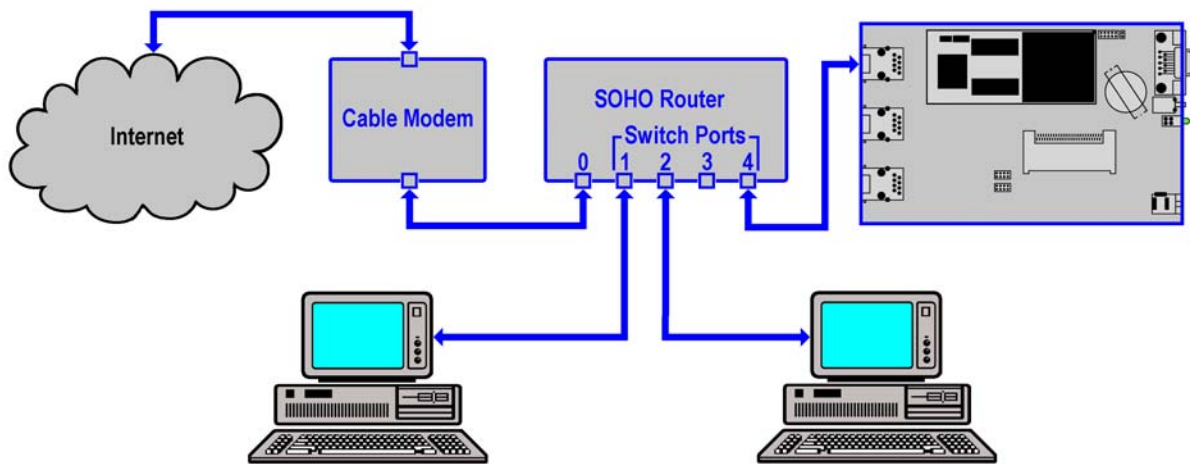# How to connect the Application Board MB/1520-100 to the Internet

The Application Board MB/1520-100 is prepared for a connection to the Internet. The easiest way is a broadband-based Internet integration (i.e. ADSL or similar).

- **1. Step:** Setup an infrastructure for the Internet integration. The following picture shows a sample for a small office environment. A cable modem and a SOHO router builds the base. The SOHO router runs a DHCP server to deliver IP addresses to the networks members if requested.

- **2. Step:** The LAN1 interface (eth0) of the Application Board MB/1520-100 supports DHCP-based IP address assignment. This is a build-in feature of the Embedded Gateway Linux.

- **3. Step:** Check the MB/1520-100 Internet connection. The following picture shows a sample. First we display the given IP address for LAN1 (eth0) with an *ifconfig* command. Then we

check the connection with a *ping* command. The Embedded Gateway Linux supports DNS. You can use a *ping* with a DNS name instead of an IP address.

```
DIL-NetPC (COM15) - HyperTerminal
Datei  Bearbeiten  Ansicht  Anrufen  Übertragung  ?

emblinux login: rootntries:


BusyBox v0.60.1 (2001.09.28-09:44+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 02:80:AD:20:4D:24
          inet addr:192.168.2.4  Bcast:192.168.2.255  Mask:255.255.255.0
          UP BROADCAST NOTRAILERS RUNNING  MTU:1500  Metric:1
          RX packets:2 errors:0 dropped:0 overruns:0 frame:0
          TX packets:5 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:100
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Interrupt:9 Base address:0x300

# ping dilnetpc.com
PING dilnetpc.com (212.227.224.85): 56 data bytes
64 bytes from 212.227.224.85: icmp_seq=0 ttl=57 time=60.5 ms
64 bytes from 212.227.224.85: icmp_seq=1 ttl=57 time=61.6 ms

--- dilnetpc.com ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max = 60.5/61.0/61.6 ms

# _

Verbunden 00:10:33        ANSIW      115200 8-N-1    RF   GROSS   NUM   Aufzeichnen   Druckerecho
```

