

## Howto configure a VPN between an OpenBAT and freeware Shrewsoft VPN Client (IPSec)

- 2018-02-21 - BAT, WLC (HiLCOS)

This lesson describes how to use a VPN between a OpenBAT and a WIN7 Shrewsoft Client over a WLAN connection

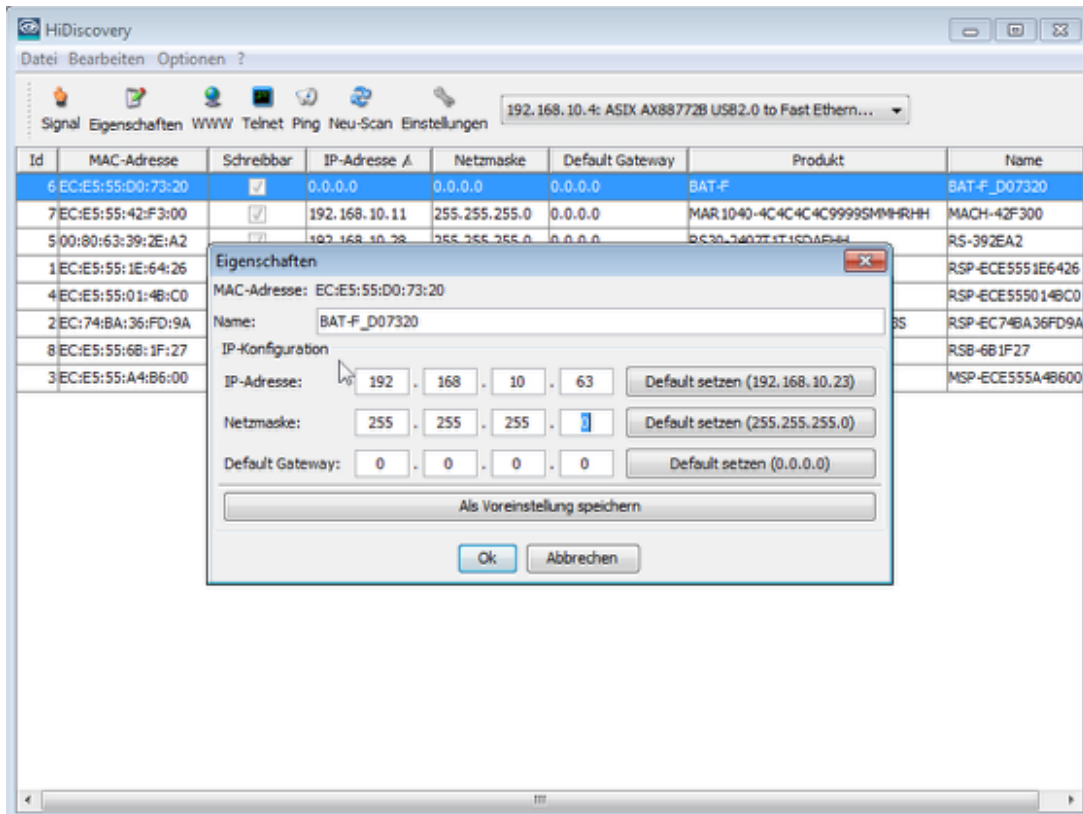
Network Topology



This is the network which will be configured in this Howto.

This configuration and this topology is an example only. It can be modified according to customers needs.

Assign IP-address



Use HiDiscovery to assign a IP-address to the BAT. The PC is locally connected.

