

Title: How to connect to the internet via a Bluetooth cell phone.

Updated: 09-21-06, 10-03-06

Remark: This document is still open to changes.

10-01-06:

This document was written with Dell Axim x51v ROM version **A06**, after updating to **A12** I noticed the dial screen no longer requires entering a 1 and the area code. Also, Wi-Fi and GPRS can be used without requiring a change of settings to keep Wi-Fi from using the GPRS Tmobile proxy – you will understand what this means when you use Wi-Fi after last using GPRS and it connects to the wireless access point then the browser just spins and spins without being able to load a page. Unfortunately, Dell's wireless "W-LAN" utility isn't very good at sorting out Wi-Fi and Bluetooth connections and which network settings profile they should use. It tends to use the most recent settings that successfully connected to the internet. If that was GPRS then when you use Wi-Fi it forces Wi-Fi to connect through the Tmobile wap proxy.

Prerequisites: The successful candidate will have all of the following.

1. Dell Axim Pocket PC [My specific model is x51v, WM5.0, ROM A06] with windows mobile 5 OS & Bluetooth (although the basic information here could be used for other devices such as palm Treo 650 / 700p / 700w smart phones etc OR a notebook or laptop or desktop computer and a desire to connect to the internet via cell phone.
2. A Cell phone with Bluetooth: This is so the cell phone and the pocket pc can establish a link.
3. A T-mobile web plan for \$5.99 / month.
4. Connect and pair the cell phone and Dell Axim, set the cell phone to accept connections from the dell automatically. Keep the cell phone screen in view so you can see what is going on. No point continuing until you have established the two devices can talk to each other.
5. Reading and working carefully it should take around 1 hour.

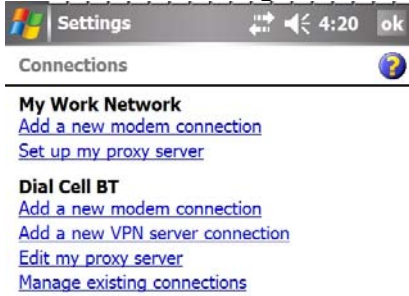
FAQ & Myths are at the bottom of the document.

Credits: I consolidated information on various sites but it was Aximsite and White97Jimmy's **216.155.165.50:8080** that got me connected. This will take you step by step so you don't waste hours like I did.

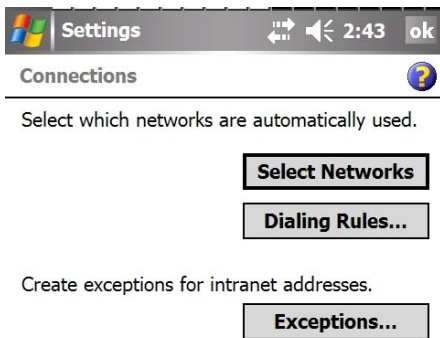
START HERE:



1. Click Start, Settings, Connections.



2. Click Advanced



3. Click Dialing Rules and make sure “Home” is checked. By default “Home” dialing profile does not dial 1 or an area code. From a cell phone you should not need to dial 1 or the area code to access the GPRS network. If you do need to then check the Work dial profile which will dial 9 and then 1?

Click OK and now click Select Networks.



Programs that automatically connect to the Internet should connect using:

My Work Network

Edit...

New...

Programs that automatically connect to a private network should connect using:

My Work Network

Edit...

New...



4. Click New (either button).



Enter a name for these settings:

