accruent

# EMS G Suite Integration

## Installation, Configuration, & User Guides

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# CHAPTER 1: Introduction to the EMS G Suite Integration

G Suite is a Cloud-hosted, Software-as-a-Service offering that does not require version maintenance. G Suite provides users with tools to connect with others, create documents, access cloud storage, and provide security for data and devices. The G Suite integration with EMS Software combines the scheduling power of the EMS platform with the convenience of G Suite.

> **Note:**
> Single sign-on and conflict resolution are not currently supported with the EMS for Google Calendar integration.

The EMS for Google Calendar integration will allow access to G Suite users' Google Calendars to provide their free/busy statuses within EMS for scheduling meetings. Everyday Users can see attendee availability directly within the EMS Web App or Mobile App alongside space availability information from the EMS database. When creating a booking, users can easily compare room availability alongside invitee availability to find a day and time that works for the right people and in the right space. Additionally, EMS for Google Calendar integration will send invitations to attendee's Gmail and Calendars.

EMS for Google Calendar integration is managed through EMS Platform Services. Google user authentication is supported through SAML authentication.

> **Note:**
> EMS for Google Calendar integration requires an account with G Suite by Google Cloud. For more information please click here.

## G Suite EMS Integration Points

Please see the table below for the current EMS integration points for EMS for Google Calendar integration.

| Use Case | EMS Access Point | INTEGRATION |
|---|---|---|
| Create a reservation | Mobile/Web App/Platform Services | Platform Services |
| Edit a reservation | Desktop Client/Mobile/Web App/Platform Services | Platform Services |
| Manage attendees | Mobile/Web App/Platform Services | Platform Services |
| Cancel a reservation | Desktop Client/Mobile/Web App/Platform Services | Platform Services |

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# CHAPTER 2: Configuration of G Suite Integration

Google G Suite provides users with tools to connect with others, create documents, access cloud storage, and provide security for data and devices. The G Suite integration with EMS Software combines the scheduling power of the EMS platform with the convenience of G Suite.

EMS for Google Calendar integration will allow access to G Suite users' Google Calendars to provide their free/busy statuses within EMS for scheduling meetings. Everyday Users can see attendee availability directly within the EMS Web App or Mobile App alongside space availability information from the EMS database. When creating a booking, users can easily compare room availability alongside invitee availability to find a day and time that works for the right people and in the right space. Additionally, the EMS for Google Calendar integration will send invitations to attendee's Gmail and Calendars.

To configure G Suite Integration, the following steps need to be completed in this order:

1. Ensure you are an active Google Cloud G Suite Customer.
2. Enable Admin API and Admin SDK.
3. Enable Calendar and Drive APIs.
4. Create Service Account Credentials (Service Account ID and Private Key).
5. Export the JSON file.
6. Create and Add a Service Account Mailbox (as of Update 31, this mailbox is required for the G Suite integration).
7. Import your PAM License (Google Calendar) into EMS Desktop Client.
8. Ensure you have EMS Platform Services installed (Version 44.1, Update 20 or higher).

**Important!**

**Known Issue for Update 32—Clicking the G Suite Integration enable/disable button AFTER the first time the integration is enabled will break the integration.**

After the first time the G Suite Integration is enabled, if you click the enable/disable toggle button again (EMS Platform Services Admin Portal > **Calendaring** tab), the G Suite Integration will no longer work.

If your G Suite Integration is no longer functioning because the enable/disable button was clicked after the integration was initially enabled, complete these steps to repair the integration:

1. From the **Calendaring** tab of the EMS Platform Services Admin Portal, ensure the enable/disable toggle button is set to enabled.

   If the toggle button is currently set to disabled, toggle to enabled, and then refresh the page.

   **Note:**
   The button is *enabled* when it is red and displays the words **Disable GSuite Integration**.
   The button is *disabled* when it is green and displays the words **Enable GSuite Integration**.

2. Re-upload the JSON file.

   **Note:**
   Do not click the enable/disable toggle button after re-uploading the JSON file.

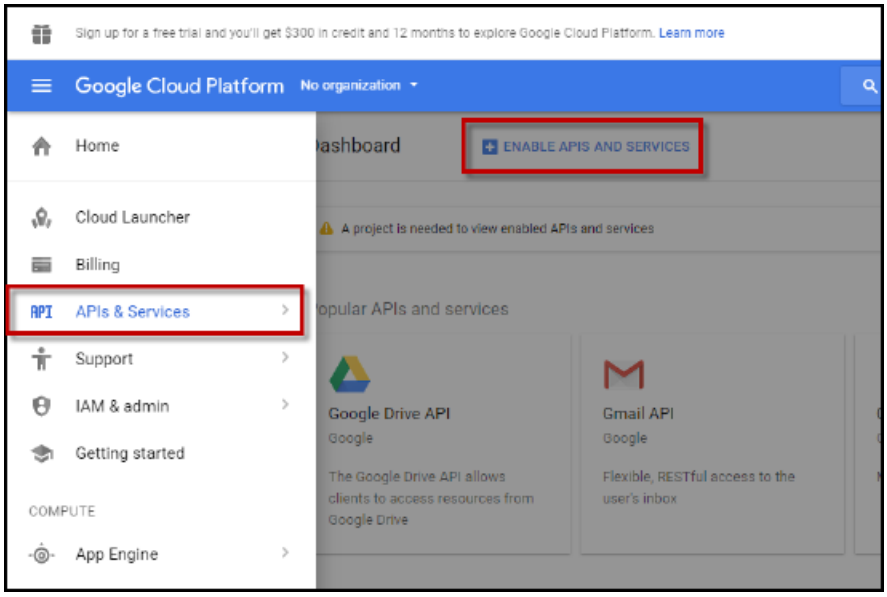
3. Once the JSON file has been uploaded, restart the app pool used by EMS Platform Services.

   **Note:**
   **EMS Cloud Services Customers**– EMS Cloud Operations must restart the app pool for EMS Platform Services. To request a restart, contact EMS Support.

