Access Docker Host Remotely

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In this blog, we will share you how to access docker host remotely using docker client.

REQUIREMENTS

- Nano Server with Docker Installed
- Client Machine to access the docker host through PowerShell

DOCKER ENGINE OVERVIEW

The docker engine is powered by **dockerd** in both windows and Linux. Dockerd is for Docker Daemon. This s
ability to interface with docker client. It has lots of start-up options to customize the docker client service. We
start-up option manually or we can setup in a configuration file. To configure the remote access to docker hc
specify the IP and port number using the customize options.

For more information about the dockerd, please check this URL:
https://docs.docker.com/engine/reference/commandline/dockerd/#windows-configuration-file
(https://docs.docker.com/engine/reference/commandline/dockerd/#windows-configuration-file)

CONFIGURING FIREWALL

- We need to open a port a firewall on nano server (docker host). Execute the below command to open **port 2375**

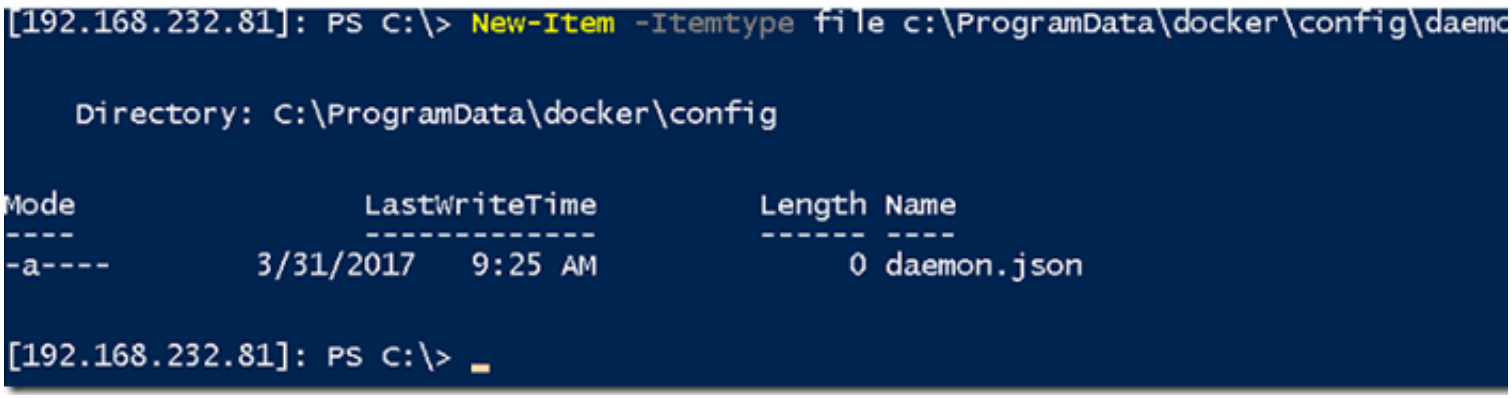
netsh advfirewall firewall add rule name=”Docker Daemon” dir=in action=allow protocol=TCP localp

(https://www.assistanz.com/wp-content/uploads/2017/03/image-131.png)

CREATING DAEMON FILE

- Create a blank file named **daemon.json** under **c:\programdata\docker\config** folder using below comman

New-Item -Itemtype file c:\ProgramData\docker\config\daemon.json



(https://www.assistanz.com/wp-content/uploads/2017/03/image-132.png)

- Add the host key into the file using the below command.

Add-Content 'c:\ProgramData\docker\config\daemon.json' '{ "hosts": ["tcp://0.0.0.0:2375", "npipe:/

(https://www.assistanz.com/wp-content/uploads/2017/03/image-133.png)

- To list the content from a file, use the below command.

Get-Content 'C:\ProgramData\docker\config\daemon.json'

```
[192.168.232.81]: PS C:\> Get-Content 'C:\ProgramData\docker\config\daemo
{ "hosts": ["tcp://0.0.0.0:2375", "npipe://"] }
```

(https://www.assistanz.com/wp-content/uploads/2017/03/image-134.png)

- Restart the **Docker service** using below command.

