Setting DHCP Server in Windows

Contents

1   Network Architecture

Main architecture of the network can be shown as in figure 1 . The terminal device is connected to the network via switch. In the other side, Server is also connected to the network. Routers and switches are set according to final network architecture.
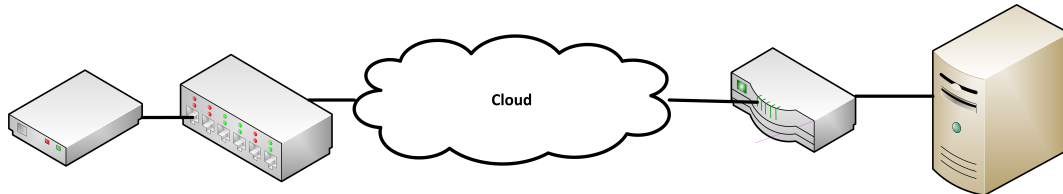
Figure 1: Network between Server and Device

A simplified model can be built by connecting the device directly to the server as shown in figure 2. That is what will be clarified in the following section.
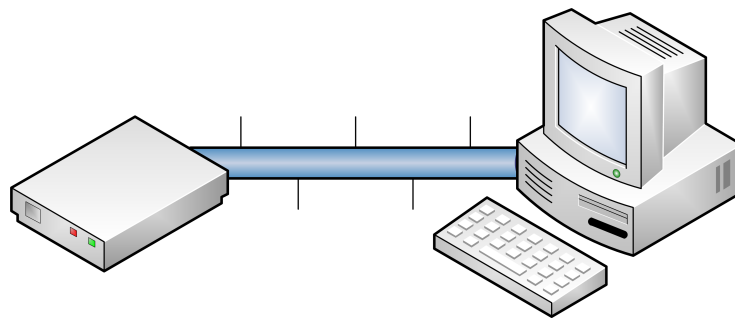
Figure 2: Simplified Network

2   Creating Network

PC machine can be used to act as a server if it is set up appropriately. This machine should have network card ready for connection with the target network. So first make sure that you have ready network card attached to your machine. If this PC is running on Windows, prepare the following settings for the new network.

Go to Control Panel >> Network Settings

Attached network card shall be detected by Windows. Assign the following for this network:

IPv4-Address: 192.168.1.10

IPv4-Subnetmask: 255.255.255.0

Connect the terminal device with the network using Ethernet cable to build configuration depicted in figure 1.

