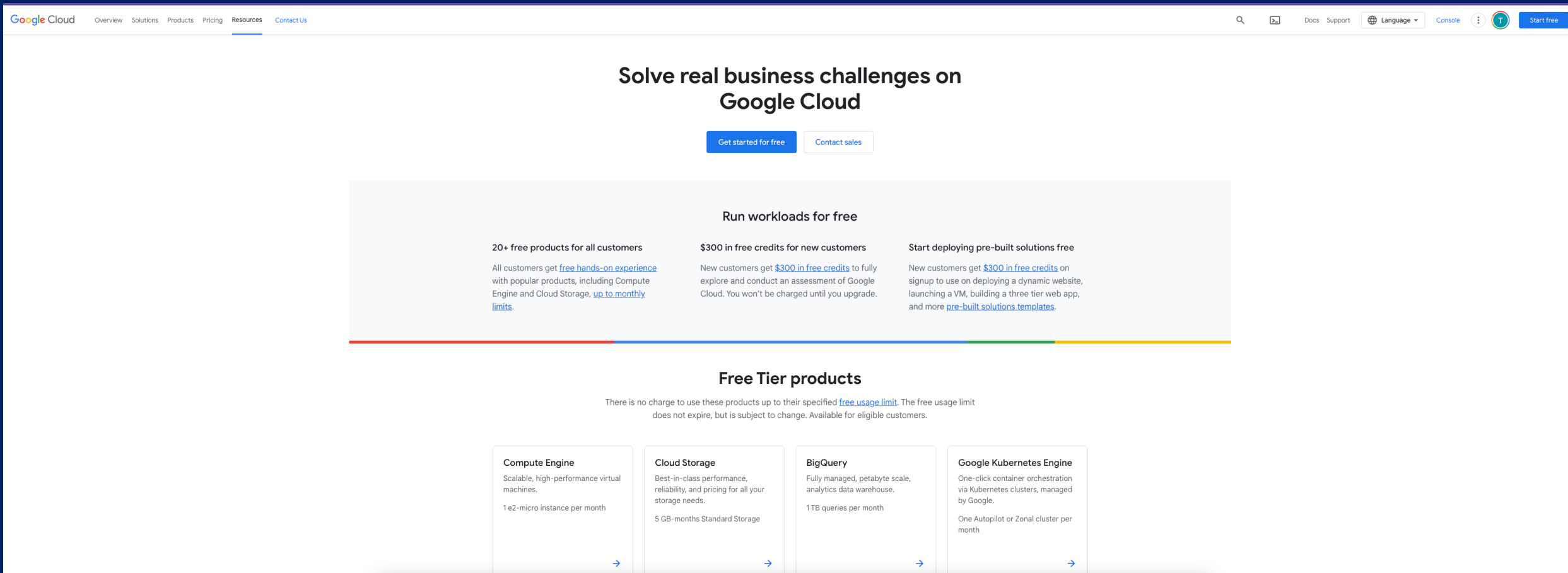


SOFTWARE DEVELOPMENT TOOLS AND ENVIRONMENTS

To apply for Google Cloud, follow these steps



The screenshot displays the Google Cloud website's main landing page. At the top, the navigation bar includes the Google Cloud logo, links for Overview, Solutions, Products, Pricing, Resources, and Contact Us, along with search, docs, support, language, console, and user profile icons. The main heading reads 'Solve real business challenges on Google Cloud', followed by 'Get started for free' and 'Contact sales' buttons. Below this, a section titled 'Run workloads for free' lists three benefits: 20+ free products for all customers, \$300 in free credits for new customers, and the ability to start deploying pre-built solutions free. A horizontal bar with red, blue, green, and yellow segments separates this from the 'Free Tier products' section. This section explains the free usage limit and lists four products: Compute Engine, Cloud Storage, BigQuery, and Google Kubernetes Engine, each with a brief description and a 'Learn more' link.

Google Cloud Overview Solutions Products Pricing Resources Contact Us Search Docs Support Language Console User Profile Start free

Solve real business challenges on Google Cloud

[Get started for free](#) [Contact sales](#)

Run workloads for free

- 20+ free products for all customers**
All customers get [free hands-on experience](#) with popular products, including Compute Engine and Cloud Storage, [up to monthly limits](#).
- \$300 in free credits for new customers**
New customers get [\\$300 in free credits](#) to fully explore and conduct an assessment of Google Cloud. You won't be charged until you upgrade.
- Start deploying pre-built solutions free**
New customers get [\\$300 in free credits](#) on signup to use on deploying a dynamic website, launching a VM, building a three tier web app, and more [pre-built solutions templates](#).

Free Tier products

There is no charge to use these products up to their specified [free usage limit](#). The free usage limit does not expire, but is subject to change. Available for eligible customers.

Product	Description	Free Usage Limit
Compute Engine	Scalable, high-performance virtual machines.	1 e2-micro instance per month
Cloud Storage	Best-in-class performance, reliability, and pricing for all your storage needs.	5 GB-months Standard Storage
BigQuery	Fully managed, petabyte scale, analytics data warehouse.	1 TB queries per month
Google Kubernetes Engine	One-click container orchestration via Kubernetes clusters, managed by Google.	One Autopilot or Zonal cluster per month

<https://cloud.google.com/>

Free trial credit



THB10,864

Free trial credit

Out of THB10,864



90

Days remaining

Ends February 24, 2024

You are not billed during your Free Trial. When the Free Trial ends, all resources you created during the trial are stopped and you will not be charged, unless you upgrade to a paid Cloud Billing account.

Please note: The Free Trial period cannot be paused or extended. The Free Trial ends after all available credits are consumed, or at the end of the Free Trial period, whichever happens first.

