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OMNIKEY®

2061 Bluetooth Reader

USER MANUAL

Firmware Version 1.30

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2061-905, Rev A.1

Read Me First

About This Guide

This manual describes the OMNIKEY 2061 Bluetooth reader. This user manual describes the reader configuration, operation and software installation.

See www.hidglobal.com/omnikey for additional information like a technical FAQ.

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Contents

1 Overview

The OMNIKEY® 2061 Bluetooth Reader is a Bluetooth connected reader that provides a contact interface, which reads/writes to virtually any ISO7816-3 compatible contact smart card.

1.1 Parts List

Verify the OMNIKEY 2061Bluetooth Reader contents.

- 1 OMNIKEY 2061 Bluetooth reader
- 1 USB cable
- 1 Software CD
- 2 Belt Clips
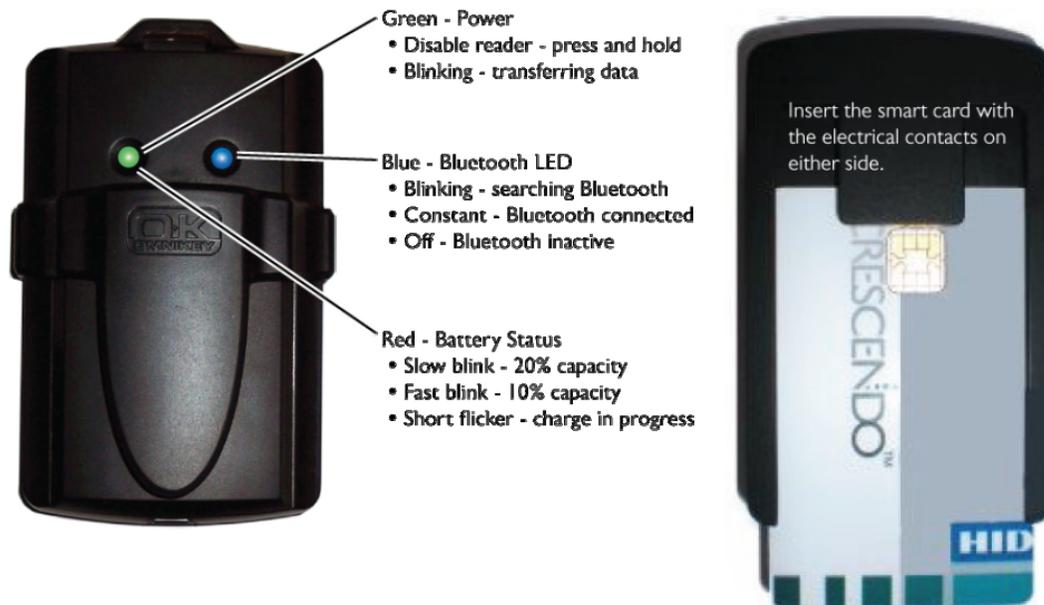- 1 Safety and Product Information Manual

Contact the dealer if your OMNIKEY 2061 Bluetooth reader package is incomplete.

1.2 System Requirements

Operating System	Windows® Vista® - 32-bit (x86) - 64-bit (x64) Windows 7 - 32-bit (x86) - 64-bit (x64)	Windows XP® - 32-bit - 64-bit
Hard Disk Space	50 MB	
Video Adapter	SXGA (1024 x 768) or higher-resolution recommended	
Bluetooth Interface	Microsoft® Bluetooth Stack Toshiba® Bluetooth Stack	

2 Operation

The following describes the OMNIKEY 2061 Bluetooth reader operation.

Green - Power
- Disable reader - press and hold
- Blinking - transferring data

Blue - Bluetooth LED
- Blinking - searching Bluetooth
- Constant - Bluetooth connected
- Off - Bluetooth inactive

Red - Battery Status
- Slow blink - 20% capacity
- Fast blink - 10% capacity
- Short flicker - charge in progress

Insert the smart card with the electrical contacts on either side.

