



Configuring Smart Call Home

This chapter describes how to configure the Smart Call Home feature. This chapter includes the following sections:

- [Information About Call Home, page 25-1](#)
- [Prerequisites for Call Home, page 25-5](#)
- [Configuration Guidelines and Limitations, page 25-5](#)
- [Configuring Call Home, page 25-6](#)
- [Verifying Call Home Configuration, page 25-14](#)
- [Call Home Example Configuration, page 25-15](#)
- [Default Settings, page 25-15](#)
- [Additional References, page 25-15](#)

Information About Call Home

Call Home provides e-mail-based notification of critical system events. Nexus 5000 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.

This section includes the following topics:

- [Call Home Overview, page 25-1](#)
- [Destination Profiles, page 25-2](#)
- [Call Home Alert Groups, page 25-2](#)
- [Call Home Message Levels, page 25-4](#)
- [Obtaining Smart Call Home, page 25-5](#)

Call Home Overview

You can use Call Home to notify an external entity when an important event occurs on your device. Call Home delivers alerts to multiple recipients that you configure in *destination profiles* (see [“Destination Profiles”](#) section on page 25-2).

Send feedback to nx5000-docfeedback@cisco.com

Call Home includes a fixed set of predefined alerts on your switch. These alerts are grouped into alert groups and CLI commands to be assigned to execute when an alert in an alert group occurs. The switch includes the command output in the transmitted Call Home message. See the “[Call Home Alert Groups](#)” section on page 25-2 for a list of alerts and the predefined set of CLI commands sent when the alert triggers.

The Call Home feature offers the following advantages:

- Automatic execution and attachment of relevant CLI command output.
- Multiple message format options such as the following:
 - Short Text—Suitable for pagers or printed reports.
 - Full Text—Fully formatted message information suitable for human reading.
 - XML—Matching readable format that uses Extensible Markup Language (XML) and Adaptive Messaging Language (AML) XML schema definition (XSD). The AML XSD is published on the Cisco.com web site at <http://www.cisco.com/>. The XML format enables communication with the Cisco Systems Technical Assistance Center.
- Multiple concurrent message destinations. You can configure up to 50 e-mail destination addresses for each destination profile.

Destination Profiles

A destination profile includes the following information:

- One or more alert groups—The group of alerts that trigger a specific Call Home message if the alert occurs.
- One or more e-mail destinations—The list of recipients for the Call Home messages generated by alert groups assigned to this destination profile.
- Message format—The format for the Call Home message (short text, full text, or XML).
- Message severity level—The Call Home severity level that the alert must meet before the switch generates a Call Home message to all e-mail addresses in the destination profile. For more information about Call Home severity levels, see the “[Call Home Message Levels](#)” section on page 25-4. The Nexus 5000 Series switch does not generate an alert if the 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.

Nexus 5000 Series 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.

See the “[Message Formats](#)” section on page 25-16 for more information about the message formats.

Call Home Alert Groups

An alert group is a predefined subset of Call Home alerts that are supported in all Nexus 5000 Series switches. Alert groups allow you to select the set of Call Home alerts that you want to send to a predefined or custom destination profile. The switch sends Call Home alerts to e-mail destinations in a

Send feedback to nx5000-docfeedback@cisco.com

destination profile only if that Call Home alert belongs to one of the alert groups associated with that destination profile and if the alert has a Call Home message severity at or above the message severity set in the destination profile (see the “[Call Home Message Levels](#)” section on page 25-4).

Table 25-1 lists supported alert groups and the default CLI command output included in Call Home messages generated for the alert group.

Table 25-1 **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 module show version show tech-support platform callhome
Supervisor hardware	Events related to supervisor modules.	show diagnostic result module all detail show module show version show tech-support platform callhome
Linecard hardware	Events related to standard or intelligent switching modules.	show diagnostic result module all detail show module show 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 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
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

Send feedback to nx5000-docfeedback@cisco.com

Call Home maps the syslog severity level to the corresponding Call Home severity level for syslog port group messages (see the “[Call Home Message Levels](#)” section on page 25-4).

