

Xplornet Tech Tool 1241

CAT6 LTE Firmware

We have launched a new firmware for CAT6 LTE CPEs. This new firmware, v151, comes with some feature upgrades in the Graphical User Interface (GUI) which can be helpful for installation and troubleshooting. This tech tool describes the new features and how to apply the new firmware to a CAT6 LTE CPE.

It is recommended that all CAT6 CPEs be upgraded in office, before deploying to the field. This will simplify troubleshooting and make provisioning smoother, thereby reducing the need to call Channel Support, and reducing your time spent on site.

Firmware v151 Features:

The newest firmware comes with a few very helpful features added to the Graphical User Interface of the CPE.

Rescan

The CAT6 LTE CPE does an initial scan for signal upon startup. This can be unhelpful when attempting to find the best Base Station to which to connect. A rescan function has been added to have the CPE rescan without having to go through a full startup of the unit.

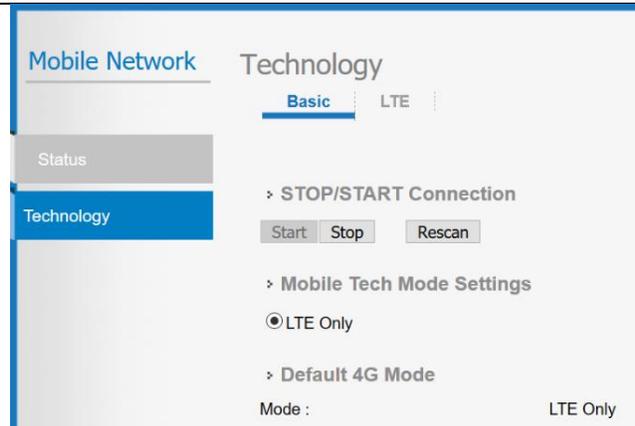
To use the Rescan function follow these steps:

- Step 1** Once logged into the CPE click Mobile Network.



- Step 2** Click Technology.
-

Step 3 Click Rescan as needed.



Restart Reason

When out on a Swap work order, determining why a CPE has recently restarted can be helpful when dealing with intermittent out of service issues and can help you to diagnose the root cause of a customer's issues.

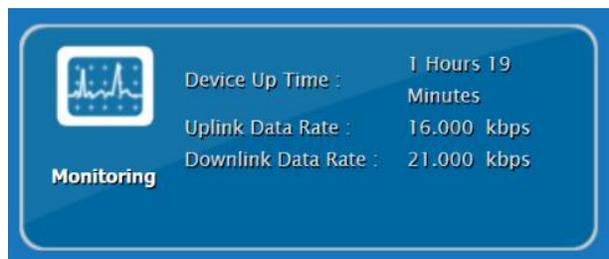
To find when a CPE most recently restarted, and why, follow these steps:

Step 1 Log into the CPE

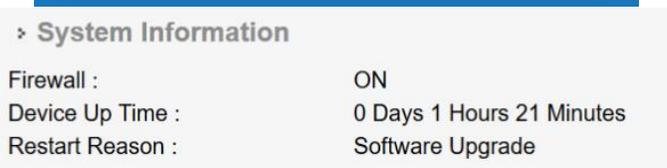
Navigate to 192.168.209.1

- Username: operator
- Password: **g4ketmeg**

Step 2 Click Monitoring



Step 3 Scroll down to the bottom of the page to see the Device Up Time and Restart Reason.



Network Status & Link Speed

Occasionally cabling, a bad surge suppressor, a broken POE or even a customer's router or PC may be the reason for their service issues, these are more easily identified as a root cause if the CPE is not connecting in Full Duplex mode.

To Determine:

Step 1 Log into the CPE

Navigate to 192.168.209.1

- Username: operator
- Password: **g4ketmeg**

Step 2 Click Network

Step 3 At the top under LAN information, look for the Ethernet Information.

You will see 3 parameters

State: LINK UP or LINK DOWN

LINK DOWN: No link between CPE and customer network equipment.

If no network devices are powered on the CPE, it will show as LINK DOWN.

If device(s) are plugged in and still CPE shows LINK DOWN, troubleshoot for cabling, PoE or Surge.

