Provisioning Barracuda WAF in GCP Using the Command Line

https://campus.barracuda.com/doc/78156815/

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>
```

```
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 barracudawaf
Instance creation in progress for [waf-byol-instance]: https://www.googleapis.com/compute/v1/projects/pivotal-cable-209910/zones/us-west1-b/operations/operati
on-1533035546032-57249a7263781-206478df-71f21995
Use [gcloud compute operations describe URI] command to check the status of the operation(s).
```

Figures

1. image2.png
2. image3.png
3. image4.png

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