

[How to Install gcloud on Ubuntu?](#)

written by sysadmin | 22 January 2025

[The previous article](#) explained how to install gcloud on RockyLinux/AlmaLinux/CentOS. This article will explain how to install gcloud on Ubuntu.

Problem

How to install gcloud on Ubuntu?

Solution

Here are the steps to install gcloud on Ubuntu/Debian:

A. Install gcloud

As far as I know, there are 3 methods to install gcloud on Ubuntu/Debian and the methods recommend using a user other than root.

1. Using the script

Before you download the script, install the packages using the command below:

```
sudo apt update  
sudo apt-get install curl tar
```

Use the below command to download and install the script:

```
curl https://sdk.cloud.google.com | bash
```

Then you will see a display like the one below:

```
sysadmin@ubuntu2404:~$ curl https://sdk.cloud.google.com | bash
% Total % Received % Xferd Average Speed Time Time Time Current
         Dload Upload Total Spent Left Speed
100 443 100 443 0 0 522 0 --:--:-- --:--:-- --:--:-- 522
Downloading Google Cloud SDK install script: https://dl.google.com/dl/cloudsdk/channels/rapid/install_google_cloud_sdk_bash
##### 100.0%
Running install script from: /tmp/tmp.KdzEssdMdb/install_google_cloud_sdk_bash
which curl
curl -# -f https://dl.google.com/dl/cloudsdk/channels/rapid/google-cloud-sdk.tar.gz
##### 100.0%

Installation directory (this will create a google-cloud-sdk subdirectory) (/home/sysadmin):
mkdir -p /home/sysadmin
tar -C /home/sysadmin -zxvf /tmp/tmp.JCXui5leAi/google-cloud-sdk.tar.gz
google-cloud-sdk/install/download/
google-cloud-sdk/install/core.manifest
google-cloud-sdk/install/core.snapshot.json
google-cloud-sdk/install/gcloud-deps.manifest
google-cloud-sdk/install/gcloud-deps.snapshot.json
```

Install gcloud using the script

Wait until it's finished, and you will see a display like the one below:

```
Modify profile to update your $PATH and enable shell command completion?

Do you want to continue (Y/n)? Y

The Google Cloud SDK installer will now prompt you to update an rc file to bring the Google Cloud CLIs into your environment.

Enter a path to an rc file to update, or leave blank to use [/home/sysadmin/.bashrc]:
Backing up [/home/sysadmin/.bashrc] to [/home/sysadmin/.bashrc.backup].
[/home/sysadmin/.bashrc] has been updated.

==> Start a new shell for the changes to take effect.

For more information on how to get started, please visit:
https://cloud.google.com/sdk/docs/quickstarts

sysadmin@ubuntu2404:~$
```

Installation complete

From the image above, you are asked to create a new SSH connection so that the effect can be seen, and type the command below:

gcloud version

However, you can use the command below:

source /home/sysadmin/.bashrc

So you don't need to create a new SSH connection to run the gcloud version command, which results in the image below:

```
Modify profile to update your $PATH and enable shell command completion?
Do you want to continue (Y/n)? Y

The Google Cloud SDK installer will now prompt you to update an rc file to bring the Google Cloud CLIs into your environment.

Enter a path to an rc file to update, or leave blank to use [/home/sysadmin/.bashrc]:
Backing up [/home/sysadmin/.bashrc] to [/home/sysadmin/.bashrc.backup].
[/home/sysadmin/.bashrc] has been updated.

==> Start a new shell for the changes to take effect.

For more information on how to get started, please visit:
https://cloud.google.com/sdk/docs/quickstarts

sysadmin@ubuntu2404:~$ source /home/sysadmin/.bashrc
sysadmin@ubuntu2404:~$
sysadmin@ubuntu2404:~$ gcloud version
Google Cloud SDK 504.0.1
bq 2.1.11
bundled-python3-unix 3.11.9
core 2024.12.19
gcloud-crc32c 1.0.0
gsutil 5.33
sysadmin@ubuntu2404:~$
```

Check the result of the installation

2. Using the repository

Type the following commands to install gcloud on the Ubuntu/Debian distro:

```
sudo apt update
echo 'deb [signed-by=/usr/share/keyrings/cloud.google.gpg]
https://packages.cloud.google.com/apt cloud-sdk main' | sudo tee -a
sudo apt-get -y install apt-transport-https ca-certificates gnupg
curl https://packages.cloud.google.com/apt/doc/apt-key.gpg | sudo apt-key --
keyring /usr/share/keyrings/cloud.google.gpg add -
sudo apt update
sudo apt-get install -y google-cloud-sdk
```

3. Using the snap

Run the below command to install gcloud:

```
sudo snap install google-cloud-sdk --classic
```

