

[Networking Products](https://cloud.google.com/products/networking/) (<https://cloud.google.com/products/networking/>)

[Virtual Private Cloud](https://cloud.google.com/vpc/) (<https://cloud.google.com/vpc/>)

[Documentation](https://cloud.google.com/vpc/docs/) (<https://cloud.google.com/vpc/docs/>) [Guides](#)

How-to guides

Using core Virtual Private Cloud (VPC) functionality

Using VPC networks

Create networks and subnets, and modify existing ones.

(<https://cloud.google.com/vpc/docs/using-vpc>)

Using firewall rules

Create and modify firewall rules. View firewall rule examples.

(<https://cloud.google.com/vpc/docs/using-firewalls>)

Using routes

Create, modify, and work with network routes.

(<https://cloud.google.com/vpc/docs/using-routes>)

Adding and removing network tags

Add and remove instance tags used by firewall rules and routes.

(<https://cloud.google.com/vpc/docs/add-remove-network-tags>)

Using legacy networks

Create and use legacy (non-VPC) networks.

(<https://cloud.google.com/vpc/docs/using-legacy>)

VPC network sharing and peering

Provisioning Shared VPC

Set up a Shared VPC host project, assign service projects, and set up permissions for sharing a network with other projects.

(<https://cloud.google.com/vpc/docs/provisioning-shared-vpc>)

Deprovisioning Shared VPC

Disassociate Shared VPC service projects from a host project. Disable a project as a host project.

(<https://cloud.google.com/vpc/docs/deprovisioning-shared-vpc>)

Using VPC Network Peering

Configure two networks as peers or disconnect existing peers.

(<https://cloud.google.com/vpc/docs/using-vpc-peering>)

Configuring VM IP addresses and interfaces

Reserving static internal IP addresses

Reserve a static internal IP address. Assign a particular internal IP address to a Google Cloud resource. (Docs are hosted in the Compute Engine documentation.)

(<https://cloud.google.com/compute/docs/ip-addresses/reserve-static-internal-ip-address>)

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Configuring alias IP ranges

Assign a range of IP addresses to a Compute Engine virtual machine (VM) instance for use by containers or other services running on the VM.

(<https://cloud.google.com/vpc/docs/configure-alias-ip-ranges>)

Creating instances with multiple network interfaces

Configure a Compute Engine VM instance with more than one network interface so that it can be used as a virtual appliance that links VPC networks.

(<https://cloud.google.com/vpc/docs/create-use-multiple-interfaces>)

Packet Mirroring

Using Packet Mirroring

Configure a packet mirroring policy to specify mirrored sources and a collector destination.

(<https://cloud.google.com/vpc/docs/using-packet-mirroring>)

Monitoring Packet Mirroring

View metrics for a packet mirroring policy to confirm that traffic is being properly mirrored.

(<https://cloud.google.com/vpc/docs/monitoring-packet-mirroring>)

Logging and monitoring

Using VPC Flow Logs

View traffic flow logs and metrics.

(<https://cloud.google.com/vpc/docs/using-flow-logs>)

Using Firewall Rules Logging

See which firewall rules affected your traffic.

(<https://cloud.google.com/vpc/docs/using-firewall-rules-logging>)

Using Serverless VPC Access audit logging

View the audit logs created by Serverless VPC Access as part of Cloud Audit Logs.

(<https://cloud.google.com/vpc/docs/using-firewall-rules-logging>)

Special configurations

Configuring Private Google Access

Allow VM instances in your VPC network subnet to reach Google APIs even if the VMs don't have external IP addresses.

(<https://cloud.google.com/vpc/docs/configure-private-google-access>)

Configuring Private Google Access for on-premises hosts

Enable your on-premises hosts to reach Google APIs and services through a Cloud VPN tunnel or Cloud Interconnect connection. Hosts don't need an external IP address.

(<https://cloud.google.com/vpc/docs/configure-private-google-access-hybrid>)

Configuring private services access

Establish a private connection to services made available to your VPC network on internal IP addresses.

(<https://cloud.google.com/vpc/docs/configure-private-services-access>)

Configuring Serverless VPC Access

Connect from the App Engine standard environment and Cloud Functions directly to your VPC network.

(<https://cloud.google.com/vpc/docs/special-configurations>)

Configuring VMs for networking use cases

Set up a Compute Engine VM instance as a Cloud NAT or Cloud VPN gateway. Configure reusable static internal IP addresses.

(<https://cloud.google.com/vpc/docs/special-configurations>)

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