eConnect™ PDU epUCentral Software User's Manual

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CHATSWORTH PRODUCTS

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INTRODUCTION

This document is the User's Manual for CPI eConnect™ PDU epUCentral Software.

eConnect™ PDU epUCentral Software User Manual

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Nomenclature

PDU: eConnect Power Distribution Unit product
Socket/Receptacle/Outlet: Electrical output port
Primary PDU: PDUs can be linked to share one network connection. When PDUs are linked together, the Primary Role indicates the PDU that is attached to the monitoring computer and is the beginning of a daisy chain of up to 20 linked PDUs
Secondary PDU: Role assigned to a PDU that is 1) part of a PDU daisy chain – a linked PDU – attached to a primary PDU, or 2) a stand-alone operating PDU.

SOFTWARE OVERVIEW

The epUCentral application is a Microsoft Windows based application that can be used to manage firmware upgrades over a LAN for a single or multiple linked eConnect PDUs.

The epUCentral application is available for download on the CPI Website.

epUCentral Software Features:
- Scan the network and identify all networked and linked eConnect PDUs. Each networked (Primary) PDU can attach up to 19 linked (Secondary) PDUs.
- Manage firmware upgrades for all networked and linked eConnect PDUs.
- Transfer and install firmware from a USB flash drive, a TFTP server or an HTP/FTP site/server to any networked eConnect PDU.
- Automate upgrades for all linked PDUs – firmware is transferred and installed over the serial connections that link PDUs saving you time when updating firmware for multiple PDUs.

Application Notes:
- The epUCentral application is only for upgrading firmware on CPI eConnect PDUs. It does not monitor, configure or control PDUs.
- All eConnect PDUs that will be managed using epUCentral must have firmware version 1.17 or later. PDUs with earlier versions of the firmware must be upgraded manually, first.
- The networked primary PDU must have network access to the computer running the epUCentral application and the network file location of the firmware. This may require some changes to Firewall settings on some networks.
- The linked secondary PDUs are upgraded over the serial connection between PDUs. This process does not have to be monitored, but it may take 30 minutes or more depending on the number of linked PDUs. During the upgrade, linked PDUs will not be accessible remotely for monitoring or control using the built-in web software, so plan accordingly when performing a mass upgrade.

INSTALLATION

The epUCentral software application is available on the CPI website and link below:

http://www.chatsworth.com/Support-and-Downloads/Downloads/Software/

1. In the download table, Under the eConnect Power Distribution Units sub heading, select the epUCentral Application for download
2. Download the epUCentral.zip
3. Unzip to C:/CPI-app folder
4. Create a shortcut for epUCentral.exe and place it on the desktop.
5. Before using the application, be sure that the computer and PDU are attached to the same network and that you have downloaded the most current eConnect Firmware from the website and link above. See Appendix A for more details.

Running epUCentral application:

Double click the epUCentral Icon on the Desktop

The application will open to the main screen (below).
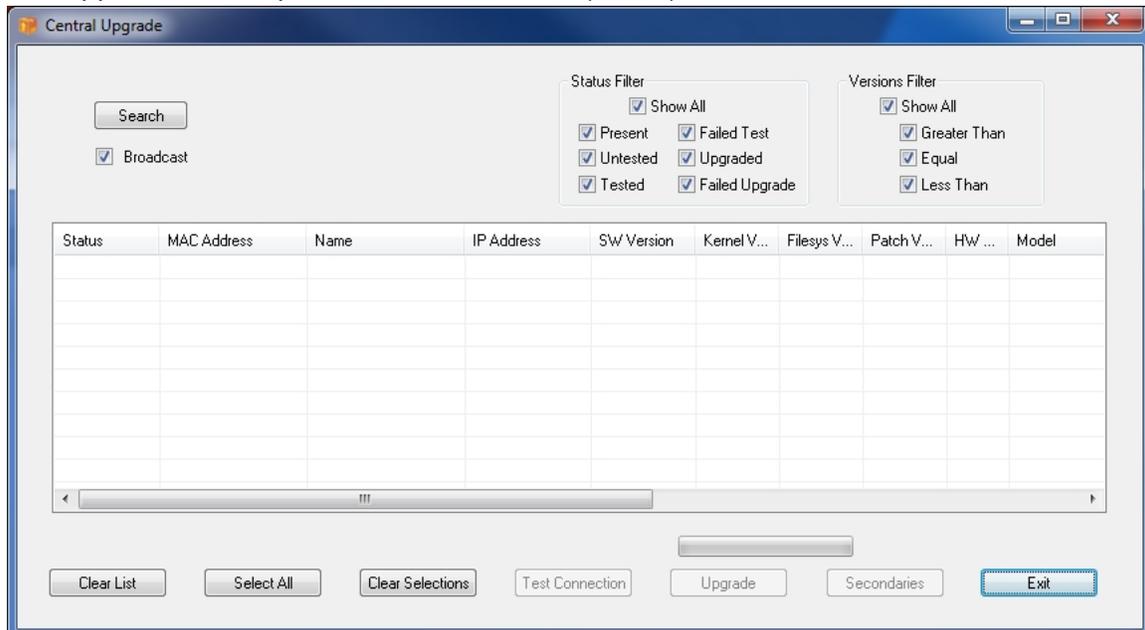
Configure Network Connections

