

How To Ping IPv4 using the Windows 7 Command line.

These slides demonstrate ping using the Windows 7 command line.

Preuss

9/21/2012

C:\temp>

You need to open the command prompt windows. It is not necessary to be administrator of your system.

C:\temp>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

```

Connection-specific DNS Suffix . : mait.local
IPv6 Address . . . . . : 2001:470:1f11:455:f5d1:a044:ebde:d129
Temporary IPv6 Address . . . . . : 2001:470:1f11:455:11b3:76db:9a35:98da
Link-local IPv6 Address . . . . . : fe80::f5d1:a044:ebde:d129%11
IPv4 Address . . . . . : 192.168.65.96
Subnet Mask . . . . . : 255.255.252.0
Default Gateway . . . . . : fe80::211:43ff:fee7:f195%11
                            192.168.64.1

```

Wireless LAN adapter Wireless Network Connection:

```

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . : mnstate.edu

```

Ethernet adapter VMware Network Adapter VMnet1:

```

Connection-specific DNS Suffix . :
Link-local IPv6 Address . . . . . : fe80::c165:3c6a
IPv4 Address . . . . . : 192.168.244.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

```

Ethernet adapter VMware Network Adapter VMnet8:

```

Connection-specific DNS Suffix . :
Link-local IPv6 Address . . . . . : fe80::2900:f278
IPv4 Address . . . . . : 192.168.157.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

```

Tunnel adapter isatap.{CB15A496-BEB2-42CD-B19D-E0EF5617234D}:

```

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :

```

Tunnel adapter Teredo Tunneling Pseudo-Interface:

```

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :

```

Tunnel adapter isatap.{4CA212DF-FB7B-44E1-907B-2B64AA43170D}:

```

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :

```

Tunnel adapter isatap.mait.local:

```

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . : mait.local

```

Tunnel adapter isatap.mnstate.edu:

The ipconfig command provides information about our network adapters.

In this example, we are using the Ethernet adapter Local Area Connection. It is a wired connection. The adapter IP address is in the line IPv4 Address. The subnet is in the line Subnet Mask.

Etherne  
Conn  
IPv6  
Temp  
Link  
IPv4  
Subn  
Defa

The Wireless LAN adapter Wireless Network Connection is for the wireless nic.  
The VMware Network Adapters are for the virtual machines. The Tunnel adapters  
are IPv6 tunneling systems.

f5d1:a044:ebde:d129  
11b3:76db:9a35:98da  
de:d129%11  
  
7:f195%11

Wireless LAN adapter Wireless Network Connection:

Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . : mnstate.edu

Ethernet adapter VMware Network Adapter VMnet1:

Connection-specific DNS Suffix . :  
Link-local IPv6 Address . . . . . : fe80::c165:3c6a:d7a7:7ba2%18  
IPv4 Address . . . . . : 192.168.244.1  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:

Connection-specific DNS Suffix . :  
Link-local IPv6 Address . . . . . : fe80::2900:f278:f3aa:4f52%19  
IPv4 Address . . . . . : 192.168.157.1  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . :

Tunnel adapter isatap.{CB15A496-BEB2-42CD-B19D-E0EF5617234D}:

Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . :

Tunnel adapter Teredo Tunneling Pseudo-Interface:

Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . :

Tunnel adapter isatap.{4CA212DF-FB7B-44E1-907B-2B64AA43170D}:

Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . :

Tunnel adapter isatap.mait.local:

Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . : mait.local

Tunnel adapter isatap.mnstate.edu:

Media State . . . . . : Media disconnected  
Connection-specific DNS Suffix . :

C:\temp>ipconfig /all

Windows IP Configuration

```

Host Name . . . . . : G6TMBT1
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : mait.local

```

Ethernet adapter Local Area Connection:

```

Connection-specific DNS Suffix . . : mait.local
Description . . . . . : Intel(R) 82579LM Gigabit Network Connection
Physical Address. . . . . : D0-67-E5-50-43-9C
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . :
IPv6 Address. . . . . : fe80::455:f5d1:a044:ebde:d129(Preferred)
Temporary IPv6 Address. . . . . : fe80::455:11b3:76db:9a35:98da(Preferred)
Link-local IPv6 Address . . . . . : fe80::4:ebde:d129%11(Preferred)
IPv4 Address. . . . . : 192.168.244.1(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : October 21, 2012 3:10:04 PM
Lease Expires . . . . . : October 21, 2012 5:10:04 PM
Default Gateway . . . . . : fe80::f195%11

DHCP Server . . . . . :
DNS Servers . . . . . :
NetBIOS over Tcpip. . . . . :

```

The command ipconfig /all provides even more information about the adapters.

