

Digi Connect Sensor Telit Modem Firmware Update

Update Guide

Revision history—90002339

Revision	Date	Description
A	February 2019	Initial release.
B	February 2019	Additional edits.
C	November 2022	Documentation update.

Trademarks and copyright

Digi, Digi International, and the Digi logo are trademarks or registered trademarks in the United States and other countries worldwide. All other trademarks mentioned in this document are the property of their respective owners.

© 2022 Digi International Inc. All rights reserved.

Disclaimers

Information in this document is subject to change without notice and does not represent a commitment on the part of Digi International. Digi provides this document “as is,” without warranty of any kind, expressed or implied, including, but not limited to, the implied warranties of fitness or merchantability for a particular purpose. Digi may make improvements and/or changes in this manual or in the product(s) and/or the program(s) described in this manual at any time.

Warranty

To view product warranty information, go to the following website:

www.digi.com/howtobuy/terms

Send comments

Documentation feedback: To provide feedback on this document, send your comments to techcomm@digi.com.

Technical support

Digi Technical Support: Digi offers multiple technical support plans and service packages to help our customers get the most out of their Digi product. For information on Technical Support plans and pricing, visit us at www.digi.com/support. For questions or assistance contact Technical Support at tech.support@digi.com.

Contents

Digi Connect Sensor+ firmware and cellular modem firmware update

Update process	4
Update the Connect Sensor firmware	4
Update the cellular modem firmware	4

Update Connect Sensor+ firmware from Digi Remote Manager

Prerequisites	5
Step 1: Open Remote Manager	5
Step 2: Update the Connect Sensor+ firmware	6

Update the cellular modem firmware over the air (FOTA)

Prerequisites	7
Step 1: Open Remote Manager	7
Step 2: Confirm the current firmware revision	7
Step 3: Determine the Update String	8
Step 4: Initiate the firmware update	9
Updating multiple devices	10
Step 5: Confirm the new firmware revision	11
Troubleshooting the FOTA update	11

Digi Connect Sensor+ firmware and cellular modem firmware update

This document describes how to update Connect Sensor+ firmware and the cellular modem firmware to resolve cellular brown-out failures.

It applies to the Connect Sensor+ containing one of these LTE modems:

Model	Description	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

Update process

The process is done in two steps:

Update the Connect Sensor firmware

In this step you will update the current Connect Sensor+ firmware.

- [Update Connect Sensor+ firmware from Digi Remote Manager](#)

Update the cellular modem firmware

In this step you will update the cellular modem firmware.

- [Update the cellular modem firmware over the air \(FOTA\)](#)

Update Connect Sensor+ firmware from Digi Remote Manager

This section describes how to update the Connect Sensor+ firmware. The Connect Sensor+ firmware should be updated before updating the cellular modem firmware.

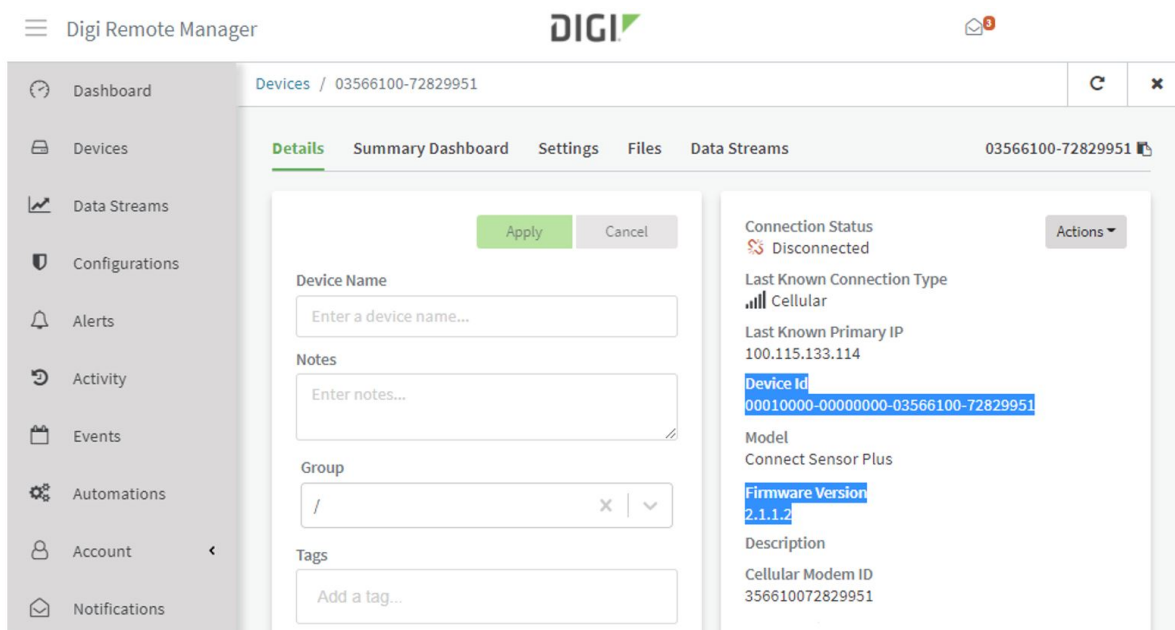
The update process is initiated from the Digi Remote Manager. It requires a working cellular connection. It does not require physical access to the device.