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

Call Home Message Levels

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 Call Home message level threshold. The switch does not generate any Call Home messages with a value lower than this threshold for the destination profile. The Call Home message level ranges from 0 (lowest level of urgency) to 9 (highest level of urgency), and the default is 0 (Nexus 5000 Series sends all messages).

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



Note

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

[Table 25-2](#) lists each Call Home message level keyword and the corresponding syslog level for the syslog port alert group.

Table 25-2 *Severity and syslog Level Mapping*

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.
4	Minor	Error (3)	Minor conditions.
3	Warning	Warning (4)	Warning conditions.
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.

Send feedback to nx5000-docfeedback@cisco.com

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 diagnostic 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 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 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 more information about Smart Call Home, see the Smart Call Home page at this location:

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

Prerequisites for Call Home

Call Home has the following prerequisites:

- You must configure an e-mail server.
- You must configure the contact name (SNMP server contact), phone, and street address information before you enable Call Home. This step is required to determine the origin of messages received.
- Your switch must have IP connectivity to an e-mail server.
- If you use Smart Call Home, you need an active service contract for the device that you are configuring.

Configuration Guidelines and Limitations

Call Home has the following configuration guidelines and limitations:

- If there is no IP connectivity or if the interface in the VRF to the profile destination is down, the switch cannot send the Call Home message.
- Operates with any SMTP server.

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

Configuring Call Home

This section includes the following topics:

- [Guidelines for Configuring Call Home, page 25-6](#)
- [Configuring Contact Information, page 25-6](#)
- [Creating a Destination Profile, page 25-8](#)
- [Modifying a Destination Profile, page 25-8](#)
- [Associating an Alert Group with a Destination Profile, page 25-9](#)
- [Adding show Commands to an Alert Group, page 25-10](#)
- [Configuring E-Mail, page 25-11](#)
- [Configuring Periodic Inventory Notification, page 25-12](#)
- [Disabling Duplicate Message Throttle, page 25-12](#)
- [Enabling or Disabling Call Home, page 25-12](#)
- [Testing Call Home Communications, page 25-13](#)

Guidelines for Configuring Call Home

To configure Call Home, perform this task:

-
- Step 1** Assign contact information.
- Step 2** Configure destination profiles.
- Step 3** Associate one or more alert groups to each profile.
- Step 4** (Optional) Add additional **show** commands to the alert groups.
- Step 5** Configure transport options.
- Step 6** Enable Call Home.
- Step 7** (Optional) Test Call Home messages.
-

Configuring Contact Information

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

To configure contact information, perform this task:

	Command	Purpose
Step 1	switch# configuration terminal	Enters configuration mode.
Step 2	switch(config)# snmp-server contact <i>sys-contact</i>	Configures the SNMP sysContact.

Send feedback to nx5000-docfeedback@cisco.com

	Command	Purpose
Step 3	switch(config)# callhome	Enters callhome configuration mode.
Step 4	switch(config-callhome)# email-contact <i>email-address</i>	Configures the e-mail address for the primary person responsible for the device. Up to 255 alphanumeric characters are accepted in e-mail address format. Note You can use any valid e-mail address. You cannot use spaces.
Step 5	switch(config-callhome)# phone-contact <i>international-phone-number</i>	Configures the phone number in international phone number format for the primary person responsible for the device. Up to 17 alphanumeric characters are accepted in international format. Note You cannot use spaces. Be sure to use the + prefix before the number.
Step 6	switch(config-callhome)# streetaddress <i>address</i>	Configures the street address as an alphanumeric string with white paces for the primary person responsible for the device. Up to 255 alphanumeric characters are accepted, including spaces.
Step 7	switch(config-callhome)# contract-id <i>contract-number</i>	(Optional) Configures the contract number for this device from the service agreement. The contract number can be up to 255 alphanumeric characters in free format.
Step 8	switch(config-callhome)# customer-id <i>customer-number</i>	(Optional) Configures the customer number for this device from the service agreement. The customer number can be up to 255 alphanumeric characters in free format.
Step 9	switch(config-callhome)# site-id <i>site-number</i>	(Optional) Configures the site number for this device. The site number can be up to 255 alphanumeric characters in free format.
Step 10	switch(config-callhome)# switch-priority <i>number</i>	(Optional) Configures the switch priority for this device. The range is from 0 to 7, with 0 being the highest priority and 7 the lowest. The default is 7.
Step 11	switch(config-callhome)# show callhome	(Optional) Displays a summary of the Call Home configuration.
Step 12	switch(config)# copy running-config startup-config	(Optional) Saves this configuration change.