[ACTIVATE](#)

[LEARN MORE !\[\]\(0d5ec72f61334709c3fc9450209b754f_img.jpg\)](#)

การสมัครใช้บริการ **Google Cloud** สามารถทำได้โดยขั้นตอนง่าย ๆ ดังนี้:

1. **** เข้าไปที่เว็บไซต์ของ Google Cloud Platform (GCP)**:**

- เปิดเบราว์เซอร์และเข้าไปที่ [\[https://cloud.google.com/\]\(https://cloud.google.com/\)](https://cloud.google.com/).
- คลิกที่ปุ่ม "Get started for free" หรือ "ลงทะเบียนใช้งานฟรี" ที่อยู่บนหน้าเว็บไซต์.

2. **** ลงทะเบียนหรือเข้าสู่ระบบด้วยบัญชี Google**:**

- ถ้าคุณมีบัญชี **Google** อยู่แล้ว (เช่น Gmail), คุณสามารถใช้บัญชีนั้นเข้าสู่ระบบ.
- ถ้าคุณยังไม่มีบัญชี **Google**, คุณจะต้องสร้างบัญชีใหม่.

3. **** กรอกข้อมูลการลงทะเบียน**:**

- คุณจะต้องกรอกข้อมูลส่วนตัว, เช่น ชื่อ, นามสกุล, และข้อมูลการติดต่อ.
- ทำการยืนยันอีเมลที่ใช้สมัคร.

4. **** กรอกข้อมูลการเงิน (เพื่อการยืนยันตัวตน)**:**

- แม้ว่า **GCP** จะเสนอเครดิตฟรีเมื่อคุณเริ่มใช้งาน, แต่ **Google** ยังคงต้องการข้อมูลบัตรเครดิตหรือบัญชีธนาคารเพื่อการยืนยันตัวตน.
- คุณจะไม่ต้องถูกเรียกเก็บเงินจนกว่าจะใช้เครดิตที่ให้มาหมด.

5. **** อ่านและยอมรับข้อกำหนดการใช้งาน**:**

- ตรวจสอบและยอมรับข้อกำหนดและเงื่อนไขการให้บริการของ **Google Cloud**.

6. **** การตั้งค่าโครงการและการใช้งาน**:**

- หลังจากลงทะเบียนเสร็จสิ้น, คุณสามารถเริ่มต้นสร้างโครงการและใช้งานบริการต่าง ๆ ใน **Google Cloud**.

7. **** การยืนยันตัวตนและการเริ่มต้นใช้งาน**:**

- **Google** อาจทำการยืนยันตัวตนผ่านโทรศัพท์หรือข้อความ **SMS**.
- หลังจากยืนยันแล้ว, คุณสามารถเข้าใช้งาน **Google Cloud Console** และเริ่มต้นใช้งานได้ทันที.

1

Google Cloud

Google

Sign in

to continue to Google Cloud Platform

Email or phone

Forgot email?

Not your computer? Use Guest mode to sign in privately.
[Learn more](#)

Create account

Next

English (United States) ▼ Help Privacy Terms

2

Google Cloud

Google

สร้างบัญชี Google

เข้าสู่ Google Cloud Platform

ชื่อ นามสกุล

ที่อยู่อีเมลของคุณ

คุณจะต้องยืนยันว่าเป็นคุณ

[สร้างอีเมล Gmail ใหม่แทน](#)

รหัสผ่าน ยืนยัน

ใช้สิทธิตาม อย่ ด้วยซ้ำไปถ้าต้องการ สำหรับ แอปพลิเคชันของคุณ

☐ แสดงรหัสผ่าน

[ลงชื่อเข้าใช้แทน](#)

ถัดไป

นี่เพื่อบัญชีเดียวก็เข้าถึงทุกผลิตภัณฑ์และบริการของ Google ได้

ไทย ▼ ภาษาไทยไทย ภาษาไทยไทย ไทยไทย

3

Google Cloud

Step 1 of 2 Account Information



deadman@newwriter@gmail.com

[SWITCH ACCOUNT](#)

Country

Thailand

What best describes your organization or needs?

Please select
Business idea / startup idea

Terms of Service

☒ I have read and agree to the [Google Cloud Platform Terms of Service](#), [Supplemental Free Trial Terms of Service](#), and the [terms of service of any applicable services and APIs](#).

Required to continue

Email updates

☐ I would like to receive periodic emails on news, product updates and special offers from Google Cloud and Google Cloud Partners.

[CONTINUE](#)

Access to all Cloud Platform Products

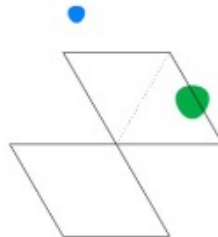
Get everything you need to build and run your apps, websites and services, including Firebase and the Google Maps API.

\$300 credit for free

Put Google Cloud to work with \$300 in credit to spend over the next 90 days.

No autocharge after free trial ends

We ask you for your credit card to make sure you are not a robot. You won't be charged unless you manually upgrade to a paid account.



4

Try Google Cloud for free

Step 2 of 2 Payment Information Verification

Your payment information helps us reduce fraud and abuse. If using a credit or debit card, you won't be charged until you manually activate your account.

Payments profile ⓘ

Choose the payments profile that will be associated with this account or transaction. A payments profile is shared and used across all Google products.

