Loading Velocity Software to X7

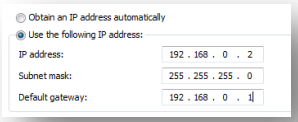
Before you start, make sure you have the following:

- Serial cable (you may also want to bring a USB-to-Serial cable along)
- Ethernet straight-through cable
- PuTTY or similar
- SCP Client like WinSCP or similar
- Files you can download from TS FTP Server or Dropbox. These are **NOT** S/N dependent. Once remote is activated on the HUB and Modem has Rx/Tx/Net LED's green – within the first 30min, files should be retrieved automatically Over-the-Air from the HUB.
    - **Package file** (Example: ***CX7xx_rootfs_gx_rmt_1.4.0.3-121.pkg***) for MAIN & BACKUP partitions
    - ***falcon.json***
    - ***beam_map.json***
    - ***OTA_SatelliteBeamMap.json***
    - ***x509_global.bin*** – certificate

- **Dropbox:**
  https://www.dropbox.com/sm/password?cont=https%3A%2F%2Fwww.dropbox.com%2Fsh%2F41elkbz5y7bb4yq%2FAACvZdrphcdKPbb9B2G4_9T_a%3Fdl%3D0&content_id=ADZKcn4F39eLkPH5tgqpDV8KGk3sQX8-2uE
  Password: P@55w0rd!

1 Preparation

1.1 Set Static IP Address on your PC, matching active options file in modem (we assume factory default Evolution from here):



1.2 SSH in the terminal (Connect Ethernet cable to X7 Modem Port 1):

SSH to 192.168.0.1

Username: ***root***

Password (default): ***iDirect / P@55w0rd!***

1.3 Check which partition is in use, type:

```
# rdev
```

Output will be something like this example: **/dev/mmcblk0p2/** // It says that Partition **#2** is

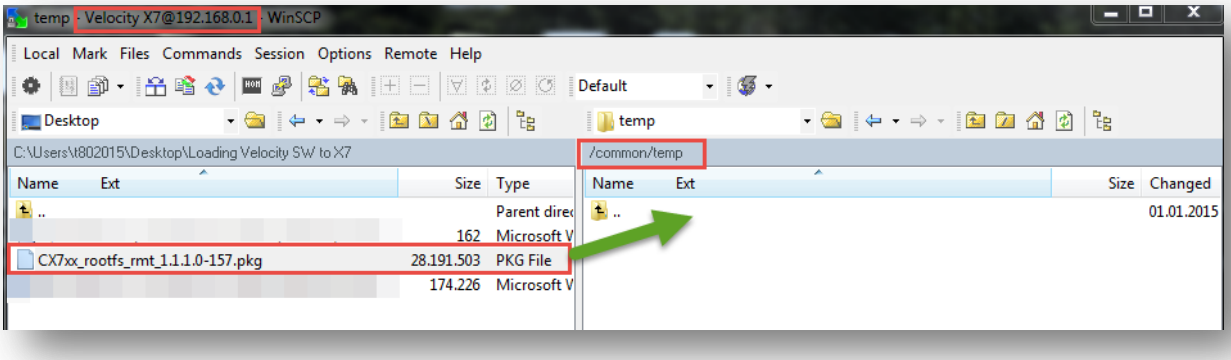
in use (currently active) this will be relevant in Step 2.1 of this procedure.

1.4 Create temp folder, type:

```
# mkdir /common/temp
```

1.5 Copy package in the folder "/common/temp":

- Use **WinSCP** and open an **SCP** session to 192.168.0.1
- Copy the .pkg file to /common/temp folder



1.6 Extract the package file, make sure you update version to match the package you load

```
# cd /common/temp
# package -mx -a CX7xx_rootfs_rmt_1.4.0.3-121.pkg // Extract pkg file
```

2 Upgrade by CLI

2.1 Make sure that you do not install on the active partition.

The preferred partition for VELOCITY Firmware is #5 and #6.

