

# [How to Install gcloud on a Linux Server?](#)

written by sysadmin | 1 February 2025

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

## **Problem**

How to install gcloud on a Linux server?

## **Solution**

If you use Linux other than the Ubuntu/Debian distro and the RockyLinux/AlmaLinux/CentOS distro, and you want to install gcloud on your Linux distro, then below are the steps (I use OpenSUSE 15 distro):

### **A. Install gcloud**

As far as I know, there are 2 methods for installing on a Linux server, and both methods recommend using a user other than root.

#### **1. Use the script**

Before you install gcloud using the script, make sure there are tar and curl packages, and **Python version 3.8 and up** on your server. You can check it with the following command:

```
python3 --version
```

After that, use the following 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@OpenSUSE15:~> 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 0 617 0 0 0 0 0 0 617
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.VRTkvQAFkG/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.RHVVSyaqZY/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
google-cloud-sdk/LICENSE
google-cloud-sdk/README
google-cloud-sdk/RELEASE_NOTES
```

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@opensuse15:~> █
```

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:

```
./google-cloud-sdk/bin/gcloud version
```

```
sysadmin@OpenSUSE15:~> ./google-cloud-sdk/bin/gcloud version
Google Cloud SDK 506.0.0
bq 2.1.11
bundled-python3-unix 3.11.9
core 2025.01.10
gcloud-crc32c 1.0.0
gsutil 5.33
sysadmin@OpenSUSE15:~>
```

Execute the gcloud version command

If you want to type the gcloud command without having to type `./google-cloud-sdk/bin/gcloud`, then run the command below:

```
echo "alias gcloud=./google-cloud-sdk/bin/gcloud" >> ~/.bashrc
source ~/.bashrc
```

```
sysadmin@OpenSUSE15:~> echo "alias gcloud=./google-cloud-sdk/bin/gcloud" >> ~/.bashrc
sysadmin@OpenSUSE15:~> source ~/.bashrc
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> gcloud version
Google Cloud SDK 506.0.0
bq 2.1.11
bundled-python3-unix 3.11.9
core 2025.01.10
gcloud-crc32c 1.0.0
gsutil 5.33
sysadmin@OpenSUSE15:~>
```

Make an alias for gcloud

## 2. Using the installer

Run the following commands to install gcloud on your Linux server:

```
curl -O
https://dl.google.com/dl/cloudsdk/channels/rapid/downloads/google-cloud-cli-l
inux-x86_64.tar.gz
tar -xvf google-cloud-cli-linux-x86_64.tar.gz
./google-cloud-sdk/install.sh
```

After installation completes, use the following command to test the gcloud command:

```
./google-cloud-sdk/bin/gcloud version
```

## 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@openuse15:~$ ./google-cloud-sdk/bin/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

