Cisco TelePresence Management Suite

Installation and Upgrade Guide

Software version 14.3.2

D14389.16

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Contents

Introduction

Cisco TelePresence Management Suite (Cisco TMS) is a portal for managing and monitoring your videoconferencing network from a single, structured interface. Cisco TMS provides centralized control for on-site and remote video systems, and a deployment and scheduling system for your entire video network.

Cisco TMS automates system configuration for a basic telepresence network, operating right out of the box. You can tune Cisco TMS behavior to suit your organization's needs, set up user permissions, and configure your network model so that all of Cisco TMS call handling functionalities are available.

This document provides information for new installations and for upgrading and uninstalling an existing version. Instructions are also provided for the legacy Cisco TelePresence Management Server.

Note: When using Cisco TMS, do not use any other telepresence management system, including Cisco TelePresence Manager, on your telepresence network.

After installation

After installing Cisco TMS, see *Cisco TelePresence Management Suite Administrator Guide* or the built-in web help.

Tip: Click the question mark icon (**?**) in the top-right corner of any Cisco TMS page to access the web help.

Prerequisites

This section covers hardware and software requirements, and other considerations and dependencies that must be reviewed before installing or upgrading Cisco TelePresence Management Suite and Cisco TelePresence Management Server.

Server requirements for installing Cisco TMS

The requirements below are specific to installing Cisco TMS on your own server.

Hardware

Pentium-compatible processor	2.6 GHz or more is recommended.
Memory	4 GB RAM or more is recommended. A warning will be displayed during installation if less than 4GB is detected.
Disk Space	■ 4 GB for installation and application footprint. ■ Additional space is required if you are installing the SQL Server locally–see Database server requirements [p.6].

Shared and virtual servers

Cisco TMS is resource intensive with specific server requirements that increase with the activity level and size of the video network being managed. Using a server hosting other applications or websites for hosting Cisco TMS is therefore not supported, with the exception of certain Cisco TMS extensions. See the installation guide for the specific extension product for requirements and best practices for installation.

Cisco TMS can be installed in a virtualized server environment as long as the virtual machine is allocated sufficient dedicated resources to meet the server and hardware requirements for installation. The resources allocated to the Cisco TMS server instance must be dedicated, and not shared with other server instances.

Operating system and software

Product	Version	Additional notes
Windows Server	■ Windows Server 2008 SP2 or later, Standard 32 bit and 64 bit ■ Windows Server 2008 R2 Standard 64 bit	■ The server operating system must be English, Japanese, or Chinese. ■ Standard/Enterprise/DataCenter editions all supported. ■ Using the latest service pack is recommended for all versions. ■ We recommend that new installations use Windows Server 2008 R2 Standard 64 bit.
.NET Framework	4.0 .NET Framework Full (extended)	Must be installed prior to running the Cisco TMS installer.

Microsoft IIS	■ For Windows Server 2008 R2: IIS 7.5 ■ For Windows Server 2008: IIS 7	The Microsoft IIS (Internet Information Services) web server will be installed automatically by the Cisco TMS installer unless already present on the system.
Windows Installer	4.5	If not present on the system, the Cisco TMS installer will inform you that the installation is needed before continuing, and the installation package is provided for you.

Windows Updates

Enable and apply Windows Updates according to the network policy of your organization.

Access requirements

Administrator access to the Windows server and database is required.

If an existing database server is to be used, you must have the login information to be used as the Cisco TMS service account (see Database server requirements [p.6]).

Date and time

NTP server recommended

The time setting on the Windows server must be correct for Cisco TMS to function correctly. We therefore strongly recommend setting the server up to use an NTP (Network Time Protocol) server. For instructions, see the Microsoft support article *How to configure an authoritative time server in Windows Server*.

Time zone

Do not change the time zone of the Windows server running Cisco TMS after installing the application. If the server time zone is changed at a later date, all dates and times not related to scheduling will remain in the old time zone.

Database server requirements

Cisco TMS stores all its customer data in its SQL database named **tmsng**. This self-contained storage allows for convenient backup and recovery of customer information. For new installations, the installer creates tmsng using the SQL server defaults. Upgrades will reuse an existing Cisco TMS database.

Disk space

Required database disk space depends on the size, auditing, and activity level of the video network. In order to control the growth of the database, purge plans for logs and events can be set in the **Administrative Tools > Cisco TMS Server Maintenance** page. Most installations require at least 1-4 GB to allow for database growth. To see the options available for ongoing Cisco TMS database information and maintenance tasks, go to the **Administrative Tools** menu.

SQL server version

One of the following is required:

Product	Version	Additional notes
Microsoft SQL Server 2008 R2	All versions, 32 bit or 64	If there is not an SQL database present on the server when installing Cisco TMS, Microsoft SQL Server 2008 Express 32 bit will be installed. Note that all Express editions of SQL Server have a database size limit: ■ Microsoft SQL Server 2008 and 2005 Express have a 4 GB limit. ■ Microsoft SQL Server 2008 R2 Express has a 10 GB limit. Large deployments with databases that can be expected to grow larger than 4 GB or 10 GB respectively must therefore use the full edition. We recommend using Microsoft SQL Server 2008 R2 for new installations.
Microsoft SQL Server 2008	All versions, 32 bit or 64	
Microsoft SQL Server 2005	All 32-bit versions	

Local or remote server

If no existing SQL installation is found on the Cisco TMS server by the installer, SQL Server 2008 Express can be installed locally on the Cisco TMS server as part of the installation, or you can opt to use an external standalone SQL server instead. The compatibility level will be set automatically by the installer; 100 for SQL Server 2008 and 90 for SQL Server 2005.

Running SQL on a separate server is strongly recommended for large (100+ system) or high-usage video networks because there are performance benefits due to the high memory and disk I/O load associated with running an SQL Server. Hosting the database server separately from the Cisco TMS server frees up memory and disk resources, improving Cisco TMS performance.

Note:

- The database name must still be **tmsng** when the database is on a separate server.
- The database server must be in the same time zone as the Cisco TMS server.
- When using a named instance on a separate server for the database, SQL Server Browser must be running.

Language

For Cisco TMS to function correctly, the default SQL language must be set to English.

Permissions

For installation and upgrading, *SQL Server and Windows Authentication mode* (mixed mode) must be enabled on the database server. After installation is completed, mixed mode can be disabled and *Windows Authentication* enabled until the subsequent upgrade.

See the TMS Tools chapter of *Cisco TelePresence Management Suite Administrator Guide* or the web help for instructions on changing authentication modes.

When installing or upgrading Cisco TMS and using an existing SQL Server, the installer prompts for a SQL user and password. The default is to enter the server sa (system administrator) username and password. If the sa account is not available, use one of the following:

- Automatic setup, but with security limited role. Ask your SQL server administrator to create an SQL user and login that has the *dbcreator* and *securityadmin* server roles. This account will be the service account for Cisco TMS. When prompted for SQL Server credentials during installation, enter the username and password for that account. Cisco TMS will create the tmsng database automatically using the server defaults, assign itself as the owner and continue to use the supplied account to access the database after installation.

- Manual database creation, max security limited role. Ask your SQL server administrator to create:
  - A database named tmsng with the appropriate options. The database collation must be Latin1 General CI (case insensitive) and AI (accent insensitive). (Latin1_General_CI_AI)
  - An SQL user and login to use for the Cisco TMS Service account and grant the user the *dbowner* role for the tmsng database.

Note: For Cisco TMS to function properly, the SQL user supplied must always have *dbowner* permission on the tmsng database, even after installation.

Required snapshot isolation settings

In a Cisco TMS-created database, these settings will be configured automatically.

If manually creating the database, the following settings are requied for **tmsng**:

- ALLOW_SNAPSHOT_ISOLATION must be set to ON
- READ_COMMITTED_SNAPSHOT must be set to OFF

Maximum deployment size

The maximum deployment supported for Cisco TMS includes:

- 5000 systems added to Cisco TMS
- 1500 total ports of MCU capacity
- A peak booking throughput of approximately 6 meetings per second, based on typical meeting patterns.

Other applications on the server

For a deployment this size, the SQL server must be external to the Cisco TMS server, and both servers must be dedicated to Cisco TMS; there can be no co-resident applications or database sharing. Exempt from this are:

- Cisco TelePresence Management Suite Provisioning Extension (Cisco TMSPE)
- Cisco TelePresence Management Suite Analytics Extension (Cisco TMSAE)

Cisco TelePresence Management Suite Extension for Microsoft Exchange (Cisco TMSXE) may only be co-resident with Cisco TMS in very small deployments where fewer than 50 endpoints have mailboxes in Exchange.

Hardware minimums

The following hardware requirements are necessary as minimums for the servers:

Table 1: Cisco TMS server

Minimum CPU	Quad-Core Pentium-compatible 3.0 GHz
Recommended OS	Windows Server 2008 R2 64bit (any edition)
Minimum server memory	8 GB RAM
Minimum disk space for installation and application	4 GB

Table 2: SQL Server

Minimum CPU	Quad-Core Pentium-compatible 3.0 GHz
Location	Must be external
Instance	Must be dedicated
Minimum Server RAM	16 GB RAM
Minimum Disk I/O Performance	500 (for **tmsng** and for **tempdb**)

The disk space needed for a large tmsng database is typically 20-30 GB.

The prime performance limiters in SQL Server are RAM and Disk I/O. For optimum performance, increase these values as much as possible.

Note that booking throughput is shared by all scheduling interfaces; the Cisco TMS New Conference page as well as any application using Cisco TelePresence Management Suite Extension Booking API, such as Smart Scheduler and Cisco TMSXE.

Actual booking speed will vary based on the meeting size, features, and schedule complexity around the meeting.

Client software requirements

All users including administrators access Cisco TMS using the web interface.

A Windows username and password to the Cisco TMS server is required to sign in. Use either a domain account, if the server is joined to a domain, or a local machine account.

Web browser	Cisco TMS is tested with: ▪ Microsoft Internet Explorer versions 9 and 10. ▪ Firefox versions 21 and 22.
Java Runtime Environment (JRE)	▪ Version 1.5 required ▪ Version 1.6.0 or later recommended JRE is required for using the **Monitoring** pages in Cisco TMS. If it is not installed, most browsers will prompt you to download and install the browser plug-in automatically. If this is not possible due to security restrictions, install it manually on the client computer from the JRE installation file which can be downloaded from http://www.java.com.

Server network dependencies

The following network dependencies must be considered before installing Cisco TMS:

- Domain membership preferred: Each user logging into Cisco TMS needs a Windows User Login to authenticate to the web site. Users must have either a local account on the Cisco TMS Windows Server or a Domain account that the server trusts through Active Directory. By making the server a member of the domain, all trusted domain users can automatically use their existing Windows credentials to log into Cisco TMS. You can still limit what users can do after they have logged into Cisco TMS using Cisco TMS permissions. Active Directory membership is the recommended deployment for most installations because it avoids creating local Windows accounts for each user.

- Cisco TMS website accessible by IP and Hostname: not all devices support DNS hostnames or Port Numbers, the Cisco TMS web site must therefore be accessible by an IP Address on port 80. Some functionality requires Cisco TMS to be reachable by hostname; therefore Cisco TMS should also be accessible by a fully qualified domain name.
- Mail server access: Cisco TMS requires access to an SMTP server to be able to send email. Your company's existing mail servers can be used for this. Note that Cisco TMS supports SMTP AUTH login for authentication if required.
- Network access to managed devices:Cisco TMS needs specific protocols and access to manage devices. Any network firewalls or NAT routers must allow traffic to flow to and from Cisco TMS.
- Microsoft IIS components ASP.NET and ASP must be enabled.
- Windows Server 2008 only: the Windows Firewall feature is enabled by default and controls both inbound and outbound ports. For information on which ports must be opened if Windows Firewall is enabled, see Ports used by Cisco TMS [p.10].
- Make sure anti-virus programs or other security measures are not blocking applications from sending mail directly using the SMTP port.

Ports used by Cisco TMS

The following ports are used by Cisco TMS and must be enabled in the Windows firewall. Not all services will be used in all installations, depending on the configuration and the devices used.

Service or System	Protocol	Port	Direction (relative to Cisco TMS)	
			In	Out
HTTP	TCP	80	X	X
HTTPS	TCP	443	X	X
Telnet	TCP	23		X
Telnet Challenge	TCP	57		X
Telnet Polycom	TCP	24	X	X
FTP	TCP	20, 21		X
SNMP	UDP	161	X	X
SNMP Traps	UDP	162	X	X
SMTP	TCP	25		X
LDAP	TCP	389	X	X
LDAPS	TCP	636	X	X
Cisco Unified CM	TCP	8443		X
Cisco TelePresence System (CTS)	TCP	80, 23, 8081	X	X
Polycom GAB	TCP	3601	X	X

Multiple network interface cards not supported

Cisco TMS cannot use multiple network cards on a server and will only bind to the first available network interface.

Cisco TMS can manage both a public and a private network as long as the the two networks are interconnected via routing in the network. Both networks cannot be directly connected to Cisco TMS using multiple network interface cards.

Compatibility with extensions

Product	Version
Cisco TelePresence Management Suite Extension Booking API	API version 4 and later. The latest version is 12.
Cisco TelePresence Management Suite Extension for Microsoft Exchange	3.1 and later.
Cisco TelePresence Management Suite Provisioning Extension	1.1
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	11.3.2

Note: The most recent version is always required for all features and fixes to be available.

Upgrade requirements and recommendations

Review all sections below that apply to the version of Cisco TMS you are currently running before starting your Cisco TMS upgrade.

Virtual directories

When upgrading from any version of Cisco TMS, all virtual directories are deleted and recreated when installing a new version. Beware that this also removes any custom settings on virtual directories.

Cisco TMS Agent Legacy provisioning

If upgrading from 13.2.x or any earlier version using the legacy provisoning feature, you must migrate to Cisco TelePresence Management Suite Provisioning Extension *before* upgrading to Cisco TMS 14.3.1.

Note that this migration requires Cisco TMS version 13.2; if currently using an older version, you must:

1. Upgrade Cisco TMS to 13.2.x.
   If upgrading from a version earlier than 13, you will need to obtain a Cisco TMS 13 release key from Cisco to perform this upgrade.
2. Install Cisco TMSPE, migrating your provisioning database following the instructions in *Cisco TelePresence Management Suite Provisioning Extension Deployment Guide* for Cisco TMS 13.2.
3. Upgrade to Cisco TMS 14.3.1.

