

DHCP

Server
Messages
IP use
client
subnetwork
assigns
Ports
configure
illegal
located
LAN
another
redundant
various
find Help
Service

DHCP CLIENT AND DHCP SERVER

HW Hilgersom

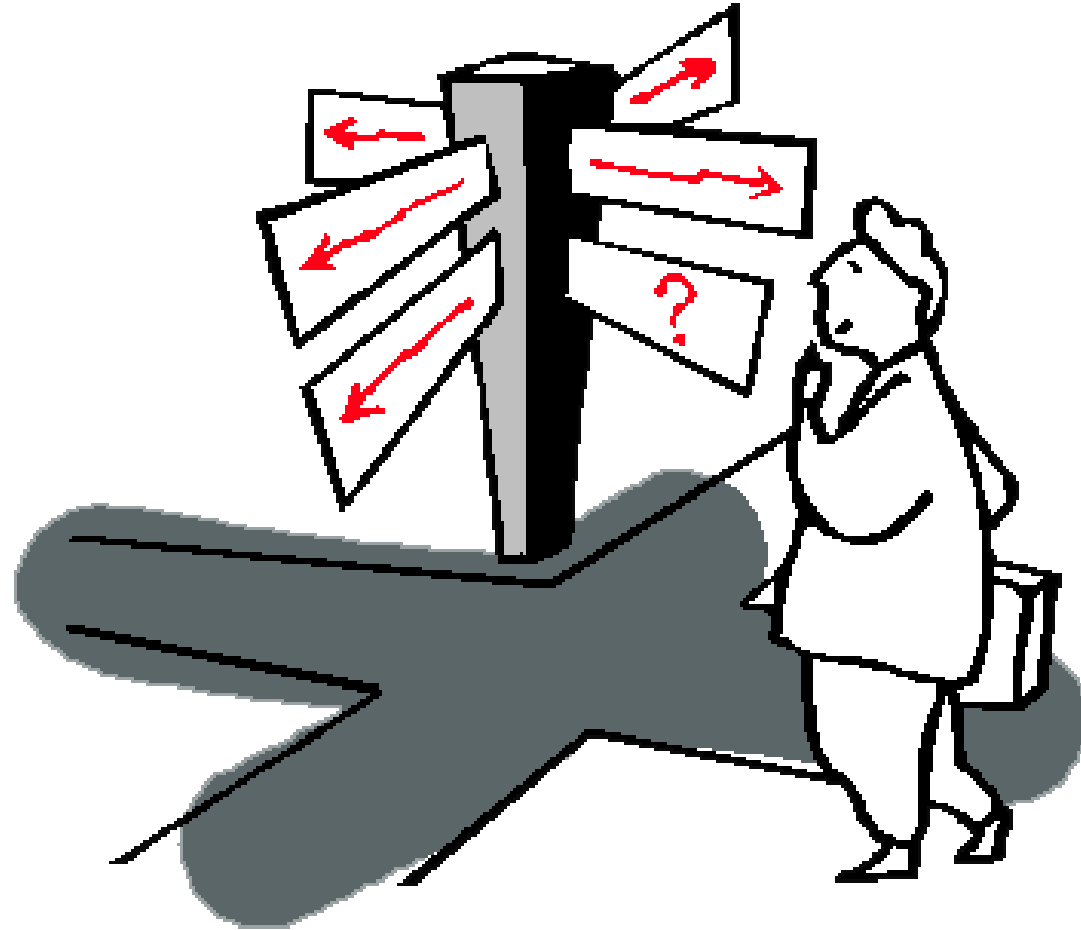
STAPPENPLAN

Installation and configuration step by step

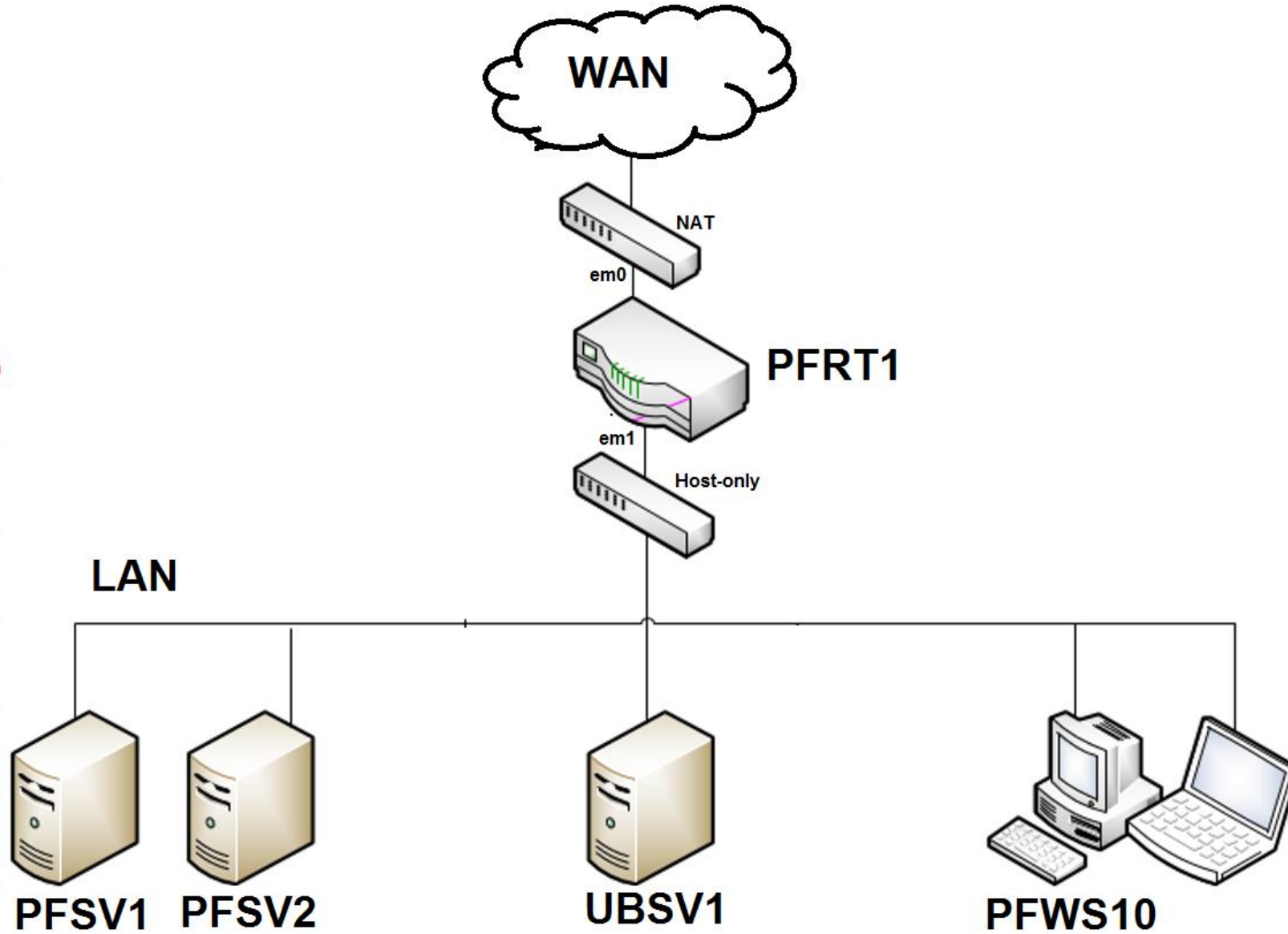
	General (Windows)	Windows Workstation	Windows Server 2016
0	Download the ISO		
1A	Create the Virtual Machine and add virtual hardware		
1B	Install the OS		
1C	Rename the Computer (Name)		
2			Install AD
3			Configure DNS
4	Configure the Network Adapter and test the network connectivity		Install and configure DHCP
5		Join the Domain	
6	Disk Management		
7			Create shares and mappings
8			Install and configure WDS
9	Add an additional Administrator account and test this account		Configure AD
10	Activate the computer		Print management

PROGRAMMA VOOR VANDAAG

1. Absentie
2. **DHCP CLIENT AND SERVER**
3. **COMMANDO's op de client**
4. **CLIENT: DHCP CLIENT**
5. **CLIENT: STATIC IP ADDRESS**
6. **DHCP SERVER (NAT)**
7. **DHCP SERVER (Host-only)**