Move the mouse to the upper left corner of the main screen over the icon in the blue header. Click and hold the left mouse button to open the main menu.
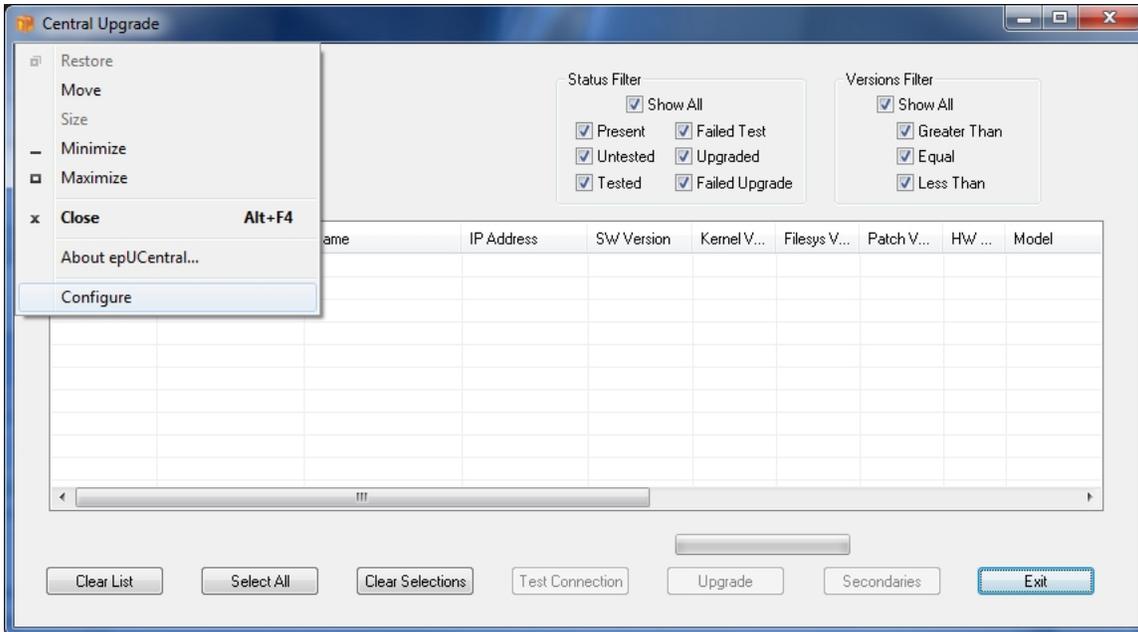
Select Configure to display the Configuration menu (below).
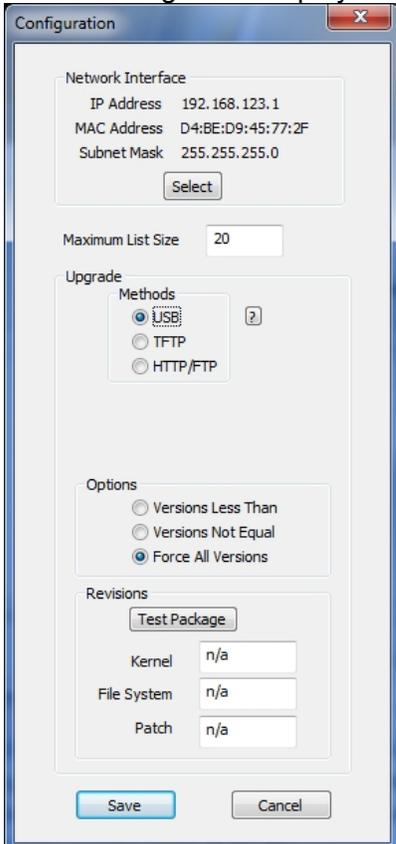
Check the Network Interface information. If it does not match the settings for the network that the PDUs are on,.the computer may have multiple network adapters. Click the Select button, and select the appropriate adapter (see below).
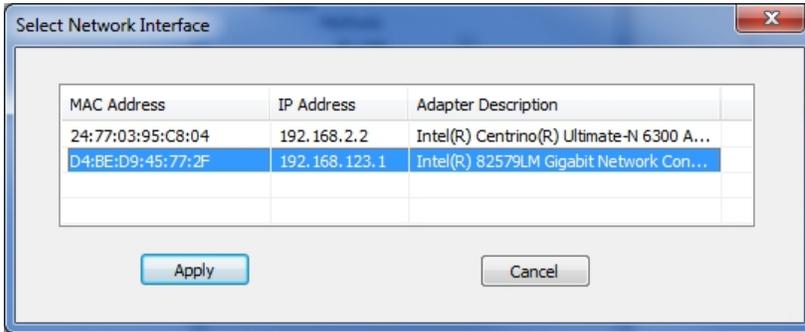
Enter the Maximum List Size – the number of PDUs to be listed on the main screen.
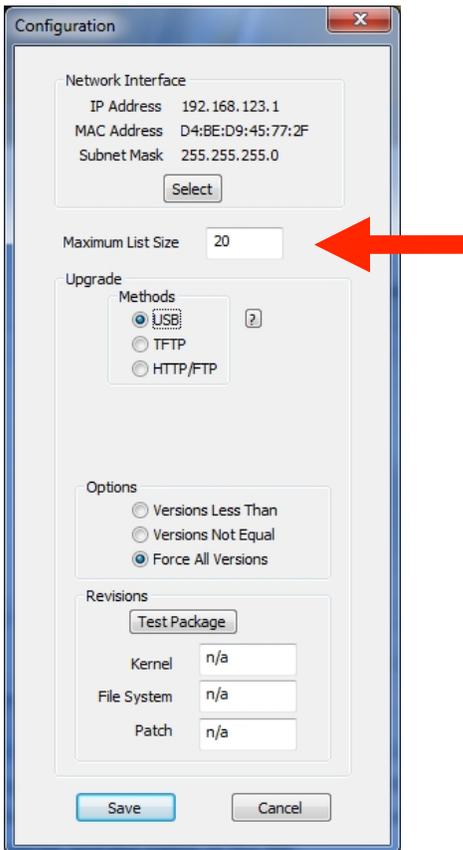
Select the upgrade method – the location of the firmware file:
- USB
- TFTP
- HTTP/FTP

