



CHAPTER 60

Configuring Call Home

This chapter describes how to configure the Call Home feature in Cisco IOS Release 12.2SX. Release 12.2(33)SXH and later releases support the Call Home feature.



Note

For complete syntax and usage information for the commands used in this chapter, see the Cisco IOS Master Command List, Release 12.2SX, at this URL:

http://www.cisco.com/en/US/docs/ios/mcl/122sxmcl/12_2sx_mcl_book.html



Tip

For additional information about Cisco Catalyst 6500 Series Switches (including configuration examples and troubleshooting information), see the documents listed on this page:

http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html

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Understanding Call Home

Call Home provides e-mail-based and web-based notification of critical system events. A versatile range of message formats are available for optimal compatibility with pager services, standard e-mail, or XML-based automated parsing applications. Common uses of this feature may include direct paging of a network support engineer, e-mail notification to a Network Operations Center, XML delivery to a support website, and utilization of Cisco Smart Call Home services for direct case generation with the Cisco Systems Technical Assistance Center (TAC).

The Call Home feature can deliver alert messages containing information on configuration, diagnostics, environmental conditions, inventory, and syslog events.



Note

Call-home messages include certain CLI command output. If AAA is configured on the Cisco device you must configure a user account on the AAA server by setting the username to “callhome.” The server administrator defines the password options for the account. The password can be any combination of letters and numbers, but we highly recommend that you create a password that contains both letters and numbers in order to ensure the account is not hacked by an intruder.

The Call Home feature can deliver alerts to multiple recipients, referred to as *Call Home destination profiles*, each with configurable message formats and content categories. A predefined destination profile is provided for sending alerts to the Cisco TAC (attach@cisco.com), and you also can define your own destination profiles.

Flexible message delivery and format options make it easy to integrate specific support requirements. If multiple destination profiles are configured, and one fails, the system will try every configured profile before sending a failure message.

The Call Home feature offers the following advantages:

- Multiple message-format options:
 - Short Text—Suitable for pagers or printed reports.
 - Plain Text—Full formatted message information suitable for human reading.
 - XML—Machine readable format using Extensible Markup Language (XML) and Adaptive Markup Language (AML) document type definitions (DTDs). The XML format enables communication with the Cisco TAC.
- Multiple concurrent message destinations.
- Multiple message categories including configuration, diagnostics, environmental conditions, inventory, and syslog events.
- Filtering of messages by severity and pattern matching.
- Scheduling of periodic message sending.

Obtaining Smart Call Home

If you have a service contract directly with Cisco Systems, you can register your devices for the Smart Call Home service. Smart Call Home provides fast resolution of system problems by analyzing 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 with the Cisco TAC.

Smart Call Home offers the following features:

- Continuous device health monitoring and real-time diagnostics alerts.
- Analysis of 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 requiring 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 Call Home messages and recommendations, inventory and configuration information for all Call Home devices. Provides access to associated Field Notices, Security Advisories and End-of-Life Information.

You need the following items to register:

- The SMARTnet contract number for your switch.
- Your e-mail address
- Your Cisco.com ID

For detailed information on Smart Call Home, see the Smart Call Home page at this location:

http://www.cisco.com/en/US/products/ps7334/serv_home.html

Configuring Call Home

How you configure Call Home depends on how you intend to use the feature. Some information to consider before you configure Call Home includes:

- At least one destination profile (predefined or user-defined) must be configured. The destination profile(s) used depends on whether the receiving entity is a pager, e-mail, or automated service such as Cisco Smart Call Home.
 - If the destination profile uses e-mail message delivery, you must specify a Simple Mail Transfer Protocol (SMTP) server.
 - If the destination profile uses secure HTTP (HTTPS) message transport, you must configure a trustpoint certificate authority (CA).
- The contact e-mail, phone, and street address information should be configured so that the receiver can determine the origin of messages received.
- The switch must have IP connectivity to an e-mail server or the destination HTTP server.
- If servers are specified by name, the switch must have IP connectivity to a name server.
- If Cisco Smart Call Home is used, an active service contract must cover the device being configured.

To configure Call Home, follow these steps:

-
- Step 1** Configure your site's contact information.
 - Step 2** Configure destination profiles for each of your intended recipients.
 - Step 3** Subscribe each destination profile to one or more alert groups, and set alert options.
 - Step 4** Configure e-mail settings or HTTPS settings (including CA certificate), depending on the transport method.
 - Step 5** Enable the Call Home feature.

Step 6 Test Call Home messages.



Tip

From the Smart Call Home web application, you can download a basic configuration script to assist you in the configuration of the Call Home feature for use with Smart Call Home and the Cisco TAC. The script will also assist in configuring the trustpoint CA for secure communications with the Smart Call Home service. The script, provided on an as-is basis, can be downloaded from this URL:

http://www.cisco.com/en/US/products/ps7334/serv_home.html

Configuring Contact Information

Each switch must include a contact e-mail address. You can optionally include a phone number, street address, contract ID, customer ID, and site ID.

To assign the contact information, perform this task:

	Command	Purpose
Step 1	Router# configure terminal	Enters configuration mode.
Step 2	Router(config)# call-home	Enters the Call Home configuration submode.
Step 3	Router(cfg-call-home)# contact-email-addr <i>email-address</i>	Assigns the customer's e-mail address. Enter up to 200 characters in e-mail address format with no spaces.
Step 4	Router(cfg-call-home)# phone-number <i>+phone-number</i>	(Optional) Assigns the customer's phone number. Note The number must begin with a plus (+) prefix, and may contain only dashes (-) and numbers. Enter up to 16 characters. If you include spaces, you must enclose your entry in quotes ("").
Step 5	Router(cfg-call-home)# street-address <i>street-address</i>	(Optional) Assigns the customer's street address where RMA equipment can be shipped. Enter up to 200 characters. If you include spaces, you must enclose your entry in quotes ("").
Step 6	Router(cfg-call-home)# customer-id <i>text</i>	(Optional) Identifies the customer ID. Enter up to 64 characters. If you include spaces, you must enclose your entry in quotes ("").
Step 7	Router(cfg-call-home)# site-id <i>text</i>	(Optional) Identifies the customer site ID. Enter up to 200 characters. If you include spaces, you must enclose your entry in quotes ("").
Step 8	Router(cfg-call-home)# contract-id <i>text</i>	(Optional) Identifies the customer's contract ID for the switch. Enter up to 64 characters. If you include spaces, you must enclose your entry in quotes ("").