3 Getting Started

3.1 Software Installation

Insert the software Installation CD. Click **Install Bluetooth Reader Configuration**. For new software versions, go to http://www.hidglobal.com/omnikey.

3.2 Battery Charging

Ensure the battery is fully charged before use. For a discharged battery, it takes approximately four hours to charge.

To charge the battery, connect the OMNIKEY 2061 Bluetooth reader to a computer through the enclosed USB cable.

3.3 Reader Setup

Define a common name for the reader before installation. See 4.2.3 Installation Properties, page 8 for details.

1. Connect the reader to the computer using the enclosed USB cable.

2. Switch on the reader by pressing the **Power** button.

3. Start the **Bluetooth Reader Configuration Software.** See Section 4 Bluetooth Configuration Software, page 6 for additional details.
   Click **Start > Programs > OMNIKEY > Bluetooth Reader Configuration**.

4. From the **Reader** menu, click **Select Reader…**

5. From the drop-down list, select the USB connected reader, click **OK**.
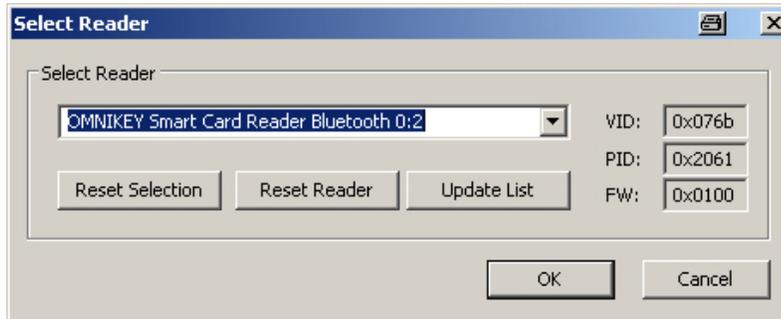
6. From the **Reader** menu, select **Install Reader…**

7. From the **Installation** dialog, click **Start**. Clicking **Start** pairs the reader and installs the Bluetooth device driver.
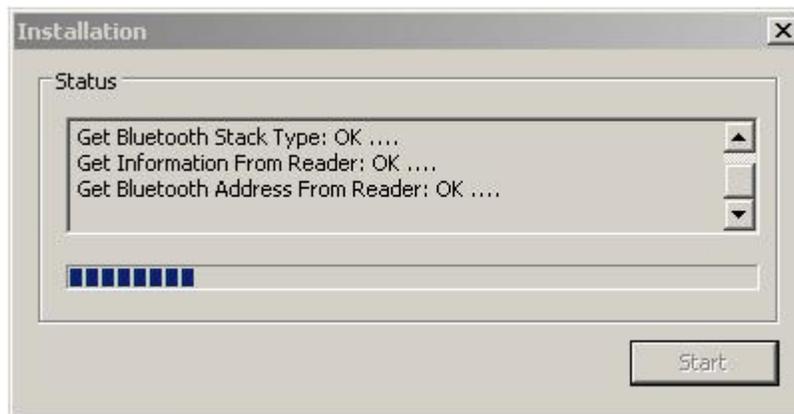
8. If successful, the Bluetooth LED displays constant illumination.

4   Bluetooth Configuration Software

The Bluetooth Configuration Software installs and manages your OMNIKEY 2061 Bluetooth readers.

4.1   Profile Management

Using the **Profile** menu, setup the reader settings. Options include defining, storing and loading different profiles.

The Profile concept maintains a mechanism for easily configuring a large number of OMNIKEY 2061 Bluetooth readers with one single Profile.

A Profile stores the configuration parameters of **Parameter Sets**. Manage the values of a Parameter Set with the **Installation Properties** and **Energy Saving Parameters** dialogs.

