

## Hughes 9450 Upgrader User Guide (Mac)

Rev 1.6 (5-Jul-17)

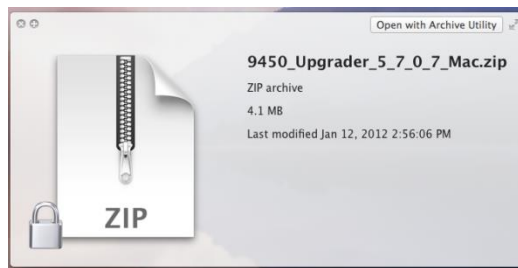
This document explains how to use the Hughes Upgrader program for the 9450 User Terminal using a Mac

**Note: Mac OS X Version 10.4 or newer is required to use the Mac Upgrader.**

### 1 Getting and Extracting the Upgrader

The Hughes Upgrader for the Mac is a zip file [9450\\_Class\\_11\\_Upgrader\\_5\\_7\\_3\\_1\\_Mac.zip](#) that contains the binary software required for software upgrade of the Hughes 9450 User Terminal (UT). Only the software appropriate at time of release is provided with the upgrader (i.e., it may not include all the upgrade options detailed below).

After downloading the zip file, open it (note: examples below are from 5.7.0.7, but your release will act similarly):

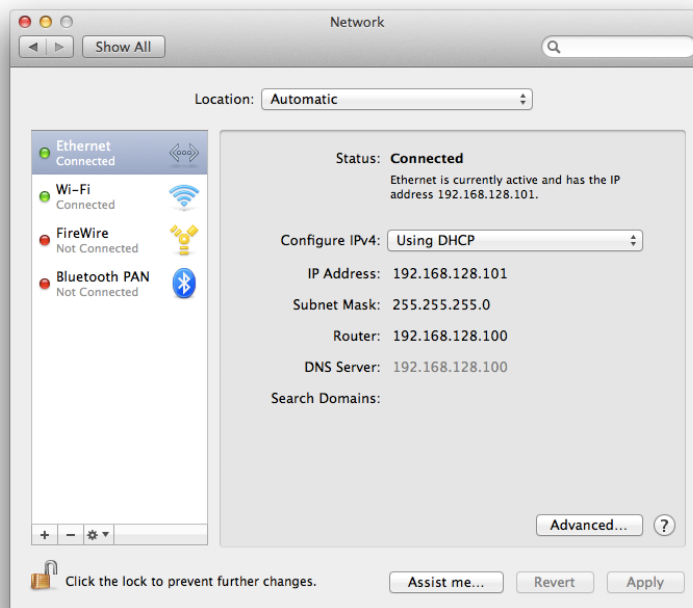


Once you open the zip file, you will see the upgrader application.

## 2 Running the Upgrader

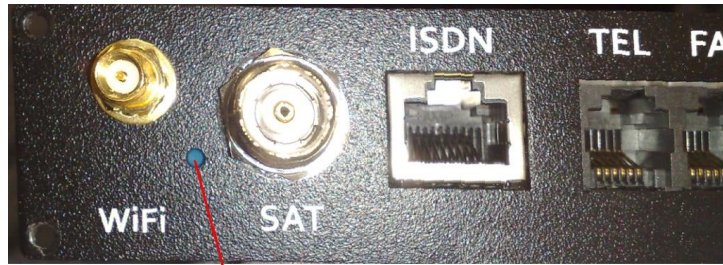
### Before Running the Upgrader:

- Connect to the 9450 UT via Ethernet directly to the Mac. **Note: Do not connect the Mac to the UT through a router.**
- The UT antenna may or may not be connected during the upgrade (optional).
- The SIM may or may not be inserted during the upgrade (optional).
- Your Mac's network (Ethernet) interface to the UT should be set using the Control Panel->System Preferences->Network tool so that the "Configure IPv4" setting is set to "Using DHCP" (i.e., DHCP should be used by the UT to assign your Mac an IP address); if your UT is configured with its on-board DHCP server disabled, you will need to setup an appropriate static address for your Mac instead. See screen shot below:



### Upgrader Start-up Procedure:

If you have been having problems with the UT that imply some kind of instability (UT appears to go through reset loops, you can't seem to connect to the UT's WebUI and you're certain there are no other complications (see previous section), etc), then you can force the UT into Boot ROM mode by pressing the small recessed button located under the WiFi antenna connector (see photo below), preferably using a small non-conductive pin, or a paper clip. Note that you will need to keep holding the button with the pin while powering up the UT.



