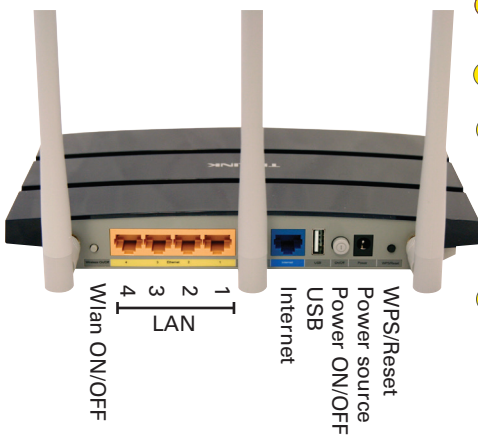




**Access service can be used in places where the customer has an internet connection. Ouman devices, such as Ouflex, EH-Net and the EH-800 can be safely connected to the internet network by using the ACCESS service. Access device is added to an existing local area network. Access package includes an Access-device, RJ-45 cable and power supply. Access device can be connected to a local area network, in which**

- DHCP service automatically distributes addresses to the devices connected to the local area network
- LAN is routed via Internet
- The VPN protocol used by Access service outwards is not blocked.
- Time service protocol outwards is not blocked.
- LAN addressing does not overlap the 10.200.1.X address space used by the ACCESS device.

## Connecting the Access-service to LAN



1 Connect the access-device to the existing LAN via the RJ-45 cable by using the internet port of the Access-device.

2 Plug in the Access-device

3

DIAG	ACCESS-device is initializing
*	A green STAR light is on during the initialization.
*	The light goes out when the Access-device has initialized.

↓ Wait a moment (less than 1 min.)

4

	Access-device has formed connection with LAN
	A green lights comes on to mark the connection to LAN.

The Access-device forms connection with the ACCESS-service within about 30 seconds from the time that the LAN connection was made. If the Access-device does not connect to the ACCESS-service, please see user manual.

## Connecting EH-net, EH-800 and Ouflex-anordningar to ACCESS-service

Network settings can be found on the EH-800 and Ouflex-devices in "System Settings" -> "Network Settings"

**Devices can be connected to the ACCESS-service if the following requirements are met:**

1. IP-address:

- The IP-address range for Ouflex, EH-net and EH-800 devices is 10.200.1.1 – 10.200.1.10

2. Port address:

- The http-service of EH-net and EH-800 devices functions in the TCP-port 80 (default)
- The Modbus/TCP-service of the EH-net devices works in the TCP-port 502 (default)
- The ModbusTCP-service of the Ouflex-device works in the TCP-port 502, 503, 504 and 505 (default)

**Connecting the EH-net, EH-800 and Ouflex-devices to the Access-device:**

Connect the EH-net, EH-800 and/or Ouflex-devices to the Access-devices LAN-ports via RJ-45 cables.

**Creating web access to EH-net or EH-800:**

Contact the EH-net or EH-800 with your web browser. The web-address that the service offers to the device is delivered in accordance with the order confirmation.

If the creation of web access connection did not work, go to "In Case of Errors" page 3 and 4

## Adding a destination to Ounet

Add a destination to Ounet's special Ounet controller and ACCESS service by using the web address and information about the port number that came with the confirmation. If the adding of the destination failed, check EH-net or Ouflex device's network settings (see page 2-3) and page 4.

## To configure network settings for Ouflex-device

### System settings > Network settings

Network settings	
DHCP	Off >
Gateway address	10.2.74.1 >
Subnet mask	255.255.255.0 >
IP address	10.200.1.11 >
Nameserver address	0.0.0.0 >
FTP	Off >
Modbus TCP/IP	>
SNMP	>

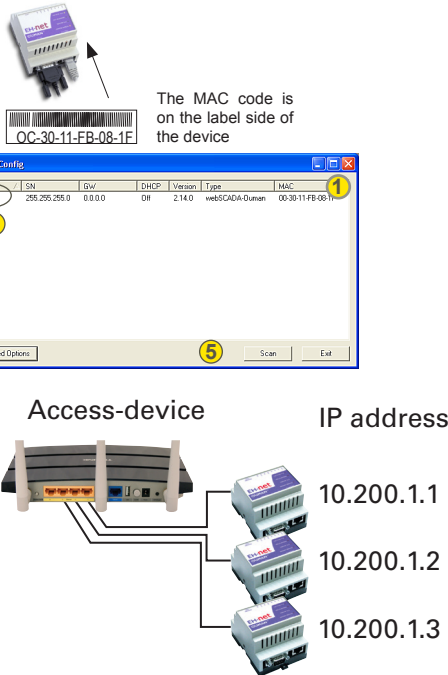
There are two alternative ways to configure the IP address and network settings of Ouflex device:

1. The first IP address is obtained with the help of the DHCP function.  
DHCP feature requires that your network uses DHCP service and the network cables are connected.
2. IP address is entered manually.

