



INSTALLATION MANUAL

RMS-SCH-GGL

RMS ENTERPRISE SCHEDULING INTERFACE FOR GOOGLE CALENDAR



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RMS-SCH-GGL RMS Enterprise Scheduling Interface for Google Calendar

Overview

RMS-SCH-GGL RMS Enterprise Scheduling Interface for Google Calendar utilizes the Google Calendar API to communicate with Google Apps for Business. The plug-in provides appointment management features of the RMS application to synchronize RMS location schedules with Google Calendar hosted services.

- Add rooms in the RMS application that you would like to schedule and associate them with a Google Room Mailbox.
- Display the daily room schedule, appointment details, and create ad-hoc meetings directly from a touch panel that are saved to the Google Calendar hosted service.

NOTE: *RMS-SCH-GGL is intended for use with RMS version 4.3 (or higher).*

System Requirements

- **RMS Enterprise Server:** Version 4.3 or higher.
- **Java Run-Time Environment:** Java JRE v7.
- **Google Services Account:** Provides the Google Certificate and Service Email Account, both required to install and configure RMS-SCH-GGL.
- **Google Calendar Requirements:** Google Calendar Apps for Business.

Pre-Installation Checklist

Review the following checklist to verify that these basic system requirements are met, prior to installation:

- **Windows Desktop Experience:** If installing the RMS Enterprise Scheduling Interface for Google on a Windows Server, it is a requirement to also install the Windows Feature called Desktop Experience in order for the RMS Scheduling Configuration Tool to work properly.
- **Google Apps account:** See the *Generating a Google Certificate and Service Email Account* section on page 14 for details.

Installation and Configuration Steps - Overview

1. **Gather Google Services Account Information:** To install and configure the RMS Scheduling Interface for Google, the following information will be required:
 - *Google Service Account Certificate* - This file must be copied to the Google Scheduling Server.
 - *Google Service Account Email Account* - This email address will be used to synchronize RMS resources (locations) with Google Calendar.
2. **Install the RMS Scheduling Interface and Plugin:** In order to add the Scheduling Interface (required to use any Scheduling plugins) to your RMS Enterprise system, it is necessary to upgrade your RMS Entitlement with a Scheduling License.
 - Refer to the *Adding the RMS Scheduling Interface* section on page 19.
 - Refer to the *RMS Enterprise Scheduling Interface for Google Setup Wizard* section on page 6.
3. **Configure the Google Calendar Scheduling plug-in:** Refer to the *Configuring RMS Scheduling for Google* section on page 9 for instructions.

Upgrading the RMS Scheduling Interface

To upgrade from a previous version of the RMS Scheduling Interface, follow the instruction for installing the current version (see the *RMS Enterprise Scheduling Interface for Google Setup Wizard* section on page 6 for details). The installation process removes the previous version before installing the new version.

Adding the RMS Google Scheduling Interface

Overview

In order to add the Google Scheduling Interface to your RMS Enterprise system, it is necessary to upgrade your RMS Entitlement with a *Scheduling License*. The Scheduling License enables support for various scheduling plug-ins for RMS Enterprise.

This section describes upgrading your RMS Entitlement with a *Scheduling License*. The Scheduling License enables support for various scheduling plug-ins for RMS Enterprise.

NOTE: To ensure optimal performance of the RMS Enterprise UI, the RMS Scheduling Interface application should not be installed on the Primary RMS Enterprise Server. Install the RMS Scheduling Interface application on a separate server.

Verify that the server that will run the RMS Enterprise Scheduling Interface meets or exceeds the minimum OS and hardware requirements indicated below.

Scheduling Server Recommendations

Verify that each server that will run the RMS Enterprise Scheduling Interface meets or exceeds the following minimum requirements (check the appropriate boxes below):

Scheduling Server Hardware Recommendations		Yes	No
Does your Scheduling server meet the following Minimum Hardware Recommendations?			
• Processor	Dual core Intel Xeon® processor @ 2.67GHz (or equivalent)		
• Memory	4 GB		
• Display	1280 x 1024 resolution		
• Hard Disk	1 GB available space for RMS Enterprise Scheduling application files.		
Yes to all	Please continue to the next step.		
No to any	You must obtain a server that meets these minimum requirements to install RMS Enterprise.		

For installations with more than 50 locations that use the Scheduling Interface, a separate server from the RMS Application is required.

Scheduling Interface Operating System		Yes	No
Do you have a compatible Microsoft® Server OS installed?			
Supported Microsoft Server Operating Systems: <ul style="list-style-type: none"> Microsoft Windows Server 2012 Standard Edition <i>Note: When using Windows Server 2012, the administrator must install NET 4.0 or higher (required by the AMX License Tool).</i> Microsoft Windows Server 2008 R2 (x64): Web Edition / Standard Edition / Enterprise Edition Microsoft Windows Server 2008 SP2 (x64): Web Edition / Standard Edition / Enterprise Edition The Windows <i>Desktop Experience</i> feature is required in order for the RMS Scheduling Configuration Tool to work properly. 			
Yes	Please continue to the next step.		
No	You must obtain a compatible server OS to install RMS.		
Do you have an administrative account to the server where RMS will be installed?			
<i>Note: RMS is a system level application and requires administrative access to install and configure RMS, including the Scheduling Interface and Scheduling Configuration Tool.</i>			
Yes	Please continue to the next step.		
No	You must obtain an administrative logon account, or logon to the server with a user account that has administrative access to the server.		

Before You Start

- Verify that the Primary RMS Server is running.
- Know the IP Address and login credentials for the RMS Enterprise Server.
- Have a valid Google certificate (loaded locally on the Scheduling server), and the Google services account email address (see page 11).

