

Gemalto Bluetooth Device Manager

Version 2.2.44

Integration Guide

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CHAPTER 1

Overview

The Gemalto Bluetooth Device Manager (GBDM) application for Windows 7, 8.1 and 10, and the Bluetooth Smart Card Reader Manager for Mac use the standard PCSC interface to communicate transparently with SafeNet Reader CT1100, SafeNet Reader K1100 and Ezio Bluetooth Reader.

The GBDM for Window (7, 8.1 and 10) and Mac provides a PC/SC compliant way to operate with Gemalto Bluetooth smart readers. Any application using the Microsoft Windows native PC/SC layer can communicate with a smart card via the Gemalto Bluetooth reader as easily as a USB reader.

A corporate application will provide smart card logon, email signature & encryption, SSL authentication and more.

An eBanking application will provide transaction signing operations between the reader and an online eBanking server.

Prerequisites

- .Net Framework 4.5.1 must be installed.
- Update your operating system with the latest Microsoft updates.

Audience

This document is intended for Administrators and Integrators.

Supported Operating Systems

The following Windows operating systems are supported:

- Windows 7 SP1 (32-bit, 64-bit)
- Windows 8.1 (32-bit, 64-bit)
- Windows 10 (32-bit, 64-bit)



NOTE: Windows 7 and 8.1 must be used with a Bluegiga dongle.

The following Mac operating systems are supported:

- OS X 10.10 Yosemite
- OS X 10.11 El Capitan

Supported Gemalto Bluetooth Smart Readers

The Gemalto Bluetooth Device Manager (GBDM) operates with the following readers:

- SafeNet Reader CT1100 (Smart Card badge holder)
- SafeNet Reader K1100 (Smart Card Token)
- Ezio Bluetooth Reader

CHAPTER 2

Installing Windows and Mac Components

This chapter contains information about how to install the Gemalto Bluetooth Device Manager (GBDM) on Windows 7, Windows 8.1 and Windows 10 operating systems.

Installation File Names and Product Version Numbers

The installation package can be accessed from the following link:

http://support.gemalto.com/index.php?id=download_driver_bluetooth_reader

Operating System	Installation File Name	Product Version Number
Windows 7 and 8.1	Setup.exe BLE_Devices_Bundle_Win7_Win8_2.2.44.msi	2.2.44
Windows 10	BLE_Devices_Bundle_Win10_2.2.44.msi	2.2.44
Mac	Bluetooth Smart Card Reader Manager.dmg	1.0.9

Installing the GBDM on Windows Operating Systems

The GBDM is a middleware service, which allows the Bluetooth dongle to communicate with readers.

The GBDM provides the link & the logic between the Gemalto PC/SC driver & the Gemalto Bluetooth smart reader. The GBDM is launched automatically when the operating system is started and runs in the background as long as Windows is running. It is visible in your system Services, and on the system tray bar.

Installing the GBDM will also install the Bluegiga Bluetooth Low Energy dongle driver (on Windows 7 and 8.1) as well as the Gemalto PC/SC Virtual driver (V1.1.2.0).

It is recommended that you enable the USB Wake Support feature by installing the ControlVault driver and firmware on your DELL laptop (The relevant links are available in the Bluetooth_Device_Manager_Release Notes), or by using the system BIOS on DELL laptops.

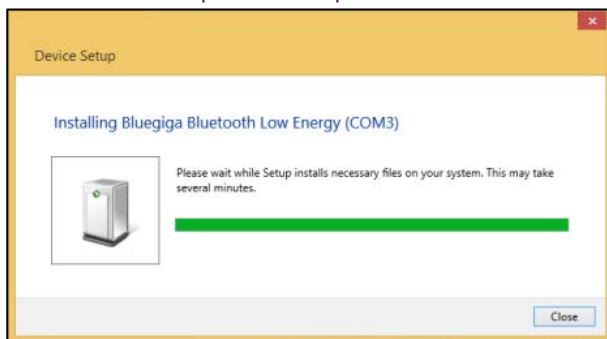
For more information, see the Gemalto_Bluetooth_Device_Manager_Customer Release Notes.



NOTE: The Bluegiga dongle is used only on Windows 7 and 8.1 (It is not used on Windows 10).

During the GBDM installation, ensure that the Bluegiga Bluetooth Low Energy dongle is disconnected. After the GBDM has been installed, perform the following:

1. Connect the Bluetooth Low Energy dongle.
The Device Setup window opens.



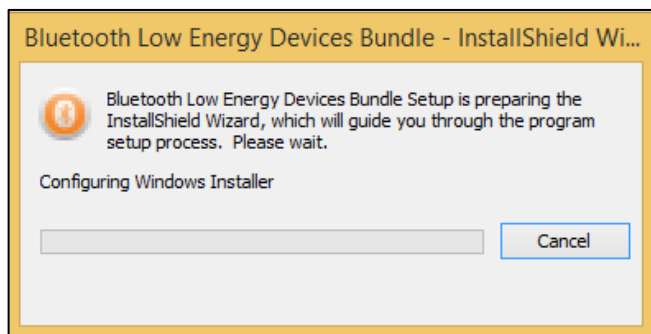
2. Let the installation run and complete automatically.
3. Restart your operating system.

To install the Gemalto Bluetooth Device Manager:

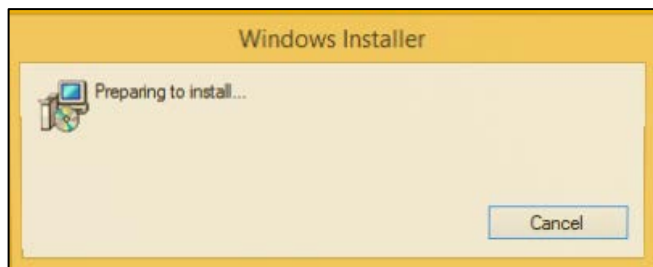
This installation will install the Gemalto Bluetooth Device Manager (GBDM).

1. From the files provided by Gemalto, double-click either one of the following file names:
 - On Windows 7 and 8.1, double-click the **BLE_Devices_Bundle_Win7_Win8_2.2.xx.msi** file.
 - On Windows 10, double-click the **BLE_Devices_Bundle_Win_10_2.2.xx.msi** file.

The **Welcome to the Bluetooth Low Energy Devices Bundle Installation Wizard** window opens.



The **Preparing to install...** window opens.

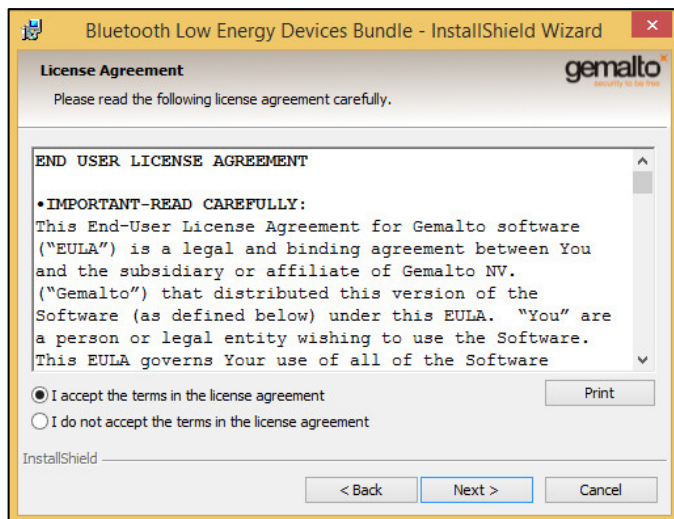


The **Bluetooth Low Energy Devices Bundle – InstallShield Wizard** window opens.



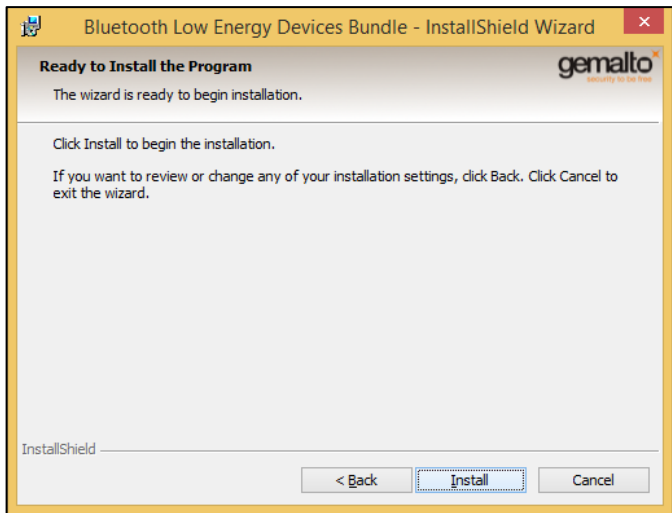
2. Click **Next**.

The **License Agreement** window opens.

