Configuring Call Home for Cisco 7200 Series Routers

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The Call Home feature provides e-mail 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 includes direct paging of a network support engineer, e-mail notification to a Network Operations Center, XML delivery to a support website, and direct case generation with the Cisco Systems Technical Assistance Center (TAC). This document describes how to configure the Call Home feature on Cisco 7200 Series routers in Cisco IOS Release 12.4(24)T, 12.2(33)SRE1 and later releases.

Contents

This document includes the following sections:

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Information About Call Home

The Call Home feature delivers alerts to multiple recipients, referred to as *Call Home destination profiles*, each with individual configurable message formats and content categories. A predefined destination profile is provided for sending alerts to the Cisco TAC (callhome@cisco.com); you can also define your own destination profiles. The alert messages contain information about configuration, environmental conditions, inventory, and syslog events.

Flexible message delivery and format options make it easy to integrate specific support requirements.

This section contains the following subsections:

Benefits of Using Call Home

The Call Home feature offers the following benefits:

- Multiple message-format options:
  - Short Text—Suitable for pagers or printed reports.
  - Plain Text—Fully formatted message information suitable for human reading.
  - XML—Matching 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, environmental conditions, inventory, and syslog events.
- Filtering of messages based on severity and pattern matching.
- Scheduling of periodic message sending.

How to Obtain Smart Call Home

If you have a service contract made directly with Cisco Systems, you can register your devices for the Smart Call Home service. Smart Call Home analyzes Call Home messages sent from your devices and provides background information and recommendations.

Smart Call Home offers the following features:

- Continuous device health monitoring.
- Analysis of call home messages from your device.
- 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 router.
- 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

How to Configure Call Home

Follow these requirements and usage guidelines before you configure the Call Home feature:

- The contact e-mail, phone, and street address information should be configured in order that the receiver can determine the origin of messages received.
- At least one destination profile (predefined or user-defined) must be configured. The destination profile(s) configured 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 router must have IP connectivity to an e-mail server or the destination HTTP server.
- If Cisco Smart Call Home is used, an active service contract must cover the device being configured.

To configure Call Home, perform the tasks in these sections:

- Configuring Contact Information, page 4
- Configuring Destination Profiles, page 5
- Subscribing to Alert Groups, page 9
- Configuring General E-Mail Options, page 13
- Enabling and Disabling Call Home, page 15
- Transmitting Call Home Communications Manually, page 16
- Configuring and Enabling Smart Call Home, page 19

Tip From the Smart Call Home web application site, 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 a need basis, can be downloaded from this URL: http://www.cisco.com/en/US/products/ps7334/serv_home.html

Configuring Contact Information

Each router 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 contact information, perform the following steps:

SUMMARY STEPS

1. **configure terminal**
2. **call-home**
3. **contact-email-addr** *email-address*
4. **phone-number +***phone-number*
5. **street-address** *street-address*
6. **customer-id** *text*
7. **site-id** *text*
8. **contract-id** *text*

DETAILED STEPS

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Router> configure terminal`	Enters configuration mode.
Step 2	**call-home** **Example:** `Router(config)# call-home`	Enters the Call Home configuration submode.
Step 3	**contact-email-addr** *email-address* **Example:** `Router(cfg-call-home)# contact-email-addr username@example.com`	Assigns customer's e-mail address. You can enter a maximum of 200 characters in e-mail address format with no spaces.
Step 4	**phone-number +***phone-number* **Example:** `Router(cfg-call-home)# phone-number +1-800-555-4567`	(Optional) Assigns the customer's phone number. **Note** The number must begin with a plus (**+**) prefix, and may contain only dashes (-) and numbers. You can enter a maximum of 16 characters. If you include spaces, you must enclose your entry within quotes (“”).
Step 5	**street-address** *street-addressr* **Example:** `Router(cfg-call-home)# street-address "1234 Picaboo Street, Any city, Any state, 12345`	(Optional) Assigns the customer's street address where RMA equipment can be shipped. You can enter a maximum of 200 characters. If you include spaces, you must enclose your entry within quotes (“”).

	Command or Action	Purpose
Step 6	**customer-id** *text* **Example:** `Router(cfg-call-home)# customer-id Customer1234`	(Optional) Identifies the customer ID. You can enter a maximum of 64 characters. If you include spaces, you must enclose your entry within quotes (“”).
Step 7	**site-id** *text* **Example:** `Router(cfg-call-home)# site-id Site1ManhattanNY`	(Optional) Identifies the customer site ID. You can enter a maximum of 200 characters. If you include spaces, you must enclose your entry within quotes (“”).
Step 8	**contract-id** *text* **Example:** `Router(cfg-call-home)# contract-id Company1234`	(Optional) Identifies the customer’s contract ID for the router. You can enter a maximum 64 characters. If you include spaces, you must enclose your entry within quotes (“”).

