

# Cisco TelePresence Management Suite 14.4.2

Software Release Notes Revised March 2015

# Contents

Introduction	1
Changes to interoperability	
Product documentation	2
New features	3
Resolved issues	21
Open issues	
Limitations	
Interoperability	60
Upgrading to 14.4.2	60
Using the Bug Search Tool	63
Technical support	63
Document revision history	64

# Introduction

This is a maintenance release addressing an issue with duplicate external primary keys, affecting customers using Cisco TMS Booking API (Cisco TMSBA) clients such as Cisco TMSXE and Cisco TMSXN. This issue was found in Cisco TMS versions 14.4 and 14.4.1 and causes problems replicating bookings from Cisco TMS to Microsoft Exchange or IBM Domino.

## Technical description of external primary key issue: CSCup76424

In Cisco TMS 14.4 and 14.4.1, Cisco TMS assumes that every conference has a unique ExternalPrimaryKey value. Under certain conditions, earlier versions of Cisco TMS allowed multiple meetings to share the same key, and the 14.4 and 14.4.1 upgrade scripts failed to de-duplicate these keys.

Cisco TMSBA clients such as Cisco TMSXE use the ExternalPrimaryKey to retrieve conferences from Cisco TMS, always expecting to get the same conference when a specific ExternalPrimaryKey is provided to Cisco TMSBA. If conference A and conference B have the same ExternalPrimaryKey value in the tmsng database, Cisco TMSBA could return data belonging to conference A when Cisco TMSXE asks for conference B, and vice versa. If this happens to Cisco TMSXE, the Cisco TMSXE replicator could permanently delete data from Microsoft Exchange based upon incorrect data returned from Cisco TMSBA.

Versions of Cisco TMS prior to 14.4 do not rely upon the ExternalPrimaryKey being unique, and are not at risk of data corruption unless upgraded to 14.4 or 14.4.1.

Similar mechanisms are used for synchronization with Cisco TMSXN, so some conferences in IBM Domino deployments may also be affected by this issue.

#### Resolution of CSCup76424 in 14.4.2

#### Cisco TMSXE and Microsoft Exchange

This version of Cisco TMS fixes the majority of affected conferences automatically, but in some cases that will not be possible:

- A tool has been added to TMS Tools that identifies most remaining duplicate conferences allowing the administrator to select which is the correct conference after upgrading Cisco TMS.
- A small number of duplicated appointments could remain in the Exchange resource calendars after the Cisco TMS and Cisco TMSXE upgrades. These cannot be cleaned up automatically by Cisco TMS, or by using TMS Tools, and require further manual intervention. See <u>Manually resolving any remaining duplicate</u> appointments in Exchange resource calendars [p.61].

#### Cisco TMSXN and IBM Domino

This version of Cisco TMS fixes the majority of affected conferences automatically, but in some cases that will not be possible:

- A tool has been added to TMS Tools that identifies most remaining duplicate conferences allowing the administrator to select which is the correct conference after upgrading Cisco TMS.
- A small number of duplicate bookings originating in IBM Domino could still exist in Cisco TMS. Rereplicating all conferences from Cisco TMS to IBM Domino will resolve these issues. See <u>Restarting the</u> <u>Cisco TMSXN Synchronizer [p.62]</u>.
- There is a very small chance that bookings may exist in IBM Domino but not in Cisco TMS. These cannot be cleaned up by Cisco TMS, Cisco TMSXN, or by using TMS Tools. It is most likely that these bookings were created either from Conference Templates, or by copying existing conferences in versions of Cisco TMS earlier than 14.4, and that these conferences were subsequently edited (either in Cisco TMS or in IBM Domino) in 14.4 or 14.4.1. These 'ghost' bookings will cause incorrect free/busy information in IBM Domino. The only impact here is that the room will appear to be booked in Domino when it is not booked in Cisco TMS. It is not possible to identify these bookings, but if you notice that a video resource cannot be booked in Domino, but has no corresponding booking in Cisco TMS, you can simply delete the booking in Domino.

**Note**: You must read <u>Upgrading to 14.4.2 [p.60]</u> before upgrading to this version of Cisco TMS if you are using Cisco TMSXE or Cisco TMSXN.

# Changes to interoperability

Ensure that you read the <u>Interoperability [p.60]</u> section of this document, which contains important information about current and future support for products, systems, and components of Cisco TMS. This section changes with each release.

## **Product documentation**

The following documents provide guidance on installation, initial configuration, and operation of the product:

- Web help integrated in the Cisco TMS software
- Cisco TelePresence Management Suite Installation and Upgrade Guide

- Cisco TelePresence Management Suite Administrator Guide
- Cisco TMS Provisioning Extension Deployment Guide

# **New features**

## Changed in 14.4.2

#### **Resolve duplicate keys**

Cisco TMS version 14.4 introduced an issue affecting customers using Cisco TMSBA clients such as Cisco TMSXE who have upgraded to Cisco TMS versions 14.4 and 14.4.1. See <u>Introduction [p.1]</u> for a description of the problem.

A new tool: **Resolve Duplicate Keys**, has been added to TMS Tools to assist administrators with resolving any duplicate conferences remaining after upgrading to 14.4.2.

The tool displays the duplicate conferences, and allows the administrator to select which of a number of conferences is the correct one. Once a conference has been selected, the one or more duplicates that were not selected are deleted from the Cisco TMS database.

A new log: **log-tmstools-duplication-resolution.txt** lists which conferences were kept and which were deleted. The log is located in the tmsdebug logs folder and contained in the **Download Diagnostic Files** download bundle.

## Changed in 14.3.2

#### **TelePresence Server communication**

Cisco TMS now keeps track of the protocol a TelePresence Server is using to communicate. Previously Cisco TMS always attempted to communicate with a TelePresence Server over HTTPS regardless of whether the last successful connection had fallen back to HTTP or not. TelePresence Servers communicating using HTTP will experience a significant improvement in performance as a result of this change.

#### Escalation of conferences to TelePresence Server

Adding a multiscreen participant to an existing conference that was booked by adding an MCU manually now reroutes the conference onto a TelePresence Server to accommodate the multiscreen participant.

#### Allocation documented in Cisco TMS Administrator Guide

A new section has been added to the Routing chapter describing how Cisco TMS allocates participants for scheduled conferences.

#### Field added to Time Zone Update Tool

A new field: **Number of conference series to process** has been added to the **Time Zone Update Tool**. This configurable field has a default of *1000*, and is the number of conference series that will be checked by the tool when it is run. To check more conference series than the value in this field, the tool must be run again.

## New in 14.3.1

#### Improvements to the web interface

Text string changes include:

- Changed First Meeting Id, Meeting Id Step, and Meeting Id Quantity to Numeric ID Base, Numeric ID Step, and Numeric ID Quantity in Systems > Navigator > select a TelePresence Conductor, TelePresence Server or TelePresence MCU Settings > Extended Settings.
- Conference password is now referred to as PIN as this must be a numeric rather than alpha-numeric value.
- Administrative Tools > TMS Server Maintenance > Download Log Files renamed to Download Diagnostic Files to more accurately represent the contents of the downloaded zip folder.

Behavior changes include:

- Added a clickable link in Systems > Navigator > select a system > Summary > Conferences that will launch the selected conference in the View Conference page.
- Removed the setting: Systems > Navigator > select a Cisco VCS > Provisioning > VCS Provisioning Mode as Cisco TMS Agent Legacy is not supported in Cisco TMS 14.x. The only possible provisioning mode is *Provisioning Extension*.
- Setting Administrative Tools > Configuration > Network Settings > Lookup User Information from Active Directory to No now disables all the other fields in the Active Directory section of this page.
- Removed validation for the **Phone Number** fields in the **Edit Personal Information** popup window.
- The Time Zone Update Tool now remembers the value entered for Hostname when the tool is run multiple times.
- Added a new setting: Allow WebEx Booking in Systems > Navigator > select a TelePresence Server or MCU > TMS Scheduling Settings. This is enabled by default for new bridges or existing bridges after upgrade.
- Added a new configurable setting in Administrative Tools > Configuration > Conference Settings: Allocation Attempts for Scheduled Calls, which specifies how many times Cisco TMS will attempt to allocate the conference on the bridge. The default value is 4.
- The system SIP URI for endpoints and MCUs is now displayed in Systems > Navigator > select a system > Call Status.

#### Security

- Adding and managing a TelePresence Server on a secure-only Cisco TMS is now supported.
- Introduced conference encryption support for TelePresence Server for H.323 calls.
- Added support for encryption and reading of SIP transport type to Unified CM-registered TC/TE endpoints. Encrypted calls are now possible if SIP transport type is SSL.

#### Endpoints

- Cisco TelePresence TC software packages are no longer downloaded in Cisco TMS due to the changes to release key policy that occurred with the TC 6.1 release. For further details see: <u>TC6 Software release</u> <u>notes</u>.
- The maximum bandwidth for a Polycom HDX 8000 has been increased to 6144kbps.

#### Logs

- Log files for Cisco TelePresence Management Suite Analytics Extension (Cisco TMSAE) are now contained in the **Download Diagnostic Files** zip file.
- The Conference Control Center Event Log for conferences scheduled through a TelePresence Conductor now contains information on the bridges that were used in the conference.

## New in 14.3

The following features and functionality are new or changed in 14.3:

#### Improvements to TelePresence Server support

The operation mode for any TelePresence Server in Cisco TMS will now be displayed as one of:

- Remotely Managed
- Locally Managed

Note that TelePresence Server in *Remotely Managed* mode is only supported in Cisco TMS if it is managed by a TelePresence Conductor that is present in Cisco TMS. A warning ticket will be raised if these criteria are not met for a TelePresence Server in Cisco TMS.

Cisco TMS will clear its management address from any TelePresence Server set to Remotely Managed.

Other improvements in this release:

- Updated icons and descriptions; the icon will now indicate whether TelePresence Server is in a rack.
- TelePresence Server version 2.2 or later is now required. Make sure to upgrade TelePresence Server before upgrading Cisco TMS to 14.3.
- Added support for Cisco TelePresence Server on Virtual Machine.
- When adding TelePresence Server to Cisco TMS, **Use Lobby Screen for Conferences** is now set to *On*.
- Now reconnecting calls through TelePresence Server after any disconnection, including for WebEx video.

#### Improvements to TelePresence Conductor support

To better accommodate the dial plan restrictions of each organization, the numeric variable part of the TelePresence Conductor aliases used by Cisco TMS has been made configurable for the administrator.

The new settings are found by going to **Systems > Navigator**, selecting TelePresence Conductor and going to the **Extended Settings** tab:

- First Meeting Id—the number to start at when creating numeric IDs.
- Meeting Id Step—how much to increase the numeric ID by with each ID generated.
- Meeting Id Quantity—the number of meeting IDs to allow.

Other changes in this release:

- Alias selection will now be done using a prioritized list specified by the administrator. Different
  prioritizations can be defined for immersive and other aliases.
- SIP and H.323 settings for scheduling have been added to the TelePresence ConductorEdit Settings tab.

Version XC2.2 is now supported and required. Support for XC1.2 is discontinued as of 14.3. Cisco TMS will raise a ticket if a previous version of TelePresence Conductor is detected.

The recommended deployment model for XC2.2 is the back-to-back user agent (B2BUA), which is SIP-only.

#### **TelePresence Conductor scheduling limitations**

As the TelePresence Conductor scheduling solution has notable limitations at this time, we recommend carefully considering these Limitations [p.58] and their workarounds prior to deployment. Upcoming releases of TelePresence Conductor and Cisco TMS will address these limitations, and an updated deployment guide for Cisco TMS with TelePresence Conductor will be made available at that time.

#### Meeting ID quantity setting for TelePresence Server and MCU

The **Meeting Id Quantity** setting has also been implemented for TelePresence Server and MCU and is available on the **Extended Settings** tab of each system.

#### Improved support for TelePresence Conductor-managed TelePresence Server and MCU

- Cisco TMS will now use feedback from TelePresence Conductor for managed bridges and ignore any feedback sent directly from those bridges.
- Irrelevant settings and diagnostic tickets, and all extended settings for TelePresence Conductor-managed bridges have been removed from Cisco TMS. Removed tickets are related to bandwidth, gatekeeper, and SIP server registration.
- Cisco TMS will now ignore the setting Administrative Tools > Configuration > Conference Settings > Advanced Conference Options >Automatic MCU failover if set to *If conference start or MCU polling fails* for conferences hosted by TelePresence Conductor.

#### Configurable length for auto-generated PINs

In Administrative Tools > Configuration > Conference Settings, a new setting has been introduced that allows the administrator to specify the number of digits Cisco TMS will include when auto-generating PIN codes for each conference created.

The name of the new field is **Auto Generated Password Length**. The setting is only applied when **Auto Generate Password on New Conferences** is enabled.

#### Notifications to all participants that a scheduled conference is ending

If a conference is hosted on a multipoint bridge, all conference participants can now receive in-video notifications at configurable intervals; by default the notifications will be sent at 5 and 1 minutes before the conference is scheduled to end.

Previously, in conferences hosted on a TelePresence MCU, TelePresence Server, or TelePresence Conductor, only master participants that supported notifications sent directly from Cisco TMS would be warned that the conference was ending.

To enable this feature:

- 1. Go to Administrative Tools > Configuration > Conference Settings.
- 2. In Conference Connection/Ending Options, set Show In-Video Warnings About Conference Ending to Yes.

To configure the interval:

- 1. Go to Administrative Tools > Configuration > Conference Settings.
- 2. In Show Message X Minutes Before End, enter the number of minutes before the end of the conference

that you want the message to appear.

To make the message appear multiple times, enter several values separated by a comma.

The setting was previously supported only for the legacy TelePresence MPS system with only three possible values: 10, 5, and 1.

#### Improved support for CTS / TX endpoints

Cisco TMS now makes it possible for CTS / TX endpoints to:

- be the video conference master.
- receive and display alerts and notifications from Cisco TMS, including meeting start and end notifications for the video conference master.
- receive setup buffers that can be used to determine whether and when to allow participants to call in early.

Note that the above features only work with software versions TX 6.0.2 and CTS 1.10.1.

#### New scheduling logs and improved log documentation

Four new logs for debugging routing and scheduling-related events have been added to Cisco TMS.

The logs are turned off by default. To activate, set "SchedulingLogger" to **INFO** or **DEBUG** in the configuration files listed below.

Log name	Description	Configuration file
log-scheduling- liveservice.txt	Keeps a record of LiveService routing decisions.	C:\Program Files (x86) \TANDBERG\TMS\Services\TMSLiveService.exe.CONFIG
log-scheduling- schedulerservice.txt	Keeps a record of SchedulerService routing decisions.	C:\Program Files (x86) \TANDBERG\TMS\Services\TMSSchedulerService.exe.CONFIG
log-scheduling-web- external.txt	Keeps a record of Cisco TMSBA routing decisions.	C:\Program Files (x86) \TANDBERG\TMS\wwwTMS\external\Web.config
log-scheduling-web- tms.txt	Keeps a record of routing decisions for bookings created using the Cisco TMS web interface.	C:\Program Files (x86)\TANDBERG\TMS\wwwTMS\Web.config

A section on logs has also been added to the Troubleshooting chapter of *Cisco TMS Administrator Guide* and the built-in help, including a complete overview of Cisco TMS logs and their respective configuration files.

#### Improvements to WebEx Enabled TelePresence

For customers using WebEx Enabled TelePresence, Cisco TMS now supports:

- TSP Audio with TelePresence Server
- Participant Access Code in conferences booked through Cisco TMS web interface or Cisco TMSBA.

The participant access code has been added to:

- the WebEx Details tab in View/Edit Conference displays the access code.
- booking confirmation email, when the field is in use.
- **ParticipantAccessCode** in the WebEx element.

#### Email warning when no setup buffer is included

Booking invitations can now be configured to include a special warning when no setup buffer is configured and it is not possible for telepresence participants to call in before the start time.

The tag {NO\_SETUP\_BUFFER\_MESSAGE} is included in the template by default, but is empty and will not be displayed. Adding a descriptive text will make the text appear in a yellow warning section at the top of the booking invite.

#### Database storage optimization

Customers with very large databases will notice a reduction of database size.

#### **Other changes**

- The Navigator tree is now sorted alphabetically in Search and All Systems views.
- No longer appending SEP+ Mac address to the system name for endpoints managed by Unified CM, unless the endpoint does not have a name in Unified CM.
   Names will be updated when systems are first refreshed in Cisco TMS, manually or automatically.

Support has been removed for:

- Windows Server 2003 on customer-supplied servers.
- Languages other than English in the Cisco TMS installer.
- A number of other 3rd party/deprecated systems: for details see Interoperability [p.60].

Removed redundant and deprecated options:

- Deprecated user account setting Exchange Integration Service Account removed from user settings.
- Redundant options for virtual directories removed from upgrade dialog.
- Deprecated IIS component XAPsite removed.
- TelePresence Conductor entry removed from "Set on Systems" list for phone books. TelePresence Conductor cannot receive phone books.
- "Snapshot" option from Conference Control Center in encrypted conferences and other scenarios where the TelePresence Server or MCU will not provide snapshots.

Map Monitor will be removed in a future release.

## New in 14.2

#### Introducing support for Smart Scheduler

This release removes the TMS Scheduler from Cisco TMS.

The new Smart Scheduler has been introduced to replace it, available free as part of the Cisco TelePresence Management Suite Provisioning Extension (Cisco TMSPE). See the <u>Cisco TMSPE Release Notes</u> for further details.

#### WebEx Enabled TelePresence support

It is now possible to schedule video meetings in Cisco TMS that include both TelePresence and WebEx participants:

- Combined WebEx and TelePresence meetings with fully integrated video between the two.
- Seamless booking of TelePresence systems and WebEx users through Cisco TMS.
- Support for booking meetings with WebEx from the Booking API.
- Support for Single Sign On, also referred to as Delegated Authentication within WebEx.

#### Time zone awareness

As of version 14.2, all booking-related functionality in Cisco TMS is fully time zone aware. This functionality is necessary to ensure the validity of bookings that span daylight savings time (DST) change events and other changes to time zones.

The changes include:

- Booking-related dates are now stored in UTC on the server, along with a full set of DST change rules for the time zone in which the conference was booked.
- Conferences that were booked prior to upgrading to Cisco TMS 14.2 will be automatically updated with the current time zone information available for the server time zone.
- The **Conference Booking Time** setting in Conference Settings has been removed.

Existing data from previous releases may contain discrepancies affecting meetings spanning DST change events.

The Cisco TMS Time Zone Update Tool is supplied to assist administrators in avoiding incorrect meeting times post upgrade from previous versions. For backwards compatibility with reporting functionality, dates are also stored in the local server time.