Duplexing: FULL OR HALF

It should always be FULL. If it is HALF, troubleshoot link issues, bad cabling, PoE or Surge.

Speed: 10, 100, 1000

1000: Should always be 1000 wherever possible.



The screenshot shows the Network Status page of a CPE. At the top, there is a 'Network' section with a status icon and the following information:

- LAN IP Address : 192.168.209.1
- LAN Subnet Mask : 255.255.255.0
- WAN IP Address : 96.44.71.201
- WAN Subnet Mask : 255.255.255.0

Below this is a 'Status' section with a sidebar menu on the left containing: Status, WAN Setting, LAN Setting, QoS, Port Management, DSCP, and MGMT Service. The main content area shows:

- LAN Information**
 - LAN MAC : 80:02:9c:39:51:10
 - LAN IP Address : 192.168.209.1
 - LAN Subnet Mask : 255.255.255.0
 - TX Bytes : 1729259
 - RX Bytes : 1082633
 - TX Packets : 5008
 - RX Packets : 4026
 - Ethernet Information : LINK UP,FULL,1000** (highlighted with a red box)
- WAN Information**
 - Type : DHCP
 - WAN IP Address : 96.44.71.201
 - WAN IP Subnet Mask : 255.255.255.0
 - WAN IP Default Gateway : 96.44.71.1
 - IP Connection : ON
 - Lease Obtained : 07/10/2019 11:53:49 AM
 - Lease Expires : 07/10/2019 11:53:49 AM

At the bottom right, there are 'Refresh' and 'Auto' buttons.

100: Could be Network Interface Card/Devices only go that high, or could be damaged cabling, PoE or Surge.

10: Likely cabling, PoE or Surge Problem if not caused by the customer's settings.

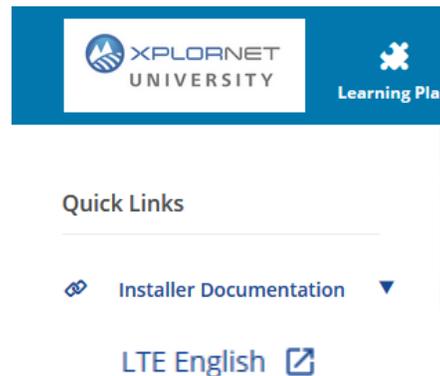
Updating Firmware

Obtain the Current Firmware

Before you can update a CPE, you can obtain the correct firmware from the Xplornet University Library.

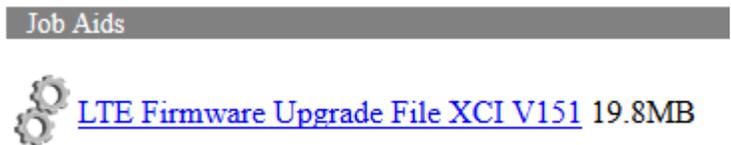
From the Xplornet University landing page:

Step 1 Click Quick Links in the upper left portion of the screen.



Step 2 Hover over Library and select LTE English. A new window or new tab will open.

Step 3 In the Job Aids section at the bottom of the page, the file is linked as LTE Firmware Upgrade File XCI V151

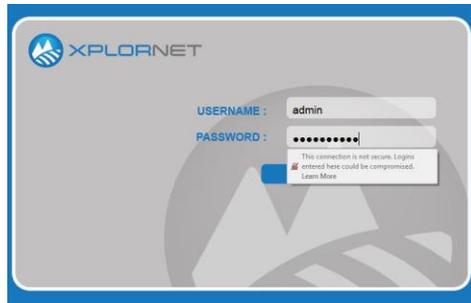


Step 4 Save the file to your computer and note its' location.

Confirm the Installation of the Firmware on a CPE

To confirm the current firmware version, you must log into the CPE.