VERY IMPORTANT that you use one of the following options when choosing the partition:

- If the result of step 1.3 showing current active partition **#5** running Evoluton Firmware, then install Velocity package in partition **#6** first.
- If the result of step 1.3 showing current active partition **#6** running Evolution Firmware, then install Velocity package in partitions **#5** first.

NOTE: Never use or overwrite active partition and default partitions #1 and #4.

2.2 Install remote package file into MAIN partition **#5**

```
# sha512sum CX7xx_rootfs_gx_rmt_1.4.0.3-121.pkg // Run this
```

command to get the correct sha value for the package that is being used for installation, will be relevant in the step below.

 # sh package_install.sh /dev/mmcblk0p5 <sha512key> *// **Add the <sha512key> retrieved from the above command**. Click Enter and Install of new package will start, wait until it's finished.*

2.3 Copy following files to corresponding folders using WinSCP FTP Client:

/sysopt/config/sat_router/falcon.json

/sysopt/config/sat_router/lan_config.json(optional)

/sysopt/config/network/beam_map.json

/sysopt/config/certs/x509_global.bin

/common/OTA_SatelliteBeamMap.json

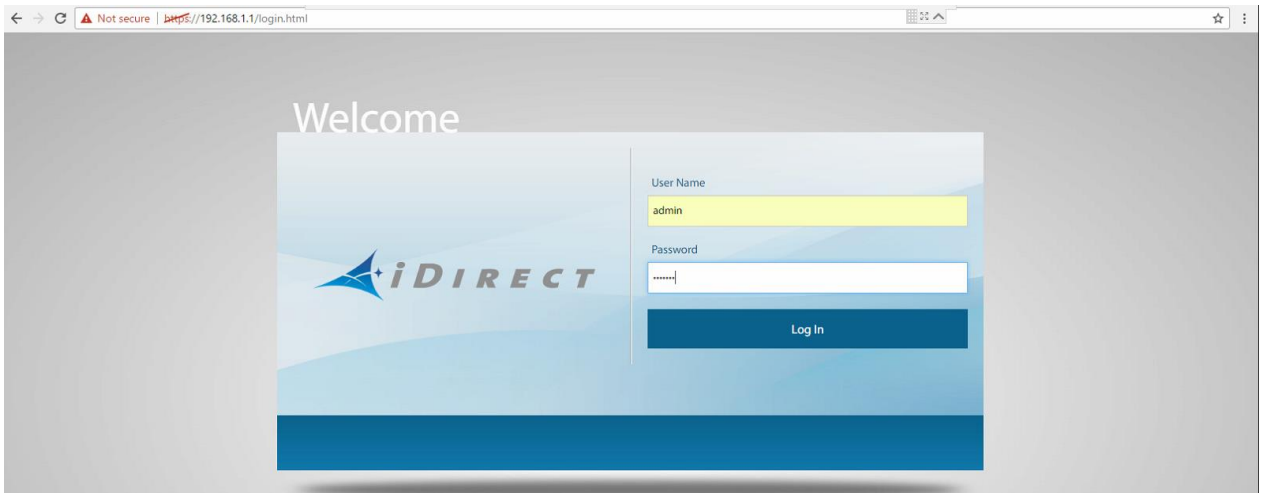
2.4 Make terminal boot to the partition where you have installed Velocity software, example below use partitions **#5** and **#1**.. Change the example below to fit your use case.

```
# flashdbmgr --set 5 1 0 0 main
# reboot
```

