CHAPTER 19

Configuring Call Home

Call Home provides e-mail-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, and utilization of Cisco AutoNotify services for direct case generation with the Technical Assistance Center.

This chapter provides configuration and messaging details on the Call Home feature. It includes the following sections:

Call Home Features

The Call Home functionality is available directly through the Cisco MDS 9000 Family. It provides multiple Call Home profiles, each with separate potential destinations.

The Call Home function can even leverage support from Cisco Systems or another support partner. Flexible message delivery and format options make it easy to integrate specific support requirements.

The Call Home feature offers the following advantages:

- Fixed set of predefined alerts and trigger events on the switch.
- Automatic execution and attachment of relevant command output.
- Multiple message format options:
  - Short Text—Suitable for pagers or printed reports.
  - Plain Text—Full formatted message information suitable for human reading.
  - XML—Matching readable format using Extensible Markup Language (XML) and Document Type Definitions (DTDs) named Messaging Markup Language (MML). The MML DTD is published on the Cisco Connection Online (CCO) website at http://www.cisco.com/. The XML format enables communication with the Cisco Systems TAC group.
- Multiple concurrent message destinations. Up to 50 E-mail destination addresses are allowed for each format type.
- Message categories include system, environment, switching module hardware, supervisor module, hardware, inventory, and test.

Call Home Configuration Process

The actual configuration of Call Home depends on how you intend to use the feature. Some points to consider include:

- E-mail server and at least one destination profile must be configured. The destination profile(s) used depends on whether the receiving entity is a pager, email, or automated service such as Cisco AutoNotify.
- The contact name (SNMP server contact), phone, and street address information must be configured before Call Home is enabled. This is required to determine the origin of messages received.
- The Cisco MDS 9000 switch must have IP connectivity to an E-mail server for the feature to operate.
- If Cisco AutoNotify is used, an active service contract must cover the device being configured.

To configure Call Home, follow these steps:

Step 1 Configure the Call Home function (see the "Configuring the Call Home Function" section on page 19-3).

Step 2 Assign contact information (see the "Assigning Contact Information" section on page 19-4).

Step 3 Configure destination profiles (see the "Configuring Destination Profiles" section on page 19-5).

Step 4 Enable or disable Call Home (see the "Enabling or Disabling Call Home" section on page 19-7).

Step 5 Test Call Home messages (see the "Testing Call Home Communication" section on page 19-8).

Cisco AutoNotify

For those who have service contracts directly with Cisco Systems, automatic case generation with the Technical Assistance Center is possible through registration with the AutoNotify service. AutoNotify provides fast time to resolution of system problems by providing a direct notification path to Cisco customer support. To register, the following items are required:

- The SMARTnet contract number covering your MDS 9000 family switch.
- Your name, company address, your email address, and your CCO ID.
- The serial number of your Cisco MDS 9000 Family switch. This can be obtained by looking at the serial number label on the back of the switch (next to the power supply), or by executing the operating system **show sprom backplane 1** command.
- The exact product number of your Cisco MDS 9000 Family switch. This can be obtained by executing the same operating system command as above. For example, some valid product numbers include: DS-C6509 and DS-C9216-K9

To configure a Cisco MDS 9000 Family switch to use AutoNotify service, an XML destination profile must be configured to send messages to Cisco. Specific setup, activation, and email address information is found on the Cisco.com web site at:
http://www.cisco.com/warp/customer/cc/serv/mkt/sup/tsssv/opmsup/smton/anoti_ds.htm

Note The AutoNotify feature requires several Call Home parameters to be configured, including certain contact information, email server, and an XML destination profile as specified in the Service Activation document (http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/3_3/service/serv332/ccmsrvs/sssrvact.htm). The **contract-id**, **customer-id**, **site-id**, and **switch-priority** parameters are not required by the AutoNotify feature. They are only intended to be used as additional information by Cisco customers and service partners.

Configuring the Call Home Function

To enter the Call Home submode, follow these steps:

	Command	Purpose
Step 1	`switch# config t`	Enters configuration mode.
Step 2	`switch(config)# callhome` `switch(config-callhome)#`	Enters Call Home submode.

