Siretta

Enabling Industrial IoT

SirettaSPARK

Diagnostics and Configuration Tool

For use with the following products:

SNYPER

SENTRY

SL500

ZETA

User Manual
Rev 1.3

Table of Contents

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Introduction

SirettaSPARK is a unique tool that allows the end users of Siretta's modems and cellular analysers to keep their products updated with the latest software and firmware. SirettaSPARK will also identify whether any updates are required, once a Siretta modem or cellular analyser is connected to it.

Additionally, SirettaSPARK is the initial configuration tool used to setup the SL500 and SENTRY products so that they can be used on their respective portals.

Finally, in the event that the end user is struggling to be able to properly use or configure the products that they purchased, SirettaSPARK can provide diagnostic information to the Siretta support team.

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About Siretta

Siretta is a wireless communications company located in Reading, United Kingdom manufacturing & supplying industrial IoT products since the early 2000s.

Siretta's product portfolio is made up of:

» Antennas, plus their associated Cable Assemblies & Adapters,

» Cellular Network Analysers

» Industrial Modems

» Industrial Routers

» Associated Cloud Management

Siretta supplies products directly and via a worldwide network of distributors, into numerous markets and applications across the globe.

Siretta's distribution partners range from industrial IoT specialists through to global catalogue organisations.

Whether "off the shelf" or custom solutions are required, Siretta has a wide portfolio of products to fit many types of application.

Siretta's extensive knowledge and experience in the wireless market allows support of a wide range of customer applications, focusing on frequencies between 150 MHz to 6 GHz. These encompass modems, routers and antennas for:

» Cellular technologies: GSM/GPRS/3G/UMTS/4G/LTE & 5G NR, plus LTE CAT 1, LTE CAT M & LTE CAT NBIoT

» Global positioning: GPS/GNSS

» WLAN/Wi-Fi

Whilst providing the above products for the industrial cellular market, Siretta also has a number of antennas to cover applications for:

» Bluetooth, Zigbee, ISM band, LoRa and Sigfox

With a heavy emphasis on design, Siretta has a team of dedicated Engineers and Product Managers, who specialise in wireless applications.

Siretta continually makes significant investment in R&D endeavouring to provide customers with market leading, future-proofed, wireless solutions. Siretta works closely with many technology partners to stay at the forefront of industrial IOT.

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Features

All products

» Reads IMEI number of the connected product
» Identifies model number of the connected product
» Provides warranty information of the connected product
» Reads and displays currently installed modem firmware version
» Shows the version of the latest published release of the modem firmware suitable for the connected product
» Simple update of installed modem firmware to the latest published version
» Diagnostics interface to provide Siretta support troubleshooting information

SNYPER, SENTRY and SL500 products

» Reads and displays currently installed software version of the connected product
» Shows the version of the latest published release of the software suitable for the connected product
» Single-click update of installed software to the latest version

SL500 and SENTRY

» Configuration interface to allow entry of APN and other initial setup settings

ZETA and SL500 products

» Network test utility to confirm correct setup of APN settings

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SirettaSPARK Setup

Installation

SirettaSPARK is designed for use on any PC running Microsoft Windows 10 or Windows 11. For full utilization of the features offered by Siretta Spark, the PC must be connected to the internet.

To download SirettaSPARK, please visit the link below.

» https://www.siretta.com/sirettaspark (SirettaSPARK Direct Link)

The downloaded file, SirettaSPARK.exe, is an executable file. No installation is required. Consequently, it will not appear in Windows Apps & features and if no longer required it can be deleted – no un-install process is required.

Double click SirettaSPARK.exe to run the application. When run for the first time, the 'Set Key' pop up window will also appear:

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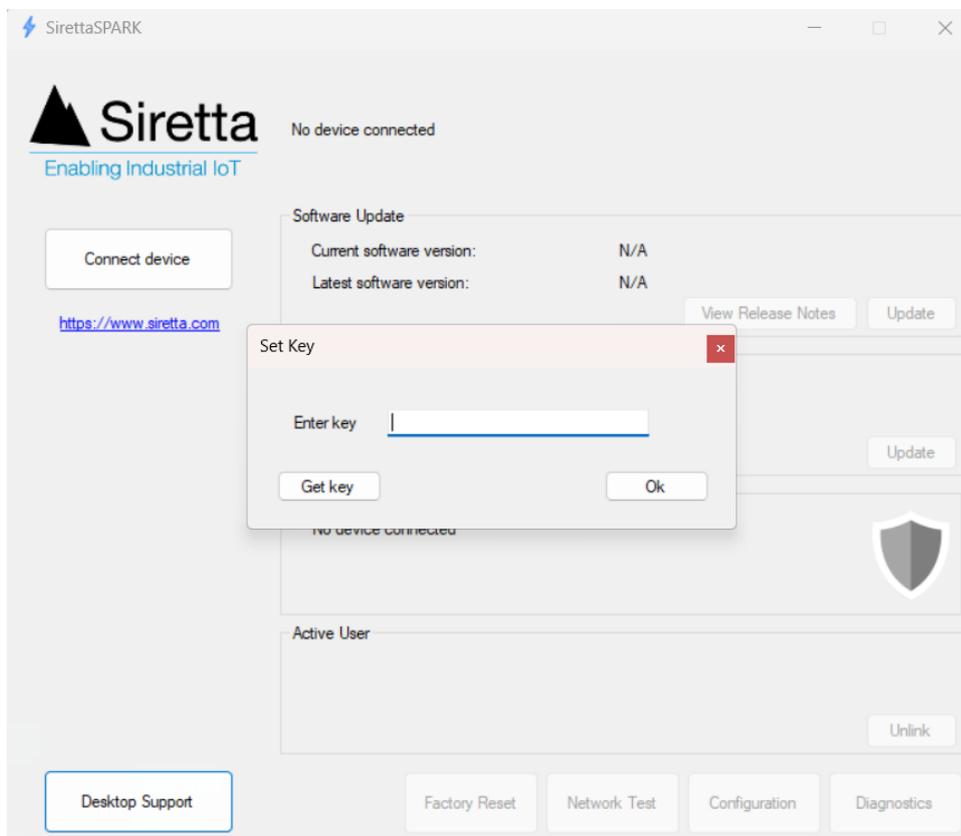
When this happens, click the 'Get key' button on the pop-up box to be taken to the Siretta Portal website, https://portal.siretta.com. A first-time user of the Siretta Portal will first have to register to use the web site. Returning visitors may continue to sign in. The activation key required is found at the very bottom of the web page. This key is unique to the user logged into the portal.

Download SirettaSPARK Tool

To activate your SirettaSPARK tool, insert the key provided below.
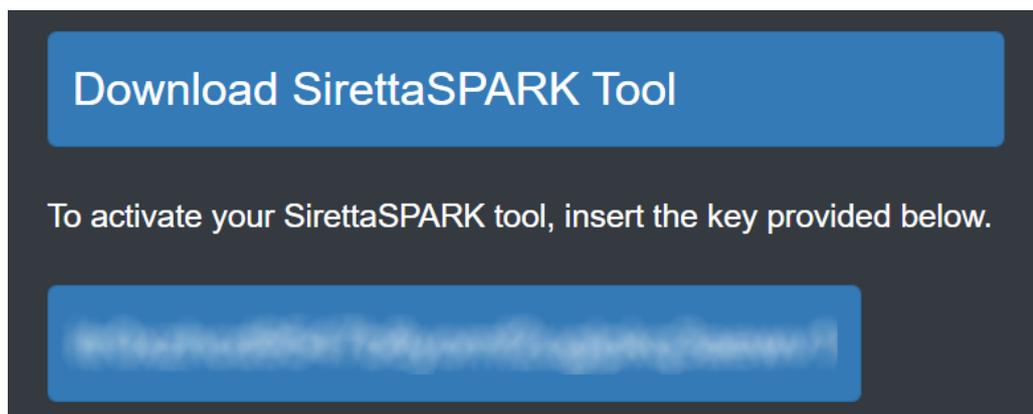
Click the blue key box to copy the key to the clipboard. The box turns green to confirm that this has happened.

Paste the key from the clipboard into the SirettaSPARK pop up box and click 'OK' to complete the activation of the SirettaSPARK application. A confirmation will pop up saying Key accepted. Activated user:<account name>. Confirm that the account name is correct.

Activation of the SirettaSPARK tool is now complete and access to SirettaSPARK and its functionality is enabled.

Note: Siretta employs a unified login system across its websites:

»   https://portal.siretta.com/
»   https://www.siretta-link.com/
»   https://www.cloud-survey.co.uk/

An account created on any of these websites will also work across the other websites and portals, utilising the same login credentials.