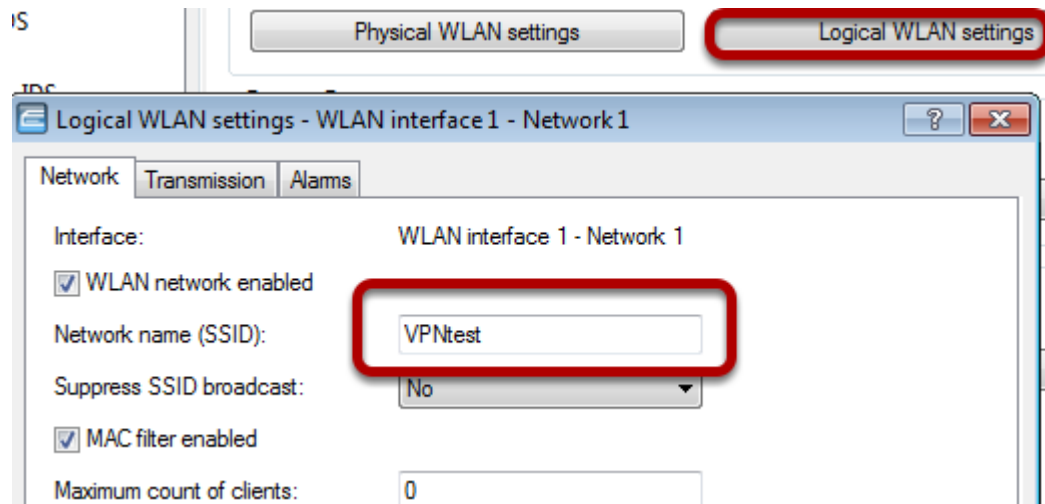
Configure physical WLAN settings



Use Access-Point as WLAN operation mode. Optionally you can choose alternative Radio settings etc.

Configure Logical WLAN settings

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Configure the SSID

Configure WPA PSK



Proceed to menu "Wireless LAN - 802.11i/WEP"

Use button "WPA or Private WEP settings...". A new window will open

Doubleclick on first line

Make sure that "encryption activated" is checked and enter a passphrase

Use Routing: Define separate bridge group for WLAN



Proceed to menu "Interfaces - LAN"

Use button "Port table...". A new window will open.

Doubleclick on line "WLAN-1:..." A new window will open.

Choose "BRG-2" as Bridge group

Assign IP-address to BRG-2









Proceed to menu "IPv4 - General"

Use button "IP networks...". A new window will open.

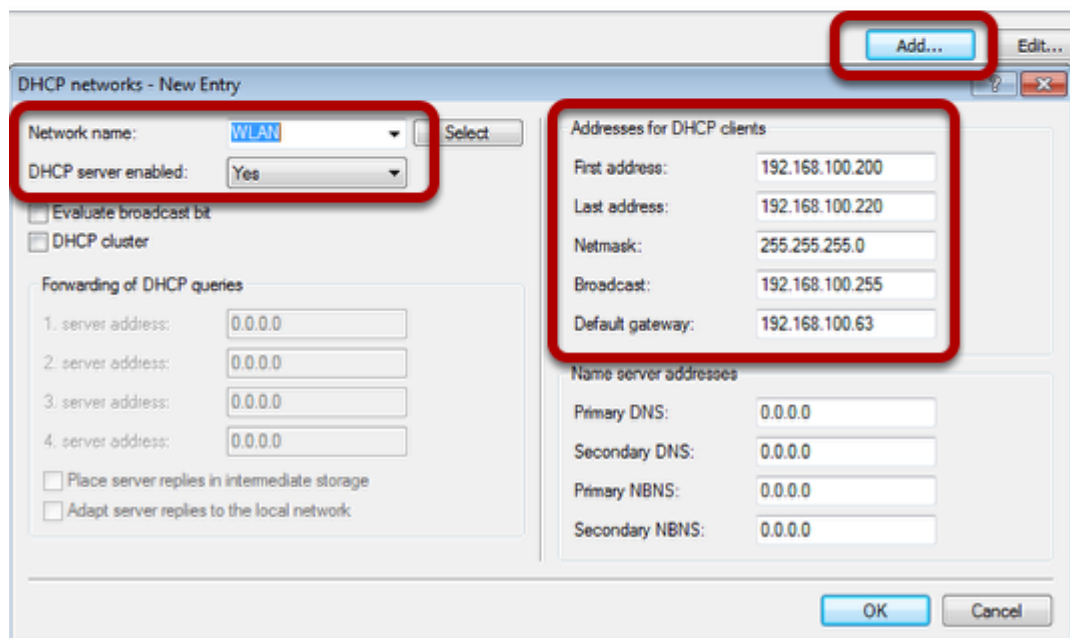
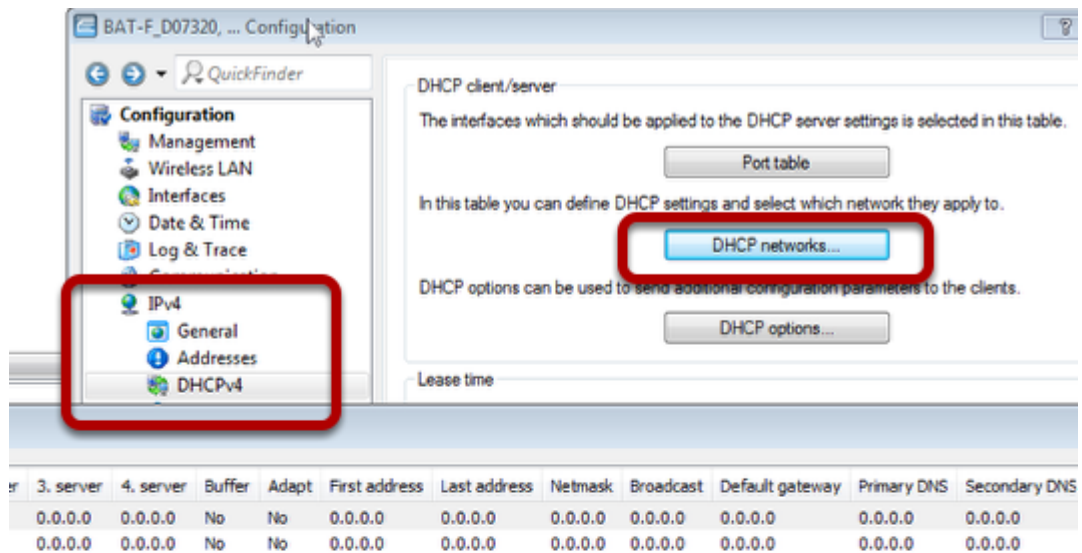
Use button "Add...". A new window will open.