B. Connect to GCP

After you install gcloud on your server, type the command below:

```
gcloud init
```

Then there will be a display like the image below:

```
sysadmin@ubuntu2404:~$ gcloud init
Welcome! This command will take you through the configuration of gcloud.

Your current configuration has been set to: [default]

You can skip diagnostics next time by using the following flag:
  gcloud init --skip-diagnostics

Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).

You must sign in to continue. Would you like to sign in (Y/n)? Y

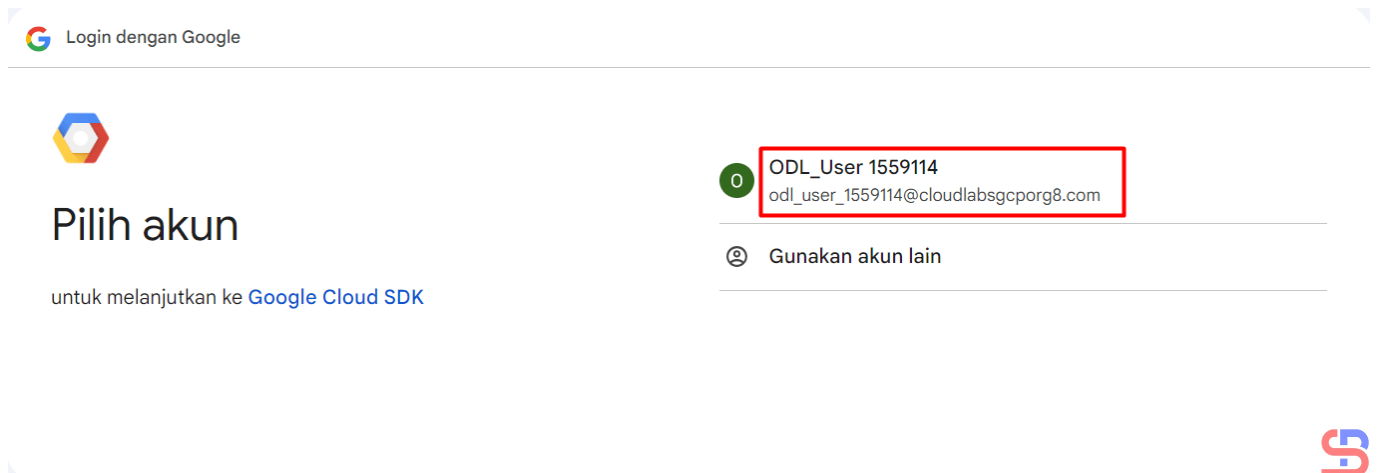
Go to the following link in your browser, and complete the sign-in prompts:

  https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=32555940559_apps_goonleusercontent.com&redirect_uri=https%3A%2F%2Fsdk.cloud.google.com%2Fauthcode.html&scope=openid+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo_email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fappengine_admin+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fsqlservice_login+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts_reauth&state=08JJBQKFxFCBeSSdfQda1xJ4oe1Pt7&prompt=consent&token_usage=remote&access_type=offline&code_challenge=kFwpqTju1D-4h6mgUkv8m_dnkB9vYU0eyF1CN8Y138&code_challenge_method=S256

Once finished, enter the verification code provided in your browser: █
```

Click the link

You can open the link in a browser by clicking the **Ctrl+Click** button located in the red box. If you are having trouble doing so, copy what is included in the red box and paste it into your browser. This will allow you to view a display similar to the one that is shown below:



Click the account

When you click on your Google account, that will allow you to access GCP, and a display similar to the one shown below will appear:



Sign in to Google Cloud SDK

odl_user_1559114@cloudlabsgcporg8.com

By continuing, Google will share your name, email address, language preference, and profile picture with Google Cloud SDK. See Google Cloud SDK's Privacy Policy and Terms of Service.

You can manage Sign in with Google in your [Google Account](#).



Click the Continue button

After you click the **Continue** button, the screen below will show:



Google Cloud SDK wants to access your Google Account

odl_user_1559114@cloudlabsgcporg8.com

This will allow Google Cloud SDK to:

- See, edit, configure, and delete your Google Cloud data and see the email address for your Google Account. ⓘ
- View and sign in to your Google Cloud SQL instances ⓘ
- View and manage your Google Compute Engine resources ⓘ
- View and manage your applications deployed on Google App Engine ⓘ

Make sure you trust Google Cloud SDK

[Learn why you're not seeing links to Google Cloud SDK's Privacy Policy or Terms of Service](#)

Review Google Cloud SDK's Privacy Policy and Terms of Service to understand how Google Cloud SDK will process and protect your data.

