Using a PC's Wi-Fi Interface to Make a Virtual Cable Connection

Tech Note PPTN0002

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This Tech Note applies to PocketPORT models:

PP-001
PP-002

Document Revision History:

Date	Comments
Feb. 11, 2014	First release

Introduction

The PocketPORT can establish a Virtual Cable connection to other PocketPORTs even when it does not have a USB modem directly attached. As long as the PocketPORT has some means of reaching the Internet, a Virtual Cable connection can be made.

This TechNote provides an example of how to use a PocketPORT in conjunction with a PC's existing Internet connection to build a Virtual Cable tunnel. The TechNote illustrates a PC with a Wi-Fi connection to a public Access Point; however the technique shown is applicable to any situation where a PC has more than 1 network connection (at least one Ethernet connection for the PocketPORT).

Scenarios where this "shared" Internet connection can be useful for creating Virtual Cable connections when no USB modem is used in the PocketPORT include:

- Laptops connected to hotel or other public Wi-Fi networks
- Corporate PC's where only 1 PC requires access to the Virtual Cable tunnel

Example Network Topology

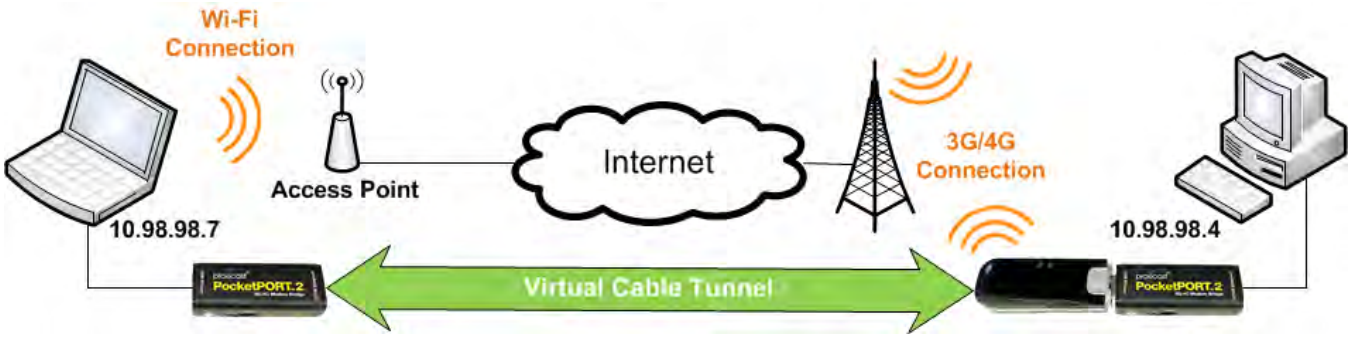

Figure 1: Example Network Topology

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Usage Notes

- See the *PocketPORT 2 Users Guide* for more information on configuring Virtual Cable Mode parameters.
- The example was created using Microsoft Windows 7 Professional.

Set-Up Steps

- Configure the PC for DHCP (automatic IP addressing).
- Connect the PocketPORT to Ethernet LAN port of the PC.
- Power on the PocketPORT and enter Configuration Mode (Reset button for 2 sec).
- Use a web browser to configure the PocketPORT @ http://192.168.1.1:8080 for Virtual Cable Mode operation and enter the parameters for your Virtual Cable tunnel.
- Generate and Save the new PocketPORT settings.
- Enable the PC's Wi-Fi interface and make a connection to desired Access Point.

  Note: Some Wi-Fi systems may require accessing a Terms of Service page via a web browser before allowing the PC to connect to the Internet. If necessary, please complete that step at this time.

- In Windows, go to *Control Panel\All Control Panel Items\Network and Sharing Center*, and click the Wireless Network Connection link associated with the Wi-Fi connection (Figure 2).