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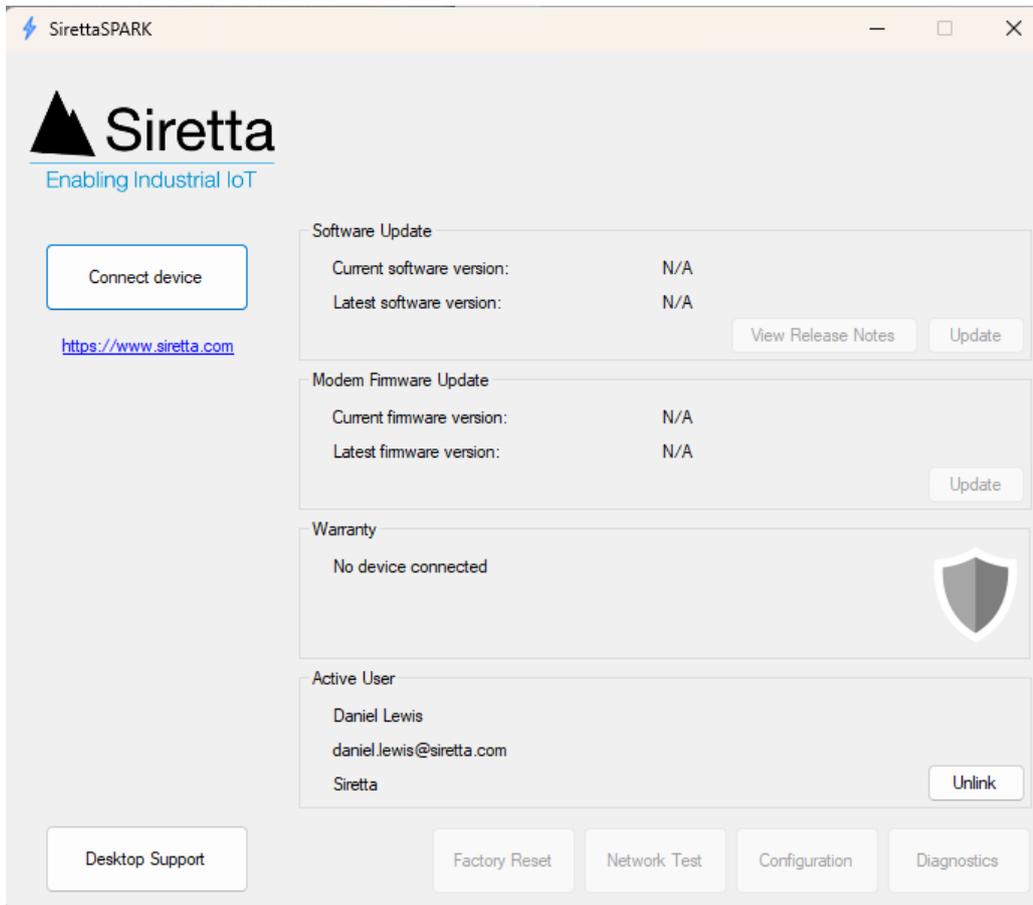
When first used, SirettaSPARK will create a small (1 KB) configuration file that it places in the hidden directory C:\Users\<windows username>\AppData\Roaming\Siretta.

Important Note: In order to update the modem firmware using the application, it is essential to have the Telit USB drivers installed. Please download the latest drivers from https://www.siretta.com/usb-drivers.

Update

When SirettaSPARK is run, it will always check with the Siretta server to verify that it is using the most up-to-date version of the tool. If a more recent version is available, the user will be prompted to download that version, which will happen automatically when 'Yes' is clicked.

Warning   ✕

App version out of date, download latest version?

[Yes]   [No]
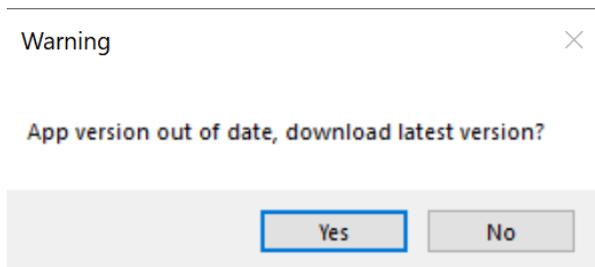
The updated file will always be placed in the same folder as the existing SirettaSPARK.exe file, and the running instance of SirettaSPARK will then close. Because the application is unable to over-write itself, the newly downloaded version will be called SirettaSPARK (1). exe. Please delete the old version and run the newly downloaded version.
Using the latest version of SirettaSPARK is always recommended as it may contain possible bug fixes, improvements, and potentially new features.

Uninstall

There are no registry entries. To remove all traces of SirettaSPARK, do the following:

1. Delete SirettaSPARK.exe from the directory in which it was placed.
2. Delete app.config from C:\Users\<windows username>\AppData\Roaming\Siretta

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Connecting to Siretta product

Using SirettaSPARK provides a simple mechanism to ensure that Siretta's products are updated automatically with the latest software and firmware versions.

» No need to browse the website to determine the correct firmware
» No risk of selecting incompatible firmware
» Fast, easy to use interface
» Everything managed from the SirettaSPARK application

Simply connect the product by one of its interfaces (USB or RS232, **see individual product connection instructions**) and click 'Connect device' to have SirettaSPARK discover the connected product(s):
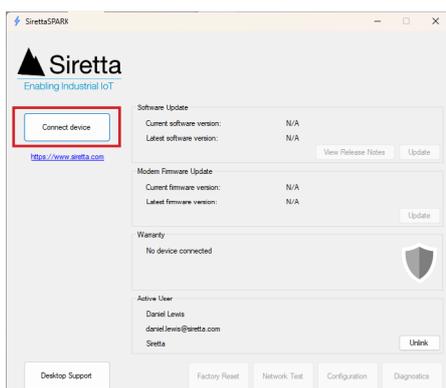
If more than one product is connected to the computer, all devices connected will be detected. In this case a list will be provided for the user to select the product to be connected to SirettaSPARK.

If a device supports multiple interfaces and they are all connected to the PC, SirettaSPARK will only show the first interface that it discovered so that the same device does not get reported in the discovery process more than once.
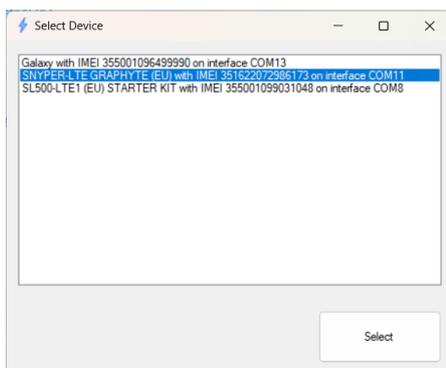
Important Note: Please wait for a few seconds between plugging in a device by its USB interface and clicking the 'Connect device' button. SirettaSPARK can only identify devices that have first been recognised by the Windows USB hot plug detect process, which can take several seconds to execute.

Once a device has been selected, a status summary page will be displayed. In this example the SNYPER-LTE-GRAPHYTE was selected which contains both software and firmware. Not all products contain software.
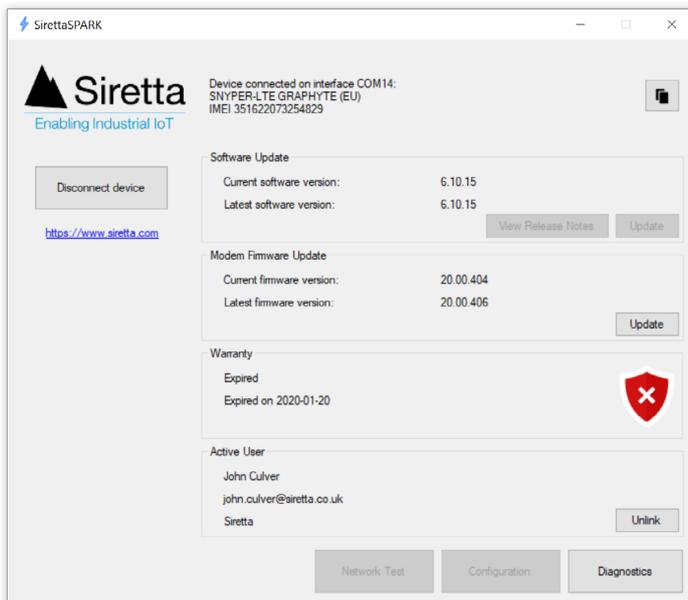
Populated fields in the SirettaSPARK application show:

» Product part number
» Product IMEI number (which may be copied to the clipboard by clicking the icon to its right)
» Current product software version installed in the product
» Latest available product software version (which may or may not be equal to the installed version)
» Current cellular modem firmware version installed in the product
» Latest available modem firmware version (which may or may not be equal to the installed version)
» Warranty information: Days remaining and expiry date. A green shield to the right indicates that the product is in warranty.

When the installed software and firmware is the latest version, the associated 'Update' buttons are greyed out.

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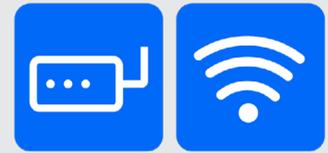
SENTRY

Connect the SENTRY to the PC running SirettaSPARK by its USB interface. The RS232 interface is not supported on this device using SirettaSPARK. Once connected and the SENTRY powered, press the 'Connect device' button on SirettaSPARK to discover and connect to the SENTRY.

Important Note: Ensure that Telit USB drivers installed on the PC before using SirettaSPARK to update firmware. Please download the latest drivers from https://www.siretta.com/usb-drivers.

Important Note: Stop any active ongoing surveys before initiating a software or firmware update to avoid potential corruption of ongoing survey data.

SL500

Power on the SL500 while pressing the recessed configuration switch. Release the switch when the green and blue LEDs start flashing alternately, indicating that the SL500 has powered up in configuration mode.

To update the software in the SL500, connect the SL500 to the PC running SirettaSPARK by the RS232 interface. To update the firmware in the SL500, connect the SL500 using the USB Interface. It is not possible to update both firmware and software over the same interface.

Important Note: If the SL500 is not powered up in configuration mode, establishing a connection via the RS232 interface will not be possible. Moreover, attempting a firmware update on the SL500 over USB when it is not in configuration mode may result in permanent damage to the device. Please confirm that the blue and green LEDs are blinking alternately to ensure that the SL500 is in configuration mode.

With the SL500 connected and powered up in configuration mode, press the 'Connect device' button on SirettaSPARK to discover and connect to the SL500.

Alternatively, the latest software may be pushed to the SL500 by using the SirettaLINK Management Portal and the cellular network. Full update instructions can be found in the SirettaLINK Management Portal User Manual.

ZETA

Connect the ZETA to the PC running SirettaSPARK by either its USB or RS232 interface. Once connected and powered, press the 'Connect device' button in SirettaSPARK to discover and connect to the ZETA.

Performing a firmware update via the USB interface is a faster process than over RS232.