Prerequisites

- Remote manager account
- Device ID of the Connect Sensor to update
- Connect Sensor firmware update file
- Modem firmware update file name

Step 1: Open Remote Manager

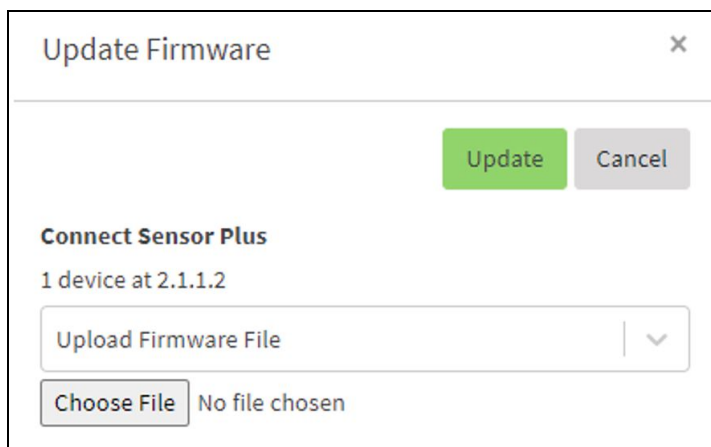
1. Open a web browser and navigate to [Remote Manager](#).
2. Log into your account.
3. Click **Devices** in the menu on the left side.
4. Find the device ID for the Connect Sensor+.
5. Click the device ID to open your device. The **Device ID** looks like this string: 00010000-00000000-03566100-72829951.
6. Check the **Firmware Version** of the device. Connect Sensor+ firmware version 2.1.1.3 or later is needed to update the modem firmware.
 - If the firmware version is 2.1.1.3 or later, you do not need to update the firmware. Skip to updating the cellular modem firmware: [Update the cellular modem firmware over the air \(FOTA\)](#).
7. Review the **Device ID**, which looks like this string: 00010000-00000000-03566100-72829951. It contains the IMEI of the modem. Make note of the device ID. You will need the device ID later to start the modem firmware update process.



Step 2: Update the Connect Sensor+ firmware

This step is needed if the Connect Sensor+ firmware is less than version 2.1.1.3.

1. Click **Actions** > **Update Firmware**. The **Update Firmware** screen displays.
2. Click **Choose File**.
3. Select the desired Connect Sensor+ firmware update file and click **Open**.
4. Click **Update**.



The next time the Connect Sensor+ is scheduled to connect to Remote Manager, it will start the firmware update process. To cause the device to connect immediately, press the **Wake** button on the device.

Once started, the update will take a few minutes to complete. After the device completes the update, it will reconnect to the Remote Manager the next time it is scheduled to do so.

Update the cellular modem firmware over the air (FOTA)

The update process is initiated from the Digi Remote Manager. It requires a working cellular connection. It does not require physical access to the device.

