

Docker Networking Comparison

None Network Mode

```
"NetworkMode": "none",
  "PortBindings": {},
...

"NetworkSettings": {
  "Bridge": "",
  "SandboxID": "e947c020d3d2e8e...",
  "HairpinMode": false,
  "LinkLocalIPv6Address": "",
  "LinkLocalIPv6PrefixLen": 0,
  "Ports": {},
  "SandboxKey":
    "/var/run/docker/netns/e947c020d3d2",
  "SecondaryIPAddresses": null,
  "SecondaryIPv6Addresses": null,
  "EndpointID": "",
  "Gateway": "",
  "GlobalIPv6Address": "",
  "GlobalIPv6PrefixLen": 0,
  "IPAddress": "",
  "IPPrefixLen": 0,
  "IPv6Gateway": "",
  "MacAddress": "",
  "Networks": {
    "none": {
      "IPAMConfig": null,
      "Links": null,
      "Aliases": null,
      "NetworkID": "acd8568a7a3...",
      "EndpointID": "12a0fc1762...",
      "Gateway": "",
      "IPAddress": "",
      "IPPrefixLen": 0,
      "IPv6Gateway": "",
      "GlobalIPv6Address": "",
      "GlobalIPv6PrefixLen": 0,
      "MacAddress": ""
    }
  }
}
```

Host Network Mode

```
"NetworkMode": "host",
  "PortBindings": {},
...

"NetworkSettings": {
  "Bridge": "",
  "SandboxID": "dd1619398917...",
  "HairpinMode": false,
  "LinkLocalIPv6Address": "",
  "LinkLocalIPv6PrefixLen": 0,
  "Ports": {},
  "SandboxKey":
    "/var/run/docker/netns/default",
  "SecondaryIPAddresses": null,
  "SecondaryIPv6Addresses": null,
  "EndpointID": "",
  "Gateway": "",
  "GlobalIPv6Address": "",
  "GlobalIPv6PrefixLen": 0,
  "IPAddress": "",
  "IPPrefixLen": 0,
  "IPv6Gateway": "",
  "MacAddress": "",
  "Networks": {
    "host": {
      "IPAMConfig": null,
      "Links": null,
      "Aliases": null,
      "NetworkID": "889191759d767...",
      "EndpointID": "bd9cb7ba57d4...",
      "Gateway": "",
      "IPAddress": "",
      "IPPrefixLen": 0,
      "IPv6Gateway": "",
      "GlobalIPv6Address": "",
      "GlobalIPv6PrefixLen": 0,
      "MacAddress": ""
    }
  }
}
```

Default Network Mode

```
"NetworkMode": "default",
  "PortBindings": {},
...

"NetworkSettings": {
  "Bridge": "",
  "SandboxID": "374a497083a0d8ee...",
  "HairpinMode": false,
  "LinkLocalIPv6Address": "",
  "LinkLocalIPv6PrefixLen": 0,
  "Ports": {},
  "SandboxKey":
    "/var/run/docker/netns/374a497083a0",
  "SecondaryIPAddresses": null,
  "SecondaryIPv6Addresses": null,
  "EndpointID": "b62e76fe791cab8a...",
  "Gateway": "172.17.0.1",
  "GlobalIPv6Address": "",
  "GlobalIPv6PrefixLen": 0,
  "IPAddress": "172.17.0.2",
  "IPPrefixLen": 16,
  "IPv6Gateway": "",
  "MacAddress": "02:42:ac:11:00:02",
  "Networks": {
    "bridge": {
      "IPAMConfig": null,
      "Links": null,
      "Aliases": null,
      "NetworkID": "b578ad519da3e6...",
      "EndpointID": "b62e76fe791ca...",
      "Gateway": "172.17.0.1",
      "IPAddress": "172.17.0.2",
      "IPPrefixLen": 16,
      "IPv6Gateway": "",
      "GlobalIPv6Address": "",
      "GlobalIPv6PrefixLen": 0,
      "MacAddress": "02:42:ac:11:00:02"
    }
  }
}
```

