Digi Connect Sensor+

Quick Start Guide

Firmware Update Quick Start Guide

Revision history—90002478

Revision	Date	Description
A	September 2021	Initial release
B	April 2022	Updated to include specific information for firmware types: Run the Automation Application.

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Digi Connect Sensor+ Modem Firmware Update

The latest Connect Sensor+ firmware includes product enhancements and allows you to be fully prepared for the AT&T 3G network shutdown. Connect Sensor+ 4G devices will be affected by the AT&T 3G shutdown and Digi strongly recommends you update all Connect Sensor+ device firmware on every one of your devices as soon as possible.

This document describes how to update Connect Sensor and cellular modem firmware using the Automation Application, and applies to the Digi Connect Sensor+ containing one of these LTE modems:

Model	Provider	Revisions
Telit LE910-NA1	AT&T	20.00.524.0 20.00.525.2
Telit LE910-SV1	Verizon	20.00.012.3 20.00.015.0

The update process is initiated by accessing Digi Remote Manager from a CLI prompt window, and then running the Automation Application. You can download the application from the Connect Sensor+ support page. The update process requires a working cellular connection and does not requirephysical access to the device.

If you have any questions or concerns about the new firmware, or for assistance in updating your device(s), please contact the Digi Support team at tech.support@digi.com.

Prerequisites

- Digi Remote Manager account
- Working cellular connection
- Automation Application: **connect_sensor_update.exe**

Update process overview

The Automation Application used to perform the firmware update is stateless. The application uses your Remote Manager account and each device's individual data to determine the state of the update.

What does the Automation Application do?

- Updates the Digi Connect Sensor standard firmware to version 2.1.1.x **or** Connect Sensor Continuous Monitoring firmware 2.0.4.x.

  Note Direct/mains power is required when using Continuous Monitoring firmware. Sensors are active at all times, and will deplete a battery-powered unit within days.

- Determines the state of the cellular modem firmware and updates it if necessary.

Digi recommends that you run the Automation Application repeatedly on periodic basis, such as once a day. Each time the application is run, it will determine what state your inventory is in and queue up any applicable next steps. Since the Connect Sensor devices are battery-powered and only connect momentarily to the cellular network, it may be that not all of the queued steps happen during one connection. Depending on the sampling and connection interval of the Connect Sensor, this can take several days.

The desired revision is 20.00.527 for AT&T modems, or 20.00.017 for Verizon modems.

IMPORTANT: If the modem is already at this revision or later, no firmware update will be performed.

Automations (automated actions) created for each device

As the update process progresses, specific automations (automated actions) are created, depending on the state of your inventory.

When you run the Automation Application, it connects to your Remote Manager account and reviews the status of each device. From this information, automations for each update that must occur are created for each device. The automations are queued in Remote Manager, and then run when the devices wake and connect to Remote Manager.

The possible automations that may be created are:

- Digi Connect Sensor+ Firmware 2.1.1.x Update **or** Connect Sensor+ Continuous Monitoring firmware 2.0.4.x

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  Note Direct/mains power is required when using Continuous Monitoring firmware. Sensors are active at all times, and will deplete a battery-powered unit within days.

- Connect Sensor+ LE910-SV1 20.00.012 Update

- Connect Sensor+ LE910-SV1 20.00.015 Update

- Connect Sensor+ LE910-NA1 20.00.524 Update

- Connect Sensor+ LE910-NA1 20.00.525 Update

The program only creates automations that are appropriate for your inventory of devices.

For example, if you only have an AT&T deployment, you will not see any automations containing the "LE910-SV1" model in the name. Conversely, if you only have a Verizon deployment, you will not see automations with "LE910-NA1" in the name. If your Connect Sensor+ devices are running cellular modem firmware other than the versions listed above, those will need to be handled separately.

Run the Automation Application

Before you begin, determine whether your Connect Sensors all have one type of firmware installed (either standard **or** Continuous Monitoring), or if some of your Connect Sensors have the standard firmware installed and some have Continuous Monitoring firmware installed. This determines which update process you should use.

- **Same firmware type**: Run the Automation Application. See Same firmware type: Run the Automation Application.

- **Some have the standard firmware and some have Continuous Monitoring firmware**: Update the firmware manually and then run the Automation Application. See Mixed firmware types: Update and run the Automation Application.

Same firmware type: Run the Automation Application

This process describes how to update the firmware and cellular modem for Connect Sensor devices that all have the same firmware type installed: standard **or** Continuous Monitoring.