The time zone update tool uses Cisco TMSBA to modify time zones. Note that you cannot change the time zone of an existing conference using the Cisco TMS web interface.

Prior to this release, all bookings were automatically made in the configured Cisco TMS server time zone. Conversion from server time zone to UTC would therefore sometimes fail in connection with DST changes.

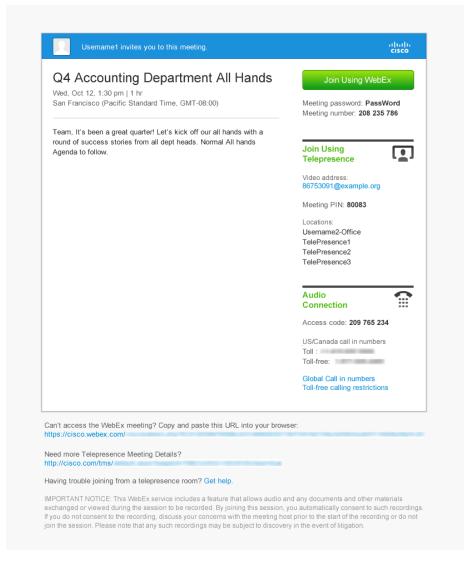
Note that changing the time zone of the Cisco TMS server is still not supported.

For more detail on how the time zone changes affect booking data and time zone data migration, see *Cisco TelePresence Management Suite Installation Guide*.

For information on how the APIs are affected by these changes, see also <u>Cisco TelePresence Management</u> Suite Extension Booking API [p.11]

#### Updated email template design and functionality

New email templates have been designed that incorporate images, clickable links, and a more intuitive layout:



#### Features include:

- The data contained in the email notifications has been simplified to contain only the most important details for each participant.
- Clickable links: the SIP link will open Cisco Jabber Video for TelePresence on the client machine, or any other SIP client.
- There are HTML and plain text versions of each template.
- Localization: 26 languages are now supported.

The following email notifications are affected:

Booking Invite - (Legacy: Confirmation): Email sent to participants in a meeting. Shows the most important
information for each participant.

- Booking Cancel (Legacy: Delete): Email sent to the participants if a meeting is cancelled.
- Booking Event New for use with the booking API so that if a conference request fails, this email with some details can be sent to the administrator.

Backwards compatibility with the legacy templates has been prioritized:

- The old templates (Booking Confirm and Booking Delete) are no longer used by Cisco TMS and have been replaced by the new Booking Invite and Booking Cancel.
- You will see both the old and new templates in the templates list, the old templates have LEGACY after them.
- After upgrading to 14.2, administrators can copy and paste the content from the old legacy templates into the corresponding new template.

#### Option to limit MCU conference size in Cisco TMS

Cisco TMS can now limit conference size on Cisco TelePresence MCUs and TelePresence Servers even if they are not in Port Reservation mode. A new setting has been added in **Systems > Navigator >** select an MCU **> Extended Settings > Limit Ports to Number of Scheduled Participants**. If port reservation mode is enabled for this MCU, this setting will be set to Yes and grayed out. If port reservation is not enabled for the MCU, you can use this setting to choose whether you want to limit the number of ports used to the number of scheduled participants.

This can also be set on a per conference basis during booking, the same setting appears in the MCU **Settings** tab once participants have been added to a conference.

#### New option to update System Connectivity Status

# A new setting has been introduced: Administrative Tools > Configuration > Network Settings: Update System Connectivity for Systems.

You can now choose whether Cisco TMS will change a system's connectivity status if it detects it is behind a firewall or thinks it is reachable on the public internet. If set to *Automatic*, it will change the status, if set to *Manual*, Cisco TMS will not change it from whatever status it was in before, but you can change this in **Systems > Navigator >** select a system **> Connection** tab **> System Connectivity** for each system.

For more information see the 'How Cisco TMS communicates with managed systems' section of the 'System management overview' chapter of the Cisco TelePresence Management Suite Administrator Guide.

#### Removed option to modify call route for a No Connect conference

Booking a "No Connect" type of conference will reserve the systems and generate a call route for that conference, but requires all participants to dial in to the conference manually. As of this release, users can no longer modify the generated call route when scheduling a No Connect conference.

#### **Cisco TelePresence Management Suite Extension Booking API**

Cisco TMSBA is now at version 11. Feature updates include:

The new time zone awareness features for scheduling also apply to Cisco TMSBA. Integrating clients can now supply a full set of time zone rules along with the conference data when booking, using ConferenceTimeZoneRules. If no rules are provided, Cisco TMS will use the time zone rules of the conference owner. See <u>Time zone awareness [p.9]</u> for more information on transitioning from previous versions.

- WebEx Enabled TelePresence is supported by Cisco TMSBA. We strongly recommend using the new ExternalConference attribute to add WebEx to a conference. The previous way of adding WebEx to conferences (DataConference) has been kept for backwards compatibility. Support for non-WebEx data conferences was discontinued in API version 10 (Cisco TMS 14.1).
- Booking of SIP Audio dial-in and dial-out participants is now fully supported.
- Clients now have two new functions for invoking email confirmation or notifications of other booking events; GetConferenceBookingEventMail and GetConferenceInviteMail. Clients may also insert their own errors, warnings, or informational messages into email notifications. A new SendConfirmationMail flag in the SOAP header lets clients determine whether email notifications should be sent for each booking request.
- Language support for email notifications: The new ConferenceLanguage attribute of the Conference object specifies which language to use for notifications. The new Remote Setup API function
   GetConferenceLanguages returns a full list of supported languages.

The following changes have been made to existing functionality:

- GetConferencesForSystems now returns scheduled conferences only, and no longer includes ad hoc conferences.
- GetConferencesForUser and GetConferencesForSystem now calculate using minutes instead of rounding to the nearest day.

Several changes have been implemented to how ongoing conferences are handled:

- Cisco TMS no longer clears the existing call route when adding or removing a participant using Cisco TMSBA during an ongoing conference.
- When the start time of an ongoing conference is changed, the conference will be re-seeded, and the ongoing conference may be disrupted.
- For any changes to the booking of an ongoing occurrence of a series using SaveConference, a new
   Ongoing element has been introduced which the client may use to prevent the ongoing meeting from being affected by changes, to avoid disruptive effects to the meeting or series.
- GetRecurrentConferenceById now returns the start and end time both for any ongoing occurrence and the next upcoming occurrence of the series.

For further detail on the features described above and how to use them, see *Cisco TelePresence Management Suite Extension Booking API Programming Reference Guide* for this version.

#### Changed in 14.2

#### Changes to service pack requirements for Windows Server 2008 and Windows Server 2008 R2

Before upgrading to this version of Cisco TMS:

- Windows Server 2008 requires Service Pack 2.
- Windows Server 2008 R2 requires Service Pack 1.

#### HTTPS enabled by default for the Cisco TMS website

To improve security, HTTPS is now enabled by default for the Cisco TMS website. Administrators will be asked if they want to provide a certificate or generate a self-signed certificate during install.

#### Windows Server 2003 ASP.NET version updated

For installations of Cisco TMS on Windows Server 2003, the installer will set the ASP.NET version on the default web site to version 4.0.

#### Routing and distribution in cascaded MCU conferences

#### Least cost routing

In cascaded conferences:

Cisco TMS will now prefer MCUs in this order:

- 1. Cisco TelePresence MCU
- 2. Cisco TelePresence MPS
- 3. Tandberg MCU
- 4. 3rd party MCU

Cisco TMS will always prefer the MCU with the most remaining capacity. This will effectively give you fewer MCUs than you needed in previous Cisco TMS releases which is a more efficient use of resources.

#### Best impression distribution

In this release there have been two changes to Best Impression distribution:

- MCUs are now sorted by available number of video ports instead of by total number of ISDN ports.
- Improved route checking before saving a conference, this will prevent some issues with saving conferences.

#### Removed Enable Cisco CTS Native Interop Call Routing

This setting, which was under Administrative Tools > Configuration > Conference Settings, was for use with Cisco Unified Communications Manager (Unified CM) and CTS endpoints to enable scheduling of a call between an endpoint running TC or TE software and a Cisco CTS endpoint in Cisco TMS without the requirement for a TelePresence Server to bridge the call.

This applied only to CTS version 1.7.4 and earlier and Unified CM version 8.5 or earlier.

The default setting was *No*: A Cisco TelePresence Server will host the conference. Now, the setting has effectively been set to Yes permanently: (A TelePresence Server will not be used), and removed in the GUI, so Cisco TMS will not use a TelePresence Server by default when routing CTS endpoints in calls.

CTS endpoints and Unified CMs running older software must be upgraded before upgrading Cisco TMS, or you will lose the ability to schedule calls between CTS endpoints and endpoints running TE and TC software because routing will fail.

Upgrading Cisco TMS to 14.2 will change the setting to Yes even if it was previously disabled. Routing behavior for future conferences booked before the upgrade will not change. These calls will still use a TelePresence Server.

#### Add Participants window Last Used tab: number of systems listed

The **Add Participants** pop up window **Last Used** tab now lists the last 10 systems used by the logged in user as default. Previously this was a configurable value.

#### Updated configuration templates

The configuration template for TC software has been updated to incorporate new settings introduced in the TC6.0.1 release.

#### Allocation attempts for scheduled calls

The number of allocation attempts now follows the number set here: Administrative Tools > Configuration > Conference Settings > Connection Attempts for Scheduled Calls. Previously a maximum of 3 allocations was attempted.

#### Database snapshot isolation

ALLOW\_SNAPSHOT\_ISOLATION is now *On* by default for the tmsng database. Administrators setting up the database manually must ensure that this setting is enabled. **READ\_COMMITTED\_SNAPSHOT** must still be set to *Off*.

#### **Conference Control Center Send Message function**

The message received on systems has been moved from the center to the bottom of the screen, for systems hosted on MCUs only. This does not affect systems hosted on a TelePresence Server at this time, this is scheduled to be changed in a future Cisco TMS release.

#### Removed support for 3rd party systems

This release removes support for the following 3rd party systems:

- Sony PCS-Series
- Polycom Viewstation (1st and 2nd gen)
- Polycom iPower
- Polycom ViaVideo
- VTEL Galaxy
- Aethra VegaStar
- Rad VialP Gateway
- Rad ECS GK
- Vision Series

#### Planned changes for future releases

Support for Microsoft Windows Server 2003, and Microsoft Windows Server 2008 32-bit operating systems will be removed in the next release of Cisco TMS. Note that we will still support the Cisco TMS Server Appliance on Windows Server 2003.

**Monitoring > Map Monitor** will be removed in a forthcoming release.

## New in 14.1

#### Cisco TelePresence Conductor scheduling support

Cisco TMS now supports scheduling conferences with Cisco TelePresence Conductor XC1.2.

The following features have been introduced:

- Make TelePresence Conductor the preferred MCU in routing.
- Configure TelePresence Conductor alias patterns in Cisco TMS and view the regular expression for use on the TelePresence Conductor and VCS.
- Free choice of alias in booking. Create your own conference address by modifying the variable part.
- Automatic generation of conference address unless modified during booking.
- Cisco TMS will reserve conference addresses it has generated from alias patterns.
- Check availability of your chosen conference address during the booking process.
- Configure a maximum number of concurrent scheduled calls bookable on the TelePresence Conductor from Cisco TMS – does not affect the resource allocation on the TelePresence Conductor, but allows the administrator to save some TelePresence Conductor resources for ad hoc calls.
- CDRs from MCUs managed by a TelePresence Conductor if the MCUs are added into Cisco TMS. Note that the CDRs will not contain a ConferenceID.
- Monitoring of scheduled and ad hoc calls in Conference Control Center.

#### New endpoint upgrade API

Cisco endpoints running software version TC 6.0 have a new API for use in software upgrades. Endpoints on earlier TC software use the previous upgrade API.

- It is now the endpoint that retrieves the software package from Cisco TMS. The upgrade will start when the endpoint itself initiates it.
- The System Upgrade Status page in Cisco TMS has also been improved. The endpoint itself sends continuous feedback throughout the process. To see the upgrade status, see Systems > System Upgrade > System Upgrade Activity Status.

#### **Cisco Unified CM phonebook sources**

It is now possible to create a phone book source from a Cisco Unified CM list of users and their associated devices through **Phone Books > Manage Phone Book Sources**. This applies only to Cisco Unified CMs running software version 8.6.2 or later.

#### **Cisco TelePresence Server**

When booking a new conference, the **Password/PIN** field is now also applied to conferences booked using TelePresence Server version 2.3 or later.

Cisco TMS can now limit the number of ports used when scheduling a TelePresence Server 2.2 and later. Two fields have been added:

- A TelePresence Server-wide setting, Port Reservation in Systems > Navigator > select TelePresence Server > Settings > Extended Settings, has been added.
- The setting can be altered on a per conference basis in Booking > New Conference > Add some participants including a TelePresence Server > MCU Settings tab > Port Reservation.

#### New Administrator Guide and web help

Improvements to the Cisco TMS documentation for this release include:

- The Administrator Guide and web help have been merged and updated. All information is now available both in PDF on cisco.com and HTML format inside the application.
- New chapters explain routing and systems management.

- Redundancy deployment is now a part of the Administrator Guide.
- The TMS tools application is now documented in full.
- Everything is available in one pdf on Cisco.com.
- The information has been restructured to focus on the tasks carried out by the Cisco TMS users.
- All screen and field descriptions are still available as context-sensitive help from the Cisco TMS application.

As part of this consolidation, "Getting Started" is no longer a part of the Cisco TMS Installation Guide. All guidance on setting up and configurating Cisco TMS is now found in the Administrator Guide and web help.

#### Highlighting of fields in Systems > Navigator

When one or more settings for a managed system are incorrect, the incorrect settings are now highlighted in **Systems > Navigator** so that the administrator can easily identify which settings require attention.

The color scheme follows the Ticketing Service, where "Critical" and "Major" errors are marked in red, and "Warnings" are marked in yellow.

TMS escalations			<b>O</b> 🔗
2112 CD	etwork Address Conne	ectivity: Reachable on LAN	
The management address on the system is incorrectly configured. Call status a one of the following TMS server addresses (depending on system type and net (Local DNS), 10.11.12.13 (Public DNS). More			
Summary Settings Call Status Phone Book Connection Permissi	ions Logs		
View Settings Edit Settings Extended Settings Compare Settings	Persistent Settings Ticket Filters		
General			\$
Configuration			\$
Call Settings			0
Network Settings			0
Monitoring/SNMP Settings			×
Traphost P address 1: Traphost P address 2:	SNMP Community Name: SNMP System Contact:	public	
Traphost IP address 3:	SNMP System Location:		
Management Address 1: something.example.com			
TMS Scheduling Settings			0
Save Boot Force Refresh Enforce Management Settings			

The Systems > Navigator window for a system with an incorrect management address.

#### Configurable database timeout value when upgrading Cisco TMS

The default database timeout value when upgrading Cisco TMS is 30 minutes. This value applies to each of the installer's internal database operations. For large deployments with years of historic call or system data, some of the operations may need more than 30 minutes to complete.

The timeout value is now configurable via a command line option. To use a timeout value of 60 minutes, run the installer using the command line:

TMS14.1.exe /z"sqltimeout 60"

Substitute 60 with a higher value if needed.

We recommend using the default value of 30 minutes, and only increasing the timeout value if the initial upgrade attempt is failing.

#### Content Mode options on the Cisco TelePresence MCU

Cisco TMS now supports the new Content Mode settings introduced in version 4.3 of the Cisco TelePresence MCU.

In Systems > Navigator > select a Cisco TelePresence MCU on 4.3 or later > Settings > Extended Settings, the Content Mode setting now has the following options: *Disabled*, *Passthrough*, *Transcoded*, and *Hybrid*.

#### **Discontinued support for Cisco TMS Agent Legacy**

Cisco TMS Agent Legacy has been removed from Cisco TMS 14.

If you are currently utilizing Cisco TMS Agent Legacy, you must migrate to Cisco TelePresence Management Suite Provisioning Extension (Cisco TMSPE) before upgrading Cisco TMS. The Cisco TMS installer will stop attempted upgrades to 14.1 if detecting that Cisco TMS Agent Legacy is in use.

For details on upgrading with provisioning, see Upgrading to 14.4.2 [p.60].

**Note:** For new installations of Cisco TMSPE with Cisco TMS 14.1, the TMS Provisioning Extension Windows service will have its **Startup Type** set to *Manual*. To automatically start Cisco TMSPE after server reboots, change the **Startup Type** to *Automatic* using the Windows services panel.

Cisco TMS Agent Legacy remains supported in Cisco TMS 13.2.x.

#### Discontinued support for Cisco TMSXE 2.x

Cisco TMS 14.1 and later does not support Cisco TMSXE 2.x. Customers still running Cisco TMSXE 2.x must migrate to Cisco TMSXE 3.x before upgrading to Cisco TMS 14.1.

Cisco TMSXE 2.x remains supported in Cisco TMS 13.2.x.

#### Editing of local phone books

It is no longer possible to edit local phone books for systems in Systems > Navigator.

#### Trap Log changed to Feedback Log

Reporting > System > Trap Log is now called Feedback Log.

#### Format of Active Directory username

Cisco TMS now requires the format of the Active Directory username to be:

domain\username or username@domain

This applies to:

- Administrative Tools > Configuration > Network Settings >Active Directory
- The Active Directory phone book source

#### Web Conferences

Cisco TMS 14.1 does not support Web Conferences: Cisco WebEx OneTouch 1.0, TANDBERG See&Share, and Microsoft Office LiveMeeting.

These solutions remain supported in Cisco TMS 13.2.x.

Cisco WebEx Enabled TelePresence 2.0 will be supported in a future version of Cisco TMS.

#### **Cisco TMS Installer**

The installer no longer enforces a reboot of the Windows Server after an upgrade. The installer now only prompts the administrator to reboot the server if necessary.

#### Removed the Call Status page for MCUs

Previously, Cisco TMS allowed users to create ad hoc conferences on MCUs using the **CallStatus** page in the **System > Navigator**. These ad hoc conferences were assigned a number that was in the range reserved for scheduled use by Cisco TMS, and could thus lead to two conferences having the same number.

In Cisco TMS 14.1, it is no longer possible to create new conferences on MCUs using this page.

#### Protocol priorities when routing scheduled calls

Cisco TMS now prioritizes SIP over dialing an IP address when routing scheduled calls. Cisco TMS still prefers using H.323 (dialing the H.323 ID or E.164 alias) over SIP.

#### Option for database re-indexing removed

The *Re-index database* option found under **Administrative Tools > TMS Server Maintenance** has been removed. Cisco TMS no longer supports automatically re-indexing tables in the tmsng database.

