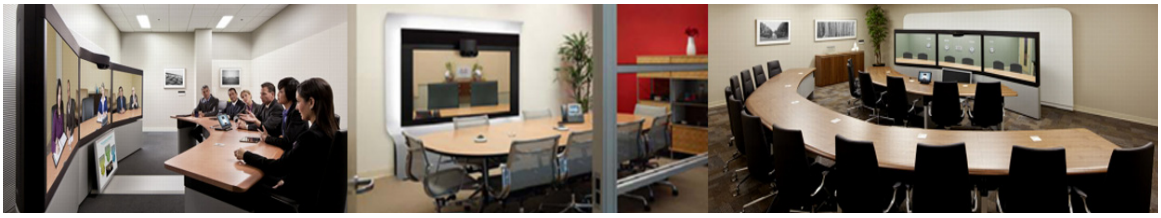

CHAPTER 5

Configuring Scheduling API for Cisco TelePresence Manager

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Contents

Introduction

This chapter describes the steps needed to configure the Scheduling API for Cisco TelePresence Manager.

Overview

The CTS-Manager Scheduling API (Scheduling API) interfaces Cisco TelePresence services to third-party Enterprise Calendaring Applications (ECA).

Currently, CTS-Manager supports Microsoft Exchange and IBM Domino calendaring. If you use any other calendar server, or if no calendar server is available, you must use the Scheduling API.

You can perform the following functions with the Scheduling API:

- Retrieve calendar data for CTS End points from the ECA.
- ECA uses **getTLiteMeetings** API call to sync meeting by comparing the lastModified attribute for each meeting to determine any meetings that have been modified.
- Schedule a TelePresence meeting providing a One-Button-To-Push number to start meetings on CTS endpoints.
- Cancel a TelePresence meeting
- Retrieve CTS endpoints room (endpoint) names

- Receive notifications from CTS-Manager based on certain events, such as meeting attribute change or CTS endpoints addition and deletion

CTS-Manager is not a calendaring solution. You use the ECA as the calendar application. You use the ECA to reserve Cisco TelePresence endpoints (Cisco TelePresence rooms) the same as you invite users or resources in the ECA. The Scheduling API then provides for the ECA to provide CTS-Manager information about the new meeting, including the Cisco TelePresence endpoint(s), in iCalendar (iCal) format.

Once CTS-Manager receives the meeting invitation, it performs the following tasks:

- It schedules the Cisco TelePresence Multipoint Switch (CTMS), Cisco TelePresence Recording Server (CTRS), WebEx, Cisco Unified Videoconferencing Manager (CUVC), and any other resources that are required for the meeting, based on the number of Cisco TelePresence end points that are invited and other options that are allowed or selected by the meeting organizer.
- It notifies the Cisco TelePresence endpoints of the schedule of meetings for that endpoint and provides the OBTP number that is used to start the meeting. These details are displayed on the Cisco Unified IP Phone immediately before the meeting starts.

For details on how to use the Scheduling API and which features of CTS-Manager are supported, refer to the Cisco TelePresence Manager Scheduling API Developer's Guide, available at:

http://developer.cisco.com/web/telesched/documentation.

Requirements

The following sections describe the software and licensing requirements for the Scheduling API and includes the following topics:

CTS-Manager Requirements

To use the Scheduling API, you must deploy CTS-Manager in Scheduling API mode. This mode is available with CTS-Manager release 1.7 and later.

If your CTS-Manager release 1.6 is deployed in No Calendar mode, you can upgrade to Scheduling API mode by first migrating to CTS-Manager release 1.8 in No Calendar mode, then configuring your migrated CTS-Manager to be in Scheduling API mode. You make these changes using the CTS-Manager administrative GUI.

In all other cases, a fresh installation of release 1.8 is required for Scheduling API mode.

Note If you deploy CTS-Manager in Exchange or Domino calendaring mode, you cannot switch to Scheduling API mode and must reinstall the CTS-Manager application.

After you configure CTS-Manager in Scheduling API mode, you cannot configure any other mode (for example, calendar server mode).

If you perform a new installation, you lose all existing data when you migrate to the new release.

Licensing Requirements

After installing CTS-Manager, you must install the license for the Scheduling API. For detailed information about the license and how to install it, refer to Licensing for CTS-Manager, page 11-6.

LDAP Requirements

You must provide the Lightweight Directory Access Protocol (LDAP) server information during first-time setup of CTS-Manager. All Cisco TelePresence rooms (endpoints) and schedulers should be part of this LDAP server. The API will retrieve the scheduler display name and room display name from this LDAP server.

