

# Broadcom Wireless Bluetooth<sup>®</sup> User's Guide

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## Notes, Notices, and Cautions

 **NOTE:** A note indicates important information that helps you make better use of your computer.

 **NOTICE:** A notice indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **CAUTION:** A caution indicates a potential for property damage, personal injury, or death.

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## Introduction

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## Bluetooth Networking Overview

Bluetooth wireless technology enables short-range (within a distance of 10 meters) communication among Bluetooth devices, eliminating the need for cables. When you connect two Bluetooth devices, one device can use or be used by the other device, based on your specification.

Because Bluetooth communications are broadcast over the air, Bluetooth communications can be set to use encryption to provide security against the interception of sensitive data. Typical Bluetooth devices include:

- Human interface devices such as a mouse or keyboard
- Computers (desktop, notebook, and PDA)
- Imaging devices (printers, scanners, and cameras)
- Printers
- Audio devices
- Network access points
- Telephones
- Fax machines

Examples of how one Bluetooth device can use or be used by another Bluetooth device are:

- Using a hands-free audio device with a wireless phone or internet telephony
- Using a wireless mouse, keyboard, or game controller
- Using a device to listen to audio played on another device
- Exchanging files and business cards
- Synchronizing Personal Information Manager databases
- Connecting to the Internet
- Printing or sending a fax

To begin using your Bluetooth enabled computer for specific tasks, see [Using Other Bluetooth Devices with Your Bluetooth enabled Computer](#).

To change the default settings that control how Bluetooth works on your computer, see [Configuring Bluetooth on Your Computer](#).

To learn about available Bluetooth tools and how to use them, see [Using Bluetooth Tools](#).

If you are having difficulty using Bluetooth, see [Troubleshooting](#).

To learn more about Bluetooth functionality in general, see [Basic Bluetooth Operations](#).

## Using Bluetooth Tools

 **NOTE:** Some of the following Bluetooth tools might not be available on your Bluetooth enabled computer.

**My Bluetooth Places** — **My Bluetooth Places** provides fast access to Bluetooth tasks and other places of potential interest. If you set up shortcuts to services of other Bluetooth devices, the shortcuts appear in **My Bluetooth Places**. Shortcuts include the name of the device, and the name and icon of the service provided by the device. The status of the connection to the service is indicated both by the appearance of the icon and the description shown under **Comments** (see [#174: Device Type, Paired Status, and Connection Status Indication](#)).

 **NOTE:** If the Folders pane is visible when you open My Bluetooth Places, you must close the **Folders** pane to view **Bluetooth Tasks**, **Other Places**, and **Details** in the left pane of **My Bluetooth Places**.

**Bluetooth Setup Wizard** — **Bluetooth Setup Wizard** enables you to:

- Find another Bluetooth device to use with your Bluetooth enabled computer.
- Select which of the services provided by the other Bluetooth device to use.

**Bluetooth Configuration** — **Bluetooth Configuration** enables you to change the default settings that control how Bluetooth works on your computer. For more information, see [Configuring Bluetooth on Your Computer](#).

**Quick Connect** — Quick Connect is another tool that enables you to start using the service of another Bluetooth device. If you have used the service before, Quick Connect enables you to immediately connect to that service. If you have not used the service before, you must find a device that provides the service. For instructions, see [Make a Quick Connection](#).

**Disable or Enable the Bluetooth Radio** — This tool (if available), enables you to turn the Bluetooth radio on or off. You might be required to turn off the Bluetooth radio on board a commercial aircraft. To use this tool, see [Disable or Enable the Bluetooth Radio](#).

To access Bluetooth tools, right-click the **Bluetooth** icon  in the [taskbar notification area](#).

Besides providing access to Bluetooth tools, the **Bluetooth** icon in the taskbar notification area also indicates the status of your wireless Bluetooth adapter:

-  The adapter is working and the radio is on.
-  The adapter is either not working or the radio is off.
-  The adapter is working and this computer is connected to another Bluetooth device.

## ®Device Type, Paired Status, and Connection Status Indication

The type, paired status, and connection status of remote Bluetooth devices that are within range and are discoverable are indicated by the icons that are displayed in **Entire Bluetooth Neighborhood**.

 **NOTE:** To view more detailed information, on the **View** menu in **Windows Explorer**, click **Details**.

The icons used to indicate device type, paired status, and connection status are illustrated in [Table 1. Device Icons](#).

 **NOTE:** The term that is displayed for a particular type of remote device might not exactly match the term used in the table.

**Table 1. Device Icons**

Type of Device	Icon Indicating Device Type, Paired Status, and Connection Status		
	Not Paired	Paired	Connected
Audio Gateway			
Audio Headset			
Headphones			
Camera			
Desktop Computer			
Keyboard			

Mouse			
Modem			
Network Access Point			
Laptop Computer			
Personal Digital Assistant			
Printer			
Cellular Phone			
Unknown Device			

## Service Type, Availability, and Connection Status Indication

If you have specified a shortcut to be created when you pair with a remote device, the type, availability, and connection status of the services provided by the device are indicated in My Bluetooth Places.

The type, availability, and connection status of the local services provided by this computer are indicated in **My Device**.

 **NOTE:** To view more detailed information, on the **View** menu in **Windows Explorer**, click **Details**.

The icons used to indicate service type, availability, and connection status are illustrated in [Table 2. Service Icons](#).

 **NOTE:** The service name that is displayed for a particular type of remote device might not exactly match the term used in the table.

**Table 2. Service Icons**

Name of Service	Icon Indicating Service Type, Availability, and Connection Status		
	Available	Not Available <sup>1</sup>	Connected
Audio Gateway			
Headphones			
Audio Headset			
File Transfer			
Bluetooth Imaging			
Network Access			

PIM Item Transfer			
PIM Synchronization			
Dial-up Networking			
Printer			
Bluetooth Serial Port			
Fax			

1

A service might be unavailable because it is in use or because the device providing the service is not available or is not in range.

## Basic Bluetooth Operations

- [Terminology](#)
- [Find Other Bluetooth Devices](#)
- [View My Bluetooth Services](#)
- [Make a Quick Connection](#)
- [Disable or Enable the Bluetooth Radio](#)

## Terminology

### authentication

A Bluetooth security feature that is used to verify identity. During the initial authentication process, the Bluetooth device that initiates the connection requires the remote device to supply a Bluetooth PIN code.

### BDA

Bluetooth Device Address (assigned by the manufacturer)

### Bluetooth device

Bluetooth enabled hardware such as a computer, printer, fax, mouse, keyboard, telephone, headset, headphones, camera, or PDA.

### Bluetooth Exchange Folder

The highest-level folder to which another Bluetooth device has access. Devices that have been granted access to **Bluetooth Exchange Folder** also have access to all subfolders contained within that folder and all files in those subfolders.

- ➔ **NOTICE:** By default, **Bluetooth Exchange Folder** is placed in **My Documents**. If you relocate **Bluetooth Exchange Folder**, do not place it in the root directory or a system folder. Relocating **Bluetooth Exchange Folder** to the root directory or a system folder creates the potential for remote devices being able to harm the operating system on your computer.

**Bluetooth Exchange Folder** is shared by the PIM Item Transfer and the File Transfer services. The location of the folder can be specified from the **Bluetooth Properties** page of either of these services. If you change the location of **Bluetooth Exchange Folder** for one of these services, the path is automatically updated for the other service.

The Bluetooth Imaging service also uses this folder to store received images.

### **Bluetooth security code**

An alphanumeric string up to 16 characters long that is entered to respond to a Bluetooth PIN Code Request. Also referred to as a passkey, password, passcode or PIN code.

### **Bluetooth wireless technology**

Bluetooth wireless technology allows short-range (within a distance of 10 meters) communication among Bluetooth enabled devices, eliminating the need for cables. When you connect two Bluetooth devices, one device can use or be used by the other device, based on your specification.

### **Client Applications**

Software applications on this computer that allow this computer to use the Bluetooth services that are provided by remote Bluetooth devices.

### **Dynamic Host Control Protocol**

A protocol used by a server to assign an Internet Protocol (IP) address to a connecting device.

### **encryption**

Encryption translates data into an unreadable format using a secret key or password. Decrypting the data requires the same key or password that was used to encrypt it.

### **hands-free audio device**

A wearable audio device that has a speaker and a microphone. Some hands-free audio devices can be used both for telephone calls and for listening to high-quality stereo audio. Other hands-free audio devices can be used only for telephone calls and for voice playback and recording.

### **HCI**

Host Controller Interface

### **Human Interface Device (HID)**

An input device such as a mouse or keyboard that sends user input to a computer.

### **internet telephony**

A technology that uses the Internet to place and receive telephone calls.

### **link key**

An internally generated unique security key that is exchanged by paired devices as proof of identity before a connection is established. Link keys are generated automatically when two devices pair.

### **Local Services**

Bluetooth services such as Headset, Headphones, Audio Gateway, File Transfer, and Printer that this computer provides to other Bluetooth devices. Bluetooth services are used to carry out actions between a program installed on your computer and a remote Bluetooth device.

### **My Bluetooth services**

See [Local Services](#).

### **paired devices**

Bluetooth devices must be paired before they can establish a secure (authenticated and encrypted) connection. Paired devices share a unique link key, which is exchanged automatically each time they

connect.

## PDA

personal digital assistant

## PIM

Personal Information Manager. A program, such as Microsoft® Outlook®, that is used to manage contacts, send and receive e-mail, and schedule events and tasks.

## Secure Connection

A Bluetooth service or application property setting that requires a passkey or link key each time you attempt to make a connection. All data exchanged over the Bluetooth connection is encrypted. Depending on other configuration options, authorization might also be required.

## shortcut

An icon that provides quick access to frequently used programs, files, folders, and drives. Double-clicking such an icon opens its corresponding folder or file without first having to find it. Shortcut icons do not change the location of files; they simply link to the file wherever it is located. You can delete a shortcut without deleting the file with which it is associated. Also, you can rename a shortcut.

## taskbar notification area

The area on the Windows taskbar that displays the time. This area can also contain shortcuts that provide quick access to programs. The **Bluetooth** icon  is usually located here.

## Find Other Bluetooth Devices

To find all Bluetooth devices that are in range:

1. Right-click the **Bluetooth** icon , and then click **Explore My Bluetooth Places**.
2. In **My Bluetooth Places** under **Bluetooth Tasks**, click **View devices in range**.

To find a specific Bluetooth device:

1. Right-click the **Bluetooth** icon , and then click **Explore My Bluetooth Places**.
2. In **My Bluetooth Places** under **Bluetooth Tasks**, click **Add a Bluetooth Device**.

## View My Bluetooth Services

Bluetooth services are used to carry out actions between a program installed on your computer and a remote Bluetooth device. The Bluetooth services that are installed on this computer are listed in **My Device**. See also [Setting the Properties of the Bluetooth Services That This Computer Provides](#).

To view My Bluetooth services:

1. Right-click the **Bluetooth** icon , and then click **Explore My Bluetooth Places**.
2. In **My Bluetooth Places** under **Bluetooth Tasks**, click **View My Bluetooth services**.

## Make a Quick Connection

To make a quick connection, right-click the **Bluetooth** icon  in the taskbar notification area, point to **Quick Connect**, point to the name of the service you want to use, and then click the name of the device that provides the service.

## Disable or Enable the Bluetooth Radio

If it is available, you can use a software tool to disable or enable the Bluetooth radio. To do so, right-click

the **Bluetooth** icon  in the taskbar notification area, and then click either **Disable Bluetooth Radio** or **Enable Bluetooth Radio**, depending on the current state of the radio.

Also, you can turn the radio on or off by pressing FN+F2 on the keyboard or, if your computer is so equipped, by using the sliding switch on the side of the computer. Slide the switch to the back to turn off the radio, and slide it to the front to turn on the radio.

## Configuring Bluetooth on Your Computer

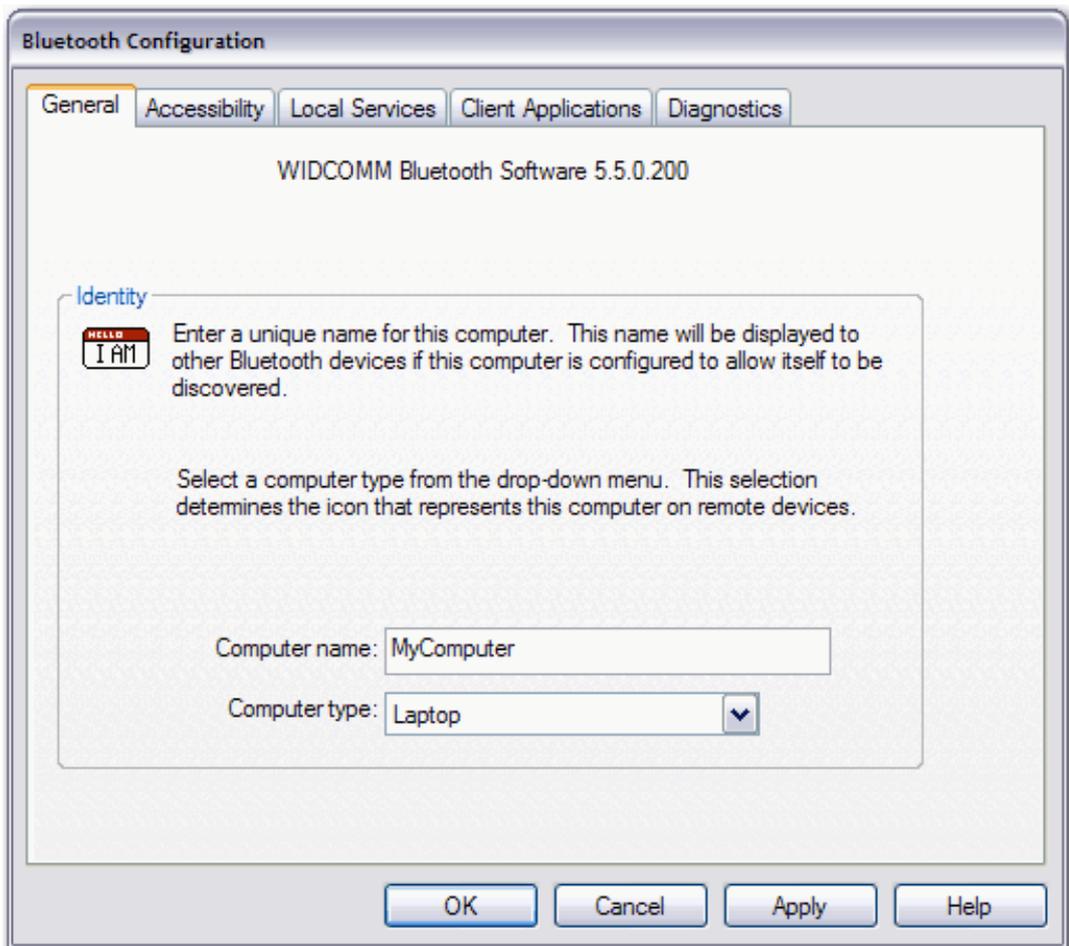
- [Assigning a Name and Type to This Computer](#)
- [Enabling or Preventing Access to This Computer by Other Bluetooth Devices](#)
- [Setting the Properties of Services That This Computer Provides](#)
- [Setting the Properties of Client Applications That This Computer Uses to Access Services Provided by Other Bluetooth Devices](#)
- [Managing Local Bluetooth Devices](#)

### Assigning a Name and Type to This Computer

The name you assign to this computer is displayed to other Bluetooth devices when this computer is set to be discoverable (see [Enabling or Preventing Access to This Computer by Other Bluetooth Devices](#)). The default **Computer name** is the name assigned by the operating system. The **Computer type** setting determines the type of icon (see [Device Type, Paired Status, and Connection Status Indication](#)) that is used to represent this computer to other Bluetooth devices.