This example shows the configuration of contact information:

```
Router# configure terminal
```

```

Enter configuration commands, one per line. End with CNTL/Z.
Router(config)# call-home
Router(cfg-call-home)# contact-email-addr username@example.com
Router(cfg-call-home)# phone-number +1-800-555-4567
Router(cfg-call-home)# street-address "1234 Picaboo Street, Any city, Any state, 12345"
Router(cfg-call-home)# customer-id Customer1234
Router(cfg-call-home)# site-id Site1ManhattanNY
Router(cfg-call-home)# contract-id Company1234
Router(cfg-call-home)# exit
Router(config)#

```

Configuring Destination Profiles

A destination profile contains the required delivery information for an alert notification. At least one destination profile is required. You can configure multiple destination profiles of one or more types.

You can use the predefined destination profile or define a desired profile. If you define a new destination profile, you must assign a profile name.



Note

If you use the Cisco Smart Call Home service, the destination profile must use the XML message format.

You can configure the following attributes for a destination profile:

- Profile name—A string that uniquely identifies each user-defined destination profile. The profile name is limited to 31 characters and is not case-sensitive. You cannot use **all** as a profile name.
- Transport method—The transport mechanism, either e-mail or HTTP (including HTTPS), for delivery of alerts.
 - For user-defined destination profiles, e-mail is the default, and you can enable either or both transport mechanisms. If you disable both methods, e-mail will be enabled.
 - For the predefined Cisco TAC profile, you can enable either transport mechanism, but not both.
- Destination address—The actual address related to the transport method to which the alert should be sent.
- Message formatting—The message format used for sending the alert.
 - For user-defined destination profiles, the format options are long-text, short-text, or XML. The default is XML.
 - For the predefined Cisco TAC profile, only XML is allowed.
- Message size—The maximum destination message size. The valid range is 50 to 3,145,728 bytes and the default is 3,145,728 bytes.

To create and configure a destination profile, perform this task:

	Command	Purpose
Step 1	Router# configure terminal	Enters configuration mode.
Step 2	Router(config)# call-home	Enters the Call Home configuration submode.
Step 3	Router(cfg-call-home)# profile <i>name</i>	Enters the Call Home destination profile configuration submode for the specified destination profile. If the specified destination profile does not exist, it is created.
Step 4	Router(cfg-call-home-profile)# [no] destination transport-method { email http }	(Optional) Enables the message transport method. The no option disables the method.

	Command	Purpose
Step 5	Router(cfg-call-home-profile)# destination address {email email-address http url}	Configures the destination e-mail address or URL to which Call Home messages will be sent. Note When entering a destination URL, include either http:// or https:// , depending on whether the server is a secure server. If the destination is a secure server, you must also configure a trustpoint CA.
Step 6	Router(cfg-call-home-profile)# destination preferred-msg-format {long-text short-text xml}	(Optional) Configures a preferred message format. The default is XML.
Step 7	Router(cfg-call-home-profile)# destination message-size bytes	(Optional) Configures a maximum destination message size for the destination profile.
Step 8	Router(cfg-call-home-profile)# active	Enables the destination profile. By default, the profile is enabled when it is created.
Step 9	Router(cfg-call-home-profile)# exit	Exits the Call Home destination profile configuration submode and returns to the Call Home configuration submode.
Step 10	Router(cfg-call-home)# end	Returns to privileged EXEC mode.
Step 11	Router# show call-home profile {name all}	Displays destination profile configuration for specified profile or all configured profiles.

Copying a Destination Profile

To create a new destination profile by copying an existing profile, perform this task:

	Command	Purpose
Step 1	Router# configure terminal	Enters configuration mode.
Step 2	Router(config)# call-home	Enters the Call Home configuration submode.
Step 3	Router(cfg-call-home)# copy profile source-profile target-profile	Creates a new destination profile with the same configuration settings as the existing destination profile.

Subscribing to Alert Groups

An alert group is a predefined subset of Call Home alerts supported in all switches. Different types of Call Home alerts are grouped into different alert groups depending on their type. These alert groups are available:

- Configuration
- Diagnostic
- Environment
- Inventory
- Syslog

The triggering events for each alert group are listed in the [“Alert Group Trigger Events and Commands” section on page 60-17](#), and the contents of the alert group messages are listed in the [“Message Contents” section on page 60-24](#).

You can select one or more alert groups to be received by a destination profile.

**Note**

A Call Home alert is only sent to destination profiles that have subscribed to the alert group containing that Call Home alert. In addition, the alert group must be enabled.

To subscribe a destination profile to an alert group, perform this task:

	Command	Purpose
Step 1	Router# configure terminal	Enters configuration mode.
Step 2	Router(config)# call-home	Enters Call Home configuration submode.
Step 3	Router(cfg-call-home)# alert-group { all configuration diagnostic environment inventory syslog }	Enables the specified alert group. Use the keyword all to enable all alert groups. By default, all alert groups are enabled.
Step 4	Router(cfg-call-home)# profile name	Enters the Call Home destination profile configuration submode for the specified destination profile.
Step 5	Router(cfg-call-home-profile)# subscribe-to-alert-group configuration [periodic { daily <i>hh:mm</i> monthly <i>date hh:mm</i> weekly <i>day hh:mm</i> }]	Subscribes this destination profile to the Configuration alert group. The Configuration alert group can be configured for periodic notification, as described in the “ Configuring Periodic Notification ” section on page 60-8.
	Router(cfg-call-home-profile)# subscribe-to-alert-group all	Subscribes to all available alert groups.
Step 6	Router(cfg-call-home-profile)# subscribe-to-alert-group diagnostic [severity catastrophic disaster fatal critical major minor warning notification normal debugging]	Subscribes this destination profile to the Diagnostic alert group. The Diagnostic alert group can be configured to filter messages based on severity, as described in the “ Configuring Message Severity Threshold ” section on page 60-8.
Step 7	Router(cfg-call-home-profile)# subscribe-to-alert-group environment [severity catastrophic disaster fatal critical major minor warning notification normal debugging]	Subscribes this destination profile to the Environment alert group. The Environment alert group can be configured to filter messages based on severity, as described in the “ Configuring Message Severity Threshold ” section on page 60-8.
Step 8	Router(cfg-call-home-profile)# subscribe-to-alert-group inventory [periodic { daily <i>hh:mm</i> monthly <i>date hh:mm</i> weekly <i>day hh:mm</i> }]	Subscribes this destination profile to the Inventory alert group. The Inventory alert group can be configured for periodic notification, as described in the “ Configuring Periodic Notification ” section on page 60-8.

