

# 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:
  - <u>http://www.opendstar.org/tools</u>
- Some are also available at:
  - <u>http://wb4fay.com/util</u>





#### 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 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: <u>http://www.opendstar.org/tools</u> 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: <u>http://wb4fay.com/util/monlink.pdf</u> 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: <u>http://wb4fay.com/util/dplusreport.pdf</u> for more information





#### Contact information and links

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Useful links:

http://opendstar.org/tools

http://wb4fay.com/util





## Questions?

