

Bluetooth Access Point Application Note Surfing the Web from Your Laptop Computer

6/29/2002

1. Introduction

As a technology leader in the wireless networking market, WIDCOMM's vision is to enable consumers to easily, conveniently and securely access information and services from their Bluetooth devices anytime and anywhere – from homes, offices and public places.

WIDCOMM has introduced products that allow you to surf the Web from your laptop computer.

- BTW™ is a set of software drivers and utilities that seamlessly integrate Bluetooth technology into your desktop or laptop computer.
- BlueGate™ is the first available server-independent Bluetooth wireless access point in the world to support extended receiver range capabilities. Acting as a gateway for shared Internet access, BlueGate creates local “hot spots” of high-speed wireless connectivity that link as many as seven Bluetooth-enabled devices simultaneously and connects them to a standard Ethernet network.

This document describes the procedure for using BTW to surf the Web through a BlueGate 2500 Network Access Point. This document was tested using the following configuration:

- A desktop or laptop computer with an available USB interface and running Microsoft Windows 98 SE, Me, 2000, or XP. The Windows Dial-Up Networking component must be installed.
- BTW version 1.2.1.14 with an attached Psion USB dongle.
- A BlueGate 2500 Network Access Point

2 Browsing the Web using BlueGate and BTW

2.1 BLUEGATE SETUP

Setting up the BlueGate 2500 is straightforward. Depending on your Local Area Network (LAN) configuration, the device is usually configured properly at the factory. Just plug it in and go. For additional details on how to set up the BlueGate or troubleshoot the device, see one or both of the following documents:

- The *BlueGate 2500 Quick Start Guide*, WIDCOMM doc # BG2500-PROJ-UM-010710-0608
- The *BlueGate 2500 Administrator's Guide*, WIDCOMM doc # BG2500-PROJ-UM-011023-1800

2.2 INSTALLING THE BTW SOFTWARE

The BTW software is installed from a CDROM using an InstallShield executable. For detailed instruction on how to install the software and USB dongle, see the *BTW Installation and Uninstallation Instructions*. This document is supplied as a *readme* file on your BTW release CD.

2.3 PREREQUISITES FOR USING BTW AS A LAP CLIENT

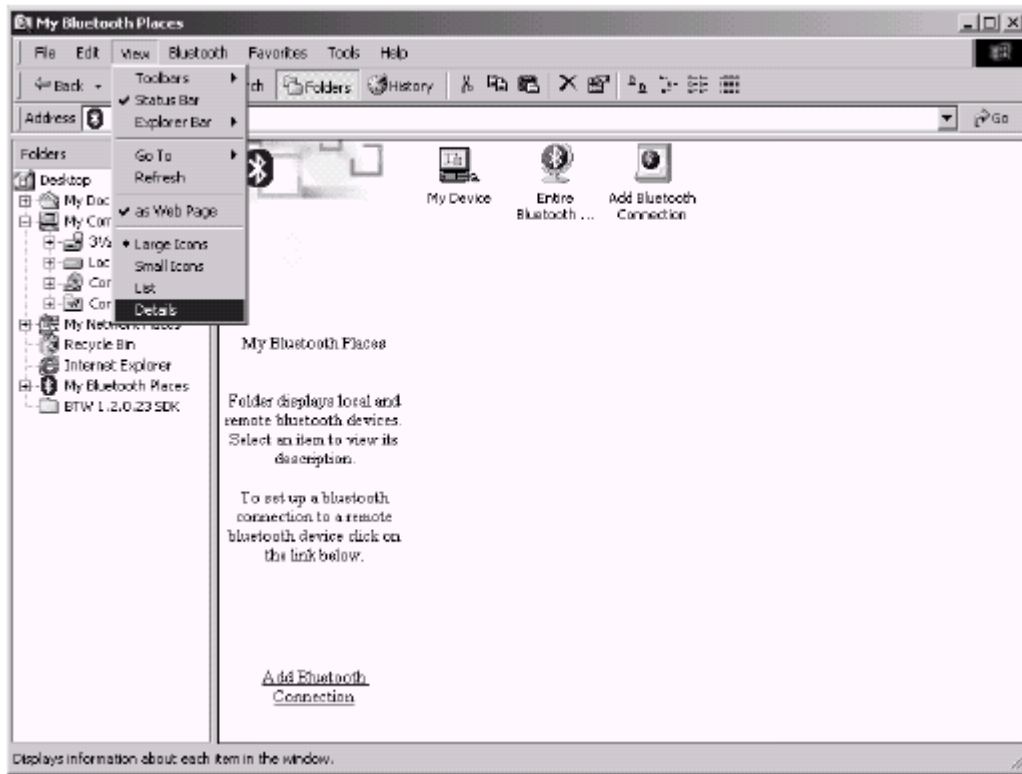
The term “LAP” refers to the Bluetooth LAN Access Profile. This profile allows one computer (the client) to request a Bluetooth connection with another (the server). The client can then use the server to access a LAN.