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SNYPER

Performing a firmware update via the USB interface is a faster process than over RS232.

Identifying your SNYPER

There are a number of SNYPER variations:

» SNYPER-5G Graphyte

» SNYPER-IoT Graphyte

» SNYPER-LTE Graphyte

» SNYPER-LTE+

» SNYPER-LTEM

Each variation can be identified by the colour of the bumpers bordering the edge of the device.

5G Graphyte (Yellow)	IoT Graphyte (Green)	LTE Graphyte (Charcoal)	LTE+ & LTEM (Blue)

SNYPER-5G Graphyte & SNYPER-IoT Graphyte

Connect the SNYPER to the PC running SirettaSPARK by its USB interface. Turn on the device by holding and then releasing the power button. Press the 'Connect device' button in SirettaSPARK to discover and connect to the SNYPER.

All other SNYPER's

Connect the SNYPER to the PC running SirettaSPARK by its USB interface. If the SNYPER was not already powered, this will result in it powering on. Press the 'Connect device' button on SirettaSPARK to discover and connect to the SNYPER.

Important Note: The SNYPER requires software version 6.10.11 or later to work with SirettaSPARK.

If the SNYPER is not detected by SirettaSPARK then it is likely that it is running an older software version. Using the up/down button(s) on the SNYPER, navigate to and select the 'About' screen where the installed software version can be confirmed. Any software version starting 6.xx.xx can be updated manually to a version that will work with SirettaSPARK. Full update instructions can be found in the SNYPER Programming Guide, and the firmware required may be obtained from support@siretta.com by quoting the IMEI number of the SNYPER (also found on the about screen).

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Warranty Status

Once connected to SirettaSPARK, the tool shows warranty status of the connected product.
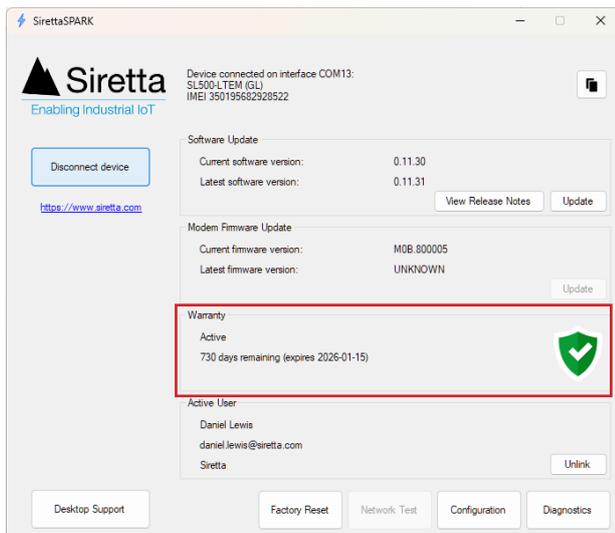
The above screenshot shows an SL500 that is still in warranty, indicated by the green shield with a white tick. The duration of the remaining warranty and when it expires is also indicated, to the left of the shield. The date is presented in delimited ISO 8601 format: Year-Month-Day.
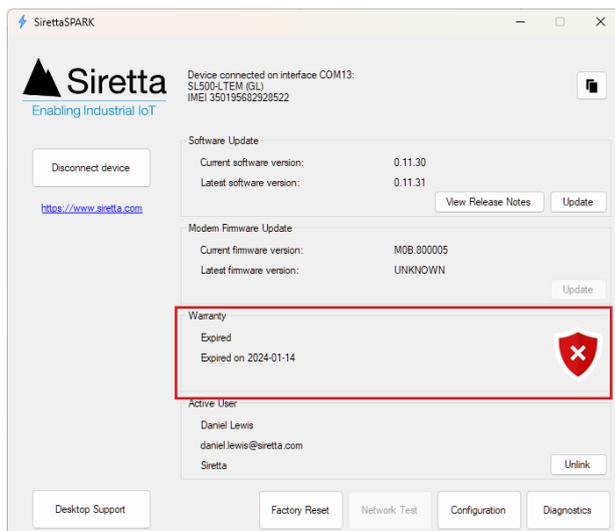
The screenshot above shows an SL500 whose warranty has expired. This is indicated by the red shield with white cross. The date of warranty expiry is shown to the left of the shield.

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Software and Firmware Update

Having connected the product to SirettaSPARK, the process of updating software and firmware remains consistent across all devices. The ability to update software and firmware does not depend on warranty status.

All products contain firmware. The SENTRY, SL500 and SNYPER are the only products to also contain software.

The screenshot of SirettaSPARK below shows a SNYPER connected where both the software and firmware are out of date. The current and latest versions of both software and firmware differ, and the 'Update' buttons for both are not greyed out.
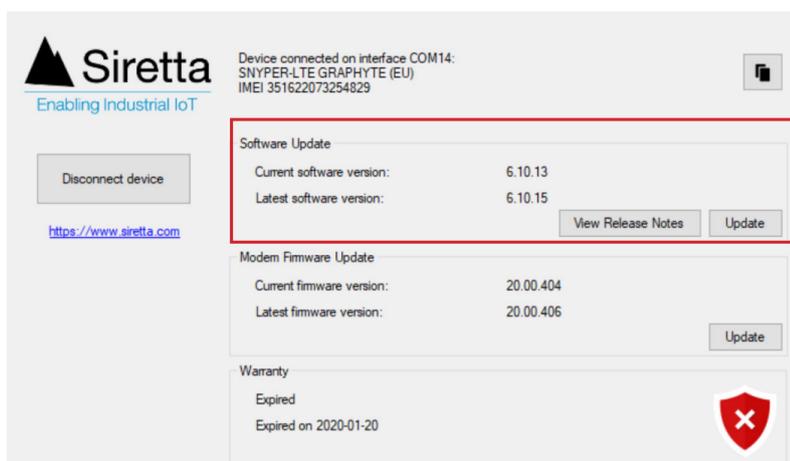
Where both software and firmware are available for update, it is recommended that the software be updated first, as the software in many products interacts with the firmware update process and may contain improvements to the firmware update process.

Important Note: While updating software or firmware, please ensure that the process is not interrupted in any way (cable disconnect, power failure/removal, etc). An interrupted update may cause the product to fail to boot or operate correctly. It may not be possible to recover from this situation.

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Software Update

A software update may be performed on any unit that shows that is not running the most recent software version.
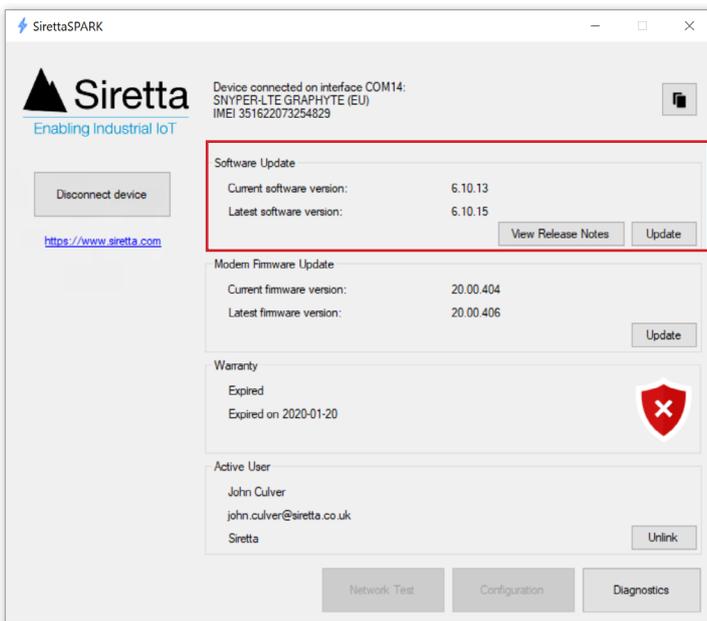
Before updating the software, the release notes may be inspected if desired. The release notes provide a summary of the changes between the installed and latest software versions. The software changelog below is representative of the level of information typically included in the changelogs.

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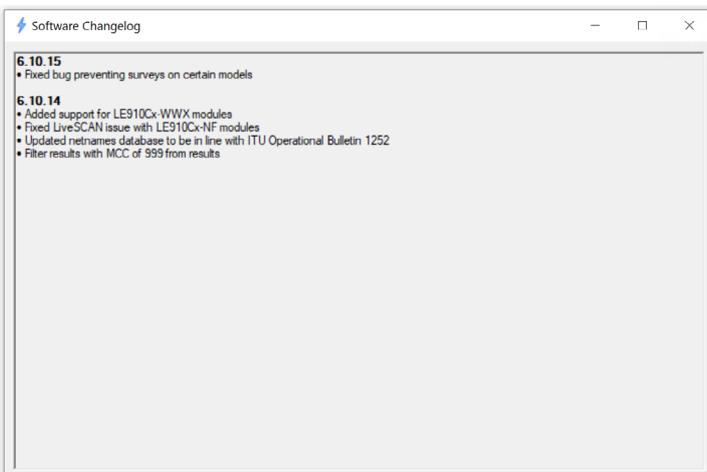
Important Note: Before updating the SNYPER software, please make a backup of any surveys stored on the device. The update process may erase any stored surveys.

