



Newsletter September 2023 – 29th Edition

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- 1) ZL2VH-B KiwiDstar Server back on line for evaluation via 860 Mount Climie.
 - 2) ircDDBGateway update to version 20200621-DEBUG.
 - 3) DStarRepeater update to version 20180911-DEBUG.
 - 4) Hotspot and Gateway Repeater active watch Updates - with Dashboard hosting.
 - 5) DVSwitch. Where to download the RPi3 / RPi4 software and Android SMART phone App.
 - 6) DVSwitch. Start in another mode fix.
- 1) **ZL2VH-B KiwiDstar** is back on line from a temporary site while new software is evaluated.
ZL2VH-B is on air for short periods only until a permanent site can be found.
Once a suitable link radio is found and a reliable site then ZL2VH-B can run permanently.
The dashboard can be viewed (while on line) here: <http://zl2vh-b.ddns.net:82>
ZL2VH-B is currently installed on an Odroid XU4 seen in the picture below.



DVRPTR-V1 modem can be seen in this picture below:



12VDC power supply on the left, middle USB Mini cable from XU4
and on the right a PS2 cable out to drive the RF link radio via the
9k6 packet port and provide TX / RX control.

2) **ircDDBGateway by G4KLX.** <https://github.com/g4klx/ircDDBGateway> has been updated to 20200621-DEBUG version.

The reason this has been done solves the internet traffic issues created by the obsolete 2015 version. Around 2019 dpns.dutch-star.eu (authentication server) was shut down.

ircDDBGateway pings this server ever 30 seconds and adds to unnecessary internet traffic. Also adding to unwanted internet pings is the shut down of rr.openquad.net server. ircDDBGateway continually reports “address not found” resulting in log files that grow and grow with unwanted entries.

The new version change notes:

- a) Move to wxWidgets-3.0.x.
- b) Update to VS2017 on Windows for 32 and 64 bit compilation.
- c) Simplify the Linux build.
- d) Support the GPS data from the Kenwood TH-D74.
- e) Add support for external GPS input for mobile systems.
- f) Add audio bypass processing for fast data mode.
- g) Allow entries for custom ircDDBgateway servers. (default ircv4.openquad.net)
- h) Allow entries for custom APRS (DPRS) servers.
- i) Remove dpns.dutch-star.eu server authentication.
- j) Add auth.dstargateway.org server authentication.
- k) Add XLX Reflector support.

To clone and install follow the instructions I used for KiwiDstar images running on Odroid XU4 found here: <https://zl2vh.org.nz/assets/pdf/other/ircddbgateway-20200621-dstarrepeater-20180911-upgrade-part-1.pdf>

and here: <https://zl2vh.org.nz/assets/pdf/other/ircddbgateway-20200621-upgrade-part-2.pdf>

3) **DStarRepeater by G4KLX.** <https://github.com/g4klx/DStarRepeater> has been updated to 20180911-DEBUG version.

The new version change notes:

- a) The TX Delay setting for the MMDVM.
- b) Port to wxWidgets-3.0.x
- c) Add Icom Terminal and Access Point modes.
- d) Add error recovery to the Icom Terminal and Access Point modes.

The picture below shows KiwiDstar desktop running with the new versions.