This 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 admin@Mycompany.com
switch(config-callhome)# phone-contact +1-800-123-4567
switch(config-callhome)# street-address 123 Anystreet st. Anytown,AnyWhere
```

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

Creating a Destination Profile

To create a user-defined destination profile and configure the message format for that new destination profile, perform this task:

	Command	Purpose
Step 1	switch# configuration terminal	Enters configuration mode.
Step 2	switch(config)# callhome	Enters callhome configuration mode.
Step 3	switch(config-callhome)# destination-profile name format {XML full-txt short-txt}	Creates a new destination profile and sets the message format for the profile. The name can be any alphanumeric string up to 31 characters.
Step 4	switch(config-callhome)# show callhome destination-profile [profile name]	(Optional) Displays information about one or more destination profiles.
Step 5	switch(config)# copy running-config startup-config	(Optional) Saves this configuration change.

This example shows how to create a destination profile for 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.

See the [“Associating an Alert Group with a Destination Profile”](#) section on page 25-9 for information on configuring an alert group for a destination profile.



Note

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

Send feedback to nx5000-docfeedback@cisco.com

To modify the attributes for a destination profile, perform this task:

	Command	Purpose
Step 1	switch# configuration terminal	Enters configuration mode.
Step 2	switch(config)# callhome	Enters callhome 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. Tip 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> Example: destination-profile full-txt-destination message-level 5	Configures the Call Home message severity level for this destination profile. The switch sends only alerts that have a matching or higher Call Home severity level to destinations in this profile. The range is from 0 to 9, where 9 is the highest severity level.
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 4000000. The default is 4000000.
Step 6	switch(config-callhome)# show callhome destination-profile [<i>profile name</i>]	(Optional) Displays information about one or more destination profiles.
Step 7	switch(config)# copy running-config startup-config	(Optional) Saves this configuration change.

This example shows how to modify a destination profile for Call Home:

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

Associating an Alert Group with a Destination Profile

To associate one or more alert groups with a destination profile, perform this task:

	Command	Purpose
Step 1	switch# configuration terminal	Enters configuration mode.
Step 2	switch(config)# callhome	Enters callhome configuration mode.

Send feedback to nx5000-docfeedback@cisco.com

	Command	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	switch(config-callhome)# show callhome destination-profile [profile <i>name</i>]	(Optional) Displays information about one or more destination profiles.
Step 5	switch(config)# copy running-config startup-config	(Optional) Saves this configuration change.

This 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
```

Adding show Commands to an Alert Group

To assign a maximum of five user-defined CLI **show** commands to an alert group, perform this task:



Note

You cannot add user-defined CLI **show** commands to the CiscoTAC-1 destination profile.

	Command	Purpose
Step 1	switch# configuration terminal	Enters configuration mode.
Step 2	switch(config)# callhome	Enters callhome configuration mode.
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. You must enclose the show command in double quotes. Only valid show commands are accepted.
Step 4	switch(config-callhome)# show callhome user-def-cmds	(Optional) Displays information about all user-defined show commands added to alert groups.
Step 5	switch(config)# copy running-config startup-config	(Optional) Saves this configuration change.