Restart-service docker

```
[192.168.232.81]: PS C:\> restart-service docker
[192.168.232.81]: PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/03/image-135.png)

INSTALLING DOCKER ENGINE IN CLIENT MACHINE

- Execute the bunch of PowerShell scripts given below.

$package = "https://download.docker.com/components/engine/windows-server/cs-1.12/docker.zip"
(https://download.docker.com/components/engine/windows-server/cs-1.12/docker.zip")

Invoke-WebRequest $package -OutFile "$env:TEMP\docker.zip" -UseBasicParsing

Expand-Archive -Path "$env:TEMP\docker.zip" -DestinationPath $env:ProgramFiles

[Environment]::SetEnvironmentVariable("path",$env:Path + ";$($env:ProgramFiles)\Docker", [EnvironmentVariableTarget]::Machine)

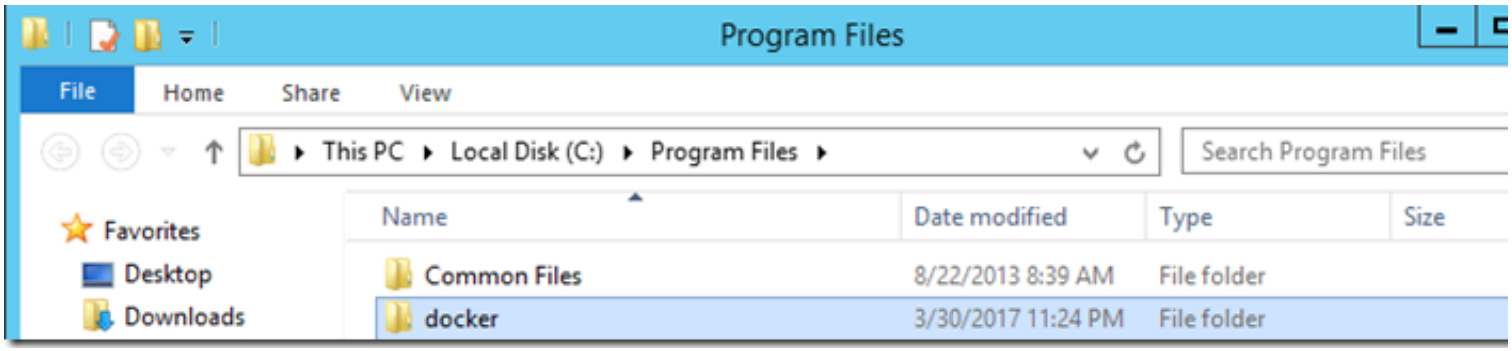
Above scripts will download the docker.zip and extract the files under program files folder. Also, it adds the e
variable for Docker folder.

```
Untitled1.ps1*
1  $package = "https://download.docker.com/components/engine/windows-server/cs-1.12/docker.zip"
2
3  Invoke-WebRequest $package -OutFile "$env:TEMP\docker.zip" -UseBasicParsing
4
5  Expand-Archive -Path "$env:TEMP\docker.zip" -DestinationPath $env:ProgramFiles
6
7  [Environment]::SetEnvironmentVariable("path",$env:Path + ";$($env:ProgramFiles)\Docker", [EnvironmentVariabl
```