When ready, press 'update' to install the updated software into the product. Ensure that power is not interrupted until the software update completes. A pop-up window shows the progress of the update. First the required update is downloaded to the PC and the device is put into an update mode. This occurs typically within 15 seconds.
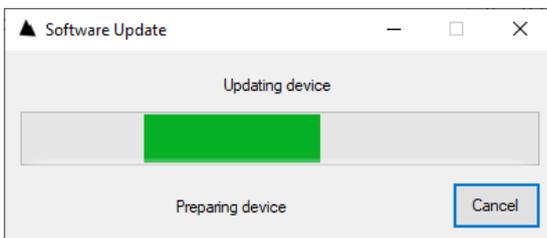
Then the software update occurs. This is likely to take several minutes, during which the product will shutdown and reboot itself.
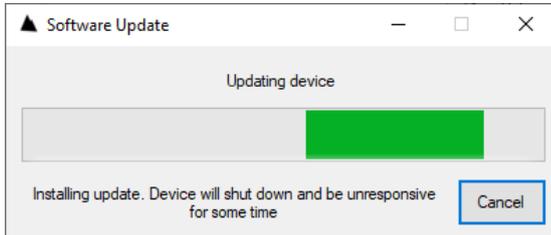
Once this window closes, the software update has completed. The 'Update' button and release notes are now greyed out and the current and latest versions now match.
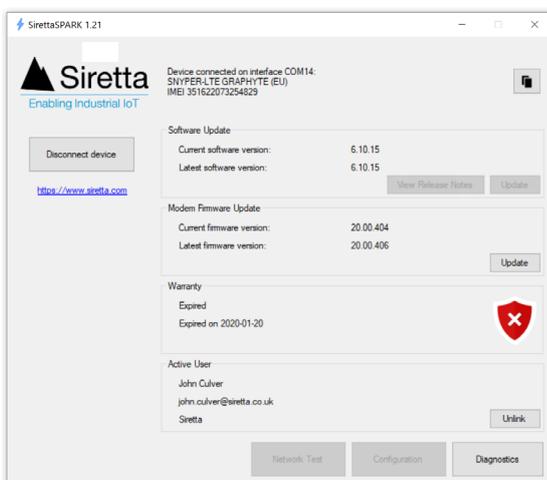
Firmware Update

The firmware update procedure behaves differently dependent on the cellular radio used in the product. Older devices use the 'XFP' procedure and more modern devices use the fully automated procedure. SirettaSPARK will automatically select and use the correct procedure for the connected device.

The procedure used can be determined by looking at the first character of the firmware version that SirettaSPARK reports:

» Firmware whose first character is a number will use the XFP procedure.
» Firmware whose first character is a letter will use the fully automated procedure.
» No matter which procedure is used, the update is initiated by clicking on the 'Update' button.

If the 'Update' button is greyed out, the connected product already has the latest firmware in it.
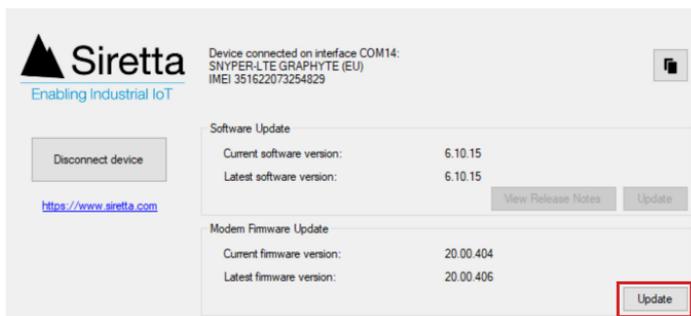
Note: The firmware update process can take several minutes to complete.

Important Note: Please ensure that there is only one Siretta product connected to the computer when updating firmware. Although SirettaSPARK is intelligent and can identify different devices, SirettaSPARK calls a third party update tool to do firmware updates which is not so smart and can struggle to identify the correct device to update if multiple devices are attached, causing the update process to fail.

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XFP Procedure

If, as will be likely, the XFP tool has not been installed on the PC running SirettaSPARK, the user will be prompted to download Siretta has automated this as much as possible. By clicking OK on the 'XFP not found' error message XFP will be automatically downloaded from https://www.siretta.com/xfp. Double click the .msi file that is downloaded to install it. Windows defender might flag this as an unrecognised app; however, the program has been written by Telit and is trusted. This only needs to be done the first time that the XFP programming procedure is used.

With XFP installed, clicking 'Update' will start the process by preparing the device and downloading the required firmware to the PC:
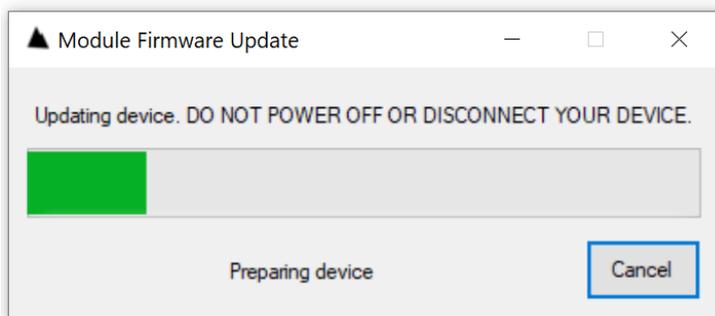
After a few seconds the XFP application will open automatically and start the programming process:

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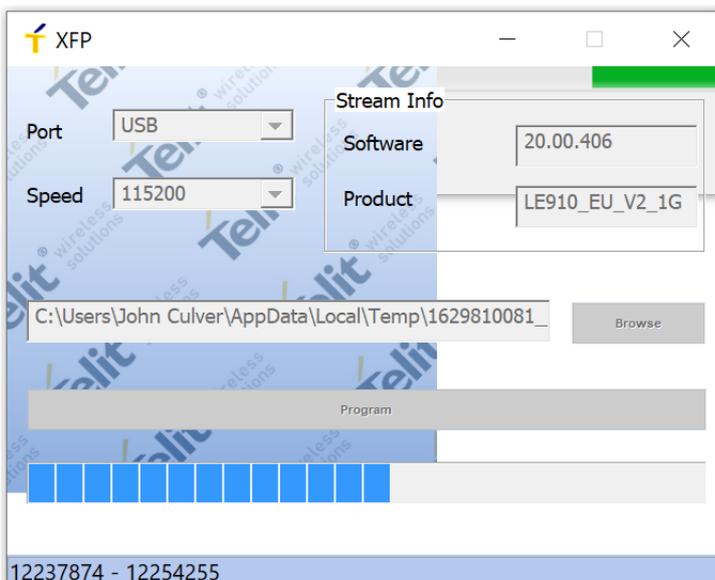
Once XFP has completed programming, itwill display a box with the message notifying the user that the update is complete. The user is required to click the 'OK' box to terminate the XFP application:
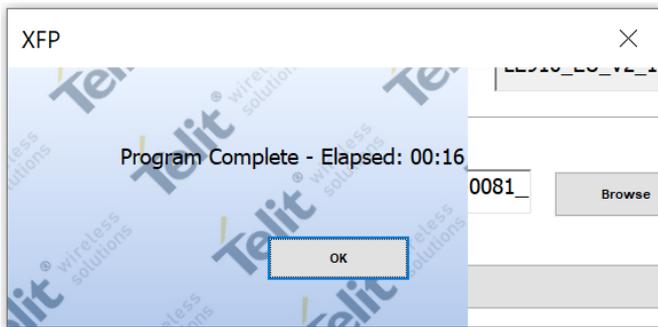
Both the firmware update window and DOS window will close upon completion, and be replaced with the firmware update window:

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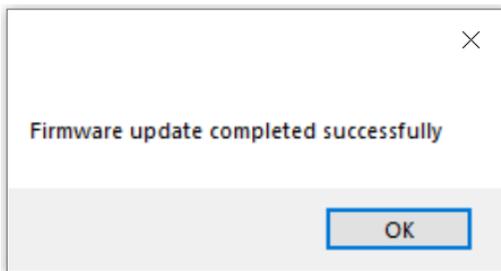
At this point, the product is disconnected from SirettaSPARK and not functional. Reboot the device to finalise the update process:

» For a ZETA, this means cycling the power.
» For a SNYPER, use the buttons on the unit to power the unit down and then power it on again. When powering on the device for the first time after the update, it will briefly display "STARTING DEVICE" as it initializes before showing the menu.

Confirm that the update process has completed successfully by connecting to SirettaSPARK and confirming that the firmware 'Update' button is now greyed out:

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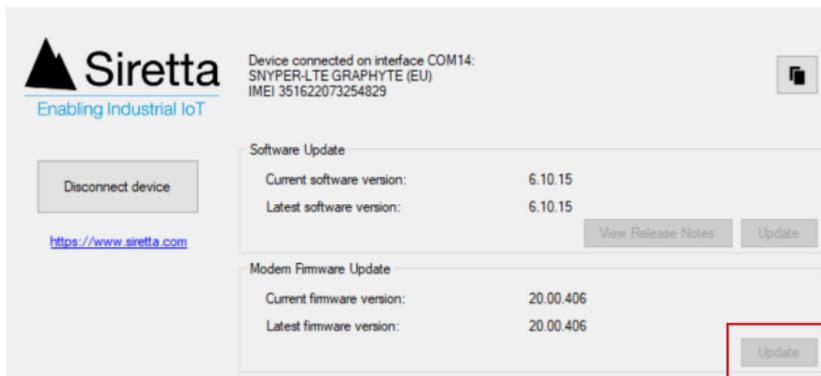
Fully Automated Procedure

The firmware update procedure for most products is fully automated. Click the firmware 'Update' button:
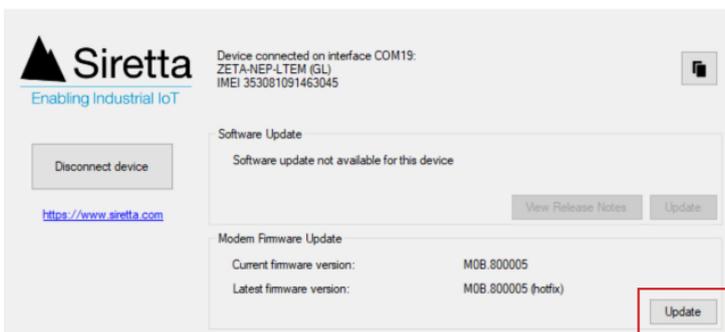
The firmware update window opens to show the process of the update. Initially the device to be programmed is prepared and the firmware update required is downloaded

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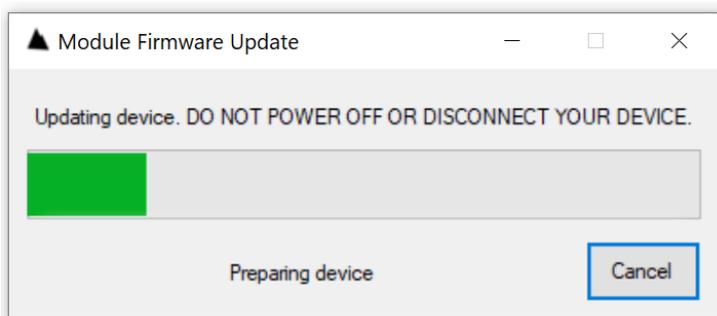
A DOS window will open when programming starts. This shows the detail of what is happening. Do NOT close this window.