If a Profile is not opened and no reader is selected the current Parameter Set is initiated with the default parameters as defined in the default.ini file, stored in the installation directory.

Create a new profile by clicking **Profile** > **New.** The current Parameter Set is initiated with the default parameters from default.ini. Save the new Profile by clicking **Profile** > **Save** or **Profile** > **Save As**.

If opening an existing profile (click **Profile** > **Open**), the configuration parameters from the Profile are read and stored in the current Parameter Set. Click **Update Profile** to modify the configuration parameters of the opened Profile using **Installation Properties** and **Energy Saving Parameters**. You cannot change a Profile when selecting a Profile and a Reader.

If simultaneously selecting a Profile and Reader the current Parameter Set always contains the parameters from the Profile File. Therefore, it is possible to transfer the configuration parameters from the current Parameter Set to the currently connected OMNIKEY 2061 Bluetooth reader. From **Installation Properties** and **Energy Saving Parameters**, click **Update Reader**.

4.2   Reader Management

Using the **Reader** menu you can install, select and configure a USB connected OMNIKEY 2061 Bluetooth reader.

4.2.1   Reader Selection

With the **Select Reader** dialog, select USB connected OMNIKEY 2061 Bluetooth reader. The list box lists connected readers. The dialog shows also the vendor (VID), the product id (PID) and the firmware version (FW) of the selected reader.

The USB path of the selected reader is shown as a suffix to the reader name. In the following example, the USB path **0:2** indicates this reader is connected on the second USB port on the first USB hub.
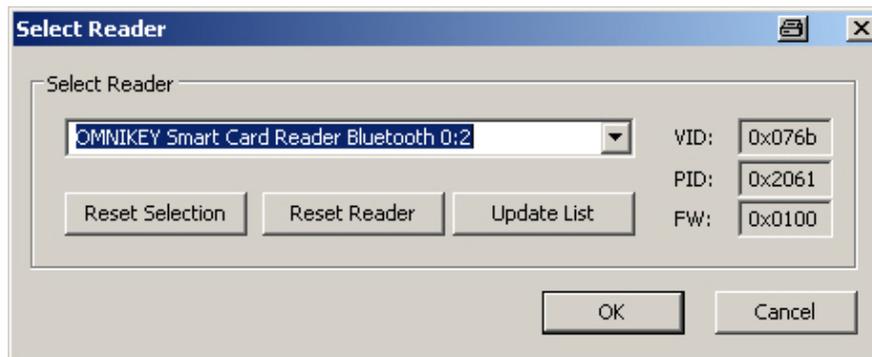

Reset Selection	Deselects the currently selected reader.
Reset Reader	Resets the currently selected reader.
Update List	Updates the list of USB connected readers.
OK	Approves the selected reader and loads the reader settings.

4.2.2 Reader Installation

Install the OMNIKEY 2061 Bluetooth reader with the **Installation** dialog.

Note: Connect the reader using the USB cable and switch on.
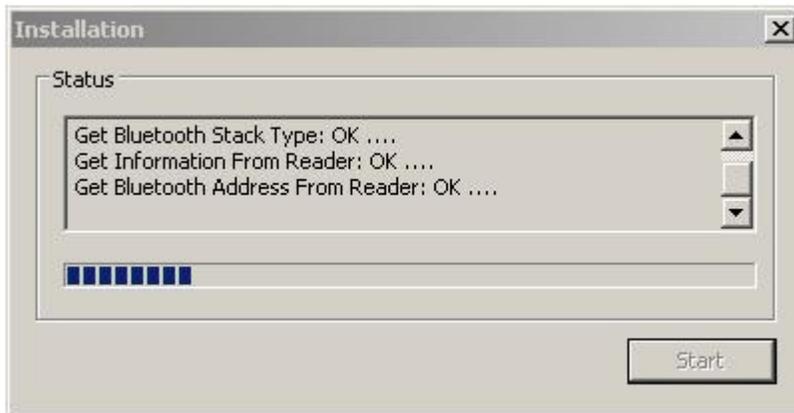
Clicking **Start** pairs the reader and installs the Bluetooth device driver. After finishing the installation process the reader is ready to use.

