



# Call Home

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## Call Home

This chapter provides an overview of the Unified Communications Manager Call Home service and describes how to configure the Unified Communications Manager Call Home feature. The Call Home feature allows to communicate and send the diagnostic alerts, inventory, and other messages to the Smart Call Home back-end server.

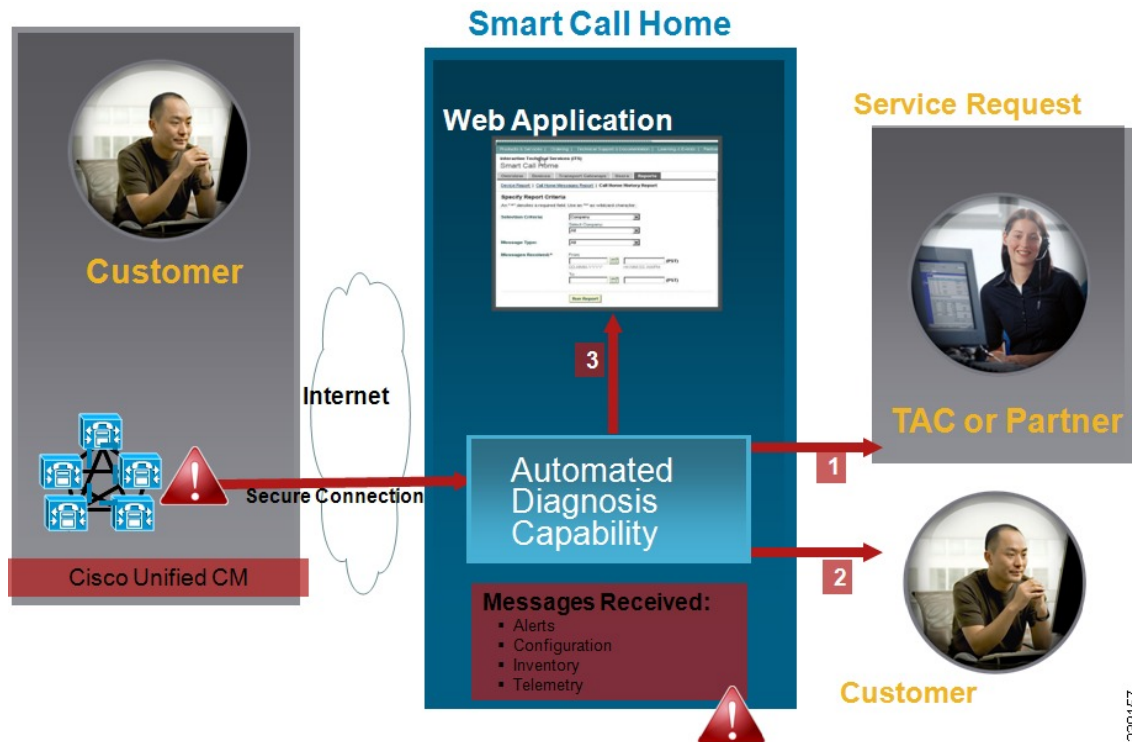
## Smart Call Home

Smart Call Home provides proactive diagnostics, real-time alerts, and remediation on a range of Cisco devices for higher network availability and increased operational efficiency. It accomplishes the same by receiving and analyzing the diagnostic alerts, inventory, and other messages from Smart Call Home enabled Unified Communications Manager. This particular capability of Unified Communications Manager is called as Unified Communications Manager Call Home.

Smart Call Home offers:

- Higher network availability through proactive, fast issue resolution by:
  - Identifying issues quickly with continuous monitoring, real-time, proactive alerts, and detailed diagnostics.
  - Making you aware of potential problems by providing alerts that are specific to only those types of devices in the network. Resolving critical problems faster with direct, automatic access to experts at Cisco Technical Assistance Center (TAC).
- Increased operational efficiency by providing customers the ability to:
  - Use staff resources more efficiently by reducing troubleshooting time.
- Fast, web-based access to needed information that provides customers the ability to:
  - Review all Call Home messages, diagnostics, and recommendations in one place.
  - Check Service Request status quickly.
  - View the most up-to-date inventory and configuration information for all Call Home devices.

