

# VanConnect 5G

## User Manual and Installation Guide



cowfish

Caravan and Camping Technologies

[cowfish.com.au](http://cowfish.com.au)

## PREFACE AND COPYRIGHT

Cowfish Technologies Pty Ltd reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revision V1.7

Cowfish Technologies and the Cowfish logo are trademarks or registered trademarks of Cowfish Technologies Pty Ltd in Australia. VanConnect and the VanConnect logo are trademarks or registered trademarks of Cowfish Technologies Pty Ltd in Australia. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies.

Copyright © 2021 Cowfish Technologies Pty Ltd.  
All rights reserved. This publication may not be reproduced, in whole or in part, without prior expressed written permission from Cowfish Technologies Pty Ltd.



## Table of Contents

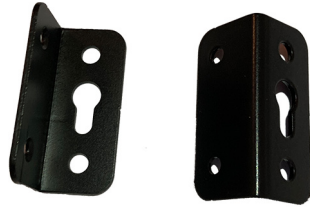
PREFACE AND COPYRIGHT	2
PACKAGE CONTENTS	4
INTRODUCTION	5
HARDWARE OVERVIEW	5
INSTALLATION	6
CONNECTING TO THE WIRELESS NETWORK	9
ROUTER CONFIGURATION	10
HOW TO USE AND CONNECT TO VANCONNECT MEDIA STORAGE	23
ADVANCED SETTINGS	31
TROUBLESHOOTING	36
TECHNICAL SPECIFICATIONS	39
PRODUCT WARRANTY	41



## PACKAGE CONTENTS



VanConnect 5G unit



Mounting Brackets  
(x2)



Power Cable



Internal WiFi Antennas  
(x2)



Internal 5G/4G Antennas  
(x4)



Telstra Starter Kit



External Antenna  
(premium package only)



External Antenna Bracket  
(premium package only)



Ethernet cable



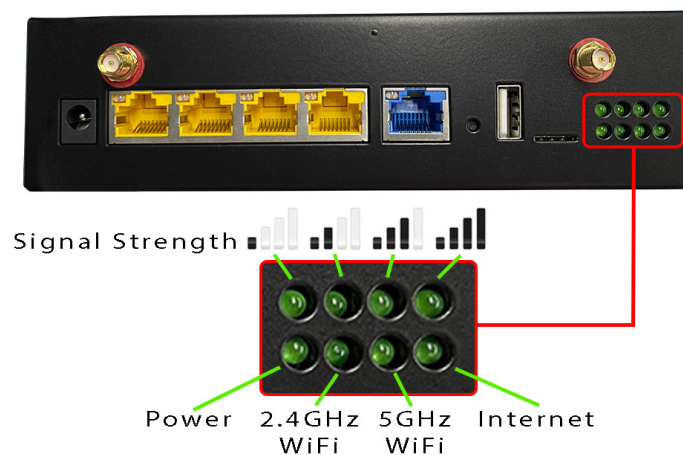
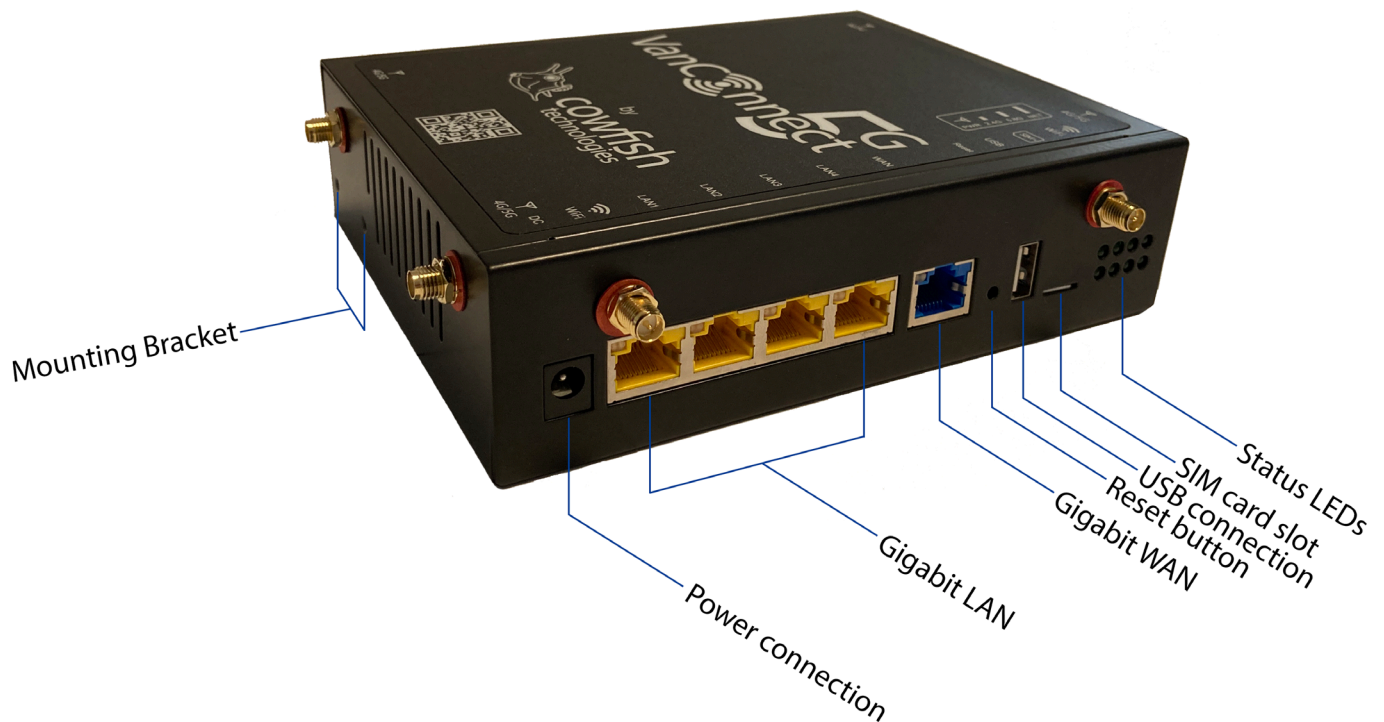
# VanConnect 5G

## INTRODUCTION

The VanConnect 5G allows users to access worldwide mobile broadband networks. Once connected, users can connect to the internet, transfer data and stream media. Simply insert your SIM card, and share your 5G/4G/3G internet connection through a WiFi 5 wireless network or using any of the four Ethernet ports.

The VanConnect 5G can be installed quickly and easily almost anywhere.

## HARDWARE OVERVIEW



## INSTALLATION

There are two installation methods available:

1. Standard; No external antenna.
2. Premium; With the external antenna fitted to the outside of the caravan or motorhome. We recommend having this installed by your caravan manufacturer or a registered caravan repair centre.

This section will guide you through the router installation process. Ensure that your VanConnect 5G is disconnected and powered off before performing the steps below.

Install the router on a wall or on a shelf near a 12V power point. Placement of the router is very important. Ensure that the internal antennas can be positioned in a vertical position (pointing up or down). Use the included mounting brackets to secure the router to the wall or shelf.





Verify that your SIM card has been activated by your carrier. If you are using the included Telstra pre-paid SIM card, following the following steps:

1. Have your driver license handy.
2. Use the Service Number located on the rear bottom space of the Telstra Satchel.
3. Open your browser and go to [www.telstra.com/activate](http://www.telstra.com/activate)
4. Follow the Telstra prompts for activation.

For providers other than Telstra please look on their packaging for instructions to activate.

To install your SIM card, insert it into the SIM slot with the gold contacts facing down. The VanConnect accepts a nano SIM card size. When installing the SIM card, push the SIM card gently until it locks into place.

Caution: Always unplug/power down the router before installing or removing the SIM card. Never insert or remove the SIM card while the router is in use.

Attach the included internal antennas to the connectors on the the sides of the router, screwing them in clockwise. Ensure that 5G antennas are connected to the "5G/4G" points and that the 2.4G/5.8G WiFi antennas are connected to the "WiFi" points. The 5G antennas have a male connector that connects to the female "5G/4G" receptacles on the VanConnect. The 2.4G/5.8G WiFi antennas have female connectors that connect to the male "WiFi" receptacles on the VanConnect.

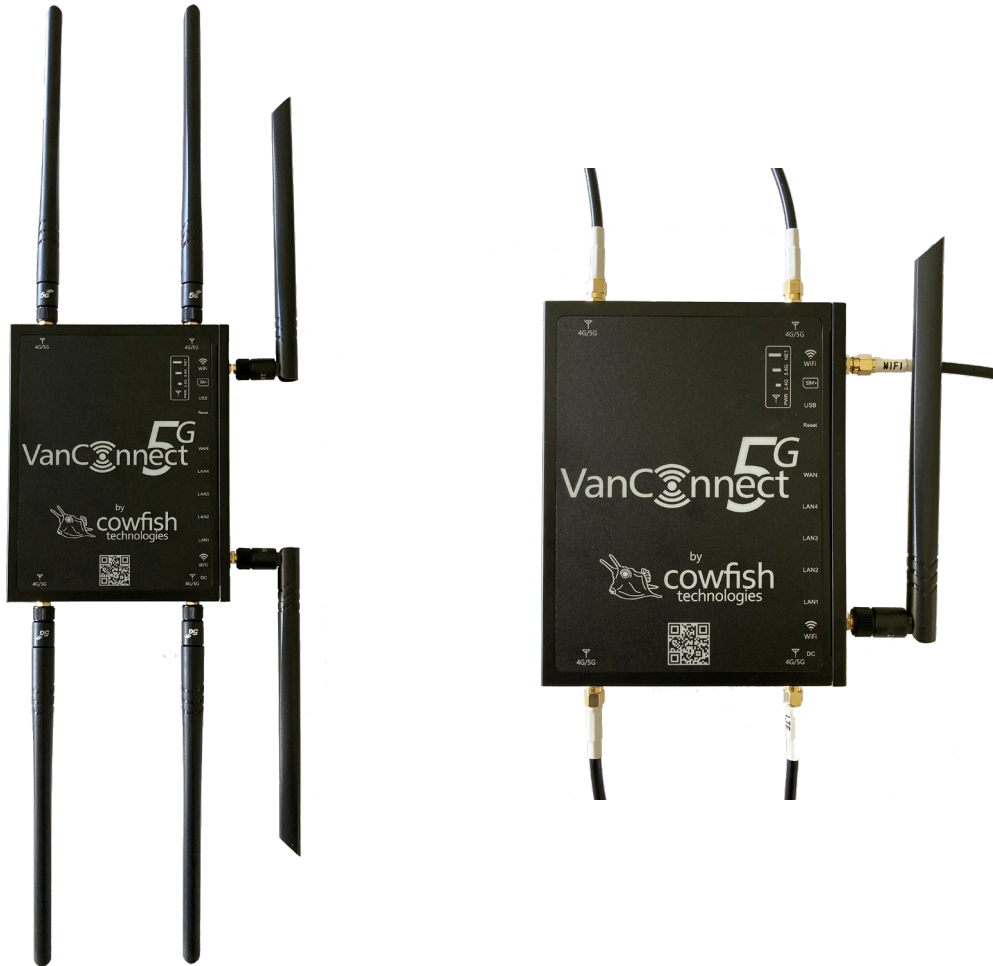
Note: An incorrect installation of an antenna can result in damage to the antenna and the VanConnect unit.

After connecting the antennas, arrange them so that they point upward or downward. A vertical position is required for optimal signal.



# VanConnect 5G

If using the optional external antenna, connect the four external antenna "5G/4G/3G" cables to the "5G/4G" points on the VanConnect. Connect the "WiFi" external antenna cable to the top "WiFi" point. Connect the internal WiFi antennas to the bottom "WiFi" point. Arrange the internal antennas so that they point upward or downward. A vertical position is required for optimal signal.