PoliForma Local Area Network



DHCP CLIENT AND DHCP SERVER

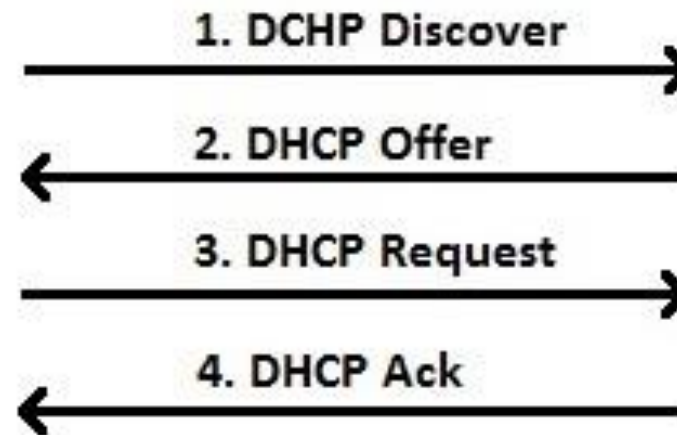
DORA



DHCP client



DHCP server



EZELSBRUGGETJE

DORA



DHCP SERVER

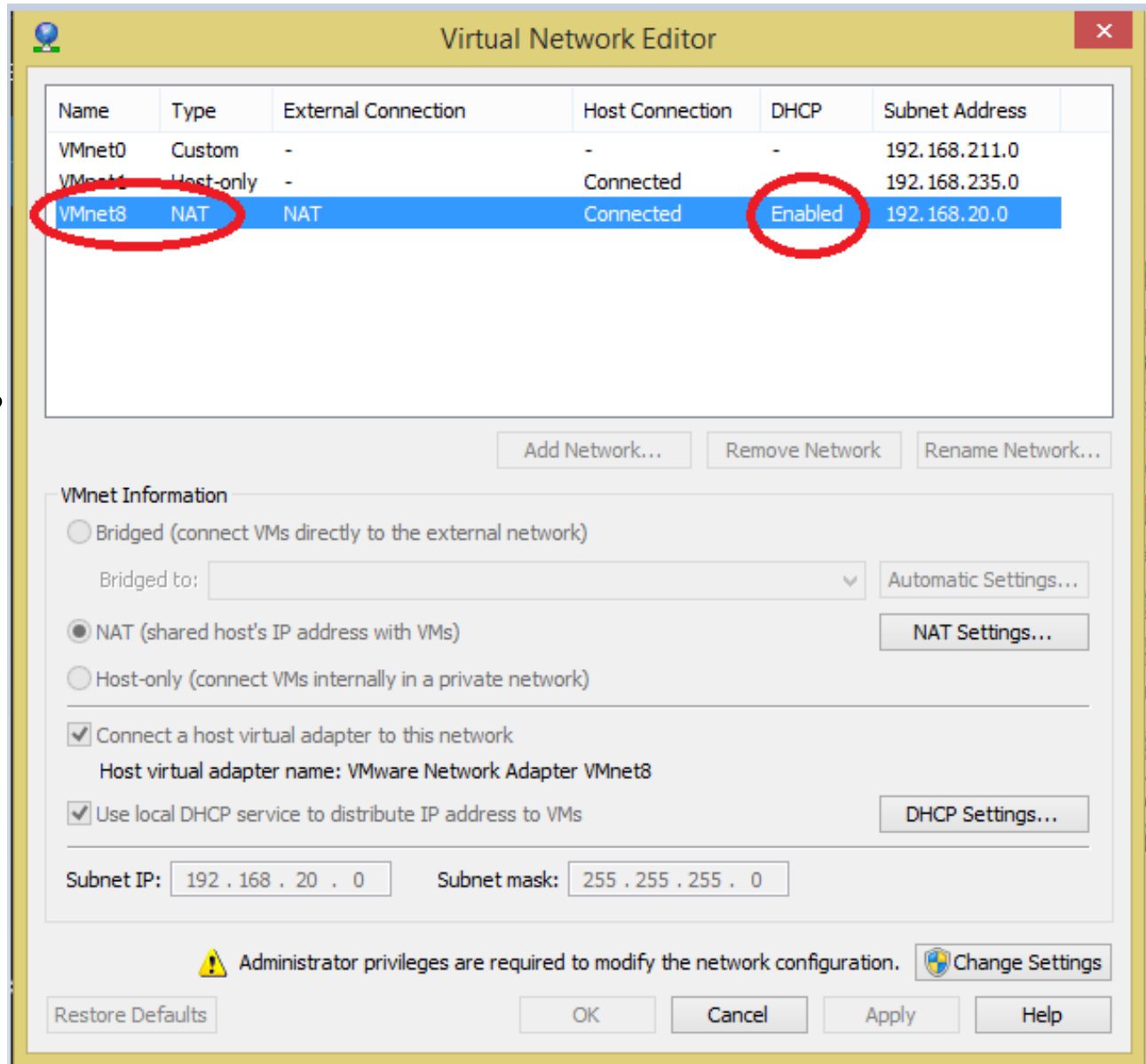
VMWare Edit ...

VMnet8

NAT

DHCP Enabled

Dit is de default!



