

Smart Call Home Deployment Guide

Cisco Services



Smart Call Home Deployment Guide



PREFACE

Preface

About Smart Services

Cisco Smart Services are software-enabled services that deliver automated, actionable network insights. Intelligent monitoring and collection captures information at the device, network, operation, and application levels; that data is correlated and analyzed against Cisco intellectual capital. The end result is actionable insights into your network.

Cisco® Smart Call Home is an automated support capability that helps minimize network downtime by continuously self-diagnosing the health of Cisco devices.

Smart Call Home provides

- Flexible, proactive notifications
- Analysis and remediation
- Automatic creation of Cisco TAC cases for critical events

Audience

This guide is for use by direct customers and Cisco branded reseller customers who wish to use Smart Call Home.

Scope

This deployment guide includes:

- Introduction to Smart Call Home
- Planning a Smart Call Home deployment
- Configuring and registering devices
- Navigating the Smart Call Home portal
- Tuning Smart Call Home
- Additional resources

Versions

Service, capability, or product versions tested in this deployment guide are:

Cisco Smart Call Home version 3.7

Smart Call Home Deployment Guide



INTRODUCTION

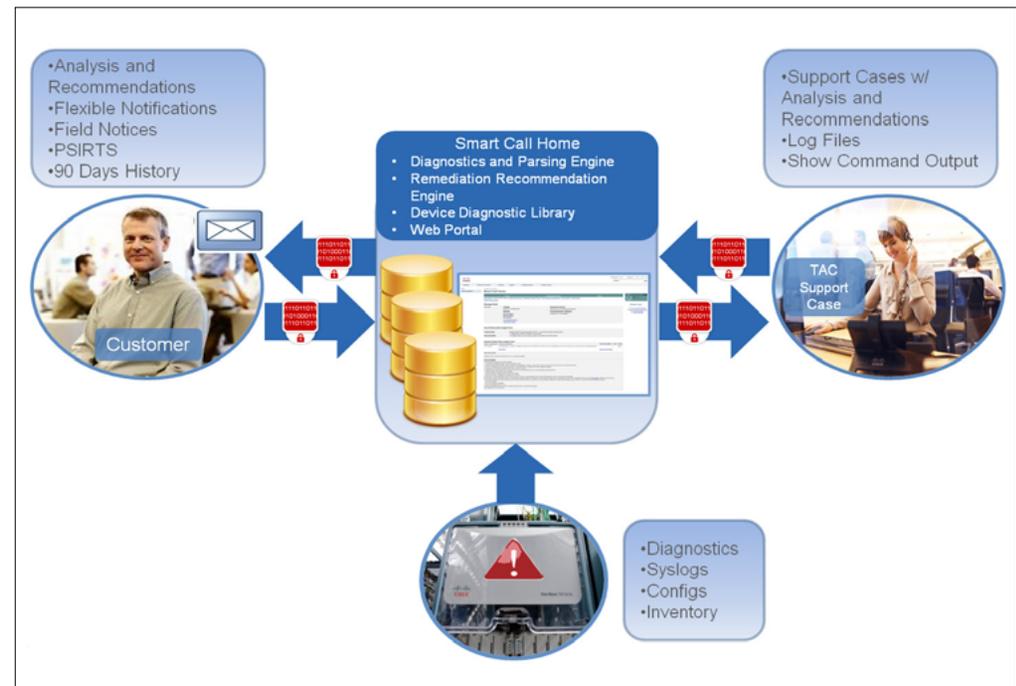
Introduction

Smart Call Home is an automated support capability that helps minimize unplanned network down time by continuously self-diagnosing the health of Cisco devices. Proactive notifications that contain event description, analysis, and recommended remediation are automatically sent to expedite resolution. Smart Call Home helps you:

- Avoid business interruption
- Reduce time-to-resolution
- Reduce operating costs

Smart Call Home leverages the capabilities of Generic Online Diagnostics (GOLD) and Embedded Event Manager (EEM), combined with Cisco intellectual capital, to provide proactive diagnostics, remediation advice, actionable notifications, automatically created TAC support cases for critical events, and web-based reporting. When a fault is detected on a device, it sends an alert to the Smart Call Home servers at Cisco, where the fault is interpreted and enriched with a plain-language description of the alert, possible reasons for the fault, and recommendations on how to fix the issue. The customer is notified and a link is provided to the information in the Smart Call Home portal. If the issue is critical, a support case is automatically created with the Cisco TAC.

Figure 1. Overview of Smart Call Home



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PLANNING FOR DEPLOYMENT



Planning for deployment

Pilot

If you are deploying Smart Call Home in a large enterprise network, you have the option to start with a pilot deployment. You can first configure Smart Call Home in a lab environment to better understand the deployment process and to identify any changes that might be required in the production environment. Start with a lab instance of Cisco UCS® or a Cisco IOS® device. The device should accommodate a fault simulation. The device need not be covered by a warranty or service contract.

To implement a Smart Call Home pilot using the direct email transport option:

- Step 1. Register for a [Cisco.com \(CCO\) ID](#).
- Step 2. Identify device(s) to pilot, ensuring they are [supported by Smart Call Home](#). Perform a software upgrade, if necessary.
- Step 3. [Add the contract to your Cisco.com profile](#). If this is a lab device or device not covered by a service contract, skip this step.
- Step 4. Verify [DNS] name resolution by resolving [tools.cisco.com](#).
- Step 5. Verify the system clock is displaying the correct time and adjust if necessary.
- Step 6. Verify connectivity to an SMTP server by name or IP address.
- Step 7. Download the [Smart Call Home Quick Start Guide](#) for your device and locate the configuration for the direct mail option. This is the default configuration for many devices. The direct mail option is supported by all Call Home capable devices, and the deploying via the mail server makes it easy to pilot Smart Call Home, including verifying and inspecting messages as they traverse the network.
- Step 8. Configure the device as instructed in the [Quick Start Guide](#), substituting your email address and SMTP server and using the default CiscoTAC1 profile.

Step 9. Per the [Quick Start Guide](#), send an initial inventory message to start the registration process.

Step 10. When the email is received, follow the link to register the device. If the device is under an active support contract, it will receive full registration. If the device is not under a support contract, it will be granted a 120-day pilot registration. First time users will be prompted to accept the Smart Call Home user agreement during the first login.

Step 11. Monitor the contact email address for email from call-home-notify@cisco.com to confirm that registration is complete.

Your device is now configured and registered to use Smart Call Home. If desired, simulate a diagnostic or environmental fault on the device, view the notification received, and navigate to the [Smart Call Home portal](#) to view the device information, fault information, and recommended actions. See “Navigating the Smart Call Home portal” for more information. For information about creating a simulated fault, consult the [configuration guide](#) for the device.

Goals for the pilot include:

- Understanding Smart Call Home configuration and registration
- Developing a sample production Call Home configuration
- Testing the direct email transport option
- Verifying connectivity to Cisco
- Testing Cisco TAC case creation with a simulated fault(s)

Plan for production deployment

Following the pilot, begin the planning for a production deployment of Smart Call Home. To take full advantage of all Smart Call Home capabilities, your devices must be covered by a valid Cisco service contract, such as Cisco [SMARTnet®](#) or [Smart Net Total Care](#).

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There are four steps to enable Smart Call Home:

1. Identify devices (optional [Product Eligibility Tool](#) for SNTC and PSS customers)
2. Select the transport method
3. [Configure Smart Call Home](#) (optional [Bulk Configuration](#))
4. [Register devices](#)

Identify devices

Consult the [supported products table](#) to identify the devices in your network that are supported by Smart Call Home. Use your asset management system to plan your deployment, starting with the most critical systems.