**To change the computer name or type:**

1. Right-click the **Bluetooth** icon  in the notification area, and then click **Bluetooth Configuration**.
2. In **Bluetooth Configuration**, click the **General** tab and type a new computer name or type in the spaces provided.



## Enabling or Preventing Access to This Computer by Other Bluetooth Devices

**NOTE:** Because of corporate security policies, this particular Bluetooth function might be unavailable. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

On the **Accessibility** tab of **Bluetooth Configuration** you can:

- Enable this computer to be discovered or prevent this computer from being discovered by other Bluetooth devices.
- Select the type of audio notification (if any) you want to receive in addition to a visual notification when another Bluetooth device requests a Bluetooth security code.
- Enable this computer to handle Skype™ calls using a hands-free device.

**To enable this computer to be discovered by other Bluetooth devices:**

1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. In **Bluetooth Configuration**, click the **Accessibility** tab.
3. Select the **Let other Bluetooth devices discover this computer** check box.

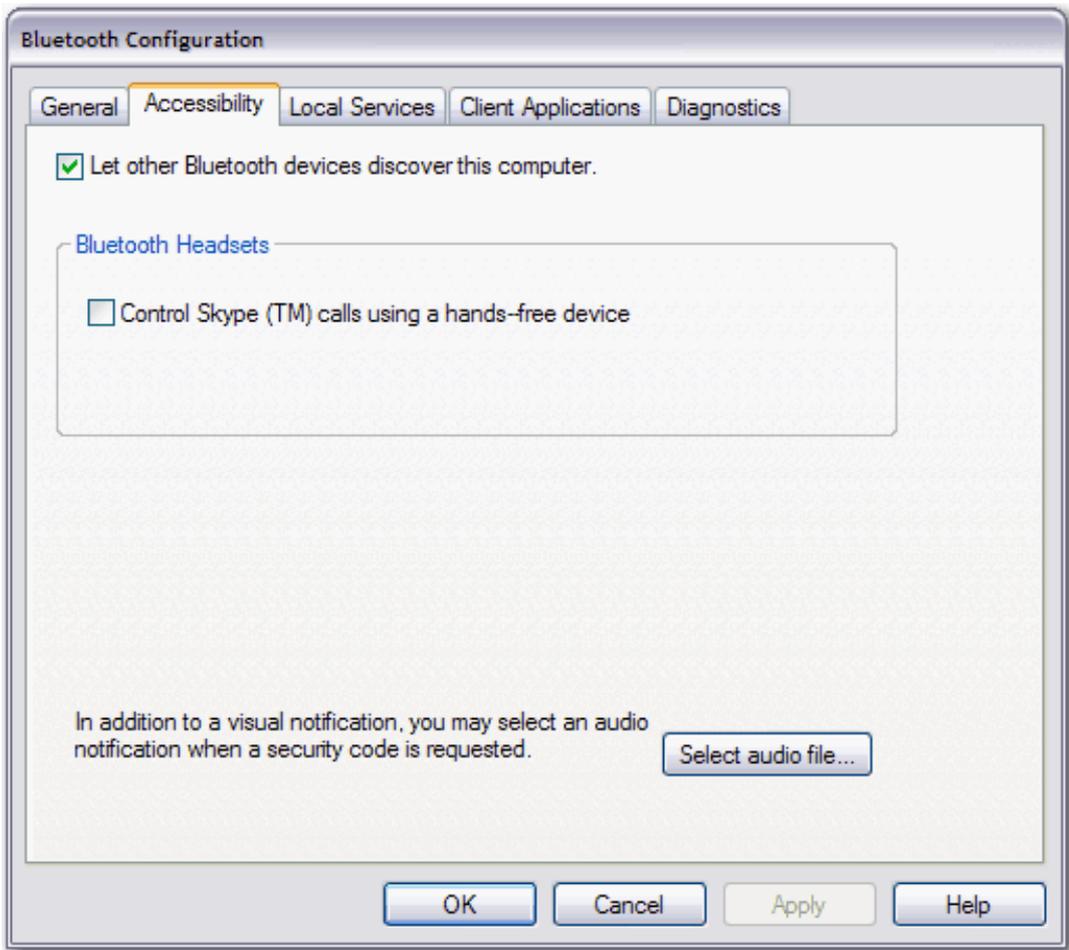
**NOTE:** If you later clear the **Let other Bluetooth devices discover this computer** check box, devices that have previously connected to this computer can still do so.

**To prevent this computer from being discovered by other Bluetooth devices:**

- Clear the **Let other Bluetooth devices discover this computer** check box.

**To select the type of audio notification you want to receive:**

1. Click **Select Audio File**.
2. Click **Browse**, click the name of the audio file you want to use, and then click **Open**.
3. Click **Apply**.



## Setting the Properties of the Bluetooth Services That This Computer Provides

Bluetooth services are used to carry out actions between a program installed on your computer and a remote Bluetooth device. A Bluetooth device can provide one or more services. For more information about how to use Bluetooth devices and the services they provide, see [Using Other Bluetooth Devices with Your Bluetooth Enabled Computer](#).

This computer provides the following Bluetooth services:

- Printer
- Bluetooth Imaging
- Audio Gateway
- Headset
- PIM Synchronization
- Fax
- File Transfer
- PIM Item Transfer
- Dial-up Networking
- Network Access
- Bluetooth Serial Port

On the **Local Services** tab in **Bluetooth Configuration**, you can set the properties of the services that this computer provides to other Bluetooth devices. By default, all Local Services are set to start

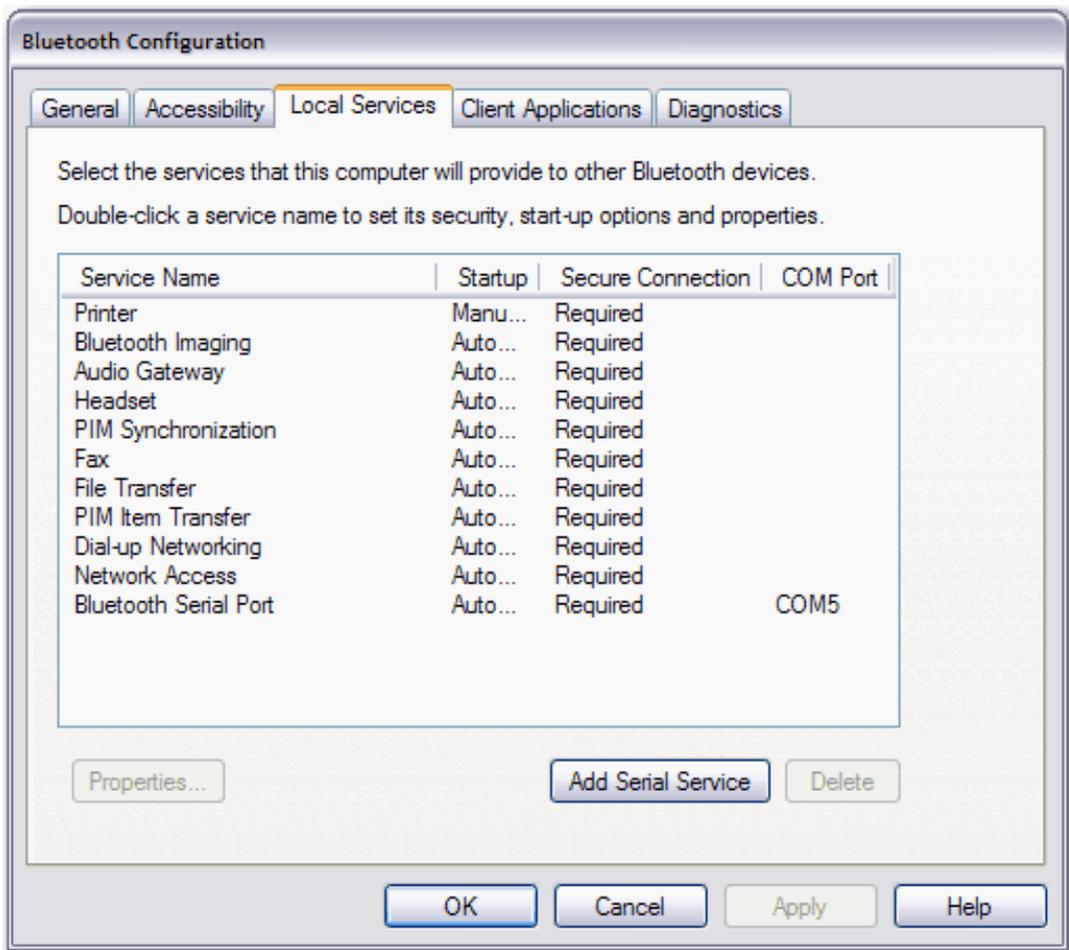
automatically, to require a secure connection, and to require both visual and audio notification when a remote device attempts to connect to that service. When the **Secure connection** property is set, and this computer tries to connect to another Bluetooth device, the two devices must exchange a Bluetooth security code. This procedure positively identifies the device as the one to which you have allowed access. After the exchange, the two Bluetooth devices are allowed to encrypt data.

**To set the properties of the following services:**

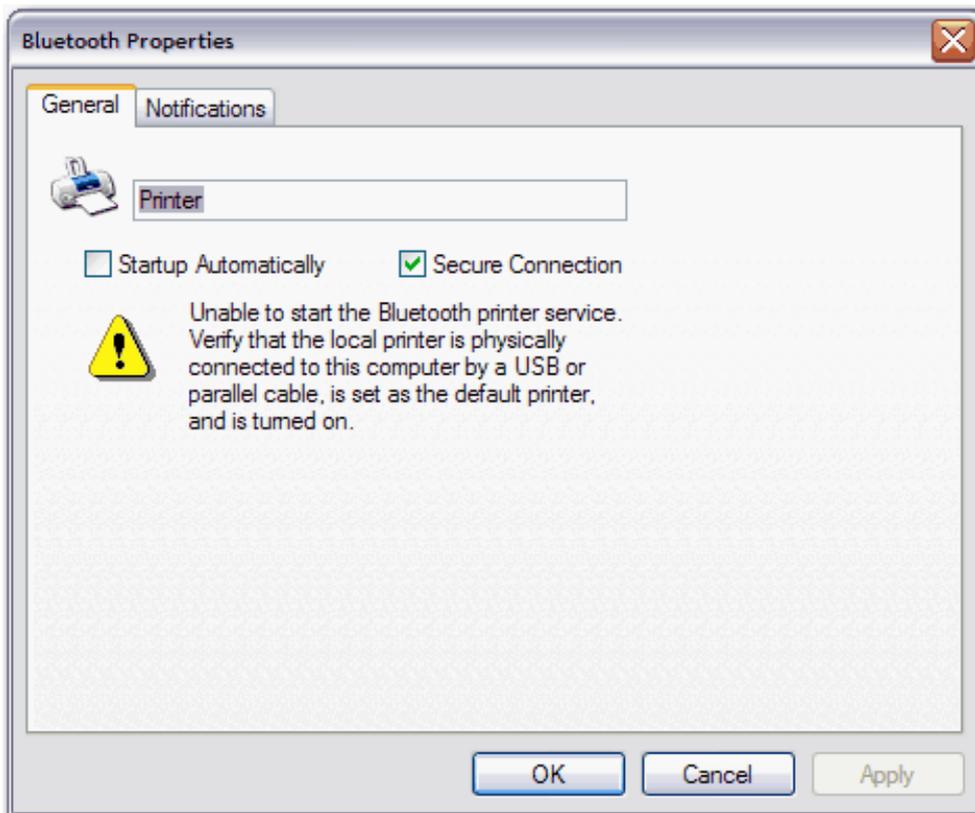
- Printer
- Bluetooth Imaging
- Audio Gateway
- Headset

 **NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

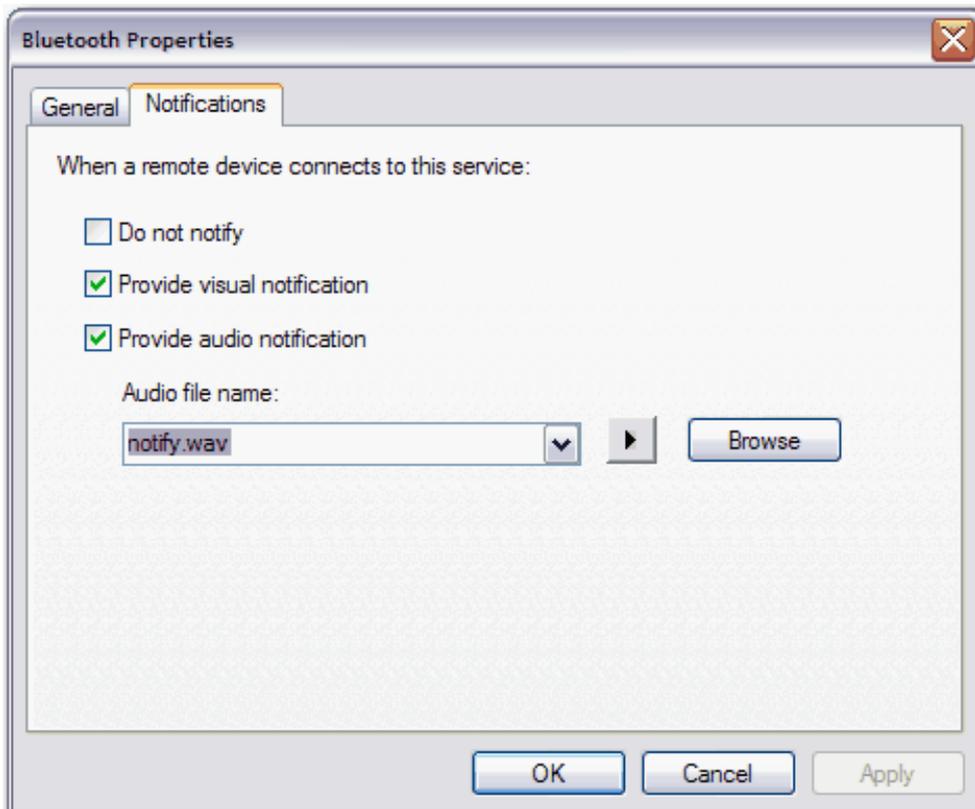
1. Right-click the **Bluetooth** icon  in the notification area, and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click the appropriate service name, and then click **Properties**.