Send feedback to nx5000-docfeedback@cisco.com

This 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"
```

Configuring E-Mail

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

To configure e-mail, perform this task:

	Command	Purpose
Step 1	switch# configuration terminal	Enters configuration mode.
Step 2	switch(config)# callhome	Enters callhome 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. Optionally configures the port number. The port ranges is from 1 to 65535. The default port number is 25. Also optionally configures the VRF to use when communicating with this SMTP server.
Step 4	switch(config-callhome)# transport email from email-address	(Optional) Configures the e-mail from field for Call Home messages.
Step 5	switch(config-callhome)# transport email reply-to email-address	(Optional) Configures the e-mail reply-to field for Call Home messages.
Step 6	switch(config-callhome)# show callhome transport-email	(Optional) Displays information about the e-mail configuration for Call Home.
Step 7	switch(config)# copy running-config startup-config	(Optional) Saves this configuration change.

This example shows how to configure the e-mail options for 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@company.com
switch(config-callhome)# transport email reply-to person@company.com
```

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

Configuring Periodic Inventory Notification

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

To configure periodic inventory notification, perform this task:

	Command	Purpose
Step 1	switch# configuration terminal	Enters configuration mode.
Step 2	switch(config)# callhome	Enters callhome configuration mode.
Step 3	switch(config-callhome)# periodic-inventory notification [interval days][timeofday time]	Configures the periodic inventory messages. The interval range is from 1 to 30 days. The default is 7. The timeofday value is in HH:MM format.
Step 4	switch(config-callhome)# show callhome	(Optional) Displays information about Call Home.
Step 5	switch(config)# copy running-config startup-config	(Optional) Saves this configuration change.

This 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
```

Disabling Duplicate Message Throttle

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, then the switch discards further messages for that alert type.

To disable duplicate message throttling in Call Home configuration mode, perform this task:

Command	Purpose
switch(config-callhome)# no duplicate-message throttle	Disables duplicate message throttling for Call Home. Enabled by default.

Enabling or Disabling Call Home

Once you have configured the contact information, you can enable the Call Home function.

To enable Call Home in Call Home configuration mode, perform this task:

Send feedback to nx5000-docfeedback@cisco.com

Command	Purpose
<code>switch(config-callhome)# enable</code>	Enables Call Home. Disabled by default.

To disable Call Home in the Call Home configuration mode, perform this task:

Command	Purpose
<code>switch(config-callhome)# no enable</code>	Disables Call Home. Disabled by default

To enable Call Home distribution using CFS in the Call Home configuration mode, perform this task:

Command	Purpose
<code>switch(config-callhome)# distribute</code>	Enables Call Home distribution using CFS. Disabled by default.

To commit Call Home configuration changes and distribute using CFS in the Call Home configuration mode, perform this task:

Command	Purpose
<code>switch(config-callhome)# commit</code>	Commits Call Home configuration changes and distributes the changes to call CFS-enabled devices.

To discard Call Home configuration changes and release the CFS lock in Call Home configuration mode, perform this task:

Command	Purpose
<code>switch(config-callhome)# abort</code>	Discards Call Home configuration changes and releases the CFS lock. Use this command if you are the CFS lock owner or if you are logged into the device that holds the CFS lock

To release the CFS lock and discard Call Home configuration changes, perform this task:

Testing Call Home Communications

You can generate a test message to test your Call Home communications.

To generate a test Call Home message, perform this task:

Send feedback to nx5000-docfeedback@cisco.com

Command	Purpose
<code>switch(config-callhome)# callhome send diagnostic</code>	Sends the specified Call Home test message to all configured destinations.
<code>switch(config-callhome)# callhome test</code>	Sends a test message to all configured destinations. callhome test and callhome test inventory commands are supported.
<code>switch(config-callhome)# callhome test inventory</code>	[Optional]

Verifying Call Home Configuration

To display Call Home configuration information, perform one of the following tasks:

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

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

Call Home Example Configuration

The following example uses CFS to create a destination profile called Noc101, associate the Cisco-TAC alert group to that profile, configure contact and e-mail information, and distribute those changes to all CFS-enabled devices.