#### New in 14.0

#### **Release statement**

This is a controlled distribution release aimed at United States of America Federal Government customers requiring a JITC-compliant version of Cisco TMS.

This release includes specific features intended for use in environments that require using Cisco TMS as approved on the DISA Approved Products list.

#### Improved platform security

- Cisco TMS Windows Services now run under the Network Service account as default instead of the Local System account.
- Configuration and control files are no longer stored in the same directory as user data.
- Encryption of the Database Connection string has been upgraded to encrypt the entire connection string and now uses a FIPS-compliant encryption module.
- Configuration of the Cisco TMS setting for the software download folder has been moved from Administrative Tools > Configuration > General Settings > Software FTP Directory in the web interface to the TMS Tools application under Directory Locations.

#### Improved website security

- Additional protection against Cross-site Request Forgery and Cross-site Scripting attacks has been added.
- Permissions on the Cisco TMS web directories have been tightened.
- The default log folder is now C:\Program Files\TANDBERG\TMS\data\Logs. The previous location was C:\Program Files\TANDBERG\TMS\wwwTMS\data\Logs.
- All HTTPS communication is now restricted to TLS v1.0 or later. Support for SSL v3.0 and earlier has been removed.

- TLS client certificate validation in Cisco TMS has been introduced. When endpoints try to establish a TLS connection to the /tms/public website:
  - IIS validates the certificate against its trusted list of certificates.
  - Cisco TMS validates that the CN field of the certificate corresponds to the hostname used to contact the system. Any system that tries to impersonate another system will fail this check.
- Support for Certificate Revocation Checking has been added. When enabled, all certificates checked by the server will also check the revocation status of the certificate with its Certificate Authority.
- Client Certificate support for Cisco TMS-initiated communication to managed systems has been added. When enabled, Cisco TMS will provide a certificate if challenged when communicating to managed systems.
- Customized Banner text can now be added at the top and/or bottom of web pages and all pdf and excel document outputs.

#### Improved database security

- Encryption of authentication credentials stored in the database has been upgraded to use a FIPS-compliant encryption module. This new method uses a unique encryption key generated during installation of Cisco TMS.
- Support for running Cisco TMS with Windows Authenticated logins has been added. This requires
  additional manual configuration of the SQL database and windows server after initial installation of Cisco
  TMS. This functionality is recommended for JITC-compliant deployments only.

#### **Updated TMS Tools application**

The TMS Tools application has been redesigned to improve usability and incorporate the new features introduced in 14.0.

#### Configuration

- Updated the TMS Database Connection Settings / Provisioning Extension Database Connection Settings sections to include authentication configuration fields.
- Added the **Directory Locations** setting which is where the software download folder location is specified.

#### Security

- Added the Encryption Key section to support the new encryption key for credentials in the database. The encryption key which will decrypt the encrypted data can be changed or entered here.
- Added the TLS Client Certificates section to support the new TLS client certificate feature Cisco TMS uses for authenticating to systems. The x509 certificates Cisco TMS will use are specified here.

#### Advanced Security Settings

Cisco TelePresence Management Suite JITC Configuration Deployment Guide details how to activate these settings and perform additional Windows and Cisco TMS configuration changes that will make your installation comply with JITC operational guidelines.

- Optional Features Control:
  - Disable TMS Scheduler: Disables and removes links to TMS Scheduler.
  - **Disable Provisioning**: Disables and removes links to Cisco TMS Provisioning Extension.
  - Disable SNMP: Disables all use of SNMP within Cisco TMS.

- Auditing: Auditing Always Enabled: Ensures that auditing is always enabled regardless of the setting in Administrative Tools > Configuration > General Settings >Enable Auditing.
- Transport Layer Security Options:
  - Require Client Certificates for HTTPS API: When enabled (along with settings in IIS) Cisco TMS will require certificates from clients using public APIs.
  - Enable Certificate Revokation Check: When enabled, all certificates verified by the server are always checked against the revocation lists of the signing Certificate Authority. If revocation checking is enabled, and fails, the certificate will be rejected.
- Banners: Adds banners to the top and bottom of web pages and pdf and excel document outputs.

#### **Diagnostic Tools**

The new **Scan Database for Encryption Key Mismatch** tool scans the database to identify encrypted credentials which cannot be decrypted by the current encryption key. A **Cleanup** option resets mismatched entries to a default value. This feature is useful if the database encryption key has been lost or is in an unknown state.

#### Audit log

The Audit Log will now show the IP Address of the client machine used to make a change in Cisco TMS. For changes made by a service user, the IP address field will be blank.

#### Logs

The following logs have been added to the logs downloaded when clicking on Administrative Tools > TMS Server Maintenance > TMS Diagnostics >Download Log Files:

- event-stats.txt
- Iog-TMSAgent-console.txt
- phonebook-stats.txt

#### Installer

The Cisco TMS installer will now state the software version which will be installed in the welcome dialog.

#### **Obsolete functionality removed**

- Cisco TMS Agent Legacy has been replaced by Cisco TMS Provisioning Extension and is no longer supported in Cisco TMS 14.0. Support for Cisco TMS Agent Legacy will continue in Cisco TMS 13.2.x.
- The Free Busy Overview page has been removed from Cisco TMS.
- Connection scripts for conferences created in Cisco TMS versions older than 10.0 are no longer supported. All conferences booked in Cisco TMS 10.0 or earlier must now be rebooked.
- Support for Polycom MGC MCU pre software version 7 has been removed from Cisco TMS.

# **Resolved issues**

## Resolved in 14.4.2

The following issues were found in previous releases and were resolved in 14.4.2:

Identifier	Description
CSCup76424	Resolved the issue where Cisco TMSBA returned incorrect conferences because of duplicate external primary key values. This could lead to out-of-sync conditions between Cisco TMS and Microsoft Exchange.
CSCup82726	Resolved the issue where purging of old conference data failed, leading to unchecked database growth.
CSCup66989	Resolved the issue where meetings that were part of series external to Cisco TMS were not correctly marked as exceptions by Cisco TMSBA. This could lead to replication inconsistencies with Microsoft Exchange.

## Resolved in 14.4.1

The following issues were found in previous releases and were resolved in 14.4.1:

Identifier	Description
CSCuo54112	Resolved the issue where Cisco TMSAE failed to process data if the Cisco TMS database contained participants with names longer than 50 characters.
CSCuo76802	Resolved the issue where the Recurrence popup window did not work at all if using Internet Explorer 9.
CSCuo51356	Resolved the issue that occurred after associating a user with a non-default WebEx site, where the user was moved back to the default WebEx site.
CSCuo71987	Resolved the issue with <b>Booking &gt; List Conferences &gt; Export Details Log</b> where the <b>Participants</b> column contained no data.
	This was a regression introduced in 14.4.
CSCuo92594	Resolved the issue that occurred when upgrading to Cisco TMS version 14.4, where the IIS folders that are deleted during an upgrade were not recreated during the installation of 14.4.
	This only occurred if Cisco TMS was installed on the root of the drive (for example: E:\ instead of E:\Program Files).
CSCuo81346	Resolved the issue where it was possible for a user with Read access to copy devices to a folder in <b>Systems &gt; Navigator</b> .
CSCuo93490	Resolved the issue where Cisco TMS could attempt to update the time zone for a Unified CM- registered system running Cisco TelePresence TC or TE software.
	This bug was reported fixed in Cisco TMS 14.4, but there were still some outstanding issues that have been resolved in this release.

## **Resolved in 14.4**

The following issues were found in previous releases and were resolved in 14.4:

## Booking

Identifier	Description
CSCun25265	Resolved the issue where Cisco TMS threw an exception when saving a conference. This occurred if the conference was set to <b>Secure</b> : Yes, and one of the participants was added from a phone book entry and not managed by Cisco TMS, and the contact method was changed during booking from the <b>Connection Settings</b> tab.
CSCun25278	Resolved the issue where the Booking Confirmation Email did not show the number for participants to dial for point-to-point conferences.
CSCun25553	Resolved the issue in <b>Booking &gt; List Conferences</b> where filtering on selected systems, then resetting the filter to include all systems, caused an error. This was most likely to occur in deployments with more than 400 systems managed by Cisco TMS.
CSCun80913	Resolved the issue with conferences hosted on an MCU that used almost all the capacity (for example one port is left). When editing the conference to add more dial-in participants, Cisco TMS added one more than requested.
CSCue62960	Improved the error message displayed when booking a recurrent conference where the duration of the conference had incorrectly been set as longer than how frequently it occurred.
CSCun26524	Resolved the issue where making changes to the MCU Settings during an ongoing conference hosted by a TelePresence Server did not apply the changes to the TelePresence Server.
CSCun27746	Resolved the issue where it was possible to overbook an MCU that had been booked to full capacity by adding a dial in to the conference after it was initially saved. A message will now be displayed stating that the conference will be rerouted.
CSCul81027 CSCul66891	Resolved the issue where <b>Booking &gt; List Conferences &gt; Delete &amp; Export Log Details</b> threw an error and the deletion or log export did not occur.
CSCun28082	Resolved the issue in <b>Booking &gt; List Conferences</b> where clicking on a conference, then selecting <b>View</b> from the dropdown menu, then clicking <b>Cancel</b> , generated an error. This occurred if the server time was set to "pure" UTC (i.e. UTC with no DST rules).
CSCun70487	Resolved the issue where deleting a future conference did not delete the registration event, which caused a failed event to appear in the Activity Status log.
CSCun72824	Resolved the issue with booking a conference of type <i>Manual Connect</i> on a bridge and one endpoint that did not have Master capability. On saving the conference, a message appeared stating that the route was not valid. The correct behavior is that Cisco TMS changes the connection type to <i>No Connect</i> without displaying an error message.
CSCun72876	Resolved the issue where the Booking Availability Grid could incorrectly show a system as free when it was actually booked during a particular time period if the duration of the booked conference was less than 30 minutes.
CSCun80937	Resolved the issue where meetings of duration 24 hrs displayed in the booking confirmation email with a duration of 0 hrs. Meetings of duration 25 hrs were displayed with a duration of 1 hr and so on.
CSCul68806	Resolved the issue in <b>Booking &gt; New Conference &gt; Billing Code</b> where double byte characters were not supported.

Identifier	Description
CSCuo27224	Resolved the issue where Cisco TMS automatically extended meetings that contained only a Content Server (where dial in participants had never dialed in, or where all the other participants had disconnected). This occurred when <b>Extend Meeting Mode</b> was set to <i>Automatic Best Effort</i> .
CSCuh00285	Resolved the issue where the 'Meeting has been extended' message did not show on all participants on meeting extension. Instead they continued to see the meeting end notification message although the meeting had been extended.
CSCuo49883	Resolved the issue where adding a recording profile to a point-to-point conference with two participants with no multisite capabilities, did not display an error as expected.
CSCui91195	Resolved the issue with conferences that were scheduled to start simultaneously hosted on a TelePresence Server, where the conference start could be delayed for some of the conferences.
CSCum50651	Resolved the issue where scheduled conferences did not start or allocation failed when the master or main participant was an endpoint running TC7.x software. This occurred if <b>Picture Mode</b> was set to <i>Enhanced CP</i> and <b>Connection Type</b> was set to either <i>Automatic Connect</i> or <i>Manual Connect</i> .

## Routing

Identifier	Description
CSCun25453	Resolved the issue where Cisco TMS could incorrectly instruct a TelePresence Server to dial out to an endpoint twice if the TelePresence Server was slow to connect to the endpoint.
CSCuf21982	Resolved the issue where Cisco TMS changed the call direction to dial in when scheduling a One Button To Push conference using a dial out Participant Template.
CSCun28043	Resolved the issue where changing the dial plan for an MCU did not invalidate the route in existing conferences that included that MCU.
CSCuj62186	Resolved the issue where Cisco TMS occasionally did not correctly randomize numbers for recording aliases when scheduling using a Content Server that was in Gateway Mode. This could cause simultaneous conferences using the same recording alias to merge into the same recorded stream.
CSCuc50556	Resolved the issue where Cisco TMS allocated the wrong dial in number for the allocated port on the MCU.
CSCum98292	Improved dial-in number allocation for back to back meetings. Cisco TMS is now less likely to assign the same number for back-to-back meetings when the bridge is close to full capacity.
CSCuo27217	Resolved the issue where attempting to schedule a Best Impression distribution cascaded conference caused an infinite loop in Cisco TMS. This occurred if there were a large number of dial-in participants.

## Monitoring

Identifier	Description
CSCun25273	Resolved the issue where using <b>Conference Control Center</b> to lock a cascaded conference locked the conference on the slave MCU but not the master MCU.

Identifier	Description
CSCun25310	Resolved the issue where muting an endpoint using its own interface was not reflected in <b>Conference Control Center</b> , although the endpoint was muted in the conference.
CSCun25471	Resolved the issue where it was not possible to disconnect a participant from a conference using <b>Conference Control Center</b> . This occurred if the system name contained an apostrophe.
CSCum42607	Resolved the issue where accessing the <b>Conference Control Center</b> could generate a Java warning: <i>Do you want to run this application</i> ? after updating Java to version 7 update 45 on the Cisco TMS server. In some environments <b>Conference Control Center</b> did not load at all.
CSCuj34799	Resolved the issue where <b>Conference Control Center</b> could incorrectly display scheduled conferences on a TelePresence Conductor as ad hoc conferences with a duration value of 0.
CSCuh57792	Resolved the issue in <b>Conference Control Center</b> where layouts on endpoints did not change if the layout was changed first to a custom layout, then back to Default Family View, then back to a custom layout.
CSCun72842	Resolved the issue where Cisco TMS did not correctly resolve ad hoc conferences hosted on a TelePresence Server in <b>Conference Control Center</b> . A separate conference was displayed for each call leg.
CSCue26774	Resolved the issue where moving a conference to a different bridge was not reflected in Conference Control Center until the conference was selected on the old bridge.
CSCun72817	Resolved the issue where the conference event log displayed incorrect information about participants being added to and removed from a conference hosted on a TelePresence Conductor.

## Systems Management

Identifier	Description
CSCun25326	Improved the page loading time for <b>Systems &gt; Configuration Templates &gt;</b> select a template <b>&gt; Set on Systems</b> for Cisco TMS deployments with a large number of managed systems.
CSCun25385	It is no longer possible to change settings in <b>Systems &gt; Manage Dial Plan</b> for a Unified CM- registered system. Previously it was possible to do this although the changes would have no effect.
CSCun25679	Resolved the issue where searching for systems in Systems > Navigator > Add Systems > From List > Unified CM > System name was incorrectly case-sensitive. This search field is now case-insensitive.
CSCun28098	Resolved the issue where adding a system that was Unified CM-registered to Cisco TMS generated an <i>Incorrect Management Address</i> error. Cisco TMS now displays an 'Incorrect Feedback Address' ticket instead if a Unified CM-registered endpoint's HttpFeedback 3 URL is incorrectly configured.
CSCun80968	It is no longer possible to edit the <b>Management Address 1</b> field In <b>Systems &gt; Navigator &gt;</b> select a system that is registered to a Unified CM > <b>Settings &gt; Edit Settings</b> . The option for this field is set by the Unified CM, not by Cisco TMS.
CSCun27576	Resolved the issue where adding a Unified CM-registered endpoint running Cisco TelePresence TC or TE software to Cisco TMS did not alert the administrator that the <b>HttpFeedback 3 URL</b> was not yet set to the Cisco TMS server's IP address or hostname. An error will now be shown with the option to <b>Add system despite warnings</b> .

Identifier	Description
CSCun27651	Resolved a number of issues with <b>Systems &gt; Navigator &gt;</b> select a Unified CM > Managed Systems tab.
CSCun27664	Resolved the issue where Cisco TMS used HTTP to access the system.xml file for TelePresence Server and Cisco TelePresence MCU, with fallback to HTTPS. This has now been changed so HTTPS is used first with fallback to HTTP.
CSCuj93926	Resolved the issue where replacing a system could result in duplication of the system record in the database due to a MAC address mismatch. This occurred only if the system was set to <b>Track System on Network by</b> : <i>MAC Address</i> on the <b>Connection</b> tab in <b>Systems &gt; Navigator</b> .
CSCul46511	Resolved the issue where meeting allocation failed if the video conference master was a CTS endpoint running 1.10.1 or earlier or a TX endpoint running 6.0.2 or earlier. This is because Cisco TMS incorrectly checked the software version that supported being video conference master for these endpoints.
CSCua51358	Resolved the issue where Cisco TMS reported that a system was not registered to a Unified CM even though it was registered, could make and receive calls, and could be scheduled in conferences.
CSCun27802	Missing Location Settings panel added to Systems > Navigator > Add Systems > From List > Unified CM.
CSCuh83367	Resolved the issue where it was not possible to set the time zone on systems that were pre- registered in Cisco TMS. Initially on adding the system, specification of the time zone appeared to work.
CSCun80989	Resolved the issue where adding systems registered to a Unified CM was very slow and could result in errors, although the systems would eventually be added successfully.
CSCun27847	Resolved the issue in Systems > Navigator > select a TelePresence Server > Settings > Extended Settings where the following settings did not save after editing:
	<ul> <li>Register with Gatekeeper</li> </ul>
	<ul> <li>Conference SIP registration</li> </ul>
	Dual Video Stream
CSCtx40937	Resolved the issue where Cisco TMS could not import endpoints from a Unified CM if the Unified CM had more than 100 unregistered endpoints.
CSCun28025	Resolved the issue where Cisco TMS did not check a CTS or TX endpoint's connection type when giving a 'No HTTPS response' error. Cisco TMS now displays 'No HTTP response' if the traffic is HTTP.
CSCum63715	Resolved the issue where Cisco TMS could attempt to update the time zone for a Unified CM- registered system running Cisco TelePresence TC or TE software.
CSCum68031	Resolved the issue where Cisco TMS incorrectly calculated the maximum bandwidth per call leg for a TelePresence Server as 4Mbps instead of 6Mbps.
CSCun10195	Resolved the issue where removing a TelePresence Server from a TelePresence Conductor did not update the <b>Operation Mode</b> from <i>Remotely Managed</i> to <i>Locally Managed</i> . It was necessary to purge the TelePresence Server from Cisco TMS and re-add it.
CSCuo39236	Resolved the issue where some software packages could not be uploaded to the software manager. An HTTP 404 error was displayed.
CSCun63201	Resolved the issue where <b>Enforce Management Settings</b> did not work for CTS and TX systems.

