CHAPTER 1

Introduction to Cisco Smart Call Home

This chapter provides an overview of the Cisco Smart Call Home service and covers the following areas:

- Benefits of Smart Call Home.
- Smart Call Home Interaction with Call Home.
- MDS 9000 Migration from AutoNotify to Smart Call Home
- System Requirements for the Call Home Feature.
- System Requirements for Smart Call Home.
- Transport Gateway Software Package.
- Quick Start for Smart Call Home.

Benefits of Smart Call Home

Smart Call Home offers proactive diagnostics and real-time alerts on select Cisco devices and provides higher network availability and increased operational efficiency. Smart Call Home is a new, secure connected service of SMARTnet that is currently available on the following products:

- Catalyst 4500 /4900 /6500
- Cisco 7200 /7300 / 7600
- Cisco Unified Computing System

- MDS 9000
- Nexus 5000 / 7000

Smart Call Home offers higher network availability through proactive, fast issue resolution by:

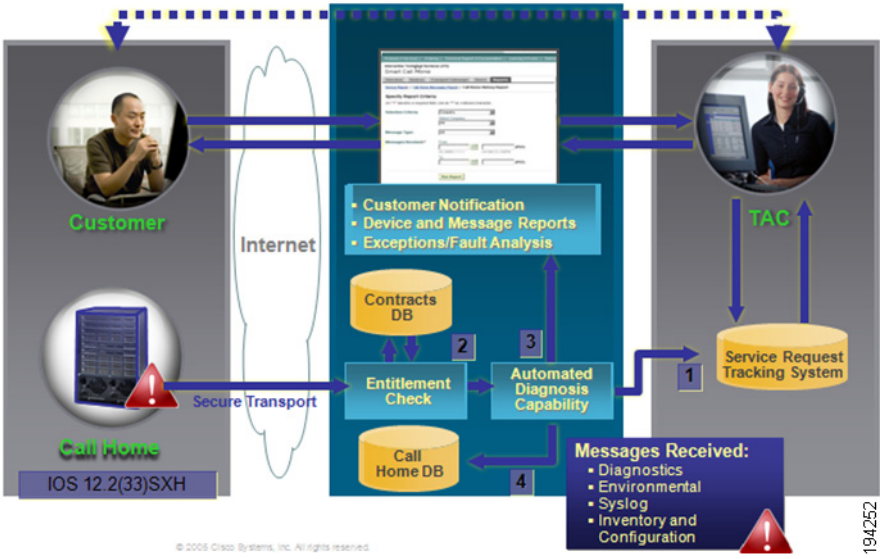
- Identifying issues quickly with continuous monitoring, real-time, proactive alerts, and detailed diagnostics.
- Making the customer aware of potential problems by providing PSIRTs and field notices that are specific to only those types of devices in your network.
- Resolving critical problems faster with direct, automatic access to experts at Cisco TAC.

Smart Call Home offers increased operational efficiency by providing customers the ability to:

- Use staff resources more efficiently by reducing troubleshooting time.
- Generate Service Requests to Cisco TAC automatically, routed to the appropriate support team, which provides detailed diagnostic information that speeds problem resolution.

Smart Call Home offers 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.



Smart Call Home contains modules that perform the following tasks:

1. Raise Service Requests with TAC.
2. Provide entitlement checking.
3. Provide rules analysis.
4. Store and analyze alarms for future SCH rules creation.

Smart Call Home Interaction with Call Home

The Smart Call Home service provides proactive messaging by capturing and processing Call Home diagnostics and inventory alarms. The Call Home feature on the Cisco devices provides the capability for a customer to configure Call Home profiles that define:

- Events of interest.
- Destination addresses.
- Transport methods.

- Message formats.

Within a profile a customer can select events of interest by subscribing to specific alert groups which define specific actions to take when certain events occur:

- A customer could configure a profile and subscribe to diag events and subscribe to diag alert groups which have a destination address that is an epage address using a short text format. Using the email transport method allows an individual to be paged at home via short text email when a major diagnostic failure occurs.
- All environmental events might be sent via HTTPS to a network management stations.
- Generate Call Home messages via HTTPS (or email) to Cisco TAC for specific types of events that will generate a service request to TAC; the message will proactively send all needed error information to TAC for further analysis.

