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Create Transparent Network in Windows C

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Create Transparent Network in Windows Container

In this blog, we will show you how to create a transparent network in windows container using docker comm

INTRODUCTION

The transparent network allows containers to be on the same network as container host. We need use both docker commands to configure the transparent network for containers.

SETTING UP TRANSPARENT NETWORK

- First, we need to stop the docker service using below command.

stop-service docker

```
PS C:\> Stop-Service docker
PS C:\> _
```

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- Delete the existing network before creating the transparent network. Execute the below command.

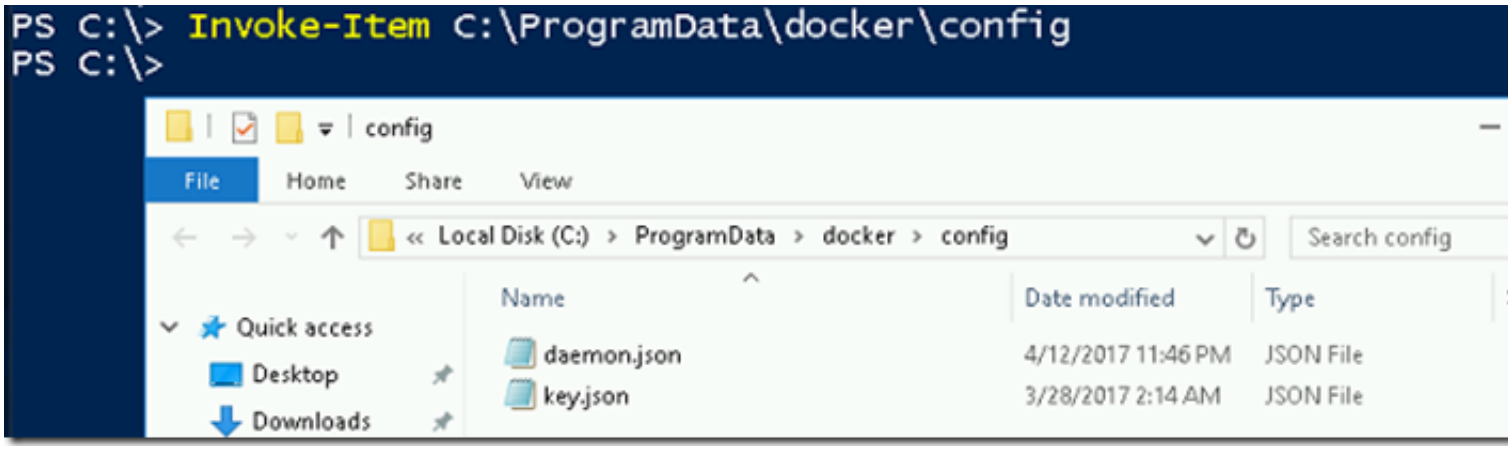
Get-ContainerNetwork | Remove-ContainerNetwork

```
PS C:\> Get-ContainerNetwork | Remove-ContainerNetwork

Confirm
Remove-ContainerNetwork will remove the container network "".
[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default
PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-165.png)

- Open **C:\ProgramData\docker\config** folder.



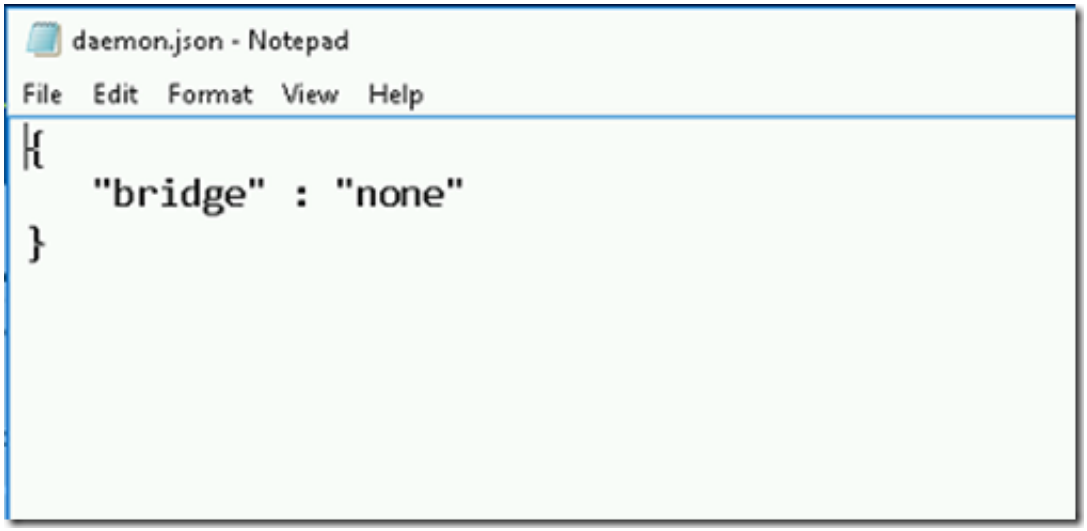
(https://www.assistanz.com/wp-content/uploads/2017/04/image-166.png)

- Open the **daemon.json** file and add the below lines.

{

"bridge" : "none"