EZELSBRUGGETJE

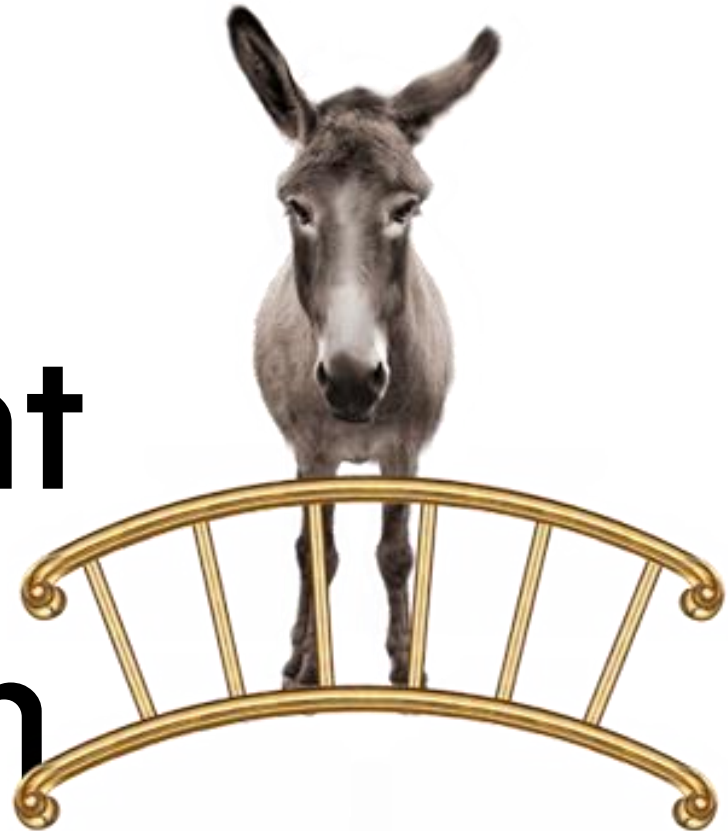
NAT

VMnet8

DHCP

Acht

Aan



DHCP SERVER

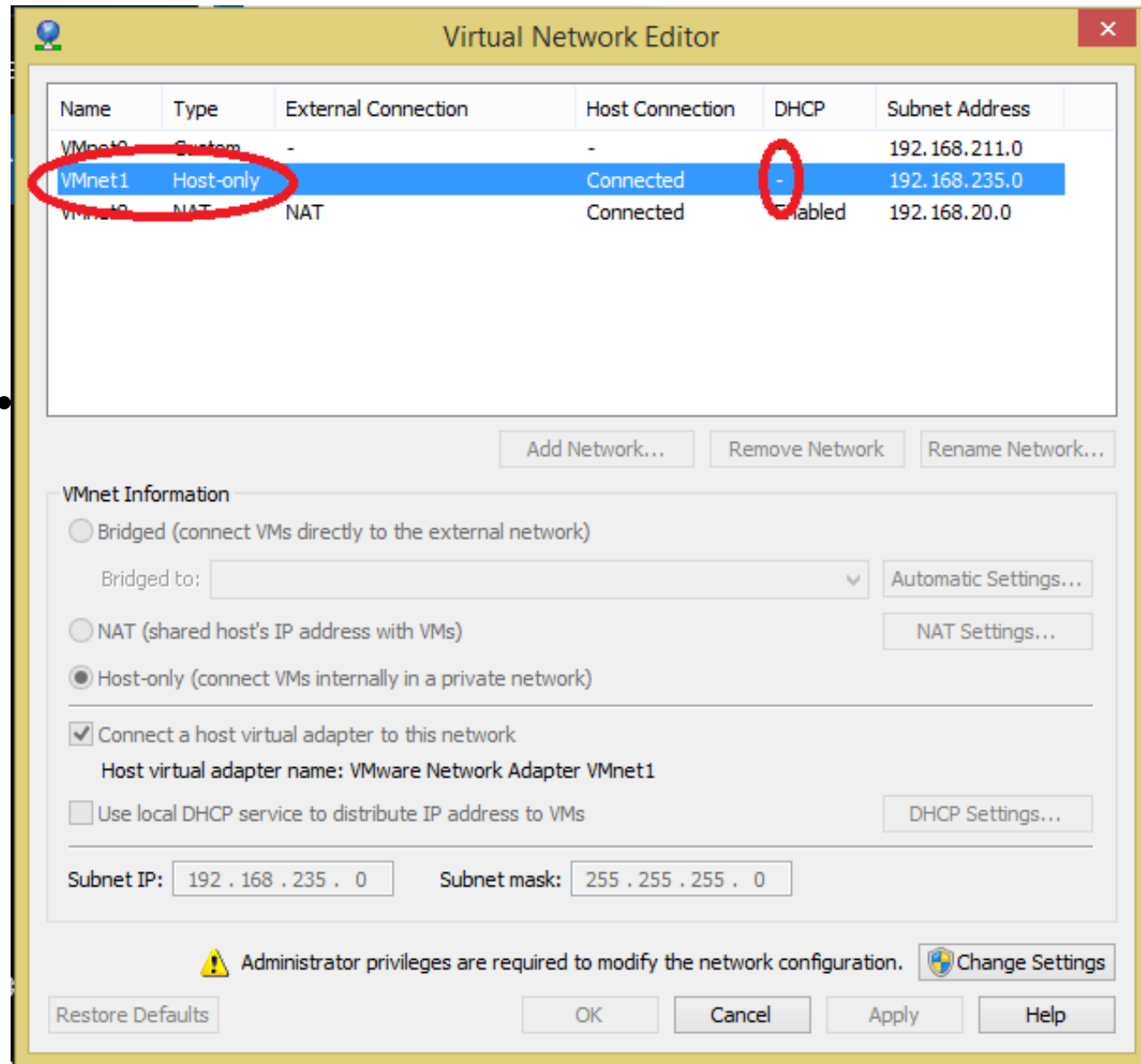
VMWare Edit ...

VMnet1

Host-only

DHCP – (Disabled)

Dit is de default!