The Smart Call Home Service, in conjunction with supporting Cisco devices, provides a mechanism for Cisco hardware to send the following information to Cisco TAC.

- Periodic system messages.
- Real time system event messages.

Call Home messages that are sent periodically include inventory and configuration information.

The inventory and configuration messages are used to generate the Device Report and improve hardware and software quality by identifying failure trends.

Call Home messages that are generated by system events include diagnostic and environmental messages:

- Diagnostic messages are generated when GOLD failures occur (see Generic Online Diagnostics on the Cisco Catalyst 6500 Series Switch).
- Environmental messages, via EEM, are sent when temperature, power and other types of system related thresholds are crossed resulting in major, minor or recovery alarms.

Note The Diagnostic and Environmental tests run on all Smart Call Home supported product types.

The information in these messages enables TAC to provide timely and proactive service to assist the customer in managing and maintaining their network.

MDS 9000 Migration from AutoNotify to Smart Call Home

Cisco is announcing the end of life and end of support for Cisco AutoNotify effective Jan. 31, 2009. Autonotify will be turned off a short time later and users will need to take action to migrate to Smart Call Home.

The following information describes some required simple steps for migrating from AutoNotify to Smart Call Home:

1. Send a call-home test inventory message from each of your devices

Note Smart Call Home is accessible via the email alias callhome@cisco.com; however, the auto-notify@cisco.com can still be used as messages to it will be redirected appropriately.

2. Complete the registration process (including acceptance of the Smart Call Home terms and conditions) by following the steps in the automated email you will receive from Smart Call Home
3. Ensure users and email contacts for your devices are established in the Smart Call Home web application
4. It is recommended that you also setup periodic inventory from your devices since Smart Call Home provides valuable reports based on this data

Numerous benefits are provided when migrating from AutoNotify to the Smart Call Home service. Some of the benefits provided by Smart Call Home are:

- Smart Call Home provides improved inventory reporting of the devices in the customer's network.

Tip It is beneficial to perform periodic inventories of your network, which allows you to maintain a current view of all the devices in your network and lets you maximize the benefits that Smart Call Home offers.

- Customers can register devices without manual intervention from Cisco.
- Smart Call Home provides recommendations for known issues.
- An enhanced version of the History Report is available, which includes the contents of the message.
- Additional reports are provided that are not available with AutoNotify, they are:
  - Device reports, which include improved inventory accounting.
  - Network Summary Reports, which provides a summary of the devices and modules that reside in the customer network

There are several areas in Smart Call Home that are affected by the MDS 9000 migration, they are:

- User registration — existing AutoNotify user registrations will be created via the Smart Call Home web application, by the Customer Admin.
- Device registration — devices currently registered in AutoNotify will be manually registered on the Cisco backend. Users should verify that all their devices have been successfully migrated over to Smart Call Home.

Note If a device registration is missing, the customer can either contact sch-support@cisco.com or re-register the device by sending a call home test message to Smart Call Home, which will re-initiate the device registration.

- Device preferences — current preferences will have the default device preferences set in Smart Call Home.

Note For both the existing and new device preferences, the customer can use the Edit Device Preferences option if they want to change the default preferences or add other persons to be notified about Call Home messages.

System Requirements for the Call Home Feature

The following items are the system requirements for Call Home feature on the following Cisco supported devices:

- For Smart Call Home support the following devices should be running the specified IOS version or later:
  - Catalyst 6500 must be running version 12.3(33)SXH image or later.

Note call-home is supported in both modular and non-modular IOS 12.3(33)SXH images

  - Cisco 7600 must be running IOS version 12.2(33)SRC or later.
  - For MDS 9000 use either NX-OS 4.1.1 or later, or SAN-OS 1.0 or later.

Note SAN OS operating system versions (SAN-OS 1.0 or later) can be used, those operating systems will be supported by Smart Call Home MML to AML translation.

  - NEXUS 5000 must be running NX-OS version 4.0(0) or greater.
  - NEXUS 7000 must be running NX-OS version 4.0(0) or greater.
- Refer to the appropriate device Configuration Guide for information on how to do the following:
  - How to configure the Email Address field correctly before triggering the Call Home commands.
  - For IOS devices, how to use the **call-home send alert-group** command to generate an on-demand Call Home message.

