

# Module-5: Networking and Security

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Demo Document - 1

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## DEMO-1: User-defined Bridge Network

**Note:** All commands are executed as root.

1. To create a user-defined bridge network:

```
$ docker network create --driver bridge <networkName>
```

```
root@docker-1:~# docker network create --driver bridge mybridge
3c6eff7a7139cad2d699e105e93fb6bff30df946dc816ed6a190e425e97560ce
```

2. You can list the networks working in your system:

```
$ docker network ls
```

NETWORK ID	NAME	DRIVER	SCOPE
646251da9ee9	bridge	bridge	local
4ade9c9deb87	docker_gwbridge	bridge	local
8007bfe35676	host	host	local
lnjslov80kho	ingress	overlay	swarm
3c6eff7a7139	mybridge	bridge	local
5892f118f3b1	none	null	local

3. To start a container with the new network:

```
$ docker create --name <containerName> \
  --network mybridge \
  --publish 8002:80 \
  nginx
```

```
root@docker-1:~# docker create --name nginx2 \
> --network mybridge \
> --publish 8002:80 \
> nginx
c02eca6cf515cdaf950a27e82be84461b25678109904d22441fc3a5aee51ad0f
```

4. To attach the network to an existing container:

```
$ docker network connect <networkName> <containerName>
```

```
root@docker-1:~# docker network connect mybridge nginx1
root@docker-1:~#
```

```
"mybridge": {
  "IPAMConfig": {},
  "Links": null,
  "Aliases": [
    "47a3cf909028"
  ],
  "NetworkID": "3c6eff7a7139cad2d69",
  "EndpointID": "96eb646eef2de90481",
  "Gateway": "172.20.0.1",
  "IPAddress": "172.20.0.2",
  "IPPrefixLen": 16,
  "IPv6Gateway": "",
  "GlobalIPv6Address": "",
  "GlobalIPv6PrefixLen": 0,
  "MacAddress": "02:42:ac:14:00:02",
  "DriverOpts": {}
}
```

5. To remove a network:

```
$ docker network rm <networkName>
```

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