Versions earlier than 13.2

The default booking confirmation email templates and phrase files were updated in 13.2. If you are upgrading from any version prior to 13.2 where these templates have been customized templates, the new additions are not automatically added to your customized files, but are still available for use.

To see the default usage of these new values and have them in your templates, customers with customized Booking Confirm templates or phrases must:

1. Go to **Administrative Tools > Configuration > Edit Email Templates**.
2. Open the **Booking Confirm** template.
3. Click **Revert to Default**.

Once set to default, you can re-add the customizations back into the templates or phrase files.

Versions earlier than 13.0

If upgrading from a version prior to 13.0, note that .NET Framework requirements have changed from 3.5 to 4.0.

Version 12.5 and earlier

Upgrades back to and including version 12.6 are tested and supported for Cisco TMS 14.1. For earlier versions, we recommend performing a new installation rather than an upgrade, as changes to the database and backend have been substantial.

Installing or upgrading Cisco TMS

Before you start the installation make sure that you have:

- software downloaded from Cisco.com
- release and option keys ready
- considered all relevant prerequisites for an installation in your environment

If you are upgrading rather than installing for the first time, also perform any necessary operations described in the section Upgrade requirements and recommendations [p.11].

The installation/upgrade process has two parts. After completing an initial setup process, the next process will depend on whether you choose a complete or custom installation.

Note: You may be prompted to reboot the server more than once during installation. The installer automatically resumes after the server reboots.

Initial installation

Note that depending on Windows components needing to be added, you may be prompted to reboot the server more than once during installation. The installer automatically resumes after the server reboots.

1. Close all open applications and disable virus-scanning software.
2. Extract the Cisco TMS **.zip** archive to a folder.
3. Run the Cisco TMS executable as Local Administrator.
4. The installer now checks the hardware and software configuration of the server. A warning or error message may be displayed depending on your server's configuration. Follow the prompts and install any missing components.
5. If an earlier version of Cisco TMS is currently installed, you are prompted to upgrade.
   - Click **Yes** to continue. Upgrading removes the old version and upgrades the existing Cisco TMS database.
   - Click **No** to abort the installation and leave the current installation untouched.
6. A welcome window is displayed. Click **Next** to continue.
7. Click **Yes** to accept the license agreement.
8. Select *Complete* or *Custom* and click **Next**.
   - *Complete* uses the default settings. It can be used for upgrades of existing installations with both local and remote SQL installations, and is the recommended choice for performing upgrades. Proceed to the section Complete installation [p.13].
   - *Custom* allows you to specify all the options such as the installation path and SQL server choices. Proceed to the section Custom installation [p.18].

Complete installation

Follow the steps in this section if you selected the *Complete* installation option.

The installer now searches for an existing SQL Server and Cisco TMS database.

Installing a new database

If no existing Cisco TMS database connection is found, the installer looks for an SQL installation on the local server:

- If an SQL installation is found, enter a username and password to connect to that server so that the installer can create a new Cisco TMS database.
- If no local SQL server is found, a local copy of SQL Server 2008 Express Edition will be installed and a new Cisco TMS database is created:
  a. When prompted, enter a password to set for the sa (administrator) account for the new SQL Server installation. You must use a strong password for the SQL installation.
     Be sure to make a note of this password somewhere secure because it is required for future upgrades and Cisco TMS maintenance.
  b. Click **Next** to proceed with the installation.

Upgrading an existing database

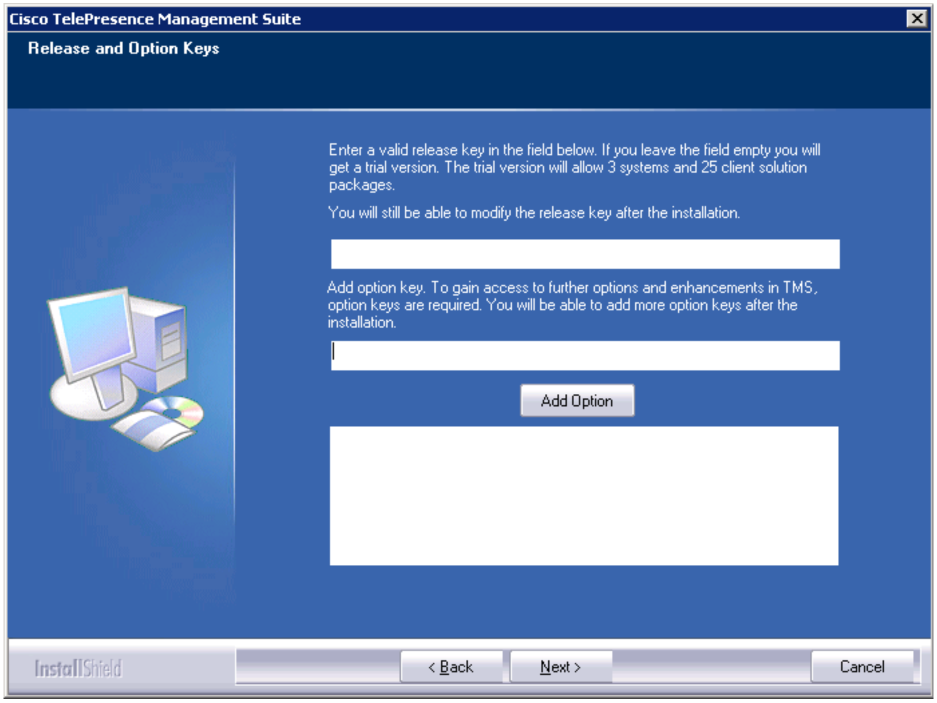
If an existing database connection is found, the specified SQL Server will be used. When prompted, enter the username and password to connect to that SQL server and click **Next**.

- Click **Yes** to upgrade the existing database to the current version and retain the existing information.
  We recommend that you back up the database before it is upgraded. To perform the backup:
  a. Enter a path for the backup file and filename, or click **Browse** to navigate to a folder. The backup is done on the SQL Server itself, so these values are local to the SQL Server.
  b. Click **Backup** to start the backup.
  c. When the backup is complete (this may take several minutes), click **Next**.

  To skip the optional backup, click **Next**.
- If clicking **No**, you must proceed to stop the installer and manually remove the database if you wish to use the same SQL Server, before you can install a new Cisco TMS database.

Activating and pre-configuring the installation

1. The **Release and Option Keys** dialog is now displayed and any existing keys are shown if upgrading. Enter the key(s) to enable additional systems, extensions, or features. A new release key is also required when upgrading to a new major release. The release key must be entered before adding option keys, which are validated as they are added.



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Release and Option Keys

Enter a valid release key in the field below. If you leave the field empty you will get a trial version. The trial version will allow 3 systems and 25 client solution packages.

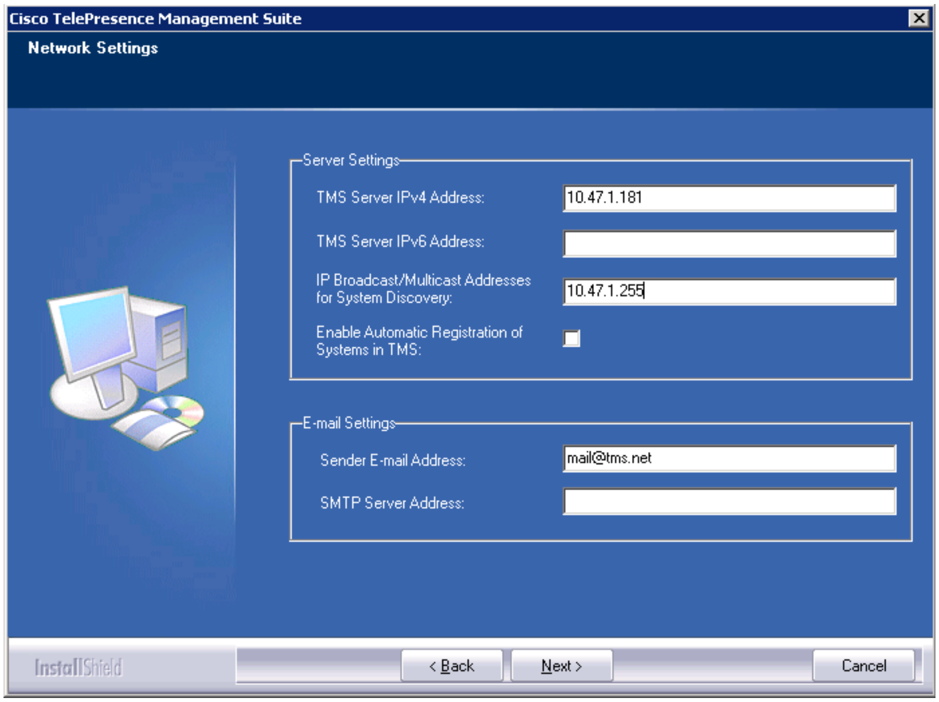
You will still be able to modify the release key after the installation.

Add option key. To gain access to further options and enhancements in TMS, option keys are required. You will be able to add more option keys after the installation.

a. To add an option key, enter the key then click **Add Option**.
If no release key is entered, an evaluation version of Cisco TMS will be installed. This includes support for three systems.
Option keys can be added post installation by going to **Administrative Tools > Configuration > General Settings**.
For questions regarding release or option keys, contact your Cisco Reseller or Cisco Support.

b. Click **Next**.

2. You can now pre-configure default settings to allow Cisco TMS to immediately start working with a basic network configuration (these settings can be changed after installation).



Cisco TelePresence Management Suite

Network Settings

Server Settings

TMS Server IPv4 Address: 10.47.1.181

TMS Server IPv6 Address:

IP Broadcast/Multicast Addresses for System Discovery: 10.47.1.255

Enable Automatic Registration of Systems in TMS: □

E-mail Settings

Sender E-mail Address: mail@tms.net

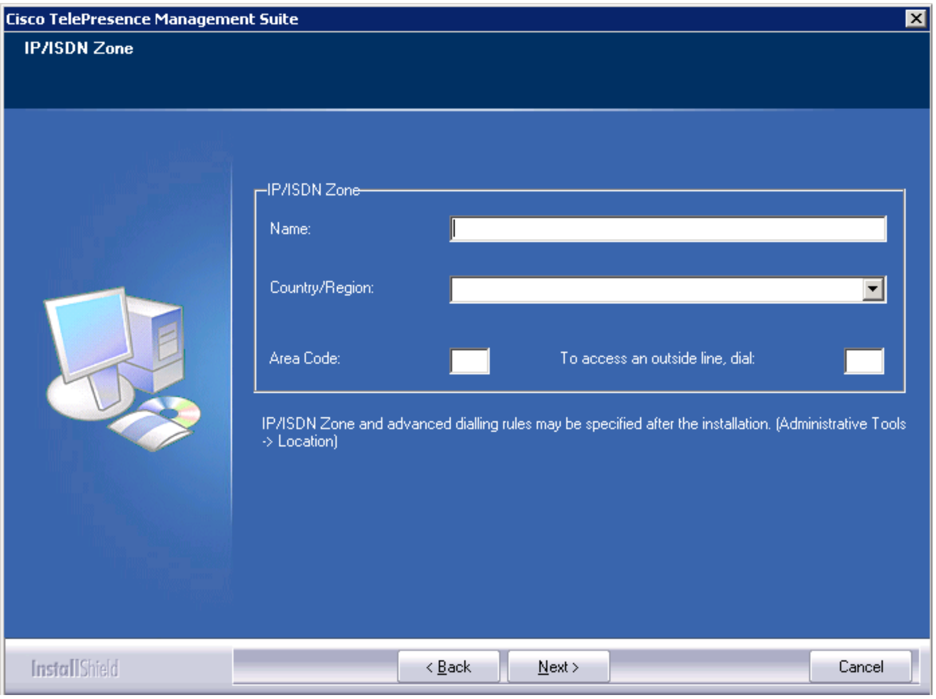
SMTP Server Address:

If upgrading, values from the existing database are displayed.

Field label	Description
TMS Server IPv4 Address	The IPv4 address of the local server.
TMS Server IPv6 Address	The IPv6 address of the local server. If IPv6 is not enabled on the Windows Server, this field can be left blank.
IP Broadcast/Multicast Addresses […]	The broadcast address(es) for the networks that Cisco TMS is to automatically search for devices. (Systems that Cisco TMS discovers can be automatically added to Cisco TMS with their management settings added.) Multiple broadcast addresses can be entered separated by commas. Cisco TMS will search networks by sending a SNMP Discovery packet to the supplied addresses. The default value will be the broadcast address of the Cisco TMS server's network.
Enable automatic registration of systems in TMS	If enabled, systems Cisco TMS discovers on the network will automatically be added into a folder in Cisco TMS and have their management settings configured. This setting is disabled by default.
Sender E-mail Address	The email address you wish to appear in the **From** field of messages sent by Cisco TMS. Example: `videomanagement@example.com`.
SMTP Server Address	The network address of the SMTP server Cisco TMS will use to send email. Additional authentication configuration settings can be set up post installation as needed.

Click **Next** when done modifying the settings. Cisco TMS then contacts the supplied SMTP server to verify the settings and warns you if it was not able to contact the server.

3. If this is a new installation, the installer will now ask for zone information.


Cisco TelePresence Management Suite
IP/ISDN Zone
IP/ISDN Zone
Name:
Country/Region:
Area Code:
To access an outside line, dial:
IP/ISDN Zone and advanced dialling rules may be specified after the installation. (Administrative Tools -> Location)
InstallShield
< Back
Next >
Cancel

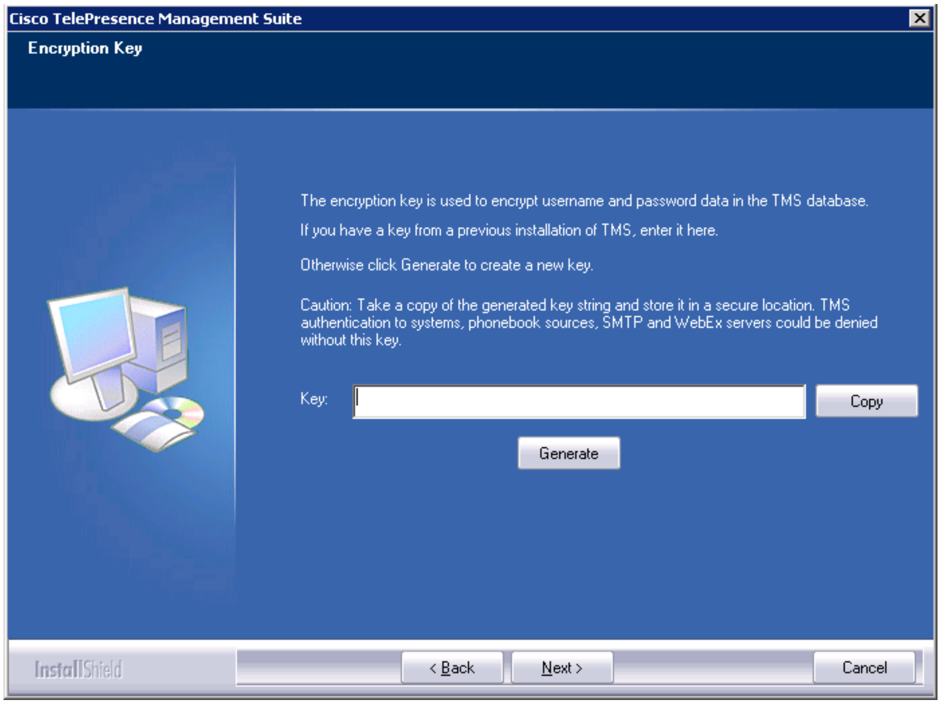
Zones are a configuration concept used by Cisco TMS to route phone numbers and aliases when scheduling calls and using phonebooks.
The information entered here creates the first IP and ISDN zones in Cisco TMS, which will be set as the initial default to allow a basic IP and ISDN network to operate after installation. Additional zones and

configurations must be added post installation for networks with multiple locations or more complex elements.