Figure 1: Cisco Smart Call Home Overview



Smart Call Home contains modules that perform the following tasks:

- Notify Customer of Call Home messages.
- Provide impact analysis and remediation steps.

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

[http://www.cisco.com/en/US/products/ps7334/serv\\_home.html](http://www.cisco.com/en/US/products/ps7334/serv_home.html)

### Information for Smart Call Home Certificates Renewal

From Cisco Release 10.5(2) onwards, administrators have to manually upload the new certificates for any renewal request to continue support for Smart Call Home feature. You can upload certificates through Cisco Unified Operating System Administration web GUI. Go to **Security > Certificate Management > Upload Certificate/Certificate chain**. Choose **tomcat-trust** as the Certificate Purpose, and upload the certificate from the saved destination.

The following certificate with extension .PEM should be uploaded to tomcat-trust.



**Note** Ensure that the administrator copy the entire string and include -----BEGIN CERTIFICATE----- and -----END CERTIFICATE-----, paste it into a text file, and save it with the extension .PEM.

-----BEGIN CERTIFICATE-----

MIIFtzCCA5+gAwIBAgICBQkwDQYJKoZIhvcNAQEFBQAwRTELMAkGA1UEBhMCQk0x

GTAXBgNVBAoTEFF1b1ZhZGlzIExpbWl0ZWQxGzAZBgNVBAMTElF1b1ZhZGlzIFJv  
b3QgQ0EgMjAeFw0wNjExMjQxODI3MDBaFw0zMTEwMjQxODIzMzNaMEUxGzAJBgNV  
BAYTAkNMRkwFwYDVQQKEExBRdW9WYWRpcyBMAW1pdGVkMRswGQYDVQQDEExJRdW9  
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ksOR1YqI0JDs3G3eicJlcZaLDQP9nL9bFqyS2+r+eXyt66/3FsvbzSUR5R/7mp/i  
Ucw6UwxI5g69ybr2BILmEROFcmMDBOENisgGQLodKcftslWZvB1JdxnwQ5hYIiz  
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/zOhD7osFRXql7PSorW+8oyWHhqPHWykYTe5hnMz15eWniN9gqRMgeKh0bnpX5UH  
oycR7hYQe7xFSkyyBNKr79X9DFHOUGoIMfmR2gyPZFWdWzqLID9ujWe90tb+fVuI  
yV77zGHcizN300QyNqliBJIWENieJ0f7OyHj+OsdWwIDAQABo4GwMIGtMA8GA1Ud  
EwEB/wQFMAMBAf8wCwYDVR0PBAQDAgEGMBOGA1UdDgQWBBQahGK8SEwzJQTU7tD2  
A8QZRtGUazBuBgNVHSMEZzBlBgQahGK8SEwzJQTU7tD2A8QZRtGUa6FJpEcwRTEL  
MAkGA1UEBhMCQk0xGTAXBgNVBAoTEFF1b1ZhZGlzIExpbWl0ZWQxGzAZBgNVBAMT  
EIF1b1ZhZGlzIFJvY3QgQ0EgMoICBQkwDQYJKoZIhvcNAQEFBQADggIBAD4KfK2f  
BluornFdLwUvZ+YTRYPENvbzwCYMDbVHZF34tHLJRqUDGCdViXh9duqWNIAXINzn  
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8eOx79+Rj1QqCyXBjhnEUhAFZdWCEOrCMc0u  
-----END CERTIFICATE-----

## Anonymous Call Home

The Anonymous Call Home feature is a sub-feature of the Smart Call Home feature that allows Cisco to anonymously receive inventory and telemetry messages. Enable this feature to keep your identification anonymous.

The following are the characteristics of Anonymous Call Home:

- The Unified Communications Manager sends only inventory and telemetry messages and not diagnostic and configuration information to Smart Call Home back-end.
- It will not send any user related information (for example, registered devices and upgrade history).
- Anonymous call home option does not require registration or entitlement for Smart Call Home feature with Cisco.
- The inventory and telemetry messages are sent periodically (first day of every month) to the Call Home back-end.
- **Include Trace logs and Diagnostic Information** option is disabled if Cisco Unified Communications Manager is configured to use Anonymous Call Home.

Inventory messages contains information about the cluster, nodes, and license.

The following table lists the inventory messages for Smart Call Home and Anonymous Call Home.

