How to use the Router Application Kit (RAK) Firmware with Modems

The DIL/NetPC DNP/9200 Router Application Kit (RAK) supports simple modem-based links (RAK with analogue or ISDN modem) to the Internet. This kind of links needs an Internet Service Provider (ISP) account or access to an Internet-by-Call provider service telephone number.

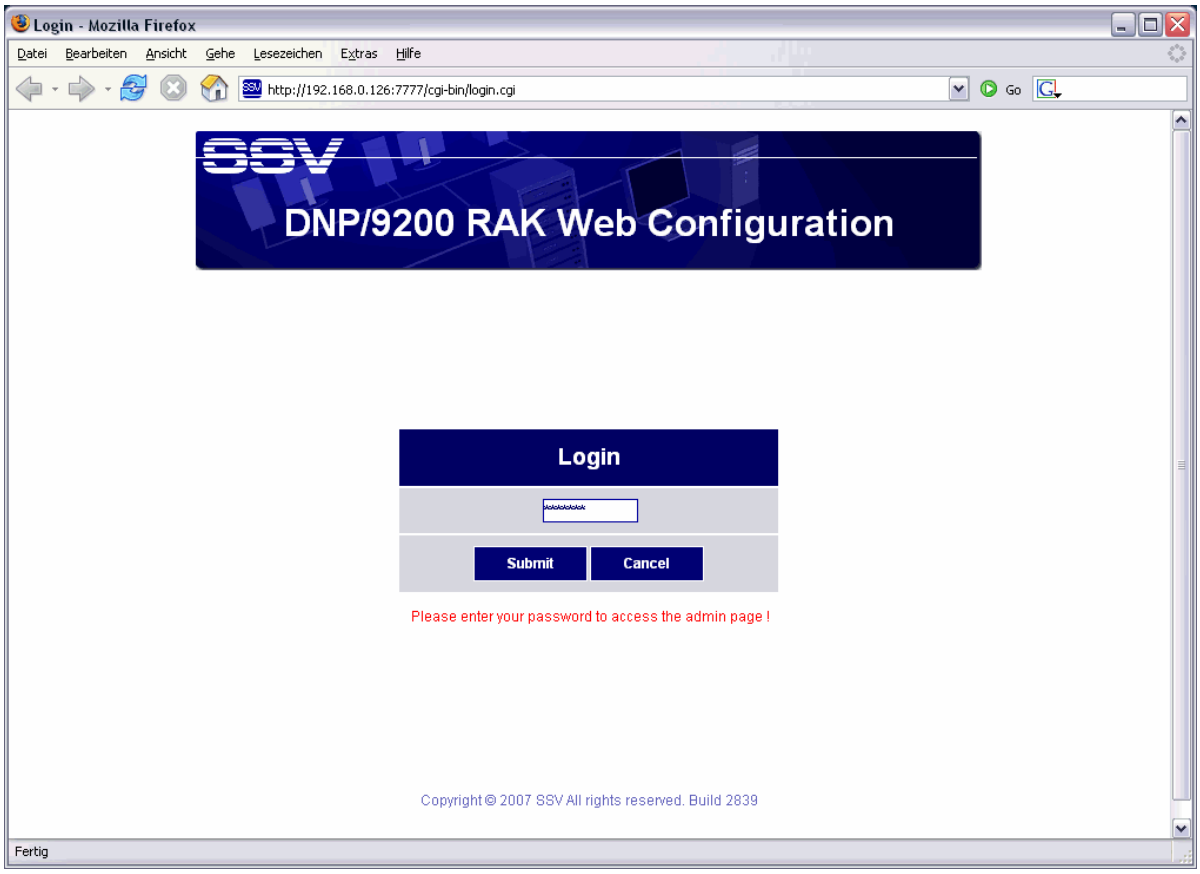
Within the German telephone network, there are many Internet-by-Call providers reachable. Each provider offers a service telephone number, a user name and a password. These parameters are necessary for the RAK firmware configuration.

The following table shows the information for two Internet-by-Call ISPs (Arcor, Avivo Internet) as a sample.

