

[You can click here to learn more detail about "OAUTH/XOAUTH2 with Gmail SMTP Server".](#)

## Google Service Account

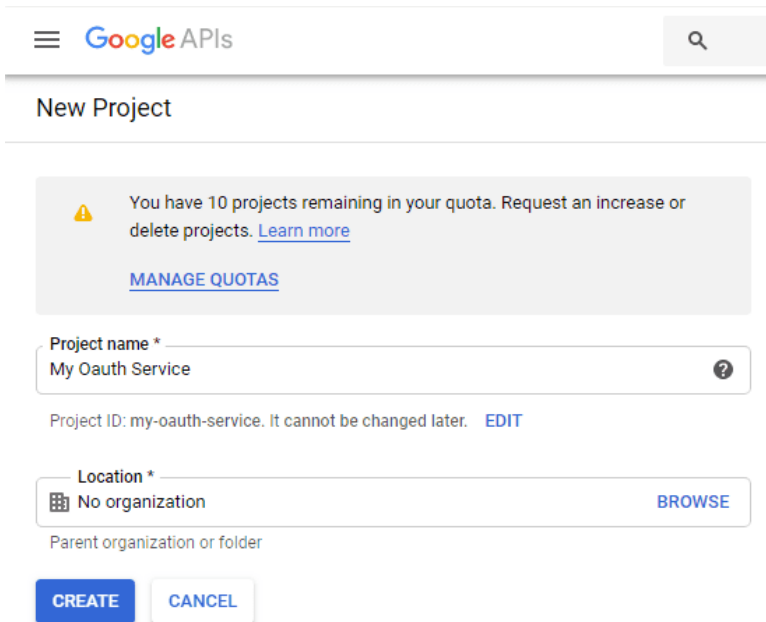
Normal OAUTH requires user input user/password for authentication. Obviously, it is not suitable for background service. In this case, you should use google service account to access G Suite email service without user interaction. Service account only works for G Suite user, it doesn't work for personal Gmail account.

## Create your project in Google Developers Console

To use "G Suite Service Account OAUTH" in your application, you should create a project in [Google Developers Console](#) at first.

**Important Notice: You can use any google user to create service account, it doesn't require service account owner is a user in G Suite. But G Suite administrator must authorize service account in G Suite Admin Console to access user mailbox.**

- Open [Google Developer Console](#), create a new project by <https://console.developers.google.com/projectcreate>.



Google APIs

New Project

You have 10 projects remaining in your quota. Request an increase or delete projects. [Learn more](#)

[MANAGE QUOTAS](#)

Project name \*  
My Oauth Service

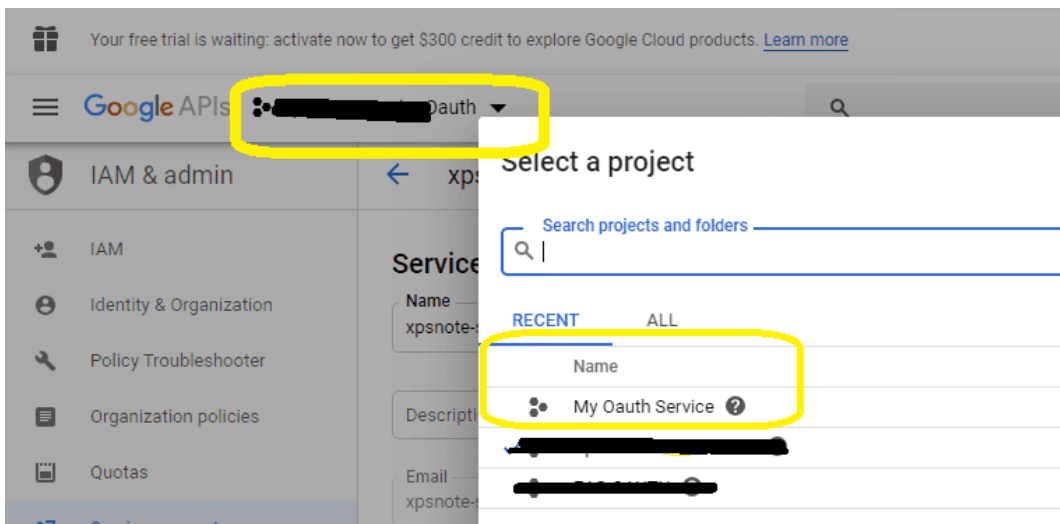
Project ID: my-oauth-service. It cannot be changed later. [EDIT](#)