Identifier	Description
CSCuo49879	All current products now display Manufacturer: Cisco instead of Tandberg.
CSCuo49882	Resolved the issue seen when selecting time zone: 'GMT -03:00 Buenos Aires, Georgetown, Montevideo' on an endpoint running Cisco TelePresence TC v 7.1. The following error ticket displayed for the system in Cisco TMS: "Time Zone set in TMS for system is different from Time Zone on system In TMS: (UTC-03:00) Buenos Aires, Georgetown, On System: (UTC) Dublin/ Edinburgh/Lisbon/London". Trying to push the correct time zone to the system from Cisco TMS failed with the error: "Could not update all settings. Details: System did not accept time zone GMT-03:00 (Buenos Aires, Georgetown)".
CSCun25307	Warnings about H.323 gatekeeper mode have been removed for bridges behind a TelePresence Conductor.
CSCun27576	Resolved the issue where searching for a system using the host name could fail.
CSCun79003	Resolved the issue that occurred when adding a TelePresence Conductor running XC 2.3 to Cisco TMS. The management address stayed blank in <b>Systems &gt; Navigator</b> , and a ticket stating "The management address on the system is incorrectly configured" was displayed.

#### Phone Books

Identifier	Description
CSCun25502	Resolved the issue where phone book entries that appeared in more than one phone book could appear as duplicated in phone book searches. Duplicate entries should appear only once in search results.
CSCuj42053	Resolved the issue where adding a new entry to a phone book set on a Polycom endpoint did not update the phone book on the endpoint with that new entry.
CSCul84164	Reinstated the missing bandwidth options: <i>Auto</i> , <i>Telephone</i> and <i>Max</i> for Manual List phone book source contacts.

## Reporting

Identifier	Description
CSCug10144	<b>Reporting &gt; Conferences &gt; Conference Statistics &gt; Calculate By:</b> <i>Utilization</i> has been removed as it was not possible to calculate this data by utilization, and the generated graph was always empty.
CSCun25641	Resolved the issue where it was not possible to filter MCU Call Detail Records by Call Protocol.

#### Recurrence

Identifier	Description
CSCun81304	Resolved the issue where editing a recurrent conference series with recurrence pattern ' First Day of every month' changed the recurrence pattern to 'First Sunday of every month'. Cancelling the edit and then saving the conference changed it from a recurrent to a non-recurrent conference.
CSCun81313	Resolved the issue where deleting the first occurrence of a recurrent series, then editing the series to disable recurrence, deleted all occurrences of the conference. The instance that was edited to remove recurrence should have remained as a non-recurrent conference.

Identifier	Description
CSCue26779	Resolved the issue where Cisco TMS consumed ports after a conference had been moved to a different MCU. This only occurred for recurrent conferences, if an instance was moved to a different MCU.
CSCtr53461	Resolved the issue where swapping the bridge for one meeting occurrence in a recurrent series still showed that bridge as being in the conference in the List Conferences page, when filtering on the original bridge.
CSCum41801	Resolved the issue where booking a daily recurrent conference using the End by Date option ended the conference series the day before the date specified. This occurred if the user booking the conference was in a time zone with a negative UTC offset.
CSCun81618	It is now possible to move an instance past a deleted or previously moved instance of the same series.
CSCui04546	Resolved the issue where Cisco TMS incorrectly selected a bridge for a recurrent series that had no capacity for one of the occurrences; as a consequence, saving the conference failed.
CSCun81408	Resolved the issue where deleted participants in a recurrent series incorrectly appeared under the <b>Location</b> section of the Booking Confirmation Email.
CSCui68087	Resolved the issue that occurred when a recurrent meeting series was edited, where any changes made previously to an individual occurrence in the series were lost.
CSCtt45102	Resolved the issue where it was not possible to make changes to a recurrent series when a participant that had been removed from the series was part of a new booking that overlapped the first series.
CSCuo49886	In <b>Booking &gt; List Conferences &gt; Edit Conference</b> , made <b>Owner</b> field read-only when editing an instance of a series.

#### **TMS Tools**

Identifier	Description
CSCul81067	Resolved the issue where it was not possible to access the Cisco TMSPE Database Connection settings page in <b>TMS Tools.</b> The message: "Current settings could not be read, the dialog will be populated with default values." was displayed.
CSCul44318 CSCun15585	TMS Tools > Configuration > Cisco TMSPE Database Connection Settings incorrectly accepted a comma as the port delimiter. This did not, however, set the port and Cisco TMS was not able to connect to the Cisco TMSPE database. A <b>Port</b> field has been added to this page.
CSCum88383	Resolved the issue where editing the Cisco TMSPE Database Connection Settings using Cisco TMS Tools could wipe the database connection password field, breaking the connection between Cisco TMS and Cisco TMSPE.

## Install and Upgrade

Identifier	Description
CSCun27560	Resolved the issue where upgrading Cisco TMS caused conferences hosted on an MCU, that were due to start immediately after the upgrade time, not to launch.
CSCua65350	Resolved the issue where the HTTPS Tool window could disappear behind the installer window during installation of Cisco TMS.

Identifier	Description
CSCum50657	Resolved the issue where upgrading the Cisco TMS database failed with the following error in the databaseinstalllog: "Error Code 2627 at line 26: Violation of PRIMARY KEY constraint 'PK_ SchedulerEvents'. Cannot insert duplicate key in object 'dbo.SchedulerEvent'. The duplicate key value is (22)."
CSCun70393	Resolved the issue seen in the Installer when upgrading Cisco TMS, where clicking the <b>Back</b> button on the <b>Encryption Key</b> page did not work.

#### Services

Identifier	Description
CSCun41589	Resolved the issue where the database scanner service could time out, throw out-of-memory exceptions, and use excessive CPU.
CSCul94870	Resolved the issue where Live Service used almost 100% of the CPU. This led to problems launching and controlling conferences.
CSCum41321	Resolved the issue where the installer could remove the SNMP Trap Windows service. The service is now no longer removed during install/upgrade but for older installations, the service may need to be manually repaired after upgrade has completed.
CSCug04138	Resolved the issue where the following services did not restart after connection to the SQL database was temporarily lost:
	<ul> <li>TMSDatabaseScannerService</li> </ul>
	<ul> <li>TMSPLCMDirectoryService</li> </ul>
	<ul> <li>TMSLiveService</li> </ul>

## Users and groups

Identifier	Description
CSCun28017	Resolved the issue where editing any setting for a user when there were more existing groups than the <b>Records per Page</b> value removed the user from any group that was not displayed in the current page.
CSCun28084	Resolved the issue where an Active Directory user that had never logged into Cisco TMS before was unable to log in. This occurred if Administrative Tools > Configuration > Network Settings > Active Directory >Lookup User Information from Active Directory was set to Yes, but one or more of the other fields in the Active Directory section contained incorrect information.

## Booking API (Cisco TMSBA)

Identifier	Description
CSCun25408	Resolved the issue where booking a conference using Cisco TMSBA gave an error in Cisco TMS. This occurred when the user making the booking did not already exist in Cisco TMS and had a username greater than 36 characters.
CSCul50039	Resolved the issue where the "Allow Remote Booking" option was not visible in <b>Systems &gt;</b> <b>Navigator</b> for Unified CM-registered endpoints. This occurred if the "Per 25 Endpoints" option key was used for activating Cisco TMSBA. This was mainly a cosmetic issue as the endpoints were still bookable using Cisco TMSBA.

Identifier	Description
CSCun27792	Resolved the issue where creating a conference that contained deleted systems using Cisco TMSBA generated an exception. An email message is now sent.
CSCun81238	Resolved issue where GetRecurrentConference would be one day off when booking a monthly recurrent series at the end of a month. This was a regression introduced in 14.2.2.
CSCun81246	Cisco TMS will now always return a populated DayOfWeek list when an empty list is submitted
CSCum999999	Resolved issue where an exception to a series would sometimes be saved as a single meeting.
CSCun81291	Resolved issue where Cisco TMS would overwrite the specified time zone for single instances with telepresence booked as part of a meeting series in Microsoft Outlook or another client using Cisco TMSBA.
CSCug26332	Resolved the issue where Cisco TMSBA's recurrenceID value did not correctly follow DST changes.
CSCud35946	Resolved a number of inconsistencies in how Cisco TMS interpreted and executed recurrence patterns.
CSCug37575	Editing a conference that included a system that no longer existed in Cisco TMS caused Cisco TMSXE to re-attempt the booking every 30 seconds, leading to an influx of email notifications.
	To prevent this, remove the non-existent system from Cisco TMSXE using the configuration tool.
CSCuh55290	Resolved the issue with modifying the start time of an occurrence of a meeting series using Cisco TMSBA so that the occurrence started earlier than originally scheduled, where Cisco TMS correctly updated the end date, but not the start date, of the meeting.
CSCun81228	Resolved the issue with booking a monthly recurrent meeting with the pattern: Occurs on the DOW of every month(s), using Cisco TMSXE, where Cisco TMS and the Microsoft Exchange server were in different time zones. The instances would be booked on the wrong days.
CSCun26518	Resolved the issue where creating a recurrent conference with pattern 'Occurs on [the last day of every month' selected an incorrect date for February if Microsoft Exchange and Outlook were in a different time zone to the Cisco TMS server.
CSCun81296	Resolved issue where the email generated when editing an instance of a recurrent series using Cisco TMSBA suggested the entire series had been edited, and incorrect conference ID information was returned by Cisco TMS.
CSCun83458	Resolved the issue where conferences that were scheduled using <b>FrequencyType</b> <i>Default</i> were incorrectly auto extended. This affected bookings through Cisco TMSXE, if users scheduled a single telepresence meeting that was part of a non-telepresence series in Exchange.

#### General

Identifier	Description
CSCun25480	Resolved the issue where it was not possible to save an email template that used the deprecated MOVI2_URL tag.

Identifier	Description
CSCtx98924	Resolved the issue where if two or more endpoints in a conference had system names that exceeded 31 characters and the first 31 characters were identical, Cisco TelePresence MCU could dial out to one, but not the others, as Cisco TMS crops the system name to conform to MCU API requirements. The endpoints then appeared as duplicates to the MCU, which only dialed the first participant.
CSCun28058	Resolved the issue where the <i>Ticket Log</i> was not purged according to the <b>Number of Days To</b> <b>Keep Data</b> set in Administrative Tools > TMS Server Maintenance > Purge Old Data in <b>Database Tables Plan</b> .
CSCun27778	Resolved the issue where deadlocks on the query to get ticket counts could cause an exception when loading the Cisco TMS front page.
CSCun27836	Resolved some display issues that occurred when banners were applied to Cisco TMS.
CSCun27847	Resolved a number of layout issues with Internet Explorer 10 when compatibility mode was turned off.
CSCum65583	Resolved the issue where conference start could be delayed during failover in a redundant deployment.
CSCun70364	Resolved the issue where the date picker did not open and generated JavaScript errors when using Internet Explorer 10 in standards mode.

## Resolved in 14.3.2

The following issues were found in previous releases and were resolved in 14.3.2:

## Booking

Identifier	Description
CSCul42930	Resolved the issue where a dial-in endpoint joined a conference using the IP bandwidth set for the conference despite having a lower bandwidth set for the endpoint when booking the conference.
CSCul33187	Resolved the issue where it was not possible to schedule a conference of <b>Type</b> : <i>No Connect</i> with systems that were behind a firewall.
CSCul35748	Resolved the issue where Cisco TMS repeatedly added the same participants to a conference. This occurred with SIP dial-out participants that did not contain a domain suffix. This occurred most frequently for conferences hosted on a TelePresence Conductor deployed in Cisco VCS B2BUA mode.
CSCuh32674	Resolved the issue where it was not possible to create conferences with ISDN dial-in and dial-out participants when scheduling with TelePresence Conductor.
CSCuf21982	Resolved the issue where a dial-out participant template was changed to a dial-in participant when added to a One Button to Push conference.
CSCuj60215	Resolved the issue where booking a recurrent conference on a date where DST changed at midnight in the logged in user's time-zone generated an error.
CSCuj47583	Resolved the issue where it was not possible to add audio participants with country code +382 for Montenegro to a conference. The error: <i>382 is not a valid country code</i> was displayed.

## Routing

Identifier	Description
CSCul86790	Resolved the issue where adding a participant to an existing conference that was booked by adding the MCU manually, where the capacity of the MCU was already full, did not reroute to an MCU with more capacity, which it should have done to accommodate the extra participant.
CSCul30272	Resolved the issue where Cisco TMS did not choose a Cisco TelePresence MCU MSE 8510 to host a conference when that was the most appropriate routing choice and all the participants were in the same IP zone as that MCU.
CSCuc45195	Resolved the issue where Cisco TMS did not add a bridge to a conference that was escalated from point to point to three or more participants, when Administrative Tools > Configuration > Conference Settings > External MCU Usage in Routing was set to Always, except point to point. This occurred if the main participant had a multisite key.
CSCuj57675	Resolved the issue where automatic MCU failover did not work.
CSCul17740	Resolved the issue where Cisco TMS disconnected ad hoc calls when a scheduled One Button to Push (OBTP) conference was about to start. This occurred for all participants scheduled in the OBTP conference, even if the ad hoc call was between the scheduled participants.

## Monitoring

Identifier	Description
CSCua17474	Resolved the issue where in <b>Conference Control Center</b> > select a conference > <b>Settings</b> , the <b>Recording</b> field incorrectly displayed the options available to the logged in user, instead of the conference owner.
CSCug52302	Resolved the issue with setting an endpoint to have floor control through <b>Conference Control Center</b> , where floor control was not always applied.
CSCuj65341	Resolved the issue in <b>Conference Control Center</b> where conference snapshots were not viewable. This occurred if one or more participants were late connecting to the conference, and the status remained on <i>Connecting</i> . Snapshots will now be displayed as soon as the first participant has successfully connected to the conference.

## Systems Management

Identifier	Description
CSCum00103	Resolved the issue where incorrectly adding a system registered to a Unified CM using the Add Systems tab generated an exception. An error message is now displayed. Unified CM-registered systems must be added using the From List tab.
CSCul66281	Resolved the issue where it was not possible to add a system that was behind a firewall to Cisco TMS.
CSCud53982	Resolved the issue where Cisco TMS did not immediately pick up resource changes for TelePresence Server, leading to incorrect reporting of resource availability for the TelePresence Server in Cisco TMS

#### **Phone Books**

Identifier	Description
CSCuj42053	Resolved the issue where adding a new entry to a phone book set on a Polycom endpoint did not update the phone book on the endpoint until it was rebooted.
Reporting	

# Identifier Description CSCuj87555 Resolved the issue where Cisco TMS incorrectly tried to fetch Call Detail Records from cluster slave TelePresence Servers, instead of the cluster master. CSCul35913 Resolved the issue where Cisco TMS did not gather Call Detail Records from TelePresence Servers that were set to communicate using HTTPS only.

#### WebEx Enabled TelePresence

Identifier	Description
CSCul86783	Resolved the issue where Administrative Tools > User Administration > Users >Synchronize all users with AD did not update WebEx usernames.

#### Cisco TMSPE

Identifier	Description
CSCui86265	Resolved the issue with deployments using Cisco TelePresence Management Suite Provisioning Extension, where it was not possible to access the pages under <b>Systems &gt; Provisioning</b> if the <b>machine.config</b> file contained a section to control the maximum number of connections.

#### General

Identifier	Description
CSCul19103	Resolved the issue with the <b>Time Zone Update Tool</b> where it was only possible to view and correct affected conferences in batches of 350. This also caused the update of conferences to fail in some cases.
CSCui25158	Resolved the issue with Administrative Tools > TMS Server Maintenance > Purge Log Plan where the log-api, log-web-external and the log-tmsagentproxy logs were not purged according to the Number of Days To Keep Data.
CSCul50874	Resolved the issue where an exception was thrown when trying to edit a user in Administrative Tools > User Administration > Users. This occurred if another user had been edited immediately beforehand.
CSCul28417	Resolved the issue where Cisco TMS did not send meeting end notification messages to TelePresence Servers that were set to communicate using HTTPS only.

## Resolved in 14.3.1

The following issues were found in previous releases and were resolved in 14.3.1:

## Booking

Identifier	Description
CSCuj25656	Resolved the issue where Cisco TMS incorrectly calculated resource availability for a Cisco TelePresence Recording Server cluster node by looking at the availability for the entire cluster instead of the single node. This could lead to overbooking of resources.
CSCuj04722	Resolved the issue where an error occurred when adding a Cisco TelePresence Recording Server recording alias to a booking in Cisco TMS, if there was already a conference that included recording scheduled for the same day. This applied to clustered recording server setups only.
CSCui09851	Resolved the issue where the Location for a meeting is not shown in the .ics file or in the Microsoft Outlook calendar, although it does show in Cisco TMS.
CSCuh99378	Resolved the issue where Cisco TMS did not route scheduled conferences through a TelePresence Conductor even though Administrative Tools > Configuration > Conference Settings >Preferred MCU Type in Routing was set to Cisco TelePresence Conductor.
CSCuh89503	Resolved the issue where scheduled conferences with extremely long durations (one or two years) could suddenly end for no apparent reason, a long time before the conference was scheduled to end.
CSCuh43897	Resolved the issue where removing the <add:icalendar_attachment> tag from the Booking Invite HTML email template did not remove the ICS attachment from the HTML email that was generated and sent.</add:icalendar_attachment>
CSCuh61606	Resolved the issue where carriage returns and line breaks were not displayed in the booking confirmation email.
CSCug88031	It is no longer possible to book a secure conference that includes a TelePresence Conductor. As this is not supported in Cisco TMS, an error is now generated if the secure option is chosen. Previously no error was shown during booking and the conference appeared to be secure although it was not.
CSCug75561	Resolved the issue where Cisco TMS did not resend updated calendar information to Cisco TelePresence System 3000, 1000 and 500 series endpoints, or endpoints running Cisco TelePresence TC software. This affected endpoints scheduled in recurrent conferences, if one instance of the recurrent series was edited, or the entire recurrent series was deleted.
CSCuh39031	Resolved the issue where incomplete data was generated in the <b>Booking &gt; List Conferences &gt;</b> Export Log and Export Details Log.
CSCuh36391	Resolved the issue where it was not possible to create a conference that included ISDN audio dial in participants.
CSCui74583	Resolved the issue where a conference with a teardown buffer could display the wrong end date in <b>Booking &gt; List Conferences</b> .
CSCug86198	Resolved the issue where the extend meeting message was not received on endpoints if there was a special character in the field: Administrative Tools > Configuration > Conference Settings > Contact Information to Extend Meetings.
CSCuh46375	Resolved the issue where editing the <b>Extend Mode</b> of an ongoing conference failed: it is no longer possible to edit the <b>Extend Mode</b> for an ongoing conference.