Prerequisites

- Remote manager account
- Device ID of the Connect Sensor+ that you want to update
- Modem firmware update file name

Step 1: Open Remote Manager

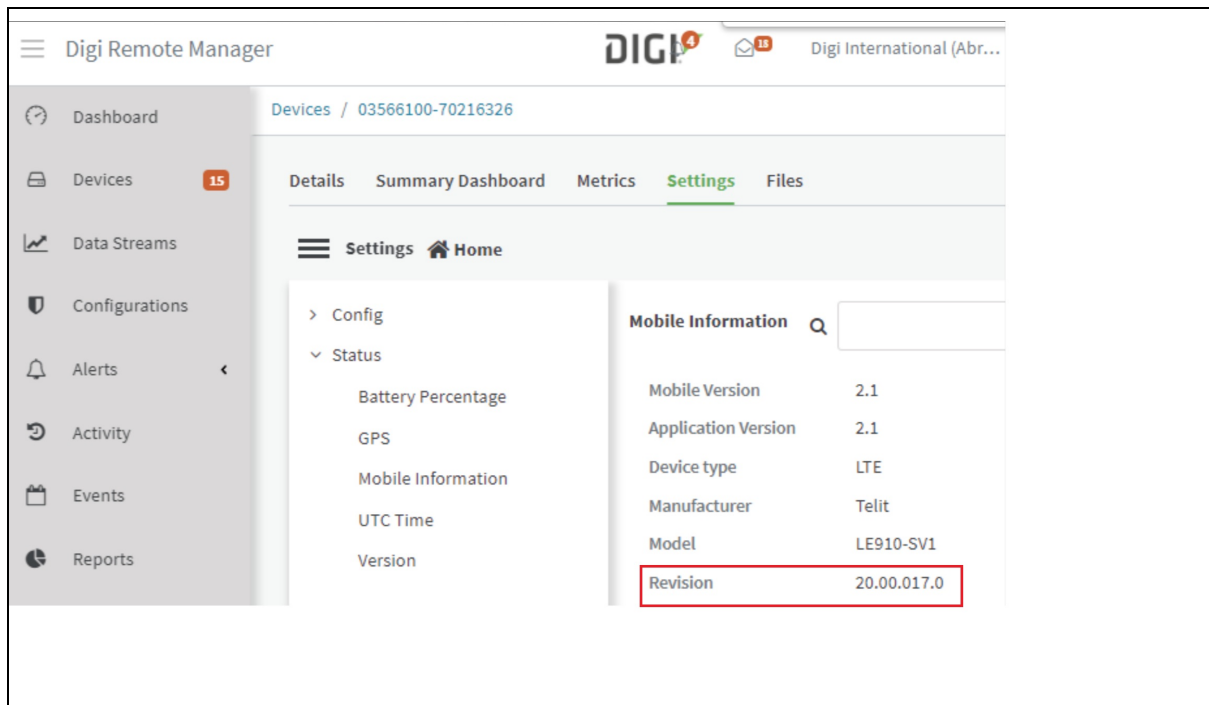
1. Open a web browser and navigate to [Remote Manager](#).
2. Log into your account.
3. Click **Devices** in the menu on the left side.
4. Find the device ID of your device.
5. Click the device ID to open your device and review the device ID.

The **Device ID** looks like this string: 00010000-00000000-03566100-72829951. It contains the IMEI of the modem. Make note of the device ID. You will need the device ID later to start the modem firmware update process.

Step 2: Confirm the current firmware revision

1. Click **Settings** from the tabs at the top of the page.
2. Click **Status**.
3. Review the information in **Mobile Information** panel. Note the current revision in the **Revision** field.

The desired revision is 20.00.527.0 for AT&T modems, or 20.00.017.0 for Verizon modems. If the modem is already at this revision or later, no firmware update is needed.



Step 3: Determine the Update String

Find the firmware revision in this table, and copy the corresponding update string:

Model and string	Revision	Update file name	Patch size
LE910-SV1	20.00.012.3	UpdPkg_LE910_SV1_1G_20.00.012.3_20.00.017.0.bin	4,277,678
ZnRwMS5kaWdpLmNvbQAYMQBhbm9ueW1vdXMAAdGVzdABzdXBwb3J0L3RlbGl0AFVwZFBzZ19MRTkxMF9TVjFfMUdfMjAuMDAuMDEyLjNmjAuMDAuMDE3LjAuYmlu			
LE910-SV1	20.00.015.0	UpdPkg_LE910_SV1_1G_20.00.015.0_20.00.017.0.bin	506,950
ZnRwMS5kaWdpLmNvbQAYMQBhbm9ueW1vdXMAAdGVzdABzdXBwb3J0L3RlbGl0AFVwZFBzZ19MRTkxMF9TVjFfMUdfMjAuMDAuMDE1LjBfMjAuMDAuMDE3LjAuYmlu			
LE910-NA1	20.00.524.0	UpdPkg_LE910_NA1_1G_20.00.524.0_20.00.527.0.bin	932,846
ZnRwMS5kaWdpLmNvbQAYMQBhbm9ueW1vdXMAAdGVzdABzdXBwb3J0L3RlbGl0AFVwZFBzZ19MRTkxMF90QTTFfMUdfMjAuMDAuNTI0LjBfMjAuMDAuNTI3LjAuYmlu			