	Command	Purpose
Step 9	<pre>Router(cfg-call-home-profile)# subscribe-to-alert-group syslog [severity catastrophic disaster fatal critical major minor warning notification normal debugging] [pattern string]</pre>	Subscribes this destination profile to the Syslog alert group. The Syslog alert group can be configured to filter messages based on severity, as described in the “Configuring Message Severity Threshold” section on page 60-8. You can specify a pattern to be matched in the syslog message. If the pattern contains spaces, you must enclose it in quotes (“”).
Step 10	<pre>Router(cfg-call-home-profile)# exit</pre>	Exits the Call Home destination profile configuration submode.

Configuring Periodic Notification

When you subscribe a destination profile to either the Configuration or the Inventory alert group, you can choose to receive the alert group messages asynchronously or periodically at a specified time. The sending period can be one of the following:

- Daily—Specify the time of day to send, using an hour:minute format *hh:mm*, with a 24-hour clock (for example, 14:30).
- Weekly—Specify the day of the week and time of day in the format *day hh:mm*, where the day of the week is spelled out (for example, monday).
- Monthly—Specify the numeric date, from 1 to 31, and the time of day, in the format *date hh:mm*.

Configuring Message Severity Threshold

When you subscribe a destination profile to the Diagnostic, Environment, or Syslog alert group, you can set a threshold for the sending of alert group messages based on the message’s level of severity. Any message with a value lower than the destination profile’s specified threshold is not sent to the destination.

The severity threshold is configured using the keywords in [Table 60-1](#), and ranges from catastrophic (level 9, highest level of urgency) to debugging (level 0, lowest level of urgency). If no severity threshold is configured, the default is normal (level 1).



Note

Call Home severity levels are not the same as system message logging severity levels.

Table 60-1 Severity and Syslog Level Mapping

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, immediate attention needed.
5	major	Critical (2)	Major conditions.
4	minor	Error (3)	Minor conditions.
3	warning	Warning (4)	Warning conditions.

Table 60-1 Severity and Syslog Level Mapping (continued)

Level	Keyword	Syslog Level	Description
2	notification	Notice (5)	Basic notification and informational messages. Possibly independently insignificant.
1	normal	Information (6)	Normal event signifying return to normal state.
0	debugging	Debug (7)	Debugging messages.

Configuring Syslog Pattern Matching

When you subscribe a destination profile to the Syslog alert group, you can optionally specify a text pattern to be matched within each syslog message. If you configure a pattern, a Syslog alert group message will be sent only if it contains the specified pattern and meets the severity threshold. If the pattern contains spaces, you must enclose it in quotes (“”) when configuring it. You can specify up to five patterns for each destination profile.

Configuring General E-Mail Options

To use the e-mail message transport, you must configure at least one Simple Mail Transfer Protocol (SMTP) e-mail server address. You can configure the from and reply-to e-mail addresses, and you can specify up to four backup e-mail servers. You can also set a rate limit on e-mail or HTTP messages.

To configure general e-mail options, perform this task:

	Command	Purpose
Step 1	Router# configure terminal	Enters configuration mode.
Step 2	Router(config)# ip name-server <i>server-address</i>	(Optional) Specifies a name server. If you specify an e-mail server by FQDN rather than IP address, the switch must have access to a name server.
Step 3	Router(config)# ip domain-lookup	(Optional) Allows the switch to resolve server names (enabled by default).
Step 4	Router(config)# call-home	Enters Call Home configuration submenu.
Step 5	Router(cfg-call-home)# mail-server { <i>ipv4-address</i> <i>name</i> } priority number	Assigns an e-mail server address and its relative priority among configured e-mail servers. Provide either of these: <ul style="list-style-type: none"> The e-mail server’s IP address or The e-mail server’s fully qualified domain <i>name</i> (FQDN) of 64 characters or less. Assign a priority <i>number</i> between 1 (highest priority) and 100 (lowest priority).
Step 6	Router(cfg-call-home)# sender from <i>email-address</i>	(Optional) Assigns the e-mail address that will appear in the from field in Call Home e-mail messages. If no address is specified, the contact e-mail address is used.

	Command	Purpose
Step 7	Router (cfg-call-home) # sender reply-to <i>email-address</i>	(Optional) Assigns the e-mail address that will appear in the reply-to field in Call Home e-mail messages.
Step 8	Router (cfg-call-home) # rate-limit <i>number</i>	(Optional) Specifies a limit on the number of messages sent per minute, from 1 to 60. The default is 20.

The following notes apply when configuring general e-mail options:

- Backup e-mail servers can be defined by repeating the **mail-server** command using different priority numbers.
- The **mail-server priority number** parameter can be configured from 1 to 100. The server with the highest priority (lowest priority number) will be tried first.

This example shows the configuration of general e-mail parameters, including a primary and secondary e-mail server:

```
Router(config)# ip name-server 192.168.10.123
Router(config)# ip domain-lookup
Router(config)# call-home
Router(cfg-call-home)# mail-server smtp.example.com priority 1
Router(cfg-call-home)# mail-server 192.168.0.1 priority 2
Router(cfg-call-home)# sender from username@example.com
Router(cfg-call-home)# sender reply-to username@example.com
Router(cfg-call-home)# exit
```

Enabling Call Home

To enable or disable the Call Home feature, perform this task:

	Command	Purpose
Step 1	Router# configure terminal	Enters configuration mode.
Step 2	Router (config) # service call-home	Enables the Call Home feature.

Testing Call Home Communications

You can test Call Home communications by sending messages manually using two command types. To send a user-defined Call Home test message, use the **call-home test** command. To send a specific alert group message, use the **call-home send** command.

Sending a Call Home Test Message Manually

To manually send a Call Home test message, perform this task:

	Command	Purpose
Step 1	Router# call-home test [<i>test-message</i>] profile <i>name</i>	Sends a test message to the specified destination profile. The user-defined test message text is optional, but must be enclosed in quotes (“”) if it contains spaces. If no user-defined message is configured, a default message will be sent.