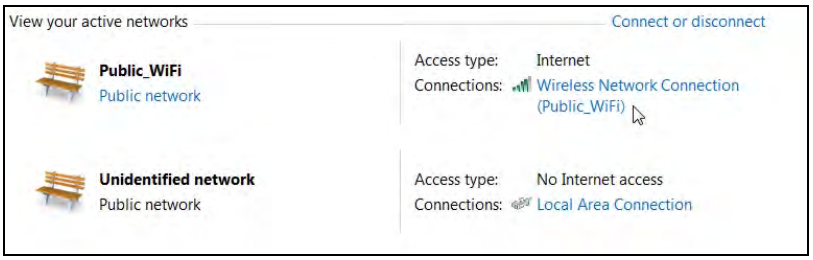

Figure 2: Wireless Internet Connection in Control Panel

- Select the Properties button (Figure 3)

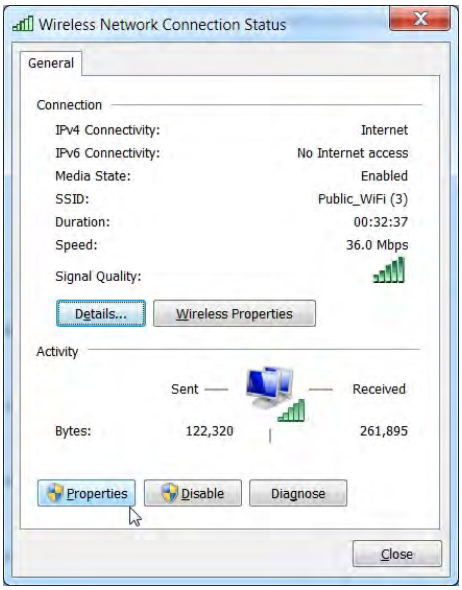

Figure 3: Wireless Internet Connection Properties

- In the Properties dialogbox, select the **Sharing** tab and check "**Allow other network users to connect ...**" (Figure 4). If a drop-down box is shown with additional network interfaces, select the interface where the PocketPORT is connected.

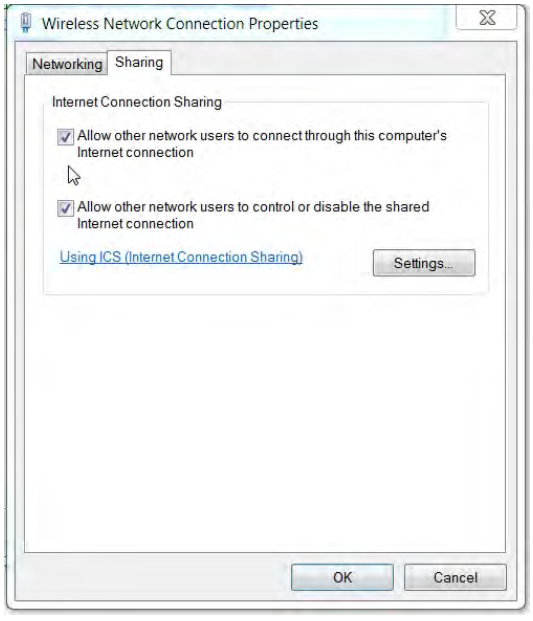

Figure 4: Internet Connection Sharing

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- Close all of the property dialogs and return to the Control Panel's Network Sharing Center.

- Select the Local Area Network Connection where the PocketPORT is attached (see Figure 5).

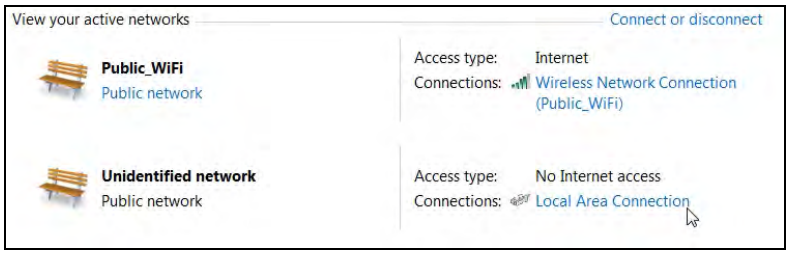

Figure 5: Wired LAN Connection in Control Panel

- Click the Properties button (Figure 6).

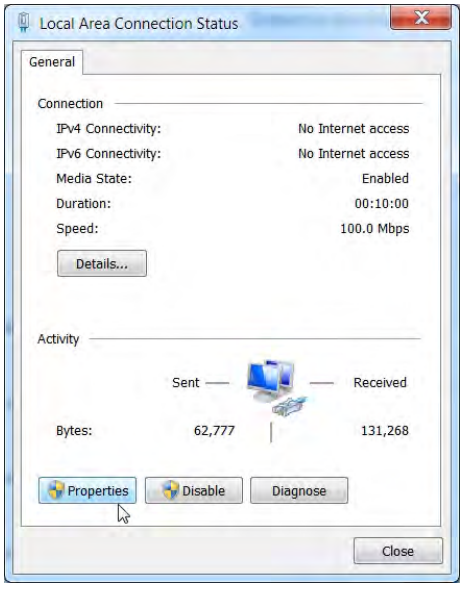

Figure 6: Wired LAN Connection Properties

- Highlight the **Internet Protocol Version 4** option and click Properties (Figure 7).

