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CDN

Deployment

```
robisu@cloudshell:~/networking101 (cloud-f21-robin-su-robisu)$ gcloud deployment-manager deployments
ing101 --config networking-lab.yaml
The fingerprint of the deployment is b'V4THs6KUWzYd06iX2jwpPQ=='
Waiting for create [operation-1638727018392-5d269ddd0a9c0-a3266d42-57267d5c]...done.
Create operation operation-1638727018392-5d269ddd0a9c0-a3266d42-57267d5c completed successfully.
NAME: asia-east1
TYPE: compute.v1.subnetwork
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: asia1-vm
TYPE: compute.v1.instance
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: e1-vm
TYPE: compute.v1.instance
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: eul-vm
TYPE: compute.v1.instance
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: europe-west1
TYPE: compute.v1.subnetwork
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: networking101
TYPE: compute.v1.network
STATE: COMPLETED
ERRORS: []
```

```

NAME: us-east1
TYPE: compute.v1.subnetwork
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: us-west1-s1
TYPE: compute.v1.subnetwork
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: us-west1-s2
TYPE: compute.v1.subnetwork
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: w1-vm
TYPE: compute.v1.instance
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: w2-vm
TYPE: compute.v1.instance
STATE: COMPLETED
ERRORS: []
INTENT:
robisu@cloudshell:~/networking101 (cloud-f21-robin-su-robisu) $

```

- *How many networks, subnetworks, and VM instances have been created?*
 - **There is one network (networking101), 5 subnetworks, and 5 vm instances**

Network and subnetworks shown on the VPC interface

Name ↑	Region	Subnets	MTU ?	Mode	IP address ranges	Gateways	Firewall Rules	Global dynamic routing
▶ default		29	1460	Auto			7	Off
▼ networking101		5	1460	Custom			0	Off
	europe-west1	europe-west1			10.30.0.0/16	10.30.0.1		
	us-west1	us-west1-s1			10.10.0.0/16	10.10.0.1		
	us-west1	us-west1-s2			10.11.0.0/16	10.11.0.1		
	asia-east1	asia-east1			10.40.0.0/16	10.40.0.1		
	us-east1	us-east1			10.20.0.0/16	10.20.0.1		




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VMs in the Compute Engine interface

[INSTANCES](#)

INSTANCE SCHEDULE

VM instances are highly configurable virtual machines for running workloads on Google infrastructure. [Learn more](#)

 **Filter** Enter property name or value  

<input type="checkbox"/>	Status	Name ↑	Zone	Recommendations	In use by	Internal IP	Ext	Connect	
<input type="checkbox"/>	✓	asia1-vm	asia-east1-b			10.40.0.2 (nic0)	34.8	SSH ▾	⋮
<input type="checkbox"/>	✓	e1-vm	us-east1-b			10.20.0.2 (nic0)	34.7	SSH ▾	⋮
<input type="checkbox"/>	✓	eu1-vm	eu-west1-d			10.30.0.2 (nic0)	35.1	SSH ▾	⋮
<input type="checkbox"/>	✓	w1-vm	us-west1-b			10.10.0.2 (nic0)	34.1	SSH ▾	⋮
<input type="checkbox"/>	✓	w2-vm	us-west1-b			10.11.0.100 (nic0)	104	SSH ▾	⋮

Related actions

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Connection to VM via ssh failure

SSH: asia1-vm @ cloud-f21-robin-su-robisu

https://ssh.cloud.google.com/projects/cloud-f21-robin-su-robisu/zones/asia-east1-b/instances/asia1-vm? ☆ ≡

⌵ ⚙

Connection Failed

We are unable to connect to the VM on port 22. [Learn more](#) about possible causes of this issue.