3   Setting Up the Server

Server can be set up in a windows based machine. An application is needed to function and provide DHCP server functions. Free software can be downloaded at http://www.dhcpserver.de/cms/
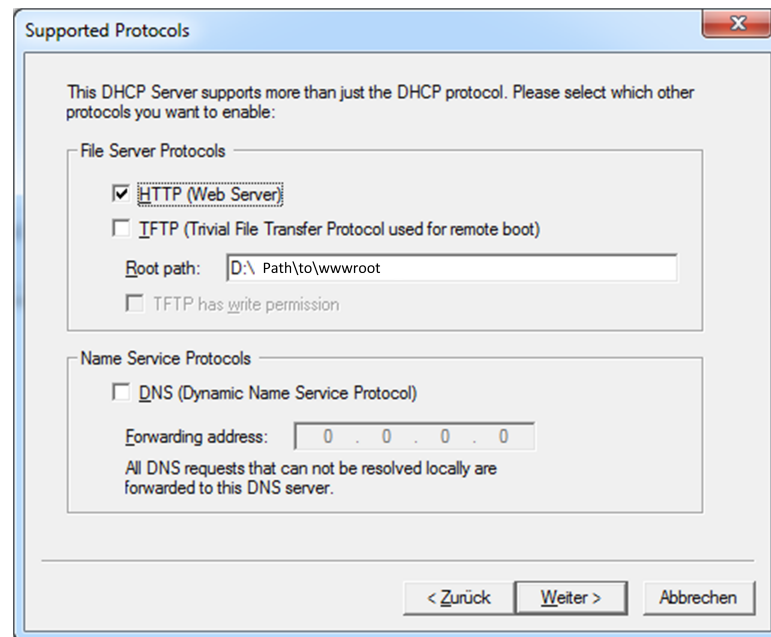
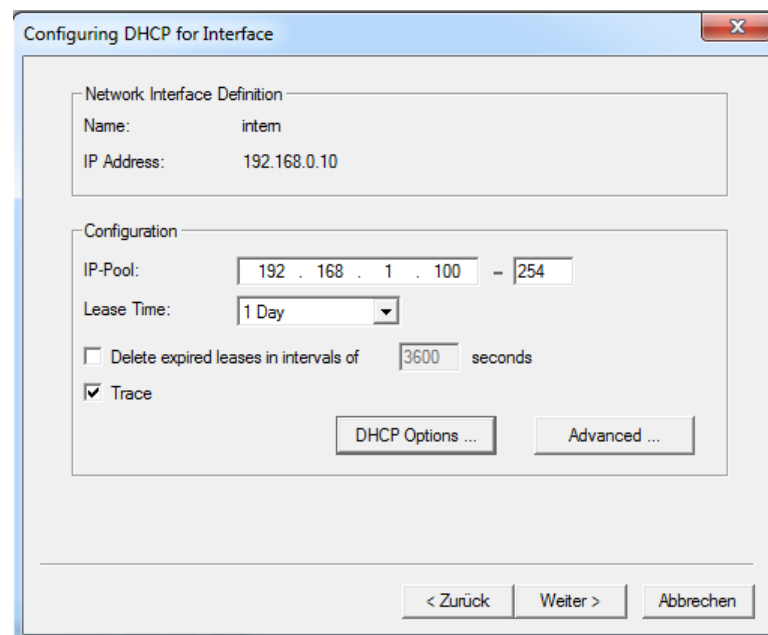After downloading, extract downloaded file and run the executable dhcpwiz.exe
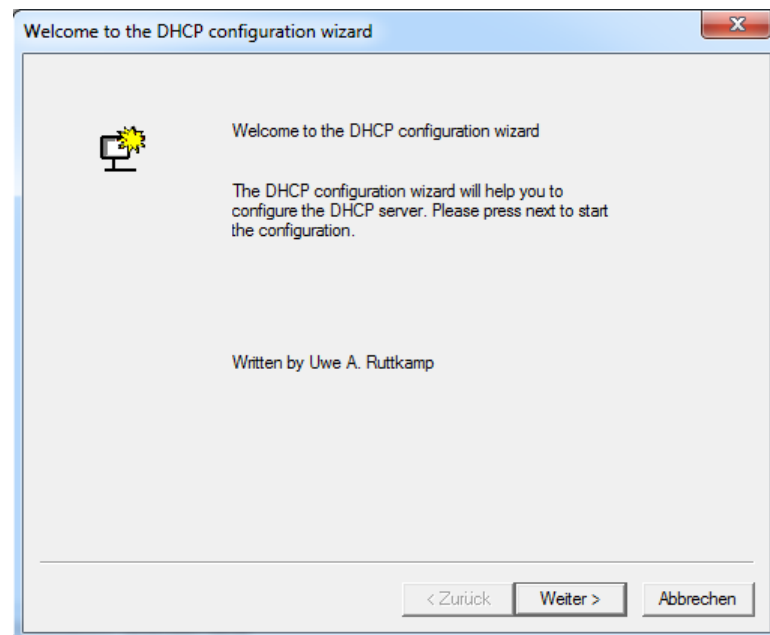
Click Next. Then in the following wizard choose network that has been already created.
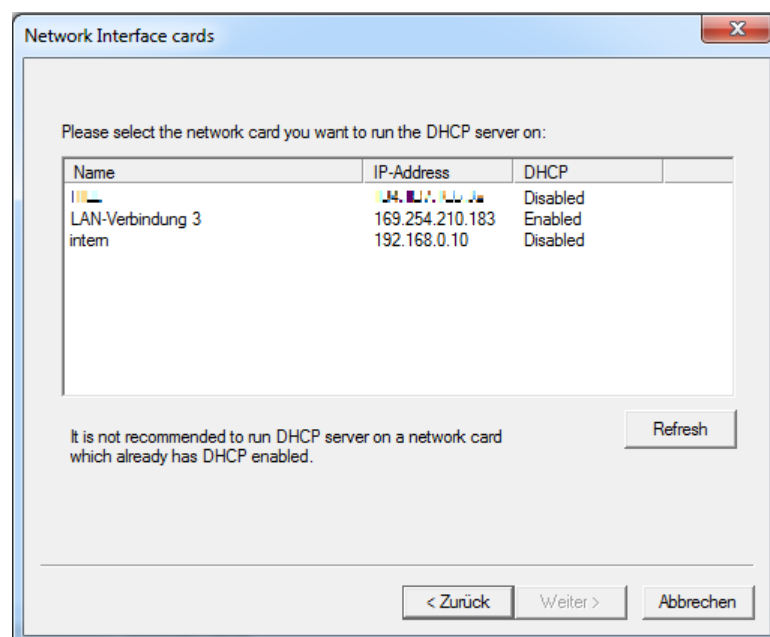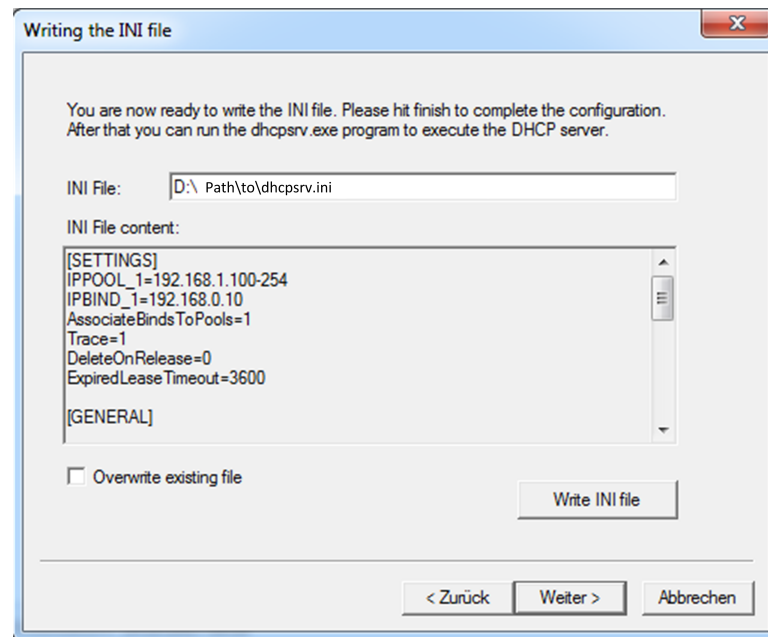