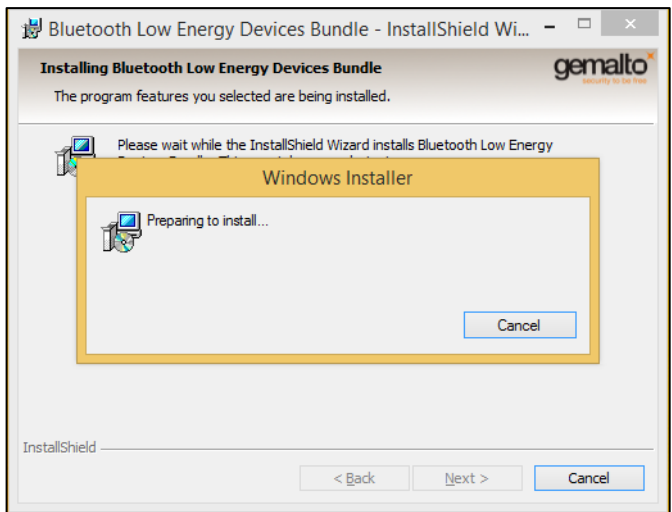
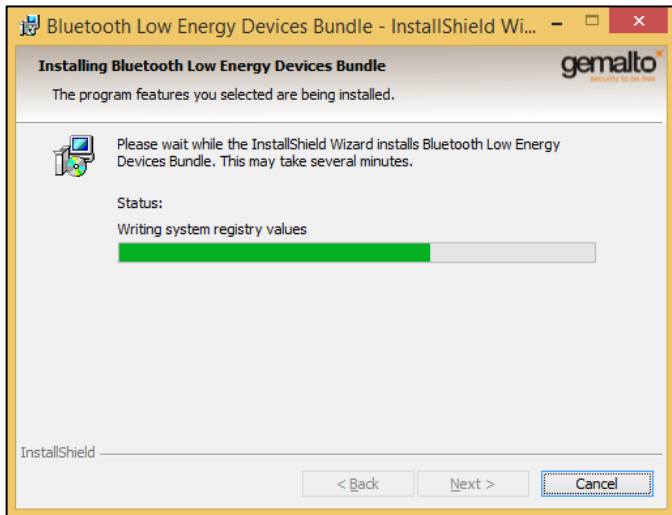


3. Select **I accept the terms in the license agreement** and click **Next**.

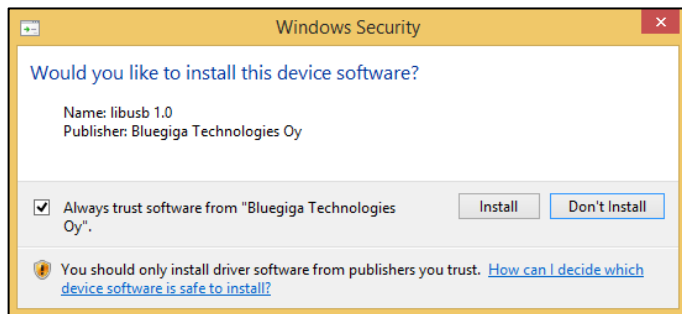
The **Ready to Install the Program** window opens.



- 4. Click **Install**.
The **Installing Bluetooth Low Energy Devices Bundle** window opens and the installation begins.



During the installation process, a security window opens asking if you would like to install the Bluegiga device software. This window is relevant only to Windows 7 and 8.1.



NOTE: Ensure that the **Always trust software from “Bluegiga Technologies Oy”** check box is selected.

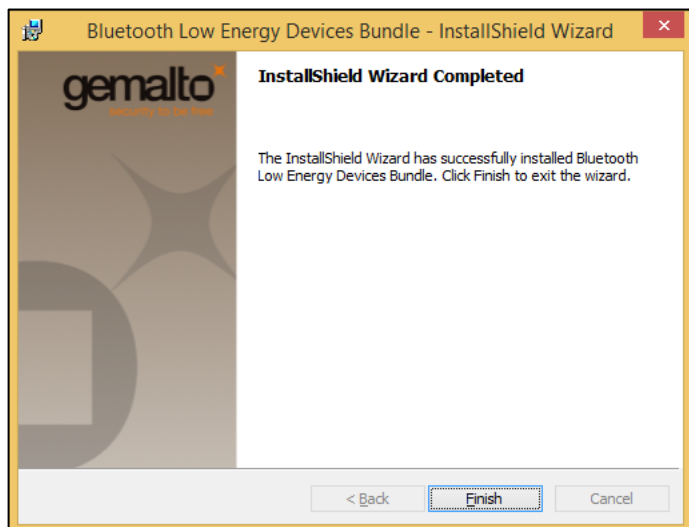
When running the BLE_Device_Bundle.msi installation in silent mode, the system requests that you confirm whether or not you trust the Bluegiga software.

Selecting the check box, followed by clicking **Install** confirms this.


This process is performed only once. If the BLE_Device_Bundle software is upgraded, or uninstalled and then re-installed, the user will not be prompted with the **Always trust software from “Bluegiga Technologies Oy”** check box again.

To work around this, the IT division can trust the Bluegiga certificate via the Group Policy Object (before the BLE_Device_Bundle is installed) using the Trusted Publishers certificate store.

5. Click **Install**.
The **InstallShield Wizard Complete** window opens.

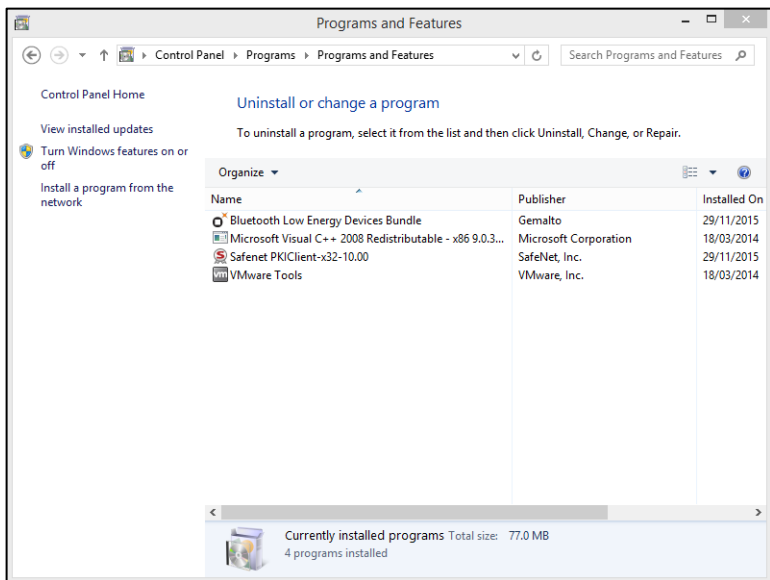


6. Click **Finish**.

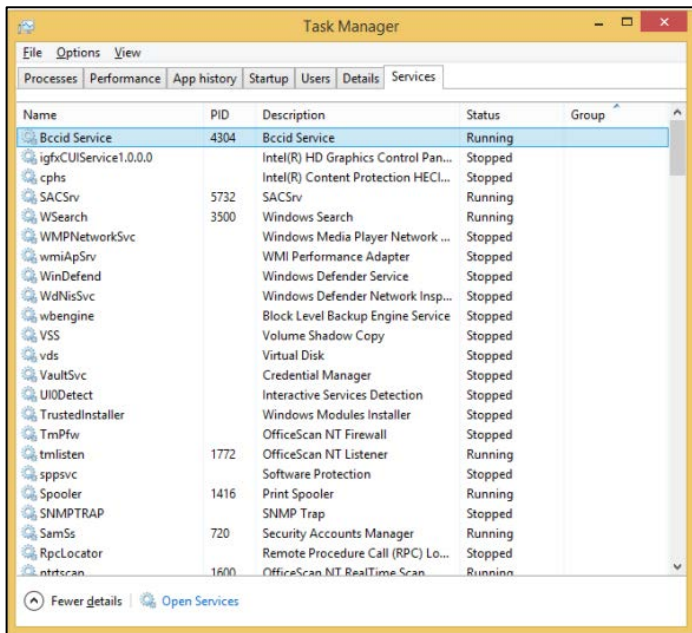
The Gemalto Bluetooth Device Manager appears in the system tray. Depending on how your system is set up, the icon may also appear in your hidden system tray notification area. Click  to open the hidden icons.