Example

The following 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
```

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 create and define a new destination profile, or copy and use the predefined destination 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. The format options for a user-defined destination profile 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.

This section contains the following subsections:

- Creating a New Destination Profile, page 6
- Copying a Destination Profile, page 8
- Renaming a Destination Profile, page 8

Creating a New Destination Profile

To create and configure a new destination profile, perform the following steps:

SUMMARY STEPS

1. **configure terminal**
2. **call-home**
3. **profile** *name*
4. [**no**] **destination transport method** {**email** | **http**}
5. **destination address** {**email** *email-address* | **http** *url*}
6. **destination preferred-msg-format** {**long-text** | **short-text** | **xml**]
7. **destination message-size** *bytes*
8. **active**
9. **exit**
10. **end**
11. **show call-home profile** {*name* | **all**}

DETAILED STEPS

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters configuration mode.
Step 2	**call-home** **Example:** `Router(config)# call-home`	Enters the Call Home configuration submode.

	Command or Action	Purpose
Step 3	**profile** *name* **Example:** `Router(config-call-home)# profile profile1`	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	**[no] destination transport-method {email | http}** **Example:** `Router(cfg-call-home-profile)# destination transport-method email`	(Optional) Enables the message transport method. The **no** option disables the method.
Step 5	**destination address** {**email** *email-address* | **http** *url*} **Example:** `Router(cfg-call-home-profile)# destination address email myaddress@example.com`	Configures the destination e-mail address or URL to which Call Home messages are 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	**destination preferred-msg-format** {**long-text** | **short-text** | **xml**} **Example:** `Router(cfg-call-home-profile)# destination preferred-msg-format xml`	(Optional) Configures a preferred message format. The default is XML.
Step 7	**destination message-size** *bytes* **Example:** `Router(cfg-call-home-profile)# destination message-size 3,145,728`	(Optional) Configures a maximum destination message size for the destination profile.
Step 8	**active** **Example:** `Router(cfg-call-home-profile)# active`	Enables the destination profile. By default, the profile is enabled when it is created.
Step 9	**exit** **Example:** `Router(cfg-call-home-profile)# exit`	Exits the Call Home destination profile configuration submode and returns to the Call Home configuration submode.
Step 10	**end** **Example:** `Router(cfg-call-home)# end`	Returns to privileged EXEC mode.
Step 11	**show call-home profile** {*name* | **all**} **Example:** `Router# show call-home profile profile1`	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 the following steps:

SUMMARY STEPS

1. **configure terminal**
2. **call-home**
3. **copy profile** *source-profile target-profile*

DETAILED STEPS

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters configuration mode.
Step 2	**call-home** **Example:** `Router(config)# call-home`	Enters the Call Home configuration submode.
Step 3	**copy profile** *source-profile target-profile* **Example:** `Router(cfg-call-home)# copy profile profile1 profile2`	Creates a new destination profile with the same configuration settings as the existing destination profile.

Renaming a Destination Profile

To rename an existing profile, perform the following steps:

SUMMARY STEPS

1. **configure terminal**
2. **call-home**
3. **rename profile** *source-profile target-profile*

DETAILED STEPS

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters configuration mode.
Step 2	**call-home** **Example:** `Router(config)# call-home`	Enters the Call Home configuration submode.
Step 3	**rename profile** *source-profile target-profile* **Example:** `Router(cfg-call-home)# rename profile profile1 profile2`	Renames the existing destination profile.

Subscribing to Alert Groups

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

- Configuration
- Environment
- Inventory
- Syslog

The trigger events for each alert group are listed in the "Alert Group Trigger Events and Commands" section on page 25, and the contents of the alert group messages are listed in the "Message Contents" section on page 27.

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.

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 time intervals available are:

- 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*.

Message Severity Threshold

When you subscribe a destination profile to the Environment or Syslog alert group, you can set a threshold for relay 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 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 debugging (level 0).

Note Subscribing to syslog message at low severity level is not recommended, as it would trigger too many syslog messages that might lower the system performance.

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

Table 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.
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.

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.

To subscribe a destination profile to one or more alert groups, perform the following steps:

SUMMARY STEPS

1. **configure terminal**
2. **call-home**
3. **alert-group** {**all** | **configuration** | **environment** | **inventory** | **syslog**}
4. **profile** *name*
5. **subscribe-to-alert-group all**
6. **subscribe-to-alert-group configuration** [**periodic** {**daily** *hh:mm* | **monthly** *date hh:mm* | **weekly** *day hh:mm*}]
7. **subscribe-to-alert-group environment** [**severity** {**catastrophic** | **disaster** | **fatal** | **critical** | **major** | **minor** | **warning** | **notification** | **normal** | **debugging**}]
8. **subscribe-to-alert-group inventory** [**periodic** {**daily** *hh:mm* | **monthly** *date hh:mm* | **weekly** *day hh:mm*}]
9. **subscribe-to-alert-group syslog** [**severity** {**catastrophic** | **disaster** | **fatal** | **critical** | **major** | **minor** | **warning** | **notification** | **normal** | **debugging**}] [**pattern** *string*]
10. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters configuration mode.
Step 2	**call-home** **Example:** `Router(config)# call-home`	Enters Call Home configuration submode.
Step 3	**alert-group** {**all** | **configuration** | **environment** | **inventory** | **syslog**} **Example:** `Router(cfg-call-home)# alert-group all`	Enables the specified alert group. Use the keyword **all** to enable all alert groups. By default, all alert groups are enabled.
Step 4	**profile** *name* **Example:** `Router(cfg-call-home)# profile profile1`	Enters the Call Home destination profile configuration submode for the specified destination profile.
Step 5	**subscribe-to-alert-group all** **Example:** `Router(cfg-call-home-profile)# subscribe-to-alert-group all`	Subscribes to all available alert groups. Note that you can also subscribe to alert groups individually by specific type as described in steps 6 through 9.
Step 6	**subscribe-to-alert-group configuration** [**periodic** {**daily** *hh:mm* | **monthly** *date hh:mm* | **weekly** *day hh:mm*}] **Example:** `Router(cfg-call-home-profile)# subscribe-to-alert-group configuration periodic daily 12:00`	Subscribes this destination profile to the Configuration alert group. The Configuration alert group can be configured for periodic notification, as described in the "Configuring General E-Mail Options" section on page 13.
Step 7	**subscribe-to-alert-group environment** [**severity** {**catastrophic** | **disaster** | **fatal** | **critical** | **major** | **minor** | **warning** | **notification** | **normal** | **debugging**}] **Example:** `Router(cfg-call-home-profile)# subscribe-to-alert-group environment severity major`	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 General E-Mail Options" section on page 13.
Step 8	**subscribe-to-alert-group inventory periodic daily** *14:30* **Example:** `Router(cfg-call-home-profile)# subscribe-to-alert-group inventory periodic monthly 1 12:00`	Subscribes this destination profile to the Inventory alert group. The Inventory alert group can be configured for periodic notification, as described in the "Configuring General E-Mail Options" section on page 13.

	Command or Action	Purpose
Step 9	**subscribe-to-alert-group syslog** [**severity** {**catastrophic** | **disaster** | **fatal** | **critical** | **major** | **minor** | **warning** | **notification** | **normal** | **debugging**}] [**pattern** *string]* **Example:** `Router(cfg-call-home-profile)# subscribe syslog severity major`	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 General E-Mail Options" section on page 13. 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	**exit** **Example:** `Router(cfg-call-home-profile)# exit`	Exits the Call Home destination profile configuration submode.

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 can specify up to four backup e-mail servers. Optionally, you can set a rate limit on e-mail or HTTP messages and specify the VPN routing or forwarding(VRF) instance name to send call-home e-mail messages.
- 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) is tried first.

To configure general e-mail options, perform the following steps:

SUMMARY STEPS

1. **configure terminal**
2. **call-home**
3. **mail-server** { *ipv4-address* | *name*} **priority** *number*
4. **sender from** *email-address*
5. **sender reply-to** *email-address*
6. **rate-limit** *number*
7. **vrf** *name*

DETAILED STEPS

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters configuration mode.
Step 2	**call-home** **Example:** `Router(config)# call-home`	Enters Call Home configuration submode.
Step 3	**mail-server** {*ipv4-address* | *name*} **priority** *number* **Example:** `Router(cfg-call-home)# mail-server stmp.example.com priority 1`	Assigns an e-mail server address and its relative priority among configured e-mail servers. Provide either of these: • The e-mail server's IP address or • The e-mail server's fully qualified domain *name* (FQDN) of 64 characters or less. Assign a priority *number* between 1 (highest priority) and 100 (lowest priority).
Step 4	**sender from** *email-address* **Example:** `Router(cfg-call-home)# sender from username@example.com`	(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.
Step 5	**sender reply-to** *email-address* **Example:** `Router(cfg-call-home)# sender reply-to username@example.com`	(Optional) Assigns the e-mail address that will appear in the reply-to field in Call Home e-mail messages.

	Command or Action	Purpose
Step 6	**rate-limit** *number* **Example:** `Router(cfg-call-home)# rate-limit 40`	(Optional) Specifies a limit on the number of messages sent per minute, from 1 to 60. The default is 20.
Step 7	**vrf** *name* **Example:** `Router(cfg-call-home)# vrf mgmt-vrf`	(Optional) Specifies the VRF instance to send call-home email messages. If no VRF is specified, the global routing table is used by keying the command **show ip route**. **Note** VRF support is available only from 15.0(1)M release onwards. **Note** To send https message through a VRF, configure **config t; ip http client source-interface mgmt-intf**. The mgmt-intf should be configured first to use the mgmt-vrf. **Note** For more information on the vrf call home command, please refer http://www.cisco.com/en/US/docs/ios/ha/command/reference/ha_s3.html#wp1144302

Example

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

