower.



Important Smart Call Home testing fails when the message level for the destination profile is set to 3 or higher.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **callhome**
3. switch(config-callhome) # **callhome send diagnostic**
4. switch(config-callhome) # **callhome test**
5. (Optional) switch(config)# **copy running-config startup-config**

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|--|---|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# callhome | Enters Smart Call Home configuration mode. |
| Step 3 | switch(config-callhome) # callhome send diagnostic | Sends the specified Smart Call Home message to all configured destinations. |
| Step 4 | switch(config-callhome) # callhome test | Sends a test message to all configured destinations. |
| Step 5 | (Optional) switch(config)# copy running-config startup-config | Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration. |

Example

The following example shows how to enable Smart Call Home:

```
switch# configuration terminal
switch(config)# callhome
switch(config-callhome)# callhome send diagnostic
switch(config-callhome)# callhome test
switch(config-callhome)#
```

Verifying the Smart Call Home Configuration

Use one of the following commands to verify the configuration:

| Command | Purpose |
|--|---|
| show callhome | Displays the status for Smart Call Home. |
| show callhome destination-profile <i>name</i> | Displays one or more Smart Call Home destination profiles. |
| show callhome pending-diff | Displays the differences between the pending and running Smart Call Home configuration. |
| show callhome status | Displays the Smart Call Home status. |
| show callhome transport-email | Displays the e-mail configuration for Smart Call Home. |
| show callhome user-def-cmds | Displays CLI commands added to any alert groups. |
| show running-config [callhome callhome-all] | Displays the running configuration for Smart Call Home. |
| show startup-config callhome | Displays the startup configuration for Smart Call Home. |
| show tech-support callhome | Displays the technical support output for Smart Call Home. |

Sample Syslog Alert Notification in Full-Text Format

This sample shows the full-text format for a syslog port alert-group notification:

```
source:MDS9000
Switch Priority:7
Device Id:WS-C6509@C@FG@07120011
Customer Id:Example.com
Contract Id:123
Site Id:San Jose
Server Id:WS-C6509@C@FG@07120011
Time of Event:2018-02-08T11:10:44
Message Name:SYSLOG_ALERT
Message Type:Syslog
Severity Level:2
System Name:10.76.100.177
Contact Name:User Name
Contact Email:person@example.com
```

```

Contact Phone:+1-408-555-1212
Street Address:#1234 Any Street, Any City, Any State, 12345
Event Description:2018 Feb  8 11:10:44 10.76.100.177 %PORT-5-IF_TRUNK_UP:
%$VLAN 1%$ Interface e2/5, vlan 1 is up
syslog_facility:PORT
start chassis information:
Affected Chassis:WS-C6509
Affected Chassis Serial Number:FG07120011
Affected Chassis Hardware Version:0.104
Affected Chassis Software Version:3.1(1)
Affected Chassis Part No:73-8607-01
end chassis information:

```

Sample Syslog Alert Notification in XML Format

This sample shows the XML format for a syslog port alert-group notification:

```

From: example
Sent: Wednesday, Feb 25, 2018 7:20 AM
To: User (user)
Subject: System Notification From Router - syslog - 2018-02-25 14:19:55
GMT+00:00
<?xml version="1.0" encoding="UTF-8"?>
<soap-env:Envelope xmlns:soap-env="http://www.w3.org/2003/05/soap-envelope">
<soap-env:Header>
<aml-session:Session xmlns:aml-session="http://www.example.com/2004/01/aml-session"
soap-env:mustUnderstand="true" soap-env:role=
"http://www.w3.org/2003/05/soap-envelope/role/next">
<aml-session:To>http://tools.example.com/services/DDCEService</aml-session:To>
<aml-session:Path>
<aml-session:Via>http://www.example.com/appliance/uri</aml-session:Via>
</aml-session:Path>
<aml-session:From>http://www.example.com/appliance/uri</aml-session:From>
<aml-session:MessageId>M2:69000101:C9D9E20B</aml-session:MessageId>
</aml-session:Session>
</soap-env:Header>
<soap-env:Body>
<aml-block:Block xmlns:aml-block="http://www.example.com/2004/01/aml-block">
<aml-block:Header>
<aml-block:Type>http://www.example.com/2005/05/callhome/syslog</aml-block:Type>
<aml-block:CreationDate>2018-02-25 14:19:55 GMT+00:00</aml-block:CreationDate>
<aml-block:Builder>
<aml-block:Name>Cat6500</aml-block:Name>
<aml-block:Version>2.0</aml-block:Version>
</aml-block:Builder>
<aml-block:BlockGroup>
<aml-block:GroupId>G3:69000101:C9F9E20C</aml-block:GroupId>
<aml-block:Number>0</aml-block:Number>
<aml-block:IsLast>true</aml-block:IsLast>
<aml-block:IsPrimary>true</aml-block:IsPrimary>
<aml-block:WaitForPrimary>>false</aml-block:WaitForPrimary>
</aml-block:BlockGroup>
<aml-block:Severity>2</aml-block:Severity>
</aml-block:Header>
<aml-block:Content>
<ch:Call Home xmlns:ch="http://www.example.com/2005/05/callhome" version="1.0">
<ch:EventTime>2018-02-25 14:19:55 GMT+00:00</ch:EventTime>
<ch:MessageDescription>03:29:29: %CLEAR-5-COUNTERS: Clear counter on all
interfaces by console</ch:MessageDescription>
<ch:Event>
<ch:Type>syslog</ch:Type>
<ch:SubType>

```

```

</ch:SubType>
<ch:Brand>Cisco Systems</ch:Brand>
<ch:Series>Catalyst 6500 Series Switches</ch:Series>
</ch:Event>
<ch:CustomerData>
<ch:UserData>
<ch:Email>person@example.com</ch:Email>
</ch:UserData>
<ch:ContractData>
<ch:CustomerId>12345</ch:CustomerId>
<ch:SiteId>building 1</ch:SiteId>
<ch:ContractId>abcdefg12345</ch:ContractId>
<ch:DeviceId>WS-C6509@C@69000101</ch:DeviceId>
</ch:ContractData>
<ch:SystemInfo>
<ch:Name>Router</ch:Name>
<ch:Contact>
</ch:Contact>
<ch:ContactEmail>user@example.com</ch:ContactEmail>
<ch:ContactPhoneNumber>+1-408-555-1212</ch:ContactPhoneNumber>
<ch:StreetAddress>#1234 Any Street, Any City, Any State, 12345
</ch:StreetAddress>
</ch:SystemInfo>
</ch:CustomerData>
<ch:Device>
<rme:Chassis xmlns:rme="http://www.example.com/rme/4.0">
<rme:Model>WS-C6509</rme:Model>
<rme:HardwareVersion>1.0</rme:HardwareVersion>
<rme:SerialNumber>69000101</rme:SerialNumber>
<rme:AdditionalInformation>
<rme:AD name="PartNumber" value="73-3438-03 01" />
<rme:AD name="SoftwareVersion" value="4.0(20080421:012711)" />
</rme:AdditionalInformation>
</rme:Chassis>
</ch:Device>
</ch:Call Home>
</aml-block:Content>
<aml-block:Attachments>
<aml-block:Attachment type="inline">
<aml-block:Name>show logging</aml-block:Name>
<aml-block:Data encoding="plain">
<![CDATA[Syslog logging: enabled (0 messages dropped, 0 messages
rate-limited, 0 flushes, 0 overruns, xml disabled, filtering disabled)
  Console logging: level debugging, 53 messages logged, xml disabled,
filtering disabled  Monitor logging: level debugging, 0 messages logged,
xml disabled,filtering disabled  Buffer logging: level debugging,
53 messages logged, xml disabled,  filtering disabled  Exception
Logging: size (4096 bytes)  Count and timestamp logging messages: disabled
  Trap logging: level informational, 72 message lines logged
Log Buffer (8192 bytes):
00:00:54: curr is 0x20000
00:00:54: RP: Currently running ROMMON from F2 region
00:01:05: %SYS-5-CONFIG_I: Configured from memory by console
00:01:09: %SYS-5-RESTART: System restarted --Cisco IOS Software,
s72033_rp Software (s72033_rp-ADVENTERPRISEK9_DBG-VM), Experimental
Version 12.2(20070421:012711) Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Thu 26-Feb-18 15:54 by xxx
Firmware compiled 11-Apr-07 03:34 by integ Build [100]00:01:01: %PFREDUN-6-ACTIVE:
Initializing as ACTIVE processor for this switch00:01:01: %SYS-3-LOGGER_FLUSHED:
System was paused for 00:00:00 to ensure console debugging output.00:03:00: SP: SP:
Currently running ROMMON from F1 region00:03:07: %C6K_PLATFORM-SP-4-CONFREG_BREAK
_ENABLED: The default factory setting for config register is 0x2102.It is advisable
to retain 1 in 0x2102 as it prevents returning to ROMMON when break is issued.00:03:18:
%SYS-SP-5-RESTART: System restarted --Cisco IOS Software, s72033_sp Software