Firmware on USB Flash Drive

If USB is selected, firmware will transfer from a USB Flash Drive attached to the computer running the epUCentral software.
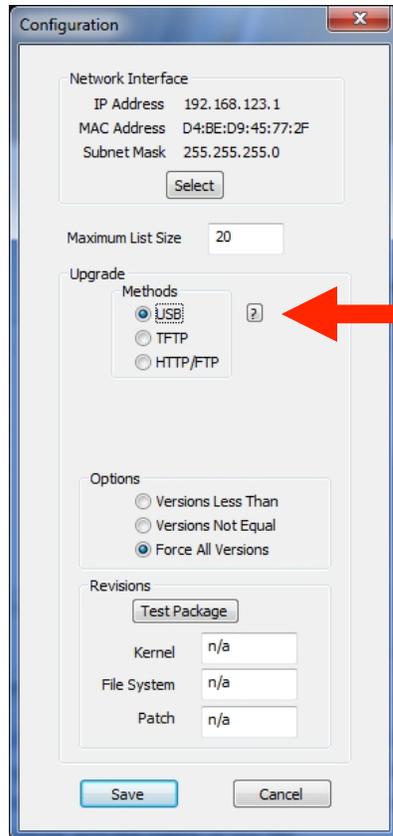
Click on the "?" button and note the special USB flash drive requirements –the firmware needs to be on the flash drive's root directory and only one firmware file, the latest revision, should be on the root directory:
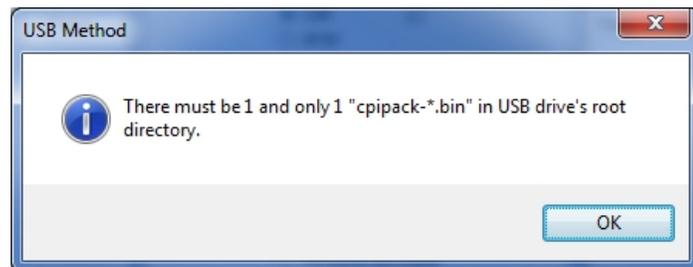
Firmware on TFTP Server

If TFTP is selected, software will transfer from a TFTP Server.
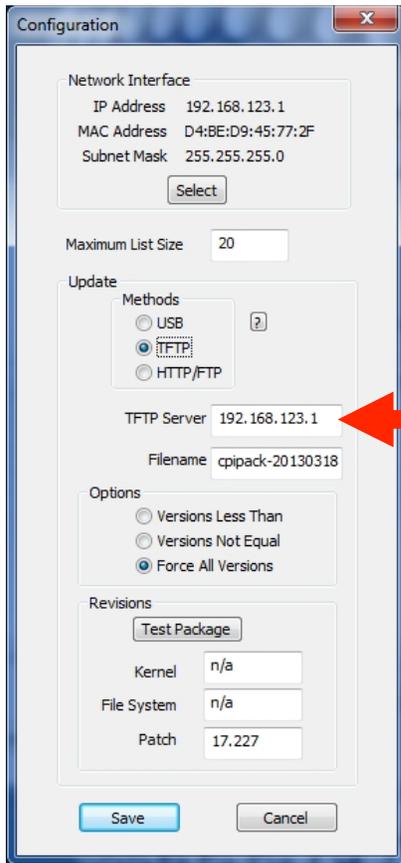
Enter the IP address of the TFTP Server and the filename of the upgrade file. The TFTP Server must be accessible to the PDU over the network.