3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want to the service to require a secure connection, clear the **Secure Connection** check box.



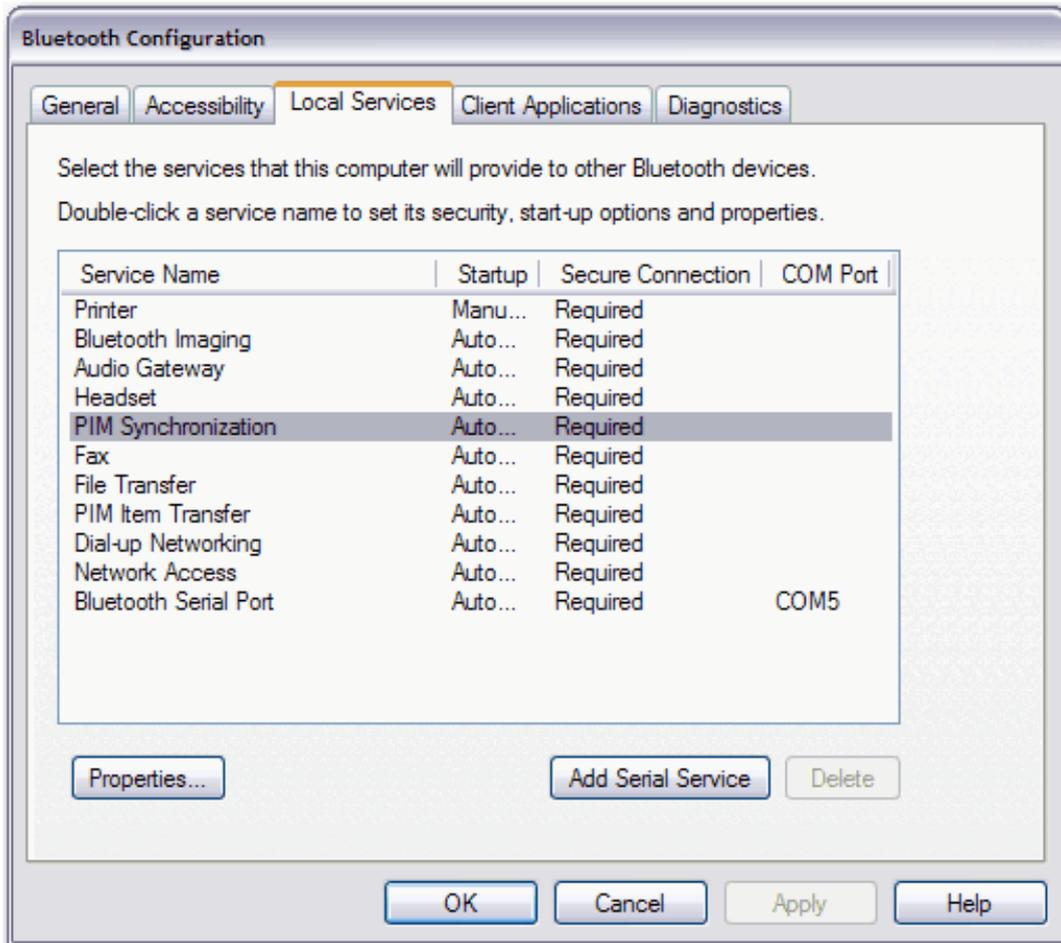
5. If you do not want to be notified when a remote Bluetooth device attempts to connect to the service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
6. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on the method you prefer.
7. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



**To set the properties settings for the PIM Synchronization service:**

 **NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click **PIM Synchronization**, and then click **Properties**.

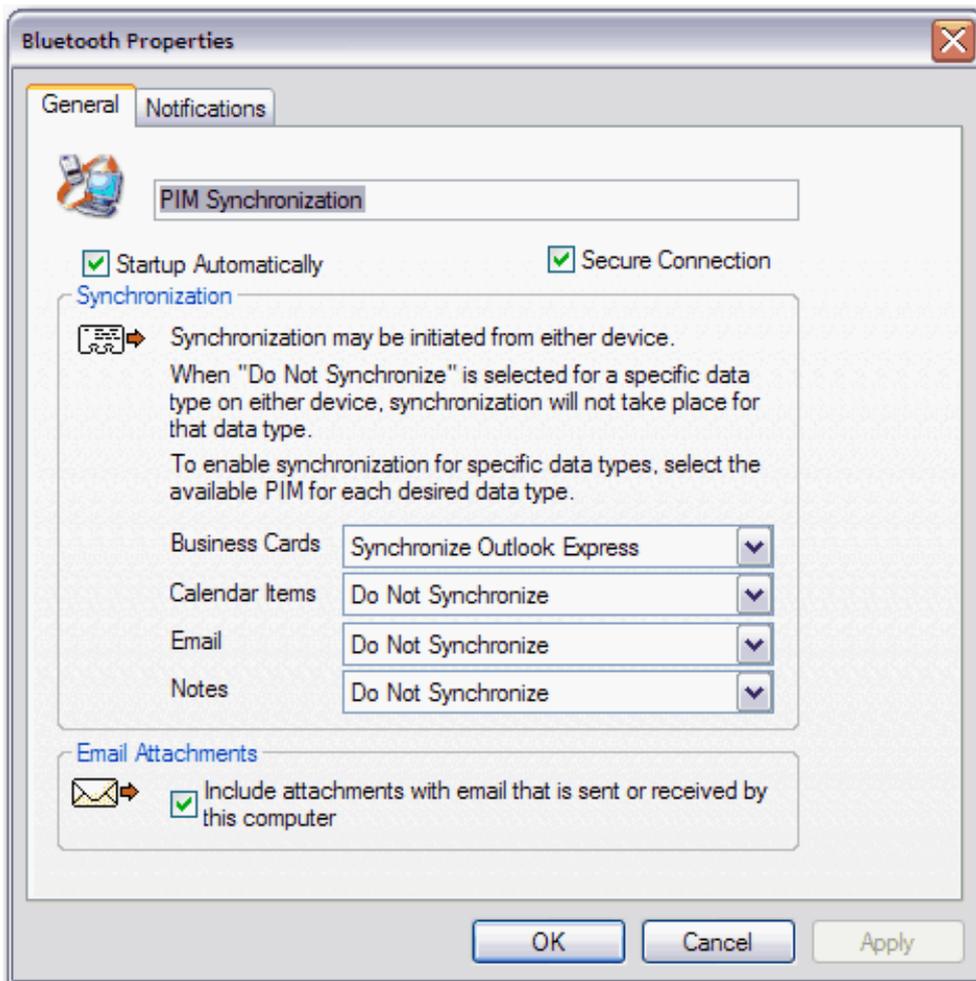


3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want to the service to require a secure connection, then clear the **Secure Connection** check box.
5. To enable synchronization for specific data types, click the **General** tab in **Bluetooth Properties**, and then in each data type list under **Synchronization**, select the available PIM for that data type.

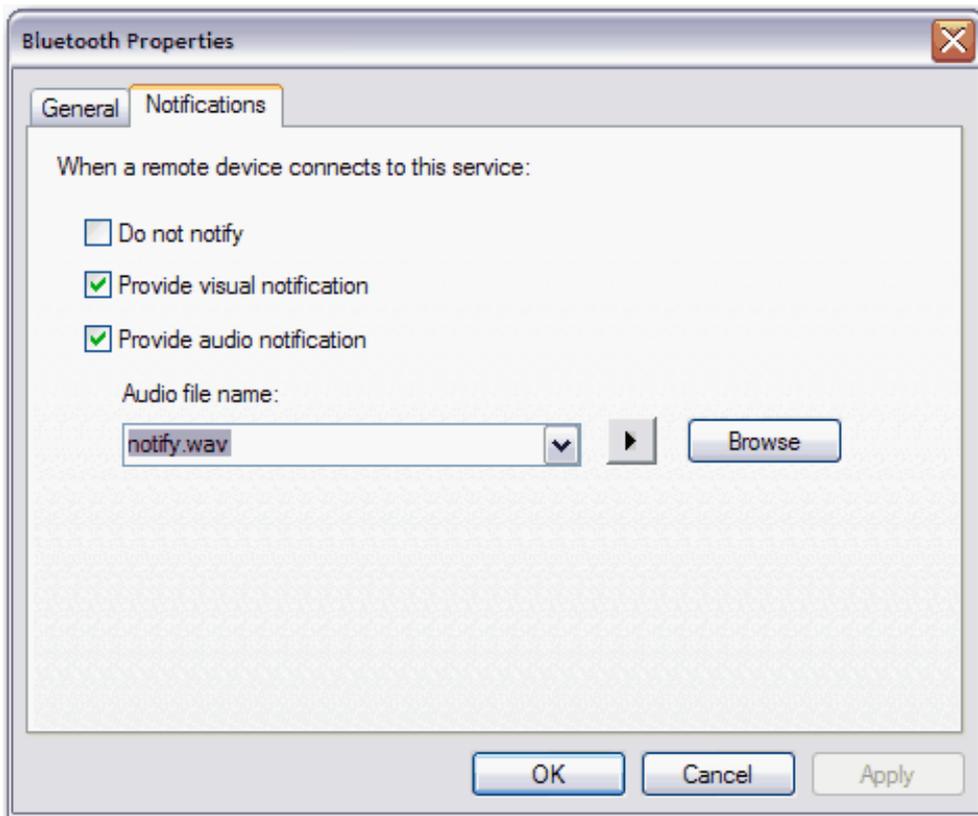
 **NOTE:** Available data types include the following:

- Business Cards
- Calendar Items
- E-mail
- Notes

5. If you do not want to synchronize your PIM data with another Bluetooth enabled PIM, select **Do Not Synchronize**.
6. If you want to include attachments with e-mail, under **E-mail attachments**, select the **Include attachments with e-mail that is sent or received by this computer** check box. If you do not want to include attachments with e-mail, clear the check box.



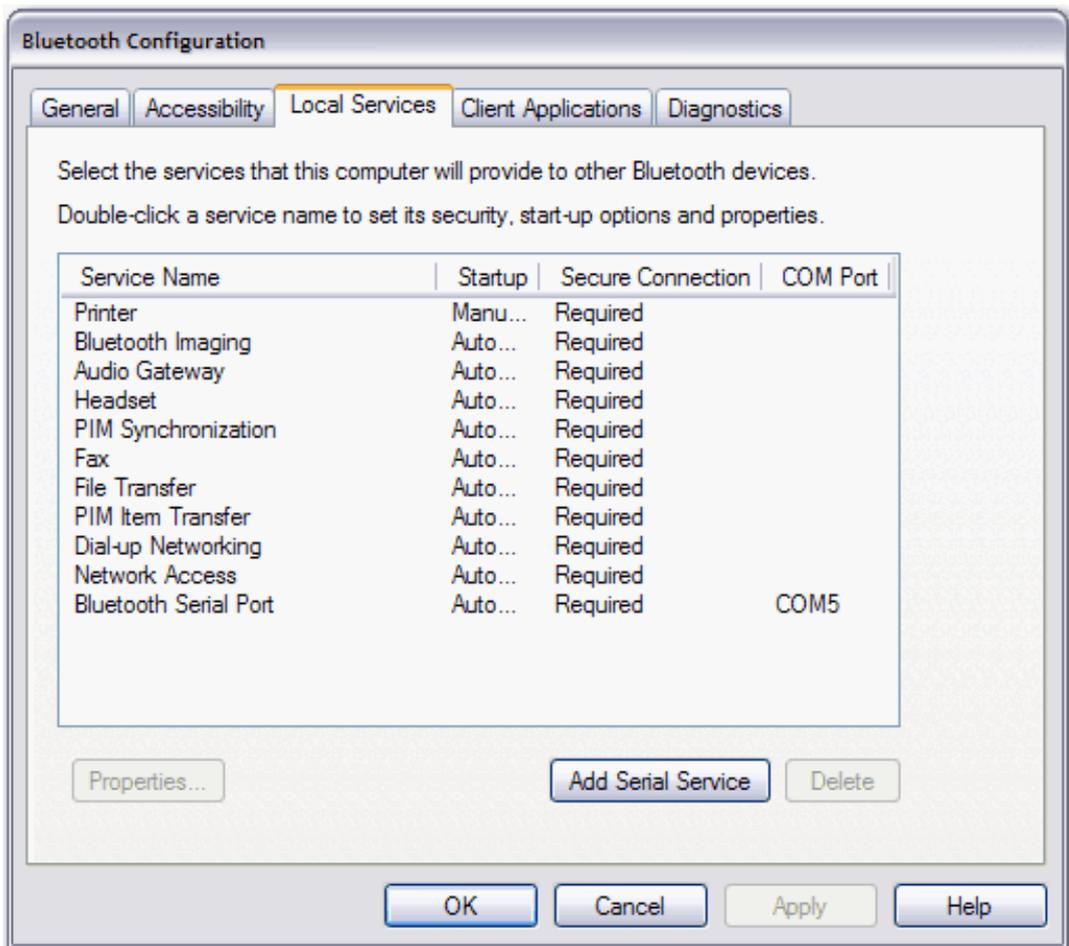
7. If you do not want to be notified when a remote Bluetooth device attempts to connect to this service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
8. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on which method you prefer.
9. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