4.2.3 Installation Properties

The **Installation Properties** dialog configures the installation behaviour of the reader.

The default option, **Accept Bluetooth Pairing from any host** indicates that the reader accepts pairing requests from computers which are currently not paired with the reader.

If the option **Accept Bluetooth pairing from paired host only** is set, it is impossible to pair the reader with new computers.

Define the reader a friendly name using the **friendly name** field. The friendly name displays in the **Bluetooth Devices** dialog of the Bluetooth stack currently in use.

4.2.4   Energy Saving Parameters

The **Energy Saving Parameters** dialog configures the reader settings affecting the power consumption.

Timeouts are defined in seconds. If a timeout is set to zero, the timeout is deactivated. The timeouts are deactivated while the reader is connected to a computer with a USB cable.
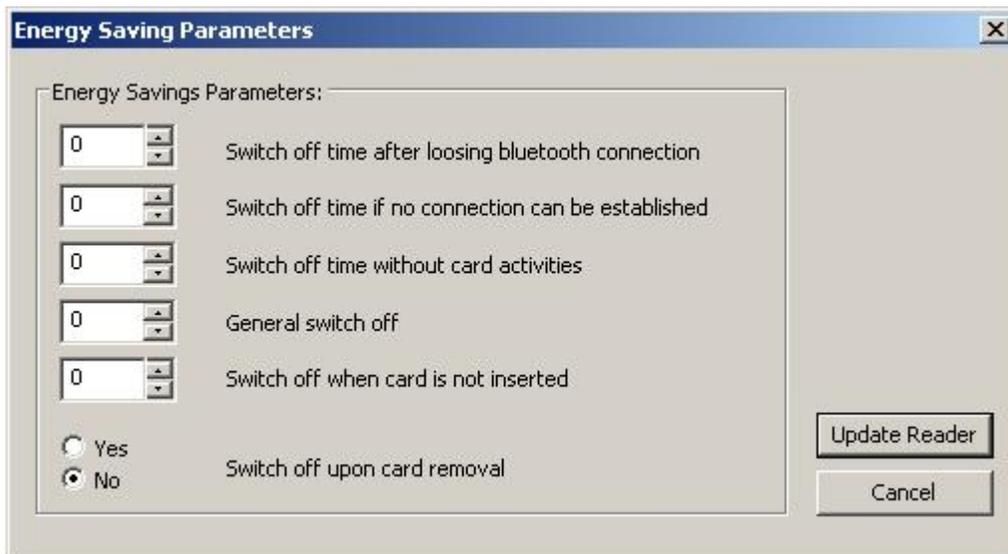

4.2.5   Reset Reader Settings

Reset Reader Settings resets the active reader settings to default values. The default values are stored in the file **default.ini** in the installation directory of the Bluetooth Configuration Software.

4.2.6   Set Reader PIN

Set Reader PIN sets the OMNIKEY 2061 Bluetooth reader PIN. The PIN is required for pairing your reader manually.