DHCP SERVER

VMnet1 Host-only

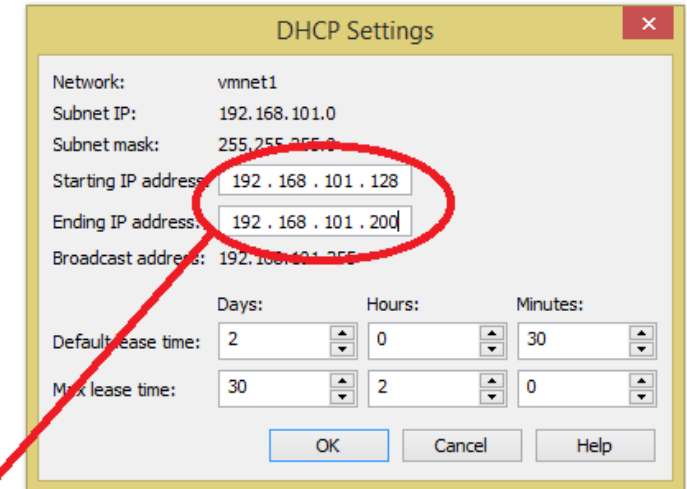
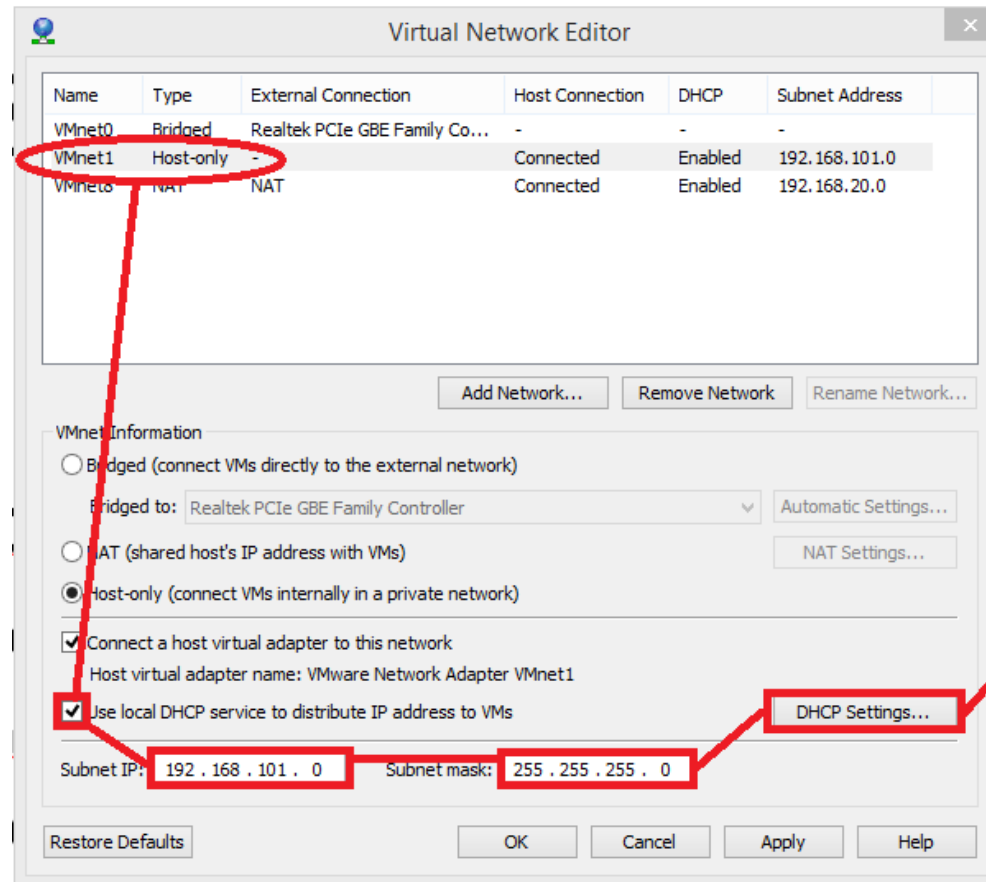
Use local DHCP

DHCP Settings ...

192.168.101.128

192.168.101.200

DHCP Enabled



DHCP SERVER

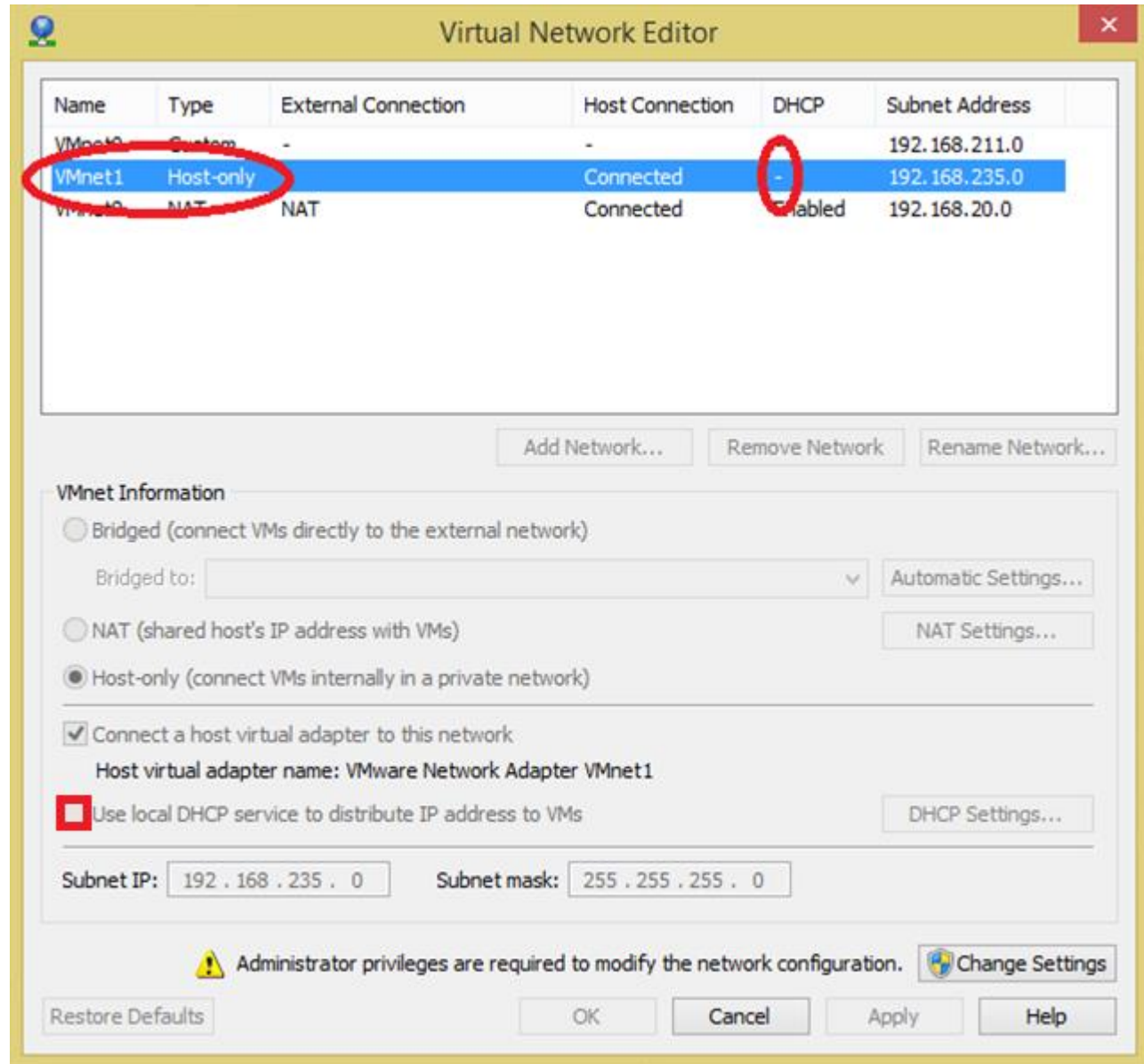
VMWare Edit ...

