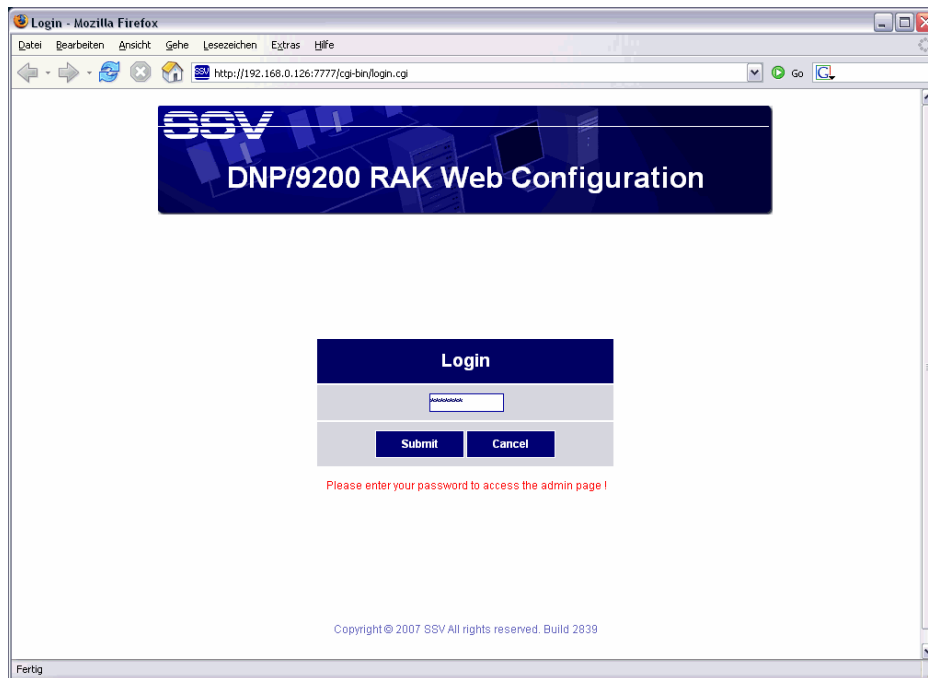


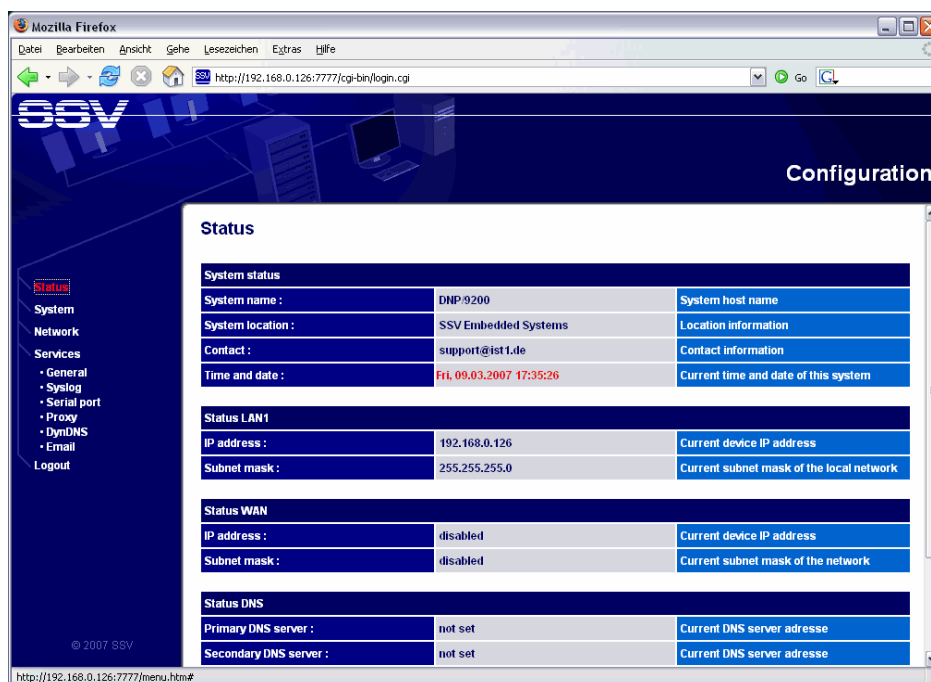
How to use the Router Application Kit (RAK) Firmware with GSM/GPRS

The DIL/NetPC DNP/9200 Router Application Kit (RAK) supports GSM/GPRS-based links to the Internet.

