

[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](#)

# Checking VPN status

After you have configured your [peer](https://cloud.google.com/vpn/docs/concepts/overview#peer-definition) (<https://cloud.google.com/vpn/docs/concepts/overview#peer-definition>) VPN gateways, you can check the following components to ensure that they are communicating correctly with Cloud VPN:

- Check the status of the HA VPN or Classic VPN tunnels you've configured, including the [operational state](#) ([#tunnel-status-messages](#)).
- Check the high availability status of tunnels on an HA VPN gateway.
- View the status of Cloud Router BGP sessions or the routes that Cloud Router is advertising.

## Checking HA VPN tunnels

Use this procedure to check the status of tunnels on both interfaces of a HA VPN gateway.

**Caution:** When using HA VPN, you should also [check the high-availability status of tunnels on your VPN gateway](#) ([#ha-gateway-status](#)) to ensure that you are receiving the 99.99% availability SLA.

CONSOLE

G CLOUD

API

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

**GO TO THE VPN PAGE** ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/HYBRID/VPN/LIST?TAB=TUNNEL](https://console.cloud.google.com/hybrid/vpn/list?tab=tunnel))

2. View the **VPN tunnel status** ([#tunnel-status-messages](#)) and the **BGP session status** (<https://cloud.google.com/router/docs/support/troubleshooting>).

3. Click the **Name** of a tunnel to view tunnel details.
4. Under **Logs**, you can click **view** for Stackdriver logs.
5. You can also modify the BGP session associated with this tunnel.

## Checking Classic VPN tunnels

Use this procedure to check the status of tunnels on a Classic VPN gateway.

**CONSOLE**    GCLOUD    API

1. Go to the VPN page in the Google Cloud Console.  
**GO TO THE VPN PAGE** ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/HYBRID/VPN/LIST?TAB=TUNNEL](https://console.cloud.google.com/hybrid/vpn/list?tab=tunnel))
2. View the **VPN tunnel status** ([https://cloud.google.com/vpn/docs/support/troubleshooting#message\\_list](https://cloud.google.com/vpn/docs/support/troubleshooting#message_list)) and the **BGP session status** (<https://cloud.google.com/router/docs/support/troubleshooting>).
3. Click the **Name** of a tunnel to view tunnel details.
4. Under **Logs**, you can click **view** for Stackdriver logs.
5. You can also modify the BGP session associated with this tunnel.

## Checking forwarding rules for Classic VPN

Use this procedure to check the forwarding rules you created for your Classic VPN gateway.

**CONSOLE**    GCLOUD    API

1. Go to the VPN page in the Google Cloud Console.  
**GO TO THE VPN PAGE** ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/HYBRID/VPN/LIST?TAB=GATEWA](https://console.cloud.google.com/hybrid/vpn/list?tab=gateway))
2. Click a **Gateway name**.
3. On the **VPN Details** page, view the forwarding rules you created.

## Tunnel status messages

Use the following table to interpret tunnel status messages from the Google Cloud console or when using `gcloud` commands:

Status	Detailed Status Message	Notes
Allocating resources	Allocating resources. VPN tunnel will start soon.	This is the initial state for a newly-created Cloud VPN tunnel.
Waiting for full config	Waiting for route configuration.	Routes or routing configuration is being prepared.
First Handshake	Handshake with peer broken for unknown reason. Trying again soon.	Phase 1 (IKE SA) negotiation with the peer VPN is in progress. It might have failed at least once.
Established	Tunnel is up and running.	The tunnel is up, and routes have been configured.
No Incoming Packets	No incoming packets from peer	No traffic is being received from the peer VPN gateway.

## Checking high availability status for HA VPN gateways

**Note:** See [the Cloud VPN topologies page \(https://cloud.google.com/vpn/docs/concepts/topologies\)](https://cloud.google.com/vpn/docs/concepts/topologies) for configurations that do or don't guarantee 99.99% availability. See also the definition of [connection \(https://cloud.google.com/vpn/docs/concepts/overview#connection\)](https://cloud.google.com/vpn/docs/concepts/overview#connection).