Location \*  
No organization [BROWSE](#)

Parent organization or folder

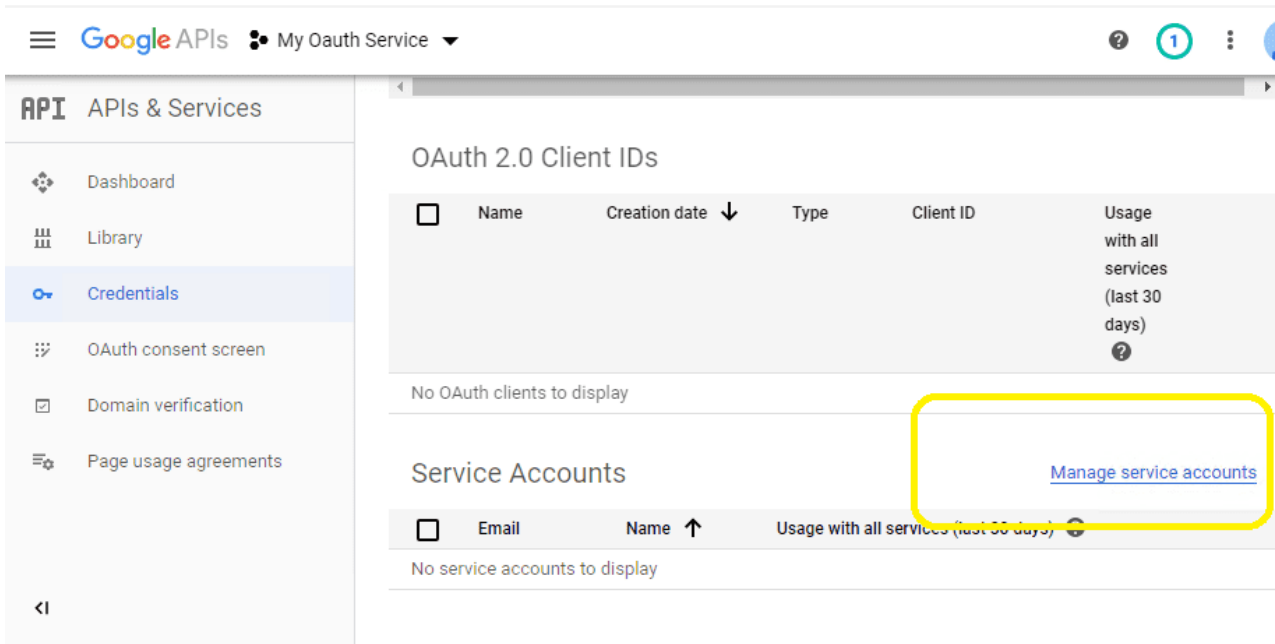
[CREATE](#) [CANCEL](#)

- After you created the project, select it from projects list as current project.