RMS Enterprise Scheduling Interface for Google Setup Wizard

To install the Google Scheduling Interface, run the *RMS Enterprise Scheduling Interface for Google Setup Wizard*:

1. Download the RMS Enterprise Scheduling installation file (**RMS Google Scheduling Interface.exe**) from www.amx.com/rms/.
2. Double-click to launch the setup wizard - the initial view is the *Welcome* screen (FIG. 1):



FIG. 1 RMS Enterprise Scheduling Interface for Google Setup Wizard - Welcome dialog

The installation program will stop at this point if it detects that **JRE version 1.7** is not installed on the server (FIG. 2):

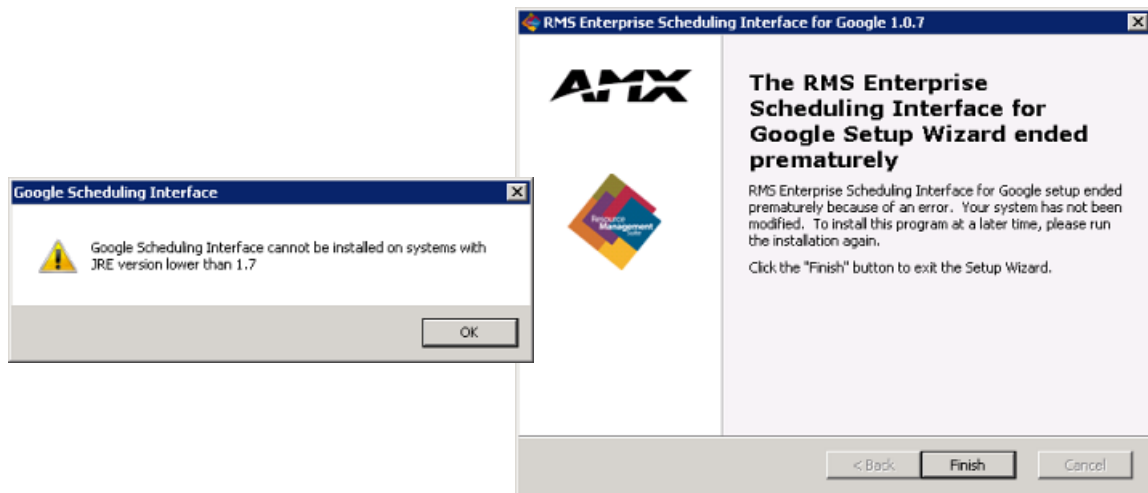


FIG. 2 RMS Scheduling Interface for Google Setup Wizard - JRE version 1.7 not detected

If this happens, the program will alert you that the RMS Enterprise Scheduling Interface for Google Setup Wizard has ended prematurely.

In this case, click **Finish** to shut down the installer, then install JRE version 1.7 and re-start the RMS Enterprise Scheduling Interface for Google Setup Wizard.

3. Click **Next** to proceed to the *End-User License Agreement* (FIG. 3):

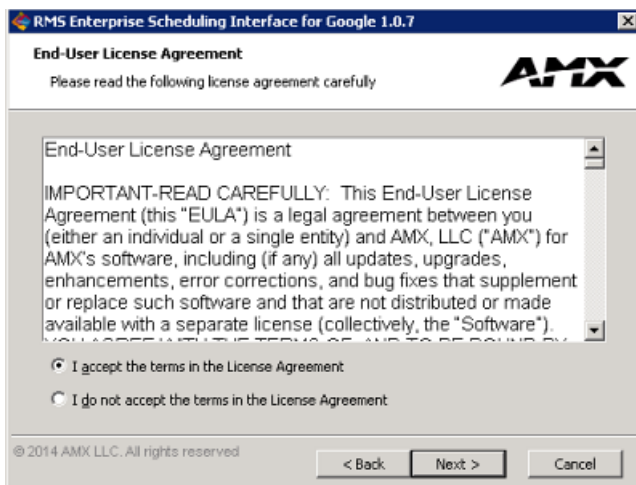


FIG. 3 RMS Scheduling Interface for Google Setup Wizard - End-User License Agreement

- Review and accept the License Agreement, and click **Next** to proceed to the *Select Installation Folder* dialog (FIG. 4):

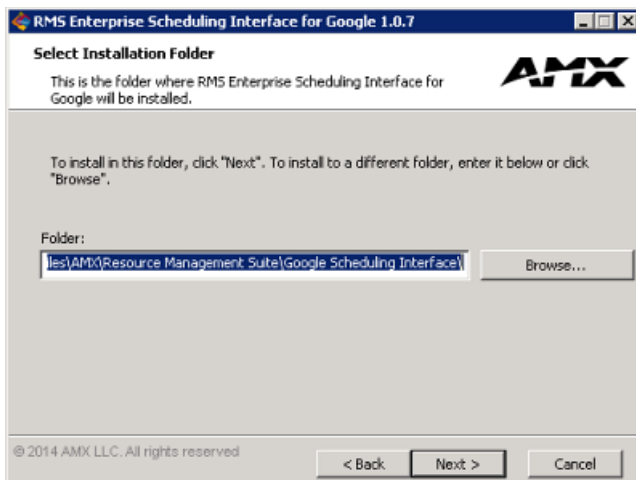


FIG. 4 RMS Scheduling Interface for Google Setup Wizard - Select Installation Folder dialog

- By default, the Google Scheduling Interface plug-in will be installed to:
 - C:\Program Files\AMX\Resource Management Suite\Google Scheduling Interface**
 - Click to *Browse* to select a different target location for this installation if desired.
- Click **Next** to proceed to the *Ready To Install* dialog (FIG. 5):

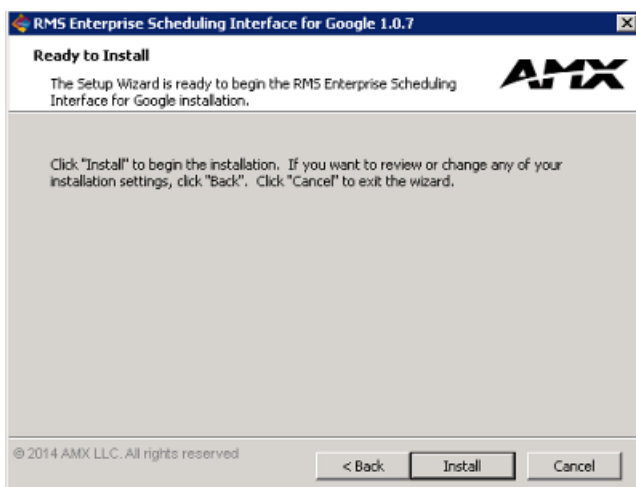


FIG. 5 RMS Scheduling Interface for Google Setup Wizard - Ready To Install dialog