Connect the power adapter to the DC power socket on the side panel of your VanConnect 5G. Plug the other end of the power adapter into a 12V wall outlet. Make sure the power button is in the "On" position.

1. The Power LED will light up to indicate that power is being supplied to the router and the router is turned on.
2. The LEDs on the side panel will flash on and off as the router performs initialization and Internet connection processes.
3. After a few moments the following LEDs will turn on: Power, 5G/4G, signal strength and WiFi.



cowfish  
technologies



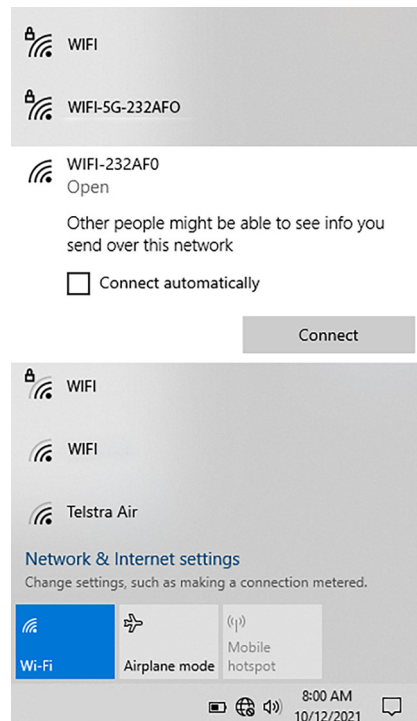
## CONNECTING TO THE WIRELESS NETWORK

Connect via WiFi using the SSID (WiFi name) and password printed on the bottom of the VanConnect 5G, or through Ethernet via one of the LAN ports on the back of your router.

The default SSID of the device is "WIFI-XXXXXX" (XXXXXX are the last 6 digits of the MAC address, printed on the bottom of the device and the bottom of the packaging box). The wireless network is not encrypted by default. Details for this are in the '**set the wireless password**' section.

To find and connect to the WiFi network:

1. Make sure that the VanConnect 5G router is powered on and the WiFi status lights are on.
2. Check to make sure that WiFi is enabled on your computer or mobile device and search for WiFi networks.
  - a. Windows computer: Click the Internet Access icon, which is usually found on the bottom right side of your screen.
  - b. Mac computer: Go to the WiFi menu and select Network.
  - c. Mobile devices: Go to the Settings menu and tap the WiFi icon.
3. Select the WiFi name for your VanConnect 5G.
4. Enter the WiFi password. This is only required after you set up a password.

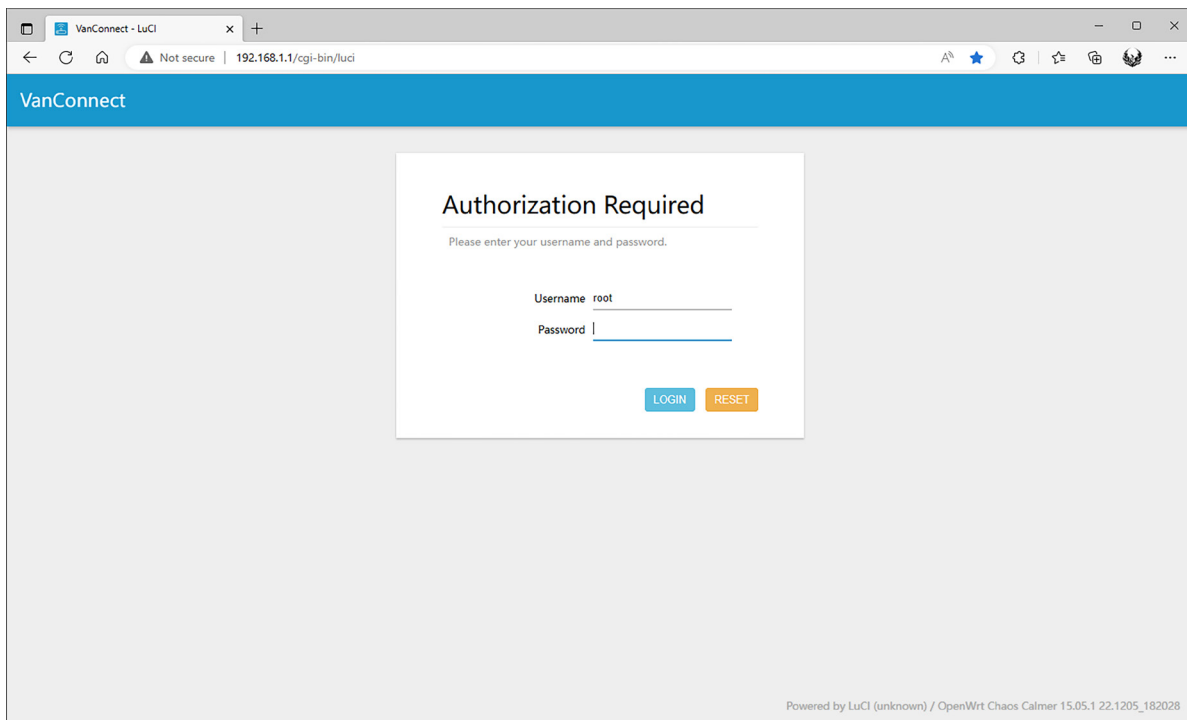


## ROUTER CONFIGURATION

To access the configuration utility, open a web browser such as Internet Explorer, Microsoft Edge or Google Chrome and enter the address of the router (http://192.168.1.1 by default).



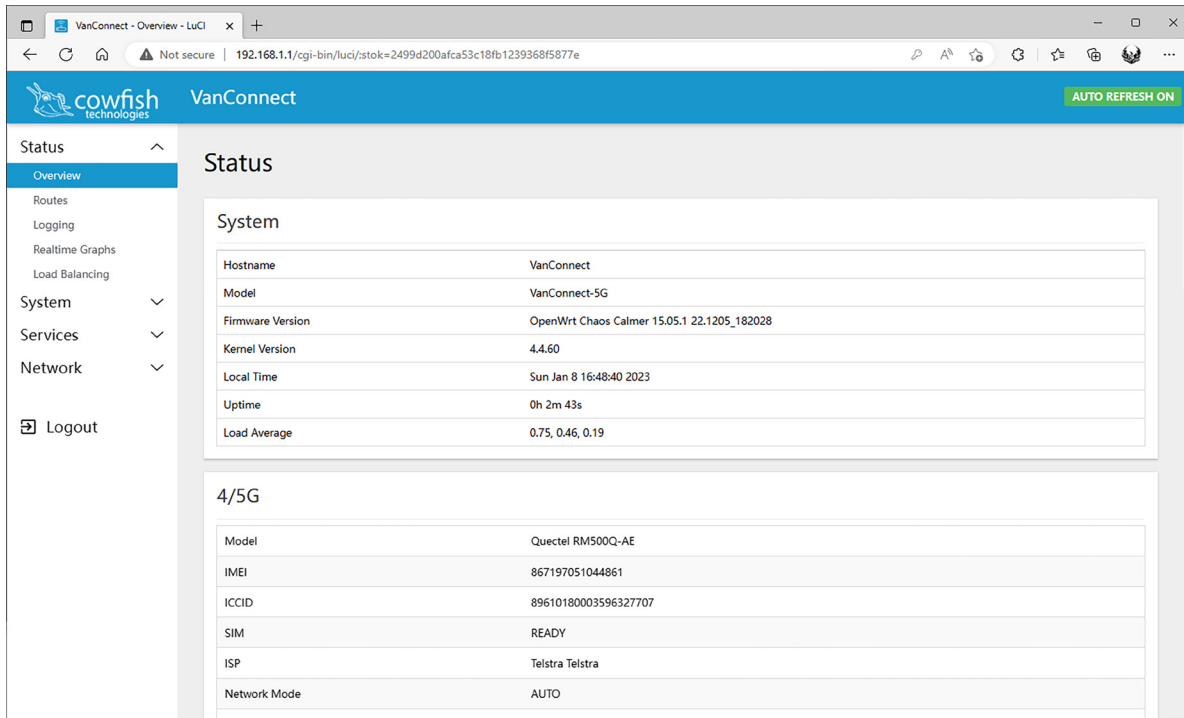
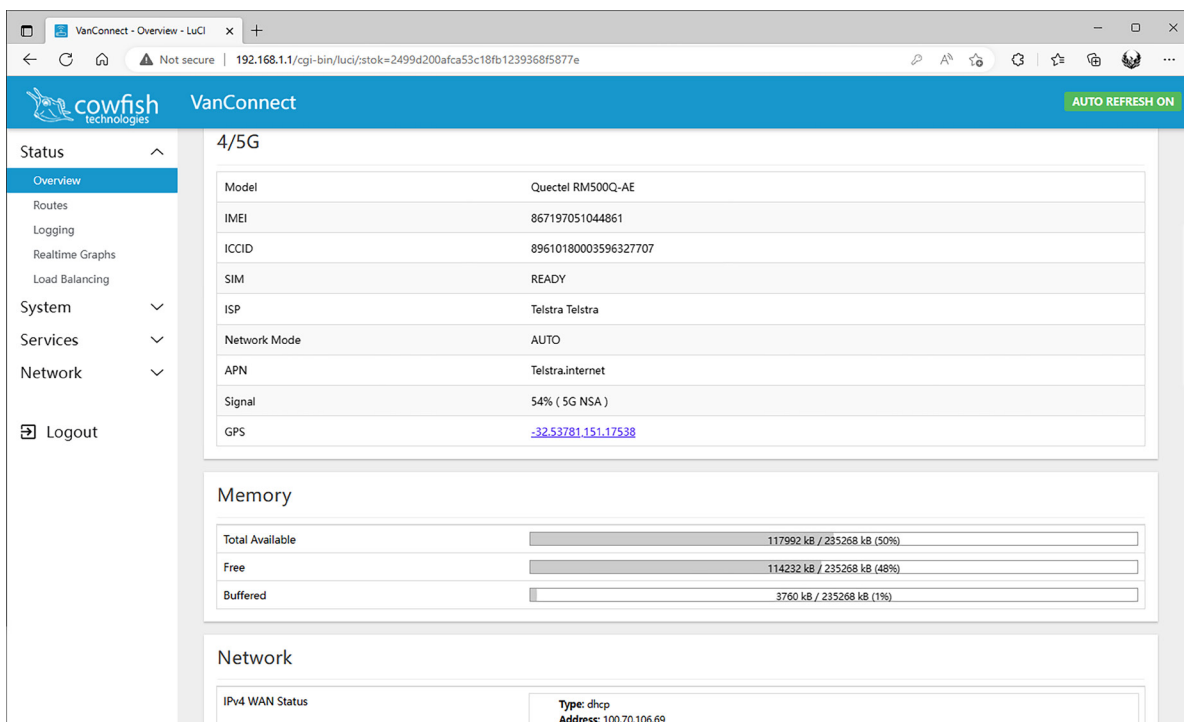
You will be presented with a login screen. The default login username is "root", and the default login password is "admin".



Note: If you get a "Page cannot be displayed" error, please refer to the Troubleshooting section for assistance.

Once you have successfully logged in, you will see the VanConnect home page. On this page you can view information about your Internet connection, the wireless/LAN status, your 5G/4G signal strength and system information.



On the left hand side of the page you will find a menu. Clicking on one of these menu icons will take you to the appropriate configuration section.

On each page, fill out the desired settings and click "Apply" when you are done or "Reset" to revert to the old settings.