Step 3	`switch(config-callhome)# ?`
	`  contract-id  Service contract id of the customer`
	`  customer-id  Customer id`
	`  destination-profile  Configure destination profiles`
	`  disable  Disable callhome`
	`  email-contact  Email address of the contact person`
	`  enable  Enable callhome`
	`  exit  Exit from this submode`
	`  no  Negate a command or set its defaults`
	`  phone-contact  Contact person's phone number`
	`  site-id  Site id of the network where switch is deployed`
	`  streetaddress  Configure replacement part shipping address.`
	`  switch-priority  Priority of the switch(0-highest 7-lowest)`
	`  transport  Configure transport related configuration`
		Displays the options available at this prompt.

Assigning Contact Information

It is mandatory for each switch to include e-mail, phone, and street address information. It's optional to include the contract ID, customer ID, site ID, and switch priority information.

To assign the contact information, follow these steps:

	Command	Purpose
Step 1	`switch# config t`	Enters configuration mode.
Step 2	`switch# snmp-server contact personname@companyname.com`	Configures the SNMP contact e-mail address to receive a test message reply from Cisco.
Step 3	`switch(config)# callhome` `switch(config-callhome)#`	Enters the Call Home submode.

Step 4	`switch(config-callhome)# email-contact username@company.com`
	`successfully updated the information`
	`switch(config-callhome)#`
		Assigns the customer's e-mail address. Up to 128 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 +1-800-123-4567`
	`successfully updated the information`
	`switch(config-callhome)#`
		Assigns the customer's phone number. Up to 20 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 1234 Picaboo Street, Any city, Any state, 12345`
	`successfully updated the information`
	`switch(config-callhome)#`
		Assigns the customer's street address where the equipment is located. Up to 256 alphanumeric characters are accepted in free format.

Step 7	`switch(config-callhome)# switch-priority 0`
	`successfully updated the information`
	`switch(config-callhome)#`
		Assigns the switch priority, with 0 being the highest priority and 7 the lowest.
		Tip Use this field to create a hierarchical management structure.

Step 8	`switch(config-callhome)# customer-id Customer1234`
	`successfully updated the information`
	`switch(config-callhome)#`
		Optional. Identifies the customer ID. Up to 256 alphanumeric characters are accepted in free format.

Step 9	`switch(config-callhome)# site-id Site1ManhattanNY`
	`successfully updated the information`
	`switch(config-callhome)#`
		Optional. Identifies the customer site ID. Up to 256 alphanumeric characters are accepted in free format.

Step 10	`switch(config-callhome)# contract-id Company1234`
	`successfully updated the information`
	`switch(config-callhome)#`
		Assigns the customer ID for the switch. Up to 64 alphanumeric characters are accepted in free format.

Configuring Destination Profiles

A destination profile contains the required delivery information for an alert notification. Destination profiles are typically configured by the network administrator. At least one destination profile is required. You can configure multiple destination profiles of one or more types.

Note If you use the Cisco AutoNotify service, the XML destination profile is required (see http://www.cisco.com/warp/customer/cc/serv/mkt/sup/tsssv/opmsup/smton/anoti_ds.htm).

- Profile ID—A text string that uniquely identifies three predefined destination profile formats: full text, short text, and XML.
- 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).

To configure destination profile messaging options, follow these steps:

	Command	Purpose
Step 1	`switch# config t`	Enters configuration mode.
Step 2	`switch(config)# callhome` `switch(config-callhome)#`	Enters the Call Home submode.

Step 3	`switch(config-callhome)# destination-profile full-txt-destination email-addr person@place.com`
	`successfully updated the information`
	`switch(config-callhome)#`
		Configures a destination e-mail address for a message sent in full text format. This text provides the complete, detailed explanation of the failure.
		Tip Use a standard e-mail address that does not have any text size restrictions.

	`switch(config-callhome)# destination-profile full-txt-destination message-size 1000000`
	`successfully updated the information`
	`switch(config-callhome)#`
		Configures a destination message size for a message sent in full text format. The valid range is 0 to 1,000,000 bytes and the default is 500,000. A value of 0 implies that a message of any size can be sent.