- Click **Install** to install the RMS Scheduling Interface for Google. The progress of the installation is indicated in the *Installing* dialog (FIG. 6):

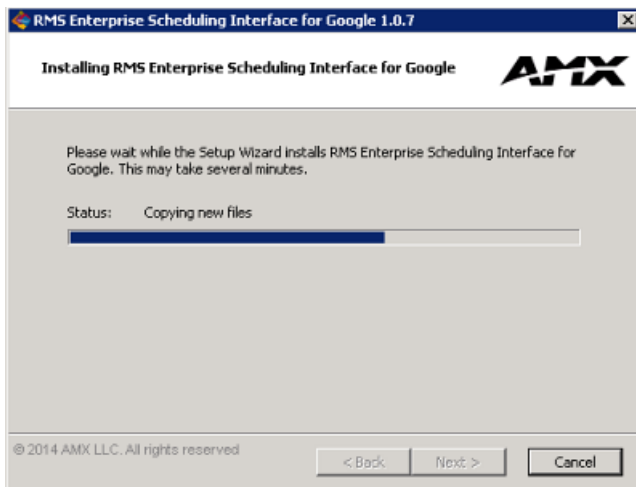


FIG. 6 RMS Scheduling Interface for Google Setup Wizard - Installing dialog

7. When the installation is complete, click **Finish** to exit the *RMS Scheduling Interface for Google Setup Wizard* (FIG. 7):

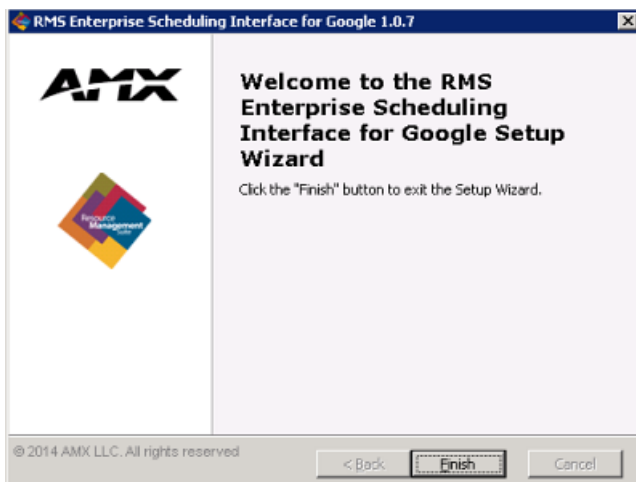


FIG. 7 RMS Scheduling Interface for Google Setup Wizard - Installation Complete

Note that at this point, the *AMX-RMS Scheduling Configuration for Google* utility is automatically invoked.

Configuring RMS Scheduling for Google

Click **Next** in the final Google Setup Wizard installation dialog (see FIG. 7 on page 8) to launch the *RMS Scheduling Configuration* tool. Use this tool to configure the Google plugin to communicate with RMS Enterprise.

1. The initial view is of the **RMS Server** tab (FIG. 8). Use the fields in this tab to enter connection information for your RMS Enterprise server:

FIG. 8 RMS Scheduling Configuration tool - RMS Server tab (after a successful Test Connection)

RMS Scheduling Configuration - RMS Server Tab	
RMS Server URL:	Enter the URL of the RMS Server that will use the Google scheduling plug-in. <i>Note: This URL can be copied and pasted from the RMS Enterprise UI, but be sure to delete the "/#/" at the end of the address. For example: "http://192.168.216.145:8080/rms/#/" must be edited to "http://192.168.216.145:8080/rms/".</i>
User Name:	This field is pre-populated with the user name "scheduler"
Password:	Enter the password as required by the server (default = "password")

2. Click the **Test Connection** button to verify this information. The program will indicate whether the connection was successful. If the connection attempt fails, re-enter the server information and try again.
3. Click **Save RMS Server Setting** to save these settings and register the plugin with the server. Note that the program indicates "RMS Server Settings Saved", and enables the *Synchronization Options*, *Google Settings* and *Resource Profiles* tabs.
NOTE: You cannot proceed until you have successfully connected to the RMS Server and saved the RMS server settings.
4. Select the **Synchronization Options** tab to configure a scheduled blackout period (FIG. 9):

FIG. 9 RMS Enterprise Scheduling Configuration tool - Synchronization Options tab

NOTE: Many systems perform nightly backups or system related processing where the server may not be available or should not be accessed. The blackout option prevents the RMS application from accessing the server during these times. During the blackout period, RMS will not attempt to establish a connection to any Google server.

RMS Scheduling Configuration - Synchronization Options Tab	
Enable Blackout Period:	Select this option to enable a blackout period (de-selected by default). Note that when this option is de-selected, the other options in this tab are disabled.
Start/End Blackout Period:	Use the drop-down menus to specify the Start and End times for the blackout period. Note that the program provides a summary of the current blackout settings directly below these fields (see "6 hours blackout window" in FIG. 9).
Calculation 2 of the Blackout Period is based upon a time zone:	Specify how to calculate the blackout period by selecting either <i>Use RMS Server Time Zone</i> (default setting), or <i>Use Local Time Zone</i> .
Delay between synchronization cycles:	Enter the amount of time (in minutes) between the synchronization cycles used for the blackout period. Adjust this value to accommodate your specific environment. The default setting is 15 minutes, the minimum value allowed is 5 minutes.