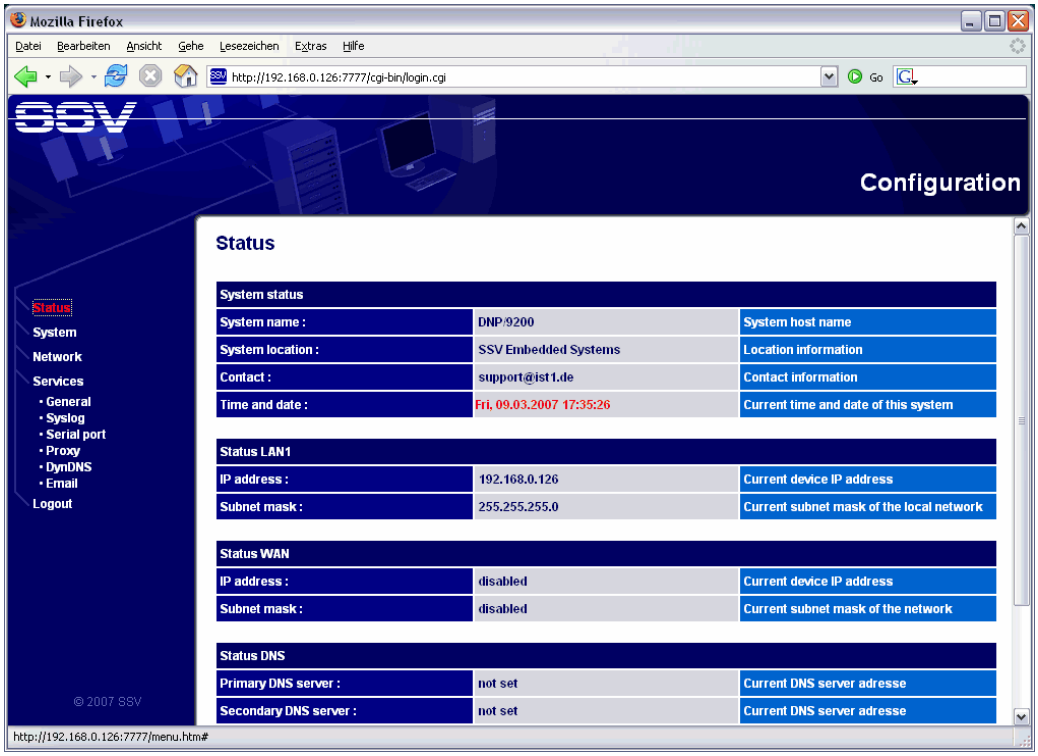
	Arcor Internet by Call	**Avivo Internet**
Phone number	01920785	019352150
User name	acor	eins
Password	internet	eins

Please note: The usages of Internet-by-Call provider service numbers is not free of charge. Please check the details before using Internet-by-Call service numbers. In most cases the ISP web side offers more information.

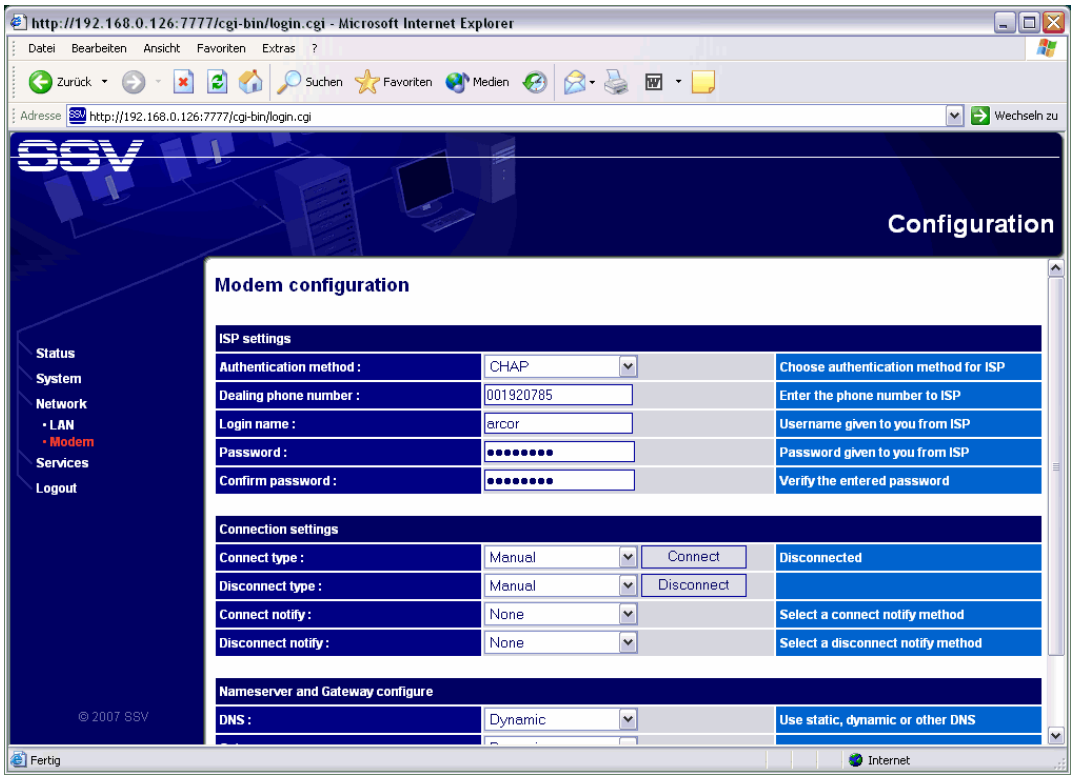
- **1. Step:** Run your web browser and access the web-based interface of the RAK firmware. Just enter: **`http://192.168.0.126:7777`** within the URL field of your web browser.