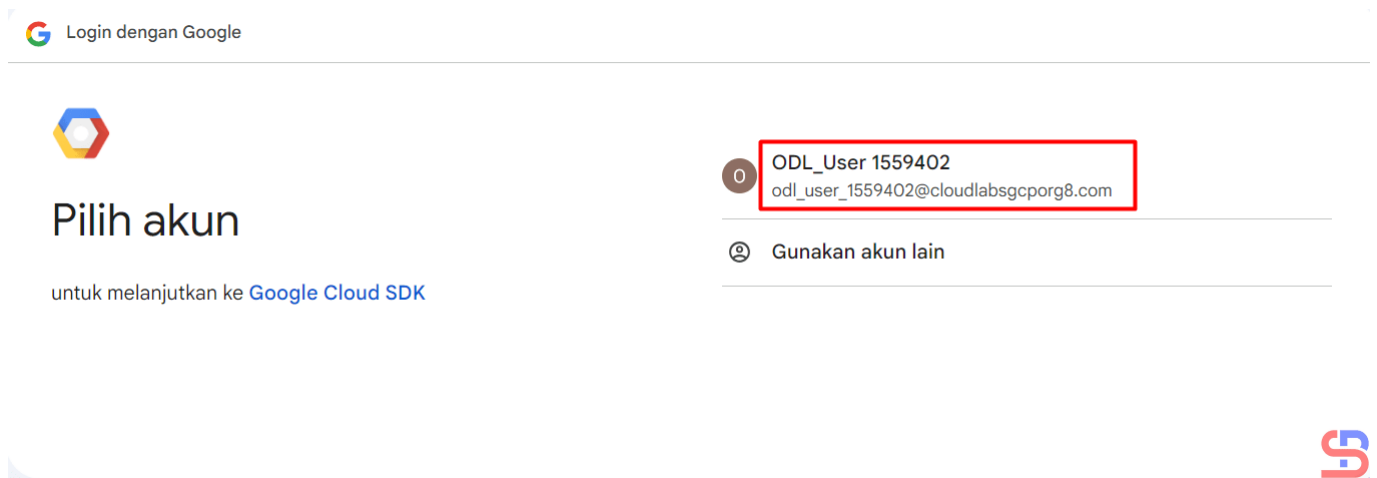
Go to the following link in your browser, and complete the sign-in prompts:

  https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=32555948559_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=vc9SGLILiKIGvYA1ab41XoWAcMk82&prompt=consent&token_usage=remote&access_type=offline&code_challenge=J_yzY9wtYds3Iu8LVY3p8Rsj7i14J4esie4vzIws8&code_challenge_method=S256

Once finished, enter the verification code provided in your browser: 4/0AanRRuxckAB2UdqCAh6WRV6ThbhvLT6YzBr6ZGBmXjsjM7j4opyupHOLz8Zcq-EW7wJ2w
You are signed in as: [odl_user_1559114@cloudlabsgcporg8.com].
```

Click the link

Click the **Ctrl+Click** button in the red box to open the link in a browser, or if you have difficulty, copy what is in the red box and place it in your browser so you will see a display like the one below:



Click the account

Click on the Google account that will access GCP, then there will be a display like the image below:



## Sign in to Google Cloud SDK

odl\_user\_1559402@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

Click the **Continue** button, then the display below will appear:



## Google Cloud SDK wants to access your Google Account

odl\_user\_1559402@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

Click the **Allow** button, then the display below will appear:



## 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.

```
4/0AanRRruchiESKnvxMD0H4Ds5LcSFkfAXgo5  
SwDxgHetI-Nftseo4ebZab4TwnivEeqjh9w
```

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:

```
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=d2JSQAgATWPHQzFXNj5AaQnyXVUT6&prompt=consent&token_usage=remote&access_type=offline&code_challenge=JA4vnbK9ZHcrJ9WQ240aHXUoszw91xkBiHnB1VN7Dw&code_challenge_method=S256

Once finished, enter the verification code provided in your browser: 4/0AanRRuch1ESKnvxMD0H4Ds5LcSFkFAXgo5SwDxgHetI-Nftseo4ebZab4TwnivEeajh9w
You are signed in as: [od1_user_1559402@cloudlabsgcporg8.com].

Pick cloud project to use:
[1] clgcporg8-083
[2] Enter a project ID
[3] Create a new project
Please enter numeric choice or text value (must exactly match list item): 1

Your current project has been set to: [clgcporg8-083].

Do you want to configure a default Compute Region and Zone? (Y/n)? Y

Which Google Compute Engine zone would you like to use as project default?
If you do not specify a zone via a command line flag while working with Compute Engine resources, the default is assumed.
[1] us-east1-b
[2] us-east1-c
```

Paste the code

Select the project and configure the zone as in the image above. After that, the gcloud configuration 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@opensuse15:~> 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 one above, you have successfully used 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](https://cloud.google.com)

[liquidweb.com](https://liquidweb.com)

[bacancytechnology.com](https://bacancytechnology.com)