In order for BTW to operate correctly, you must install the Windows *Dial-Up Networking*

component. (Refer to the Windows help system for assistance: *Start → Help → Index → Dial-Up Networking*.)

2.4 SET EXPLORER TO VIEW DETAILS

Start by opening Windows Explorer and click on the *My Bluetooth Places* entry in the folder view. For additional status information, it is always a good idea to use the *View Details* option as shown below.

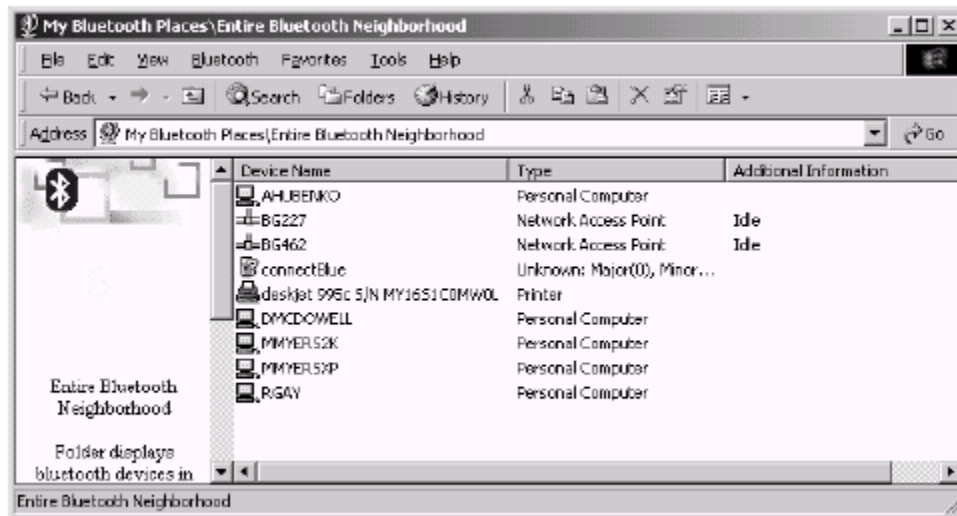


2.5 INQUIRE FOR THE BLUEGATE DEVICE UNDER BTW

There is more than one way to perform a device inquiry under BTW. One of the easiest ways is to double-click on the *Entire Bluetooth Neighborhood* icon.

NOTE: Depending on the BTW settings, the system may perform a device inquiry for you. If you see that other Bluetooth devices have already been identified, you may want to skip this step.