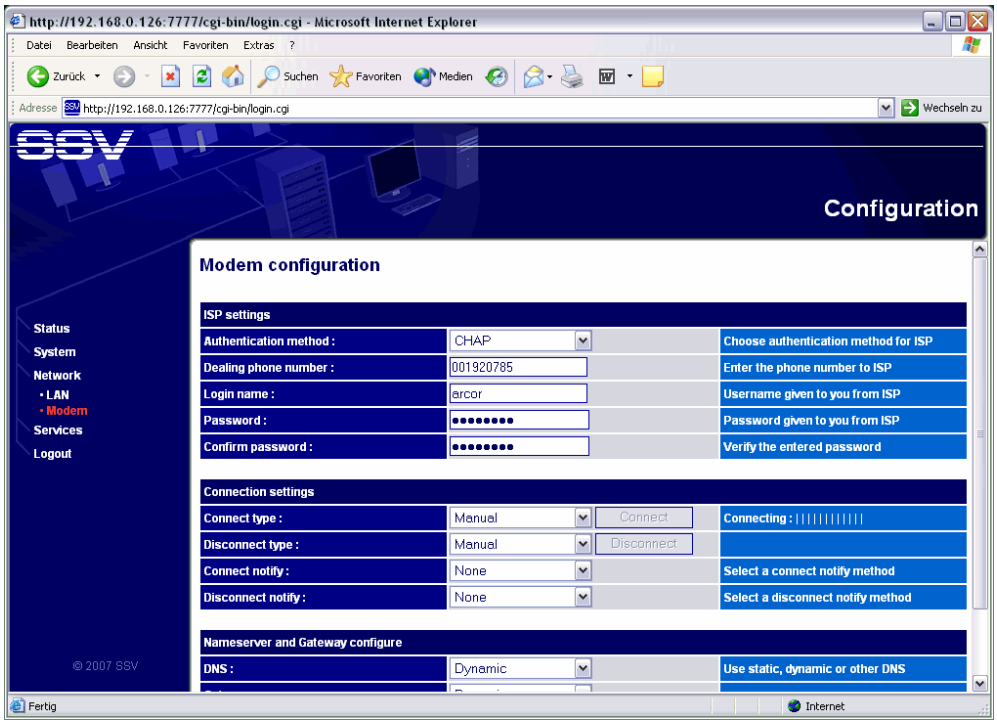
- **2. Step:** Please use the password ***dnp9200*** for your login. Please use only lowercase letters within the password. Then press the ***Submit*** button.



- **3. Step:** Please select the menu item ***Network → Modem*** (see left frame of the web-based user interface). Select the authentication method ***CHAP***. Then enter the service telephone number, a user name and the password. Retype the password. Finally press the ***Apply*** button.