NOTE: Changes made on this tab (unlike the other three tabs) are saved automatically.

5. Select the **Google Settings** tab to specify the directory in which the *Google Signed Certificate* exists, as well as specify the *Google Email Account* to use for RMS scheduling (FIG. 10):

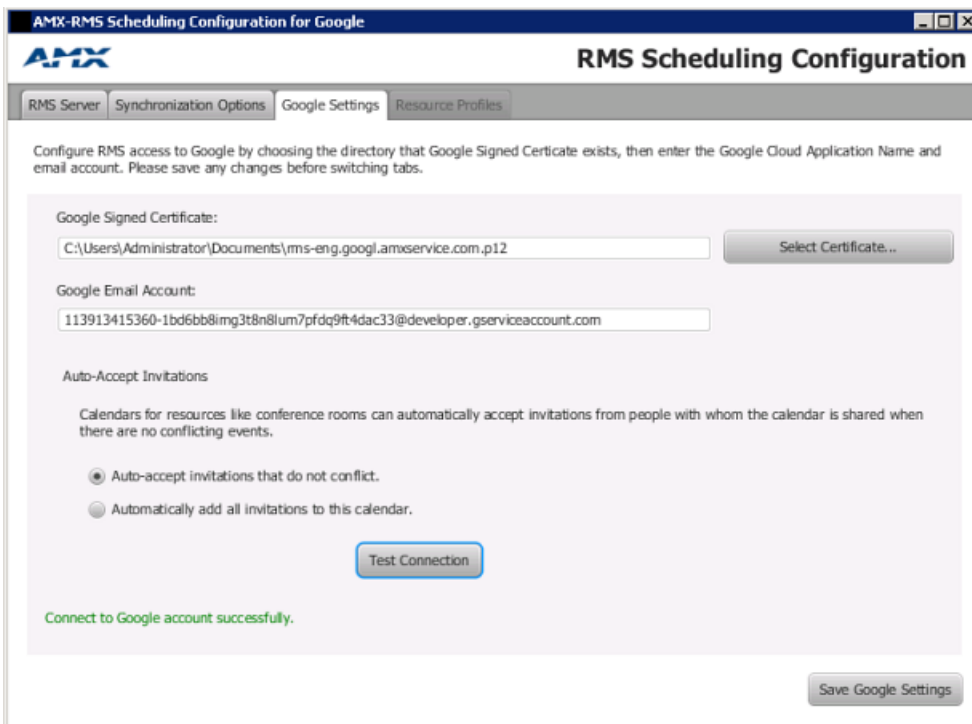


FIG. 10 RMS Enterprise Scheduling Configuration tool - Google Settings tab (indicating a successful connection to Google)

RMS Scheduling Configuration - Google Settings Tab	
Google Signed Certificate:	Enter a directory path to specify the folder containing the Google Signed Certificate. Click on Select Certificate to locate and select the Certificate (*.p12) file via the <i>Select Google Certificate</i> dialog. Note that the Google Signed Certificate is referred to as a " <i>Private Key</i> " in the Google Developer's Console (see FIG. 24 on page 16).
Google Email Account:	Enter the Google Service email account that will be used by RMS for scheduling. This email address is provided by the Google account. Refer to the <i>Generating a Google Certificate and Service Email Account</i> section on page 14 for details.
Auto-Accept Invitations	Use these options to select how to managing auto-acceptance of invitations: <ul style="list-style-type: none"> • Auto-accept invitations that do not conflict (default setting): With this option selected, all invitations that do not conflict with another scheduled event for a specific resource (i.e. conference room) are accepted (but not automatically added to the resource calendar). • Automatically add all invitations to the calendar: With this option selected, all invitations (including those with conflicts) are automatically accepted and added to the resource calendar.

- Click the **Test Connection** button to verify this information. The program will indicate whether the connection was successful (FIG. 8).
If the connection attempt fails, re-enter the server information and try again.
NOTE: *The Save Google Settings button is disabled until a successful connection is made.*
- Click **Save Google Settings** to save these settings.
- Use the **Resource Profiles** tab to specify the Locations that will use the configured Scheduling plugin.
NOTE: *The Resource Profiles tab is disabled until a successful connection is made and the Google Settings have been saved.*
This tab is initially empty until the application automatically loads the room list from the Google Apps account. It will contain all resources that have been "shared" with the Google services email provided in the Google settings. (FIG. 11):