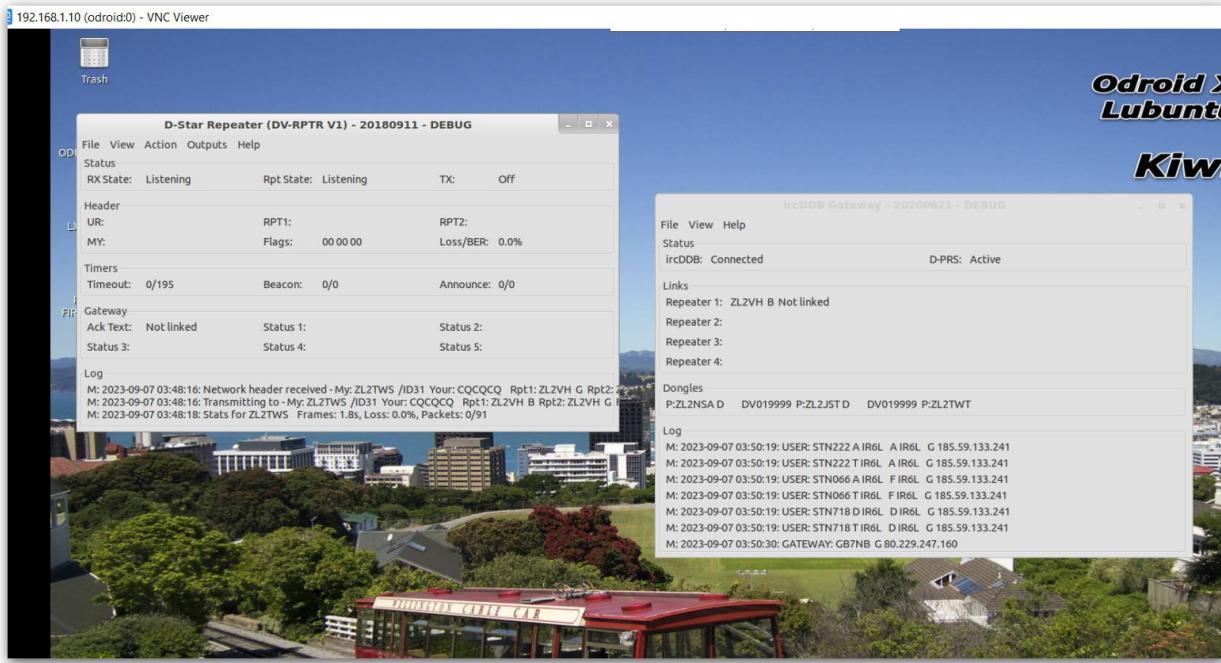
DStarRepeater (on the left) drives the remote DVRPTR-V1 modem connected to the RF link radio transmitting to 860 on Mount Climie.

ircDDBGateway (on the right) takes care of the connection to the D-Star network and call sign routing. ZL2NSA and ZL2JST OpenSpot Dongles can be seen connected along with ZL2TWT via a ZUM Spot USB and all using DPlus protocol.

The overall status of each of these can be seen at **ircDDB.net** and click on the NZL flag.

For the repeater: <https://status.ircddb.net/repeater.php?ctry=NZL>

For the gateway: <https://status.ircddb.net/cgi-bin/ircddb-gwst?ctry=NZL>



KiwIDstar desktop running DStarRepeater V20180911 and ircDDBGateway V20200621

Note about the number of remote user connections:

ircDDBGateway only allows 5 x Dplus incoming links and a maximum of 5 x DCS and DExtra combined incoming links. DCS and DExtra can have 5 x DCS only or 5 x DExtra only or a combination of either that makes up a total of 5 x incoming links. Example being 3 x DCS and 2 x DExtra. The total number of incoming links of any protocol is Ten.

4) Hotspot and Gateway Repeater active watch Updates - Dashboard hosting.

This is a listing of High Power Hotspots and Gateway Repeaters you can connect to.

NOTE: At the time of publication the URL's listed below were checked and active.

Their status may have changed since publication due to temporary outage or update.

See this link:

<https://zl2vh.org.nz/assets/pdf/zl-beacon/zl-beacon-update-30082023.pdf>

5) DVSwitch. Where to download the RPi3 / RPi4 software and Android SMART phone App.

DVSwitch is installed on a RPi3 or RPi4 with an Android SMART Phone App to control the connections and communications portal. Download the following and search the Interweb for “How-To Videos” The Android app is downloaded from your favourite App store.

http://dvswitch.org/DVSwitch_install.pdf

Please note that for D-Star use a DV3000 (available from NW Digital Radio) or a DVStick30 [<https://wuwt.myshopify.com/products/thumbdv>] or DVStick 30

[<https://www.gigaparts.com/dvmega-dvstick-30.html>] is required to be plugged to a USB port and enabled in the RPi DVS software.

6) DVSwitch. Start in another mode fix.

By default DVS starts in DMR mode. To have the DVS App start as default in NXDN mode edit the Analog_Bridge.ini and MMDVM_Bridge.ini file as follows:

In /opt/Analog_Bridge/Analog_Bridge.ini: ambeMode = NXDN
Then make sure NXDN and NXDN Network are both enabled in /opt/MMDVM_Bridge/MMDVM_Bridge.ini
These can be edited from the DVS menu via monitor and keyboard connected to the RPi.

Note: I have found that when starting DVS App that the initial setting allows immediate connection to DMR. This sends an annoying ping (trigger) to the IPSC2 and most probably BM if that is your default DMR server. If D-Star or YSFN is selected as default an initial connection cannot be made. A mode change over is required first before using D-Star or YSFN. So I chose NXDN as my default, change mode to D-Star and use the macro to connect. This way DMR is not needed unless chosen otherwise. The lack of immediate link and QSO is some peculiarity with D-Star and YSFN default I don't understand yet.