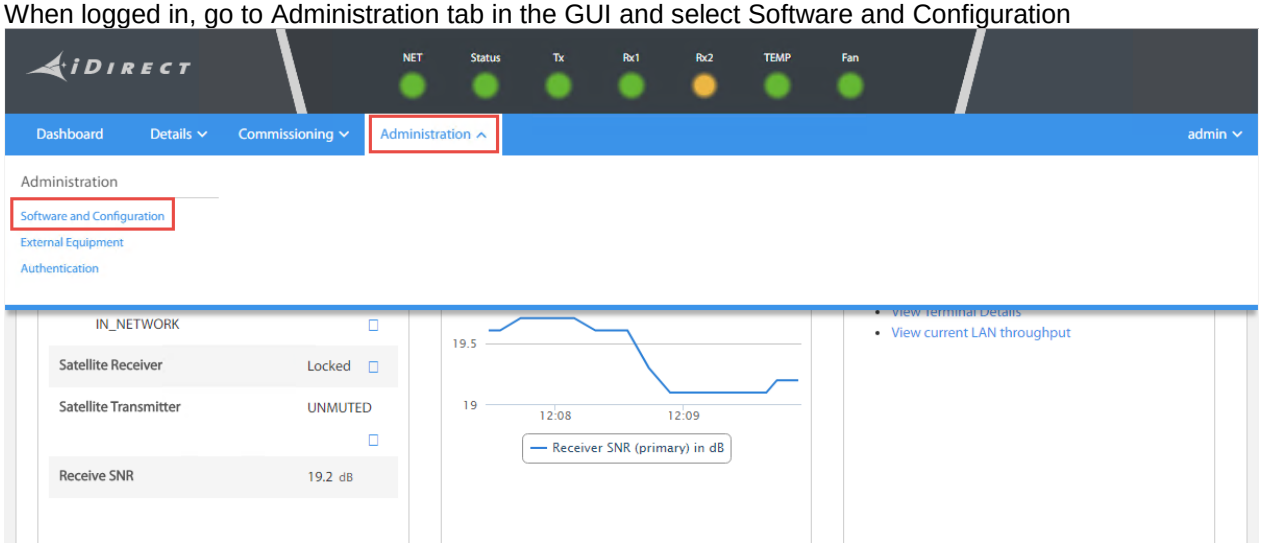
NOTE: Velocity Factory Default IP is 192.168.**1.1** hence you may not get any response unless you change your PC Network Settings:

2.5 Installing **BACKUP** partition to X7.

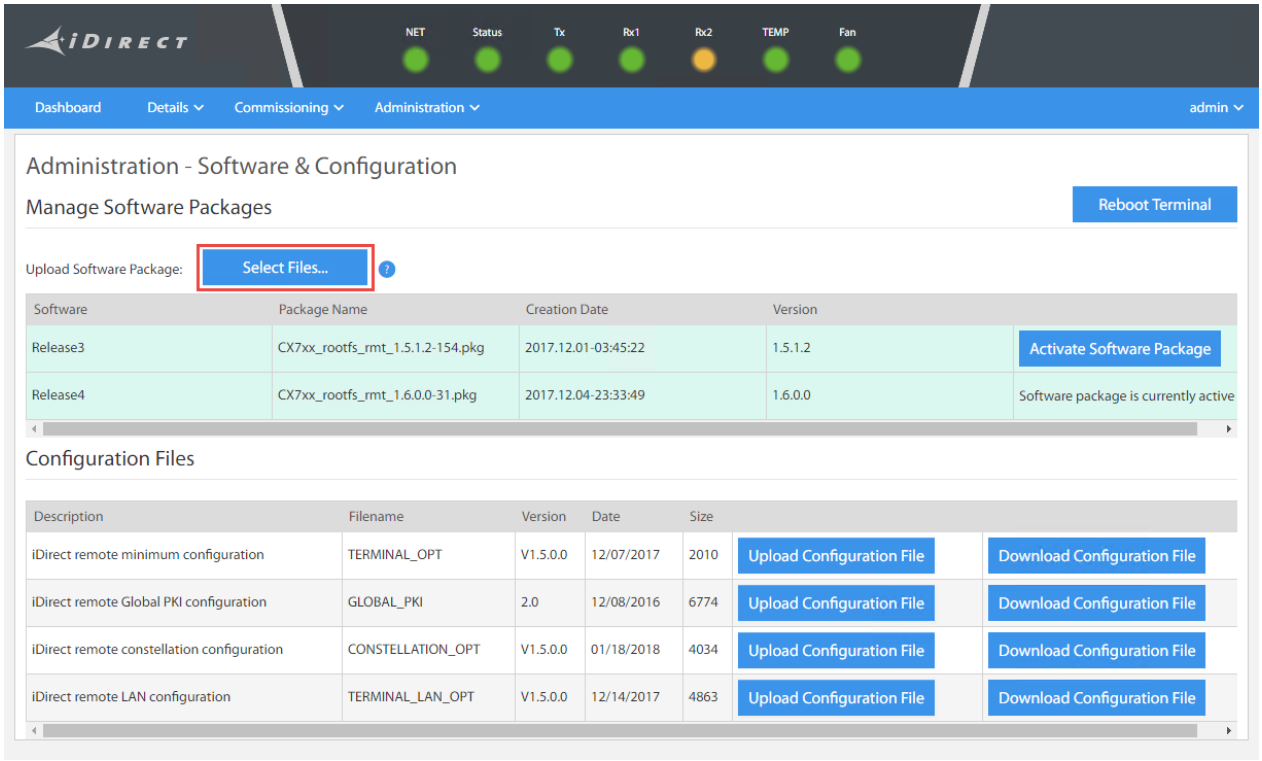
Log on to X7 Web GUI while directly connected to modem.
Default IP 192.168.1.1
Default Credentials: U: admin P: iDirect