**Table 1: Inventory Messages for Smart Call Home and Anonymous Call Home**

Inventory messages	Smart Call Home	Anonymous Call Home
Contact Email	Applicable	Not Applicable
Contact Phone number	Applicable	Not Applicable
Street Address	Applicable	Not Applicable
Server Name	Applicable	Not Applicable
Server IP Address	Applicable	Not Applicable
Licence Server	Applicable	Not Applicable
OS Version	Applicable	Applicable
Model	Applicable	Applicable
Serial Number	Applicable	Applicable
CPU Speed	Applicable	Applicable
RAM	Applicable	Applicable
Storage Partition	Applicable	Applicable
Firmware version	Applicable	Applicable
BIOS Version	Applicable	Applicable

<b>Inventory messages</b>	<b>Smart Call Home</b>	<b>Anonymous Call Home</b>
BIOS Information	Applicable	Applicable
Raid Configuration	Applicable	Applicable
Active Services	Applicable	Applicable
Publisher Name	Applicable	Not Applicable
Publisher IP	Applicable	Not Applicable
Product ID	Applicable	Applicable
Active Version	Applicable	Applicable
Inactive Version	Applicable	Applicable
Product Short name	Applicable	Applicable

Telemetry messages contain information about the number of devices (IP phones, gateways, conference bridge, and so on) for each device type that is available on a Unified Communications Manager cluster. The telemetry data contains the device count for the entire cluster.

The following table lists the telemetry messages for Smart Call Home and Anonymous Call Home.

**Table 2: Telemetry Messages for Smart Call Home and Anonymous Call Home**

<b>Telemetry messages</b>	<b>Smart Call Home</b>	<b>Anonymous Call Home</b>
Contact Email	Applicable	Not Applicable
Contact Phone number	Applicable	Not Applicable
Street Address	Applicable	Not Applicable
Server name	Applicable	Not Applicable
CM User Count	Applicable	Not Applicable
Serial Number	Applicable	Applicable
Publisher name	Applicable	Not Applicable
Device count and Model	Applicable	Applicable
Phone User Count	Applicable	Applicable
CM Call Activity	Applicable	Applicable
Registered Device count	Applicable	Not Applicable
Upgrade history	Applicable	Not Applicable

Telemetry messages	Smart Call Home	Anonymous Call Home
System Status	Applicable for Host name, Date, Locale, Product Version, OS Version, Licence MAC, Up Time, MP Stat, Memory Used, Disk Usage, Active and Inactive partition used, and DNS	Applicable for Date, Locale, Product Version, OS Version, Licence MAC, Up Time, Memory Used, Disk Usage, and Active and Inactive partition used

Configuration messages contain information about the row count for each database table that is related to a configuration. The configuration data consists of table name and row count for each table across the cluster.

## Smart Call Home Interaction

If you have a service contract directly with Cisco Systems, you can register Unified Communications Manager for the Cisco Smart Call Home service. Smart Call Home provides fast resolution of system problems by analyzing Call Home messages that are sent from Unified Communications Manager and providing background information and recommendations.

The Unified Communications Manager Call Home feature delivers the following messages to the Smart Call Home back-end server:

- Alerts - Contain alert information for various conditions related to environment, hardware failure, and system performance. The alerts may be generated from any node within the Unified Communications Manager cluster. The alert details contain the node and other information required for troubleshooting purposes, depending on the alert type. See topics related to Smart call home interaction for alerts that are sent to the Smart Call Home back-end server.

The following are the alerts for Smart Call Home.

By default, Smart Call Home processes the alerts once in 24 hours. Repeated occurrence of the same alert within the span of 24 hours in mixed cluster (Unified Communication Manager and Cisco Unified Presence) and is not processed by Smart Call Home.




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**Important** The collected information is deleted from the primary AMC server after 48 years. By default, Unified Communications Manager publisher is the primary AMC server.

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- **Performance Alerts**

- CallProcessingNodeCPUpegging
- CodeYellow
- CPUpegging
- LowActivePartitionAvailableDiskSpace
- LowAvailableVirtualMemory
- LowSwapPartitionAvailableDiskSpace

- **Database - Related Alerts**

- DBReplicationFailure
- **Failed Calls Alerts**
  - MediaListExhausted
  - RouteListExhausted
- **Crash - Related Alerts**
  - Coredumpfilefound
  - CriticalServiceDown

The configuration, inventory, and telemetry messages are sent periodically (first day of every month) to the Call Home back-end. The information in these messages enables TAC to provide timely and proactive service to help customers manage and maintain their network.