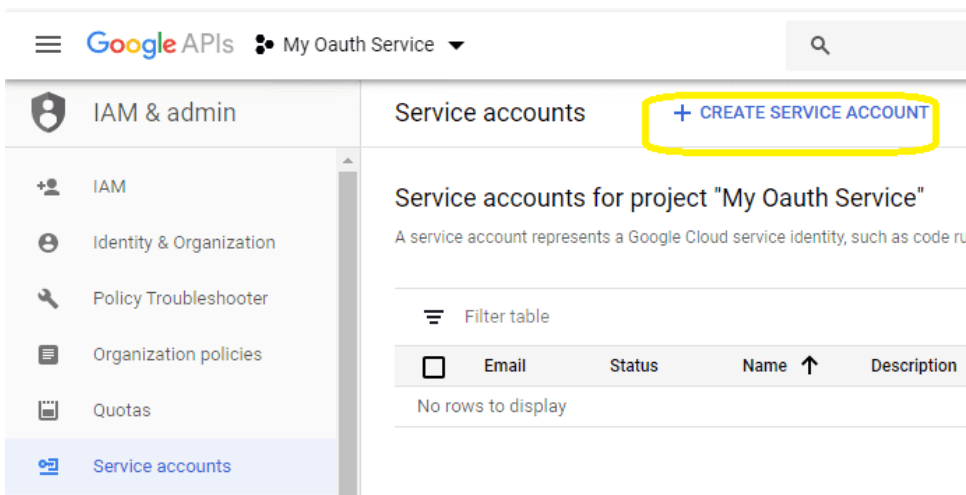


## Create service account under current project

- Click "Credentials" -> "Manage service accounts"



- Click "CREATE SERVICE ACCOUNT"



- Input a name for your service account, click "CREATE"

**IAM & admin**

- IAM
- Identity & Organization
- Policy Troubleshooter
- Organization policies
- Quotas
- Service accounts**
- Labels
- Settings
- Cryptographic keys
- Identity-Aware Proxy

### Create service account

1 Service account details — 2 Grant

#### Service account details

Service account name  
my-oauth-service

Display name for this service account

Service account ID  
my-oauth-service @my-oauth-service.i

Service account description  
Describe what this service account will do

**CREATE** CANCEL

- In "Service account permissions", select "Project" -> "Owner" as role

### Create service account

1 Service account details — 2 Grant this service acco

#### Service account permissions (optional)

Grant this service account access to My Oauth Service so that it has per complete specific actions on the resources in your project. [Learn more](#)

Select a role	Condition
Type to filter	
Project	Browser
Access Approval	Editor
Access Context Ma...	<b>Owner</b>
Actions	Viewer
AI Notebooks	
Android Management	

- In "Grant users access to this service account", keep everything default and click "DONE"

## Create service account

### 3 Grant users access to this service account (optional)

#### Grant users access to this service account (optional)

Grant access to users or groups that need to perform actions as the service account. [Learn more](#)

Service account users role

Grant users the permissions to deploy jobs and VMs with this service account

Service account admins role

Grant users the permission to administer this service account

#### Create key (optional)

Download a file that contains the private key. Store the file securely. The private key can't be recovered if lost. However, if you are unsure why you need a key for now.

+ CREATE KEY

DONE

CANCEL

After service account is created, you should enable "Domain-wide delegation" and create service key pair to access G Suite user mailbox.

### Enable "Domain-wide delegation" and create service key

- Go back to your service account, click "Edit" -> "SHOW DOMAIN-WIDE DELEGATION", check "Enable G Suite Domain-wide Delegation", input a name for product oauth consent, click "Save".

#### Service account status

Disabling your account allows you to preserve your policies without having to delete it.

✔ Account currently active

DISABLE SERVICE ACCOUNT

##### Enable G Suite Domain-wide Delegation

Allows this service account to be authorized to access all users' data on a G Suite domain without manual authorization on their parts. [Learn more](#)



To change domain wide delegation, a product name for the OAuth consent screen must be configured. You can enter the product name below. On some platforms, the email address is shown with the developer information. To select a different email address, configure consent screen.

