How to Deploy a NextGen Firewall with Multiple NICs in Google Cloud Using the Command Line

https://campus.barracuda.com/doc/73698897/

In some scenarios, an instance with multiple network interfaces in multiple VPC networks is required. Add the required number of network interfaces during deployment. The primary network interface is configured automatically; the additional network interfaces must be added manually to the NextGen Firewall configuration. In Google Launcher, only the latest version is visible. The additional network interfaces must be added in the firewall configuration after deployment. The NextGen Firewall F images are available in the Google Cloud Launcher. These images can be deployed with the gcloud command-line tool included in the Google Cloud SDK.

- **Image project** – barracuda-release
- **Images available** – cudangfbyol-v711-056-hf843-hf844-20170926, cudangfbyol-v703-087-20170804, cudangfbyol-v710-371-20170804

Before You Begin

- Install the Google Cloud SDK. Alternatively, you can also use Google Cloud Shell instead.
- Gather information needed for deployment:
  - Name of the VPC network you plan to deploy to
  - Name of the subnet you plan to deploy to
  - Private IP address you want to assign to the new NGF instance
  - Availability zone you will deploy to

Step 1. Deploying a Multi-NIC Firewall Instance

To create an instance with multiple network interfaces, execute the –`network-interface` argument for each NIC, without adding IP addresses to avoid assigning public to each NIC.

```
gcloud compute instances create my-first-ngfirewall \ --image-family
barracuda-nextgen-firewall-f-series \ --image-project barracuda-release \ --
project my-project \ --machine-type n1-standard-1 \ --network-interface
network=default,subnet=default,private-network-ip=10.128.0.10 \ --network-
interface no-address,network=second-vpc,subnet=default,private-network-
ip=10.129.0.20 \ --can-ip-forward \ --tags ngfw \ --zone us-central1-b
```

Step 2. Configuring Additional Network Interface on the Firewall

Step 2.1 Add the Network Interfaces to the Firewall

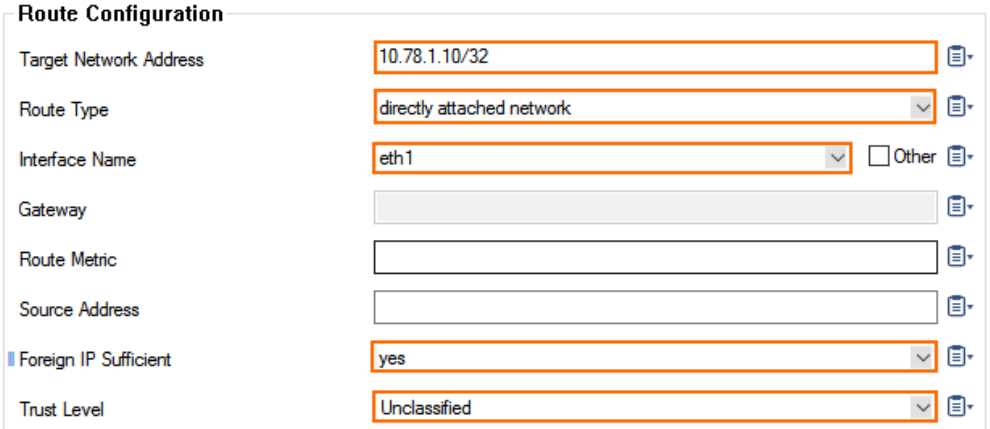
Define the number of interfaces attached to the instance.

1. Go to **CONFIGURATION > Configuration Tree > Box > Network**.
2. Click **Lock**.
3. In the left menu, select **Interfaces**.
4. Double-click the entry in **Network Interface Cards**. The **Network Interface Configuration** window opens.
5. Change the **Number of Interfaces** to the number of interfaces attached to the firewall.
6. Click **Send Changes** and **Activate**.