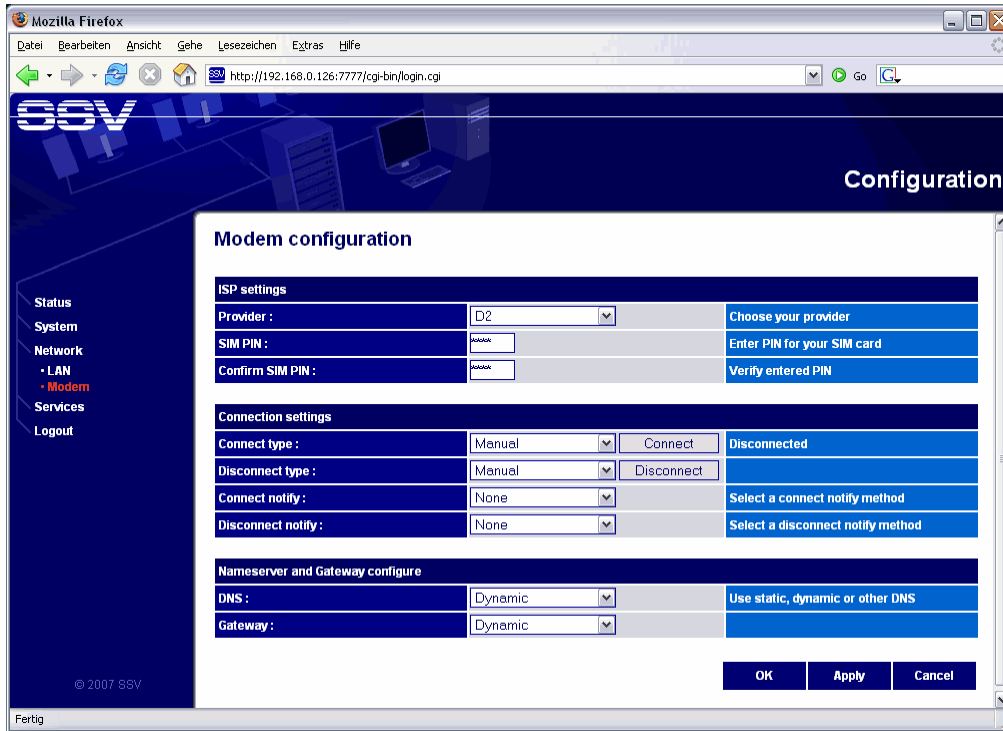
- **1. Step:** Run your web browser and access the web-based interface of the RAK firmware. Just enter: `http://192.168.0.126:7777` within the URL field of your web browser.



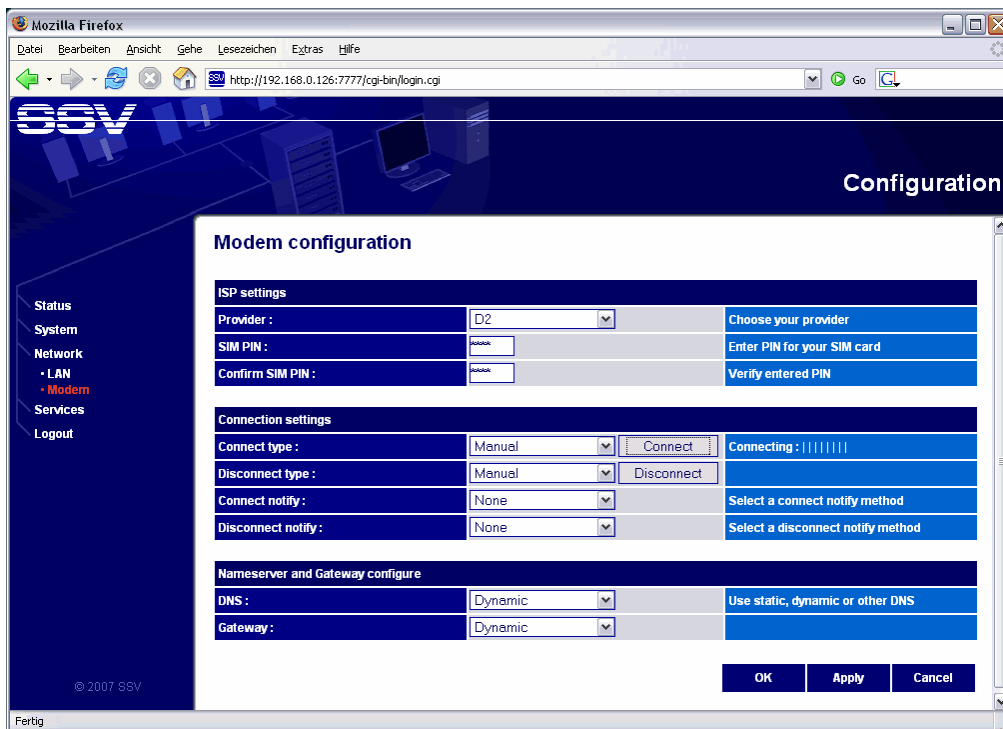
- **2. Step:** Please use the password *dnp9200* for your login. Please use only lowercase letters within the password. Then press the *Submit* button.