## Prerequisites for Call Home

To support the Unified Communications Manager Call Home service, you require the following:

- A Cisco.com user ID associated with a corresponding Unified Communications Manager service contract.
- It is highly recommended that both the Domain Name System (DNS) and Simple Mail Transfer Protocol (SMTP) servers are setup for the Unified Communications Manager Call Home feature.
  - DNS setup is required to send the Call Home messages using Secure Web (HTTPS).
  - SMTP setup is required to send the Call Home messages to Cisco TAC or to send a copy of the messages to a list of recipients through email.

## Access Call Home

To access Unified Communications Manager Call Home, go to Cisco Unified Serviceability Administration and choose **CallHome (Cisco Unified Serviceability > CallHome > Call Home Configuration)**.

## Call Home Settings

The following table lists the default Unified Communications Manager Call Home settings.

*Table 3: Default Call Home Settings*

Parameter	Default
Call Home	Enabled
Send Data to Cisco Technical Assistance Center (TAC) using	Secure Web (HTTPS)

If default Smart Call Home configuration is changed during installation, then the same settings reflect in the Call Home user interface.




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**Note** You must need to have a SMTP setup if you choose **Email** as the transport method and SMTP setup is not a required for **Secure Web (HTTPS)** option.

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## Call Home Configuration

In Cisco Unified Serviceability, choose **Call Home > Call Home Configuration**.

The Call Home Configuration window appears.




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**Note** You can also configure the Cisco Smart Call Home while installing the Unified Communications Manager.

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The Smart Call Home feature is enabled if you configure Smart Call Home option during installation. If you select **None**, a reminder message is displayed, when you log in to Cisco Unified Communications Manager Administration. Instructions to configure Smart Call Home or disable the reminder using Cisco Unified Serviceability is provided.

The following table describes the settings to configure the Unified Communications Manager Call Home.

**Table 4: Unified Communications Manager Call Home Configuration Settings**

Field Name	Description
<b>Call Home Message Schedule</b>	Displays the date and time of the last Call Home messages that were sent and the next message that is scheduled.



Field Name	Description
Call Home*	<p>From the drop-down list, select one of the following options:</p> <ul style="list-style-type: none"> <li>• <b>None:</b> Select this option if you want to enable or disable the Call Home. A reminder message appears Smart Call Home is not configured. To configure Smart Call Home or disable the reminder, please go to Cisco Unified Serviceability &gt; Call Home or click <a href="#">here</a> on the administrator page.</li> <li>• <b>Disabled:</b> Select this option if you want to disable Call Home.</li> <li>• <b>Enabled (Smart Call Home):</b> This option is enabled, if you have selected Smart Call Home during installation. When you select this option, all the fields under <b>Customer Contact Details</b> are enabled. With the same configuration, the options in <b>Send Data</b> are also enabled.</li> <li>• <b>Enabled (Anonymous Call Home):</b> Select this option if you want to use Call Home in anonymous mode. When you select this option, all the fields under <b>Customer Contact Details</b> is disabled. With the same configuration, the Send a copy to the following email addresses (separate multiple addresses with comma) field in <b>Send Data</b> is enabled, and Include Trace logs and Diagnostics Information is disabled on Call Home page.</li> </ul> <p><b>Note</b> If you enable Anonymous Call Home, the server sends usage statistics to Cisco systems from the server. This information helps Cisco to understand user experience about the product and to drive product direction.</p>
<b>Customer Contact Details</b>	
Email Address*	Enter the contact email address of the customer. This is a mandatory field.
Company	(Optional) Enter the name of the company. You can enter up to 255 characters.
Contact Name	(Optional) Enter the contact name of the customer. You can enter up to 128 characters.  The contact name can contain alphanumeric characters and some special characters like dot (.), underscore (_) and, hyphen (-).
Address	(Optional) Enter the address of the customer. You can enter up to 1024 characters.
Phone	(Optional) Enter the phone number of the customer.
<b>Send Data</b>	