Thailand
Individual profile for Play, YouTube, and Colab
Payments profile ID: [REDACTED]

Payment method

VISA Visa [REDACTED]

[START FREE](#)

Access to all Google Cloud products

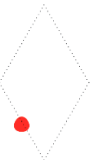
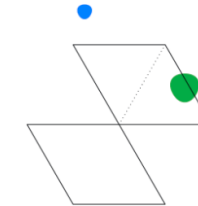
Get everything you need to build and run your apps, websites and services, including Firebase and the Google Maps API.

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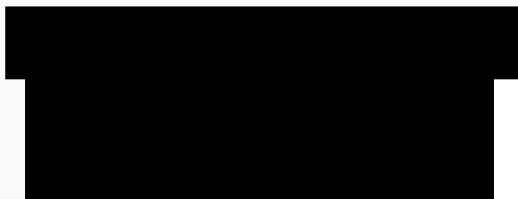
No autocharge after free trial ends

We ask you for your credit card to make sure you are not a robot. If you use a credit or debit card, you won't be charged unless you manually activate your full account.





Welcome, Tuchsanaib



Try Generative AI Studio - Prompt, tune, and deploy Google's text, image, code, and speech foundation models ↗



Recommended based on your interest in General ▾

Pre-built solution templates ⓘ



Deploy a three-tier web app

Web app, rich media site, ecommerce website, database-backed website



Deploy load balanced managed VMs

Data analysis, data pipeline, application logs, log management, log intelligence



Create a data warehouse with BigQuery

Data warehouse, dashboards, ETL, analytics, data analysis

[View all Solutions](#)

Products



Create a VM

Compute Engine



Train and host ML models

Vertex AI



Create a database

Cloud SQL



Analyze and manage data

BigQuery



Create a storage bucket

Cloud Storage



Run containerized apps

Cloud Run



Create a containerized app

Kubernetes Engine



Embed maps

Google Maps Platform



Convert text to speech

Text-to-Speech API



Convert speech to text

Speech-to-Text API

[View all products](#)

[View all APIs](#)

[Compare with AWS and Azure](#) ↗

Interactive tutorials



Building a custom website with Google Cloud

15 min



Get Started with Generative AI - Prompt engineering

15 min



Get started with Compute Engine

5-60 min



Query a public dataset with the Google Cloud Data Catalog

5 min



Compute Engine API

[Google Enterprise API](#)

Compute Engine API



[TRY THIS API](#)

OVERVIEW

DOCUMENTATION

SUPPORT

Overview

Creates and runs virtual machines on Google Cloud Platform.

Additional details

Type: [SaaS & APIs](#)

Last updated: 3/24/23

Category: [Compute](#), [Networking](#), [Google Enterprise APIs](#)

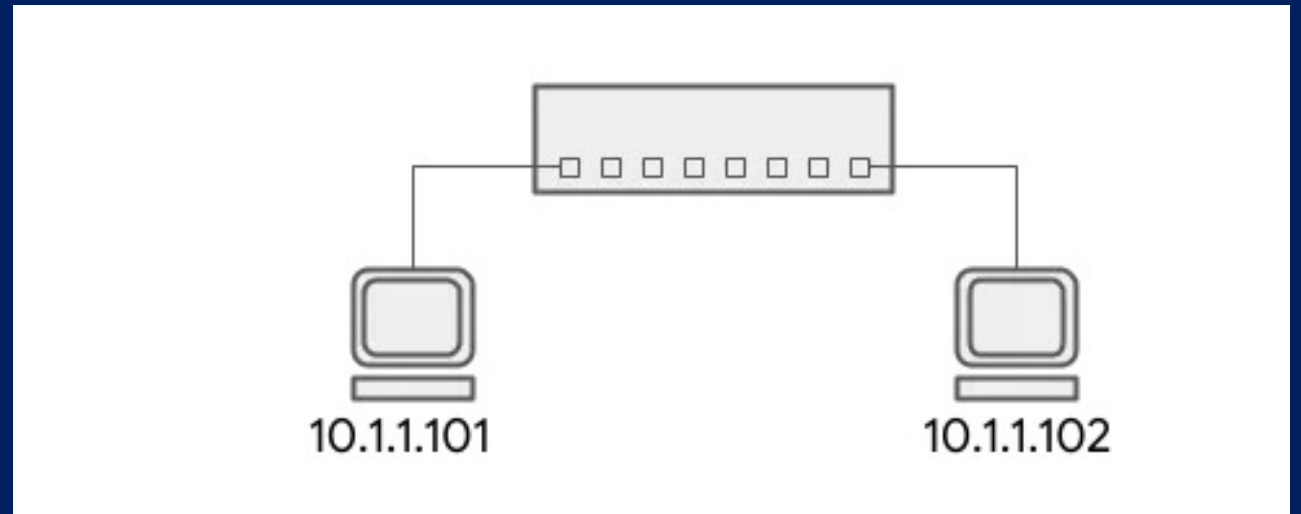
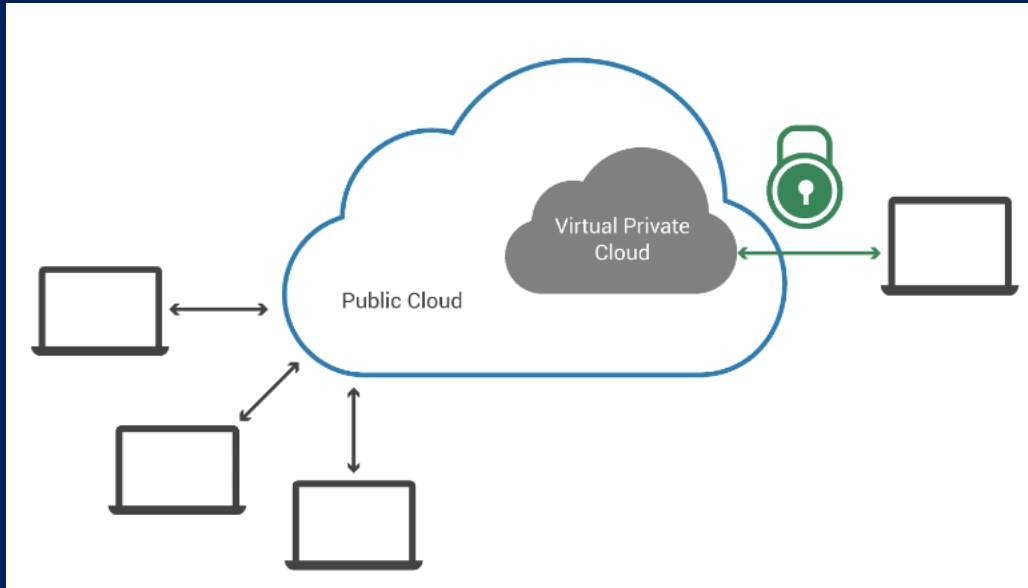
Service name: [compute.googleapis.com](#)

