



Recovery via Recovery Console Guide

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Note – This document is subject to change without notice.

Document history

Ver.	Document Description	Date
1.0	Initial document release	27 th September 2021

Applicable devices

This document is applicable only to the following NetComm Wireless devices:

• NWL-22X

The screenshots used in this document were taken using an NWL-22X. The same process can be applied to all the applicable devices listed above.

Recovering a MachineLink router in case of problems with the Main operating system

MachineLink routers feature two independent operating systems, each with their own file systems. These two systems are referred to as 'Main' and 'Recovery'. It is always possible to use one in order to restore the other in the event that one system becomes damaged or corrupted (such as during a firmware upgrade failure). The recovery console provides limited functionality and is typically used to restore the main firmware image in the case of a problem.

This document outlines the process of booting a MachineLink router into recovery mode and flashing the main firmware image to restore functionality in the case where a failure has occurred.

Accessing recovery mode

Both systems have web interfaces that can be used to manipulate the other inactive system. The router starts up by default in the Main system mode, however the router may be triggered to start in recovery mode if desired.

To start the router in recovery mode:

- 1 Power off and **unplug** the device, connect the Ethernet connection.
- 2 Press and hold the physical reset button on the interface panel
- 3 While holding the reset button, plug in the power cable
- ⁴ Hold the reset button for further for 10 to 15 seconds. When the LEDs on the front panel change to amber and countdown in a sequence, release the reset button. The router then boots into recovery mode.
- 5 In your browser, navigate to <u>http://192.168.1.1</u>

The router's recovery mode is hardcoded to use this address regardless of the IP address that was configured in the main system. The router's recovery console is displayed.

Installing the main firmware image

1 Click on the **Application Installer** menu item at the top of the screen.

NetComm Cellular Router Recovery Console

Status	Log	Application Installer	Settings	Reboot			
Recovery Console > l	Jpload						
Upload:							
File Brows	e No file selected.				Upload		
Uploaded Files:							
Free Space: 126.7M							
File Name			Date	Size	Action		

- 2 Click on the **Browse** button.
- ³ Locate the firmware image on your computer. Firmware images always have a ".cdi" extension and the latest versions are always downloadable from the product support page on

https://vodafone.casa-systems.com/product/NWL-220

Open					×
← → ~ ↑ 📙 > One	Drive - Casa Systems > Firmware > NWL-220 F	irmware Version 2.1.10.0	~	Q O	Search NWL-220 Firmware V
Organize 🔻 New folder					E 🕶 🔟 💡
🔹 Quick access	Name	Date modified	Туре	Size	
A Guick access	vdf_nwl220_2.1.10.0-signed.cdi	17/09/2021 11:51 AM	CDI File	67,347 KB	
📥 OneDrive - Casa Syste	Vodafone MachineLink 4G Lite Firmware	17/09/2021 11:51 AM	Adobe Acrobat D	255 KB	
This PC	👃 Vodafone MachineLink 4G Lite Release N	17/09/2021 11:51 AM	Adobe Acrobat D	200 KB	
network					
File <u>n</u> ar	me: vdf_nwl220_2.1.10.0-signed.cdi			 ✓ All Fil 	es (*.*) ~
				<u>(</u>	<u>Open</u> Cancel

Click the **Open** button.

- 4 Click the **Upload** button to begin the transfer of the firmware file to the router.
- 5 When the file has completed uploading, click on the **Install** link next to the firmware image file.

	Net	Comm Cellular Route	r Recovery Co	nsole			
Status	Log	Application Installer	Settings	Reboot			
Recovery Conso	ole > Upload						
Upload:							
File	Choose File No file	chosen				Upload	
Uploaded Files	5:						
Free Space: 29	98.4M						
File Name Date Size Action							
vdf nwl220 2.1.10.0-signed.cdi Jan 1 1970 65.8M Install Delete							

6 Click on the **OK** button to begin the installation.

ĺ	192.168.1.1 says	
¢	Do you really want to install the file vdf_nwl220_2.1.10.0-signed.	cdi?
l		
ļ	ОК	Cancel

When the installation is complete, the router displays "Installation is successful!" and returns to the file list.

NetComm Cellular Router Recovery Console									
Status	Log	Application Installer	Settings		Reboot				
Recovery Console > I	Jpload								
Uploaded Files:									
Free Space: 298.4M									
File Name				Date		Size	Action		
vdf_nwl220_2.1.10.0-	-signed.cdi			Jan 1 19	70	65.8M	Install	Delete	
Successfully in >python3_ ipkg-cl - Installing pyth Installing pyth Installing pyth Installing spee Installing spee Installing spee Configuring spee Configuring spee Successfully in Additional pack T(Packages): 63 Unmounting main Done Firmware update Redirecting to	<pre>stalled. 3.7.4_vdf_nwl220. f /tmp/ipkg.conf on3 (3.7.4) to rc on3 (3.7.4) to rc on3 (3.7.4) to rc on3 (3.7.4) to rc dtest-cli-master dtest-cli-master dtest-cli-master edtest-cli-master stalled. ages (): s rootfs successful! the Status page .</pre>	<pre>ipk -nodeps -o /main_r pot pot (2.1.2) to root (2.1.2) to root (2.1.2) to root (2.1.2) to root (2.1.2) to root</pre>	oot install	"pytho	n3_3.7.4_v	df_nw1220.	ipk"		•

Close

- 7 To ensure that the router runs correctly, it is necessary to perform a restore to the factory default settings. This means that any previous settings on the router are erased.
- 8 Click on **Settings** menu item at the top of the screen.
- 9 Click on the **Retore** button.

NetComm Cellular Router Recovery Console							
Status	Log	Application Installer	Settings	Reboot			
Settings							
RESTORE FACTORY	Y DEFAULTS:						
			Restore				
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The router resets all settings to the factory defaults and reboots to the main firmware.

The recovery process is complete.