Step 4	`switch(config-callhome)# destination-profile short-txt-destination email-addr person@place.com`
	`successfully updated the information`
	`switch(config-callhome)#`
		Configures a destination e-mail address for a message sent in short text format. This text provides the basic explanation of the failure.
		Tip Use a pager-related e-mail address for this option.

	`switch(config-callhome)# destination-profile short-txt-destination message-size 100000` `successfully updated the information`	Configures a destination message size for a message sent in short text format. The valid range is 0 to 1,000,000 bytes and the default is 4000. A value of 0 implies that a message of any size can be sent.

	Command	Purpose

Step 5	`switch(config-callhome)# **destination-profile XML-destination email-addr findout@.cisco.com**`
	`successfully updated the information`
	`switch(config-callhome)#`
		Configures a destination e-mail address for a message sent in XML format. This option provides the full information that is compatible with Cisco Systems TAC support.
		Tip Do not add a pager-related e-mail address to this destination profile because of the large message size.

	`switch(config-callhome)# **destination-profile XML-destination message-size 100000**` `successfully updated the information`	Configures a destination message size for a message sent in XML format. The valid range is 0 to 1,000,000 bytes and the default is 500,000. A value of 0 implies that a message of any size can be sent.

Note Steps 3, 4, and 5 in this procedure can be skipped or configured in any order.

Configuring E-Mail Options

You can configure the from, reply-to, and return-receipt e-mail addresses. While most e-mail address configurations are optional, you must ensure to configure the SMTP server address and port number for the Call Home functionality to work.

Configuring General E-Mail Option

To configure general e-mail options, follow these steps:

	Command	Purpose
Step 1	`switch# **config t**`	Enters configuration mode.
Step 2	`switch(config)# **callhome**` `switch(config-callhome)#`	Enters Call Home submode.

Step 3	`switch(config-callhome)# **transport email from user@company1.com**`
	`successfully updated the information`
	`switch(config-callhome)#`
		Optional. Configures the from e-mail address.

Step 4	`switch(config-callhome)# **transport email reply-to person@place.com**`
	`successfully updated the information`
	`switch(config-callhome)#`
		Optional. Configures the reply-to e-mail address to which all responses should be sent.

Configuring SMTP Server and Ports

To configure the SMTP server and port, follow these steps:

	Command	Purpose
Step 1	`switch# config t`	Enters configuration mode.
Step 2	`switch(config)# callhome` `switch(config-callhome)#`	Enters Call Home submode.

Step 3	`switch(config-callhome)# transport email smtp-server 192.168.1.1`
	`successfully updated the information`
	`switch(config-callhome)#`
		Configures the DNS or IP address of the SMTP server to reach the server. The port usage defaults to 25 if no port is specified.
		Note The port number is optional and, if required, may be changed depending on the server location.

	`switch(config-callhome)# transport email smtp-server 192.168.1.1 port 30`
	`successfully updated the information`
	`switch(config-callhome)#`	

Enabling or Disabling Call Home

Once you have configured the contact information, you must enable the Call Home function. The **enable** command is required for the Call Home function to start operating.

To enable the Call Home function, follow these steps:

	Command	Purpose
Step 1	`switch# config t`	Enters configuration mode.
Step 2	`switch(config)# callhome` `switch(config-callhome)#`	Enters Call Home submode.

Step 3	`switch(config-callhome)# enable`
	`callhome enabled successfully`
	`switch(config-callhome)#`
		Enables the Call Home function.

	`switch(config-callhome)# disable` `switch(config-callhome)#`	Disables the Call Home function. When you disable the Call Home function, all input events are ignored. **Note** Even if Call Home is disabled, basic information for each Call Home event is sent to syslog.

Testing Call Home Communication

You can simulate a message generation by issuing a **test** command.

To test the Call Home function, follow these steps:

	Command	Purpose

Step 1	`switch# callhome test`
	`trying to send test callhome message`
	`successfully sent test callhome message`
	`switch#`
		Sends a test message to the configured destination(s).

Step 2	`switch# callhome test inventory`
	`trying to send test callhome message`
	`successfully sent test callhome message`
	`switch#`
		Sends a test inventory message to the configured destination(s).

Displaying Call Home Information

Use the **show callhome** command to display the configured Call Home information (see Examples 19-1 to 19-6).