- **3. Step:** Please select the menu item *Network* → *Modem* (see left frame of the web-based user interface). Then enter the pin code of your SIM card two times (please see the two fields *SIM PIN* and *Confirm SIM PIN*). Finally press the *Apply* button.



- **4. Step:** Press the embedded *Connect* button (see field *Connect type*) and wait until the RAK is connected to the Internet.



Please note: Without an Internet connection, there is no interface device with the name *ppp0*. Verify this with the help of a Telnet session. Use *ifconfig* for more details.

- **5. Step:** The web-based user interface shows a connect message if the RAK is connected to the Internet. Within your Telnet session you find then *ppp0*. It's now possible to access host computers within the Internet over the GSM/GPRS wireless link.

```

Telnet 192.168.0.126
DNP/9200 login: root
Password:
[root@DNP/9200 /root]$ifconfig
eth0      Link encap:Ethernet  HWaddr 02:80:AD:20:CA:78
          inet addr:192.168.0.126  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:10781 errors:0 dropped:0 overruns:0 frame:0
          TX packets:6024 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          Interrupt:24 Base address:0xc000

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:8 errors:0 dropped:0 overruns:0 frame:0
          TX packets:8 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0

ppp0     Link encap:Point-to-Point Protocol
          inet addr:90.187.43.252  P-t-P:192.168.100.101  Mask:255.255.255.255
          UP POINTOPOINT RUNNING NOARP MULTICAST  MTU:1500  Metric:1
          RX packets:6 errors:0 dropped:0 overruns:0 frame:0
          TX packets:8 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:3

[root@DNP/9200 /root]$ping dilnetpc.com
PING dilnetpc.com (212.227.224.85): 56 data bytes
64 bytes from 212.227.224.85: icmp_seq=0 ttl=51 time=899.1 ms
64 bytes from 212.227.224.85: icmp_seq=1 ttl=51 time=580.6 ms
64 bytes from 212.227.224.85: icmp_seq=2 ttl=51 time=600.7 ms
64 bytes from 212.227.224.85: icmp_seq=3 ttl=51 time=540.6 ms
64 bytes from 212.227.224.85: icmp_seq=4 ttl=51 time=580.6 ms
64 bytes from 212.227.224.85: icmp_seq=5 ttl=51 time=620.7 ms
64 bytes from 212.227.224.85: icmp_seq=6 ttl=51 time=540.6 ms
64 bytes from 212.227.224.85: icmp_seq=7 ttl=51 time=560.7 ms
64 bytes from 212.227.224.85: icmp_seq=8 ttl=51 time=600.7 ms

--- dilnetpc.com ping statistics ---
10 packets transmitted, 9 packets received, 10% packet loss
round-trip min/avg/max = 540.6/613.8/899.1 ms
[root@DNP/9200 /root]$

