



D-STAR Gateway Utilities & Add-ons

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Intended Audience

This information is targeted for

- Gateway Administrators - those that have root access
- Those that have overall responsibility for the operational status of a D-STAR repeater system

Comfort with Linux is assumed

Now that you have a working
D-STAR Repeater,

*What tools are available to
keep it working properly
and/or to add functionality?*

Fundamentals

- Having the right tools can always make a job easier
- Even the 'right tool' can be very dangerous in the wrong hands
- Tools (add-ons) are in two main categories
 - Help maintain system health and stability
 - Add functionality

Tools to help the admin

- Many tools are available and new ones surface periodically
 - Watch the 'admin' and the 'gateway' yahoo groups for news and tips
- Good source for several of these are at:
 - <http://www.opendstar.org/tools>
- Some are also available at:
 - <http://wb4fay.com/util>

Start with 'log rotate' setup

- Some of the D-STAR related log files will grow without bounds unless the logs are rotated periodically
- A simple log rotate (file renaming) will not always accomplish what you want
 - For some modules, a restart must be done to actually force using a new log file
- A sample logrotate config file for D-STAR is available at:
 - <http://wb4fay.com/.util/dstar>
 - Drop this file into the '/etc/logrotate.d' directory
 - It will rotate dscgi.log, dsipsvd.log, dsgwd.log, gw_schedule.log, dplus.log, dstarmon.log, and monlink.log
 - After the rotate, it will automatically restart the associated processes

Now, on to some tools...

``dstarusersls'` – List the users registered on the local system

- Provides lists of users that are:
 - Local users requesting registration
 - Local users registered with no terminals added
 - Local users registered with terminals added but no space entry
 - Local users registered with terminals added including space
 - Local users registered on multiple gateways

``dstarpasswd'` – Reset a local user's registration password

- A user's password cannot be retrieved but you can set a new password for them when they forget it

``dstaruserfind'` – Shows repeater & module where user was last heard

- If the user is new and has never keyed a D-STAR radio, it will show as last heard on module A of the system where they registered

More tools...

'IPPortTestClient.bin' – Tests that necessary ports are properly setup

- Need to stop the gateway to run this test
 - 'service dplus stop'
 - 'service dsm stop'
 - 'service dstar_gw stop'

'fixdns' – Corrects invalid callsign entries in DNS data

- Use if 'named' is not running and will not start properly
 - Use 'service named status' to check if named is running
 - Use 'dig usroot.dstarusers.org' to check if it is functioning properly
- This removes invalid user defined terminals that prevent 'named' from starting
 - 'named' will generally continue to run if a bad entry is injected via a trust server sync
 - However, these bad entries sometimes prohibit 'named' from being able to start.

Increasing functionality...

- 'dplus' – provides many linking and user functions
 - Required to be able to link a repeater module to a Reflector or another repeater
 - Required to be able to support connections from DV-Dongle or DVAP users
 - Provides for initiation of code scripts by an RF system user
 - Provides for user requested repeater ID
 - Provides for 'echo' of an RF user's transmission
 - And many other functions...
- Go to: <http://www.opendstar.org/tools> for more information

Increasing functionality...

- 'monlink' – Monitors and manages links
 - Highly configurable by the system admin
 - Can drop inactive or idle links that are up
 - Can automatically attempt to re-established failed links
 - Can make periodic announcements (voice and or text) about link connections
 - Can make periodic general announcements (voice and/or text)
 - Can manage “default links” that some systems keep up to generate activity on the system
- Go to: <http://wb4fay.com/util/monlink.pdf> for more information

Increasing functionality...

- 'dplusreport' – Designed for Net Control Stations
 - Runs on the gateway
 - NCS needs a user level (NOT root level) login to gateway
 - Processes dplus.log file and formats the data for NCS
 - Displays status of links on the system (e.g. Reflector connections)
 - Displays calls of stations that have checked into the net
 - Allows for color coding call sign display based on time since last key up
 - Makes clear user radio programming issues so NCS can help the user with programming
 - Highlights if user has "BREAK" or "EMERGENCY" mode set in their radio
 - Allows for near paperless Net Control functions
- Go to: <http://wb4fay.com/util/dplusreport.pdf> for more information



Contact information and links

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Useful links:

<http://opendstar.org/tools>

<http://wb4fay.com/util>



Questions ?