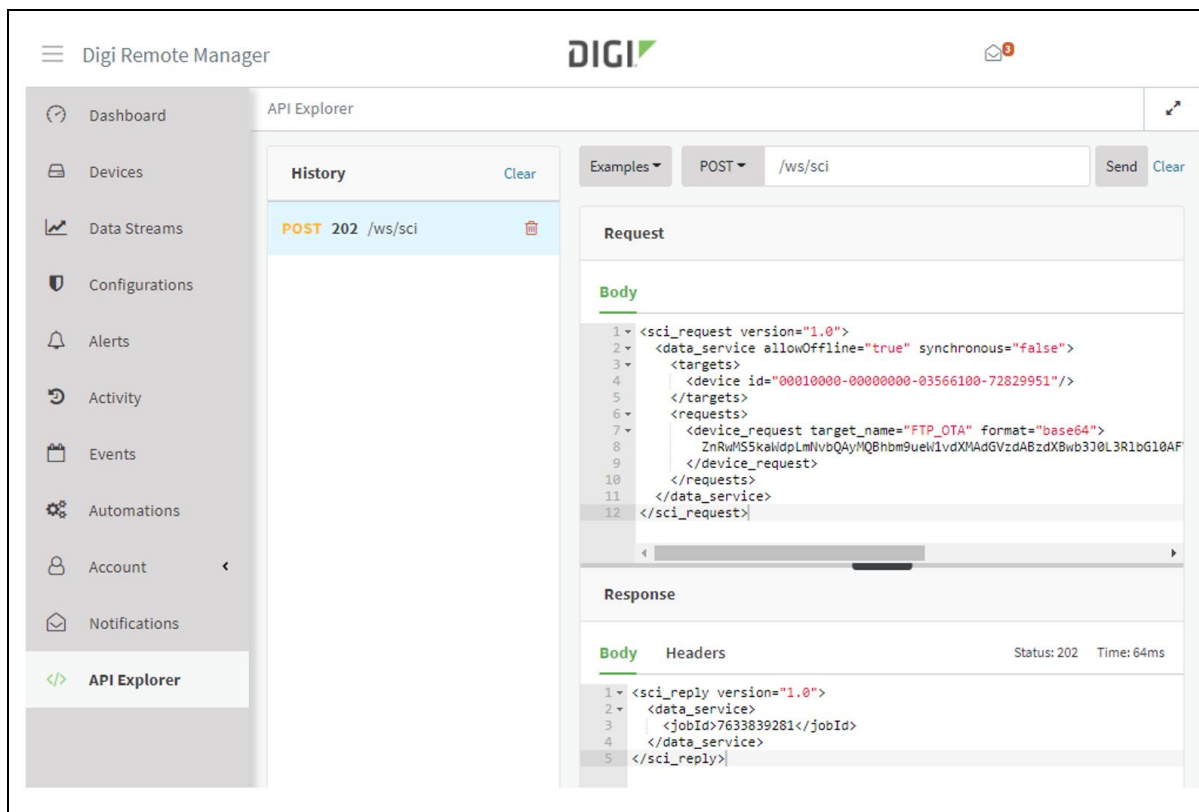
Model and string	Revision	Update file name	Patch size
LE910-NA1	20.00.525.2	UpdPkg_LE910_NA1_1G_20.00.525.2_20.00.527.0.bin	877,554
ZnRwMS5kaWdpLmNvbQAYMQBhbm9ueW1vdXMAAdGVzdABzdXBwb3J0L3RlbGl0AFVwZFBzZ19MRTkxMF9OQTFFMUDfMjAuMDAuNTI1LjJfMjAuMDAuNTI3LjAuYmlu			