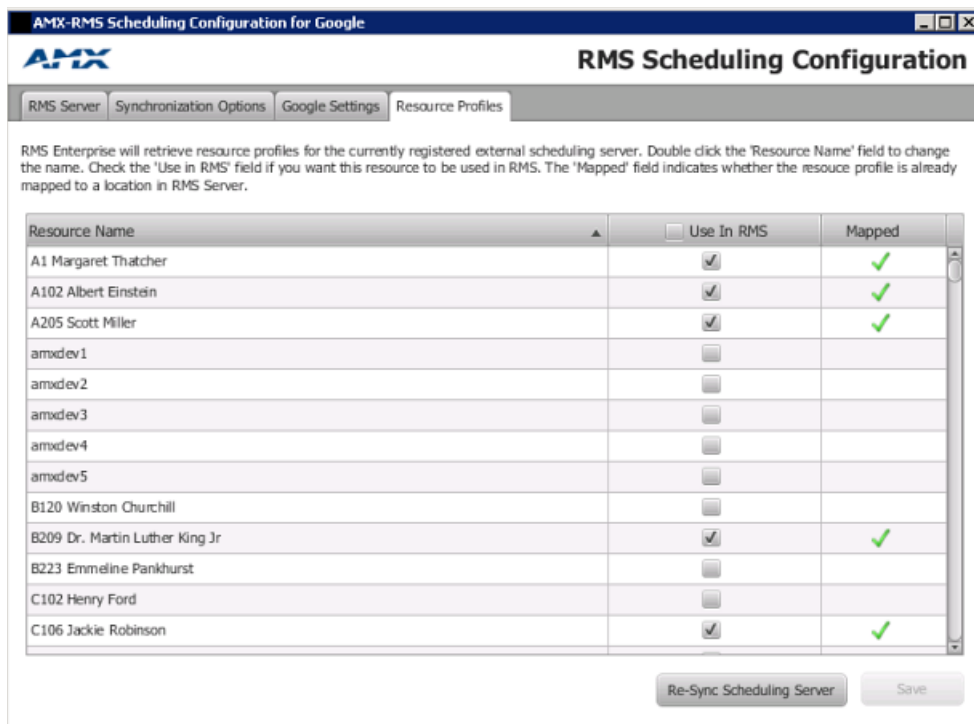


FIG. 11 RMS Scheduling Configuration - Resource Profiles tab

- Double-click on any *Resource Name* to edit the name.
 - The *Mapped* column indicates whether each Resource is currently mapped to a location in RMS Enterprise. See the *Location to Resource Profile Mapping* section on page 13.
9. Place a check in the *Use in RMS* column to specify which Locations will use the Scheduling plugin. Click **Use In RMS** to select or de-select all Resource Names.
Click **Re-Sync Scheduling Server** to reload the Resource Name list from the Google server.
 10. Click **Save**. This will push the selected (checked) Resources to the RMS Server, where they become "Resource Profiles" in RMS.
 11. Exit the **RMS Scheduling Configuration** application (FIG. 12):

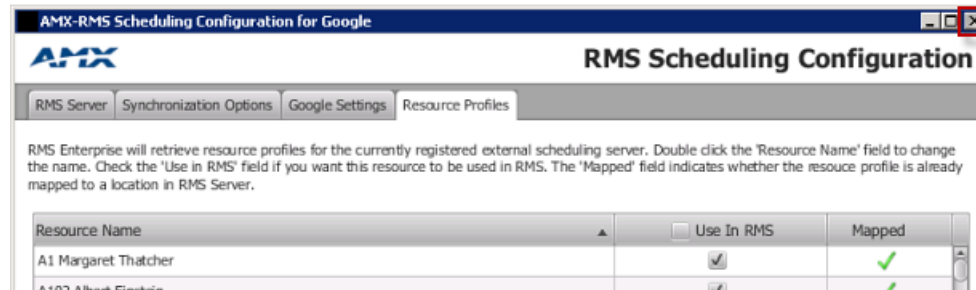


FIG. 12 RMS Scheduling Configuration - Exit

Location to Resource Profile Mapping

Overview

It is necessary to map each of the selected resources (Locations) in the *RMS Enterprise Scheduling Configuration* tool to a *Resource Profile*, in order to enable the scheduling interface for each location. This requires accessing the **Location Management** page in the RMS Enterprise UI:

1. In the RMS Web UI, select **Management > Configure Locations/Clients > Locations** (FIG. 13):

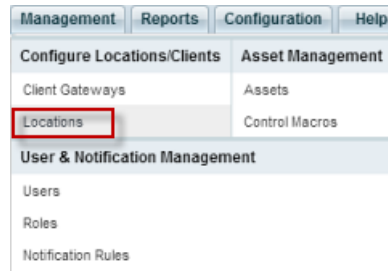


FIG. 13 RMS Web UI - Management > Configure Locations/Clients > Locations

2. This opens the main Location page. In the *Locations* window, select a Location name from the list and click **Edit** (FIG. 14):



FIG. 14 RMS Web UI - Locations Page - Edit button

3. This opens the **Location Edit** page (*Settings* tab).
4. Under **Scheduling Configuration**, open the *Resource Profile* drop-down list to select a Resource Profile to map to this Location (FIG. 15):

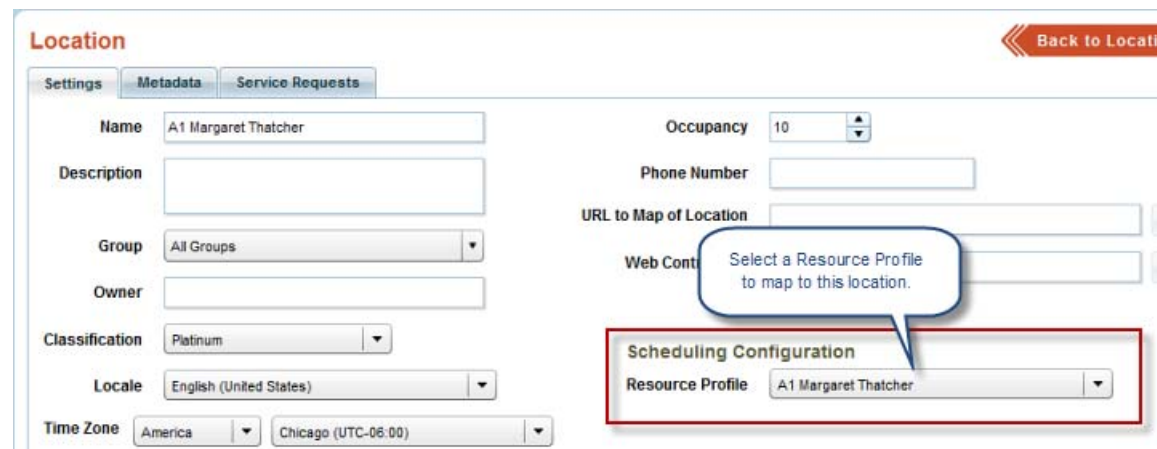


FIG. 15 RMS Web UI - Location Edit Page - Scheduling Configuration drop-down menu

NOTE: The list of Resource Profiles that are available to select in this menu is based on the Resource Names that were selected in the RMS Scheduling Configuration application - Resource Profiles tab. Note that if any of the names were edited in the RMS Scheduling Configuration application, the edited names are displayed here.

This will associate the location with the selected Resource Profile (i.e. the Exchange room mailbox).

