Figure 4-4 *Select a Bluetooth Device*

7. Tap **Next**. The **Enter Passcode** window appears.

NOTE If Smart-pairing is configured and the device is requesting one of the pre-defined PINs, the **Enter Passcode** window does not appear.

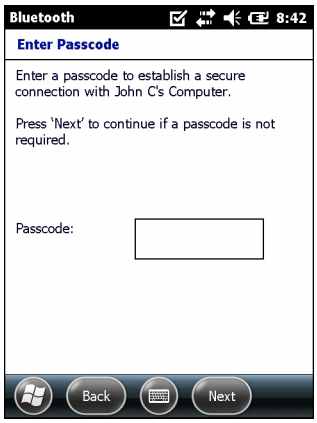

Figure 4-5 *Enter Passcode*

8. Enter the Passcode on the other device. The device is added to the Bluetooth list.

   You are prompted to enter a passcode. If the device has a specific passcode, enter it in the Passcode field and tap Next. If the device does not have a specific passcode, enter one in the Passcode field and tap Next. The Bluetooth radio tries to connect with the device.

9. If you created a passcode, you will be prompted by the other device to enter the same passcode. Enter the created passcode to establish a paired connection. (If you entered a passcode from the device, you shouldn't have to do anything on the other device.)

10. When the connection is complete, a list of matching and supported services on the device appears.

11. Select the services you want to use and tap Finish. The services on the new devices have to be selected or else the pairing won't include those services, even though the devices are paired. If services are not selected, you will be continually reprompted for the passcode from the device.

12. The device appears in the list on the main window.

    After the passcodes have been accepted on both sides, you have a trusted ("paired") connection.

Available Services

NOTE Some devices might not require a PIN. This depends upon the device's authentication.

The MC55 with Microsoft Bluetooth stack offers the following services:

- OBEX Object Push Services via Beam
- Serial Port Services
- Personal Area Networking Services
- PBAP Services
- Dial-up Networking Services
- A2DP/AVRCP Services.

See the following sections for information on these services.

Object Push Services via Beam

NOTE You can only send files to a remote device using the Beam function.

Use the OBEX Push Service to send files and contacts to another Bluetooth device. To transfer files between the MC55 and another Bluetooth enabled device:

1. Ensure that Bluetooth is enabled and discoverable on both devices.
2. Ensure that the two devices are within 30 feet (10 meters) of one another.
3. Tap > **Programs** > **File Explorer.**
4. Navigate to the file to transfer.
5. Tap and hold on the filename until the pop-up menu appears.

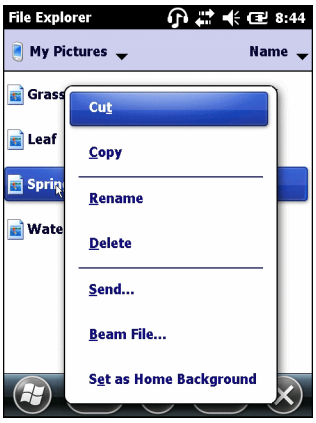

Figure 4-6 *File Explorer Window*

6. Select **Beam File**. The MC55 searches for Bluetooth devices in the area.
7. Tap **Tap to send** next to the Bluetooth device to send the file to. The MC55 communicates with the device and send the file. When completed, **Tap to send** changes to **Done**.

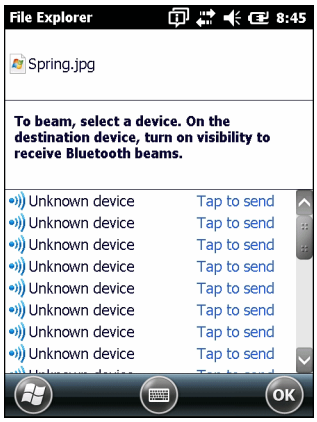

Figure 4-7 *Beam File Window*

To transfer a contact between the MC55 and another Bluetooth enabled device:

1. Ensure that Bluetooth is enabled and discoverable on both devices.
2. Ensure that the two devices are within 30 feet (10 meters) of one another.
3. Tap > **Contacts**.
4. Navigate to the contact to transfer.
5. Tap and hold on the contact until the pop-up menu appears.

Figure 4-8 *Contact Window*

6. Select **Send Contact** > **Beam**. The MC55 searches for Bluetooth devices in the area.
7. Tap **Tap to send** next to the Bluetooth device to send the file to. The MC55 communicates with the device and send the contact. When completed, **Tap to send** changes to **Done**.

Internet Sharing

Internet Sharing allows the user to connect a computer or laptop to the MC55 and use the MC55 as a modem to connect to an office network or ISP.

To use MC55 as a modem using Bluetooth:

1. Ensure that the device is not connected to the computer or laptop.
2. On the MC55, ensure that the Phone is on and a data connection is configured.

3. Tap > **Programs** > **Internet Sharing**.
4. In the **PC Connection** list, select **Bluetooth PAN**.
5. In the **Network Connection** list, select the connection type.

   Select the network connection that the device should use to connect to the Internet.
6. Tap **Connect**.
7. On the computer or laptop, setup a Bluetooth PAN with your device.
   a. Select > **Control Panel** > **Network Connections**.
   b. Under **Personal Area Network**, select **Bluetooth Network Connection**.
   c. Right-click on **Bluetooth Network Connection** and select **View Bluetooth** network devices.
   d. In the **Bluetooth Personal Area Network Devices** window select your device.
   e. Click **Connect**. The computer connects to the device via Bluetooth.

NOTE If your computer is Bluetooth-enabled and you select Bluetooth as the PC connection, you must initiate and complete the Bluetooth PAN partnership before Internet Sharing will work. For more information, refer to Windows Help and Support.

8. To verify, on the PC or laptop, launch **Internet Explorer** and open a web site.
9. To end dial-up networking, on the MC55 tap **Disconnect**.

Serial Port Services

Use the wireless Bluetooth serial port connection as you would a physical serial cable connection. Configure the application that will use the connection to the correct serial port.

To establish a serial port connection:

1. Ensure that Bluetooth is enabled and discoverable on both devices.
2. Ensure that the two devices are within 30 feet (10 meters) of one another.
3. Tap > **Settings** > **Connections** > **Bluetooth** > **Devices**.
4. Tap **Add new device**. The MC55 begins searching for discoverable Bluetooth devices in the area.
5. Select a device from the list.
6. Tap **Next**. The **Enter Passcode** window appears.

NOTE If Smart-pairing is configured and the device is requesting one of the pre-defined PINs, the **Enter Passcode** window does not appear.

7. Enter the Passcode and the tap **Next**. The device is added to the Bluetooth list.
8. In the device list, tap the serial device. The **Partnership Settings** window displays.
9. Select the **Serial Port** checkbox.
10. Tap **Save**.
11. Tap **COM Ports**.
12. Tap **New Outgoing Port**. The add device window appears.

NOTE By default, **Secure Connection** checkbox is set enabling Security Level 3 (Linked Level Encryption).

13. Select the serial device in the list and then tap **Next**.
14. Select a COM port from the drop-down list.
15. Tap **Finish**.

NOTE No connection is made at this point. An application must open the selected COM port to trigger Microsoft Bluetooth stack to open the connection.

ActiveSync Using Serial Port Services

Use the wireless Bluetooth serial port connection for ActiveSync just as you would a physical serial cable connection. You must configure the application that will use the connection to the correct serial port.

To set up a Bluetooth ActiveSync connection:

Before setting up a Bluetooth ActiveSync connection, configure the Bluetooth function of your device.

NOTE For additional security, disable network bridging on the computer (specifically, bridging to a Remote NDIS adapter) before connecting to the computer to pass though to the Internet or a network. For more information on network bridging, see **Windows Help** on your computer.

The instructions below are for computers that support the Windows XP SP2 or later version operating system.

1. Ensure that Bluetooth is enabled and discoverable on both devices.
2. Ensure that the two devices are within 30 feet (10 meters) of one another.
3. On the computer, click > **Settings** > **Control Panel**.
4. Double-click **Bluetooth Devices**.
5. On the **Options** tab, select the **Turn discovery on** and **Allow Bluetooth devices to connect to this computer** checkboxes.