It is possible to use Cisco [Smart Net Total Care \(SNTC\)](#) to discover your Cisco network. If you are already an SNTC or PSS customer, consider using the Product Eligibility Tool to analyze your inventory details document and identify SCH-capable devices in bulk. For more information on this tool, refer to [Chapter 3](#) of the [Smart Call Home User Guide](#).

Some devices may require a code upgrade to a version of the operating system that has the Smart Call Home feature. Check the [supported products table](#) for minimum software requirements. The Product Eligibility Tool automatically returns this information in the generated report.

Select the transport method

Consider and decide on the transport method that will be used in production. A device can send Call Home messages to Smart Call Home via one of the following transport methods:

- HTTPS direct
- HTTPS via the transport gateway
- Email direct
- Email via the transport gateway

HTTPS direct is the Cisco recommended and most commonly used method. Very few devices do not support the HTTPS direct method. Those that do not can use the email direct method. If using the email direct method, the device must have access to an SMTP server. Inbound email servers at Cisco will accept TLS encryption if requested.

A transport gateway is also available and can be deployed at a customer trusted network to act as a proxy server for the Call Home messages. This transport gateway is [software](#) that can be installed on a Windows or Linux server. The transport gateway receives HTTP messages or emails from various devices or retrieves messages from a local email inbox and then forwards these messages to Smart Call Home. To install a transport gateway, consult the deployment guide [Smart Call Home: Deploying the Transport Gateway on a Cisco Unified Computing System and Red Hat Linux](#).

Note: If any devices are configured to send Call Home messages to the transport gateway via email, the transport gateway must have access to a local mail server and inbox.

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DEPLOYING SMART CALL HOME



Deploying Smart Call Home

Configuring Smart Call Home

Each network device must be configured for the Call Home feature to start monitoring the device for common environmental alarms, periodic diagnostic tests, and system logs (syslogs). Cisco provides [Quick Start Guides](#) for each device type currently supported by Smart Call Home.

Cisco IOS configuration tasks are performed with a level 15 user access and in configuration mode. A network operations engineer can take these configuration tasks and repeat them on multiple similar platforms to quickly accomplish the deployment task. These configuration tasks include:

- Enabling the Call Home feature
- Configuring the contact email address
- Creating a Call Home profile or using the default profile
- Choosing the transport method for that profile
- Activating the desired profile

Using your preferred configuration management tool, push the tested configuration to selected devices starting with the most critical systems. Registration will occur when the first message is received from each device. To initiate an immediate registration, send an inventory message using the command documented in the Quick Start Guide for the device. Note that if a transport gateway is used, it must be registered prior to sending the initial inventory message.

Call Home profiles

A profile combines alert group subscriptions with a transport type and destination. For Cisco IOS devices, the default profile CiscoTAC-1 subscribes to common alert groups and sends messages to Smart Call Home via email. It is possible to adjust some of these options and to create additional custom profiles. Reasons to do this include:

- Transport Gateway: On Cisco IOS platforms, it is possible to change the transport type but not the destination in the default profile. You must create a custom profile to use a transport gateway on these devices.
- Copy yourself: Some customers choose to send a notification directly to their inbox in addition to activating Smart Call Home.
- Alert group subscription: Call Home makes it easy to customize the data that you send back to Cisco. To do so, create a custom profile and specify your own alert group subscriptions. With a custom profile, customers can choose to send more or less alerts than Smart Call Home does using the default profile.

Each product configuration guide contains instructions for creating a custom user profile. Device configuration guides are available in the [Smart Call Home support page](#).

Alert groups

An alert group enables and configures access to specific sources of data within the device. For example, common alert groups exist for the system log (syslog), boot and run-time diagnostics, environmental sensors, the start and running configurations, and inventory.

For Cisco IOS devices, you can choose to use the alert group subscriptions included in the default profile, or create a custom profile to subscribe to specific alert groups. Each alert group can then be further specified by frequency and severity (Figure 2). For Cisco Nexus® and Cisco UCS devices, the severity is set at the profile level (Figure 3).

Each device configuration guide contains the options for alert group subscriptions. Device configuration guides are available in the [Smart Call Home support page](#).

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Figure 2. Possible alert group frequency and severity options for Cisco IOS devices

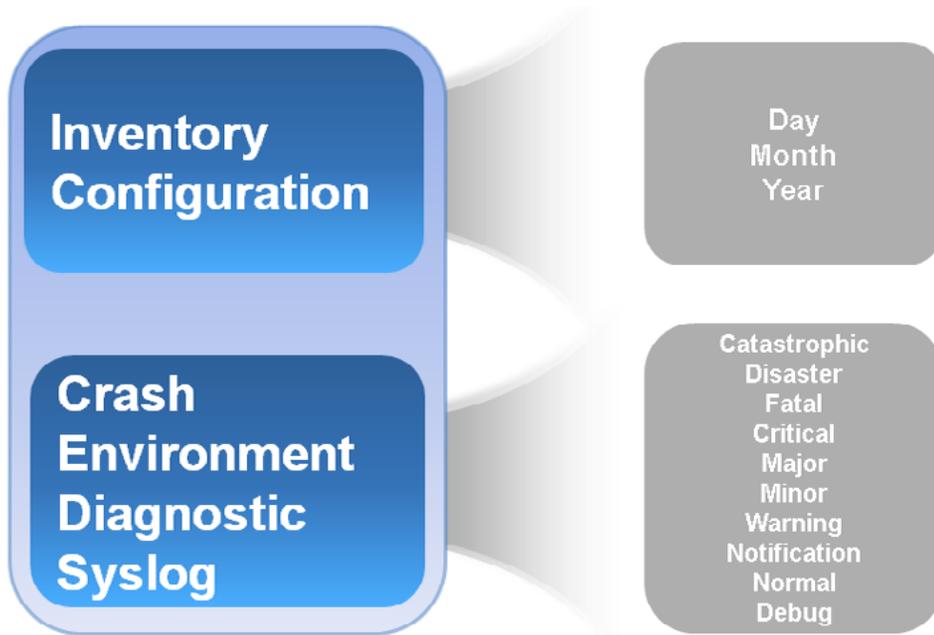
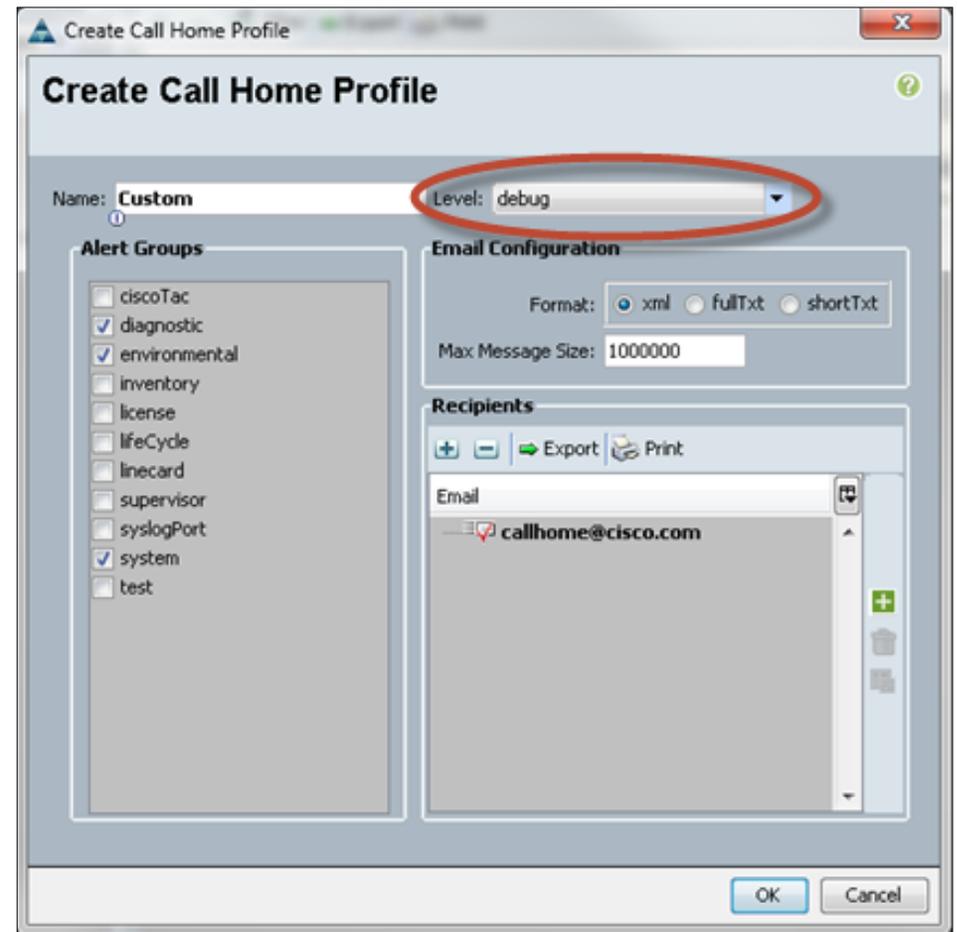