```

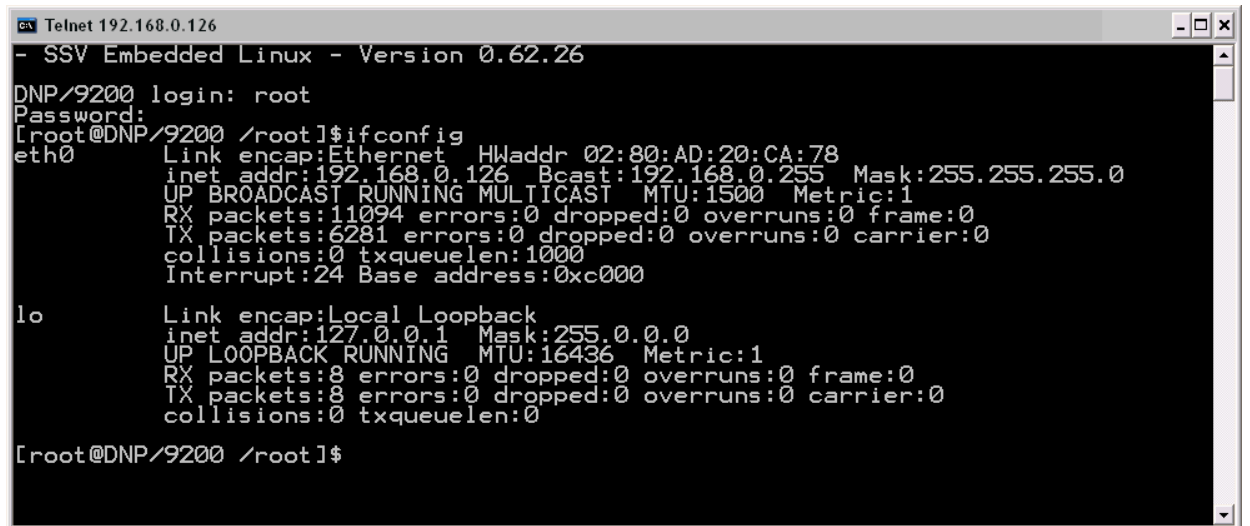
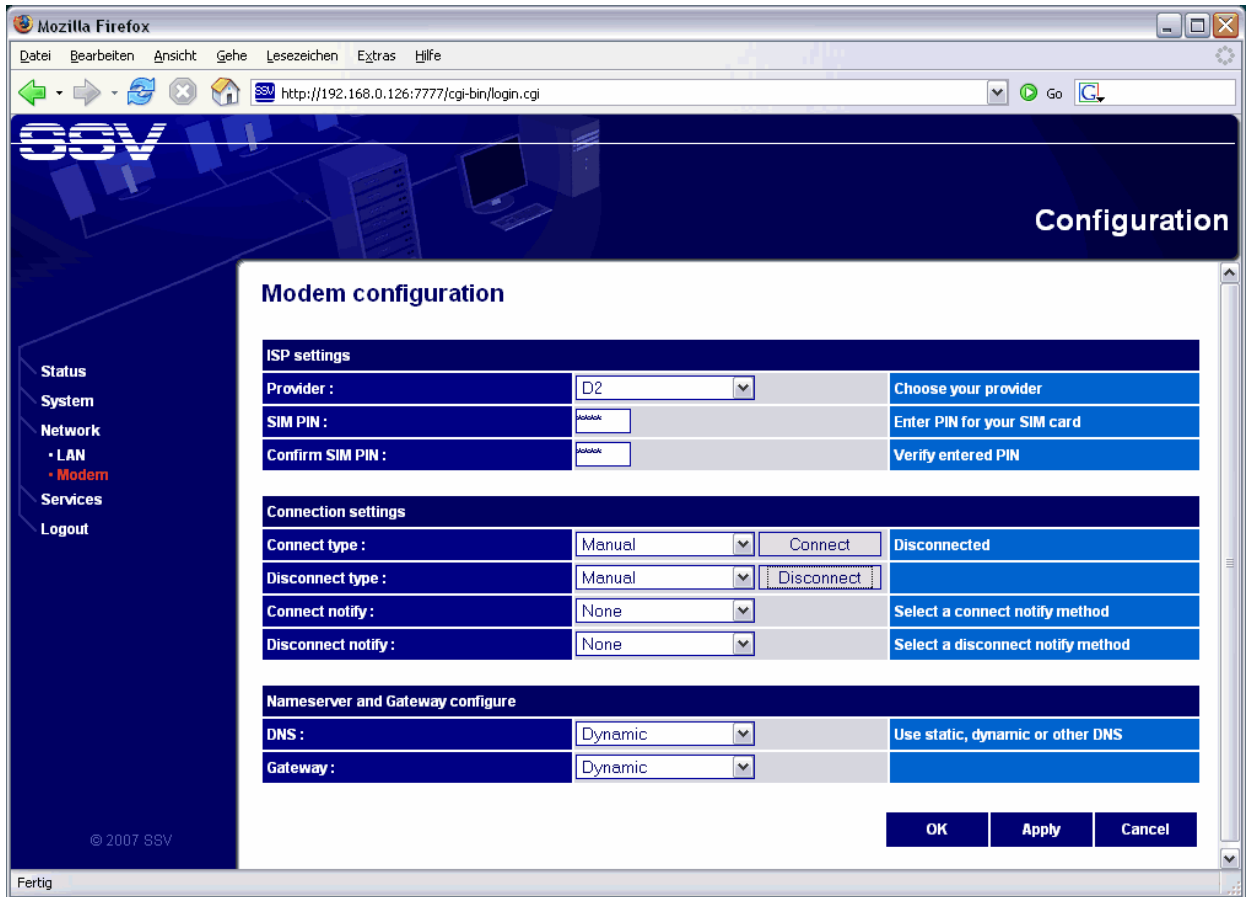
- **6. Step:** Please try out the Internet connection. Run a *ping* command to *dilnet.com* or any other server. E.g.:

ping dilnetpc.com

The DNP/9200 Linux contains three other commands for Internet server access. The following table shows more details.

Command	Function
wget	Read file from or write file to a HTTP server.
ftpput	Linux command line tool for automating FTP (file) transfers.
ftpget	Linux command line tool for automating FTP (file) transfers.

- **7. Step:** Finally disconnect the RAK connection to the Internet. Please press the embedded *Disconnect* button (see field *Disconnect type*) and wait until the RAK is disconnected from the Internet.



Please note: Within the disconnect process the DNP/9200 Linux removes the *ppp0* interface from the internal device list.

That's all.