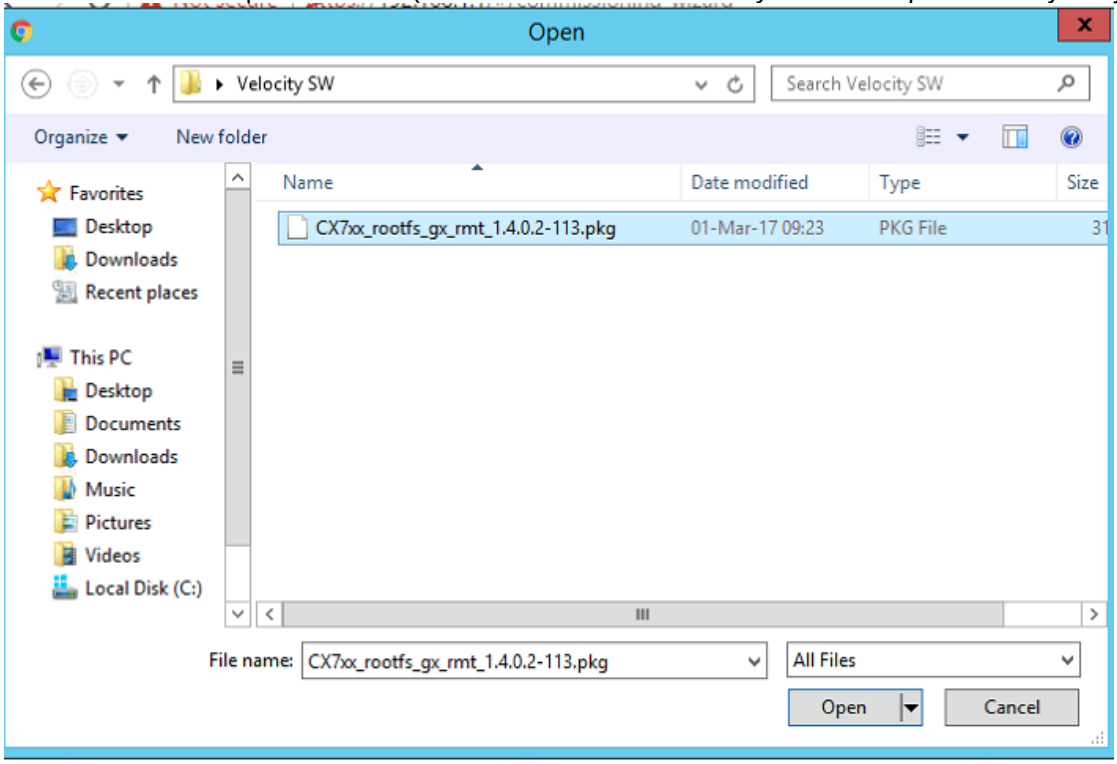
When logged in, go to Administration tab in the GUI and select Software and Configuration