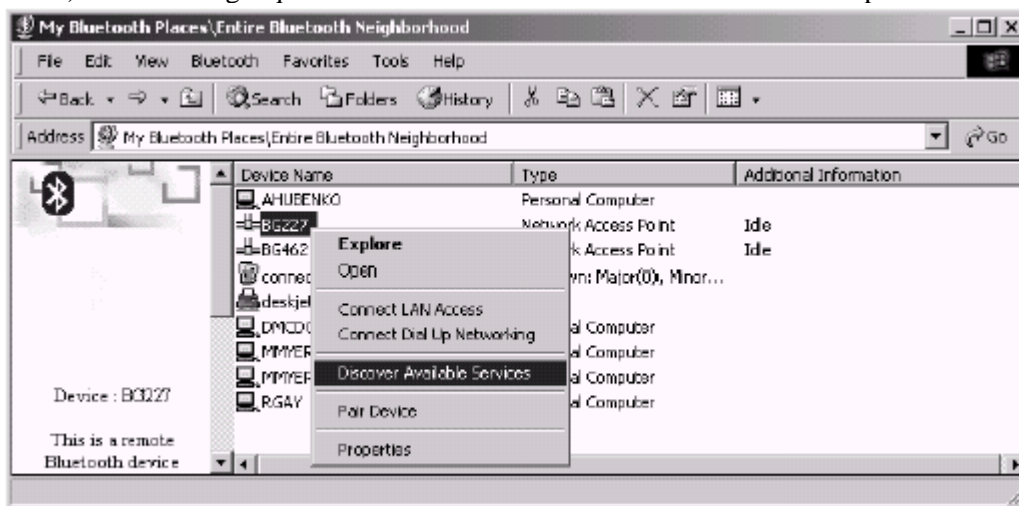
It may take up to 30 seconds for the inquiry to complete. You should then see a display similar to the one shown below:



The result of a device inquiry

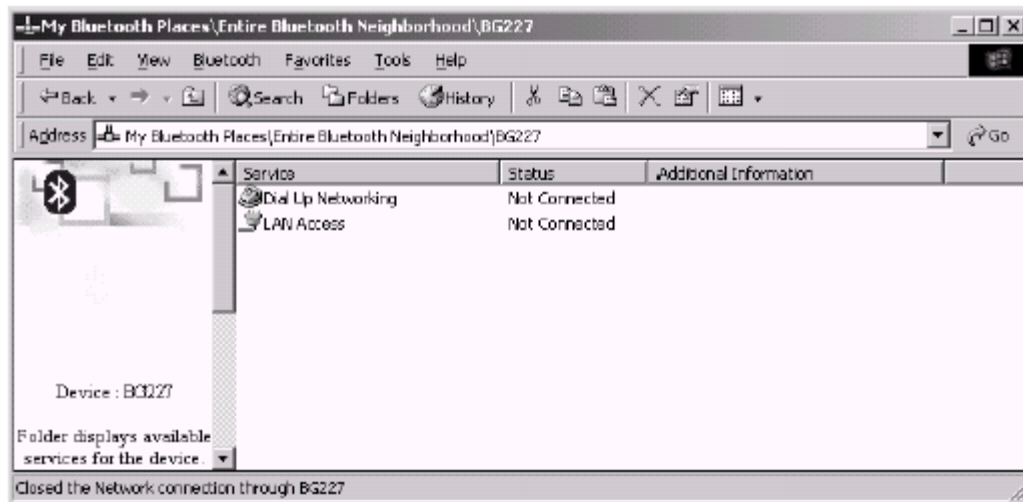
2.6 DISCOVER THE “LAN ACCESS” SERVICE

In order to initiate a connection to your LAN, you must discover the service which controls LAN access on your BlueGate. In Bluetooth parlance, this process is called *Service Discovery*. You can do this by right-clicking on the BlueGate device name (“BG227” in the example shown below) and choosing *Explore* or *Discover Available Services* from the drop-down menu.



Initiating service discovery

For a BlueGate 2500, this will result in a display similar to the one shown below.

