

WIRELESS HACKS™

2nd
Edition

*Tips & Tools for Building, Extending,
and Securing Your Network*



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Wireless Hacks™, Second Edition

by Rob Flickenger and Roger Weeks

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Use Your Treo as a Modem

Use your Palm Treo to connect your laptop to the Internet. You can also use your Treo as a backup Internet connection for your desktop machine.

If you've signed up for your carrier's wireless data plan, you can get the *entire* Internet on your Treo. It may not seem like it at times, because the small screen can really constrain your web-browsing experience when compared to, say, your laptop or your desktop computer, but it's all there—every last byte. Better still, it is possible to feed the Internet connection of your Treo through to your laptop computer. This is called *tethering*, and it allows your tethered laptop to work with the Internet as if it were connected via a normal dial-up, cable, or DSL modem—except that you are connected through your Treo. Anywhere your Treo has enough signal strength to connect to its wireless data service, you can tether it to supply a laptop with Internet.

Setting up tethering is specific to the model of your Treo and your cellular service provider, as summed up in [Table 1-2](#). You use either your Treo 650's Bluetooth connectivity to use the Treo as a wireless modem for your laptop or desktop, or you need a third-party Windows application called PdaNet, which allows you to connect your Treo (as a modem) to your laptop or desktop via the USB sync cable.



Tethering might be frowned upon by your carrier. Carriers will argue that tethering is abusing a network infrastructure that is set up in anticipation of the light bandwidth consumption of average smartphone users. Power users will argue that when paying \$45 per month for “unlimited Internet,” you are entitled to get that for which you've paid. So it's important that you become familiar with your service provider's policy on tethering if you plan to use it frequently—you may be surprised.

Table 1-2. Wireless providers

Device	Carrier	Tethering technique
Treo 650	Sprint	Built-in Bluetooth DUN is now supported, provided you apply the “Treo 650 Updater 1.12 for Sprint PCS,” found at http://www.palm.com/us/support/downloads/treo650updater/sprint.html . You may also use PdaNet for tethering over your USB sync cable or wirelessly over Bluetooth.

Table 1-2. Wireless providers (continued)

Device	Carrier	Tethering technique
	Verizon and other CDMA carriers (e.g., EarthLink)	Built-in Bluetooth DUN is <i>not</i> supported, and no firmware update is promised. Hack your device to enable Bluetooth DUN now, without waiting for Verizon's firmware update. The hack is fairly stable. You may also use PdaNet for tethering over your USB sync cable or wirelessly over Bluetooth.
	Cingular and other GSM carriers (e.g., AT&T Wireless, Rogers)	Built-in Bluetooth DUN is <i>not</i> supported. Cingular promises a firmware update "later this year," according to a Palm support page dated March 31, 2005. Hack your device to enable Bluetooth DUN now, without waiting for a firmware update. The hack is fairly stable. You may also use PdaNet for tethering over your USB sync cable or wirelessly over Bluetooth (no hack required).
Treo 600	All	This device does not support Bluetooth. Your only option is to use PdaNet for tethering over your USB sync cable.

Treo 650 Bluetooth DUN

To enable Bluetooth DUN on your Treo 650:

1. Run the Bluetooth application.
2. Enable the Dial-up Networking settings, as shown [Figure 1-13](#). (If you don't see this setting, you need to check for a firmware update for your Treo 650, or apply the shadowmite patch; see the sidebar "The shadowmite Patch).



