

```
vagrant@ubuntu-xenial:~$ sudo docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
4ed359d32519        bridge             bridge             local
29569d41d34f        host              host              local
5c067146452c        lw1               bridge            local
8dc725c9fb38        lw2               bridge            local
d7b75df6c9a2        newtork1          bridge            local
1935e50da7b7        none             null              local
vagrant@ubuntu-xenial:~$ sudo docker network create network1
2ae23c6d3a559bc52f6e829c32c6cd01ec4d50cfe5ef1475eb35d4ca0e09c9d5
vagrant@ubuntu-xenial:~$ sudo docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
4ed359d32519        bridge             bridge             local
29569d41d34f        host              host              local
5c067146452c        lw1               bridge            local
8dc725c9fb38        lw2               bridge            local
2ae23c6d3a55        network1          bridge            local
d7b75df6c9a2        newtork1          bridge            local
1935e50da7b7        none             null              local
```

```
vagrant@ubuntu-xenial:~$ sudo docker run -d --name=cont1 --net=network1 alpine
5b304f0532f5f68dc3ac77bde26c6a7c57d01f0403e7d7a89c7ebb0c81fa90fe
vagrant@ubuntu-xenial:~$ sudo docker run -d --name=cont2 --net=network1 alpine ping
60faa62448b49f2b1502acc32df5682550e077cc049fa89c8e83122a290567e
vagrant@ubuntu-xenial:~$ sudo docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS              PORTS              NAMES
45e083eb94ba        redis              "docker-entrypoint.s..." 12 minutes ago    Up 12 minutes      6379/tcp           lw2
vagrant@ubuntu-xenial:~$ sudo docker ps -a
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS              PORTS              NAMES
60faa62448b4        alpine             "ping"                  23 seconds ago    Exited (1) 22 seconds ago                                cont2
5b304f0532f5        alpine             "/bin/sh"               33 seconds ago    Exited (0) 32 seconds ago                                cont1
ce72682c684e        alpine             "ping lw2"              7 minutes ago     Exited (0) 7 minutes ago                                lw3
df1a97807c6f        alpine             "/bin/sh"               8 minutes ago     Exited (0) 8 minutes ago                                lw1
45e083eb94ba        redis              "docker-entrypoint.s..." 12 minutes ago    Up 12 minutes      6379/tcp           lw2
82f7e79cbbbea        ubuntu             "/bin/bash"             7 days ago        Exited (0) 7 days ago                                keen_sammet
4fba3c751f96        alpine             "/bin/sh"               7 days ago        Exited (0) 7 days ago                                awesome_darwin
9a9753f65edf        alpine             "/bin/sh"               7 days ago        Exited (0) 7 days ago                                cool_yonath
216e32b25051        alpine             "/bin/sh"               7 days ago        Exited (0) 7 days ago                                exciting_mclean
89fb085c9e2d        alpine             "/bin/sh"               7 days ago        Exited (0) 7 days ago                                ecstatic_leavitt
5c02cdd9fc4a        alpine             "/bin/sh"               7 days ago        Exited (0) 7 days ago                                nostalgic_shirley
vagrant@ubuntu-xenial:~$
```

```
vagrant@ubuntu-xenial:~$ sudo docker network create network2
c267eca5b2bb6640e096b1a3371e199dda30b4cdc0a76e598e491b00d58ba14e
vagrant@ubuntu-xenial:~$ sudo docker run -d --name=cont3 --net=network1 redis
04d28b3e649d10075d6a5748684ef544acbb1d7154b599a3b0616a29a127b8c0
vagrant@ubuntu-xenial:~$ sudo docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS              PORTS              NAMES
04d28b3e649d        redis              "docker-entrypoint.s..." 10 seconds ago    Up 9 seconds       6379/tcp           cont3
45e083eb94ba        redis              "docker-entrypoint.s..." 15 minutes ago    Up 15 minutes      6379/tcp           lw2
vagrant@ubuntu-xenial:~$ sudo docker run -d --name=cont2 --net=network2 redis
```

```
vagrant@ubuntu-xenial:~$ sudo docker run -d --name=cont4 --net=network2 redis
4d024663b8f160767a83898e2271f3871d607aad5d817edb61581a8471ed9eb4
vagrant@ubuntu-xenial:~$ sudo docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS              PORTS              NAMES
4d024663b8f1        redis              "docker-entrypoint.s..." 17 seconds ago    Up 16 seconds      6379/tcp           cont4
04d28b3e649d        redis              "docker-entrypoint.s..." 2 minutes ago     Up 2 minutes       6379/tcp           cont3
45e083eb94ba        redis              "docker-entrypoint.s..." 17 minutes ago    Up 17 minutes      6379/tcp           lw2
vagrant@ubuntu-xenial:~$ sudo docker run -d --name=cont6 --net=network2 alpine ping network1
bda5f205402e59847a19f22fa18c2e62c526db0326c506b0c3939819e7b21bb2
```

```
vagrant@ubuntu-xenial:~$ sudo docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
4ed359d32519        bridge              bridge              local
29569d41d34f        host                host                local
5c067146452c        lw1                 bridge              local
8dc725c9fb38        lw2                 bridge              local
2ae23c6d3a55        network1            bridge              local
c267eca5b2bb        network2            bridge              local
d7b75df6c9a2        newtork1            bridge              local
1935e50da7b7        none                null                local
vagrant@ubuntu-xenial:~$ sudo docker network connect network2 network1
Error response from daemon: No such container: network1
vagrant@ubuntu-xenial:~$ sudo docker network connect network2 cont6
vagrant@ubuntu-xenial:~$ sudo docker network connect network1 cont6
```

```
{
  "NetworkSettings": {
    "Bridge": "",
    "SandboxID": "0a2544a1f0e0f4e5f8696349b414d600021534f41e0bca0c984449510d91435",
    "HairpinMode": false,
    "LinkLocalIPv6Address": "",
    "LinkLocalIPv6PrefixLen": 0,
    "Ports": {},
    "SandboxKey": "/var/run/docker/netns/0a2544a1f0e",
    "SecondaryIPAddresses": null,
    "SecondaryIPv6Addresses": null,
    "EndpointID": "",
    "Gateway": "",
    "GlobalIPv6Address": "",
    "GlobalIPv6PrefixLen": 0,
    "IPAddress": "",
    "IPPrefixLen": 0,
    "IPv6Gateway": "",
    "MacAddress": "",
    "Networks": {
      "network1": {
        "IPAMConfig": {},
        "Links": null,
        "Aliases": [
          "bda5f205402e"
        ],
        "NetworkID": "",
        "EndpointID": "",
        "Gateway": "",
        "IPAddress": "",
        "IPPrefixLen": 0,
        "IPv6Gateway": "",
        "GlobalIPv6Address": "",
        "GlobalIPv6PrefixLen": 0,
        "MacAddress": "",
        "DriverOpts": {}
      },
      "network2": {
        "IPAMConfig": null,
        "Links": null,
        "Aliases": [
          "bda5f205402e"
        ],
        "NetworkID": "c267eca5b2bb6640e096b1a3371e199dda30b4cdc0a76e598e491b00d58ba14e",
        "EndpointID": "",
        "Gateway": "",
        "IPAddress": "",
        "IPPrefixLen": 0,
        "IPv6Gateway": "",
        "GlobalIPv6Address": "",
        "GlobalIPv6PrefixLen": 0,
        "MacAddress": "",
        "DriverOpts": null
      }
    }
  }
}
```