

[Cloud Router](https://cloud.google.com/router/docs/) (<https://cloud.google.com/router/docs/>)

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

## Establishing BGP sessions

Cloud Router uses Border Gateway Protocol (BGP) to exchange routes between your Virtual Private Cloud (VPC) network and your on-premises network. On Cloud Router, you configure an interface and a BGP peer for your on-premises router. The interface and BGP peer configuration together form a BGP session.

Within Google Cloud, a Cloud Router interface connects to exactly one of the following Google Cloud resources:

- A Classic VPN tunnel using dynamic routing
- An HA VPN tunnel (using dynamic routing as required)
- An interconnect attachment (VLAN) for Dedicated Interconnect
- An interconnect attachment (VLAN) for Partner Interconnect

Cloud Routers support multiple interfaces each. You don't need to create a separate Cloud Router for each Cloud VPN tunnel or interconnect attachment (VLAN). However, each Cloud Router uses the same ASN for all its BGP sessions. Because Partner Interconnect requires a public ASN, and all other types of interface require private ASNs, a Cloud Router that manages BGP sessions for an interconnect attachment (VLAN) on Partner Interconnect cannot manage BGP sessions for any other type of interface.

The following sections provide links describing how to configure BGP sessions for each different type of interface.

### Cloud VPN

- For HA VPN tunnels, see [Creating an HA VPN to a peer Cloud VPN gateway](https://cloud.google.com/vpn/docs/how-to/creating-ha-vpn) (<https://cloud.google.com/vpn/docs/how-to/creating-ha-vpn>) or [Creating an HA VPN to another HA VPN gateway](https://cloud.google.com/vpn/docs/how-to/creating-ha-vpn2) (<https://cloud.google.com/vpn/docs/how-to/creating-ha-vpn2>).
- For Classic VPN tunnels with dynamic routing, see [Creating Cloud VPN tunnels with dynamic routes](https://cloud.google.com/vpn/docs/how-to/creating-vpn-dynamic-routes) (<https://cloud.google.com/vpn/docs/how-to/creating-vpn-dynamic-routes>).

## Cloud Interconnect

- For Dedicated Interconnect, see [Creating VLAN attachments \(dedicated\)](https://cloud.google.com/interconnect/docs/how-to/dedicated/creating-vlan-attachments) (<https://cloud.google.com/interconnect/docs/how-to/dedicated/creating-vlan-attachments>).
- For Partner Interconnect, see [Creating VLAN attachments \(partner\)](https://cloud.google.com/interconnect/docs/how-to/partner/creating-vlan-attachments) (<https://cloud.google.com/interconnect/docs/how-to/partner/creating-vlan-attachments>).

## What's next

- Learn how to [terminate BGP sessions](https://cloud.google.com/router/docs/how-to/terminating-bgp) (<https://cloud.google.com/router/docs/how-to/terminating-bgp>).

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