



# **Vodafone MachineLink 4G Lite**

Firmware  
Upgrade Guide

# Trademark Notice

This product may reference NetComm. On December 26, 2024, Lantronix, Inc. acquired the Industrial Internet of Things (IIoT) product portfolio from NetComm Pty Ltd and is authorized to use the NetComm trademark in association with this product.

## 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. Lantronix Inc. 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.

## Copyright

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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-221 / NWL-222 / NWL-224 / NWL-227)

| 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      |
| 1.2  | Include firmware filenames and instructions for NWL-221,222,224,227                      | 20 December 2021  |
| 1.3  | Removed reference to requirement to reset to factory defaults                            | 7 April 2022      |
| A    | Replaced NetComm references with Lantronix   | September 2025    |

*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 <https://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** – Downgrading to a version older than 2.1.24.0 may require a factory reset to login into the device due improved password encryption on latest firmware.

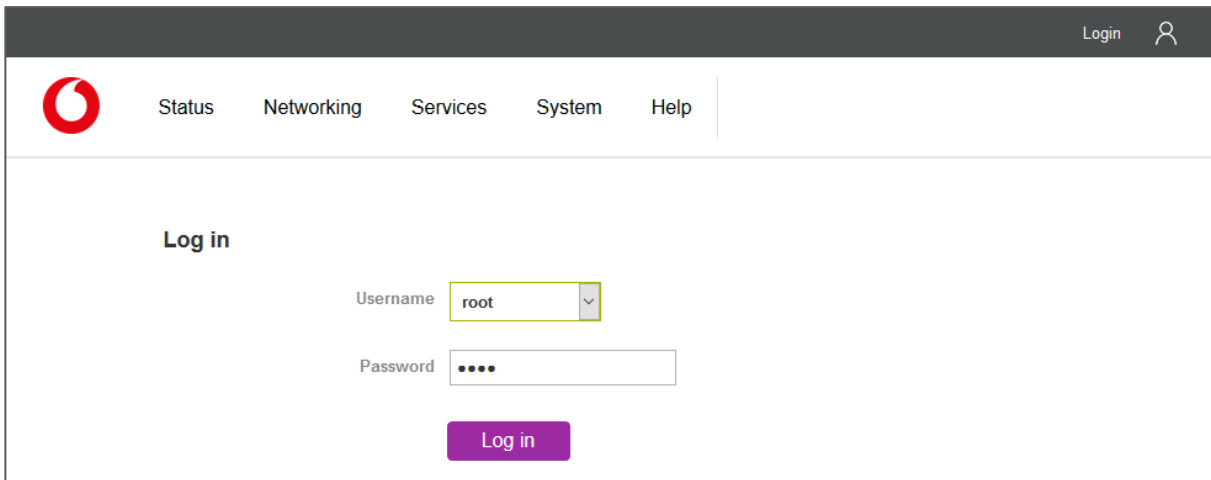


**Important** – If you are updating from a firmware version older than 2.0.90.0 for a model other than NWL-227, and your device does not have a unique password printed on its label, please log a support ticket with Vodafone Technical Support to obtain your unique passwords.

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 <https://192.168.1.1>
- 5 In the Username field, enter root and in the Password field, enter the password that you specified during initialisation.



The screenshot shows the Vodafone MachineLink 4G login interface. At the top, there is a dark header with a 'Login' link and a user icon. Below this is a navigation bar with links for 'Status', 'Networking', 'Services', 'System', and 'Help'. The main content area is titled 'Log in' and contains a form with a 'Username' field (pre-filled with 'root'), a 'Password' field (masked with dots), and a purple 'Log in' button.

*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:

a Click the **Choose a File** button.

b Locate and select the firmware image file on your computer appropriate for model router:

**vdf\_nwl220\_x.x.xx.x-signed.cdi** (for NWL-221, NWL-222, NWL-224) and

or

**vdf\_nwl227\_x.x.xx.x-signed.cdi** (for NWL-227)

c Click the **Open** button.

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.

# File uploads

Choose a file

Upload

Uploaded files

( Free space: 296.5 M )

| File name               | Date        | Size  | Action   |
|-------------------------|-------------|-------|--|
| vdf_nwl220_x.x.xx.x.cdi | Sep 12 2018 | 63.7M | <a href="#">Install</a> <a href="#">Delete</a> |

*Uploaded file list*

- 9 Next to the firmware image file (**vdf\_nwl220\_x.x.xx.x-signed.cdi** or **vdf\_nwl227\_x.x.xx.x-signed.cdi**), click the **Install** link and then click **OK** on the confirmation pop-up window. The firmware is updated. The installation is complete when the countdown reaches zero. Please wait until the router has automatically rebooted. The entire upgrade process could take between six to seven minutes to complete.



**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...
Installing speedtest-cli-master (1.0) to root...
Installing speedtest-cli-master (1.0) to root...
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

*Installation log*

- 10 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  |   |                                      |
|-----------------------|---|--------------------------------------|
| <b>System up time</b> | <b>Device version</b>                       | <b>Cellular module</b>               |
| <b>00:01:41</b>       | Board version<br>1.0                        | Model<br>EC21                        |
|                       | Serial number<br>192111183500124            | Module firmware<br>EC21AUFAR06A01M4G |
|                       | <b>Firmware version</b><br><b>Vx.x.xx.x</b> | IMEI<br>861108034453315              |
|                       | Hardware version<br>MachineLink 4G Lite     |                                      |

*Vodafone MachineLink 4G – System Information page*