[CONFIGURE CONSENT SCREEN](#)

Product name for the consent screen

Oauth Service

Assign product name

Email address

ivan.lvzheng@gmail.com

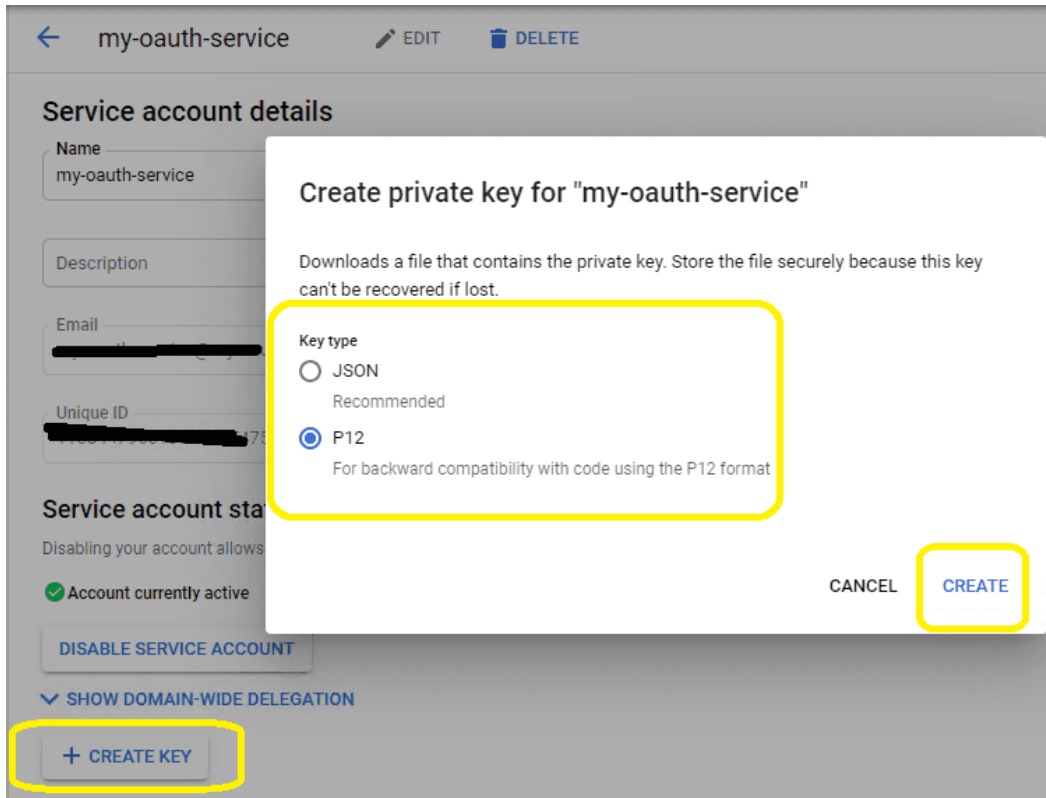


Shown on consent screen for user support.

[HIDE DOMAIN-WIDE DELEGATION](#)

- Go back to your service account again, click "Create Key", you can select "p12" or "json" key type, both can work well, then you will get a file which contains private key, save the file to local disk.

Now you have created service account with key pair successfully. You can use created private key in your codes to request "access token" impersonating a user in G Suite.



- To access user data in G Suite, you must get authorization from G Suite administrator. You should go to service accounts list, click "View Client ID" like this:

### Service accounts for project "My Oauth Service"

A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine apps, or systems running outside Google. [Learn more](#)

Filter table

<input type="checkbox"/>	Email	Status	Name ↑	Description	Key ID	Key creation date	Domain wide delegati
<input type="checkbox"/>	my-oauth-service@my-oauth-service.iam.gserviceaccount.com	✓	my-oauth-service		No keys		Enabled <a href="#">View Client ID</a>

- Then record your "Client ID" and service account email address, forward it to G Suite administrator for authorization.