Example 19-1 Displays Configured Call Home Information

```
switch# show callhome
callhome enabled
Callhome Information:
contact person name:who@where
contact person's email:person@place.com
contact person's phone number:310-408-4000
street addr:1234 Picaboo Street, Any city, Any state, 12345
site id:Site1ManhattanNewYork
customer id:Customer1234
contract id:Andiamo1234
switch priority:0
```

Example 19-2 Displays Destination Profile Information

```
switch# show callhome destination-profile
XML destination profile information
maximum message size:250000
email addresses configured:
findout@.cisco.com

Short-txt destination profile information
maximum message size:4000
email addresses configured:
person1@epage.company.com

full-txt destination profile information
maximum message size:250000
email addresses configured:
person2@company2.com
```

Example 19-3 Displays the Full-Text Profile

```
switch# show callhome destination-profile profile full-txt-destination
full-txt destination profile information
```

```
maximum message size:250000
email addresses configured:
person2@company2.com
```

Example 19-4 Displays the Short-Text Profile

```
switch# show callhome destination-profile profile short-txt-destination
Short-txt destination profile information
maximum message size:4000
email addresses configured:
person2@company2.com
```

Example 19-5 Displays the XML Destination Profile

```
switch# show callhome destination-profile profile XML-destination
XML destination profile information
maximum message size:250000
email addresses configured:
findout@.cisco.com
```

Example 19-6 Displays E-mail and SMTP Information

```
switch# show callhome transport-email
from email addr:user@company1.com
reply to email addr:pointer@company.com
return receipt email addr:user@company1.com
smtp server:server.company.com
smtp server port:25
```

Default Settings

Table 19-1 lists the default Call Home default settings.

Table 19-1 Default Call Home Settings

Parameters	Default
Destination message size for a message sent in full text format.	500,000
Destination message size for a message sent in XML format.	500,000
Destination message size for a message sent in short text format.	4,000
DNS or IP address of the SMTP server to reach the server if no port is specified.	25

Event Triggers

This section discusses Call Home trigger events. Trigger events are divided into categories, with each category assigned commands to execute when the event occurs. The command output is included in the transmitted message. Table 19-2 lists the trigger events. Table 19-3 lists event categories and command outputs.

Table 19-2 Event Triggers

Event	Type	Event Name	Description	Severity Level
Call Home	System	SW_CRASH_STATELESS_RESTART	Software process crashed with a disruptive restart indicating an interruption of a service.	5
	Environmental	TEMPERATURE_ALARM	Thermal sensor indicates temperature reached operating threshold.	6
		POWER_SUPPLY_FAILURE	Power supply failed.	6
		FAN_FAILURE	Cooling fan has failed.	5
	Switching module	LINECARD_FAILURE	Switching module operation failed.	7
		POWER_UP_DIAGNOSTICS_FAILURE	Switching module failed power up diagnostics.	7
	Supervisor module	SUP_FAILURE	Supervisor module operation failed.	7
		POWER_UP_DIAGNOSTICS_FAILURE	Supervisor module failed power up diagnostics.	7
Inventory	Inventory	COLD_BOOT	Switch is powered up and reset to a cold boot sequence.	2
		HARDWARE_INSERTION	New piece of hardware inserted into the chassis.	2
		HARDWARE_REMOVAL	Hardware removed from the chassis.	2
Test	Test	TEST	User generated test.	2

Table 19-3 Event Categories and Command Outputs

Event Category	Description	Executed Commands
System	Events generated by failure of a software system that is critical to unit operation.	**show tech-support** **show system redundancy status**
Environmental	Events related to power, fan, and environment sensing elements such as temperature alarms.	**show module** **show environment**

Table 19-3 Event Categories and Command Outputs (continued)

Event Category	Description	Executed Commands
Switching module hardware	Events related to standard or intelligent switching modules.	**show tech-support**
Supervisor hardware	Events related to supervisor modules.	**show tech-support**
Inventory	Inventory status is 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.	**show version**
Test	User generated test message.	**show version**

Call Home Message Severity Levels

This section discusses the severity levels for a Call Home message when using one or more switches in the Cisco MDS 9000 Family. Severity levels are preassigned per event type.