My ISP name

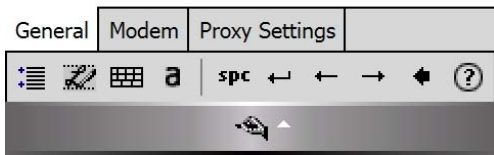
Delete Settings



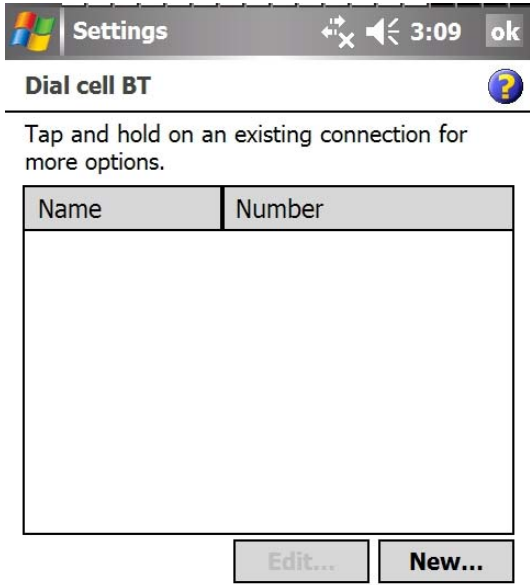
5.)Rename this to My Cell BT



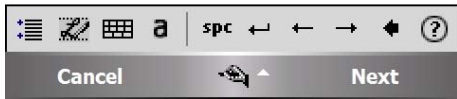
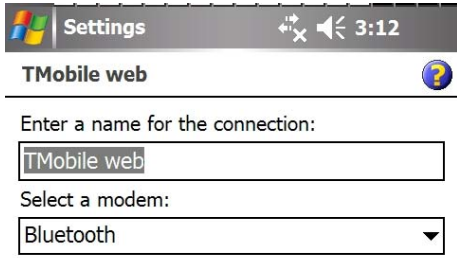
Delete Settings



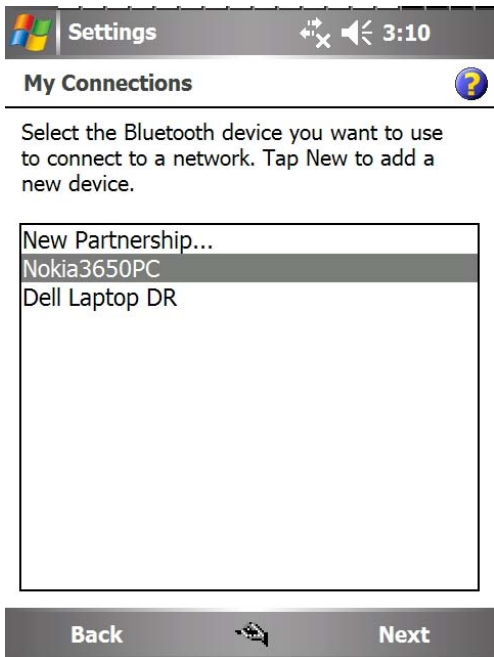
6. Click Modem



7.click New



8. Enter Tmobile Web, if you are using Cingular then type that so the description matches.



9. Your Cell phone must be paired already to appear in the list. If you have not done so then click “New Partnership” and be sure BT is activated on your phone.



Country/Region code:

1

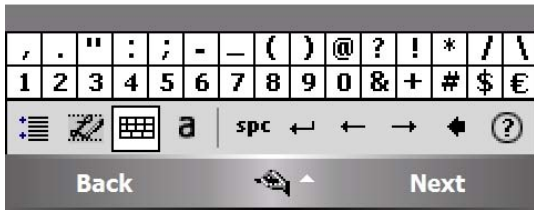
Area code:

858

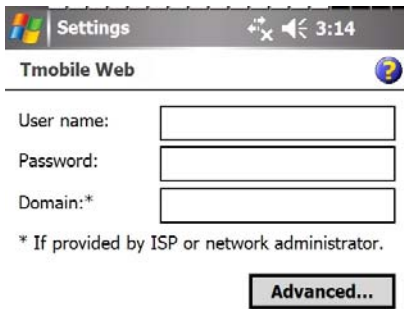
Phone number:

*99#

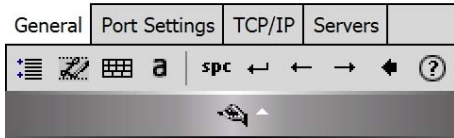
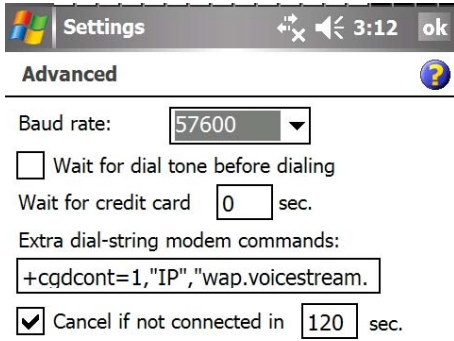
If you travel or change area codes often,
[use dialing rules.](#)



10. Enter exactly, I believe it should be the same for all cell phones using GPRS network. You must enter at least and area code and phone number else you can't go to next screen as "Next" will be grayed out. Also, if your dialing rules are not set to dial country + area code then only *99# will dial which is what you want.