Step 2.2. Add Routes for Each Network Interface

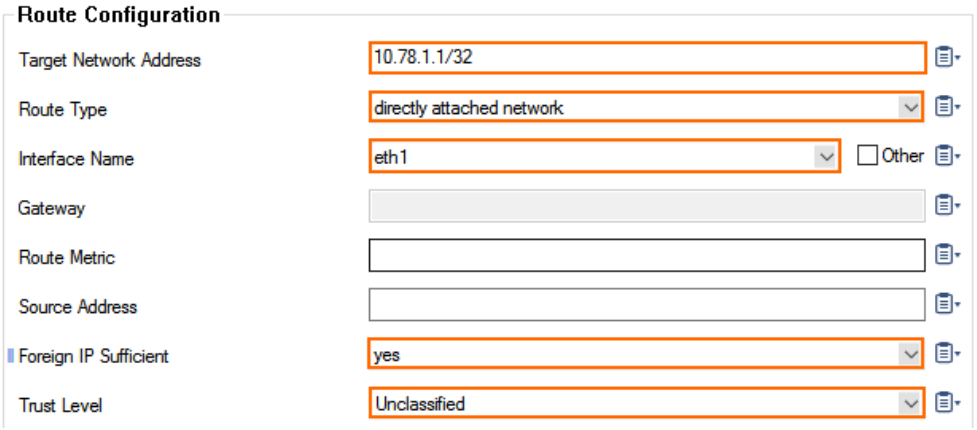
Add two direct attached routes and a gateway route for each network interface.

1. Go to **CONFIGURATION > Configuration Tree > Box > Network**.
2. Click **Lock**.
3. In the left menu, select **Routing**.
4. In the left menu, expand the **Configuration Mode** section and click **Switch to Advanced View**.
5. Create a new **directly attached route** for private IP address of the network interface:
   - **Target Network Address** – Enter the private IP address of the network interface with a /32 subnet mask E.g., `10.78.1.10/32`
   - **Route Type** – Select **directly attached network**.
   - **Interface Name** – Select the network interface. E.g., eth1
   - **Foreign IP Sufficient** – Select **yes**.
   - **Trust Level** – Select **Unclassified**.

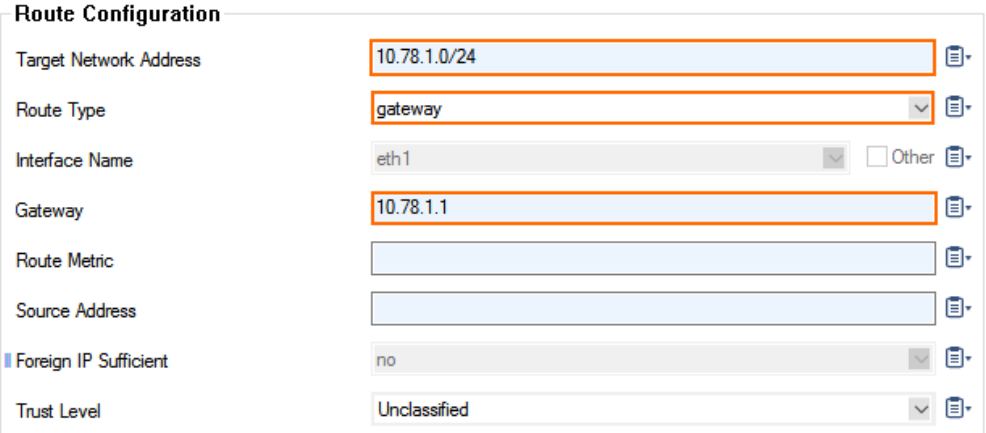


6. Create a new **directly attached route** for the default subnet gateway assigned by Google. The default gateway is always the first IP address in the subnet:
   - **Target Network Address** – Enter the first IP address in the subnet with /32 subnet mask. E.g., 10.78.1.1/32

- **Route Type** – Select **directly attached network**.
- **Interface Name** – Select the network interface. E.g., eth1
- **Foreign IP Sufficient** – Select **yes**.
- **Trust Level** – Select **Unclassified**.



7. Create a new **gateway route** for the subnet using the default subnet gateway:
   - **Target Network Address** – Enter the subnet in CIDR format. E.g., `10.78.1.0/24`
   - **Route Type** – Select **gateway**.
   - **Gateway** – Enter the first IP address in the subnet. E.g., {{10.78.1.1 }}
   - **Trust Level** – Select **Unclassified**.



8. Click **Send Changes** and **Activate**.

Step 2.3. Activate the Network Changes

1. Go to **CONTROL > Box**.
2. In the left menu, expand the **Network** section and click **Activate new network configuration**.
3. Select **Failsafe**. The 'Failsafe Activation Succeeded' message is displayed after your new network configurations have been successfully activated.

Step 2.4. Add the IP addresses as Virtual Server IPs

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > S1 > Server Properties**.

2. Click **Lock**.
3. In the **Additional IP** table, add the private IP addresses .
4. Click **Send Changes** and **Activate**.

Next Steps

Verify that all client instances are routed via the NextGen Firewall and that the Google firewall does not block any connections.

Figures

1. multinic_gce_01.png
2. multinic_gce_02.png
3. multinic_gce_03.png