Define IP parameters and make sure that BRG-2 is used.

Define DHCP for WLAN







Proceed to menu "IPv4 - DHCPv4"

Use "DHCP networks...". A new window will open.

Use button "Add...". A new window will open.

Fill in relevant parameters.

Delete unused routes



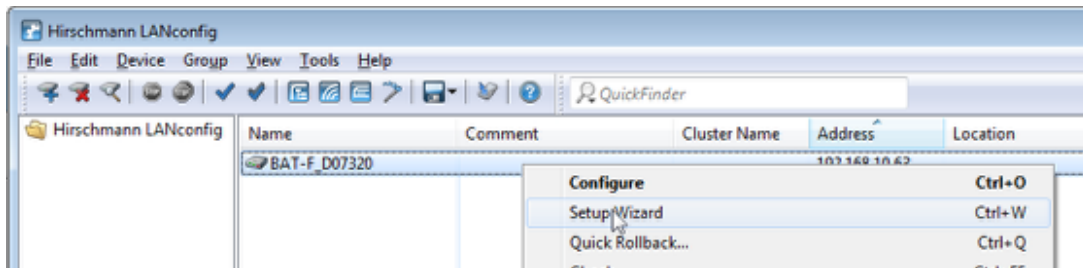
Proceed to menu "IP Router - Routing"

Use button "IPv4 routing table". A new window will open.

Delete all entries by clicking button "Remove" several times.