Sending a Call Home Alert Group Message Manually

To manually trigger a Call Home alert group message, perform this task:

	Command	Purpose
Step 1	Router# call-home send alert-group configuration [profile <i>name</i>]	Sends a configuration alert group message to one destination profile if specified, or to all subscribed destination profiles.
	Router# call-home send alert-group diagnostic { module <i>number</i> <i>slot/subslot</i> <i>slot/bay_number</i> switch <i>x</i> module <i>number</i> } [profile <i>name</i>]	Sends a diagnostic alert group message to the configured destination profile if specified, or to all subscribed destination profiles. You must specify the module or port whose diagnostic information should be sent. If a virtual switching system (VSS) is used, you must specify the switch and module.
	Router# call-home send alert-group inventory [profile <i>name</i>]	Sends an inventory alert group message to one destination profile if specified, or to all subscribed destination profiles.

When manually sending Call Home alert group messages, note the following guidelines:

- Only the configuration, diagnostic, and inventory alert groups can be sent manually.
- When you manually trigger a configuration, diagnostic, or inventory alert group message and you specify a destination profile name, a message is sent to the destination profile regardless of the profile’s active status, subscription status, or severity setting.
- When you manually trigger a configuration or inventory alert group message and do not specify a destination profile name, a message is sent to all active profiles that have either a normal or periodic subscription to the specified alert group.
- When you manually trigger a diagnostic alert group message and do not specify a destination profile name, the command will cause the following actions:
 - For any active profile that subscribes to diagnostic events with a severity level of less than minor, a message is sent regardless of whether the module or interface has observed a diagnostic event.
 - For any active profile that subscribes to diagnostic events with a severity level of minor or higher, a message is sent only if the specified module or interface has observed a diagnostic event of at least the subscribed severity level; otherwise, no diagnostic message is sent to the destination profile.

Sending a Request for an Analysis and Report

You can use the **call-home request** command to submit information about your system to Cisco in order to receive helpful information specific to your system. You can request a variety of reports, including security alerts, known bugs, best practices, and command references.

To submit a request for report and analysis information from the Cisco Output Interpreter tool, perform this task:

	Command	Purpose
Step 1	Router# call-home request output-analysis "show-command" [profile name] [ccoid user-id]	Sends the output of the specified show command for analysis. The show command must be contained in quotes ("").
	Router# call-home request { config-sanity bugs-list command-reference product-advisory } [profile name] [ccoid user-id]	Sends the output of a predetermined set of commands such as the show running-config all , show version , and show module (standalone) or show module switch all (VS system) commands, for analysis. Specifies the type of report requested.

When manually sending a Call Home report and analysis request, note the following guidelines:

- If a **profile name** is specified, the request will be sent to the profile. If no profile is specified, the request will be sent to the Cisco TAC profile. The recipient profile does not need to be enabled for the call-home request. The profile should specify the e-mail address where the transport gateway is configured so that the request message can be forwarded to the Cisco TAC and the user can receive the reply from the Smart Call Home service.
- The **ccoid user-id** is the registered identifier of the Smart Call Home user. If the *user-id* is specified, the response will be sent to the e-mail address of the registered user. If no *user-id* is specified, the response will be sent to the contact e-mail address of the device.
- Based on the keyword specifying the type of report requested, the following information will be returned:
 - **config-sanity**—Information on best practices as related to the current running configuration.
 - **bugs-list**—Known bugs in the running version and in the currently applied features.
 - **command-reference**—Reference links to all commands in the running configuration.
 - **product-advisory**—Product Security Incident Response Team (PSIRT) notices, End of Life (EOL) or End of Sales (EOS) notices, or field notices (FN) that may affect devices in your network.

This example shows a request for analysis of a user-specified show command:

```
Router# call-home request output-analysis "show diagnostic result module all" profile TG
```

Sending the Output of a Command

You can use the **call-home send** command to execute a CLI command and e-mail the command output to Cisco or to an e-mail address that you specify.

To execute a CLI command and e-mail the command output, perform this task:

	Command	Purpose
Step 1	Router# call-home send " <i>command</i> " [email <i>email-addr</i>] [service-number <i>SR</i>]	Executes the specified CLI command and e-mails the output.

When sending the output of a command, note the following guidelines:

- The specified CLI command can be any run command, including commands for all modules. The command must be contained in quotes (“”).
- If an e-mail address is specified, the command output will be sent to that address. If no e-mail address is specified, the output will be sent to the Cisco TAC (attach@cisco.com). The e-mail will be sent in long text format with the service number, if specified, in the subject line.
- The service number is required only if no e-mail address is specified, or if a Cisco TAC e-mail address is specified.

This example shows how to send the output of a CLI command to a user-specified e-mail address:

```
Router# call-home send "show diagnostic result module all" email support@example.com
```

Configuring and Enabling Smart Call Home

For application and configuration information of the Cisco Smart Call Home service, see the “FastStart” section of the *Smart Call Home User Guide* at this location:

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

The user guide includes configuration examples for sending Smart Call Home messages directly from your device or through a transport gateway (TG) aggregation point. You can use a TG aggregation point in cases requiring support for multiple devices or in cases where security requirements mandate that your devices may not be connected directly to the Internet.

Because the Smart Call Home service uses HTTPS as the transport method, you must also configure its CA as a trustpoint, as described in the *Smart Call Home User Guide*.

Displaying Call Home Configuration Information

To display the configured Call Home information, perform these tasks:

Command	Purpose
Router# show call-home	Displays the Call Home configuration in summary.
Router# show call-home detail	Displays the Call Home configuration in detail.
Router# show call-home alert-group	Displays the available alert groups and their status.

Command	Purpose
Router# show call-home mail-server status	Checks and displays the availability of the configured e-mail server(s).
Router# show call-home profile {all name}	Displays the configuration of the specified destination profile. Use the keyword all to display the configuration of all destination profiles.
Router# show call-home statistics	Displays the statistics of Call Home events.

Examples 60-1 to 60-7 show the results when using different options of the **show call-home** command.