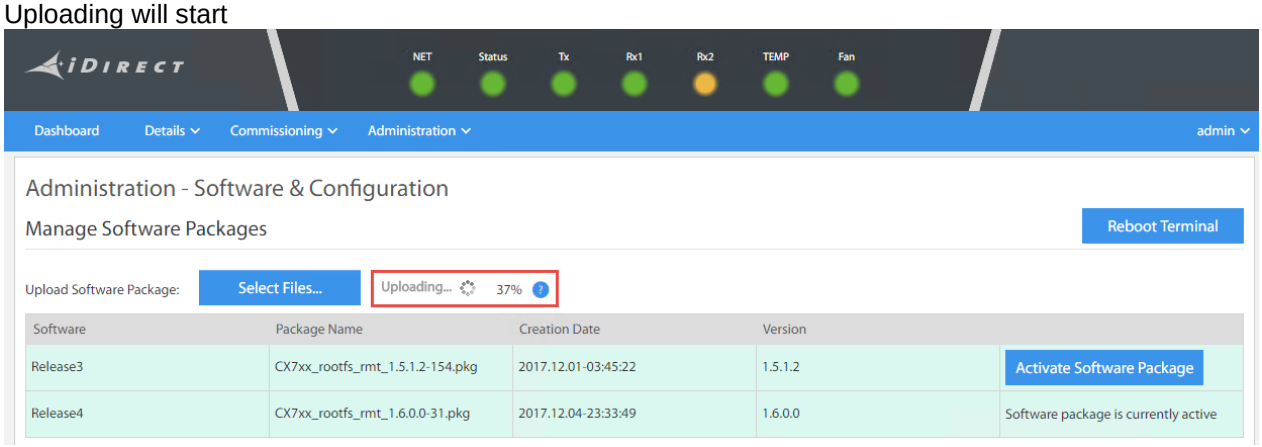
Click Select Files…



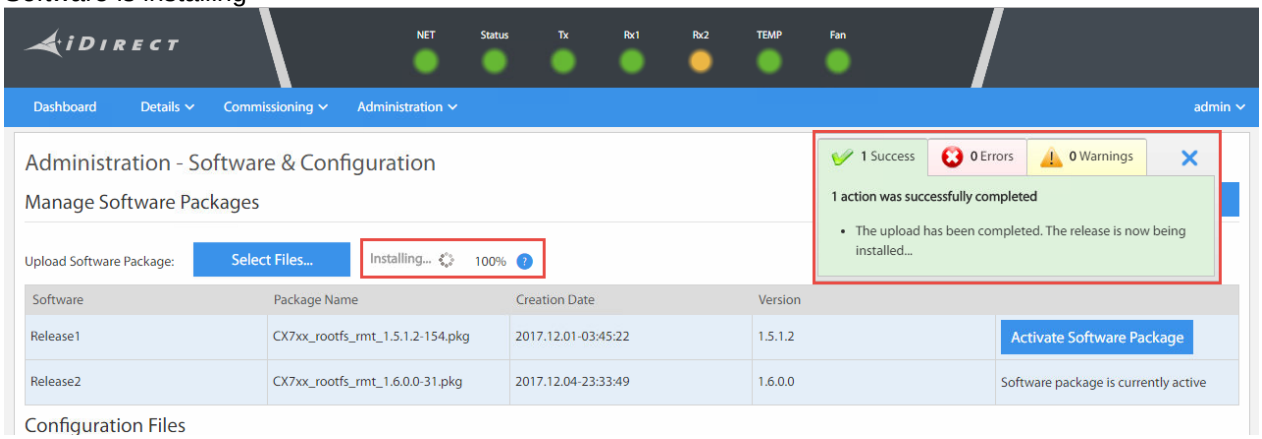
Choose latest backup SW version (Info about this should already have been provided to you by Telenor)