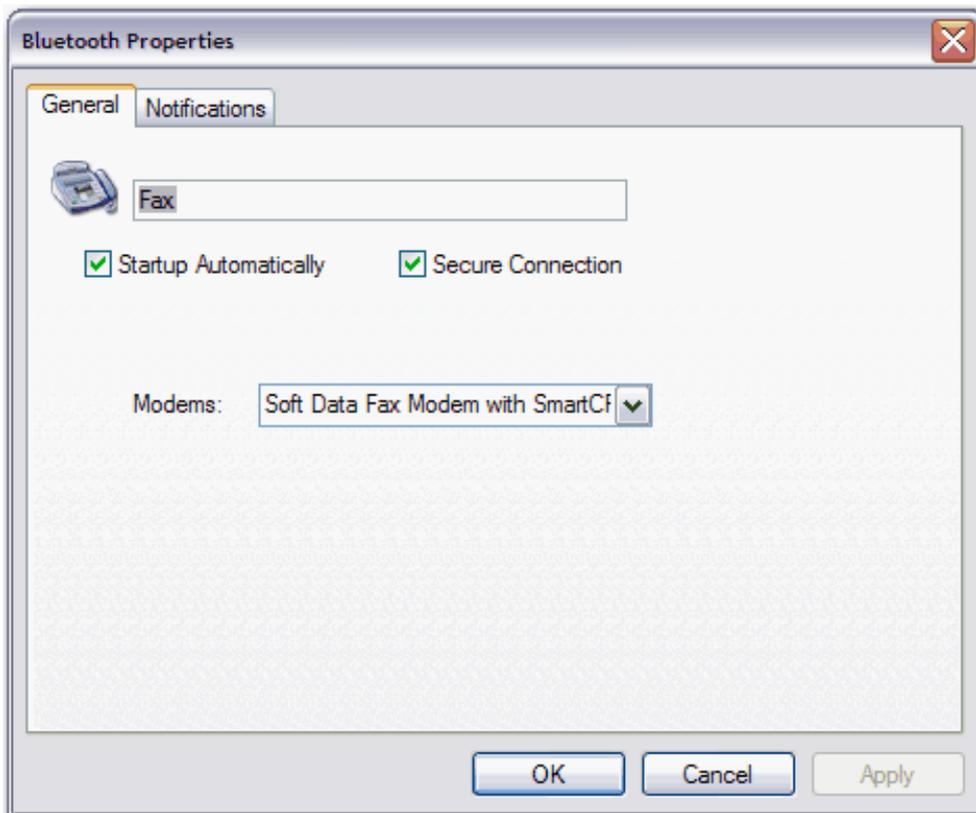
**To set the properties of the Fax service:**

**NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

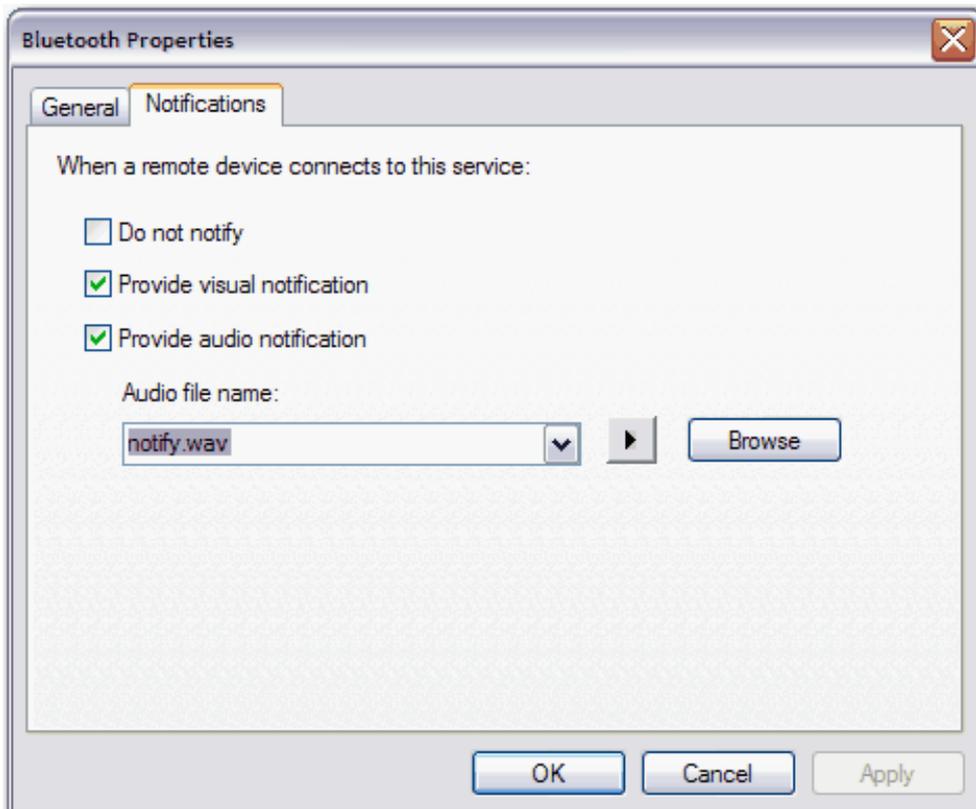
1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click the **Fax** service, and then click **Properties**.



3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want the service to require a secure connection, clear the **Secure Connection** check box.
5. In the **Modems** list, select the modem you want to use with the Fax service.



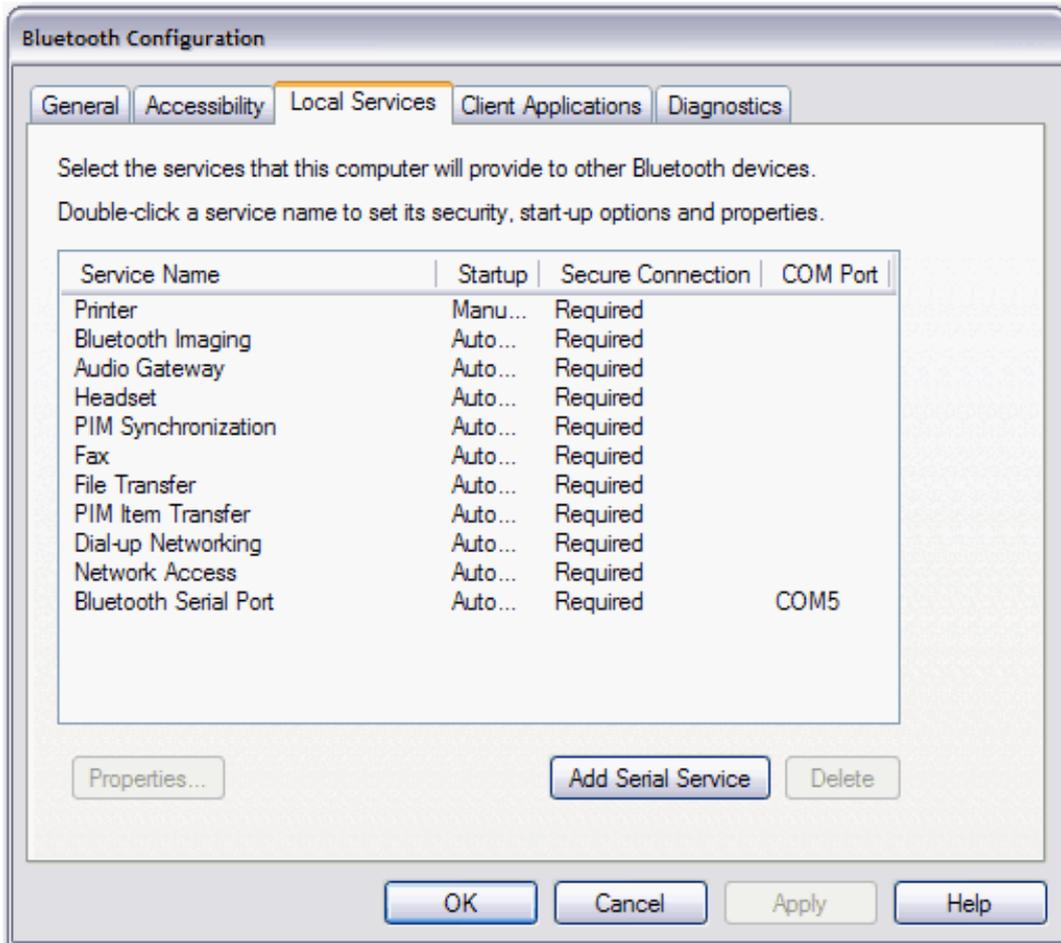
6. If you do not want to be notified when a remote Bluetooth device attempts to connect to the service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
7. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on which method you prefer.
8. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



**To set the properties of the File Transfer service:**

**NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

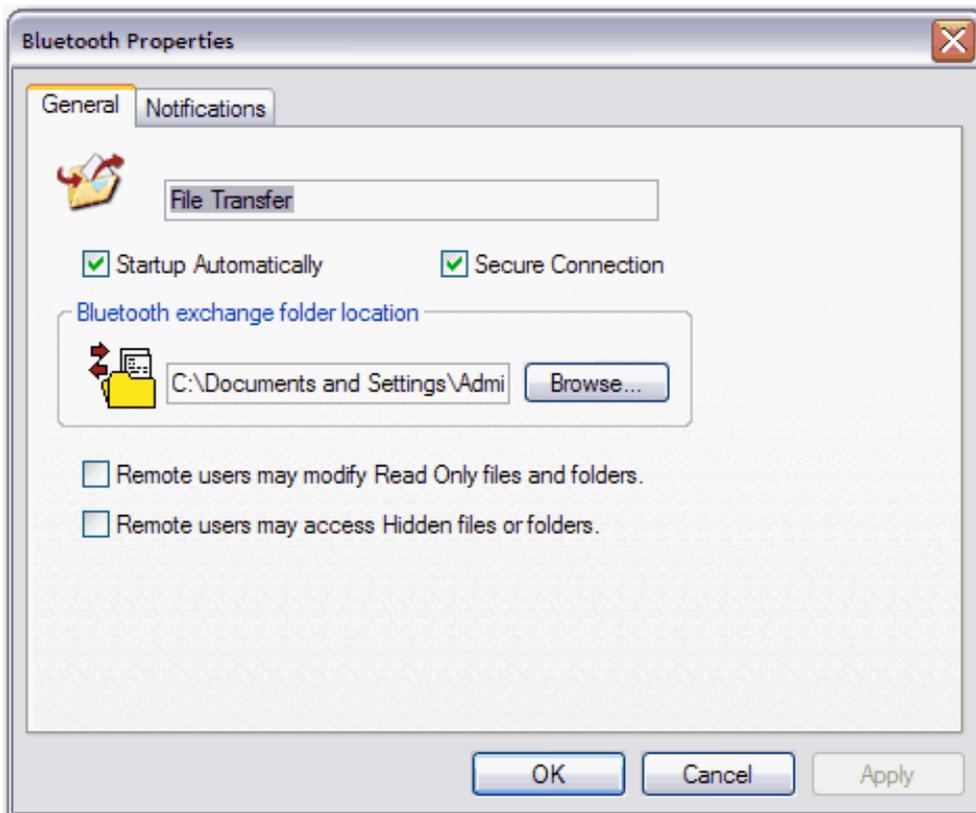
1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click the **File Transfer** service, and then click **Properties**.



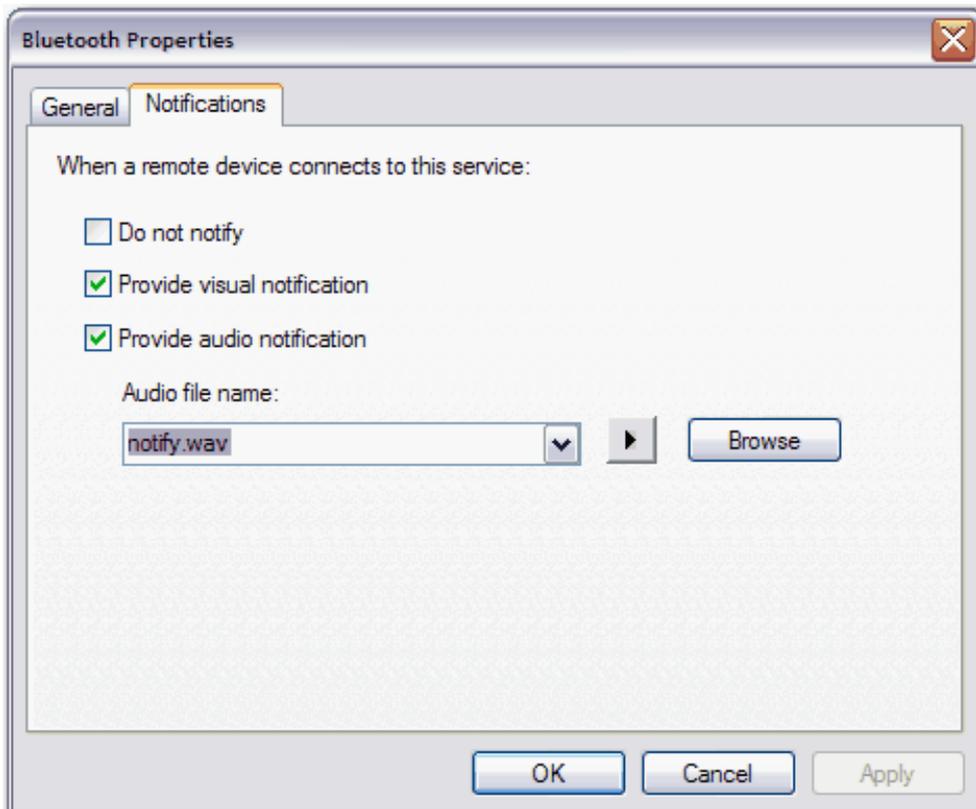
3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want the service to require a secure connection, clear the **Secure Connection** check box.
5. If you want to change the location of **Bluetooth Exchange Folder**, click **Browse**, and then select where you want to locate the folder.

**NOTICE:** By default, **Bluetooth Exchange Folder** is placed in **My Documents**. If you relocate Bluetooth Exchange Folder, do not place it in the root directory or a system folder. Relocating **Bluetooth Exchange Folder** to the root directory or a system folder creates the potential for remote devices being able to harm the operating system on your computer.

6. If you want to allow remote users to modify read-only files and folders, select the **Remote users may modify read-only files and folders** check box.
7. If you want to grant access to hidden files or folders, select the **Remote users may access hidden files and folders** check box.



