Google

Introduction

The introduction of the `Service Connections` feature within our `Automations` Product (aka `Workflows`) marks a significant advancement in facilitating real-time synchronization between `HR` events and external services, such as `Google Calendar` , among others. By bridging this gap, we aim to unlock a wide array of new scenarios for our clients, enhancing the potential of our product.

Integration with Google services

Our initial integration focuses on Google services, including a suite of tools like `Google Calendar` , `Google Forms` , and `Google Docs` . This integration plays a crucial role in enabling seamless communication between our platform and 3rd party services.

The integration with Google APIs operates at a low level, requiring the workflow designer to manually define calls to the Google API using HTTP requests and responses. While this may seem intricate, comprehensive documentation provided by `Google APIs Explorer` (Google APIs Explorer | Google for Developers) serves as a valuable resource for this purpose.

It's essential to note that currently, our platform does not offer pre-built workflow activities to streamline communication with the Google API. For instance, adding an event to Google Calendar requires an HTTP call to the Google API with the help of `Google / API Request` activity (there is no `Google / Calendar API - add event` activity). However, we have implemented a mechanism that smoothly handles authentication for these calls, easing the burden on users.

Google supports various authentication methods, one of which is the "Service Account credentials" (Service account credentials | IAM Documentation | Google Cloud). Service accounts are specialized accounts primarily utilized by applications rather than individual users, offering a secure means of authentication within our integration framework.

Service Account credentials: Prerequisites

Before registering a new Google Service Connection within the system, a series of preliminary actions must be undertaken. These steps are conducted within the client's Google Cloud environment and necessitate an individual with administrative permissions to execute them effectively.

Step 1. Google Project for Sense integrations

Create a project to group resources together within an organization.

Service account that will be created in the next steps have to be created in the context of a project.

ℹ️ Create a project | Google Distributed Cloud Hosted | Google Cloud

▾ Steps

1. Go to Resource Manager

   Manage resources – Google Cloud console
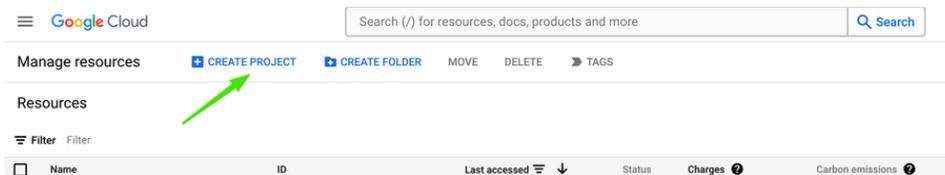
2. Press the `Create Project` button

3. Give it a name, e.g. `Sense integrations`
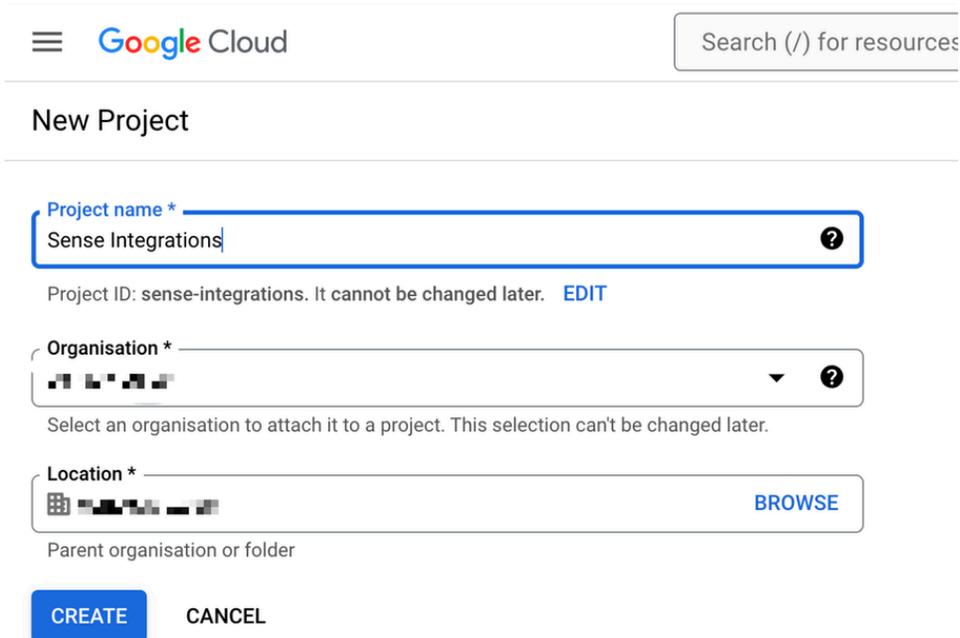
Step 2. Enable the Identity and Access Management (IAM) API

Manages identity and access control for Google Cloud resources, including the creation of service accounts, which you can use to authenticate to Google and make API calls.