7. Ensure that the **Bluetooth Low Energy Devices Bundle** exists under **Programs and Features**.



8. Ensure that the **Bccid Service** is running in the **Task Manager** window.

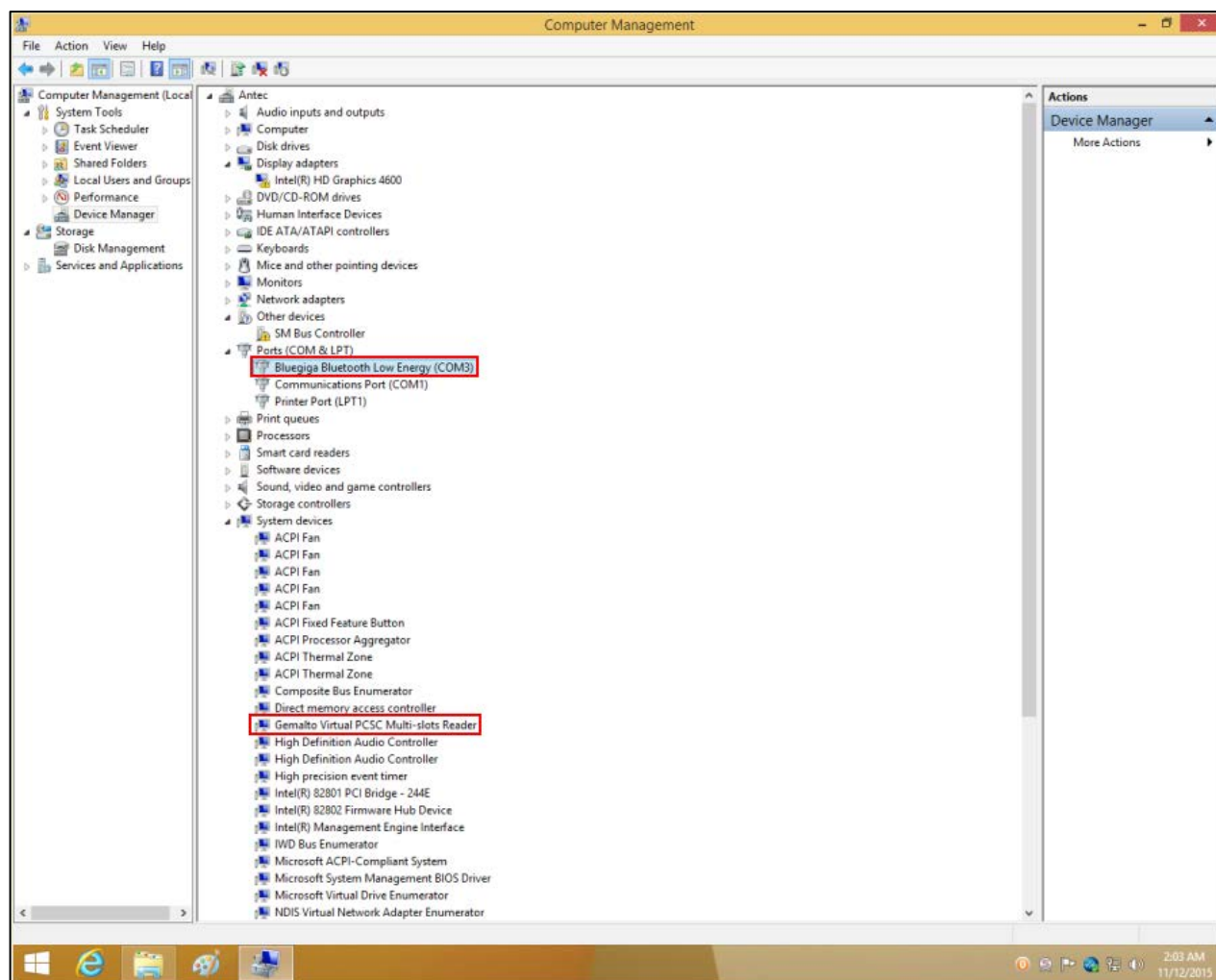


9. Ensure that the **Bluegiga Bluetooth Low Energy (e.g. COM3)** exists under **Computer Management>Device manager>Ports (COM & LPT)**.



NOTE: This window is relevant only to Windows 7 and 8.1.

On a Windows 10 Operating System only the Gemalto Virtual PC/SC Multi-slots Reader is installed.



10. Ensure that **Gemalto Virtual PC/SC Multi-slots Reader** appears under **Computer Management>Device Manager>System Devices**.



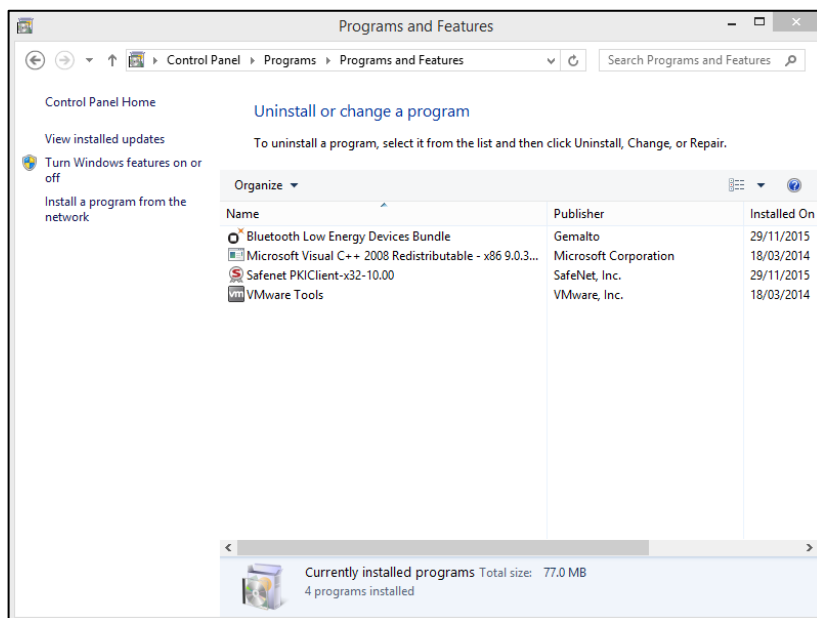
NOTE: Ensure the latest version of Gemalto Virtual PC/SC Multi-slots Reader is V1.1.2.0 by right-clicking **Gemalto Virtual PC/SC Multi-slots Reader>Properties>Driver**.

Your SafeNet Reader CT1100, SafeNet K1100 and Ezio readers are now ready to work with the operating system.

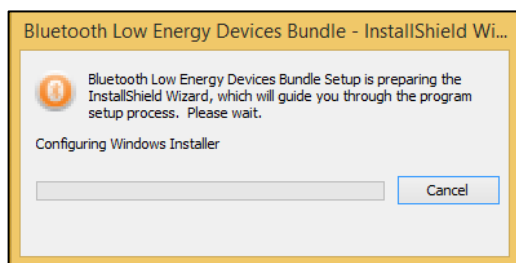
Uninstalling the GBDM from Windows Operating Systems

The GBDM can be uninstalled by removing the **Bluetooth Low Energy Devices Bundle** from Add Remove Programs.

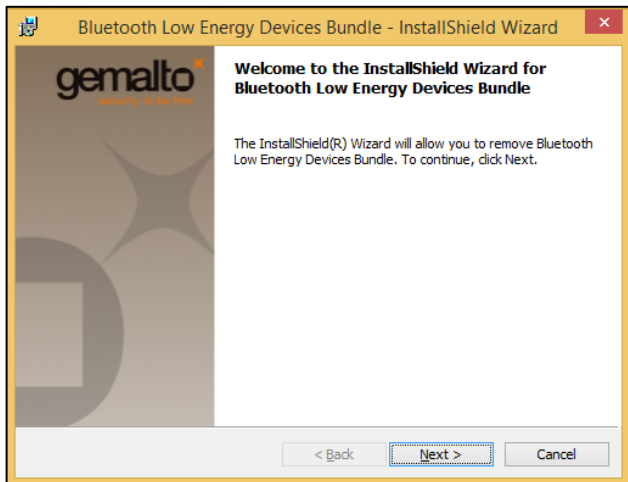
1. Go to **Control Panel>Programs>Programs and Features**, right-click **Bluetooth Low Energy Devices Bundle** and select **Uninstall**.



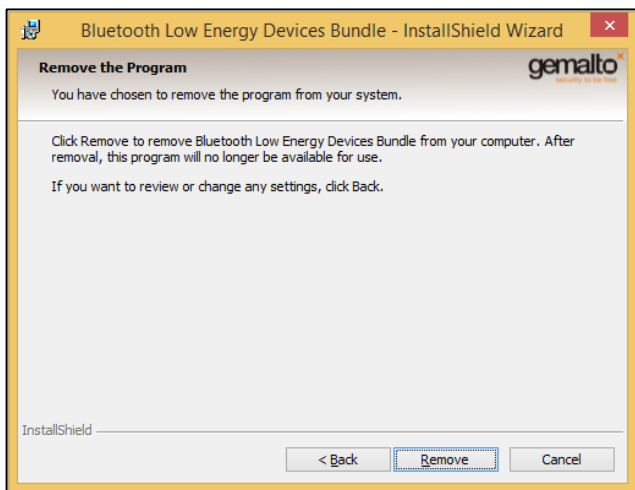
The **Bluegiga Driver** files are uninstalled (on Windows 7 and 8.1), followed by the GBDM files.



- On the InstallShield Wizard window, click **Next**.

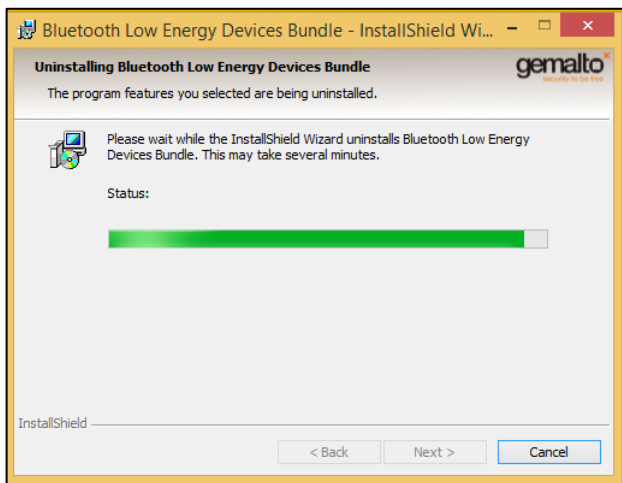


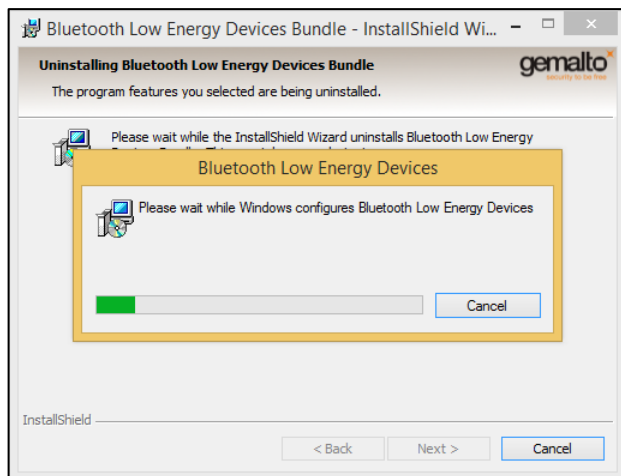
The **Remove the Program** window opens.



