

# Cloud Router

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## Create Cloud Router

```
gcloud compute routers create NAME --project=ic-int-sandbox-saraswata --region=REGION --network=NETWORK --set-advertisement-mode=custom
```

### BGP Keepalive interval

This is the interval in seconds between BGP keepalive messages that are sent to the peer. If set, this value must be between 20 and 60. The default is 20

BGP systems exchange keepalive messages to determine whether a link or host has failed or is no longer available. In conjunction with the hold timer, the keepalive timer indicates whether a router is reachable to its BGP peer.

### Route advertisements

Through BGP, Cloud Router advertises the IP addresses that clients in your on-premises network can reach. Your on-premises network sends packets to your VPC networks that have a destination IP address that matches an advertised IP range. After reaching Google Cloud, your VPC network's firewall rules and routes determine how Google Cloud handles the packets.

You can use Cloud Router's default advertisements or explicitly specify which CIDR ranges to advertise. If you don't specify advertisements, Cloud Router uses the default.

### Custom route advertisements introduction

With custom route advertisements, you choose which routes Cloud Router advertises to your on-premises router through the Border Gateway Protocol (BGP).

You can specify route advertisements on the Cloud Router or on each BGP session. If you specify advertised routes on the Cloud Router, they apply to all BGP sessions on the Cloud Router. If you specify route advertisements on a BGP session, those advertisements replace the Cloud Router advertisements.

You can update existing Cloud Routers or BGP sessions on a Cloud Router to advertise IP ranges other than your Virtual Private Cloud (VPC) network's subnet IP address ranges. For example, you can advertise external IP addresses, arbitrary internal IP addresses, or **internal IP addresses from IP address ranges of subnets in peer VPC networks that are connected by VPC Network Peering**.

## Create a cloud router

Google Cloud Router dynamically exchanges routes between your Virtual Private Cloud (VPC) and on-premises networks by using Border Gateway Protocol (BGP)

Name \*
?
Lowercase letters, numbers, hyphens allowed

Description

Network \*
?

Region \*
?

Google ASN ?

BGP peer keepalive interval
seconds ?

### Advertised routes

#### Routes

- ☐ Advertise all subnets visible to the Cloud Router (Default)  
☒ Create custom routes

Advertise all subnets

☐ Advertise all subnets visible to the Cloud Router

### Custom ranges

Add IP ranges to advertise

#### New custom route

Source
Custom IP range
Close

IP address range \*

	<div><div>Description</div><div>CANCEL DONE</div><div>ADD CUSTOM ROUTE</div><div>CREATE CANCEL</div><div>EQUIVALENT COMMAND LINE</div></div>