Figure 1-13. Turning on the dial-up networking setting on a Treo 650

The steps in getting Bluetooth DUN set up on your laptop (or desktop) varies with operating systems and Bluetooth hardware—please consult your manuals for help here. But in general, you want to do something like this:

The shadowmite Patch

The Treo 650 Bluetooth DUN hack, also called the *shadowmite* patch, after the handle of the developer who discovered it, exposes the Dial-up Networking setting in the Bluetooth preferences panel for those devices that don't already show it. For various reasons (some say political—remember, some carriers would rather you didn't know about tethering), Palm disabled this DUN setting at the last minute before shipping the Treo 650 device. That means that hacking this setting to appear and subsequently enabling it is certainly *not* going to be supported by the technical support departments of Palm or your carrier! The good news is that the shadowmite patch appears stable, it's totally reversible (to un-patch, simply delete the patch file), many people are using it without incident, and there's an online forum where you can post questions. *Before* you go this route, make sure that your carrier hasn't already released a firmware update that enables DUN support (as Sprint has)! For more information on the shadowmite patch, including the patch itself, visit <http://www.shadowmite.com/HowToDUN.html>.

1. Make sure your Treo is on and Bluetooth has been enabled!
2. Open the Bluetooth control panel/system preferences on your laptop (or desktop).
3. Your Treo 650 should be discovered; Mac users will need to set up a new Mobile Phone device.
4. Establish a connection between your laptop and your Treo 650.
5. Look for your Treo 650's Dial-Up Networking service on your laptop; if you only see its Object Exchange service, try performing a soft reset on your Treo 650.
6. Create a dial-up connection to your Treo 650's Dial-Up Networking service on your laptop. See [Table 1-3](#) for the values that should work for you. A quick phone call to your carrier can get you going if these don't work.

Table 1-3. Carrier data connection information

Carrier	Username	Password	Phone number
Sprint	YourSprintPCSVisionUsername@sprintpcs.com (you might not need the @sprintpcs.com part)	YourSprintPCSVisionPassword	#777
Verizon	YourPhoneNumber @vzw3g.com	vzw	#777
Cingular	WAP@CINGULARGPRS.COM	CINGULAR1	**99***1#

Table 1-3. Carrier data connection information (continued)

Carrier	Username	Password	Phone number
T-Mobile	none	none	*99#

PdaNet

You can download the PdaNet application from June Fabrics PDA Technology Group at <http://www.junefabrics.com>. It has a 15-day trial, after which the application costs \$34 to register to your Treo device.



For Treo 600 users with a Mac, the picture is grim. (Treo 650 users with a Mac should opt to use the Bluetooth technique described earlier). PdaNet suggests it can run under Virtual PC, though that only gives your emulated PC access to the Internet—and this usage is not supported. There is also WirelessModem, which you can download from <http://www.notifymail.com/palm/wmodem/>. It has a 14-day free trial; then it's \$37.50 to register the application. Be very careful with this application: many users are unable to maintain an Internet connection to their Mac for more than five minutes, and there is no return policy.

There is a great guide to connecting your Treo 650 to a Mac using Bluetooth at <http://vocaro.com/trevor/treo-dun/>.

Once you've downloaded and run the installer for your specific Treo model (check carefully!), you are prompted to select the appropriate cell phone service from the screen in [Figure 1-14](#).

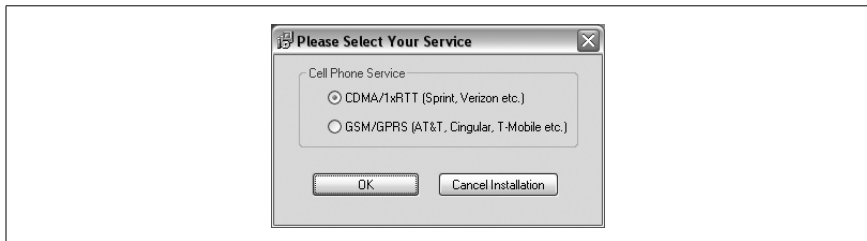


Figure 1-14. Selecting your carrier in PdaNet's installer

The Windows component is installed to your desktop, and then you are prompted to HotSync the Palm component onto your Treo (see [Figure 1-15](#)).