Eventually both the firmware update window and DOS windows will close, when programming is complete, and be replaced with the firmware update complete window:

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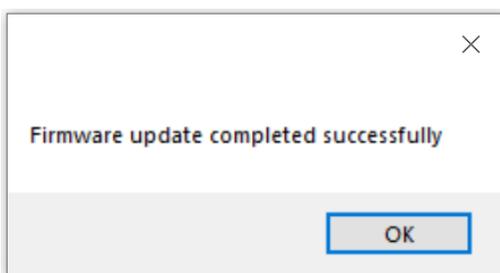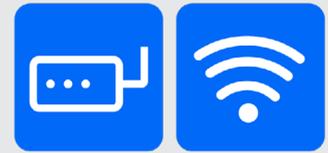
Click 'OK' to close the window. SirettaSPARK will auto-detect and reconnect to the device to verify that the update was completed correctly. If the firmware update has been correctly applied, the firmware 'Update' button will now be greyed out:
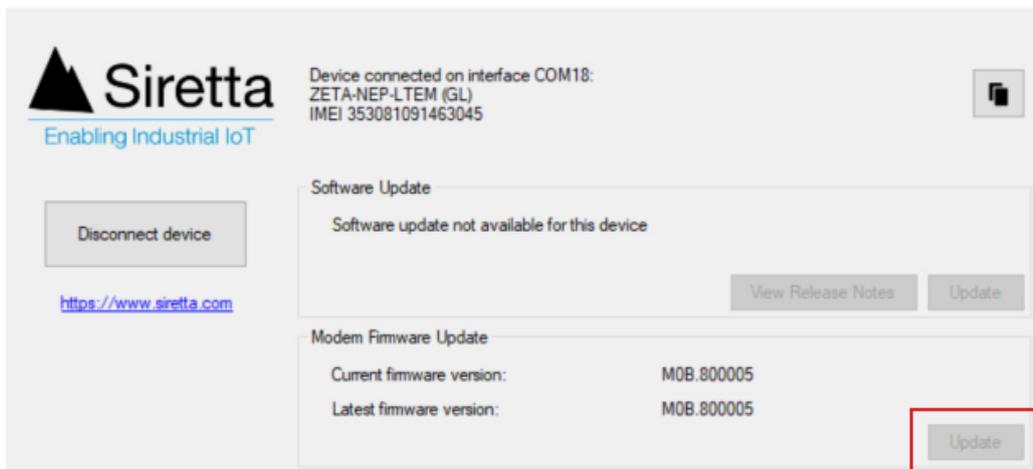
Note: When using the fully automated firmware update procedure, there will be some files created in the same directory as SirettaSPARK.

Once the firmware update is complete and the device has been tested to confirm that the cellular interface works correctly, these files may be deleted.

Important Note: If there are any problems encountered during the update process and the update fails, you must keep these files as they contain the backup data for the device configuration. Please contact your Siretta representative in this scenario.

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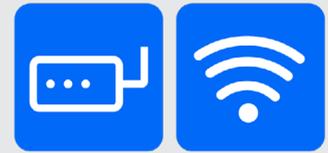
Configuration

SENTRY

Before using the SENTRY, it must first be configured to connect to the cellular network and then be linked to the user's Cloud Survey account. SirettaSPARK manages most of this process.

If the user does not already have a cloud survey account, they should first create one by visiting https://www.cloud-survey.co.uk/ and logging in. Existing users should log into their Cloud Survey account.

Connect the SENTRY to the PC via the USB port, and then establish a connection to it using SirettaSPARK. Once the device is linked to SirettaSPARK, it will also be connected to the cloud survey portal.

1. Connect the SENTRY to the PC via the USB interface.
2. Open SirettaSPARK and establish a connection to the device by pressing 'Connect Device'.
3. Press 'Configuration' - The configuration window will open and a textbox will appear prompting the user to link the device to their account . Select 'Yes' to confirm.

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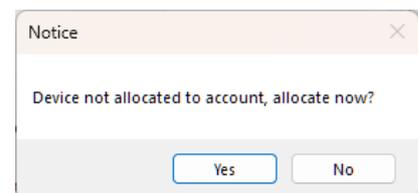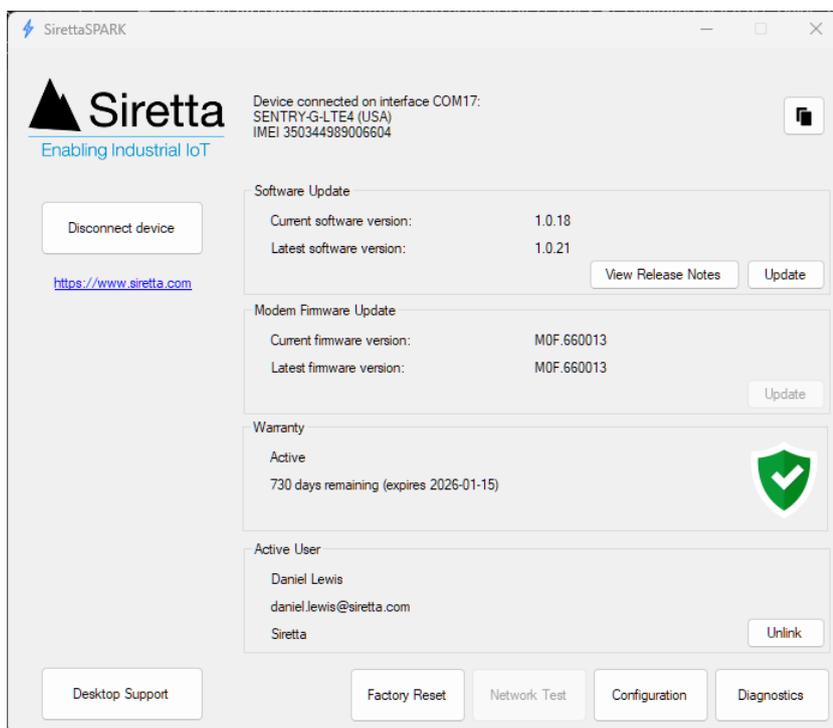
4. In the configuration window, the user must input and save the APN details and SIM PIN where applicable. The table below provides further details on these fields.

Parameter	Explanation
APN	APN provided by the SIM card supplier (always required)
APN username	APN username provided by the SIM card supplier (SIM card dependant – not always required)
APN password	APN password provided by the SIM card supplier (SIM card dependant – not always required)
SIM PIN	SIM PIN provided by the SIM card supplier (SIM card dependant – not usually required)

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5. Device operation parameters are retrieved from the cloud survey portal and populated into the relevant fields. These settings are configurable exclusively from within the portal.

6. Click 'Save to Device' to save to the SENTRY. Once configured, disconnect the SENTRY from SirettaSPARK and reboot the SENTRY for the APN settings to take effect.

Note: The user must supply and install a SIM card into the SENTRY for it to connect to the cellular network. See the SENTRY User's Manual. Once connected to the cellular network, the red LED on the SENTRY will blink slowly.

7. Return to the Cloud Survey portal and navigate to the 'View Device List' tab at the top of the page.
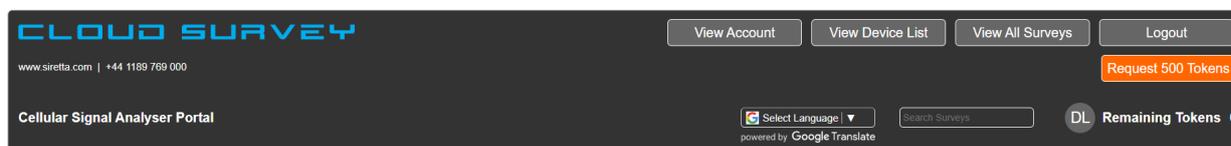
8. The newly added device will appear in the list of devices shown in the portal.

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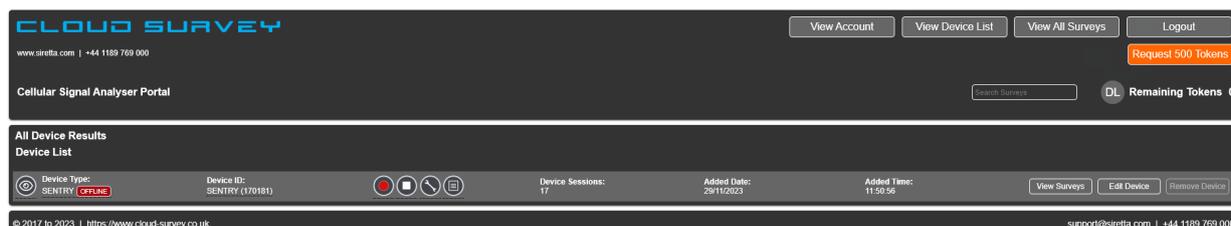
SL500

Follow these steps to configure a new SL500 for the first time.