Figure 3. Call Home profile configuration options for Cisco UCS devices



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Registering devices

Once devices have been configured, the contact email address specified in your configuration will receive one of three emails (for each device):

1. Confirm registration – The first device on a contract must be confirmed in the Smart Call Home portal in order to verify that the user is entitled to raise support cases for that contract. Follow the instructions contained in the email to confirm registration.
2. Success – The device and user are successfully registered for the full Smart Call Home service.
3. Point of Contact – The device is registered for 120 days. The contact email address will receive notifications, analysis, and recommendations from Smart Call Home, but any support cases raised will not be routed to a TAC engineer for resolution. This is because either the user or the device are not linked to a valid contract. See the troubleshooting section or use the Smart Call Home Support Community to resolve the issue before the 120 day registration expires.

Registering the transport gateway

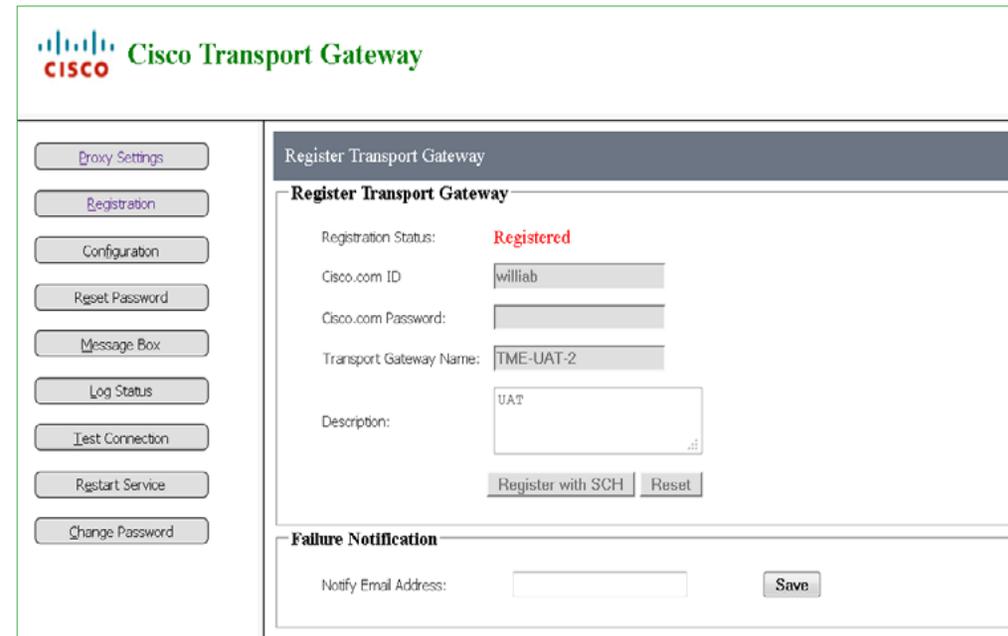
Note: If using a transport gateway, complete this task prior to sending the initial inventory message.

In the transport gateway GUI, click Registration in the left menu.

Step 1. Enter a name and description for the transport gateway and click Register with SCH.

Step 2. Once registration is complete, click Save (Figure 4).

Figure 4. Registering the transport gateway



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Tuning

Smart Call Home gives the user considerable control of the automated support experience. In general, tuning consists of four processes.

1. Modify the Smart Call Home configuration on the device. The Smart Call Home Quick Start Guides provide a basic configuration that leverages many default values that are standard practice. There are many additional options available to the user to tune the messages sent to Cisco. Those options are documented in the Call Home section of each product configuration guide. Options can be integrated into the initial configuration or modified per device at any time. Links to the configuration guides for products supported by Smart Call Home are available in the [Smart Call Home Support Community](#).

2. Add users. Any user who confirms the registration of a device is automatically registered in Smart Call Home as an administrator for that device for the associated company. That administrator may choose to register additional users in the Smart Call Home portal. Those additional users must have a valid Cisco.com ID. To add an administrator, the target user must have a valid contract for the company associated with their Cisco.com profile. For more information, refer to [Chapter 3](#) of the [Smart Call Home User Guide](#).

3. Modify notification preferences. By default, the contact email address in the device configuration and the administrator that confirmed the first registration for the contract will receive a notification for every message that Smart Call Home receives. An administrator may choose to suppress certain classes of notifications and/or direct notifications to additional users. For instructions on how to do this, refer to the “Editing Device Preferences” section of this document.

4. Modify support case preferences. By default, TAC support cases are automatically generated for qualifying events under the Cisco.com ID of the administrator that confirmed the first registration for the contract. The administrator may choose to disable support case creation or change the support case contact to another administrator for the company. For instructions on how to do this, refer to the

“Editing Device Preferences” section of this document.

Bulk Configuration (optional)

You can deploy the Smart Call home configuration to multiple devices or groups of devices using Cisco UCS Central for Cisco UCS domains, Cisco Prime™ LAN Management System, Cisco Prime Data Center Network Manager, or a third-party configuration tool.

Cisco UCS Central

Cisco UCS Central delivers a common management solution across all Cisco UCS domains. Cisco UCS Central provides a centralized resource inventory and a repository of policies. Cisco UCS Central simplifies configuration, maintains policy uniformity, resolves contention on global identities, and effectively and consistently manages Cisco UCS domains.

Cisco UCS Central supports global Call Home policies for notifying all email recipients defined in Call Home profiles to specific Cisco UCS Central events. Profiles define lists of email recipients that receive alert notifications (to a maximum defined message size in full text, short text, or XML format) and alert criteria for triggering notifications.

Alert notifications are sent with predefined content based on alert levels (including major, minor, normal, notification and warning) and selected alert groups identifying events that trigger notification (such as diagnostic, environmental, inventory, license and other predefined events). Individual email recipients may be individually added to existing profiles.

For information about configuring Call Home using this tool, please refer to the [Cisco UCS Central GUI Configuration Guide, Configuring Call Home](#).

Cisco Prime LAN Management System (LMS)

Cisco Prime LMS offers templates specifically designed to deploy Smart Call Home configurations. These templates are easy to use and included with your Cisco Prime LMS solution. Currently templates are available for Cisco IOS, ASA, MDS, and Cisco

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Nexus platforms. To use the templates and deploy a bulk configuration using Cisco Prime:

- Step 1. Open the Cisco Prime GUI.
- Step 2. To access the Template Center, go to Configuration > Tools > Template Center.
- Step 3. In the Navigator pane, click Deploy.
- Step 4. Select the template appropriate to your device group and click Next (Figure 5).