Client ID for service account DELETE

**i** Service account clients are created when [domain-wide delegation](#) is enabled on a service account.

Client ID: 116844795613876537475

Service account: my-oauth-service

my-oauth-service@my-oauth-service.iam.gserviceaccount.com

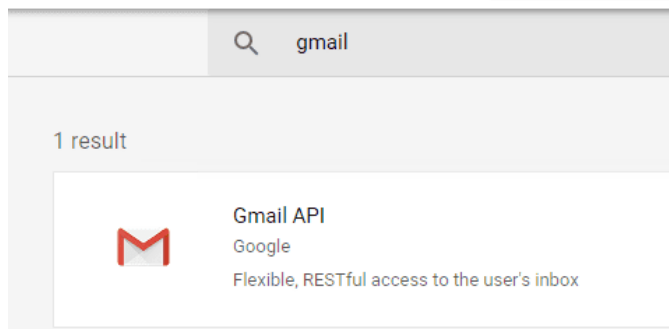
Creation date: Dec 26, 2019

Display name: Client for my-oauth-service

**SAVE** **CANCEL**

## Enable Gmail API

Enable Gmail API in "Library" -> Search "Gmail", then click "Gmail API" and enable it. If you use Gmail API protocol to send email, you should enable this API, if you use SMTP protocol, you don't have to enable it.

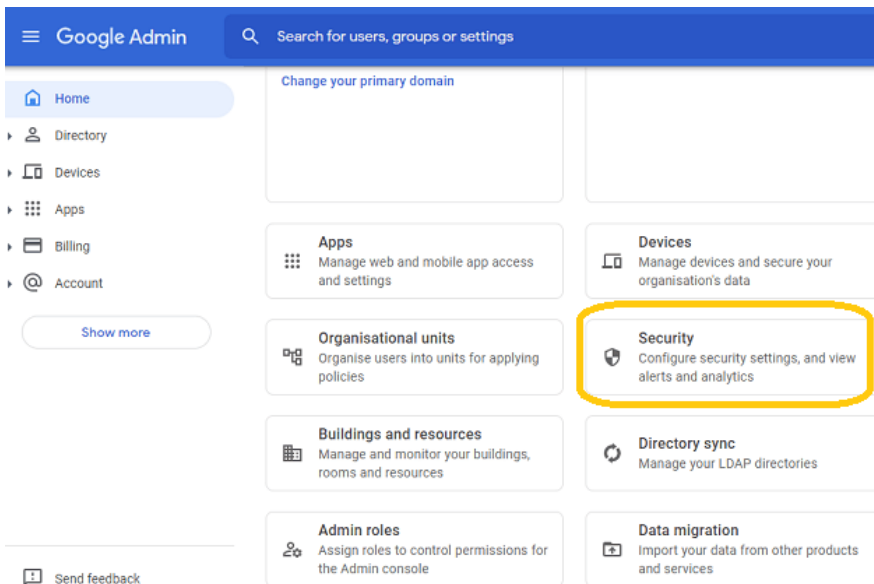


## Authorize service account by G Suite administrator

To use service account to access user mailbox in G Suite, G Suite Administrator should authorize specified service account at first.

**Important Notice:** You can use any google user to create service account, it doesn't require service account owner is a user in G Suite. But G Suite administrator must authorize service account in G Suite Admin Console to access user mailbox.

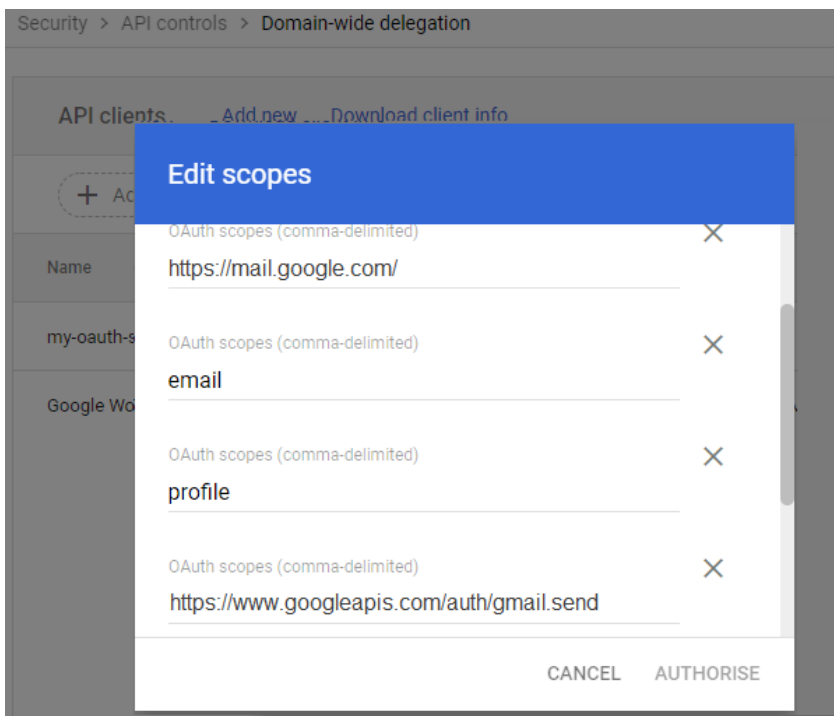
- G Suite Administrator should open [admin.google.com](https://admin.google.com), go to Admin Console, click "Security" -> API Control