## Setup the SIM card

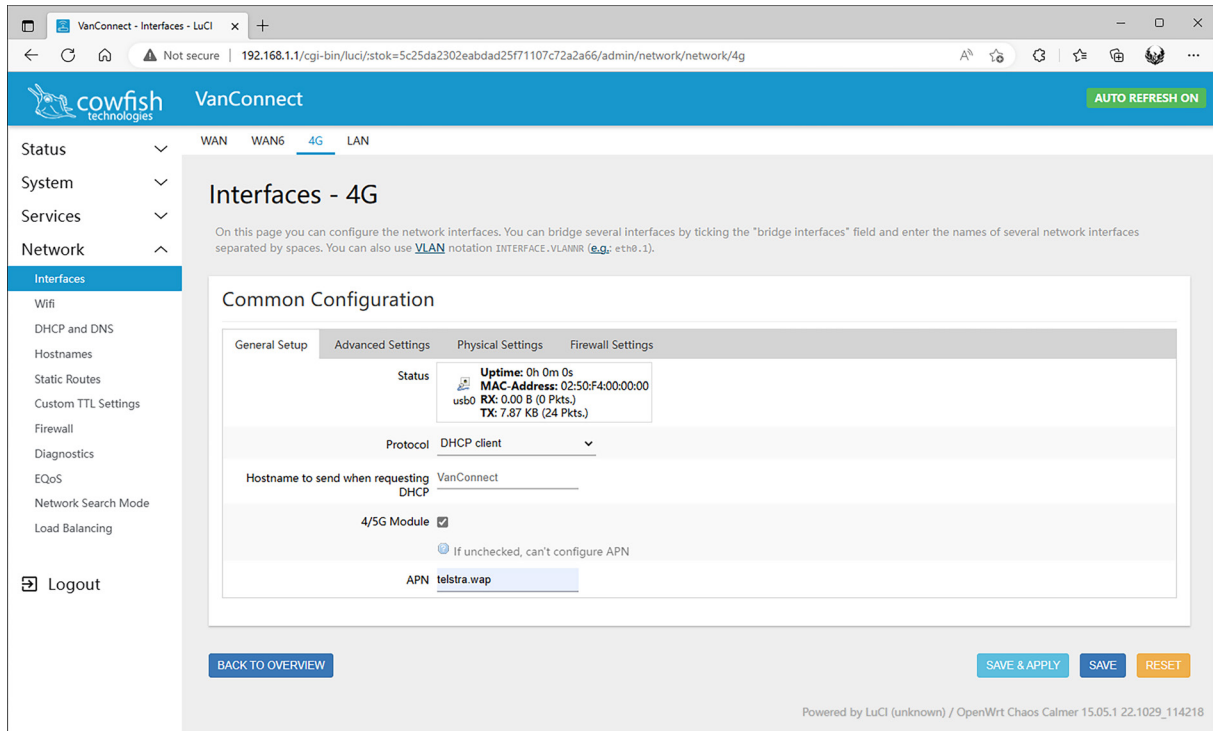
If you are using a SIM card from any Australian Provider, the VanConnect should connect to your mobile provider's network and download the settings it needs to work optimally on your carrier automatically. However, in some cases the network provider does not facilitate this process and a manual setup is required.

If you are unable to acquire an internet connection on the VanConnect when you have signal, an APN is required. APN stands for Access Point Name and it is the name for the settings your VanConnect reads to set up a connection to the gateway between your carrier's cellular network and the public Internet.

To set the APN on the VanConnect, click "Network" ▷ "Interfaces" to open the interfaces configuration page.

The screenshot shows the VanConnect web interface. The left sidebar contains a navigation menu with options: Status, System, Services, Network, Interfaces (selected), Wifi, DHCP and DNS, Hostnames, Static Routes, Custom TTL Settings, Firewall, Diagnostics, EQoS, Network Search Mode, and Load Balancing. The main content area is titled 'Interfaces' and shows an 'Interface Overview' table. The table lists four interfaces: LAN (br-lan), 4G (usb0), WAN (eth0), and WAN6 (eth0). Each interface row includes a status indicator (green for LAN, red for others), a small icon, and a set of buttons: CONNECT, STOP, EDIT, and DELETE. Below the table is an 'ADD NEW INTERFACE...' button. At the bottom, there is a 'Global network options' section with a field for 'IPv6 ULA-Prefix' containing the value 'fdcf:244a:1cbf::/48'.

On this page click on "Edit" for the 4G interface. A new screen will be presented to you.



On this new screen, enable the 4/5G module. You will now be able to enter the APN for your provider.

APN settings (at the time of writing this manual) are as following:

Telstra	telstra.wap
Vodafone	live.vodafone.com
Optus	connect or yesinternet (dependant on plan)
Boost	telstra.wap
Dodo	internet
Aldi	mdata.net.au
Belong	mdata.net.au
Woolworth	mdata.net.au

Consult your provider's website for the latest APN settings.



## Set the wireless password

The wireless password is not set by default. It is recommended that you change the wireless password for your network security.

Click "Network" ▷ "Wifi" to enter the wireless configuration page.

You will see two WiFi networks:

- wifi0: Master "WIFI-XXXXXX"
- wifi1: Master "WIFI-5G-XXXXXX"

wifi0 is your 2.4GHz WiFi network (b/g/n protocol) and wifi1 is your 5GHz network (ac protocol).

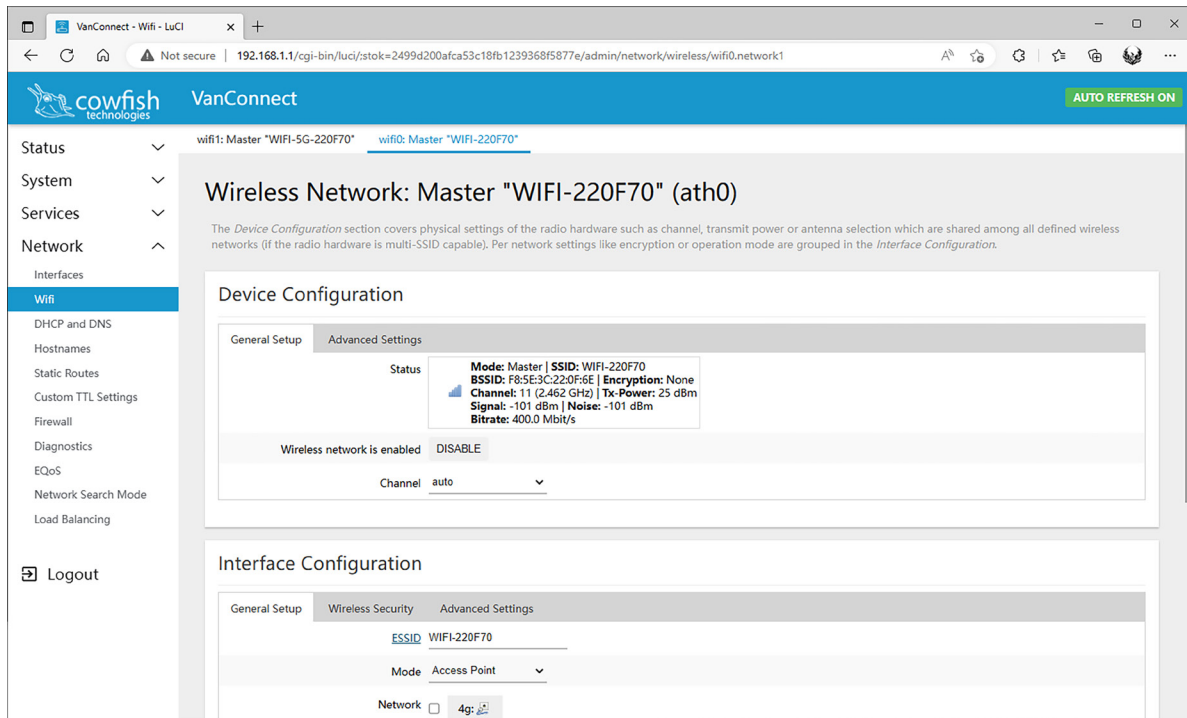
The screenshot shows the VanConnect LuCI interface. The left sidebar contains a navigation menu with options like Status, System, Services, Network, Interfaces, Wifi, DHCP and DNS, Hostnames, Static Routes, Custom TTL Settings, Firewall, Diagnostics, EQoS, Network Search Mode, Load Balancing, and Logout. The main content area is titled 'Wireless Overview' and shows two wireless networks. The first is 'Generic Atheros 802.11bgn (wifi0)' with channel 11 (2.462 GHz) and bitrate 400 Mbit/s. The second is 'Generic Atheros 802.11anac (wifi1)' with channel 149 (5.745 GHz) and bitrate 866 Mbit/s. Both networks have SSID: WIFI-220F70 and BSSID: F8:5E:3C:22:0F:6E. Below the networks is an 'Associated Stations' table with the following data:

SSID	MAC-Address	IPv4-Address	Signal	Noise	RX Rate	TX Rate
WIFI-5G-220F70	74:DA:38:9C:95:B6	192.168.1.217	-76 dBm	-110 dBm	175.0 Mbit/s	130.0 Mbit/s

Click on "Edit" for wifi0 to set the name of your wireless network (SSID/ESSID), the encryption method and the wireless password.

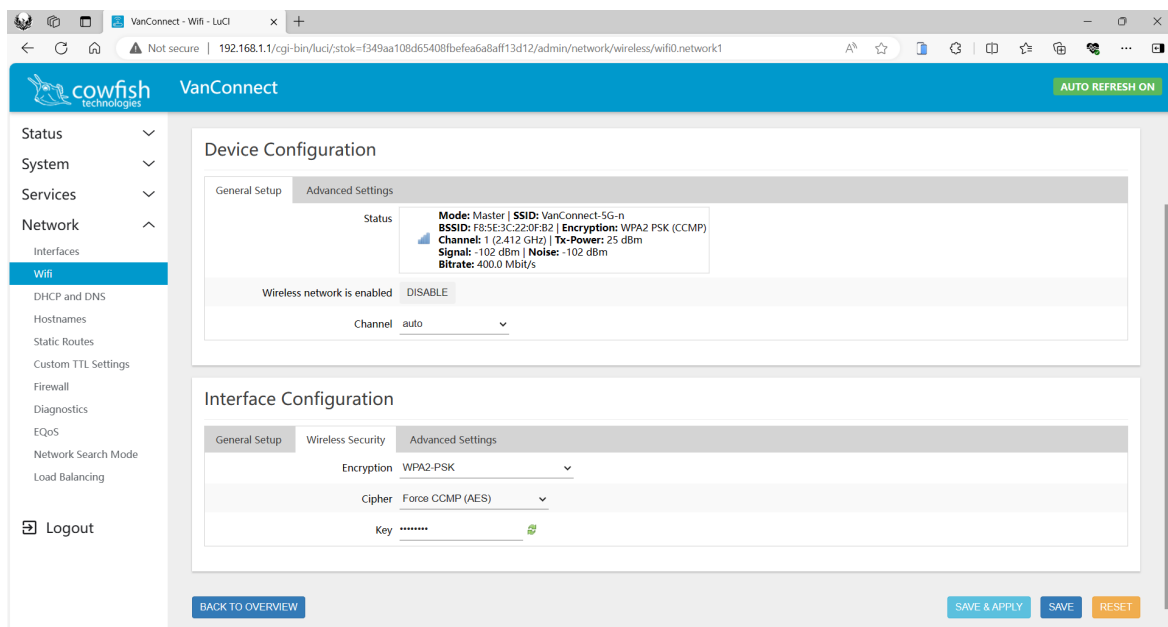
The name of your wireless network (ESSID) is the name that you will see when searching for WiFi networks.