Field label	Description
Name	A descriptive name for the zone, normally referencing the city or building.
Country/Region	The country this zone is located in. This is used for ISDN dialing information.
Area Code	The area code for the location, if applicable. This is used for ISDN dialing information
To access an outside line, dial	The prefix to reach an outside line on your ISDN circuits, if applicable.

When you have modified the settings, click **Next.**

4. Click **Generate** to create a new key to encrypt system username and password data in the Cisco TMS database, or add an existing key from a previous installation of Cisco TMS if applicable.



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Encryption Key

The encryption key is used to encrypt username and password data in the TMS database.

If you have a key from a previous installation of TMS, enter it here.

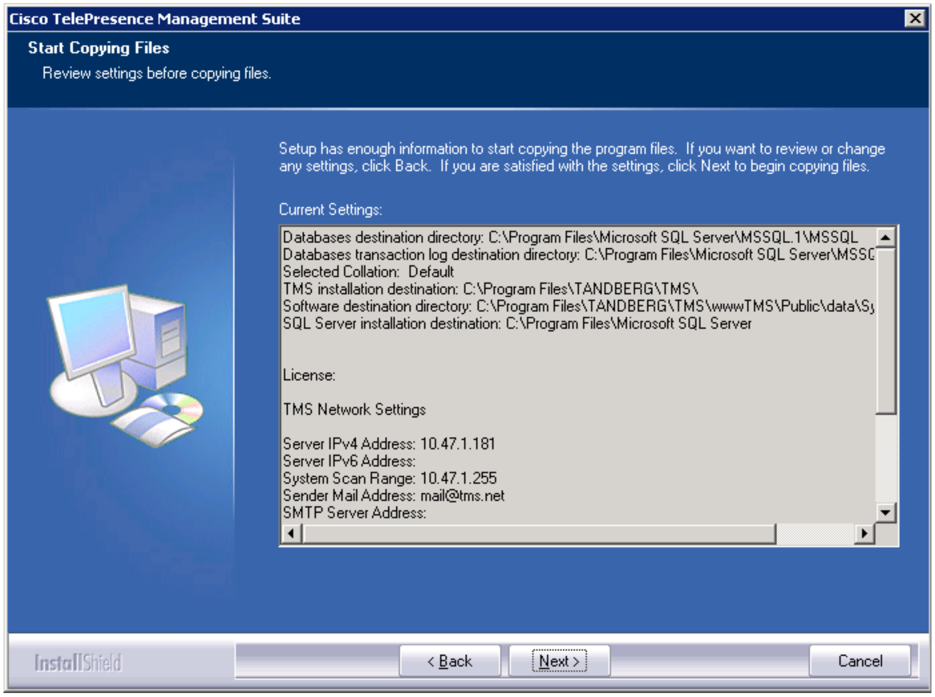
Otherwise click Generate to create a new key.

Caution: Take a copy of the generated key string and store it in a secure location. TMS authentication to systems, phonebook sources, SMTP and WebEx servers could be denied without this key.

Key:

When a key has been generated or added, click **Next**.

5. Verify all the settings in the displayed summary and click **Next**.
If installation of SQL Server 2008 Express was selected in the steps above, the installer begins with the automated installation of SQL 2008 Express. This will take some time to complete.



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Start Copying Files

Review settings before copying files.

Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.

Current Settings:

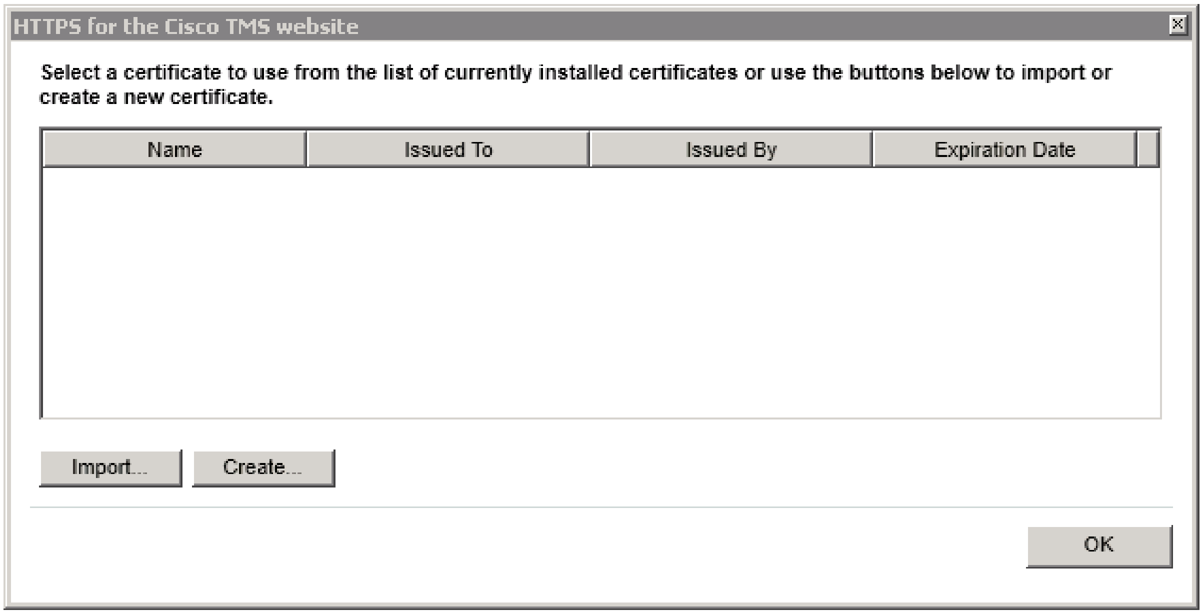
```
Databases destination directory: C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL
Databases transaction log destination directory: C:\Program Files\Microsoft SQL Server\MSSC
Selected Collation:  Default
TMS installation destination: C:\Program Files\TANDBERG\TMS\
Software destination directory: C:\Program Files\TANDBERG\TMS\wwwTMS\Public\data\Sy
SQL Server installation destination: C:\Program Files\Microsoft SQL Server


License:

TMS Network Settings

Server IPv4 Address: 10.47.1.181
Server IPv6 Address:
System Scan Range: 10.47.1.255
Sender Mail Address: mail@tms.net
SMTP Server Address:
```

6. At the end of the install/upgrade procedure you must complete the wizard to import or create a TLS certificate to enable HTTPS access to the Cisco TMS website.



HTTPS for the Cisco TMS website

Select a certificate to use from the list of currently installed certificates or use the buttons below to import or create a new certificate.

Name	Issued To	Issued By	Expiration Date

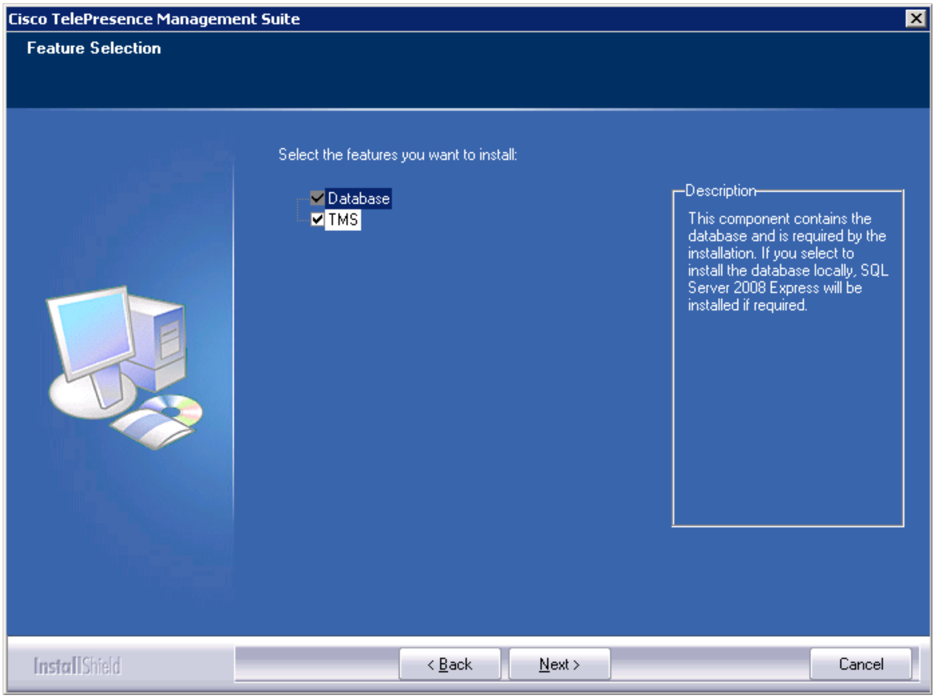
After importing a certificate (pfx format) or creating a self-signed certificate the install will complete and, if necessary, you will be prompted to reboot the server.

Custom installation

Follow the steps in this section if you chose the *Custom* setup type during Initial installation [p.13].

Selecting components and database options

1. Choose which components to install and click **Next**.
   Deselecting Cisco TMS means that only SQL Server 2008 Express Edition and the Cisco TMS database, if needed, will be installed.



Cisco TelePresence Management Suite

Feature Selection

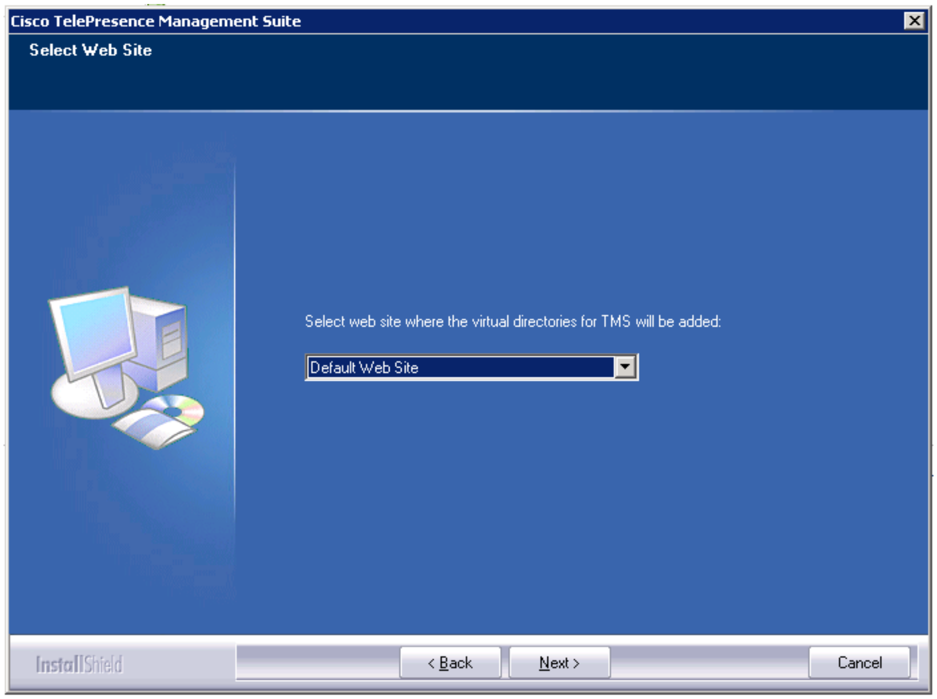
Select the features you want to install:

☑ Database
☑ TMS

Description

This component contains the database and is required by the installation. If you select to install the database locally, SQL Server 2008 Express will be installed if required.

2. Select the website to install into from the drop-down menu.
   By default Cisco TMS installs itself by creating a virtual directory in the Default website. Any existing virtual directories will be overwritten.



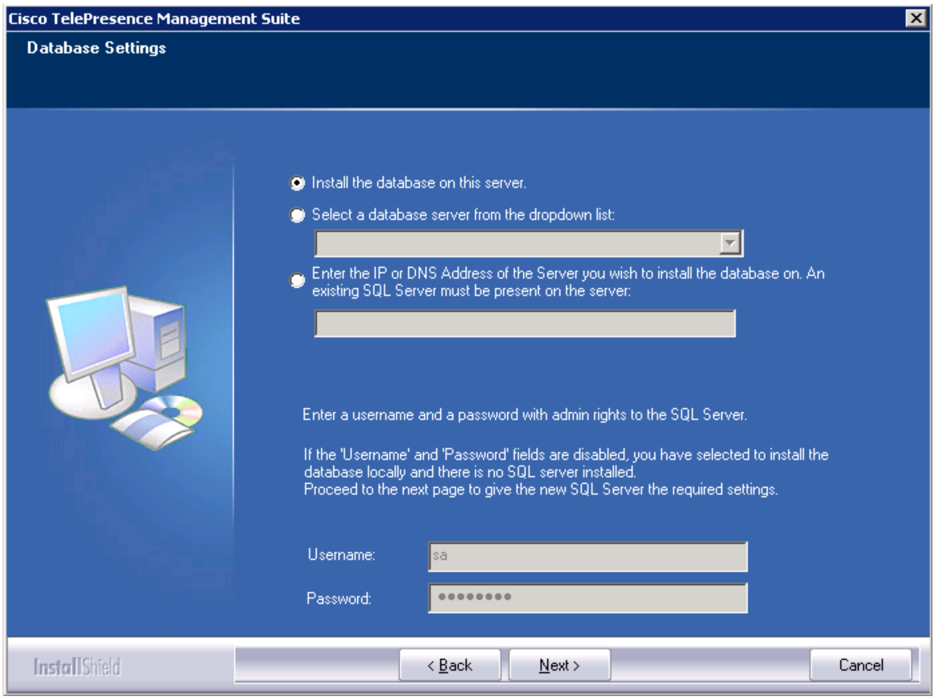
Cisco TelePresence Management Suite

Select Web Site

Select web site where the virtual directories for TMS will be added:

Default Web Site

3. Supply the required database settings.



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Database Settings

● Install the database on this server.