## Enable Google Calendar and Google Drive APIs

To enable Google Calendar and Google Drive APIs, follow these steps:

1. Navigate to the Google Cloud Platform page.
2. Create a separate project to manage the G Suite integration with EMS Software.
3. From the Google Cloud Platform main page, select **APIs & Services** from the side navigation.
4. From the Google API Dashboard, click **Enable APIs and Services**.




5. Click the Google Calendar API icon and click **Enable**.
6. Click the Admin SDK icon and click **Enable**.
7. Click the Google Drive icon and click **Enable**.

## Create Service Account Credentials

The Service Account ID and Private Key will be required for EMS integrations. To create service account credentials, follow these steps:

1. From the Google Cloud Platform main page, navigate to **IAM & Admin** from the side navigation.
2. Select your project.
3. Select **Service Accounts**.
4. Click **Create Service Account**.
5. Create a Service Account name.
6. Do not select a Role from the drop-down list.

7. Check the **Furnish a New Private Key** and **Enable G Suite Domain-wide Delegation** boxes.
8. Enter a product name into the **Product Name for Consent Screen** field.
9. Click **Create**.
10. Assign the following permissions to the API Client to access certain Google APIs:
    a. Navigate to the G Suite Admin Console to view users on the domain.
    b. Select **Security** > **Advanced Settings** > **Manage API Client Access**.
    c. In the **Client Name** field, enter the Client ID.

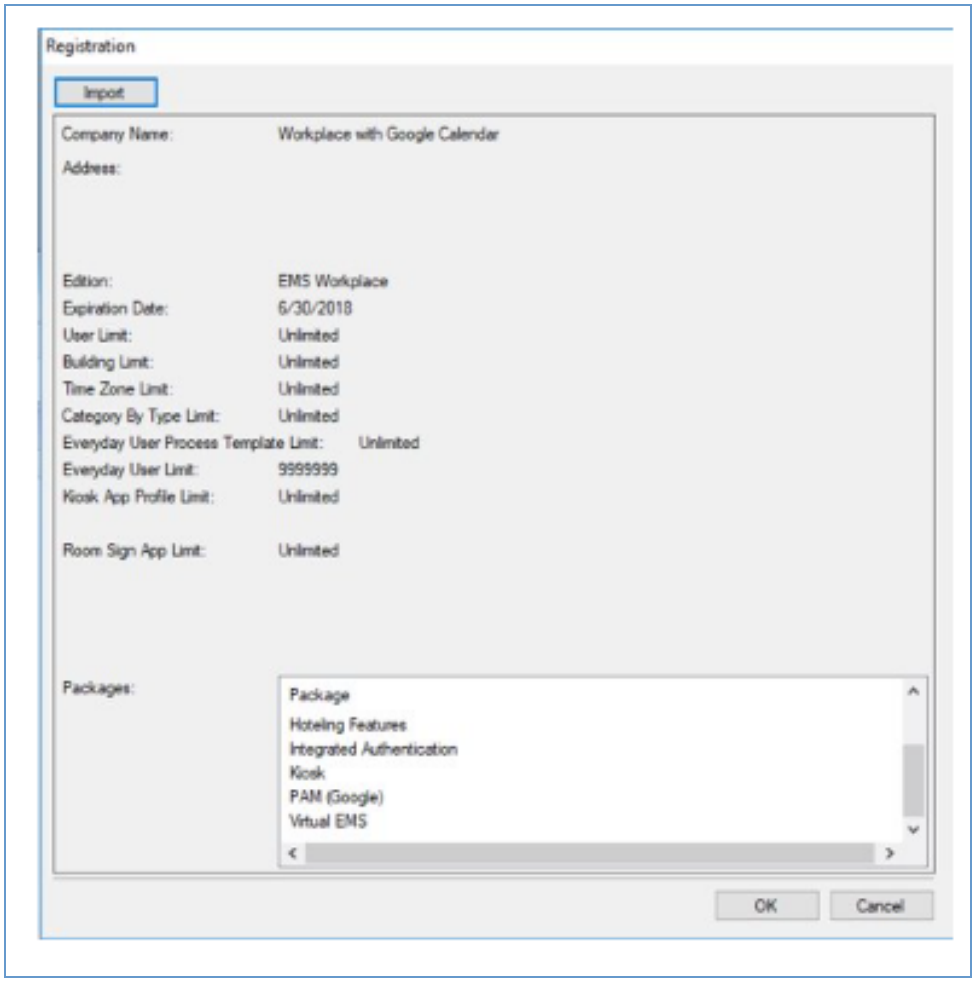
       The API Client ID is accessible by navigating to **IAM & Admin** > **Service Accounts** > **View Client ID**.
    d. In the **One or More API Scopes** field, copy the link https://www.googleapis.com/auth/admi....user.readonly to provide permission to View Users On Your Domain.
    e. Click **Authorize**.
    f. In the One or More API Scopes field, copy the link https://www.googleapis.com/auth/calendar to provide permission to Google Calendar.
    g. Click **Authorize**.
    h. In the One or More API Scopes field, copy the link https://www.googleapis.com/auth/drive to provide permission to Google Drive.
    i. Click **Authorize**.
11. Download the JSON file as follows:
    a. Navigate to **API & Services** > **Credentials**.
    b. Click on the Service Account Name from the OAuth 2.0 Client IDs list.
    c. Click on **Download JSON** link at the top of the page.

## Import Your Google Calendar Integration License into EMS Desktop Client

To import your Google Calendar Integration license, from the EMS Desktop Client, follow these steps:

1. In EMS Desktop Client, click **System Administration** > **Settings** > **Registration**.

   The Registration dialog box opens.