Note: You should not give both WiFi networks the same name as they operate on different bands. To differentiate between the two networks, you could add a prefix to the end of the WiFi name, for instance "XXXX-2" and "XXXX-5".



You can change your network name under "Interface Configuration" ▷ "General". Change the name to one of your choosing and select "Save".

The next step is to configure your network encryption, cypher and password. Go to "Interface Configuration" ▷ "Wireless Security".



The following encryption methods are available to you:

- No Encryption: This is an open network where you have no password and anyone can connect to your network.
- WPA-PSK: This is the standard WPA1 encryption. It has been superseded and should only be used for older devices that do not support WPA2-PSK.
- WPA2-PSK: This is the most secure option. It uses the latest WiFi encryption standard and the latest encryption protocol. WPA2 is the recommended encryption setting for the VanConnect.
- WPA-PSK/WPA2-PSK Mixed Mode: This enables both WPA and WPA2. This provides maximum compatibility with any older devices, but should only be used for older devices that do not support WPA2/AES.

## Cypher

- CCMP (AES) is an algorithm that provides enhanced security, and is the preferred encryption algorithm supported by the WPA2 standard. CCMP (AES) is the recommended cypher setting for the VanConnect.
- GCMP is a more efficient encryption than AES-CCMP, but not all devices will support GCMP. Please review your laptop/tablet/phone network capability to ensure that GCMP is supported before selecting this option.
- TKIP is an older wireless network technology encryption protocol. It was designed and implemented as a short-term fix for the security vulnerabilities and is used for older devices that only support WPA.

Select your preferred encryption and cypher. The recommended settings are;

- encryption: WPA2
- cypher: Force CCMP (AES).

Set your network password in the box labelled 'key' (at least 8 digits).

Click "Save and Apply". If you have changed the ESSID or WiFi password, you will have to reconnect to the WiFi network as per the previous section (CONNECTING TO THE WIRELESS NETWORK).

Note: if you experience difficulty connecting older devices to your Wireless network, under WPA2 encryption, change the encryption method to WPA-PSK/WPA2-PSK Mixed Mode and set the cypher to 'Force TKIP'.

Complete the above step again for wifi1.



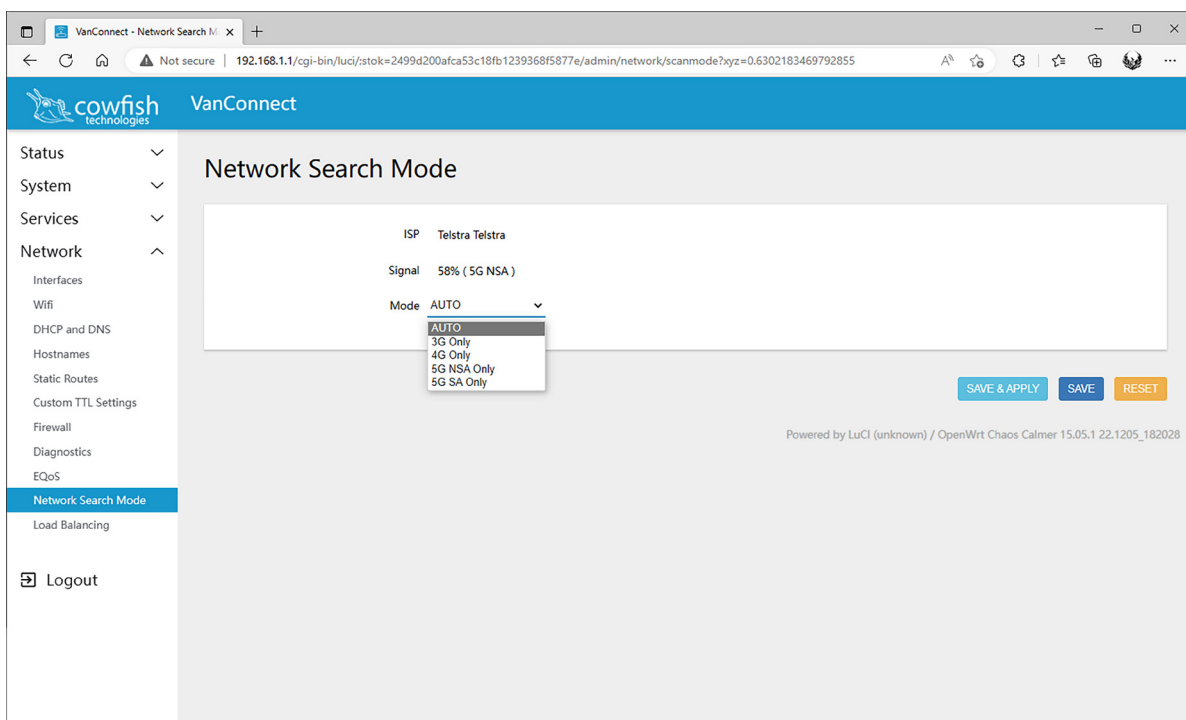


## Manually select 5G, 4G or 3G network mode

The VanConnect is able to connect to the 5G, 4G and 3G networks and will automatically determine which network is best. This section describes how to manually set a 5G, 4G or 3G connection, instead of the automatic function.

Select "Network" > "Network Search Mode" to open the network selection screen. On this screen you will see "ISP" indicating the Internet Service Provider, "Signal" indicating signal strength and the network type (5G/4G/3G), and "Mode" indicating the connection method.

By default, "Mode" is set to "Auto" and this sets the VanConnect to automatically connect to either 5G, 4G or 3G, based on signal strength. Should you wish to connect to 4G or 3G, instead of 5G, for instance because the 5G network is congested, select "4G Only" and click "Save and Apply". This will set the VanConnect to connect to 4G networks only. Similarly, selecting "3G Only" will set the VanConnect to connect to 3G only.

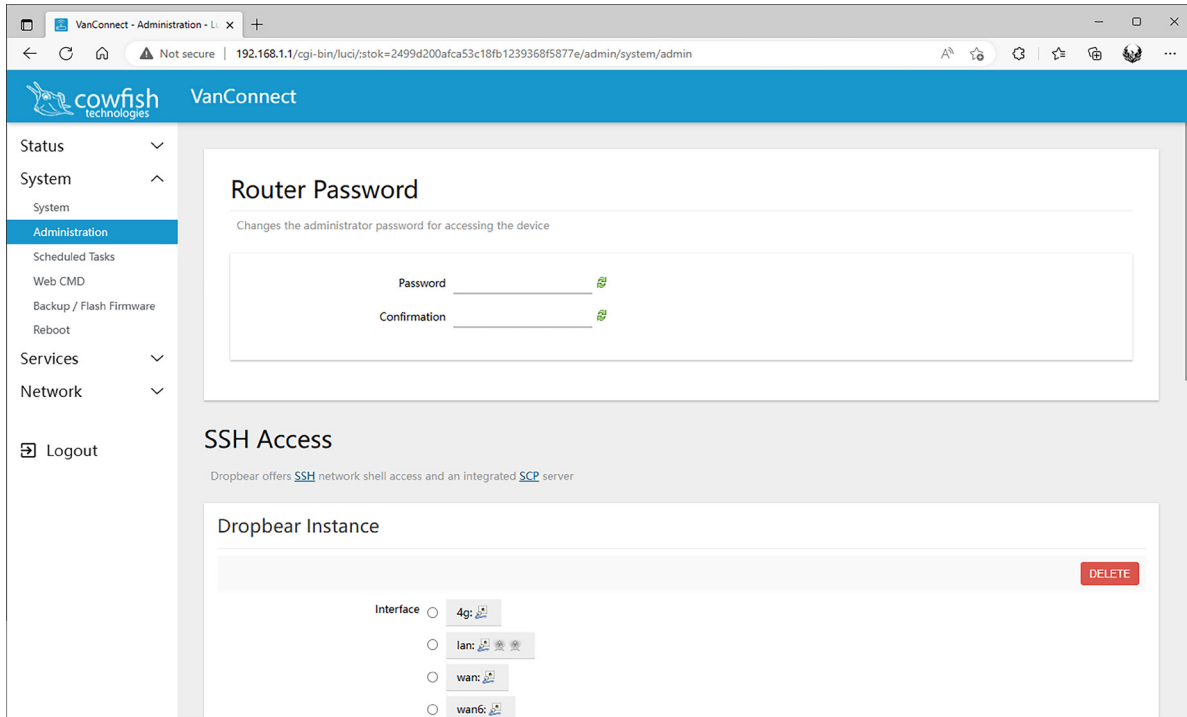


NOTE: changing from one mode to another can take up to 20 seconds. This page auto refreshes every 10 seconds in order to display an accurate signal strength.

NOTE: the selection is locked in and a reboot will not reset the VanConnect to the "Auto" setting. To revert to the default setting, select "Auto" and click

## Change the administrator user name or password

Select "System" > "Administration" to change the administrator password. Enter a new password and click "Save and Apply", then choose "Exit" to return to the login page to verify whether the modification has been successful, and then re-enter the new password to log in.



## Onboard GPS

The VanConnect comes with an onboard GPS function that allows you to pinpoint the VanConnect location at any time.

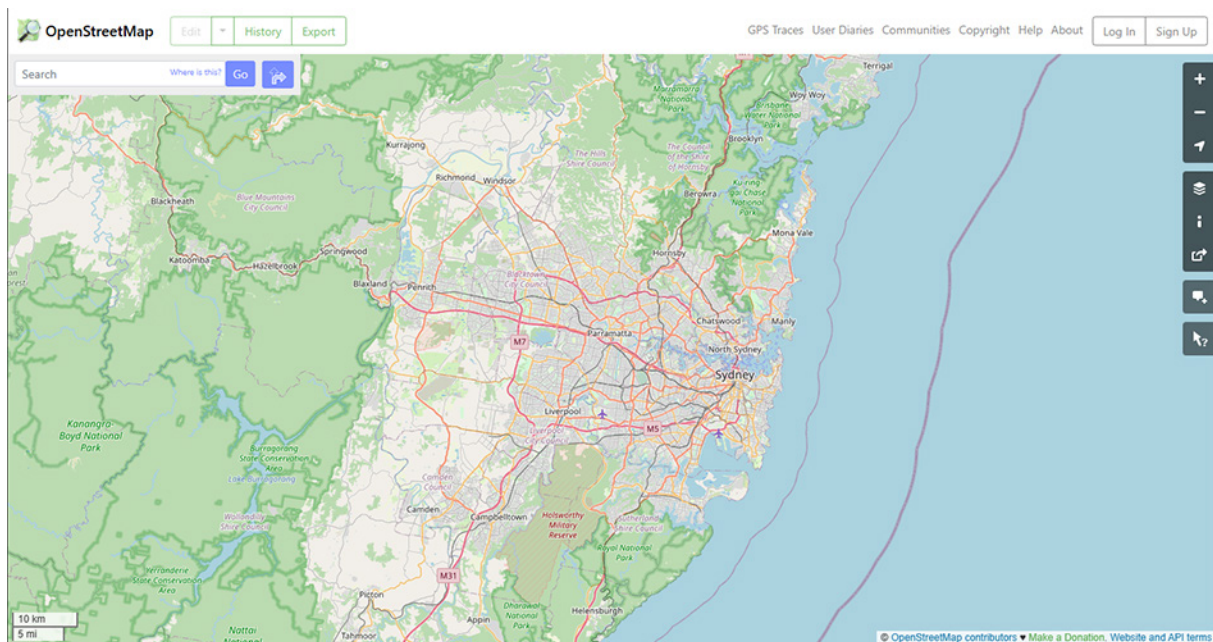
To view the GPS location, navigate to "Status" ▷ "Overview".