#### Setting an IP address by using the DHCP function:

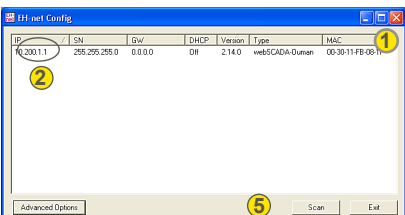
1. Go to DHCP and click OK.
2. Select "On" and accept your choice by clicking OK.
3. Wait a minute. If after a minute DHCP shows "Off", it was not possible to set the network settings and the previous settings or default settings have been activated. In this case it is not certain that the device functions in the network. The most common reasons to why it was not possible is that the network does not have the needed DHCP service, or it does not function properly, or that the network cables are not connected properly. Check the network cables and/or ensure that the DHCP service exists.
4. If DHCP is "On" the setting of network settings has been successful and the device works on the net.
5. Change the DHCP function to "Off".
6. Check that Ouflex device's IP address is between 10.200.1.1 - 10.200.1.10. If the IP address is not in this range, enter the IP address manually, so that it is in the range 10.200.1.1 - 10.200.1.10

## Configuring network settings for the EH-net device:



The MAC code is on the label side of the device

1 OC-30-11-FB-08-1F



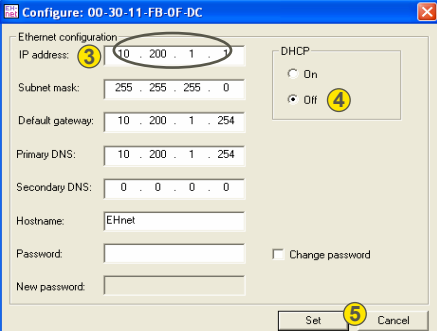
IP	SN	GW	DHCP	Version	Type	MAC
10.200.1.1	255.255.255.0	0.0.0.0	Off	2.14.0	webSCADA/Ouman	00-30-11-FB-08-1F

Access-device IP address

10.200.1.1

10.200.1.2

10.200.1.3



Ethernet configuration

IP address: 10.200.1.1

Subnet mask: 255.255.255.0

Default gateway: 10.200.1.254

Primary DNS: 10.200.1.254

Secondary DNS: 0.0.0.0

Hostname: EHnet

Password:

New password:

DHCP

On

Off

Change password

Set Cancel

EH-net web addresses can be configured by using "EH-net config" which is available on the website Ouman <http://www.ouman.fi/ehnetohjelmat>. Download "EhnetConfig.zip" file to your computer. Extract the file to the folder of your choice and choose to create a shortcut of the exe file on the desktop.

- 1 Start the EH-net Config.exe program on your computer. The program searches for EH-net services in the same LAN and displays information about the address and version. Check that the EH-net services and access device the program found are the same devices by comparing the individual MAC codes (MAC code of the EH-net device's data plate must match the MAC address found by the program).

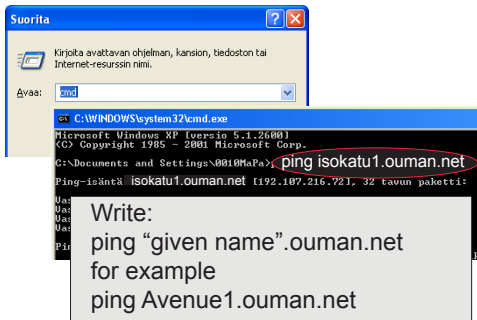
2 Double-click the service data (in the example above, a service on 10.200.1.1 is shown) to open the address editing window (see picture). EH-net service is active at the following address:

IP address	10.200.1.1
Subnet mask	255.255.255.0
Default gateway	10.200.1.254
Primary DNS	10.200.1.254

- 3 If there are several EH-net services being connected to the internet from the same Access-device, then the second EH-net service's IP address must be set as 10.200.1.2, the third EH-net service's IP address as 10.200.1.3 etc. Other network addresses (mask, default route, name of server) are the same for all EH-net services. Place EH-net service network addresses in the same way that is shown in the picture.