Example 60-1 Configured Call Home Information

```
Router# show call-home
Current call home settings:
  call home feature : disable
  call home message's from address: switch@example.com
  call home message's reply-to address: support@example.com

  contact person's email address: technical@example.com

  contact person's phone number: +1-408-555-1234
  street address: 1234 Picaboo Street, Any city, Any state, 12345
  customer ID: ExampleCorp
  contract ID: X123456789
  site ID: SantaClara
  Mail-server[1]: Address: smtp.example.com Priority: 1
  Mail-server[2]: Address: 192.168.0.1 Priority: 2
  Rate-limit: 20 message(s) per minute

Available alert groups:
  Keyword          State   Description
  -----
  configuration    Disable configuration info
  diagnostic       Disable diagnostic info
  environment      Disable environmental info
  inventory        Enable  inventory info
  syslog          Disable syslog info

Profiles:
  Profile Name: campus-noc
  Profile Name: CiscoTAC-1

Router#
```

Example 60-2 Configured Call Home Information in Detail

```
Router# show call-home detail
Current call home settings:
  call home feature : disable
  call home message's from address: switch@example.com
  call home message's reply-to address: support@example.com

  contact person's email address: technical@example.com

  contact person's phone number: +1-408-555-1234
  street address: 1234 Picaboo Street, Any city, Any state, 12345
  customer ID: ExampleCorp
  contract ID: X123456789
  site ID: SantaClara
```

```
Mail-server[1]: Address: smtp.example.com Priority: 1
Mail-server[2]: Address: 192.168.0.1 Priority: 2
Rate-limit: 20 message(s) per minute
```

Available alert groups:

Keyword	State	Description
configuration	Disable	configuration info
diagnostic	Disable	diagnostic info
environment	Disable	environmental info
inventory	Enable	inventory info
syslog	Disable	syslog info

Profiles:

Profile Name: campus-noc

```
Profile status: ACTIVE
Preferred Message Format: long-text
Message Size Limit: 3145728 Bytes
Transport Method: email
Email address(es): noc@example.com
HTTP address(es): Not yet set up
```

Alert-group	Severity
inventory	normal

Syslog-Pattern	Severity
N/A	N/A

Profile Name: CiscoTAC-1

```
Profile status: ACTIVE
Preferred Message Format: xml
Message Size Limit: 3145728 Bytes
Transport Method: email
Email address(es): callhome@cisco.com
HTTP address(es): https://tools.cisco.com/its/service/oddce/services/DDCEService
```

Periodic configuration info message is scheduled every 1 day of the month at 09:27

Periodic inventory info message is scheduled every 1 day of the month at 09:12

Alert-group	Severity
diagnostic	minor
environment	minor

Syslog-Pattern	Severity
.*	major

Router#

Example 60-3 Available Call Home Alert Groups

Router# **show call-home alert-group**

Available alert groups:

Keyword	State	Description
configuration	Disable	configuration info
diagnostic	Disable	diagnostic info
environment	Disable	environmental info
inventory	Enable	inventory info

```

    syslog                               Disable syslog info

Router#

```

Example 60-4 E-Mail Server Status Information

```

Router# show call-home mail-server status
Please wait. Checking for mail server status ...

Translating "smtp.example.com"
  Mail-server[1]: Address: smtp.example.com Priority: 1 [Not Available]
  Mail-server[2]: Address: 192.168.0.1 Priority: 2 [Not Available]

Router#

```

Example 60-5 Information for All Destination Profiles (Predefined and User-Defined)

```

Router# show call-home profile all

Profile Name: campus-noc
  Profile status: ACTIVE
  Preferred Message Format: long-text
  Message Size Limit: 3145728 Bytes
  Transport Method: email
  Email address(es): noc@example.com
  HTTP  address(es): Not yet set up

  Alert-group          Severity
  -----
  inventory            normal

  Syslog-Pattern      Severity
  -----
  N/A                  N/A

Profile Name: CiscoTAC-1
  Profile status: ACTIVE
  Preferred Message Format: xml
  Message Size Limit: 3145728 Bytes
  Transport Method: email
  Email address(es): callhome@cisco.com
  HTTP  address(es): https://tools.cisco.com/its/service/oddce/services/DDCEService

  Periodic configuration info message is scheduled every 1 day of the month at 09:27
  Periodic inventory info message is scheduled every 1 day of the month at 09:12

  Alert-group          Severity
  -----
  diagnostic           minor
  environment          minor

  Syslog-Pattern      Severity
  -----
  .*                   major

Router#

```

Example 60-6 Information for a User-Defined Destination Profile

```

Router# show call-home profile campus-noc

```

```

Profile Name: campus-noc
Profile status: ACTIVE
Preferred Message Format: long-text
Message Size Limit: 3145728 Bytes
Transport Method: email
Email address(es): noc@example.com
HTTP address(es): Not yet set up

```

```

Alert-group          Severity
-----
inventory            normal

Syslog-Pattern      Severity
-----
N/A                  N/A

```

```
Router#
```

Example 60-7 Call Home Statistics

```

Router# show call-home statistics
Successful Call-Home Events: 1
Dropped Call-Home Events due to Rate Limiting: 0
Last call-home message sent time: 2007-04-25 11:07:04 GMT+00:00

```

Default Settings

Table 60-2 lists the default Call Home settings.

Table 60-2 Default Call Home Settings

Parameters	Default
Call Home feature status	Disabled
User-defined profile status	Active
Predefined Cisco TAC profile status	Inactive
Transport method	E-mail
Message format type	XML
Destination message size for a message sent in long text, short text, or XML format	3,145,728
Alert group status	Enabled
Call Home message severity threshold	1 (normal)
Message rate limit for messages per minute	20

Alert Group Trigger Events and Commands

Call Home trigger events are grouped into alert groups, with each alert group assigned CLI commands to execute when an event occurs. The CLI command output is included in the transmitted message.

Table 60-3 lists the trigger events included in each alert group, including the severity level of each event and the executed CLI commands for the alert group.