1. Go to https://www.siretta-link.com/management-portal/ and log in or create an account.

2. Open the SirettaSPARK application.

3. Press and hold the configuration button on the SL500 during power up as explained in the section Connecting to Siretta product – SL500

Important Note: The RS232 port must be used to enter configuration mode. Moreover, should the SL500 not be in configuration mode, SirettaSPARK will be unable to detect it.

4. Press 'Connect device' within the application.

5. Press 'Configuration' The configuration window will open and a textbox will appear prompting the user to link their device to their account.

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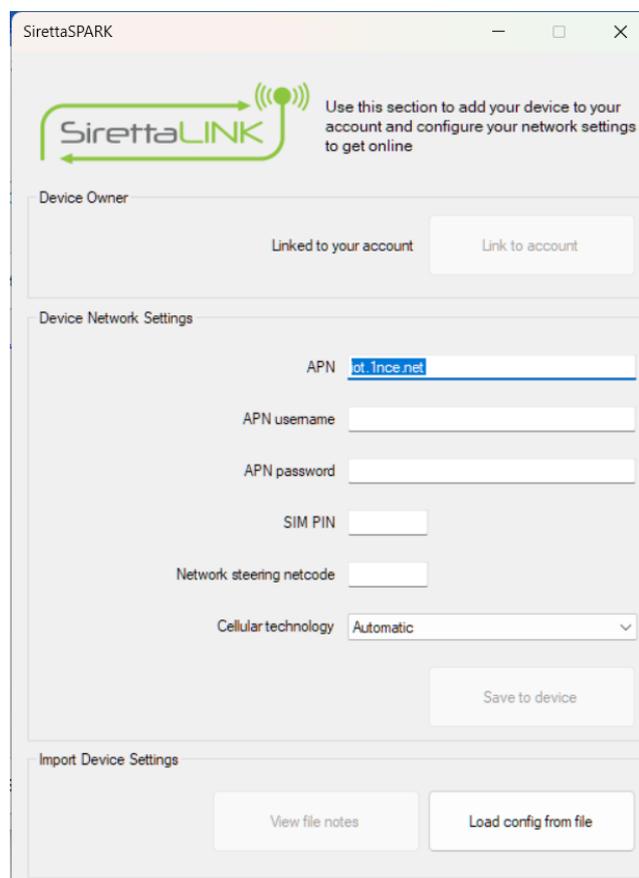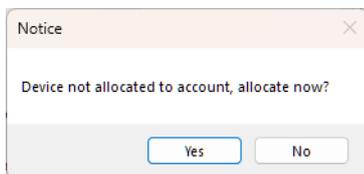
6. Once connected, SirettaSPARK will retrieve settings from the linked device and automatically populate any configurations present in the SL500. Otherwise, the user needs to manually enter the details.

7. Press 'Save to device' These fields can be amended if needed and saved back to the device.

8. Reboot the SL500. Once rebooted, the SL500 will use the configuration set to connect to the portal.

9. Navigate to the 'Device' tab on the portal website. The device configured will appear in the list of devices shown in the portal after several minutes if supplied with correct APN information.

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SL500 Configuration parameters

Parameter	Explanantion
Account ID	SirettaLINK portal account to which the SL500 is linked
APN	APN provided by the SIM card supplier (always required)
APN username	APN username provided by the SIM card supplier (SIM card dependant – not always required)
APN password	APN password provided by the SIM card supplier (SIM card dependant – not always required)
SIM PIN	SIM PIN provided by the SIM card supplier (SIM card dependant – not usually required)
Network steering netcode	Enter the PLMN of the network to be exclusively connected to. Normally left blank. Useful for roaming SIMs that could connect to multiple networks. Can aid registration speed on power up. See Appendix A for list of common networks PLMN.
Cellular technology	Context sensitive list to request the SL500 to connect to a cell of specified network technology. Normally left set to Automatic. May be required if SIM used only works on some technologies.

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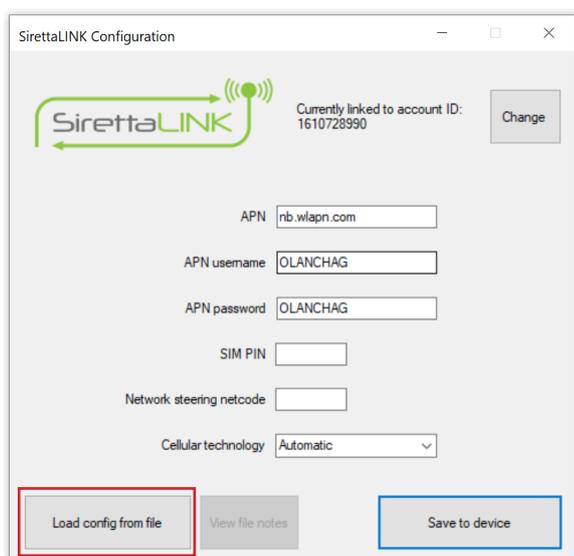
SL500 setup in a production environment (mass programming)

To simplify the process of configuring many SL500 devices quickly, it is possible to set all of the configuration parameters within SirettaSPARK from a setup file rather than entering them manually for each SL500.

To do so, first create a profile for the desired SL500 configuration in the SirettaLINK Management Portal. Please refer to the SirettaLINK Portal Manual for information on how to create and use profiles. Select the 'Profile' tab on the SirettaLINK Management Portal to view and manage profiles.

Click the icon to download the desired profile as a <name>.slc file. The <name>.slc file contains both account ID and profile data. Any notes added to the profile when it is saved will be visible later in the SirettaSPARK configuration tool.

Then, from the configuration window, click the 'Load config from file' button. Navigate to and open the profile from the pop-up File Explorer window. The settings will then be loaded into the SirettaLINK configuration window. This includes the account ID as well as the network connection settings displayed in the configuration window.

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If there are any comments stored with the profile, then these may be viewed by clicking the 'View files notes' button which is otherwise greyed out.
Once content with the loaded settings, click 'Save to device'. The device settings will be applied when power to the SL500 is cycled.

Return to the SirettaLINK portal, and head to the 'Profile' tab.

The 'New Connection' profile is automatically assigned to all new devices registered to the account by default. It's important to note that manually assigning the desired profile to each new device is still necessary. Alternatively, changing the default profile to the preferred one ensures that each subsequent new device registered adopts this chosen profile by default.

SL500 account reassignment

Sometimes it is necessary to move SL500 between accounts. For instance, the SL500 may be integrated into a larger piece of equipment. It would initially be connected to the manufacturers account for system testing. However, when sold to an end customer, it may be desirable to transfer product ownership to a SirettaLINK portal account owned by the end customer.

Transferring account ownership is a straightforward process: access sirettaSPARK on a separate account, boot the device in configuration mode, select configuration and then click 'Link to account'. Any existing configuration settings will be retained, which may need to be altered.

Important Note: If a profile for the unit has already been created and assigned on the SirettaLINK Management Portal, this profile will then be sent back to the unit once it connects to the portal, over-writing the fields set using this tool. This tool is only designed to initially configure the SL500 for first use with the SirettaLINK Management Portal. Full SL500 configuration should be performed via the portal.

Important Note: The user must supply and install a SIM card into the SL500 for it to connect to the cellular network. See the SL500 Hardware Manual.

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Diagnostics

SirettaSPARK features an embedded diagnostics tool specifically designed to grant Siretta's support team access to debugging information in the event of any unexpected occurrences.

This tool does not provide the user with any diagnostic information that they may use themselves. It is normally used at the request of Siretta's support team as a debugging aid to resolve any unexpected problem that the end user is experiencing.

The diagnostics tool is available for all products and is accessed by selecting the 'Diagnostics' button:

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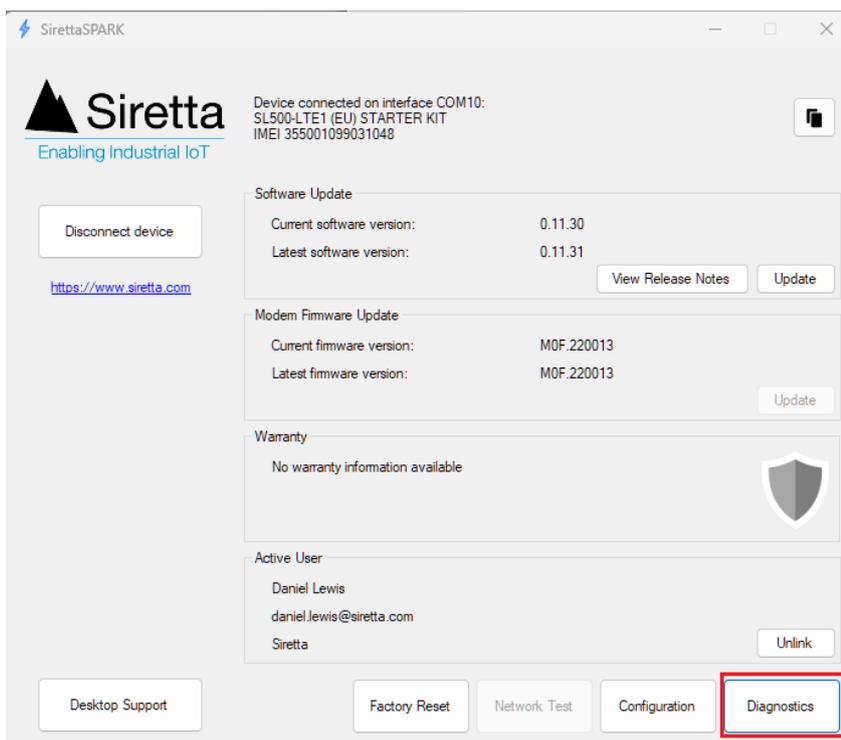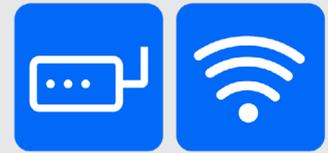
Choose where to send the diagnostics log to.