To make changes at any time, go to your [Google Account](#).

Learn how Google helps you [share data safely](#).



Click the Allow button

When you click the **Allow** button, the screen below will show:



Sign in to the gcloud CLI

You are seeing this page because you ran the following command in the gcloud CLI from this or another machine. If this is not the case, close this tab.

```
gcloud auth login --no-launch-browser
```

Enter the following verification code in gcloud CLI on the machine you want to log into. This is a credential **similar to your password** and should not be shared with others.

```
4/0AanRRrswAY7X0gBsec0s-DSAx70HXWZEW  
hBaLFucEXKuLBbqEgawA3a2tgSvWtcEBc-g
```

Copy

You can close this tab when you're done.



Click the Copy button

Click the **Copy** button, and paste it into the CLI on your server as in the image below:

```
sysadmin@ubuntu2404:~$ gcloud init
Welcome! This command will take you through the configuration of gcloud.

Your current configuration has been set to: [default]

You can skip diagnostics next time by using the following flag:
gcloud init --skip-diagnostics

Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).

You must sign in to continue. Would you like to sign in (Y/n)? Y

Go to the following link in your browser, and complete the sign-in prompts:

https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=32555940559.apps.googleusercontent.com&redirect_uri=https%3A%2F%2Fsdk.cloud.google.com%2Fauthcode.html&scope=openid+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo_email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fappengine.admin+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fsqlservice.login+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&state=08JBQKFxFC8eS5dfda1xJ4oelPt7&prompt=consent&token_usage=remote&access_type=offline&code_challenge=-kFwpqTjuiD-4h6mgUkv8m_dnk9yYU0eyFTCN8Yi38&code_challenge_method=S256

Once finished, enter the verification code provided in your browser: 4/0AanRRrswAY7X0gBsec0s-DSAx70HXWZEWhBaLFucEXKuLBBqEgawA3a2tgSVWtcEBc-g
You are signed in as: [odl_user_1559114@cloudlabsgcporg8.com].

Pick cloud project to use:
[1] clgcporg8-072
[2] Enter a project ID
[3] Create a new project
Please enter numeric choice or text value (must exactly match list item):
```

Paste the code

Select the project and configure the zone as in the image above. After that, the gcloud configuration is complete, like in the image below:

```
Created a default .boto configuration file at [/home/sysadmin/.boto]. See this file and
[https://cloud.google.com/storage/docs/gsutil/commands/config] for more
information about configuring Google Cloud Storage.
The Google Cloud CLI is configured and ready to use!

* Commands that require authentication will use odl_user_1559114@cloudlabsgcporg8.com by default
* Commands will reference project `clgcporg8-072` by default
* Compute Engine commands will use region `asia-southeast1` by default
* Compute Engine commands will use zone `asia-southeast1-a` by default

Run `gcloud help config` to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run `gcloud topic configurations` to learn more.

Some things to try next:

* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic --help` to learn about advanced features of the CLI like arg files and output formatting
* Run `gcloud cheat-sheet` to see a roster of go-to `gcloud` commands.
sysadmin@ubuntu2404:~$
```

Installation of GCP is complete

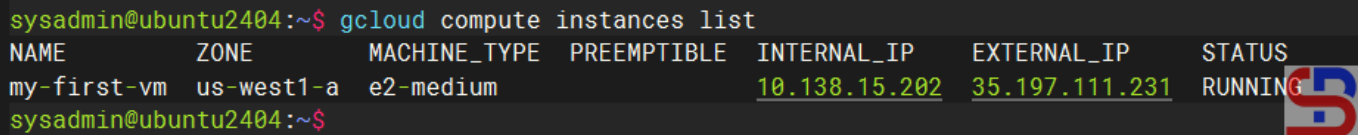
C. Test gcloud

Now, try gcloud to access your GCP. I try to list my virtual machine in GCP using the below command:

```
gcloud compute instances list
```

Then the display below will appear:

```
sysadmin@ubuntu2404:~$ gcloud compute instances list
NAME          ZONE          MACHINE_TYPE  PREEMPTIBLE  INTERNAL_IP  EXTERNAL_IP  STATUS
my-first-vm  us-west1-a   e2-medium     10.138.15.202  35.197.111.231  RUNNING
```



Display virtual machine in GCP using gcloud

If you get a display like the image above, then you have successfully used your GCloud to access your GCP.

Note

If you have many projects on your GCP, you can choose one of these projects as the starting point for your gcloud on GCP. You can switch projects using the command:

```
gcloud config set project PROJECT_ID
```

Change **PROJECT_ID** to the project ID you want to switch to.

References

cloud.google.com

liquidweb.com

bacancytechnology.com

attuneops.io

tecadmin.net