5. Click **Apply** to save changes.

As Resource Profiles are mapped to Locations, a green checkmark is added to the RMS Scheduling Configuration application - Resource Profiles tab (*Mapped* column) to indicate which Locations have been mapped. For example, FIG. 16 shows the RMS Scheduling Configuration application, indicating that five conference rooms are mapped:

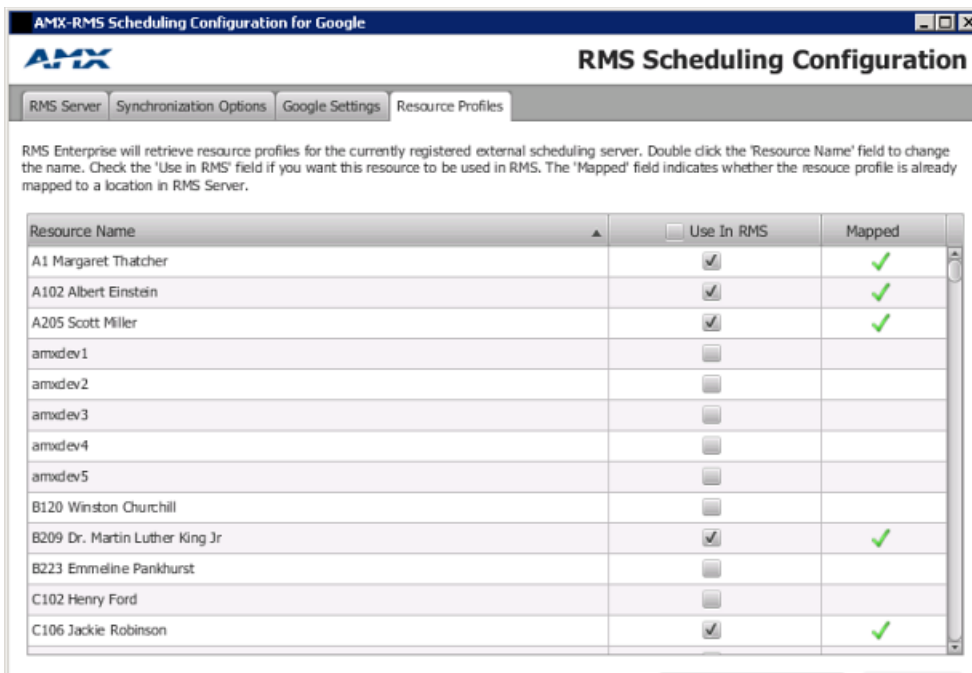


FIG. 16 RMS Scheduling Configuration application indicating fiver rooms mapped)

Appendix: Generating a Google Certificate and Service Email Account

Generating a Google Certificate and Service Email Account

1. Login into : <https://console.developers.google.com>.
2. Click on the *Products and Services* menu in the upper left corner (FIG. 17):

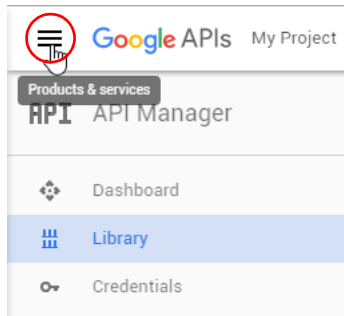


FIG. 17 Google Developer's Console - Products and Services menu

3. In the *Products and Services* menu, select **IAM & Admin** (FIG. 18):

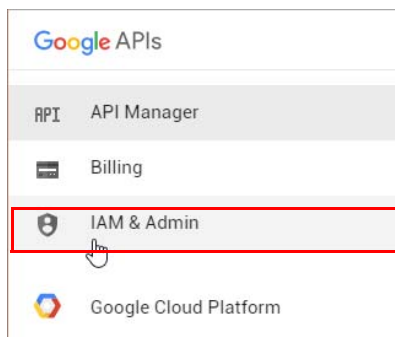


FIG. 18 Products and Services menu - IAM & Admin

4. This opens the IAM & Admin menu - select **All Projects** (FIG. 19):

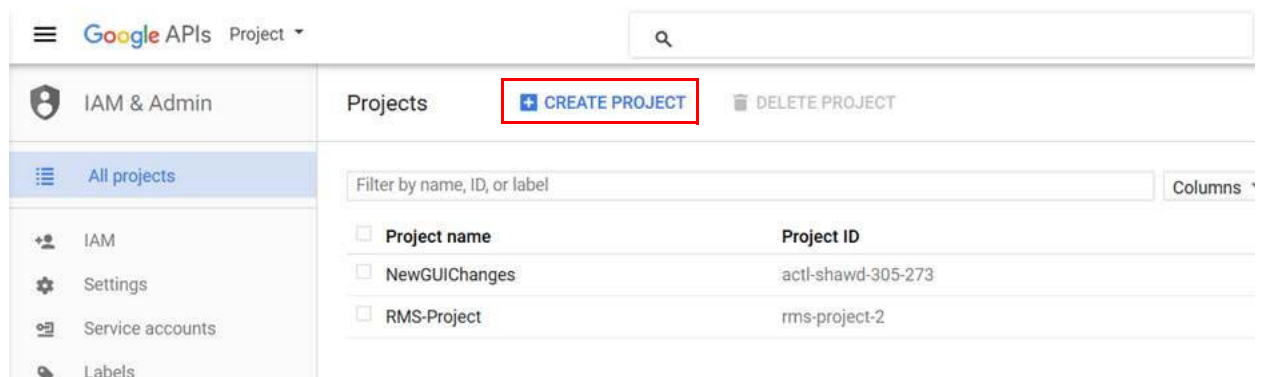


FIG. 19 IAM & Admin - All Projects

5. In the Projects page, click **Create Project** to invoke the *New Project* dialog (FIG. 20):

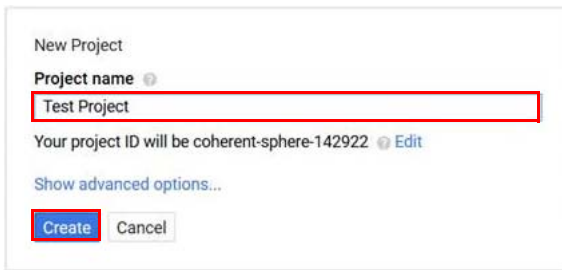


FIG. 20 New Project dialog

6. Provide a name for the project and click **Create** to create a new project and close this dialog.
7. Open the *Products and Services* menu in the upper left corner, and select **IAM & Admin** (FIG. 21):

