



Firmware Upgrade Guide

Important Notice

This device, like any wireless device, operates using radio signals which cannot guarantee the transmission and reception of data in all conditions. While the delay or loss of signal is rare, you should not rely solely on any wireless device for emergency communications or otherwise use the device in situations where the interruption of data connectivity could lead to death, personal injury, property damage, data loss, or other loss. NetComm Wireless and Vodafone accept no responsibility for any loss or damage resulting from errors or delays in transmission or reception, or the failure of the Vodafone MachineLink 4G Lite Router to transmit or receive such data.

Safety and Hazards



Warning – Do not connect or disconnect cables or devices to or from the USB port, SIM card tray, Ethernet port or the terminals of the Molex power connector in hazardous locations such as those in which flammable gases or vapours may be present, but normally are confined within closed systems; are prevented from accumulating by adequate ventilation; or the location is adjacent to a location from which ignitable concentrations might occasionally be communicated.

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Note – This document is subject to change without notice.

Document History

This guide covers the following products:

Vodafone MachineLink 4G Lite Router (NWL-220)

Ver.	Document Description	Date
1.0	Initial document release	12 September 2018
1.1	Updated with warning about upgrading devices without unique password on the device label	27 June 2019

Table i. - Document Revision History



Note – Before performing the instructions in this guide, please ensure that you have the latest firmware version installed on your router.

Visit http://vodafone.netcommwireless.com to download the latest firmware.

Note – Some functions described in this document require that the router is assigned with a publicly routable IP address.

Please ensure that your mobile carrier has provided you with a publicly routable IP address before performing the instructions in this document.

Upgrading the router firmware

This procedure assumes that you have already initialised the device as described in the Initialisation section of the User Guide. Please perform the initialisation of the device before proceeding to upgrade its firmware.



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.



Important – These instructions must be followed in the exact order they are given. Failure to perform the steps in the correct order can result in the firmware becoming corrupted.

Important – If you are updating from a firmware version older than 2.0.90.0, and your device does not have a unique password printed on its label, please log a support ticket with Vodafone Technical Support to obtain your unique passwords. Failure to do so will result in you being locked out of your device, since the factory default password will have changed to a unique password for that device when the firmware is upgraded.

To update the MachineLink 4G Lite router's firmware:

- 1 Connect one end of the RJ-45 (Ethernet cable) to the Ethernet port of the MachineLink 4G Lite Router (labelled "LAN") and the other end to the Ethernet port of your computer.
- 2 Connect the power adapter to the DC power jack of the MachineLink 4G Lite 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 <u>https://192.168.1.1</u>
- 5 In the Username field, enter **root** and in the Password field, enter the password that you specified during initialisation.

							Login	8
0	Status	Networking S	ervices	System	Help			
	Log in	Usernam	ie root	~				
		Passwor	rd Log	in				

Vodafone MachineLink 4G log in page

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 firmware image file on your computer named **vdf nwl220 x.x.xx.signed.cdi** and click **Open**.
- 8 Click the **Upload** button. The firmware image is uploaded to the router. When the file upload is complete, the router displays a list of the uploaded files.

ile uploads			
Choose a file			Upload
Uploaded files (Free space: 296.5 M)			
File name	Date	Size	Action
vdf_nwl220_x.x.xx.cdi	Sep 12 2018	63.7M	Install Delete

9 Next to the firmware image file (**vdf_nwl220_x.x.xx.signed.cdi**), click the <u>Install</u> link and then click **OK** on the confirmation pop-up window. The firmware is updated. The installation is complete when the countdown reaches zero. When it is complete, the router automatically reboots.

Note – During the firmware update process, all LEDs flash until the process is done. Please do not interrupt the process until the LEDs stop flashing.

Estimated time remaining: 39 seconds	^
Estimated time remaining: 34 seconds	
Installing speedtest-cli-master (1.0) to root	
Configuring speedtest-cli-master	
Successfully installed.	
Additional packages ():	
T(Packages): 62s	
Unmounting main rootfs	
Done	
The firmware update was successful Reboot to main system	
Estimated time remaining: 29 seconds	
Estimated time remaining: 24 seconds	
Estimated time remaining: 19 seconds	
Estimated time remaining: 14 seconds	
Estimated time remaining: 9 seconds	
Estimated time remaining: 4 seconds	
Redirecting you to the Status page	
	~
Close	

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10 After the upgrade has completed, 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.

Note – If the router is not reset to factory default settings, some features may not work correctly.

11 When the Status page is displayed, confirm that the **Firmware version** matches the firmware version that you installed (see the Firmware Release Notes document for more details).

 System information 		
System up time	Device version	Cellular module
00:01:41	Board version 1.0	Model EC21
	Serial number 192111183500124	Module firmware EC21AUFAR06A01M4G
	Firmware version Vx.x.xx.x	IMEI 861108034453315
	Hardware version MachineLink 4G Lite	