VMnet1

Host-only

DHCP – (Disabled)

Dit is de default!



CLIENT

ipconfig

ping <ip>

ping 8.8.8.8 of

ping google.nl

```
Opdrachtprompt
C:\Users\hw.hilgersom>ping google.nl
Pinging google.nl [216.58.211.99] with 32 bytes of data:
Reply from 216.58.211.99: bytes=32 time=9ms TTL=56
Reply from 216.58.211.99: bytes=32 time=47ms TTL=56
Reply from 216.58.211.99: bytes=32 time=5ms TTL=56
Reply from 216.58.211.99: bytes=32 time=5ms TTL=56

Ping statistics for 216.58.211.99:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 47ms, Average = 16ms

C:\Users\hw.hilgersom>
```

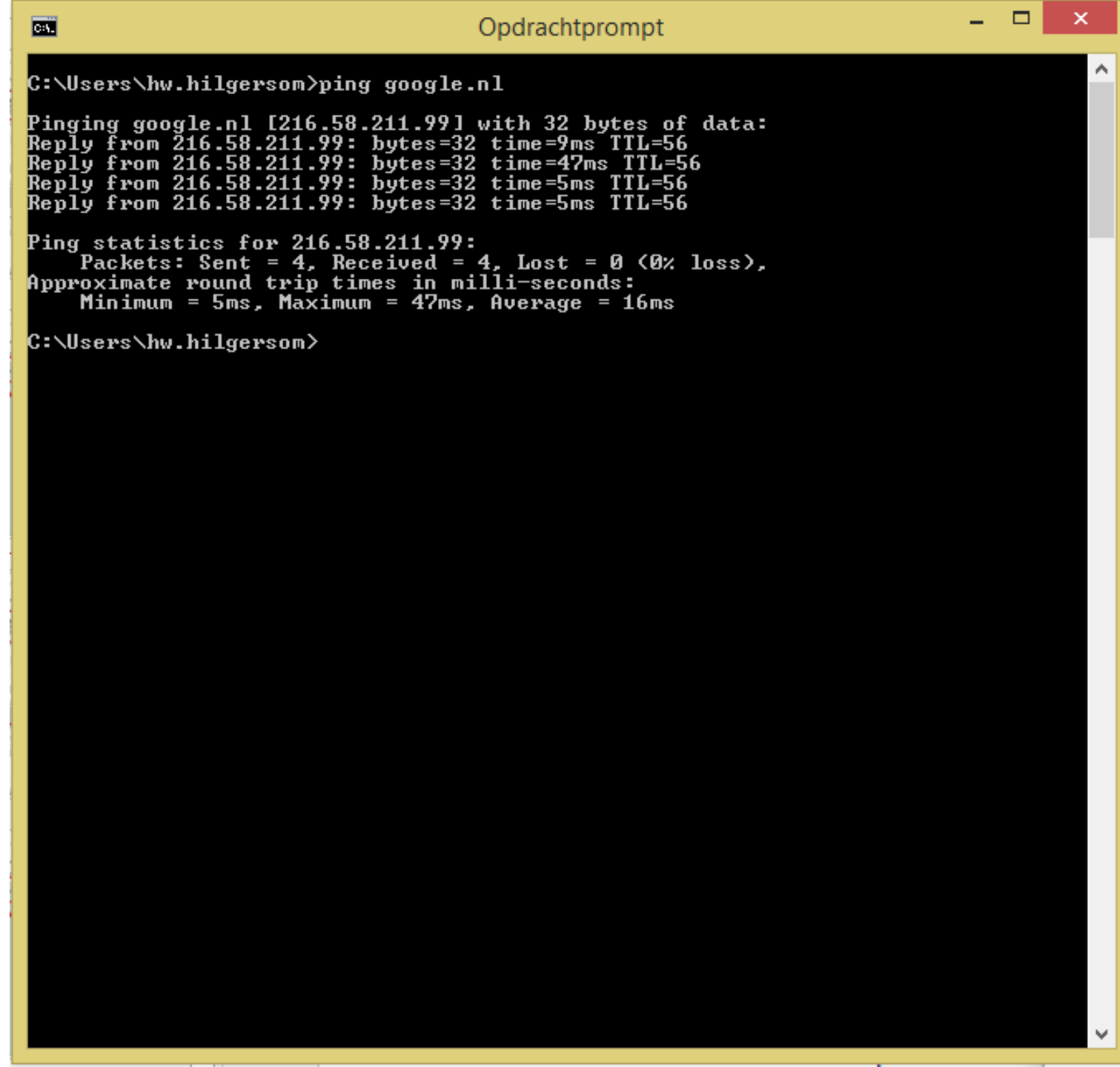
CLIENT

ipconfig

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ping 8.8.8.8 of

ping google.nl



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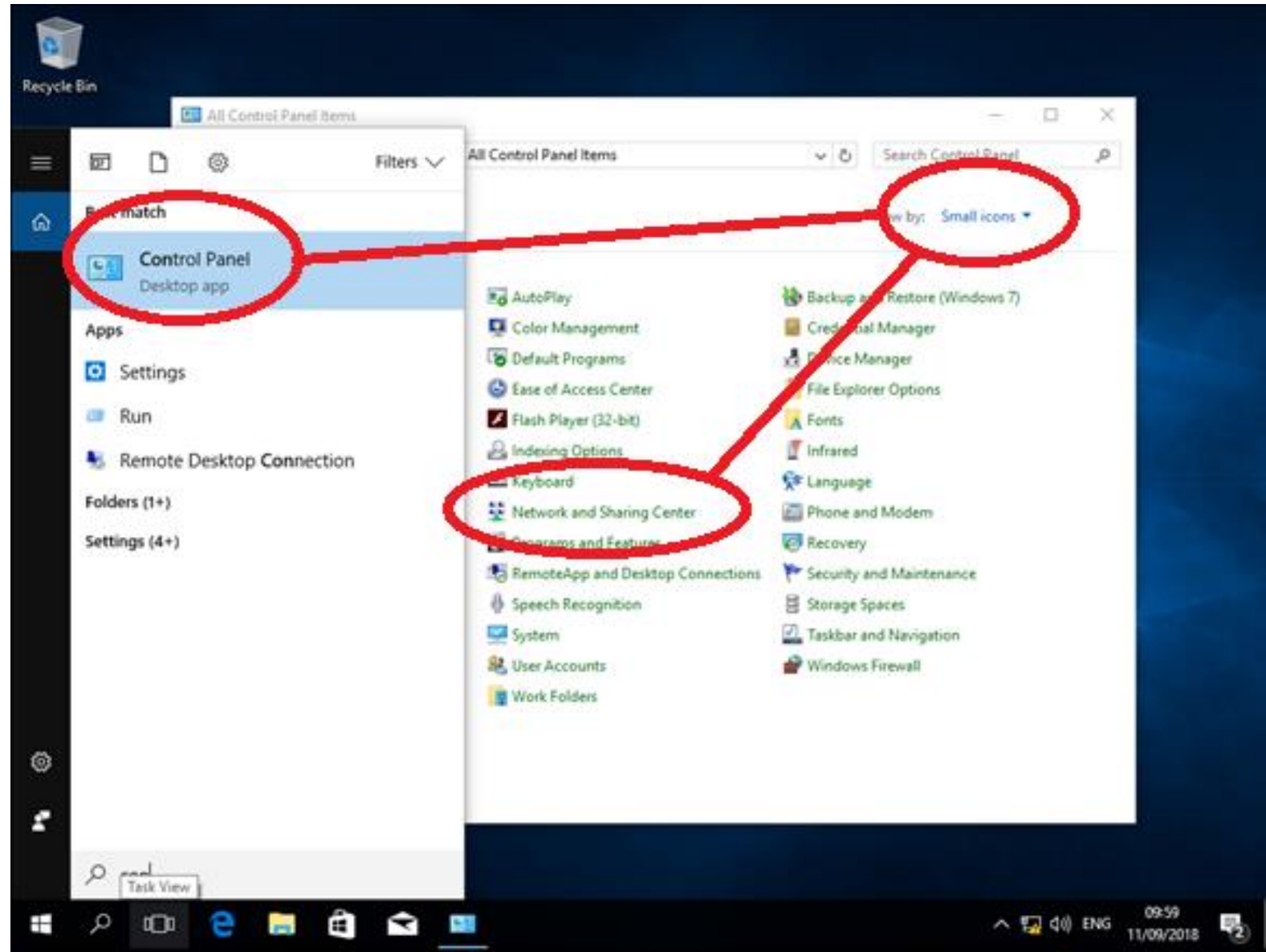
C:\Users\hw.hilgersom>
```

DHCP CLIENT

Control Panel

Small icons

Network and Sharing Center



CLIENT

DHCP CLIENT

Obtain an IP address
automatically

The image shows a Windows desktop environment with several windows open. The primary window is 'Network Connections' in the Network and Sharing Center. It lists network adapters: 'Bluetooth Network Connection' (Not connected) and 'Ethernet0' (Unidentified network, Intel(R) 82574L Gigabit Network C...). The 'Ethernet0' entry is circled in red. A red arrow points from this entry to the 'Ethernet0 Properties' dialog box. In this dialog, under 'This connection uses the following items:', 'Internet Protocol Version 4 (TCP/IPv4)' is checked and circled in red. Another red arrow points from this checked item to the 'Internet Protocol Version 4 (TCP/IPv4) Properties' dialog box. In this second dialog, the 'General' tab is active, and the radio button for 'Obtain an IP address automatically' is selected and circled in red. The 'Obtain DNS server address automatically' radio button is also selected. The 'Validate settings upon exit' checkbox is unchecked. At the bottom of the dialog, 'OK' and 'Cancel' buttons are visible.

Network and Sharing Center

Network Connections

Control Panel Home

Change adapter settings