```
Router# configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
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)# vrf mgmt-vrf
Router(cfg-call-home)# exit
Router(config)#9
```

Enabling and Disabling Call Home

To enable or disable the Call Home feature, perform the following steps:

SUMMARY STEPS

1. **configure terminal**
2. **service call-home**
3. **no service call-home**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Router# configure terminal`	Enters configuration mode.
Step 2	**service call-home** **Example:** `Router(config)# service call-home`	Enables the Call Home feature.
Step 3	**no service call-home** **Example:** `Router(config)# no service call-home`	Disables the Call Home feature.

Transmitting Call Home Communications Manually

You can manually send several types of Call Home communications. To send Call Home communications, perform the following tasks:

- Transmit a Call Home Test Message Manually, page 16
- Transmit Call Home Alert Group Messages Manually, page 16
- Transmit Call Home Analysis and Report Requests, page 17
- Transmit the Output of a Command to Cisco or an E-Mail Address, page 18

Transmit a Call Home Test Message Manually

You can use the **call-home test** command to send a user-defined Call Home test message.

To manually send a Call Home test message, perform the following step:

SUMMARY STEPS

1. **call-home test** [“*test-message*”] **profile** *name*

DETAILED STEPS

	Command or Action	Purpose
Step 1	**call-home test** [**“***test-message***”**] **profile** *name* **Example:** `Router# call-home test profile profile1`	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.

Transmit Call Home Alert Group Messages Manually

You can use the **call-home send** command to manually send a specific alert group message.

Note the following guidelines when manually sending a Call Home alert group message:

- Only the configuration and inventory alert groups can be sent manually.
- When you manually trigger a configuration 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.

To manually trigger Call Home alert group messages, perform the following steps

SUMMARY STEPS

1. **call-home send alert-group configuration** [**profile** *name*]
2. **call-home send alert-group inventory** [**profile** *name*]

DETAILED STEPS

	Command or Action	Purpose
Step 1	**call-home send alert-group configuration** [**profile** *name*] **Example:** `Router# call-home send alert-group configuration profile profile1`	Sends a configuration alert group message to one destination profile if specified, or to all subscribed destination profiles.
Step 2	**call-home send alert-group inventory** [**profile** *name*] **Example:** `Router# call-home send alert-group inventory`	Sends an inventory alert group message to one destination profile if specified, or to all subscribed destination profiles.

Transmit Call Home Analysis and Report Requests

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

Note the following guidelines when manually sending Call Home analysis and report requests:

- 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.

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

SUMMARY STEPS

1. **call-home request output-analysis "***show-command"* [**profile** *name*] [**ccoid** *user-id*]
2. **call-home request** {**config-sanity | bugs-list |command-reference | product-advisory**} [**profile** *name*] [**ccoid** *user-id*]

DETAILED STEPS

	Command or Action	Purpose
Step 1	**call-home request output-analysis** *"show-command"* [**profile** *name*] [**ccoid** *user-id*] **Example:** `Router# call-home request output-analysis "show diag" profile TG`	Sends the output of the specified **show** command for analysis. The **show** command must be contained in quotes (" ").
Step 2	**call-home request** {**config-sanity** | **bugs-list** | **command-reference** | **product-advisory**} [**profile** *name*] [**ccoid** *user-id*] **Example:** `Router# call-home request config-sanity profile TG`	Sends the output of a predetermined set of commands such as the **show running-config all**, **show version** and/or **show module** commands, for analysis. In addition, the **call home request product-advisory** subcommand will include all inventory alert group commands. The keyword specified after **request** specifies the type of report requested.

Example

The following example shows a request for analysis of a user-specified **show** command:

```
Router# call-home request output-analysis "show diag" profile TG
```

Transmit the Output of a Command to Cisco or an E-Mail Address

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.

Note the following guidelines when sending the output of a command:

- 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.

To execute a CLI command and e-mail the command output, perform the following steps

SUMMARY STEPS

1. **call-home send "***command"* [**email** *email-addr*] [**service-number** *SR*]

DETAILED STEPS

	Command or Action	Purpose
Step 1	**call-home send "***command"* [**email** *email-addr*] [**service-number** *SR*] **Example:** `Router# call-home send "show diag" email support@example.com`	Executes the specified CLI command and e-mails the output.

Example

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

```
Router# call-home send "show diag" email support@example.com
```

Configuring and Enabling Smart Call Home

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

http://www.cisco.com/en/US/docs/switches/lan/smart_call_home/SCH30_Ch1.html#wp1048666

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

You can use variations of the **show call-home** command to display Call Home configuration information.

To display the configured Call Home information, perform the following steps:

SUMMARY STEPS

1. **show call-home**
2. **show call-home detail**

3. **show call-home alert-group**
4. **show call-home mail-server status**
5. **show call-home profile** {**all** | *name*}
6. **show call-home statistics**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**show call-home** **Example:** `Router# show call-home`	Displays the Call Home configuration in summary.
Step 2	**show call-home detail** **Example:** `Router# show call-home detail`	Displays the Call Home configuration in detail.
Step 3	**show call-home alert-group** **Example:** `Router# show call-home alert-group`	Displays the available alert groups and their status.
Step 4	**show call-home mail-server status** **Example:** `Router# show call-home mail-server status`	Checks and displays the availability of the configured e-mail server(s).
Step 5	**show call-home profile** {**all** | *name*} **Example:** `Router# show call-home profile all`	Displays the configuration of the specified destination profile. Use the keyword **all** to display the configuration of all destination profiles.
Step 6	**show call-home statistics** **Example:** `Router# show call-home statistics`	Displays the statistics of Call Home events.

Examples

The following examples show sample outputs when using different options of the **show call-home** command are used.

Example 1 Configured Call Home Information in Summary

```
Router# show call-home
Current call home settings:
    call home feature : disable
    call home message's from address: router@example.com
    call home message's reply-to address: support@example.com
    vrf for call-home messages: mgmt-vrf
    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
    environment              Disable environmental info
    inventory                Enable  inventory info
    syslog                   Disable syslog info
Profiles:
    Profile Name: campus-noc
    Profile Name: CiscoTAC-1
Router#
```

Example 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: router@example.com
    call home message's reply-to address: support@example.com
    vrf for call-home messages: mgmt-vrf
    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
    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: INACTIVE
    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 27 day of the month at 12:13
    Periodic inventory info message is scheduled every 27 day of the month at 11:58
Alert-group               Severity
    ------------------------  ------------
    environment               minor
    inventory                 normal
    Syslog-Pattern            Severity
    ------------------------  ------------
    .*                        major
Router#
```

Example 3 Available Call Home Alert Groups

```
Router# show call-home alert-group
Available alert groups:
    Keyword                  State   Description
    ------------------------ ------- -------------------------------
    configuration            Disable configuration info
    environment              Disable environmental info
    inventory                Enable  inventory info
    syslog                   Disable syslog info
Router#
```

Example 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 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: INACTIVE
    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 27 day of the month at 12:13

    Periodic inventory info message is scheduled every 27 day of the month at 11:58
```

```
    Alert-group               Severity
    ------------------------  ------------
    environment               minor
    inventory                 normal
    Syslog-Pattern            Severity
    ------------------------  ------------
    .*                        major

Router#
```

Example 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 7 Call Home Statistics

```
Router# show call-home statistics
Message Types    Total                Email                HTTP
-------------   -------------------- -------------------- ------------------
Total Success   6                    6                    0
    Config      4                    4                    0
    Environment 0                    0                    0
    Inventory   2                    2                    0
    SysLog      0                    0                    0
    Test        0                    0                    0
    Request     0                    0                    0
    Send-CLI    0                    0                    0

Total In-Queue  0                    0                    0
    Config      0                    0                    0
    Environment 0                    0                    0
    Inventory   0                    0                    0
    SysLog      0                    0                    0
    Test        0                    0                    0
    Request     0                    0                    0
    Send-CLI    0                    0                    0

Total Failed    0                    0                    0
    Config      0                    0                    0
    Environment 0                    0                    0
    Inventory   0                    0                    0
    SysLog      0                    0                    0
    Test        0                    0                    0
    Request     0                    0                    0
    Send-CLI    0                    0                    0