The preferred way is to connect directly to the Siretta diagnostics log server (by checking 'Connect to server'). When logging to the server, SirettaSPARK will connect to the Siretta support portal using the internet service. This is a live session which allows Siretta's engineers to see in real time, the events happening in the connected product. The session is recorded for the purpose of analysis in case an engineer is unavailable at the time, allowing them to review the data later.

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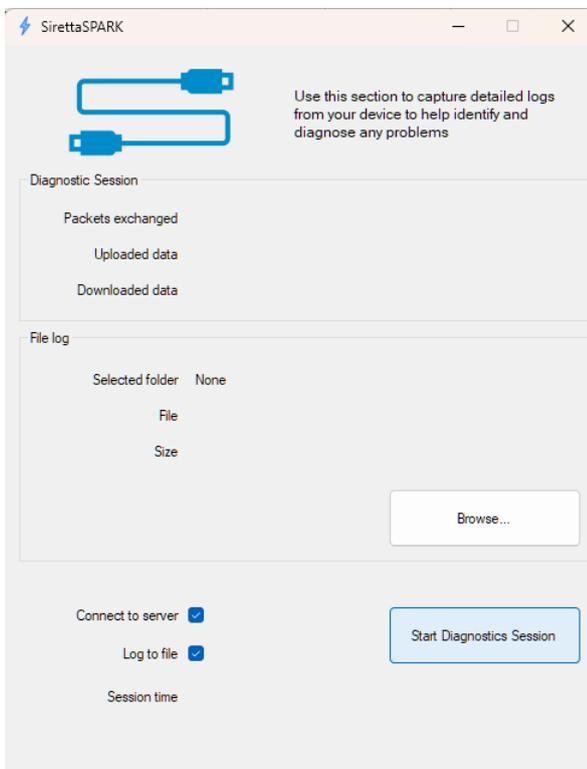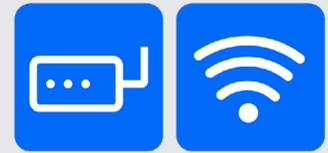
In the event a reliable internet connection is unavailable, the user may not want to use the server option. In this instance, select the 'Log to file' checkbox instead. On selecting log to file, set the directory to which the log file will be saved. When logging is complete, send the log file to support@siretta.com together with an explanation of the problems encountered while recording the file.

At least one log file destination must be enabled, or the 'Start Diagnostics Session' button will be greyed out. It is possible to log to both server and file, and this may be desirable if there is a risk that the Internet connection may be interrupted.
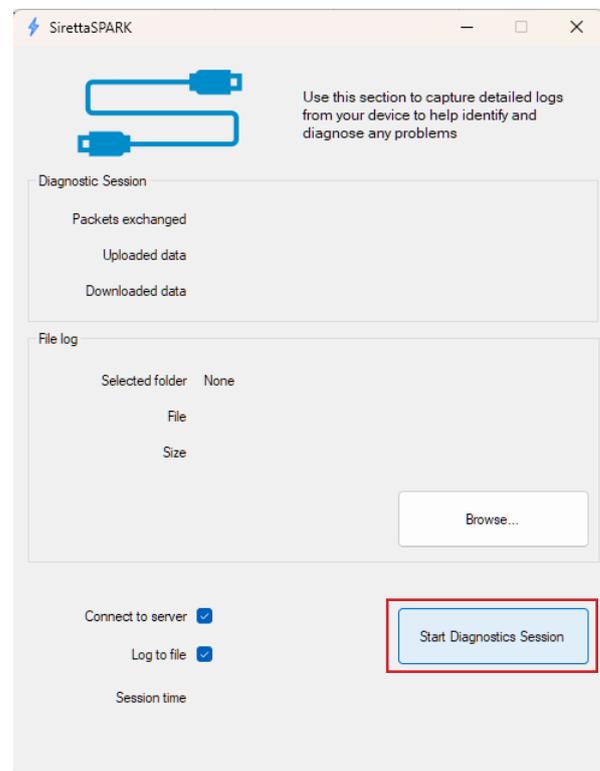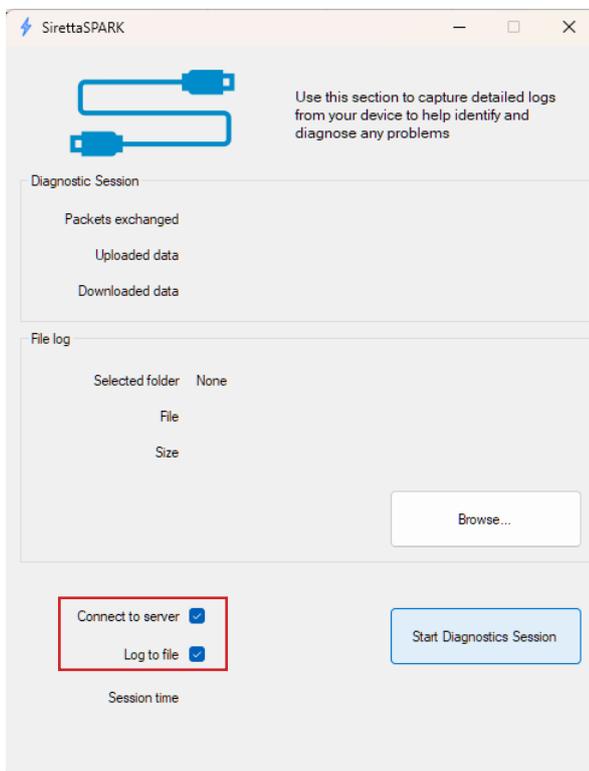
On clicking 'Start Diagnostics Session', SirettaSPARK will commence logging to the selected log destinations.

Diagnostics sessions are recorded under the name of the registered user of the SirettaSPARK tool and are timestamped. The connected product is identified by its IMEI number. The same data is sent to the logging destination(s) that have been selected.

Once diagnostics logging has started, the loading bar will move across the screen until logging is stopped by hitting the 'Stop Diagnostics Session' button. Counters for uploaded/downloaded data and file size are shown dynamically.
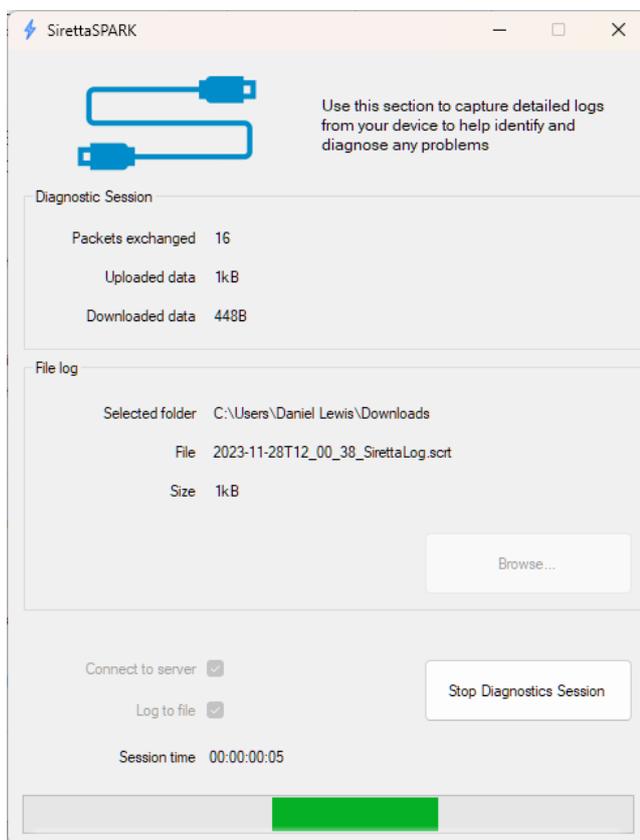
The Siretta diagnostics portal is the preferred means of debugging because the connection to the support portal is two way and may allow Siretta's engineers to update software and issue commands to the device under test remotely. This connection only allows Siretta's engineers to talk to SirettaSPARK, and consequently the device under test. SirettaSPARK is not a remote desktop application and does not allow examination of the disk drive, any PC components, or any applications running on the PC.

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Network Test

The SL500 and the ZETA have a Network Test function available in SirettaSPARK. This allows APN settings to be tested to confirm that they work and will allow connection to the Cellular network.

To access the Network test feature:

» Connect to the SL500 using the USB interface. See Connecting to Siretta product – SL500 for setup.
» Connect to the ZETA using either USB or RS232 interface. See Connecting to Siretta product – ZETA for setup.

Then press the 'Network Test' button.