The LDAP administrator should create a new user account in the LDAP server. This account represents the ECA. When the ECA invokes the API, it uses this account to authenticate itself to CTS-Manager. During the first-time setup of CTS-Manager, you should use this account on the ECA configuration page. For more information, refer to Initializing Cisco TelePresence Manager, page 10-1.

Important Considerations

Before you proceed with CTS-Manager installation, the servers and applications within your telecommunications network must be configured so that Cisco TelePresence Manager can find the resources and information needed to initialize the installation.

These servers and applications include one or more of the following:

- Cisco Unified Communications Manager should already be installed and configured.

Note For a complete list of system requirements, refer to: Cisco TelePresence Manager Specifications and System Requirements, page 1-6

Pre-Configuration Procedure Guidelines for Scheduling API Setup

The purpose of this guide is to outline the chapters you will need to reference in order to preconfigure the Scheduling API before installing the CTS-Manager.

Table 5-1 Pre-Configuration Guidelines for Scheduling API Before Installing CTS-Manager

Setup Guidelines before Installing CTS-Manager	Description	Location
Configuring Scheduling API.	This chapter describes the steps needed to configure a scheduling API for the CTS-Manager system.	Current Chapter
Next Steps After Scheduling API configuration		

Table 5-1 Pre-Configuration Guidelines for Scheduling API Before Installing CTS-Manager (continued)

Setup Guidelines before Installing CTS-Manager	Description	Location
Configuring Cisco Unified CM.	Before installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	Chapter 6, "Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager"
Install and Configure PreQualification Assistant Tool	Install and configure the PreQualification Assistant to ensure that your pre-installation setup is configured correctly. The data you enter into the Tool Test Configuration forms are used to verify connections to the servers and get data from them to be used to configure CTS-Manager.	Chapter 7, "Installing and Configuring Cisco PreQualification Assistant"

The procedures in the next section must be completed to configure the Scheduling API in Cisco TelePresence Manager.

If at any time you encounter problems, go to Chapter 16, "Troubleshooting Cisco TelePresence Manager" to see how to correct the problem.

For additional information on setting up the Cisco TelePresence System, refer to the CTS Administration Guide.

Configuring Scheduling API for CTS-Manager

To configure the Scheduling API:

Step 1 Create a user account for the ECA in the LDAP server that will be configured in CTS-Manager.

Step 2 Designate one computer to be an ECA host. This machine will host the ECA.

Step 3 (Optional) Install and run the PreQualification tool. For complete details, see Installing and Configuring Cisco PreQualification Assistant, page 7-1.

Step 4 Install CTS-Manager. For complete details, see Installing or Upgrading Cisco TelePresence Manager, page 9-1.

Step 5 Initialize CTS-Manager in Scheduling API mode. During initialization, in the LDAP Servers page, use the ECA account details created for LDAP in Step 1 and in the Calendar Server configuration page, specify the ECA host that you configured in Step 2. For complete details, see Initializing Cisco TelePresence Manager, page 10-1.

Tip You can also initialize CTS-Manager in No Calendaring Service mode and configure the Scheduling API after initialization in the Configure > Scheduling API window.

Step 6 Install Apache Tomcat on the ECA host.

Step 7 Download the CTS-Manager certificate and import it into the keystore.

Step 8 Implement ECA using Scheduling API calls and deploy it as web app.

For more information, refer to the Cisco TelePresence Manager Scheduling API Developer's Guide, available at: http://developer.cisco.com.

Step 9 After you start the ECA, use the *getStatus* API to make sure that CTS-Manager is up and running, and to verify the user authentication between the ECA and CTS-Manager.

Step 10 If the API indicates that the CTS-Manager is running, continue to the next step.

Note You must invoke the *getStatus* API every few minutes to check CTS-Manager status. In case of an error, the ECA may choose to "bubble it up" (pass the error from the bottom of the calling hierarchy) and notify the administrator.

Step 11 Subscribe the ECA to CTS-Manager notifications.

For more information, refer to the "Configuring the ECA to Receive Notifications" section in the Cisco TelePresence Manager Scheduling API Developer's Guide.

Step 12 Use the *getTRooms* API to retrieve TelePresence endpoints that are managed by CTS-Manager.

The ECA must use only these endpoints in iCal data when scheduling meetings. ECA can choose to cache these endpoints and validate iCal requests before submitting the requests to CTS-Manager.

Step 13 Invoke the remaining ECA APIs.

Whenever there is a request for scheduling a meeting, the ECA should generate iCal data conforming to RFC2445 and 2446 format for the meeting and then invoke the *scheduleTMeetings* API. When the iCal data is well formed and there are no errors, the TelePresence meeting is scheduled.