Tutorials and documentation

[Learn more](#)

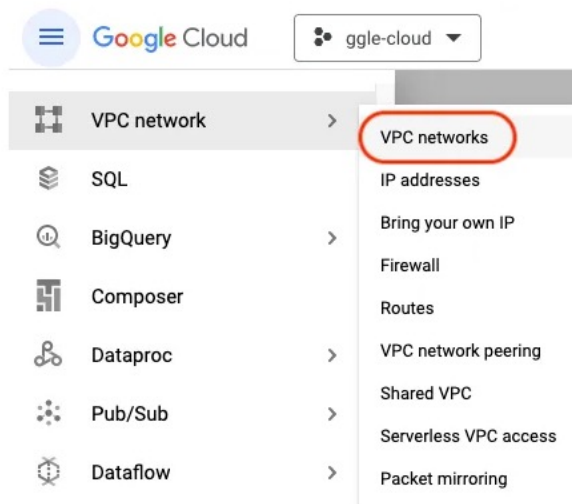
Google Cloud VPC

Virtual Private Cloud หรือนิยมเรียกย่อๆ ว่า VPC คือระบบเครือข่ายเสมือนที่เป็น ส่วนตัวของเราสำหรับการใช้งานเชื่อมต่อสิ่งต่างๆ บน Google Cloud

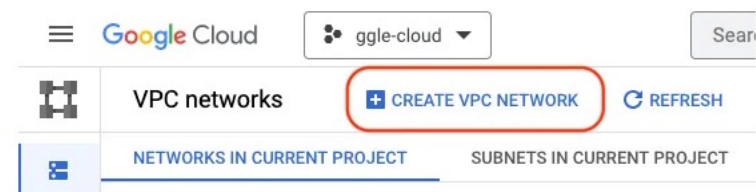


วิธีการสร้าง VPC บน Google Cloud Console

เลือก VPC network > VPC networks



กดที่ CREATE VPC NETWORK



Reference

Name *



❗ Name is required

Description

Maximum transmission unit (MTU)

1460



VPC network ULA internal IPv6 range ?

Enabling this feature will assign a /48 from Google defined ULA prefix fd20::/20.

☐ Enabled

☒ Disabled

Subnets

Subnets let you create your own private cloud topology within Google Cloud. Click Automatic to create a subnet in each region, or click Custom to manually define the subnets. [Learn more](#)

Subnet creation mode ?

☒ Custom

☐ Automatic

New subnet



Name *



❗ Name is required

Description

Region *



IP stack type

☒ IPv4 (single-stack)

☐ IPv4 and IPv6 (dual-stack) ?

IPv4 range *



E.g. 10.0.0.0/24

CREATE SECONDARY IPV4 RANGE

Private Google Access ?

☐ On

☒ Off

Flow logs

Turning on VPC flow logs doesn't affect performance, but some systems generate a large number of logs, which can increase costs in Logging. [Learn more](#)

☐ On

☒ Off

DONE

Subnet Example

Subnet Number	Network Address	Usable IP Range	Broadcast Address	Total Hosts
Subnet 1	192.168.0.0/24	192.168.0.1 - 192.168.0.254	192.168.0.255	254
Subnet 2	192.168.1.0/24	192.168.1.1 - 192.168.1.254	192.168.1.255	254
Subnet 3	192.168.2.0/24	192.168.2.1 - 192.168.2.254	192.168.2.255	254
Subnet 4	192.168.3.0/24	192.168.3.1 - 192.168.3.254	192.168.3.255	254
Subnet 5	192.168.4.0/24	192.168.4.1 - 192.168.4.254	192.168.4.255	254

รวมทั้งหมด, ทั้ง 5 subnet สามารถรองรับได้ประมาณ 1,270 เครื่อง (5 x 254).

Subnet Example

Subnet Number	Network Address	Subnet Mask	Usable IP Range	Broadcast Address	Total Hosts
Subnet 1	192.168.0.0	255.255.240.0	192.168.0.1 - 192.168.15.254	192.168.15.255	4094
Subnet 2	192.168.16.0	255.255.240.0	192.168.16.1 - 192.168.31.254	192.168.31.255	4094
Subnet 3	192.168.32.0	255.255.240.0	192.168.32.1 - 192.168.47.254	192.168.47.255	4094
Subnet 4	192.168.48.0	255.255.240.0	192.168.48.1 - 192.168.63.254	192.168.63.255	4094
Subnet 5	192.168.64.0	255.255.240.0	192.168.64.1 - 192.168.79.254	192.168.79.255	4094

Create a VPC network

Name *
internet-facing 

Lowercase letters, numbers, hyphens allowed

Description 

Maximum transmission unit (MTU)
1460  


VPC network ULA internal IPv6 range

Enabling this feature will assign a /48 from Google defined ULA prefix fd20::/20.