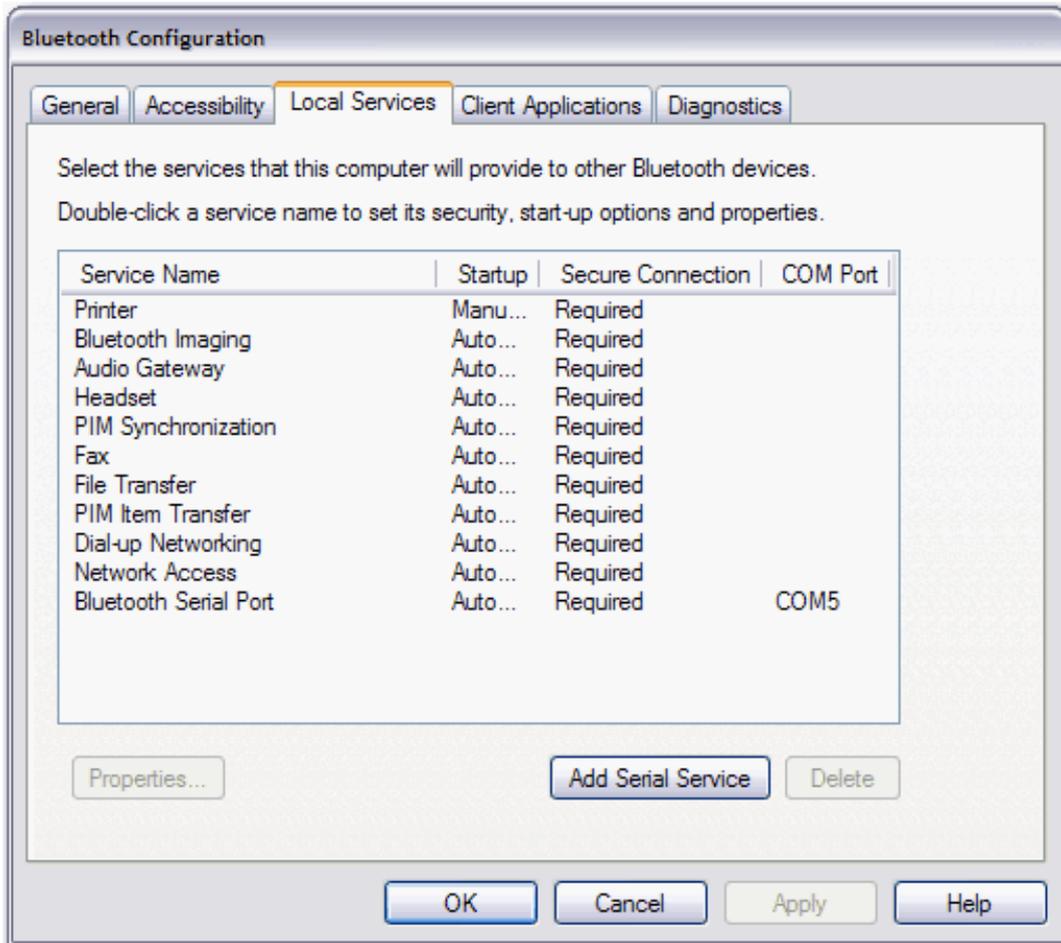
8. If you do not want to be notified when a remote Bluetooth device attempts to connect to the service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
9. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on which method you prefer.
10. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



**To set the properties of the PIM Item Transfer service:**

 **NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click the **PIM Item Transfer** service, and then click **Properties**.

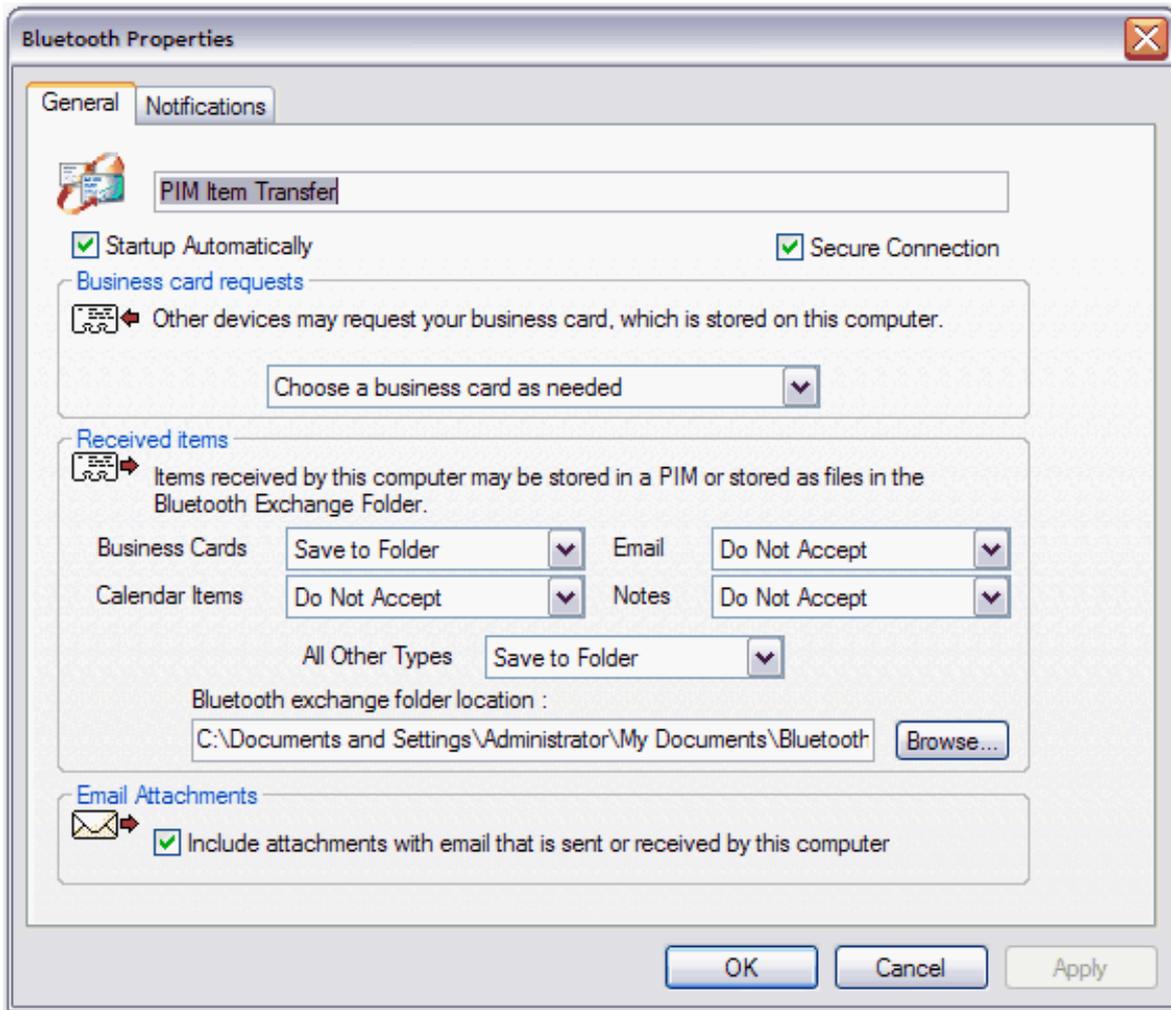


3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want to the service to require a secure connection, click the **General** tab in **Bluetooth Properties**, and then clear the **Secure Connection** check box.
5. To enable your business card to be sent to other devices, select either **Choose a business card as needed** or **Always send the same business card** in the list under **Business card requests**. If not, select **Never send my business card**.
6. To enable this computer to receive PIM items from remote Bluetooth devices, select either **Save to Folder** or **Outlook Express** (as available) in each of the data type lists under **Received items**. If not, select **Do Not Accept**.
7. If you want to change the location of **Bluetooth Exchange Folder**, click **Browse**, and then select where you want to locate the folder.

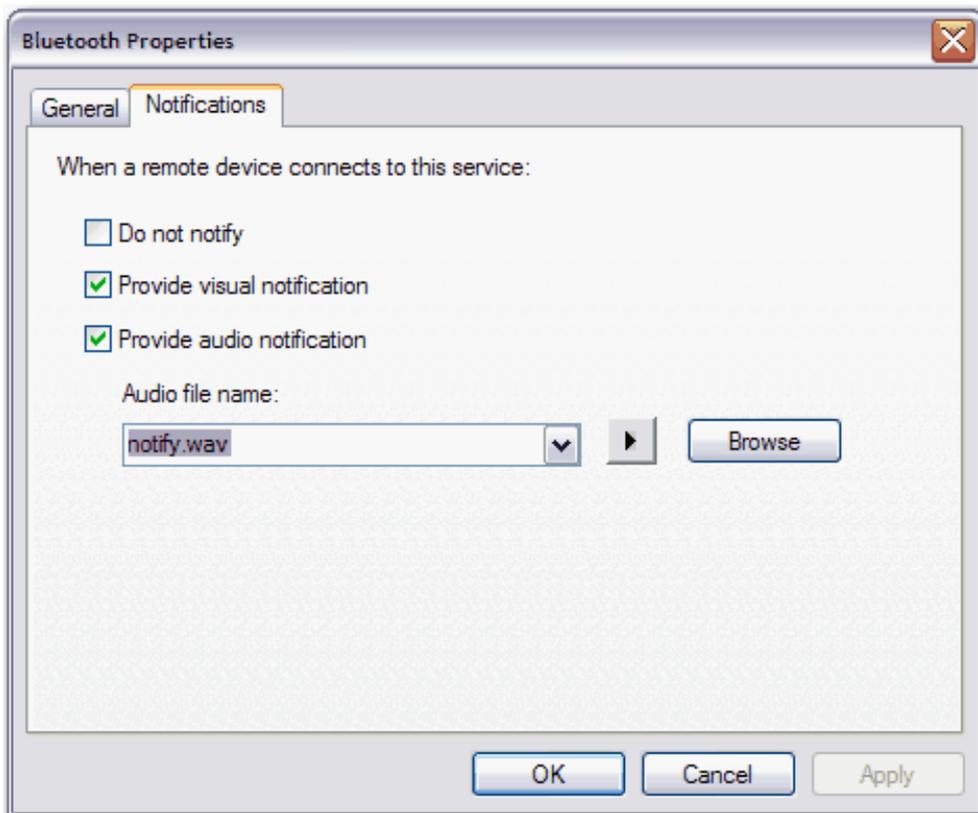
 **NOTICE:** By default, **Bluetooth Exchange Folder** is placed in **My Documents**. If you relocate Bluetooth Exchange Folder, do not place it in the root directory or a system folder. Relocating **Bluetooth Exchange Folder** to the root directory or a system folder creates the potential for remote devices being able to harm the operating system on your computer.

8. If you want to include attachments with e-mail, under **E-mail attachments**, select the **Include attachments with e-mail that is sent or received by this computer** check box. If you do not want

to include attachments with e-mail, clear the check box.



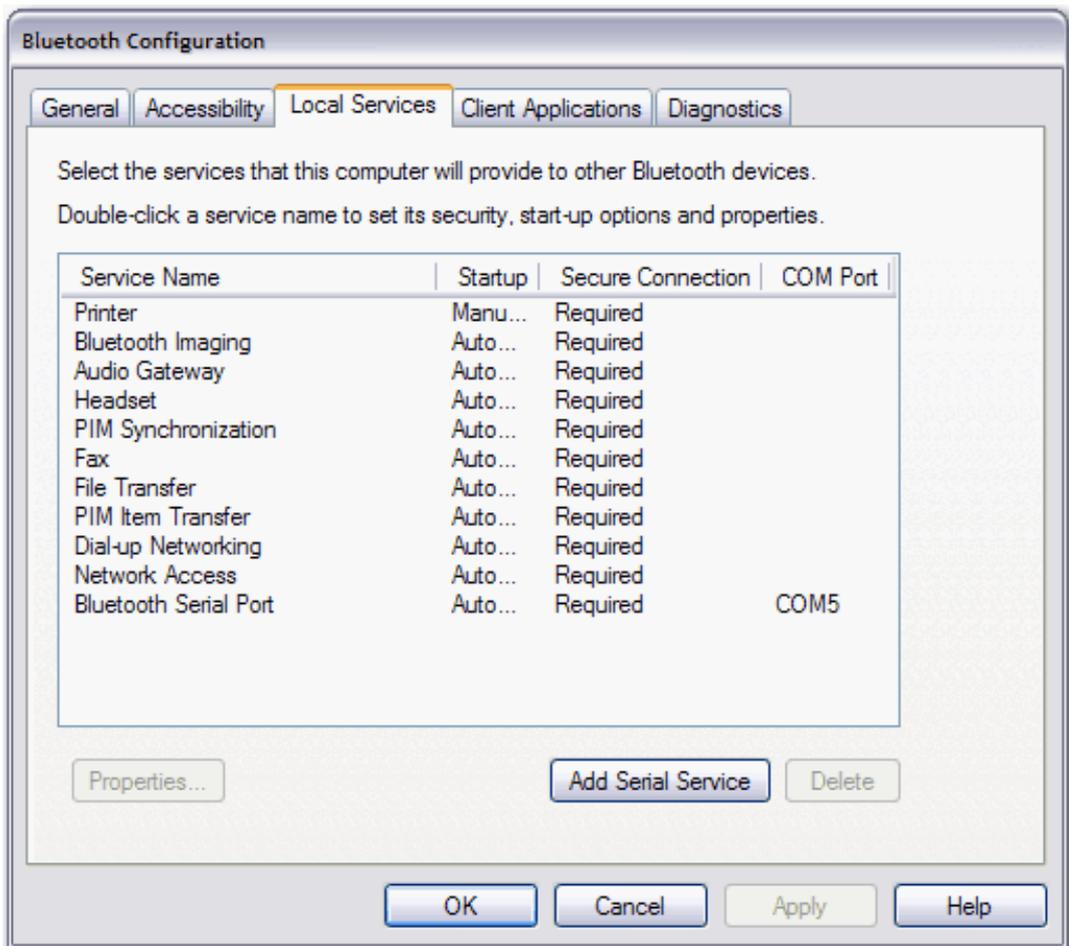
9. If you do not want to be notified when a remote Bluetooth device attempts to connect to the service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
10. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on which method you prefer.
11. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



