

## Using 10RX and Custom Telnet Software to copy Firmware over FR-PVC

John M - 2019-12-23 - 5/10RX Routers

### Requirements for this process to work

1. The PC at the headend must have a version of the following custom telnet software available:
  1. *For Linux (both 32 and 64 bit utility):* for ex: `./rx_telnet_linux_32 <IP> <port>`
  2. *For Windows (both 32 and 64 bit utility):* for ex: `rx_telnet_win_32.exe <IP> <port>`
2. All 10RX in the network must be running firmware version 4.8.0 C1
3. The Headend 10RX must have configured a Terminal Server Instance that connects to an FR-PVC
4. The Headend FR-PVC must connect at the far end to a 10RX that terminates the FR-PVC to the console port of the far end 10RX
5. The firmware file should be in the same directory as the custom telnet software

### Steps to follow to transfer an image file

1. Using the custom telnet open a session to the headend Terminal Server
  1. `rx_telnet_win_32.exe 192.168.100.13 5103`
2. This should open a telnet session that is terminated at the remote 10RX console port
3. The following CLI commands should be used
  - a. `term CLI pagination off`
    - i. Pagination interferes with the file transfer if left on
  - b. `dir`
    - i. This shows the files in the public directory for reference
  - c. `firmware upgrade 10rxv480C1`
    - i. This command starts the file transfer, there will be a progress report during the transfer and a complete message

- ii. This will take a LONG TIME, so patience is advised.

- d. dir

- i. This should show that in addition to the other files the firmware file can also be seen.

4. For testing just the file transfer you are done and can log out or erase the firmware file

- a. erase flash:10rxv480C1.bin

5. To complete the process and have the firmware ready to boot then the following CLI command is required.

- a. copy flash:10rxv480C1.bin upgradeimage

6. After this the standard CLI commands to check firmware upgrades can be used.

- a. reload

- i. This command will log you out of the system

- b. show system information

- c. show software upgrade

- d. finalize software upgrade

- i. you will need to relogin to the system to run this command

7. Strictly speaking you do not need to continue to use the custom telnet software after step 4 or 6a any method you used to access the remote 10RX will work as well.