2. Click **Import**.

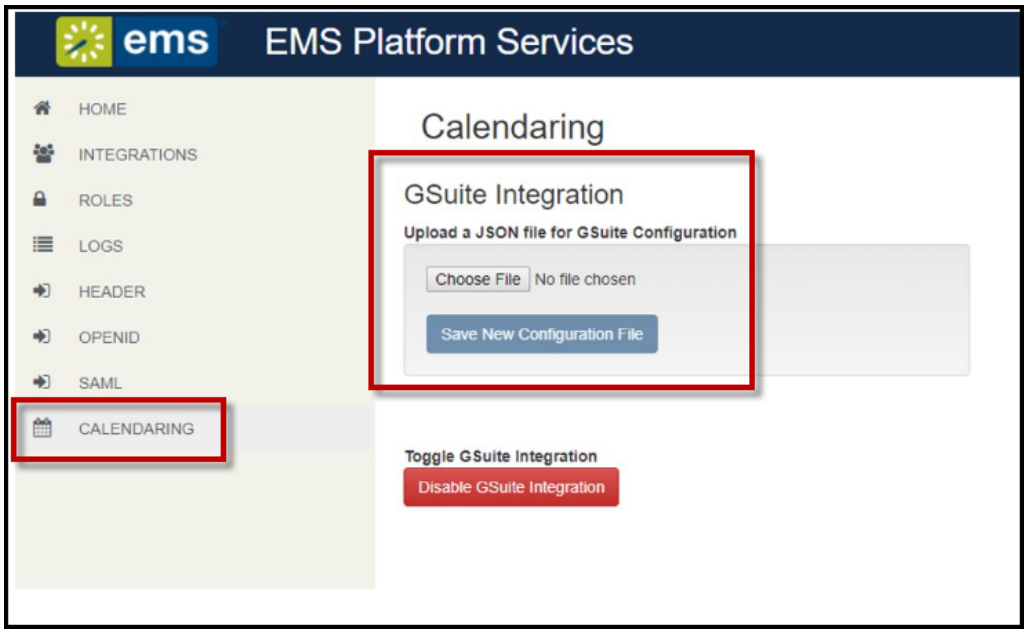
   The Open File dialog box appears.

3. Located and select the license file (License.lic) that you are importing and then click **Open**.

   The License file is imported.

## Upload JSON File into EMS Platform Services

In EMS Platform Services, navigate to the Calendaring tab and upload the JSON file for G Suite Configuration.




## Create and Add a Service Account Mailbox to the Integration

As of Update 31, a Service Account Mailbox is required for the G Suite Integration. The Service Account Mailbox can be any mailbox within your domain (or your organizational unit if you are not integrating the entire domain). The mailbox does not require special permissions.

Once you have created a Service Account Mailbox, add the mailbox to the G Suite Integration as follows:

1. From the EMS Platform Services Admin Portal, navigate to the **Calendaring** tab.

2. In the **Service Account Mailbox** field, enter the mailbox address.
3. Click the **Update** button.

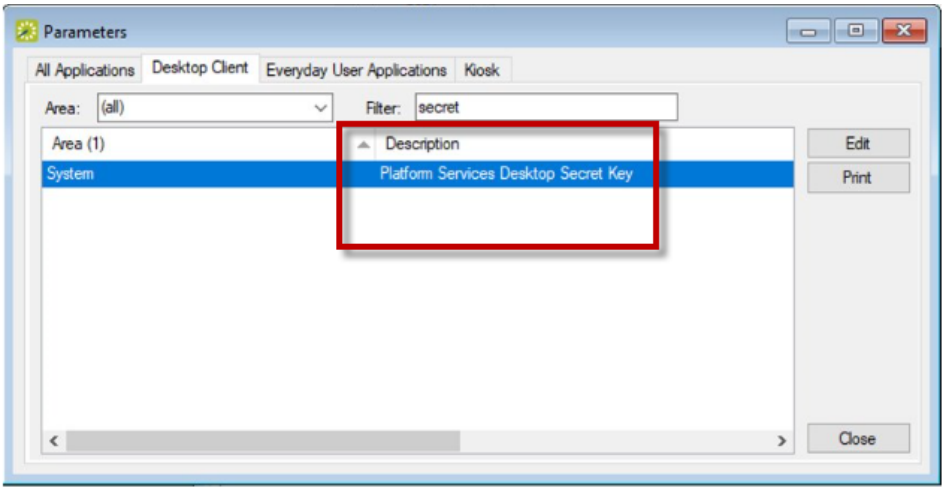
   The G Suite Integration is updated with the Service Account Mailbox.

## Enable G Suite Integration to EMS Products in EMS Platform Services

To enable G Suite Integration for use with EMS products, follow these steps:

1. To enable G Suite integration with either EMS Desktop Client, EMS Web App, or EMS Mobile App, enable the Client in EMS Platform Services. Click here for more information on enabling clients in EMS Platform Services.

2. Navigate to **System Admin** > **Settings** > **Parameter** and enter the EMS Platform Services Secret.



# CHAPTER 3: EMS for Google Calendar

The following topics provide information about EMS for Google Calendar:


- Install EMS for Google Calendar
- Configure EMS for Google Calendar
- Use EMS for Google Calendar
  - Authentication
  - Conflict Resolution

# CHAPTER 4: EMS for Google Calendar Installation Guide

The EMS for Google Calendar integration allows access to G Suite users' Google Calendars to provide their free/busy statuses within EMS for scheduling meetings. Everyday Users can see attendee availability directly within the EMS Web App or Mobile App alongside space availability information from the EMS database.

EMS for Google Calendar integration is managed through EMS Platform Services. Google user authentication is supported through SAML authentication.

This *Installation Guide* will provide the following information on installing EMS for Google Calendar. For successful installation, Administrators will need to:

- Fulfill all Prerequisites and Requirements
- Obtain an EMS for Google Calendar license
- Configure Google Integration
  - Install EMS for Google Calendar (EMS Cloud Customers)
- Deploy EMS for Google Calendar for an Individual User

## Prerequisites and Requirements

**Important!**

EMS for Google Calendar is managed through EMS Platform Services (Update 31 or later).