Total Ratelimit
```

```
      -dropped  0                    0                    0
    Config      0                    0                    0
    Environment 0                    0                    0
    Inventory   0                    0                    0
    SysLog      0                    0                    0
    Test        0                    0                    0
    Request     0                    0                    0
    Send-CLI    0                    0                    0
Last call-home message sent time: 2009-02-04 18:32:32 GMT+00:00
Router#
```

Default Settings

Table 2 lists the default Call Home settings.

Table 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	0 (debugging)
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 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 3 Call Home Alert Groups, Events, and Actions

Alert Group	Call Home Trigger Event	Syslog Event	Severity	Description and CLI Commands Executed
Configuration				User-generated request for configuration. (Sent to TAC.) CLI commands executed: **show c7200 (or show c7301)** **show diag** **show inventory** **show running-config all** **show startup-config** **show version**
Environmental				Events related to power, fan, and environment sensing elements, such as temperature alarms. (Sent to TAC.) CLI commands executed: **show c7200 (or show c7301)** **show diag** **show environment** **show environment all** **show inventory** **show logging**
		SHUT	0	Environmental Monitor initiated shutdown.
		ENVCRIT	2	Temperature or voltage measurement exceeded critical threshold.
		BLOWER	3	Required number of fan trays is not present.
		ENVWARN	4	Temperature or voltage measurement exceeded warning threshold.
		RPSFAIL	4	Power supply may have a failed channel.
	ENVM	PSCHANGE	6	Power supply name change.
		PSLEV	6	Power supply state change.
		PSOK	6	Power supply now appears to be working correctly.

Table 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: **show c7200 (or show c7301)** **show diag** **show inventory oid** **show version**
	HARDWARE_ REMOVAL	REMCARD	6	Card removed from slot %d, interfaces disabled.
	HARDWARE_ INSERTION	INSCARD	6	Card inserted in slot %d, interfaces administratively shut down.
Syslog				Event logged to syslog. CLI commands executed: **show inventory** **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.
Test		TEST		User-generated test message. (Sent to TAC.) CLI commands executed: **show c7200 (or show c7301)** **show diag** **show inventory** **show version**

Message Contents

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

- Table 4 describes the content fields of a short text message.
- Table 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 at a point between the common fields. The insertion point is identified in the table.
- Table 6 describes the inserted content fields for reactive messages (system failures that require a TAC case) and proactive messages (issues that might result in degraded system performance).
- Table 7 describes the inserted content fields for an inventory message.

This section also includes the following subsections that provide sample messages:

- Sample Syslog Alert Notification in Long-Text Format, page 30
- Sample Syslog Alert Notification in XML Format, page 33

Table 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 5 Common Fields for All Long Text and XML Messages

Data Item (Plain Text and XML)	Description (Plain Text and XML)	MML Tag (XML Only)
Time stamp	Date and time stamp of event in ISO time notation: *YYYY-MM-DD HH:MM:SS GMT+HH:MM*.	CallHome/EventTime
Message name	Name of message. Specific event names are listed in the "Alert Group Trigger Events and Commands" section on page 25.	For short text message only
Message type	Specifically "Call Home".	CallHome/Event/Type
Message subtype	Specific type of message: full, delta, test	CallHome/Event/SubType
Message group	Specifically "reactive". Optional, because default is "reactive".	Not applicable. For long-text message only
Severity level	Severity level of message (see Table 1 on page 11).	Body/Block/Severity
Source ID	Product type for routing through the workflow engine. This is typically the product family name.	For long-text message only

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

Data Item (Plain Text and XML)	Description (Plain Text and XML)	MML Tag (XML 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 *type*@*Sid*@*serial*. • *type* is the product model number from backplane IDPROM. • @ is a separator character. • *Sid* is C, identifying the serial ID as a chassis serial number· • *serial* is the number identified by the Sid field. Example: WS-C7206VXR@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 *type*@*Sid*@*serial*. • *type* is the product model number from backplane IDPROM. • @ is a separator character. • *Sid* is C, identifying the serial ID as a chassis serial number· • *serial* is the number identified by the Sid field. Example: WS-C7206VXR@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/NameName
Contact name	Name of person to contact for issues associated with the node experiencing the event.	CallHome/CustomerData/ SystemInfo/Contact
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 router. This is the “specific model as part of a product family name.	CallHome/Device/Cisco_Chassis/ Model

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

Data Item (Plain Text and XML)	Description (Plain Text and XML)	MML Tag (XML Only)
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	System Object ID that uniquely identifies the system.	CallHome/Device/Cisco_Chassis/ AdditionalInformation/AD@name= “sysObjectID”
System description	System description for the managed element.	CallHome/Device/Cisco_Chassis/ AdditionalInformation/AD@name= “sysDescr”
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	The exact name of the issued CLI command.	/aml/Attachments/Attachment/Name
Attachment type	Attachment type. Usually “inline”.	/aml/Attachments/Attachment@type
MIME type	Normally “text” or “plain” or encoding type.	/aml/Attachments/Attachment/ Data@encoding
Command output text	Output of command automatically executed (see Table 3 on page 25).	/mml/attachments/attachment/atdata

Table 6 Inserted Fields for a Reactive or Proactive Event Message

Data Item (Plain Text and XML)	Description (Plain Text and XML)	MML 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”
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

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

Data Item (Plain Text and XML)	Description (Plain Text and XML)	MML Tag (XML Only)
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

Table 7 Inserted Fields for an Inventory Event Message

Data Item (Plain Text and XML)	Description (Plain Text and XML)	MML 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
FRU hardware version	Hardware version of FRU.	CallHome/Device/Cisco_Chassis/ CiscoCard/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

The following example shows a Syslog alert notification in long-text format:

```
TimeStamp : 2009-02-05 07:03 GMT+00:00
Message Name : syslog
Message Type : Call Home
Message Group : reactive
Severity Level : 2
Source ID : C7200 Family
Device ID : c7206VXR@C@1234567
Customer ID : ExampleCorp
Contract ID : X1234
Site ID : ACD
Server ID : c7206VXR@C@1234567
Event Description : *Feb  5 07:03:11.879: %CLEAR-5-COUNTERS: Clear counter on all
interfaces by console
```

```
System Name : NPE-G1
Contact Email : abc@example.com
Contact Phone : +1-408-123-4567
Street Address : 1234 Any street, Any City, Any State 12345
Affected Chassis : c7206VXR
Affected Chassis Serial Number : 1234567
Affected Chassis Part No :  12-3456-78
Affected Chassis Hardware Version : 2.6
Supervisor Software Version : 12.4(20090202:121229)
Command Output Name : show logging
Attachment Type : command output
MIME Type : text/plain
Command Output Text :
Syslog logging: enabled (0 messages dropped, 2 messages rate-limited,
                0 flushes, 0 overruns, xml disabled, filtering disabled)
No Active Message Discriminator.
No Inactive Message Discriminator.
    Console logging: level debugging, 76 messages logged, xml disabled,
                     filtering disabled
    Monitor logging: level debugging, 0 messages logged, xml disabled,
                     filtering disabled
    Buffer logging:  level debugging, 76 messages logged, xml disabled,
                     filtering disabled
    Logging Exception size (8192 bytes)
    Count and timestamp logging messages: disabled
    Persistent logging: disabled
No active filter modules.
ESM: 0 messages dropped
    Trap logging: level informational, 38 message lines logged
Log Buffer (8192 bytes):
*Feb  3 19:15:19.391: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
*Feb  3 19:15:19.395: %LINEPROTO-5-UPDOWN: Line protocol on Interface VoIP-Null0, changed
state to up
*Feb  3 19:15:19.395: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up
*Feb  3 19:15:19.395: %LINK-3-UPDOWN: Interface GigabitEthernet0/3, changed state to up
*Feb  3 19:15:19.399: %LINEPROTO-5-UPDOWN: Line protocol on Interface SSLVPN-VIF0, changed
state to up
*Feb  3 19:15:20.391: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1,
changed state to down
*Feb  3 19:15:20.395: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2,
changed state to down
*Feb  3 19:15:20.395: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/3,
changed state to up
*Feb  3 19:15:21.611: %SYS-5-CONFIG_I: Configured from memory by console
*Feb  3 19:15:22.619: %SYS-5-RESTART: System restarted --
Cisco IOS Software, 7200 Software (C7200-ADVENTERPRISEK9-M), Experimental Version
12.4(20090202:121229)
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Tue 03-Feb-09 04:56 by abc
*Feb  3 19:15:22.851: %CRYPTO-6-ISAKMP_ON_OFF: ISAKMP is OFF
*Feb  3 19:15:22.851: %CRYPTO-6-GDOI_ON_OFF: GDOI is OFF
*Feb  3 19:15:22.923: %SNMP-5-COLDSTART: SNMP agent on host NPE-G1 is undergoing a cold
start
*Feb  3 19:15:23.479: %SYS-6-BOOTTIME: Time taken to reboot after reload = 1133 seconds
*Feb  3 19:15:24.035: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to down
*Feb  3 19:15:24.035: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to down
*Feb  3 19:15:24.359: %LINK-3-UPDOWN: Interface GigabitEthernet0/3, changed state to down
*Feb  3 19:15:26.799: %LINK-3-UPDOWN: Interface GigabitEthernet0/3, changed state to up
*Feb  3 19:31:35.231: %SYS-5-CONFIG_I: Configured from console by console
*Feb  3 19:32:55.855: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:32:55.855: check_eem_cli_policy_handler: command_string=test c7200 power supply
off
*Feb  3 19:32:55.855: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:32:55.855: fh_fd_env_event_match: num_matches = 0
```