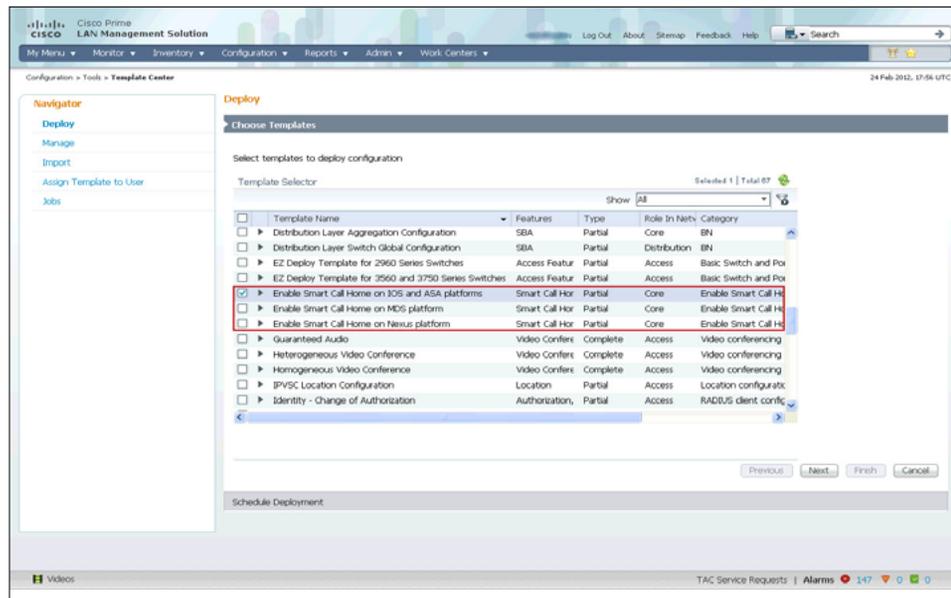
Step 5. Choose the devices or device groups on which you wish to deploy the template and click Next.

Step 6. Enter in the email address to which the device contract is associated. This is the email address that will received notifications from Smart Call Home. Click Next.

Step 7. Enter any adhoc configuration command that will be deployed on the selected devices in addition to the commands in the template and click Next.

Step 8. Enter scheduling information and click Preview CLI if desired. Click Finish to deploy the configuration.

Figure 5. Cisco Prime templates for Smart Call Home



For more information about managing and deploying templates in Cisco Prime LMS, see [Chapter 3 of Configuration Management with Cisco Prime LAN Management Solution 4.1](#).

Cisco Prime Data Center Network Manager (DCNM)

Cisco Prime DCNM provides IT administrators with wizards and predefined scripts for deploying configuration changes to Ethernet and storage networks. Wizard-based provisioning guides IT staff through the provisioning of hosts, Inter-Switch Links (ISLs) and trunks, and storage ports, regardless of whether the ports reside on the physical or virtual Cisco switch. In addition, Cisco Prime DCNM provides predefined template scripts for common tasks, which administrators also can customize; administrators also can import their own scripts into template formats and store them in the template repository.

For information about managing and deploying templates in Cisco Prime DCNM, see [System Management Configuration Guide, Cisco DCNM for LAN](#).

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Using Smart Call Home

Users

Types of Users

Registered Customer Administrators for Smart Call Home

- Customer administrators control the registration of devices under a Cisco branded contract (such as Cisco SMARTnet or Smart Net Total Care), registration of additional users, and device preferences for devices under a Cisco branded contract.
- Customer administrators can be assigned as SR contact (service request contact) for one or more devices under a Cisco branded contract. The customer administrator needs to have the contract covering the device in his/her Cisco.com profile in order to be assigned as SR contact for the device.
- An individual can be registered as customer administrator for multiple entitled companies in the Smart Call Home portal.
- Customer administrators have access to all reports for their company in the Smart Call Home portal.

Registered Customer Users: Users have access to all reporting elements of the portal including analysis and recommendations, inventory and configuration, and history reports.

End Customers (not applicable to direct contracts, such as Cisco SMARTnet or Smart Net Total Care):

- Only to be used by partners to give their end customers access to information related to devices under a Cisco collaborative contract, such as Partner Support Service or Smart Care.
- End customers do not have access by default; they must be given access by their partner.

Partner Administrator and Partner User:

- Only partner administrators can define the default NOC and administrator email addresses. Except for setting the default NOC and administrator email addresses, both partner administrators and partner users have the same level of access to the Smart Call Home portal.
- Devices under a Cisco collaborative contract such as Partner Support Service or Smart Care, and individuals at a partner company, are automatically granted access to the Smart Call Home portal.

How to register

Customer Administrator

- Confirm a device registration for a device under a Cisco branded contract, such as Cisco SMARTnet or Smart Net Total Care. This will automatically register the individual confirming the device registration as customer administrator for the company under which the device is registered. The individual must have the contract covering the device in his/her Cisco.com profile.
- A customer administrator can then add additional administrators for that company. To qualify, an individual must have a valid Cisco.com profile that is associated with a contract for the same company.

Customer Users: Administrators for a company may register additional users for that company. The user must have a valid Cisco.com ID. The user does not require a contract. A user may be an administrator in some companies and a user in others.

End Customer (not applicable to direct contracts, such as Cisco SMARTnet or Smart Net Total Care): Partners may register end customers in order to give the end customer access to specific features. The end customer must have a valid Cisco.com profile. The end customer does not require a contract.

Partner Administrator and Partner User (not applicable to direct contracts, such as Cisco SMARTnet or Smart Net Total Care): Automatic access to the Smart Call Home portal providing access to devices under a collaborative contract.

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Who to register

Administrators: Only one administrator is registered automatically per contract. It is recommended that the administrator register at least one additional administrator for each company.

Network Operations Center: Add an email alias for the NOC to receive notifications for all devices. If the NOC implements workarounds for known errors, add the NOC as registered users to provide access to analysis and recommendations in the Smart Call Home portal.

The Cisco.com ID designated as the SR (service request) contact in Smart Call Home is used to raise support cases with TAC. The NOC will receive notifications when an SR is created, but will not be contacted by Cisco TAC unless an email alias for the NOC is associated with the Cisco.com profile specified as the SR contact.

IT Teams: Many customers have teams with responsibility for specific technologies. Use Smart Call Home device groups to conveniently route notifications to the appropriate team.

- Register one administrator for relevant companies per IT team
- Add remaining IT staff as registered users
- Create device groups as needed
- Use group preferences to change the SR contact to the administrator for the group
- Use group preferences to add the remaining staff to the notification list

Informed users outside of IT: Register informed users as end customers for relevant companies. Grant informed users access to summary reports as required.

Outside support: Add vendors as registered users and to the notification list for all relevant devices.

Cisco TAC: By default, Cisco TAC has access to the device (inventory, configuration, advisories) and history (events) reports so they can investigate cases raised manually or automatically by Smart Call Home. A specific team in Cisco TAC handles cases related to Smart Call Home registration and use. Members of that team have access to user and device registrations so they can assist customers with those functions.

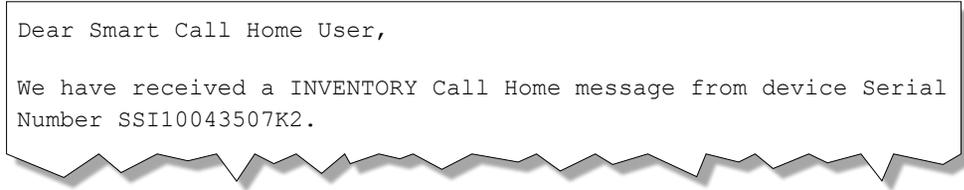
Cisco: It may be desirable to grant access to Cisco employees other than Cisco TAC, such as sales engineers or Advanced Services. Add Cisco employees as registered users for relevant companies.