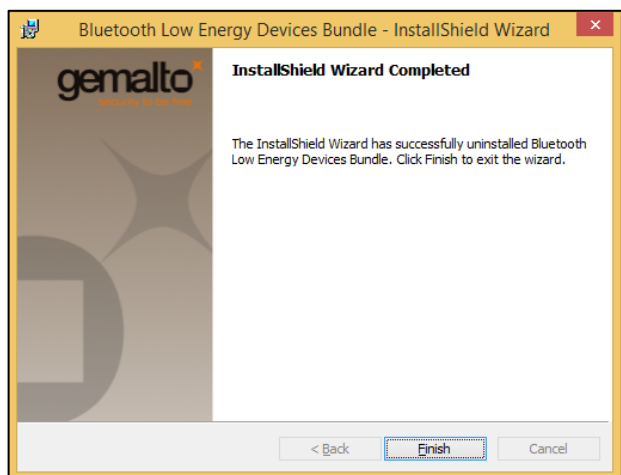
- Click **Remove**.

The **Uninstalling Bluetooth Low Energy Devices Bundle** window opens.





The Install Shield Wizard Completed window opens.



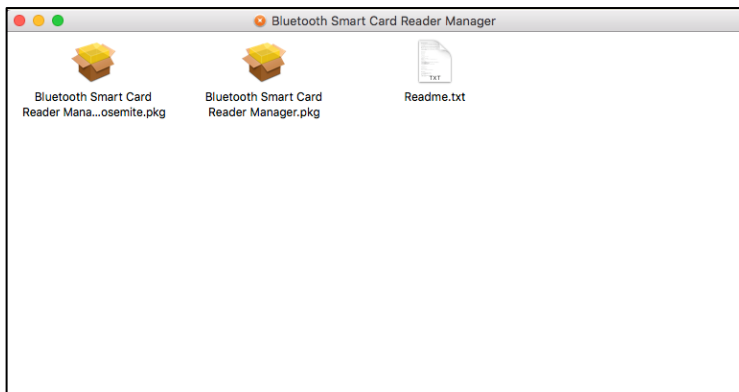
4. Click **Finish**.

Installing the GBDM on Mac

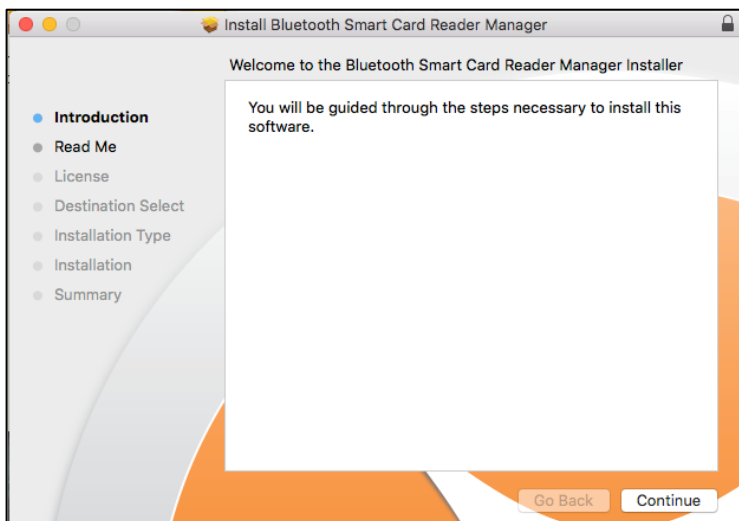
This section contains information on how to install the GBDM on a Mac Operating System.

To install the GBDM on a Mac:

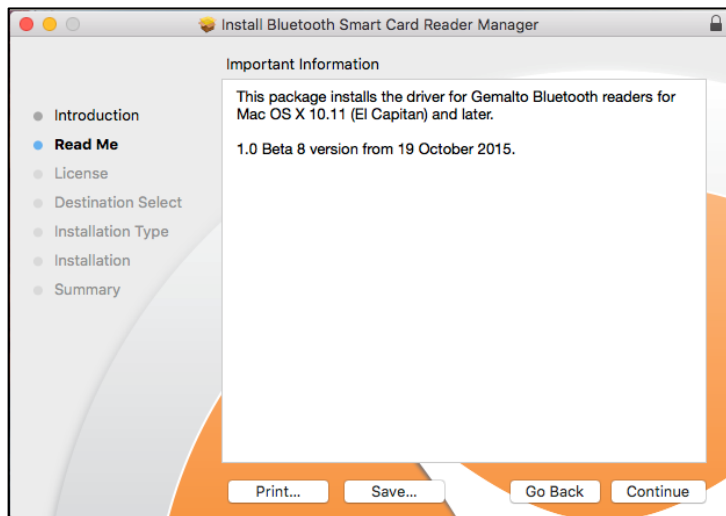
1. From the files provided by Gemalto, double-click the **Bluetooth Smart Card Reader Manager.dmg** file.



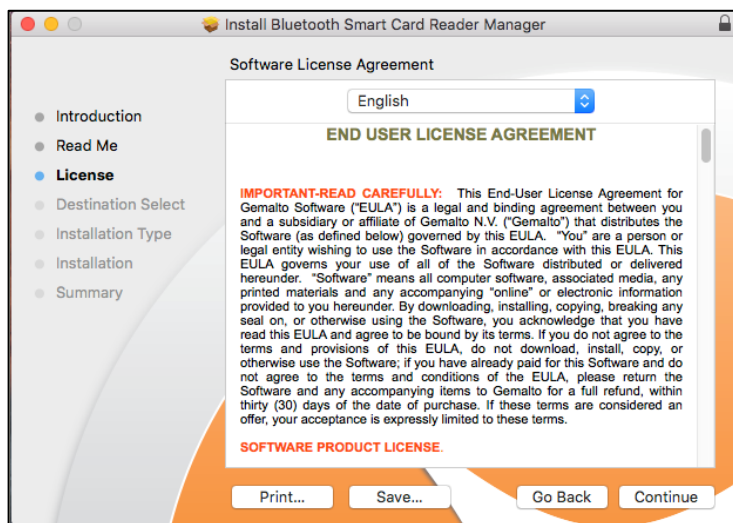
2. The Welcome to the **Bluetooth Smart Card Reader Manager Installer (Introduction)** window opens.



3. Click **Continue**.
The **Read Me** window opens.



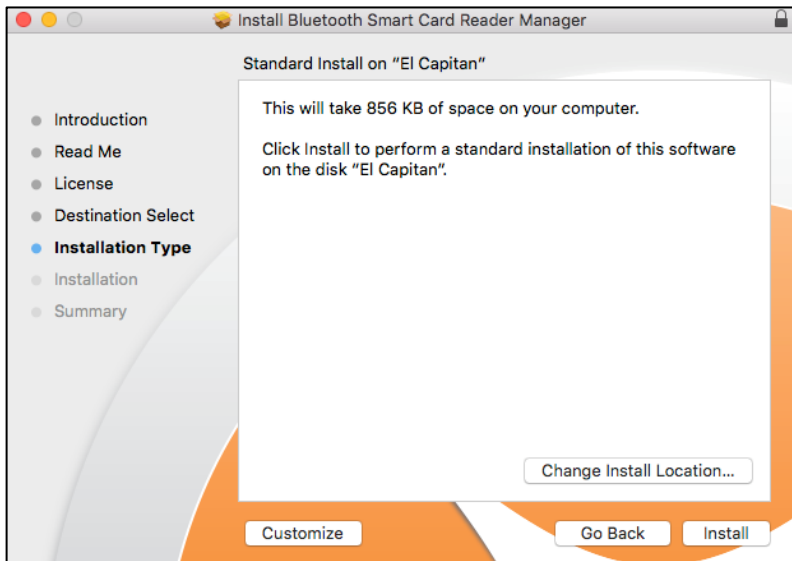
4. Click **Continue**.
The **End User License Agreement** window opens.



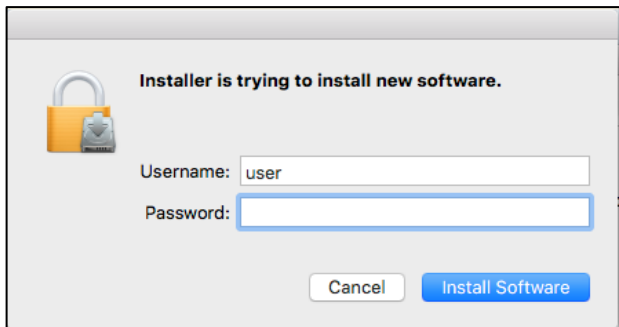
5. Click **Continue**, and then click **Agree**.



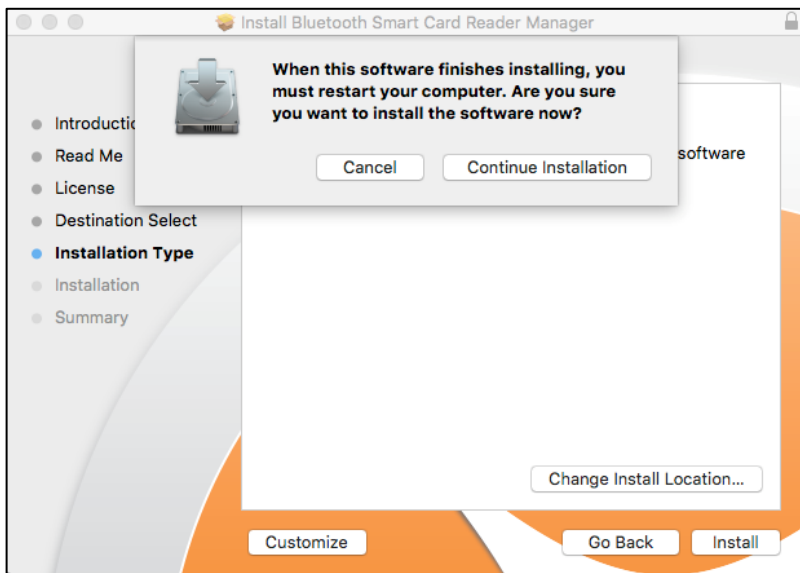
The **Installation Type** window opens.