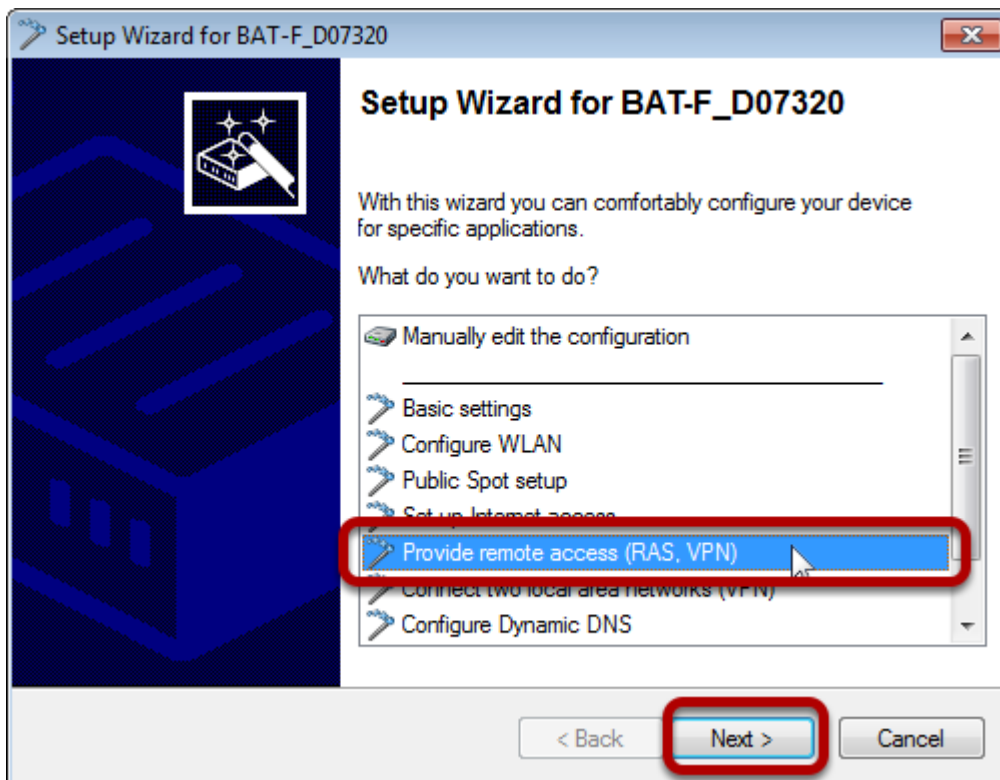
Now send the configuration to the OpenBAT by clicking "OK" in all dialogs.

OPEN Wizard



In LANconfig right-click on the device and choose SetupWizard

Use Wizard for VPN / Remote access



Choose relevant wizard and press "Next"



Coose "VPN client with user-defines parameters" and click "Next"



Choose VPN Name and click "Next"

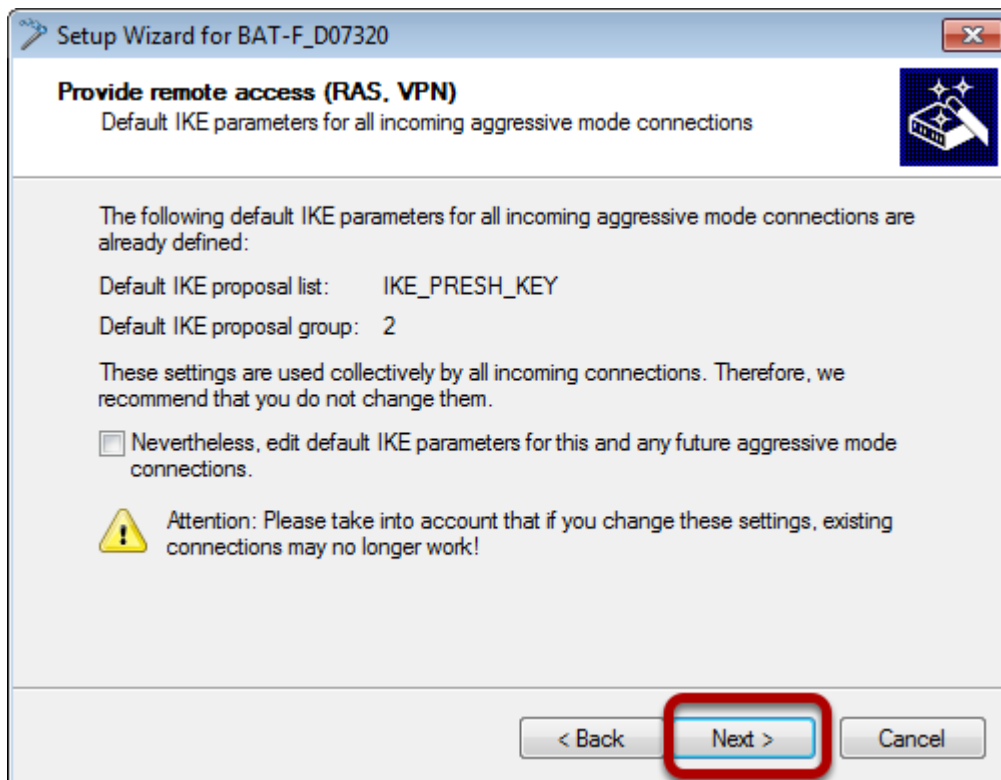


Choose "Preshared Key and Aggressive Mode"