```
PS C:\Users\Administrator> $package = "https://download.docker.com/components/engine/windows-server/cs-1.12/docker
Invoke-WebRequest $package -OutFile "$env:TEMP\docker.zip" -UseBasicParsing
PS C:\Users\Administrator> Expand-Archive -Path "$env:TEMP\docker.zip" -DestinationPath $env:ProgramFiles
[Environment]::SetEnvironmentVariable("path",$env:Path + ";$($env:ProgramFiles)\Docker", [EnvironmentVariableTarge
PS C:\Users\Administrator>
```

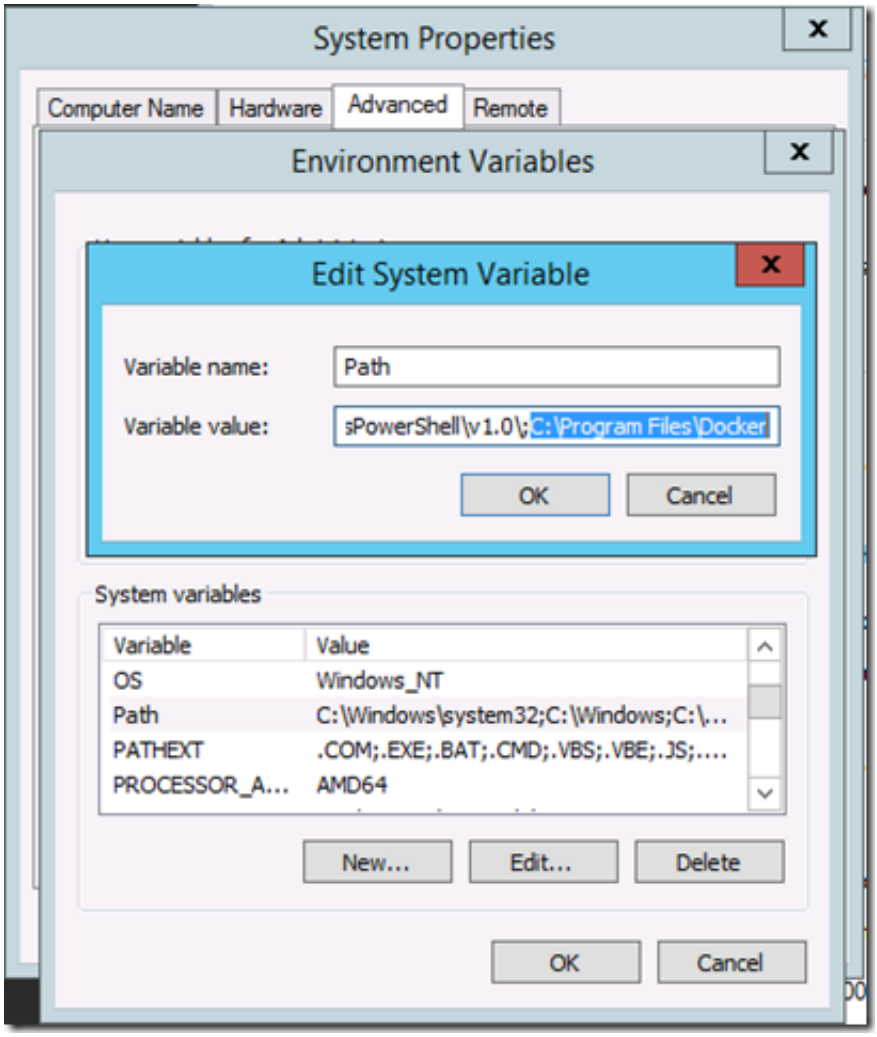
(https://www.assistanz.com/wp-content/uploads/2017/03/image-136.png)

- Now Docker folder will be available in C:\Program Files folder.



(https://www.assistanz.com/wp-content/uploads/2017/03/image-137.png)

- Environment variable will also available for docker.



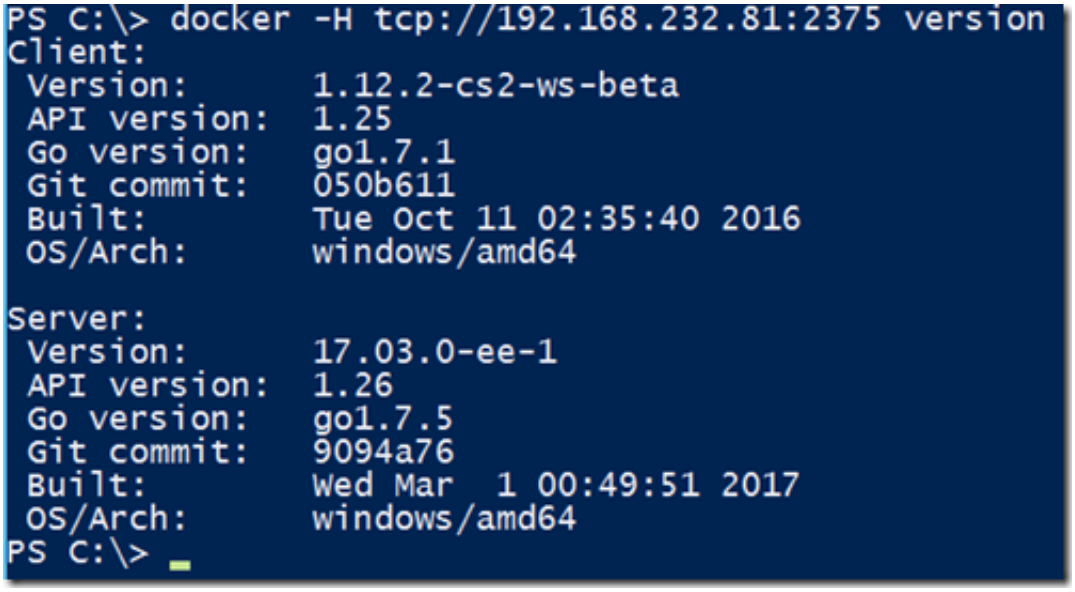
(https://www.assistanz.com/wp-content/uploads/2017/03/image-138.png)

ACCESS DOCKER HOST REMOTELY

- Go to PowerShell and execute the below command to access the docker host remotely.

docker -H tcp://192.168.232.81:2375 version

The IP 192.168.232.81 belongs to nano server docker host. The **version** is a command to execute on the rem server.



(https://www.assistanz.com/wp

content/uploads/2017/03/image-139.png)

VIDEO