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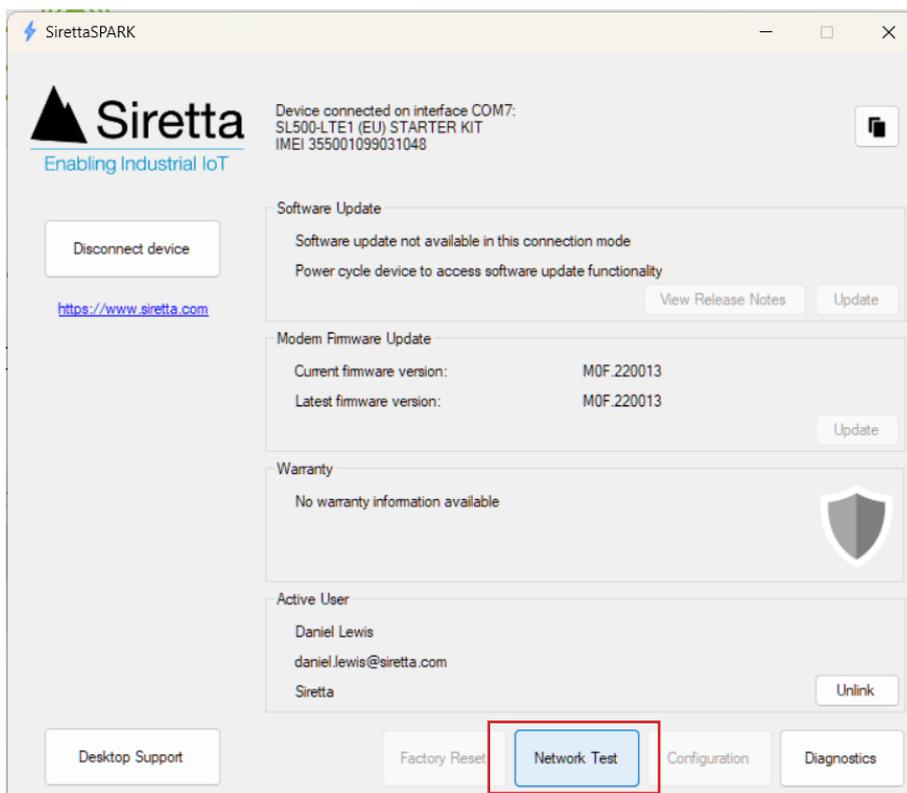
This opens the network test window. Enter the APN details for the SIM card used, and optionally choose the Cellular Technology and Netcode (applicable when using a roaming SIM). With the test parameters set, press the 'Test Connection' button to start a network test.

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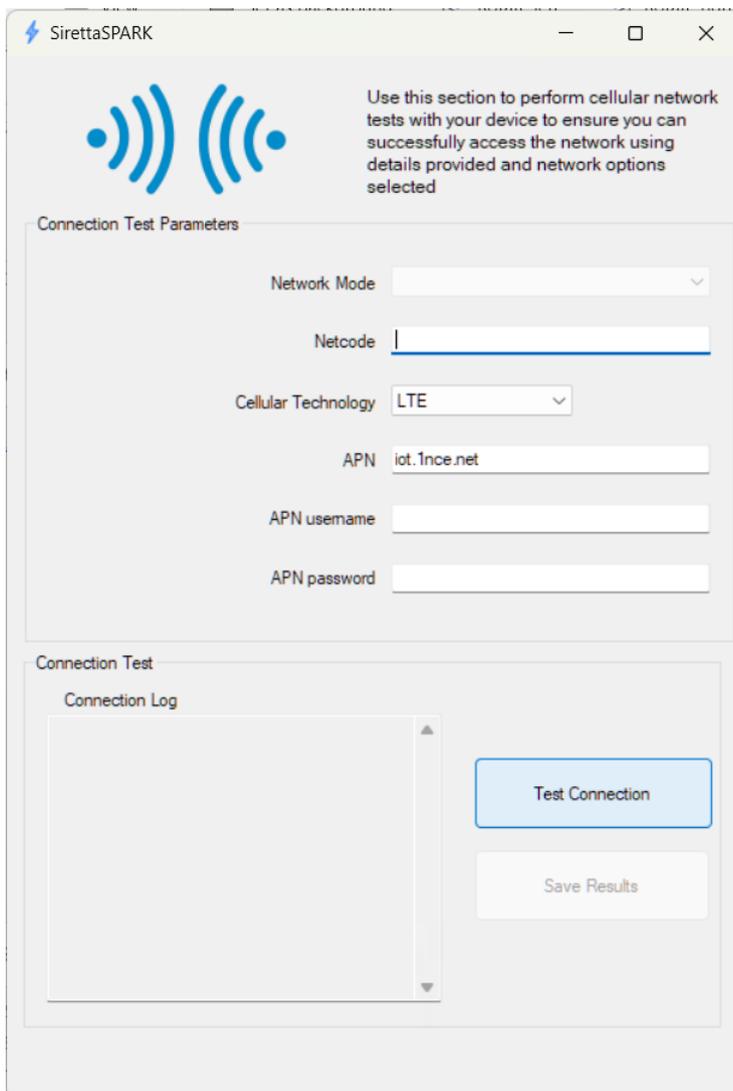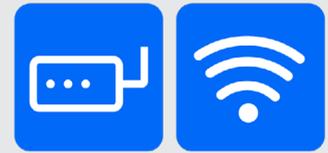
The chosen setting will be used to try and get a network connection, which if successful will show details of the connection obtained:

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Should the APN connection details be incorrect, as in this case where incorrect details have deliberately been entered, then a 'Data connection activation failed' message will result. But remember, an incorrect APN setting means that IP connectivity will fail. SMS, fax, voice and data will still work (network technology and device functionality allowing).

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Should the device's antenna be disconnected, then the failure message will be 'Network registration failed: operation timed out'.

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Should no SIM be inserted, then the failure message will be 'No SIM inserted'.
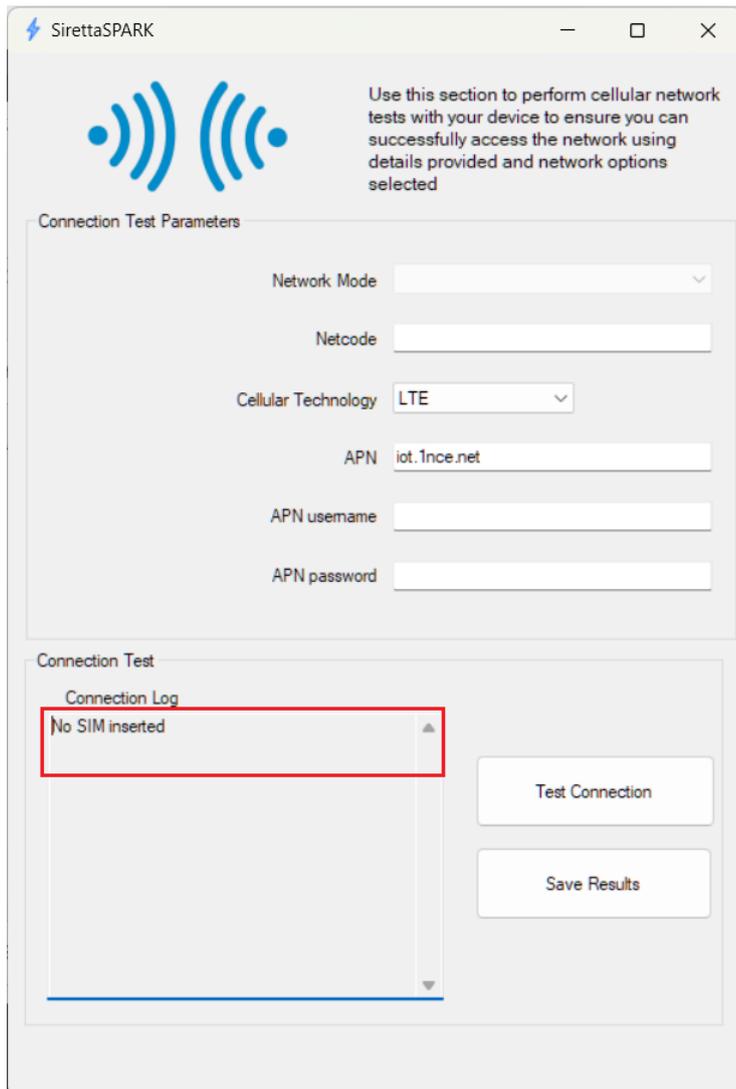
Data Processing Statement

All the products supported by SirettaSPARK have a digital identity held on a secure database by Siretta Ltd, indexed by the IMEI number of the product. This an individual diary for each product detailing events such as the procurement, production, testing and shipping processes that have occurred to it. This provides Siretta Ltd full product traceability as required by our ISO 9001 quality system.

SirettaSPARK accesses the relevant parts of this digital identity to be able to display the product name and warranty information. Then, as the product is updated with new firmware and software, these events are recorded onto the product's digital identity.

By updating a product using SirettaSPARK, this will create a record in the digital identity database. It details the event, who performed it, and the date/time at which it occurred. Because the user is recorded, this is personal data and is controlled by Siretta's GDPR policy detailed at https://www.siretta.com/privacy-policy-gdpr/. Just viewing product information using SirettaSPARK will not record any personal data, it is only updating software or firmware, or using the diagnostics that will record personal data.

Note: It is not mandatory to use SirettaSPARK to update software and firmware. This tool just makes it easy for the user to update the Siretta product. Users may always email support@siretta.com with a list of the IMEI numbers of their products to request firmware and software updates and apply them manually. In this way, no update is made to the digital identity.

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Appendix A - Common network netcodes

Austria	A1.net	232 01
	T-Mobile	232 03
	Orange	285 05
Belgium	Proximus	206 01
	Orange	206 10
	Telenet	206 20
France	Orange	208 01
	SFR	208 10
	Free Mobile	208 15
	Bouygues	208 20
Germany	Telekom	262 01
	Vodafone	262 02
	O2	262 03
Ireland	Vodafone	272 01
	Meteor	270 03
Italy	TIM	222 01
	Vodafone	222 10
	Wind	222 88

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Appendix A - Common network netcodes

Luxembourg	POST	270 01
	Tango	270 77
	Orange	270 99
Netherlands	KPN	204 08
Norway	Telenor	242 01
	Telia	240 02
South Africa	Vodacom	655 01
	Telkom	655 02
	Cell C	655 07
	MTN	655 10
Spain	Vodafone	214 01
	Orange	214 03
	Movistar	214 07
Switzerland	Swisscom	228 01
	Sunrise	228 02
	Salt	228 03
United Kingdom	O2	234 10
	Vodafone	234 15
	3 (Three)	234 20
	EE	234 30

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