Change advanced sharing settings

Organize

Disable this network device

Diagnose this connection

Rename this connection

Bluetooth Network Connection

Not connected

Bluetooth Device (Personal Area Network)

Ethernet0

Unidentified network

Intel(R) 82574L Gigabit Network C...

Ethernet0 Properties

Networking

Connect using:

Intel(R) 82574L Gigabit Network Connection

Configure...

This connection uses the following items:

- Client for Microsoft Networks
- File and Printer Sharing for Microsoft Networks
- QoS Packet Scheduler
- Internet Protocol Version 4 (TCP/IPv4)
- Microsoft Network Adapter Multiplexing Protocol
- Microsoft LLDP Protocol Driver
- Internet Protocol Version 6 (TCP/IPv6)

Install... Uninstall Properties

Description

Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

Internet Protocol Version 4 (TCP/IPv4) Properties

General Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Obtain an IP address automatically

Use the following IP address:

IP address: . . .

Subnet mask: . . .

Default gateway: . . .

Obtain DNS server address automatically

Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

Validate settings upon exit

Advanced...

OK Cancel

CLIENT

Disable Enable

Network Connections

Organize Disable this network device Diagnose this connection Rename this connection

Bluetooth Network Connection Not connected Bluetooth Device (Personal Area ...)

Ethernet0 Unidentified network Intel(R) 82...

Ethernet0 Status

General

Connection

IPv4 Connectivity:	No network access
IPv6 Connectivity:	No network access
Media State:	Enabled
Duration:	01:14:25
Speed:	1.0 Gbps

Details...

Activity

	Sent	Received
Packets:	1.247	491

Properties Disable Diagnose

Close

2 items 1 item selected

CLIENT

ipconfig

ping <ip>

ping 8.8.8.8 of

ping google.nl

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Opdrachtprompt
C:\Users\hw.hilgersom>ping google.nl
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Ping statistics for 216.58.211.99:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 47ms, Average = 16ms

C:\Users\hw.hilgersom>
```

