

# Howto setup a internet connection on Symbian phones using Bluetooth

This tutorial is mainly intended for newer symbian phones like the 7610 or 6670. Guides for older phones can be found at <http://www.cs.helsinki.fi/u/mraento/symbian/bt-ap.html>

## 1. Phone setup (Client)

1. Download the corresponding version of GnuBox for your phone:
  1. 7610/6670: <http://gnubox.dynalias.org/gnubox6670.sis>
2. Connect to your phone to your pc using the data cable. Double click the .sis file and install the application on your phone.
3. On your phone go to Settings->Connection->Access points. Select Options->New Access point->Use default settings. Apply the following settings (case sensitive!):
  1. Connection Name: Bt (older versions of GnuBox may need „GnuBox“)
  2. Data bearer: Data call (on some devices gsm)
  3. Dial up number: 0000 (basically any number is valid als long the phone accepts it)
  4. User name: btdialin (or any other. But you'll have to remember it later on)
  5. Promt password: no
  6. Password: bt (or any other. But you'll have to remember it later on)
  7. Authentication: Normal
  8. Homepage: none
  9. Data call type: analogue
  10. Maximum data speed: automatic
4. Now go to Options->Advanced settings and apply the following settings:
  1. Phone IP address: automatic
  2. Primary name server: 0.0.0.0
  3. Secondary name server 0.0.0.0
  4. Proxy server address: none
  5. Proxy port number: 0
  6. Use callback: no
  7. Callback type: Use server no.
  8. Callback number: none
  9. Use PPP compression: Yes
  10. Use login script: Yes
  11. Login script: Here you'll have to do a little bit of typing exercise... Enter this:

```
CHARMAP [windows-1252]
LOOP 10
{
SEND "CLIENT"+<0x0d>
WAIT 3
{
"SERVER" OK
}
}
EXIT KerrNoAnswer$

OK:
EXIT
```

13. Modem initialisation: None
5. Now leave the AP settings (your changes will be automaticly saved). Navigate in the menu to the previously installed GnuBox software. Once launched choose Options->create records. Now the settings of the AP you just created will be manipulated for our needs. Then choose Options->2 Box Bluetooth->Serial Connection.
6. You can exit GnuBox now. Phone configuration is finished!

## 2. Configure your computer (Host)

I assume you have Windows 2000 or XP. A howto for linux does also exist (you'll still need the gnubox version above).

On the host side there are various solutions. I'll focus here on the „direct cable connection“ method, since all required tools come with Windows.

1. Find out the COM-Port associated with the Bluetooth-Software. If you use the Microsoft Bluetooth Stack, you'll find that information under Control Panel -> Bluetooth Devices -> COM-Ports. If your list of ports is empty, you'll have to create one using the add button. If you do so, choose an „incoming“ port. In case of

Widcomms software the information is located at Bluetooth Configuration -> Local Services -> Bluetooth Serial Port

2. Next you'll need to install a modem. Goto Control Panel-> Phone and Modem Settings -> Modems -> Add. Check the box „select modem manually“ and choose the „direct communication cable“. Now you see a list of COM-Ports. Choose the one you looked up earlier.
3. Now we'll set up an incoming connection: At the Network connections page choose „Create new connection“. Choose Advanced connection-> Incoming connection or just incoming connection (depends on your Windows version). As a device use the modem created at above. On the next screen deny VPN connections Now you'll have to add the user you specified in the phone settings. Also assign the password entered on the mobile. In the next dialog you are presented the network protocols. Open up the TCP/IP properties and select the „Allow callers access to the local network“. If you want to have the IP assigned by DHCP or manually is up to you. Windows 2000 users specify the IP range manually, since the DHCP feature doesn't seems to work.
4. Activate routing on your computer. Open up the Registry editor by clicking Start -> Run and type „regedit.exe“. Navigate to HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters . Here you'll have to change the value of „IPEnableRouter“ from 0 to 1. Reboot your machine to apply the settings!

### Test the connection

Now it's the time to give it a try. Open opera on your mobile and try to open up a web page. Now a dialog is presented to you where you'll have to choose a AP. Take „Bt“ (or „GnuBox“). Now you should notice the Bluetooth icon in the systray turn green (Widcomm only). Some seconds later an icon signaling a new network connection should also show up in the systray. Now you should be able to surf the web through the internet connection of your computer.

### Some hints on debugging / Assistance

- IPView (<http://my-symbian.com/7650/download/search.php?name=lp%20View>) helps alot. It shows you your network config and allows to send pings.
- Using Ethereal and the latest WinPCap beta libraries you're even able to capture on the incoming connection device.
- If you have problems with domain name resolution, you can set the DNS server in the AP settings.
- The GnuBox software has many debug features build in. See the debug menu (bring IF up is very handy to test if the connection to the pc can be established).
- If your PC isn't connected to the internet via a LAN, but via dial up you might run into trouble. Try activating Internet connection sharing on your modem's connection.
- For testing purposes disable your firewall. Depending on your firewall, im may deny routing packets. (At least my Kerio Firewall did so).
- If you have any questions please take a look at <http://www.symbianos.org/yabbse/index.php?board=2> and ask your question there

### Credits

xan (@symbianis.org) - for hacking the gnuBox, he made this possible  
Mika Raento – he worked out a solution for Nokia 7650 and 6600.

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