Table 60-3 Call Home Alert Groups, Events, and Actions

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
Syslog				Event logged to syslog. (Only sent to TAC if syslog level 0, 1, or 2) CLI commands executed: show logging
	SYSLOG	LOG_EMERG	0	System is unusable.
	SYSLOG	LOG_ALERT	1	Action must be taken immediately.
	SYSLOG	LOG_CRIT	2	Critical conditions.
	SYSLOG	LOG_ERR	3	Error conditions.
	SYSLOG	LOG_WARNING	4	Warning conditions.
	SYSLOG	LOG_NOTICE	5	Normal but signification condition.
	SYSLOG	LOG_INFO	6	Informational.
	SYSLOG	LOG_DEBUG	7	Debug-level messages.
Environmental				Events related to power, fan, and environment sensing elements, such as temperature alarms. (Sent to TAC.) CLI commands executed: show environment show logging show module show power
	FAN_FAILURE	FANPSINCOMPAT	4	Fan tray and power supply %d are incompatible.
		ALARMCLR	4	The specified alarm condition has been cleared, and shutdown has been cancelled.
	FAN_FAILURE	FANHIOOUTPUT	4	Version %d high-output fan tray is in effect.
	FAN_FAILURE	FANLOOUTPUT	4	Version %d low-output fan tray is in effect.
	FAN_FAILURE	FANVERCHK	4	Power supply %d inserted is only compatible with Version %d fan tray.
	FAN_FAILURE	FANTRAYFAILED	4	Fan tray failed.
	FAN_FAILURE	FANTRAYOK	4	Fan tray OK.
	FAN_FAILURE	FANCOUNTFAILED	4	Required number of fan trays is not present.
	FAN_FAILURE	FANCOUNTOK	4	Required number of fan trays is present.
	FAN_FAILURE	PSFANFAIL	4	The fan in power supply has failed.

Table 60-3 Call Home Alert Groups, Events, and Actions (continued)

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
	FAN_FAILURE	PSFANOK	4	The fan in power supply is OK.
	TEMPERATURE_ALARM	MAJORTEMPALARM	2	Exceeded allowed operating temperature range.
		MAJORTEMPALARM RECOVER	4	Returned to allowed operating temperature range.
	TEMPERATURE_ALARM	MINORTEMPALARM	4	Exceeded normal operating temperature range.
		MINORTEMPALARM RECOVER	4	Returned to normal operating temperature range.
	VTT_FAILED	VTTFAILED	4	VTT %d failed.
		VTTOK	4	VTT %d operational.
	VTT_FAILED	VTTMAJFAILED	0	Too many VTT failures to continue system operation.
		VTTMAJ RECOVERED	2	Enough VTTs operational to continue system operation.
	CLOCK_FAILED	CLOCKFAILED	4	Clock failed.
		CLOCKOK	4	Clock operational.
	CLOCK_FAILED	CLOCKMAJFAILED	0	Too many clocks failed to continue system operation.
		CLOCKMAJRECOVERED	2	Enough clocks operational to continue system operation.
		SHUTDOWN-SCHEDULED	2	Shutdown for %s scheduled in %d seconds.
		SHUTDOWN_NOT_SCHEDULED	2	Major sensor alarm for %s is ignored, %s will not be shut down.
		SHUTDOWN-CANCELLED	2	Shutdown cancelled.
		SHUTDOWN	2	Shutdown %s now because of %s.
		SHUTDOWN-DISABLED	1	Need to shut down %s now but shutdown action is disabled.
		RESET_SCHEDULED	2	System reset scheduled in seconds.
		CLOCK_SWITCHOVER	2	Changing system switching clock.
		CLOCK_A_MISSING	4	Cannot detect clock A in the system.
		CLOCK_B_MISSING	4	Cannot detect clock B in the system.
		USE_RED_CLOCK	4	System is using the redundant clock (clock B).
		ENABLED	4	Power to module in slot %d set on.
		DISABLED	4	Power to module in slot %d set %s.

Table 60-3 Call Home Alert Groups, Events, and Actions (continued)

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
		PSOK	4	Power supply %d turned on.
	POWER_SUPPLY_FAILURE	PSFAIL	4	Power supply %d output failed.
		PSREDUNDANTMODE	4	Power supplies set to redundant mode.
		PSCOMBINEDMODE	4	Power supplies set to combined mode.
		PSREDUNDANTMISMATCH	4	Power supplies rated outputs do not match.
		PSMISMATCH	4	Power supplies rated outputs do not match.
		PSNOREDUNDANCY	4	Power supplies are not in full redundancy, power usage exceed lower capacity supply.
	POWER_SUPPLY_FAILURE	PSOCPSHUTDOWN	2	Power usage exceeds power supply %d allowable capacity.
		PSREDUNDANTONE SUPPLY	4	In power-redundancy mode, system is operating on one power supply.
		PSREDUNDANTBOTH SUPPLY	4	In power-redundancy mode, system is operating on both power supplies.
	POWER_SUPPLY_FAILURE	UNDERPOWERED	4	Insufficient power to operate all FRUs in system.
	POWER_SUPPLY_FAILURE	COULDNOTREPOWER	4	Wanted to repower FRU (slot %d) but could not.
	POWER_SUPPLY_FAILURE	POWERDENIED	4	Insufficient power, module in slot %d power denied.
		UNSUPPORTED	4	Unsupported module in slot %d, power not allowed: %s.
	POWER_SUPPLY_FAILURE	INSUFFICIENT POWER	2	Powering down all modules because there is not enough power to operate all critical cards.
		INPUTCHANGE	4	Power supply %d input has changed. Power capacity adjusted to %sW.
		PSINPUTDROP	4	Power supply %d input has dropped.

Table 60-3 Call Home Alert Groups, Events, and Actions (continued)

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
Inventory				Inventory status should be provided whenever a unit is cold-booted, or when FRUs are inserted or removed. This is considered a noncritical event, and the information is used for status and entitlement. (Sent to TAC.) CLI commands executed: remote command switch show version show diagbus show idprom all show install running (ION only) show inventory show module show version
	HARDWARE_INSERTION	INSPS	6	Power supply inserted in slot %d.
	HARDWARE_REMOVAL	REMPS	6	Power supply removed from slot %d.
	HARDWARE_REMOVAL	REMCARD	6	Card removed from slot %d, interfaces disabled.
		STDBY_REMCARD	6	The OIR facility on the standby supervisor engine was notified by the active supervisor engine that a processor from slot[n] has been removed.
	HARDWARE_INSERTION	INSCAR	6	Card inserted in slot %d, interfaces are now online.
		STDBY_INSCARD	6	The standby supervisor engine was notified, card online in slot %d.
		SEQ_MISMATCH	6	SCP sequence mismatch for card in slot %d : %s.
	HARDWARE_REMOVAL	UNKNOWN	3	Unknown card in slot %d, card is being disabled.
		STDBY_UNKNOWN	3	The standby supervisor engine was notified, Unknown card in slot %d.
	HARDWARE_REMOVAL	UNSUPPORTED	3	Card in slot %d is unsupported. %s.
		PWRCYCLE	3	Card in module %d, is being power-cycled %s.
		STDBY_PWRCYCLE	3	The standby supervisor engine was notified, Card in module %d is being power-cycled %s.
		CONSOLE	6	Changing console ownership to %s processor.
		RUNNING_CONFIG	6	During switchover, the OIR facility is unable to clean up running-config processor.
		DISALLOW	6	Supervisor engine attempting to come up as secondary in EHSA mode, will not be allowed.