```



```

(s72033_sp-ADVENTERPRISEK9_DBG-VM), Experimental Version 12.2(20070421:012711)Copyright
(c) 1986-2007 by Cisco Systems, Inc.
Compiled Thu 26-Apr-07 18:00 by xxx
00:03:18: %SYS-SP-6-BOOTTIME: Time taken to reboot after reload = 339 seconds
00:03:18: %OIR-SP-6-INSFSP: Power supply inserted in slot 1
00:03:18: %C6KPWR-SP-4-PSOK: power supply 1 turned on.
00:03:18: %OIR-SP-6-INSFSP: Power supply inserted in slot00:01:09: %SSH-5-ENABLED:
SSH 1.99 has been enabled
00:03:18: %C6KPWR-SP-4-PSOK: power supply 2 turned on.
00:03:18: %C6KPWR-SP-4-PSREDUNDANTMISMATCH: power supplies rated outputs do not match.
00:03:18: %C6KPWR-SP-4-PSREDUNDANTBOTHSUPPLY: in power-redundancy mode, system is
operating on both power supplies.
00:01:10: %CRYPTO-6-ISAKMP_ON_OFF: ISAKMP is OFF
00:01:10: %CRYPTO-6-ISAKMP_ON_OFF: ISAKMP is OFF
00:03:20: %C6KENV-SP-4-FANHIOUTPUT: Version 2 high-output fan-tray is in effect
00:03:22: %C6KPWR-SP-4-PSNOREDUNDANCY: Power supplies are not in full redundancy,
power usage exceeds lower capacity supply
00:03:26: %FABRIC-SP-5-FABRIC_MODULE_ACTIVE: The Switch Fabric Module in slot 6
became active.
00:03:28: %DIAG-SP-6-RUN_MINIMUM: Module 6: Running Minimal Diagnostics...
00:03:50: %DIAG-SP-6-DIAG_OK: Module 6: Passed Online Diagnostics
00:03:50: %OIR-SP-6-INSCARD: Card inserted in slot 6, interfaces are now online
00:03:51: %DIAG-SP-6-RUN_MINIMUM: Module 3: Running Minimal Diagnostics...
00:03:51: %DIAG-SP-6-RUN_MINIMUM: Module 7: Running Minimal Diagnostics...
00:03:51: %DIAG-SP-6-RUN_MINIMUM: Module 9: Running Minimal Diagnostics...
00:01:51: %MFIB_CONST_RP-6-REPLICATION_MODE_CHANGE: Replication Mode Change Detected.
Current system replication mode is Ingress
00:04:01: %DIAG-SP-6-DIAG_OK: Module 3: Passed Online Diagnostics
00:04:01: %OIR-SP-6-DOWNGRADE: Fabric capable module 3 not at an appropriate hardware
revision level, and can only run in flowthrough mode
00:04:02: %OIR-SP-6-INSCARD: Card inserted in slot 3, interfaces are now online
00:04:11: %DIAG-SP-6-DIAG_OK: Module 7: Passed Online Diagnostics
00:04:14: %OIR-SP-6-INSCARD: Card inserted in slot 7, interfaces are now online
00:04:35: %DIAG-SP-6-DIAG_OK: Module 9: Passed Online Diagnostics
00:04:37: %OIR-SP-6-INSCARD: Card inserted in slot 9, interfaces are now online
00:00:09: DaughterBoard (Distributed Forwarding Card 3)
Firmware compiled 11-Apr-07 03:34 by integ Build [100]
00:00:22: %SYS-DFC4-5-RESTART: System restarted --
Cisco DCOS Software, c61c2 Software (c61c2-SPDBG-VM), Experimental Version 4.0
(20080421:012711)Copyright (c) 1986-2018 by Cisco Systems, Inc.
Compiled Thu 26-Feb-18 17:20 by xxx
00:00:23: DFC4: Currently running ROMMON from F2 region
00:00:25: %SYS-DFC2-5-RESTART: System restarted --
Cisco IOS Software, c6slc Software (c6slc-SPDBG-VM), Experimental Version 12.2
(20070421:012711)Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Thu 26-Apr-08 16:40 by username1
00:00:26: DFC2: Currently running ROMMON from F2 region
00:04:56: %DIAG-SP-6-RUN_MINIMUM: Module 4: Running Minimal Diagnostics...
00:00:09: DaughterBoard (Distributed Forwarding Card 3)
Firmware compiled 11-Apr-08 03:34 by integ Build [100]
slot_id is 8
00:00:31: %FLASHFS_HES-DFC8-3-BADCARD: /bootflash:: The flash card seems to
be corrupted
00:00:31: %SYS-DFC8-5-RESTART: System restarted --
Cisco DCOS Software, c61c2 Software (c61c2-SPDBG-VM), Experimental Version 4.0
(20080421:012711)Copyright (c) 1986-2008 by Cisco Systems, Inc.
Compiled Thu 26-Feb-18 17:20 by username1
00:00:31: DFC8: Currently running ROMMON from S (Gold) region
00:04:59: %DIAG-SP-6-RUN_MINIMUM: Module 2: Running Minimal Diagnostics...
00:05:12: %DIAG-SP-6-RUN_MINIMUM: Module 8: Running Minimal Diagnostics...
00:05:13: %DIAG-SP-6-RUN_MINIMUM: Module 1: Running Minimal Diagnostics...
00:00:24: %SYS-DFC1-5-RESTART: System restarted --
Cisco DCOS Software, c6slc Software (c6slc-SPDBG-VM), Experimental Version 4.0
(20080421:012711)Copyright (c) 1986-2008 by Cisco Systems, Inc.