Step 4: Initiate the firmware update

1. In the Remote Manager, click **API Explorer**.
2. Select **Examples > SCI > Data Service > Send Binary Request**.
3. A template request (in XML) displays. Delete the template and replace with the XML below.
 - Patch the **#Device ID#** with the correct value from [Step 1](#).
 - Patch the **#Update string#** with the value from [Step 3](#).

```
<sci_request version="1.0">
  <data_service allowOffline="true" synchronous="false">
    <targets>
      <device id="#Device ID#"/>
    </targets>
    <requests>
      <device_request target_name="FTP_OTA" format="base64">
        #Update string#
      </device_request>
    </requests>
  </data_service>
</sci_request>
```

4. Click **Send**.
5. Enter your user name and password if prompted.



The next time the Connect Sensor+ is scheduled to connect to Remote Manager, it will start the firmware update process. To cause the device to connect immediately, press the **Wake** button on the device.

Once started, the update will take a few minutes to complete. After the device completes the update, it will reconnect to the Remote Manager the next time it is scheduled to do so.

Updating multiple devices

The above example shows how to update a single Connect Sensor+. More than one device can be updated with a single Remote Manager request.

To update a list of devices, add their device IDs to <targets> in the request. For example:

```

<targets>
  <device id="00010000-00000000-03566100-79000697"/>
  <device id="00010000-00000000-03566100-79000698"/>
  <device id="00010000-00000000-03566100-79000699"/>
  <device id="00010000-00000000-03566100-7900069A"/>
  <device id="00010000-00000000-03566100-7900069B"/>
</targets>

```

To update all devices in a Remote Manager group, add the group name to <targets>.

For example:

```

<targets>
  <group path="my_group"/>
</targets>

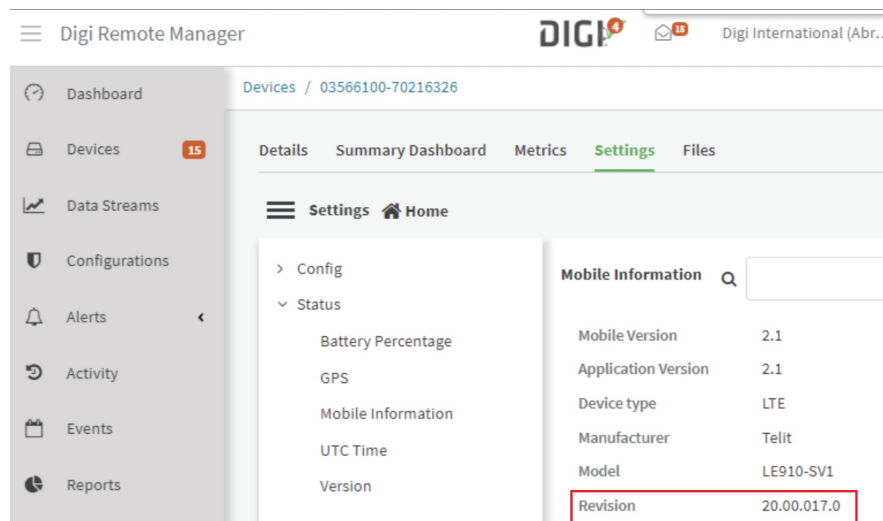
```

All devices in the request must have the same modem revision and update string. Devices will individually connect as scheduled and perform the update.

See the [Digi Remote Manger 3 User Guide](#) for more information.

Step 5: Confirm the new firmware revision

1. In the Remote Manager, click **Devices** in the menu on the left.
2. Click on your device to open it.
3. Click **Settings** from the tabs at the top of the page.
4. Click **Status**.
5. Review the information in **Mobile Information** panel.
6. Click the refresh arrow at the top of the page to update the fields.
7. The new revision value displays the **Revision** field. It should now be 20.00.017.0 (Verizon) or 20.00.527.0 (AT&T).



Troubleshooting the FOTA update

If the device does not report the expected revision, follow these steps:

- Check if the device has connected to the Remote Manager since the firmware update was initiated. In Remote Manager, click **Devices** to display the device page. Click **Summary Dashboard**.
- Repeat [Step 5](#) to refresh the modem firmware revision on the device page.
- Try the FOTA update again.