Field Name	Description
Send Data to Cisco Technical Assistance Center (TAC) using	<p>This is a Mandatory field. From the drop-down list, select one of the following options to send Call Home messages to Cisco TAC:</p> <ul style="list-style-type: none"> <li>• <b>Secure Web (HTTPS)</b>: Select this option if you want to send the data to Cisco TAC using secure web.</li> <li>• <b>Email</b>: Select this option if you want to send the data to Cisco TAC using email. For email, the SMTP server must be configured. You can see the Host name or IP address of the SMTP server that is configured.</li> </ul> <p><b>Note</b> A warning message displays if you have not configured the SMTP server.</p> <ul style="list-style-type: none"> <li>• <b>Secure Web (HTTPS) through Proxy</b>: Select this option if you want to send the data to Cisco TAC through proxy. Currently, we do not support Authentication at the proxy level. The following fields appear on configuring this option: <ul style="list-style-type: none"> <li>• <b>HTTPS Proxy IP/Hostname*</b>: Enter the proxy IP/Hostname.</li> <li>• <b>HTTPS Proxy Port*</b>: Enter the proxy port number to communicate.</li> </ul> </li> </ul>
Send a copy to the following email addresses (separate multiple addresses with comma)	Check this check box to send a copy of the Call Home messages to the specified email addresses. You can enter up to a maximum of 1024 characters.
Include Trace logs and Diagnostic Information	<p>Check this check box to activate the Unified Communications Manager to collect logs and diagnostics information.</p> <p><b>Note</b> This option is active only if the Smart Call Home is enabled.</p> <p>The message contains diagnostic information collected at the time of alert along with trace message. If the trace size is less than 3 MB, then the traces will be encoded and sent as part of alert message and if the traces are more than 3 MB then the path of the trace location is displayed in the alert message.</p>
Save	<p>Saves your Call Home configuration.</p> <p><b>Note</b> After you save your Call Home Configuration, an End User License Agreement (EULA) message appears. If you are configuring for the first time, you must accept the license agreement.</p> <p><b>Tip</b> To deactivate the Call Home service that you activated, select the <b>Disabled</b> option from the drop-down list and click <b>Save</b>.</p>
Reset	Resets to last saved configuration.

Field Name	Description
Save and Call Home Now	<p>Saves and sends the Call Home messages.</p> <p><b>Note</b> A message appears <b>Call Home Configuration saved and all Call Home Messages sent successfully</b> if the messages are sent successfully.</p>

## Limitations

The following limitations apply when Unified Communications Manager or Cisco Unified Presence server is down or unreachable:

- Smart Call Home fails to capture the date and time of the last Call Home messages sent and the next message scheduled, until the server is reachable.
- Smart Call Home does not send the Call Home messages, until the server is reachable.
- Smart Call Home will be unable to capture license information in the inventory mail when the publisher is down.

The following limitations are due to Alert Manager and Collector (AMC):

- If an alert occurs on node A and the primary AMC server (by default, publisher) is restarted, and if the same alert occurs within a span of 24 hours on the same node, Smart Call Home resends the alert data from node A. Smart Call Home cannot recognize the alert that has already occurred because the primary AMC was restarted.
- If an alert occurs on node A and if you change the primary AMC server to another node, and if the same alert occurs within a span of 24 hours on the same node, Smart Call Home recognizes it as a fresh alert on node A and sends the alert data.
- The traces that are collected on the primary AMC server may reside on the primary AMC server for a maximum of 60 hours in few scenarios.

The following are the limitations in the mixed cluster (Unified Communications Manager and IM and Presence) scenario:

- Alerts like **CallProcessingNodeCpuPegging**, **Media List Exhausted**, **Route List Exhausted** are not applicable to IM and Presence.
- If the user changes primary AMC server to IM and Presence, then Smart Call Home cannot generate Custer Overview reports for **Media List Exhausted** and **Route List Exhausted**.
- If the user changes primary AMC server to IM and Presence, then Smart Call Home cannot generate Overview reports for **DB Replication** alert.

## References for Call Home

For more information about Smart Call Home, refer the following URL:

- Smart Call Home Service Introduction  
[http://www.cisco.com/en/US/products/ps7334/serv\\_home.html](http://www.cisco.com/en/US/products/ps7334/serv_home.html)