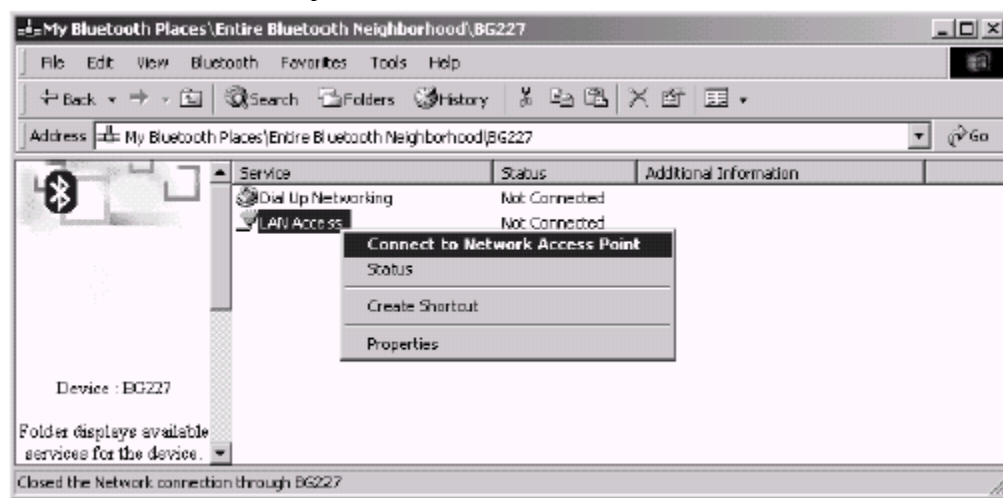


The results of a service discovery on a BlueGate 2500

NOTE: The name of the service that is running on the BlueGate is configurable by the BlueGate administrator. “LAN Access” is the default service name, but it may not match the name shown above.

2.7 CREATE THE CONNECTION

You can use several methods to initiate a LAN Access Profile (LAP) connection. On the BTW client, you can double-click on the *LAN Access* service to which the connection is to be established. Another method is to right-click on the service and select *Connect to Network Access Point* from the drop-down menu as shown below:

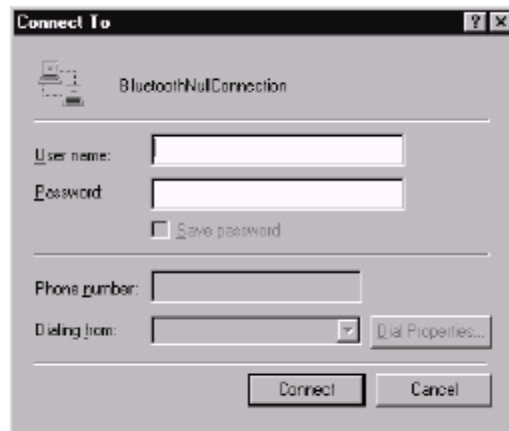


Initiating a LAN Access Profile (LAP) connection

BTW will respond by activating the Microsoft Windows Dialup Networking dialog. The dialog will be slightly different depending on which version of the Windows Operating System that you are using. If you are running your BlueGate in its factory default configuration then the user name and password are irrelevant. Feel free to leave these fields blank if you wish. Click on *Connect* in order to initiate the connection.



Windows 2000

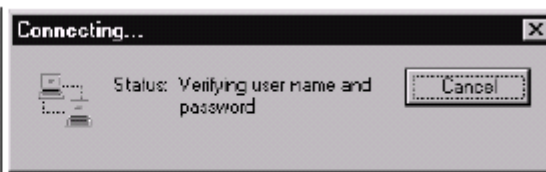


Windows 98 SE

A set of dialogs will inform you of the progress of the connection. Once more, these differ slightly depending on the version of Microsoft Windows that you are using.



Windows 2000



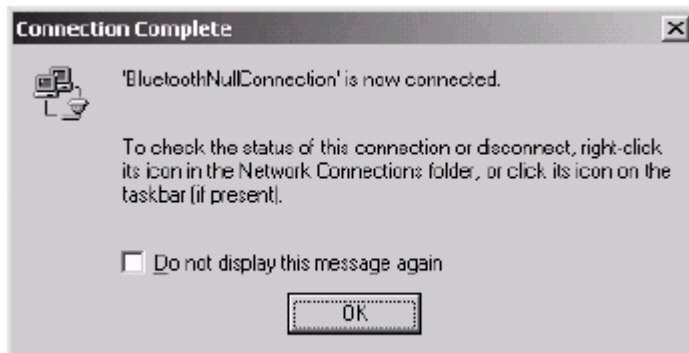
Windows 98 SE

If your BTW client is also connected to the LAN through an internal network card, you may see a dialog similar to the one shown below. Although this is a situation that is normally to be avoided, it does not interfere with this demonstration. Click on “OK” in order to continue.



