Digi ConnectPort® X4H Telit Modem Firmware Update - AT&T

Update Guide

Revision history—90002337

Revision	Date	Description
A	February 2019	Initial release.
B	February 2019	Additional edits.
	April 2020	Updated links to the modem firmware.
C	May 2022	Updated for AT&T network changes.

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Contents

AT&T network changes: Digi ConnectPort® X4H

This document describes how to update cellular modem firmware to comply with AT&T 3G shutdown changes that began in February 2022.

It applies to the Digi ConnectPort X4H (X4H-Z1U-L301-US) containing the following modem:

- Telit LE910-NA1 (single SKU, North America/AT&T and Verizon)

Determine if an update is needed

Prerequisites

- Digi ConnectPort X4H firmware version 2.27.1 or above installed on X4H (PN 82001536)
- AT&T SIM

The LE910 module has two firmware images. The modem revision of the relevant image can only be checked when an AT&T SIM is the active SIM in the product.

Step 1: Find the modem revision

Choose one interface from those below to retrieve the modem revision.

Method 1: Command line

1. Perform the command : `display mobile`
2. Take note of the **Revision ID** field in the output.

Method 2: Web interface

1. From the web interface, navigate to the **Administration -> System Information** page.
2. Open the **Mobile** header of the page.
3. In the **Mobile Information** section take note of the **Modem Revision** field.

Method 3: Digi Remote Manager

1. In the **Devices** tab in Digi Remote Manager, find your device. Click on the device entry to display the device properties.
2. Click the **Settings** tab. The **Settings** window displays.
3. Click **Status > Mobile**.
4. Take note of the **Revision ID** field on the page.

Step 2: Determine if a modem firmware update is required

1. Make sure that your revision ID contains four groupings of digits, for example: 20.00.012.7.
2. The modem does not need to be updated if the first three groups are 20.00.525. Any other value indicates that an update is needed and you should select the process below which meets requirements.

Update the Modem Firmware

This section describes updating a module remotely. Physical access is not needed to perform the update in this fashion, but the device needs to exist in Digi Remote Manager and must have network access. Only the active firmware of the module is able to be updated using this method.

Updating with this process is not recommended if the alternate wired approach will work. Due to the lack of feedback from the update this process will take significantly longer with no ability to report on progress and final status.

Choose one of the following options to update the modem firmware.

- Method 1: Update the modem firmware using Digi Remote Manager
- Method 2: Update the modem firmware using a wired Ethernet connection

Best practices

- Disable network clients, SureLink and Python applications.
- Ensure solid uninterrupted power. There is a small window during the update process where power loss may cause corrupted modem firmware.

Method 1: Update the modem firmware using Digi Remote Manager

This section describes updating a module remotely. Physical access is not needed to perform the update in this fashion, but the device needs to exist in Digi Remote Manager and must have network access. Only the active firmware of the module is able to be updated using this method.

Updating with this process is not recommended if the alternate wired approach will work. Due to the lack of feedback from the update this process will take significantly longer with no ability to report on progress and final status.

Prerequisites

- Digi ConnectPort X4H firmware version 2.27.1 or above installed on X4H (PN 82001536)
- Python update application (PN 83000125-01)
- Digi Remote Manager (DRM) account
- Cellular connection with access to the server **ftp1.digi.com**

Step 1: Install Python update application

The 83000125-01 archive contains two files: *t_update.py* and *t_update.zip*. These files must be placed in the Python application storage of the gateway.

1. Navigate to the **Devices** tab of Digi Remote Manager and find your device. Click on the device entry to display the device properties.
2. Click the **Files** tab. The **Files** page displays.
3. Click the **Python** folder.
4. Upload *t_update.py* and *t_update.zip* with the  button.

Step 2: Configure Python auto-start

1. Verify you are still on the **Python** page in Digi Remote Manager.
2. Click **Config** > **Python auto-start**.
3. Click on an unused PYTHON instance to configure it.
4. In the **Python command to run at startup** field, enter:

   ```
   t_update.py -c
   ```
5. Select **Python auto-start enable**.
6. Make sure that **Action taken on exit of program** is set to **No action taken**.
7. Click **Apply**.

Step 3: Perform update

1. Click the **Details** tab.
2. From the right-hand panel, in the **Actions** list box, select **Reboot...**. This ensures that the script runs when the gateway reboots.
3. Please be patient, the update process can take up to 30 minutes.
4. After waiting 30 minutes, verify the process was successful by using the Find the modem revision procedure. The process is successful when the correct revision is reported.

> **Note** Click **Refresh** to retrieve a non-cached revision number.