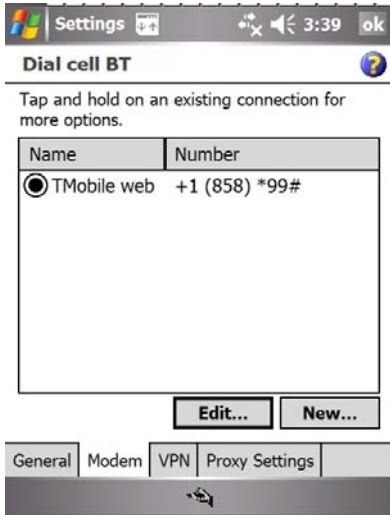


11. Don't fill out anything there is no need. I checked remember password in a later step Click Advanced.

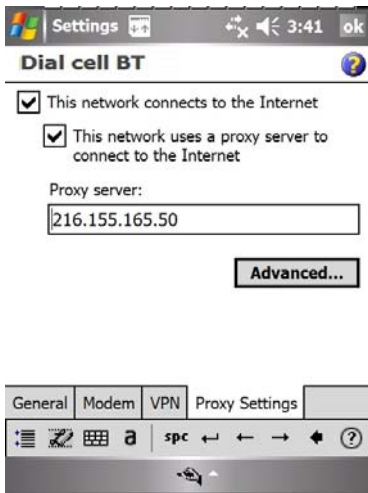


12. Fill out this screen. Up Baud rate to 57600, uncheck wait for dial tone, type in extra dial-string commands. Note .com is chopped off in the picture it should be: +CGDCONT=1,"IP", "wap.voicestream.com"

13. Do not click on any other tabs such as port settings, TCP/IP, etc. Just click OK, and click Finish on the next screen.



14. Click Proxy Settings tab.



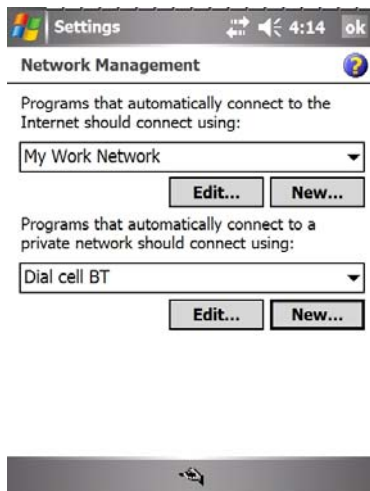
15. Copy settings in the picture. And click Advanced.

Note if you have high speed EDGE network you use **getmorespeed.t-mobile.com** This network uses a proxy server to connect to the Internet. Within the Proxy Server text box, type getmorespeed.t-mobile.com. Tap Advanced. Within the Port text box, change 80 to 8080, and then tap OK.

<http://support.t-mobile.com/knowledge/root/public/tm22300.htm#GPRS>

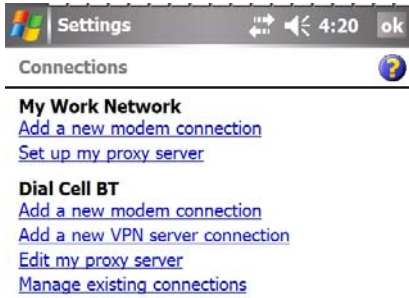


16. Copy settings in the picture. And click OK.



17. Match this screen. Click OK,

Note: To connect to internet via Wi-Fi you should first turn on Wi-Fi then start IE. To connect via Bluetooth turn on aka BT start BT then run IE and the connection will dial automatically. With this setup the proxy will only be used for the BT connection and Wi-Fi will not use any proxy or can be set to a separate corporate proxy if needed. If you don't do this right one connection will work but no the other.