```
configure terminal
snmp-server contact person@company.com
callhome
  distribute
  email-contact admin@Mycompany.com
  phone-contact +1-800-123-4567
  street-address 123 Anystreet st. Anytown,AnyWhere
  destination-profile Noc101 full-text
  destination-profile full-text-destination email-addr person@company.com
  destination-profile full-text-destination message-level 5
  destination-profile Noc101 alert-group Configuration
  alert-group Configuration user-def-cmd "show ip routing"
  transport email smtp-server 192.0.2.10 use-vrf Red
enable
commit
```

Default Settings

Table 25-3 lists the default settings for Call Home parameters.

Table 25-3 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
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)

Additional References

For additional information related to implementing Call Home, see the following sections:

- [Message Formats, page 25-16](#)
- [Sample syslog Alert Notification in Full-Text Format, page 25-19](#)
- [Sample syslog Alert Notification in XML Format, page 25-19](#)

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

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](#)

[Table 25-4](#) describes the short text formatting option for all message types.

Table 25-4 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 system message

[Table 25-6](#) describes the common event message format for full text or XML.

Table 25-5 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 GMT+HH:MM.</i>	/aml/header/time
Message name	Name of message. Specific event names are listed in the Table 25-4 .	/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 (see “ Call Home Message Levels ” section on page 25-4).	/aml/header/level
Source ID	Product type for routing. Specifically Catalyst 6500.	/aml/header/source
Device ID	Unique device identifier (UDI) for 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> . <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. An example is WS-C6509@C@12345678	/aml/ header/deviceId
Customer ID	Optional user-configurable field used for contract information or other ID by any support service.	/aml/ header/customerID

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

Table 25-5 Common Fields for All Full Text and XML Messages (continued)

Data Item (Plain Text and XML)	Description (Plain Text and XML)	XML Tag (XML Only)
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
Server ID	If the message is generated from the device, this is the unique device identifier (UDI) of the device. 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. <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. An example is WS-C6509@C@12345678	/aml/header/serverId
Message description	Short text that describes the error.	/aml/body/msgDesc
Device name	Node that experienced the event (host name 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.

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 (see “Call Home Alert Groups” section on page 25-2).	/aml/attachments/attachment/atdata

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

Table 25-6 describes the reactive event message format for full text or XML.

Table 25-6 *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

Table 25-7 describes the inventory event message format for full text or XML.

Table 25-7 *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
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

Table 25-8 describes the user-generated test message format for full text or XML.

[Send feedback to nx5000-docfeedback@cisco.com](mailto:nx5000-docfeedback@cisco.com)

Table 25-8 *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

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-C6509C@FG@07120011
Customer Id:Example.com
Contract Id:123
Site Id:San Jose
Server Id:WS-C6509C@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: %$VLAN 1%$
Interface e2/5, vlan 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

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

```

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">

```

Send feedback to nx5000-docfeedback@cisco.com

```

<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:Call Home 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>

```

Send feedback to nx5000-docfeedback@cisco.com

```

<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-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-INSPTS: Power supply inserted in slot 1
00:03:18: %C6KPWR-SP-4-PSOK: power supply 1 turned on.
00:03:18: %OIR-SP-6-INSPTS: 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.

```

Send feedback to nx5000-docfeedback@cisco.com

```

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-FANHIOUPTUT: 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, c6lc2 Software (c6lc2-SPDBG-VM), Experimental Version
4.0(20080421:012711)
Copyright (c) 1986-2008 by Cisco Systems, Inc.
Compiled Thu 26-Apr-08 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, c6lc2 Software (c6lc2-SPDBG-VM), Experimental Version
4.0(20080421:012711)
Copyright (c) 1986-2008 by Cisco Systems, Inc.
Compiled Thu 26-Apr-08 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-Apr-08 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

```

Send feedback to nx5000-docfeedback@cisco.com

```
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>
```

Send feedback to nx5000-docfeedback@cisco.com