### Requirements for EMS Platform Services

| Operating System | IIS |
|---|---|
| Windows Server 2012 | 8 |
| Windows Server 2012 R2 | 8.5 |
| .NET Framework | 4.6.1 |
| Application Pool | 4.0 |
| **Prerequisites** | |
| ASP.NET Core | See Also: Installing ASP.NET Core. |

| Operating System | IIS |
|---|---|
| PowerShell | 5+ Version |
| ASP.NET Version 4.6 | Under Web Server (IIS) > Web Server > Application Development:<br>• ISAPI Extensions<br>• ISAPI Filters<br>• .NET Extensibility 4.6 |

### EMS Web Server Requirements

| Operating System | IIS VERSION |
|---|---|
| Windows Server 2016 | 10.0 |
| Windows Server 2012 | 8.0 |
| Windows Server 2012 R2 | 8.5 |
| Windows Server 2016 | |

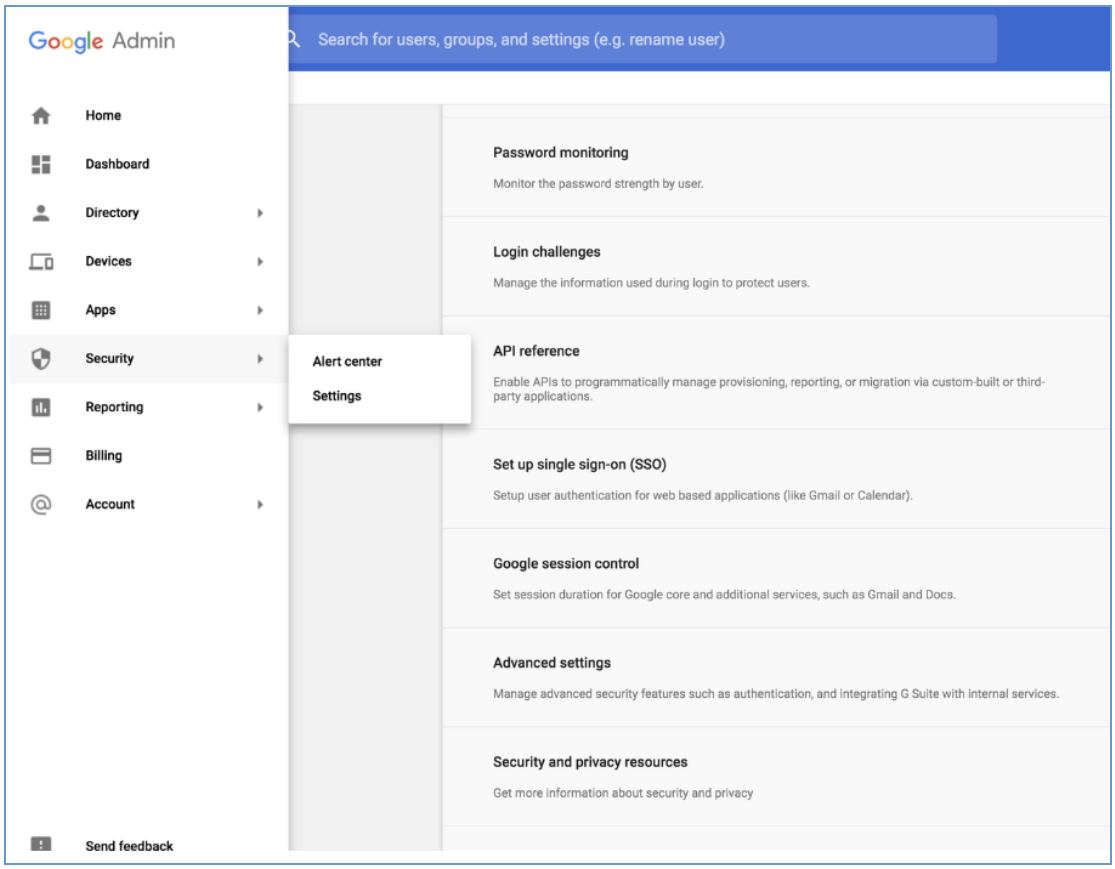
## Licensing

EMS for Google Calendar license is required. Please contact your EMS Account Representative.

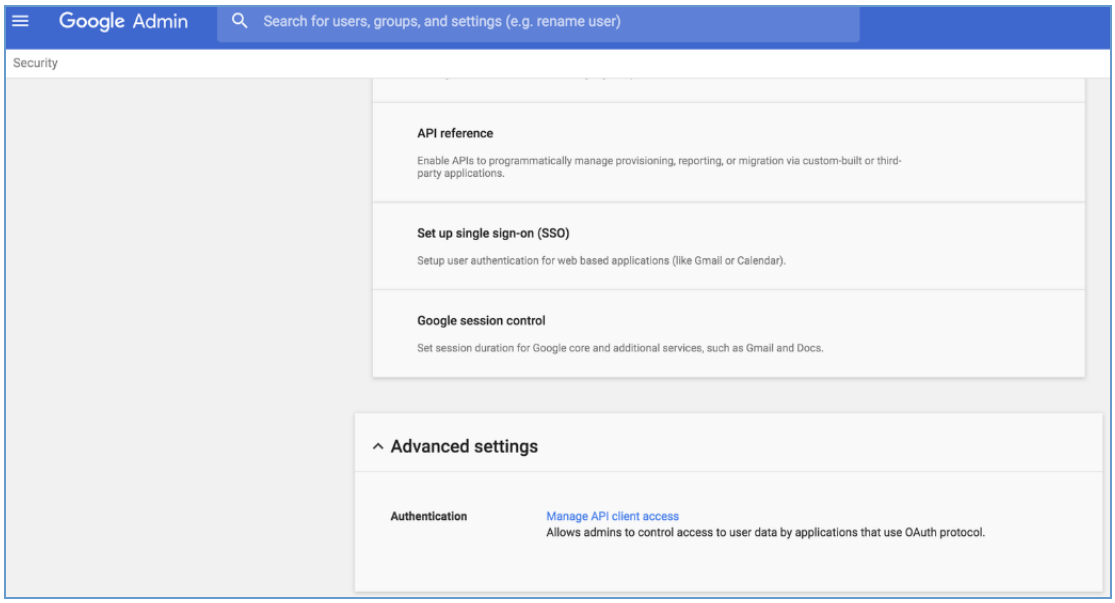
## Install EMS for Google Calendar for Cloud Customers

To begin installation for EMS for Google Calendar as an EMS Cloud Services customer, you must obtain G Suite Service Account authorization. EMS Cloud Services customers will receive a service account key id generated by cloud ops, as well as a comma-delimited list of roles the service account will need to be authorized for in the G Suite domain.