▾ Steps

1. Go to "APIs and Services" page

   https://console.cloud.google.com/apis/dashboard

2. Ensure that the right project (`Sense Integrations`) is selected.

3. Press the `+ Enable APIs and services` link

4. Find and click on the API called `Identity and Access Management (IAM) API`

5. Press the `Enable` button

Step 3. Service account

Create a service account.

> ℹ️ Create service accounts | IAM Documentation | Google Cloud.

∨ Steps

   1. Go to menu → `IAM and admin` → `Service accounts`
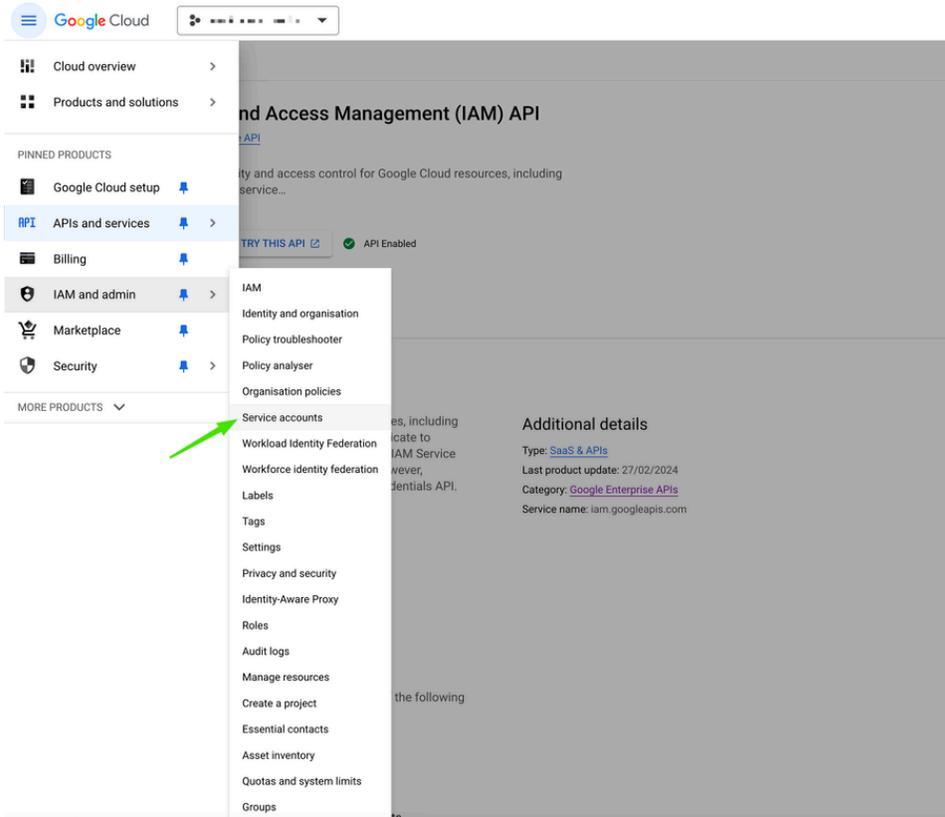
2. Press the `+ Create Service Account` button
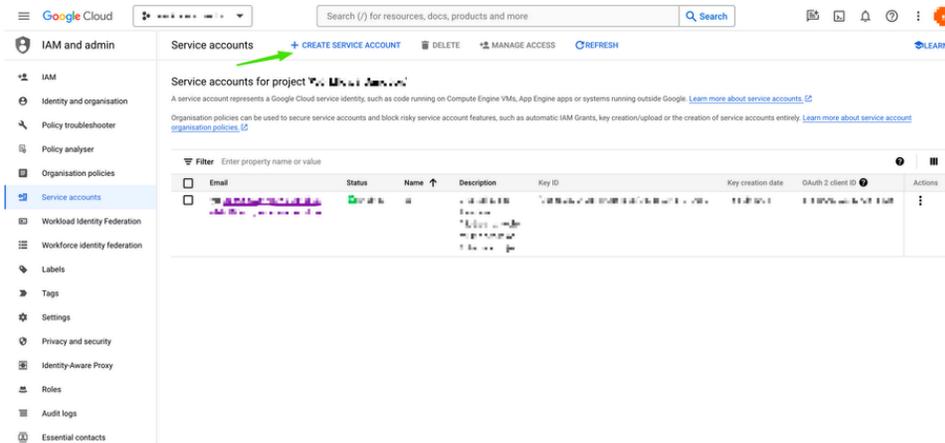
3. Give it a name, e.g. `Service Account for Sense` , Press `Done`

Step 4. Service account Private Key file

⌄ Steps

1. Go to the service account → `Keys` tab. Press the `Add key` → `Create new key`

2. Choose `JSON` format

Create private key for 'sa'

Downloads a file that contains the private key. Store the file securely because this key cannot be recovered if lost.

Key type

◉ JSON
Recommended

○ P12
For backward compatibility with code using the P12 format

CANCEL   CREATE

⚠ Service account keys are a security risk if not managed correctly. The file have to be deleted immediately after it is uploaded to Sense Automate.