Firmware on HTTP or FTP Server

If HTTP/FTP is selected, software will transfer from a HTTP or FTP Server.
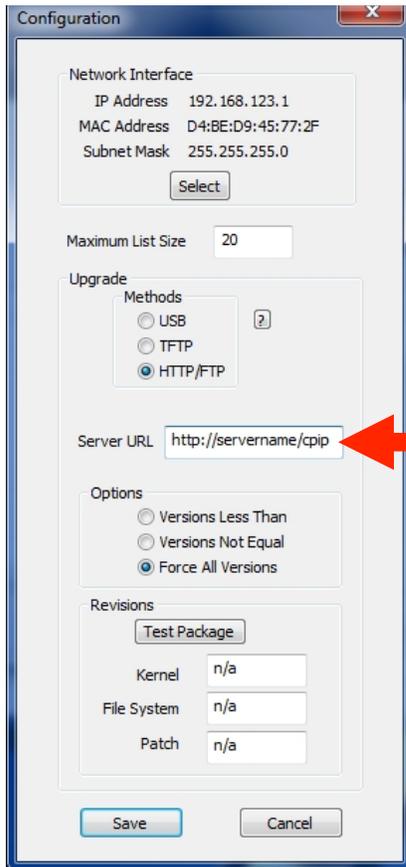
Enter the Server URL of the HTTP or FTP Server. The TFTP Server must be accessible to the PDU over the network.

Under Options, select which PDUs will be updated.
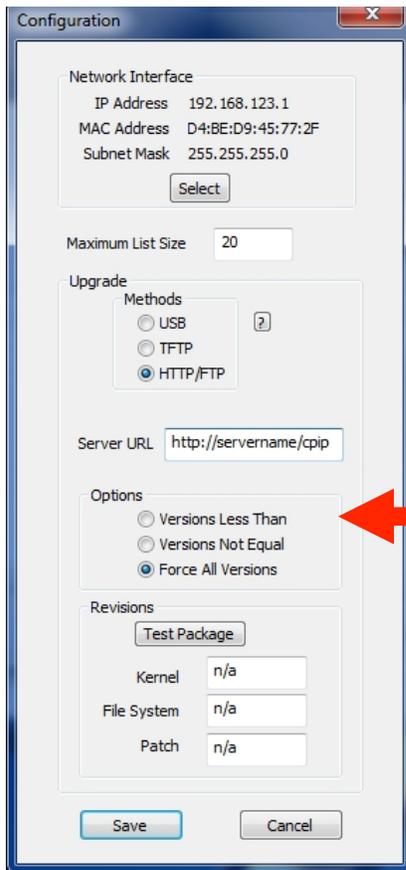
Versions Less Than – only updates PDUs with firmware versions that are older than upgrade version.

Versions Not Equal – updates PDUs with firmware versions that are different than upgrade version.

Force All Versions – updates all PDUs, regardless of version.

Select Test Package under Revisions to verify that the firmware is located on the USB, TFTP or HTTP/FTP location. When prompted (below), click on the Yes button.
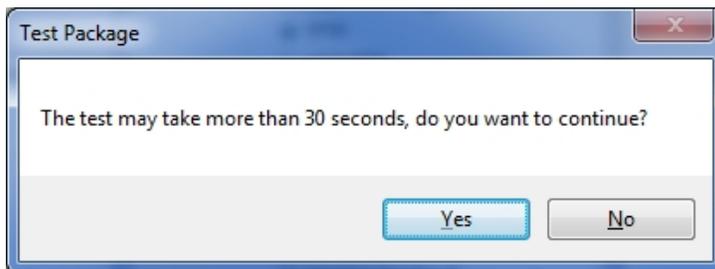
Test Package will check for the firmware file at the designated location.
If not found, you will receive an error message.

Check the following and then retest:
* Name of the firmware file is listed correctly in the Configuration menu.
* If using a USB Flash Drive, the drive is attached directly to the computer that is running the epUCentral software.
* The firmware file is saved in the correct directory.
* The IP address of the TFTP server or URL of the HTTP or FTP server is correct.
* Firewall settings are not blocking communications between the computer or server (see Appendix B for more information.)

When found, you will receive a success message. Click OK.
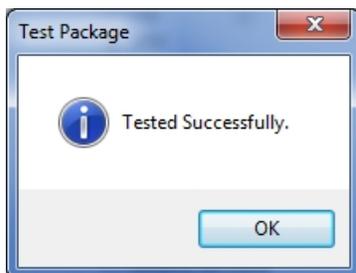
Click Save to Save the Configuration.