○ Select a database server from the dropdown list:

○ Enter the IP or DNS Address of the Server you wish to install the database on. An existing SQL Server must be present on the server:

Enter a username and a password with admin rights to the SQL Server.

If the 'Username' and 'Password' fields are disabled, you have selected to install the database locally and there is no SQL server installed.
Proceed to the next page to give the new SQL Server the required settings.

Username: sa

Password: ••••••••

Field	Description
Install the database on this server…	Select this option to install the database on a SQL Server on the local server. If the installer finds an existing installation, the name of the instance is displayed. At the bottom of the screen enter the SQL Login and password to use. If no local install is found, selecting this option installs a new named instance of SQL Server 2008 Express Edition.
Select a database server from…	To install on an existing remote SQL server, select the server from the drop-down list of existing SQL servers.
Enter the IP or DNS Address of the Server…	Use this option to install the Cisco TMS database on an existing remote SQL Server if the server is not listed in the drop-down list. Use the standard Microsoft SQL conventions to specify named instances, for example: `sql1.example.com\vidgrp`. If you are unsure of what to enter for your existing SQL server, ask your SQL Server Administrator.
Username/Password	If you selected an existing SQL Server above, enter the SQL Login information. The specified user is used to create and/or access the Cisco TMS database. If you are installing a new SQL Server locally, these fields are disabled and a new dialog is displayed after you click **Next** in which you must set a new sa-password for the database server.

4. If an existing Cisco TMS database is found on the specified SQL server, a prompt asks whether you want to re-use the existing database.
   - If the database is an older version and you select *Yes*, Cisco TMS automatically updates the existing database to the current version and retains the existing information.
   - If you choose *No*, the installer quits and you must manually remove the database from the SQL server if you wish to use that SQL Server.
5. We recommend that you back up the database before it is upgraded. To perform the backup:

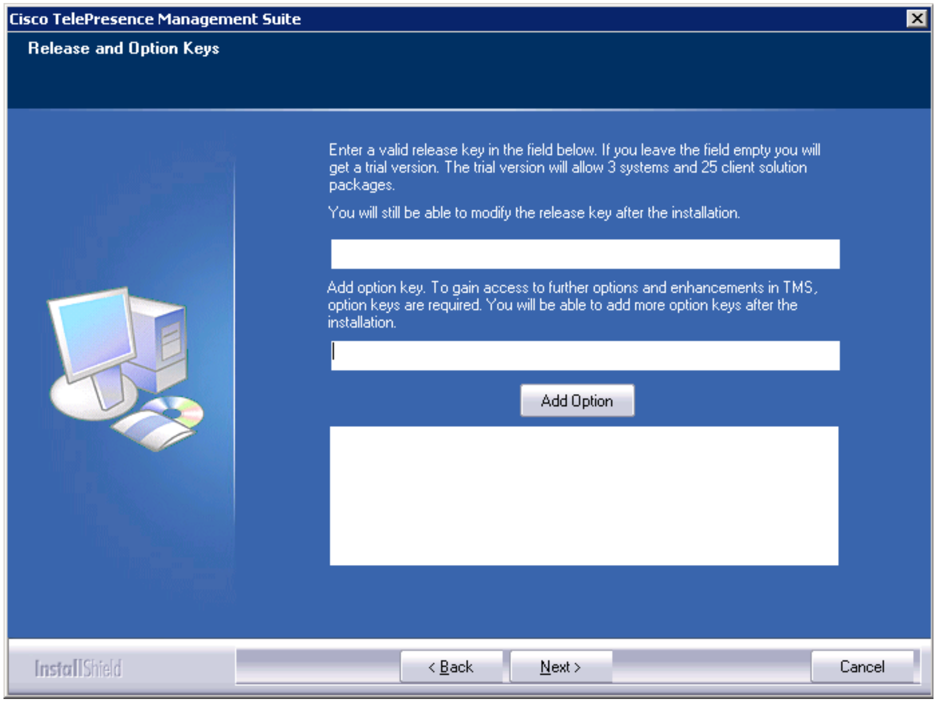
   a. Enter a path for the backup file and filename, or click **Browse** to navigate to a folder. The backup is done on the SQL Server itself, so these values are local to the SQL Server.

b. Click **Backup** to start the backup.
c. When the backup is complete (this may take several minutes), click **Next**.

To skip the optional backup, click **Next**.

Activating and pre-configuring the installation

1. The **Release and Option Keys** dialog is now displayed and any existing keys are shown if upgrading. Enter the key(s) to enable additional systems, extensions, or features. A new release key is also required when upgrading to a new major release. The release key must be entered before adding option keys, which are validated as they are added.



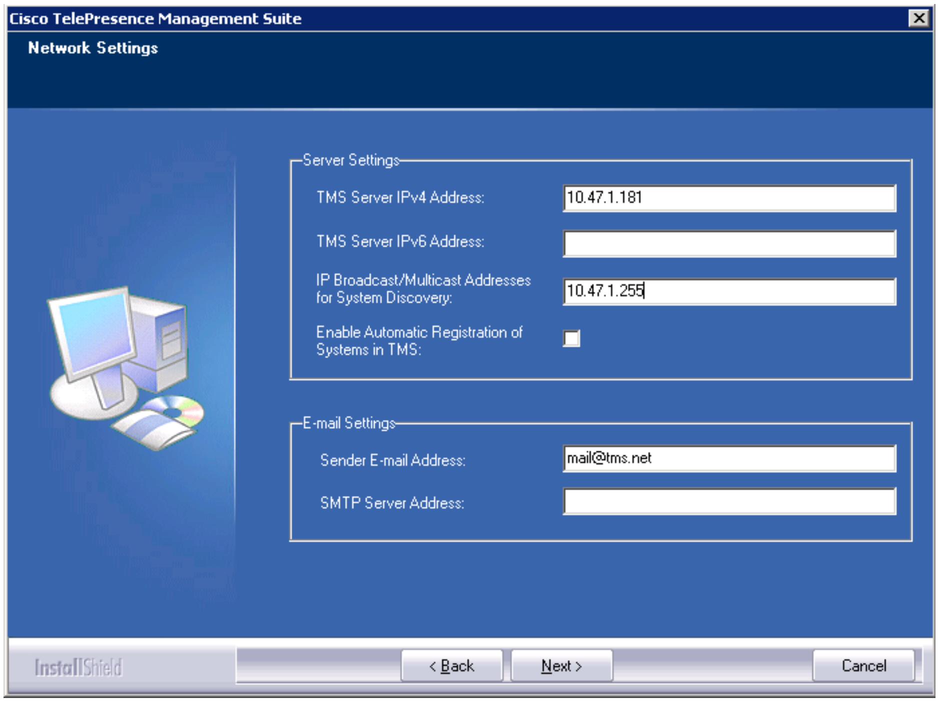
Enter a valid release key in the field below. If you leave the field empty you will get a trial version. The trial version will allow 3 systems and 25 client solution packages.

You will still be able to modify the release key after the installation.

Add option key. To gain access to further options and enhancements in TMS, option keys are required. You will be able to add more option keys after the installation.

a. To add an option key, enter the key then click **Add Option**.
If no release key is entered, an evaluation version of Cisco TMS will be installed. This includes support for three systems.
Option keys can be added post installation by going to **Administrative Tools > Configuration > General Settings**.
For questions regarding release or option keys, contact your Cisco Reseller or Cisco Support.
b. Click **Next**.

2. You can now pre-configure default settings to allow Cisco TMS to immediately start working with a basic network configuration (these settings can be changed after installation).



Cisco TelePresence Management Suite

Network Settings

Server Settings

TMS Server IPv4 Address: 10.47.1.181

TMS Server IPv6 Address:

IP Broadcast/Multicast Addresses for System Discovery: 10.47.1.255

Enable Automatic Registration of Systems in TMS: □

E-mail Settings

Sender E-mail Address: mail@tms.net

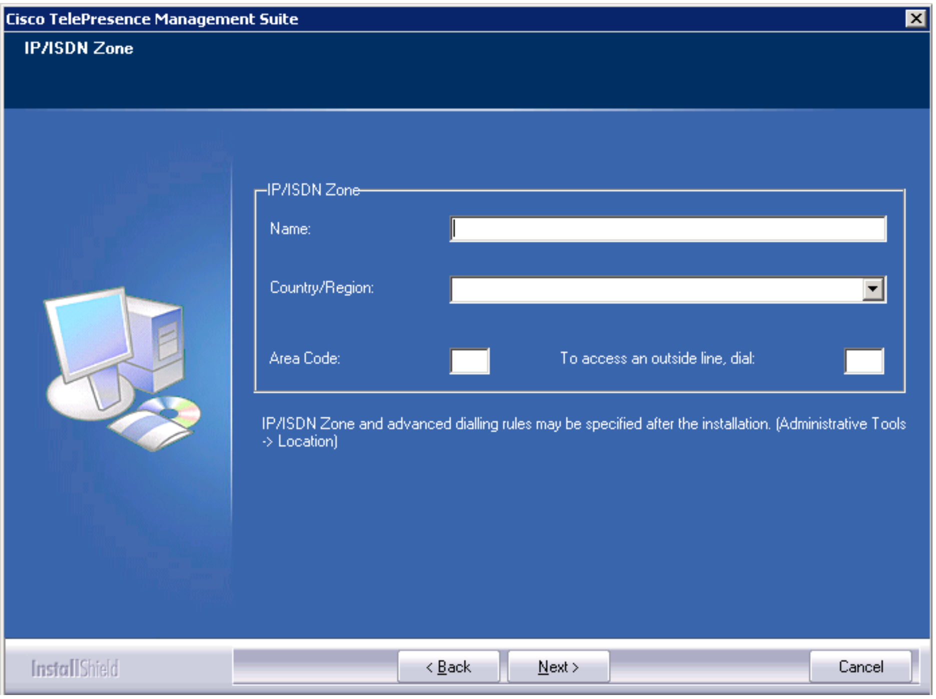
SMTP Server Address:

If upgrading, values from the existing database are displayed.

Field label	Description
TMS Server IPv4 Address	The IPv4 address of the local server.
TMS Server IPv6 Address	The IPv6 address of the local server. If IPv6 is not enabled on the Windows Server, this field can be left blank.
IP Broadcast/Multicast Addresses […]	The broadcast address(es) for the networks that Cisco TMS is to automatically search for devices. (Systems that Cisco TMS discovers can be automatically added to Cisco TMS with their management settings added.) Multiple broadcast addresses can be entered separated by commas. Cisco TMS will search networks by sending a SNMP Discovery packet to the supplied addresses. The default value will be the broadcast address of the Cisco TMS server's network.
Enable automatic registration of systems in TMS	If enabled, systems Cisco TMS discovers on the network will automatically be added into a folder in Cisco TMS and have their management settings configured. This setting is disabled by default.
Sender E-mail Address	The email address you wish to appear in the **From** field of messages sent by Cisco TMS. Example: `videomanagement@example.com`.
SMTP Server Address	The network address of the SMTP server Cisco TMS will use to send email. Additional authentication configuration settings can be set up post installation as needed.

Click **Next** when done modifying the settings. Cisco TMS then contacts the supplied SMTP server to verify the settings and warns you if it was not able to contact the server.

3. If this is a new installation, the installer will now ask for zone information.



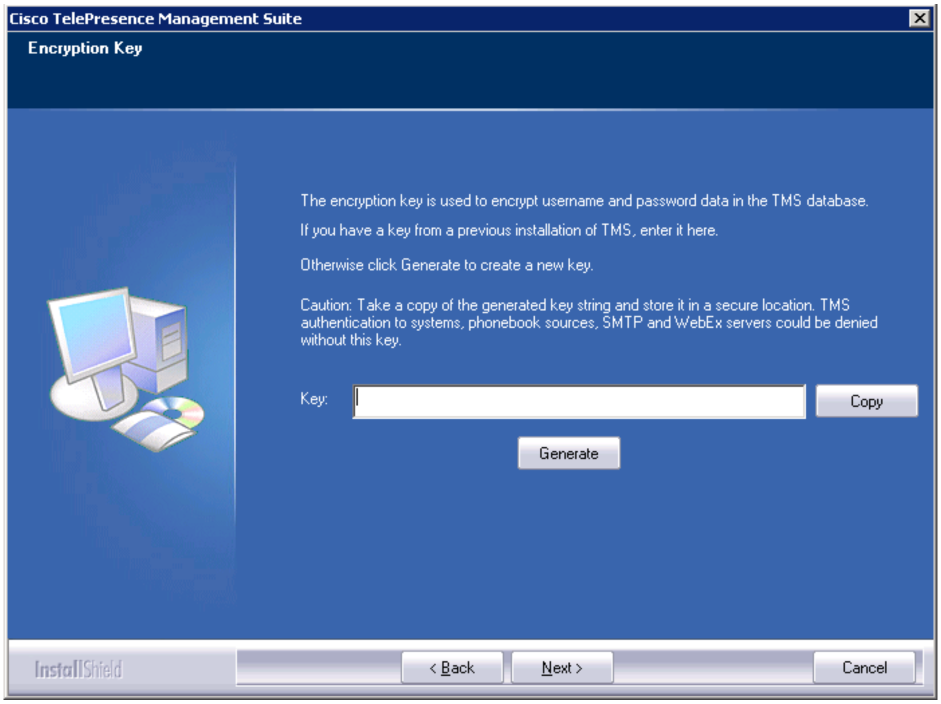
IP/ISDN Zone and advanced dialling rules may be specified after the installation. (Administrative Tools -> Location)

Zones are a configuration concept used by Cisco TMS to route phone numbers and aliases when scheduling calls and using phonebooks.
The information entered here creates the first IP and ISDN zones in Cisco TMS, which will be set as the initial default to allow a basic IP and ISDN network to operate after installation. Additional zones and configurations must be added post installation for networks with multiple locations or more complex elements.