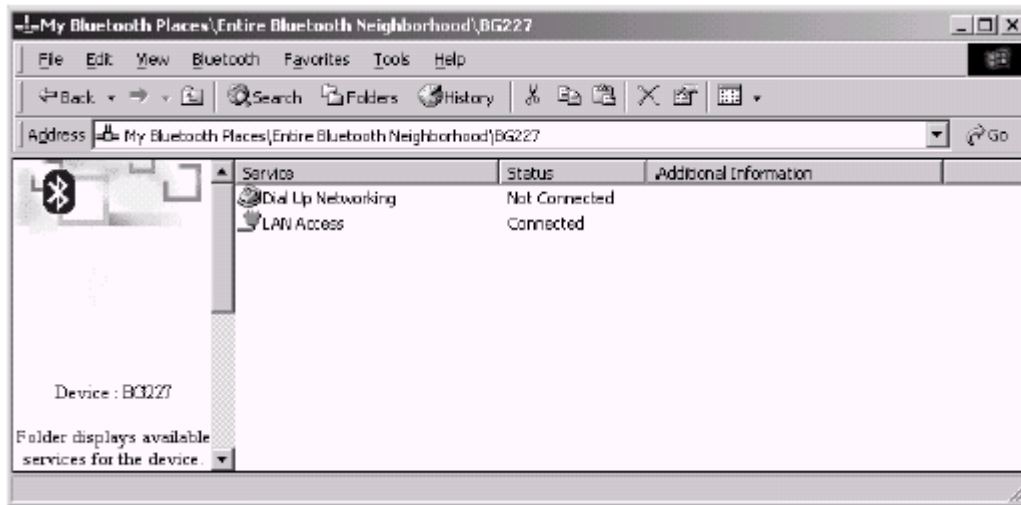
Windows 2000

Under Windows 2000, another dialog may be displayed in order to inform you that the connection has been successfully established. Click on “OK” in order to continue.