Search the Network for PDUs

On the upper right side of the main screen, select Status and Version Filters, then click the Search button on the upper left side of the screen.
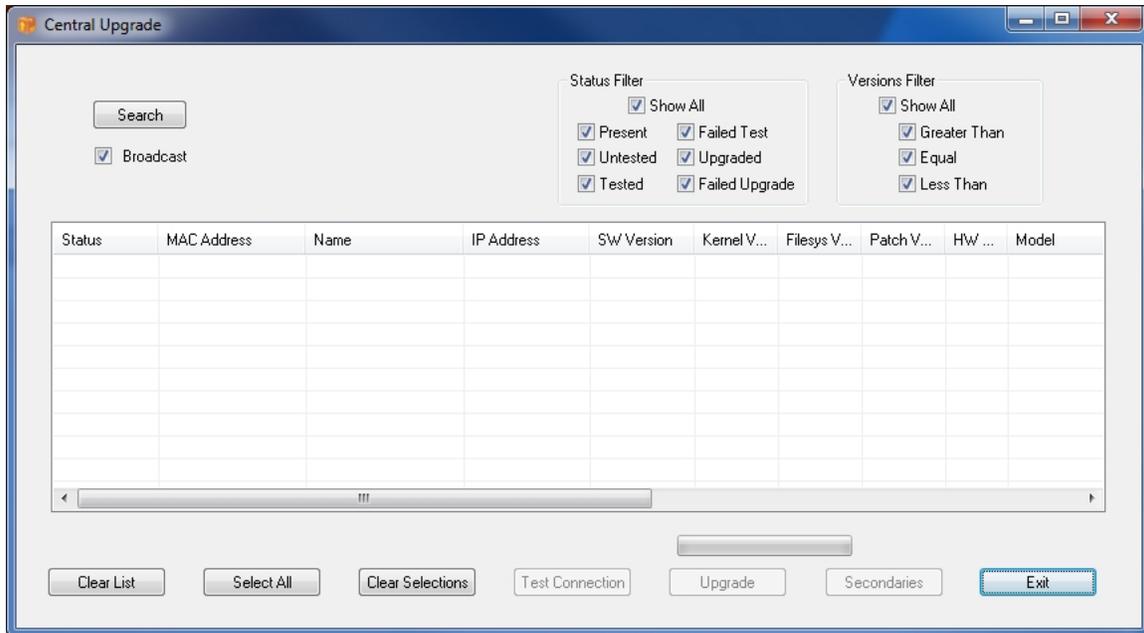
epUCentral will search the network and return a list of all primary eConnect PDUs that are attached to the same network and meet filter criteria.
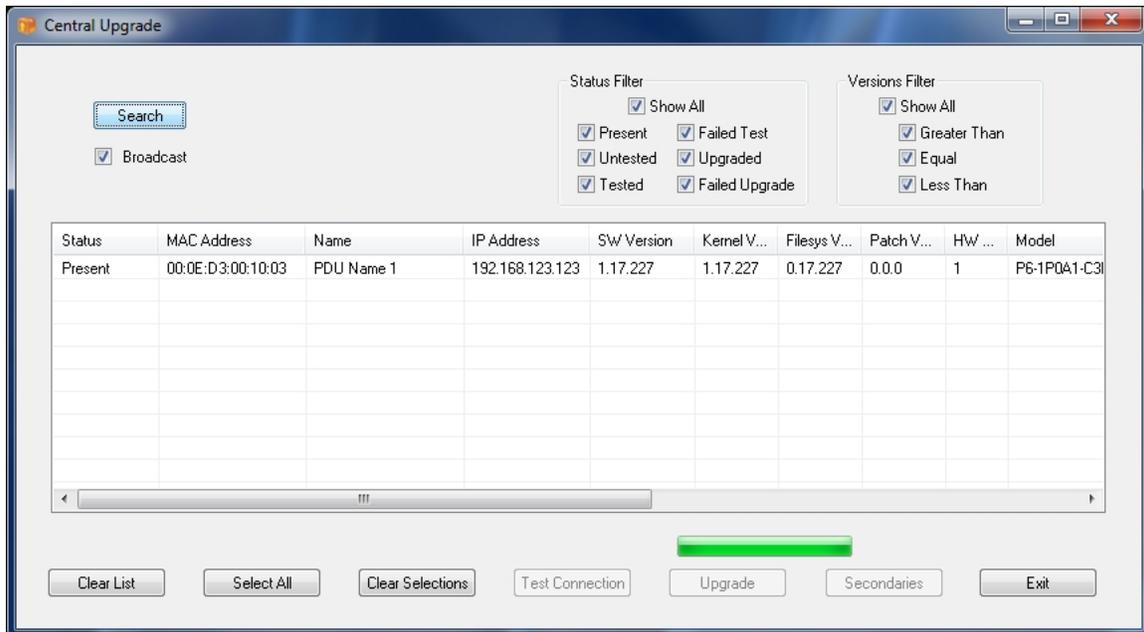
Click on a specific PDU to select the PDU for test or upgrade.
The **Clear List** button will remove all items from the search.
The **Select All** button will select all PDUs in the list for test or upgrade.
The **Clear Selections** button will unselect a PDU or group of PDUs.

