Vodafone
MachineLink 3G Plus

Firmware Upgrade Guide

NetCommWireless

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Upgrading the Firmware

The MachineLink 3G Plus router has dual redundant operating systems; a Main system and a Recovery system. One system may be used to restore the other in the event of a corruption to avoid a total failure of the device. It is therefore necessary to update both the main and recovery systems when a firmware update is available.
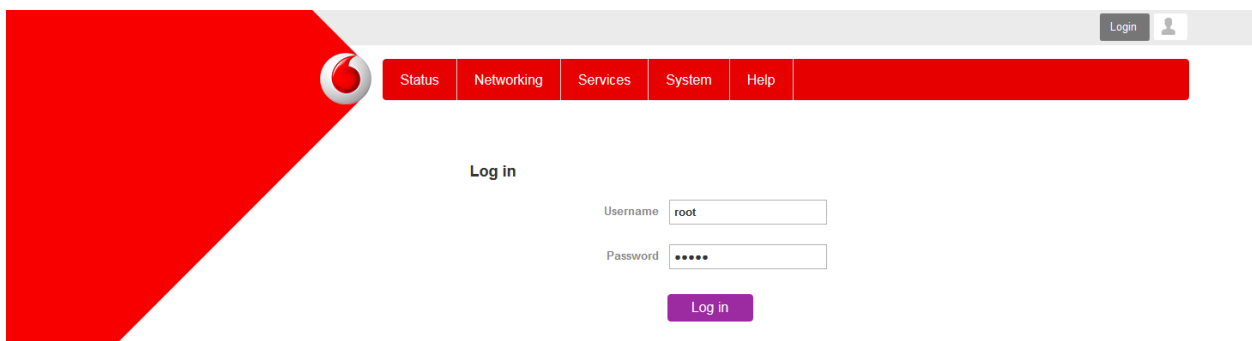
The firmware update process involves first upgrading the recovery image firmware and then upgrading the main firmware image. To obtain the latest firmware image files, visit the product website at http://vodafone.netcommwireless.com/

> Note: In order to perform a firmware update, you must be logged into the router with the root manager account. Refer to the "Advanced configuration" section of the User Guide for details.

To update the MachineLink 3G Plus router's firmware:

1. Connect one end of the RJ-45 (Ethernet cable) to the Ethernet port of the MachineLink 3G Plus Router and the other end to the Ethernet port of your computer.

2. Connect the power adapter to the DC power jack of the MachineLink 3G Plus Router and plug it into an available wall socket. Wait approximately 1 minute for the router to start up.

3. Extract the firmware image files from the archive that you downloaded from the product website to the hard drive of your computer.

4. Open a web browser and navigate to http://192.168.1.1

5. In the Username field, enter **root** and in the Password field, enter **admin** then click the **Log in** button.

6. Select the **System** item from the top menu bar, select the **System configuration** item from the menu on the left and then select the **Upload** menu item.

7. Under the **File Uploads** section, click the **Choose a File** button. Locate the module image file on your computer named **phs8-p_r03.001_01.001.07.usf** and click **Open**.

8. Click the **Upload** button. The module image is uploaded to the router.

9. Under the **File Uploads** section, click the **Choose a File** button. Locate the uboot image file on your computer named **uboot.sb** and click **Open**.

10. Click the **Upload** button. The uboot image is uploaded to the router.

11. Under the **File uploads** section, click the **Choose a file** button. Locate the Recovery image file on your computer named **vdf_nwl12_x.x.xx.x_r.cdi** where the letter 'x' represents the version number of the firmware file and click **Open**.

12. Click the **Upload** button. The Recovery firmware image is uploaded to the router.

13. Repeat steps 11 and 12 for the Main firmware image file. The Main image is named **vdf_nwl12_x.x.xx.x.cdi** where the letter 'x' represents the version number of the firmware file. When you have completed uploading both files, the router displays a list of the uploaded files.

> Note: Do not remove the power when the router's LEDs are flashing as this is when the firmware update is in process.

14. Next to **phs8-p_r03.001_01.001.07.usf** image, click the **Install** link and then click OK on the confirmation pop-up window. The module image is updated and when it is complete the router displays "**The installation was successful**" and then returns to the list of uploaded files

```
Progress: 89%, 9007266 / 10119682
Progress: 90%, 9107864 / 10119682
Progress: 91%, 9213404 / 10119682
Progress: 92%, 9314722 / 10119682
Progress: 93%, 9412870 / 10119682
Progress: 94%, 9516764 / 10119682
Progress: 95%, 9620256 / 10119682
Progress: 96%, 9720736 / 10119682
Progress: 97%, 9818676 / 10119682
Progress: 98%, 9923180 / 10119682
Progress: 99%, 10024038 / 10119682
Progress: 100%, 10119682 / 10119682
Complete....
Enabling supervisor
Power-cycling to normal operation mode
Waiting...
Launching connection_mgr
Stop flashing LEDs
Done: Success
The installation was successful
```

Note: During the module update process, all LEDs will start flashing until the process is done. Please do not interrupt the process until the LEDs stop flashing. When the process has finished, the router automatically reboots to complete the update.