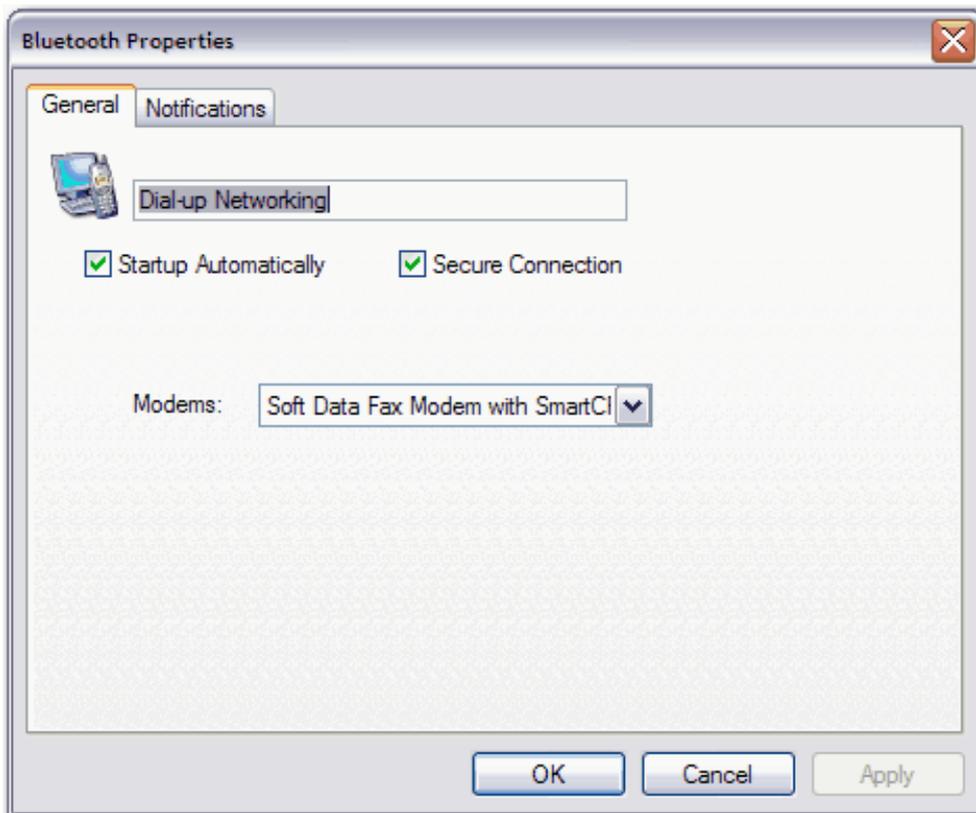
**To set the properties of the Dial-up Networking service:**

**NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

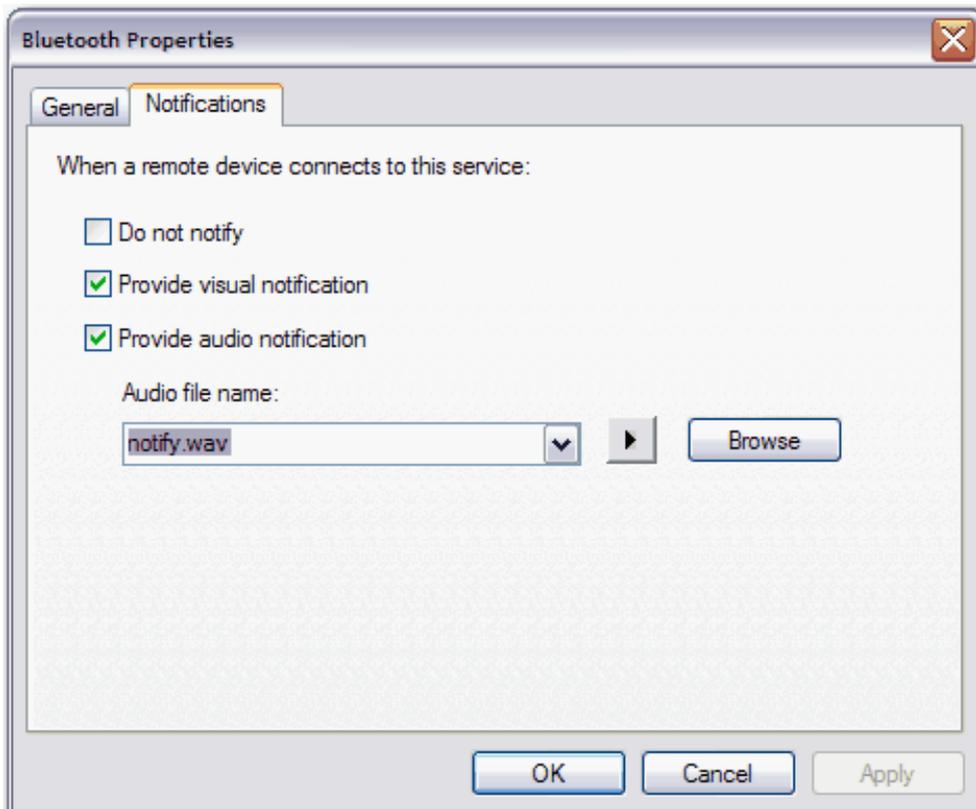
1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click the **Dial-up Networking** service, and then click **Properties**.



3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want the service to require a secure connection, clear the **Secure Connection** check box.
5. In the **Modems** list, select the modem you want to use with the Dial-up Networking service.



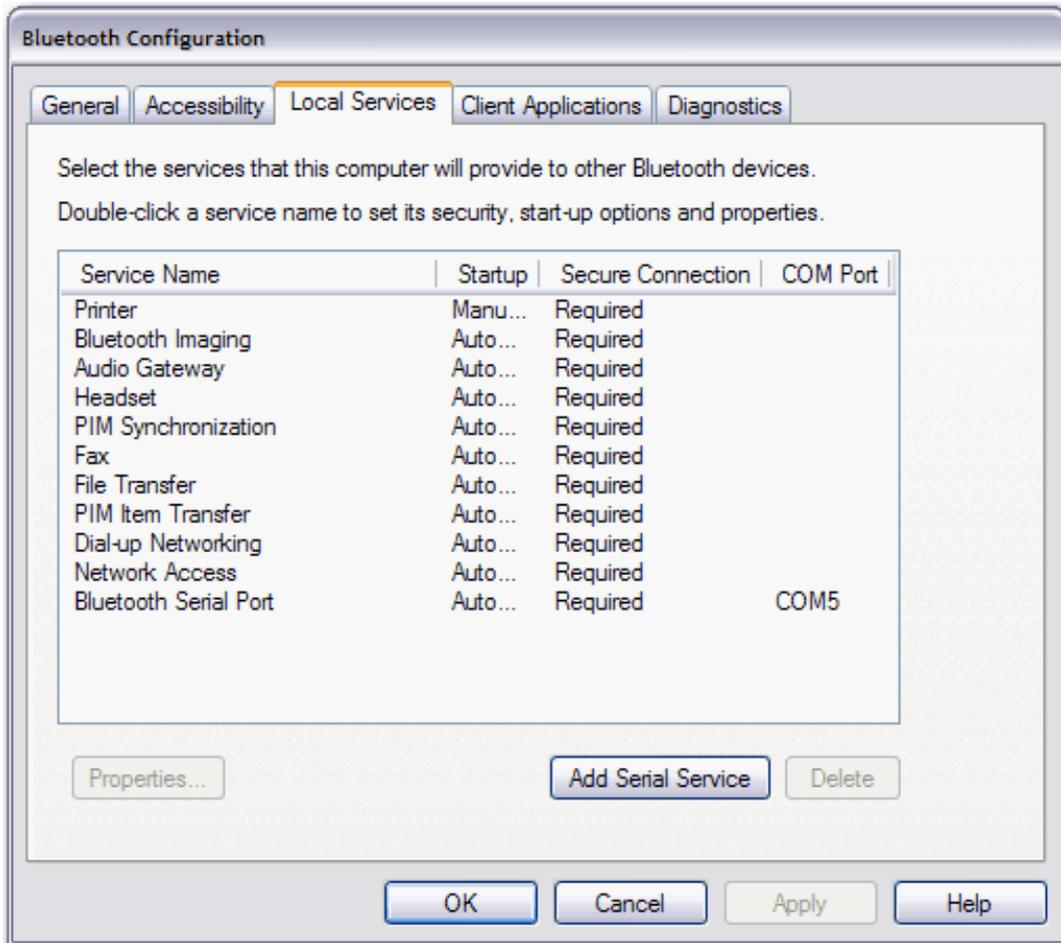
6. If you do not want to be notified when a remote Bluetooth device attempts to connect to the service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
7. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on which method you prefer.
8. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



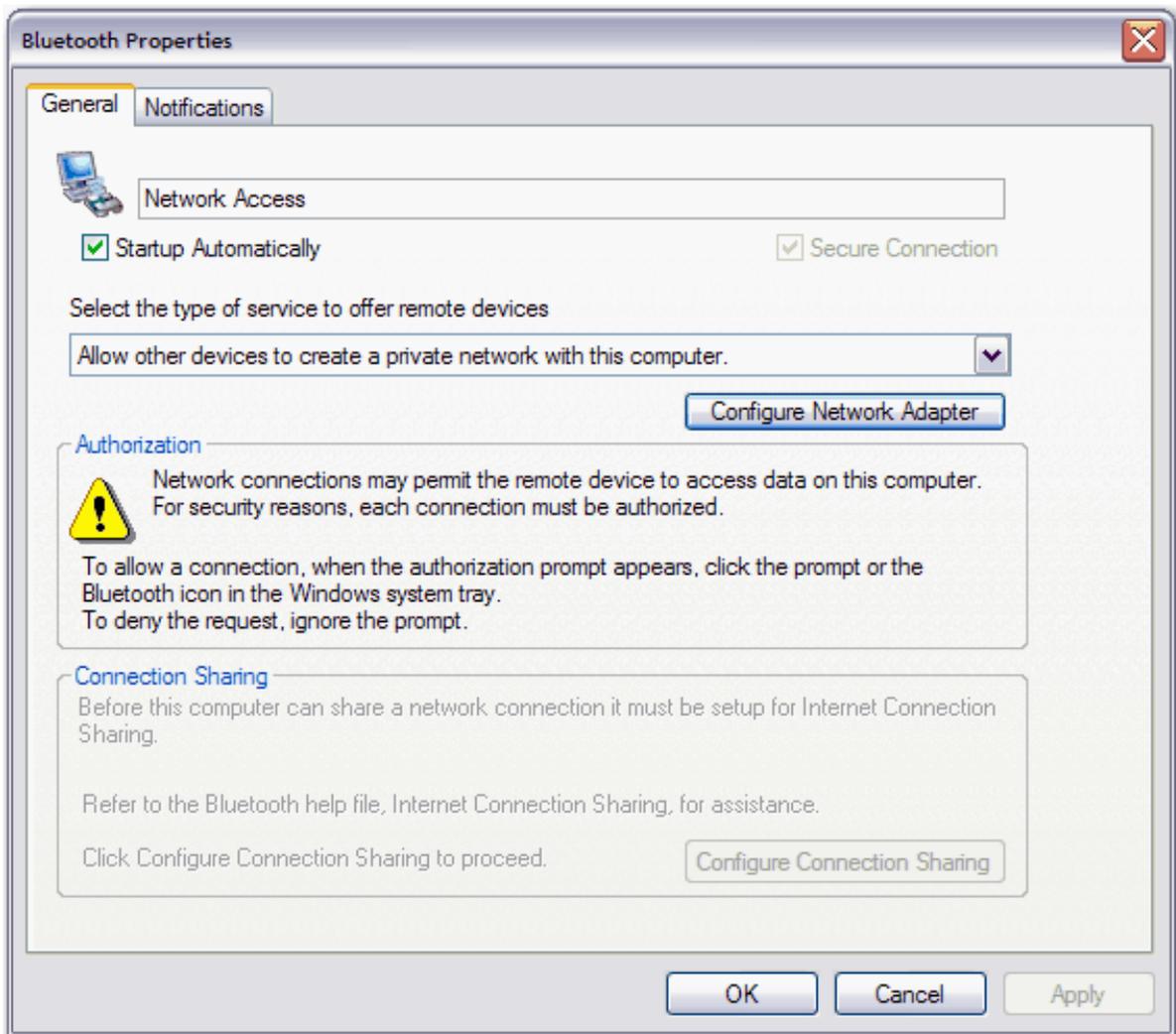
**To set the properties of the Network Access service:**

**NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

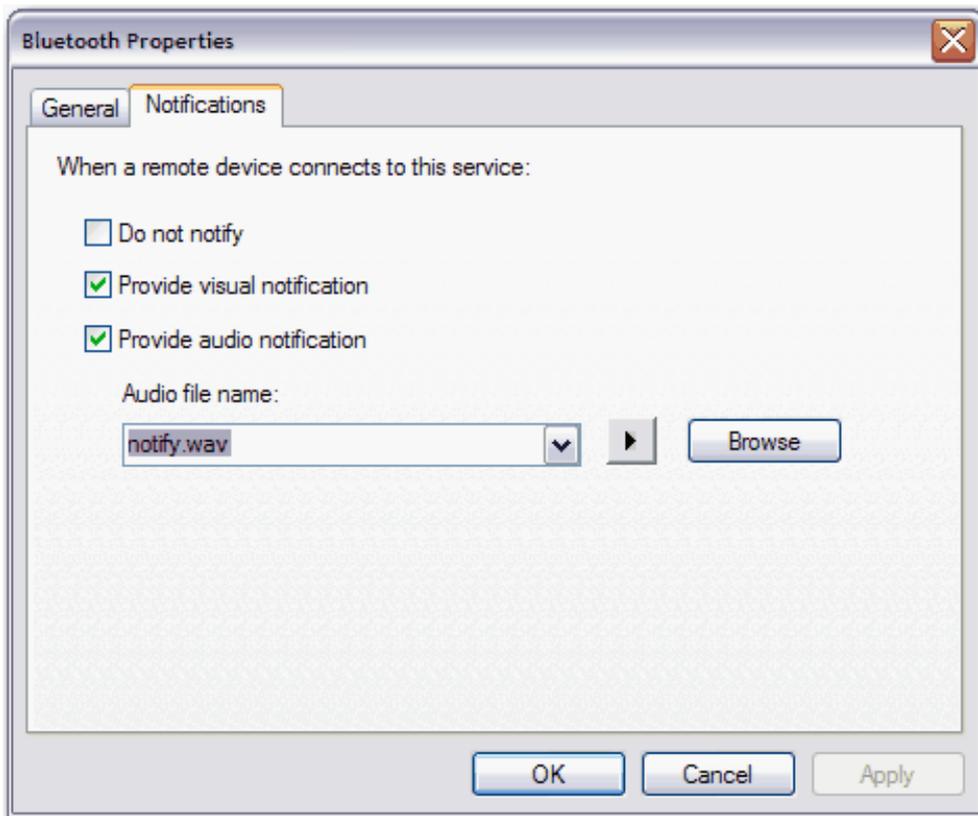
1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click the **Network Access** service, and then click **Properties**.



3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want the service to require a secure connection, clear the **Secure Connection** check box.
5. To allow other devices to create a private network with this computer, select **Allow other devices to create a private network with this computer** in the **Select the type of service to offer remote devices** list.
6. To allow other devices to access the Internet/LAN through this computer, select **Allow other devices to access the Internet/LAN through this computer** in the list.
7. To prohibit other devices from creating network connections to this computer, select **Do not allow network connections to this computer** in the list.