Click Next. In the following wizard enable HTTP (webserver) then click Next.
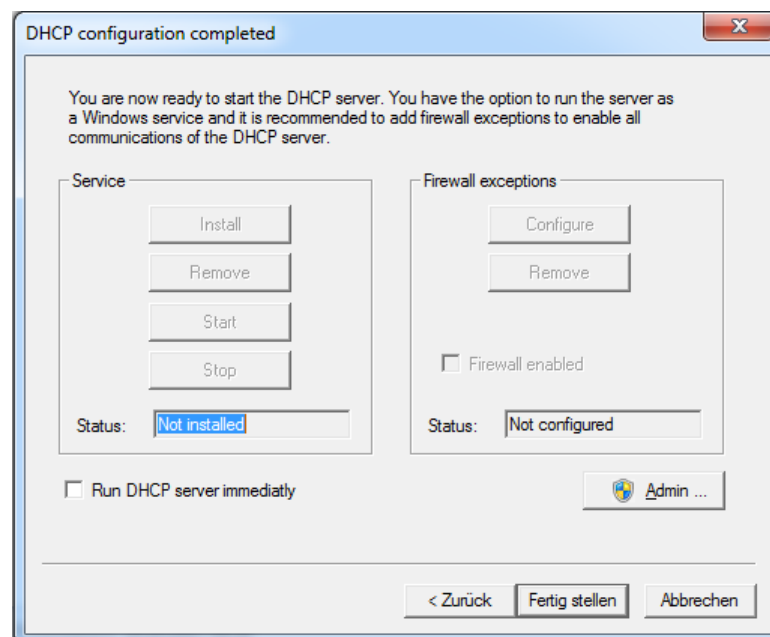
In the following wizard, define range of allowed IPs as shown as well as the Lease time.
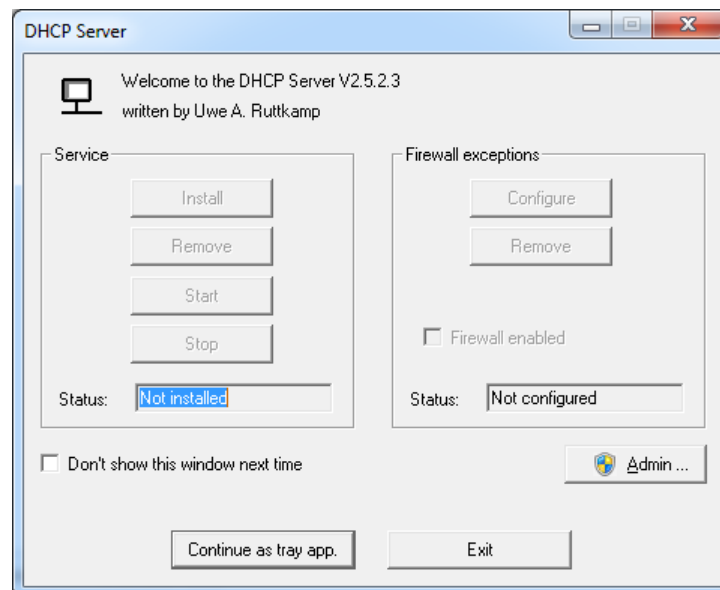