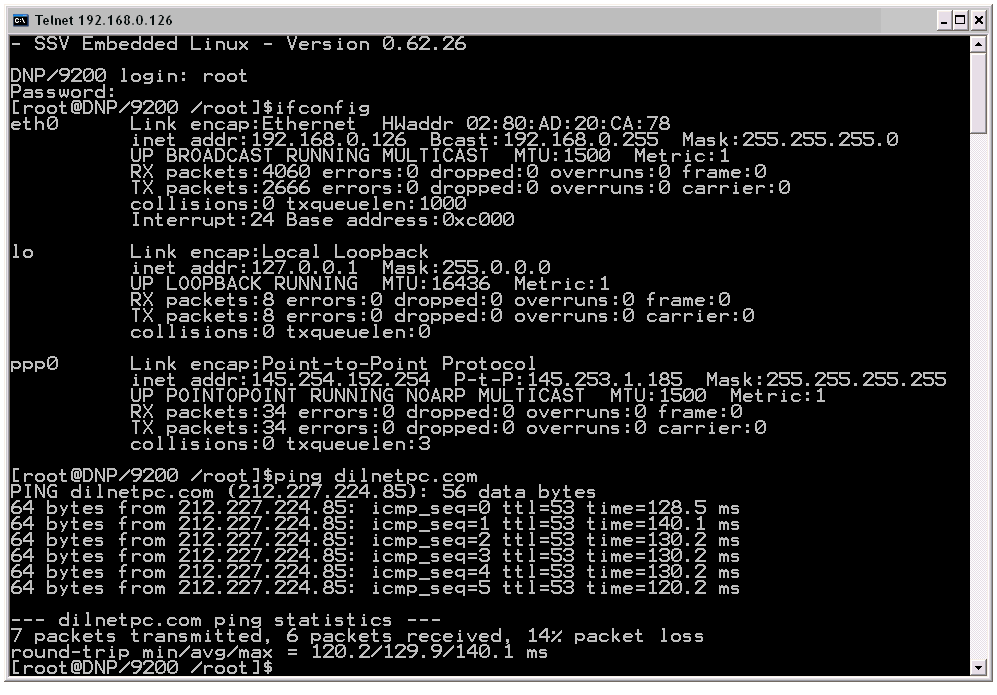


- **4. Step:** Press the embedded ***Connect*** button (see field ***Connect type***) and wait until the RAK is connected to the Internet.



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 modem link.



It is also possible to reach the RAK over the Internet. The ***ifconfig*** command shows the IP address of the RAK within the Internet (IP address of the ***ppp0*** device).

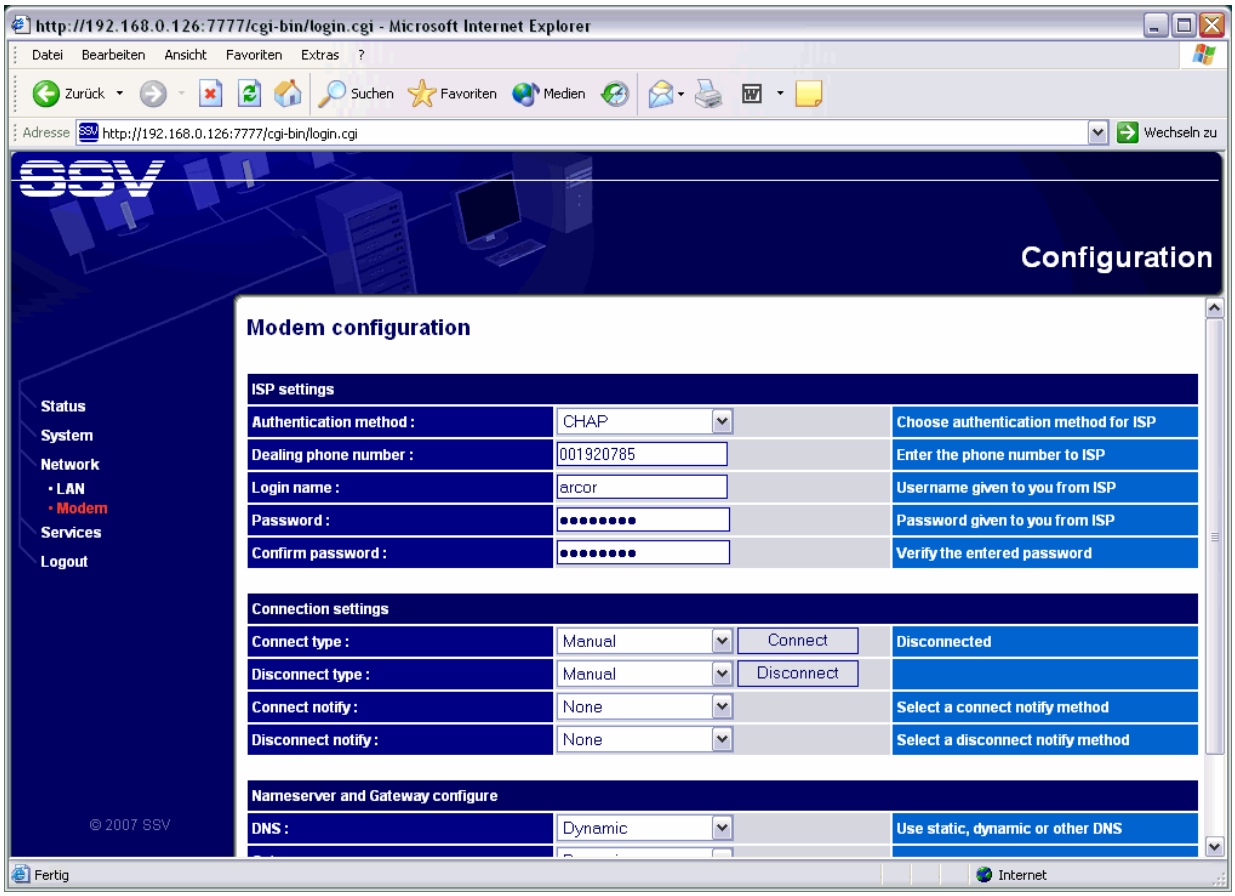
- **6. Step:** Please try out the Internet connection. Run a ***ping*** command to ***dilnet.com*** or any other server. E.g.:

```
ping dilnetpc.com
```