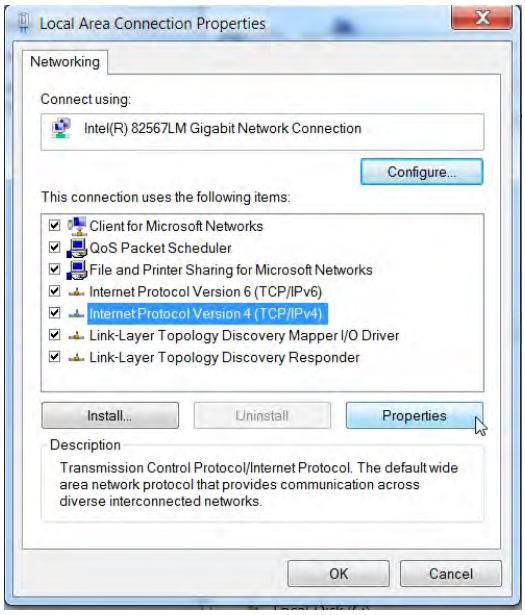

Figure 7: Wired LAN TCP/IP Properties

- The IP address will have been automatically assigned as 192.168.137.x. Do not change this address. Click the Advanced button (Figure 8).

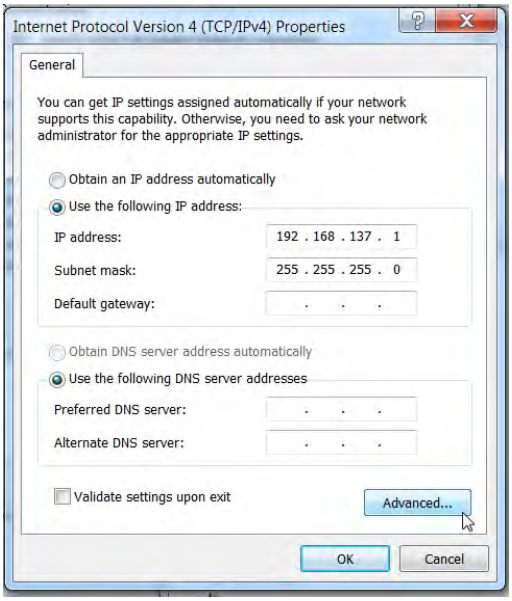

Figure 8: Wired LAN IP Address

- In the Advanced TCP/IP dialogbox, click the Add button (Figure 9).

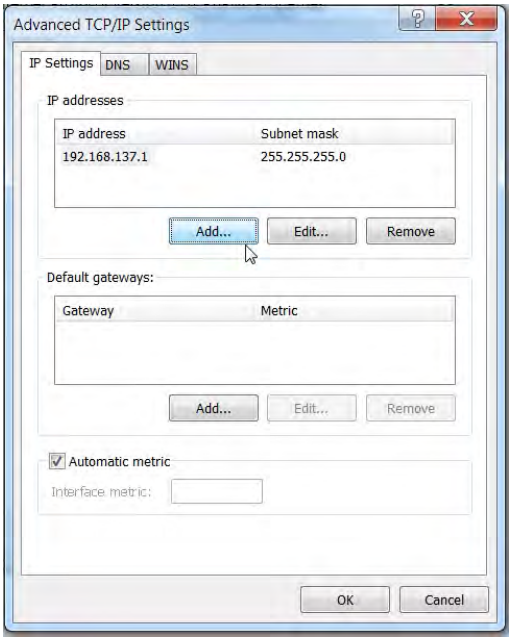

Figure 9: Advanced TCP/IP Settings

- Enter an IP address and subnet that are compatible with your other Virtual Cable Mode devices (Figure 10).

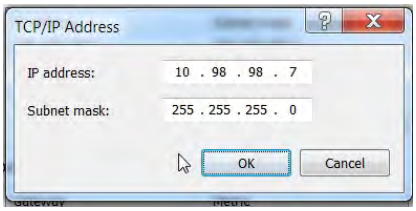

Figure 10: Adding the Virtual Cable IP Address

- Close all of the open property boxes.
- Wait for the PocketPORT's status LED to flash blue.
- The Virtual Cable connection has now been established through the PC's Wi-Fi connection.

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