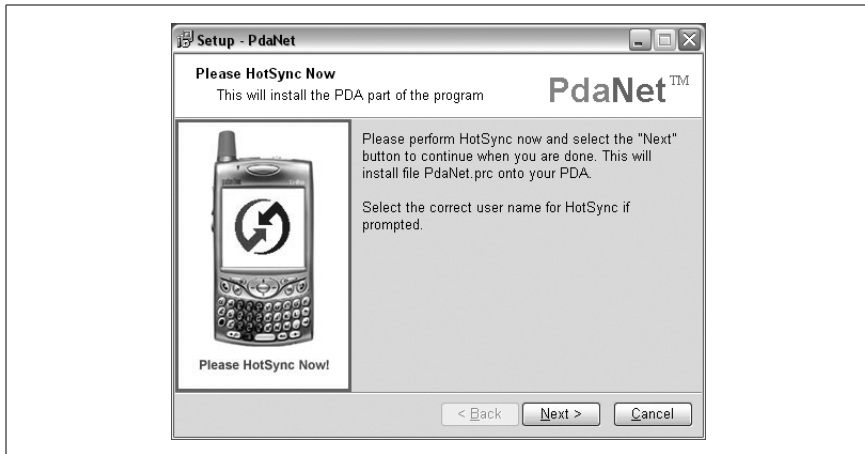


Figure 1-15. PdaNet’s installer, queuing up a PRC to install onto your Treo

Once the installation is complete, you will notice a new PdaNet icon in your System Tray (the icons by your clock), which indicates your connection status, as shown in Figure 1-16.

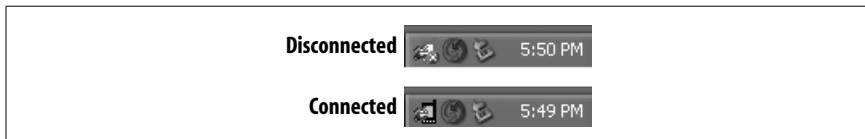


Figure 1-16. PdaNet’s icon indicating a connected or disconnected state

The PdaNet icon indicates whether you have an active Internet connection through your Treo; right-click on it to get to the advanced PdaNet settings.

After you’ve installed the PdaNet application onto your Treo, make sure your device is connected to your laptop with a USB HotSync cable (serial HotSync cables will not work), and then simply launch the PdaNet application on your Treo. Figure 1-17 shows PdaNet running on a Treo.

Your Treo automatically attempts to establish a connection to its wireless Internet service; if successful, PdaNet will then tether that connection over your USB HotSync cable to your laptop. Figure 1-18 shows PdaNet’s desktop component confirming its Internet connectivity.

You should be able to use any Internet applications on your laptop, as long as your Treo is able to keep connected to its wireless Internet service. Be sure to disconnect it when you’re done!

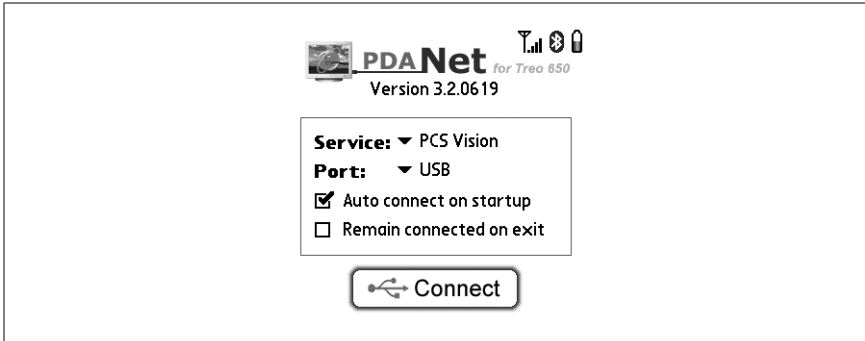


Figure 1-17. PdaNet, ready to connect your laptop to the Internet



Figure 1-18. The Windows component tethering to your Treo's wireless data network



Though some service providers' wireless data plans offer unlimited usage, most allot a certain number of kilobytes per month, and will charge you a fortune for overages. Check into this before you consume too many KB on your Treo.

—Jeff Ishaq