Upgrade a Primary PDU

Select a PDU and click the Test Connection button. The epUCentral application will test the network connection to the PDU and report the firmware information of the PDU and how many linked secondary PDUs are attached to the PDU. Scroll across to see details.
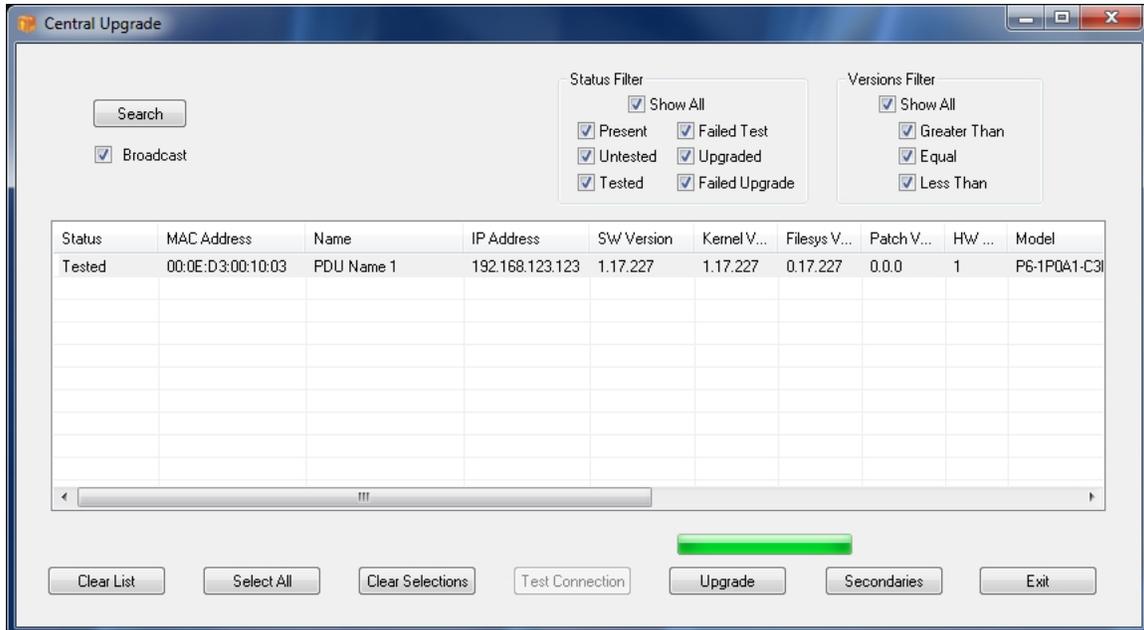
To upgrade the PDU, select the PDU again and click the Upgrade button. The system will prompt you to confirm. Select Yes.
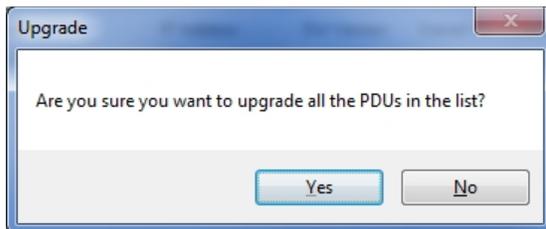
The firmware upgrade will take about four minutes. The firmware upgrade will not interfere with PDU operation, but the PDU will not be accessible for remote monitoring or control during the firmware upgrade. Additionally, the green LED on the PDU will flash and the home icon on the PDU's LCD screen will turn 🏠 (purple) during the firmware upgrade process.

The status of the PDU will change to Upgraded on the epUCentral main screen.
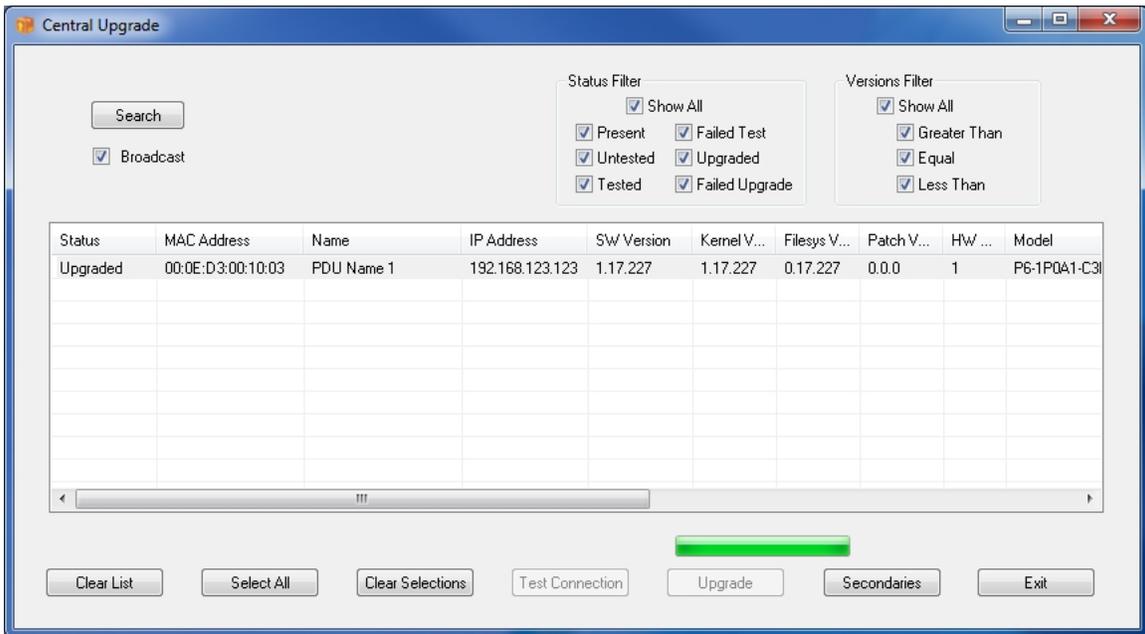
Upgrade a Linked Secondary PDU