```

```
Compiled Thu 26-Feb-18 16:40 by username1
00:00:25: DFC1: Currently running ROMMON from F2 region
00:05:30: %DIAG-SP-6-DIAG_OK: Module 4: Passed Online Diagnostics
00:05:31: %SPAN-SP-6-SPAN_EGRESS_REPLICATION_MODE_CHANGE: Span Egress HW
Replication Mode Change Detected. Current replication mode for unused asic
session 0 is Centralized
00:05:31: %SPAN-SP-6-SPAN_EGRESS_REPLICATION_MODE_CHANGE: Span Egress HW
Replication Mode Change Detected. Current replication mode for unused asic
session 1 is Centralized
00:05:31: %OIR-SP-6-INSCARD: Card inserted in slot 4, interfaces are now online
00:06:02: %DIAG-SP-6-DIAG_OK: Module 1: Passed Online Diagnostics
00:06:03: %OIR-SP-6-INSCARD: Card inserted in slot 1, interfaces are now online
00:06:31: %DIAG-SP-6-DIAG_OK: Module 2: Passed Online Diagnostics
00:06:33: %OIR-SP-6-INSCARD: Card inserted in slot 2, interfaces are now online
00:04:30: %XDR-6-XDRIPCNOTIFY: Message not sent to slot 4/0 (4) because of IPC
error timeout. Disabling linecard. (Expected during linecard OIR)
00:06:59: %DIAG-SP-6-DIAG_OK: Module 8: Passed Online Diagnostics
00:06:59: %OIR-SP-6-DOWNGRADE_EARL: Module 8 DFC installed is not identical to
system PFC and will perform at current system operating mode.
00:07:06: %OIR-SP-6-INSCARD: Card inserted in slot 8, interfaces are now online
Router#]]>
</aml-block:Data>
</aml-block:Attachment>
</aml-block:Attachments>
</aml-block:Block>
</soap-env:Body>
</soap-env:Envelope>
```