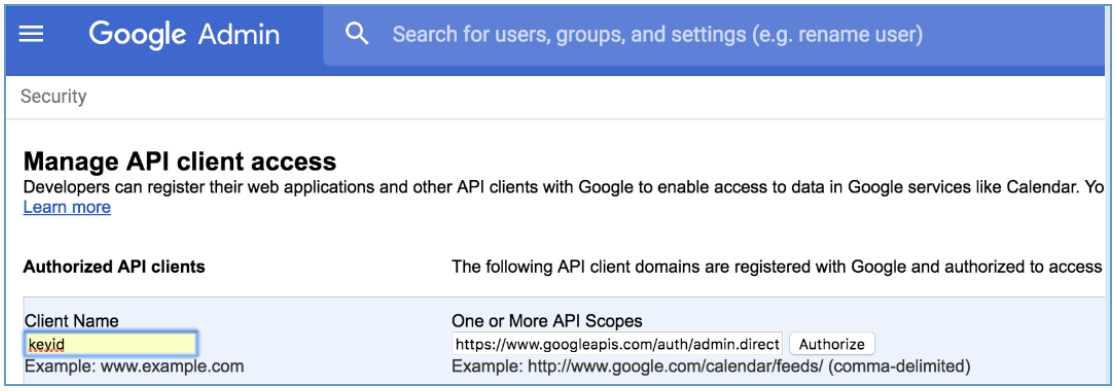
1. To begin the authorization process, navigate to **Google Admin** > **Security**.




2. Navigate to **Advanced settings** > **Manage API client access**.




3. In the **Client Name** field, enter the service account key id provided by cloud ops.




4. Copy and paste the following scopes in the **One or More API Scopes** field:
   https://www.googleapis.com/auth/userinfo.email,
   https://www.googleapis.com/auth/userinfo.profile,
   https://www.googleapis.com/auth/admin.directory.resource.calendar,
   https://www.googleapis.com/auth/calendar.events,
   https://www.googleapis.com/auth/calendar,
   https://www.googleapis.com/auth/admin.directory.resource.calendar.readonly,
   https://www.googleapis.com/auth/admin.directory.user,
   https://www.googleapis.com/auth/admin.directory.user.readonly,
   https://www.googleapis.com/auth/drive

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## Deploy EMS for Google Calendar as an Individual User

To deploy EMS for Google Calendar as an individual user:

1. Navigate to the Chrome Web Store. Search for 'EMS for Google Calendar.'
2. Add to your browser. You will be prompted that the extension will access your account. Click **Allow**.
3. Enter the EMS Platform Services URL.

**Note:**

For organizations that restrict access to Chrome Extensions, an Administrator will need to perform the following steps in the G Suite Admin Console:

1. Navigate to **Devices** > **Chrome Management** > **App Management**.
2. Search for EMS for Google Calendar.
3. Enable 'Allow Installation' so users can perform the installation themselves. (EMS Software recommends this while testing.)

   Optionally, choosing 'Force Installation' will enable the Extension for all users in the G Suite environment.
4. The Platform Services URL must be shared with users for them to add to the extension.

# CHAPTER 5: EMS For Google Calendar Configuration Guide

**Important!**

For Update 31, Everyday Users will not be able to choose a Setup Type; therefore, EMS for Google Calendar will book a room based on the Default Setup Type. Administrators must ensure that they have a Default Setup Type configured for any room used by EMS for Google Calendar.

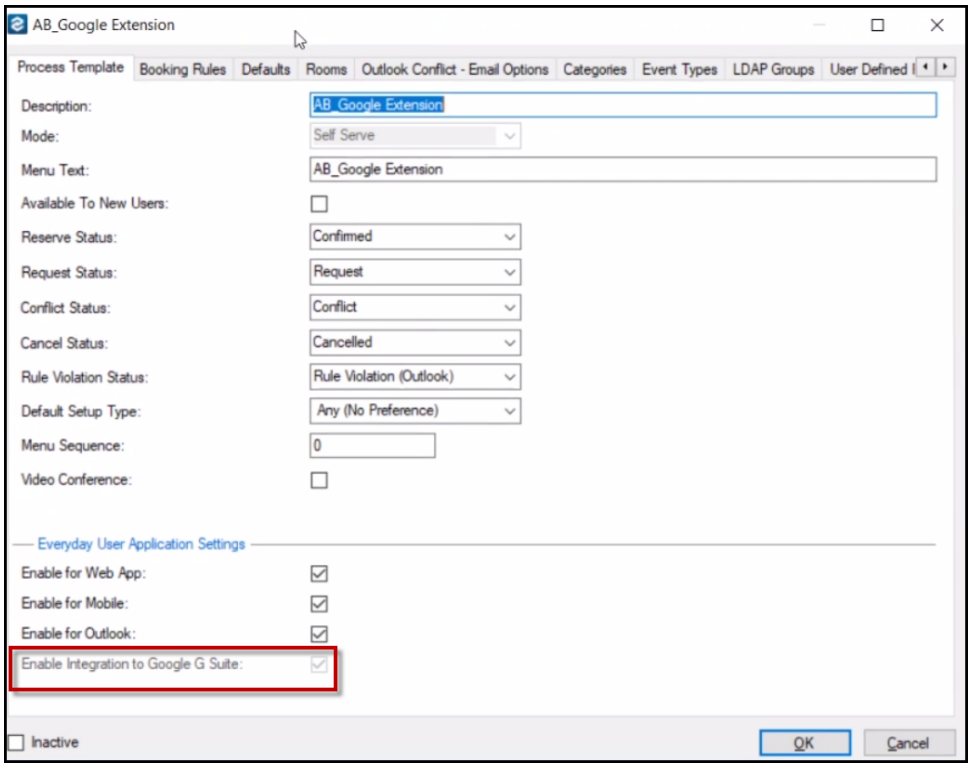
Administrators must configure EMS for Google Calendar in their EMS Desktop Client. Administrators will:

1. Create an Everyday User Process Template for EMS for Google Calendar
2. Configure at least one intent
3. Create a TBD Room with a mailbox
4. Configure a Conflict Email (optional)
5. Ensure a Default Setup Type is configured
6. Ensure all Rooms have mailboxes

## Create an Everyday User Process Template for EMS for Google Calendar

1. Create an Everyday User Process Template for EMS for Google Calendar.
2. When creating this Everyday User Process Template, select the **Enable Integration to G Suite** and

**Enable EMS for Google Calendar** checkboxes under the Everyday User Application Settings.




## Create a TBD Room

Everyday Users resolving a booking conflict may need to **Skip** adding a room to their reservation in EMS for Google Calendar. Therefore, a TBD room must be configured and have an associated mailbox. One TBD room is needed per building.

See Also: Configure a Room for EMS for Google Calendar.

## Configure a Conflict Email

You can notify your users of booking conflicts via email by configuring a Conflict Email.

1. Navigate to the **Outlook Conflict - Email Options** tab.
2. From the drop-down menu, select a **Header**.
3. From the drop-down menu, select a **Footer**.
4. Insert text into the **Email Subject Line**.
5. Click **OK**.

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## Configure Room Mailboxes

**Important!**

A mailbox must be configured for TBD rooms.

1. Create a mailbox in Google.
2. From the EMS Desktop Client, navigate to **Configuration** > **Facilities** > **Rooms**. Filter the dialog to display the room(s) you would like to edit.
3. Click **Edit**.
4. Enter the room mailbox on the Google Integration tab.

# CHAPTER 6: EMS for Google Calendar User Guide

The EMS for Google Calendar integration allows access to G Suite users' Google Calendars to provide their free/busy statuses within EMS for scheduling meetings. Everyday Users can see attendee availability directly within the EMS Web App or Mobile App alongside space availability information from the EMS database.

EMS for Google Calendar integration is managed through EMS Platform Services. Google user authentication is supported through SAML authentication. See Also: EMS for Google Calendar Authentication.

**Note:**
EMS for Google Calendar integration requires an account with G Suite by Google Cloud. For more information please click here.

This *User Guide* will provide information that will allow you to:

- Set User Preferences
- Options in EMS for Google Calendar
- Create Favorite Rooms
- Create a Booking
- Configure Intents
- Conflict Resolution

## Set User Preferences

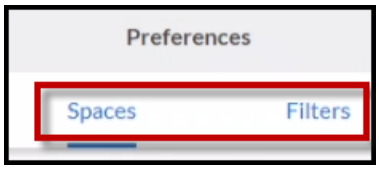
Setting user preferences allows users to designate favorite locations, floors, and rooms. This will expedite the booking process for future reservations.

To set user preferences:

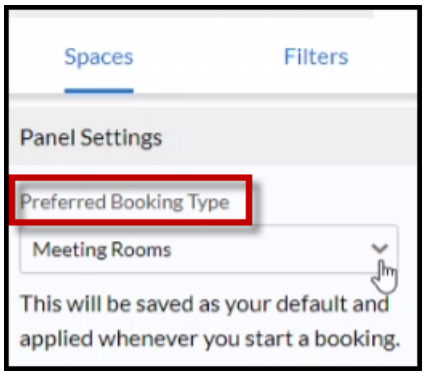
1. Click on the gear icon in the upper right-hand corner of EMS for Google Calendar.

Setting User Preferences in EMS for Google Calendar

2. The **Preferences** tab will appear. From here, you can set user preferences for **Spaces** or **Filters**.



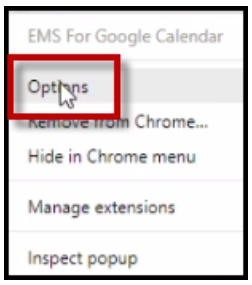

3. Under the **Spaces** tab, select your Preferred Booking Type. The Booking Type you choose will be now become your default for future bookings. See Also: Configure Intents in the EMS Desktop Client.



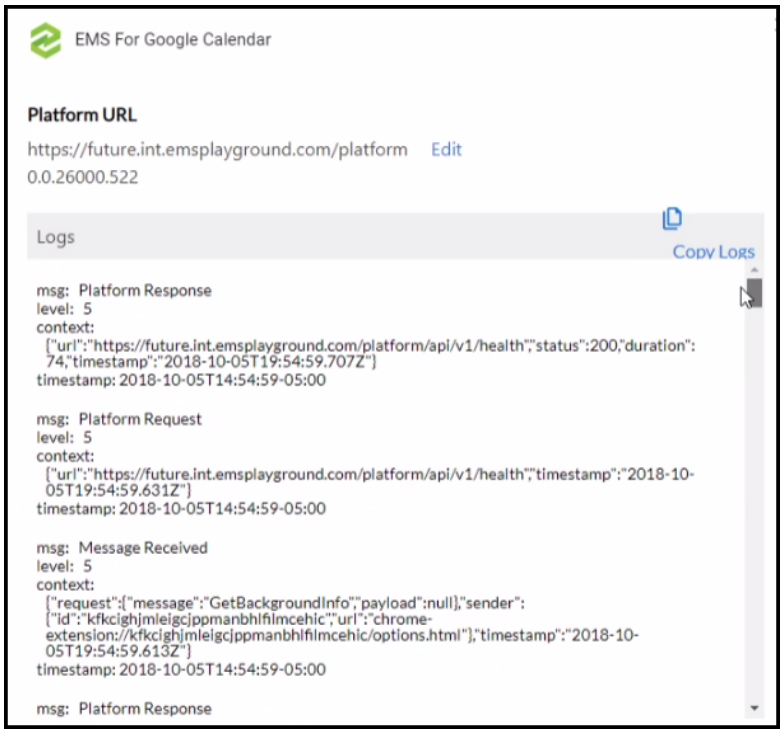

4. Under the **Filters** tab, set your Default Filters for each of your Booking Types.
5. Select a Default Location. Select one or more buildings, or filter by Area.
6. Select a Default Floor from the dropdown field.
7. After selecting your preferred filters, click **Save**. Your user preferences will be available the next time you create a reservation in EMS for Google Calendar.