RetryTroubleshootClose

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Updated deployment with firewall rules

```
NAME: networking-firewall-allow-icmp
TYPE: compute.v1.firewall
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: networking-firewall-allow-internal
TYPE: compute.v1.firewall
STATE: COMPLETED
ERRORS: []
INTENT:

NAME: networking-firewall-allow-ssh
TYPE: compute.v1.firewall
STATE: COMPLETED
ERRORS: []
```

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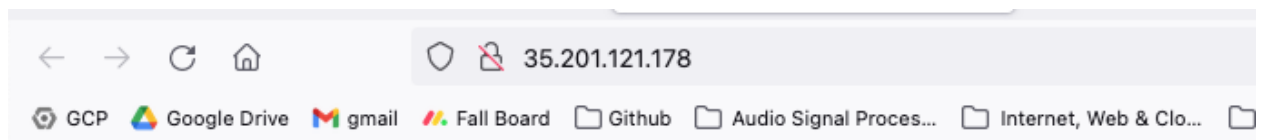
Measuring Latency

Location pair	Ideal latency	Measured latency
us-west1 us-east1	37.12 ms	65.0 ms
us-west1 europe-west1	80.01 ms	132 ms
us-west1 asia-east1	99.59 ms	116 ms
us-east1 europe-west1	67.51 ms	90.0 ms
us-east1 asia-east1	131.44 ms	182 ms
europe-west1 asia-east1	95.61 ms	249 ms

Managed Instance Groups

- *Are the instances in the same availability zone or in different ones?*
 - **They are all located in different zones**
- *List all availability zones that your servers show up in for your lab notebook.*
 - **us-east1-d, europe-west1-b, europe-west1-c, europe-west1-d**

Load Balancer



Networking 101 Lab

Client IP

Your IP address : 35.191.2.232

Hostname

Server Hostname: us-east1-mig-24tj

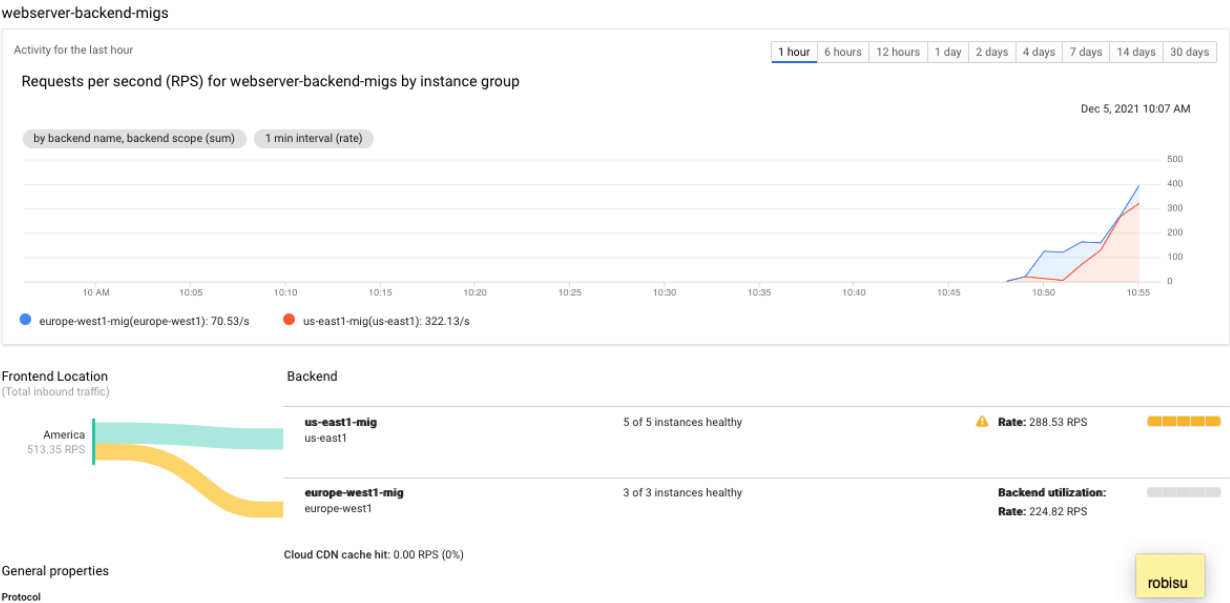
Server Location

Region and Zone: us-east1-d

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The server is handling my request is in us-east1-d (above)

Siege



Majority of traffic from Europe is routed to europe-west1-mig, and majority of American traffic is routed to us-east1-mig (it kept oscillating and never completely stabilized on the division of traffic between America and Europe, this was as close to stable as I observed over almost 30 minutes of siege).