You may want a copy of this command. Try the following  
 ipconfig /all >> ip-info.txt  
 The command will create a file named ip-info.txt and put all the data from ipconfig /all in the file.

Wireless LAN adapter Wireless Network Connection:

```

Media State . . . . . : Disconnected
Connection-specific DNS Suffix . . : mnstate.edu
Description . . . . . : DW1501 Wireless-N WLAN Half-Mini Card
Physical Address. . . . . : 84-4B-F5-5C-34-22
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes

```

Ethernet adapter VMware Network Adapter VMnet1:

```

Connection-specific DNS Suffix . . :
Description . . . . . : VMware Virtual Ethernet Adapter for VMnet1
Physical Address. . . . . : 00-50-56-C0-00-01
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::c165:3c6a:d7a7:7ba2%18(Preferred)
IPv4 Address. . . . . : 192.168.244.1(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :
DHCPv6 IAID . . . . . : 335564886
DHCPv6 Client DUID. . . . . : 00-01-00-01-17-A8-B4-B1-84-4B-F5-5C-34-22

```

C:\temp>netsh interface ip sh address

```

Configuration for interface "Local Area Connection"
DHCP enabled: Yes
IP Address: 192.168.65.96
Subnet Prefix: 192.168.64.0/22 (mask 255.255.252.0)
Default Gateway: 192.168.64.1
Gateway Metric: 0
InterfaceMetric: 10

```

```

Configuration for interface "Wireless Network Connection"
DHCP enabled: Yes
InterfaceMetric: 5

```

```

Configuration for interface "VMware Network Adapter VMnet1"
DHCP enabled: No
IP Address: 192.168.244.1
Subnet Prefix: 192.168.244.0/24 (mask 255.255.255.0)
InterfaceMetric: 20

```

```

Configuration for interface "VMware Network Adapter VMnet8"
DHCP enabled: No
IP Address: 192.168.157.1
Subnet Prefix: 192.168.157.0/24 (mask 255.255.255.0)
InterfaceMetric: 20

```

```

Configuration for interface "Loopback Pseudo-Interface 1"
DHCP enabled: No
IP Address: 127.0.0.1
Subnet Prefix: 127.0.0.0/8 (mask 255.0.0.0)
InterfaceMetric: 50

```

Windows 7 netsh command also provides the IP address for the "Local Area Connection" or our wired nic.

C:\temp>

C:\temp>ping -4 argentina.mait.local

Pinging argentina.mait.local [192.168.64.13] with 32 bytes of data:

Reply from 192.168.64.13: bytes=32 time<1ms TTL=128  
Reply from 192.168.64.13: bytes=32 time<1ms TTL=128  
Reply from 192.168.64.13: bytes=32 time<1ms TTL=128  
Reply from 192.168.64.13: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.64.13:  
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\temp>

This is a successful IPv4 ping of  
argentina.mait.local.

```
C:\temp>ping -4 honduras.dragon.local
Ping request could not find host honduras.dragon.local. Please check the name and try again.
C:\temp>
```

This is an unsuccessful ping of honduras.dragon.local.



```
C:\temp>ping -4 127.45.56.72
```

```
Pinging 127.45.56.72 with 32 bytes of data:  
Reply from 127.45.56.72: bytes=32 time<1ms TTL=128  
Reply from 127.45.56.72: bytes=32 time<1ms TTL=128  
Reply from 127.45.56.72: bytes=32 time<1ms TTL=128  
Reply from 127.45.56.72: bytes=32 time<1ms TTL=128
```

```
Ping statistics for 127.45.56.72:  
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\temp>ping -4 127.0.0.1
```

```
Pinging 127.0.0.1 with 32 bytes of data:  
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128  
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128  
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128  
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
```

```
Ping statistics for 127.0.0.1:  
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\temp>
```

These are two examples of IPv4 loopback pings.