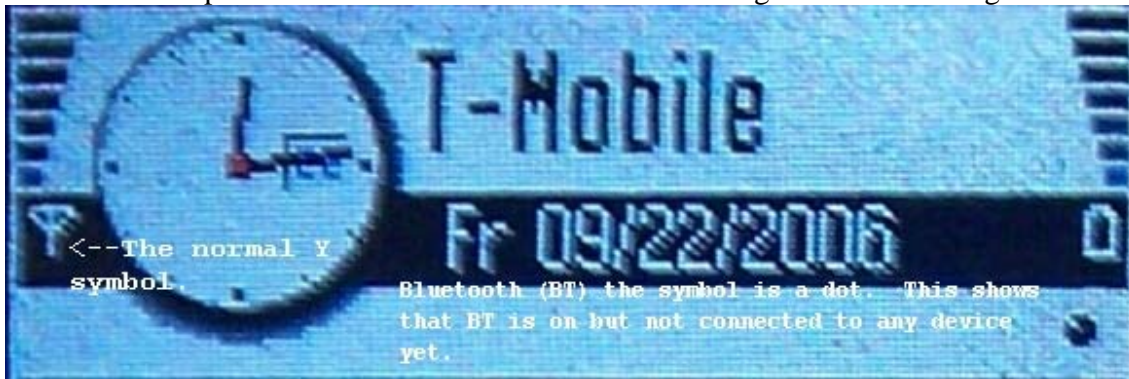


18. Click Tasks Tab, then OK, OK again.

19. Test time. On the today screen click BT icon lower right corner to start Bluetooth. Make sure the light is not flashing green which is Wi-Fi or Blue then green which is both. Both cannot be run at the same time because they interfere with each other. With BT on your cell phone a few feet away should show the two are connected – be sure to turn off a BT ear piece if you have one. Also, set your phone to connect automatically to your PPC. Now start IE, then click a web page, dialing *99# should appear, if you see 1 and an area code then you have to adjust your dialing rules (see step 3, click Dialing Rules). In 7 seconds the network icon on your cell phone should change from a ‘Y’ shape into a ‘G’ for GPRS network then after 4 more seconds the G should have a box around it showing that you have successfully connected and been validated. [See screen pictures below]



Notice: the cell ph screen does NOT show that a call is being dialed even though it is dialing.



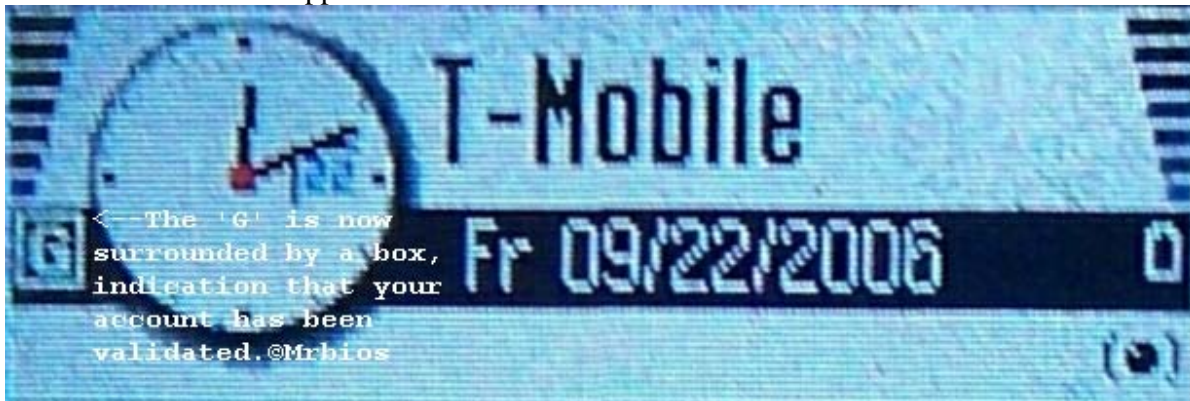


<--Note The Y symbol
has turned into a
'G' for GPRS
network.©

Bluetooth (BT) on & connected to Pocket PC, dot
now has (parenthesis) around it.