Table 60-3 Call Home Alert Groups, Events, and Actions (continued)

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
	HARDWARE_REMOVAL	REMFAN	6	Fan %d removed.
	HARDWARE_INSERTION	INSFAN	6	Fan %d inserted.
	HARDWARE_INSERTION	PSINSERTED	4	Power supply inserted in slot %d.
Diagnostic				<p>Events related to standard or intelligent modules. (Sent to TAC.)</p> <p>CLI commands executed:</p> <p>remote command switch show version</p> <p>show buffers</p> <p>show diagnostic result module <slot#> detail</p> <p>show diagnostic result module all</p> <p>show install running (ION only)</p> <p>show inventory</p> <p>show logging</p> <p>show logging system last 100</p> <p>show module</p> <p>show version</p>
	DIAGNOSTIC_S_FAILURE	C2PLUSWITHNO DB	2	The module in slot %d has no forwarding daughter board. Power denied.
	DIAGNOSTIC_S_FAILURE	DFCMISMATCH	2	Module %d DFC incompatible with supervisor engine DFC. Power denied.
	DIAGNOSTIC_S_FAILURE	BADFLOWCTRL	2	Module %d not at an appropriate hardware revision level to support DFC. Power denied.
	DIAGNOSTIC_S_FAILURE	BADFLOWCTRL_WARN	2	WARNING: Module %d not at an appropriate hardware revision level to support DFC3.
	DIAGNOSTIC_S_FAILURE	BADPINN1	2	Module %d not at an appropriate hardware revision level to coexist with PFC3 system. Power denied.
	DIAGNOSTIC_S_FAILURE	FANUPGREQ	2	Module %d not supported without fan upgrade.
	DIAGNOSTIC_S_FAILURE	INSUFFCOO	4	Module %d cannot be adequately cooled.
	DIAGNOSTIC_S_FAILURE	PROVISION	6	Module %d does not meet the provisioning requirements, power denied.
	DIAGNOSTIC_S_FAILURE	PWRFAILURE	6	Module %d is being disabled due to power converter failure.
	DIAGNOSTIC_S_FAILURE	LC_FAILURE	3	Module %d has major online diagnostic failure, %s.
	DIAGNOSTIC_S_FAILURE	HARD_RESET	3	Module %d is being hard reset as a part of switchover error recovery.

Table 60-3 Call Home Alert Groups, Events, and Actions (continued)

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
	DIAGNOSTIC S_FAILURE	SOFT_RESET	3	Module %d is being soft reset as a part of switchover error recovery.
		DOWNGRADE	6	Fabric-capable module %d not at an appropriate hardware revision level, and can only run in flow-through mode.
		DIAG_OK		
		DIAG_BYPASS		
	DIAGNOSTIC S_FAILURE	DIAG_ERROR		
	DIAGNOSTIC S_FAILURE	DIAG_MINOR_ERROR		
	DIAGNOSTIC S_FAILURE	DIAG_MAJOR_ERROR		
		DIAG_LINE_CARD_NOT_PRESENT		
		DIAG_LINE_CARD_REMOVED		
		DIAG_INVALID_TEST_ID_RANGE		
		DIAG_INVALID_PORT_RANGE		
		DIAG_IS_BUSY		
		DIAG_IS_IDLE		
		DIAG_NO_SCHEDULE		
		DIAG_SCHEDULE_EXIST		
		DIAG_NO_TEST		
		DIAG_UNKNOWN		
		DIAG_NOT_AVAILABLE		
		DIAG_EXIT_ON_ERROR		
	DIAGNOSTIC S_FAILURE	DIAG_EXIT_ON_FAIL_LIMIT_REACHED		
		DIAG_INVALID_SCHEDULE		
		DIAG_PF_DIAG_NOT_SUPPORTED		
		DIAG_IS_STOPPED		

Table 60-3 Call Home Alert Groups, Events, and Actions (continued)

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
		DIAG_INVALID_DEV ICE_RANGE		
Configuration				User-generated request for configuration. (Sent to TAC.) CLI commands executed: remote command switch show version show install running (ION only) show module show running-config all show startup-config show version
Test		TEST		User-generated test message. (Sent to TAC.) CLI commands executed: show install running (ION only) show module show version

Message Contents

The following tables display the content formats of alert group messages:

- [Table 60-4](#) describes the content fields of a short text message.
- [Table 60-5](#) describes the content fields that are common to all long text and XML messages. The fields specific to a particular alert group message are inserted after the common fields.
- [Table 60-6](#) describes the content fields for reactive messages (system failures that require a TAC case) and proactive messages (issues that might result in degraded system performance).
- [Table 60-7](#) describes the content fields for an inventory message.

Table 60-4 Format for a Short Text Message

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

Table 60-5 Common Fields for All Long 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-DDTHH:MM:SS</i>	CallHome/EventTime
Message name	Name of message. Specific event names are listed in the “Alert Group Trigger Events and Commands” section on page 60-17.	(for short text message only)
Message type	Specifically Call Home.	CallHome/Event/Type
Message subtype	Specific type of message: full, delta, or test.	CallHome/Event/SubType
Message group	Specifically reactive or proactive.	(for long text message only)
Severity level	Severity level of message (see Table 60-1 on page 60-8).	Body/Block/Severity
Source ID	Product type for routing. Specifically Catalyst 6500.	(for long text message only)
Device ID	Unique device identifier (UDI) for end device generating message. This field should be empty if the message is nonspecific to a fabric switch. The format is <i>type@Sid@serial</i> . <ul style="list-style-type: none"> <i>type</i> is the product model number from backplane IDPROM. @ 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. Example: WS-C6509@C@12345678	CallHome/CustomerData/ContractData/DeviceId
Customer ID	Optional user-configurable field used for contract information or other ID by any support service.	CallHome/CustomerData/ContractData/CustomerId
Contract ID	Optional user-configurable field used for contract information or other ID by any support service.	CallHome/CustomerData/ContractData/ContractId
Site ID	Optional user-configurable field used for Cisco-supplied site ID or other data meaningful to alternate support service.	CallHome/CustomerData/ContractData/SiteId
Server ID	If the message is generated from the fabric switch, this is the unique device identifier (UDI) of the switch. The format is <i>type@Sid@serial</i> . <ul style="list-style-type: none"> <i>type</i> is the product model number from backplane IDPROM. @ 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. Example: WS-C6509@C@12345678	(for long text message only)
Message description	Short text describing the error.	CallHome/MessageDescription
Device name	Node that experienced the event. This is the host name of the device.	CallHome/CustomerData/SystemInfo/Name
Contact name	Name of person to contact for issues associated with the node experiencing the event.	CallHome/CustomerData/SystemInfo/Contact