☐ Enabled

☒ Disabled

Subnets

Subnets let you create your own private cloud topology within Google Cloud. Click Automatic to create a subnet in each region, or click Custom to manually define the subnets. [Learn more](#) 

Subnet creation mode

☒ Custom

☐ Automatic

How Creating your first instance (virtual machine) in Google Cloud Platform (GCP)

cloud.google.com/?hl=th

Google Cloud

Overview Solutions Products Pricing Resources Contact Us

Docs Support English Console


T

Try Gemini: Prompt our new AI model with text, images, video, or code

Go from prototype to production quickly with Gemini

Build generative AI apps with Vertex AI—**enhanced by Gemini**—our most capable multimodal model that delivers sophisticated results from simple inputs.

[Go to console](#)[Contact sales](#)




What's new in AI

Upcoming events

For developers


PRODUCT ANNOUNCEMENT

Learn how to customize and deploy Gemini in Vertex AI




PRODUCT ANNOUNCEMENT

Catch up on our expanded Duet AI offerings for developer productivity

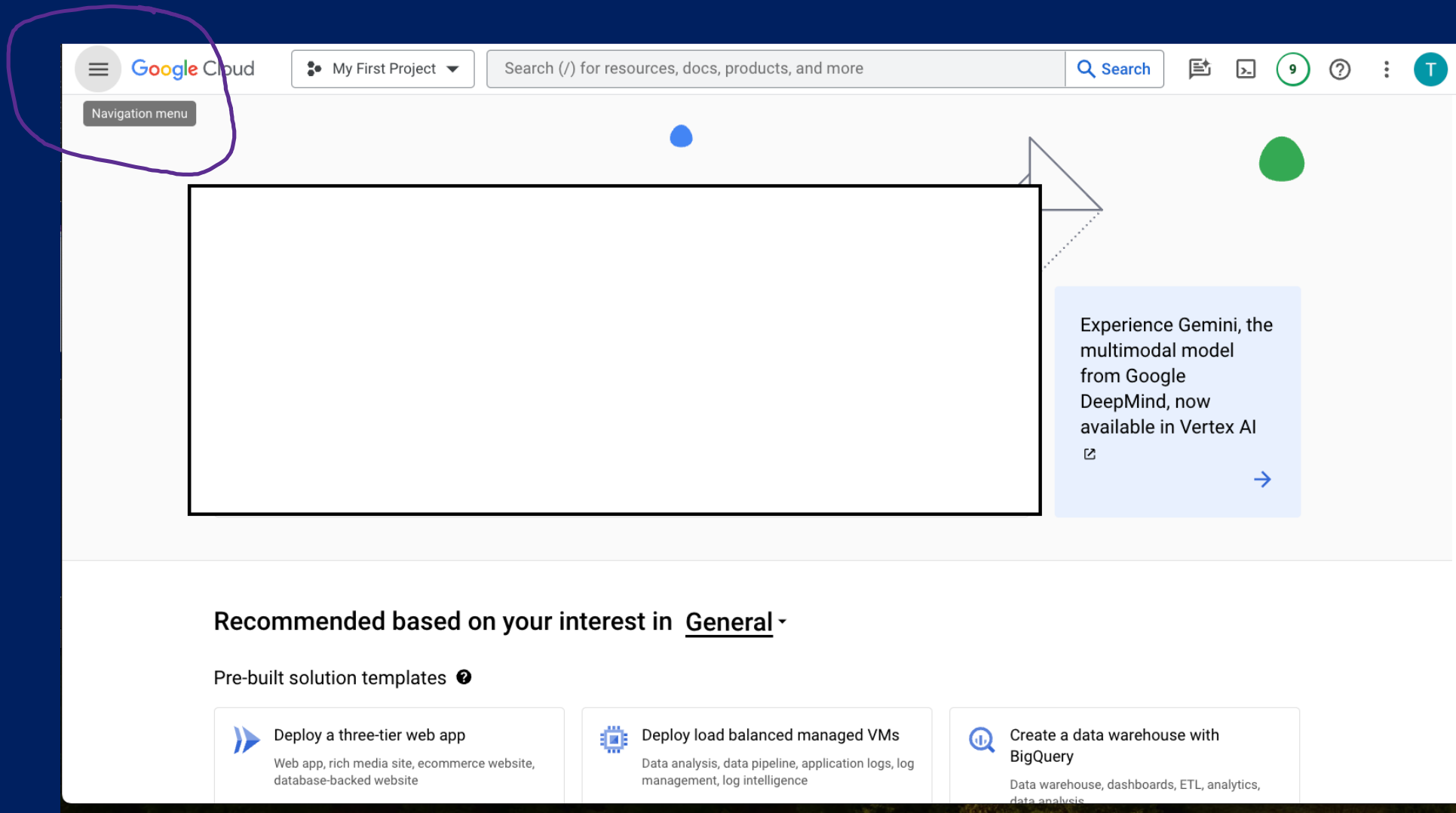


PRODUCT ANNOUNCEMENT

Deploy photorealistic image generation into production with Imagen 2 in Vertex AI



2



4

The screenshot shows the Google Cloud console interface. On the left is a navigation menu with various services. A dropdown menu is open for 'VIRTUAL MACHINES', showing options like 'VM instances', 'Instance templates', and 'Machine images'. The 'Compute Engine' service in the main menu is highlighted with a yellow box. The background shows the main dashboard for 'My First Project' with a search bar, project details, and a Gemini AI advertisement.