Email notifications

There are several types of email notifications that you can expect to receive from Smart Call Home. The following are common types of notifications that may be received:

- Alert notification
- Inventory

Figure 11. Request for confirmation for first device on a contract



```
Dear Smart Call Home User,  
  
We have received a INVENTORY Call Home message from device Serial  
Number SSI10043507K2.
```

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To ensure that Call Home messages sent by this device will be processed, please confirm the device registration within 3 months via the Smart Call Home application available at <https://tools.cisco.com/sch/pendingDevices.do?step=2&securityToken=1c4dbf76-dc44-44a7-b1b1-996ff3ecbd6c>

To complete the device registration, please use the following security token:

1c4dbf76-dc44-44a7-b1b1-996ff3ecbd6c

Regards,

Cisco

Figure 12. Sample diagnostic alert email notification

Dear Smart Call Home User,

We have received a DIAGNOSTIC message from device "TSPM-UCSM-1" for which you are a contact person.

Problem Details:

N10-56100 with System name tspm-ucsm-1 reported Diagnostics test failure: ls-server-config-failure. This Service Request was Created due to the test: ls-server-config-failure

For further details and an analysis of these test failures, refer to:

<https://tools.cisco.com/sch/reports/disagnosticResult.do?blackId=861c07c45851879:12ed3110227:da9&srld=617447209>

Device Details:

Message Name: Service profile tspm-b250n1-2 configuration failed due to compute-unavailable, insufficient resources

TimeStamp: 2012-04-13 18:51:51 GMT-00:00

Series: UCS 6100 Series Frabric Interconnect Host Name tspm-ucsm-1 Contract ID: 914121212 Serial Number: SS143507KC1 Product ID: N10-56100

Company: CISCO SYSTEMS, INC.

The message has been processed and Service Request 617447210 has been created. To review the Service Request, please go to:

<http://tools.cisco.com/ServiceREquestTool/query/QueryCaseSearchAction.do?caseType=ciscoServieRequet&method=do.QueryByCase&SRNumber=617447210>.

Please contact the Cisco TAC and reference the Service Request Number to close the Service Request if it has been resolved or opened in error.

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Editing Device Preferences

Smart Call Home sends a variety of email notifications about the health of a device. These notifications may be suppressed by message type, i.e. inventory, configuration, test, diagnostic, and others. The service request contact and email addresses for notifications can also be modified. To perform these tasks:

- Step 1. Go to the [Smart Call Home portal](#) and login with your Cisco.com ID.
- Step 2. Click Registered Devices. The Registered Device Report appears.
- Step 3. Use search criteria to narrow the report to display those devices for which preferences are to be edited.
- Step 4. Select the desired devices and click Edit Device Preferences. The Edit Device Preferences page appears.
- Step 5. Select the devices for which preferences are to be edited. Note that the option to preserve the current configuration is always selected by default.
- Step 6. Choose one or more message types to restrict those types of notifications for the devices selected.
- Step 7. Make desired changes to the service request contact.
- Step 8. Make desired changes to the list of email addresses that receive Smart Call Home notifications by using the Add and Remove buttons.
- Step 9. Add additional email addresses for notifications in the field provided.
- Step 10. Click Submit.

Creating a demo support case (service request)

Smart Call Home provides the ability to create demo support cases with the Cisco TAC. This provides a way for users to test the complete functionality of Smart Call Home using a lab device or any device that is not under contract. No action is taken by the Cisco TAC on these demo support cases. To create a demo support case:

- Step 1. Go to the [Smart Call Home portal](#) and login with your Cisco.com ID.
- Step 2. Click Registered Devices. The Registered Device Report appears.
- Step 3. Use search criteria to narrow the report to display those devices for which preferences are to be edited.
- Step 4. Select the desired devices and click Edit Device Preferences. The Edit Device Preferences page appears.
- Step 5. Select the devices for which demo support cases are to be generated.
- Step 6. Click the checkbox next to Raise Demo SR on next Call-Home message.
- Step 7. Click Submit. When a Call Home message [that generates a service request] is sent, a demo service request will be generated.

To view events that will generate a service request, please refer to the Smart Call Home Monitoring Details.

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Navigating the Smart Call Home portal

This section provides information about the most popular components of the Smart Call Home portal. For detailed information about the complete functionality of the Smart Call Home portal, see Chapter 3 of the Smart Call Home User Guide.

The Smart Call Home web portal provides access to:

- An overview page that provides a summary of key Smart Call Home functions
- Registration management functions for
 - o Registering devices
 - o Devices pending registration
 - o Transport gateways
 - o Registering users
- Reports and information about Call Home enabled devices, including messages they send, PSIRTs, and EOL/EOS information

Registered Devices

To view information about registered devices, go to the home page of the [Smart Call Home portal](#). Click the Registration Management tab. A list of registered devices appears. A search list at the top of the page allows for filtering and searching of specific devices or device groups. Hover over the Info link to view and edit device settings, such as registration information, notifications, support case preferences, and device contracts (Figure 13).

Figure 13. Smart Call Home portal - registered devices

Serial Number	Host Name	Product ID	Contract	B2B Flag	Company	Registration Status Date Stamp	Entitlement Status End Date
SSI15	sjc05-ads-ucs01-A	N10-S8100	9052 Cisco Branded		CISCO SYSTEMS INC	Complete 13-Dec-2011 10:38:13 PM	SR Capable 30-Jan-2016 04:00:00 PM
	sjc05-ads-ucs01-B	N10-S8100	9052 Cisco Branded		CISCO SYSTEMS INC	Complete 13-Dec-2011 10:38:18 PM	SR Capable 30-Jan-2016 04:00:00 PM
	sjc05-mix-ucs13-A	N10-S8100	9052 Cisco Branded		CISCO SYSTEMS INC	Complete 28-Sep-2011 11:12:49 AM	SR Capable 30-Jan-2016 04:00:00 PM
SSI14300	sjc05-mix-ucs04-A	N10-S8100	9052 Cisco Branded		CISCO SYSTEMS INC	Complete 20-Sep-2011 08:35:41 AM	SR Capable 30-Jan-2016 04:00:00 PM
2a04145d-5b02-4923-0302-7	172.10.172.201	UCMGR	Registered using contract 9141 Direct		CISCO SYSTEMS INC	Complete 22-Sep-2011 12:01:19 PM	SR Trial Capable 21-Dec-2011 12:01:19 PM
IMAFAKE	Host-IMAFAKE091711	WS-C8509-E	Registered using contract 914 Direct		CISCO SYSTEMS INC	Complete 17-Sep-2011 04:07:21 PM	SR Trial Capable 18-Dec-2011 04:07:21 PM
FOX07	rtg7-rows7-san-sw2	DS-C9509	400 Cisco Branded		CISCO SYSTEMS INC	Complete 10-Oct-2011 08:51:30 AM	SR Capable 03-Oct-2016 05:00:00 PM

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Devices Pending Registration

To view devices that are pending registration, go to the home page of the [Smart Call Home portal](#). Click the Registration Management tab then click Devices Pending Registration. A list of devices pending registration appears.

Device Groups and Maintenance Windows

Device groups can be created to more easily search, manage preferences, and create maintenance windows for similar devices. Maintenance windows may be created so that alerts and notifications from Smart Call Home are suppressed at set times for specified devices or device groups.