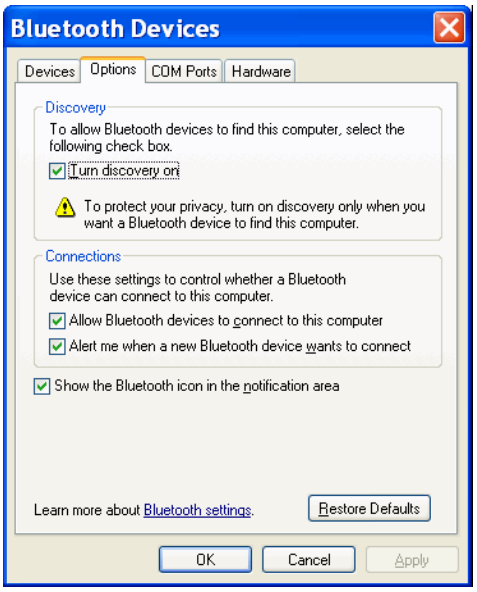

Figure 4-9 *Computer Bluetooth Devices Window*

6. On the **COM Ports** tab, click **Add**.
7. Select the **Incoming (device initiates the connection)** option, then click **OK**.

   Note the number of the COM port that was added.
8. Click **OK**.
9. Click > **All Programs** > **Microsoft ActiveSync**.
10. Click **File** > **Connection Settings**.

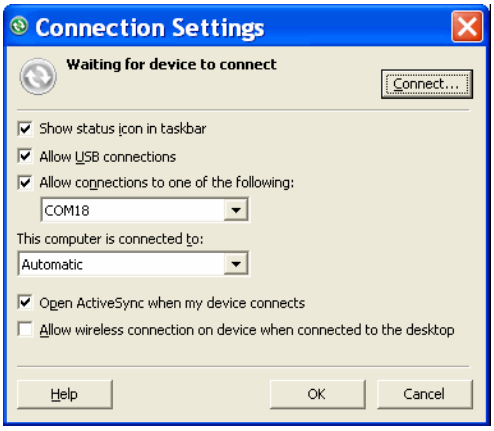

Figure 4-10 *ActiveSync Connection Settings*

11. On the **Allow connections to one of the following** drop-down list, select the COM port with the number you noted earlier.
12. On the MC55, tap > **Programs** > **ActiveSync**.
13. Tap **Menu** > **Connect via Bluetooth**.

    Synchronization is automatically initiated. The **ActiveSync** icon appears on the lower right corner of the **Today** screen.

If an Authentication is required, the **Enter Passcode** screen appears, type an alphanumeric passkey (PIN code), then tap **Next**; enter the same passkey on the other device.

The passkey is recommended for enhanced security. Your passkey must be between 1 to 16 alphanumeric characters.

If you do not want to use a passkey, tap **Next**.

14. To disconnect the ActiveSync connection, tap the **ActiveSync** icon on the Today screen.
15. Tap **Disconnect**.

Phone Book Access Profile Services

Phone Book Access profile (PBAP) is used to synchronize contacts between a remote device and the MC55. To establish an PBAP synchronization:

1. Ensure that Bluetooth is enabled and discoverable on both devices.
2. Ensure that the two devices are within 30 feet (10 meters) of one another.
3. Tap > **Settings** > **Connection** > **Bluetooth** icon > **Devices**.
4. Tap **Add New Device**.The MC55 searches for a Bluetooth device, such as a Car Kit.
5. Select a device from the list.
6. Tap **Next**. The **Enter Passcode** window appears.

> ***NOTE*** If Smart-pairing is configured and the device is requesting one of the pre-defined PINs, the **Enter Passcode** window does not appear.

7. Enter the Passcode and the tap **Next**. The device is added to the Bluetooth list.
8. A dialog box appears requesting if you want to transfer contacts to the car kit.
9. Select **Yes** or **No**.
10. If **Yes** is selected, contacts from the MC55 are transferred to the car kit.

Using Bluetooth StoneStreet One Bluetooth Stack

The following sections provide information on using the Stone Street One Bluetooth stack.

Turning the Bluetooth Radio Mode On and Off

Turn off the Bluetooth radio to save power or if entering an area with radio restrictions (e.g., an airplane). When the radio is off, other Bluetooth devices cannot see or connect to the MC55. Turn on the Bluetooth radio to exchange information with other Bluetooth devices (within range). Communicate only with Bluetooth radios in close proximity.

NOTE To achieve the best battery life turn off radios not in use.

Disabling Bluetooth

To disable Bluetooth, tap the Connection icon on the Status bar and select **Wireless Manager** in the Connectivity dialog box. Tap the blue **Bluetooth** bar to turn off the Bluetooth radio.

Enabling Bluetooth

To enable Bluetooth, tap the Connection icon on the Status bar and select **Wireless Manager** in the Connectivity dialog box. Tap the blue **Bluetooth** bar to turn on the Bluetooth radio.

Modes

The BTExplorer application has two modes for managing Bluetooth connections: Wizard Mode and Explorer Mode. The Wizard Mode is for novice Bluetooth users and the Explorer Mode is for experienced Bluetooth users. To switch between modes, select **View** > **Wizard Mode** or **View** > **Explorer Mode**.

Wizard Mode

Wizard Mode provides a simple process for discovering and connecting to Bluetooth devices.

NOTE Switching between Wizard Mode and Explorer Mode closes all active connections.

Wizard Mode shows the devices and services in a simple Favorites view created by following the step-by-step wizard.

Explorer Mode

The **Explorer Mode** window is easy to navigate and provides greater control to users familiar with Bluetooth. The menu bar provides quick access to the options and tools used to connect to devices. To access Explorer Mode, tap **View** > **Explorer Mode**.

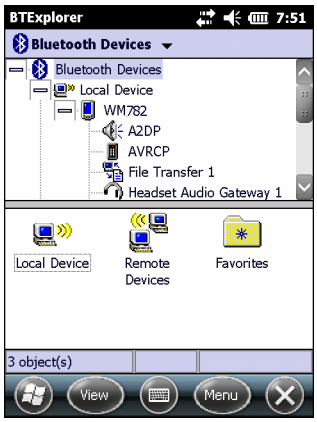

Figure 4-11 *Explorer Mode Window*

You can also use the “tap and hold” technique to view available options. Scroll bars and view options are similar to those on the Windows desktop. The tree structure lists the following sub-items:

- Local Device - This device
- Remote Device - Other Bluetooth devices
  - Trusted Devices - Bonded (paired) Bluetooth devices
  - Untrusted Devices - Discovered devices that are not bonded
- Favorites - Selected services that are set as *Favorite* for quick access.

NOTE Switching between Wizard Mode and Explorer Mode closes all active connections.

Discovering Bluetooth Device(s)

The MC55 can receive information from discovered devices without bonding. However, once bonded, the MC55 and a bonded device exchange information automatically when you turn the Bluetooth radio on. See *Bonding with Discovered Device(s) on page 4-30* for more information.

To find Bluetooth devices in the area:

1. Ensure that Bluetooth is enabled on both devices.
2. Ensure that the Bluetooth device to discover is in discoverable and connectable modes.
3. Ensure that the require profile is enabled on the MC55. See *Profiles on page 4-39* for more information.
4. Ensure that the two devices are within 30 feet (10 meters) of one another.
5. Tap the **Bluetooth** icon and select **Show BTExplorer**. The **BTExplorer** window appears.

NOTE If favorite connections have already been created, the **Favorites** screen displays. If no favorite connections have been created, the **New Connection Wizard** screen displays.

6. Tap **Menu** > **New Connection**.The **New Connection Wizard** appears.

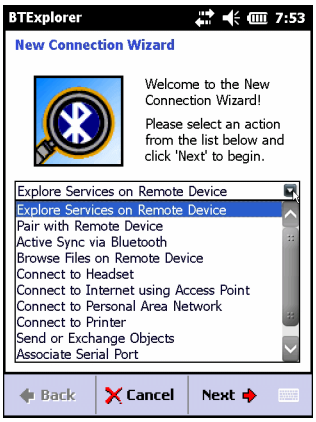

Figure 4-12 *BTExplorer Window*

7. Select **Explore Services on Remote Device** or another from the drop-down list and tap **Next**.

NOTE If a device discovery action has not been previously performed, a device discovery is automatically initiated. If a device discovery has previously been performed, the device discovery process is skipped, and the previously found list of devices displays. To start a new device discovery, tap and hold in the window and select **Discover Devices** from the pop-up menu.