On the overview page you will find the current GPS coordinates for the VanConnect unit. The coordinates are in Decimal Degrees format. The coordinates are displayed as a hyperlink and clicking on the link will open a webpage to OpenStreetMap.org with your current GPS location plotted on the map.

OpenStreetMap data includes information for routing from a coordinate place to another coordinate place.

Visit <https://www.openstreetmap.org/directions> for more information.

The GPS coordinates can also be used in other map software, for instance OziExplorer, or used to plot your location on a mobile device.



## Firmware update

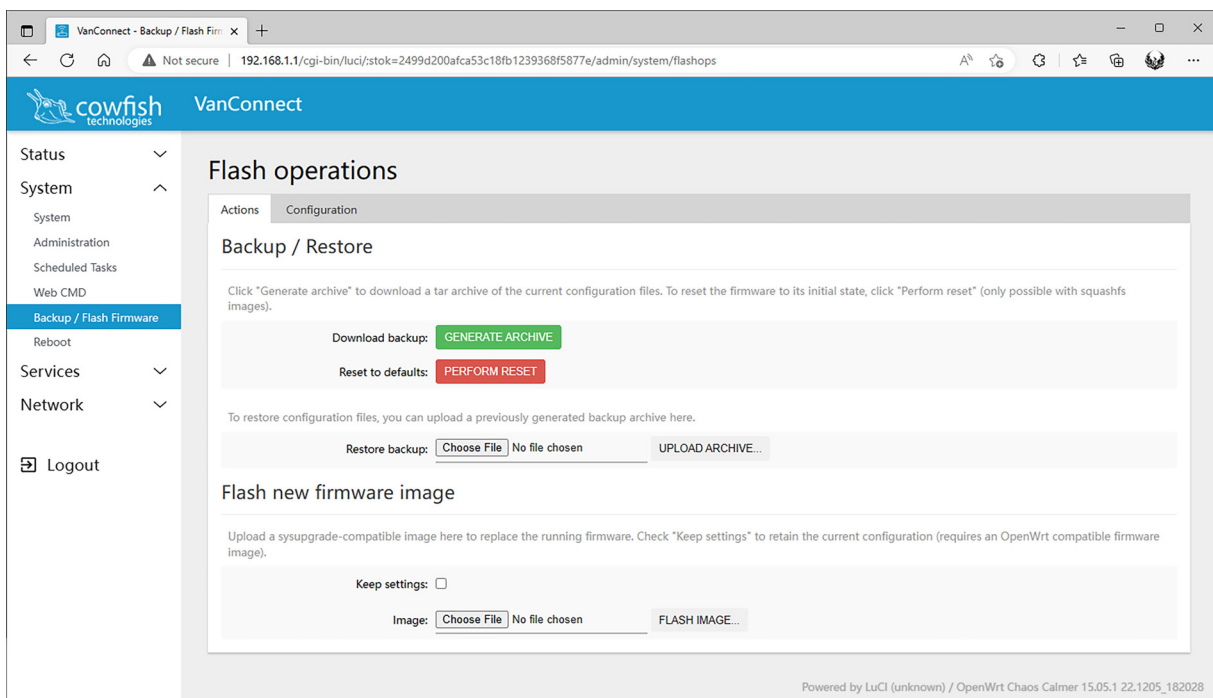
From time to time, firmware updates will be released on the Cowfish Technologies website ([www.cowfish.com.au](http://www.cowfish.com.au)).

Your current firmware version can be found on the VanConnect home screen when you log in to the router, or by navigating to "Status" ▷ "Overview". Your firmware version will be denoted as "OpenWrt Chaos Calmer 15.05.1 220901\_143305" where the last set of digits "220901\_143305" define the version number.

Updating the firmware has to be completed on a computer. In order to update the router firmware, first download the new firmware from the website onto your computer. Open the downloaded .zip file and save the .img file in the archive to your computer. Login to the router and navigate to the "System" page and select "Backup / Flash Firmware".

Under the "Flash new firmware image" header, select "Choose File" and navigate to the firmware file downloaded onto your computer. If you wish to retain all of your router settings, ensure that the "keep settings" option is ticked.

Select "Flash Firmware" and the router will update to the latest firmware.



The screenshot shows the VanConnect web interface. The browser address bar shows the URL: `192.168.1.1/cgi-bin/luci/stok=2499d200afca53c10fb1239368f5877e/admin/system/flashops`. The page title is "VanConnect". The left sidebar menu includes: Status, System, Administration, Scheduled Tasks, Web CMD, Backup / Flash Firmware (selected), Reboot, Services, Network, and Logout. The main content area is titled "Flash operations" and has two tabs: "Actions" and "Configuration". Under "Backup / Restore", there are instructions: "Click 'Generate archive' to download a tar archive of the current configuration files. To reset the firmware to its initial state, click 'Perform reset' (only possible with squashfs images)." Below this are two buttons: "Download backup: GENERATE ARCHIVE" and "Reset to defaults: PERFORM RESET". Further down, there are instructions: "To restore configuration files, you can upload a previously generated backup archive here." Below this are two buttons: "Restore backup: Choose File No file chosen" and "UPLOAD ARCHIVE...". The "Flash new firmware image" section has instructions: "Upload a sysupgrade-compatible image here to replace the running firmware. Check 'Keep settings' to retain the current configuration (requires an OpenWrt compatible firmware image)." Below this are two buttons: "Keep settings:

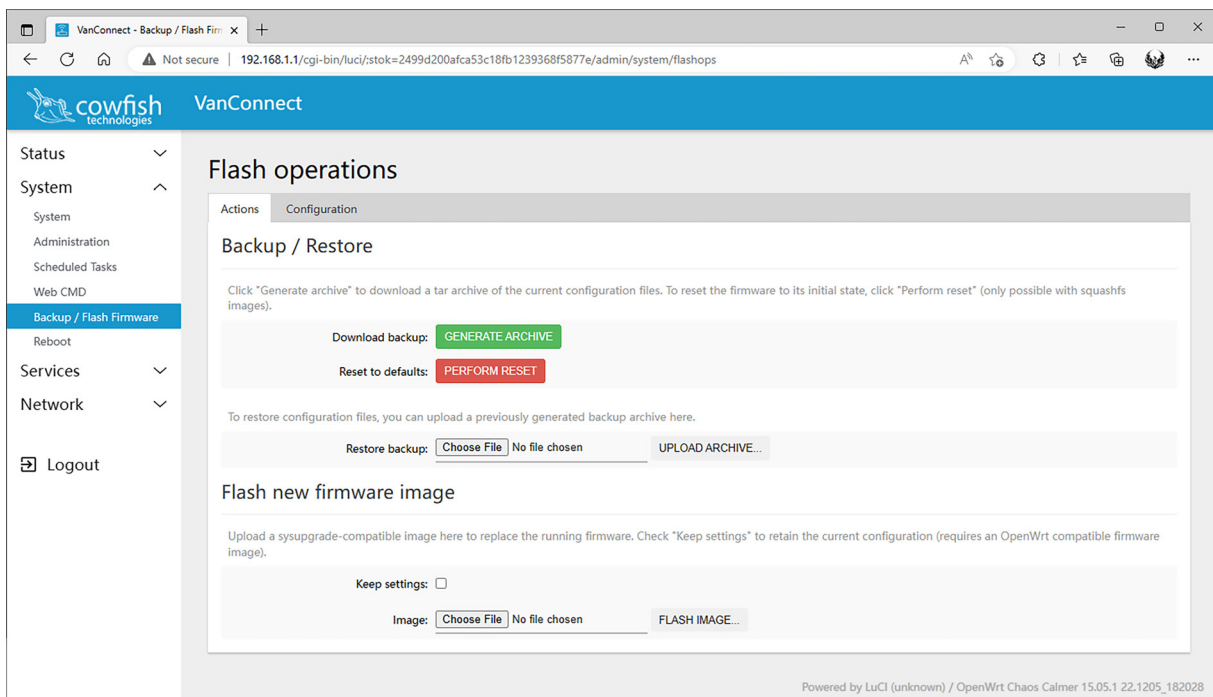


## Factory reset

It is recommended to complete a factory reset if you have forgotten the administration password, if you are unable to log in to the device or if there are device configuration issues that you are unable to resolve.

Method 1: After the device is powered on, use a toothpick or similar, and press the Reset button down and hold it for at least 6 seconds. Release the Reset button and wait for the device to restart. The LED's will go through the normal startup sequence.

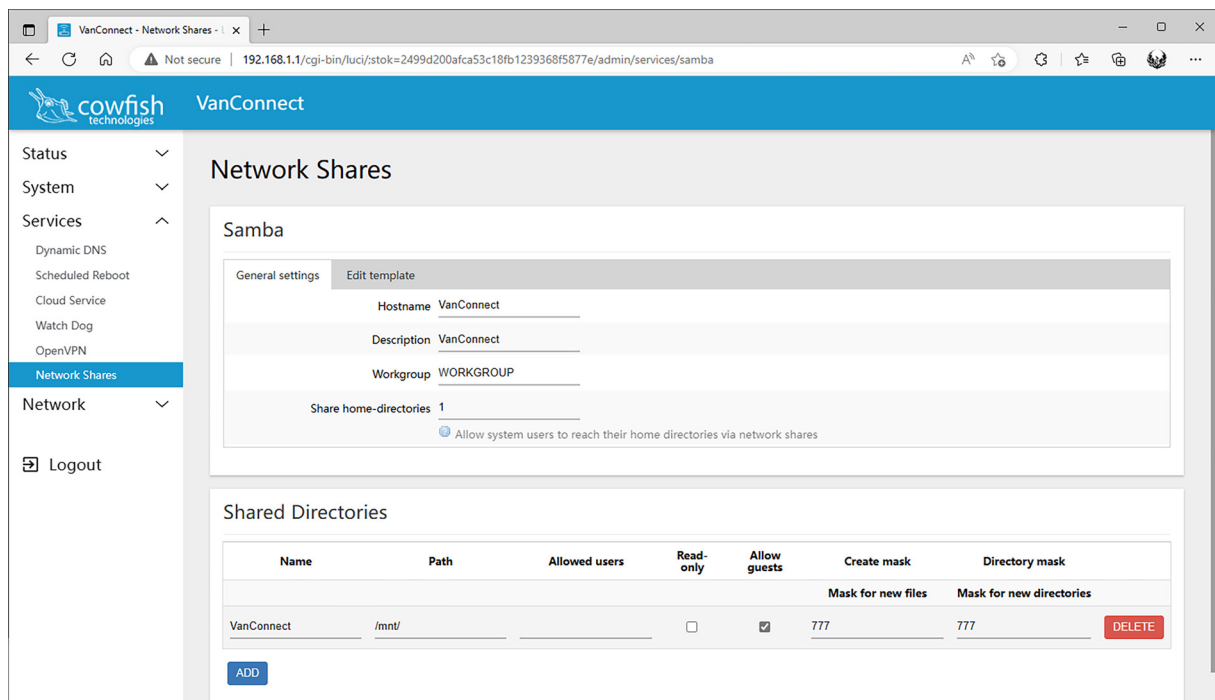
Method 2: In the configuration utility select "System" > "Backup / Flash Firmware", then click the "Perform Reset" button, next you will see a dialog box "Really reset all changes?". Select "OK" to complete a reset.



## Set up Network Shares on the VanConnect

Network shares have been set up on your router for your convenience. You do not have to make any alterations to this.

However, if you would like to alter the network share settings, navigate to "Services" ▷ "Network Shares".