Field label	Description
Name	A descriptive name for the zone, normally referencing the city or building.
Country/Region	The country this zone is located in. This is used for ISDN dialing information.
Area Code	The area code for the location, if applicable. This is used for ISDN dialing information
To access an outside line, dial	The prefix to reach an outside line on your ISDN circuits, if applicable.

When you have modified the settings, click **Next**.

4. Click **Generate** to create a new key to encrypt system username and password data in the Cisco TMS database, or add an existing key from a previous installation of Cisco TMS if applicable.



The encryption key is used to encrypt username and password data in the TMS database.

If you have a key from a previous installation of TMS, enter it here.

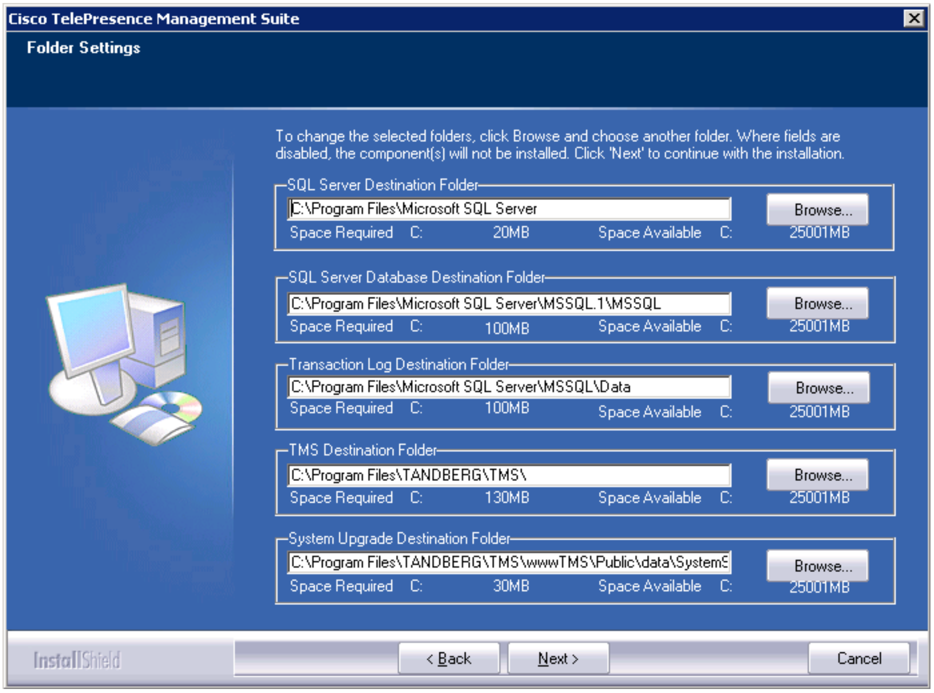
Otherwise click Generate to create a new key.

Caution: Take a copy of the generated key string and store it in a secure location. TMS authentication to systems, phonebook sources, SMTP and WebEx servers could be denied without this key.

Key:

When a key has been generated or added, click **Next**.

5. The next screen allows you to specify installation paths and directories to use for the installation. Fields that cannot be modified because the software is already installed are disabled/grayed out.



To change the selected folders, click Browse and choose another folder. Where fields are disabled, the component(s) will not be installed. Click 'Next' to continue with the installation.

SQL Server Destination Folder
C:\Program Files\Microsoft SQL Server
Space Required C: 20MB Space Available C: 25001MB

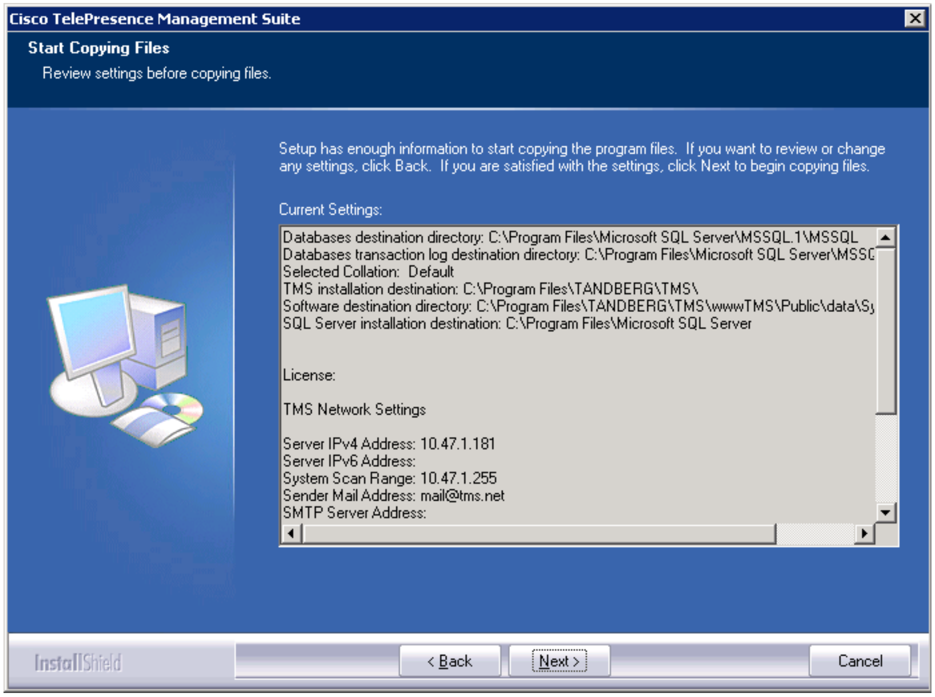
SQL Server Database Destination Folder
C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL
Space Required C: 100MB Space Available C: 25001MB

Transaction Log Destination Folder
C:\Program Files\Microsoft SQL Server\MSSQL\Data
Space Required C: 100MB Space Available C: 25001MB

TMS Destination Folder
C:\Program Files\TANDBERG\TMS\
Space Required C: 130MB Space Available C: 25001MB

System Upgrade Destination Folder
C:\Program Files\TANDBERG\TMS\wwwTMS\Public\data\SystemS
Space Required C: 30MB Space Available C: 25001MB

6. Verify all the settings in the displayed summary and click **Next**.
If installation of SQL Server 2008 Express was selected in the steps above, the installer begins with the automated installation of SQL 2008 Express. This will take some time to complete.



Cisco TelePresence Management Suite

Start Copying Files

Review settings before copying files.

Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.

Current Settings:

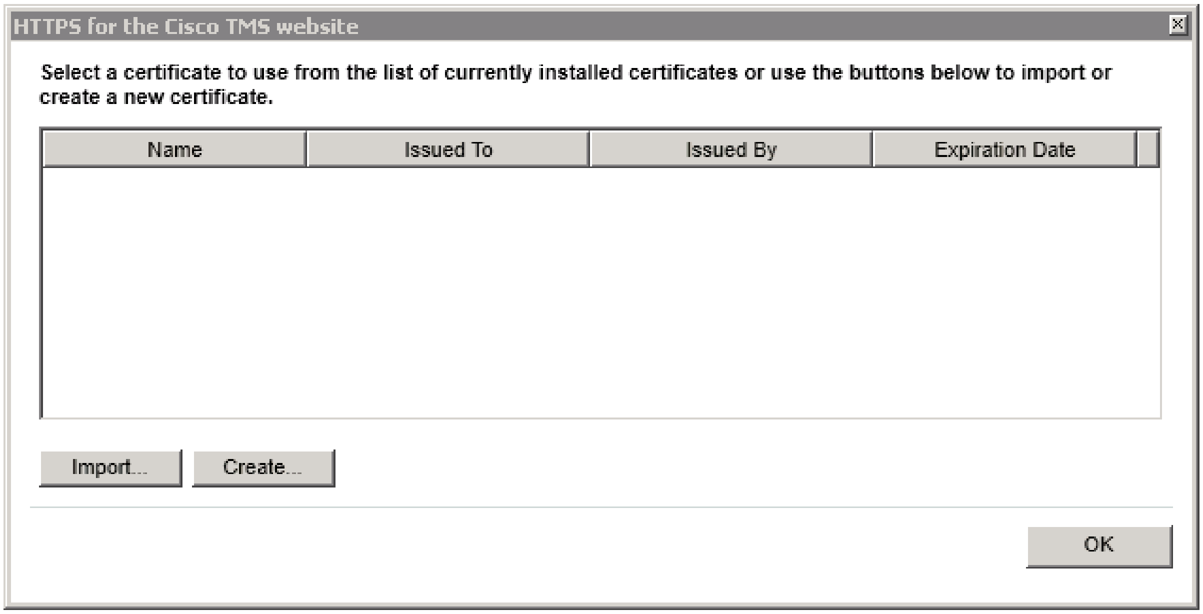
```
Databases destination directory: C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL
Databases transaction log destination directory: C:\Program Files\Microsoft SQL Server\MSSC
Selected Collation:  Default
TMS installation destination: C:\Program Files\TANDBERG\TMS\
Software destination directory: C:\Program Files\TANDBERG\TMS\wwwTMS\Public\data\Sy
SQL Server installation destination: C:\Program Files\Microsoft SQL Server


License:

TMS Network Settings

Server IPv4 Address: 10.47.1.181
Server IPv6 Address:
System Scan Range: 10.47.1.255
Sender Mail Address: mail@tms.net
SMTP Server Address:
```

7. At the end of the install/upgrade procedure you must complete the wizard to import or create a TLS certificate to enable HTTPS access to the Cisco TMS website.



HTTPS for the Cisco TMS website

Select a certificate to use from the list of currently installed certificates or use the buttons below to import or create a new certificate.

Name	Issued To	Issued By	Expiration Date

After importing a certificate (pfx format) or creating a self-signed certificate the install will complete and, if necessary, you will be prompted to reboot the server.

Accessing Cisco TMS for the first time

Once Cisco TMS is installed, access the web interface using a browser:

1. Do one of the following:
   - Use the shortcut provided in the Cisco program group in the Windows **Start** menu.
   - Enter **`https://<serveraddress>/tms`** in your web browser's URL field, where <serveraddress> is the hostname (recommended) or IP address of your server. Using the hostname accommodates integrated authentication with Active Directory.
2. If accessing the web site from the server console, you will usually authenticate automatically with your currently logged in username and Cisco TMS will open. If not, you will be asked for authentication details. Most browsers will display two fields in the login window that appears—a username and password field. How you enter your username will depend on the type of Windows account you are using.

Field	Description	Example
Domain Users	Username should be entered as **`domain\username`**. The **`username@<Domain DNS name>`** format is also suitable, but less commonly used.	**`corp\firstname.lastname`**
Local Windows Accounts	Username should be entered as **`machinename\username`**	**`tms-2\administrator`**

3. A window called **Edit Personal Information** will pop up after you successfully authenticate. If this window does not appear, look for pop-up blocking alerts from your browser, and disable pop-up blocking for Cisco TMS.
4. Fill in your details and click **Update Your Personal Information**.

Setting up Cisco TelePresence Management Server

Cisco TelePresence Management Server is Cisco-provided server hardware that is delivered with the Cisco TelePresence Management Suite software pre-installed. The server is intended for small to medium-sized networks (up to 100 managed systems).

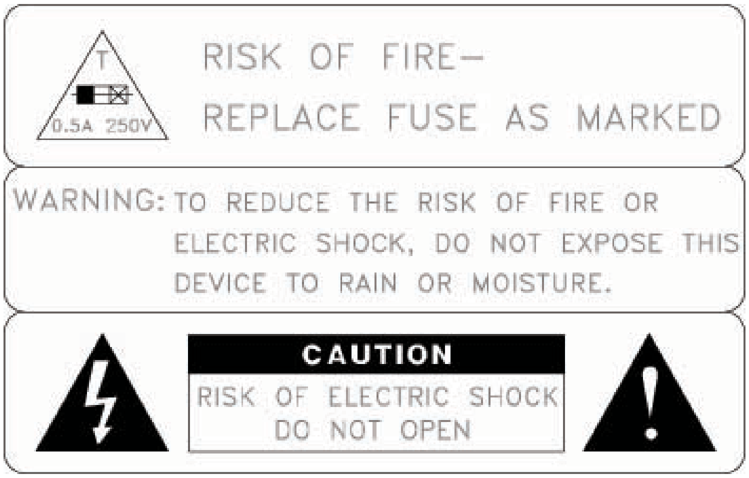
Operator safety summary

Carefully observe all warnings, precautions and instructions when operating the equipment.

Equipment markings

The lightning flash symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltages within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance/servicing instructions accompanying the equipment.


T
0.5A 250V
RISK OF FIRE–
REPLACE FUSE AS MARKED
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE.
CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

Warnings

- Water and moisture: Do not operate apparatus under or near water—for example near a bathtub, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool or in areas with high humidity.
- Cleaning: Unplug apparatus from wall outlet before cleaning or polishing. Do not use liquid cleaners or aerosol cleaners. Use a lint-free cloth lightly moistened with water for cleaning the exterior of the apparatus.
- Ventilation: Do not block any of the ventilation openings of the apparatus. Install in accordance with instructions. Never cover the slots and openings with a cloth or other material. Never install the apparatus near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Grounding or polarization: Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician.
- Power-cord protection: Route power cord to avoid it being walked on or pinched by items placed upon or against it, paying particular attention to the plugs, receptacles, and the point where the cord exits from the apparatus.
- Attachments: Only use attachments as recommended by the manufacturer.

- Accessories: Most systems should only be used with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving cart/apparatus combination to avoid injury from tip-over.
- Lightning: Unplug apparatus during lightning storms or when unused for long periods of time.
- Servicing: Do not attempt to service the apparatus yourself as opening or removing covers may expose you to dangerous voltages or other hazards, and will void the warranty. Refer all servicing to qualified service personnel.
- Damaged equipment: Unplug apparatus from outlet and refer servicing to qualified personnel under the following conditions:
  - when power cord or plug is damaged or frayed
  - if liquid has been spilled or objects have fallen into the apparatus
  - if apparatus has been exposed to rain or moisture
  - if apparatus has been dropped and subjected to excessive shock, or cabinet has been damaged
  - if apparatus fails to operate in accordance with the operating instructions

Installation precautions and hardware compliances

Safety precautions:

- Never install communication wiring during a lightning storm.
- Never install jacks for communication cables in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninstalled communication wires or terminals unless the communication line has been disconnected at the network interface.
- Use caution when installing or modifying communication lines.
- Avoid using communication equipment (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
- Do not use the communication equipment to report a gas leak in the vicinity of the leak.
- Always connect the product to an earthed socket outlet.
- The socket outlet must be installed near to the equipment and be easily accessible.
- Switch the power OFF before installing cables.