}



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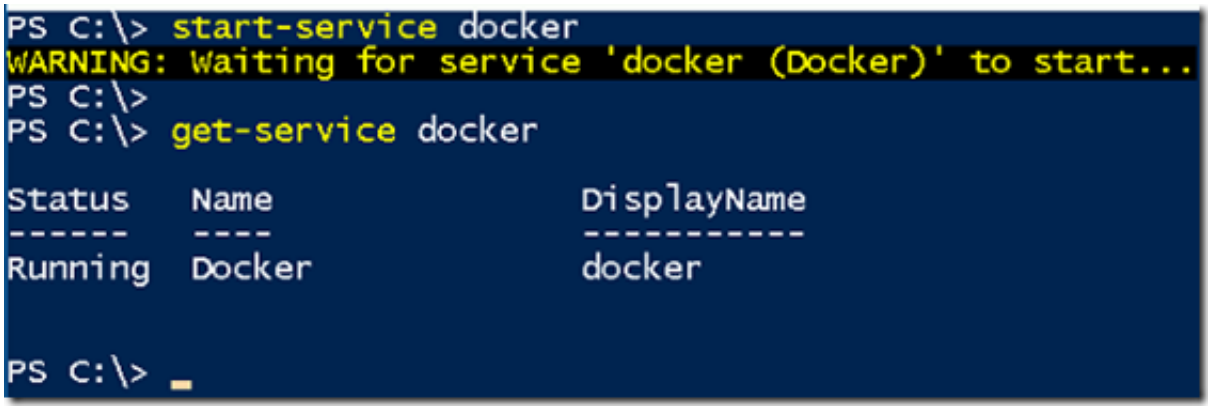
content/uploads/2017/04/image-167.png)

- The above daemon file informs to docker engine that not to built the NAT network while starting the docker serv
- save and close the file.
- Start the docker service using **start-service docker** command.



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content/uploads/2017/04/image-168.png)

- There will not be any container network if you execute **Get-ContainerNetwork** command.

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CREATING TRANSPARENT NETWORK

- To create a transparent network, use the below command.

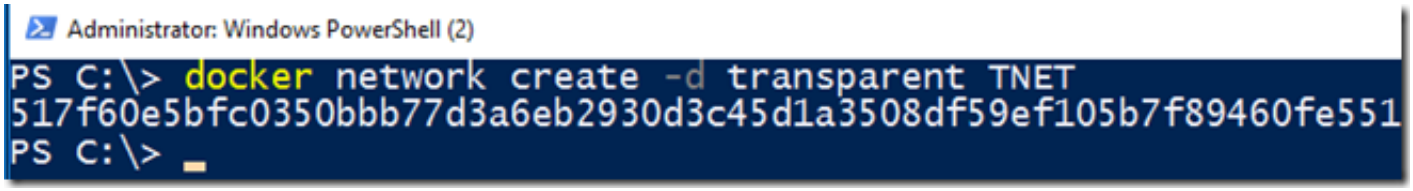
docker network create –d transparent TNET

docker network – Use to create docker networks.

Create – It's a sub-command to create a network.

-d – which driver to use to create a network. We need to give it as transparent.

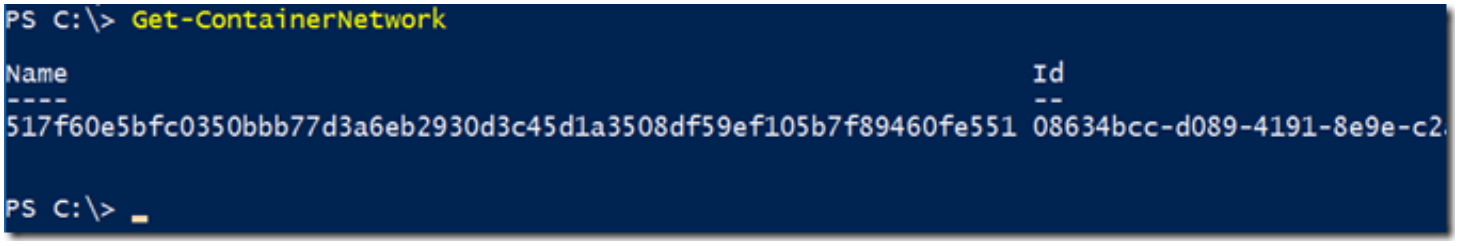
TNET – Name for the network.



(https://www.assistanz.com/wp-content/uploads/2017/04/image-170.png)

> ***Note : docker network create command is the equivalent to new-containernetwork***

- Type **Get-ContainerNetwork** to the information about the network.



(https://www.assistanz.com/wp-content/uploads/2017/04/image-171.png)

- If we run **docker network ls** command, you can find network driver information.