4.2.7 Firmware Update

The **Firmware Update** dialog updates the reader firmware. New firmware images are available at www.hidglobal.com/omnikey.
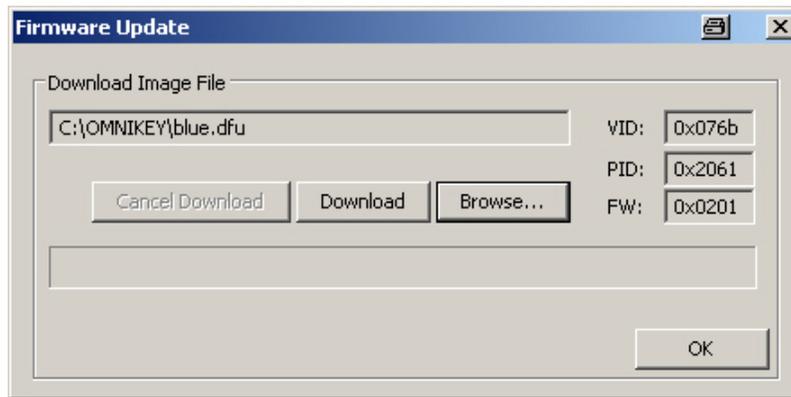
Select a firmware image by clicking **Browse** and going to the firmware file location. Select the firmware file, click **Download**. The Firmware Update dialog shows the vendor ID (VID), the product ID (PID) and the firmware build number of the selected firmware image.

4.2.8 Paired Hosts Information

Paired Hosts Information displays information about the hosts paired with the reader. The left column displays the index of the paired host. The right column displays the Bluetooth address of the connected host radio.
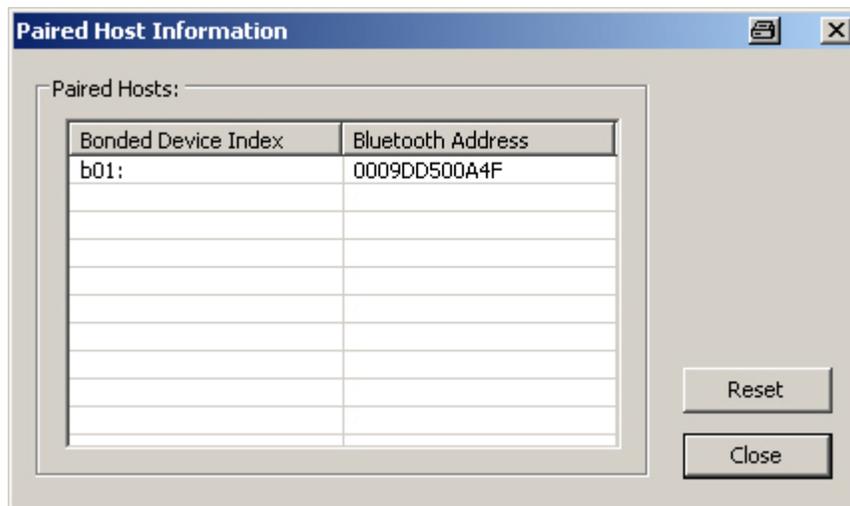
Clear the list of paired hosts by clicking **Reset**.

CAUTION: When resetting the paired host information, the reader is no longer usable with all hosts where it is installed.

4.2.9 Battery Status

The Battery Status indicates the current battery status. 100% means the battery is fully charged.