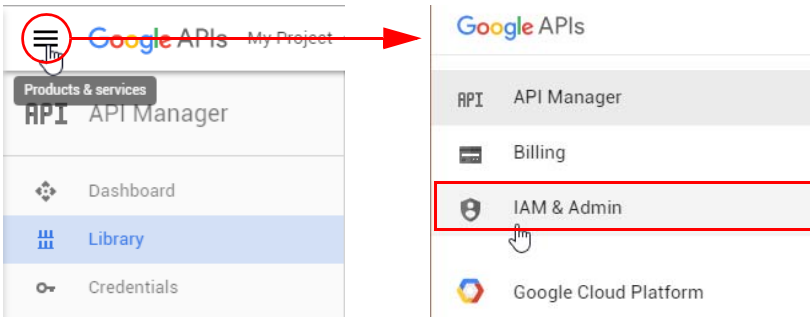


FIG. 21 Google Developer's Console - Products and Services menu

8. Again, this opens the *IAM & Admin* menu - select **All Projects** and note that "**Test Project 001**" has been added to the projects list (FIG. 22):

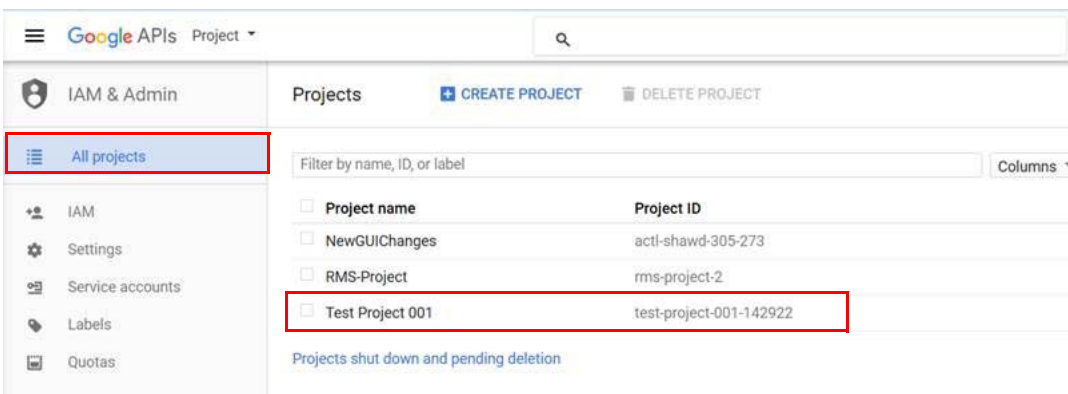


FIG. 22 Products - "Test Project 001" added

9. In the *IAM & Admin* menu, select **Service accounts** (FIG. 23):

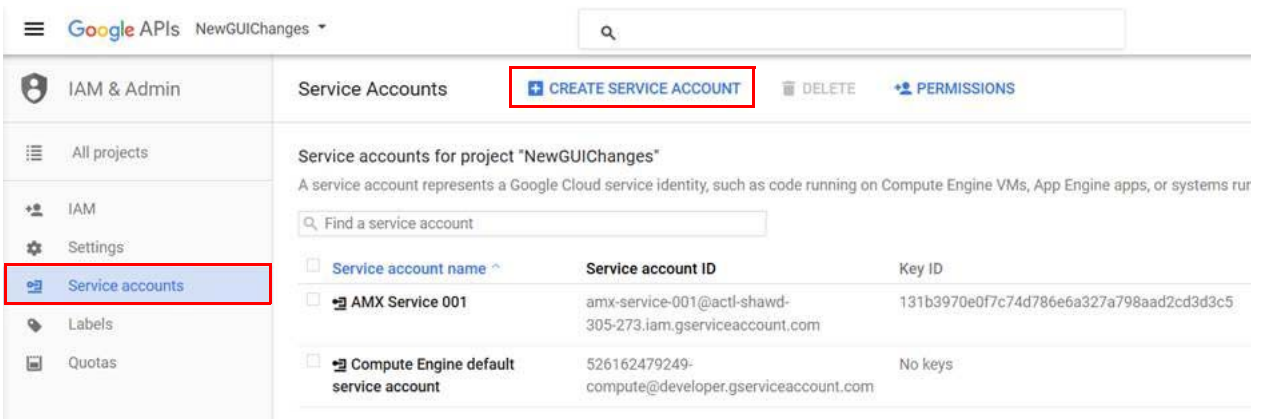


FIG. 23 Products - Service Accounts page

10. Click **CREATE SERVICE ACCOUNT** to invoke the *Create Service Account* dialog (FIG. 24). Use the options in this dialog to configure a new service account:

FIG. 24 Create Service Account dialog

- a. **Service Account Name:** Provide a name for the service account.
 - b. **Service Account ID:** you can modify or re-generate the account ID.
 - c. Select **Furnish a new private key**.
 - d. Under **Key Type**, select **P12**.
 - e. Click **Create**.
11. Save the generated **.p12** file to a local directory (FIG. 25):