Choose a Preshared Key

Click "Next"



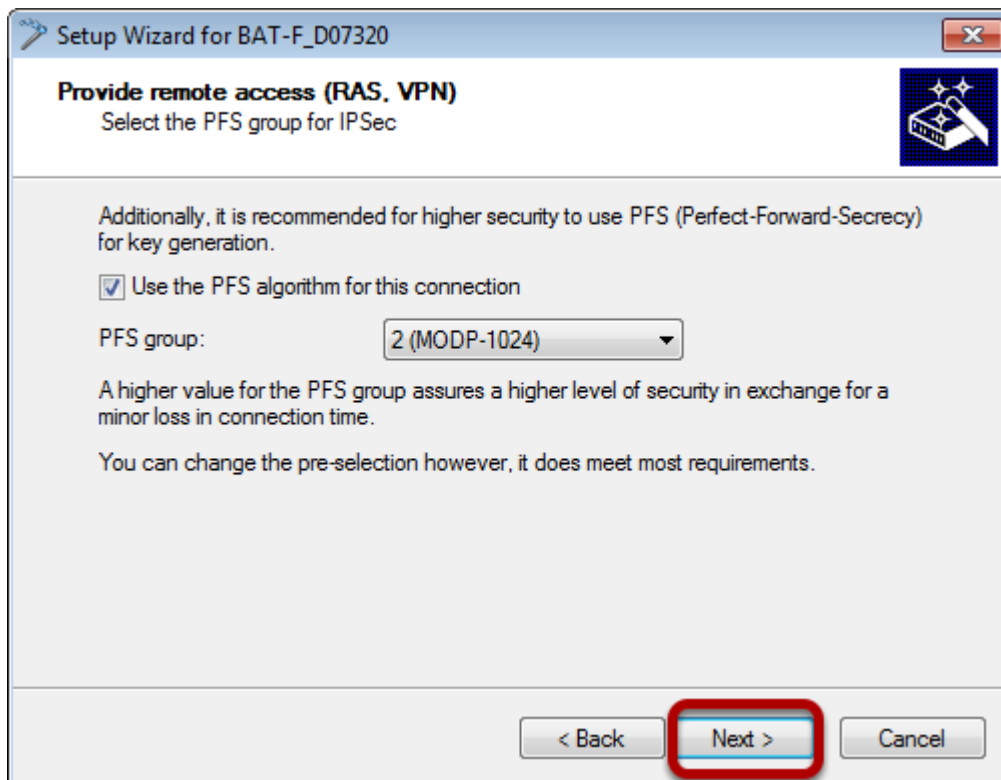


Use default settings and click "Next"



Choose "IP Address" as identifier (local and remote).

Enter IP-addresses. The remote IP address must be known. Probably you have to connect to the WLAN with your client first.



Use default settings and press "Next"



Choose "AES 8256bit)" and "HMAC-SHA1-96" and press "Next"



Use default settings and press "Next"



Choose a virtual IP address for the remote client in the local network. This will use proxy ARP automatically.

Press "Next"



Use default settings and press "Next"



Disable NetBIOS over IP routing

Press "Next"