Click on the Secondaries button to view linked secondary PDUs.
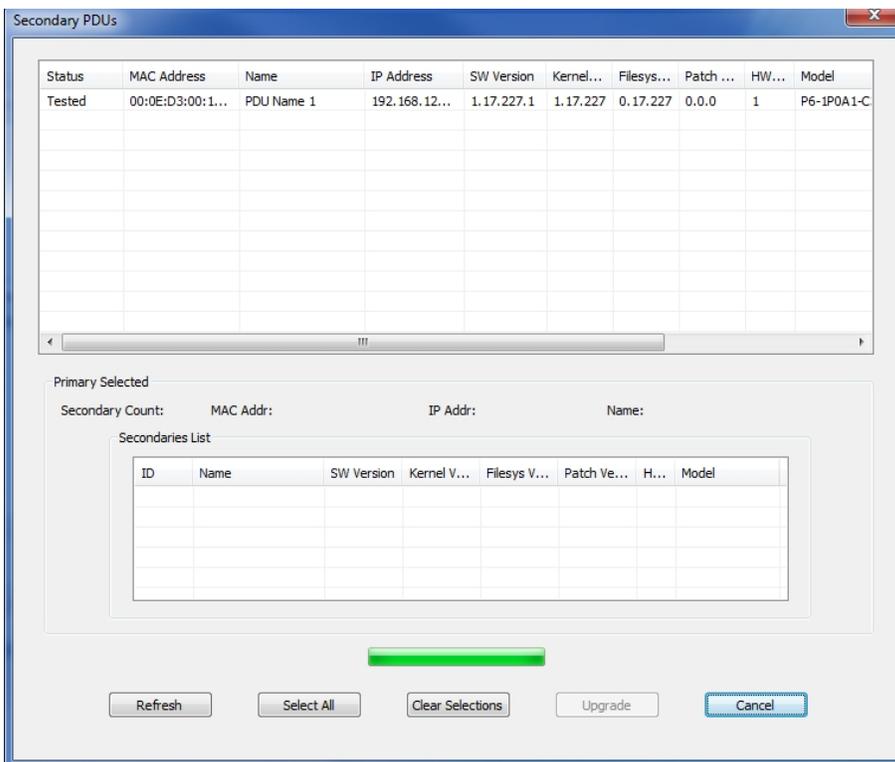
Select the Primary PDU from the list at the top of the screen to display all linked secondary PDUs in the list at the bottom of the screen.
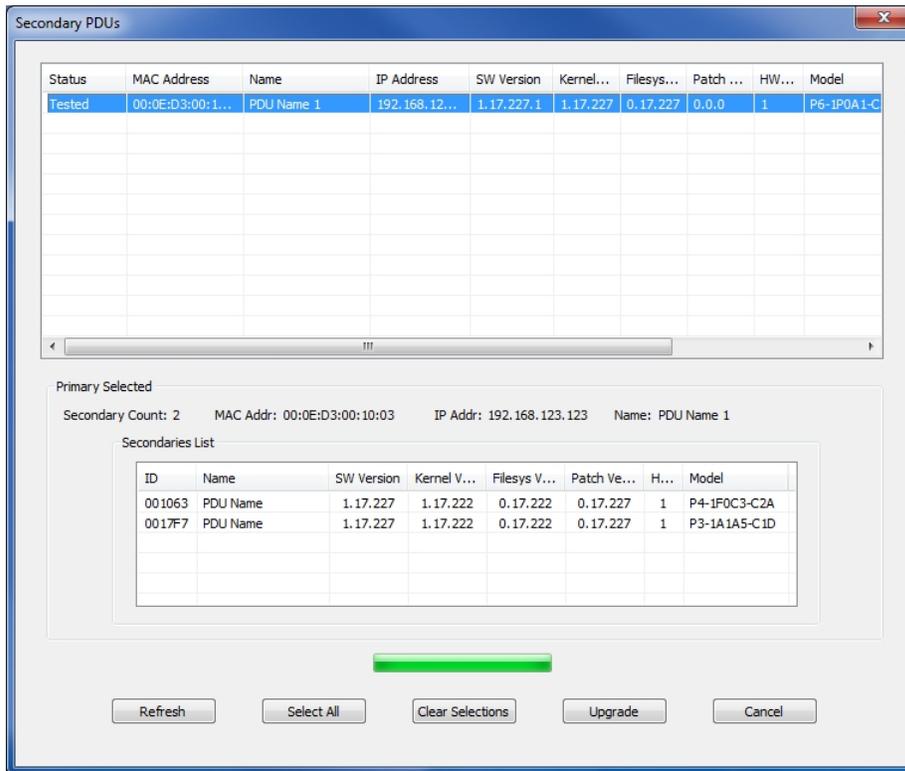
To upgrade secondary PDUs click on a specific PDU in the list to select it or click the Select All button. Then click the Upgrade button.

The firmware upgrade will take about thirty minutes. The firmware upgrade will not interfere with PDU operation, but the secondary PDUs will not be accessible for remote monitoring or control during the firmware upgrade. Additionally, the green LED on the PDU will flash and the home icon on the PDU's LCD screen will turn 🏠 (purple) during the firmware upgrade process.

Note: As a reminder, all PDUs must have firmware version 1.17 or later to be upgraded using epUCentral software. Secondary PDUs that do not have firmware version 1.17 may be displayed in the list, but will not be Upgraded. Upgrade these models manually using a USB drive.