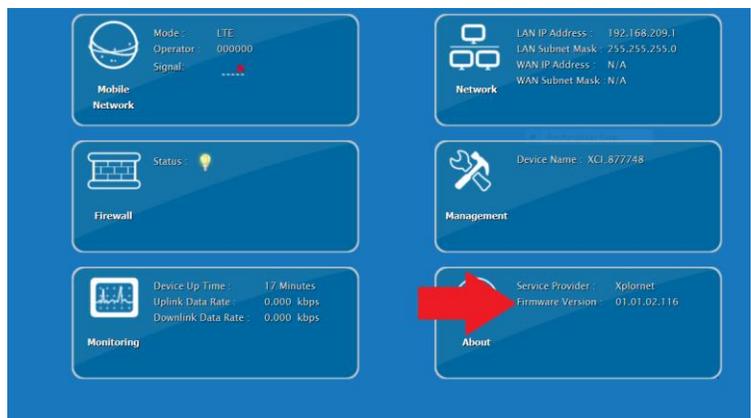
- Step 1** Connect to the CPE directly from your PC. Browse to **192.168.209.1**.



- Step 2** Log in using the below credentials:

- Username: operator
- Password: **g4ketmeg**

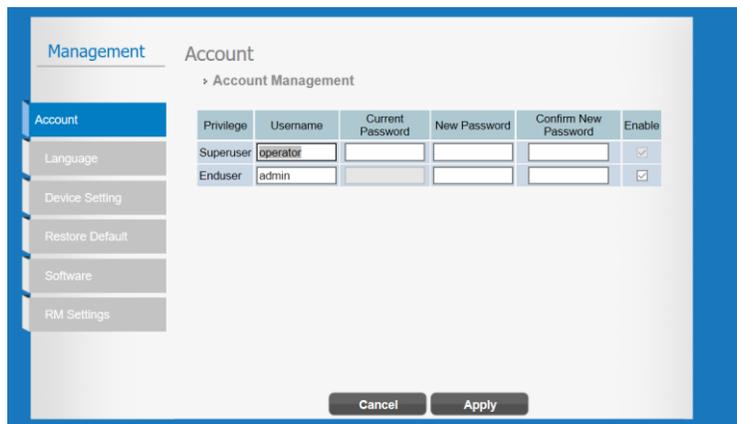
The landing screen appears, with the current firmware version visible on the About tile:



Update the Firmware on a CPE

To update to the current firmware version, from the landing screen shown in Step 2, *Confirm the Installation of the Firmware on a CPE*, follow these steps.

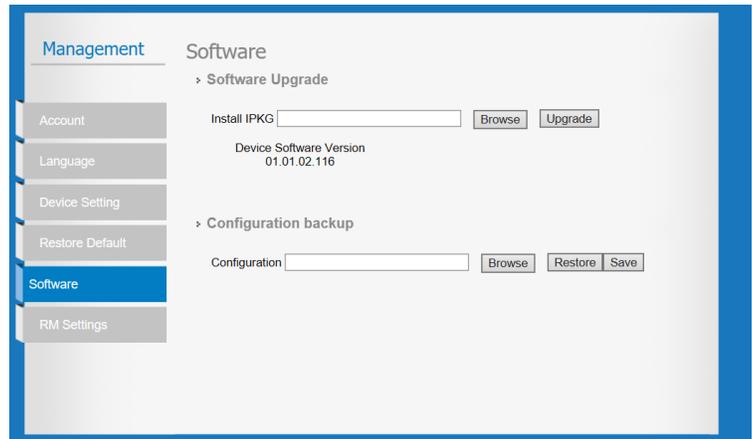
- Step 1** Click Management (if you are already in a different portion of the CPE Interface, the management menu is found by clicking the crossed “wrench and screwdriver” icon at the bottom of the screen)



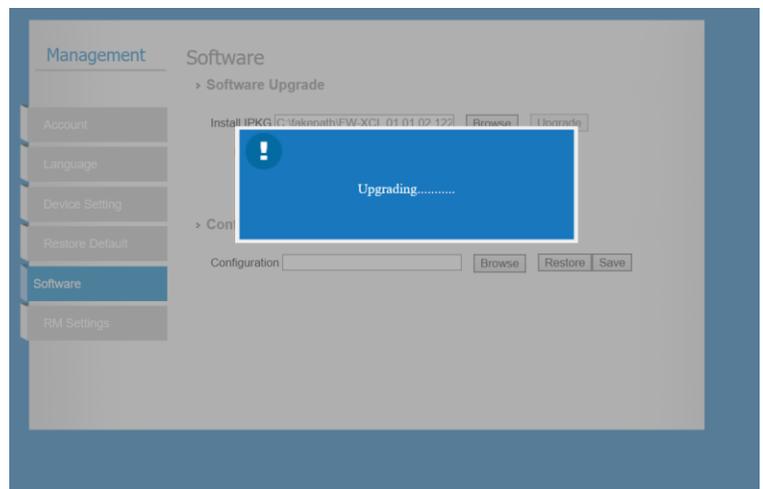
- Step 2** Click Software on the left-hand menu.