8. **BTExplorer** searches for Bluetooth devices in the area.

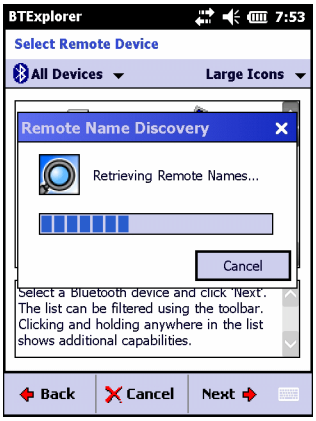

Figure 4-13 *Discover Devices Dialog Box*

The discovered devices display in the **Select Remote Device** window.

Figure 4-14 *Select Remote Device Window*

9. Select a device from the list and tap **Next**. The MC55 searches for services on the selected Bluetooth device.

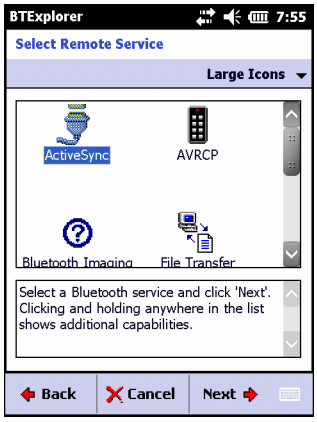

Figure 4-15 *Device Services*

NOTE If the MC55 discovers a service but the service is not supported, the service icon is grayed-out.

10. Select a service from the list and press **Next**. The **Connection Favorite Options** window appears.

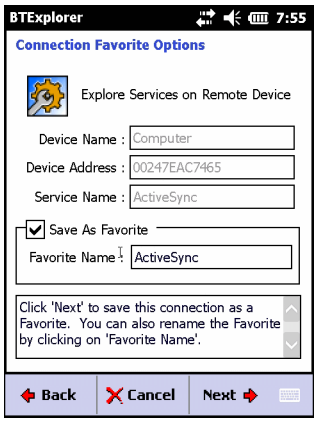

Figure 4-16 *Connection Favorite Options Window*

11. In the **Favorite Name** text box, enter a name for this service that will appear in the **Favorite** window.

12. Tap **Next**. The **Connection Summary** window appears.
13. Tap **Connect** to add the service to the **Favorite** window and connect to the service.

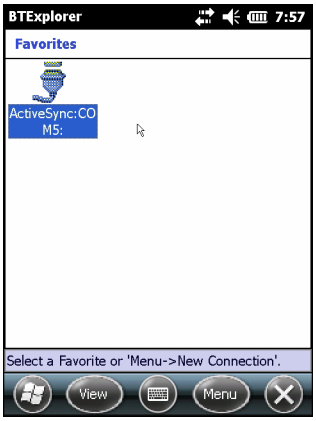

Figure 4-17 *Favorites Window*

Available Services

NOTE Some devices might not require a PIN. This depends upon the device's authentication.

See the following sections for information on these services.

File Transfer Services

NOTE Shared folders are a security risk.

To transfer files between the MC55 and another Bluetooth enabled device:

1. Ensure that OBEX File Transfer profile is enabled on the MC55. See *Profiles on page 4-39* for more information.

NOTE If favorite connections have already been created, the **Favorites** screen displays. If no favorite connections have been created, the **New Connection Wizard** screen displays.

2. Use the **Connection Wizard** to search for a Bluetooth device.
3. Select the device and tap **Next**. The **Select Remote Service** window appears.
4. Select **File Transfer** and tap **Next**. The **Connection Favorite Options** window appears.
5. Tap **Next**. The **Connection Summary** window appears.
6. Tap **Connect**. The remote device's accessible folders appear.

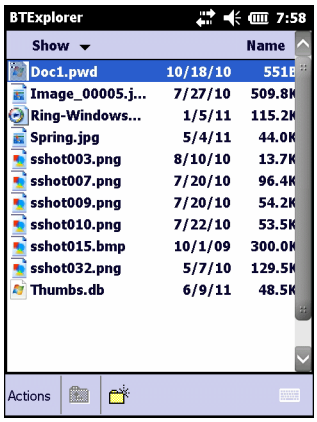

Figure 4-18 *File Transfer Window*

7. Double-tap the file to copy. The **Save Remote File** window appears.

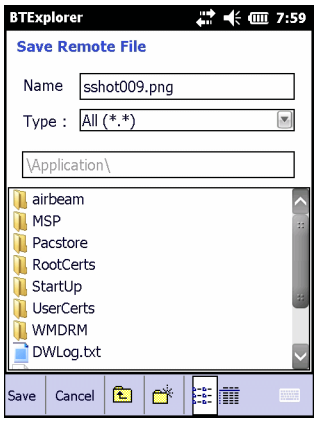

Figure 4-19 *Save Remote File Window*

8. Tap and hold on the file. A pop-up menu appears.
9. Select the action to perform:
   - **New** - create a new file or folder on the remote device
   - **Delete** - delete the selected file on the remote device.
   - **Get File** - copy the file from the remote device to the MC55.
   - **Put File** - copy a file from the MC55 to the remote device.

Creating a New File or Folder

To create a new folder or file on the remote device:

1. Tap and hold on the screen and select **New** > **Folder** or **New** > **File**. The **Create New Folder** or **Create New File** window appears.
2. Enter the name for the new folder or file.
3. Tap **OK** to create the new folder or file on the remote device.

Deleting a File

To delete a file from the remote device:

1. Tap and hold on the file to delete and select **Delete**.
2. In the **Delete Remote Device File** dialog box tap **Yes**.

Getting a File

To copy a file from a remote device:

1. Double-tap or tap and hold on the file and select **Get**. The **Save Remote File** window appears.
2. Navigate to the directory to save the file.
3. Tap **Save**. The file is transferred from the remote device to the MC55.

Copying a File

To copy a file to a remote device:

1. Tap **Action** > **Put**. The **Send Local File** window appears.
2. Navigate to the directory to save the file and select a file.
3. Tap **Open**. The file copies from the MC55 to the remote device.

Connecting to the Internet Using an Access Point

This section explains how to access a Bluetooth-enabled LAN access point (AP) for a network connection. Use Internet Explorer to connect to a server.

1. Ensure the MC55 is discoverable and connectable. See *Device Info on page 4-32*.
2. Ensure that the **Personal Area Networking** profile is enabled on the MC55. See *Profiles on page 4-39* for more information.
3. Use the **Connection Wizard** to search for a Bluetooth AP.

> ***NOTE*** If favorite connections have already been created, the **Favorites** screen displays. If no favorite connections have been created, the **New Connection Wizard** screen displays.

4. Select the **Personal Area Network** or **Network Access** service and select **Connect** from the pop-up menu. The MC55 connects with the access point.
5. Tap  > **Internet Explorer**. The **Internet Explorer** window appears.
6. In the address field, enter an internet address and tap the **Enter** button. The web page loads.

> ***NOTE*** Network Access profile is not supported.

Dial-Up Networking Services

Dial-up networking allows the user to connect the MC55 to a Bluetooth Phone and use the Bluetooth Phone as a modem to connect to an office network or ISP.

Before setting up dial-up networking, obtain dial-up information and other necessary settings (username, password and domain name, if required) for the office network or ISP.

To create a new Bluetooth connection:

1. Ensure the Bluetooth Phone is discoverable and connectable.
2. Ensure that the **Dial-Up Networking** profile is enabled on the MC55. See *Profiles on page 4-39* for more information.
3. Tap **Menu** > **New Connection**.
4. Select **Explore Services on Remote Device** or another from the drop-down list and tap **Next**.
5. **BTExplorer** searches for Bluetooth devices in the area.

   The discovered devices display in the **Select Remote Device** window.
6. Select the Bluetooth Phone from the list and tap **Next**. The MC55 searches for services on the Bluetooth Phone.