4 Verify that the DHCP option (radio button) is in the "Off" mode! After giving the address information, write to the "Password" field the EH-Net service password before you click "Set" (otherwise it does not save changes). Check that the changes were saved by closing the EH-net config program and re-opening it after about 30 seconds.

- 5 If the program can not find the EH-net service, wait a little longer (about 30 seconds) and click "scan" button.



## EH-net internet connection test:

You can verify that your browser can find the network device on the given name when the computer is still connected to the access device. Wait about 10 minutes.

1. Select "Run" from start menu.
2. "Open: cmd" comes up. Click OK.
3. Write in the opened window "name.ouman.net given in ping acknowledgment". For example, if you have given the web address "Avenue1", type in the comment line ping avenue1.ouman.net.
4. After pressing Enter after the name, the IP address to the place in question will come up.
5. You can leave the place in question and with that the internet connection is active again.

## Getting started with EH-net internet use:

Disconnect your computer from Ouman Access device and restart the browser (the installation is complete). You have been given a web-address with the Access service confirmation.

## Configuring network settings for the EH-800 device:

### System settings > Network settings

Network settings	
IP address	10.200.1.11 >
Subnet mask	255.255.255.0 >
Gateway address	10.2.74.1 >
Port	80 >
DHCP	Off >
WEB user name	>
WEB password	>

When you buy Ouman Access service, you will receive a confirmation with a clearly written web address from where the EH-800 controller can be found (for example <http://isokatu1.ouman.net>).

The IP address must be between 10.200.1.1 - 10.200.1.10.  
Port address is correct in default settings, ie it is 80.

If you want, you can change the WEB user name and password. When you log into your browser, the program requires a user name and password before opening the connection.

## Access service requirements on a more detailed level:

### 1. DHCP service automatically distributes addresses to the devices connected to the local area network

In order to work, the Access device automatically demands an address distributed by the DHCP service from the network. This is a normal LAN service. If it is possible for a laptop, for example, to obtain the IP address from the network automatically, the Access device should also be able to operate. The network may be restricted to provide the address only for certain separately approved devices. Now you must ensure that such a restriction does not block the address to the Access device.

### The network must automatically distribute the address to the Access device.

### 2. LAN is routed via Internet

The Access service operates on the Internet so the Access service is not available if the device is not connected to the Internet. The Access device examines the availability of Internet connection by sending a Ping packet to the Internet server at 3-minute intervals. The network must allow the ICMP outwards from any port and the receipt of the reply message to the same port.

### 3. The VPN protocol used by Access service outwards is not blocked

The Access service is based on the VPN connection which the Access device creates to the Access server. The network must allow the UDP outwards from any port to the port 1194 and the receipt of the reply message to this port.

### 4. Time service protocol outwards is not blocked

The Access service works only when the clock in the Access device shows the correct time. The clock is set to the correct time manually from the network using the NTP protocol.

The network must allow the UDP outwards from any port to the port 123 and the receipt of the reply message to this port.

### 5. LAN addressing does not overlap the 10.200.1.X address space used by the ACCESS device

The Access device creates a small local network with the address space 10.200.1.0/24. The main devices connected to the Access device belong to that local network, at the address 10.200.1.1, for example. If the Access is connected to the local network which uses the same (10.200.1.0/24) address space or an address space overlapping it, it creates a conflict in the network about where the said network and its addresses are located, because the same networks and addresses are showing twice in different directions. It is not possible to use the Access device to route the traffic correctly.

The Access device must be connected to such a local network where the address space is not the same or does not overlap the 10.200.1.0/24 network used by the Access device.