CLIENT

STATIC IP

192.168.101.10

255.255.255.0

192.168.101.254

8.8.8.8

8.8.4.4

The screenshot shows the Windows Network and Sharing Center. The 'Network Connections' window is open, displaying a list of network adapters. The 'Ethernet0' adapter is selected and highlighted with a red circle. A red arrow points from this circle to the 'Ethernet0 Properties' dialog box. In the 'Networking' tab of this dialog, the 'Internet Protocol Version 4 (TCP/IPv4)' checkbox is checked and circled in red. A second red arrow points from this checkbox to the 'Internet Protocol Version 4 (TCP/IPv4) Properties' dialog box. In this dialog, the 'Use the following IP address' radio button is selected, and the 'Use the following DNS server addresses' radio button is also selected. The IP address is set to 192.168.101.10, the subnet mask to 255.255.255.0, and the default gateway to 192.168.101.254. The preferred DNS server is 8.8.8.8 and the alternate DNS server is 8.8.4.4. The 'Validate settings upon exit' checkbox is unchecked. The 'Advanced...' button is visible at the bottom right of the dialog.

Bluetooth Network Connection Not connected Bluetooth Device (Personal Area ...)

Ethernet0 Unidentified network Intel(R) 82...

Ethernet0 Status

General

Connection

IPv4 Connectivity:	No network access
IPv6 Connectivity:	No network access
Media State:	Enabled
Duration:	01:14:25
Speed:	1.0 Gbps

Details...

Activity

	Sent	Received
Packets:	1.247	491

Properties Disable Diagnose

Close

CLIENT

Disable
Enable

- See also
- HomeGroup
 - Infrared
 - Internet Options
 - Windows Firewall

CLIENT

ipconfig

ping <ip>

ping 8.8.8.8 of

ping google.nl

```
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    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 47ms, Average = 16ms

C:\Users\hw.hilgerson>
```

Practicum 5.0.1

Practicum 5.0.1: Netwerkinstellingen

Werkstation1	Virtual Networking in VMWare		
	NAT	Host-only	Host-only
	DHCP Enabled	No DHCP	DHCP Enabled
Instellen als DHCP-client <i>(Obtain IP-address automatically ...)</i>	1	2	3
Static IP-adres instellen <i>(192.168.101.10)</i>	6	5	4