BootROM mode button

- Power up the UT. If you are trying to force the UT into Boot ROM mode, continue pressing the Boot ROM mode button for at least 5 seconds after you turn the UT on, then release.
- Wait at least 45 seconds after powering on the UT before starting the Upgrader to allow the unit to fully power up.
- Launch the [HNS-9450\\_MAC\\_Upgrader](#) file to start the Upgrader.
- The [BGAN Upgrader](#) window will appear, showing the currently installed software version on the UT, along with the upgrade available with this Upgrader package. The tool opens to the [Easy Install](#) Pane/Mode as shown in the next two screen shots.

Note: if the tool reports the UT is in *BOOTROM MODE*, the upgrade is still possible, but this condition indicates either the user has forced the UT into Boot ROM mode, or the Application Software was incorrectly installed or corrupted.

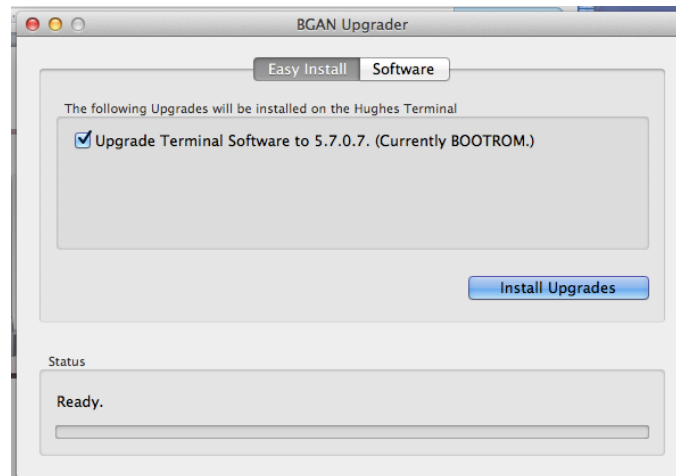


Figure 1: Sample Upgrader Screen while in Boot ROM Mode (Easy Install Pane)

If the tool reports the UT is **not** in *BOOTROM MODE*, the upgrader is running the current version of software shown in Figure 2 below (this example shows that 5.7.0.6 is currently running on the UT).

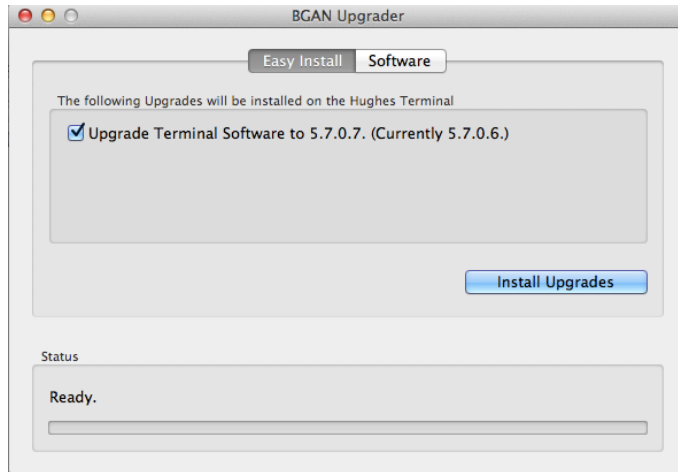


Figure 2: Sample Upgrader Screen while in Normal Mode (Easy Install Pane)

General note: in addition to the application software, there are other software components that may be in the upgrader package; if they exist, additional panes will appear (for the 5.7.0.7 upgrader package, only the [Software](#) Pane exists, because only the application software is provided. The screen shot below shows the application software ([Software](#)) pane for the 5.7.0.7 upgrader:

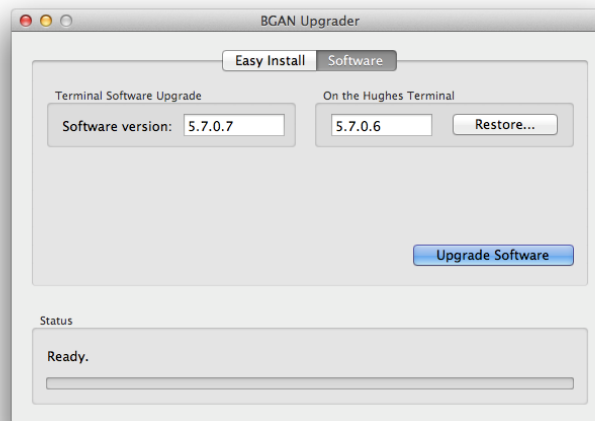


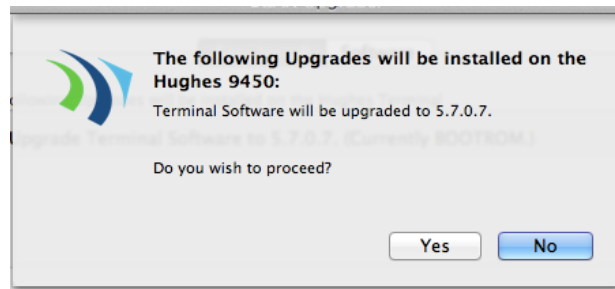
Figure 3: Sample Upgrader Screen while in Normal Mode (Software Pane)

If additional components are provided in the upgrader package, each will be shown by a separate row on the [Easy Install](#) pane, and a separate additional pane will appear/be available as well (such as described above with the [Software](#) pane).