The screenshot shows the VanConnect web interface for Network Shares. The left sidebar contains a navigation menu with items: Status, System, Services (expanded), Network Shares (selected), Network, and Logout. The main content area is titled "Network Shares" and contains a "Samba" configuration section. The Samba section has two tabs: "General settings" (active) and "Edit template". The General settings form includes fields for Hostname (VanConnect), Description (VanConnect), Workgroup (WORKGROUP), and Share home-directories (1). A checkbox labeled "Allow system users to reach their home directories via network shares" is checked. Below the Samba settings is a "Shared Directories" table with columns: Name, Path, Allowed users, Read-only, Allow guests, Create mask, and Directory mask. The table contains one entry for "VanConnect" with path "/mnt/".

Name	Path	Allowed users	Read-only	Allow guests	Create mask	Directory mask
VanConnect	/mnt/		<input type="checkbox"/>	<input checked="" type="checkbox"/>	777	777



# VanConnect 5G

## HOW TO USE AND CONNECT TO VANCONNECT MEDIA STORAGE

This section is set out to assist you on how to view your stored files, images, music and movies from your USB drive, portable hard drive or SD card on the VanConnect and share them amongst your devices on the network.



To start, ensure that you have a storage device such as a USB drive, portable hard drive or SD card connected to the VanConnect.

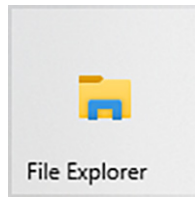
The storage device is to be formatted as FAT32, NTFS, ext2, ext3 or ext4 for the system to read the device. Most USB drives and SD cards will come pre-formatted as FAT32. If your drive is not in one of the above formats, ensure you do a full format on the USB drive, not a quick format.

The maximum hard drive size that the VanConnect is capable of reading is 2TB.

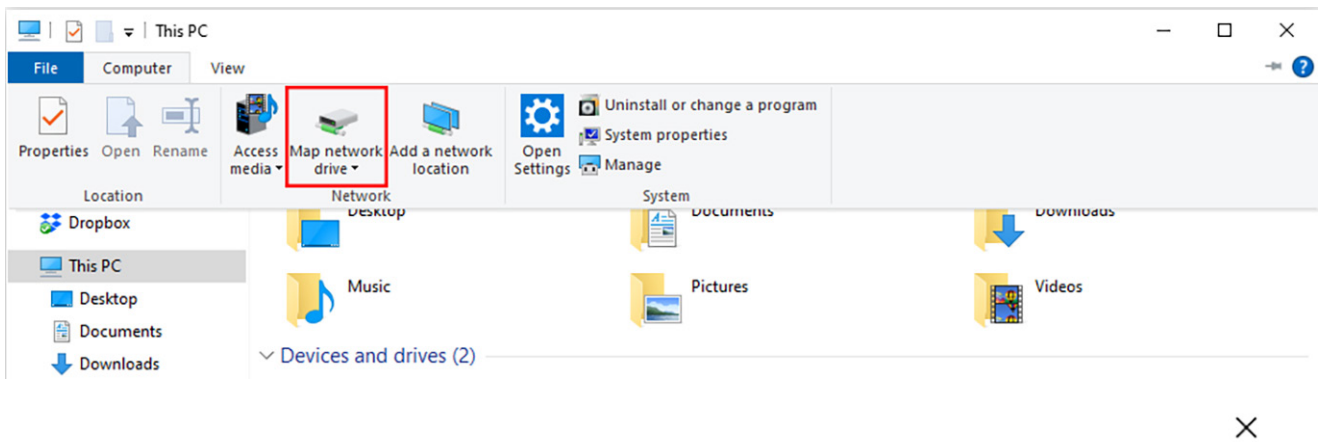


## Map Network Drives in Windows

On your PC open 'file explorer'



Navigate to 'Computer' > 'Map network drive'



← Map Network Drive

What network folder would you like to map?

Specify the drive letter for the connection and the folder that you want to connect to:

Drive: T: (dropdown menu)

Folder: \\192.168.1.1\VanConnect\sda1 (dropdown menu) [Browse...]

Example: \\server\share

Reconnect at sign-in

Connect using different credentials

[Connect to a Web site that you can use to store your documents and pictures.](#)

[Finish] [Cancel]

Select any driver letter that you wish to be associated with your network drive.







Use the following settings for the 'folder' location:

\\192.168.1.1\VanConnect\sda2

Click Finish and your network drive has been created.

You can now access your network drive from your PC as long as it is connected to the VanConnect WiFi. You will be able to view your files, add new files, delete files and play your media files like photos, music and videos over the network.

You do not have to map a network drive again when you change from one USB device to another. Simply remove the USB device from the router when the device is not in use. Insert the new USB device and the VanConnect will automatically mount your drive and have it ready for you to access over the network share.



## Access network files using an iPhone, iPad, Android phone or Android tablet (VLC player)

You will be able to access the content from your USB drive and SD card that is connected to your VanConnect via any network sharing application available on iTunes or Google play.

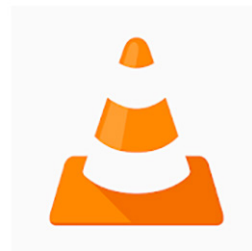
For playing movies and music over the VanConnect network, we recommend using VLC.

VLC media player is a free and open-source, portable, cross-platform media player software and streaming media server developed by the VideoLAN project (<https://www.videolan.org/vlc/>). VLC is available for desktop operating systems and mobile platforms, such as Android, iOS and iPadOS.

Go to the Apple App Store or Google Play Store and install VLC.



**VLC for Mobile** (4+)  
VideoLAN  
#80 in Photo & Video  
★★★★★ 3.3 • 335 Ratings  
Free



**VLC for Android**  
Videolabs Video Players & Editors  
**E** Everyone  
Offers in-app purchases  
Add to wishlist

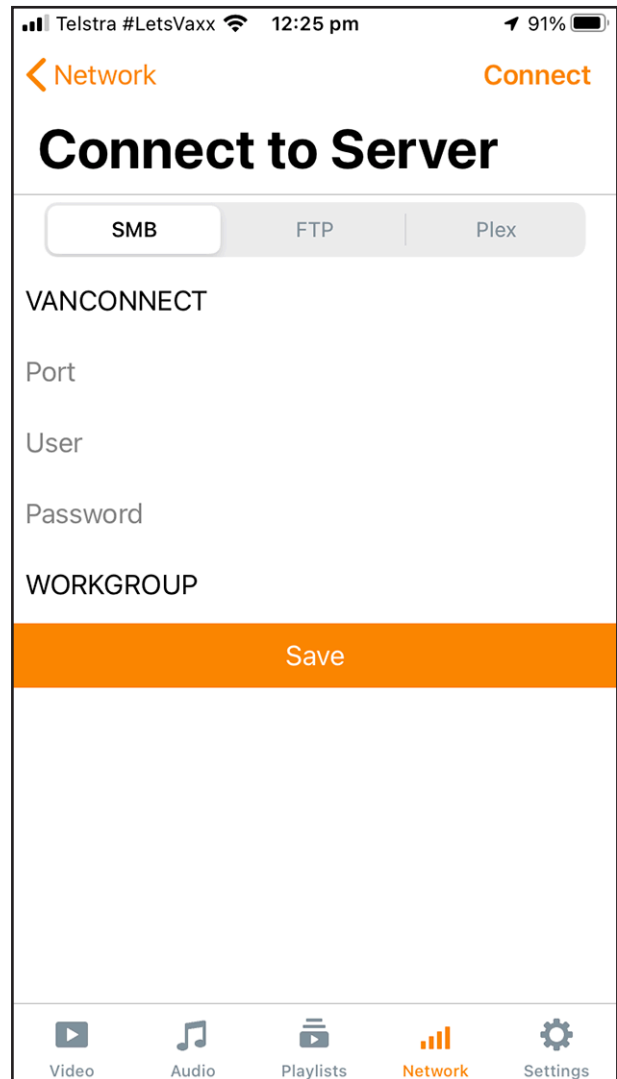
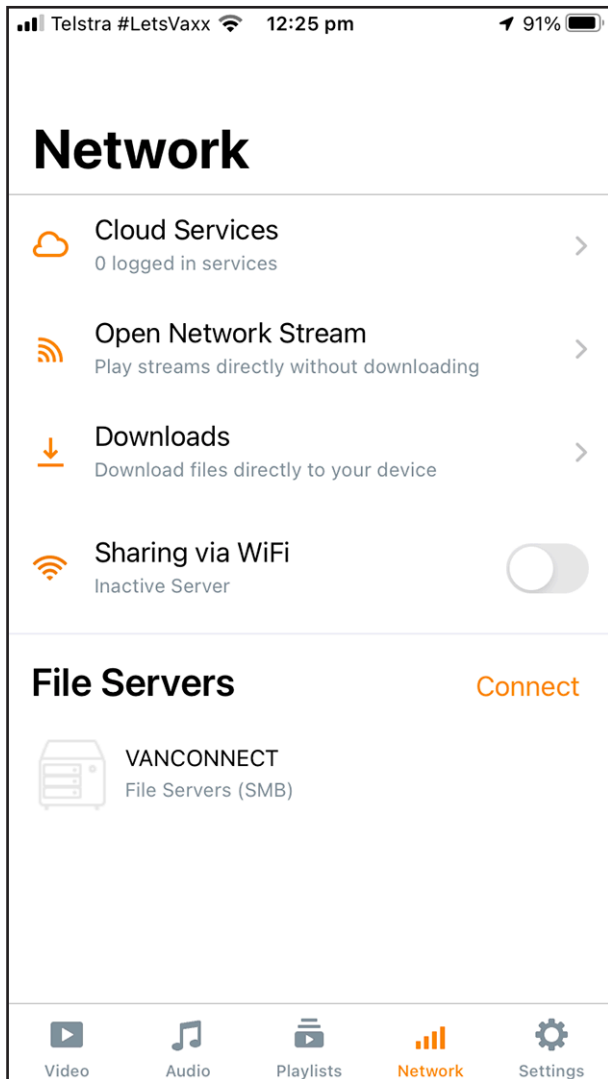


## For iPhones and iPads

Ensure that your iPhone or iPad is connected to your VanConnect WiFi network.

Open the VLC app and navigate to "network".