Most users starting in DMR and changing to D-Star is not an issue but for me I wanted no connection to the DMR network as it pings the ZL IPSC2 network when DVS starts and is annoying to ZL users. Often I get a call back but by then I'm already on D-Star. Annoying to the operator that just called to experience no reply and seen to be ignored. Not good practice.

G3 Gateways, US Trust DSync monitor and ircDDBGateways.

NOTE: At the time of publication the URL's listed below were checked and active.

Their status may have changed since publication due to temporary outage or update.

G3 Gateways and G3 with ircDDB addon - Repeaters:

Auckland Klondyke ZL1VLD. <https://z11vhf.dstar.org.nz/> (DPlus) ZL1VHD B [438.175-RPTR]

Auckland Klondyke ZL1VLD. <https://z11vhf.dstar.org.nz/> (Dplus) ZL1VHD C [145.650-RPTR]

Auckland ZL1ZLD. <https://z11hk.dyndns.org> (Dplus) ZL1ZLD A [1293.625-RPTR]

Auckland ZL1ZLD. <https://z11hk.dyndns.org> (Dplus G3 with ircDDB addon) [439.575-RPTR]

Auckland ZL1ZLD. <https://z11hk.dyndns.org> (Digital Data) [1294.625-RPTR]

Te Puke. <http://202.36.75.248:40001> (DPlus G3 with ircDDB addon) [145.725-RPTR]

Hamilton ZL1HND. <http://z11hnd.d-star.nz> (Dplus) ZL1HND B [439.450-RPTR]

Wellington ZL2VH. <https://123.255.47.67> (Dplus) ZL2VH C [145.425 RPTR]

US Trust DSync monitor:

<https://dsync.dstarusers.org/>

ircDDBGateway - Repeaters:

Hamilton. <http://z11cct.d-star.nz> (DPlus, DExtra & DCS) CCS7 8530100 [145.350-RPTR]

Kapiti ZL2KB. <http://z12kb.ddns.net:8080> ZL2KB C (DPlus, DExtra & DCS) [145.300 RPTR]

Wellington ZL2VH-B. <http://z12vh-b.ddns.net:82> CCS7 8530304 [DPlus, DExtra & DCS] [860-RPTR]

New Zealand XLX Multimode Reflector www.xlx299.nz

ircDDB Status for ZL: <https://status.ircddb.net/cgi-bin/ircddb-gw?NZL>

Examples of hotspots with dashboards that you can view and connect to this month:

ZL1TOB (<http://zl1tob.ddns.net:83>)
ZL1AMK (<http://zl1amk.ddns.net:82>)
ZL3TJH (<http://zl3tjh.ddns.net:83>)

Other Gateway Repeater Hotspots of interest:

ZL2AUS is running the WPSD Pi-Star variant for MMDVM
<http://www.zl2aus.co.nz>

Dashboard - DDNS naming convention.

PiStar: <http://callsign.ddns.net>

Note: PiStar uses port 80 by default and not required to be added to the end of the address line.

KiwIDstar Hotspots: <http://callsign.ddns.net:82>

UDRC Compass Hotspots: <http://callsign.ddns.net:82>

Hotspots that cannot use port 80 or 82 use port 83 (example is <http://zl3tjh.ddns.net:83>) and
<http://zl1tob.ddns.net:83>)

Host files that include ZL gateways and hotspots can be downloaded from here:

<http://zl2vh.org.nz/assets/d-star-hosts/>

D-Star Nets to join

<http://www.dstarinfo.com/nets.aspx>

Kiwi-D-Star Net on XLX299 J (D-Star only channel)

Kiwi-D-star Technical Net on XLX299 N (D-Star only channel)

Sites Reference information:

ZL2VH Web site. <http://zl2vh.org.nz/d-star/>

For US Trust G2 Registration go here: <http://zl2vh.org.nz/d-star/gateway/>

Previous D-Star newsletters FREE to download:

<http://zl2vh.org.nz/d-star/newsletter/2015/>

<http://zl2vh.org.nz/d-star/newsletter/2016/>

<http://zl2vh.org.nz/d-star/newsletter/2017/>

73 and good DV. John ZL2TWS for Branch 63 NZART.