6. Click **Install**, enter your **Username** and **Password** and then click **Install Software**.

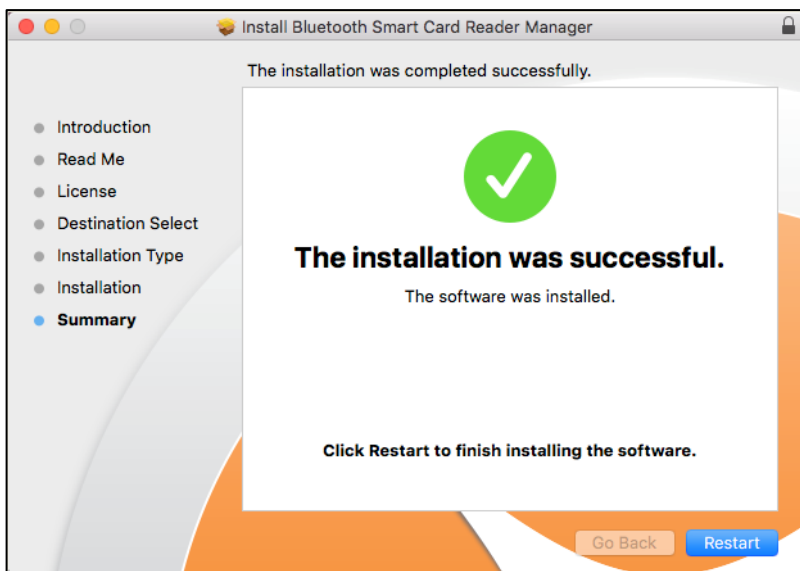


7. Click **Continue Installation**.



8. Click **Install** again.

The **Summary** window opens.



Uninstalling the GBDM from Mac

This section contains information on how to uninstall the GBDM from a Mac Operating System.

To uninstall the GBDM from a Mac with El Capitan:

1. Go to `/usr/local/libexec/SmartCardServices/drivers` and delete the file `ifd-bccid.bundle`.
2. Open the Applications folder and delete **Bluetooth Smart Card Reader Manager.app**.

To uninstall the GBDM from a Mac with Yosemite:

1. Go to `/usr/libexec/SmartCardServices/drivers` and delete the file `ifd-bccid.bundle`.
2. Open the Applications folder and delete **Bluetooth Smart Card Reader Manager.app**.



NOTE: After deleting the file: `ifd-bccid.bundle` on both El Capitan and Yosemite, reboot your Mac system. This ensures that the reader is not visible at the PC/SC level.

CHAPTER 3

The Pairing Process

Use the Gemalto Bluetooth Device Manager application to manage and configure paired readers.

The following may be performed using the Gemalto Bluetooth Device Manager:

- Detect & pair new readers
- List already paired readers
- Connect & disconnect manually to paired reader
- Configure the settings on a paired reader
- Remove a paired reader



The tool is available as an icon from the system tray. Click on the icon to display the main interface of the application. When the tool opens, and a device was already paired, the list of available paired devices is displayed.



NOTE: Only one reader can be connected at a time. To switch between smart card readers, be sure to disconnect the one that's connected before connecting a new one. For details on how to disconnect the smart card reader, see the section: [Connecting/Disconnecting the Smart Card Reader](#) on page 32

Connecting the Dongle

Connect the relevant dongle to the USB Port as follows:

- **Window 7 and 8.1** - Dongle Bluegiga BLED112 USB.
- **Mac** - Native Built-In Bluetooth Low Energy.



NOTE: If your Mac computer has a Bluetooth chip that does not support Bluetooth Low Energy (BLE), a message will be displayed.

Hardware Pairing on Windows 10

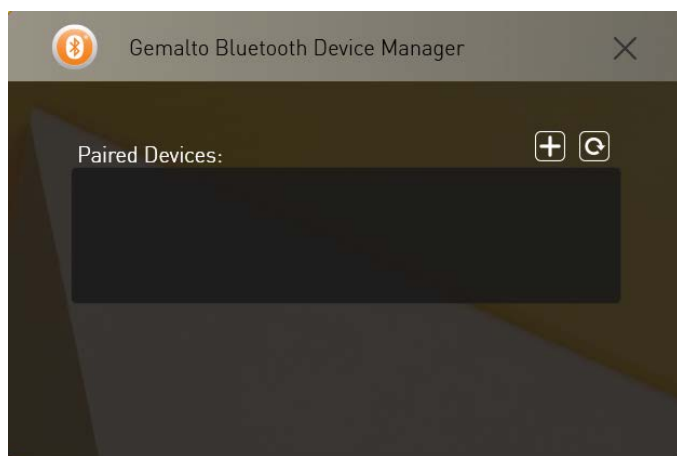
Ensure that your Windows 10 PC has native built-in Bluetooth hardware. Hardware pairing must be performed on Windows 10 systems before software pairing.

Hardware pairing is performed only once.

Follow the procedure below to establish a connection between the computer and the relevant SafeNet reader.

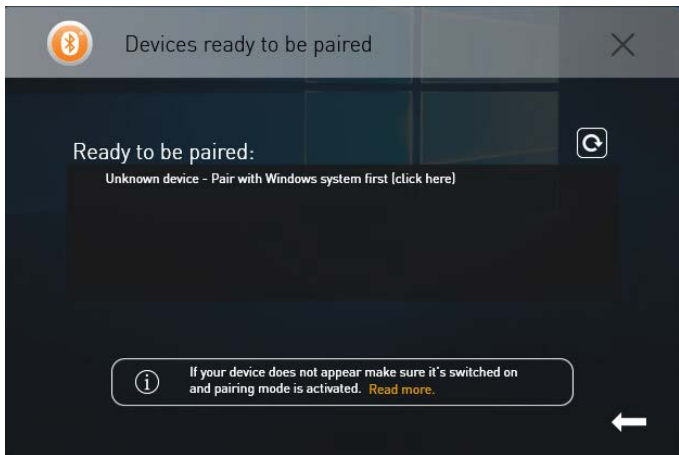
To perform hardware pairing on Windows 10:

1. Insert the smart card into the SafeNet Reader CT1100, and press the button on the reader.
The red and blue lights are turned on for a second. Thereafter the red light turns off, while the blue light continues to flicker slowly.
2. On the Ezio Bluetooth Reader perform the following:
Press **OK** and ensure the device is set in Bluetooth mode (i.e. the Bluetooth switch is in the upper position).
3. Open the Gemalto Bluetooth Device Manager application by clicking the icon in the system tray
The Gemalto Bluetooth Device Manager window opens.

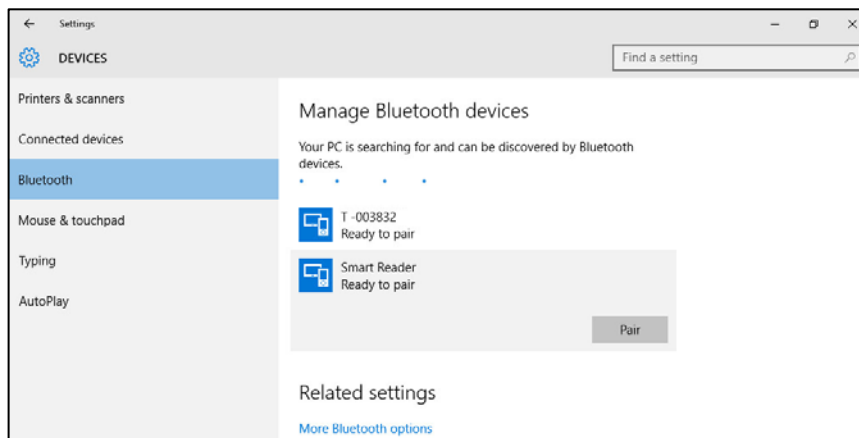


4. Click .

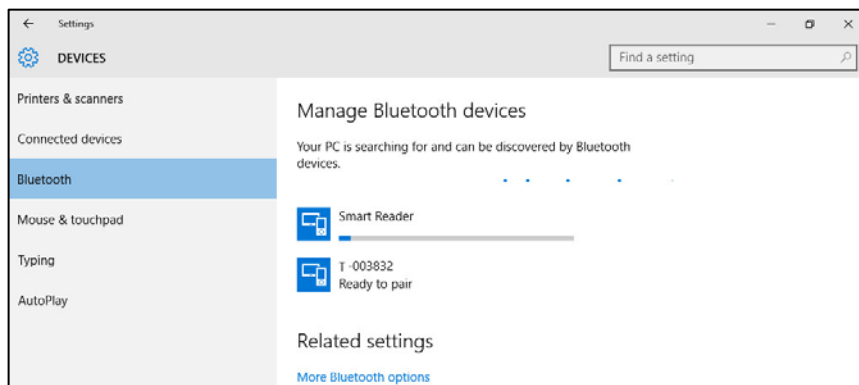
The Devices ready to be paired window opens.