Please note: In every boot phase the MB/1520-100 Embedded Gateway Linux tries to get an IP address from a DHCP server. If no server is available, a timeout occurs. In this case, a static IP address is assigned to the LAN1 (eth0) port.

```
DIL-NetPC (COM15) - HyperTerminal
Datei  Bearbeiten  Ansicht  Anrufen  Übertragung  ?

. . . . . . . . . . . . . . . . . .

ide: Assuming 50MHz system bus speed for PIO modes; override with idebus=xx
ide-probe-mod - Using /lib/modules/ide-probe-mod.o
ide1: ports already in use, skipping probe
ide3: ports already in use, skipping probe
ide5: ports already in use, skipping probe
ide-disk - Using /lib/modules/ide-disk.o
fat - Using /lib/modules/fat.o
vfat - Using /lib/modules/vfat.o

IP= 192.168.0.126 255.255.255.0
Configuring and Starting Network : lo dhcpcd[103]: timed out waiting for a valid
 DHCP server response

eth0 eth1 eth2
Local time (GMT): Tue Aug 17 07:00:44 UTC 2004

Configuring serial ports...
/dev/ttyS0 at 0x03f8 (irq = 4) is a 16550A
INIT: Entering runlevel: 2
Starting netbase daemons: routed portmap inetd.
Starting periodic command scheduler: cron.

- SSV Embedded Linux Gateway - Version 0.01-2.4.20-1-MB100-ADNP1520-1-20040401
emblinux login:

Verbunden 00:21:20        ANSIW      115200 8-N-1    RF   GROSS   NUM   Aufzeichnen   Druckerecho
```
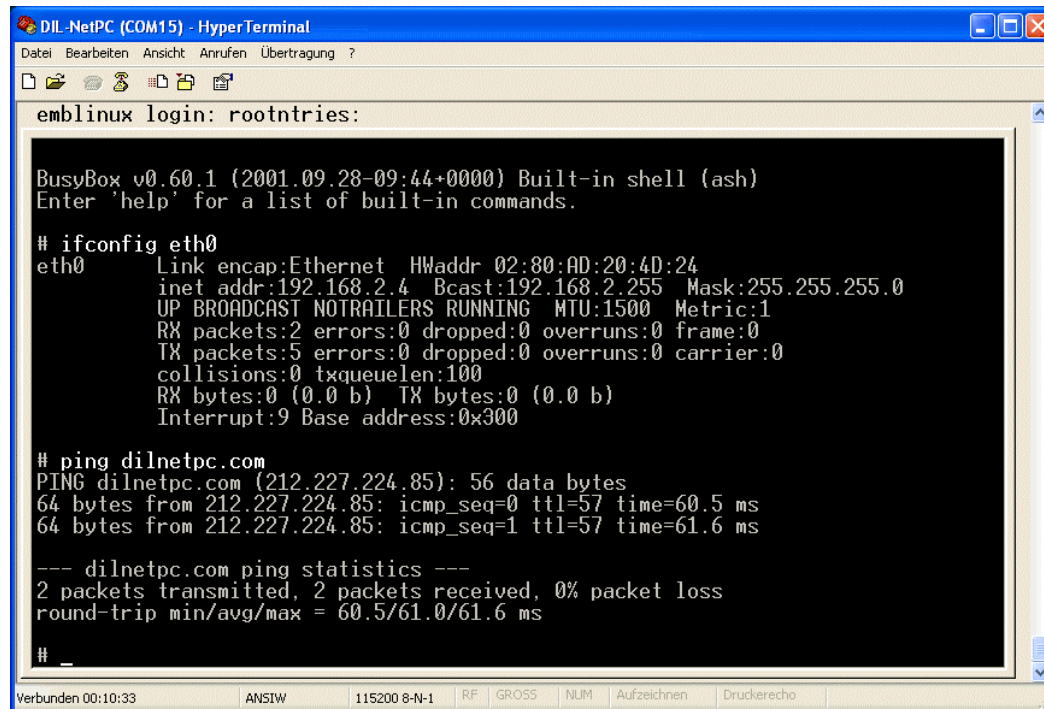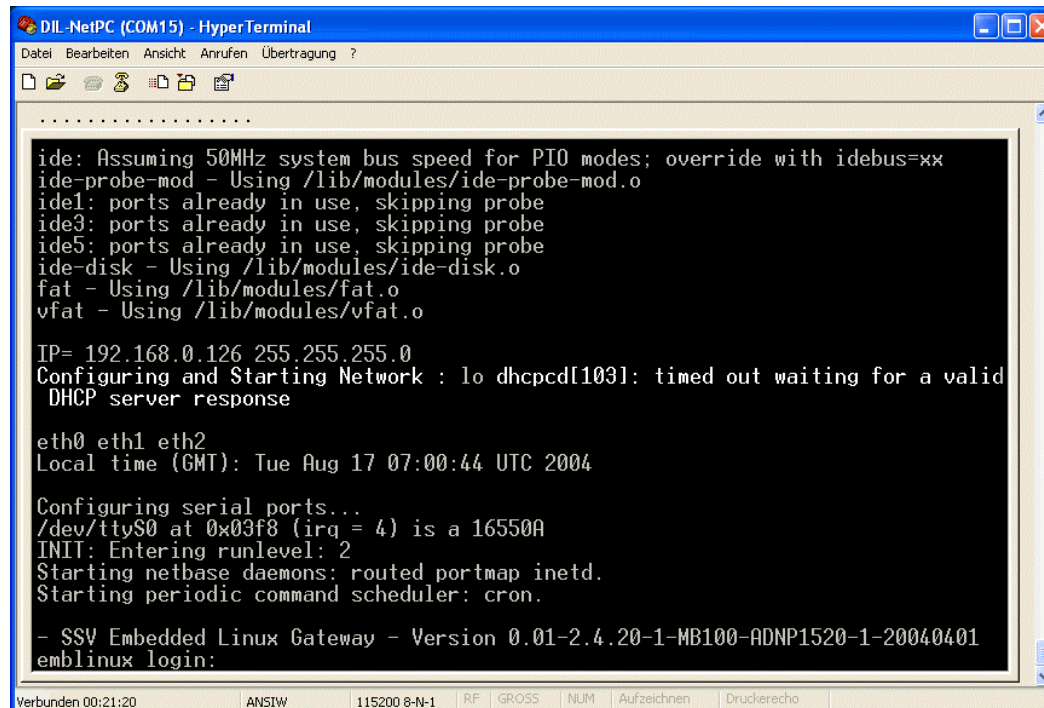
That is all.