4.3   Diagnostics
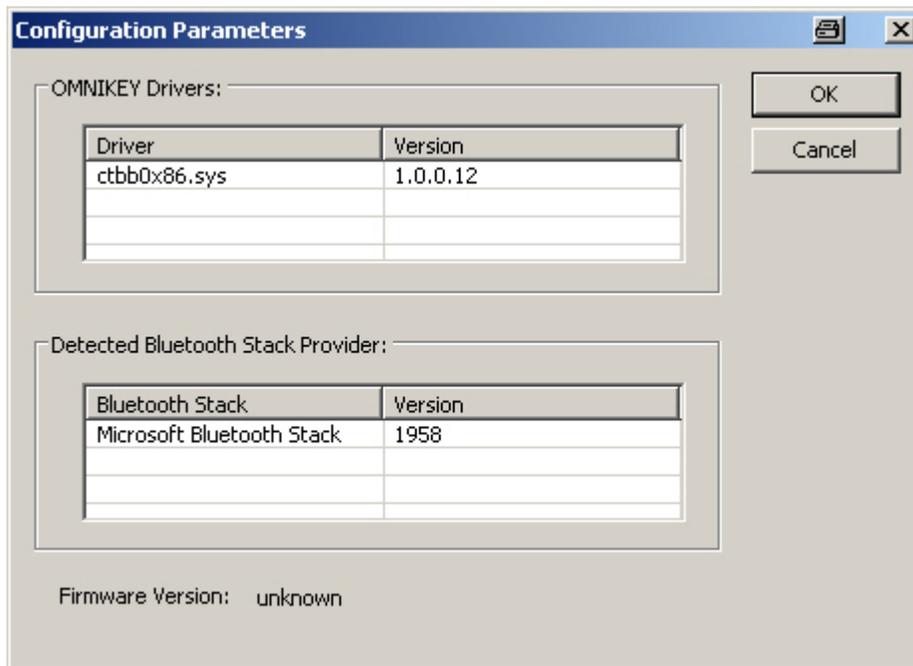
4.3.1   Test Bluetooth Connection

Switch on the reader, click **Diagnostic** > **Test Bluetooth Connection** to perform a Bluetooth connection test.

4.3.2   Configuration Parameters

The **Configuration Parameters** dialog displays information about the configuration environment.

OMNIKEY Drivers displays the installed Bluetooth driver and the version.

Detected Bluetooth Stack Provider displays the active Bluetooth stack and the version.

Configuration Parameters

OMNIKEY Drivers:

Driver	Version
ctbb0x86.sys	1.0.0.12

OK

Cancel

Detected Bluetooth Stack Provider:

Bluetooth Stack	Version
Microsoft Bluetooth Stack	1958

Firmware Version: unknown

4.3.3 Diagnostic Tool

Open the **OMNIKEY Diagnostic Tool**, installed during the Bluetooth Configuration Software installation. Go to **Start** > **Programs** > **OMNIKEY > Diagnostic Tool.**

The **Diagnostic Tool** provides information about the inserted smart card, reader firmware and library version.

The **General** tab lists all the connected OMNIKEY Smart Card readers, along with driver information. Additional tabs display connected reader details.

For a functional test, insert a working smart card into the reader. As a result, an ATR string and other card details display.

Download the latest version of the OMNIKEY Diagnostic Tool from www.hidglobal.com/omnikey.
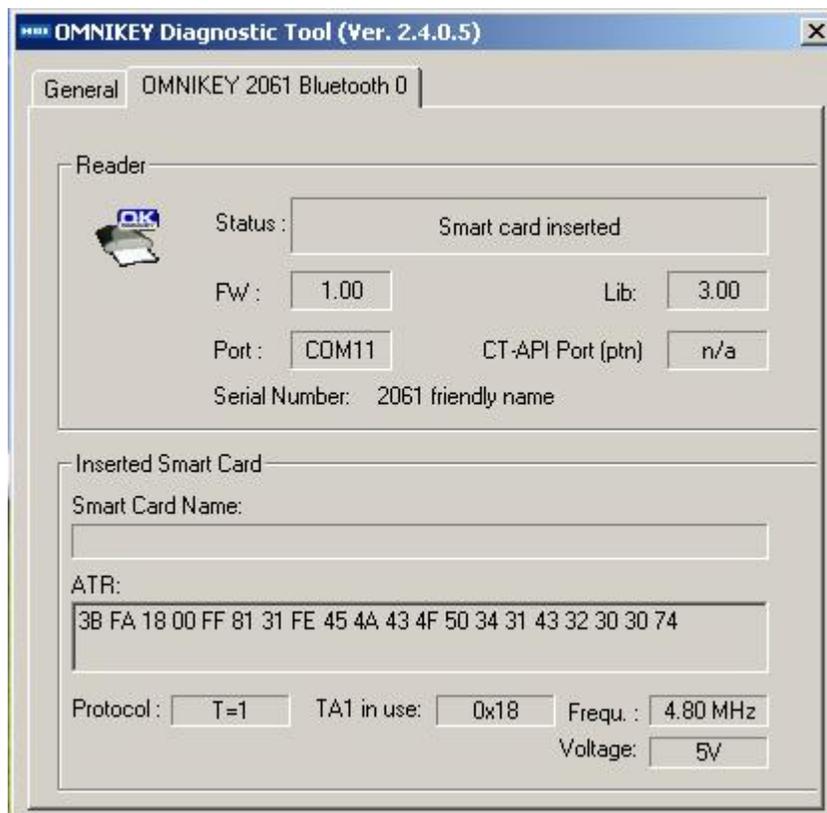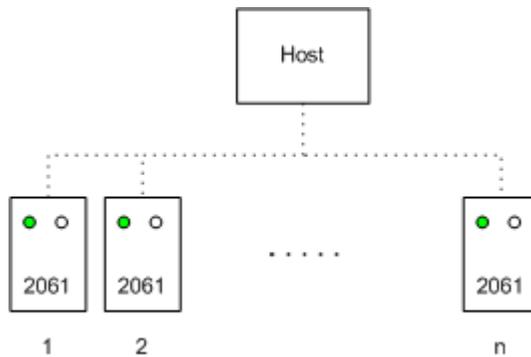
5   Conditions