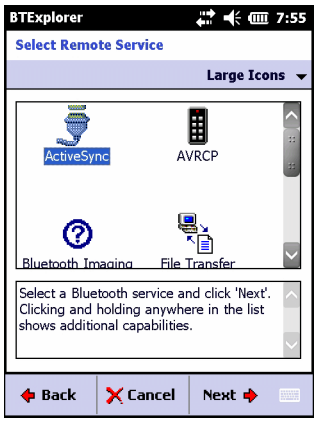

Figure 4-20 *Select Remote Service Window*

7. Select **Dial-up Networking Gateway** service from the list and tap **Next**. The **Connection Favorite Options** window appears.

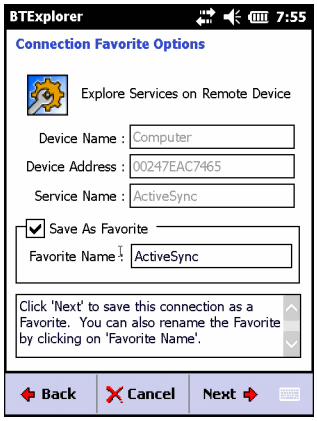

Figure 4-21 *Connection Favorite Options Window*

8. In the **Favorite Name** text box, enter a name for this service that will appear in the **Favorite** window.
9. Tap **Next**. The **Connection Summary** window appears.
10. Tap **Connect**. The **Select Dial-up Networking Entry** window appears**.**

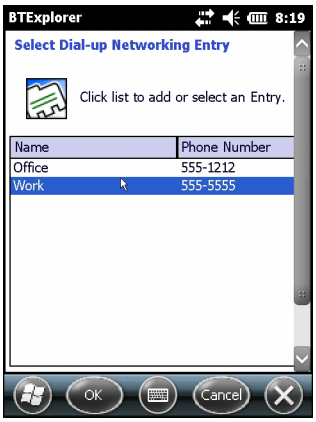

Figure 4-22 *Select Dial-up Networking Entry Window*

11. Select the entry and tap **OK**. The MC55 begins to communicate with the Bluetooth phone. If required, the phone requests permission to communicate with the MC55.
12. Confirm the connection on the phone. The **Network Log On** window appears.
13. In the **User name** text box, enter the user name for this connection.
14. In the **Password** text box, enter the password for this connection.
15. In the **Domain** text box, enter the domain name for this connection, if required.
16. Tap **Finish** or **Connect**.
17. The phone begins dialing and connects to the network.
18. To end a session, tap the **Connection** icon and then tap **Disconnect** in the dialog box.

Add a Dial-up Entry

To add a dial-up entry:

1. In the **Select Dial-up Networking Entry** window, tap and hold and then select **Add Entry** from the pop-up menu.

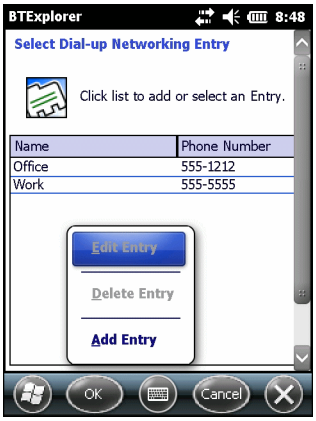

Figure 4-23 *Select Dial-up Networking Entry Window*

2. The **Add Phone Book Entry** window appears.

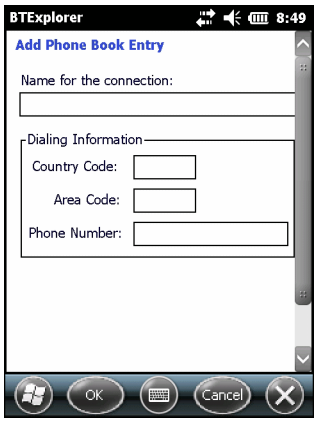

Figure 4-24 *Add Phone Book Entry Window*

3. In the Name for the connection text box, enter a name for this connection.
4. In the **Country Code** text box, enter the country code for the country that you are calling.
5. In the **Area Code** text box, enter the area code.
6. In the **Phone Number** text box, enter the phone number.
7. Tap **OK**.

Object Exchange Push Services

Object Exchange (OBEX) is a set of protocols that allows sharing objects such as Contacts or pictures using Bluetooth.

To exchange contact information with another Bluetooth enabled device:

1. Ensure the MC55 is discoverable and connectable. See *Device Info on page 4-32*.
2. Ensure that the **OBEX Object Push** profile is enabled on the MC55. See *Profiles on page 4-39* for more information.

> ***NOTE*** If favorite connections have already been created, the **Favorites** screen displays. If no favorite connections have been created, the **New Connection Wizard** screen displays.

3. Use the **Connection Wizard** to search for a Bluetooth device.
4. Select the device and tap **Next**.
5. Select the **OBEX Object Push** service and tap **Next**. The **Connection Favorite Options** window appears.
6. Tap **Next**. The **Connection Summary** window appears.
7. Tap **Connect**. The **OBEX Object Push** window appears.
8. In the **Action** drop-down list, select one of the following options: **Send Contact Information**, **Swap Contact Information**, **Fetch Contact Information**, or **Send a Picture**.

Sending a Contact

To send a contact to another device:

NOTE Prior to sending and receiving contacts, a default contact must be set up before attempting to send a contact.

1. Tap and hold on **OBEX Object Push** and select **Connect**.

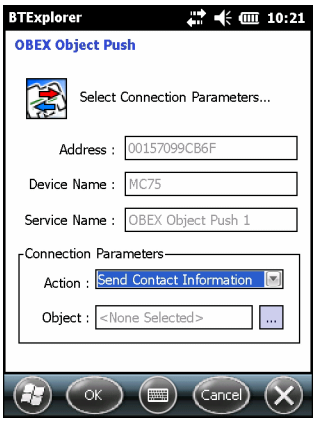

Figure 4-25 *OBEX Object Push Window*

2. In the **Action:** drop-down list, select **Send Contact Information**.
3. Tap ... .
4. Select a contact to send to the other device.
5. Tap **OK**.
6. Tap **OK** to send the contact to the other device and display a confirmation dialog box on the other device to accept the contact. A **Send Contact** dialog appears.
7. Tap **Ok**.

Swapping Contacts

To swap contacts with another device:

NOTE Prior to swapping contacts, a default contact must be set up before attempting to send a contact.

Ensure that the MC55 is connectable.

1. Tap and hold on **OBEX Object Push** and select **Connect**. The **OBEX Object Push** window appears.

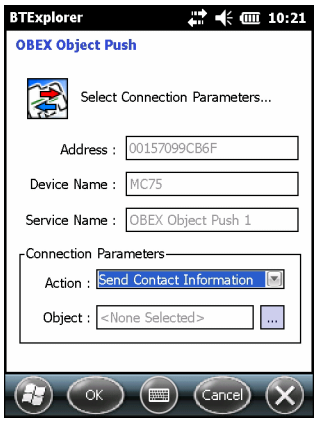

Figure 4-26 *OBEX Object Push Window*

2. In the **Action:** drop-down list, select **Swap Contact Information**.
3. Tap ... . The **Select Contact Entry** window appears.
4. Select a contact to send to the other device.
5. Tap **OK**.
6. Tap **OK** to swap contacts with the other device and display a confirmation dialog box on the other device to accept the contact.
7. Tap **Ok**.

Fetching a Contact

To fetch a contact from another device:

NOTE Prior to sending and receiving contacts, a default contact must be set up before attempting to send a contact.

Ensure that the MC55 is connectable.

1. Tap and hold on **OBEX Object Push** and select **Connect**. The **OBEX Object Push** window appears.

Figure 4-27 *OBEX Object Push Window*

2. In the **Action:** drop-down list, select **Fetch Contact information**.
3. Tap **OK**. The contact on the other device is copied.