User-defined Network Mode

```
"NetworkMode": "mynetwork1",
  "PortBindings": {},
...
"NetworkSettings": {
  "Bridge": "",
  "SandboxID": "e25f5febb4bd0b...",
  "HairpinMode": false,
  "LinkLocalIPv6Address": "",
  "LinkLocalIPv6PrefixLen": 0,
  "Ports": {},
  "SandboxKey":
    "/var/run/docker/netns/e25f5febb4bd",
  "SecondaryIPAddresses": null,
  "SecondaryIPv6Addresses": null,
  "EndpointID": "",
  "Gateway": "",
  "GlobalIPv6Address": "",
  "GlobalIPv6PrefixLen": 0,
  "IPAddress": "",
  "IPPrefixLen": 0,
  "IPv6Gateway": "",
  "MacAddress": "",
  "Networks": {
    "mynetwork1": {
      "IPAMConfig": null,
      "Links": null,
      "Aliases": [
        "57f19a46e5d3"
      ],
      "NetworkID": "45810ff9b...",
      "EndpointID": "2f2ec098f84...",
      "Gateway": "172.18.0.1",
      "IPAddress": "172.18.0.2",
      "IPPrefixLen": 16,
      "IPv6Gateway": "",
      "GlobalIPv6Address": "",
      "GlobalIPv6PrefixLen": 0,
      "MacAddress": "02:42:ac:12:00:02"
    }
  }
}
```

MACVLAN Network Mode

```
"NetworkMode": "my-macvlan-net",
  "PortBindings": {},
...
"Networks": {
  "my-macvlan-net": {
    "IPAMConfig": null,
    "Links": null,
    "Aliases": [
      "e4c5b88eb8da"
    ],
    "NetworkID": "fdb965f0800...",
    "EndpointID": "f44aa90b72...",
    "Gateway": "10.10.50.1",
    "IPAddress": "10.10.50.2",
    "IPPrefixLen": 24,
    "IPv6Gateway": "",
    "GlobalIPv6Address": "",
    "GlobalIPv6PrefixLen": 0,
    "MacAddress": "02:42:0a:0a:32:02"
  }
}
```

Publishing Port

```
"NetworkMode": "default",
  "PortBindings": {
    "80/tcp": [
      {
        "HostIp": "",
        "HostPort": "8080"
      }
    ]
  },
...
"NetworkSettings": {
  "Bridge": "",
  "SandboxID": "c5a68082ea08f3...",
  "HairpinMode": false,
  "LinkLocalIPv6Address": "",
  "LinkLocalIPv6PrefixLen": 0,
  "Ports": {
    "80/tcp": [
      {
        "HostIp": "0.0.0.0",
        "HostPort": "8080"
      }
    ]
  },
  "SandboxKey":
    "/var/run/docker/netns/c5a68082ea08",
  "SecondaryIPAddresses": null,
  "SecondaryIPv6Addresses": null,
  "EndpointID": "d771e7146bd",
  "Gateway": "172.17.0.1",
  "GlobalIPv6Address": "",
  "GlobalIPv6PrefixLen": 0,
  "IPAddress": "172.17.0.2",
  "IPPrefixLen": 16,
  "IPv6Gateway": "",
  "MacAddress": "02:42:ac:11:00:02",
  "Networks": {
    "bridge": {
      "IPAMConfig": null,
      "Links": null,
      "Aliases": null,
      "NetworkID": "b578ad519da3...",
      "EndpointID": "d771e7146bd...",
      "Gateway": "172.17.0.1",
      "IPAddress": "172.17.0.2",
      "IPPrefixLen": 16,
      "IPv6Gateway": "",
      "GlobalIPv6Address": "",
      "GlobalIPv6PrefixLen": 0,
      "MacAddress": "02:42:ac:11:00:02"
    }
  }
}
```