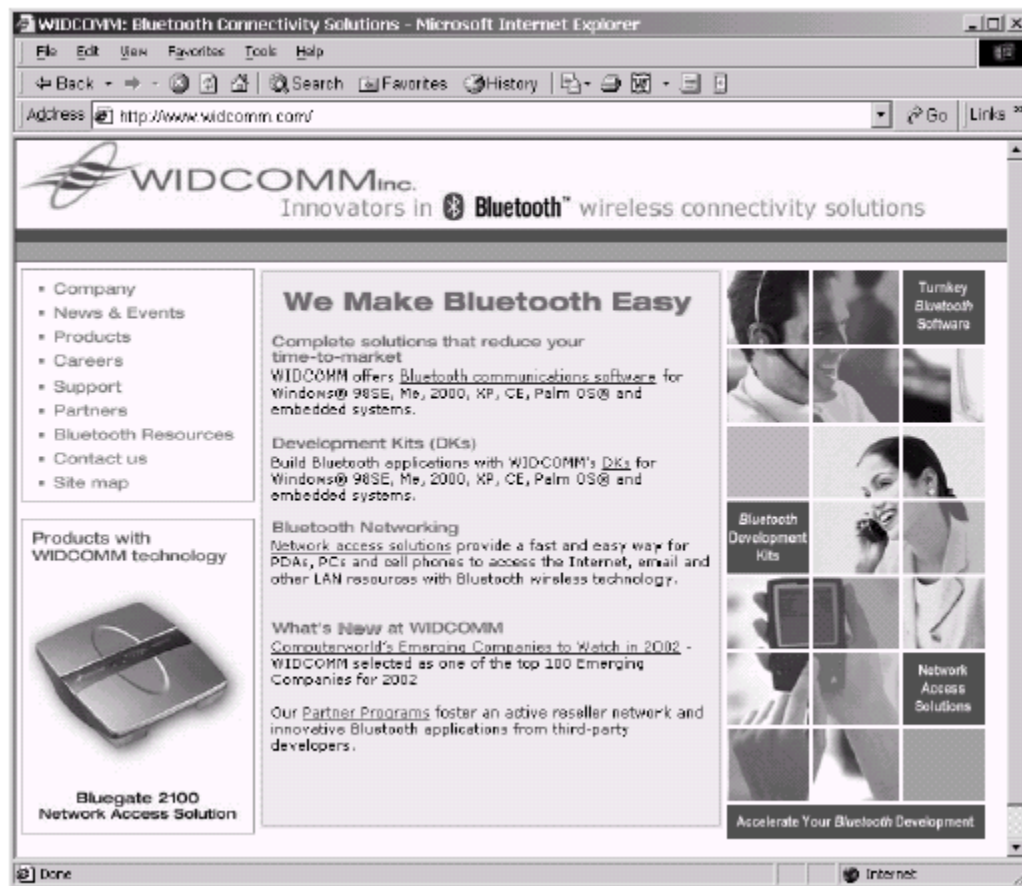
Windows 2000

You will then see the display shown below. Notice that the status of the “LAN Access” service is “Connected.”



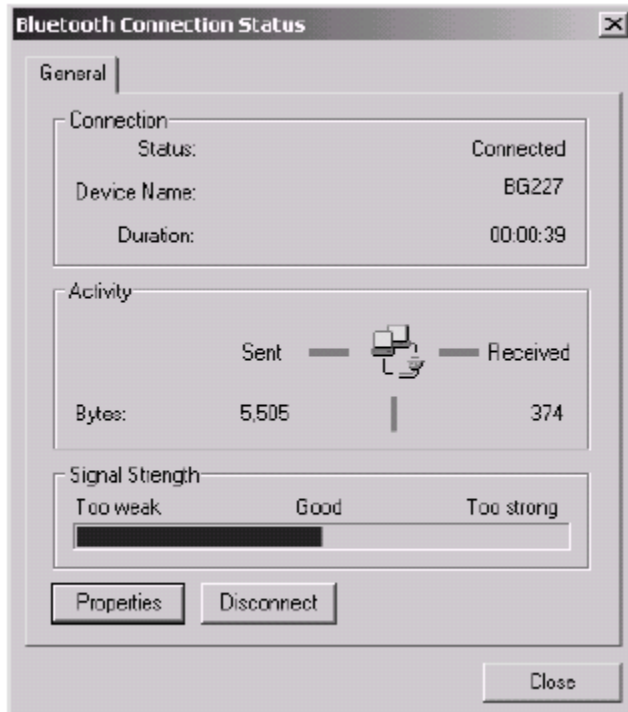
2.8 SURF THE WEB

If the BlueGate is connected to a network that has access to the Internet, open a browser on the BTW system and connect to the World Wide Web.