- Click Add new and enter your service account client ID;
- In OAuth Scopes, add each scope that the application can access (should be appropriately narrow). and input "https://mail.google.com/", "email", "profile" in One or More API Scopes, click "Authorize".

If you use Gmail API protocol instead of SMTP protocol, input:

"https://www.googleapis.com/auth/gmail.send,email,profile".



After G Suite administrator authorized service account, you can use it to access any users mailbox in G Suite domain.

## Use service account to send email impersonating user in G Suite Domain

The following examples demonstrate how to send email with service account + G Suite OAUTH

### Example

### Remarks

You don't have to request access token every time, once you get an access token, it is valid within 3600 seconds.

If you don't want to use OAUTH 2.0, Gmail also supports traditional ESMTTP authentication, but you need to enable [Allowing less secure apps](#) or [Sign in using App Passwords](#).

## Online Tutorial

[C# - Send Email using Google/Gmail OAuth 2.0 Authentication](#)

[C# - Send Email using Gmail/G Suite OAuth 2.0 in Background Service \(Service Account\)](#)

[C# - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) from Hotmail/Outlook Account](#)

[C# - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) + EWS Protocol from Office 365 Account](#)

[C# - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) + EWS Protocol from Office 365 in Background Service](#)

[VB - Send Email using Google/Gmail OAuth 2.0 Authentication](#)

[VB - Send Email using Gmail/G Suite OAuth 2.0 in Background Service \(Service Account\)](#)

[VB - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) from Hotmail/Outlook Account](#)

[VB - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) + EWS Protocol from Office 365 Account](#)

[VB - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) + EWS Protocol from Office 365 in Background Service](#)

[C++/CLI - Send Email using Google/Gmail OAuth 2.0 Authentication](#)

[C++/CLI - Send Email using Gmail/G Suite OAuth 2.0 in Background Service \(Service Account\)](#)

[C++/CLI - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) from Hotmail/Outlook Account](#)

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[C++/CLI - Send Email using Microsoft OAuth 2.0 \(Modern Authentication\) + EWS Protocol from Office 365 in Background Service](#)

## See Also

[User Authentication and SSL Connection](#)

[Enable TLS 1.2 on Windows XP/2003/2008/7/2008 R2](#)

[Using Gmail SMTP OAUTH](#)

[Using Office365 EWS OAUTH](#)

[Using Office365 EWS OAUTH in Background Service](#)

[Using Hotmail SMTP OAUTH](#)

[Using EASendMail SMTP .NET Component](#)

[From, ReplyTo, Sender and Return-Path](#)

[DomainKeys and DKIM Signature](#)

[Send E-mail Directly \(Simulating SMTP server\)](#)

[Work with EASendMail Service \(Email Queuing\)](#)

[Bulk Email Sender Guidelines](#)

[Process Bounced Email \(Non-Delivery Report\) and Email Tracking](#)

[EASendMail .NET Namespace References](#)

[EASendMail SMTP Component Samples](#)

[EASendMail SDK Document Index](#)

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