Sending a Picture

To send a picture to another device:

1. Tap and hold on **OBEX Object Push** and select **Connect**. The **OBEX Object Push** window appears.

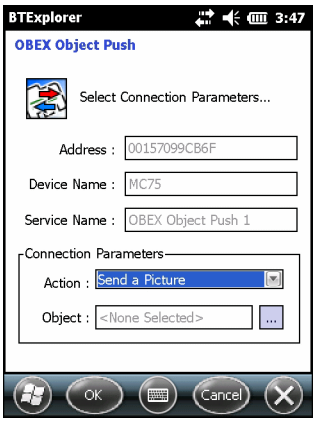

Figure 4-28 *OBEX Object Push Window*

2. In the **Action:** drop-down list, select **Send A Picture**.
3. Tap . The **Send Local Picture** window appears.

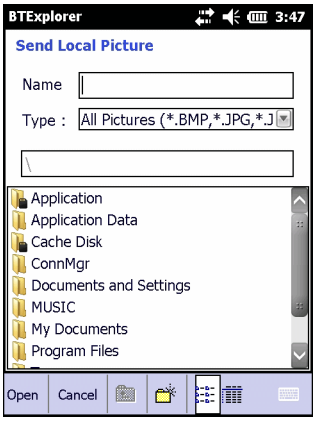

Figure 4-29 *Send Local Picture Window*

4. Navigate to the picture to send to the other device.
5. Tap **Open**.
6. Tap **OK** to send the picture to the other device and display a confirmation dialog box on the other device to accept the picture. A **Send Picture** dialog appears.
7. Tap **Ok**.

Headset Services

To connect to a Bluetooth headset:

NOTE Newer Bluetooth headsets are device dependant and remember the last device they connected to. If problems occur while connecting to the headset, place the headset in discovery mode. Refer to the headset user manual for more information.

1. Ensure the MC55 is connectable (required when automatic re-connect is initiated). See *Device Info on page 4-32*.
2. Ensure that the **Headset** profile is enabled on the MC55. See *Profiles on page 4-39* for more information.
3. Use the **Connection Wizard** to search for a Bluetooth headset.
4. Select the device and tap **Next**.
5. Select the **Headset** service name and select **Connect**. The MC55 connects to the headset. Refer to the headset user manual for instructions on communicating with a Bluetooth device.

> ***NOTE*** When using a Bluetooth headset with Headset Services, you cannot accept or end a call from the headset. You must accept or end a call on the MC55.

6. Press the communication button on the headset. This routes both system and WAN call audio to the headset.
7. When a call is received on the MC55, tap the **Accept** button to answer the call.
8. Press the communication button on the headset to route the audio back to the MC55.

Serial Port Services

Use the wireless Bluetooth serial port connection as you would a physical serial cable connection. Configure the application that will use the connection to the correct serial port.

To establish a serial port connection:

1. Use the **Connection Wizard** to search for a Bluetooth serial device.
2. Select the device and tap **Next**. The **Connection Favorite Options** window appears.
3. In the **Local COM Port:** drop-down list select a COM port.
4. Tap **Finish**.

ActiveSync Using Serial Port Services

> ***NOTE*** By default, COM ports COM5, COM9, COM11, COM21, COM22 and COM23 are Bluetooth virtual ports. If an application opens one of these ports, the Bluetooth driver activates and guides you through a Bluetooth connection.

Use the wireless Bluetooth serial port connection for ActiveSync just as you would a physical serial cable connection. You must configure the application that will use the connection to the correct serial port.

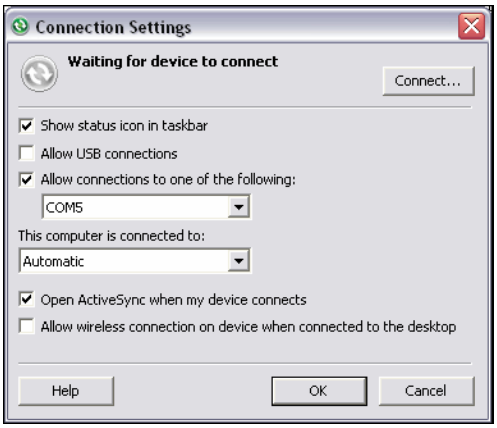

Figure 4-30 *ActiveSync Connection Settings Window on PC*

To establish an ActiveSync connection:

NOTE When creating an ActiveSync connection, only use StoneStreet One Bluetooth Explorer in Wizard mode.

1. Use the **Connection Wizard** to search for a Bluetooth device, such as a computer. In the drop-down list select **ActiveSync via Bluetooth**.
2. Select the device and tap **Next**. The **Connection Favorite Options** window appears.
3. Tap **Connect**. The **Remote Service Connection** window appears.

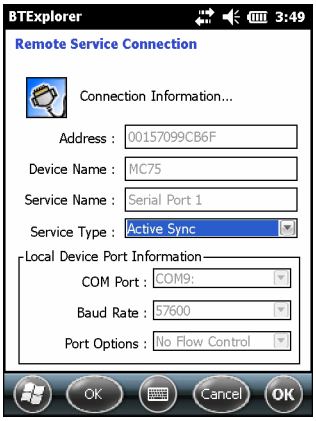

Figure 4-31 *Remote Service Connection Window*

4. In the **Service Type** drop-down list, select **Active Sync**.
5. Tap **OK**. The MC55 connects the PC and an ActiveSync session begins.
6. Tap **Finish**. The Connection Favorite Options window appears.
7. To end the session, tap the ActiveSync icon in the **Favorite** window and select **Disconnect** from the pop-up window.

Personal Area Network Services

NOTE This profile supports Ad-hoc and PAN User. Network Access Profile is not supported.

Connect two or more Bluetooth devices to share files, collaborate, or play multi-player games. To establish a Personal Area Network connection:

1. Ensure that the **Personal Area Networking** profile is enabled on the MC55. See *Profiles on page 4-39* for more information.
2. Use the **Connection Wizard** to search for a Bluetooth device.
3. Select the device and tap **Next**. The **Connection Favorite Options** window appears.
4. Tap **Next**. The **Connection Summary** window appears.
5. Tap **Connect**. The MC55 connects to the Bluetooth device.

A2DP/AVRCP Services

A2DP/AVRCP is used to connect to a high-quality stereo headset:

1. Ensure the MC55 is connectable (required when automatic re-connect is initiated). See *Device Info on page 4-32*.
2. Ensure that the remote Bluetooth device is in discoverable mode. See the devices user manual for instructions.
3. Ensure that the **A2DP/AVRCP** profile is enabled on the MC55. See *Profiles on page 4-39* for more information.
4. Tap **Menu** > **Settings** > **Services**.
5. Tap **Add** button.
6. Select **Advanced Audio Distribution Services**.
7. Tap **OK**. The **Edit Local Services** window appears.
8. Tap **OK** twice.
9. Tap Menu > New Connection.
10. Select **Connect to High-Quality Audio** from the drop-down list.
11. Tap **Next**.
12. Select the device and tap **Next**.
13. Enter the PIN Code for the remote device and then tap **OK**. The **Connection Favorite Options** window appears.
14. Tap **Next**.
15. Tap **Connect**. The MC55 connects to the high-quality audio headset.

For stereo headsets that can use hands-free services, connect to the hands-free service after connecting to the A2DP service:

1. Tap **Menu** > **New Connection**.
2. Select **Connect to Headset** from the drop-down list.
3. Tap **Next**.
4. Select the stereo headset and tap **Next**.
5. Select the **Hands-Free unit** service and then tap **Next**.

6. Tap **Next**.
7. Tap **Connect**.

Connect to a HID Device

The MC55 can connect to an Human Interface Device (HID) device such as a Bluetooth keyboard:

1. Ensure the MC55 is connectable (required when automatic re-connect is initiated). See *Device Info on page 4-32*.
2. Ensure that the remote Bluetooth device is in discoverable mode. See the device user manual for instructions.
3. Ensure that the **HID Client** profile is enabled on the MC55. See *Profiles on page 4-39* for more information.
4. Tap **Menu** > **New Connection**.
5. Select **Explore Services on Remote Device** from the drop-down list.
6. Tap **Next**.
7. Select the device and tap **Next**.
8. Select the service and tap **Next**.
9. The **Connection Favorite Options** window appears.
10. Tap **Next**.
11. Tap **Connect**. The MC55 connects to the HID device.

Bonding with Discovered Device(s)

A bond is a relationship created between the MC55 and another Bluetooth device in order to exchange information in a secure manner. Creating a bond involves entering the same PIN on the two devices. After creating a bond and turning on the Bluetooth radios, the devices recognize the bond and can exchange information without re-entering a PIN.

To bond with a discovered Bluetooth device:

NOTE If favorite connections have already been created, the **Favorites** screen displays. If no favorite connections have been created, the **New Connection Wizard** screen displays.