### 3 Performing Upgrade(s):

**NOTE:** *Do not disrupt any upgrade while it is in progress and ensure the power supply is stable.*

- To perform an upgrade, either use the [Easy Install](#) pane, select from the available upgrade selections, and click the [Install Upgrades](#), or navigate to the pane(s) desired and click the [Upgrade Software](#) button. Note that if you use individual panes, each upgrade will have to be done one-by-one.
- Once you click [Upgrade](#), a Pop-up window appears, asking to confirm your choices (the selected items to upgrade are listed):



- Click [Yes](#) ([No](#) cancels the selection)
- The upgrade process will then begin.
  - The Status bar will show a series of progress messages as the upgrade proceeds.
  - Please wait for the upgrade(s) to complete. Note that any one Upgrade operation (Software, PIC, etc) can take up to 10 minutes to complete. *Do not interrupt any upgrade since this may leave the UT in an unknown state.*
  - Refer to the following figures for sample screens of an upgrade in progress, depending on whether the UT was in Boot ROM mode or not.

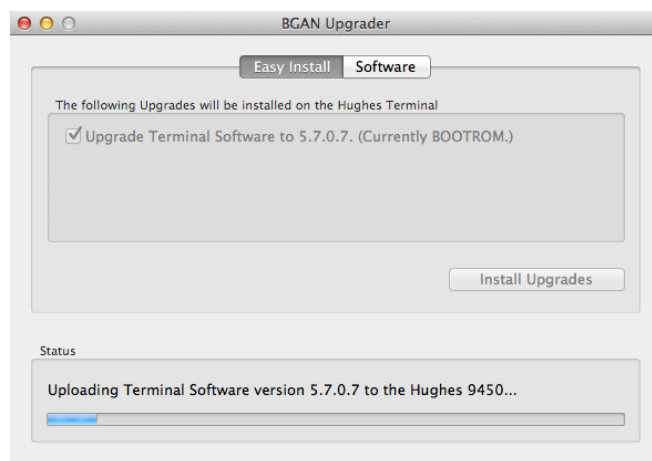


Figure 4: Boot ROM Mode Upgrade in Progress (Easy Install Pane)

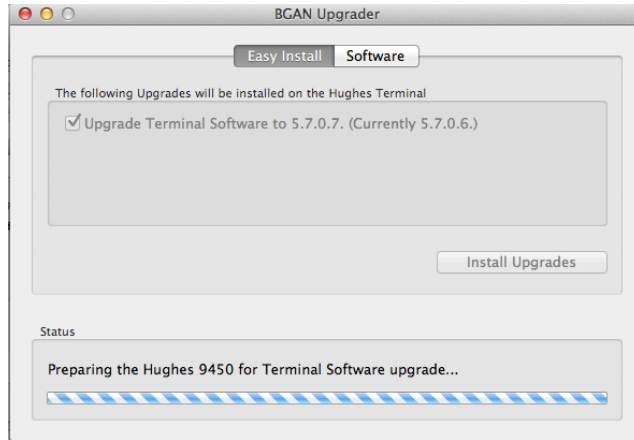


Figure 5: Normal Mode Upgrade in Progress (Easy Install Pane)

- When the upgrade completes, the following window should appear:

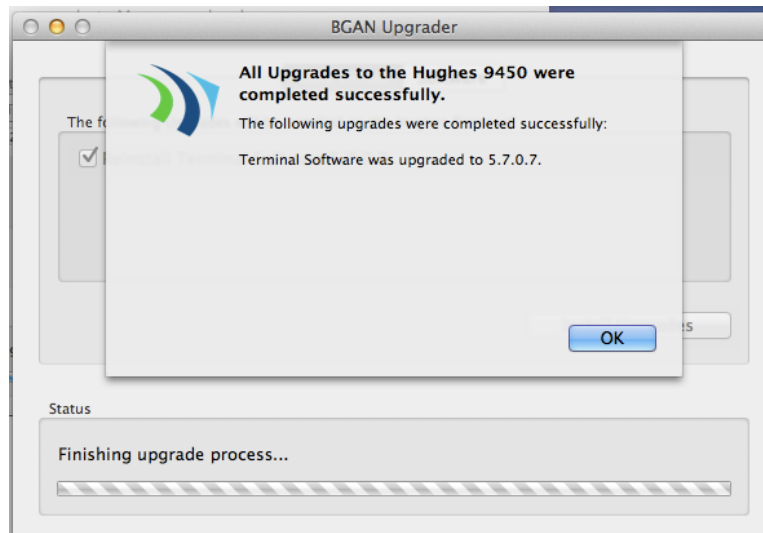
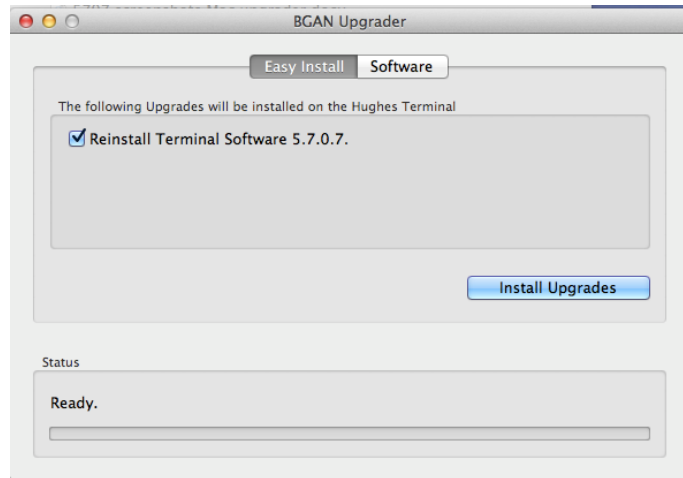


Figure 6: Successful Upgrade Example

- At this point, the upgrade has completed.
  - If additional upgrades are desired, go to the appropriate pane and perform them. Note that if the [Easy Install](#) pane/method was used, the Upgrader will continue with the next upgrade in the sequence until all are done automatically, and the Figure 6 message will appear at the end.
- Check the Upgrader window and verify that the updated version matches the new version supplied with the Upgrader.
- Note that after installing the software, the following dialog appears:



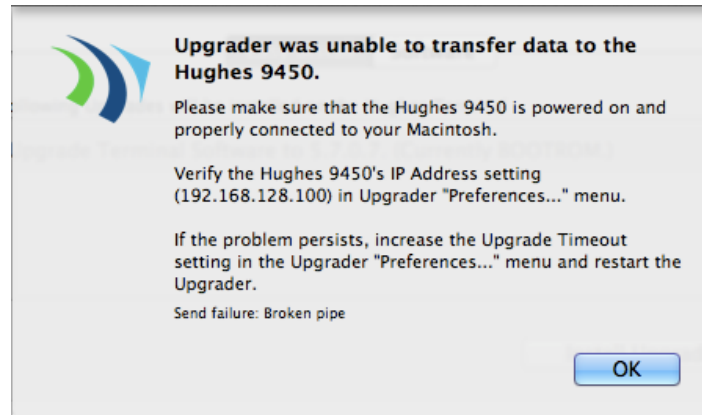
This dialog appears in case you want to re-install; normally, you can exit the upgrader at this time.

### Upgrader Menu Descriptions:

- ❖ **BGAN Upgrader** drop-down menu:
  - [About BGAN Upgrader](#) – provides upgrader version information
  - [Preferences](#) – allows you to customize the IP address for the UT and other parameters
- ❖ **File** drop-down menu:
  - [Upgrade All Selections](#) – acts the same as [Easy Install](#) pane selecting all available upgrades.
  - [Upgrade Terminal Software](#) – acts the same as [Software](#) pane selecting the [Upgrade Software](#) button.
  - [Restore Terminal Software](#) – acts the same as [Software](#) pane selecting the [Restore](#) button.
  - [Upgrade Antenna Firmware](#) – acts the same as [Antenna](#) pane selecting the [Upgrade Antenna Firmware](#) button (may or may not be provided in your upgrader package).
  - [Upgrade IB Firmware](#) – acts the same as [IB](#) pane selecting the [Upgrade IB Firmware](#) button (not applicable to the 9450 UT).
  - [Upgrade PIC Software](#) – acts the same as [PIC](#) pane selecting the [Upgrade PIC Software](#) button (may or may not be provided in your upgrader package).
  - [Close](#) – close the upgrader application.
- ❖ **Options** drop-down menu:
  - [Get Software Version](#) – connects to the UT and retrieves the current software version.
  - [Reset Modem](#) – connects to the UT and commands it to reset.

## 4 Troubleshooting:

If the following dialog box appears, disable any firewall on your computer and re-attempt the upgrade:



### Contact Hughes:

Hughes Network Systems, LLC.

9605 Scranton Rd., Suite 500

San Diego, CA 92121 USA

Phone: +1 858 455-9550

Fax: +1 858 452-4624

[www.hughes.com](http://www.hughes.com)

[www.hughes.com/ProductsAndTechnology/MobileSatSystemsTerminals](http://www.hughes.com/ProductsAndTechnology/MobileSatSystemsTerminals)