To create a device group:

- Step 1. Go to the [Smart Call Home portal](#) and login with your Cisco.com ID.
- Step 2. Click Create Device Group. The Create Device Group window appears (Figure 15).
- Step 3. Enter a group name in the space provided.
- Step 4. Search for devices by any or all of the search options and click Search. The serial numbers of the devices fitting the search criteria appear in the Devices Available for Group field.
- Step 5. Click the serial numbers of the devices you wish to add to the group and click Add.
- Step 6. Click Save.

Devices may be added or removed from the device group by clicking the Edit Device Group link from the home page of the [Smart Call Home portal](#). Device group preferences can be modified by clicking the Edit Group Preferences link. Devices may not belong to more than one device group.

Figure 14. Devices Pending Registration

Smart Call Home

Overview | **Registration Management** | Reports

[Registered Devices](#) | [Devices Pending Registration](#) | [Transport Gateways](#) | [Registered Users](#) | [Bulk Registration](#) | [Registered End Customers](#) | [End Customer Access](#)

Devices Pending Registration [Help](#)

This page allows you to complete pending device registrations. Completing a pending device registration is necessary to ensure that messages sent by the device will be processed.

There are two methods to complete pending device registrations:

- Enter a Security Token in the provided field and click the Submit button.
- Check devices in the list below and click the Complete Device Registration button.

Complete Device Registration By Security Token

Enter Security Token:

Use an "*" as wildcard character for the partial search.

Search List: Host Name: Serial Number: Company:

Contract:

The list below displays pending device registrations for the companies you are already registered for.

Complete Device Registration From Existing Device List

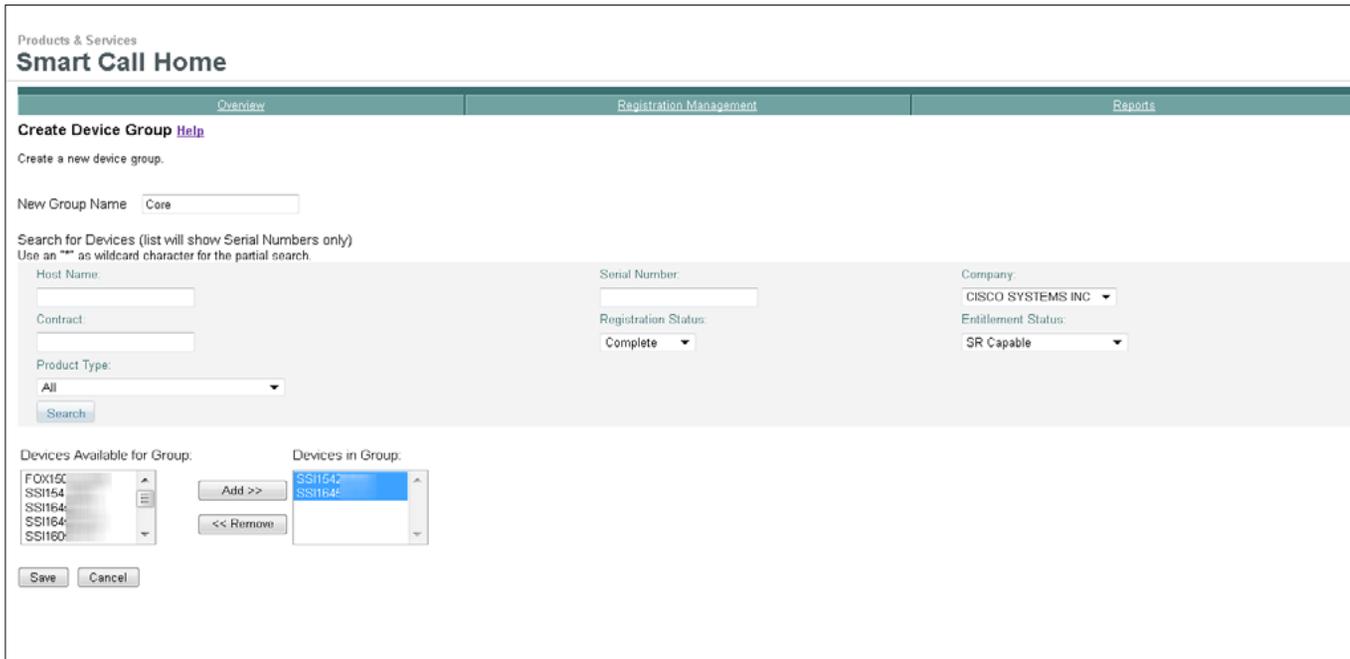
<input type="checkbox"/>	Host Name	Contract	Serial Number	Company
<input type="checkbox"/>	rtp1-dcm02n-ucs04-A	9087	SSI14E	CISCO SYSTEMS INC
<input type="checkbox"/>	rtp1-dcm02n-ucs04-B	9087	SSI14E	CISCO SYSTEMS INC
<input type="checkbox"/>	Stout-Field-VPN	919E	JMK10	CISCO SYSTEMS INC
<input type="checkbox"/>	rcdn9-dci13n-ucs02-B	9087	SSI152	CISCO SYSTEMS INC
<input type="checkbox"/>	rtp1-dcm01n-ucs24-B	9087	SSI154	CISCO SYSTEMS INC
<input type="checkbox"/>	alin01-ak05-san-bw04	9251	AMS14	CISCO SYSTEMS INC
<input type="checkbox"/>	rcdn9-dci04n-ucs43-A	9087	SSI162	CISCO SYSTEMS INC
<input type="checkbox"/>	rcdn9-dci04n-ucs43-B	9087	SSI154	CISCO SYSTEMS INC
<input type="checkbox"/>	rtp1-dcm01n-ucs24-A	9087	SSI154	CISCO SYSTEMS INC
<input type="checkbox"/>	TSPM-SJ-SH-888EF	9222	FGL15	CISCO SYSTEMS INC
<input type="checkbox"/>	rcdn9-dci13n-ucs01-A	9087	SSI153	CISCO SYSTEMS INC
<input type="checkbox"/>	alin01-dcz03n-ucs02-A	9087	SSI14E	CISCO SYSTEMS INC
<input type="checkbox"/>	rtp1-dcm04n-ucs01-B	9087	SSI153	CISCO SYSTEMS INC

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Figure 15. Creating a device group



To set a maintenance window:

Step 1. Go to the [Smart Call Home portal](#) and login with your Cisco.com ID.

Step 2. Click Set Maintenance Window for Individual Devices or Set Maintenance Window for Device Groups.

Step 3. Search for individual devices or select a device group (Figure 16).

Step 4. Select a start and end time for the maintenance window by clicking the calendar icons and selecting dates. Options exist for applying the maintenance window to the device group or selected serial numbers within the device group.

Step 5. After making desired selections, click Set Maintenance Window.

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Figure 16. Setting a maintenance window

Products & Services
Smart Call Home

Overview | Registration Management

Set Maintenance Window for Device Groups [Help](#)

Select an Existing Group Name: TSPM_Aus

Apply Same Maintenance Window for All Selected Devices
Start Time: Mar 18, 2013 08:50:51 AM End Time: Mar 19, 2013 08:50:55 AM

Device list for selected group

Serial Number	Start Time	End Time
<input type="checkbox"/> JAF144		
<input type="checkbox"/> SSI143		
<input type="checkbox"/> SSI143		
<input type="checkbox"/> JMX112		
<input type="checkbox"/> SSI143		
<input type="checkbox"/> JAF150		
<input type="checkbox"/> FTX144		

Set Maintenance Window | Reset Maintenance Window | Cancel

Figure 17. Device report options

Products & Services
Smart Call Home

Overview | Registration Management

Device Report | [Call Home History Report](#) | [Registration Summary Report](#) | [Partner Summary Report](#)

Specify Report Criteria [Help](#)

An * denotes a required field.
Use an *** as wildcard character for the partial search.

