

# GCP Assignment: -

## 1. VPC Creation

←

VPC network details

EDIT

DELETE VPC NETWORK

Enable DNS API

Applying DNS server policies to the network requires DNS API. This is a one-time enablement per project and may take a few minutes to complete.

ENABLE API

None

Maximum transmission unit

1460

<

SUBNETS

STATIC INTERNAL IP ADDRESSES

FIREWALLS

FIREWALL ENDPOINTS

ROUTES

>

ADD SUBNET

FLOW LOGS

Filter

Enter property name or value

?

⋮

<input type="checkbox"/>	Name ↑	Region	Stack Type	Internal IP ranges	External IP ranges	Secondary IPv4 ranges
<input type="checkbox"/>	<a href="#">cloudclan-vpc</a>	us-central1	IPv4	10.0.0.0/22	None	None

Reserved proxy-only subnets for load balancing

<input type="checkbox"/>	Name	Region ↑	IP address ranges	Gateway	Role	Purpose
No rows to display						

## Firewall rule to enable ssh port 22

←

VPC network details

EDIT

DELETE VPC NETWORK

HELP

Enable DNS API

Applying DNS server policies to the network requires DNS API. This is a one-time enablement per project and may take a few minutes to complete.

ENABLE API

None

Maximum transmission unit

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<

SUBNETS

STATIC INTERNAL IP ADDRESSES

FIREWALLS

FIREWALL ENDPOINTS

ROUTES

VPC NETWORK PEERING

PRIVATE SERVICE CONNECT

ADD FIREWALL RULE

DELETE

Filter

Enter property name or value

?

Name	Enforcement order ↑	Type	Deployment scope	Rule priority	Targets	Source	Destination	Protocols and ports	Action
vpc-firewall-rules	1	VPC firewall rules	Global						
<a href="#">allowport22</a>		Ingress firewall rule	Global	1000	Appl...	IPv4 ranges	—	22	Allow

## 2. Compute Engine Instance

VM instances									
<a href="#">CREATE INSTANCE</a> <a href="#">IMPORT VM</a> <a href="#">REFRESH</a> <a href="#">HELP ASSISTANT</a> <a href="#">LI</a>									
<a href="#">INSTANCES</a> <a href="#">OBSERVABILITY</a> <a href="#">INSTANCE SCHEDULES</a>									
VM instances									
<a href="#">Filter</a> Enter property name or value <a href="#">?</a>									
<input type="checkbox"/>	Status	Name <a href="#">↑</a>	Zone	Recommendations	In use by	Internal IP	External IP	Connect	
<input type="checkbox"/>		<a href="#">cloudclangpassignment1</a>	us-central1-a			10.128.0.2 ( <a href="#">nic0</a> ) 10.0.0.2 ( <a href="#">nic1</a> )	35.209.36.31 ( <a href="#">nic0</a> )	SSH	<a href="#">⋮</a>

## 3. Start-up Script

[←](#) Edit cloudclangpassignment1 instance

You can configure this VM to shut down when the key associated with any attached disk is revoked. [Learn more](#)

☐ Shut down (recommended)

☒ Do nothing

### Metadata

You can set custom metadata for an instance or project outside of the server-defined metadata. This is useful for passing in arbitrary values to your project or instance that can be queried by your code on the instance. [Learn more](#)

[+ ADD ITEM](#)

### Automation

**Startup script**

```
sudo apt-get update
sudo apt install nginx -y
```

You can choose to specify a startup script that will run when your instance boots up or restarts. Startup scripts can be used to install software and updates, and to ensure that services are running within the virtual machine. [Learn more](#)

### Sole tenancy

Provision VMs on a sole-tenant group or on a specific node within the group, within your project or projects shared with you. [Learn more](#)

## 4. IP reservation

IP addresses

RESERVE EXTERNAL STATIC IP ADDRESS

RESERVE INTERNAL STATIC IP ADDRESS

REFRESH

ALL

INTERNAL IP ADDRESSES

EXTERNAL IP ADDRESSES

IPV4 ADDRESSES

IPV6 ADDRESSES

Filter Enter property name or value

?