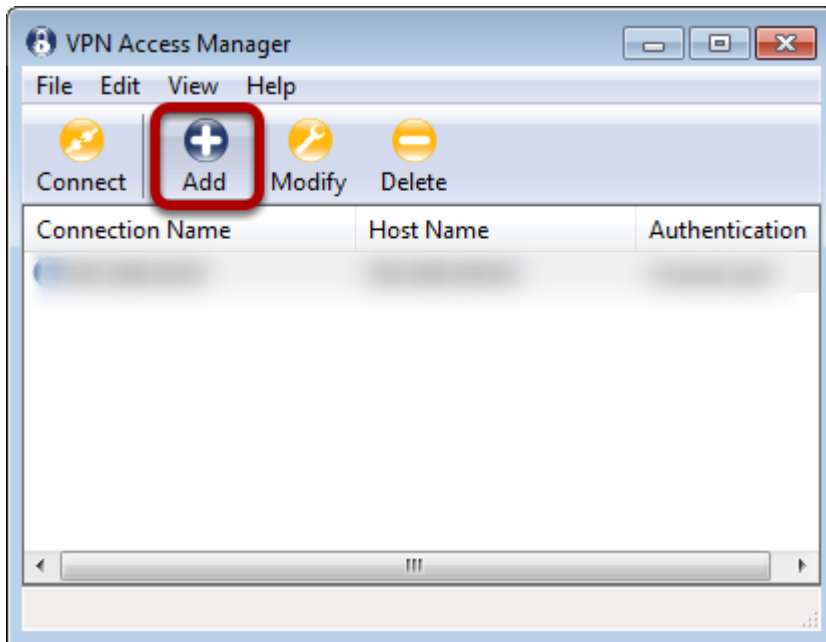


On Client side Shrewsoft VPN Clinet is used (freeware)

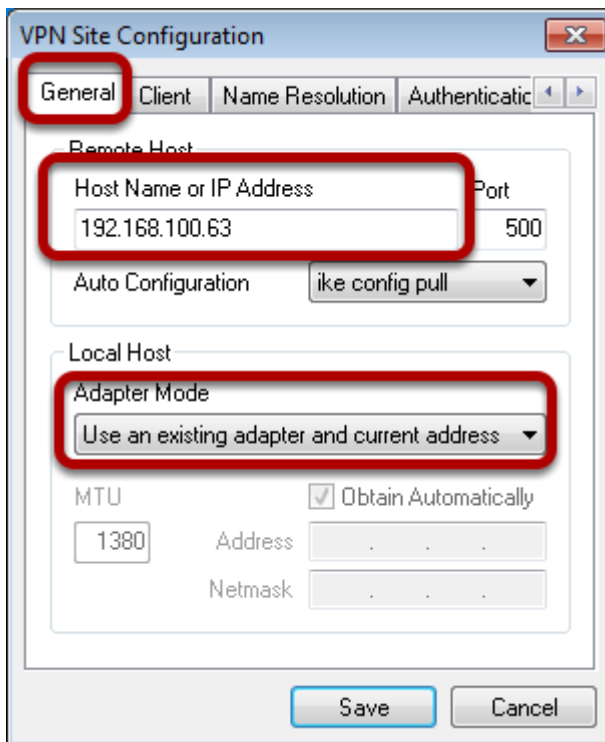


Install Shrewsoft VPN Client and start "VPN Access Manager"

Define new VPN



Click "Add". A new window will open.



Enter the IP-address of the VPN Gateway (OpenBAT)

Choose "Use existing adapter and current address" as "Adapter Mode"



In "Client" tab disable nat-T and Fragmentation.



Disable DNS





For authentication use "IP-Adress" as identifier and enter the addresses .  
In the "Credentials" tab enter the "Pre Shared Key" (vpnpassword)



For phase1 use relevant parameters



For phase2 use relevant parameters



In "Policy" tab user "require" as "Policy Generation Level"  
Press button "Save"

Start VPN



Mark the new created Vpn and press "Connect". A new window will open.

Press "Connect".

Test VPN

```
Administrator: C:\Windows\system32\cmd.exe
Ping-Statistik für 192.168.10.28:
  Pakete: Gesendet = 4, Empfangen = 4, Verloren = 0
  (0% Verlust),
Ca. Zeitangaben in Millisek.:
  Minimum = 26ms, Maximum = 64ms, Mittelwert = 36ms

C:\Users\jxs05012.DENEC1LT0360>ping 192.168.10.4

Ping wird ausgeführt für 192.168.10.4 mit 32 Bytes Daten:
Antwort von 192.168.10.4: Bytes=32 Zeit=15ms TTL=127
Antwort von 192.168.10.4: Bytes=32 Zeit=17ms TTL=127
Antwort von 192.168.10.4: Bytes=32 Zeit=23ms TTL=127
Antwort von 192.168.10.4: Bytes=32 Zeit=17ms TTL=127

Ping-Statistik für 192.168.10.4:
  Pakete: Gesendet = 4, Empfangen = 4, Verloren = 0
  (0% Verlust),
Ca. Zeitangaben in Millisek.:
```

Open a DOS window and ping an IP-address of the remote network.