## Options in EMS for Google Calendar

1. Navigate to the **Options** page on the top right-hand corner of EMS for Google Calendar.

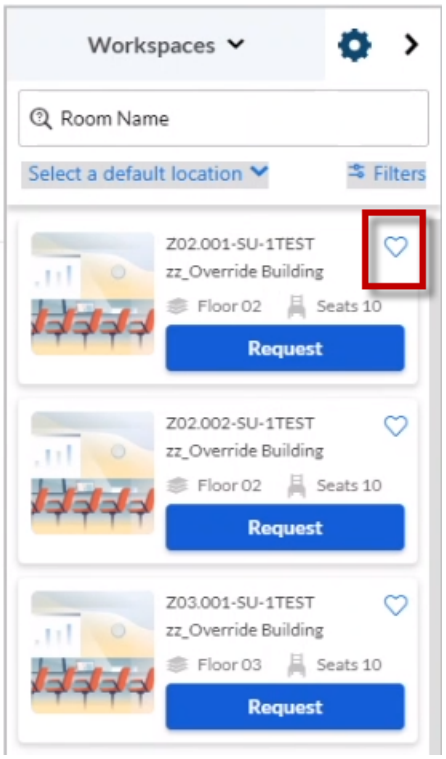


2. From here you can edit the **Platform URL**, view and copy **Logs**, and view your **Version**.




## Create Favorite Rooms

To create favorite locations in EMS for Google Calendar, simply click the blue heart icon next to the room. The favorite is saved immediately once the heart is selected.



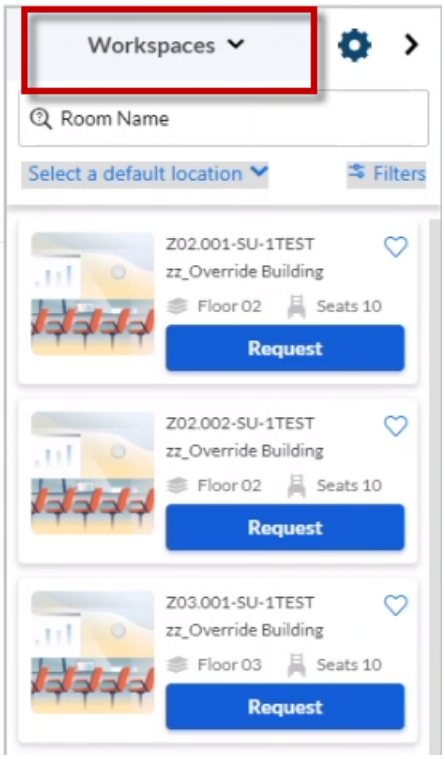

## Create a Booking

When creating a booking, users can easily compare room availability alongside invitee availability to find a day and time that works for the right people and in the right space. Additionally, EMS for Google Calendar integration will send invitations to attendee's Gmail and Calendars.

1. Create a new calendar item.
2. Add the name of your meeting to the **Add Title** field.

> **Note:**
> A Title is not required; however, if one is not assigned, EMS will provide a default Title based on the Booking Type.

3. Provide a date and time, ensuring you are in the correct time zone.
4. From EMS for Google Calendar, select a Booking Type from the drop-down list.




5. Search for a **Room**. Use the **Filters** link to filter by **Building** or search by **Room Name**. Additional filters may be available depending on your organization, such as Floor, Setup Type, Capacity, Features, and Room Type.
6. Depending on whether the Room is classified as a reserved room, options will include either **Book** or **Reserve**. Select a room by clicking either **Book** or **Reserve**.
7. Once a room is selected, a guest mailbox is added to the **Guests** tab.