Step 5. Enable the IAM Service Account Credentials API

Creates short-lived credentials for impersonating IAM service accounts.

∨ Steps

1. Go to "APIs and Services" page
   https://console.cloud.google.com/apis/dashboard

2. Ensure that the right project (`Sense Integrations`) is selected.

3. Press the `+ Enable APIs and services` link

4. Find and click on the API called `IAM Service Account Credentials API`

5. Press the `Enable` button

Step 6. Enable APIs, required for the calls from workflows

▾ Steps

1. Go to "APIs and Services" page

   https://console.cloud.google.com/apis/dashboard

2. Ensure that the right project (`Sense Integrations`) is selected.

3. Press the `+ Enable APIs and services` link

4. Find the required API

5. Press the `Enable` button

Step 7. Configure scopes for the service account

Workspace administrator of the organization need to authorize the service account to access Workspace user data on behalf of users in the Google Workspace domain.

> **Steps**
>
> 1. Go to Google Workspace domain's Admin console
>   Admin console (google.com)
>
>
>
> 2. Go to Menu > `Security` → `Access and data control` → `API Controls`
> 3. Select `Manage Domain-wide delegation` Domain-wide delegation (google.com)
>
>
>
> 4. Click `Add new`
> 5. In the `Client ID` field, enter the service account's **Client ID**. You can find your service account's client ID in the **Service accounts** page.
> 6. In the `OAuth scopes (comma-delimited)` field, enter the list of scopes that your application should be granted access to. For example, if your application needs domain-wide full access to the Google Drive API and the Google Calendar API, enter: `https://www.googleapis.com/auth/drive`, `<https://www.googleapis.com/auth/calendar >`
> 7. Click `Authorize`
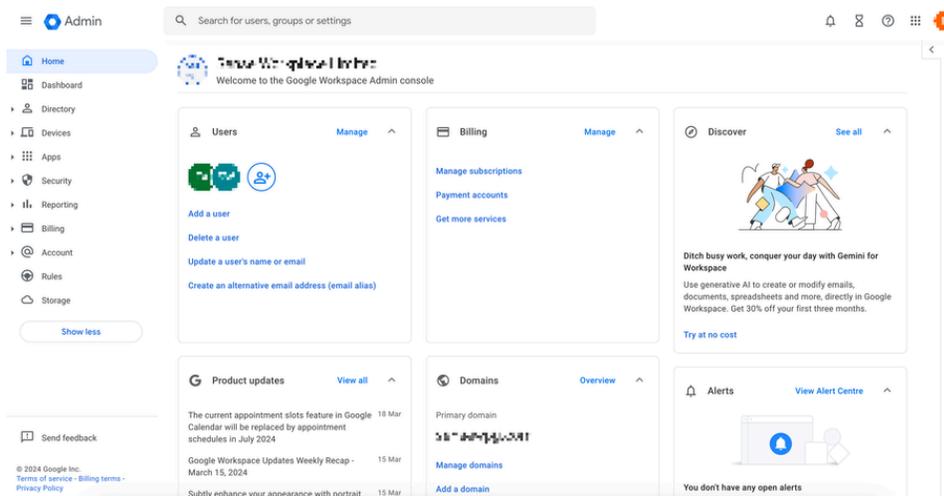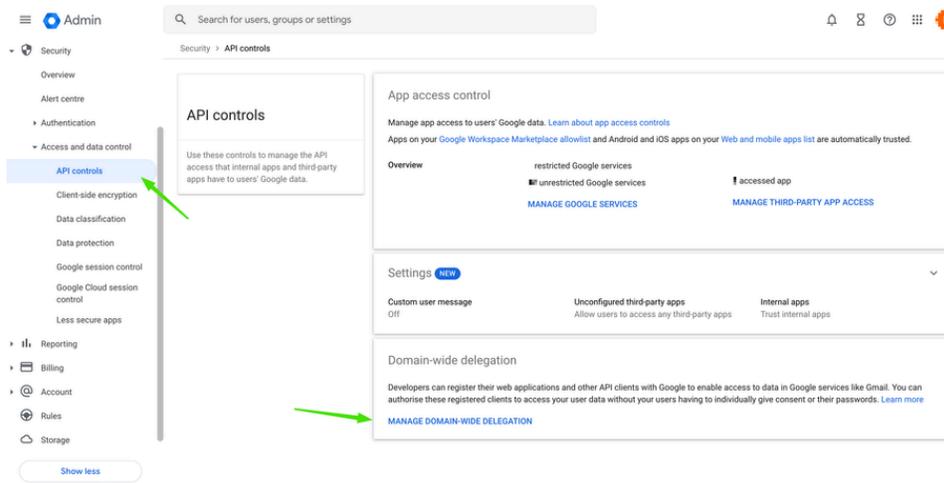
References

- APIs Documentation
    - Google APIs Explorer | Google for Developers
- About Service accounts
    - Service account credentials | IAM Documentation | Google Cloud

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- 🔖 ENG-4627: Ability to capture credentials for Google calendar integration **READY FOR QA**
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