Google Cloud

M

VIRTUAL MACHINES

- VM instances
- Instance templates
- Sole-tenant nodes
- Machine images
- TPUs
- Committed use discounts
- Reservations
- Migrate to Virtual Machines

STORAGE

- Disks
- Snapshots
- Images
- Async Replication

INSTANCE GROUPS

- Instance groups
- Health checks

VM MANAGER

API

- APIs & Services

Billing

IAM & Admin

Marketplace

Kubernetes Engine

Cloud Storage

BigQuery

VPC network

Cloud Run

SQL

Logging

Security

Compute Engine

Vertex AI

Search

You're working on project [My First Project](#)

Number: 603981601739 ID: acquired-router-406202

[Add people to your project](#)

[Set up budget alerts](#)

[Review product spend](#)

Experience Gemini, the multimodal model from Google DeepMind, now available in Vertex AI

Interest in General

Deploy load balanced managed VMs

Create a data warehouse with

3

← → ↻ 🏠 🔍 console.cloud.google.com/compute/instances?hl=th&project=acquired-router-406202

☰ Google Cloud

My First Project ▼

Search (/) for resources, docs, products, and more 🔍

🔧 Compute Engine

Virtual machines ^

📄 VM instances

📄 Instance templates

👤 Sole-tenant nodes

🖨 Machine images

🔌 TPUs

📊 Committed use discounts

📅 Reservations

🔄 Migrate to Virtual Machin...

Storage ^

🛒 Marketplace

📖 Release Notes

<|

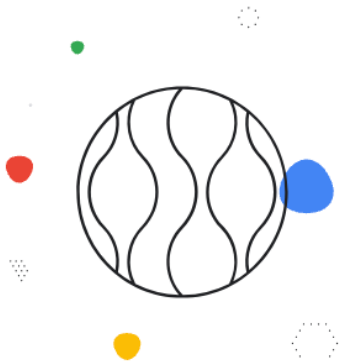
VM instances

📄 CREATE INSTANCE 📄 IMPORT VM 🔄 REFRESH

INSTANCES OBSERVABILITY INSTANCE SCHEDULES

VM instances

🔍 Filter Enter property name or value

<input type="checkbox"/>	Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<div></div> <div><h3>VM Instances</h3><p>Compute Engine lets you use virtual machines that run on Google's infrastructure. Create micro-VMs or larger instances running Debian, Windows, or other standard images. Create your first VM instance, import it using a</p></div>								

Create an instance

EQUIVALENT CODE

To create a VM instance, select one of the options:

New VM instance

Create a single VM instance from scratch

New VM instance from template

Create a single VM instance from an existing template

New VM instance from machine image

Create a single VM instance from an existing machine image

Marketplace

Deploy a ready-to-go solution onto a VM instance

Name *

instance-1

Region *

asia-southeast1 (Singapore)

Region is permanent

Zone *

asia-southeast1-b

Zone is permanent

Machine configuration

General purpose

Compute optimized

Memory optimized

GPUs

Machine types for common workloads, optimized for cost and flexibility

Series	Description	vCPUs	Memory
C3	Consistently high performance	4 - 176	8 - 1,408 GB
C3D	Consistently high performance	4 - 360	8 - 2,880 GB
E2	Low cost, day-to-day computing	0.25 - 32	1 - 128 GB
N2	Balanced price & performance	2 - 128	2 - 864 GB
N2D	Balanced price & performance	2 - 224	2 - 896 GB

Monthly estimate

\$30.61

That's about \$0.04 hourly

Pay for what you use: no upfront costs and per second billing

Item	Monthly estimate
2 vCPU + 4 GB memory	\$30.17
10 GB standard persistent disk	\$0.44
Total	\$30.61

[Compute Engine pricing](#)

LESS

Create an instance

EQUIVALENT CODE

To create a VM instance, select one of the options:

New VM instance

Create a single VM instance from scratch

New VM instance from template

Create a single VM instance from an existing template

New VM instance from machine image

Create a single VM instance from an existing machine image

Marketplace

Deploy a ready-to-go solution onto a VM instance

DEPLOY CONTAINER

Boot disk

Name

instance-1

Type

New standard persistent disk

Size

10 GB

License type

Free

Image

Ubuntu 23.10

CHANGE

!!Selected Ubuntu

Identity and API access

Service accounts

Service account

Compute Engine default service account

Requires the Service Account User role (roles/iam.serviceAccountUser) to be set for users who want to access VMs with this service account. [Learn more](#)

Access scopes

Allow default access

CREATE

CANCEL

EQUIVALENT CODE

Google Cloud

My First Project

Search (/) for resources, docs, products, and more

Search

10

?

:

T

Compute Engine

Virtual machines

VM instances

Instance templates

Sole-tenant nodes

Machine images

TPUs

Committed use discounts

Reservations

Migrate to Virtual Machin...

Storage

Marketplace

Release Notes

<|

VM instances

CREATE INSTANCE

IMPORT VM

REFRESH

LEARN

INSTANCES

OBSERVABILITY

INSTANCE SCHEDULES

Complete !

Filter

Enter property name or value

	Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	instance-1	asia-southeast1-b			10.148.0.12 (nic0)	34.87.132.139 (nic0)	SSH	

Related actions

Explore Backup and DR
Back up your VMs and set up disaster recovery

View billing report
View and manage your Compute Engine billing

Monitor VMs
View outlier VMs across metrics like CPU and network

Explore VM logs
View, search, analyze, and download VM instance logs

Set up firewall rules
Control traffic to and from a VM instance

Patch management
Schedule patch updates and view patch compliance on VM instances

Load balance between VMs
Set up Load Balancing for your applications as your traffic and users grow

How to create an SSH key for Google Cloud Platform (GCP)

Google Cloud

My First Project

Search (/) for resources, docs, products, and more

Search

10

Compute Engine

Virtual machines

VM instances

Instance templates

Sole-tenant nodes

Machine images

TPUs

Committed use discounts

Reservations

Migrate to Virtual Machin...