☰

<input type="checkbox"/>	Name	IP address	Access type	Region	Type ↓	Version	In use by
<input type="checkbox"/>	cloudclan-gcp-ipreservation	35.209.36.31	External	us-central1	Static	IPv4	VM instance <a href="#">cloudclan-gcp-ipreservation1</a> (Zone us-central1-a)

## 5. Nginx screenshot

```

rajesh_km_rak@cloudclan-gcp:~$ systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2023-09-01 12:26:44 UTC; 3min 19s ago
     Docs: man:nginx(8)
   Process: 638 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
   Process: 684 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
  Main PID: 698 (nginx)
    Tasks: 3 (limit: 1145)
   Memory: 11.4M
      CPU: 66ms
   CGroup: /system.slice/nginx.service
           └─698 nginx: master process /usr/sbin/nginx -g daemon on; master_process on;
             └─701 nginx: worker process
               └─702 nginx: worker process

Sep 01 12:26:44 cloudclan-gcp systemd[1]: Starting A high performance web server and a reverse proxy server...
Sep 01 12:26:44 cloudclan-gcp systemd[1]: nginx.service: Failed to parse PID from file /run/nginx.pid: Invalid argument
Sep 01 12:26:44 cloudclan-gcp systemd[1]: Started A high performance web server and a reverse proxy server.
rajesh_km_rak@cloudclan-gcp:~$ curl localhost:80
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
  body {
    width: 35em;
    margin: 0 auto;
    font-family: Tahoma, Verdana, Arial, sans-serif;
  }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
rajesh_km_rak@cloudclan-gcp:~$

```

## 6. Instance Template

Instance temp...

CREATE INSTANCE TEMPLATE

REFRESH

CREATE VM

CREATE INSTANCE GROUP

Instance templates are saved VM configurations used to create identical VMs, either individually or as part of managed instance groups. [Learn more](#)

Filter

Filter instance templates

?

☰

<input type="checkbox"/>	Name ↑	Machine type	Image	Disk type	Placement policy ?	Actions
<input type="checkbox"/>	<a href="#">cloudclan-gcp-assignment-instancetype</a>	e2-micro	debian-11-bullseye-v20230814	Balanced persistent disk	No policy	⋮

## 7. Instance from the template

Google Cloud

My First Project

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

Search

🔍

🔔

?

⋮

👤

Compute Engine

Virtual machines

VM instances

Instance templates

Sole-tenant nodes

Machine images

TPUs

Committed use discounts

Reservations

VM instances

CREATE INSTANCE

IMPORT VM

REFRESH

HELP ASSISTANT

LEARN

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
<input type="checkbox"/>	🟢	<a href="#">cloudclan-gcp-assignment-instancetype-1</a>	us-central1-a			10.128.0.3 <a href="#">(nic0)</a>	10.0.0.3	SSH <div>⌵</div>
<input type="checkbox"/>	🟢	<a href="#">cloudclan-gcp-assignment1</a>	us-central1-a			10.128.0.2 <a href="#">(nic0)</a>	10.0.0.2 35.209.36.31 <a href="#">(nic0)</a>	SSH <div>⌵</div>

Related actions

⌵ HIDE

## 8. Google Compute Managed Instance Groups

cloudclan-gcp-assignment

EDIT

UPDATE VMS

RESTART/REPLACE VMS

DELETE GROUP

OVERVIEW

DETAILS

MONITORING

ERRORS

Instances by status

1 instance

🟢 1

Instance by health

Not configured

Autohealing off. [Configure](#)

Autoscaling

On (min 1, max 2)

Based on 1 metric and 0 schedules

Status

🟢 Ready

Creation Time

Sep 1, 2023, 8:53:52 PM UTC+05:30

Description

Number of instances

1

Template

[cloudclan-gcp-assignment-instancetype](#)

Location

us-central1-a

Instance Group Members

REMOVE FROM GROUP

DELETE INSTANCE

Filter

Enter property name or value

?

☰