1. Tap the **Bluetooth** icon and select **Show BTExplorer**. The **BTExplorer** window appears.
2. Tap **Menu** > **New Connection**. The **New Connection Wizard** window appears.
3. In the drop-down list, select **Pair with Remote Device**.
4. Tap **Next**. The **Select Remote Device** window appears.

NOTE Devices discovered previously are listed to save time. To start a new device discovery, tap and hold on the list area and select **Discover Devices** from the pop-up menu.

Figure 4-32 *Select Remote Device Window*

5. Select a device from the list and tap **Next**. The **PIN Code Request** window appears.

Figure 4-33 *Connection Favorite Options Window*

6. In the **PIN Code** field, enter the PIN code.
7. Tap **OK**. The **Pairing Status** window displays.
8. Tap **Finish**. The devices are successfully paired. The device name moves to the **Trusted Devices** window.

Deleting a Bonded Device

To delete a device no longer needed:

1. Tap the **Bluetooth** icon and select **Show BTExplorer**. The **BTExplorer** window appears.
2. Tap **Menu** > **Trusted Devices**. The **Trusted Devices** window appears.
3. Tap and hold on the device select **Delete Link Key** in the pop-up menu.
4. A confirmation dialog appears. Tap **Yes**.

Accepting a Bond

When a remote device wants to bond with the MC55, enter a PIN when requested to grant permission.

1. Ensure that the MC55 is set to discoverable and connectable. See *Bluetooth Settings on page 4-32*. When prompted to bond with the remote device the **PIN Code Request** window appears.

Figure 4-34 *PIN Code Request Window*

2. In the **PIN Code:** text box, enter the same PIN entered on the device requesting the bond. The PIN must be between 1 and 16 characters.
3. In the **Device Name:** text box, edit the name of the device requesting the bond, if desired.
4. Tap **OK** to create the bond. The MC55 can now exchange information with the other device.

Bluetooth Settings

Use the **BTExplorer Settings** window to configure the operation of the **BTExplorer** application. Tap **Menu** > **Settings**.

Device Info

Use **Device Info** to configure the MC55's Bluetooth connection modes.

Table 4-3 *Device Info Data*

Item	Description
Device Name	Displays the name of the MC55.
Discoverable Mode	Select whether or not the MC55 is discoverable by other Bluetooth devices.
Connectable Mode	Select whether or not the MC55 is connectable by other Bluetooth devices.

Services

NOTE Ensure that the MC55 is discoverable and connectable when remote devices use MC55 services.

Use **Services** to add or delete Bluetooth services.

Figure 4-35 *BTExplorer Settings - Services*

To add a service:

1. Tap **Add**.

Figure 4-36 *Add Local Service Window*

2. In the list, select a service to add.
3. Tap **OK**. The **Edit Local Service** window displays for the selected service.
4. Select the appropriate information and then tap **OK**. See the following sections for information on the available services.

Dial-Up Networking Service

Dial-up Networking allows other Bluetooth devices to access a dial-up modem.

Table 4-4 *Dial-up Networking Information Data*

Item	Description
Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are **None**, **Authenticate**, or **Authenticate/Encrypt**.

Table 4-4 *Dial-up Networking Information Data*

Item	Description
Local COM Port	Select the COM port.
Local Baud Rate	Select the communication baud rate.
Local Port Options	Select the port option.

File Transfer Service

File transfer allows other Bluetooth devices to browse files.

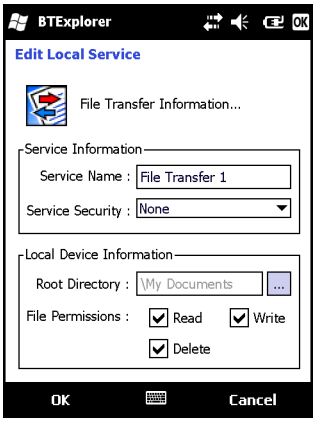

Figure 4-37 *BTExplorer Settings - File Transfer Information*

Table 4-5 *File Transfer Information Data*

Item	Description
Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are **None**, **Authenticate**, or **Authenticate/Encrypt**.
Root Directory	Select the directory that other Bluetooth devices can access.
File Permissions	Select the file permissions for the selected directory. Check the appropriate box to grant read access, write access, and delete access.

Hands-Free Audio Gateway Service

Hands-Free Service Audio Gateway allows connection to hands-free devices.

Table 4-6 *Hands-Free Audio Gateway Data*

item	Description
Service Name	Lists the name of the audio service.

Headset Audio Gateway Service

Headset Service Audio Gateway allows connection to headset devices.

Table 4-7 *Headset Audio Gateway Data*

Item	Description
Service Name	Lists the name of the audio service.

IrMC Synchronization Service

The IrMC Synchronization service used to synchronize PIM contacts between a remote device and the MC55.

Table 4-8 *IrMC Synchronization Data*

Item	Description
Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are **None**, **Authenticate**, or **Authenticate/Encrypt**.
Phonebook	Select the **Phonebook** checkbox to allow synchronization with the MC55's contacts.
	Select **Read**, **Write**, **Create** and/or **Delete** to allow phonebook permissions.

OBEX Object Push Service

OBEX Object Push allows other Bluetooth devices to push contacts, business cards, pictures, appointments, and tasks to the MC55.

Table 4-9 *OBEX Exchange Information Data*

Item	Description
Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are **None**, **Authenticate**, or **Authenticate/Encrypt**.
Do not allow clients to push objects	Disables clients from pushing objects to the MC55.
Inbox Directory	Select a directory where another Bluetooth device can store files.

Personal Area Networking Service

Personal Area Networking hosts a Personal Area Network which allows communication with other Bluetooth devices.

Table 4-10 *Personal Area Networking Data*

Item	Description
Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are **None**, **Authenticate**, or **Authenticate/Encrypt**.
Support Group Ad-Hoc Networking	Select to enable Ad-Hoc networking.

Serial Port Service

Serial port allows other Bluetooth devices to access COM ports.

Table 4-11 *Serial Port Services Data*

Item	Description
Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are **None**, **Authenticate**, or **Authenticate/Encrypt**.
Local COM Port	Select the COM port.
Local Baud Rate	Select the communication baud rate.
Local Port Options	Select the port option.

Advanced Audio Distribution Service

Advanced Audio Distribution hosts connects from Bluetooth devices supporting high-quality stereo audio.

Table 4-12 *Advanced Audio Distribution Data*

Item	Description
Service Name	Lists the name of the audio service.

Audio Video Remote Control Service

Audio Video Remote Control hosts connections from Bluetooth devices supporting audio remote-control functionality.

Table 4-13 *Audio Video Remote Control Data*

Item	Description
Service Name	Lists the name of the audio service.

Security

Security settings allows you to set global security policies for Bluetooth. Note that these settings are only active on local Services that are set to Authenticate or Authenticate/Encryption. You can set authentication on local Services under Services.

To adjust the security settings for an individual service, select **Services** first, then select the individual service, then **Properties**.

Figure 4-38 *BTExplorer Settings - Security*

NOTE To use PIN Code, select **Authenticate** or **Authenticate/Encrypt** from the Service Security drop-down list on each local service.

Table 4-14 *Security Data*

Item	Description
Use PIN Code (Incoming Connection)	Select for automatic use of the PIN code entered in the **PIN Code** text box. It is recommended not to use this automatic PIN code feature. See *Security on page 4-2* for more information.
PIN Code	Enter the PIN code.
Encrypt Link On All Outgoing Connections	Select to enable or disable encryption on all outgoing connections to other Bluetooth devices.

Discovery

Use **Discovery** to set and modify discovered devices.

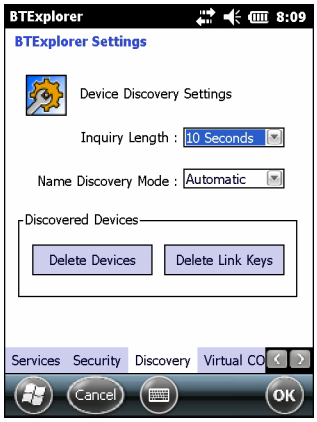

Figure 4-39 *BTExplorer Settings - Discovery*

Table 4-15 *Discovery Data*

Item	Description
Inquiry Length	Sets the amount of time the MC55 takes to discover Bluetooth devices in the area.
Name Discovery Mode	Select either **Automatic** or **Manual** to automatically attempt to discover a Bluetooth device's name after finding the device.
Discovered Devices - Delete Devices	Deletes all discovered devices and link keys from memory.
Discovered Devices - Delete Linked Keys	Removes all pairing from remote Bluetooth devices, and makes them all un-trusted.