Bluetooth takes 3 seconds for the parenthesis to appear.

'G' takes 7 seconds to appear.



<--The 'G' is now
surrounded by a box,
indication that your
account has been
validated.©Mrbios

'G' with a square around it takes 11 seconds. It is important to take the cell phone out of your pocket. Otherwise it can have problems connecting.

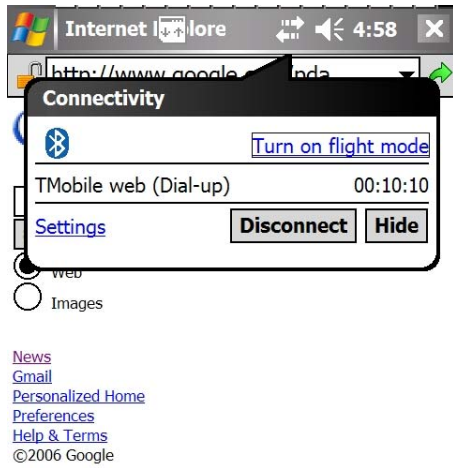
Nokia 3650,
T-Mobile,
network
independent or
"unlocked".



Dell Axim x51v,
Windows Mobile 5.0
OS, ROM A06

BT TIP: BT devices can have problems if they get too close together. I like to allow at least 1 foot. The max distance between rooms for PPC accessing GPRS is about 12 feet. Bandwidth / speed also decreases with distance.

Note: What you see here is that the Dell Axim / WM5 OS allow you to have two networks with two sets of proxy settings etc. Notice on "My Work Network" it is missing the lower two items listed under Dial Cell BT. This is because we did not configure a proxy for "My Work Network" (step 16). If you need to then you will the second two lines listed. If you need to access three or more networks then you will need to create additional profiles, step 4, and switch between them before connecting. I'm unsure if there is an easy way or third party utility to do this.



Success!! Now hang up and test your Wi-Fi and make sure it works too.

FAQ & Myths:

Q: I got it working on Bluetooth to my cell phone, but now if I hang up I can't connect via Wi-Fi to my home router that I always use. Also, I can ping my home router and get a reply and if I put my router's address (192.168.1.1) in IE it won't connect what's wrong?

A: The Wi-Fi is going through the tmobile proxy: 216.155.165.50:8080. Click Start, Settings, Connections, Advanced, Select networks, In Network Management" change to the work network for both drop down boxes , assuming that this is unaltered and does not have any proxy information or dial up info in it, you must use some connection that has nothing filled out. The problem is: "Programs that automatically connect to the Internet should connect using:" must be set to "My Work Network" and that network must have connects to internet checked and the proxy must not be checked. Next, set "Programs that automatically connect to a private network should connect using:" must be set to your cell phone profile. In my case I call this network profile: "Dial Nokia 3650 BT". Wi-Fi, Bluetooth, etc. For me I select "Dial Nokia 3650 BT" when I want to use my cell phone or for Wi-Fi. If it still does not work then go to Start, Settings, System, Memory, click "Running Programs" tab at bottom and if "Internet Explorer" is listed click on it and click on Stop button. Sometimes IE must be shut down or it continues to use the connection with the proxy set.

Q: What is the difference between T-zones, T-Mobile Web, T-Mobile Internet for \$19.95/month wap vs "internet"?

A: A T-mo rep told me T-zones was only \$2.99 / mo and only allowed connection to the wap site wap.myvoicestream.com, (you can visit from any PC). It was limited to only downloading ring tones & other fluff to personalize your phone. Next plan costs \$5.99; it allows access to all websites but is slow roughly equal to a 14.4Kb dial up modem, welcome to the low speed GPRS network (you will see a 'G') on your cell phone screen when you connect. Next plan costs \$20/mo and runs on a newer high speed EDGE network (your cell phone must support EDGE), it's much faster like for laptops etc. Sprint has a plan for ~ \$79.99 / mo and I have a friend that has been using it with his laptop or notebook reliably for two years. It runs a little faster than a 56Kb modem.