Step 4: Finalize

1. Click the **Settings** tab.
2. Click **Config** > **Python auto-start**.
3. Select the PYTHON instance that you previously configured and disable **Python auto-start enable**.
4. Click **Apply**.
5. Follow the standard procedure to reboot the device.

6. Once the gateway has reconnected to Digi Remote Manager, the new patch level should be confirmed again using the Find the modem revision procedure.
7. If the update process succeeded it is safe to remove *t_update.py* and *t_update.zip*.

Step 5: Verify that the update was successful

1. Click the **Settings** tab.
2. Click **Status** > **Mobile**.
3. Click **Refresh**.
4. Note the new value for **Revision**, which should now be 20.00.525.

Method 2: Update the modem firmware using a wired Ethernet connection

This section describes updating a module when a physical wired connection is available. This process may be used at any time and will be able to be used after the March 30th deadline to perform updates to modules that may not be able to register on the cellular network due to the issue. The update will attempt to update both firmware images on the module.

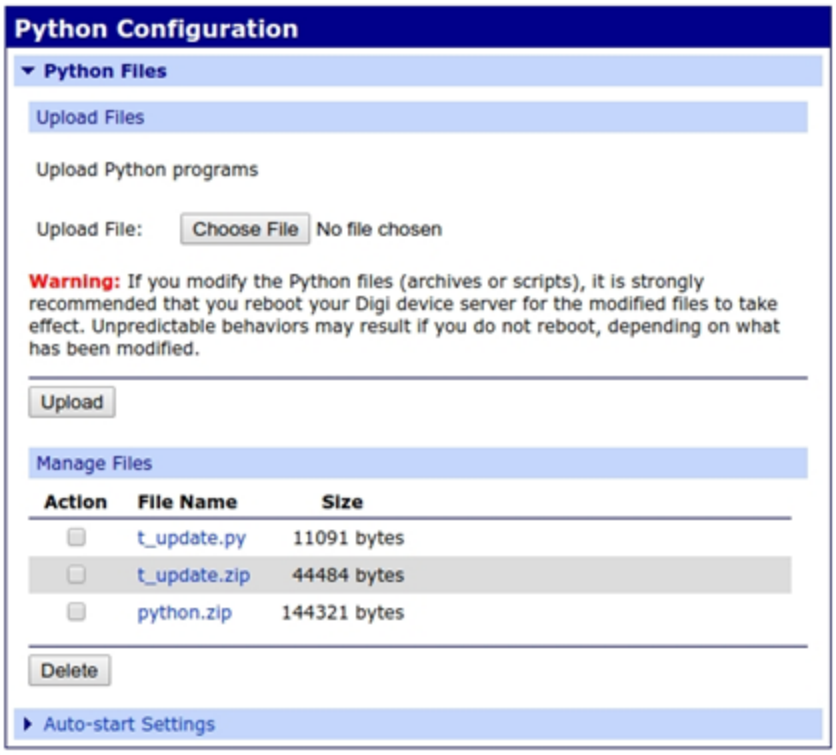
Prerequisites

- Digi ConnectPort X4H firmware version 2.27.1 or above installed on X4H (PN 82001536)
- Python update application (PN 83000125-01)
- Wired Ethernet connection with access to the server **ftp1.digi.com**

Step 1: Install Python update application

The 83000125-01 archive contains two files: *t_update.py* and *t_update.zip*. These files must be placed in the Python application storage of the gateway.

1. Open a browser and navigate to the web interface of the gateway.
2. From the navigation pane on the left side of the page click the **Python** link in the **Applications** section.
3. Upload the *t_update.py* and *t_update.zip* files to the Python storage location.



4. In the **Auto-start settings** section, disable any Python applications set to run, as the update process and these applications may interfere with each other.

Step 2: Manually run the update application

1. Telnet or SSH to gateway.
2. At the command prompt, type: p***ython t_update.py***

   The script will run and report its progress to the terminal. There are two images on the module that it will query and update if necessary.
3. Success will be indicated in the output by the message “Firmware was successfully updated!”. Because there are two images, look for this output in the processing of each image. Some units do not need an update to one or both of the images. If this is the case you may see the message “Firmware update not needed…”.

Step 3: Verify the update was successful

A successful update is verified in Step 2, above, as indicated in the output by the message “Firmware was successfully updated!”.

You can use the process in Find the modem revision to verify the correct revision has been released.

Step 4: Remove update application

After you have verified that the update was successful, you should remove the update application.

1. Open a browser and navigate to the web interface of the gateway.
2. From the navigation pane on the left side of the page click the **Python** link in the **Applications** section.
3. Select the checkboxes for *t_update.py* and *t_update.zip*.
4. Click **Delete**.