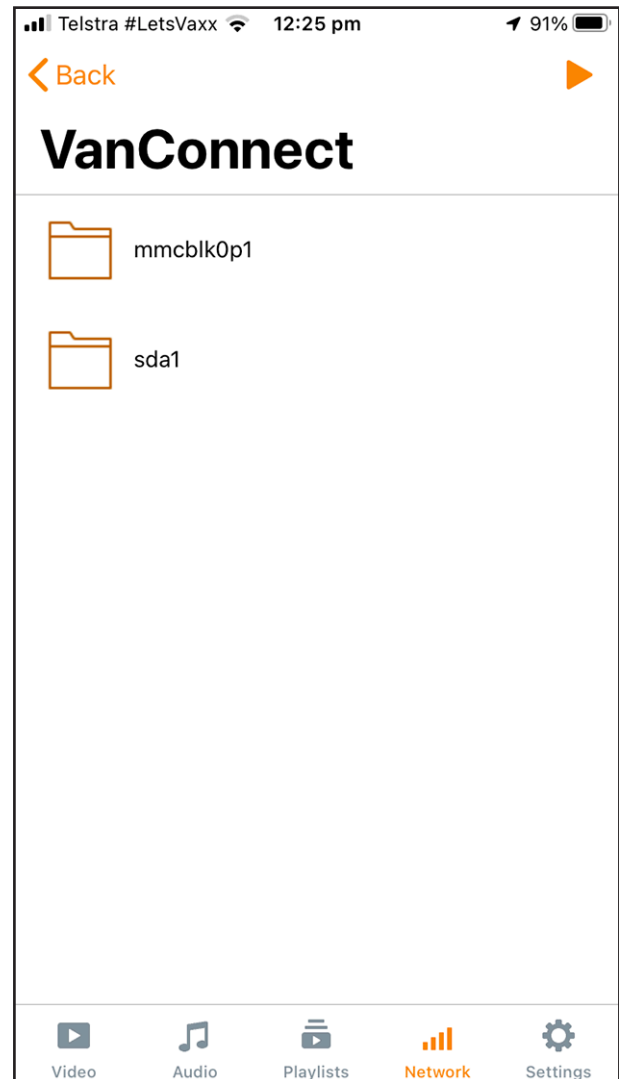
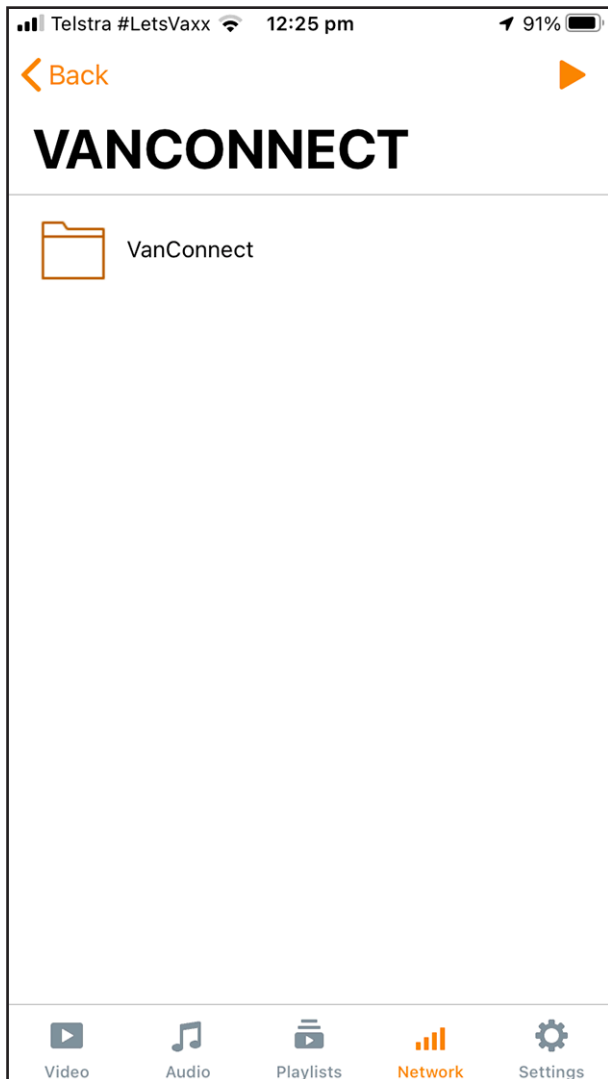
Select "VANCONNECT" under "File Servers" and then select "Connect" under "Connect to Server".



# VanConnect 5G

Select "VanConnect" and you will then find the mapped drives for your USB device and your SD card.

The USB port of the VanConnect is mapped as "sda1"



VLC will only show "sda1" if a device (USB drive) has been connected to the VanConnect.

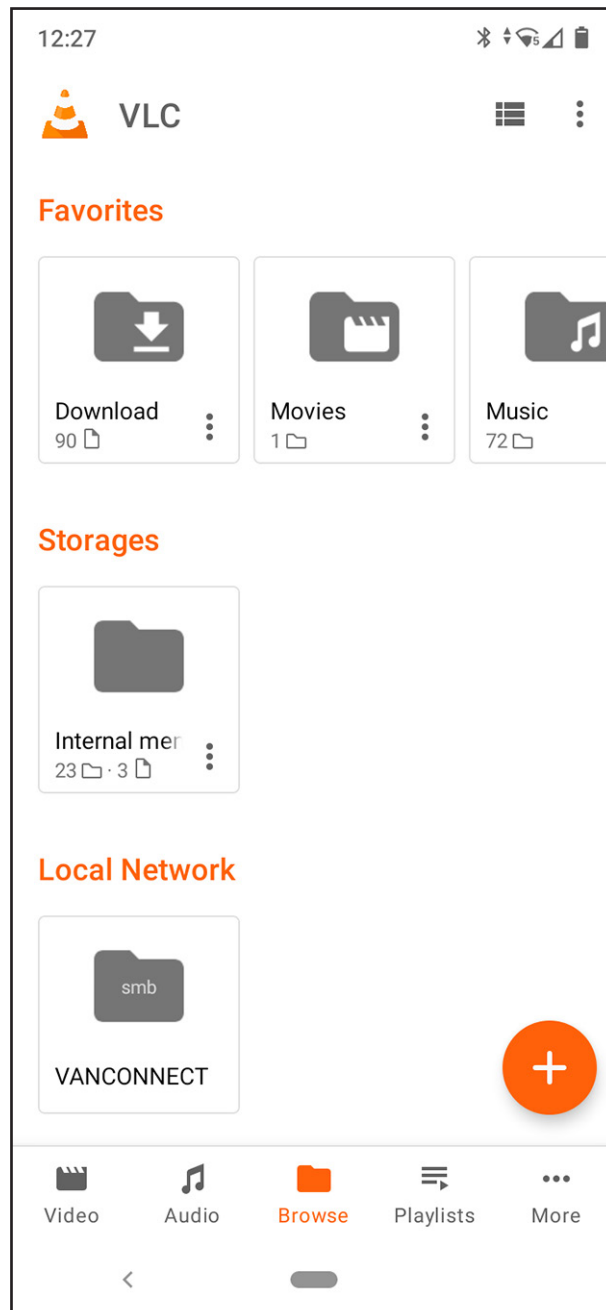


## For Android phones and tablets

Ensure that your Android phone or tablet is connected to your VanConnect WiFi network.

Open the VLC app and navigate to "browse".

Select "VANCONNECT" under "Local Network".



# VanConnect 5G

Select "VanConnect" and you will then find the mapped drives for your USB device and your SD card.

The USB port of the VanConnect is mapped as "sda1"



VLC will only show "sda1" if a device (USB drive) has been connected to the VanConnect.



## ADVANCED SETTINGS

Warning: these Advanced Settings allow you to make changes to the functionality of the VanConnect and should be approached with caution. Incorrect changes can impact the performance or security of the VanConnect and can even render the VanConnect inoperable. You should only make changes to these settings if you are sure of what you are doing.

### **Scheduled Tasks**

"System" ▷ "Scheduled Tasks"

Scheduled Tasks is the system crontab in which scheduled tasks can be defined. The cron command-line utility is a job scheduler on the VanConnect operating systems. Users can use cron to schedule jobs to run periodically at fixed times, dates, or intervals.

### **WebCMD**

"System" ▷ "WebCMD"

WebCMD is a terminal where you can run LINUX commands and instructions directly to the router kernel or 5G module. Shell commands and scripts will be executed as root, so be careful.

Shortcuts are available for 4G/5G info, IPconfig, MEMinfo and more.

### **Remote Management**

"Service" ▷ "Cloud Service"

Cloud Login allows you to login to the router from outside your local WiFi network. Through this cloud service you are able to change settings for the VanConnect, run diagnostics and see the units GPS location. By enabling the Cloud Service, you will be given a unique web address which allows you to login to the VanConnect from any device connected to the internet. The Cloud Services function is available under the "Cloud Service" section in the "Service" menu of the VanConnect.

It is recommended that both the default CloudID and password are changed prior to enabling the cloud service.

To enable cloud login, set your Cloud Login ID, enable the service and click 'save and apply'. Wait for the VanConnect to display 'connected' on the Cloud Service page. You will be presented with a weblink for your remote login. Through this weblink you will be able to log in to the VanConnect from any device, as long as the VanConnect is connected to the internet.



## Firewall

"Network" ▷ "Firewall"

The firewall creates zones over your network interfaces to control network traffic flow. Through the firewall page you can also set up port forwarding rules, traffic rules and custom rules.

Port forwarding allows remote computers on the Internet to connect to a specific computer or service within the private LAN.

Traffic rules define policies for packets traveling between different zones, for example to reject traffic between certain hosts or to open WAN ports on the router.

Custom rules allow you to execute arbitrary iptables commands which are not otherwise covered by the firewall framework. The commands are executed after each firewall restart, right after the default ruleset has been loaded.

## EQoS

"Network" ▷ "EQoS"

Easy Quality of Service is a function whereby you can shape the traffic on the VanConnect. With EQoS you can set a maximum bandwidth per device (based on its IP address). This function can be useful if you have a streaming service on a particular device, that takes over all of the bandwidth and therefor limits the ability of other devices to connect to the internet. The second consideration would be to limit a streaming service where you cannot manually set the video quality/resolution, and therefore data usage, to a lower level. By limiting the bandwidth via EQoS, you are able to considerably reduce your data usage for streaming services.

To use EQoS, navigate to the EQoS page and enable QoS. Set the total download and upload speed (mbps) of your 4G/5G connection. Then set the IP for the specific device and the maximum allowed download and upload speed (mbps) for that device. Click 'save and apply'





## FREQUENTLY ASKED QUESTIONS

### **What is the Web management IP address and default admin password?**

The router's management IP address is 192.168.1.1, the default administrator user name is "root", and the default password is "admin".

### **How do I restore the router to factory settings?**

When the system is in normal operation, press the router's "Reset" button with a sharp point for at least 6 seconds, then release it. When the power led is on and no longer flashing, the device has been restarted. When the WLAN led is on and not flashing after the restart, the factory settings have been restored successfully.

### **What if I forget my router admin password?**

The router's default administrator user name is "root", and the default login password is "admin". Try logging in using the default password. If you cannot log in with the default user name and password, please restore the router to factory settings, then log in with the default password.

### **What are the APN settings for my provider?**

APN settings (at the time of writing this manual) are as following:

Telstra APN	telstra.wap
Vodafone APN	live.vodafone.com
Optus APN	connect or yesinternet (dependant on plan)
Boost APN	telstra.wap
Dodo APN	internet
Aldi APN	mdata.net.au
Belong APN	mdata.net.au
Woolworth APN	mdata.net.au

Consult your provider's website for the latest APN settings.



## **How do I find my computer's IP address on a Windows 7, Windows 10, or Windows Vista device?**

To find the IP address on a Windows 7, Windows 10, or Windows Vista device:

1. Open the command prompt window:
  - a. Select Start > Run.
  - b. Enter cmd or command and click the OK button.
2. At the command prompt, enter ipconfig and press Enter.
3. Write down the IP address for the entry that relates to the wireless network connection.

## **How do I find my computer's IP address on a Windows 8 device?**

To find the IP address on a Windows 8 device:

1. In the Charms bar, click the Search icon.
2. Select Command Prompt.
3. At the command prompt, enter ipconfig and press Enter.
4. Write down the IP address for the entry that relates to the WiFi network connection.

## **How do I find my computer's IP address on a Mac OS X device?**

To find the IP address on a Mac OS X device:

1. From the Apple menu, select System Preferences > Network.
2. Select the wireless adapter.

The IP address is displayed in the right pane.

## **How do I find my computer's IP address on devices running other operating systems?**

To find the IP address on devices running other operating systems:

Refer to the user documentation for your operating system or computer.

## **Why do I need to know the device's MAC address?**

You must know the MAC address for a device when you are doing the following:

- Assigning an IP address based on a MAC address (when using DHCP)
- Allowing or denying devices access to your WiFi network (MAC filtering)

Tip: The steps for finding a device's MAC address depend on the operating system. If your device runs an operating system not listed in the following procedures, see the appropriate operating system documentation.



## **How do I find a device's MAC address on a Windows 7, Windows 10 or Vista device?**

To find the MAC address on a Windows 7, Windows 10, or Vista device:

1. Open the command prompt window:
  - a. Select Start > Run.
  - b. Enter cmd or command and click the OK button.
2. At the command prompt, enter ipconfig /all and press the Enter button.
3. Write down the physical address for the entry that relates to the wireless network connection.

