



Provisioning Barracuda WAF in GCP Using the Command Line

Step 1 - Install the Google Cloud SDK

Follow the Google Cloud [SDK documentation](#) to install and configure the gcloud command line utility. Also, verify the Google Cloud SDK version is 200.0.0 or higher:

```
gcloud version
```

Step 2 - Configuring gcloud environment

Set a Default Compute Region and Zone. If you are using the gcloud command-line tool for the first time init is the easiest way to do this:

```
gcloud init
```

(OR)

Otherwise set a default compute region:

```
gcloud config set compute/region us-west1
```

Set a default compute zone:

```
gcloud config set compute/zone us west1-c
```

Use the following command to view additional regions and zones.

```
gcloud compute zones list
```

Step 3 - Creating the vpc

```
gcloud compute networks create barracuda-waf-vpc --subnet-mode custom
```

```
sh-3.2# gcloud compute networks create barracuda-waf-vpc --subnet-mode custom
Created [https://www.googleapis.com/compute/v1/projects/pivotal-cable-209910/global/networks/barracuda-waf-vpc].
NAME          SUBNET_MODE  BGP_ROUTING_MODE  IPV4_RANGE  GATEWAY_IPV4
barracuda-waf-vpc  CUSTOM      REGIONAL

Instances on this network will not be reachable until firewall rules
are created. As an example, you can allow all internal traffic between
instances as well as SSH, RDP, and ICMP by running:

$ gcloud compute firewall-rules create <FIREWALL_NAME> --network barracuda-waf-vpc --allow tcp,udp,icmp --source-ranges <IP_RANGE>
$ gcloud compute firewall-rules create <FIREWALL_NAME> --network barracuda-waf-vpc --allow tcp:22,tcp:3389,icmp
```

Step 4 - Creating the subnet

```
gcloud compute networks subnets create waf-network \
--network barracuda-waf-vpc \
--range 10.26.0.0/24
```



```
sh-3.2# gcloud compute networks subnets create barracuda-waf-network \  
> --network barracuda-waf-vpc \  
> --range 10.26.0.0/24  
Created [https://www.googleapis.com/compute/v1/projects/pivotal-cable-209910/regions/us-west1/subnetworks/barracuda-waf-network].  
NAME          REGION  NETWORK  RANGE  
barracuda-waf-network  us-west1  barracuda-waf-vpc  10.26.0.0/24
```

Step 5 - Firewall Rules

Internal access

```
gcloud compute firewall-rules create waf-allow-internal \  
--allow tcp,udp,icmp \  
--network barracuda-waf-vpc \  
--source-ranges 10.26.0.0/24,10.26.0.0/16
```

Access for incoming traffic

```
gcloud compute firewall-rules create waf-allow-external \  
--allow tcp:80,tcp:8443,tcp:8000,tcp:443 \  
--network barracuda-waf-vpc \  
--source-ranges 0.0.0.0/0
```

Listing the rules

```
gcloud compute firewall-rules list --filter="barracuda-waf-vpc "
```

Step 6 - Creating the instance

```
gcloud compute instances create waf-byol-instance \  
--async \  
--boot-disk-size 200GB \  
--can-ip-forward \  
--image-family barracuda-web-application-firewall-byol \  
--image-project barracuda-release \  
--machine-type n1-standard-2 \  
--private-network-ip 10.26.0.2 \  
--scopes compute-rw,storage-ro,service-management,service-control,logging-  
write,monitoring \  
--subnet waf-network \  
--tags barracudawaf
```

This should result in a response with the URI for the created resource.

Step 7 - To fetch the status of the resource:

```
gcloud compute operations describe <URI>
```

Barracuda Web Application Firewall

```
sh-3.2# gcloud compute firewall-rules create waf-allow-internal \  
> --allow tcp,udp,icmp \  
> --network barracuda-waf-vpc \  
> --source-ranges 10.26.0.0/24,10.26.0.0/16  
Creating firewall...:Created [https://www.googleapis.com/compute/v1/projects/pivotal-cable-209910/global/firewalls/waf-allow-internal].  
Creating firewall...done.  
NAME          NETWORK          DIRECTION  PRIORITY  ALLOW      DENY  
waf-allow-internal barracuda-waf-vpc INGRESS    1000      tcp,udp,icmp  
sh-3.2# gcloud compute firewall-rules create waf-allow-external \  
> --allow tcp:80,tcp:8443,tcp:8000,tcp:443 \  
> --network barracuda-waf-vpc \  
> --source-ranges 0.0.0.0/0  
Creating firewall...:Created [https://www.googleapis.com/compute/v1/projects/pivotal-cable-209910/global/firewalls/waf-allow-external].  
Creating firewall...done.  
NAME          NETWORK          DIRECTION  PRIORITY  ALLOW      DENY  
waf-allow-external barracuda-waf-vpc INGRESS    1000      tcp:80,tcp:8443,tcp:8000,tcp:443  
sh-3.2# gcloud compute firewall-rules list --filter="barracuda-waf-vpc"  
NAME          NETWORK          DIRECTION  PRIORITY  ALLOW      DENY  
waf-allow-external barracuda-waf-vpc INGRESS    1000      tcp:80,tcp:8443,tcp:8000,tcp:443  
waf-allow-internal barracuda-waf-vpc INGRESS    1000      tcp,udp,icmp  
  
To show all fields of the firewall, please show in JSON format: --format=json  
To show all fields in table format, please see the examples in --help.  
  
sh-3.2# gcloud compute instances create waf-byol-instance \  
> --async \  
> --boot-disk-size 200GB \  
> --can-ip-forward \  
> --image-family barracuda-web-application-firewall-byol \  
> --image-project barracuda-release \  
> --machine-type n1-standard-2 \  
> --private-network-ip 10.26.0.2 \  
> --scopes compute-rw,storage-ro,service-management,service-control,logging-write,monitoring \  
> --subnet barracuda-waf-network \  
> --tags barracadawaf  
Instance creation in progress for [waf-byol-instance]: https://www.googleapis.com/compute/v1/projects/pivotal-cable-209910/zones/us-west1-b/operations/operation-1533035546032-57249a7263781-206478df-71f21995  
Use [gcloud compute operations describe URI] command to check the status of the operation(s).
```