Use the `compute vpn-gateways get-status` command to check the high availability configuration status for tunnels on a HA VPN gateway.

You can also view the [Stackdriver monitoring metrics \(https://cloud.google.com/vpn/docs/how-to/viewing-logs-metrics#vpn-monitoring-metrics\)](https://cloud.google.com/vpn/docs/how-to/viewing-logs-metrics#vpn-monitoring-metrics) for additional information.

The output of this command displays the high availability redundancy requirement state for VPN tunnels associated with each peer gateway to which the HA VPN gateway is connected.

The peer gateway can be another HA VPN gateway or [an external VPN gateway \(https://cloud.google.com/vpn/docs/concepts/overview#external-vpn-gateway-definition\)](https://cloud.google.com/vpn/docs/concepts/overview#external-vpn-gateway-definition). If there are multiple peer gateways connected to the HA VPN gateway, multiple high availability configuration statuses are displayed, one status per each peer gateway.

The command output indicates the correct tunnel amount and coverage in the following ways:

- VPN gateways configured with adequate redundancy (coverage) show the status: `HighAvailabilityRedundancyRequirementState: CONNECTION_REQUIREMENT_MET`.
- VPN gateways that are not configured with adequate redundancy show the status: `HighAvailabilityRedundancyRequirementState: CONNECTION_REDUNDANCY_NOT_MET`.
- If there are not enough tunnels configured between your HA VPN gateway and another HA VPN gateway or a peer gateway, the command output shows: `redundancyUnsatisfiedReason: INCOMPLETE_TUNNELS_COVERAGE`.

[CONSOLE](#)[GCLOUD](#)[API](#)

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

[GO TO THE VPN PAGE \(HTTPS://CONSOLE.CLOUD.GOOGLE.COM/HYBRID/VPN/LIST?TAB=GATEWAYS\)](https://console.cloud.google.com/hybrid/vpn/list?tab=gateways)

2. Click **Gateway name** to view gateway details for the gateway and its tunnels. For HA VPN gateways, you can also view high-availability status for the gateway.

## Checking BGP status

For tunnels using dynamic routing with [BGP](#)

(<https://cloud.google.com/vpn/docs/concepts/overview#bgp-definition>), you can also [check Cloud Router status](#) (<https://cloud.google.com/router/docs/how-to/viewing-router-details>) to view details such as the status of a router's BGP sessions or the routes that the Cloud Router is advertising.

## What's next

- [Learn about the basic concepts of Cloud VPN](#) (<https://cloud.google.com/vpn/docs/concepts/overview>)
- See [Advanced Configurations](#) (<https://cloud.google.com/vpn/docs/concepts/advanced>) for information on high-availability, high-throughput scenarios, or multiple subnet scenarios.
- [Create a custom Virtual Private Cloud network](#) (<https://cloud.google.com/vpc/docs/using-vpc#create-custom-network>)

- [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>)
- [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>)
- [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>)

[Previous](#)

← [Configuring the peer VPN gateway](https://cloud.google.com/vpn/docs/how-to/configuring-peer-gateway)  
(<https://cloud.google.com/vpn/docs/how-to/configuring-peer-gateway>)

---

*Except as otherwise noted, the content of this page is licensed under the [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/) (<https://creativecommons.org/licenses/by/4.0/>), and code samples are licensed under the [Apache 2.0 License](https://www.apache.org/licenses/LICENSE-2.0) (<https://www.apache.org/licenses/LICENSE-2.0>). For details, see our [Site Policies](https://developers.google.com/terms/site-policies) (<https://developers.google.com/terms/site-policies>). Java is a registered trademark of Oracle and/or its affiliates.*

*Last updated December 4, 2019.*