This product complies with the following directives:

- LVD 73/23/EC, EMC 89/366/EEC, R&TTE 99/5/EEC,
- Directive 73/23/EEC (Low Voltage Directive)
- Standard EN 60950-1
- Directive 89/336/EEC (EMC Directive)
- Standard EN 55022, Class A
- Standard EN 55024
- Standard EN 61000-3-2/-3-3
- Approved according to UL 60950-1 and CAN/CSA C22.2 No. 60950-1-03
- Complies with FCC15B Class A

Installing the server

Unpacking

To avoid damage to the unit during transportation, Cisco TelePresence Management Server is delivered in a special shipping box, which contains the following components:

- Rack-ears, screws and screwdriver.
- Cables:
  - Power cable
  - Ethernet cable
- Cisco TelePresence Management Server

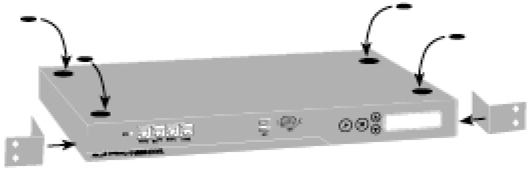
Installation site preparations

- Make sure that Cisco TelePresence Management Server is accessible and that all cables can be easily connected.
- For ventilation leave a space of at least 10 cm (4 inches) behind the rear panel and 10 cm (4 inches) in front of the front panel.
- The room in which you install Cisco TelePresence Management Server should have an ambient temperature between 0°C and 35°C (32°F and 95°F) and between 10% and 90% non-condensing relative humidity.
- Do not place heavy objects directly on top of the server.
- Do not place hot objects directly on top, or directly beneath the server.
- Use a grounded AC power outlet.

Rack mounting

Note: The following procedure is optional.

Cisco TelePresence Management Server comes with rubber feet for standalone installation and brackets for mounting in standard 19” racks.



Before starting the rack mounting, ensure that Cisco TelePresence Management Server is placed securely on a hard flat surface.

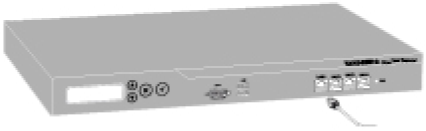
1. Disconnect the AC power cable.
2. Set up the mounting space in accordance with the site preparations described above.
3. Attach the brackets to Cisco TelePresence Management Server on both sides of the unit using the 8 screws that are provided.

4. Insert Cisco TelePresence Management Server into a 19” rack, and secure it at the front using four screws.

Connecting the cables

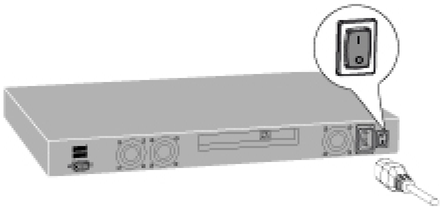
LAN cable

Connect a LAN cable from the "LAN 1" connector on Cisco TelePresence Management Server to your network. The LAN 2, 3 and 4 connectors are not used and should be left open.



Power cable

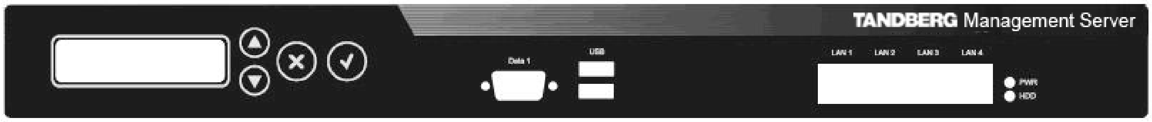
Connect the system power cable to an electrical distribution socket. Press the power switch button at the back to *1*. The power indicator LED, marked **`Pwr`**, on the front panel lights up.



Configuring the server

Using the LCD panel

You must use the LCD panel for initial network configuration. If direct access to the server is subsequently required, you can connect a VGA monitor, USB keyboard and mouse to access the server console.



▲ ▼	**Up and Down arrows**	Used to select items in the menu, move between values in a numerical address and modify numerical values.
✓	**Enter**	Used to enter edit mode and confirm a selection or entry.
✗	**Return**	Used to return to the previous menu or exit edit mode without saving the latest entry.

Configuring the IP Address setting

You must set the IP address using the LCD panel:

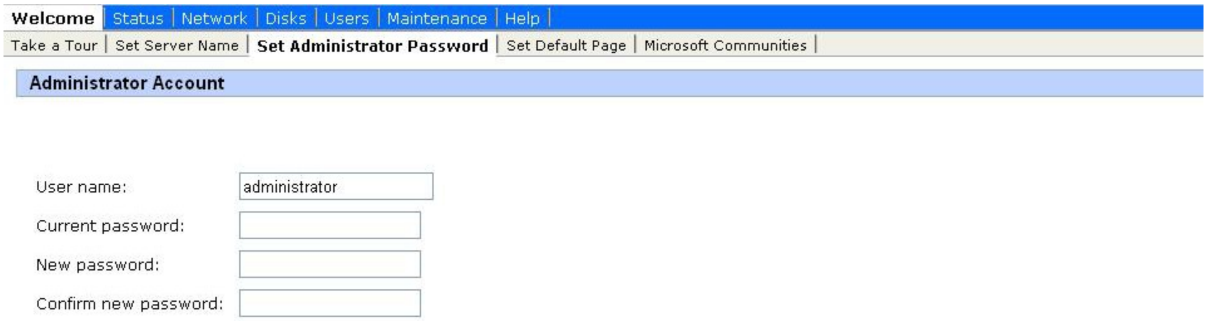
1. Power up the server and wait for it to finish booting. The LCD panel should show the server's current IP after the server has finished starting up.
2. Press **Enter** to display the Main Menu.
3. Use the **Up** or **Down** arrow to select **IP Settings**.
4. Press **Enter** to confirm your selection.
5. Use the **Up** or **Down** arrow to select **IP Address** and press **Enter** twice to enter edit mode.
6. Moving between characters using the Up and Down arrows, edit the values by pressing **Enter** and using the **Up** or **Down** arrow to modify the value. Press **Enter** again to confirm the value, or press **Return** to restore the previous value.
7. When you have finished editing the address, press Return. At the **Save Changes?** prompt, use the **Up** or **Down** arrow to select *Yes* and press **Enter**.
8. Press **Return** to go back to the **IP Settings** menu.
9. Use the **Up** or **Down** arrow to select **Subnet Mask** and press **Enter** twice.
10. Repeat steps 5-6 to enter the Subnet Mask address.
11. Press Return to go back to the **IP Settings** menu.
12. Use the **Up** or **Down** arrow to select **Default Gateway** and press **Enter** twice.
13. Repeat steps 5-6 to enter the Default Gateway address.

Configuring the server operating system

To complete the physical installation of the server, several basic server operating system settings must be configured using the web interface for Microsoft Server. The following steps must be completed from another computer on the network that has Internet Explorer (ActiveX required) installed and network access to the Cisco TelePresence Management Server.

1. In the web browser URL field enter **https://<ManagementServerIPAddress>:8098** where <ManagementServerIPAddress> is the IP address of the Cisco TelePresence Management Server that you configured previously.
2. If you see a security warning stating "There is a problem with this web site's security certificate" – this is normal because your browser does not trust the default server certificate that is pre-installed. Click **Continue to this website**.
3. When prompted, enter the username Administrator and password TANDBERG.

4. Change the default administrator password:
   a. Go to **Welcome > Set Administrator Password**.
   b. Set a new password and click **OK** to save the changes.


Welcome | Status | Network | Disks | Users | Maintenance | Help |
Take a Tour | Set Server Name | Set Administrator Password | Set Default Page | Microsoft Communities |
Administrator Account

User name: administrator

Current password:

New password:

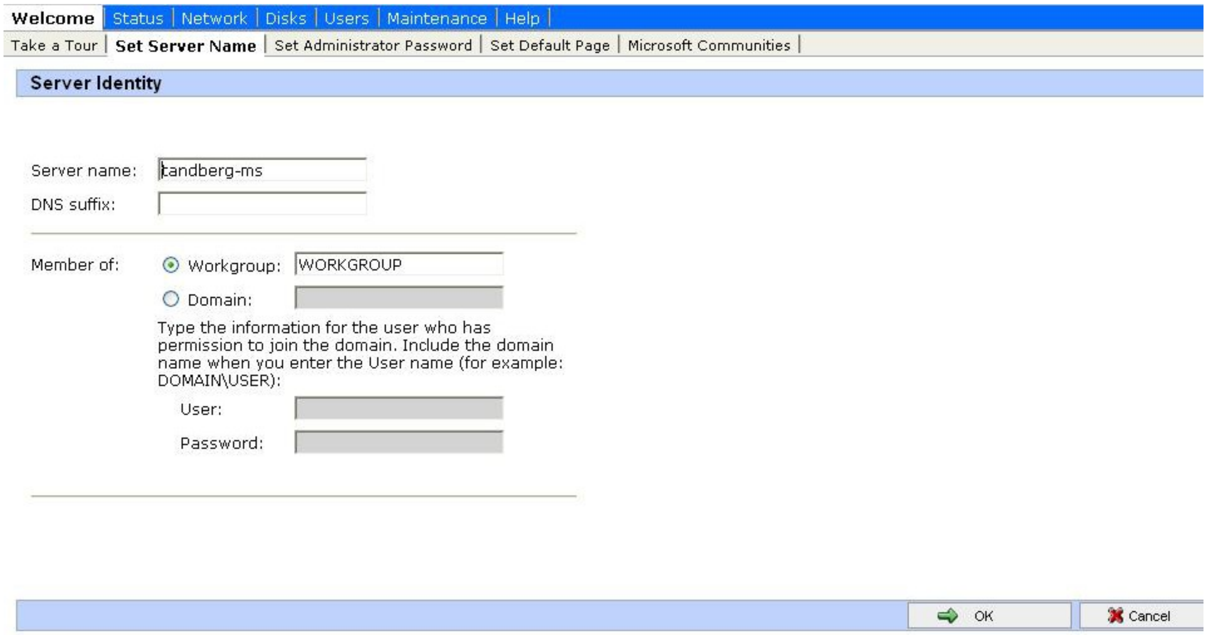
Confirm new password:

   c. When the change is confirmed, click **OK** to return to the Welcome Screen.

The default password for the administrator account is TANDBERG. This account has full access to the Windows Server operating system: therefore assign it a strong, secure password.

CAUTION: Do not lose your administrator password. Cisco cannot recover lost passwords. In the event of password loss, you will need to return the Cisco TelePresence Management Server to the factory for repair, and all data will be lost.

5. Set the Server Time and Time Zone:
   a. Go to **Maintenance > Date/Time**.
   b. Update the Time, Date, and Time Zone settings.
   c. Click **OK**.
6. Go to **Welcome > Set Server Name**, configure the server's name and Domain membership and click **OK**.


Welcome | Status | Network | Disks | Users | Maintenance | Help |
Take a Tour | Set Server Name | Set Administrator Password | Set Default Page | Microsoft Communities |
Server Identity
OK
Cancel

Server name: tandberg-ms

DNS suffix:

Member of: ● Workgroup: WORKGROUP

○ Domain:

Type the information for the user who has permission to join the domain. Include the domain name when you enter the User name (for example: DOMAIN\USER):

User:

Password:

Joining the server to an Active Directory domain will simplify user administration by allowing all users in Active Directory to use their existing Windows credentials to access Cisco TMS. Enter a domain username and password authorized to join the server to the domain.

Caution: Be aware of any group policies that your Active Directory may automatically apply to servers joined to its domains. High security policies that interfere with web server operations may interfere with Cisco TMS operation.

7. Restart the server to complete any changes to the computer name or domain membership.
8. Ensure that any available security updates are installed (see Operating, maintaining, and upgrading the server [p.33]).

Shutting down

Cisco TelePresence Management Server must be shut down using the front LCD panel or from the Windows interface before powering the unit off.

Operating, maintaining, and upgrading the server

Cisco TelePresence Management Server is a Cisco-maintained "black-box" server designed to be operated using the LCD panel or web interface, while operation and management of the Cisco TMS software application is performed solely using the Cisco TMS web interface. Access to the server's operating system is available via local console connections or Microsoft Remote Desktop Client, but it is not required for normal operations.

As with all servers, the server hardware should be housed in a secure space and not be accessible to non-administrators. The server should remain on at all times for normal operation.

When delivered, the operating system is "locked down" and hardened following Microsoft's security recommendations for a server of this type. The server does not allow any remote connections except where necessary for Cisco TMS communication with users and the devices that it manages. The SQL database and other internal components are not accessible remotely. Cisco recommends that you do not modify any of the operating system’s underlying settings.

We recommend enabling Windows Updates on the server.

Starting and stopping the server

Cisco TelePresence Management Server can be restarted and shut down via the LCD panel. As with all servers, it should not be powered off abruptly and restarts/shutdowns should always be performed via the software controls rather than the power switch - unless the server itself and the LCD panel are unresponsive. After a full shutdown, it is safe to turn off the power switch.

To start up the Cisco TelePresence Management Server:

1. Connect the power.
2. Turn the power switch to *1* (on).

When the start up process nears completion, the LCD panel will show the server's current IP address .

To restart or shut down from the LCD panel:

1. Press **Enter** to display the **Main Menu**.
2. Use the **Up** or **Down** arrow to select **Commands** and press **Enter** .

3. Take one of the following actions:
   - Use the **Up** or **Down** arrow to select *Restart* and press **Enter**.
   - Use the **Up** or **Down** arrow to select *Shutdown* and press **Enter**.
4. At the confirmation prompt, use the **Up** or **Down** arrow to select *Yes* and press **Enter**.

The server can safely be powered off after a few minutes. There is no specific feedback on the LCD panel that the shutdown process has completed.

The system can also be reset or shut down using Windows Remote Desktop or the web interface:

1. Start a web browser and enter the address https://<ManagementServerIPAddress>:8098 where <ManagementServerIPAddress> is the IP address of Cisco TelePresence Management Server.
2. If you see a security warning stating "There is a problem with this website's security certificate" – this is because your browser does not trust the default server certificate installed. Click **'Continue to this website'** to acknowledge the warning and continue.
3. When prompted, enter the administrator username and password.
4. Select the **Maintenance** tab. Click **Shutdown**, then opt to either shut down or restart the server.

Performing database backups

Cisco TMS stores all its customer data in its SQL database named **tmsng**.

Backup the SQL database using standard Microsoft backup procedures.

Backups should be stored away from the Cisco TMS server for maximum protection.