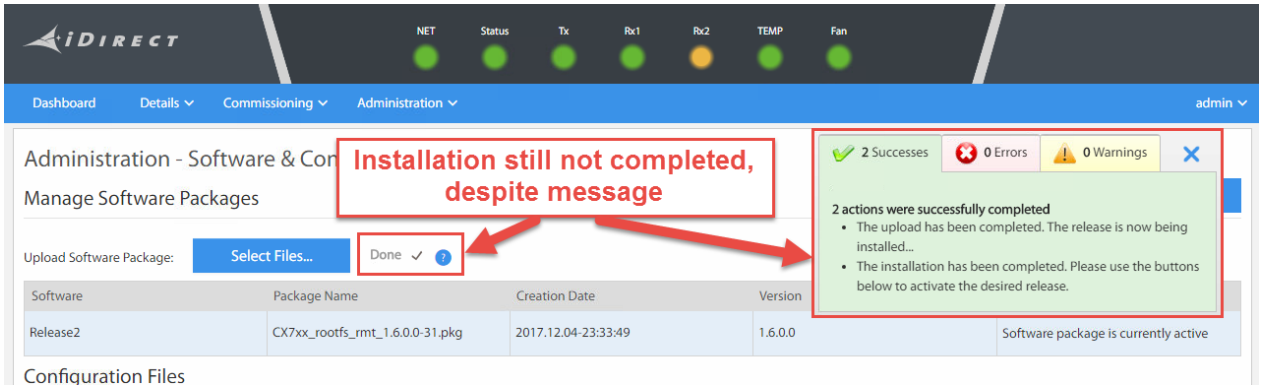


Uploading will start

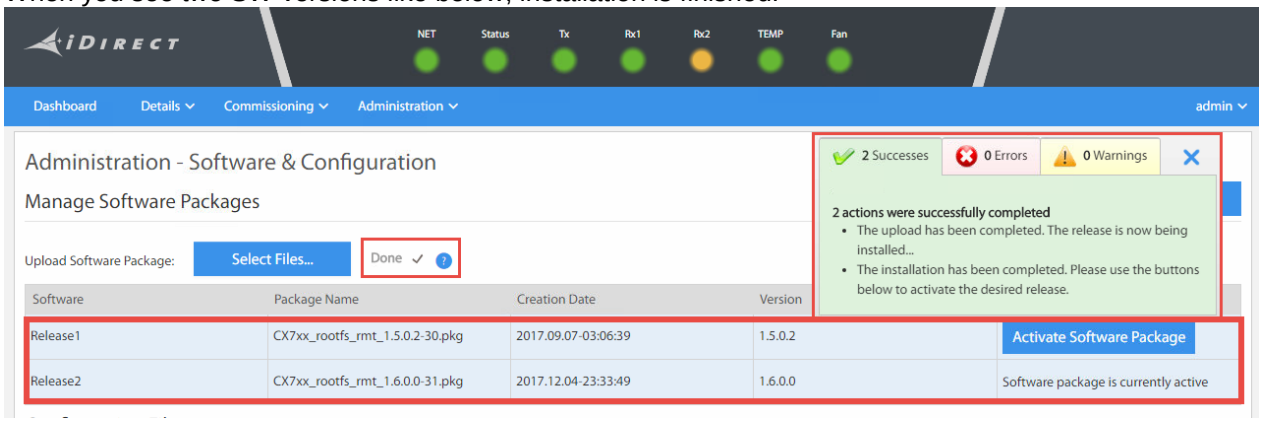


Software is installing





When you see two SW versions like below, installation is finished.



- Check that SW versions are compliant with versions number provided to you by Telenor.

Do not install same SW version in both partitions! Telenor will always provide two software versions with separate build numbers, since same software can confuse Update Manager in HUB.

The End. The terminal has been upgraded!