Company: All
Host Name:
Serial Number:
Product ID:
Contract Number: 9140, 9141, 9148, 9151

Include only devices with Product Advisory information

Run Report

Reports

A number of reports are available on the [Smart Call Home portal](#). All reports contain parameters that can be set to provide just the information needed.

Device Report

The Device Report provides inventory and configuration information for devices that are configured to send that data. It also provides advisories including field notices, security, and EOL/EOS information based on the uploaded inventory and configuration. To run the Device Report, click the Reports tab and the click Device Report. Enter desired search criteria and check the box to include only devices with Product Advisory information and click Run Report. Links are provided to any advisory notices.

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Figure 18. Device Report with product advisory information

Products & Services												
Smart Call Home												
Overview				Registration Management				Reports				
Device Report Call Home History Report Registration Summary Report Partner Summary Report												
Device Report Results Help												
Report Criteria:		Company ALL			Contract Numbers 91483			Include only devices with Product Advisory information				
Serial Number	Host Name	Description	Company Name	Product ID	HW Version	SW Version	Part Number/Rev	Top Assembly Number	Time Based License	Failover Status	Inventory Updated	Configuration Updated
JAF150 (FOX145C) Advisory	-9148-1	MDS 9124 (1 Slot) Chassis	CISCO SYSTEMS INC	DS-C9124-K9	5.2	5.0(4c)	73-10583-07 A0	Not Available	Not Available	Not Available	17-Feb-2013 12:05:01 AM	17-Feb-2013 12:05:01 AM

Call Home History Report

The Call Home History Report provides 90 days of history for all fault, inventory, and configuration messages received from systems. In the example in Figure 19, the user wants to know what diagnostic messages were received during the month of February for all devices. The generated report includes links to the diagnostics messages, as well as links to the service requests raised or updated as the result of the diagnostic message (Figure 20). Click on the link in the Message Type/Results column to view a description and other details about the alert, as well as recommendations for remediation (Figure 21). Message raw data (Figure 22) can be viewed by clicking View Device Output.

Registration Summary Report

The Registration Summary Report provides registration information, including contract, bill-to, and installed-at site information. Run the report by clicking the Registration Summary Report link from the Smart Call Home home page, or by clicking Reports > Registration Summary Report.

Partner Summary Report

Available for partners only, the Partner Summary Report provides the ability to run reports based on the company name, and provides information and links to information on registered devices. Run the report by clicking the Partner Summary Report link from the Smart Call Home home page, or by clicking Reports > Partner Summary Report.

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Figure 19. Report criteria for Call Home History report

Products & Services
Smart Call Home

Overview | Registration

[Device Report](#) | [Call Home History Report](#) | [Registration Summary Report](#) | [Partner Summary Report](#)

Specify Report Criteria [Help](#)

An * denotes a required field.
Use an "*" as wildcard character for the partial search.

Company:* CISCO SYSTEMS INC

Host Name:

Serial Number:

Contract Number:
 All
 Not in contract
 2261
 3630
 4005

Message Type:* Diagnostic

Service Request Number:

Include only messages that raised SR:

Message Processed:*
 Start Date/Time(PST): 01-Feb-2013 12:00:00 AM
 End Date/Time(PST): 27-Feb-2013 02:03:24 PM

Figure 20. Call Home History report

Products & Services
Smart Call Home

Overview | Registration Management | Reports

[Device Report](#) | [Call Home History Report](#) | [Registration Summary Report](#) | [Partner Summary Report](#)

Call Home History Report Results [Help](#)

Report Criteria: Company: CISCO SYSTEMS INC | Message Type: DIAGNOSTIC | Message Processed: From: 01-Feb-2013 12:00:00 AM To: 27-Feb-2013 02:03:24 PM

Contract Numbers: ALL

Serial Number	Host Name	Time Message Processed (US PST)	Product ID	Contract Number	Company Name	Serial Number Entitled	SR Contact	Message Severity Level	Message Type/Results	SR Raised/Updated	Notification Sent
SSI154	rcdn9-dc-ucs08-A	14-Feb-2013 05:03:25 PST	N10-S6200	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	5	Diagnostic	6244	Yes
SSI154	rcdn9-dc-ucs08-A	12-Feb-2013 17:13:19 PST	N10-S6200	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	5	Diagnostic	6244	Yes
SSI153	sjc05-mix-ucs	22-Feb-2013 07:30:05 PST	N10-S6100	9052	CISCO SYSTEMS INC	Yes	Gina Wiltshire	6	Diagnostic	6242	Yes
SSI144	alln01-dc-ucs03-A	04-Feb-2013 16:55:40 PST	N10-S6100	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	4	Diagnostic	6246	Yes
SSI140	ams3-dc-ucs04-B	03-Feb-2013 13:09:23 PST	N10-S6100	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	5	Diagnostic	6243	Yes
SSI153	alln01-dc-ucs04-B	06-Feb-2013 10:44:08 PST	N10-S6100	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	5	Diagnostic	6248	Yes
SSI153	alln01-dc-ucs04-B	05-Feb-2013 08:13:44 PST	N10-S6100	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	5	Diagnostic	6246	Yes
SSI153	alln01-dc-ucs04-B	03-Feb-2013 18:16:30 PST	N10-S6100	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	5	Diagnostic	6246	Yes
SSI153	alln01-dc-ucs04-B	04-Feb-2013 17:20:53 PST	N10-S6100	9087	CISCO SYSTEMS INC	Yes	Cisco UCS Operations	5	Diagnostic	6246	Yes

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Figure 21. Message details

Smart Call Home

[Overview](#)
[Registration Management](#)
[Reports](#)

[Device Report](#) | [Call Home History Report](#) | [Registration Summary Report](#) | [Partner Summary Report](#)
[< Back to Report Results](#)

Message Details

Message:	Company CISCO SYSTEMS INC Hostname alln01-dcm05n- Message Name Diagnostic View Message Header > View Device Output >	Generated on device at 03-Feb-2013 02:15:11 AM (Local Time Zone) Processed by Smart Call Home at 03-Feb-2013 04:35:05 AM(PST)
-----------------	--	--

Overall Results within Analysis Period

Service Request	Technology	Sub-Technology	Problem Code
624659 for SSI153	Data Center and Storage Networking	Unified Computing System (UCS B-Series Blade Server Systems)	HARDWARE_FAILURE

Problem Details Model N10-S6100 with Host Name alln01-dcm05n- reported following Diagnostics test failure: 'Server 4/5 (service profile: org-root/ls-alln01-vc7-14) health: inoperable'.

Recommendation The detailed analysis of the test failure is listed in the individual result section below:

Individual Results within Analysis Period

Device	Test Name	Recommendation	Count	Status
SSI153	fitComputeBladeInoperable Hide Details	Hide Recommendation	1	Failure

Test Description
The Server Blade 4/5 (profile org-root/ls-alln01-vc7-14) is inoperable. A compute blade has become inoperable or has lost all communications with the Server Chassis backplane. This fault typically occurs when the server has encountered a diagnostic failure.

Impact of Failure
This blade is not functional and all applications running on this server blade will not work.

Recommendation
To resolve the issue perform the following tasks:
 1. In the UCSM GUI turn on the Locator LED to confirm failure of any replaceable components.
 2. Check the POST results for the server to identify the reason for failure. In Cisco UCS Manager GUI, you can access the POST results from the General tab for the server. In Cisco UCS Manager CLI, you can access the POST results through the show post command under the scope for the server.
 3. Re-acknowledge the server.
 4. Ensure that the Server Blade is seated properly in the chassis. Reseat the server blade, if required.
 5. If the failure persists, then consider replacing the faulty Server Blade.