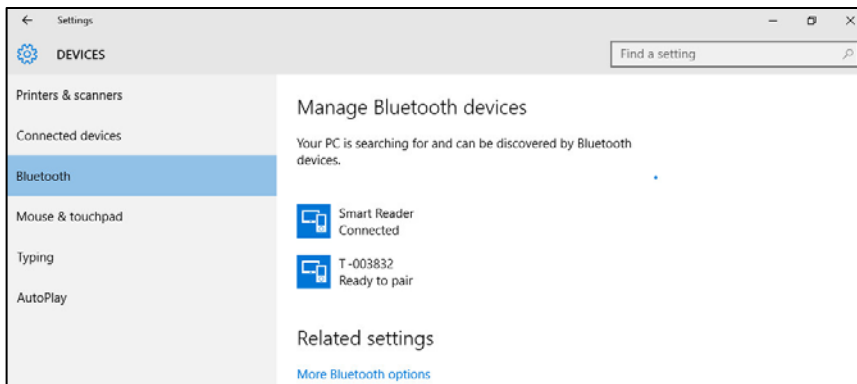
5. Click **Unknown device – Pair with Windows system first [click here]**.
The **Manage Bluetooth devices** window opens.



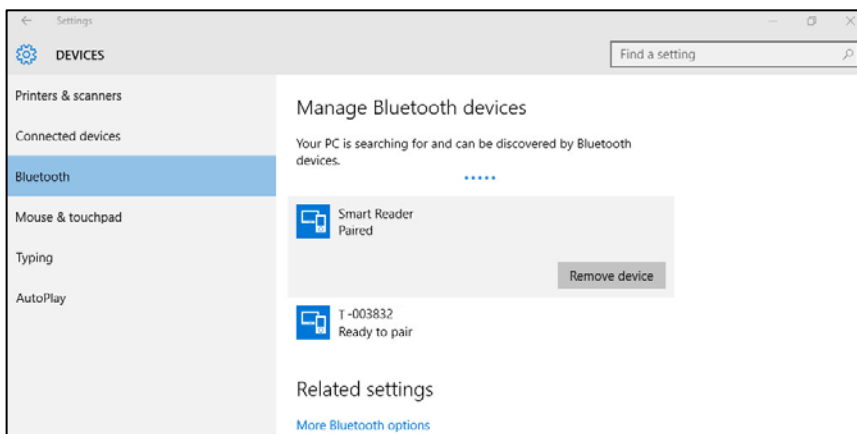
6. Select the device you want paired and click **Pair**.
The hardware pairing process begins.



7. Your device appears as connected.



The device appears as connected and after approximately 10 seconds the device status changes to paired indicating that the hardware pairing process completed successfully.



The device is now ready to be paired with the GBDM.

Pairing SafeNet Reader CT1100



NOTE: The SafeNet Reader K1100 is paired the same way as the SafeNet Reader CT1100, except that no smart card is inserted into the SafeNet Reader K1100.

Follow the procedures below to pair your device.

To pair the SafeNet Reader CT1100:

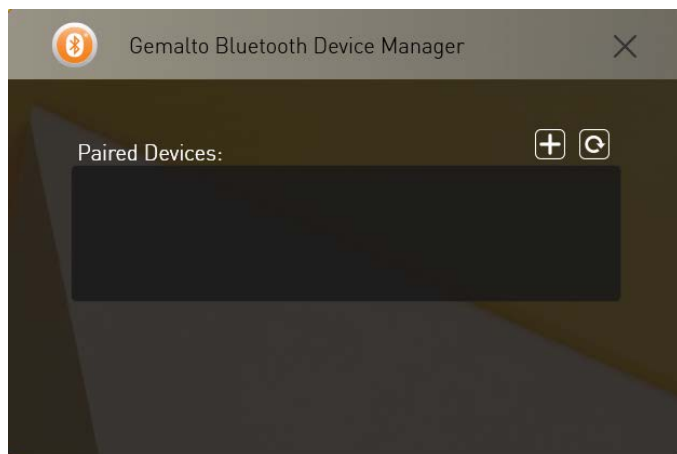
1. Insert the smart card into the SafeNet Reader CT1100.
2. Press the button on the SafeNet Reader CT1100.

The red and blue lights are turned on for a second. Thereafter the red light turns off, while the blue light continues to flicker slowly.

3. Open the **Gemalto Bluetooth Device Manager** by clicking the icon in the system tray.



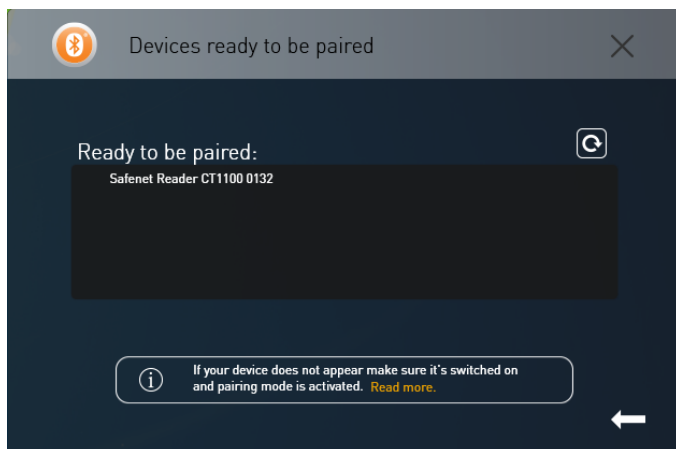
The **Gemalto Bluetooth Device Manager** window opens.



Move the device to software pairing mode, by pressing the button on the device continuously (long press). The blue light begins to flicker fast and the paired smart card appears in the Ready to be paired window.

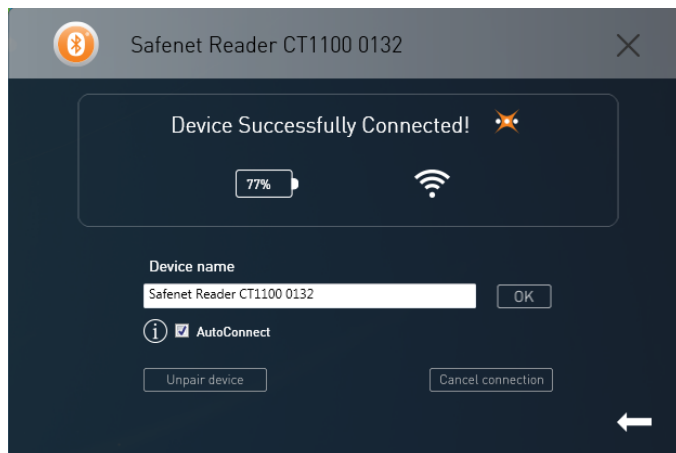
4. Click .

The **Devices ready to be paired** window opens.

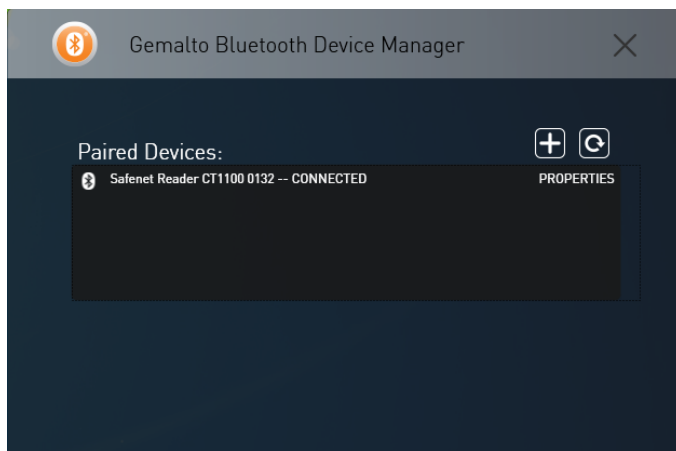


5. Click the device name (**Safenet Reader CT1100 0132**).

The **Device Successfully Connected** window opens.




6. The AutoConnect checkbox is enabled by default. If you do not want the smart card reader to connect automatically next time, then be sure to uncheck this option.
7. Click **OK**.
The device will now appear as connected.



Pairing the Ezio Bluetooth Reader

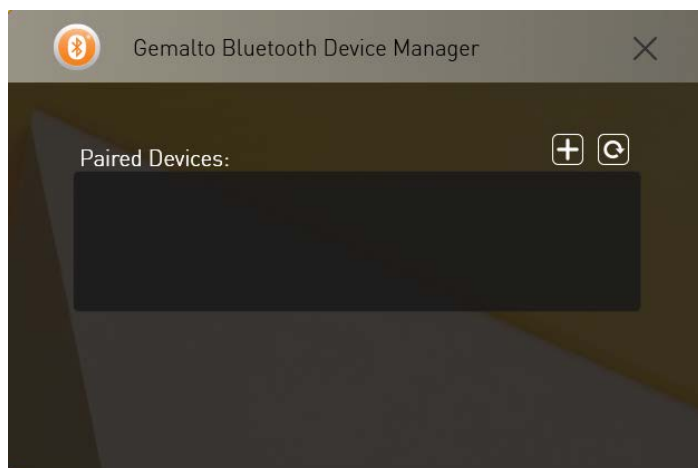
Follow the procedures below to pair your device.



