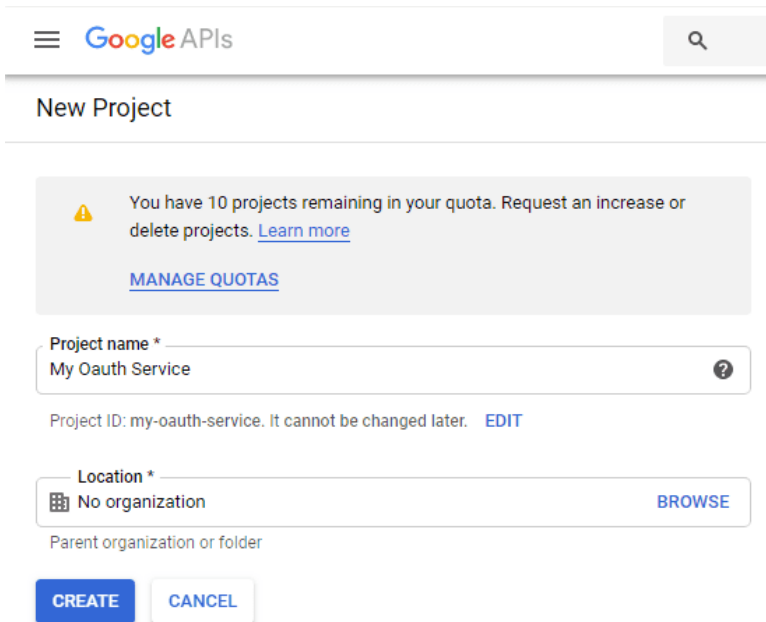## Google Service Account

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.

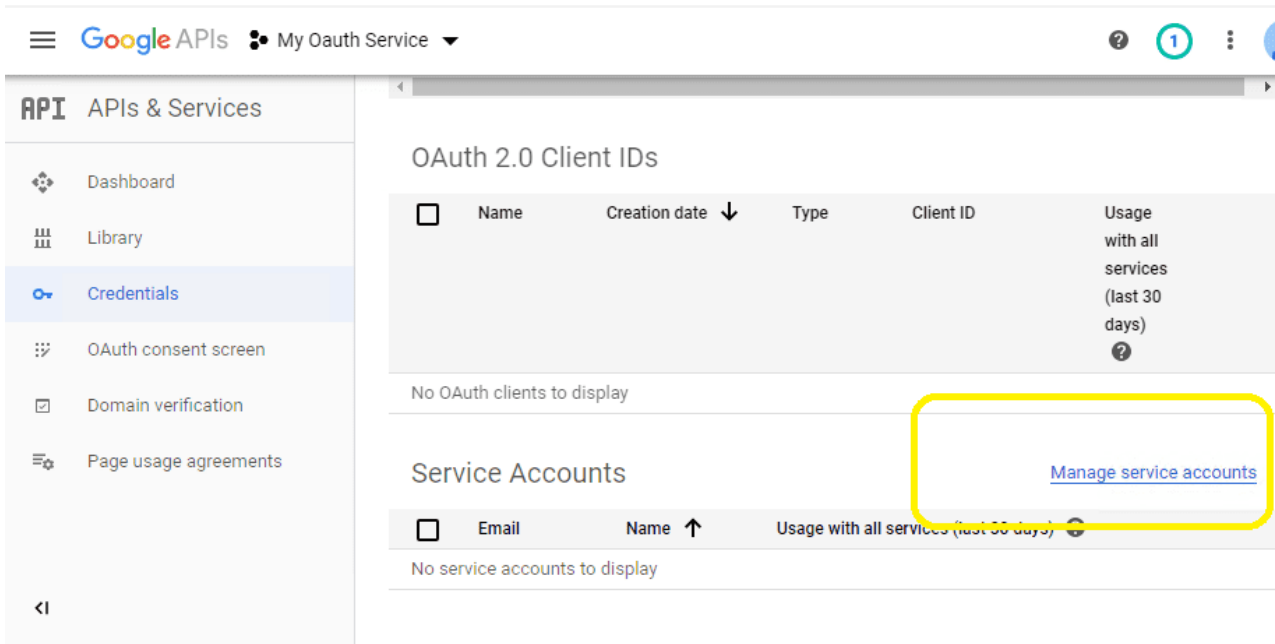- Open Google Developer Console, create a new project by https://console.developers.google.com/projectcreate.