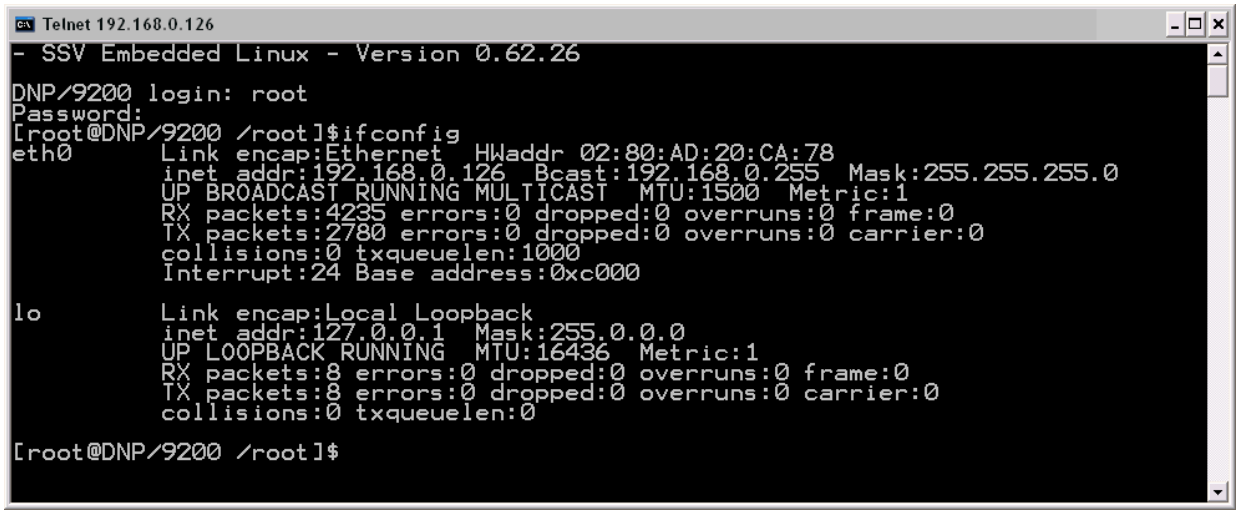
The DNP/9200 Linux contains three other commands for Internet server access. The following table shows more details.

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.


Telnet 192.168.0.126
- SSV Embedded Linux - Version 0.62.26
DNP/9200 login: root
Password:
[root@DNP/9200 /root]$ifconfig
eth0 Link encap:Ethernet HWaddr 02:80:AD:20:CA:78
inet addr:192.168.0.126 Bcast:192.168.0.255 Mask:255.255.255.0
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:4235 errors:0 dropped:0 overruns:0 frame:0
TX packets:2780 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
Interrupt:24 Base address:0xc000
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:8 errors:0 dropped:0 overruns:0 frame:0
TX packets:8 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
[root@DNP/9200 /root]$

That’s all.