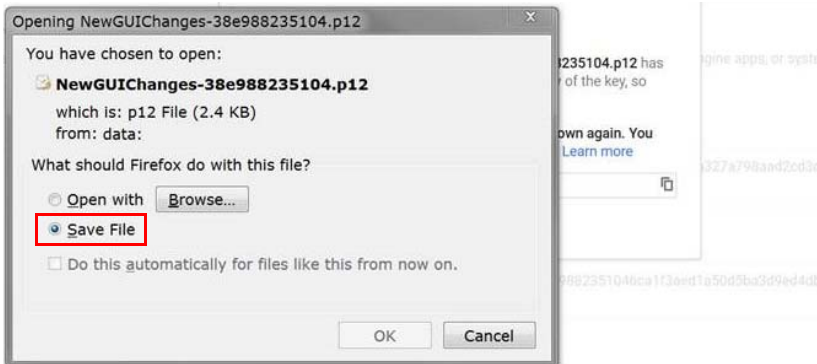


FIG. 25 Save p12 File

12. Follow the instruction on the screen: write down the private key's password (FIG. 26):

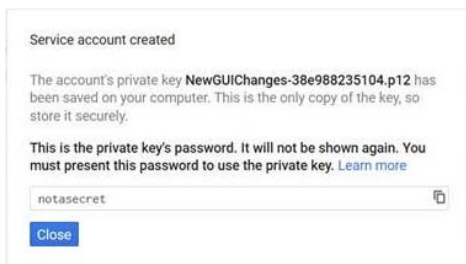


FIG. 26 Service Account Created - private key and password

13. Open the *AMX-RMS Scheduling Configuration for Google* tool (**GoogleSchedulingConfiguration.exe**).
This file is located at: **C:\Program Files\AMX\Resource Management Suite\Google Scheduling Interface\tools**.
 - a. Click on the *Google Settings* tab.
 - b. Select the .p12 certificate from the location where it was saved.
 - c. Copy the **Service account ID** value and paste it into the **Google Email Account** field (FIG. 27):

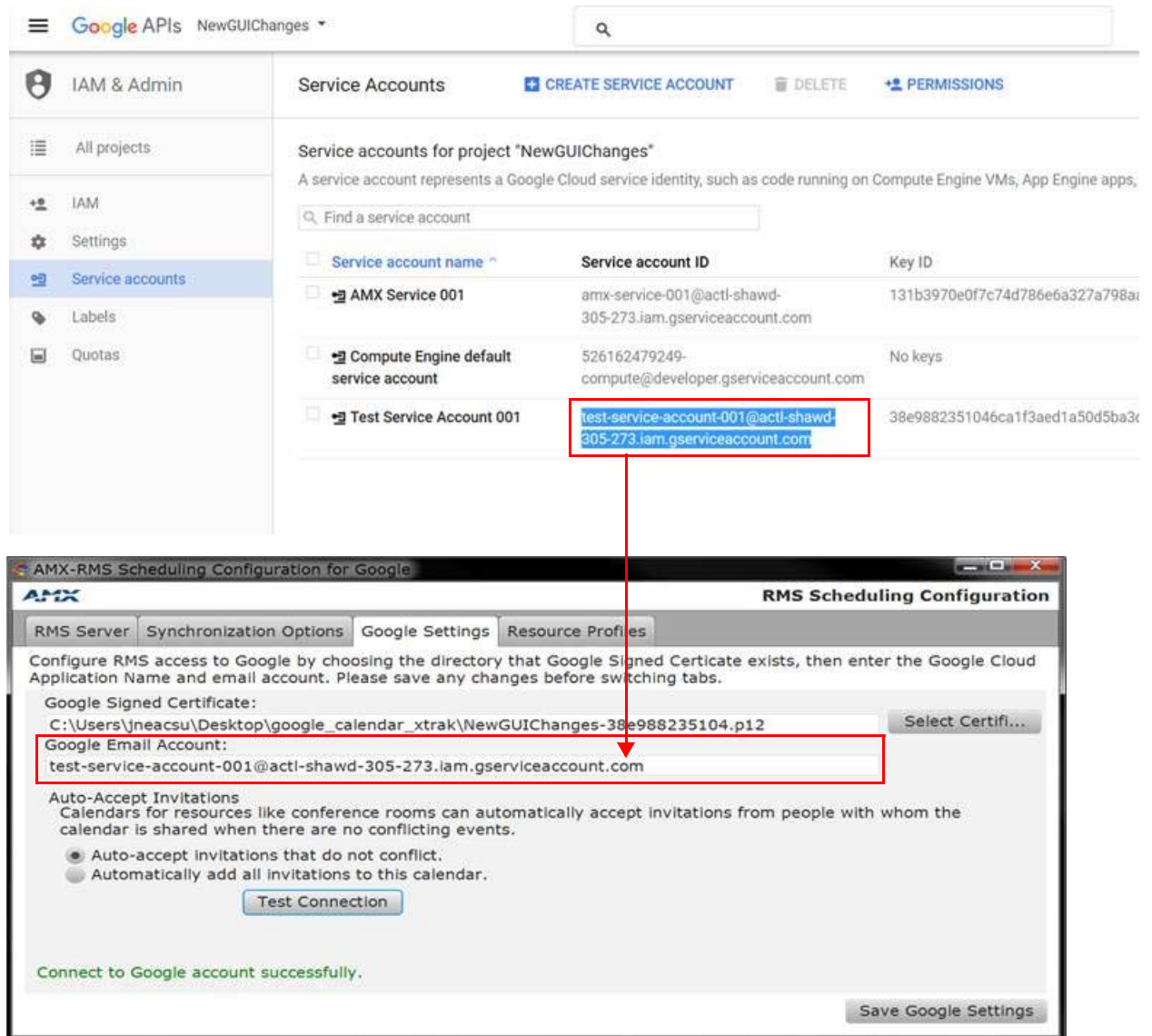


FIG. 27 AMX-RMS Scheduling Configuration for Google - Google Settings tab

14. Click **Test Connection**.
If the RMS Server successfully connects to Google, the Google Settings tab will look like the example shown in FIG. 27.

Known Issues

This section provides information on known issues relative to the RMS Enterprise Interface for Google.

Resources (Locations) not appearing in the Resource Profiles tab

In order to get the resources to show up in the Resource Profiles tab, each resource has to be "shared" with the Google services account provided in the Google settings.



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