Note Call Home severity levels are not the same as system message logging severity levels (see Chapter 22, "Configuring System Message Logging").

Severity levels range from 0 to 9, with 9 having the highest urgency. Each severity level has keywords as listed in Table 19-4.

Table 19-4 Severity Levels

Severity Level	Keyword	Description
9	Catastrophic	Network wide catastrophic failure.
8	Disaster	Significant network impact.
7	Fatal	System is unusable.
6	Critical	Critical conditions, immediate attention needed.
5	Major	Major conditions.
4	Minor	Minor conditions.
3	Warning	Warning conditions.
2	Notification	Basic notification and informational messages. Possibly independently insignificant.
1	Normal	Normal event signifying return to normal state.
0	Debugging	Debugging messages.

Message Contents

The following contact information can be configured on the switch:

- Name of the contact person
- Phone number of the contact person
- E-mail address of the contact person
- Mailing address to which replacement parts must be shipped, if required
- Site ID of the network where the site is deployed
- Contract ID to identify the service contract of the customer with the service provider

Table 19-5 describes the short text formatting option for all message types.

Table 19-5 Short Text Messages

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 syslog message

Table 19-6, Table 19-7, and Table 19-8 display the information contained in plain text and XML messages.

Table 19-6 Reactive Event Message Format

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: *YYYY-MM-DD*T*HH:MM:SS*. **Note** The time zone or daylight savings time (DST) offset from UTC has already been added or subtracted. T is the hardcoded limiter for the time.	/mml/header/time
Message name	Name of message. Specific event names are listed in the "Event Triggers" section on page 19-10.	/mml/header/name
Message type	Specifically "Call Home".	/mml/header/type
Message group	Specifically "reactive".	/mml/header/group
Severity level	Severity level of message (see Table 19-4).	/mml/header/level
Source ID	Product type for routing.	/mml/header/source

Table 19-6 Reactive Event Message Format (continued)

Data Item (Plain text and XML)	Description (Plain text and XML)	XML Tag (XML only)
Device ID	Unique device identifier (UDI) for end device generating message. This field should empty if the message is non-specific to a fabric switch. Format: type@Sid@serial, where • Type is the product model number from backplane SEEPROM. • @ is a separator character. • Sid is "C" identifying serial ID as a chassis serial number· • Serial number as identified by the Sid field. Example: "DS-C9000@C@12345678	/mml/ header/deviceId
Customer ID	Optional user-configurable field used for contract info or other ID by any support service.	/mml/ header/customerID
Contract ID	Optional user-configurable field used for contract info or other ID by any support service.	/mml/ header /contractId
Site ID	Optional user-configurable field used for Cisco-supplied site ID or other data meaningful to alternate support service.	/mml/ header/siteId
Server ID	If the message is generated from the fabric switch, it is the unique device identifier (UDI) of the switch. Format: type@Sid@serial, where • Type is the product model number from backplane SEEPROM. • @ is a separator character. • Sid is "C" identifying serial ID as a chassis serial number· • Serial number as identified by the Sid field. Example: "DS-C9000@C@12345678	/mml/header/serverId
Message description	Short text describing the error.	/mml/body/msgDesc
Device name	Node that experienced the event. This is the host name of the device.	/mml/body/sysName
Contact name	Name of person to contact for issues associated with the node experiencing the event.	/mml/body/sysContact
Contact e-mail	E-mail address of person identified as contact for this unit.	/mml/body/sysContactEmail
Contact phone number	Phone number of the person identified as the contact for this unit.	/mml/body/sysContactPhone Number
Street address	Optional field containing street address for RMA part shipments associated with this unit.	/mml/body/sysStreetAddress
Model name	Model name of the switch. This is the specific model as part of a product family name.	/mml/body/chassis/name
Serial number	Chassis serial number of the unit.	/mml/body/chassis/serialNo
Chassis part number	Top assembly number of the chassis.	/mml/body/chassis/partNo
Chassis hardware version	Hardware version of chassis.	/mml/body/chassis/hwVersion

Table 19-6 Reactive Event Message Format (continued)

