Flashing the HC952/HC841/HC851

In order to flash the Huastlink routers the *u-boot* (or *bootloader*) must be replaced. Do not attempt to use the uboot Recovery GUI to flash the router as that will brick it. Instead we will change the *u-boot* to another one that has a working Recovery GUI.

To do this requires the use of 2 programs, WinSCP and Putty. These can be obtained here.

WinSCP - https://ofmodemsandmen.com/download/WinSCP-5.19.2-Setup.exe

Putty - https://ofmodemsandmen.com/download/putty.exe

A tutorial on installing and using these programs is here.

https://ofmodemsandmen.com/winscp.html

The flashing will take place in two steps, changing the *u-boot* and actually flashing the ROOter firmware.

Changing the U-Boot

This is the most dangerous part of the procedure and the steps must be followed exactly.

First, you must start WinSCP and log in to the router's file system. By default the IP Address is *192.168.1.1* and the password is *admin*. The above tutorial explains how to setup WinSCP so you can log in.

Once you are logged in transfer the file *uboot16.bin* to the router's */tmp* folder. When this complete you can exit WinSCP.
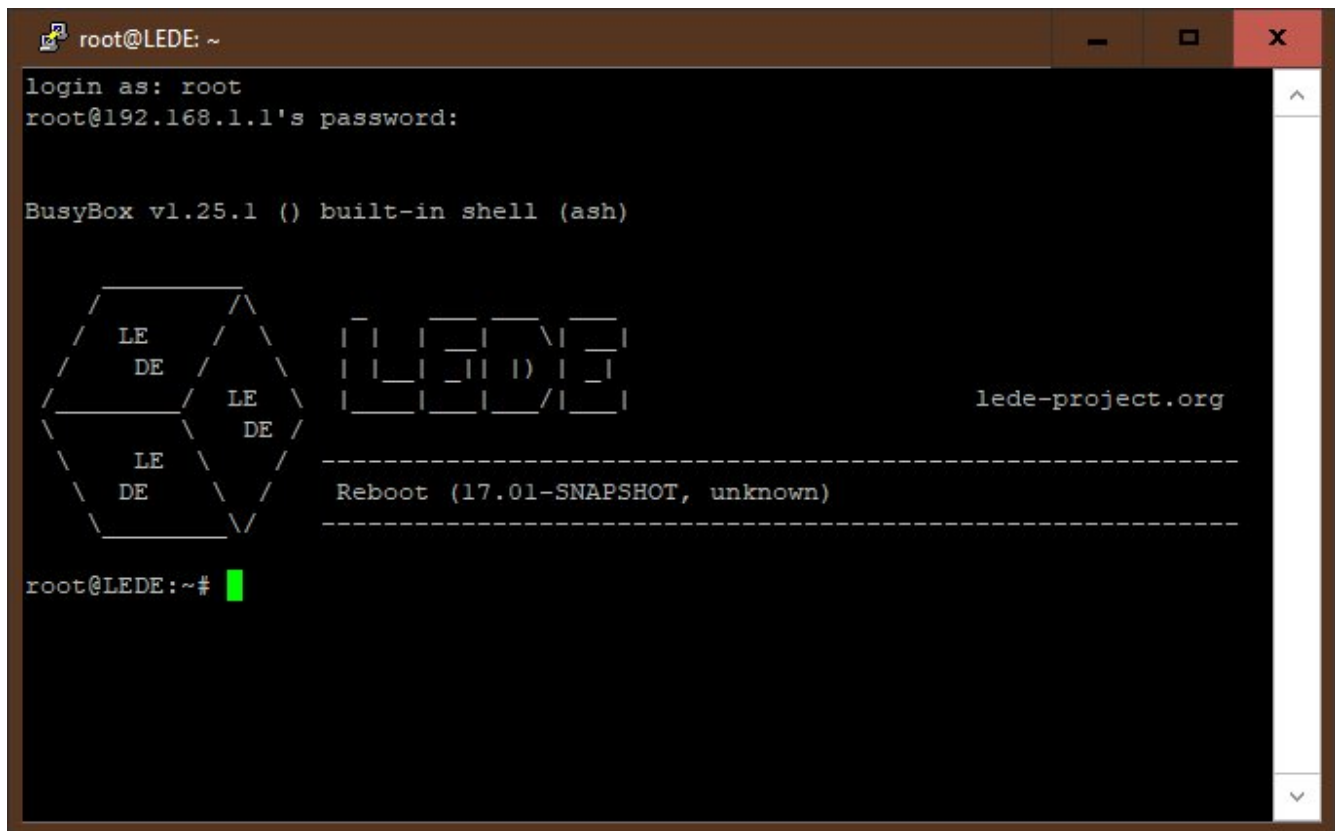
Second, start Putty and login to the router's Command Line.
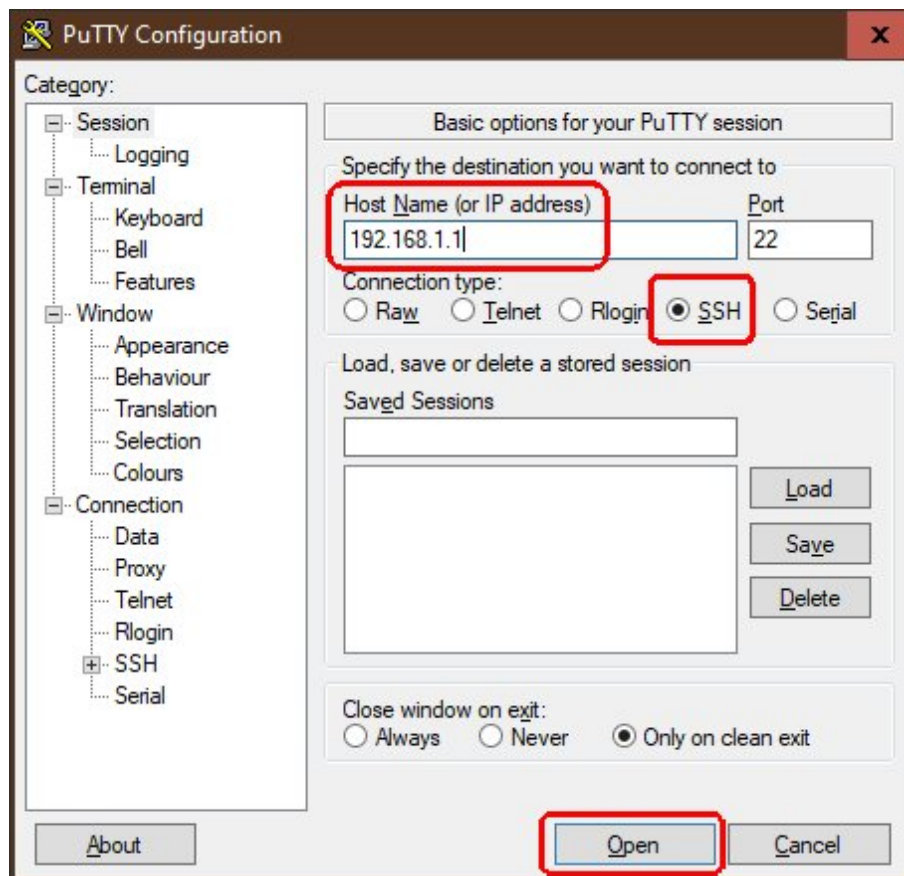
These are the settings needed to attempt to login. When you click Open you will be greeted with the Command Line terminal and will be asked to enter the User Name and Password.