Identifier	Description
CSCuh63880	Resolved the issue where in-video meeting end notifications would not be sent if the meeting had been extended.
CSCui24634	Resolved the issue where conferences with <b>Status</b> : <i>Rejected</i> were incorrectly listed under the <i>Deleted</i> conferences on the <b>List Conferences</b> page.

## Monitoring

Identifier	Description
CSCtx61206	Resolved the issue where an ad hoc conference including a Polycom endpoint that had disconnected from a conference with <b>Cause Code</b> <i>0</i> could display in <b>Conference Control Center</b> in the Idle folder after the conference had ended.
CSCui32501	Resolved the issue where a Polycom endpoint that had disconnected from an earlier conference with <b>Cause Code</b> <i>0</i> could display as a participant in a subsequent conference in <b>Conference Control Center</b> , although the endpoint was not actually connected to the later conference.
CSCui74563	Resolved the issue where an interworked ad hoc conference displayed in <b>Conference Control</b> <b>Center</b> as two conferences instead of one.
CSCui85949	Resolved the issue where the mute command in <b>Conference Control Center</b> for participants hosted on a TelePresence Server did not work correctly.
CSCui74290	Resolved the issue where muting a participant from a TelePresence Server did not update the mute icon in <b>Conference Control Center</b> .
CSCui74335	Resolved the issue where <b>Conference Control Center</b> could not display any conferences if the owner of one conference was unknown.
CSCuh51719	Removed the option to <b>Lock</b> a conference that included a TelePresence Conductor in <b>Conference Control Center</b> . This functionality is not supported.
CSCui01713	Resolved the issue where the Cisco TMS Live Service was unable to resolve dial outs from a TelePresence Conductor. This created duplicate entries in <b>Conference Control Center</b> (CCC), and could also cause Cisco TMS to make the TelePresence Conductor dial out again although the participant was already connected.
CSCui24688	Added the Unified CM icon to the Graphical Monitor.

## **Systems Management**

Identifier	Description
CSCui67809	Resolved the issue where Cisco TMS could instruct systems to dial out twice in One Button To Push and No Connect conferences.
CSCui81432	Resolved the issue where it was not possible to upgrade a system that had a password using Cisco TMS. This affected Cisco TelePresence E20 systems and systems running Cisco TelePresence TC software versions earlier than TC 6.0.
CSCui66934	Resolved the issue for ISDN-capable systems in <b>Systems &gt; Navigator &gt;</b> select a system <b>&gt; Settings &gt; TMS Scheduling Settings</b> where the text for the <b>Allow Outgoing Telephone Dialing</b> checkbox was missing.
CSCui75542	Resolved the issue where the SNMP scan of systems did not occur at the time interval configured in Administrative Tools > Configuration > Network Settings > TMS Services > System Alive-Status Scan Interval (in seconds).

Identifier	Description
CSCui74636	Resolved the issue where a bridge behind a TelePresence Conductor that had been deleted but not purged from Cisco TMS did not display the <i>System(s)</i> Managed by Cisco TelePresence Conductor Not Found in TMS error.
CSCui74421	Resolved the issue where changing the H.323 and SIP username directly on an endpoint was not reflected in Cisco TMS after performing a <b>Force Refresh</b> .
CSCuh85852	Resolved the issue where Cisco TMS showed the following warning on a Cisco VCS: <i>The number of concurrent traversal calls has approached the licensed limit</i> , when the ticket had previously been acknowledged on both Cisco TMS and the Cisco VCS.
CSCui74362	Resolved the issue where a warning: #1255 - Incorrect SNMP CN was displayed when adding a Cisco TelePresence MCU that had SNMP disabled to Cisco TMS. There should not have been a warning in this case as these systems can be added to Cisco TMS with SNMP disabled.
CSCui24563	Resolved the issue where messages sent from Cisco TMS that contained special characters were not displayed on systems.
CSCui74343	An error is now displayed if deleting or purging a system from Cisco TMS fails. Previously no error was displayed.
CSCtr17122	Resolved the issue in <b>Systems &gt; Navigator &gt;</b> select a Cisco VCS> <b>Active Calls</b> where no data was shown in the <b>Duration</b> column.
CSCuf57343	Resolved the issue where setting a SIP or H.323 password in <b>Systems &gt; Navigator &gt;</b> select a system <b>&gt; Settings &gt; Edit Settings &gt; Network Settings</b> did not set the password on the system.
CSCuh37146	Time zone fields are no longer displayed for Unified CM-registered systems in Cisco TMS as this information cannot be read from the systems or from the Unified CM.
CSCui24592	Cisco TMS now checks all NTP server entries for a system. Previously it checked only the first entry which, if blank, resulted in there being no NTP server setting for the system in Cisco TMS.
CSCuh57929	Resolved the issue where scheduled software upgrades of systems could occur before the scheduled day and time.
CSCui16561	Resolved the issue affecting Room type systems where if <b>Systems &gt; Navigator &gt;</b> select a system of type Room <b>&gt; Settings &gt; Edit Settings &gt;Allow Incoming SIP URI Dialing</b> was checked, the same field did not show as enabled in the <b>View Settings</b> window.
CSCui85980	Resolved the issue where the <b>Filter Name</b> was not displayed when creating a global ticket filter in <b>Systems &gt; Navigator &gt;</b> select a system <b>&gt; Settings &gt; Ticket Filters</b> .
CSCud04905	Removed the <b>AllowWebSnapshots</b> setting from <b>Configuration Templates</b> . This setting cannot be applied remotely.
CSCuh53350	Removed the <b>Replace System</b> option for systems registered to a Unified CM, as they do not support this feature.
CSCue50533	Removed IP dialing for Cisco TelePresence T1 and T3 systems as this feature is not supported.
CSCui07157	Resolved the issue where Cisco TMS identified a Cisco TelePresence TX1310 as a three screen system, allocating three times as much bandwidth as it should to these systems. This could cause scheduling of TX1310s in multipoint conferences to fail as Cisco TMS incorrectly believed the bridge had no more available bandwidth.
CSCui24613	Resolved the issue where the <b>Service Contract Status</b> for a Cisco TelePresence Recording Server displayed as -1 instead of <i>Unknown</i> in <b>Systems &gt; System Overview</b> .
CSCui85968	Resolved the issue where Cisco TMS incorrectly displayed the SIP domain of an MCU as the Active SIP Server Address.

Identifier	Description
CSCui24605	Changed the error message 'This system is provisioned. Phonebooks and Enforce Management Settings from TMS are disabled.' from an error to an information message.
CSCuh43150	Resolved the issue where the <i>Last Backup</i> timestamp was missing from the <b>Systems</b> > Configuration Backup > Perform Backup page.

#### Phone Books

Identifier	Description
CSCuh22305	Resolved the issue where setting Phone Book Access Control permissions for Provisioning Directory groups failed if there were more than 100 folders.
CSCue66084	Resolved the issue where searching for a contact in a phone book source of type Manual List did not return any matches unless the <b>Number of Contacts</b> specified was large enough to display all contacts up to and including the one being searched for.
CSCui24661	Resolved the issue where an error generated on a Phone Book Source did not clear when navigating to another phone book source that did not have a problem.

## Reporting

Identifier	Description
CSCug71311	Resolved several issues with charts in the <b>Reporting</b> pages.
CSCty45266	Resolved the issue where dialing from a Cisco TMSPE-provisioned device could cause duplicate User Call Detail Records in Cisco TMS: both the device URI and the FindMe URI (which showed up as device type: Unknown) were displayed.
CSCud81781	Resolved a number of issues where User Call Detail Records did not work correctly.

## Booking API (Cisco TMSBA)

Identifier	Description
CSCui93184	Improved the text of the error message generated when booking a conference using Cisco TMSBA that did not include a billing code, when Administrative Tools > Configuration > Conference Settings >Billing Code for Scheduled Calls was set to Required.
CSCub53243	Resolved the issue where the booking confirmation email contained an incorrect number for the Cisco TelePresence Recording Server if the booking was made using Cisco TMSBA. The problem occurred if the recording alias selected during booking was not the first in the list returned by GetRecordingAliases.
CSCuh11794	Resolved the issue where the number of clients that could access Cisco TMSBA was limited to 5 if using the 'per 25 systems' license.

#### WebEx Enabled TelePresence

Identifier	Description
CSCui69249	Resolved the issue where it was not possible to save the WebEx configuration for a user that had a WebEx Single Sign On site configured. Cisco TMS would report that it was unable to communicate with the WebEx site.

Identifier	Description
CSCui09920	Resolved the issue where an MCU could fail to dial out to WebEx participants in a scheduled meeting if the WebEx site was configured with a bandwidth of 1536 or 1280 kbps in Cisco TMS.
CSCui29432	Resolved the issue where Administrative Tools > Configuration > WebEx Settings > select a Center & Connect WebEx authentication site > Edit > WebEx Site Configuration >Connection Status displayed the error: <i>Could not connect to site</i> . Scheduling using this site worked correctly despite this error.
CSCuh43678	Resolved the issue with Cisco TMSBA-scheduled recurrent meetings with WebEx, where the first occurrence would have started before the time that the conference was booked in Cisco TMS.
	When viewing the <b>Connection Settings</b> tab for the conference, the <b>Number</b> column for the participants "Cisco WebEx Meeting" and "Cisco WebEx TSP Audio" would display as <i>To be populated by WebEx</i> , instead of the correct information.

#### Database

Identifier	Description
CSCue08333	Resolved the issue where Cisco TMS incorrectly warned about database size as it approached 4Gb for SQL Server 2008 R2. This version supports databases of up to 10Gb.
CSCui85970	It is no longer possible to add the value -1 in Administrative Tools > TMS Server Maintenance > Purge Old Data in Database Tables Plan and Purge Log Plan.
CSCui71982	Resolved the issue where upgrading the Cisco TMS database failed and the database upgrade log contained this error: "Violation of PRIMARY KEY constraint 'PK_field_SystemFieldSettings'". This only affected deployments that included pre-registered Polycom systems.

#### General

Identifier	Description
CSCuj25642	Resolved the issue where the Time Zone Update Tool did not update the first instance of a recurrent conference series. All other occurrences were updated correctly.
CSCuc00547	Resolved the issue where users in a different but trusted Active Directory (AD) domain to the domain that the Cisco TMS server is a member of were removed from the Cisco TMS local users group on AD sync.
CSCui04173	Resolved the issue where Cisco TMS was unable to authenticate to an HTTP proxy using NTLM authentication when checking for software upgrades.
CSCuj25633	Resolved the issue where changing the protocol for a Participant Template that had <b>Bandwidth</b> set to <i>Conference Bandwidth</i> resulted in a stack trace error.
CSCui35048 CSCui74631	Resolved the issue where Cisco TMS did not import Active Directory (AD) groups recursively. This applied to both user and phone book source imports.
CSCuh08527 CSCug16589	Resolved the issue where an error was displayed when clicking on the <b>Log Out</b> icon in Cisco TMS.
CSCua81744	Resolved the issue where Cisco TMS did not send its FQDN in its HELO/EHLO message. The value specified in Administrative Tools > Configuration > Network Settings > TMS Server Fully Qualified Hostnamewill now be used.

Identifier	Description
CSCui74577	Resolved the issue where non-ASCII characters such as æ,ø and å did not display correctly in the title of a conference.
CSCuj56225	Resolved the issue where non-ASCII characters such as æ,ø and å did not display correctly in the title of a Billing Code.
CSCui24677	Changed the <b>System Contact</b> for a system on the <b>Search</b> page (accessed in the top right corner of the Cisco TMS web interface) to be a clickable link.
CSCui24708	Added a column to Administrative Tools > Locations > ISDN/IP Zones: Default ISDN/IP Zone so it is clear which of several zones is the default and must not be deleted.
CSCuj25622	Cisco TMS now works without compatibility view or quirks mode enabled in Internet Explorer.

# **Resolved in 14.3**

The following issues were found in previous releases and were resolved in 14.3:

## Booking and routing

Identifier	Description
CSCui50615	Resolved issue where, in some situations, Cisco TMS would not add dial-out participants to conferences scheduled with TelePresence Conductor due to not determining that the meeting was successfully created. Dial-in participants would still be able to join.
CSCui57322	Resolved issue where Cisco TMS could fail to add dial-out participants to a TelePresence Conductor-scheduled conference when an alias was quickly reused.
CSCui24558	Resolved issue where some conferences scheduled in Cisco TMS were not created correctly on TelePresence Conductor, and Cisco TMS never requested that TelePresence Conductor Conductor dial out to the participants.
CSCuh66269	Resolved issue where, when WebEx part of booking failed, MCU was still added to a conference with one telepresence participant only.
CSCuh66292	Now only cascading compatible MCUs when Cisco TMS selects the MCU. Blocking users from manually creating cascades with incompatible MCUs.
CSCug92256	Resolved issue where an error would be displayed in the Cisco TMS UI when trying to view the connection settings for a Cisco TMSBA-scheduled conference with one endpoint and one content server.
CSCug86538	Solved issue causing new MCU ports to be selected that did not match existing dial-in participants in some scenarios when adding participants.
CSCuf45798	No longer sending out PIN code in booking confirmation for point to point meetings, as PINs are only relevant for calls that involve an MCU.
CSCug21987	Resolved issue where WebEx meeting details would sometimes be included in booking confirmations where adding WebEx failed.
CSCtz53143	When no participants are able to be master, if <i>Manual Connect</i> is selected, the connection type will now be automatically changed to <i>No Connect</i> .
CSCuh77452	Resolved issue where time zone differences could cause a conference series to be booked on different days in WebEx and Cisco TMS.

Identifier	Description
CSCue88554	Cisco TMS now checks MCU specifically for available streaming and content channel ports during booking.
CSCug73952	Resolved issue where, with large UTC offsets, an extra day would be displayed when listing today's conferences in the List Conferences page.
CSCuc62054	Resolved issue where participants who dialled in during setup buffer were disconnected.
CSCtz21445	Resolved issue where Extend Meeting would sometimes fail when the master participant for the meeting had changed.
CSCui24558	Resolved issue where some conferences scheduled on TelePresence Conductor were not created correctly in Cisco TMS; as a consequence the TelePresence Conductor did not dial out to the participants. This typically occurred if the TelePresence Conductor was under high load.

# Monitoring

Identifier	Description
CSCuh66222	Resolved issue where layout drop-down was hidden in Conference Control Center when a single participant was selected.
CSCud34671	Resolved issue with editing DTMF tones in Conference Control Center for multipoint calls.
CSCue94376	Sound alerts for monitored conferences now work as expected.
CSCuh72094	Added missing system types and icons for some Unified CM-registered systems in Conference Control Center.
CSCtr08909	Resolved issue where participants moved between conferences would receive notifications from the original conference after being moved.
CSCue83453	Correctly declaring UTF-8 encoding in messages to locally managed TelePresence Server, resolving issues with display of non-ASCII characters.
CSCuh66259	Solved issue with resolving interworked calls (SIP-H.323) through TelePresence Conductor.
CSCuh99386	Resolved issue where duplicate conference entries were shown in Conference Control Center when scheduling through a TelePresence Conductor.

#### Database

Identifier	Description
CSCuh16360	Resolved issue causing database export and import to fail with SQL error.
CSCuf93871	Log table purge job will now be scheduled for 00:13 on install/upgrade, regardless of defaults in older versions.
CSCuh66317	Provisioning Extension user import job will now be scheduled for 04:12 on install/upgrade, regardless of defaults in older versions.
CSCuf92526	Solved issue where, after upgrading from 13.x, errors would be thrown when accessing some Cisco TMS pages if certain database values were <i>Null</i> .

# Systems management

Identifier	Description
CSCuh66279	Solved issue with erroneous display of connection status for TANDBERG Classic endpoints with IP password.
CSCue92568	Corrected handling of authentication error when stored credentials for Polycom HDX endpoints in Cisco TMS become out of sync.
CSCue67212	Made TelePresence Server unbookable when it operates as a slave in a cluster, displaying only core details in <b>Navigator</b> .
CSCue80457	Resolved issue where SNMP commands were incorrectly formatted for legacy TANDBERG Classic endpoints, causing settings not to be updated.
CSCty54810	Resolved issue where applying persistent configuration templates to Polycom endpoints would fail.
CSCug21218	Resolved issues preventing software upgrades from Cisco TMS for endpoints in secure environments.

# Reporting

Identifier	Description
CSCug56244	Resolved reporting issues in Cisco TMSAE caused by Cisco TMS failure to read global call ID for specific versions of Cisco VCS.
CSCue03849	Added all Cisco TelePresence MCU cause codes, resolving some issues with incomplete CDRs.
CSCud61615	Resolved font issues with generated reporting PDFs in Japanese.

# Cisco TMSBA (Booking API)

Identifier	Description
CSCug94489	Resolved issue where bookings created using Cisco TMSBA would get erroneous start and end times when setup and teardown buffers are enabled. Buffers will now be ignored by Cisco TMSBA.
CSCuh66250	Cisco TMSBA will now silently ignore all requests to modify WebEx conferences created by Cisco TMS, with the exception of changing the WebEx meeting password.
CSCuh72120	Validation of end time added to Cisco TMSBA <b>SaveConference</b> function. A new conference will only be created if the end time is in the future.
CSCub55674	Resolved issue where concurrent bookings using different recording aliases on the same content server would not be allowed by Cisco TMSBA.

#### Other

Identifier	Description
CSCue57675	Added tag validation to email templates to ensure that the tags included when modifying the default templates are supported.
CSCue27719	Resolved issue where custom login banners would display with visible HTML tags.
CSCuh72106	Reduced response time when changing WebEx sites and the selected site is unavailable.

Identifier	Description
CSCud83843	Now registering disconnects from Endpoints with call logging turned off in the Feedback log. <b>Enforce Management Settings</b> must be performed on each endpoint for the change to take effect.
CSCuc00547	Resolved issue where users from a trusted domain would be removed from their Cisco TMS user group on each synchronization with Active Directory.
CSCuh83558	Resolved issue where the Time Zone Migration Tool could crash during migration, and the time zone update could be canceled.

# Resolved in 14.2.2

The following issues were found in previous releases and were resolved in 14.2.2.

Identifier	Description
CSCuh09140	Resolved the issue where modifying the start time of a single (non-recurrent) conference using the Cisco TMS web interface would cause Cisco TMSBA to return incorrect conference times to clients. This would cause free/busy information for rooms in Cisco TMSXE, Smart Scheduler (Cisco TMSPE), and other API clients to be out of sync with the Cisco TMS database.
CSCuh24788	Resolved the issue where the Cisco TMSPE Smart Scheduler did not allow bookings, and displayed an error message: "An option key is required to use this feature. For more information, contact Cisco". The Smart Scheduler does not require an option key.

