Docker Networking Hands-on Lab

Time spent: 60 min

1. Networking Basics

- **Network command**

```
$ docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
28570c73b7c1        bridge              bridge              local
fe873c539f6f        host                host                local
01d167c94a01        none                null                local
```

- **Inspect a network**

```
[node1] (local) root@192.168.0.28 ~
$ docker network inspect bridge
[
    {
        "Name": "bridge",
        "Id": "28570c73b7c17b64c2bc04687f6f5c5791d2de43f9e0364c4bf229e676ca91c0",
        "Created": "2018-11-02T01:07:45.293717041Z",
        "Scope": "local",
        "Driver": "bridge",
        "EnableIPv6": false,
        "IPAM": {
            "Driver": "default",
            "Options": null,
            "Config": [
                {
```

2. Bridge Networking

- **Basics**

```
[node1] (local) root@192.168.0.28 ~
$ apk update
fetch http://dl-cdn.alpinelinux.org/alpine/v3.8/main/x86_64/APKINDEX.tar.gz
fetch http://dl-cdn.alpinelinux.org/alpine/v3.8/community/x86_64/APKINDEX.tar.gz
v3.8.1-45-g1d77558b1e [http://dl-cdn.alpinelinux.org/alpine/v3.8/main]
v3.8.1-42-ge6bc061baf [http://dl-cdn.alpinelinux.org/alpine/v3.8/community]
OK: 9545 distinct packages available
[node1] (local) root@192.168.0.28 ~
$ apk add bridge
OK: 302 MiB in 111 packages
[node1] (local) root@192.168.0.28 ~
$ brctl show
bridge name     bridge id               STP enabled     interfaces
docker0         8000.0242e1ae1571       no
[node1] (local) root@192.168.0.28 ~
$
```

- **Connect a container**

```
[node1] (local) root@192.168.0.28 ~
$ docker run -dt ubuntu sleep infinity
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
473ede7ed136: Pull complete
c46b5fa4d940: Pull complete
93ae3df89c92: Pull complete
6b1eed27cade: Pull complete
Digest: sha256:29934af957c53004d7fb6340139880d23fb1952505a15d69a03af0d1418878cb
Status: Downloaded newer image for ubuntu:latest
baa21b73ac15025d3618481d62f14acfaed98382c356e855f61f93aee7f9c78e
```

3. Overlay Networking

```
$ docker network inspect bridge
[
    {
        "Name": "bridge",
        "Id": "530d2206d6f86acde799f11bc88cd4847db92ed40ad85f3015285f2e1233ddf7",
        "Created": "2018-11-02T01:19:45.473331943Z",
        "Scope": "local",
        "Driver": "bridge",
        "EnableIPv6": false,
        "IPAM": {
            "Driver": "default",
            "Options": null,
            "Config": [
```

Summary

In this lab, I have learned the knowledge about network in the container.