This section discusses Installation and Handling Conditions for the OMNIKEY 2061 Bluetooth reader.

5.1   Installation

The maximum number of 2061 Bluetooth reader associated with one host is limited by the Host Bluetooth software and hardware. In addition, there is a maximum number of Virtual COM Ports supported by the host's operating system.
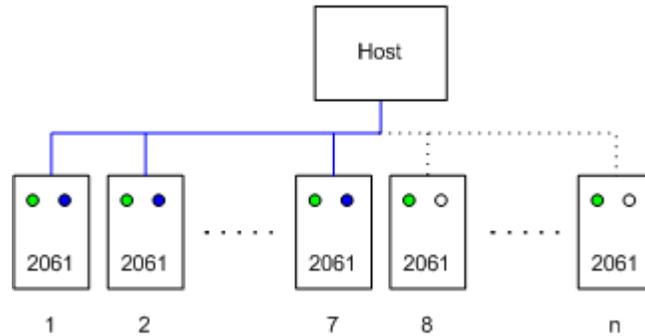
Install the OMNIKEY 2061 Bluetooth reader with no more than eight hosts. Installing the reader on a ninth host, removes the first reader instance from the host reader list.
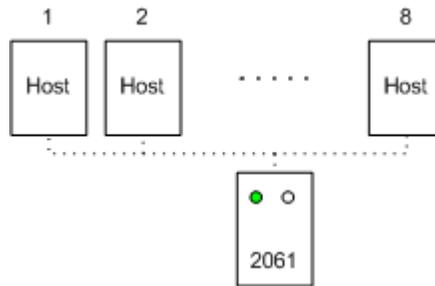
5.2   Handling

The maximum number of readers connected simultaneously with a host is seven. This limitation is caused by the Bluetooth protocol. There are only eight members within a Bluetooth Piconet.

When more than seven readers are installed on one host, if these readers are enabled and in range of the hosts Bluetooth radio, it is unpredictable which readers are connected.
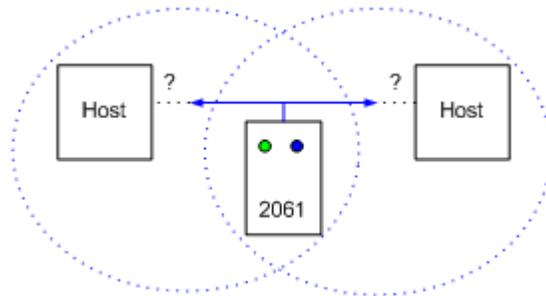
When an OMNIKEY 2061 Bluetooth reader is installed on more than one host and the Bluetooth field of this host overlaps, it is unpredictable to which of the hosts the device will connect. Overcome this issue by using Bluetooth radios with reduced transmission power. For instance the Bluetooth Class 3 radio (max. range 1m) has reduced transmission power so that the Bluetooth field area does not overlap.
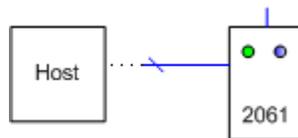
The connection between a host and an OMNIKEY 2061 Bluetooth reader is interrupted by any configuration action (**Example:** reading the Battery Status (4.2.9) or installing a new reader).