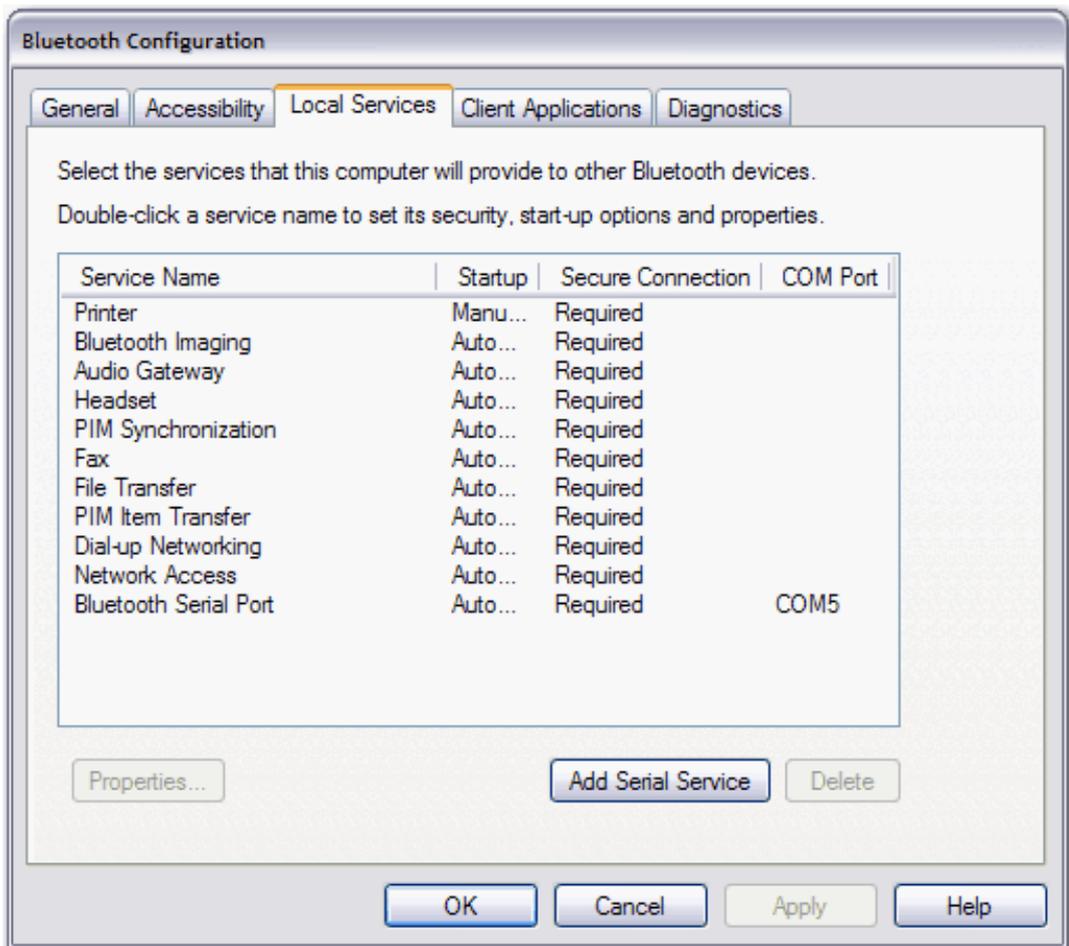
8. If you do not want to be notified when a remote Bluetooth device attempts to connect to the service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
9. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on which method you prefer.
10. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



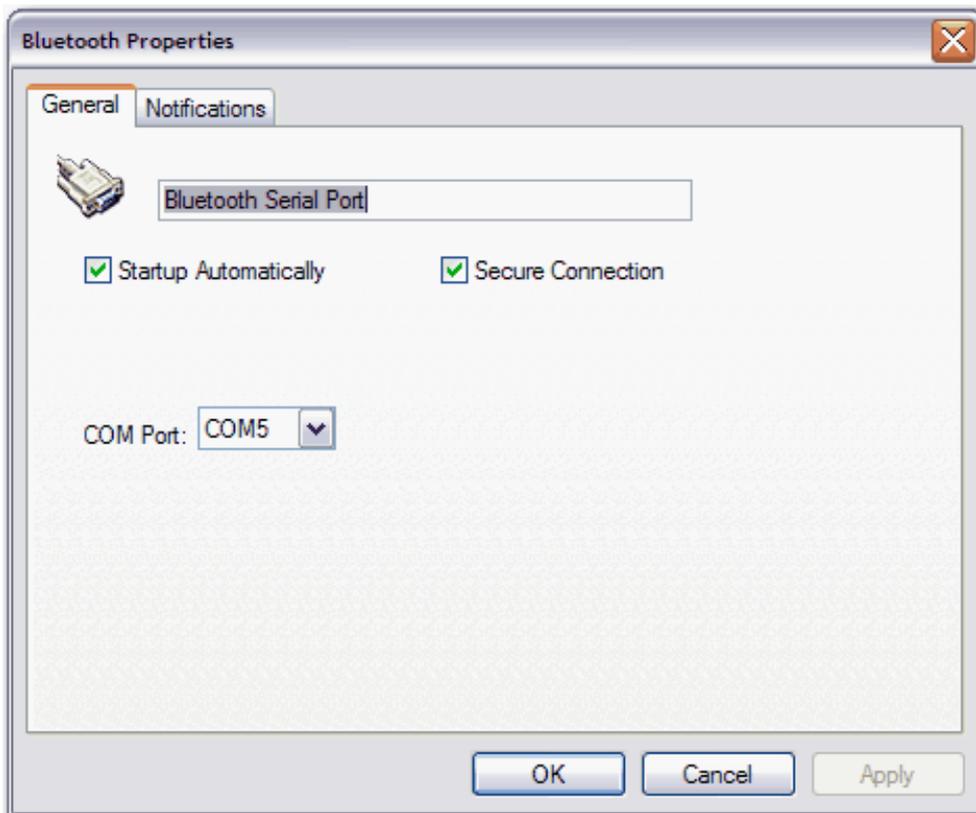
**To set the properties of the Bluetooth Serial Port service:**

**NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

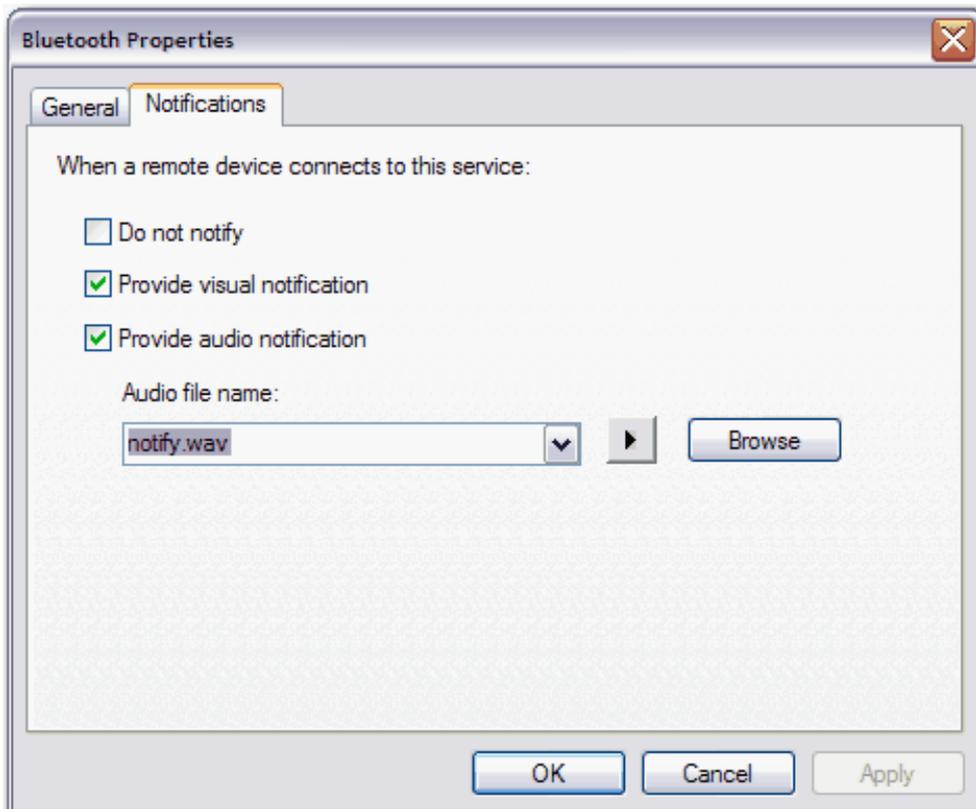
1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Local Services** tab, click the **Network Access** service, and then click **Properties**.



3. If you do not want the service to start automatically, click the **General** tab in **Bluetooth Properties**, and then clear the **Start up automatically** check box.
4. If you do not want the service to require a secure connection, clear the **Secure Connection** check box.
5. In the **COM Port** list, select the COM port you want to use with the Dial-up Networking service.



6. If you do not want to be notified when a remote Bluetooth device attempts to connect to the service, click the **Notifications** tab in **Bluetooth Properties**, and then select the **Do not notify** check box.
7. If you want to change how you are notified, clear either the **Provide visual notification** check box or the **Provide audio notification** check box, depending on which method you prefer.
8. If you want to change the sound of the audio notification, select a different audio file in the **Audio file name** list.



## Setting the Properties of Client Applications Used by This Computer to Access Services Provided by Other Bluetooth Devices

On the **Client Applications** tab of **Bluetooth Configuration**, you can set the properties of the client applications used by this computer to access the services of other Bluetooth devices.

To set the properties of an application, click the application name, and then click **Properties**. On the **General** tab, you can set or clear the **Secure Connection** property. By default, all client applications except Human Interface Device are set to require a secure connection.

For certain applications, such as PIM Synchronization, PIM Item Transfer, and Dial-up Networking, you can make other settings that affect how the application functions.

 **NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

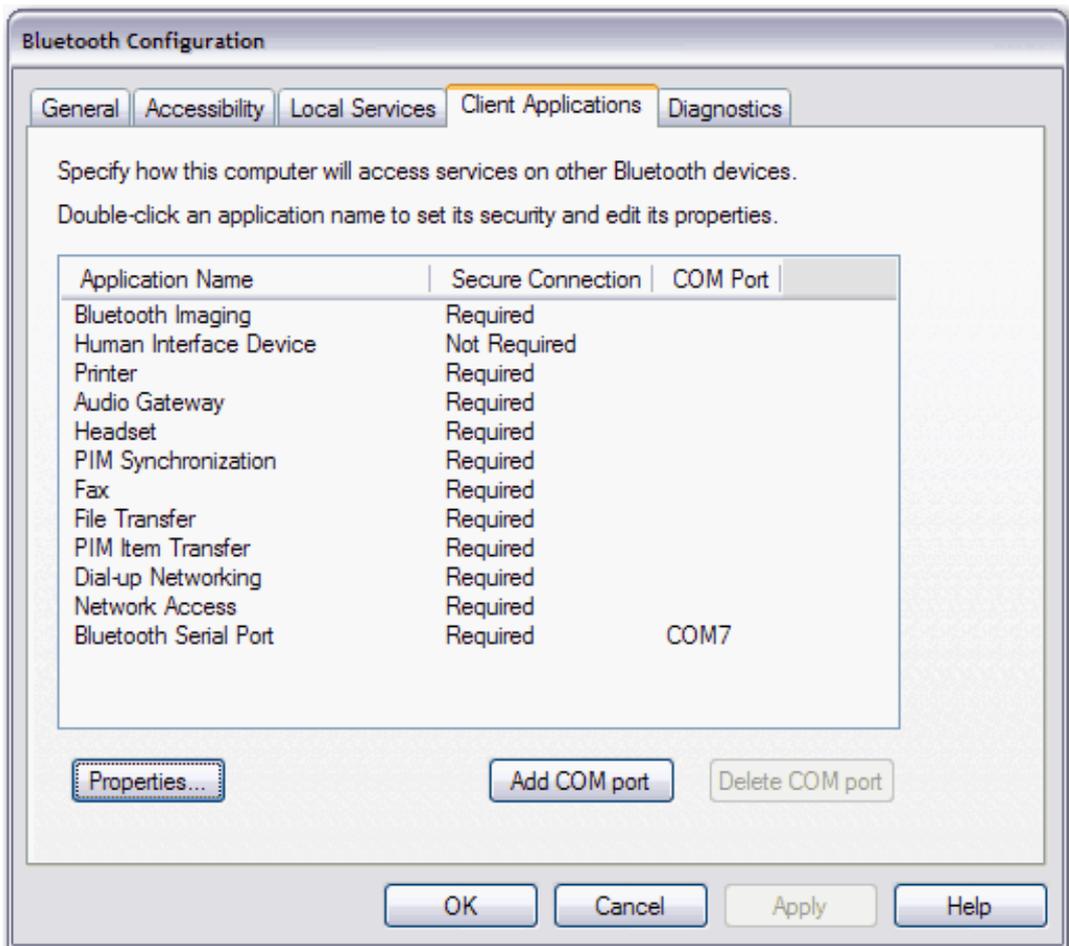
The following client applications are available:

- Bluetooth Imaging
- Human Interface Device
- Printer
- Audio Gateway
- Headset
- PIM Synchronization
- Fax
- File Transfer
- PIM Item Transfer
- Dial-up Networking
- Network Access
- Bluetooth Serial Port

**To set the properties of the PIM Synchronization application:**

 **NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

1. Right-click the **Bluetooth** icon  in the notification area, and then click **Bluetooth Configuration**.
2. On the **Client Applications** tab, click **PIM Synchronization**, and then click **Properties**.