APPENDIX A: CONNECTING AND LINKING PDUS

Connect the primary PDU's Ethernet Port to a network switch using a Cat 5/6 4-pair network patch cable with RJ45 connectors on both ends. The computer with the epUCentral application must be on the same network as the PDU and be able to access the PDU.

You can link (daisy chain) up to 20 PDUs together (1 Primary and 19 Secondary) and access all of the PDUs from a single Ethernet network connection to the Primary PDU.

To link PDUs:

- Connect a standard Cat 5/6 four-pair network patch cord or network cable with RJ45 connectors from the Primary PDU's Daisy Chain Out Serial Port to the next PDU's Daisy Chain In Serial Port.

- Continue this process linking the Out Port to the In Port for additional PDUs; linking up to 20 PDUs.
- Using the setup buttons on the local display, change the Role of the primary PDU from secondary (the default) to Primary in order to view the linked PDUs using the Serial Software. All linked PDUs remain in the Secondary Role.

- To access linked PDUs using the built in web interface, refer to the **eConnect PDU User Manual** available for download on http://www.chatsworth.com/eConnect.
- For additional assistance, contact US Tech Support: 1-800-834-4969 • techsupport@chatsworth.com.

APPENDIX B: WINDOWS FIREWALL SETTINGS

When firmware will be downloaded from a TFTP or HTTP/FTP Server, specific settings are required on the computer that runs the epUCentral application and possibly other network equipment to prevent Firewalls from blocking access between the software, computer, server and PDUs.

Work with your Network Administrator if access is blocked.

- If the computer runs Microsoft Windows 7, in Windows Firewall settings, under Allowed programs and features, select Centralized Upgrade Application and TFTP Server and designate Public networks.
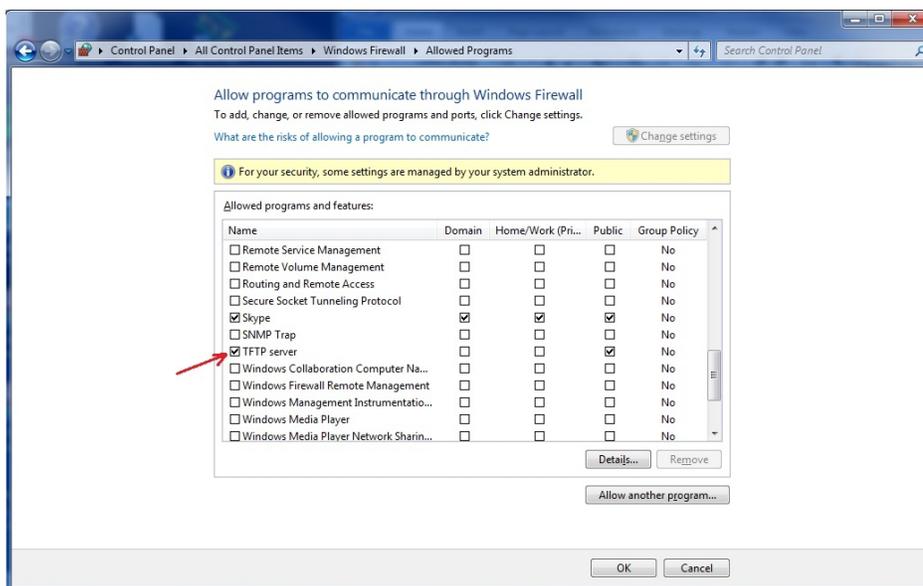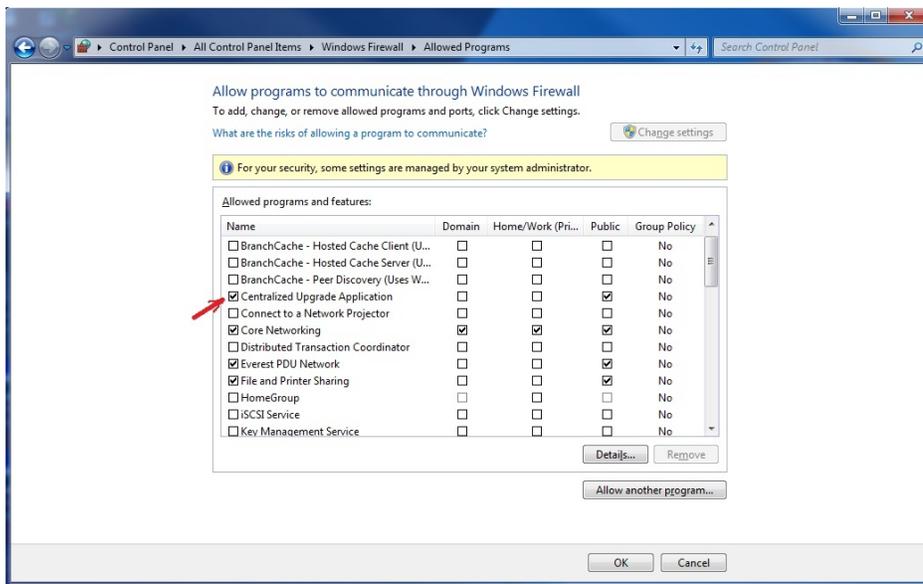
- If the computer runs Windows XP Pro, in Windows Firewall settings, under the Exceptions tab, under Programs and Services, select TFTP Server.