Note If some of your Connect Sensors have the standard firmware installed and some have Continuous Monitoring firmware installed, see Mixed firmware types: Update and run the Automation Application.

1. Download the Automation Application.

   a. Navigate to the Digi Connect Sensor+ support page.

   b. In the Firmware section on the page, click the **Digi Connect Sensor+ Firmware Update Utility** link.

   c. Click the **download** link to download the Automation Application: **connect_sensor_update.exe**

2. Open a command prompt window.

3. Map to the directory where the .exe is located.
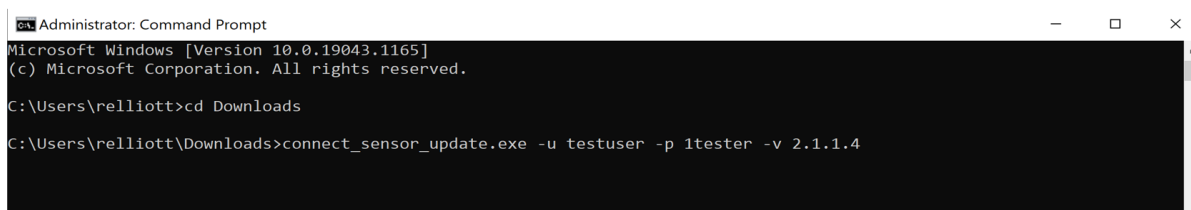
4. Run the .exe with the following arguments:

   `connect_sensor_update.exe -u "username" -p "password" -v 2.x.x.x`

   Where:

   - "username" is the user name for your Remote Manager account
   - "password" is the password for your Remote Manager account
   - "-v x.x.x.x" is the version of the Connect Sensor+ firmware that you want to install.
     - If you are updating Connect Sensors with standard firmware, enter "-v 2.1.1.x".
     - If you are updating Connect Sensors with Continuous Monitoring firmware, enter "-v 2.0.4.x".
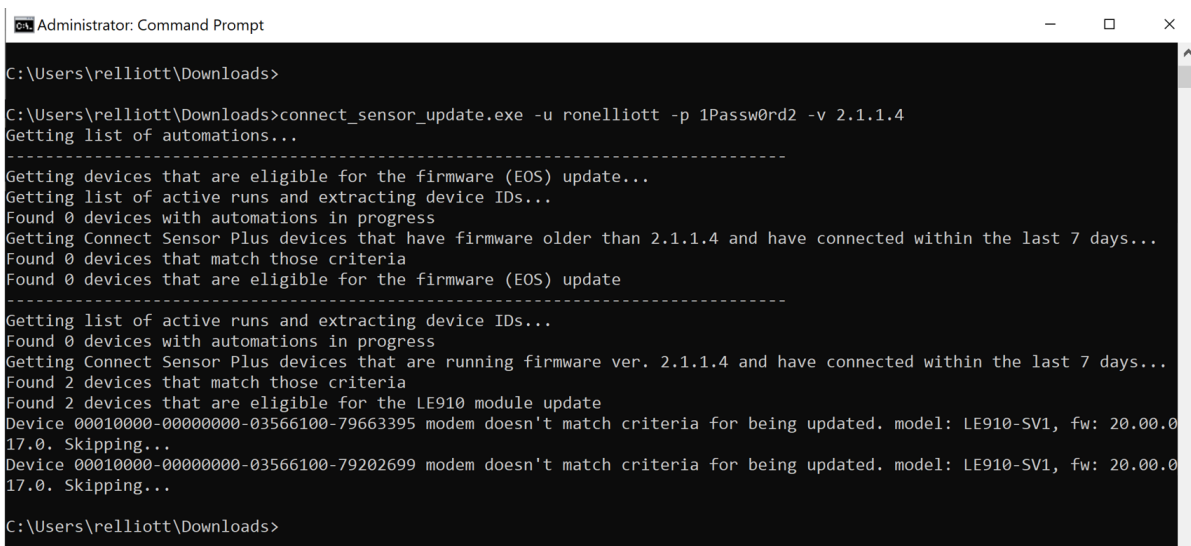
   Note You can input `connect_sensor_update.exe -h` for help.

5. The Automation Application logs into Remote Manager and checks the Connect Sensor+ firmware and cellular modem firmware version for your devices.