Click Next then click on Write INI file

Click Next, then click Finish.

This software can be setup in windows as a service or can be executed standalone as tray. If it is setup, it will be invoked automatically whenever Windows is starting. For running as a standalone, execute dhcpsrv.exe and choose to continue as tray app.

Up to this point, PC machine can act as a server.

4   Starting Connection

The DHCP server deamon is now ready. Terminal devices can be connected over ethernet protocol to get IP address. To know if a connected device has been assigned an IP addresss, open the file dhcpsrv.ini in the extracted folder of the DHCP server application. You can open this file in a text editor.

At the end of this file you can find MAC address of the terminal device. Assigned IP Address can be obtained then as shown below this MAC address. The IP address can be obtained directly also from the running DHCP server tray. In windows taskbar right click on DHCP server icon then choose Open Status.
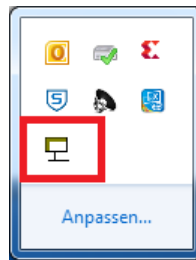
Status shall be opened in Web browser as shown next, there you can see easily assigned IP address.

DHCP Server Status

SERVER_0 Connections

Show Trace for SERVER_0

Index	Bind	IP Address	Type		Port	Status
0	IPBIND_1=192.168.1.10	192.168.1.10	DHCP Server	capture	67	Operating

SERVER_0 DHCP Clients

Id	IP Address	Hostname	AutoConfig	Lease ends
9E-F4-14-0B-06-82	192.168.1.100		11/03/2017 08:46:44	Fri Nov 03 08:46:51 2017

Visit the DHCP Server homepage