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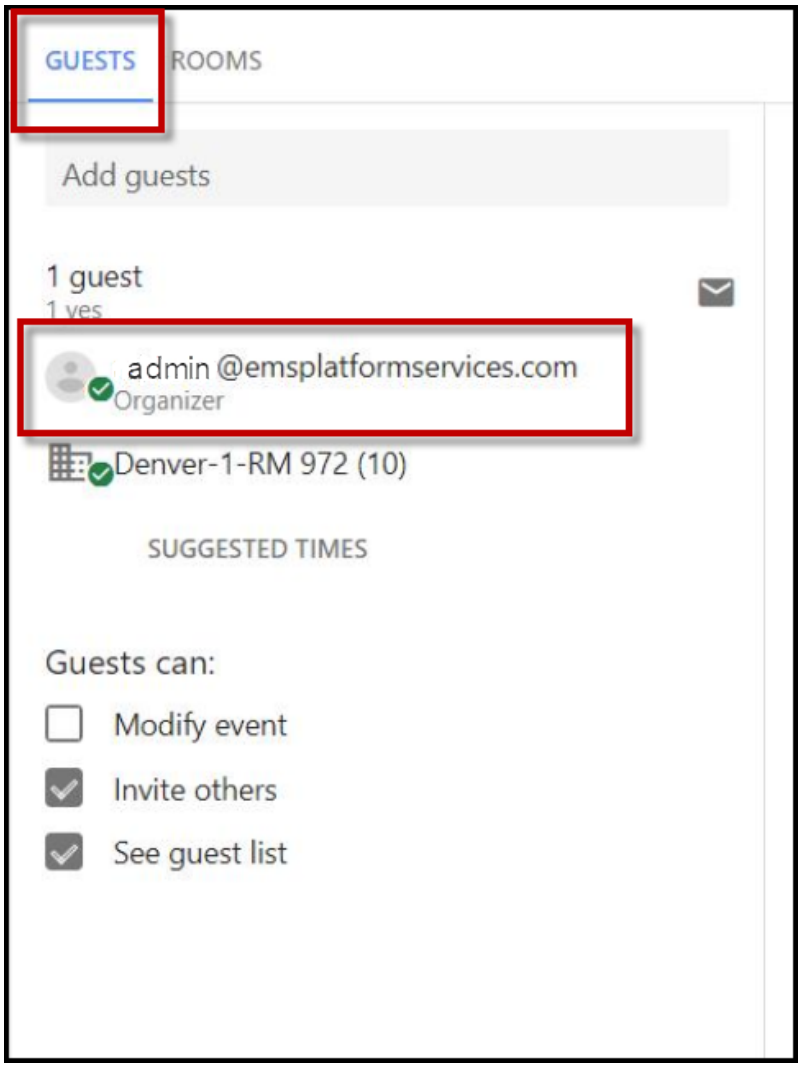
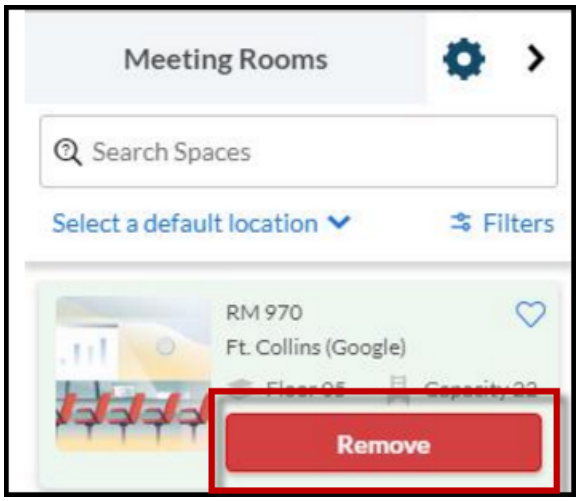



Guests Tab in EMS for Google Calendar




Room Added via EMS for Google Calendar

**Note:**
To remove a Room, click **Remove**.

8. Click **Save**.

**Important!**
If a conflict exists, a browser notification will appear. In addition, a red square will appear over your EMS for Google Calendar icon at the top of your menu. See Also: Conflict Resolution in EMS for Google Calendar.

# CHAPTER 7: Authentication

Authentication in EMS for Google Calendar is dependent upon how the user is signed into Chrome and Google Calendar. To authenticate:

1. Sign into Chrome using the latest version.
2. Authorize EMS for Google to access your calendar.
3. You will be prompted to enter the EMS Platform Services URL.
4. Once signed in, set user preferences.

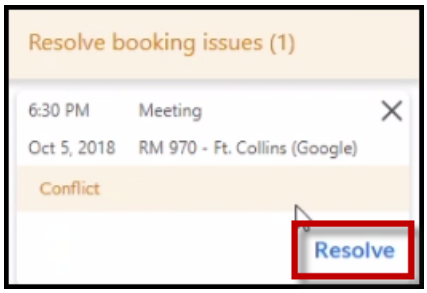
# CHAPTER 8: Conflict Resolution in EMS for Google Calendar

Users dragging and dropping a meeting on his/her Google Calendar outside of the allowable date range may create a conflict. When a meeting conflict exists, users will receive a browser notification. Users will also see a **red** square overlaying the EMS Logo to indicate a booking issue.

Conflict Queue in EMS for Google Calendar

**Note:**
EMS can be configured to send you an email if a conflict exists.

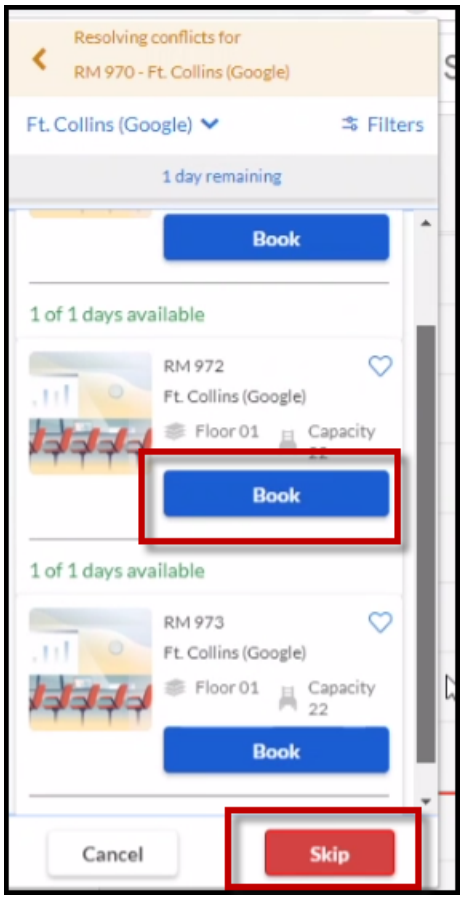
1. Click on the red icon to open the Conflict Queue and resolve your booking issues.
   - If the booking issue is a **rule violation**, an **Edit** button will appear. You will need to modify your reservation to remove the rule violation. Once the rule violation is removed, you can book your reservation.
   - If there is a **conflict**, a **Resolve** button will appear. This will typically require you to pick a different room to resolve the conflict and continue with your booking.




A Conflict in EMS for Google Calendar

2. A list of available rooms will appear. Click **Book** to choose a different room and resolve the Conflict.

3. Click **Skip** to continue without choosing a new room. There will be no room booked for your meeting.



**EMS G Suite Integration Guide - April 2019**

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