# Resolved in 14.2.1

The following issues were found in previous releases and were resolved in 14.2.1:

Identifier	Description
CSCug68465 CSCug61584	Resolved two issues where upgrading the database could fail.
CSCug53694	Resolved the issue where, under some circumstances, Cisco TMSBA would return meeting series with deleted exceptions incorrectly, causing Cisco TMSXE to remove the series.

# **Resolved in 14.2**

The following issues were found in previous releases and were resolved in 14.2:

#### Booking

Identifier	Description
CSCts02650	Resolved the issue where booking a conference on a Cisco TelePresence MCU that had HTTPS enabled and HTTP disabled could be very slow. This was due to a time-out while Cisco TMS attempted to contact the MCU on HTTP first.
CSCud49452	Resolved the issue where editing an existing conference that included two or more dial-in participants, and removing one participant, resulted in an error. This occurred only when editing the booking using the Booking API.

Identifier	Description
CSCug18393	Resolved the issue where creating a recurrent conference, then editing any occurrence except the first and setting <b>Recurrence Interval</b> to <i>None</i> , still treated the conference as recurrent.
CSCud83501	Resolved the issue where booking a conference with a recording alias that is not the first one in the list in <b>Booking &gt; New Conference &gt;Recording</b> , and then changing the route from the default route defined by Cisco TMS, would disable recording for that conference.
CSCud83494	Resolved the issue where editing an ongoing conference that included recording to be <i>No Recording</i> could disconnect the conference. This occurred if the route was changed during booking from the default route defined by Cisco TMS.
CSCud71435	Resolved the issue where <b>Booking &gt; View Conferences &gt;</b> select a scheduled recurrent conference <b>&gt; Connection Settings</b> displayed an error and did not load.
CSCud95569	Resolved the issue where an unhandled exception occurred when a user who was a member of a group that had Booking permissions only, clicked on <b>Booking &gt; New Conference &gt; Add Participant</b> .
CSCug18417	Resolved the issue when searching for a conference in <b>Booking &gt; List Conferences</b> , where setting the search start date to be the same as the search end date did not find conferences for that date.
CSCue09213	Reinstated the <b>Recording URL</b> in the View Conferences page.
CSCue08624	Resolved the issue where changing the setup buffer after a conference had been created changed the connect time to 12:00 AM + setup buffer.
CSCug28928	Resolved the issue where if a conference was booked with three participants, and an external MCU was automatically added to host the conference, and then one participant was removed, the conference would still use the MCU even though this was not necessary as the conference could have been re-routed as point to point.
CSCud90734	Resolved the issue when booking a recurrent conference where selecting dates in the date picker did not update the number of occurrences.
CSCug18437	It is no longer possible to book a conference with recording and no participants.
CSCud72945	Resolved the issue where a conference scheduled on a TelePresence Server at 6144kbps connected at 1920 kbps.
CSCuf06925	Cisco TMS will now only dial participants if allocation is successful, previously Cisco TMS would dial participants even if allocation failed.
CSCua15627	Resolved the issue where Cisco TMS could select too many MCUs or fail to create a route when cascading.
CSCuh19000	Resolved the issue where the maximum setup and tear down buffer value that could be set in Administrative Tools > Configuration > Conference Settings > Default Setup Buffer/Default Tear Down Buffer did not reflect the documented maximum value of 30 minutes.

# Systems Management

Identifier	Description
CSCue22625	Resolved the issue where the <b>Systems &gt; System Overview</b> page could crash if all systems were selected in the left hand pane, and all parameters or the SNMP settings were selected in the right hand pane; the crash occurred when <b>View</b> was clicked.

Identifier	Description
CSCue22723	Resolved the issue where Cisco TMS could show a system with <b>Service Contract Status</b> : <i>No Contract</i> as having a contract expiry date in the future.
CSCue23402	Resolved the issue in <b>Systems &gt; System Upgrade &gt; Software Manager</b> where an error occurred when using Microsoft Internet Explorer and trying to upload a valid software package.
	This occurred only when accessing Cisco TMS on the server itself using http://localhost/tms.
CSCud90922	Introduced support for leading zeros in meeting ids for ad hoc calls on Cisco TelePresence MCUs.
CSCud95411	Resolved the issue where it was not possible to add a Cisco Unified CM-registered EX series endpoint to Cisco TMS if it did not have an 'empty' password. Cisco TMS now reads the credentials from the Unified CM rather than the endpoints themselves.
CSCue78404	Changed the Software Upgrade Service URL to point to cisco.com. Upgrading to 14.2 will change this automatically in Administrative Tools > Configuration > Network Settings >Service URL.
CSCue45487	Resolved the issue where it was not possible to add a Unified CM-managed system to Cisco TMS unless the 'admin' account was used.
CSCug18468	Resolved some issues with management of endpoints behind a firewall/NAT, including calendar support for One Button To Push conferences.
CSCuf32756	The setting <b>Systems &gt; Navigator &gt;</b> select a TelePresence Server> <b>Settings &gt; Extended</b> <b>Settings &gt;Port Reservation</b> has been changed to <b>Limit Ports to Number of Scheduled</b> <b>Participants</b> for consistency with the MCU products.
CSCty88233	Resolved the issue where Cisco TMS did not set a port limit for TelePresence Servers. This is only supported for TelePresence Servers running software version 2.2 or later.
CSCue94672	Resolved the issue where the Database Scanner Service did not automatically refresh managed systems.

# Phone Books

Identifier	Description
CSCue28933	Resolved the issue with the Cisco TMS Provisioning Directory phone book source where it was not possible to expand the root directory to view any subfolders containing provisioning users.
CSCue22884	Resolved the issue where searching on the TMS Endpoints phone book source could return an incorrect number of entries.

# Monitoring

Identifier	Description
CSCug37698	Resolved issue where some Java/browser combinations were sometimes very slow or unable to run <b>Conference Control Center</b> .
CSCug28886	Resolved the issue where having a blank TelePresence Server password caused commands sent to participants in a conference hosted on a TelePresence Server via Conference Control Center to fail.

# Reporting

Identifier	Description
CSCud95025	Resolved the issue where Cisco TMS could not resolve feedback from Cisco TelePresence MCU 5300 series MCUs. This resulted in no Call Detail Records (CDRs) being created if Cisco TMS did not recognize the cause code reported by the MCU.
CSCue00174	Resolved the issue with creating a pdf report via <b>Booking &gt; List Conferences &gt; Conference</b> <b>Report</b> where the generated pdf could include blank pages and some data was illegible.
CSCud78269	Resolved the issue where generating CDR reports when the logged in user's language was Japanese included TANDBERG instead of CISCO in the title of the report.

#### **Time Zones**

Identifier	Description
CSCud89551	Resolved the issue where creating a weekly recurrent conference as a user in for example, time zone GMT+11, when the Cisco TMS server was in for example, time zone GMT-5, led to the conference being saved on the incorrect date.
	This occurred only when selecting a day for the recurrence, and when the user time zone and the server time zone were on a different day.
CSCuc48691	Resolved the issue where recurrent bookings that spanned a DST change were replicated from Cisco TMS to Microsoft Exchange with the wrong meeting time for occurrences on dates after the DST change, leading to systems being set to unavailable when they were available for bookings.
CSCtx61207	Resolved the issue where booking availability for a system was incorrectly shown for the day before or the day after the requested date when certain time zones were chosen for the conference.
CSCtz40911	Resolved the issue where a recurrent conference would change to be a day out if the server and user time zones were different and the recurrence period spanned a DST change in one of the time zones.
CSCug11549	Resolved the issue where booking a conference in a different time zone to the one your Windows user is in could display incorrect conference information in the Microsoft Outlook recurrence tool.

#### Email

Identifier	Description
CSCug11500	Resolved the issue where the ICS calendar attachment set the Reminder as "Invalid" by default for Microsoft Outlook on a Mac.
CSCue22710	Resolved the issue in Administrative Tools > Configuration > Edit E-mail Templates >Phrase File where untranslated phrases were shown as empty instead of being shown in English.
CSCug11515	Resolved the issue where using curly brackets { } in an email either in the subject or in the message did not display the brackets or the text inside the brackets.
CSCue22932	Resolved the issue affecting conference emails for One Button To Push conferences where the Conference Type section was missing from the emails.
CSCua28976	Resolved a number of time zone issues with the VCal and ICS attachments to booking confirmation emails.

Identifier	Description
CSCud83837	Resolved the issue with custom created email templates for booking where the generated email could contain the name of the MCU after the conference ID in the URI.
CSCtt07448	Resolved the issue where the booking confirmation email was received in UK English although the user booking the conference was set to US English.

## Booking API (Cisco TMSBA)

Identifier	Description
CSCuc48691	Resolved multiple issues caused by missing time zone support. For implementation details, see <u>Time zone awareness [p.9]</u>
CSCug11371	Resolved issue where caching might lead to API not applying newly changed profile information for the conference owner. When a conference is saved, the latest version of the conference owner's profile will now be read.
CSCue26369	Resolved issue where Cisco TMS would persist some instances of recurrent conference series incorrectly when they are created using the API, causing the last instance to be omitted when series later retrieved from Cisco TMS.
CSCue30850	Cisco TMS no longer clears the existing call route when adding or removing a participant using Cisco TMSBA during an ongoing conference.

#### General

Identifier	Description
CSCtx30758	Improved the error message displayed when a duplicate option key is added into Cisco TMS.
CSCue00035	Resolved the issue where the TMSSNMPService could crash after certain database operations returned an exception.
CSCue13739	Resolved the issue in Cisco TMS Analytics Extension (Cisco TMSAE) where Cisco TMS Provisioning Extension users were not imported. The databases were in an inconsistent state, with many users missing from the Cisco TMSAE"User" dimension. Customers using the data in the Cisco TMSAE 'user' dimension must contact Cisco to obtain a database cleanup script.
CSCug11344	If Administrative Tools > Configuration > Conference Settings >Auto Generate Password on New Conferences is set to Yes, Cisco TMS will now generate a password of 3 characters between 000 and 999, instead of incorrectly generating a password of 1, 2 or 3 characters between 0 and 999.
CSCug11311	Resolved the issue with upgrading Cisco TMS where the installer could hang if one of the Cisco TMS services did not start.
CSCue02749	Resolved the issue where updating the password for Cisco TMSPE from TMS Tools failed, even though it appeared to succeed in the TMS Tools interface.
CSCuf79069 CSCug27660	Resolved a number of issues where Cisco TMS disconnected ad hoc calls.

# Resolved in 14.1.1

The following issues were found in previous releases and were resolved in 14.1.1:

Identifier	Description
CSCud86151 CSCud88001	Resolved the issue where it was not possible to schedule conferences or edit existing bookings in Cisco TMS.
CSCud88003	Resolved the issue where it was not possible to create a phone book source of type File Based Phone Book using a file from a URL.
CSCud88006	Resolved the issue where the password field did not contain any data after creating and saving a phone book source that required credentials. This caused the connection to the source to appear to fail on the first attempt.

# **Resolved in 14.1**

The following issues were found in previous releases and were resolved in 14.1:

# Booking

Identifier	Description
CSCua57784	Resolved the issue where One Button To Push conferences with participants added from a phone book failed.
CSCud07712	Resolved the issue where Cisco TMS booked all ports on an MCU type system, even though the booking was not <i>Reservation Only</i> .
	The issue happened when a user edited an existing booking and removed all participants except the MCU.
CSCtz48797	Resolved the issue where the meeting password was not saved for a password protected meeting when the reservation type was set to <i>Manual Connect</i> .
CSCud07690	Removed the non-functioning <b>Details</b> link for external dial in participants in the <b>New</b> <b>Conference</b> and <b>Edit Conference</b> pages.
	Added a tool-tip displaying Name and Direction.
CSCtx51962	Resolved the issue where if a user cancelled an edit of a conference in <b>Booking &gt;List</b> <b>Conferences</b> , the start and end time of the conference changed. When the user entered the List <b>Conferences</b> page again, the start and end time were correct.
CSCua18048	Resolved the issue where conferences created from Microsoft Outlook via Cisco TMSXE defaulted to 64k bandwidth when trying to set other values in Microsoft Outlook.
CSCua77446	Resolved the issue where scheduling a participant template made all participant templates seem scheduled in <b>Booking &gt; New Conference &gt; Add Participants</b> button > <b>Template</b> tab. This issue occurred for systems not managed by Cisco TMS.
CSCua23453	Resolved the issue where a system appeared as available when it was already booked. This happened when a new date had started in UTC, but not in Cisco TMS's time zone.
CSCtx73847	Resolved the issue where if scheduling a OBTP conference in Cisco TMS involving one or more "room" type systems, the Cisco TMS routing logic failed to set up the connection.
CSCud07423	When deleting a conference from a recurrent series, it was possible for the user to click <b>OK</b> without an option selected. Now the option <i>Delete the selected occurrence</i> will be preselected.

Identifier	Description
CSCtt27466	Resolved the issue where setting <b>Set Conferences as Secure by Default</b> to Yes in <b>Administrative Tools &gt; Configuration &gt; Conference Settings</b> , did not enable secure conferencing in Cisco TMS Scheduler as default.
CSCud10011	Resolved the issue where after going to <b>Booking &gt; New Conference</b> , clicking the <b>Add</b> <b>Participant</b> button and adding an MCU to the conference, the <b>MCU</b> tab did not show the correct status for the MCUs.
CSCub19010	Resolved the issue where scheduling a conference with endpoints running TC/TE software or MXP endpoints when Administrative Tools > Conference Settings > Conference Create Options >Set Conferences as Secure by Default was set to <i>If Possible</i> or Yes, Cisco TMS could in certain circumstances incorrectly change the configuration.
CSCuc88037	Resolved the issue where it was possible to remove the main participant (the host or the MCU) in an ad hoc conference. This would disconnect the call.
CSCtr32362	Resolved the issue where a conference booked at midnight in Cisco TMS could be replicated to the previous day in Microsoft Exchange.

# Systems Management

Identifier	Description
CSCuc65075	Removed the warning given by Cisco TMS when trying to add a Cisco VCS using the VCS's IP address. As provisioning has been improved with Cisco TMSPE, there is no longer a requirement for this warning.
CSCtx12293	Resolved the issue where a system took longer to upgrade than Cisco TMS expected and therefore Cisco TMS reported the upgrade as unsuccessful. This issue applied to systems running TC and TE software version 6 or earlier.
CSCud16380	Resolved the issue where if adding a system using SNMP, not all the systems capabilities were added by the first <b>Force Refresh</b> .
CSCud07392	Resolved the issue in <b>System Upgrade</b> where if <b>Upgrade Mode</b> <i>Basic</i> was selected, both .pkg and .zip files were displayed. Adding a .zip file is not a valid option here.
CSCua25689	Resolved the issue where adding a Cisco TelePresence MCU with only HTTPS enabled failed.
CSCud21809	Resolved the issue where a Cisco TelePresence MCU on a dual stack network could be added twice to Cisco TMS.
CSCuc88048	Resolved the issue where Cisco TMS did not allow the administrator to specify a user name when adding a Cisco VCS or a Cisco TelePresence Conductor. The problem occured if the default 'admin' accounts were disabled.
CSCuc88015	Resolved the issue where it was not possible to remove an inaccessible VCS from a cluster.
CSCtr32285	Resolved the issue in Systems > Navigator > select system > Settings tab > Persistent Settings, where the SIP URI field was empty even though the SIP URI had been set using Systems > Manage Dial Plan.
CSCty20327	Resolved the issue where exporting option key values from all systems from the <b>Systems</b> <b>Overview</b> page displayed the data as XML.
CSCud07618	Resolved the issue where Cisco TMS allowed adding a Cisco Unified CM several times.

Identifier	Description
CSCud10019	Resolved the issue where [IPV6] or ipv6 address (enclosed or not enclosed in square brackets) were treated as separate entries when adding systems to Cisco TMS.
CSCty90084	Resolved the issue where Cisco TMS incorrectly displayed Cisco TelePresence MCU's status as <i>In Call</i> when there was no call remaining on the Cisco TelePresence MCU.
CSCtx03704	Resolved the issue where <b>Systems &gt; Navigator &gt;System Status</b> could incorrectly display as <i>Idle</i> for Cisco TelePresence MCUs and Cisco TelePresence Servers when they were in a call.
CSCud07379	Improved the message where Cisco TMS displayed "an unexpected error has occurred" when viewing a Cisco Unified CM in the <b>System Navigator</b> . The issue occurred when there had been too many requests from Cisco TMS to the Cisco Unified CM over the last minute; the Unified CM then refused the connection.
CSCud07411	Resolved the issue where the registration policy for the a Cisco VCS in <b>Systems &gt; Navigator</b> was wrong. It was always listed as <i>Unknown</i> .
CSCua84377	Resolved the issue where <b>System Name</b> for systems provisioned by Cisco Unified CM was displayed as editable in <b>Systems &gt; Navigator</b> .
	Changing <b>System Name</b> of Cisco Unified CM provisioned systems must be done from the Cisco Unified CM.
CSCud07698	Resolved the issue where Cisco TMS could display erroneous warnings in <b>Systems &gt;</b> <b>Navigator</b> . Cisco TMS did not compare IPv6 feedback receiver URLs correctly for Cisco TelePresence MCUs.

#### Phone Books

Identifier	Description
CSCub86648 CSCub86700	Resolved the issue where it was not possible to synchronize phonebook sources if the source name contained a non-standard character such as \or ". A provisioning extension error occurred.
CSCud07646	Resolved the issue where synchronization of phone books could fail due to the provisioning phone book synchronization, even if provisioning was not enabled. Phone Book Source Activity Status displayed an error message/resent an email saying: <i>A phone book connected to the source {0} is currently undergoing internal maintenance</i> . The error also prevented other phone book jobs from running.
CSCud07492	Resolved the issue where the display of the Manage Phone Book Sources > Manual List sources > View/Edit Contacts tab only displayed half the amount of contacts the setting was set to show.
CSCua00704	Resolved the issue where searching for names in phone books on EX60 and EX90 systems containing ", ' or $-$ e.g. O'Neill, produced no search results.

# Monitoring

Identifier	Description
CSCub67739	Resolved the issue where <b>Conference Control Center</b> did not load a conference if one of the participants had been deleted from a file based phone book.

Identifier	Description
CSCuc65141	Resolved the issue where if scheduling a multipoint conference in Cisco TMS that included Cisco TelePresence Server (TS), the Set floor functionality showed as available even though TelePresence Server does not support this feature.
CSCtx66027	Resolved the issue where removing a participant from a multipoint call using the <b>Remove</b> option in <b>Conference Control Center</b> failed.
CSCtv21740	Resolved the issue where the date fields in the <b>Conference Control Center</b> displayed the dates of the server's time zone instead of the time zone configured for the Cisco TMS user.
CSCuc65062	Resolved the issue where the event log erroneously displayed: "Error: No incoming video from participant: (system name)" when an administrator manually muted a participant in the <b>Conference Control Center</b> .
CSCts02684	Resolved the issue where alarms were not cleared correctly in <b>Conference Control Center</b> even though the issue had been resolved.
CSCtx27847	Resolved the issue where "&" in the conference name broke the Cisco TelePresence MCU conference snapshot in <b>Conference Control Center</b> .