Note To see a list of the various device configuration guides go to http://www.cisco.com/go/smartcall and look under the Technical Documentation section.

System Requirements for Smart Call Home

The following information identifies the system requirements that are needed to support the Smart Call Home service:

- The Cisco device must be supported under a valid service contract or active warranty. If the device is not covered by a contract or warranty, the device can be registered for a trial period. The contact person's user profile must have a valid service contract or warranty details to entitle access to service requests.
- The Cisco device must be able to reach the Smart Call Home Cisco backend, which receives the Call-Home messages from the Cisco device and sends out Smart Call Home email notifications, reports, and information.
- Only Internet Explorer (IE) browsers are supported.

The following devices have minimum OS requirements that are needed to support the Call Home feature that interfaces to the Smart Call Home service:

- For Catalyst 6500's IOS version 12.2(33) SXH or later.
- For Cisco 7600's IOS version 12.2(33)SRC or later.
- For MDS 9000 use either NX-OS 4.1.1 or later, or SAN-OS 1.0 or later.

Note Earlier versions of the MDS 9000 operating system (SAN-OS 1.x, 2.x, 3.x) can be used, those operating systems will be supported by Smart Call Home MML to AML translation.

- For NEXUS 5000's NX-OS version 4.0(0) or greater.
- For NEXUS 7000's NX-OS version 4.0(0) or greater.
- A CCO ID associated with an appropriate Cisco SMARTnet service contract for your company.
- SMARTnet for the device to be registered.

Transport Gateway Software Package

The Transport Gateway is an optional software package that can be downloaded and installed to enable the Call Home environment to securely send messages to Smart Call Home via the Transport Gateway.

Note The software package must be installed and configured before Call Home messages can be successfully sent to and received by Smart Call Home.

The Transport Gateway code can be downloaded from the following location: http://www.cisco.com/cgi-bin/tablebuild.pl/cisco-transport-gateway

Note The Transport Gateway download page is available to only registered Cisco.com users that have a valid Cisco Service Agreement.

Quick Start for Smart Call Home

There are three key areas that are involved with getting a Smart Call Home system to operate, those areas deal with installing and configuring the following items:

- Smart Call Home service on the Cisco Backend; no configuration or installing is required. You only need to access the Smart Call Home web application at the following https://tools.cisco.com/sch/.
- Optionally, the Transport Gateway needs to be installed and configured when the customer wants a secure method of delivering their Call Home messages to the Cisco Backend.
- Call Home feature on the customer devices that generate periodic system messages and real time system event messages.

The following items identify the high-level steps used to install and configure the various components used for establishing a connection between the Call Home feature and Smart Call Home service on the Cisco Backend:

- The following tasks represent the key steps required to install, configure and register the Transport Gateway:
  - Download the Transport Gateway Package for a Windows, Solaris, or Linux platform at the following URL:

    http://www.cisco.com/cgi-bin/tablebuild.pl/cisco-transport-gateway;

    Note Go to section Network Analysis and Planning and Cisco Transport Gateway.

  - Register and Configure the Transport Gateway.
  - Launch the Cisco Transport Gateway Application.
  - Set Proxy Settings.
  - Test the Connection Before Registration.
  - Register the Transport Gateway.
  - Configure the Transport Gateway.
- For Call Home perform the following tasks:
  - Go to the following URL to get detailed information on how to configure the Call Home feature:

    http://www.cisco.com/en/US/docs/switches/lan/catalyst6500/ios/12.2SX/configuration/guide/callhome.html#wp1302128
  - You can configure the Call Home feature on a Cisco device using one of the following basic configurations:
    - Call Home Configuration - HTTPS
    - Call Home Configuration - Call Home Messages to Transport Gateway / HTTPS to Cisco
    - Call Home Configuration - Email to Smart Call Home
  - Send the first Call Home message to the Cisco Backend. The application will send a notification about the pending device registration in Smart Call Home for this device, which needs to be confirmed.
- On Smart Call Home web application perform the following tasks:
  - Launch Smart Call Home.
  - Accept the Legal agreement, which gives you access to the Smart Call Home web application.
  - Confirm Device Registration for Devices with “Pending Registration” that sent the Call Home message.