Data Item (Plain text and XML)	Description (Plain text and XML)	XML Tag (XML only)
Supervisor module software version	Top level software version.	/mml/body/chassis/swVersion
Affected FRU name	Name of the affected FRU generating the event message.	/mml/body/fru/name
Affected FRU serial number	Serial number of affected FRU.	/mml/body/fru/serialNo
Affected FRU part number	Part number of affected FRU.	/mml/body/fru/partNo
FRU slot	Slot number of FRU generating the event message.	/mml/body/fru/slot
FRU hardware version	Hardware version of affected FRU.	/mml/body/fru/hwVersion
FRU software version	Software version(s) running on affected FRU.	/mml/body/fru/swVersion
Command output name	Exact command that was run. For example, **show running-config** command.	/mml/attachments/attachment/name
Attachment type	Specifically command output.	/mml/attachments/attachment/type
MIME type	Normally text or plain or encoding type.	/mml/attachments/attachment/mime
Command output text	Output of command automatically executed (see Table 19-3).	/mml/attachments/attachment/atdata

Table 19-7 Inventory Event Message Format

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: *YYYY-MM-DDTHH:MM:SS*. **Note** The time zone or daylight savings time (DST) offset from UTC has already been added or subtracted. T is the hardcoded limiter for the time.	/mml/header/time
Message name	Name of message. Specifically “Inventory Update” Specific event names are listed in the “Event Triggers” section on page 19-10.	/mml/header/name
Message type	Specifically “Inventory Update”.	/mml/header/type
Message group	Specifically “proactive”.	/mml/header/group
Severity level	Severity level of inventory event is level 2 (seeTable 19-4).	/mml/header/level
Source ID	Product type for routing at Cisco. Specifically “MDS 9000”	/mml/header/source

Table 19-7 Inventory Event Message Format (continued)

Data Item (Plain text and XML)	Description (Plain text and XML)	XML Tag (XML only)
Device ID	Unique Device Identifier (UDI) for end device generating message. This field should empty if the message is non-specific to a fabric switch. Format: type@Sid@serial, where • Type is the product model number from backplane SEEPROM. • @ is a separator character. • Sid is "C" identifying serial ID as a chassis serial number· • Serial: The serial number as identified by the Sid field. Example: "DS-C9000@C@12345678	/mml/ header /deviceId
Customer ID	Optional user-configurable field used for contact info or other ID by any support service.	/mml/ header /customerID
Contract ID	Optional user-configurable field used for contact info or other ID by any support service.	/mml/ header /contractId
Site ID	Optional user-configurable field, can be used for Cisco-supplied site ID or other data meaningful to alternate support service.	/mml/ header /siteId
Server ID	If the message is generated from the fabric switch, it is the Unique device identifier (UDI) of the switch. Format: type@Sid@serial, where • Type is the product model number from backplane SEEPROM. • @ is a separator character. • Sid is "C" identifying serial ID as a chassis serial number· • Serial: The serial number as identified by the Sid field. Example: "DS-C9000@C@12345678	/mml/header/serverId
Message description	Short text describing the error.	/mml/body/msgDesc
Device name	Node that experienced the event.	/mml/body/sysName
Contact name	Name of person to contact for issues associated with the node experiencing the event.	/mml/body/sysContact
Contact e-mail	E-mail address of person identified as contact for this unit.	/mml/body/sysContactEmail
Contact phone number	Phone number of the person identified as the contact for this unit.	/mml/body/sysContactPhone Number
Street address	Optional field containing street address for RMA part shipments associated with this unit.	/mml/body/sysStreetAddress
Model name	Model name of the unit. This is the specific model as part of a product family name.	/mml/body/chassis/name
Serial number	Chassis serial number of the unit.	/mml/body/chassis/serialNo
Chassis part number	Top assembly number of the chassis.	/mml/body/chassis/partNo
Chassis hardware version	Hardware version of chassis.	/mml/body/chassis/hwVersion

Table 19-7 Inventory Event Message Format (continued)

