

Configure TCP/IP from the Command Prompt

by Daniel Petri - January 7, 2009

In order to configure TCP/IP settings such as the IP address, Subnet Mask, Default Gateway, DNS and WINS addresses and many other options you can use Netsh.exe.

Netsh.exe is a command-line scripting utility that allows you to, either locally or remotely, display or modify the network configuration of a computer that is currently running. Netsh.exe also provides a scripting feature that allows you to run a group of commands in batch mode against a specified computer. Netsh.exe can also save a configuration script in a text file for archival purposes or to help you configure other servers.

Netsh.exe is available on Windows 2000, Windows XP and Windows Server 2003.

You can use the Netsh.exe tool to perform the following tasks:

- Configure interfaces
- Configure routing protocols
- Configure filters
- Configure routes
- Configure remote access behavior for Windows-based remote access routers that are running the Routing and Remote Access Server (RRAS) Service
- Display the configuration of a currently running router on any computer
- Use the scripting feature to run a collection of commands in batch mode against a specified router.

What can we do with Netsh.exe?

With Netsh.exe you can easily **view your TCP/IP settings**. Type the following command in a Command Prompt window (CMD.EXE):

```
netsh interface ip show config
```

With Netsh.exe, you can easily **configure your computer's IP address and other TCP/IP related settings**. For example:

The following command configures the interface named Local Area Connection with the static IP address 192.168.0.100, the subnet mask of 255.255.255.0, and a default gateway of 192.168.0.1:

```
netsh interface ip set address name="Local Area Connection" static 192.168.0.100 255.255.255.0 192.168.0.1 1
```

(The above line is one long line, copy paste it as one line)

Netsh.exe can be also useful in certain scenarios such as when you have a portable computer that needs to be relocated between 2 or more office locations, while still maintaining a specific and static IP address configuration. With Netsh.exe, you can easily save and restore the appropriate network configuration.

First, connect your portable computer to location #1, and then manually configure the required settings (such as the IP address, Subnet Mask, Default Gateway, DNS and WINS addresses).

Now, you need to **export your current IP settings** to a text file. Use the following command:

```
netsh -c interface dump > c:\location1.txt
```

When you reach location #2, do the same thing, only keep the new settings to a different file:

```
netsh -c interface dump > c:\location2.txt
```

You can go on with any other location you may need, but we'll keep it simple and only use 2 examples.

Now, whenever you need to quickly **import your IP settings** and change them between location #1 and location #2, just enter the following command in a Command Prompt window (CMD.EXE):

```
netsh -f c:\location1.txt
```

or

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```
netsh -f c:\location2.txt
```

and so on.

You can also use the global EXEC switch instead of -F:

```
netsh exec c:\location2.txt
```

Netsh.exe can also be used to configure your NIC to **automatically obtain an IP address from a DHCP server**:

```
netsh interface ip set address "Local Area Connection" dhcp
```

Would you like to **configure DNS and WINS addresses** from the Command Prompt? You can. See this example for DNS:

```
netsh interface ip set dns "Local Area Connection" static 192.168.0.200
```

and this one for WINS:

```
netsh interface ip set wins "Local Area Connection" static 192.168.0.200
```

Or, if you want, you can configure your NIC to **dynamically obtain it's DNS settings**:

```
netsh interface ip set dns "Local Area Connection" dhcp
```

As you now see, Netsh.exe has many features you might find useful, and that goes beyond saying even without looking into the other valuable options that exist in the command.

Links

[How to Use the Netsh.exe Tool and Command-Line Switches - 242468](#) ➡

[How to Use the NETSH Command to Change from Static IP Address to DHCP in Windows 2000 - 257748](#) ➡



About Daniel Petri

Daniel Petri is a world-known IT professional, technical trainer and creator of one of the world's largest IT knowledge bases - www.petri.co.il. Daniel consults to leading global Fortune 1000 companies in Microsoft IT Infrastructure and Engineering strategies. For his contribution to the IT Pro community Daniel has received the Microsoft Most Valuable Professional (MVP) award for the 5th time in a row. Daniel's professional certifications include Microsoft Certified Technology Specialist, Microsoft Certified Systems Engineer, Microsoft Certified System Administrator and Microsoft Certified Trainer. In his spare time, Daniel rides a 1340cc 200bhp 2008 model Suzuki Hayabusa sports bike and manages the Israeli Bikers forum. You can contact Daniel at daniel-at-petri-dot-co-dot-il.

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