Serial connection to a Lantime
without a Display - LANTIME V5 Firmware

MEINBERG

In the LANTIME NTP server without a display one has to start a serial connection between a PC and the LANTIME in order to check or assign a Lantime IP address. The serial connection can be set up with a NULL-MODEM cable or via an USB to Serial Adapter.

1. Open an SSH client on your PC (e.g. PuTTy.exe). Type in the serial port of the PC and the connection values for speed and framing, for our example 38400 Baud / 8N1 as shown in Fig. 1. Confirm with Open button.
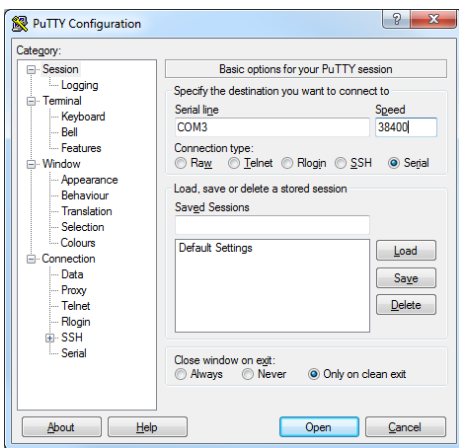

Figure 1: Serial connection with an SSH client.

2. LOGIN with a Username and a Password- Default values *root / timeserver.*

3. Type in *setup* to enter the Lantime Configuration window.

4. Choose *Ethernet* menu (in the lower left corner) and confirm with „Enter" to enter the Ethernet Configuration window. Secondly, choose *Ethernet 0* to proceed to the Ethernet Configuration Line 0 as shown in Fig. 2.
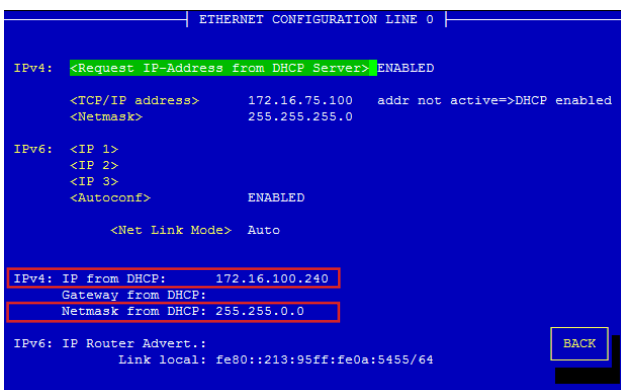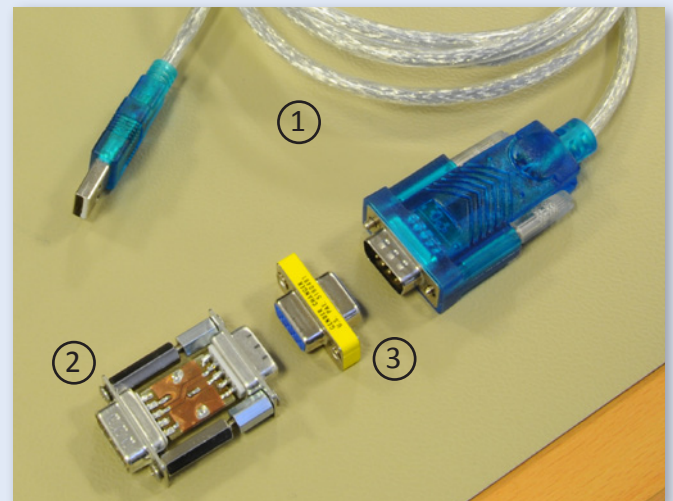

Figure 2: Ethernet Configuration Line, where the Lantime IP address is configured .

5. Note down the IP address and Netmask as assigned from a DHCP.

Serial connection setup
The figure shows a LANTIME M100 connected with power, network, GPS antenna and a serial connection between a LANTIME and a computer.