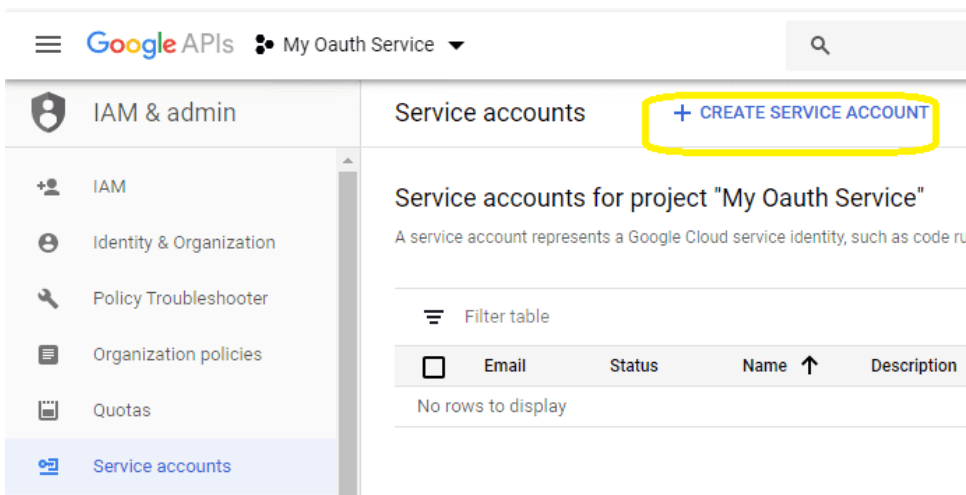- After you created the project, select it from projects list as current project.
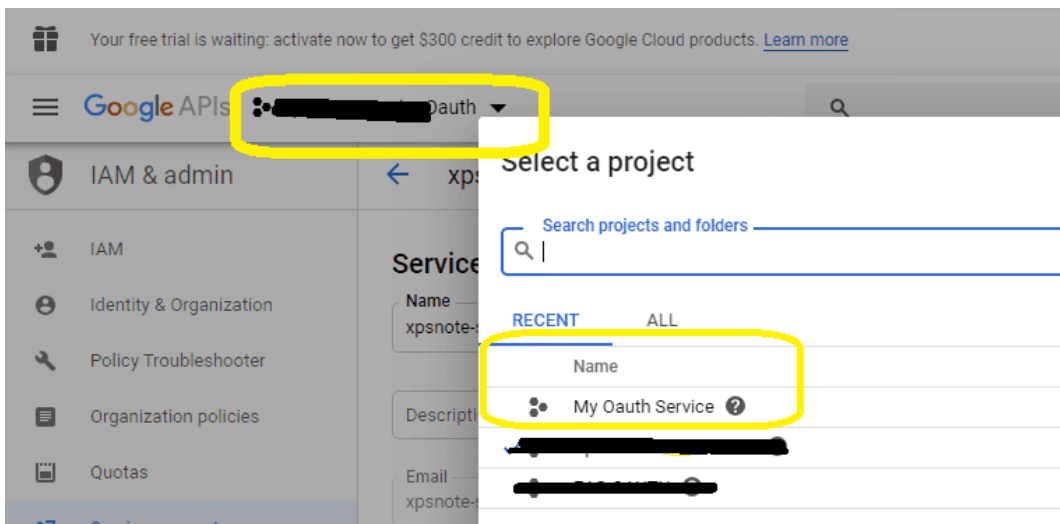
Create service account under current project

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

- Click "CREATE SERVICE ACCOUNT"

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

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

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

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".