It appears as a series of numbers and letters. This is the MAC address of your wireless adapter.

## **How do I find a device's MAC address on a Windows 8 device?**

To find the MAC address on a Windows 8 device:

1. In the Charms bar, click the Search icon.
2. Select Command Prompt.
3. At the command prompt, enter ipconfig /all and press the Enter button.
4. Write down the physical address for the entry that relates to the wireless network connection.

It appears as a series of numbers and letters. This is the MAC address of your wireless adapter.

## **How do I find a device's MAC address on a Mac OS X device?**

To find the MAC address on a Mac OS X device:

1. From the Apple menu, select System Preferences > Network.
2. Select the wireless adapter that is connecting to the routing hardware.
3. Select Advanced.
4. Select Ethernet.

The Ethernet ID is displayed. This is the same as the MAC address.



## TROUBLESHOOTING

### **I can't connect to the WiFi.**

There are a couple of causes that may have made this happen.

- The WiFi may have been accidentally deleted during the set-up phase. You will need to do a factory reset. See factory reset section.
- You have entered an incorrect password when setting the WiFi password through the configuration utility. You will need to do a factory reset. See factory reset section.
- You have set the security to WPA2, but your device is only able to connect via WPA. You will need to revert to WPA security, or use WPA/WPA2 mixed mode.

If you are experiencing problems connecting to the mobile router, try the following suggestions:

- Turn off your device, wait 10 seconds, and turn your device on.
- Restart your computer.
- Turn off or temporarily disable any security programs or firewalls.
- If possible, try using another computer or mobile device to connect to your mobile hotspot. If you can, then the problem is with the device that cannot connect, not the mobile hotspot.

### **I cannot access the Internet.**

If you are connected to the WiFi network but cannot connect to the Internet, try the following suggestions:

- Make sure that network coverage is available in your area.
- Make sure that your SIM card is active and enabled with data services.
- Wait one to two minutes for the VanConnect to initialize after a reboot or startup.
- Confirm that your account is activated and that no other Internet connections are active.
- Switch your VanConnect off and on and restart your computer or WiFi device.



## **My WiFi password is not being accepted.**

There are a couple of causes that may have made this happen.

- Your WiFi password is case sensitive and must be a minimum of 8 characters.
- You have entered in incorrect password when setting the WiFi password through the configuration utility.

## **The download or upload speeds are slow.**

Data transfer speed depends on signal strength and interfering radio sources like electrical generators or other mobile hotspot WiFi devices. Review the following possibilities:

- Check your signal strength and network type (for example, LTE 4G is generally faster than 3G).
- Check WiFi interference by powering the VanConnect off and on to find a better WiFi channel.
- Switch WiFi channel from 2.4 GHz to 5 GHz.
- If the network signal is low, consider using external antennas.

## **I have forgotten my admin login password.**

If you changed the admin login password and cannot remember the password that you created, you must set the router back to factory defaults. For information about how to reset to factory default settings, see the Factory Reset section.

## **The WiFi network name is not in the list of networks.**

If you do not see the VanConnect's WiFi networks from your computer or mobile device, try these suggestions:

- Refresh the list of networks.
- Reboot the router.

## **The VanConect cannot connect to a computer running Windows Vista.**

A known issue exists whereby computers running Microsoft Windows Vista cannot obtain an IP address from certain routers. More information and a fix are available at [support.microsoft.com/kb/928233](http://support.microsoft.com/kb/928233), or visit the Microsoft support website and search for knowledge base article 928233.



## **The router does not connect to the Cellular Network.**

If your mobile hotspot does not connect to your service provider's mobile broadband network, try the following suggestions:

- Make sure that your SIM account is active. To check SIM status, contact your Internet service provider.
- If you use a prepaid SIM card, make sure that the account balance is positive.
- If your mobile hotspot still does not connect, you might need to create or update the default connection profile.

To change the default connection profile settings:

1. From a computer that is connected to your network, launch a web browser.
2. Enter <http://192.168.1.1>. A login page displays.
3. Enter the router password. The password is case-sensitive. The dashboard displays.
4. Select "Network" ▷ "Interfaces", the interfaces page will be displayed.
5. Select "Edit" under the '4G" interface, a new page will load.
6. Under "Common Configuration" ▷ "General Setup", enable "4/5G Module"
7. In the APN section, review the ISP settings.
8. To change the active APN, click the Edit icon.

## **My SIM card has a PIN code and wont connect.**

The VanConnect does not allow for a PIN code to be set on the SIM card.

The SIM card provided with your VanConnect system does not have a PIN code set. If you are using an alternate SIM card and this SIM card has a PIN code set on it, insert the card into a mobile phone and remove the PIN before using this SIM in the VanConnect.



## TECHNICAL SPECIFICATIONS

Router Hardware	
CPU	880MHz
RAM	256MB DDR3
	IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11a IEEE 802.11ac IEEE 802.3 IEEE 802.3u
Protocols	
Working Channels	2.4GHz : 1-13 5GHz : 149, 153, 157, 161, 165
Working Frequency	2.4GHz, 5.8GHz
Wireless Rate	2.4G: 300Mbps 5.8G: 867Mbps
Antenna	4x Omni Directional 5dBi antenna (5G/4G/3G) 2x Omni Directional 5dBi antenna (WiFi)
Interface	1x nano SIM card slot 1x USB 2.0 port 1x 10/100/1000M WAN port 4x 10/100/1000M LAN port
LEDs	5G/4G, signal strength, PWR, 2.4 WiFi, 5.8 WiFi, Internet
Button	Reset Button
Max Power consumption	< 15W (1.2A @ 12V)
Product Size	165*130*45mm
Router Software	
WAN Type	PPPoE, Dynamic IP, Static IP
Work Mode	Access Point, Router
DHCP	Server, Client, DHCP Client List, Address Reservation
Port Forwarding	Virtual Server, Port Triggering, UPnP, DMZ
Firewall Security	Dos, SPI Firewall IP Address Filter/MAC Address Filter/ Domain Filter IP and MAC Address Binding
DDNS	Supported
VPN Pass-Through	PPTP, L2TP, IPSec (ESP Head)
Band	Supported
Static Router	Supported
System Log	Supported
Other Functions	Mac clone NTP Synchronize Web firmware upgrade



Router General	
Operating Temperature	0°C ~ 40°C
Storage Temperature	-40°C ~ 70°C
Operating Humidity	10%~90% non-condensing
Storage Humidity	5%~90% non-condensing
Adapter	12V 2A
External Antenna Hardware	
WIFI	Single Antenna Frequency range 2.4-2.5GHz / 4.9-5.85GHz V.S.W.R < 1.5 Gain 7dBi Impedance 50Ω
LTE	Quad Antenna Frequency range 698-960MHz/1710-2700MHz/3300-3800MHz V.S.W.R < 2.0 Gain 7dBi Impedance 50Ω
Operation Temperature	-40°C to +85°C
Humidity	65%-95%RH
Waterproof	IP67
Antenna Dimension	Φ140×84.5mm
Weight	1KG





## PRODUCT WARRANTY

At Cowfish Technologies Pty Ltd (Cowfish) we want our customers to be completely satisfied with their purchase. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

### Warranty Conditions

Cowfish offers the following warranty in relation to its goods.

The benefits of this warranty are in addition to any rights and remedies imposed by Australian State and Federal legislation that cannot be excluded. Nothing in this warranty is to be interpreted as excluding, restricting or modifying any State or Federal legislation applicable to the supply of goods and services which cannot be excluded, restricted or modified.

Cowfish warrants to the original purchaser that, subject to the exclusions and limitations below, all parts of the manufacture and assembly of the goods carried out by Cowfish will be free from defects in materials and workmanship for a period of 12 months from the date of purchase (Warranty Period).

This warranty is not transferable to a subsequent customer if the goods are sold by the original customer during the Warranty Period.

If a defect appears in Cowfish's manufacture or assembly of the goods before the end of the Warranty Period and Cowfish finds the goods to be defective in materials or workmanship, Cowfish will, in its sole discretion, either repair or replace the goods or the defective part of the goods free of charge, or provide a credit or exchange.

Cowfish reserves the right to replace defective parts of the goods with parts and components of similar quality, grade and composition where an identical part or component is not available. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

Where your rights under the Australian Consumer Law or this warranty do not apply, we may provide you with an indicative cost estimate to repair the goods.



## Damaged goods

If any goods arrive damaged, please contact Cowfish as soon as possible so a Return Authority Number can be arranged for the goods to be inspected. Goods must be returned within a reasonable time. The acceptance of the goods delivered shall be deemed for all purposes to have taken place 30 days\* from the date of delivery.

If a purchaser receives a product that is damaged in transit from Cowfish, the purchaser should: Refuse to accept delivery of the product; Direct the courier to "Return goods to sender"; and Notify the Cowfish Customer Service or Warranty Department immediately.

No goods will be accepted for return until a Return of Goods Authority Number has been supplied to you. Goods must be returned in the condition received by you with all original packaging, accessories and/ or manuals.

## Returns and repairs

Goods returned for repair or credit will be assessed and repaired or replaced within a reasonable time. Credits will normally be processed within 14 days\* of your goods being returned to Cowfish's nominated warehouse. Where goods have been assessed to be repairable under the manufacturers' warranty, you may be supplied with details of an authorised repairer. You may also be provided with an indicative repair and/ or replacement time, which may vary due to reasons beyond our control, or the repairer's reasonable control, such as part availability and incorrect fault description. Cowfish does not take any responsibility for any repairs and/ or replacements carried out without our prior written consent.

Where goods are assessed to have been damaged by misuse or accident, no credit will be issued and no further action will be entered into. Where your rights under the Australian Consumer Law or any manufacturer's warranty do not apply, we may provide you with an indicative cost estimate to repair the goods.

If a replacement item is required, Cowfish will require the location of the caravan and owners for the next 14 days to allow for pick, pack and postage. If the owners are traveling, Cowfish require next major town or city location. Otherwise, the warranty procedure as in place at present will remain.



## Replacement item warranty

Should a replacement item be supplied by Cowfish 'under warranty' due to damage or product failure of original item purchased, Cowfish will warrant the replacement item for the remaining warranty period only of the original item warranty.

## Warranty Claims

If a fault covered by warranty occurs, the customer must first contact the Cowfish Customer Service or Warranty Department.

Any warranty claim must be accompanied by proof of purchase, full details of the alleged defect (including clear photos), and appropriate documentation (such as historical and maintenance records).

The customer must make the goods available to Cowfish or its authorised repair agent for inspection and testing.

If such inspection and testing finds no defect in the goods, the customer must pay Cowfish's usual costs of service work and testing. The customer must bear the cost of the transport of the goods to and from Cowfish or the authorised repair agent, and all insurance of the goods.

Goods returned for repair or credit will be assessed and repaired or replaced within a reasonable time.

Credits will normally be processed within 14 days\* of your goods being returned to Cowfish's nominated warehouse. Where goods have been assessed to be repairable under this warranty, you may be supplied with details of an authorised repairer. You may also be provided with an indicative repair and/ or replacement time, which may vary due to reasons beyond our control, or the repairer's reasonable control, such as part availability and incorrect fault description. Cowfish does not take any responsibility for any repairs and/ or replacements carried out without our prior written consent.

If a replacement item is required, Cowfish will require the location of the caravan and owners for the next 14 days to allow for pick, pack and postage. If the owners are traveling, Cowfish require next major town or city location.

## Limitations

Cowfish makes no express warranties or representations other than set out in this warranty.

The repair or replacement of the goods or part of the goods is the absolute limit of Cowfish's liability under this express warranty.



This page has intentionally been left blank