① **USB to Serial Adapter**
If you do not use a NULL-MODEM cable you have to connect a signal changer (TxD - RxD) ② and a gender changer ③ if the used adapter cable is equipped with an male connector

6. Close this window and exit the SSH client.

7. Connect the LANTIME with your network and start the WEB interface in your browser via the configured IP-Address.

In the LANTIME Firmware LTOS6 the CLI Interface is no longer supported. Therefore start a serial connection between a PC and the LANTIME via NULL-MODEM cable or via an USB to Serial Adapter.

1. Open a SSH client on your PC (e.g. PuTTy.exe). Type in the serial port of the PC and the connection values for speed and framing, for our example 38400 Baud / 8N1 as shown in Fig. 1. Confirm with Open button.
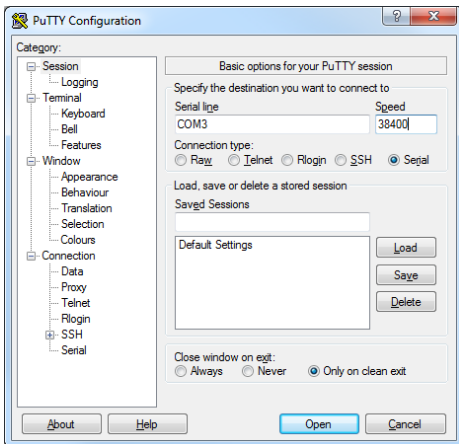

Figure 1: Serial connection with SSH client

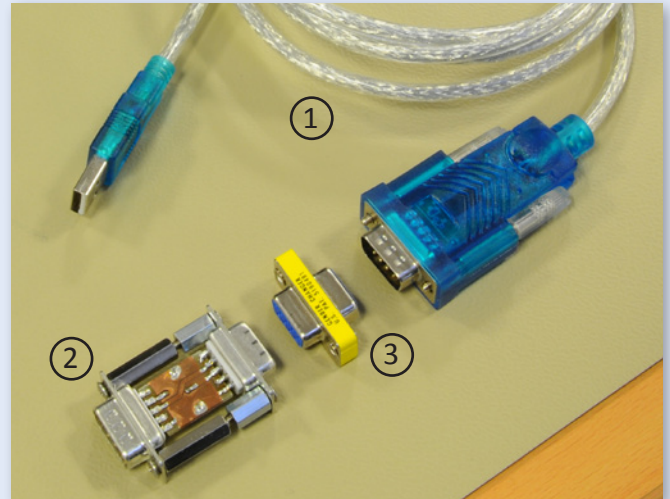2. LOGIN with Username and Password - Default values *root / timeserver*:

```
LANTIME_V6_100_146_RDT login: root
Password:
```

3. Open the network configuration file in editor - „*nano /etc/mbg/net.cfg*".

```
Setting Shell Timeout to 300 seconds.
[LOCAL] LANTIME V6 100 146 RDT ~ # nano /etc/mbg/net.cfg
```
Press „Enter" to confirm.

4. Scroll with the arrow keys to the line with „[VIRTUAL INTERFACE 0]".
    If the DHCP service is enabled, you can see the IP address given from your DHCP server. With this IP you can establish a connection via the web interface. At this point you can stop the procedure.

5. Configure the IP-Address:
    IPV4-ADDRESS=xxx.xxx.xxx.xxx
    and Subnetmask:
    IPV4-NETMASK=xxx.xxx.xxx.xxx

6. Deactivate DHCP: DHCP-CLIENT=OFF

```
[VIRTUAL INTERFACE 0]
ID=0
ASSIGNED=0
LABEL=ADMIN
IPV4-ADDRESS=172.16.46.101
IPV4-NETMASK=255.255.000.000
DHCP-CLIENT=OFF
```


① **USB to Serial Adapter**
If you do not use a NULL-MODEM cable you have to connect a signal changer (TxD - RxD) ② and a gender changer ③ if the used adapter cable is equipped with an male connector

Serial connection setup
The figure shows a LANTIME CPU without LC-Display. For initial configuration you have to connect the CPU via serial terminal to find out or setup the IP address.

7. Close the file - press CTRL + x and save the changes - press y to confirm. Press Enter.

8. Save the new configuration regularly with „saveconfig".

9. Apply the new configuration with the command „reboot" (restart the system).

10. Connect the LANTIME with your network and start the WEB interface in your browser via the configured IP-Address.