6. The Automation Application checks your inventory of Connect Sensors in Digi Remote Manager and then creates scripts to update Connect Sensors when they wake and connect to the network.

Mixed firmware types: Update and run the Automation Application

This process describes how to update the firmware and cellular modem when some of your Connect Sensors have the standard firmware installed and some have Continuous Monitoring firmware installed.

Note If some of your Connect Sensors all have the same type of firmware installed, you should use a different update method. See Same firmware type: Run the Automation Application.

Step 1: Update the standard firmware

In this step you will update all of the Connect Sensors that have the standard firmware installed.

1. Get the current Connect Sensor standard firmware.

   a. Navigate to the Connect Sensor firmware section of the support page.

   b. Click **Digi Connect Sensor Standard Firmware**.

   c. Click **download** to download the firmware onto your hard drive. Make a note of the location.

2. Sign in to Remote Manager.

3. Click **Devices**.

4. Click the selection box for the Connect Sensor device(s) you want to configure. The selected devices should have the standard firmware already installed.

5. Click **Choose File** and navigate to the location in which you saved the firmware file you previously downloaded.

6. Select the file and click **Open**.

7. Click **Update**. The firmware file is saved to Remote Manager. The next time the device wakes and connects to Remote Manager, Remote Manager automatically updates the firmware on the device.

Step 2: Update the Continuous Monitoring firmware

1. Get the current Connect Sensor Continuous Monitoring firmware.

   a. Navigate to the Connect Sensor firmware section of the support page.

   b. Click **Digi Connect Sensor Continuous Monitoring Firmware**.

   c. Click **download** to download the firmware onto your hard drive. Make a note of the location.

2. Sign in to Remote Manager.

3. Click **Devices**.

4. Click the selection box for the Connect Sensor device(s) you want to configure. The selected devices should have Continuous Monitoring firmware already installed.

5. In the toolbar, click **Actions** > **Update Firmware**. You may have to scroll down to the bottom of the list. The **Update Firmware** screen displays.

6. Click **Choose File** and navigate to the location in which you saved the firmware file you previously downloaded.

7. Select the file and click **Open**.

8. Click **Update**. The firmware file is saved to Remote Manager. The next time the device wakes and connects to Remote Manager, Remote Manager automatically updates the firmware on the device.

Step 3: Run the Automation Application

1. Download the Automation Application.

    a. Navigate to the Digi Connect Sensor+ support page.

    b. In the Firmware section on the page, click the **Digi Connect Sensor+ Firmware Update Utility** link.

    c. Click the **download** link to download the Automation Application: **connect_sensor_ update.exe**

2. Open a command prompt window.

3. Map to the directory where the .exe is located.

4. Run the .exe with the following arguments:

    ```
    connect_sensor_update.exe –u "username" –p "password" –i
    ```

    Where:

    -   "username" is the user name for your Remote Manager account
    -   "password" is the password for your Remote Manager account

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    Note You can input `connect_sensor_update.exe –h` for help.

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5. The Automation Application logs into Remote Manager and checks the cellular modem firmware version for your devices.

6. The Automation Application checks your inventory of Connect Sensors in Digi Remote Manager and then creates scripts to update Connect Sensors when they wake and connect to the network.

Track the progess of the update in Digi Remote Manager

After you have run the Automation Application, you can log into Digi Remote Manager and use these Remote Manager features to track the progress of the update.

- **Dashboard**: View the most recent cached state of the Digi Connect Sensor+ in the Digi Remote Manager dashboard, including the cellular modem model, version, and operating statistics.

- **Automations queue**: Review the list of automations in the **Automations** queue. You can view the progress of the Connect Sensor+ firmware update as well as the cell modem firmware update commands. See Review the automations list for detailed information.

- **Device tag**: Once a device has been completely updated, the Automation Application assigns the **modem_update_complete** tag to the device. You can filter the device list on this tag if you want to keep track of the devices that have been updated.

Review the automations list

You can determine whether devices have automated actions queued up for them by looking at the automations list, clicking on an automation and viewing the run status of the automation. You can also view the run history to determine what has happened to date.

1. Log into Digi Remote Manager.
2. View a list of automations in the queue. Click **Automations** from the left pane.

3. View the status of any of the automations. Click on either **Automation ID** or **Name**. Status information displays in the right pane.

4. View the status of a specific run. Click on the **Runs** menu item on the bottom of the right pane. Highlight the run you want to view and the devices that are associated with that automation run display.