Also note that Cisco TelePresence Management Server is delivered with remote SQL access disabled. If you enable remote access to the SQL Server for backup purposes, be sure to change the SQL sa password from the default password. If you change the SQL password, update TMS Database Connection properties using the Cisco TMS Tools application which can be accessed from the Start menu under Cisco TelePresence Management Suite.

Operating system updates

When the appliance is delivered, the Automatic Updates functionality of Microsoft Windows is turned off. Enable and apply Windows Updates according to the network policy of your organization.

Software installation and upgrades on the Cisco TelePresence Management Server

The Cisco TelePresence Management Server is upgraded using the same software (and therefore the same steps) used for software-only installations of Cisco TMS. The Cisco TMS installer automatically detects if the software is being run on Cisco TelePresence Management Server and acts accordingly.

To perform a Cisco TMS upgrade:

1. Using the Microsoft Remote Desktop client, connect to the Cisco TelePresence Management Server's IP or hostname.
2. Log in using the local administrator username and password.
3. Copy the Cisco TMS software installer to the Cisco TelePresence Management Server using a file share, web download, or the drive mapping feature of Remote Desktop Client.
4. Follow the steps in the Installing or upgrading Cisco TMS [p.13] section of this document, following the path for the "Complete" installation choice.

Note:: The SQL Server sa login information needed during the upgrade the default for the SQL Login is username: sa and password: TANDBERG.

Security policy

The Cisco TelePresence Management Server’s security policy is updated and maintained by the Cisco TMS installer. If an administrator makes changes to negate any of these security lockdown steps, the security policy will be re-applied automatically the next time the Cisco TMS software installer runs.

Updating conference time zone data

Cisco TMS 14.2 introduced time zone support for all booking-related data. As this support was previously missing, some bookings created using earlier versions of Cisco TMS and its extensions may currently have incorrect time zone information. This is mostly an issue for recurrent meeting series that span a daylight savings time (DST) change event.

Run the time zone update tool following the procedures provided if:

- You have users scheduling conferences from both the United States and Europe, or both the northern and the southern hemispheres.
- You are in a country where DST rules vary between states or regions, for example Australia.

You do *not* need to perform these procedures if Cisco TMS and all organizers booking meetings on your telepresence network are in the same time zone or in time zones with the same DST rules, such as the United States excluding Arizona and Hawaii.

For more detail about the changes and how meetings are affected, see Changes to Cisco TMS time zone handling [p.37].

Using the Cisco TMS time zone update tool

The Cisco TMS time zone update tool helps you identify conference series that are in need of time zone information, and that may currently be incorrect if the series is spanning a daylight savings time event or scheduled change to time zones.

The tool also provides you with suggestions for what the correct time zone for each series might be, based on information about the user from Cisco TMS and, if present in your deployment, Exchange through Cisco TMSXE. The tool will compare information from the available systems and use the most reliable source to suggest a time zone for each series.

In a deployment with Cisco TMSXE, the tool will perform the additional task of removing meetings from Cisco TMS that originated from Cisco TMSXE and no longer exist in the original system.

Locating and running the tool

The tool is installed on your server when you install Cisco TMS 14.3.1.

1. In your server's program files folder, go to **TANDBERG\TMS\TimeZoneTool\ConferenceTimeZoneMigration.exe** to locate the tool.
   - If you are not using Cisco TMSXE, you can start the tool directly from its current location.
   - If you have a Cisco TMSXE deployment, you must copy the tool to the Cisco TMSXE server.
2. Start the tool.
3. On the welcome screen, click **Next**.
4. Add the connection details for the Cisco TMS SQL database (**tmsng**) and click **Next** to validate them.
5. Add the Cisco TMS connection details and click **Next** to validate them.
   The next screen presents a list of all conference series with meetings in the future.
6. From the conference list, you can choose to go through one conference series at a time, or use the bulk editing options.

We recommend bulk editing per user that is organizing the meeting. Once you have identified the correct time zone for a particular organizer, you can apply that time zone to all series booked by that user. Users will rarely book different meeting series in multiple time zones.

7. When you have flagged all conference series that you want to update, click **Update**.
   The tool will now update all flagged conference series by attempting to re-book them in Cisco TMS using the new time zone information and then present a list of results.
8. You can download the results as a list of comma-separated values by clicking **Export to CSV**.
   If any conference re-bookings failed, we recommend contacting the organizer of each series to advise them to delete their current booking and re-book the meeting series. This will ensure that the series has the the correct time zone information and that all the necessary resources are available.

You may run the tool several times if you did not update all conference series during the initial run.

Changes to Cisco TMS time zone handling

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.

The Cisco TMS booking extensions all rely on the Cisco TelePresence Management Suite Extension Booking API. For further details on how this API handles time zones, see *Cisco TelePresence Management Suite Extension Booking API Programming Reference Guide*.

Handling upcoming time zone changes

- Cisco TMS now uses Windows time zones for bookings made from the Cisco TMS booking pages. Windows Update keeps these time zones and rules up to date.
- If not running Windows Update on your server, you will have to update the time zones manually as needed.

Changes to time zone rules are usually planned by countries well ahead of the time they actually happen, giving Windows and any integrating clients using Cisco TMSBA time to get their rule sets updated.

In such cases, the actual time zone rule change should not impact bookings, as Cisco TMS will be aware of the upcoming change and apply the new rule as conferences are booked to occur after the rule change.

Whose time zones are displayed

The logged-in user's time zone will be used when:

- Listing booked conferences.
- Booking new conferences from the **New Conference** page.
- Monitoring conferences in **Conference Control Center**.

When viewing the full details of, or editing, an existing booking, Cisco TMS will always use the time zone in which the conference was originally created. The user will be informed of this.

The only way to book a conference from **New Conference** in a time zone other than the currently logged-in user's time zone, is to change that user's time zone setting in Cisco TMS.

Note that dates in Cisco TMS that are not directly related to booking, including the logging of conference events, are still in server time.

Troubleshooting

Installation times out

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 big deployments with years of call history and/or system data, some of the operations may need more than 30 minutes to complete.