```
*Feb  3 19:32:55.855: fh_fd_env_event_notify:
*Feb  3 19:33:00.003: fh_fd_timer_process_async
*Feb  3 19:33:00.003: cron_tick: num_matches 0
*Feb  3 19:33:11.567: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:11.567: check_eem_cli_policy_handler: command_string=test c7200 power supply
on
*Feb  3 19:33:11.567: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:11.567: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:11.567: fh_fd_env_event_notify:
*Feb  3 19:33:35.735: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:35.735: check_eem_cli_policy_handler: command_string=test c7200 volt major
*Feb  3 19:33:35.735: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:35.735: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:35.735: fh_fd_env_event_notify:
*Feb  3 19:33:41.771: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:41.771: check_eem_cli_policy_handler: command_string=test c7200 volt minor
*Feb  3 19:33:41.771: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:41.771: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:41.771: fh_fd_env_event_notify:
*Feb  3 19:33:53.171: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:53.171: check_eem_cli_policy_handler: command_string=test c7200 temp major
*Feb  3 19:33:53.171: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:53.171: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:53.171: fh_fd_env_event_notify:
*Feb  3 19:33:58.987: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:58.987: check_eem_cli_policy_handler: command_string=test c7200 temp minor
*Feb  3 19:33:58.987: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:58.987: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:58.987: fh_fd_env_event_notify:
*Feb  3 19:34:00.003: fh_fd_timer_process_async
*Feb  3 19:34:00.003: cron_tick: num_matches 0
*Feb  3 19:35:00.003: fh_fd_timer_process_async
*Feb  3 19:35:00.003: cron_tick: num_matches 0
*Feb  3 19:36:00.003: fh_fd_timer_process_async
*Feb  3 19:36:00.003: cron_tick: num_matches 0
*Feb  3 19:36:59.851: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:36:59.851: check_eem_cli_policy_handler: command_string=undebug all
*Feb  3 19:36:59.851: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  4 18:05:33.990: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up
*Feb  4 18:05:34.990: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2,
changed state to up
*Feb  4 18:05:52.842: %OIR-6-INSCARD: Card inserted in slot 2, interfaces administratively
shut down
*Feb  4 18:05:56.822: %GBIC_SECURITY-6-SFP_INSERTED: Transceiver SFP Unknown module
inserted in POS2/0
*Feb  4 18:05:59.750: %LINEPROTO-5-UPDOWN: Line protocol on Interface POS2/0, changed
state to down
*Feb  4 18:05:59.762: %LINEPROTO-5-UPDOWN: Line protocol on Interface POS2/1, changed
state to down
*Feb  4 18:31:42.862: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:31:58.594: %IP-4-DUPADDR: Duplicate address 20.2.13.13 on GigabitEthernet0/2,
sourced by 0013.1989.1900
*Feb  4 18:32:19.830: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:35:19.802: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:35:37.130: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:43:05.914: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:43:06.926: %LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to
administratively down
*Feb  5 06:59:58.803: %SYS-5-CONFIG_I: Configured from console by console
*Feb  5 07:00:14.315: %CLEAR-5-COUNTERS: Clear counter on all interfaces by console
*Feb  5 07:03:05.675: %SYS-5-CONFIG_I: Configured from console by console
NPE-G1#
Command Output Name : show inventory
Attachment Type : command output
```

```
MIME Type : text/plain
Command Output Text : NAME: "Chassis", DESCR: "Cisco 7206VXR, 6-slot chassis"
PID: CISCO7206VXR      , VID:    , SN: 1234567
NAME: "NPE-G1 0", DESCR: "Cisco 7200 Series Network Processing Engine NPE-G1"
PID: NPE-G1            , VID:    , SN: 12345678
NAME: "disk2", DESCR: "128MB Compact Flash Disk for NPE-G1"
PID: MEM-NPE-G1-FLD128 , VID:    , SN:
NAME: "module 0", DESCR: "C7200 Port Adapter Jacket Card"
PID: C7200-JC-PA       , VID: V01 , SN: 12345672
NAME: "module 2", DESCR: "Dual OC3 POS Single Wide Port Adapter"
PID: PA-POS-2OC3         , VID:    , SN: 12345673
NAME: "Power Supply 1", DESCR: "Cisco 7200 AC Power Supply"
PID: PWR-7200-AC       , VID:    , SN:
NAME: "Power Supply 2", DESCR: "Cisco 7200 AC Power Supply"
PID: PWR-7200-AC       , VID:    , SN:
NPE-G1#
```

Sample Syslog Alert Notification in XML Format

The following example shows a Syslog alert notification in XML format:

```
<?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.cisco.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.cisco.com/neddce/services/DDCEService</aml-session:To>
<aml-session:Path>
<aml-session:Via>http://www.cisco.com/appliance/uri</aml-session:Via>
</aml-session:Path>
<aml-session:From>http://www.cisco.com/appliance/uri</aml-session:From>
<aml-session:MessageId>MC:26818315:CD350CFF</aml-session:MessageId>
</aml-session:Session>
</soap-env:Header>
<soap-env:Body>
<aml-block:Block xmlns:aml-block="http://www.cisco.com/2004/01/aml-block">
<aml-block:Header>
<aml-block:Type>http://www.cisco.com/2005/05/callhome/syslog</aml-block:Type>
<aml-block:CreationDate>2009-02-05 07:00:15 GMT+00:00</aml-block:CreationDate>
<aml-block:Builder>
<aml-block:Name>C7200 Family</aml-block:Name>
<aml-block:Version>2.0</aml-block:Version>
</aml-block:Builder>
<aml-block:BlockGroup>
<aml-block:GroupId>GD:1234567:CABC1234</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.cisco.com/2005/05/callhome" version="1.0">
<ch:EventTime>2009-02-05 07:00:14 GMT+00:00</ch:EventTime>
<ch:MessageDescription>*Feb  5 07:00:14.315: %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>Cisco 7200 Series Routers</ch:Series>
</ch:Event>
<ch:CustomerData>
<ch:UserData>
<ch:Email>abc@example.com</ch:Email>
</ch:UserData>
<ch:ContractData>
<ch:CustomerId>ExampleCorp</ch:CustomerId>
<ch:SiteId>ACD</ch:SiteId>
<ch:ContractId>X1234</ch:ContractId>
<ch:DeviceId>c7206VXR@C@1234567</ch:DeviceId>
</ch:ContractData>
<ch:SystemInfo>
<ch:Name>NPE-G1</ch:Name>
<ch:Contact></ch:Contact>
<ch:ContactEmail>abc@example.com</ch:ContactEmail>
<ch:ContactPhoneNumber>+1-408-123-4567</ch:ContactPhoneNumber>
<ch:StreetAddress>1234 Any street, Any City, Any State 12345</ch:StreetAddress>
</ch:SystemInfo>
<ch:CCOID></ch:CCOID>
</ch:CustomerData>
<ch:Device>
<rme:Chassis xmlns:rme="http://www.cisco.com/rme/4.0">
<rme:Model>c7206VXR</rme:Model>
<rme:HardwareVersion>2.6</rme:HardwareVersion>
<rme:SerialNumber>1234567</rme:SerialNumber>
<rme:AdditionalInformation>
<rme:AD name="PartNumber" value=" 73-1234-10" />
<rme:AD name="SoftwareVersion" value="12.4(20090202:121229)" />
<rme:AD name="SystemObjectId" value="1.2.3.4.5.6.7.8.222" />
<rme:AD name="SystemDescription" value="Cisco IOS Software, 7200 Software
(C7200-ADVENTERPRISEK9-M), Experimental Version 12.4(20090202:121229)
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Tue 03-Feb-09 04:56 by abc" />
</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, 2 messages rate-limited,
                0 flushes, 0 overruns, xml disabled, filtering disabled)
No Active Message Discriminator.
No Inactive Message Discriminator.
    Console logging: level debugging, 74 messages logged, xml disabled,
                     filtering disabled
    Monitor logging: level debugging, 0 messages logged, xml disabled,
                     filtering disabled
    Buffer logging:  level debugging, 74 messages logged, xml disabled,
                     filtering disabled
    Logging Exception size (8192 bytes)
    Count and timestamp logging messages: disabled
    Persistent logging: disabled
No active filter modules.
ESM: 0 messages dropped
    Trap logging: level informational, 36 message lines logged
Log Buffer (8192 bytes):
*Feb  3 19:15:19.391: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
*Feb  3 19:15:19.395: %LINEPROTO-5-UPDOWN: Line protocol on Interface VoIP-Null0, changed
state to up
```

```
*Feb  3 19:15:19.395: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up
*Feb  3 19:15:19.395: %LINK-3-UPDOWN: Interface GigabitEthernet0/3, changed state to up
*Feb  3 19:15:19.399: %LINEPROTO-5-UPDOWN: Line protocol on Interface SSLVPN-VIF0, changed
state to up
*Feb  3 19:15:20.391: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1,
changed state to down
*Feb  3 19:15:20.395: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2,
changed state to down
*Feb  3 19:15:20.395: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/3,
changed state to up
*Feb  3 19:15:21.611: %SYS-5-CONFIG_I: Configured from memory by console
*Feb  3 19:15:22.619: %SYS-5-RESTART: System restarted --
Cisco IOS Software, 7200 Software (C7200-ADVENTERPRISEK9-M), Experimental Version
12.4(20090202:121229)
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Tue 03-Feb-09 04:56 by abc
*Feb  3 19:15:22.851: %CRYPTO-6-ISAKMP_ON_OFF: ISAKMP is OFF
*Feb  3 19:15:22.851: %CRYPTO-6-GDOI_ON_OFF: GDOI is OFF
*Feb  3 19:15:22.923: %SNMP-5-COLDSTART: SNMP agent on host NPE-G1 is undergoing a cold
start
*Feb  3 19:15:23.479: %SYS-6-BOOTTIME: Time taken to reboot after reload = 1133 seconds
*Feb  3 19:15:24.035: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to down
*Feb  3 19:15:24.035: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to down
*Feb  3 19:15:24.359: %LINK-3-UPDOWN: Interface GigabitEthernet0/3, changed state to down
*Feb  3 19:15:26.799: %LINK-3-UPDOWN: Interface GigabitEthernet0/3, changed state to up
*Feb  3 19:31:35.231: %SYS-5-CONFIG_I: Configured from console by console
*Feb  3 19:32:55.855: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:32:55.855: check_eem_cli_policy_handler: command_string=test c7200 power supply
off
*Feb  3 19:32:55.855: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:32:55.855: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:32:55.855: fh_fd_env_event_notify:
*Feb  3 19:33:00.003: fh_fd_timer_process_async
*Feb  3 19:33:00.003: cron_tick: num_matches 0
*Feb  3 19:33:11.567: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:11.567: check_eem_cli_policy_handler: command_string=test c7200 power supply
on
*Feb  3 19:33:11.567: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:11.567: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:11.567: fh_fd_env_event_notify:
*Feb  3 19:33:35.735: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:35.735: check_eem_cli_policy_handler: command_string=test c7200 volt major
*Feb  3 19:33:35.735: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:35.735: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:35.735: fh_fd_env_event_notify:
*Feb  3 19:33:41.771: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:41.771: check_eem_cli_policy_handler: command_string=test c7200 volt minor
*Feb  3 19:33:41.771: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:41.771: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:41.771: fh_fd_env_event_notify:
*Feb  3 19:33:53.171: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:53.171: check_eem_cli_policy_handler: command_string=test c7200 temp major
*Feb  3 19:33:53.171: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:53.171: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:53.171: fh_fd_env_event_notify:
*Feb  3 19:33:58.987: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:33:58.987: check_eem_cli_policy_handler: command_string=test c7200 temp minor
*Feb  3 19:33:58.987: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  3 19:33:58.987: fh_fd_env_event_match: num_matches = 0
*Feb  3 19:33:58.987: fh_fd_env_event_notify:
*Feb  3 19:34:00.003: fh_fd_timer_process_async
*Feb  3 19:34:00.003: cron_tick: num_matches 0
*Feb  3 19:35:00.003: fh_fd_timer_process_async
*Feb  3 19:35:00.003: cron_tick: num_matches 0
```