Virtual COM Port

Virtual COM Port defines which COM ports BTExplorer attempts to use for virtual COM ports. Check the appropriate checkbox to use the port as a virtual COM port. When finished, choose **Apply** to enforce changes, or **Revert** to restore the original settings.

Table 4-16 *Virtual COM Port Data*

Item	Description
COM5:Bluetooth	Enable or disable COM Port 5.
COM9:Bluetooth	Enable or disable COM Port 9.
COM11:Bluetooth	Enable or disable COM Port 11.
COM21:Bluetooth	Enable or disable COM Port 21.
COM22:Bluetooth	Enable or disable COM Port 22.
COM23:Bluetooth	Enable or disable COM Port 23.

HID

Use **HID** to select The Human Interface Device Profile programming interface defines the protocols and procedures to be used to implement HID capabilities.

Provides support for devices such as mice, joysticks, keyboards.

Table 4-17 *HID Data*

Item	Description
Enable Key Repeat	Enables key repeat functionality.
Delay	To increase key repeat delay, drag the **Delay** slider to the right. To decrease key repeat delay, drag the **Delay** slider to the left.
Rate	To increase key repeat speed, drag the **Rate** slider to the left. To decrease key repeat speed, drag the **Rate** slider to the right.

Profiles

Use **Profile** to load or remove Bluetooth services profiles. If a profile is not used, it can be removed to save memory.

1. Tap a check box next to the profile to load (activate).

   The Serial Port profile is always active and cannot be removed.

2. Tap **Select All** to select all profiles or tap **Deselect All** to deselect all profiles.

3. Tap **Apply** to activate the profiles and then **Close** to exit the application.

System Parameters

Use **System Parameters** to set device connection settings.

Table 4-18 *System Parameters Data*

item	Description
Page Timeout	Sets the amount of time the MC55 searches for a device before moving on the next device.
Link Supervision Timeout	Sets the amount of time that the MC55 will wait for a device to come back into range after it has gone out of range. If the device does not come back into range by the set time, the MC55 drops the connection.

Miscellaneous

Use **Miscellaneous** to set color and types to better view active connections.

Table 4-19 *Miscellaneous Data*

Item	Description
Highlight Connections	Select the connection type to highlight when connected. In the Wizard Mode, the only options are *Favorites* or *None*. In the Explorer Mode the options are **None**, **Tree View Only**, **List View Only**, or **Tree and List View**.
Apply Text Style	Select the text style to apply to the connection text.
Apply Text Color	Select the text color to apply to the connection text.

CHAPTER 5 ACCESSORIES

Introduction

Table 5-1 lists the accessories available for the MC55.

Table 5-1 *MC55 Accessories*

Accessory	Part Number	Description
Cradles		
Single-slot USB Cradle	CRD5500-1000UR	Charges the MC55 main battery and a spare battery. Synchronizes the MC55 with a host computer through a USB connection.
Single-slot Ethernet/Modem/USB Cradle	CRD5500-1000XR	Charges the MC55 main battery and a spare battery. Synchronizes the MC55 with a host computer through an Ethernet, Modem or USB connection.
Four-slot Charge Only Cradle	CRD5500-4000CR	Charges up to four MC55 devices.
Vehicle Holder	VCH5500-1000R	Provides an alternative mounting solution for the MC55 in a vehicle. Requires the Auto Charge cable for charging the MC55 battery.
Chargers		
Four-slot Spare Battery Charger	SAC5500-4000CR	Charges up to four MC55 batteries.
USB Charging Cable	KT-108022-03R	Provides power to the MC55 and USB communication with a host computer.
Charge Only Cable	25-112560-01R	Connects to a power supply to provide power to the MC55.
Auto Charge Cable	VCA5500-01R	Charges the MC55 using a vehicle's cigarette lighter.
Miscellaneous		
Magnetic Stripe Reader	MSR5500-100R	Snaps on to the MC55 and adds magnetic stripe reading capabilities.
Trigger Handle	TRG5500-100R	Adds a gun-style handle with a scanning trigger to the MC55.
DEX Cable	25-127558-01R	Connects the MC55 to a vending machine.

Table 5-1 *MC55 Accessories (Continued)*

Accessory	Part Number	Description
Spare 2400 mAh lithium-ion battery	BTRY-MC55EAB00 BTRY-MC55EAB00-10 BTRY-MC55EAB00-50	Replacement 2400 mAh battery (MC55 only). 10-pack. 50-pack.
Spare 3600 mAh lithium-ion battery	BTRY-MC55EAB02 BTRY-MC55EAB02-10 BTRY-MC55EAB02-50	Replacement 3600 mAh battery. 10-pack. 50-pack.
Spare 3600 mAh lithium-ion battery	BTRY-MC55EAB02-H	Replacement 3600 mAh battery (MC55-HC only).
Belt Mounted Rigid Holster	SG-MC5511110-01R	Clips onto belt to hold the MC55 when not in use.
Fabric Holster	SG-MC5521110-01R	Soft holder for added protection.
Stylus	KT-119150-03R KT-119150-50R	Replacement stylus (3-pack). Replacement stylus (50-pack).
Stylus	Stylus-HC005-03R Stylus-HC005-50R	Replacement stylus for MC55-HC (3-pack) Replacement stylus for MC55-HC (50-pack)
Spring Loaded Stylus	STYLUS-00001-03R STYLUS-00001-10R	Optional spring loaded stylus (3-pack). Optional spring loaded stylus (10-pack).
Tether	KT-122621-03R KT-122621-50R	Replacement tether (3-pack) Replacement tether (50-pack)
Anti-bacterial Handstrap	SG-MC5523341-01R	Replacement handstrap for MC55-HC only.
Wall Mounting Kit	8710-050006-01R	Use for wall mounting the Four-slot cradles.
Screen Protector	KT-67525-01R	Package of 3 screen protectors.
Software	-	Enterprise Mobility Developer Kits (EMDKs), available at: http://supportcentral.motorola.com.

Single-slot USB Cradle

This section describes how to use a Single-slot USB cradle with the MC55. For USB communication setup procedures refer to the *MC55 Integrator Guide.*

The Single-slot USB Cradle:

- Provides 5.4 VDC power for operating the MC55.
- Synchronizes information between the MC55 and a host computer. Refer to the *MC55 Integrator Guide* for information on setting up a partnership between the MC55 and a host computer.
- Charges the MC55's battery.
- Charges a spare battery.

Charging the MC55 Battery

Connect the cradle to power. Insert the MC55 into the slot to begin charging.