Storage

Disks

Snapshots

Images

Marketplace

Release Notes

VM instances

CREATE INSTANCE

IMPORT VM

REFRESH

INSTANCES

OBSERVABILITY

INSTANCE SCHEDULES

VM instances

Filter

Enter property name or value

	Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input type="checkbox"/>	<input checked="" type="checkbox"/>	instance-1	asia-southeast1-b			10.148.0.12 (nic0)	34.87.132.139 (nic0)	SSH

Related actions

Explore Backup and DR

View billing report

Monitor VMs

Explore VM logs

Set up firewall rules

Patch management

Load balance between VMs

https://console.cloud.google.com/compute/instancesDetail/zones/asia-southeast1-b/instances/instance-1?hl=th&project=acquired-router-406202

2

Compute Engine

Virtual machines

VM instances

Instance templates

Sole-tenant nodes

Machine images

TPUs

Committed use discounts

Reservations

Migrate to Virtual Machin...

Storage

Disks

Snapshots

Images

Async Replication

Marketplace

Release Notes

<|

instance-1

EDIT

RESET

CREATE MACHINE IMAGE

OPERATIONS

DETAILS

OBSERVABILITY

OS INFO

SCREENSHOT

SSH

CONNECT TO SERIAL CONSOLE

Connecting to serial ports is disabled

Logs

Logging

Serial port 1 (console)

SHOW MORE

Basic information

Name	instance-1
Instance Id	8857471466672270006
Description	None
Type	Instance
Status	Running
Creation time	Dec 22, 2023, 11:45:14 AM UTC+07:00
Zone	asia-southeast1-b
Instance template	None
In use by	None
Reservations	Automatically choose
Labels	None
Tags	
Deletion protection	Disabled



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<|



Edit instance-1 instance

Security and access

Shielded VM ?

To edit Shielded VM features you need to stop the instance first.
Turn on all settings for the most secure configuration.

- ☐ Turn on Secure Boot ?
- ☒ Turn on vTPM ?
- ☒ Turn on Integrity Monitoring ?

SSH Keys

These keys allow access only to this instance, unlike project-wide SSH keys. [Learn more](#)



☐ Block project-wide SSH keys

When checked, project-wide SSH keys cannot access this instance. [Learn more](#)

+ ADD ITEM

Identity and API access ?

Service accounts ?

You must stop the VM instance to edit its service account

Service account

Compute Engine default service account

Requires the Service Account User role (roles/iam.serviceAccountUser) to be set for users who want to access VMs with this service account. [Learn more](#)

Access scopes ?

You must stop the VM instance to edit its API access scopes

SAVE

CANCEL

Google Cloud

My First Project

Search (/) for resources, docs, products, and more

Search

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← Edit instance-1 instance

Security and access

Shielded VM

To edit Shielded VM features you need to stop the instance first. Turn on all settings for the most secure configuration.

Turn on Secure Boot

Turn on vTPM

Turn on Integrity Monitoring

SSH Keys

These keys allow access only to this instance, unlike project-wide SSH keys. [Learn more](#)

Block project-wide SSH keys

When checked, project-wide SSH keys cannot access this instance. [Learn more](#)

SSH key 1 *

Enter public SSH key

+ ADD ITEM

Identity and API access

Service accounts

You must stop the VM instance to edit its service account

Service account

Compute Engine default service account

Requires the Service Account User role (roles/iam.serviceAccountUser) to be set for users

SAVE

CANCEL

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To create an SSH key for Google Cloud Platform (GCP) with the username "username" and save it in the current directory with the filename `mykey`, you can follow these steps:

Step 1: Generate the SSH Key Pair

1. **Open a Terminal:** On your local machine, open a terminal window.
2. **Navigate to the Desired Directory:** Use the `cd` command to navigate to the directory where you want to save the key. If you're already in the desired directory, you can skip this step.
3. **Generate the SSH Key Pair:** Use the `ssh-keygen` command to generate a new SSH key pair. The key will be saved in the current directory with the name `mykey`. Run the following command:

```
mkdir mykey
cd mykey
```

```
ssh-keygen -t rsa -b 2048 -C "tuchsanai" -f tuchsanai_gcp_key
```

- `-t rsa` : Specifies the type of key to create, in this case, RSA.
- `-b 2048` : Specifies the number of bits in the key, in this case, 2048 bits.
- `-C "username"` : Adds a comment to the key, here it is the username.
- `-f tuchsanai_gcp_key` : Specifies the filename and path of the key file.

4. **Set a Password (Optional):** You'll be prompted to enter a passphrase for additional security. This step is optional but recommended.

Step 2: Add the Public Key to GCP

1. **Locate the Public Key:** The command above creates two files in the current directory: `mykey` (private key) and `mykey.pub` (public key). You need to upload the public key to GCP.
2. **Copy the Public Key:** Display and copy the contents of the public key file by using the command:

```
cat ./username.pub
```

3. **Log in to GCP Console:** Go to your GCP console in a web browser.
4. **Navigate to SSH Keys Section:** Go to the "Compute Engine" section, then to "Metadata", and find the "SSH Keys" tab.
5. **Add the SSH Key:** Paste the copied public key into the SSH keys section and save the changes.