To pair the Ezio Bluetooth Reader:

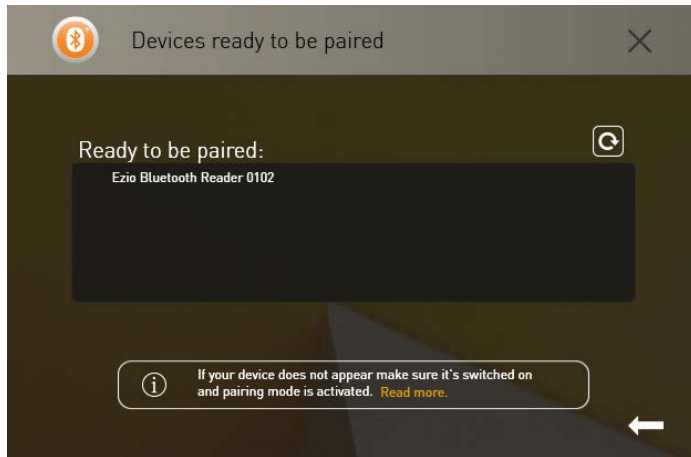
1. Open the **Gemalto Bluetooth Device Manager** by clicking the icon in the system tray, or open your hidden notification area by clicking  in the system tray.



The **Gemalto Bluetooth Device Manager** window opens.

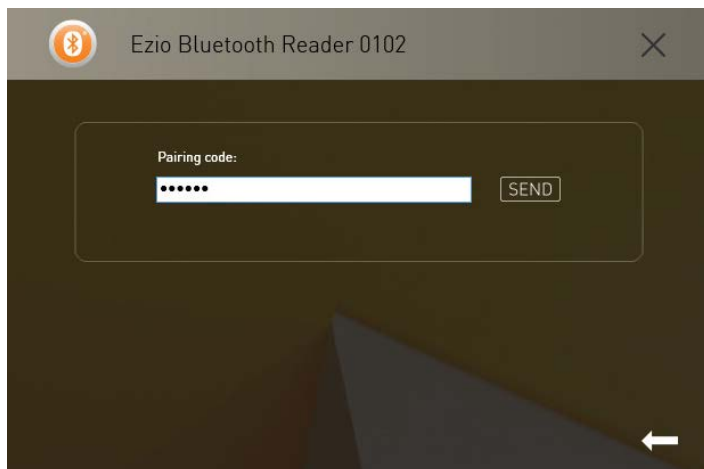


1. Click .
 2. Start the Ezio Bluetooth Reader by pressing **OK**. Ensure the device is set in Bluetooth mode (i.e. the Bluetooth switch is in the upper position).
A message is displayed: Waiting for connection.
 3. Press **Menu**.
A message is displayed: 1=Enable pairing.
 4. Press **1**.
A message is displayed: Waiting for connection. The letter '**P**' is displayed at the top of the LCD.
 5. Click .
- The **Devices ready to be paired** window opens.



6. Select the reader displayed in the list.

The **Ezio Bluetooth Reader – Pairing code** window opens.

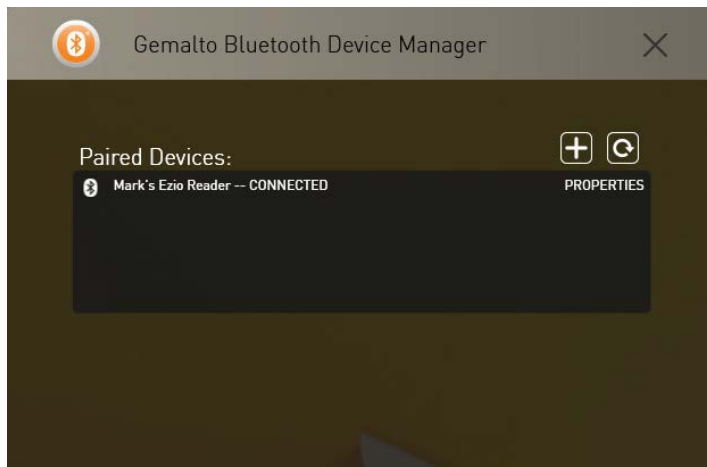


7. Enter the pairing code displayed on your Ezio Bluetooth Reader and click **Send**.

The **Device Successfully Connected** window opens.



8. Enter a **Device name**.
9. The AutoConnect check box is enabled by default. If you do not want the smart card reader to connect automatically next time, then be sure to uncheck this option.
10. Click **OK**.
Your device has been successfully connected.



Unpairing SafeNet Reader CT1100



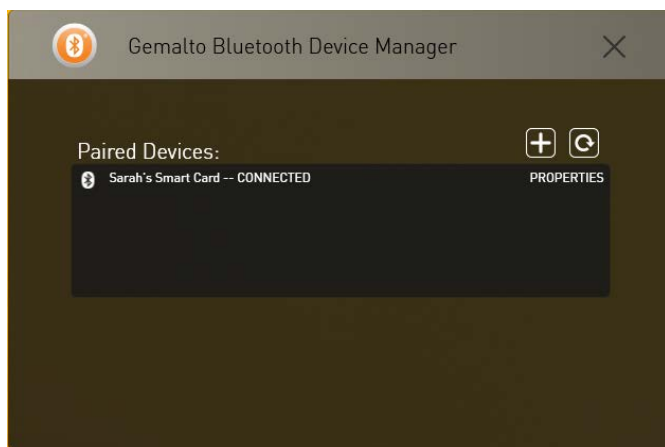
NOTE: The SafeNet Reader K1100 is unpaired the same way as the SafeNet Reader CT1100.

Follow the procedures below to unpair your device.

To unpair the SafeNet Reader CT1100:

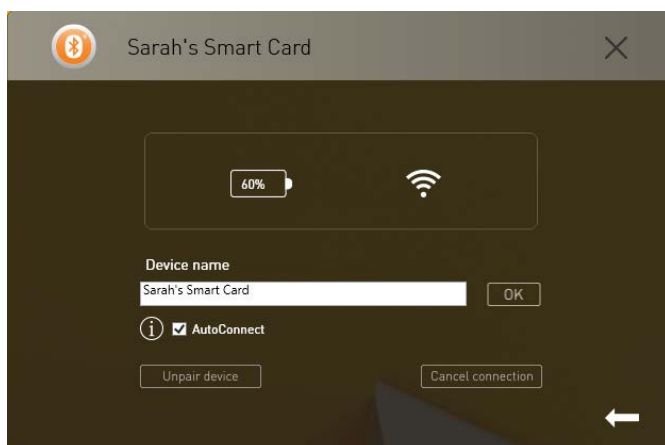
1. Double-click the **Gemalto Bluetooth Device Manager** icon.

The paired device window opens.



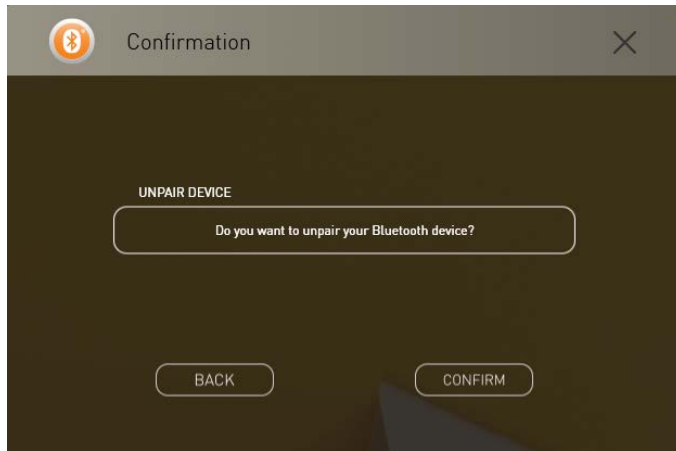
2. Select the device, which you want to unpair from the list by clicking the device name.

The **Unpair device** window opens.



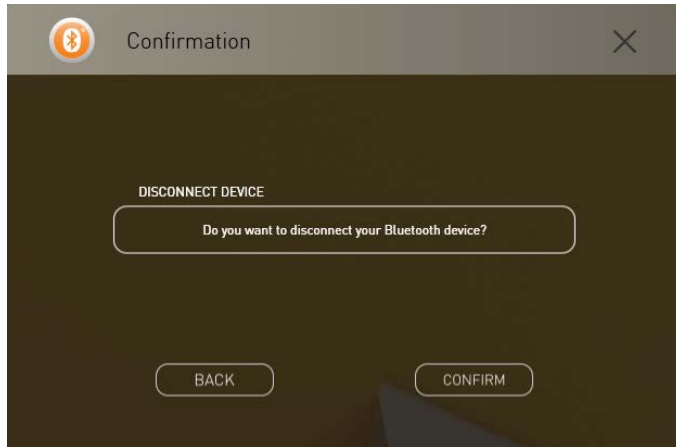
3. Click **Unpair the device**.

The **Confirmation** window opens.

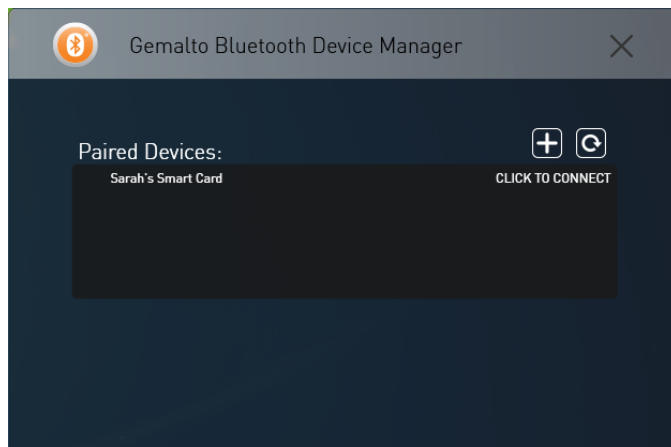


4. Click **Confirm**. The device will now appear as ready to connect.
5. If you do not want to unpair the device, click **Cancel connection** to disconnect the device.