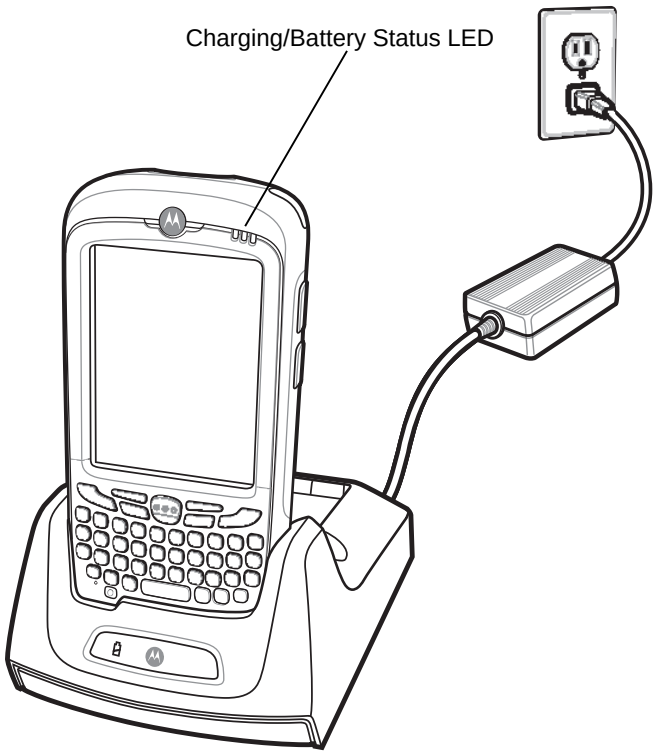

Figure 5-1 *MC55 Battery Charging*

Charging the Spare Battery

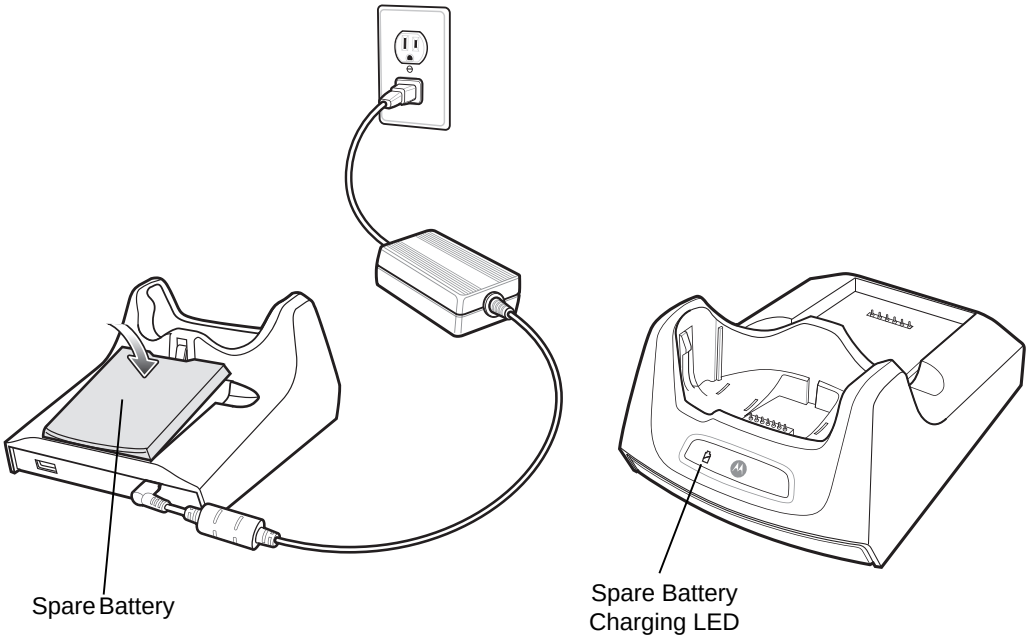

Figure 5-2 *Spare Battery Charging*

Battery Charging Indicators

The Single-slot USB Cradle charges the MC55's main battery and a spare battery simultaneously.

The MC55's charge LED indicates the status of the battery charging in the MC55. See *Table 1-1 on page 1-6* for charging status indications.

The spare battery charging LED on the cradle indicates the status of the spare battery charging in the cradle. See *Table 5-2* for charging status indications.

The 2400 mAh battery fully charges in less than four hours and the 3600 mAh battery fully charges in less than six hours.

Charging Temperature

Charge batteries in temperatures from 0°C to 40°C (32°F to 104°F). Charging is intelligently controlled by the MC55.

To accomplish this, for small periods of time, the MC55 or accessory alternately enables and disables battery charging to keep the battery at acceptable temperatures. The MC55 or accessory indicates when charging is disabled due to abnormal temperatures via its LED. See *Table 1-1 on page 1-6* and *Table 5-2*.

Table 5-2 *Spare Battery LED Charging Indicators*

Spare Battery LED (on cradle)	Indication
Off	Battery is not charging; battery is not inserted correctly in the cradle; cradle is not powered
Slow Blinking Amber	Spare battery is charging.
Solid Amber	Charging complete.
Fast Blinking Amber	Charging error.

Single-slot Ethernet/Modem/USB Cradle

The CRD5500-1000XR cradle provides connection to a host computer using USB, a dial-up network using the modem or an Ethernet network.

Refer to the *MC55 Integrator Guide* for information on setting up the cradle.

Country Settings

The modem defaults to operation with US telephone networks. To operate the modem with other country telephone networks, it must be configured using an application on the MC55. Download the *Cradle Modem Country Configurator Application Software for MC55xx* package from the Motorola Support Central web site: http://www.motorola.com/enterprisemobility/support.

Following the instructions with the software package to install the application on the MC55.

The application includes country selections for all supported countries and automatically programs the modem and adjust its operating parameters to comply with the telephone network in the selected country.

Connection Setup

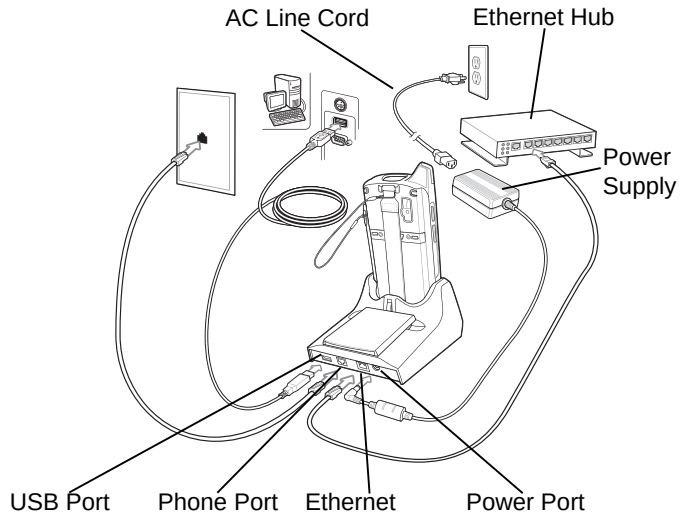

Figure 5-3 *Connection Setup*

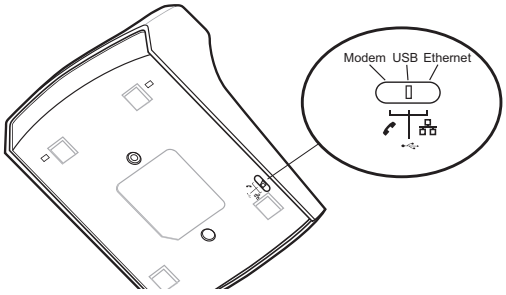

Figure 5-4 *Connection Switch*

Indicators

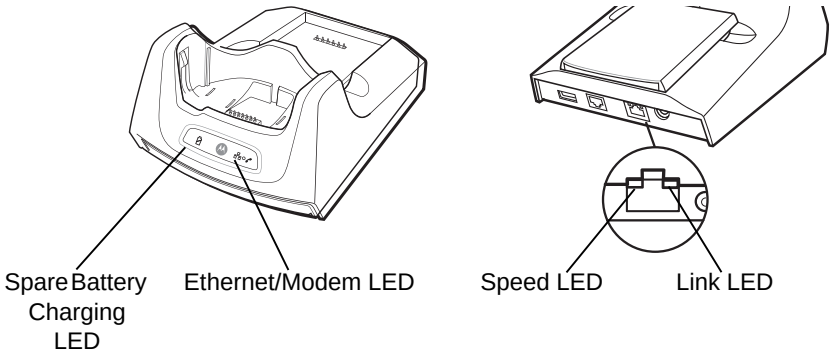

Figure 5-5 *Indicators*

- **Spare Battery Charging LED** - Indicates the charging status of the spare battery.
- **Ethernet/Modem LED** - Blink whenever Ethernet or modem connectivity is established.
- **Speed LED (green)**- Indicates that the transfer rate is 100 Mbps. When it is not lit it indicates that the transfer rate is 10 Mbps.
- **Link LED (yellow)** - Blinks to indicate activity, or stays lit to indicate that a link is established. When it is not lit it indicates there is no link.

Operation

NOTE The CRD5500-1000XR does not support hot swapping between operational modes. After moving the switch into a different position, remove the MC55 from the cradle and then re-insert into the cradle.

Ethernet Connection

Place the Connection switch on the bottom of the cradle to the Ethernet position.

Place the MC55 into the cradle.

To test the connection, tap > **Programs** > **Internet Explorer**. Enter a web address.

Modem Connection

Place the Connection switch on the bottom of the cradle to the Modem position.

Place the MC55 into the cradle.

The MC55 dials the phone number and connects to the web site.