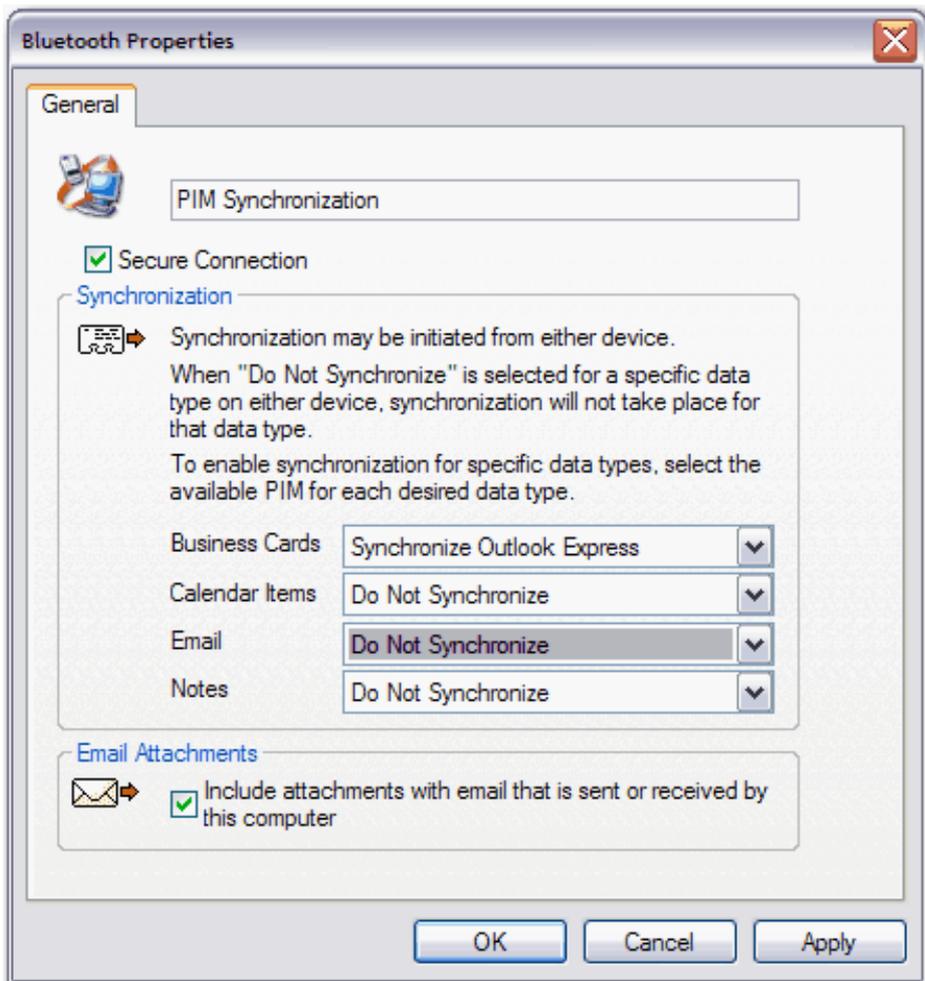
3. If you do not want the application to use a secure connection, clear the **Secure Connection** check box.
4. To enable synchronization for specific data types, in each data type list under **Synchronization**, select the available PIM for that data type.



**NOTE:** Available data types include the following:

- Business Cards
- Calendar Items
- E-mail
- Notes

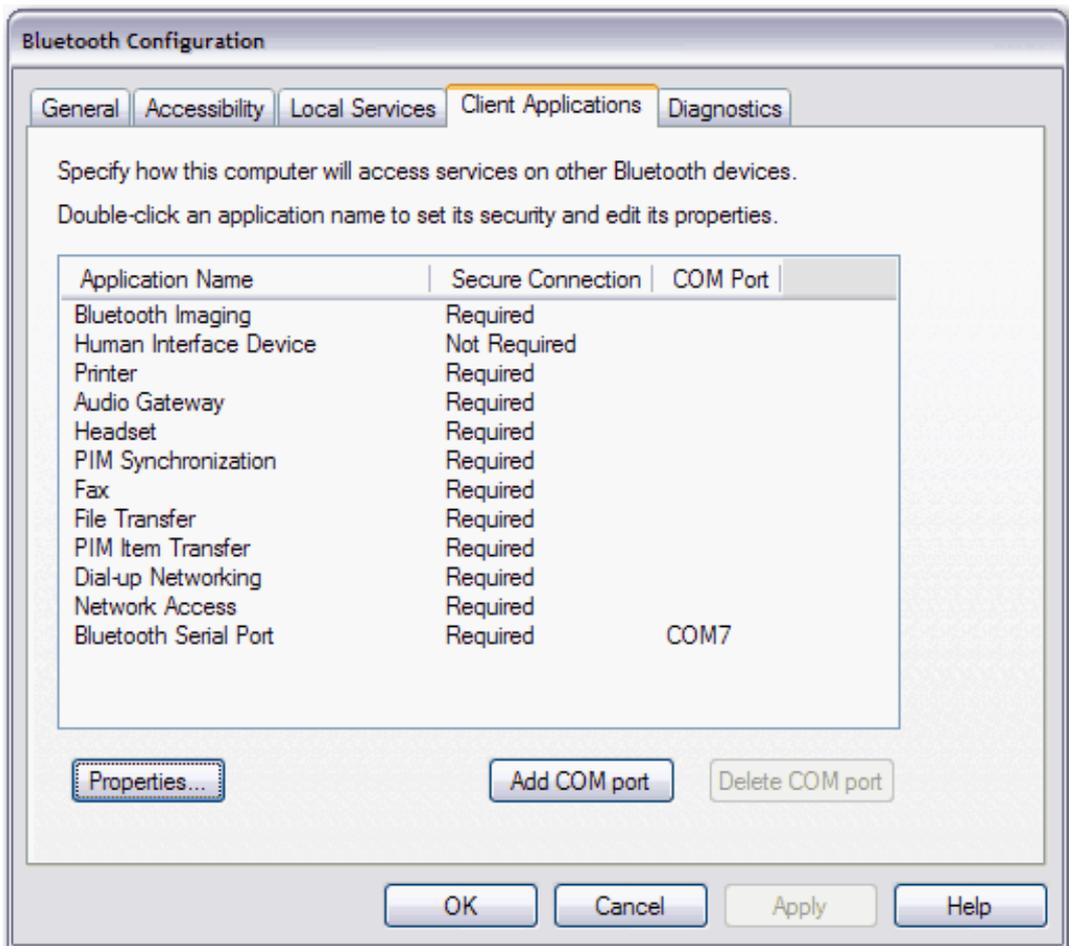
5. If you do not want to synchronize your PIM data with another Bluetooth enabled PIM, select **Do Not Synchronize**.
6. If you want to include attachments with e-mail, under **E-mail attachments**, select the **Include attachments with e-mail that is sent or received by this computer** check box. If you do not want to include attachments with e-mail, clear the check box.



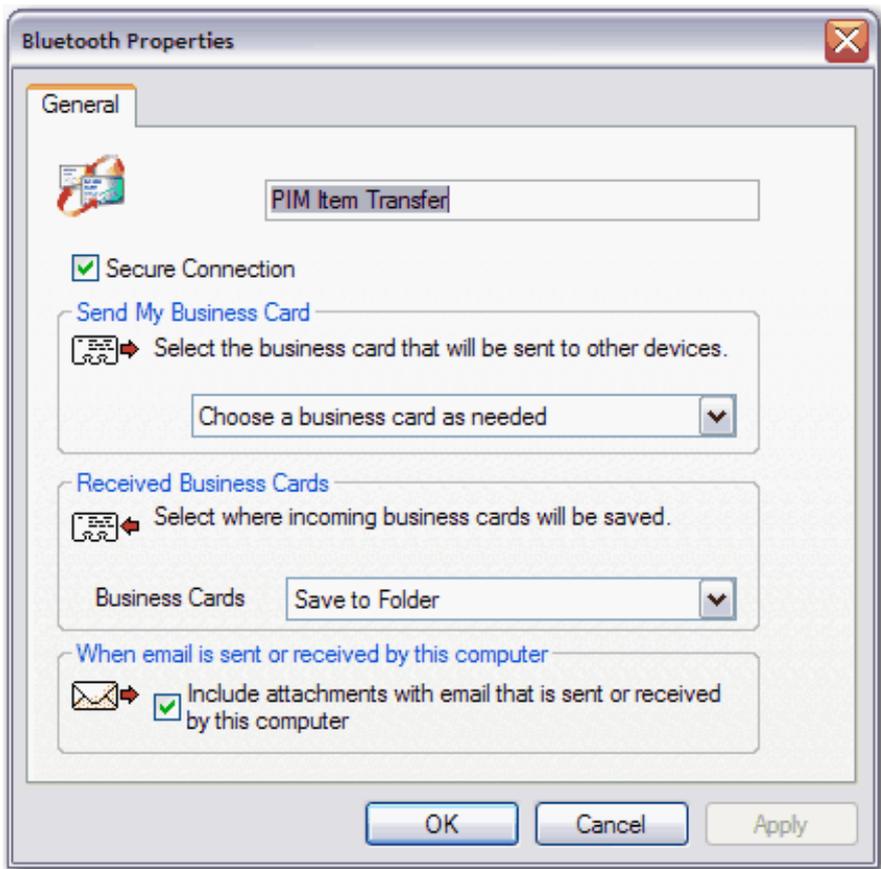
To set the properties of the PIM Item Transfer application:

 **NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

1. Right-click the **Bluetooth** icon  in the notification area, and then click **Bluetooth Configuration**.
2. On the **Client Applications** tab, click **PIM Item Transfer**, and then click **Properties**.



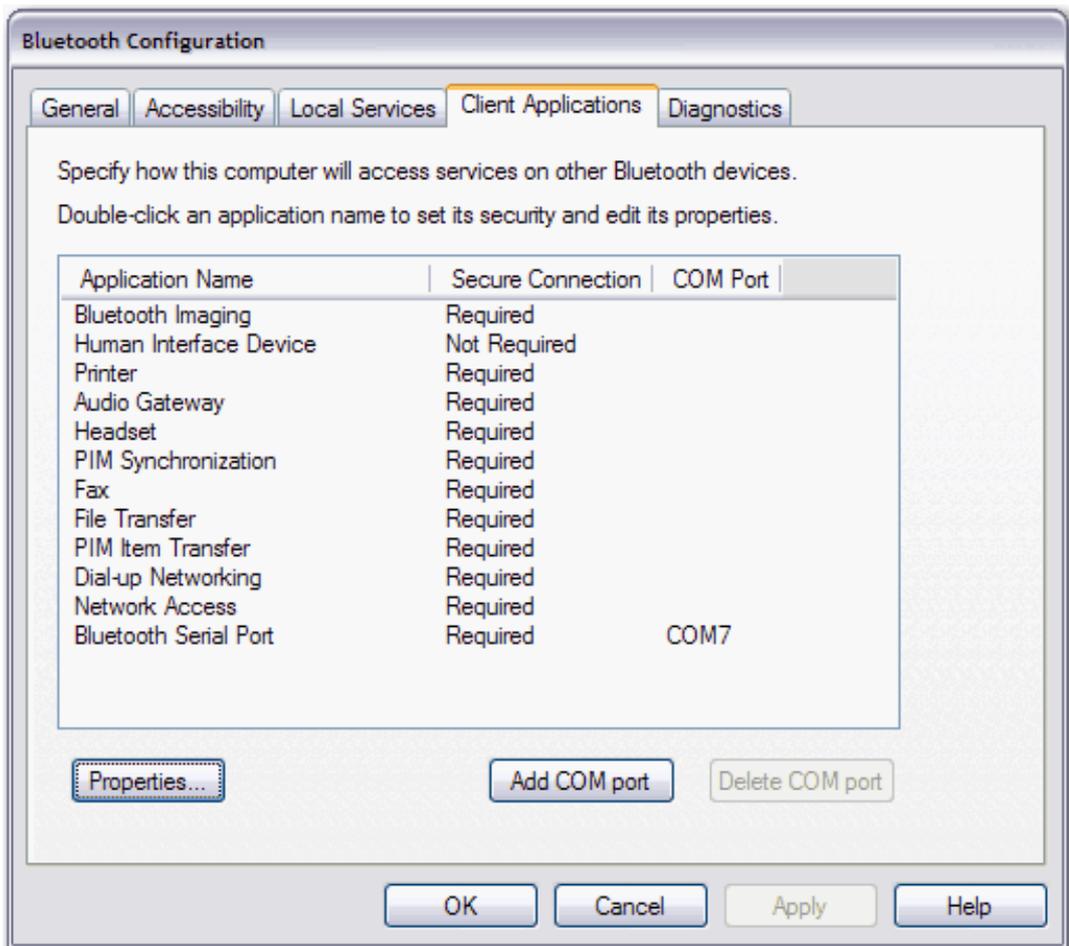
3. If you do not want the application to use a secure connection, clear the **Secure Connection** check box.
4. To designate the business card to be sent to other devices, select either **Choose a business card as needed** or **Always send the same business card** in the list under **Send my business card**.
5. To designate where incoming business cards will be saved, select either **Save to Folder** or **Outlook Express** in the list under **Received business cards**.
6. If you want to include attachments with e-mail, under **E-mail attachments**, select the **Include attachments with e-mail that is sent or received by this computer** check box. If you do not want to include attachments with e-mail, clear the check box.



**To set the properties of the Dial-up Networking application:**

 **NOTE:** You might not be able to change the properties settings because of corporate security policies. If a function has been disabled by the IT administrator, a message is displayed whenever you attempt to use that function. Contact your IT administrator for more information or if you have any questions.

1. Right-click the **Bluetooth** icon , and then click **Bluetooth Configuration**.
2. On the **Client Applications** tab, click **Dial-up Networking**, and then click **Properties**.



3. If you do not want the application to use a secure connection, clear the **Secure Connection** check box.
4. In the list, select the modem you want to use with the Dial-up Networking application.



# Managing Local Bluetooth Devices

If there is more than one Bluetooth device installed on this computer, you can designate which one you prefer to use. To conserve battery power, you can disable the inactive devices. Also, you can view the following information about each device:

## Devices

- Name
- Status
  - Active (Preferred)
  - Inactive
  - Disabled
- Type

## Active Device Properties

- **Device status** — Indicates that the device is operating properly, or that there is a problem/conflict.
- **Manufacturer** — The company that manufactured the device.
- **Firmware Revision** — The manufacturer's firmware version number.
- **Device Address** — The Bluetooth Device Address assigned to this device when it was manufactured
- **HCI Version** — The version number of the Bluetooth specification with which the Host Controller Interface complies.
- **HCI Revision** — The revision number of the Bluetooth specification with which the Host Controller Interface complies.
- **LMP Version** — The version number of the Bluetooth specification with which the Link Manager Protocol complies.
- **LMP Sub Version** — The sub version number of the Bluetooth specification with which the Link Manager Protocol complies.

## NOTE:

- Only one Bluetooth device can be active at a time.
- If you disable or change the status of the active Bluetooth device to inactive, you must redo pairing with the other Bluetooth device.

## To manage the Bluetooth devices that are installed on this computer:

1. Right-click the **Bluetooth** icon  in the notification area, and then click **Bluetooth Configuration**.
2. Click the **Diagnostics** tab.

## To query the active device and update the data displayed in Device Properties:

- On the **Diagnostics** tab, click **Refresh**.

## To disable or enable a particular Bluetooth device:

- On the **Diagnostics** tab, click the name of the device, and then click either **Disable**, or **Enable**, as appropriate.

## To specify which Bluetooth radio device you prefer to use:

- On the **Diagnostics** tab, click the name of the device, and then click **Set Preferred**.