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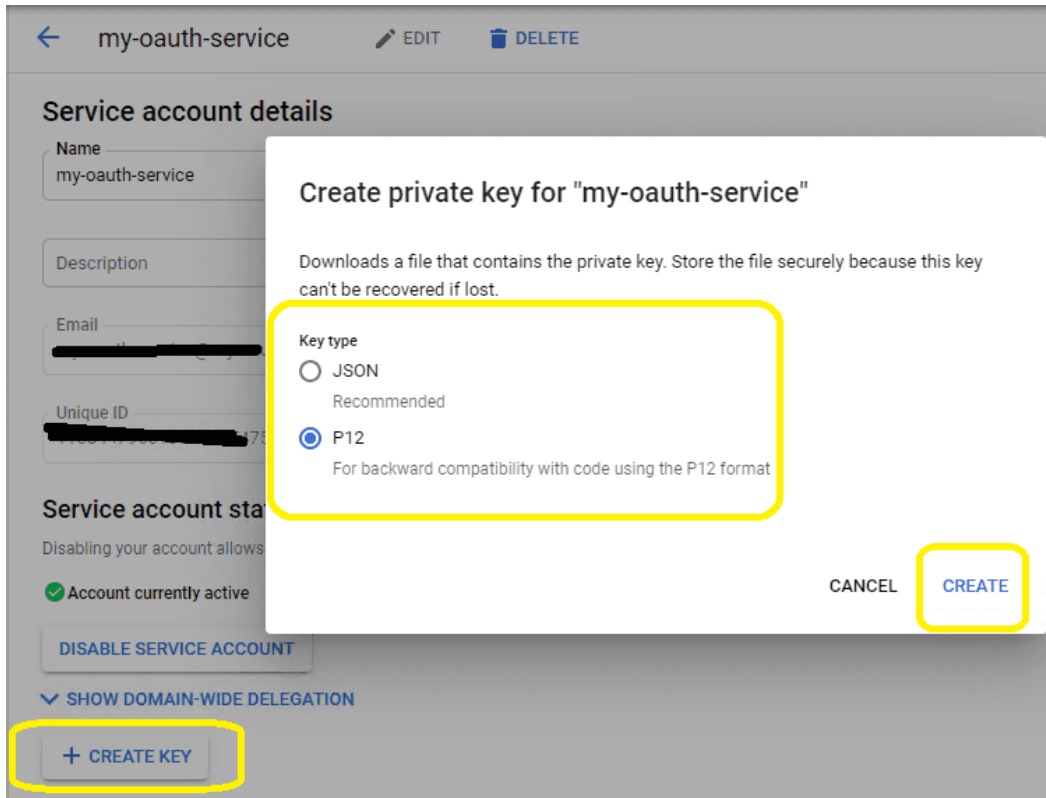
- To access user data in G Suite, you must get authorization from G Suite administrator. You should go to service accounts list, click "View Client ID" like this:

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

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.
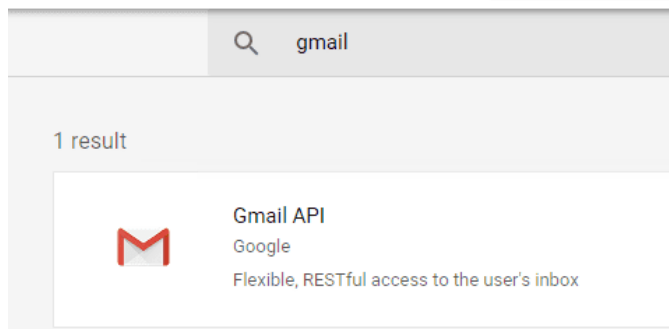
Authorize service account by G Suite administrator