# Reporting

Identifier	Description
CSCud07720	Resolved the issue where Cisco TMS did not log boot events from the Cisco TelePresence Supervisor MSE 8050 or the Cisco TelePresence ISDN Gateway.
CSCtr32354	Resolved the issue where Cisco TMS displayed an error in <b>Reporting &gt; Billing Code Statistics</b> , when trying to view detailed data records for billing codes that contain certain UTF-8 characters (for example: $æ,ø,å,#$ and &).
CSCud07585	Resolved the issue where a boot event for a Cisco TelePresence MCU did not show in Cisco TMS when the MCU rebooted. Now, a boot event will always show immediately in Cisco TMS, but if the MCU is not available yet to report a reason for its reboot, no reason will be shown in Cisco TMS.
CSCty13851	Resolved the issue where Cisco TMS sent an incorrect "Conference ends in 5 minutes" message for a conference stretching over several days.
CSCtw61036	Resolved the issue where Cisco TMS didn't generate a "Lost Response" trap log event for Cisco VCS systems if the network connection was lost.
CSCud07502	Resolved the issue in the <b>Reporting</b> pages where the date picker and date input fields used an inconsistent date format. The date picker used an American date format (month/date), while the date input field used a European date format (date/month).
CSCty67470	Resolved the issue where an SQL timeout error occurred when viewing Gateway CDR.

# Booking API (Cisco TMSBA)

Identifier	Description
CSCud16387	Resolved the issue where GetDefaultConference method did not contain IP Bandwith or ISDN Bandwith elements.
	This issue only occurred when the client specified an API version later than 3.

Identifier	Description
CSCud07675	Resolved the issue where a misleading error message was displayed if no option key was installed. The error message was: "There are no Application Integration options installed".
CSCuc01451 CSCtx29637	Implemented support for ParticipantCallType <i>Directory</i> , allowing phone book entries to be used as participants.
CSCtz01880	Resolved the issue where all bookings from Microsoft Outlook (through Cisco TMSXE) and IBM Lotus Notes (through Cisco TMSXN) failed displaying the error: "You do not have enough licenses to book this conference" even though licenses were in place. The bookings did not show in Cisco TMS.
CSCud07475	Resolved the issue where Cisco TMS returned one too many days when booking conferences through the booking API (Cisco TMSBA's function GetConferencesForUser).

# TMS Tools

Identifier	Description
CSCuc65089	Resolved the issue in TMS Tools where settings for Cisco TMSPE database connections were configurable in deployments without Cisco TMSPE.
CSCuc65094	Resolved the issue in TMS Tools where Cisco TMSPE windows authentication credentials could not be validated after editing.

# General

Identifier	Description
CSCua60214	Resolved the issue where the third party calendar drop-down component showed an Unlicensed message when FIPS mode was enabled on the Cisco TMS server.
CSCtx39000	Corrected the issue where Russian time zones were displayed incorrectly in Systems > Navigator > select a system > Settings tab >Time Zone field.
CSCud07681	Resolved the issue where Cisco TMS did not respect the <b>Number of Days To Keep Data</b> setting in <b>Administrative Tools &gt; TMS Server Maintenance &gt; Purge Log Plan</b> .
CSCud07608	Resolved the issue where a confirmation message displayed a message containing a reference to an outdated product.
CSCud07407	Errors are no longer displayed on the <b>Compare Settings</b> tab in <b>Systems &gt; Navigator</b> when encountering encrypted Cisco VCS passwords that cannot be verified by Cisco TMS. The passwords are now highlighted without showing errors.
CSCud07636	Improved e-mail address verification to conform to ICANN rules which allows for top level domains to be anything and also contain national characters.
CSCud10033	Resolved the issue where Cisco TMS failed to do Active Directory look-up of existing users. The issue happened if the Lookup User Information from Active Directory in the Network Settings was enabled and the GC server or AD forest DNS name field was empty.
CSCud07261	Resolved the issue where during installation, in an IPv6 environment and with IPv4 disabled, the Cisco TMS installer did not automatically fill in IPv6 address.

Identifier	Description
CSCud07268	Option key for Cisco TMSPE in <b>General Settings &gt; Option Keys</b> changed to "Cisco TMS Provisioning Extension".
CSCuc65118	Updated the Cisco TMS' list of SIP server types for the Cisco IP Video Phone E20.
	TE 4.1.x software allows Standard/Alcatel/Avaya/Cisco/Microsoft/Nortel/Broadsoft as valid types.
CSCua28639	Resolved the issue with incorrect distribution of participants in cascaded conference template: If you create a conference template with No Distribution routing, then create another conference template with Best Impression routing which requires cascading, the number of participants distributed to each MCU in the second conference template is incorrect.
CSCtx29067	It is now also possible to use a 10 digit base ISDN number starting with any digit in Systems > Navigator > select an MCU > Settings > Extended Settings > ISDN Gateway DID First Number.
CSCtr32338	Character limit for Systems > Navigator > Extended Settings >First Meeting ID for MCU and TelePresence Server increased to 19. Leading zeroes are supported.
CSCuc88003	Resolved the issue where Cisco TMS was unable to handle a search in Systems > Configurations Templates > Configuration Templates > Select Advanced Settings.
CSCub31632	Resolved the issue where Cisco TMS failed to import Billing Codes from a text file.
CSCty74386	Resolved the TMS Scheduler issue where adding a phone book entry as the first participant followed by a dial-out number would lead to the phone book entry replacing all other participant addresses.
CSCud39079	Improved Cisco TMS' handling of database deadlocks.

# Resolved in 14.0

The following issues were found in previous releases and were resolved in 14.0:

## Booking

Identifier	Description
CSCua62217	Resolved the issue where an error could appear in the log-web.txt log when adding a non-Cisco TMS-managed participant (dial-in, dial-out, phone book entry, user) to a One Button To Push conference.
CSCty98098	Resolved the issue where confirmation emails were not received when booking a One Button To Push conference which included at least one non-Cisco TMS-managed participant (dial-in, dial- out, phone book entry, user).
CSCty94156	Resolved the issue where a SIP conference scheduled on an MCU in Cisco TMS did not register as SIP if H323 was disabled on the MCU.
	This happened because SIP registration was dependent on the H323 MCU prefix setup, meaning it would fail if H323 was turned off on the MCU.
CSCtx64185	Resolved the issue where Cisco TMS did not register SIP participants as taking up resources in stored bookings on an MCU, which made it possible to overbook SIP participants on the MCU in subsequent bookings.

Identifier	Description
CSCua26100	Resolved the issue where in <b>Booking &gt; New Conference &gt;Recurrence Settings</b> the calendar sometimes did not display in the <b>Recurrence Settings</b> pop up window.
CSCua60010	In <b>Booking &gt; New Conference &gt; Add participants&gt;</b> add an MCU and some participants <b>&gt;OK&gt;MCU Settings</b> tab – the fields on this tab will now be shown in the language the logged-in Cisco TMS user has selected.
	Previously they were always in English regardless of the user language selected in Cisco TMS.
CSCty32654	Resolved the issue where it was possible to double book a system, if the start date of a recurrent meeting series in which it was a participant was changed to a date in the past.

# Monitoring

Identifier	Description
CSCua60141	Resolved the issue where removing a participant from a scheduled One Button To Push conference did not update that participant's Meetings calendar to inform it that it had been removed from the conference.

# **Systems Management**

Identifier	Description
CSCtz83514	Resolved the issue where it was not possible to add Cisco TelePresence MX300, Profile 55 and SX20 systems which were registered to a Cisco Unified CM to Cisco TMS.
CSCua52567	Cisco TMS now downloads software and release keys for provisioned systems.
CSCua52587	Resolved the issue where enforcing management settings on a Cisco VCS in Cisco TMS changed the external manager address set on the Cisco VCS from the FQDN of the Cisco TMS to the IP address of the Cisco TMS.
CSCua65556	Resolved the issue where it was not possible to add systems to Cisco TMS if the default ISDN or IP Zone value had been set to <i>None</i> in <b>Administrative Tools &gt; General Settings &gt;Default ISDN/IP Zone</b> after initially creating the default zones during the install process. A "System not found!" error was invoked.
CSCua26092	Resolved the issue where changing the URL Where Software Packages Can Be Downloaded: in Administrative Tools > Configuration > Network Settings > General Network Settings could cause a stack trace error when accessing the Systems > System Upgrade > Software Manager page.
	This happened if the IIS user Cisco TMS was running under did not have access to the folder specified.
	A valid error message will now appear.
CSCua26087	Removed the field <b>SNMP Get Community Name:</b> from <b>Systems &gt; Navigator &gt;</b> Select a system <b>&gt; Connection</b> tab for systems which do not support this setting, for example Cisco Unified CM and Cisco TelePresence Server.

Identifier	Description
CSCua59944	Resolved the issue where no system name was displayed for systems which did not have a name. This occurred in <b>Systems &gt; Event Notification Manager &gt;</b> edit an account in the <b>Name</b> column. Select a system with <i>No Name</i> in the <b>Select Systems</b> column, and an event type in the <b>Select Event Types</b> column, then click on the arrow to move it into the <b>Stored Event Notifications</b> column and click <b>Save</b> . Now view the same account in <b>Systems &gt; Event Notification Manager</b> . Nothing is displayed in the <b>System</b> column for the system name.
CSCtr25908	Resolved the issue where endpoints running TC and TE software, and the Cisco VCS showed the SNMP port as 0 instead of 161 in Systems > System Overview > Select a system from the Systems folder list and SNMP Settings from System Parameters list > click View>SNMP port column.
	This is a hard-coded value in Cisco TMS, it is not read from the system itself.

## Phone Books

Identifier	Description
CSCua67525	Resolved the issue where incorrect data could be returned when searching via the View Contacts tab in an Active Directory or H.350 Phone Book Source.
CSCua60451	Resolved an issue where if there were lots of phone book contacts without any contact information, deletion of one manual contact could fail with an exception due to a time-out.
CSCua59896	Resolved an issue where synchronizing very large phone books could fail with an exception due to a time-out.
CSCua59975	Resolved the issue where deleting a very large phone book from the Cisco TMS GUI could fail due to a time-out in the SQL database.
CSCua59911	Improved GUI performance when accessing Booking > New Conference >Add Participants > Phone Books tab and Phone Books > Manage Phone Books > select a very large phone book > View Contacts tab.
	These pages were very slow to load if the phone books contained thousands of contacts.

# Reporting

Identifier	Description
CSCua26084	The Utilization option has been removed from the <b>Reporting &gt; Call Detail Record &gt;</b> Gatekeeper and VCS > Query >Calculate by: field.
	It is not possible to calculate CDRs by utilization for these products.

#### Installation

Identifier	Description
CSCua65350	Resolved the issue where during the installation of Cisco TMS, the <b>HTTPS Enable Wizard</b> could disappear behind the <b>Installer</b> window leading the user to think that the installer had hung. The <b>HTTPS Enable Wizard</b> will now always be on top of the Installer.

Identifier	Description	
CSCua65522	Resolved the issue where errors appeared during install if <b>TMS</b> was deselected and only the <b>Database</b> was installed, during a Custom install of Cisco TMS.	
CSCua60164 Cisco TMS installer will now give a proper error message when an install is attempted on the unsupported Windows 2003 64-bit operating system.		

# **Booking API**

Identifier	Description	
CSCua65538	8 Resolved the issue in the Booking API where GetDefaultConference was not versioned correctly.	
CSCtr37992	SCtr37992 Resolved the issue where the master participant in a OBTP conference did not update correct if the conference was updated through the booking API.	

#### General

Identifier	Description	
CSCua65316	Resolved the issue where the <b>HTTPS Enable Wizard</b> crashed when running with insufficient privileges.	
	A message is now displayed if the tool is not run by a user with Administrator privileges.	
CSCty46186	Resolved the issue where removing a user from an Active Directory group did not remove that user from Cisco TMS when clicking on Administrative Tools > User Administration > Groups>Update Groups from AD or Administrative Tools > User Administration > Users >Synchronize all users with AD.	
CSCty90987	Resolved the issue where tickets generated from Cisco VCS alarms and/or warnings were not clearing correctly in Cisco TMS once the issue had been fixed/acknowledged on the Cisco VCS.	
CSCua26063 Resolved the issue where a <b>Lost Response</b> event was not generated when Cisco unable to communicate with a Cisco Unified CM or a Cisco CTS system.		
	An event will now be generated if communication is lost.	
CSCua26066	Resolved the issue where a <b>TMS Connection Error</b> ticket was not generated when Cisco TMS was unable to communicate with a Cisco Unified CM or a Cisco CTS system.	
	A ticket will now be generated if communication is lost.	
CSCua60189	Resolved the issue where changing the SMTP Server in <b>Administrative Tools &gt; Configuration &gt; E-mail Settings</b> did not correctly update the email server used by Cisco TMS.	
	This was due to a caching issue whereby Cisco TMS could try to use the old server with the new server's username and password.	
CSCua60131	Added event-stats.txt, log-TMSAgent-console.txt and phonebook-stats.txt to the logs downloaded when clicking on Administrative Tools > TMS Server Maintenance > TMS Diagnostics >Download Log Files.	
CSCtw61027	Added the option to use a port other than 25 for SMTP server communication.	
	It is now possible to add : <port number=""> after the SMTP server name under Administrative Tools &gt; Configuration &gt; E-mail Settings &gt;SMTP Server.</port>	

Identifier	Description	
CSCtr90501	Resolved the issue where event notification emails were not received when more than one email address was entered in Administrative Tools > Configuration > Network Settings > Event Notification >E-mail Addresses to Receive System and Network Notifications.	

# **Open issues**

The following issues apply to version 14.4.2:

Identifier Description		
CSCuq11731	Purging conferences does not remove transaction log entries for the deleted conferences. This could result in the ConferenceInstanceTransaction table growing indefinitely.	
CSCup44408 The first instance is not sent to WebEx when booking a recurrent WebEx Enabled meeting.		
	This occurs if the first instance is today.	
CSCup68140	For scheduled conferences hosted on a TelePresence Conductor, participants do not connect if the encryption setting for the conference is <b>Secure</b> <i>If Possible</i> .	
CSCup67129	It is not possible to add a participant to an ongoing meeting using <b>Conference Control Center</b> , i the <b>Limit Ports to Number of Scheduled Participants</b> setting is set to <i>On</i> in <b>Systems</b> > <b>Navigator</b> > select the TelePresence Server or TelePresence MCU hosting the conference > <b>Extended Settings</b> .	
CSCup64505	Attempting to delete or update an instance of a recurrent series fails with the error: "The specifie time zone information is not valid".	
CSCup64605	Imported Active Directory users are deleted from Cisco TMS during Active Directory synchronization.	
CSCup52787	Call disconnection emails contain confusing information.	
CSCup54552	Cisco TMS always tries to connect to Cisco VCSs using the "admin" account, even when the administrator specifies a different username.	
CSCup45663	Changing the encryption key generates a ticket in Cisco TMS, but <b>Scan Db for Encryption Key</b> <b>Mismatch</b> in <b>TMS Tools</b> incorrectly finds no mismatches.	
CSCuq11756	Clients using the Cisco TMSBA GetConferenceInvite function are not able to use the "E-mail Content Type" setting in Cisco TMS.	
CSCup69976	Using the <b>Configuration Template TMS Command</b> <i>Password</i> to change a system's password causes endpoint authentication failure.	
CSCup32732	Adding a Unified CM to Cisco TMS displays an "Unsupported System" error. This occurs if the default SNMP community strings configured in Cisco TMS match one or more community strings configured on the Unified CM.	
CSCup27180	Scheduled tasks, and accessing the Portal web page could fail with an 'Index was out of range' error. This occurrs if the database table [field_SystemField] contains NULL values.	
CSCup24146	It is not possible to change the <b>Update Frequency</b> of a Phone Book Source.	
CSCup29588	Conferences may not appear in <b>Booking &gt; List Conferences</b> . This could occur if only one endpoint is scheduled in a conference with no other participants, and another endpoint joins the conference.	

Identifier Description		
CSCup29577	Updating the reservation type of a series with exceptions may be blocked by a non-existent room conflict.	
CSCup25109	Updating a series may be blocked by a deleted instance if that deleted instance was an exception before being deleted.	
CSCup19131	Installing Cisco TMS fails when using non-standard IIS settings.	
CSCup16141	Scheduling Event emails (enabled in <b>Systems &gt; Navigator &gt;</b> select a system <b>&gt; Alert System</b> <b>Contact when Booked</b> ) are not received by the system contact.	
CSCup16114	An email containing no useful data is generated when adding TelePresence to instances of a series booked without TelePresence.	
CSCup15234	Cisco TMS fails to book meetings where a single instance is booked via Microsoft Outlook, then edited to become a recurrent series that has conflicts in Microsoft Exchange.	
CSCup13800	Changing the <b>Apply At</b> time for a persistent configuration template incorrectly updates the <b>Apply At</b> time to the time the change was made.	
CSCup05158	The booking update confirmation email does not display the conference ID when a conference booked using Cisco TMSBA is edited to both change the connection type and add a participant.	
CSCuq11686	Cisco TMS still checks for software updates when Administrative Tools > Configuration > Network Settings > Automatically Check for Updates is set to No.	
CSCup18241	For exceptions in a recurrent series that have a different route to the rest of the series, updatin the series (for example to change the title) will clear the manually configured route for the exceptions.	
CSCuo79853	Synchronizing users from Active Directory is shown as failed with a database exception.	
	The sync fails for users with accent characters in their username, but succeeds for all other users.	
CSCuo65488	Issues with saving conferences using Cisco TMSBA when using very long external source ids or primary keys.	
CSCuo65385	It is not possible to edit a user if Cisco TMS cannot contact the WebEx site configured for that user.	
CSCuo65380	Editing the dial string for a participant incorrectly gives a 'Route not valid' error.	
CSCuo51286	Meeting End Notifications appear on endpoints at the wrong time containing the wrong information.	
CSCuo65350	TMS installer fails during database creation step with authentication failures due to settings from a previous installation even though the supplied credentials during install are correct.	
CSCuo26906	Stack trace in Systems > Navigator when viewing MCU settings.	
CSCuo43668	Adding a participant to an ad hoc point to point Polycom HDX call disconnects the original participant.	
CSCuo43681	Adding a participant to an ad hoc point to point CTS call puts the original participant on hold.	
CSCuo43640	Changes to Unified CM-registered systems are not picked up by Cisco TMS.	
CSCuo27133	Adding a participant to an extended conference after the original end time gives error: 'you cannot book a meeting in the past'.	
CSCuo09280	Cisco TMS does not use CDRs from Cisco VCS if source address is a LifeSize endpoint.	