Q: EDGE from sprint actually dials a number but T-Zones / T-Mobile Web on GPRS network does not dial it just connects. Pocket PC WM5 can only make the cell phone "Dial" a number via Bluetooth. How do I get over this hurdle?

A: You will input a special number *99# and a special AT modem command that sends a code to the phone that tells it to connect to the GPRS network so you never see your phone “dialing”. If you do see that your PPC is making your phone “dial” an ordinary number you have put the wrong info in.

My desktop computer can ping both the T-Mo and Cingular networks from my cable modem connection.

This varies by provider:

CINGULAR: note, no “.com” for Cingular’s GPRS network.

+CGDCONT=1,"IP","wap.cingular"

TMOBILE:

+CGDCONT=1,"IP","wap.voicestream.com"

NOTE: the above info regarding the wap.xxxxx could be changed by the provider. Don’t assume this document is up to date.

Q: Then how can I tell if I am connected?

A: You will see a capital letter “G” appear – at least this is how it is on my Nokia 3650 series 60 smart phone.

Q: Why is this better than Wi-Fi which is a much faster connection speed?

A: Wi-Fi “hot spots” are quite limited, this will work anywhere your cell phone works.

Q: Should I just go out and buy a PDA cell phone like the treo 650 or palm 700w etc?

A: Those phones are still problematic, reception, bugs, cost \$500-600, etc. What if you drop it in water or lose it. This way you ease into things and leverage your PPC investment.

Q: “wap.voicestream.com” is used and Verizon used to be called VoiceStream or acquired the company am I somehow “hacking” into a network that I’m not really supposed to have access to?

A: No, Deutsche Telekom owns T-Mobile which bought Voice Stream in 2002. Put www.VoiceStream.com in your browser and see where it takes you . See http://en.wikipedia.org/wiki/Deutsche_Telekom

Q: Does the internet access use my minutes?

A: No, it is unlimited, but always confirm this at the time you activate and monitor your minute usage. Plans vary from place to place and are subject to change and you could be hit with roaming charges outside your home state / country, etc.

Note: No User name or password is needed. There is no need to supply fake info in the pocket pc. I called my connection Tmobile web – but I could have chosen any name for the connection.

Q: I turned on Wi-Fi and made sure Bluetooth (BT) was off then I started IE and I visited some pages like my.yahoo.com and Dialing kept popping up and failing to connect. Why is this happening?

A: If you activate Wi-Fi and fail to establish a viable internet connection then Pocket PC will default to dialing the Bluetooth connection. Since the Bluetooth is off on your PPC and or Phone the connection cannot be dialed. Each time you try to browse to a page it will automatically try to connect (assuming that option is checked). You may be fooled into thinking the page is loaded because the browser is reading from the cache. A viable internet connection is one that lets your browser load pages anything less and the phone will try to dial. You may have connected to an

unsecured wireless router that has restrict by MAC address turned on or the signal is too weak. It is not enough just to connect over Wi-Fi the connection must reach the internet.

Q: I have a BT ear piece that I use with my phone. Can I use that and PPC at the same time to connect to the internet?

A: Possibly if the phone & PPC support multiple simultaneous connections to different services at the same time. Two devices can't both connect to the audio service at the same time. Most BT devices do not.

Q: Do I need to establish a connection to T-zones or Tmobile web first on the cell phone?

A: No, except that you should do this to verify that the phone works with the web and that you service works and that you are able to access web sites. Once you know the phone connects the pocket pc will "dial" the phone automatically.

Q: What service do I need to sign up for?

A: \$5.99 basic T mobile web plan, and you can do this right through the phone by going to t-zones where you will be asked if you want to sign up.

Q: How long does it take to add the service?

A: With tmobile I called customer service and was up and going in about 1 hour. Remember, your phone will connect to GPRS even before you signup. After you sign up test that your account is active by visiting www.google.com on your phone. If it work then you are ready to setup your pocket pc and test it.

Q: If a call comes in while I'm on line will I hear my phone ring and can I talk on the phone and use internet at the same time?

A: Probably not. On Tmobile with my Nokia 3650 I don't hear the phone ring and the call is rolled to voicemail.