This timeout value is configurable using a command line option. To use a timeout value of 60 minutes, run the installer from the command line as follows:

```
TMS14.2.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.

Appendices

Appendix 1: Restricting IIS 7 modules to minimal required

IIS 7 offers a modular system that allows an administrator to fine tune what components are installed and enabled on their server for the greatest security. To assist administrators who wish to further restrict their servers, the following list documents which modules are required for Cisco TMS. Modules may be controlled at either the site or server level (some are server level only) . The steps below assume that you are making changes at the server level.

Before removing modules, we recommend backing up your IIS configuration by using the command **`%windir%\system32\inetsrv\appcmd.exe add backup "TMS"`**.

To restore the backup later if needed, use the command **`%windir%\system32\inetsrv\appcmd.exe restore backup "TMS"`**

To modify which modules are enabled in IIS 7:

1. Open the **Internet Information Services (IIS) Manager** from **Start Menu > Administrative Tools > Internet Information Services (IIS) Manager**.
2. From the tree in the left section, click on your server's name.
3. In the center section, under **IIS**, double-click **Modules**.

The list of installed Managed and Native Modules is displayed. Modules that are not needed can be removed by clicking on them, and then clicking **Remove** from the Action Panel on the right.

The following modules are required for Cisco TMS and must *not* be removed:

- **AnonymousAuthenticationModule**
- **BasicAuthenticationModule**
- **DefaultDocumentModule**
- **DefaultAuthentication**
- **DigestAuthenticationModule**
- **HttpCacheModule**
- **HttpLoggingModule (recommended)**
- **HttprRedirectionModule**
- **IsapiFilterModule**
- **ProtocolSupportModule**
- **RequestFilteringModule**
- **Session**
- **StaticCompressionModule**
- **StaticFileModule**
- **WindowsAuthentication**
- **WindowsAuthenticationModule**

Appendix 2: Configuring IIS request flood protection

To ensure Cisco TMS stability and protect against flooding in the event of very high numbers of concurrent incoming requests from systems, we recommend configuring IIS flood protection on your server.

A configuration procedure with recommended values is described below.

Installing the IIS extension

Before you can configure flood protection, you must download and install the Dynamic IP Restrictions extension from IIS.NET on your server: http://www.iis.net/downloads/microsoft/dynamic-ip-restrictions

The download uses the Microsoft Web Platform Installer.

Configuring dynamic IP restrictions for the default site

In IIS Manager:

1. Navigate to **Default Website** in the left-side panel, and click on the entry to display **Default Web Site Home**.
2. Double-click **Dynamic IP Restrictions**.
3. Check **Deny IP addresses based on the number of concurrent requests** and set the maximum number to `100`.
4. Check **Deny IP addresses based on the number of requests over a period of time**.
   Set the maximum number of requests to `400` and the time period in milliseconds to `200`.
5. From the **Deny Action Type** dropdown, select *Abort Request (Close Connection)*.
6. Click **Apply** to save the changes.

Keeping IIS Manager open, you can now move on to limiting the total number of concurrent connections.

Limiting the total number of connections

In IIS Manager:

1. Navigate to **Default Website** in the left-side panel, and click on the entry to display **Default Web Site Home**.
2. Click on **Advanced Settings...** in the right-side panel.
3. Under **Behavior > Connection Limits**, set **Maximum Concurrent Connections** to `1000`.
4. Click **OK** to save.
5. Close IIS Manager.

For further information, see the IIS.NET article *Using Dynamic IP Restrictions*.

Appendix 3: Moving Cisco TMS to a new server

Whether a server is being decommissioned or you are expanding your deployment and need more hardware capabilities, follow the instructions below to move the Cisco TMS installation onto another server.

Before you start

- We recommend keeping the network configuration the same on the new server, using the same DNS host name and IP address if possible. This will minimize the administrative tasks required after the move.
- Ensure that the same ports are open on the firewall for the new server as for the old server.
- If Cisco TMSPE is installed on the Cisco TMS server, it must be moved at the same time.

Cisco TelePresence Management Server (Appliance)

If you are moving from Cisco TelePresence Management Server (Appliance) to a new Windows server, contact your Cisco sales representative to purchase a new software-only copy of Cisco TMS. Then contact the Global Licensing Operations department (licensing@cisco.com) and ask them to re-host the option keys.

Moving the application and database

Copying installation data

Before following the procedure to move Cisco TMS with either a local or remote database:

1. Take a copy of the encryption key to enter on the new server during the installation process: On the Cisco TMS server, open TMS Tools and select **Security Settings > Encryption Key**. Copy to a notepad file.
2. If you are keeping the same IP address and use TLS Client Certificates from an external certificate authority, take a copy for use on the new server. If the new server's IP address will change, you will need to generate new certificates.

SQL database is stored locally on the Cisco TMS server

The same version of Cisco TMS must be used on both servers, and they must both be in the same time zone.

1. Stop all TMS services and IIS on the original Cisco TMS server:
   a. Open the Services Management Console.
   b. Stop all the Cisco TMS services—they all have names starting with "TMS".
   c. Stop the Internet Information Services (IIS) service called World Wide Web Publishing Service.
2. Using SQL Server Management Studio Express, back up the SQL database, and copy the **tmsng.bak** file to the new Cisco TMSserver:
   a. Right-click on the **tmsng** database.
   b. Select **Tasks > Back Up... > Database...**
   c. Note the backup destination path and click **OK**.
   d. Copy the **tmsng.bak** file from its backup location to any location on the new server.
3. Install the same version of Cisco TMS on the new server:
   a. Select the *Custom* install option.
   b. Select *Install the database on this server*.
   c. Do not enter any release or option keys.
   d. Enter the **IP Address** of the old server.
   e. Enter the **Encryption Key** from the old server.
4. Restore the SQL database using SQL Server Management Studio Express:
   a. Right click on the **tmsng** database.
   b. Select **Tasks > Restore > Database...**
   c. Under **Specify the source and location of backup sets to restore** select **From device** and browse to the location where you saved the **tmsng.bak** file.

   d. Click **OK** until you get back to the **Restore Database - tmsng** window.
   e. Under **Select the backup sets to restore**, check the box in the **Restore** column next to the appropriate backup file. Click **OK**.
5. Open the Cisco TMS web application and check that it works and that all your data is in place.
6. Copy the following customizable folders that were saved locally on the original server to the same locations on the new server if necessary—these folders are created on first use so you may have to manually create them. In a default installation the files are located here:
   - **C:\Program Files\TANDBERG\TMS\Config\System\**
   - **C:\Program Files\TANDBERG\TMS\Data\GenericEndpoint\**
   - **C:\Program Files\TANDBERG\TMS\Data\SystemTemplate\**
   - **C:\Program Files\TANDBERG\TMS\wwwTMS\Data\CompanyLogo\**
   - **C:\Program Files\TANDBERG\TMS\wwwTMS\Data\ExternalSourceFiles\**
   - **C:\Program Files\TANDBERG\TMS\wwwTMS\Public\Data\SystemSoftware\**

SQL database is on a remote server

It is not necessary to use the same version of Cisco TMS in this case, as the database will be upgraded during the install procedure.

1. Stop all TMS services and IIS on the original Cisco TMS server:
   a. Open the Services Management Console.
   b. Stop all the Cisco TMS services—they all have names starting with "TMS".
   c. Stop the Internet Information Services (IIS) service called World Wide Web Publishing Service.
2. Install Cisco TMS on the new server, pointing to the existing external SQL database during installation.
3. Open the Cisco TMS web application and check that it works and that all your data is in place.
4. Copy the following customizable folders that were saved locally on the original server to the same locations on the new server if necessary—these folders are created on first use so you may have to manually create them. In a default installation the files are located here:
   - **C:\Program Files\TANDBERG\TMS\Config\System\**
   - **C:\Program Files\TANDBERG\TMS\Data\GenericEndpoint\**
   - **C:\Program Files\TANDBERG\TMS\Data\SystemTemplate\**
   - **C:\Program Files\TANDBERG\TMS\wwwTMS\Data\CompanyLogo\**
   - **C:\Program Files\TANDBERG\TMS\wwwTMS\Data\ExternalSourceFiles\**
   - **C:\Program Files\TANDBERG\TMS\wwwTMS\Public\Data\SystemSoftware\**

Moving with a new network configuration

In some cases it may be necessary to change the IP address and even the hostname of the Cisco TMS server as part of the move.

If so, once you have installed Cisco TMS on the new server and checked that it is connected to the database, and that all your data is present, do the following:

- Go to: **Administrative Tools > Configuration > Network Settings** and enter the new IP address and host name of the Cisco TMS server in **Advanced Network Settings for Systems on Internal LAN** and **Advanced Network Settings for Systems on Public Internet/Behind Firewall**.
- In **Administrative Tools > Configuration > Network Settings > Enforce Management Settings on Systems**, click **Enforce Now**.
- If the hostname of the server has changed, and you use local user accounts rather than Active Directory accounts, change the user domain using **TMS Tools > Utilities > Change User Domain**. Note that if using local user accounts, these will need to be manually recreated on the new server.

- For Polycom and other third party systems, change the SNMP **Console IP Address** manually to the new IP and/or host name of the Cisco TMS server and reboot each system.
- If using Cisco TMSXE, open the configuration tool and change the Cisco TMS connection details as required.
- If using Cisco TMSXN, open Domino Administrator to change the **Host name** on the resource reservation database created for Cisco TMS as required.
- For remote systems, change the **External Manager Address** on each system manually to the new IP address or host name.

After moving the application

Do not reactivate any services related to Cisco TMS on the original server after the move.

We strongly recommend removing Cisco TMS from the original server, see Removing all Cisco TMS information from a server [p.45] if not decommissioning the server itself.

Moving Cisco TMSXE

For instructions on moving Cisco TMSXE to a new server, see *Cisco TMSXE Installation Guide*.

Except for very small deployments, Cisco TMSXE must not be installed on the same server as Cisco TMS. See the best practices section of the installation guide for details.

Moving Cisco TMSPE

Cisco TMSPE is always installed on the Cisco TMS server and must be moved as soon as Cisco TMS has been moved.

As with Cisco TMS, the Cisco TMSPE database may be local or remote.

Local database

To move Cisco TMSPE:

1. Stop the Provisioning Extension Windows service on the original server.
2. Follow the steps to copy and restore the tmspe database described for Cisco TMS above, see SQL database is stored locally on the Cisco TMS server [p.42].
3. Install Cisco TMSPE on the new server, pointing the installer to the new tmspe database location.
4. If the network configuration for Cisco TMS has changed, go to **Administrative Tools > Configuration > Provisioning Extension Settings > Cisco TMS Settings**.
   If **Hostname** is not `localhost`, it must be updated to reflect the new Cisco TMS address.

Remote database

To move Cisco TMSPE:

1. Stop the Provisioning Extension Windows service on the original server.
2. Install Cisco TMSPE on the new server, pointing the installer to the remote database location.
3. If the network configuration for Cisco TMS has changed, go to **Administrative Tools > Configuration > Provisioning Extension Settings > Cisco TMS Settings**.
   If **Hostname** is not `localhost`, it must be updated to reflect the new address.

Moving Cisco TMSAE

Cisco TMSAE is always installed on the Cisco TMS server, but all program data is stored externally on the data warehouse server.

To move the Cisco TMSAE installation after the Cisco TMS move:

1. Stop the TANDBERG Analytics Extension Windows service on the original server.
2. Install Cisco TMSAE on the new server, following the instructions in Cisco TMSAE Installation Guide. Make sure to:
   - Use the same virtual directory name as on the original server.
     If changing the virtual directory name, you will need to update the Cisco TMSAE path in Cisco TMS after installation.
   - Select the Use Preconfigured option so that you can point the installer to the existing Cisco TMSAE database on the warehouse server.
   - Provide the detail for the new Cisco TMS server when prompted, including the new hostname or IP address if this has changed.
3. Verify that the ETL job can run properly by going to **Administrative Tools > Analytics Extension** and clicking **Run ETL Job Now**.

Appendix 4: Uninstalling Cisco TMS

This section tells you how to remove the Cisco TMS application: this is not necessary under normal conditions because older versions of Cisco TMS are removed automatically by the Cisco TMS installer. This information is provided for reference and for advanced troubleshooting.

Uninstalling Cisco TMS removes the Cisco TMS application, web site, and services. It leaves customer data, logs, databases and database servers intact for use in future upgrades. The uninstall wizard does not modify the SQL server in any way see the next section if you want to completely remove all Cisco TMS information from the server, including the database servers.

To remove the Cisco TMS application:

1. Select '*Uninstall Cisco TMS*' from the Cisco program group in the **Start** Menu or use **Add/Remove Programs** in the Windows Control Panel.
2. A welcome window explains that the uninstallation script removes Cisco TMS, but the database and database server must be removed separately. Click **Next**. The wizard removes the Cisco TMS services, website, and application data.
3. When prompted to restart your computer, select *Restart now* and click **Finish**.

Removal of the Cisco TMS application is complete.

Removing all Cisco TMS information from a server

The uninstall wizard only removes the Cisco TMS application from the server so that Cisco TMS can easily be reinstalled or upgraded in the future.

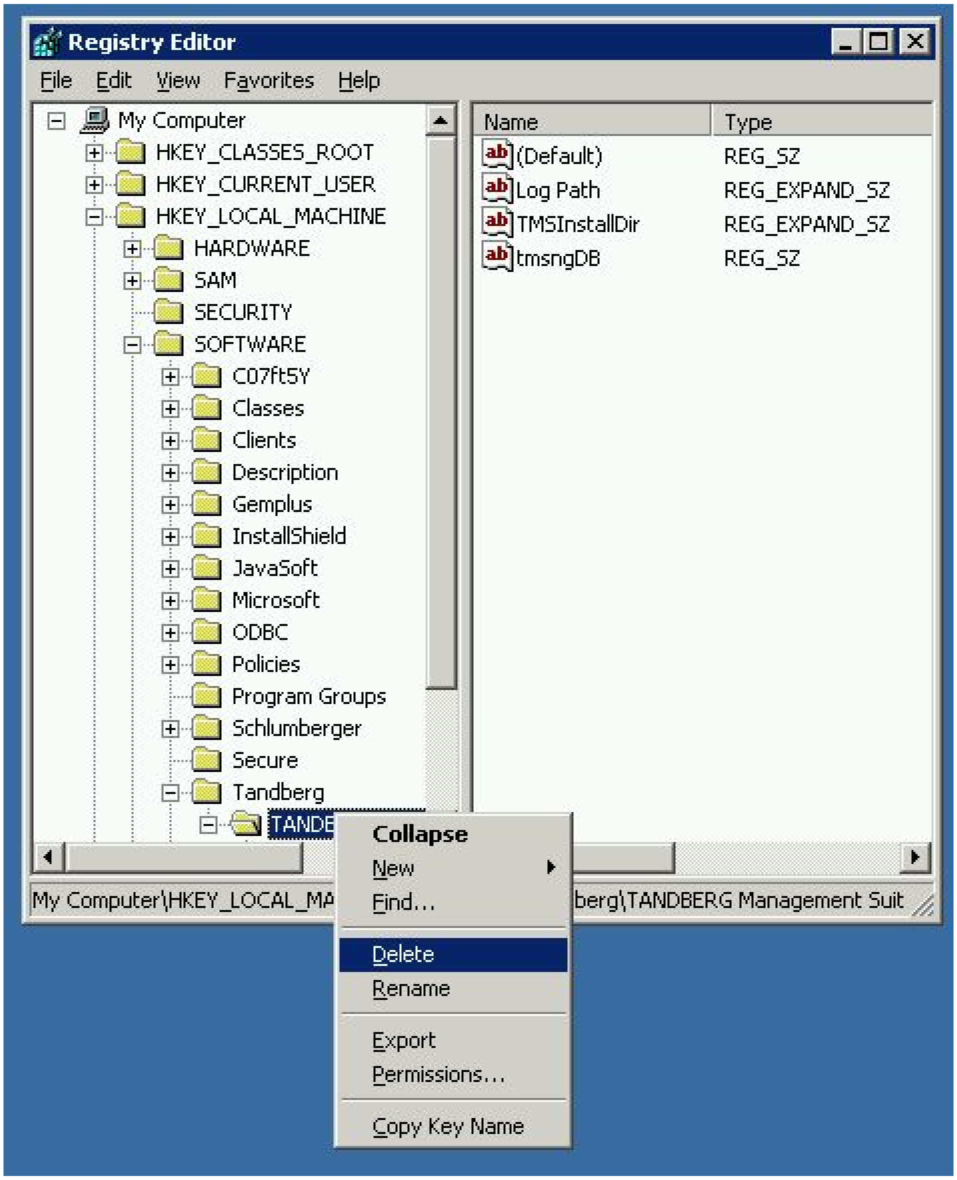
CAUTION:

- These steps assume that the SQL server was installed by Cisco TMS, is not being used by any other applications, and is safe to remove. Do not remove the SQL server or its program folder if the SQL server is used by any other application.
- Do not perform these steps on a Cisco TelePresence Management Server. If you remove Microsoft SQL from the Management Server, you will not be able to reinstall it as the server runs a locked-down version of Microsoft Windows with reduced write permissions.
- Following these steps will delete *all* Cisco TMS data. Do not proceed if you intend to save any information from your Cisco TMS installation.

To completely remove Cisco TMS and all of its data from your server, follow these instructions:

1. Run the Cisco TMS uninstall wizard using the instructions in the previous section.
2. If Cisco TMSPE is installed, uninstall according to the instructions in *Cisco TelePresence Management Suite Provisioning Extension Deployment Guide.*
3. Delete the program folder used by the Cisco TMS installation. The default location is **C:\Program Files\TANDBERG\TMS**.
4. Open the Windows registry editor: from the Start menu, select ‘Run..’ and enter ‘regedit’ and click **OK**.
5. Expand the tree on the left using the plus icons to find the Hive (folder) **HKEY_LOCAL_MACHINE\SOFTWARE\Tandberg\TANDBERG Management Suite**.

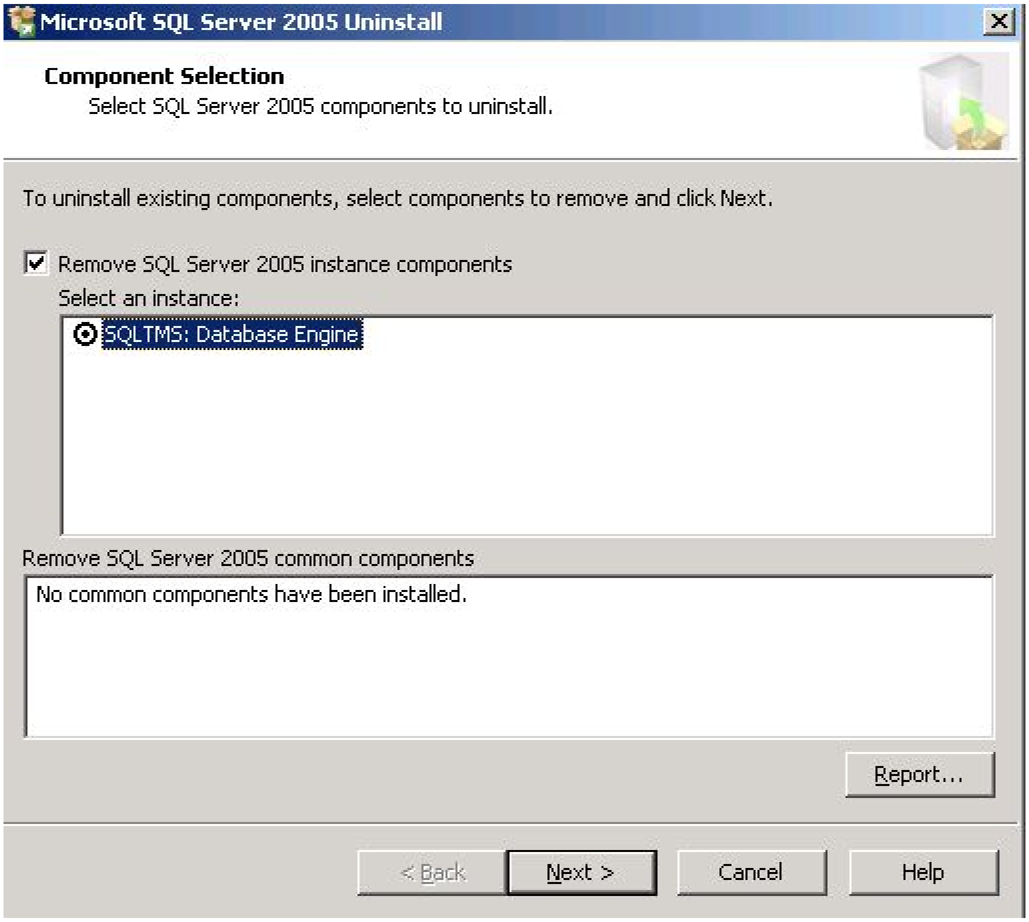
6. Right-click on the **Tandberg Management Suite** folder icon, and click **Delete**. Click **Yes** to confirm.



Name	Type
(Default)	REG_SZ
Log Path	REG_EXPAND_SZ
TMSInstallDir	REG_EXPAND_SZ
tmsngDB	REG_SZ

Deleting the Cisco TMS Registry Key

7. Close the Registry Editor.
8. If you were using a remote SQL Server, ask your SQL Administrator to drop the database named **tmsng**.
9. If the Cisco TMS installer installed a local copy of SQL Server, complete the following steps to remove it:
   a. Open **Add/Remove Programs** from the Windows Control Panel.
   b. Find "Microsoft SQL Server" with the relevant version number (2005 or 2008 depending on your installation) in the list and click **Remove**.



Microsoft SQL Server 2005 Uninstall

Component Selection

Select SQL Server 2005 components to uninstall.

To uninstall existing components, select components to remove and click Next.

☑ Remove SQL Server 2005 instance components

Select an instance:

● SQLTMS: Database Engine

Remove SQL Server 2005 common components

No common components have been installed.

c. Check **Remove SQL Server 2005 instance components**.
d. Select **SQLTMS: Database Engine**.
e. Select **Workstation Component** from common components.
f. Click **Next**.
g. At the Summary page, click **Finish**. The wizard closes automatically when complete.
h. Delete the program folder used by the SQL installation. The default location is C:\Program Files\Microsoft SQL Server.

The removal of Cisco TMS, the database, and all customer saved data, is now complete.

Bibliography

All documentation for the latest version of Cisco TMS can be found at http://www.cisco.com/en/US/products/ps11338/tsd_products_support_series_home.html.

Title	Reference	URL
Cisco TelePresence Management Suite Release Notes	D14991	http://cisco.com
Installing licenses; release and options keys for the Cisco TelePresence Management Suite	78-19878-01	http://cisco.com
Cisco TelePresence Management Suite Administrator Guide	D13741	http://cisco.com
Cisco TelePresence Management Suite Provisioning Extension Deployment Guide	D14941	http://cisco.com
Cisco TelePresence Video Communication Server Cluster Creation and Maintenance Deployment Guide	D14367	http://cisco.com

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