The **Disconnect Device** window opens.

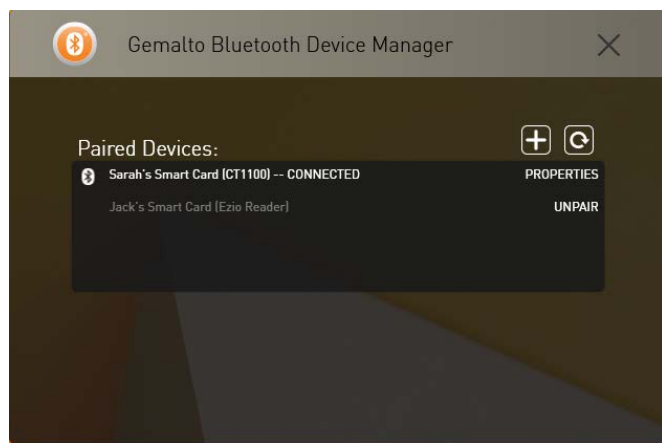


6. Click **Confirm**. The **SafeNet Reader CT1100** is disconnected.
- The **Gemalto Bluetooth Device Manager** window opens.



Working with more than one Smart Card Reader

Two Smart Card readers cannot be used at the same time. To be able to work with one reader, disconnect the reader that is not going to be used.



This may be performed using either one of the following methods:

- Right-click the **Gemalto Bluetooth Device Manager** icon and select **Disconnect**.
- Open the **Gemalto Bluetooth Device Manager** by double-clicking the icon. Select the relevant reader and click **Cancel connection**.

Connecting/Disconnecting the Smart Card Reader

Follow the procedures below to connect and disconnect your smart card reader.

To connect a Smart Card reader:

Right-click the **Gemalto Bluetooth Device Manager** icon and select **Connect**.

Or,

1. Press the button on the SafeNet Reader CT1100.

The red and blue lights are turned on for a second. Thereafter the red light turns off, while the blue light continues to flicker slowly.

2. Open the Gemalto Bluetooth Device Manager.
3. Select the device that appears under Paired Devices.

To disconnect a Smart Card reader:

A Smart Card Reader can be disconnected by using either one of the following methods:

- Right-click the **Gemalto Bluetooth Device Manager** icon.
- Disconnecting via the Gemalto Bluetooth Device Manager.

To disconnect the Smart Card Reader via the Gemalto Bluetooth Device Manager icon:

1. Right-click the **Gemalto Bluetooth Device Manager** icon.
2. Select **Disconnect**.
3. Select the relevant reader name.

CHAPTER 4

Setting Registry Keys Manually

This chapter describes how to change certain registry key values manually.

Automatic Power Off

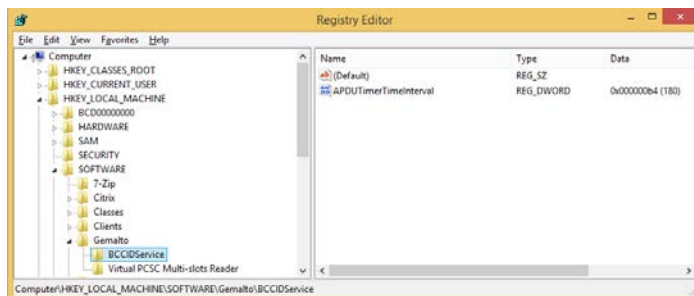
The APDUTimerTimeInterval registry key was added to enable the reader to power off the card automatically after a predefined period of time. By defining this registry key, you can save a reader's (SafeNet Reader CT1100, SafeNet Reader K1100, Eizio Reader) power consumption. By default, the APDUTimerTimeInterval registry key is set to power off the device when idle for 180 seconds (3 minutes).

To set the APDUTimerTimeInterval registry key:

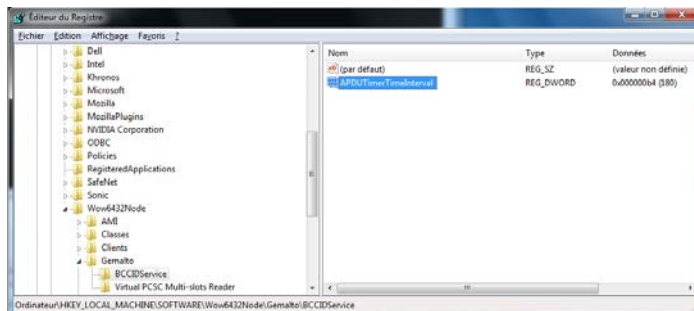
1. From the Windows taskbar, select **Start > Run**.
2. In the Run dialog box, enter **regedit**, and click **OK**.

The Registry Editor opens, displaying the registry folders tree in the left pane.

3. For 32-bit systems, go to **HKEY_LOCAL_MACHINE\SOFTWARE\Gemalto\BCCIDService**.



4. For 64-bit systems, go to **HKEY_LOCAL_MACHINE\Wow6432Node\Gemalto\BCCIDService**.



5. To add a value to the APDUTimerTimeInterval registry key, right-click the **APDUTimerTimeInterval** and select **Modify**.
6. Enter the number of seconds in the **Value Data** field and click **OK**.

7. To disable the APDUTimerTimeInterval registry key, enter **0 (zero)** in the **Value data** field and click **OK**.



NOTE: Reboot your computer for the changes to take effect.

CHAPTER 5

Device Information

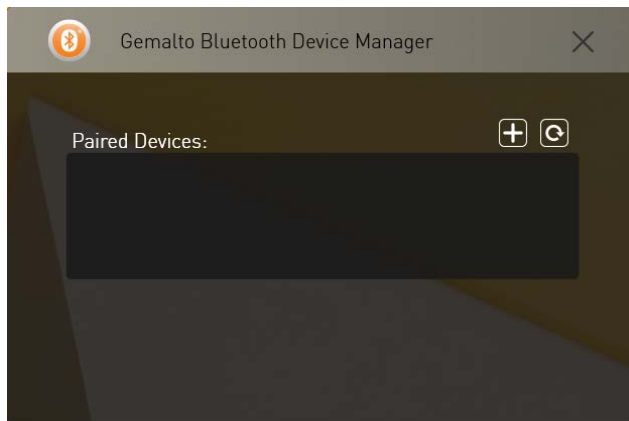
This chapter contains information about how to view device information.

Viewing Device Information

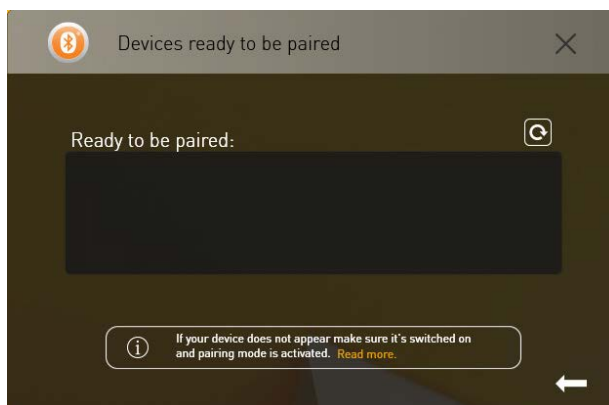
The Device Information option allows you to view the smart card readers that support the Bluetooth pairing feature as well as provides instructions on how to pair each device.

To open the Device Information window:

1. Open the **Gemalto Bluetooth Device Manager**, and click .

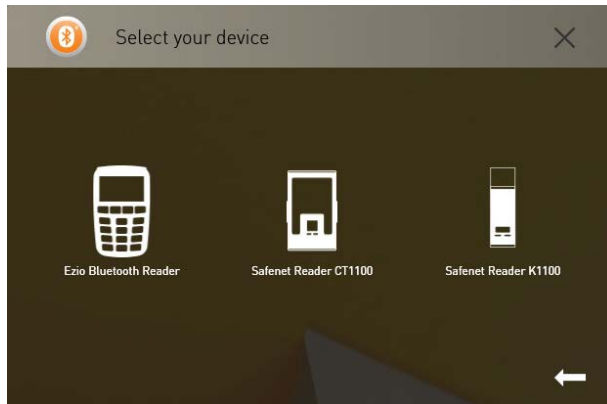


The **Devices ready to be paired** window opens.



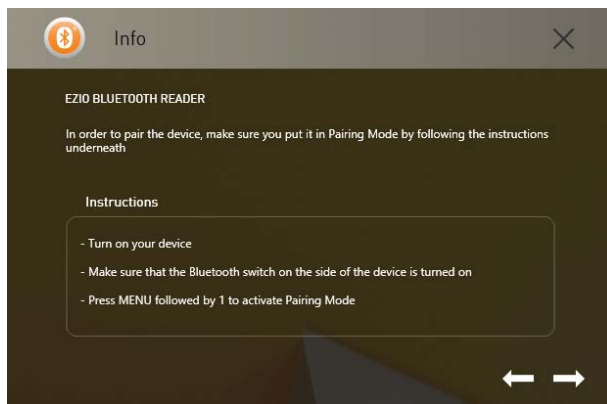
2. Click **Read more**.

The **Select your device** window opens.



3. Click **Ezio Bluetooth Reader**.

The **Info** window opens with instructions on how to pair the device.



4. To view information on how to pair the **SafeNet Reader CT1100** and **SafeNet Reader K1100** perform step 3 above.