Data Item (Plain text and XML)	Description (Plain text and XML)	XML Tag (XML only)
Supervisor module software version	Top level software version.	/mml/body/chassis/swVersion
FRU name	Name of the affected FRU generating the event message.	/mml/body/fru/name
FRU s/n	Serial number of FRU.	/mml/body/fru/serialNo
FRU part number	Part number of FRU.	/mml/body/fru/partNo
FRU slot	Slot number of FRU.	/mml/body/fru/slot
FRU hardware version	Hardware version of FRU.	/mml/body/fru/hwVersion
FRU software version	Software version(s) running on FRU.	/mml/body/fru/swVersion
Command output name	Exact command that was run. For example, the **show running-config** command.	/mml/attachments/attachment /name
Attachment type	Specifically command output.	/mml/attachments/attachment /type
MIME type	Normally text or plain or encoding type.	/mml/attachments/attachment /mime
Command output text	Output of command automatically executed after event categories (see "Event Triggers" section on page 19-10).	/mml/attachments/attachment /atdata

Table 19-8 User-Generated Test Message Format

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: *YYYY-MM-DD*T*HH:MM:SS*. **Note** The time zone or daylight savings time (DST) offset from UTC has already been added or subtracted. T is the hardcoded limiter for the time.	/mml/header/time
Message name	Name of message. Specifically test message for test type message. Specific event names listed in the "Event Triggers" section on page 19-10).	/mml/header/name
Message type	Specifically "Test Call Home".	/mml/header/type
Message group	This field should be ignored by the receiving Call Home processing application, but may be populated with either "proactive" or "reactive".	/mml/header/group
Severity level	Severity level of message, test Call Home message (see Table 19-4).	/mml/header/level
Source ID	Product type for routing.	/mml/header/source

Table 19-8 User-Generated Test Message Format (continued)

Data Item (Plain text and XML)	Description (Plain text and XML)	XML Tag (XML only)
Device ID	Unique Device Identifier (UDI) for end device generating message. This field should empty if the message is non-specific to a fabric switch. Format: type@Sid@serial, where • Type is the product model number from backplane SEEPROM. • @ is a separator character. • Sid is "C" identifying serial ID as a chassis serial number· • Serial: The serial number as identified by the Sid field. Example: "DS-C9000@C@12345678	/mml/ header /deviceId
Customer ID	Optional user-configurable field used for contract info or other ID by any support service.	/mml/ header /customerId
Contract ID	Optional user-configurable field used for contract info or other ID by any support service.	/mml/ header /contractId
Site ID	Optional user-configurable field used for Cisco-supplied site ID or other data meaningful to alternate support service.	/mml/ header /siteId
Server ID	If the message is generated from the fabric switch, it is the Unique device identifier (UDI) of the switch. Format: type@Sid@serial, where • Type is the product model number from backplane SEEPROM. • @ is a separator character. • Sid is "C" identifying serial ID as a chassis serial number· • Serial: The serial number as identified by the Sid field. Example: "DS-C9000@C@12345678	/mml/header/serverId
Message description	Short text describing the error.	/mml/body/msgDesc
Device name	Switch that experienced the event.	/mml/body/sysName
Contact name	Name of person to contact for issues associated with the node experiencing the event.	/mml/body/sysContact
Contact Email	E-mail address of person identified as contact for this unit.	/mml/body/sysContactEmail
Contact phone number	Phone number of the person identified as the contact for this unit.	/mml/body/sysContactPhone Number
Street address	Optional field containing street address for RMA part shipments associated with this unit.	/mml/body/sysStreetAddress
Model name	Model name of the switch. This is the specific model as part of a product family name.	/mml/body/chassis/name
Serial number	Chassis serial number of the unit.	/mml/body/chassis/serialNo
Chassis part number	Top assembly number of the chassis. For example, 800-xxx-xxxx.	/mml/body/chassis/partNo
Command output text	Output of command automatically executed after event categories listed in Table 19-3.	/mml/attachments/attachment/atdata

Table 19-8 User-Generated Test Message Format (continued)

Data Item (Plain text and XML)	Description (Plain text and XML)	XML Tag (XML only)
MIME type	Normally text or plain or encoding type.	/mml/attachments/attachment/mime
Attachment type	Specifically command output.	/mml/attachments/attachment/type
Command output name	Exact command that was run. For example, the **show running-config** command.	/mml/attachments/attachment/name