Step 3: Connect to a GCP Instance

1. **Find the External IP of Your Instance:** In the GCP console, go to the "VM instances" page and find the external IP address of the instance you want to connect to.
2. **Connect via SSH:** Use the SSH command to connect to the instance. Replace `[EXTERNAL_IP]` with the actual IP address:

```
ssh -i username.private username@[EXTERNAL_IP]
```

- `-i username.private` : Specifies the private key file for authentication.
- `username@[EXTERNAL_IP]` : The username and IP address of the GCP instance.

Following these steps, you should be able to generate an SSH key in your specified directory and use it to connect to your GCP instances securely. Remember to keep the private key (`mykey`) secure and private.

https://github.com/Tuchsanai/DevTools/tree/main/Docker/Google%20Cloud/Lab01_Create_SSH%20key%20_GCP

How to Open Port for Cloud Platform (GCP)

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CREATE INSTANCEIMPORT VMREFRESH

INSTANCESOBSERVABILITYINSTANCE SCHEDULES

VM instances

Filter Enter property name or value

	Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	Connect
<input type="checkbox"/>	✓	instance-2	asia-southeast1-b			192.168.1.2 (nic0)	34.143.159.17 (nic0)	SSH

Related actions

Explore Backup and DRNEW

View billing report

Monitor VMs

Explore VM log

More actions

Resume

Stop

Suspend

Reset

Delete

Create a group based on this VMPREVIEW

View network details

Create new machine image

View logs

View monitoring

<https://www.youtube.com/watch?v=-RjDWwTZUnc&t=40s>

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VPC network

VPC networks

IP addresses

Bring your own IP

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Network interface details

Selected network interface:

nic0

Network interface details

Name	Network	Subnetwork	Primary internal IP address	Alias IP ranges	IP stack type	External IP address	Network Service Tier
nic0	myvpc	private	192.168.1.2	—	IPv4	34.143.159.17	Premium

VM instance details

Name	Zone	Network tags	Service account	IP forwarding
instance-2	asia-southeast1-b	http-server, https-server	603981601739-compute@developer.gserviceaccount.com	Off

Firewall and routes details

FIREWALLS

ROUTES

Filter

Enter property name or value

Name	Enforcement order	Type	Deployment scope	Rule priority	Targets	Source	Destination
▶ vpc-firewall-rules	1	VPC firewall rules	Global				


Network analysis

CONNECTIVITY TESTS

Enable Network Management API

Connectivity test requires Network Management API. This is a one-time enablement per project and may take a few minutes to complete.

ENABLE API

 Network Security

Secure Web Proxy

Cloud Armor

Cloud Armor policies

Adaptive Protection

Managed Protection

Cloud IDS

IDS Dashboard

IDS Endpoints

IDS Threats

Cloud Firewall

Firewall policies

Threats

PREVIEW

Firewall endpoints

PREVIEW

Common components

Security profiles

PREVIEW

SSL policies

Firewall policies

+

CREATE FIREWALL POLICY

+

CREATE FIREWALL RULE

VPC firewall rules

Firewall rules control incoming or outgoing traffic to an instance. By default, incoming traffic from outside your network is blocked. [Learn more](#)

Note: App Engine firewalls are managed in the [App Engine Firewall rules section](#).

i

SMTP port 25 disallowed in this project. [Learn more](#)

↻

REFRESH

≡

CONFIGURE LOGS

🗑

DELETE

Filter

Enter property name or value

<input type="checkbox"/>	Name	Type	Targets	Filters	Protocols / ports
<input type="checkbox"/>	default-allow-health-check	Ingress	lb-health-ch	IP ranges: 35.191.0.0/1	tcp
<input type="checkbox"/>	default-allow-health-check-ipv6	Ingress	lb-health-ch	IP ranges: 2600:1901:8	tcp
<input type="checkbox"/>	default-allow-http	Ingress	http-server	IP ranges: 0.0.0.0/0	tcp:80
<input type="checkbox"/>	default-	Ingress	https-server	IP ranges: 0.0.0.0/0	tcp:443

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Network Security

Secure Web Proxy

Cloud Armor

Cloud Armor policies

Adaptive Protection

Managed Protection

Cloud IDS

IDS Dashboard

IDS Endpoints

IDS Threats

Cloud Firewall

Firewall policies

Threats

Firewall endpoints

Common components

Security profiles

SSL policies

Client Authentication

Create a firewall rule

traffic from outside your network is blocked. [Learn more](#)

Name *

my-custom-Firewalls

Name must be lowercase letters, numbers, and hyphens

Description

My define Firewall

Logs

Turning on firewall logs can generate a large number of logs which can increase costs in Logging. [Learn more](#)

On

Off

Network *

default

Priority *

1000

CHECK PRIORITY OF OTHER FIREWALL RULES

Priority can be 0 - 65535

Direction of traffic

Ingress

Egress

Action on match

Allow

Deny

Targets

All instances in the network

Source filter

IPv4 ranges

Source IPv4 ranges *

0.0.0.0/0

Second source filter

None

Google Cloud

My First Project

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Network Security

Secure Web Proxy

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Security profiles

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Create a firewall rule

Deny

Targets

All instances in the network

Source filter

IPv4 ranges

Source IPv4 ranges *

0.0.0.0/0

Second source filter

None

Destination filter

None

Protocols and ports

Allow all

Specified protocols and ports

TCP

Ports

8080-8095

E.g. 20, 50-60

UDP

Ports

E.g. all

Other

Protocols

Separate multiple protocols by commas, e.g. ah, sctp

DISABLE RULE

CREATE

CANCEL

EQUIVALENT COMMAND LINE