The User Name is *root* and the Password is *admin*, the same as when you login to the router's GUI. The Password will not show in the terminal when you type it. Next you will see the active Terminal.

At this point we are ready to change the *u-boot* to a different one. In the terminal execute this command

mtd write /tmp/uboot16.bin Bootloader

When this command is complete you can close the Putty Terminal. The *uboot* has been replaced.

You can now power off the router as the factory firmware will no longer work.

Flashing the ROOter Image

The router must be forced into recovery mode in order to flash the ROOter image. The following steps show how to do this.
• Unplug the router's power cord.

• Hold in the Reset button beside the power plug using a small object like a dull pencil or a paper clip. Take care as the button is plastic so don't use sharp objects.
• With the reset button held in, plug in the router's power and hold the button for at least 10 seconds.
• Release the Reset button.
• Use your browser to go to *http://192.168.1.1/index.html* and you will see the recovery GUI.

The GUI is in Chinese but is easy to understand.
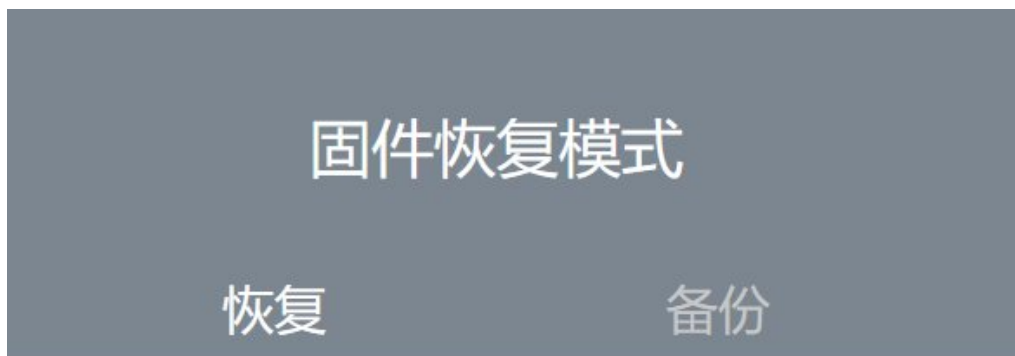
Click on the button and a selection dialog will appear so you can select the ROOter firmware. Once you do a confirmation dialog will appear. Press *OK*

on that.

A progess page will then appear.

The flash is now taking place. It will take some time for the flash to complete so wait for the Leds to stop flashing. When the lower right Led is solid the flash is complete.

To access the router GUI point your browser to *192.168.1.1* and the login page will appear. There is no password set at this point.

The router is now flashed with ROOter.

To upgrade to a new ROOter you can now use the usual ROOter GUI upgrade method.