Step 3 In the **Install IPKG** section at the top of the page, click Browse and select the applicable firmware.

The file name is **FW-XCI_01.01.02.151.ipk**

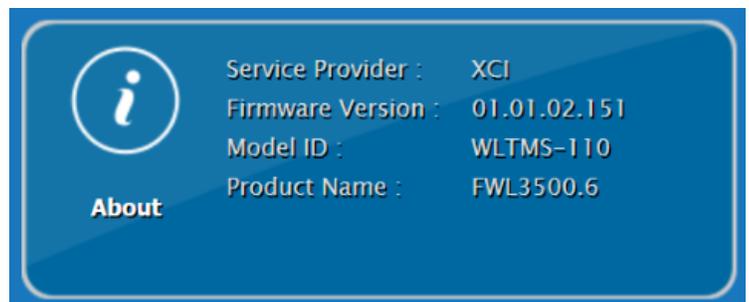


Step 4 Click Upgrade. You will see a screen that indicates the upgrade is being applied. Wait for the upgrade to finish (will take ~2 minutes) and then the CPE automatically reboots.



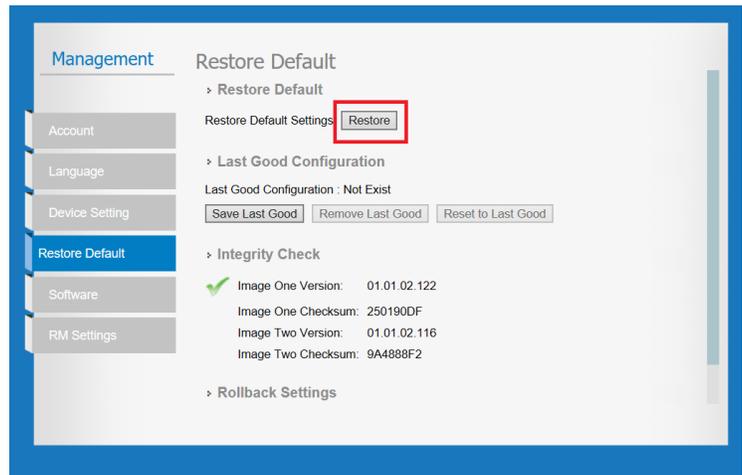
Step 5 You will see a countdown timer as the CPE automatically reboots; once this timer reaches zero you should be redirected to the login screen again. Log in to the CPE. Confirm that the About tile shows the new version #151. If the new version # is not displayed, attempt the upgrade once more; consult DSG if this fails again.

If the new firmware version is showing, then you have completed the first step in upgrading the CPE firmware. The CPE must now be set to factory defaults for the upgrade to be finalized. You must factory reset a CPE any time you update the firmware. These steps are outlined in the below section.



Set the CPE to Factory Defaults

Step 1 After logging back in to the CPE, browse to the Management menu again. This time, click the option called Restore Default on the left-hand menu.



Step 2 Click Restore. A dialog appears confirming you wish to restore to factory defaults. Click Yes. A status message will appear indicating the device is being restored.



Step 3 The CPE will then automatically reboot, displaying a timer just as it did after the firmware upgrade.



Step 4 When the timer reaches zero you will be redirected to the login screen once more. The second and final part of the firmware upgrade is now complete. Log in to the CPE, confirm the correct firmware version is still showing in the About tile, and proceed with activation via existing process.

Contact us

If you have questions about this bulletin, contact Xplornet Dealer Support at 1-866-841-6004 or dealer.support@corp.xplornet.com.