15. Next to **uboot.sb** image, click the **Install** link and then click OK on the confirmation pop-up window. The u-boot image is updated and when it is complete the router displays "**The installation was successful**" and then returns to the list of uploaded files.

```
Saving environment
Erasing "boot" (/dev/mtd0), 3 blocks
Erasing 128 Kibyte @ 80000 -- 0 % complete
Erasing 128 Kibyte @ a0000 -- 33 % complete
Erasing 128 Kibyte @ c0000 -- 66 % complete
Erasing 128 Kibyte @ c0000 -- 100 % complete
Flashing /opt/cdcs/upload/uboot.sb to "boot" (/dev/mtd0), skipping 1st eraseblock
Erasing "boot" (/dev/mtd0), 3 blocks
Erasing 128 Kibyte @ 80000 -- 0 % complete
Erasing 128 Kibyte @ a0000 -- 33 % complete
Erasing 128 Kibyte @ c0000 -- 66 % complete
Erasing 128 Kibyte @ c0000 -- 100 % complete
Flashing /opt/cdcs/upload/uboot.sb to "boot" (/dev/mtd0), skipping 1st eraseblock
Writing data to block 4 at offset 0x80000
Writing data to block 5 at offset 0xa0000
Writing data to block 6 at offset 0xc0000
Done
Restoring environment
Done
The installation was successful
```

16. Next to the Recovery image **vdf_nwl12_x.x.xx.x_r.cdi**, click the **Install** link and then click **OK** on the confirmation pop-up window. The recovery image is updated and when it is complete the router displays **"The firmware update was successful"** and then returns to the list of uploaded files.

```
ubiformat: flashing eraseblock 80 -- 96 % complete
ubiformat: flashing eraseblock 81 -- 97 % complete
ubiformat: flashing eraseblock 82 -- 98 % complete
ubiformat: flashing eraseblock 83 -- 100 % complete
ubiformat: formatting eraseblock 84 -- 8 % complete
ubiformat: formatting eraseblock 85 -- 16 % complete
ubiformat: formatting eraseblock 86 -- 25 % complete
ubiformat: formatting eraseblock 87 -- 33 % complete
ubiformat: formatting eraseblock 88 -- 41 % complete
ubiformat: formatting eraseblock 89 -- 50 % complete
ubiformat: formatting eraseblock 90 -- 58 % complete
ubiformat: formatting eraseblock 91 -- 66 % complete
ubiformat: formatting eraseblock 92 -- 75 % complete
ubiformat: formatting eraseblock 93 -- 83 % complete
ubiformat: formatting eraseblock 94 -- 91 % complete
ubiformat: formatting eraseblock 95 -- 100 % complete
Done
Done
Done
The firmware update was successful
```

17. Next to the Main image (**vdf_nwl12_x.x.xx.x.cdi**), click the **Install** link and then click **OK** on the confirmation pop-up window. The main image is updated. The installation is complete when the countdown reaches zero. The router automatically reboots into the Main system image.

```
ubiformat: formatting eraseblock 245 -- 72 % complete
ubiformat: formatting eraseblock 246 -- 75 % complete
ubiformat: formatting eraseblock 247 -- 78 % complete
ubiformat: formatting eraseblock 248 -- 81 % complete
ubiformat: formatting eraseblock 249 -- 83 % complete
ubiformat: formatting eraseblock 250 -- 86 % complete
ubiformat: formatting eraseblock 251 -- 89 % complete
ubiformat: formatting eraseblock 252 -- 91 % complete
ubiformat: formatting eraseblock 253 -- 94 % complete
ubiformat: formatting eraseblock 254 -- 97 % complete
ubiformat: formatting eraseblock 255 -- 100 % complete
Done
Done
Skipping post-install, nothing to do
Done
The firmware update was successful Reboot to main system...
Estimated time remaining: 74 seconds
Estimated time remaining: 69 seconds
Estimated time remaining: 64 seconds
Estimated time remaining: 59 seconds
```

18. After the upgrade has completed, we recommend that you restore the factory default settings of the router. To do this, use a paperclip or another similarly shaped object to hold down the reset button on the router for 15-20 seconds. The router reboots with the factory default settings.

The firmware upgrade is complete.