## IF THERE IS A PROBLEM:

### PROBLEM:

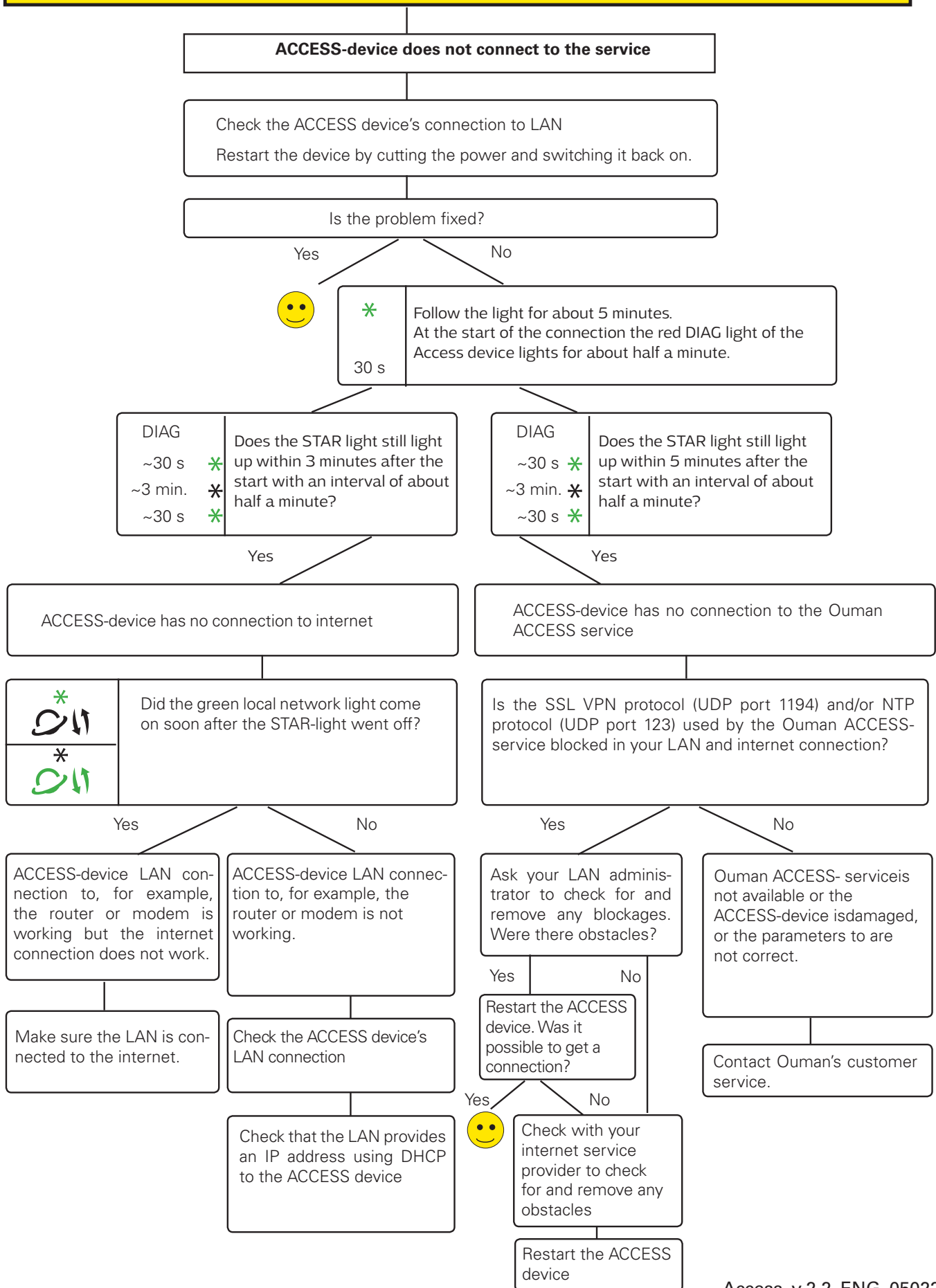
- Unable to make contact with the destination EH-net device
- Ounet does not get information from the destination EH-net device or Ouflex device

### 1. Check the EH-net or Ouflex connections and configurations.

- Make sure you are using the correct name when you try to login to the EH-net
- Make sure you are using the correct port number when connecting to Ouflex Ounet
- Check that EH-net/Ouflex device has a valid IP address
- Check EH-net/Ouflex device connection to ACCESS-device

**PROBLEM: Unable to make contact with the destination EH-Net device  
Ounet does not get information from the destination EH-net device or Ouflex device**

**ACTION: 2. Check the ACCESS-devices connection to Ouman ACCESS-service**



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