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Figure 22. Message content

The screenshot displays the 'Smart Call Home' interface. At the top, there are tabs for 'Overview' and 'Registration Management'. Below the tabs is a navigation link '< Back to Message Details'. The main section is titled 'Diagnostic : Message Content'. It contains a table with the following information:

Message:	Company CISCO SYSTEMS INC	Generated on device at 03-Feb-2013 02:15:11 AM(Local Time Zone)
	Hostname alln01-dc.m05n- [REDACTED]	Processed by Smart Call Home at 03-Feb-2013 04:35:05 AM(PST)
	Message Name Diagnostic	

Below the table is a scrollable area containing the XML message content:

```
<soap-env:Envelope xmlns:soap-env="http://www.w3.org/2003/05/soap-envelope">
  <soap-env:Header>
    <aml-session:Session soap-env:mustUnderstand="true"
      soap-env:role="http://www.w3.org/2003/05/soap-envelope/role/next" xmlns:aml-session="http://www.cisco.com/2004/01/aml-sess">
      <aml-session:To>http://tools.cisco.com/meddce/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>10FE.SSI1539103A.510DC82F</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/diagnostic</aml-block:Type>
        <aml-block:CreationDate>2013-02-03 02:15:11 GMT-00:00</aml-block:CreationDate>
        <aml-block:Builder>
          <aml-block:Name>UCS 6100 Series Fabric Interconnect</aml-block:Name>
        </aml-block:Builder>
      </aml-block:Header>
    </aml-block:Block>
  </soap-env:Body>
</soap-env:Envelope>
```

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Figure 23. Registration Summary report

Smart Call Home														
Overview				Registration Management					Reports					
Device Report Call Home History Report Partner Summary Report Registration Summary Report														
Report Results														
Report Criteria:		Company All			Host Name tspm*			Serial Number N/A			Product ID N/A			
Report Summary:		Contract Numbers ALL			Total Number of Registered Devices 18			Total Number of Serviceable Components 33						
Note: The content in this report is based on the last Call Home inventory message received from the registered device.														
Company: CISCO SYSTEMS INC Number of Registered Devices: 12 Number of Serviceable Components: 27														
Serial Number	Product ID	Description	Host Name	Contract Number	Contract Category	Contract Type	Contract Status	Contract End Date	Product Status	Product Coverage End Date	Bill-to	Install-at site	Contract Data Last Verified On	Serviceable Components under contract?
FDO154	WS-C3750X-48P-S	WS-C3750X-48P	TSPM-SJ-SC-3750X-2	9231	Collaborative Services	CNL1	ACTIVE	28-Feb-2015 04:00:00 PM	ACTIVE	Not Available	CISCO SYSTEMS CORPORATE	CISCO SYSTEMS INC 170 W TASMAN DR, SAN JOSE, CA, UNITED STATES	02-Jan-2013 11:07:30 AM	yes
EGL154	CISCO092-K9	892 chassis, Hw Serial# FGL154	TSPM-SJ-SC-ISR892	9231	Collaborative Services	CNL1	ACTIVE	28-Feb-2015 04:00:00 PM	ACTIVE	Not Available	CISCO SYSTEMS CORPORATE	CISCO SYSTEMS INC 170 W TASMAN DR, SAN JOSE, CA, UNITED STATES	13-May-2012 06:45:38 AM	yes

Figure 24. Partner Summary report

Smart Call Home													
Overview				Registration Management					Reports				
Device Report Call Home History Report Registration Summary Report Partner Summary Report													
< Back to Search Page													
Summary													
Report Criteria:		Company CISCO SYSTEMS INC			Product ALL								
Report Summary:		Total Number of Devices 624											
User Details:		Logged in as Smart Service			Role Administrator								
Product Summary													
Product	Device Count			% of Devices									
Nexus 4000	1			0.16									
Catalyst 4500	3			0.48									
ASA 5500	21			3.36									
Cisco Unified Computing System	328			52.56									
Catalyst 6500	63			10.09									
Nexus 7000	4			0.64									
Cisco 7300	2			0.32									

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TUNING

Tuning

How to add a contract to Cisco.com profile

Validate that the contract covering the device is associated to your Cisco.com account/profile:

Step 1. Log into the [Cisco.com Profile Manager](#). Click the Access tab to view the contracts for which you have access.

Step 2. If needed, associate the contract to your profile by clicking Add Access and following the instructions in the wizard.

Once submitted, the system processes the contract association provided all entitlement criteria is met. An email is sent to notify the requester that the contract associated successfully, or if further support is required. See the [Cisco.com Support Access Requirements for Customers Q and A](#) for more information.

Suppressing notifications

A key value of Smart Call Home is its ability to reduce the flood of cryptic syslog, environmental, and diagnostic alerts that an administrator normally receives to actionable email notifications containing analysis and recommendations for only the most critical events. But fault notifications are not the entire story. Smart Call Home also sends emails related to the service. Examples include emails confirming inventory, configuration, and registration messages.

Customers can suppress Smart Call Home message types they do not wish to receive. It is recommended that inventory and configuration notification messages be suppressed. For instructions on how to do this, refer to the “Editing Device Preferences” section of this document.

Data privacy

One of the ways that Smart Call Home helps customers identify and resolve problems faster is by automating interactions with Cisco TAC. Call Home automatically uploads items that are frequently required by TAC to resolve issues, including the saved and running configurations.

To limit privacy or compliance issues, the configuration upload feature is optional and turned off by default. When enabled, Call Home masks any sensitive data not relevant to the support process. Data is masked in the device so that it never traverses the LAN or the Internet. Masked data includes usernames, passwords, and community strings. The following is an example of the masked items from a lab device:

```
enable password 7 XXXXXXXXXXXXXXXXXXXX
!
call-home
data-privacy level normal
profile "CiscoTAC-1"
destination transport-method http
no destination transport-method email
destination address email XXXXXXXXXXXXXXXXXXXX
destination address http XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXX
```

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RESOURCES

```
profile "CiscoTAC-2"

destination transport-method http

no destination transport-method email

destination address http XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

!

cwmp agent

management server username XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

!

username XXXXXXXX privilege 15 secret 5 XXXXXXXXXXXXXXXXXXXXXXXXXXXX

username XXXXXXXX privilege 15 password 7 XXXXXXXXXXXXXXXXXXXX

snmp-server community XXXXXXXX v1 default RO
```

Call Home version 2, which is currently available in Cisco Integrated Services Routers (Gen 2) release 15.2(2)T and above, Cisco 7600 Series Switches release 15.3(3)S and above, and Cisco Catalyst 6500 Series Switches release 15.1(1)SY and above adds the option to mask the IP address and hostname. Note that masking the hostname may cause some Smart Call Home processing rules to fail, so it is only recommended in environments that absolutely require this degree of privacy. The new options in Call Home are:

- Data-privacy level high
- Data-privacy hostname

Combined, they mask these additional items in our sample config:

```
hostname XXXXXXXXXXXXXXXXXXXX

!

ip domain name XXXXXXXX

!

interface GigabitEthernet0/0

ip address XXXXXXXXXXXXXXXXXXXX
```

Resources

Refer to the following resources for more information about Smart Call Home:

- Smart Call Home on Cisco.com <http://www.cisco.com/c/en/us/support/cloud-systems-management/smart-call-home/tsd-products-support-series-home.html>
- For technical information, visit the Smart Call Home Support Community at <https://supportforums.cisco.com/community/4816/smart-call-home>.
- Smart Call Home Web Portal tools.cisco.com/sch

*TOMORROW
starts here.*