2.9 VIEW THE STATUS OF THE CONNECTION

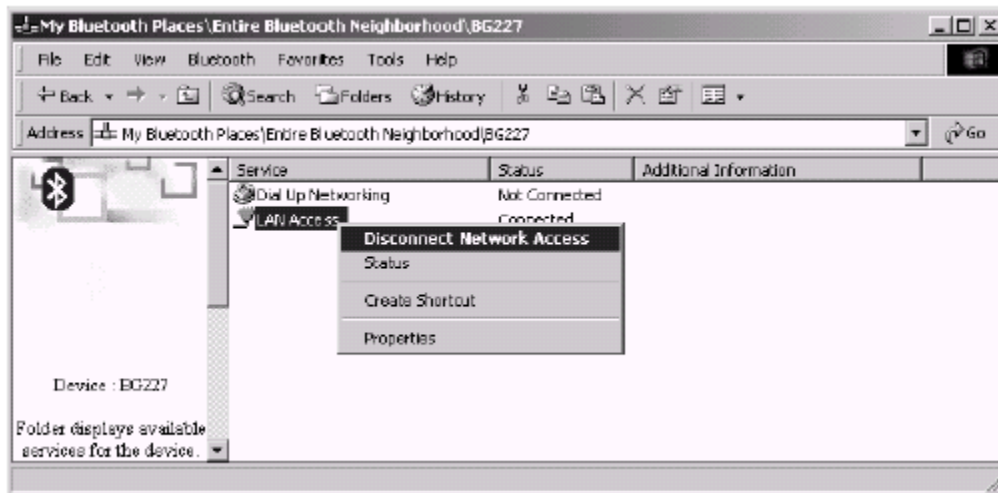
If you are having problems with your connection, one simple debugging tool is to right-click on the connected service and choose *Status* from the pull-down menu. The resulting status dialog is shown below:



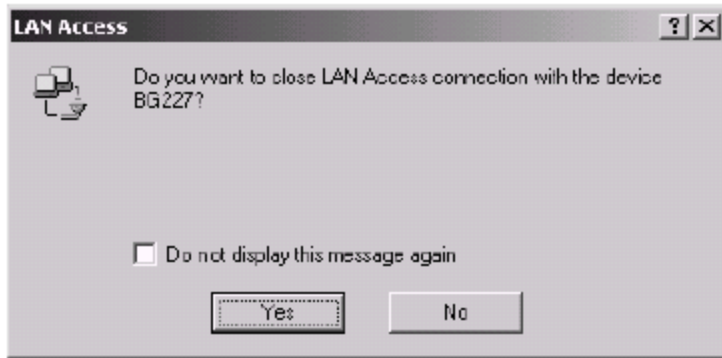
Check the *Signal Strength* indicator. If the signal strength is too weak, you may want to reposition your BlueGate unit.

2.10 TERMINATE THE CONNECTION

Once you are finished surfing the Web, terminate the connection by right-clicking on the connected service and selecting *Disconnect Network Access* from the drop-down menu.



BTW will ask you to confirm. Click on “Yes” to disconnect.

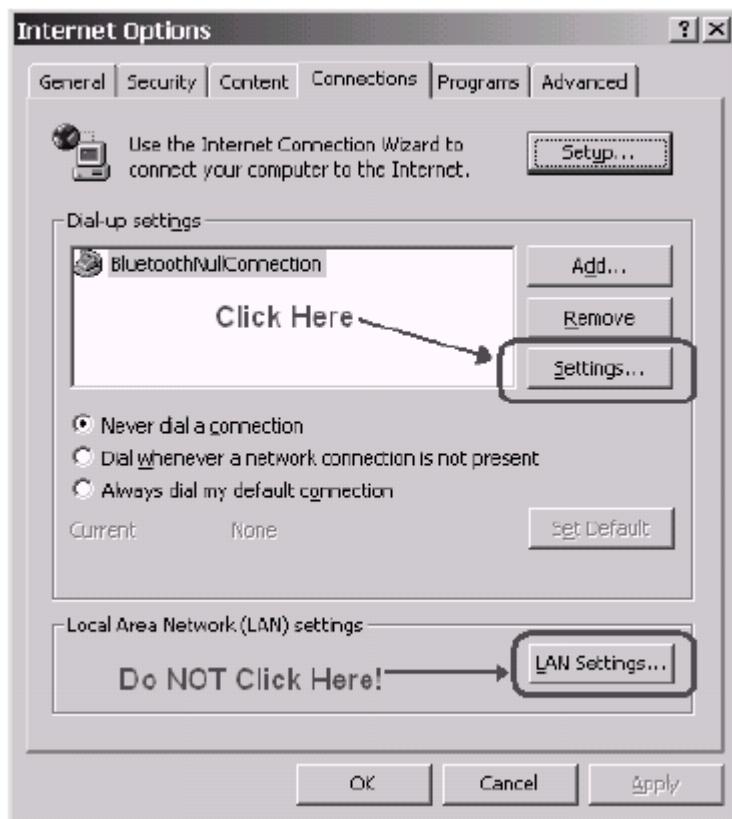


3 Support for Proxy Servers in Internet Explorer

If your pipeline to the Internet uses a proxy server, you can enable this support in your browser software. For Microsoft Internet Explorer 5.0, use the following procedure:

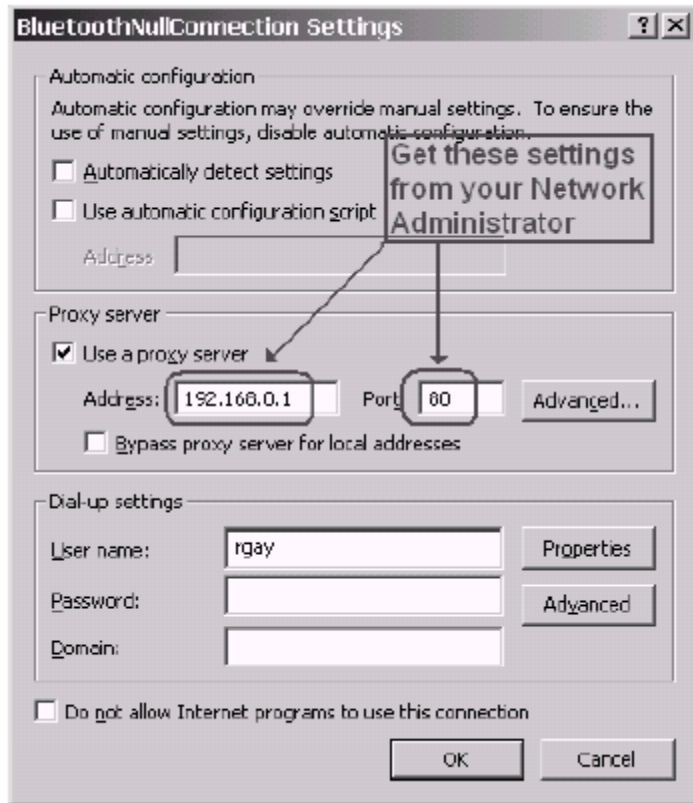
- 1) Bring up Internet Explorer
- 2) Click on the *Tools* menu
- 3) Select *Internet Options...*
- 4) Click on the *Connections* tab. Make sure that *BluetoothNullConnection* is selected.

You will see a dialog similar to the following:



- 5) Click on *Settings...*

NOTE: Do NOT click on *LAN Settings...* The proxy settings in the *LAN Settings...* dialog will not enable the correct proxy server support.



6) Check the *Use a proxy server* box and fill in the address and Port information. You may have to consult your local Network Administrator to obtain the correct values.

7) When you are finished, click on *OK* to activate the new settings.

NOTE: If you are using a different version of Internet Explorer or a web browser from a different manufacturer, this procedure will differ. If you have problems, consult your local Network Administrator or IT Service Technician.

4. For Troubleshooting or Further Information

For additional technical information or troubleshooting advice, see the following WIDCOMM documents:

- The *BlueGate 2500 Quick Start Guide*, WIDCOMM doc # BG2500-PROJ-UM-010710-0608.
- The *BlueGate 2500 Administrator's Guide*, WIDCOMM doc # BG2500-PROJ-UM-011023-1800.
- *BTW Configuration Guide*, WIDCOMM doc # BTW-DOCS-010620-1220.
- *Bluetooth Neighborhood User's Guide*, WIDCOMM doc # BTW-DOCS-011100-1700.

If you still cannot succeed using the steps outlined in the document, contact WIDCOMM technical support. The preferred method of doing this is to use the on-line forms for either BTW or BlueGate. In order to access these forms, you will need the user name and password that was supplied along with your WIDCOMM product. You can access these forms from <http://www.widcomm.com/Support/index.asp> or send an email to support@widcomm.com.