Table 60-5 Common Fields for All Long Text and XML Messages (continued)

Data Item (Plain Text and XML)	Description (Plain Text and XML)	XML Tag (XML Only)
Contact e-mail	E-mail address of person identified as contact for this unit.	CallHome/CustomerData/SystemInfo/ContactEmail
Contact phone number	Phone number of the person identified as the contact for this unit.	CallHome/CustomerData/SystemInfo/ContactPhoneNumber
Street address	Optional field containing street address for RMA part shipments associated with this unit.	CallHome/CustomerData/SystemInfo/StreetAddress
Model name	Model name of the switch. This is the specific model as part of a product family name.	CallHome/Device/Cisco_Chassis/Model
Serial number	Chassis serial number of the unit.	CallHome/Device/Cisco_Chassis/SerialNumber
Chassis part number	Top assembly number of the chassis.	CallHome/Device/Cisco_Chassis/AdditionalInformation/AD@name="PartNumber"/
System Object ID	The System ObjectID that uniquely identifies the system.	CallHome/Device/Cisco_Chassis/AdditionalInformation/AD@name="sysObjectID"
SysDesc	System description for the managed element.	CallHome/Device/Cisco_Chassis/AdditionalInformation/AD@name="sysDescr"

The following fields may be repeated if multiple CLI commands are executed for this alert group.

Command output name	The exact name of the issued CLI command.	/aml/Attachments/Attachment/Name
Attachment type	Type (usually inline).	/aml/Attachments/Attachment@type
MIME type	Normally text/plain or encoding type.	/aml/attachments/attachment/Data@encoding
Command output text	Output of command automatically executed (see Table 60-3 on page 60-18).	/aml/attachments/attachment/atdata

Table 60-6 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.	CallHome/Device/Cisco_Chassis/HardwareVersion
Supervisor module software version	Top-level software version.	CallHome/Device/Cisco_Chassis/AdditionalInformation/AD@name="SoftwareVersion"

Table 60-6 Fields for a Reactive or Proactive Event Message (continued)

Data Item (Plain Text and XML)	Description (Plain Text and XML)	XML Tag (XML Only)
Affected FRU name	Name of the affected FRU generating the event message.	CallHome/Device/Cisco_Chassis/Cisco_Card/Model
Affected FRU serial number	Serial number of affected FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/SerialNumber
Affected FRU part number	Part number of affected FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/PartNumber
FRU slot	Slot number of FRU generating the event message.	CallHome/Device/Cisco_Chassis/Cisco_Card/ LocationWithinContainer
FRU hardware version	Hardware version of affected FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/HardwareVersion
FRU software version	Software version(s) running on affected FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/SoftwareIdentity/VersionString
Process name	Name of process.	/aml/body/process/name
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

Table 60-7 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 chassis.	CallHome/Device/Cisco_Chassis/HardwareVersion
Supervisor module software version	Top-level software version.	CallHome/Device/Cisco_Chassis/AdditionalInformation/ AD@name="SoftwareVersion"
FRU name	Name of the affected FRU generating the event message.	CallHome/Device/Cisco_Chassis/Cisco_Card/Model
FRU s/n	Serial number of FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/SerialNumber
FRU part number	Part number of FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/PartNumber
FRU slot	Slot number of FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/ LocationWithinContainer

Table 60-7 Fields for an Inventory Event Message (continued)

Data Item (Plain Text and XML)	Description (Plain Text and XML)	XML Tag (XML Only)
FRU hardware version	Hardware version of FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/HardwareVersion
FRU software version	Software version(s) running on FRU.	CallHome/Device/Cisco_Chassis/Cisco_Card/SoftwareIdentity/VersionString

Sample Syslog Alert Notification in Long-Text Format

```

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:2004-10-08T11:10:44
Message Name:SYSLOG_ALERT
Message Type:Syslog
Severity Level:2
System Name:10.76.100.177
Contact Name:User Name
Contact Email:admin@yourcompany.com
Contact Phone:+1 408 555-1212
Street Address:#1234 Picaboo Street, Any city, Any state, 12345
Event Description:2006 Oct 8 11:10:44 10.76.100.177 %PORT-5-IF_TRUNK_UP: %$VSAN 1%$
Interface fc2/5, vsan 1 is up

syslog_facility:PORT
start chassis information:
Affected Chassis:WS-C6509
Affected Chassis Serial Number:FG@07120011
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

```

From: example
Sent: Wednesday, April 25, 2007 7:20 AM
To: User (user)
Subject: System Notification From Router - syslog - 2007-04-25 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>2007-04-25 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:CallHome xmlns:ch="http://www.example.com/2005/05/callhome" version="1.0">
<ch:EventTime>2007-04-25 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>user@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>270 E. Tasman Drive, San Jose, CA</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="12.2(20070421:012711)" />
</rme:AdditionalInformation>
</rme:Chassis>

```

```

</ch:Device>
</ch:CallHome>
</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-Apr-07 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 switch

00:01:01: %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 region
00:03:07: %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-INSPS: Power supply inserted in slot 1
00:03:18: %C6KPWR-SP-4-PSOK: power supply 1 turned on.
00:03:18: %OIR-SP-6-INSPS: Power supply inserted in slot 2
00:01:09: %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 IOS Software, c6l2 Software (c6l2-SPDBG-VM), Experimental Version
12.2(20070421:012711)
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Thu 26-Apr-07 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-07 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-07 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 IOS Software, c6l2 Software (c6l2-SPDBG-VM), Experimental Version
12.2(20070421:012711)
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Thu 26-Apr-07 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 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-07 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>

```

**Tip**

For additional information about Cisco Catalyst 6500 Series Switches (including configuration examples and troubleshooting information), see the documents listed on this page:

http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html