```
PS C:\> docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
517f60e5bfc0        TNET                transparent         local
c018259eafae        none                null                local
PS C:\>
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-172.png)

VERIFYING TRANSPARENT NETWORK

- Launch new container using the below command.

docker run -it –network=TNET microsoft/nanoserver

- once the container is up and running, type **ipconfig** to verify the IP settings

```
Administrator: Windows PowerShell (2)
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\>ipconfig

Windows IP Configuration


Ethernet adapter vEthernet (Container NIC bcb283e2):

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::1d90:a3bd:2ee1:a9a1%16
   IPv4 Address. . . . . . . . . . . : 192.168.233.97
   Subnet Mask . . . . . . . . . . . : 255.255.224.0
   Default Gateway . . . . . . . . . : 192.168.224.1

C:\>_
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-173.png)

- The IP **192.168.233.97** is the physical network in our office. This container got the IP address from the physical DH

- Also, we will able to ping the internet domain.

```
   Link-local IPv6 Address . . . . . : fe80::1d90:a3bd:2ee1:a9a1%16
   IPv4 Address. . . . . . . . . . . : 192.168.233.97
   Subnet Mask . . . . . . . . . . . : 255.255.224.0
   Default Gateway . . . . . . . . . : 192.168.224.1

C:\>ping google.com

Pinging google.com [216.58.197.78] with 32 bytes of data:
Reply from 216.58.197.78: bytes=32 time=20ms TTL=57
Reply from 216.58.197.78: bytes=32 time=17ms TTL=57
Reply from 216.58.197.78: bytes=32 time=53ms TTL=57
Reply from 216.58.197.78: bytes=32 time=19ms TTL=57

Ping statistics for 216.58.197.78:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 17ms, Maximum = 53ms, Average = 27ms

C:\>_
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-174.png)

VIDEO