

[Cloud VPN](https://cloud.google.com/vpn/) (<https://cloud.google.com/vpn/>)

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

Adding a VPN tunnel

Adding a VPN tunnel to HA VPN

- For a tunnel from an HA VPN gateway to a peer gateway, see [Creating an HA VPN to a peer VPN gateway](#) (<https://cloud.google.com/vpn/docs/how-to/creating-ha-vpn#creating-ha-gw-peer-tunnel>).
- For a tunnel from an HA VPN to another HA VPN gateway, see [Creating HA VPN Google Cloud-to-Google Cloud gateways](#) (<https://cloud.google.com/vpn/docs/how-to/creating-ha-vpn2#creating-ha-gw-2-gw-and-tunnel>).

Adding a VPN tunnel to Classic VPN

Each Cloud VPN tunnel associated with a Classic VPN gateway *must* connect to a *unique peer* (<https://cloud.google.com/vpn/docs/concepts/overview#peer-definition>) VPN gateway, as identified by the peer gateway's IP address. If you need to create a second tunnel to the same peer gateway, you must create that tunnel from a different Cloud VPN gateway.

Note: The IP address of the peer VPN gateway must be a public IP address. The peer gateway must identify itself using its public IP address, [even if it is located behind a NAT device](#) (https://cloud.google.com/vpn/docs/support/troubleshooting#gateways_behind_nat).

Required permissions

Project owners, editors, and IAM members with the [Network Admin](#)

(<https://cloud.google.com/compute/docs/access/iam#compute.networkAdmin>) role can create Cloud VPN tunnels.

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Note: Before creating a tunnel using policy-based routing or a route-based VPN, carefully review the details for [traffic selectors](#) (<https://cloud.google.com/vpn/docs/concepts/choosing-networks-routing#static-routing-networks>), paying special attention to the notes about [multiple IP ranges](#) (<https://cloud.google.com/vpn/docs/concepts/choosing-networks-routing#ts-ip-ranges>).

1. Go to the VPN page in the Google Cloud Console.

[GO TO THE VPN PAGE](https://console.cloud.google.com/hybrid/vpn/list) ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/HYBRID/VPN/LIST](https://console.cloud.google.com/hybrid/vpn/list))

2. Click the **Google VPN Gateways** tab.
3. Click the name of an existing VPN gateway.
4. On the VPN gateway details page, in the **Tunnels** section, click **Add VPN tunnel**.
5. Supply the following information:
 - a. Provide a **name** for the tunnel.
 - b. Enter the public IP address of the peer VPN gateway in the **Remote peer IP address** field.
 - c. Choose an **IKE version** compatible with your peer VPN gateway.
 - d. Provide the **Shared secret** (also known as the preshared key) for authentication. Refer to [this page](#) (<https://cloud.google.com/vpn/docs/how-to/generating-pre-shared-key>) for suggestions about how to generate strong shared secrets.
 - e. Click the appropriate **Routing option**.
 - To use [dynamic routing](#) (<https://cloud.google.com/vpn/docs/concepts/choosing-networks-routing#dynamic-routing>), choose **Dynamic (BGP)**, select or create a new Cloud Router from the **Cloud Router** menu. Then, click the edit (pencil) button next to **BGP session** to define the BGP session parameters.
 - To use [route-based VPN](#) (<https://cloud.google.com/vpn/docs/concepts/choosing-networks-routing#static-routing>), choose **Route-based**. For the **Remote network IP ranges**, supply the ranges of IP addresses used by the peer network.

- To use [policy-based routing](https://cloud.google.com/vpn/docs/concepts/choosing-networks-routing#static-routing) (<https://cloud.google.com/vpn/docs/concepts/choosing-networks-routing#static-routing>), choose **Policy-based** and supply both the **Remote network IP ranges** and **Local IP ranges**. Use the **Local subnetworks** menu to choose IP ranges of subnets in a VPC network.

6. Click **Create**.

7. [Set up the peer VPN gateway](#).

(<https://cloud.google.com/vpn/docs/how-to/configuring-peer-gateway>) by configuring the corresponding tunnel.

Follow-up

Once the corresponding tunnel has been configured at your peer VPN gateway, [check the status of the Cloud VPN tunnel](https://cloud.google.com/vpn/docs/how-to/checking-vpn-status) (<https://cloud.google.com/vpn/docs/how-to/checking-vpn-status>).

What's next

- [Maintain VPN tunnels and gateways](https://cloud.google.com/vpn/docs/how-to/maintaining-vpns) (<https://cloud.google.com/vpn/docs/how-to/maintaining-vpns>)
- [Set up different types of Cloud VPN](https://cloud.google.com/vpn/docs/how-to/choosing-a-vpn) (<https://cloud.google.com/vpn/docs/how-to/choosing-a-vpn>)
- [View logs and monitoring metrics](https://cloud.google.com/vpn/docs/how-to/viewing-logs-metrics) (<https://cloud.google.com/vpn/docs/how-to/viewing-logs-metrics>)
- [Get troubleshooting help](https://cloud.google.com/vpn/docs/support/troubleshooting) (<https://cloud.google.com/vpn/docs/support/troubleshooting>)

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[Viewing VPN logs and metrics](https://cloud.google.com/vpn/docs/how-to/viewing-logs-metrics)

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[Deleting a VPN tunnel](https://cloud.google.com/vpn/docs/how-to/deleting-a-tunnel) (<https://cloud.google.com/vpn/docs/how-to/deleting-a-tunnel>)

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