```
*Feb  3 19:36:00.003: fh_fd_timer_process_async
*Feb  3 19:36:00.003: cron_tick: num_matches 0
*Feb  3 19:36:59.851: cli_history_entry_add: free_hist_list size=0, hist_list size=7
*Feb  3 19:36:59.851: check_eem_cli_policy_handler: command_string=undebug all
*Feb  3 19:36:59.851: check_eem_cli_policy_handler: num_matches = 0, response_code = 1
*Feb  4 18:05:33.990: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up
*Feb  4 18:05:34.990: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2,
changed state to up
*Feb  4 18:05:52.842: %OIR-6-INSCARD: Card inserted in slot 2, interfaces administratively
shut down
*Feb  4 18:05:56.822: %GBIC_SECURITY-6-SFP_INSERTED: Transceiver SFP Unknown module
inserted in POS2/0
*Feb  4 18:05:59.750: %LINEPROTO-5-UPDOWN: Line protocol on Interface POS2/0, changed
state to down
*Feb  4 18:05:59.762: %LINEPROTO-5-UPDOWN: Line protocol on Interface POS2/1, changed
state to down
*Feb  4 18:31:42.862: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:31:58.594: %IP-4-DUPADDR: Duplicate address 20.2.13.13 on GigabitEthernet0/2,
sourced by 0013.1989.1900
*Feb  4 18:32:19.830: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:35:19.802: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:35:37.130: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:43:05.914: %SYS-5-CONFIG_I: Configured from console by console
*Feb  4 18:43:06.926: %LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to
administratively down
*Feb  5 06:59:58.803: %SYS-5-CONFIG_I: Configured from console by console
NPE-G1#]]></aml-block:Data>
</aml-block:Attachment>
<aml-block:Attachment type="inline">
<aml-block:Name>show inventory</aml-block:Name>
<aml-block:Data encoding="plain">
<![CDATA[NAME: "Chassis", DESCR: "Cisco 7206VXR, 6-slot chassis"
PID: CISCO7206VXR      , VID:    , SN: 1234567
NAME: "NPE-G1 0", DESCR: "Cisco 7200 Series Network Processing Engine NPE-G1"
PID: NPE-G1            , VID:    , SN: 12345671
NAME: "disk2", DESCR: "128MB Compact Flash Disk for NPE-G1"
PID: MEM-NPE-G1-FLD128 , VID:    , SN:
NAME: "module 0", DESCR: "C7200 Port Adapter Jacket Card"
PID: C7200-JC-PA       , VID: V01 , SN: 12345672
NAME: "module 2", DESCR: "Dual OC3 POS Single Wide Port Adapter"
PID: PA-POS-2OC3         , VID:    , SN: 12345673
NAME: "Power Supply 1", DESCR: "Cisco 7200 AC Power Supply"
PID: PWR-7200-AC       , VID:    , SN:
NAME: "Power Supply 2", DESCR: "Cisco 7200 AC Power Supply"
PID: PWR-7200-AC       , VID:    , SN:
NPE-G1#]]></aml-block:Data>
</aml-block:Attachment>
</aml-block:Attachments>
</aml-block:Block>
</soap-env:Body>
</soap-env:Envelope>
```

Additional References

The following sections provide references related to the Call Home feature.

Related Documents

Related Topic	Document Title
Explains how the Smart Call Home service offers web-based access to important information on select Cisco devices and offers higher network availability, and increased operational efficiency by providing proactive diagnostics and real-time alerts.	Smart Call Home User Guide
Provides information to configure and register a Cisco 7200 Series router for Smart Call Home using three transport options.	Smart Call Home Quick Start Configuration Guide

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user-ID and password.	http://www.cisco.com/techsupport

Command Reference

For information about all Cisco IOS commands, use the Command Lookup Tool at http://tools.cisco.com/Support/CLILookup or the *Cisco IOS Master Command List, All Releases*, at http://www.cisco.com/en/US/docs/ios/mcl/allreleasemcl/all_book.html.

For more information on the VRF Call Home command, go to:

http://www.cisco.com/en/US/docs/ios/ha/command/reference/ha_s3.html#wp1144302

Feature Information for Call Home

Table 8 lists the release history for this feature for the Cisco 7200 Series router.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS, Catalyst OS, and Cisco IOS XE software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

Note Table 8 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 8 Feature Information for Call Home

Feature Name	Releases	Feature Information
Call Home	12.4(24)T 12.2(33)SRE1	Call Home provides e-mail 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. In 12.4(24)T, support for this feature was added for the Cisco 7200 Series router. The support is now extended to the 12.2(33)SRE1 release.

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