Identifier Description		
CSCuo09044	Cisco TMS changes the dial-out mode to dial-in for ISDN participant template.	
CSCuo27097	An unhandled exception sometimes occurs when accessing the <b>Participant Templates</b> page.	
CSCuo02288	CPU spike to 100% when receiving CallDisconnectEvent from Cisco VCS.	
CSCuo27025	TMS Tools: "Disable Provisioning" no longer disables the TMSPE service.	
CSCun92254	Interval for Allocation Request is not consistent.	
CSCun79027	There is no Time Zone field when editing conferences in Conference Control Center.	
CSCuo27017	Ongoing conferences: Cisco TMSBA and admin UI behavior different when suddenly exceeding bridge capacity.	
CSCun76724	Cisco TMS uses wrong conference numeric ID when booking first conference after changing configured numeric ID.	
CSCun71244	Unable to add Phone Book Source to Phone Book.	
CSCun68407	When Cisco TMS schedules a call with a clustered TelePresence Content Server and TelePresence Conductor, Cisco TMS will keep trying to redial the Content Server.	
CSCup15057	Dropdown menus are hidden behind Java applets when using Google Chrome. When viewing the <b>Conference Control Center</b> , most menu items are inaccessible.	
CSCun05519	Attempting to use the Time Zone Update tool to update conference information to timezone +8 Perth generates an Unspecified Error.	
CSCum56065	Content port is not taken into consideration when determining whether a meeting can be extended.	
CSCum57946	On the <b>Provisioning</b> tab for Cisco VCS in <b>Systems &gt; Navigator</b> , there is no data shown in the section containing the Cisco TMSPE connection settings.	
CSCum50618 CSCuo50644	Cisco TMS does not effectively check the actual size of the database.	
CSCuo26979	Cisco TMS does not resolve Lync participant when MCU dials out through TelePresence Conductor trunked to Unified CM.	
CSCul16991	The setting: Administrative Tools > Configuration > Conference Settings >Show Reconnect Message Box on (Non Master) Endpoints is misleading as it implies that the message will still show on the Master Endpoint even if set to <i>No</i> but the behavior is that setting this to <i>No</i> does no show the message on any of the endpoints.	
CSCuj91844	It is not possible to save the SMTP settings in Cisco TMS if the SMTP server does not respond within 2 seconds.	
CSCuj74298	Conference notification messages are not sent to endpoints although Administrative Tools > Configuration > Conference Settings > Show Messages On Endpoints About Conference Starting In X Minutes is set to Yes.	
CSCuj57862	Japanese symbols do not appear correctly in the <b>Remote Site</b> column in CDR reports.	
CSCuj12622	Cisco TMS displays an inconsistent recording status for bookings that include a Cisco TelePresence Content Server that is a member of a cluster. Both <i>No recording</i> and <i>This conference will be recorded</i> are displayed.	
CSCui99284	Cisco TMS does not allow site administrators to delete other users' reporting templates.	

Identifier	fier Description	
CSCui48610	If a file based phone book contains incorrect alphanumeric data in a field in the ISDN Number column, a source using this phone book still displays all contacts. A phone book connected to this source only displays contacts up to the alphanumeric field.	
CSCui39874	Cisco TMS does not display "User CDR" or "Gatekeeper CDR" graphs correctly when small data sets are used.	
CSCui36622	Cisco TMS is no longer able to control an ongoing conference on a TelePresence Conductor that has rebooted during the conference and come back up successfully.	
CSCui10081	Cisco TMS includes a <b>Remote Name</b> field even for events where no remote name data is received from the endpoint.	
CSCuj20037	When Cisco TMS calculates a route during booking, it gives too much weight to an interworked SIP > H.323 call. This can cause Cisco TMS to choose a suboptimal bridge to host the meeting	
CSCuf34881	It is not possible to remove a large number of event notifications for a user in a single operation.	
CSCue18466	Cisco TMS does not resolve systems correctly. For example, if endpoint A and endpoint B are connected to the same MCU conference, attempting to mute or disconnect endpoint A actually mutes or disconnects endpoint B. This occurs only when using an E.164 dial plan.	
CSCud66234	Inconsistencies with Call Detail Records when using billing codes.	
CSCuc58823	Folder and system permissions do not work correctly.	
CSCud10006	Cisco TMS overwrites some settings unnecessarily when pushing phone books to Polycom HDX endpoints.	
CSCuc98305	The <b>Take Snapshot</b> button does not appear in <b>Systems &gt; Navigator</b> , even though the endpoint supports snapshots.	

# Limitations

Feature	Limitation
Time zone support	<ul> <li>The Cisco TMS server time zone cannot be changed.</li> <li>International time zone amendments such as changes to DST dates or time zone regions are automatically updated on the Cisco TMS server and in Cisco TMS through Microsoft Windows Updates. The same is not true of endpoints running Cisco TelePresence TE or TC software—they have a manual predefined list of time zones, so any changes to DST dates or time zone regions will not be reflected. This can lead to time zone mismatch errors on direct-managed endpoints. Scheduling will not be affected, but Cisco TMS could fail to read/write time zone data.</li> </ul>

Feature	Limitation	
TelePresence Conductor scheduling	<ul> <li>TelePresence Conductor does not properly load balance multiple scheduled meetings beginning at the same time across multiple MCUs or TelePresence Servers in a bridge pool. This can lead to situations where one MCU or TelePresence Server will fill up and calls will be rejected while others in the same bridge pool are underutilized.</li> <li>As a workaround for MCUs, we recommend only adding identical capacity MCUs to a bridge pool and configuring either a content, chairperson, or cascade port on the Conference Template. Bug toolkit identifier: CSCui42818.</li> <li>As a workaround for TelePresence Server, we recommend only adding one TelePresence Server to a bridge pool. Bug toolkit identifier: CSCui42822.</li> </ul>	
	<ul> <li>TelePresence Conductor waits up to 30 seconds before releasing resources between meetings. This may cause denial of inbound and outbound calls for back-to-back meetings and utilization spikes when participants repeatedly leave and join a meeting. Bug toolkit identifier: CSCuf34880.</li> </ul>	
	The above limitations will be addressed in coming releases of TelePresence Conductor and Cisco TMS.	
	See also scheduling improvements [p.1]	
TelePresence Conductor scheduling	tor Multiple TelePresence Conductor cluster nodes are not supported in Cisco TMS.	
TelePresence Conductor scheduling	Cisco TMS scheduling with TelePresence Conductor does not currently support WebEx Enabled TelePresence.	
Monitoring and reporting	<ul> <li>Conferences using FindMe and Multiway may cause duplicates in Conference Control Center and Reporting.</li> </ul>	
	<ul> <li>Conferences where participants have been put on hold or have been transferred may cause duplicates in Conference Control Center and Reporting.</li> </ul>	
WebEx	<ul> <li>Advanced recurrence patterns are not supported for WebEx Enabled TelePresence.When booking from the New Conference page, select to include WebEx before specifying the recurrence pattern, and only the supported patterns will be made available for selection.</li> </ul>	
	<ul> <li>Deleting a recurrent meeting series while one instance is ongoing will delete the meeting in Cisco TMS but not in WebEx. This is because WebEx does not allow changes to ongoing meetings, this includes deletion.</li> </ul>	
Collaboration Edge	Cisco TMS does not currently support devices that are behind Collaboration Edge	
Expressway	Cisco Expressway-C and Cisco Expressway-E will display in Cisco TMS with system type TANDBERG VCS.	
System Type field	Systems that previously contained TANDBERG in the system type may still show up as TANDBERG in Cisco TMS. This is primarily based on Cisco TMS reading the system type directly from the system's API. In some cases, Cisco TMS added the system type where one was not available through the API. Therefore, the name may continue to show up with TANDBERG in the system type.	

# Interoperability

The interoperability test results for this product are posted to <u>http://www.cisco.com/go/tp-interop</u>, where you can also find interoperability test results for other Cisco TelePresence products.

# Compatibility with existing integration products

Product	Version
Cisco TelePresence Management Suite Extension Booking API	API version 4 and later. The latest version is 13.
Cisco TelePresence Management Suite Extension for Microsoft Exchange	4.0.3
Cisco TelePresence Management Suite Provisioning Extension	1.2
Cisco TelePresence Management Suite Network Integration Extension	Not versioned
Cisco TelePresence Management Suite Analytics Extension	1.2.1
Cisco TelePresence Management Suite Extension for IBM Lotus Notes	11.3.3

# Planned changes for future releases

Support for the following will be removed in a future release:

- Microsoft SQL Server 2008 (32 & 64 bit)
- Microsoft SQL Server 2008 R2 (32 bit)

#### **Graphical Monitor**

This feature will be removed in a future version of Cisco TMS.

# Upgrading to 14.4.2

# Instructions for customers upgrading from 14.4 or 14.4.1 who use Cisco TMSXE

#### Upgrading Cisco TMSXE and Cisco TMS

Customers who use Cisco TMSXE and have upgraded to 14.4 or 14.4.1 must follow these upgrade instructions in the order given:

- 1. Upgrade Cisco TMSXE to version 4.0.3.
- 2. Upgrade to this version of Cisco TMS.
- Wait for 15 minutes, then check the Cisco TMSXE log: TMSXE-log-file.txt for a line saying: INFO ReplicationEngine - No changes on TMS. This confirms that all problematic bookings Cisco TMS could resolve automatically have been replicated correctly from Cisco TMS to Microsoft Exchange.

If you do not see this line, contact your Cisco support representative.

#### **Resolving duplicate conferences in Cisco TMS**

You must follow this second procedure as soon as possible after upgrade, but it does not need to be done immediately, nor does it require a maintenance window.

 Go to Cisco TMS and check for a critical TMS ticket stating: 'Conference series with duplicate external primary keys found'. If you do not see this ticket, no further action is required.

If you do see the ticket, continue to steps 2 and 3.

 In TMS Tools, run the Resolve Duplicate Keys tool to select the correct conferences from the list of duplicates.

If it is not clear which conference is the correct one, review the Exchange resource calendars for the systems involved in the conference. If most or all of the resource calendars are in agreement with one of the duplicate conferences, that is probably the correct one to select.

If it is still not possible to identify the correct conference, contact the conference owner.

3. Wait for 15 minutes, then check the Cisco TMSXE log: **TMSXE-log-file.txt** for a line saying: **INFO ReplicationEngine** – **No changes on TMS**. This confirms that all remaining problematic bookings have been replicated correctly from Cisco TMS to Microsoft Exchange. If you do not see this line, contact your Cisco support representative.

#### Manually resolving any remaining duplicate appointments in Exchange resource calendars

In some deployments, there may be a small number of duplicate Exchange appointments in the resource calendars that are not identified or cleaned up automatically during the upgrade to Cisco TMS 14.4.2.

It is most likely that the duplicates occurred if conferences were created either from Conference Templates, or by copying existing conferences in versions of Cisco TMS earlier than 14.4, and these conferences were subsequently edited (either in Cisco TMS or in Microsoft Exchange) in 14.4 or 14.4.1.

Use the following procedure to identify and resolve these duplicate Exchange appointments:

 Log on to the Cisco TMSXE server and run the Meeting Analyzer with a search window from now to the end of your scheduling horizon.
 For large deployments we recommend doing this outside business hours, or that you run the Meeting

Analyzer with a smaller search window, as this will reduce the load on the Exchange server.

 In the Meeting Analyzer report, look for appointments that are flagged as "No matching conferences found in Cisco TMS".
 If there are no appointments with this flag, no further action is required.

If you do see flagged appointments, continue to step 3.

- 3. Logged in as a user with full access to the Exchange resource calendars:
  - a. Open Microsoft Outlook.
  - b. Find one of the duplicate appointments identified in step 2.
- If the duplicate appointment has a different start time, end time, or subject than its counterpart in Cisco TMS, delete it from all Exchange resource calendars. If there are no differences between the appointments, follow the procedure in 'Forcing a change to identify the correct appointment', below.
- 5. Go to step 3 and process another problematic appointment.

#### Forcing a change to identify the correct appointment

If there are two or more appointments in the resource calendar with the same start time, end time, and subject, you will be unable to differentiate between the duplicate and any appointments that you have to

delete. To force a change that will enable you to see a difference and therefore identify the correct appointment:

- 1. In Cisco TMS, go to **Booking > List Conferences**, and locate the conference.
- 2. Edit the conference, reduce its duration by 5 minutes and click **Save Conference**. This duration is important as Cisco TMSXE will ignore changes of 3 minutes or less.
- 3. Wait for the Cisco TMSXE replicator to process the change and update the Exchange resource calendars with the new end time—this could take a few minutes.
- 4. The appointment in Exchange that has a new end time is the one that is correctly linked to Cisco TMS: now delete the one or more duplicate appointments that did not get a new end time.
- 5. In Cisco TMS, reinstate the original end time of the conference.

# Instructions for customers upgrading from 14.4 or 14.4.1 who use Cisco TMSXN

#### Upgrading Cisco TMS and resolving duplicate conferences

Customers who use Cisco TMSXN and have upgraded to 14.4 or 14.4.1 must first upgrade to this version of Cisco TMS, and then follow this procedure as soon as possible after upgrading, but it does not need to be done immediately, nor does it require a maintenance window:

- 1. Wait 15 minutes for the Cisco TMSXN Synchronizer to process data from Cisco TMS.
- In Cisco TMS, check for a critical TMS ticket stating: 'Conference series with duplicate external primary keys found'.

If you do not see this ticket, no further action is required.

If you do see the ticket, continue to step 4.

 In TMS Tools, run the Resolve Duplicate Keys tool to select the correct conferences from the list of duplicates.

If it is not clear which conference is the correct one, review the Domino calendars for the systems involved in the conference. If most or all of the resource calendars are in agreement with one of the duplicate conferences, that is probably the correct one to select.

If it is still not possible to identify the correct conference, contact the conference owner.

#### Restarting the Cisco TMSXN Synchronizer

This process will initiate a re-replication from Cisco TMS to Domino, so that all future bookings that exist in Cisco TMS will be written to Domino if they do not already exist:

- 1. From Domino Administrator, open Files > Video Conference Resources.
- 2. Go to Reservations > By Date, and select any reservation.
- 3. Select Actions > Restart Synchronizer.
- 4. Monitor the Domino log file, and wait for a statement that says: Agent printing: Synchronizer from zero finished. Once you see this statement, all bookings from Cisco TMS have been re-replicated to Domino.

# Before you upgrade

#### **Redundant deployments**

Customers using a redundant Cisco TMS deployment must read the upgrade instructions in <u>Cisco</u> TelePresence Management Suite Installation and Upgrade Guide 14.4.1 before upgrading to Cisco TMS

#### 14.4.2.

#### Upgrading from a version earlier than 14.2

Customers upgrading from a version of Cisco TMS earlier than 14.2 must read the upgrade instructions in <u>Cisco TelePresence Management Suite Installation and Upgrade Guide 14.4.1</u> before upgrading to Cisco TMS 14.4.2.

# Prerequisites and software dependencies

See <u>Cisco TelePresence Management Suite Installation and Upgrade Guide</u> for the full list of compatible operating systems and database servers.

# Upgrade and installation instructions

Cisco TMS uses the same installation program for both new installations of Cisco TMS and upgrades of previous Cisco TMS versions.

See <u>Cisco TelePresence Management Suite Installation and Upgrade Guide</u> for complete instructions for upgrade or installation.

# **Using the Bug Search Tool**

The Bug Search Tool contains information about open and resolved issues for this release and previous releases, including descriptions of the problems and available workarounds. The identifiers listed in these release notes will take you directly to a description of each issue.

To look for information about a specific problem mentioned in this document:

- 1. Using a web browser, go to the Bug Search Tool.
- 2. Sign in with a cisco.com username and password.
- 3. Enter the bug identifier in the **Search** field and click **Search**.

To look for information when you do not know the identifier:

- 1. Type the product name in the **Search** field and click **Search**.
- 2. From the list of bugs that appears, use the **Filter** drop-down list to filter on either *Keyword*, *Modified Date*, *Severity*, *Status*, or *Technology*.

Use Advanced Search on the Bug Search Tool home page to search on a specific software version.

The Bug Search Tool help pages have further information on using the Bug Search Tool.

# **Technical support**

If you cannot find the answer you need in the documentation, check the website at www.cisco.com/cisco/web/support/index.html where you will be able to:

- Make sure that you are running the most up-to-date software.
- Get help from the Cisco Technical Support team.

Make sure you have the following information ready before raising a case:

- Identifying information for your product, such as model number, firmware version, and software version (where applicable).
- Your contact email address or telephone number.
- A full description of the problem.

To view a list of Cisco TelePresence products that are no longer being sold and might not be supported, visit: www.cisco.com/en/US/products/prod\_end\_of\_life.html and scroll down to the TelePresence section.

#### Date Revision Description March 2015 17c Added missing functionality change for scheduling No Connect conferences in 14.2. September 2014 17b Added to 14.4 New features > Conference recurrence improvements section, fixed bugs: CSCup88312 & CSCup34360. July 2014 17 Release of version 14.4.2. June 2014 16 Release of version 14.4.1. 15 April 2014 Release of version 14.4. December 2013 14 Release of version 14.3.2. October 2013 13b Added CSCuj56225 to resolved issues. October 2013 13 Release of version 14.3.1. September 2013 Added CSCuh99386 to resolved issues. 12b August 2013 12 Release of version 14.3. 11 Release of version 14.2.2. 2013-06-17 2013-06-06 10 Amended 'Removed support for 3rd party systems' section to reflect withdrawal of support for entire Sony PCS Series. 09 2013-05-29 Changed 'Upgrade - Before you install' section text removing reference to Windows server 2003 for hotfix. Added missing resolved issue CSCuh19000. 2013-05-03 08 Release of version 14.2.1. Windows Server 2008 service pack information clarification. 2013-04-29 07 2013-04-24 06 Release of version 14.2. 2013-02-01 05 Added software version of Cisco Unified CM for phone book source. 2013-01-25 04 Added missing resolved issues CSCub86700 and CSCub86648. 2013-01-03 03 Release of version 14.1.1. 2012-12-14 02 Release of version 14.1. 2012-07 01 Limited distribution release of version 14.0.

# **Document revision history**

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2015 Cisco Systems, Inc. All rights reserved.