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, go to Admin Console, click "Security" -> API Control
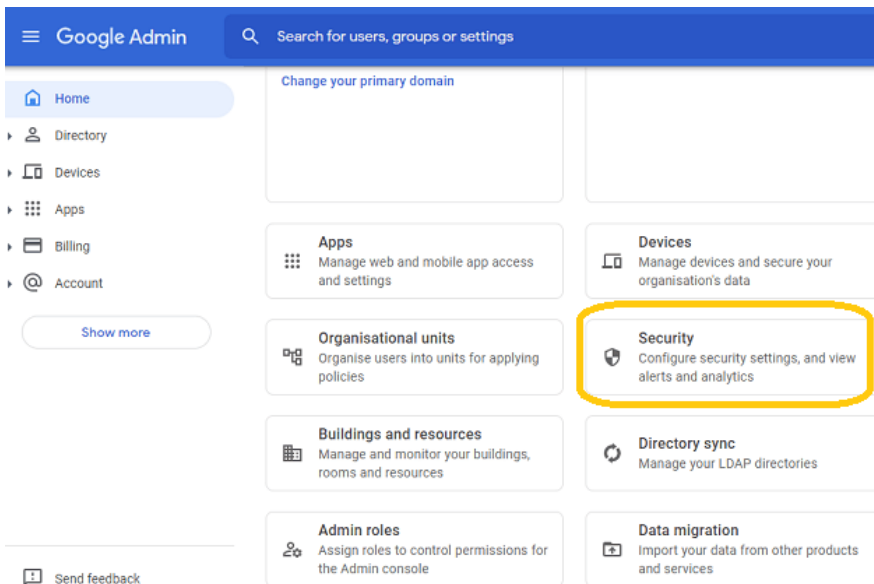
- Click Add new and enter your service account client ID;

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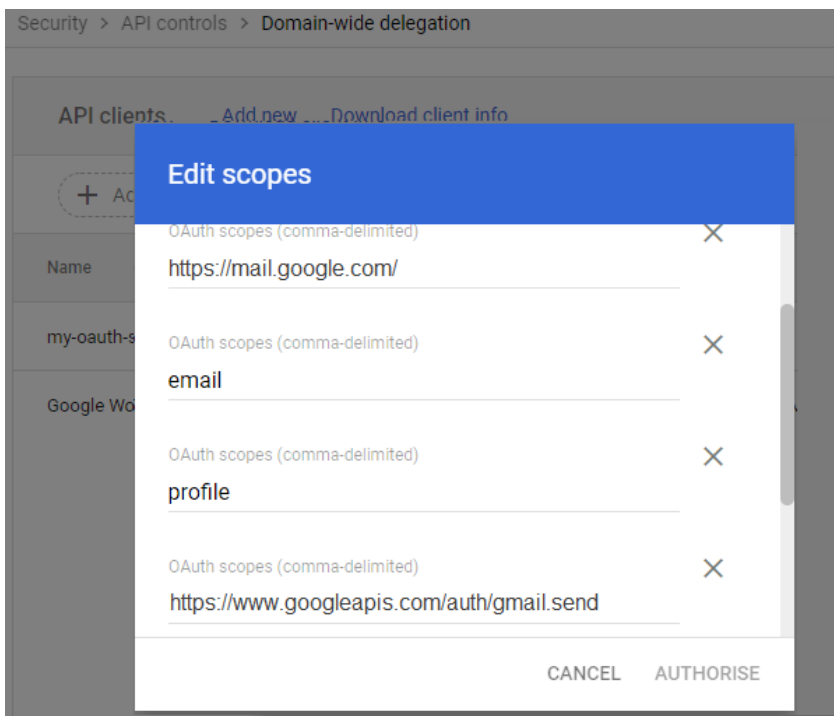
After G Suite administrator authorized service account, you can use it to access any users mailbox in G Suite domain.

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 ESMTP 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
C++/CLI - Send Email using Microsoft OAuth 2.0 (Modern Authentication) + EWS Protocol from Office 365 Account
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

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