The installation of an OMNIKEY 2061 Bluetooth reader on a host interrupts any Bluetooth connection for the duration of the installation process.

6   Manual Installation

Install an OMNIKEY 2061 Bluetooth reader manually without using the Configuration Tool (see section 0

Reader Installation). Manual installation is recommended only for experienced users with administrative privileges. Ensure that your Bluetooth radio is connected and operable.

Define a common name for the device before installation. See details in section 4.2.3 Installation Properties.

The default device PIN is **0000**. For security reasons it is recommended to set a more secure PIN as described in section 4.2.6 Set Reader PIN.

6.1   Microsoft Bluetooth Stack

1. Power on the OMNIKEY 2061 Bluetooth reader. The green LED is illuminated. If not, verify the batteries are charged.

2. Pair the reader with the host:

   a. Open the **Bluetooth** dialog by clicking **Start** > **Control Panel** > **Bluetooth Devices**.

   b. Search the OMNIKEY 2061 Bluetooth reader, click **Add…**.

   c. Check **My device is set up…**

   d. Select your OMNIKEY 2061 Bluetooth reader from the list of found Bluetooth devices, click **Next**.

   e. Check **Use the passkey…** and enter the device PIN.

   f. If successful, the Outgoing COM port is displayed in the dialog. This port number is needed for driver configuration.

3. Open a command shell and go to the installation directory of the configuration software. The default path is **C:\Program Files\HID Global\OMNIKEY 2061 Bluetooth**.

4. Install a driver instance by calling **OK2061_install.bat**. For this step required are administrative privileges.

5. Configure the driver:

   a. Open the registry editor.

   b. Change to **HKLM\System\CurrentControlSet\Enum\Root\SMARTCARDREADER**

   c. Select the corresponding driver instance key, for example **0000**. Select the **Device Parameters** key of the corresponding driver instance key.

   d. Add a new DWORD Value **Port** and set the assigned Outgoing COM port for this value.

6.2   Toshiba Bluetooth Stack

1. Power on the OMNIKEY 2061 Bluetooth reader. The green LED is illuminated. If not verify the batteries are charged.

2. Pair the reader with the host:

   a. Open the **Bluetooth** dialog; click **Start** > **Programs** > **TOSHIBA** > **Bluetooth** > **Bluetooth Settings**.

   b. Follow the dialog, click **Next**.

   c. Select your OMNIKEY 2061 Bluetooth reader from the list of found Bluetooth devices and click **Next**.

   d. The assigned COM port is displayed. The COM port number is needed for the driver configuration.

   e. Click **Next** to finish the pairing process.

3. Open a command shell and switch to the installation directory of the configuration software. The default path is **C:\Program Files\HID Global\OMNIKEY 2061 Bluetooth**.

4. Install a driver instance by calling **OK2061_install.bat**. For this step, required are administrative privileges.

5. Configure the driver:

   a. Open the registry editor.

   b. Change to **HKLM\System\CurrentControlSet\Enum\Root\SMARTCARDREADER**

   c. Select the corresponding driver instance key, for example **0000**. Select the **Device Parameters** key of the corresponding driver instance key.

   d. Add a new DWORD Value **Port** and set the assigned Outgoing COM port for this value.

6. The driver connects the OMNIKEY 2061 Bluetooth reader and the **Bluetooth Security** dialog is displayed. Enter the reader PIN. The reader is connected and operable.