Adding a new D-STAR Gateway to the Network

When ICOM released the first version of the D-STAR Gateway program to the amateur community, we worked our way through several challenges, and built a viable network. This was largely due to the spirit of cooperation among the Gateway administrators. Even with a mandatory training course, there were still "experts" who were sure that they knew more than the rest of us, and felt that they didn't need to follow our recommendations. Some of these "experts" caused serious problems for the rest of the network, to the point of many of us not being able to add users.

With the release of the second version of the D-STAR Gateway program, the rules changed significantly. Many of the early restrictions and constraints have been removed, and several major features added. But the D-STAR network is still primarily a user-supported effort. As such, it is important to have the Gateways installed as consistently as possible. This is above and beyond those requirements imposed by the system design.

Please remember that there are some design constraints which <u>MUST</u> be satisfied:

•	The router for the D-STAR gateway must support a LAN address of 10.0.0.1, with a full class 'A' LAN (subnet mask of 255.0.0.0).

•	You may NOT use your personal call sign as the repeater call sign, like you did on FM systems.

We have found that the following sequence is best for installing the Gateway program on a 32-bit computer which meets the requirements specified in the Gateway manual. The application is a 32-bit application. Please do not attempt to run this on a 64-bit system.

We commit to you that these steps should yield a reliable installation. We'll also commit to you that if you choose to go a "better" route, you will cause problems for the rest of the network. Don't try to make your Gateway "more secure" or "better."

Also, if you have NOT followed this sequence to install your Gateway, please catch up on any missed steps, especially the one "Download and run g2_updates". This is critical! You cannot register your gateway without installing the updates as instructed.

NOTE: A good resource with helpful G2 gateway information may be found here:

http://dsync.dstar.info/info/

Here is the recommended sequence:

• Install CentOS per the ICOM manual. (Version 5.8 is recommended)

• Update CentOS using: yum -y update

• Complete ICOM software installation process. STOP when you reach Step #11 on Page 15

• Verify the domain name server daemon (named) is running, and properly configured:

```
# host gw.dstar.local localhost
Using domain server:
Name: localhost
Address: 127.0.0.1#53
Aliases:

gw.dstar.local has address 10.0.0.2

# host router.dstar.local localhost
sing domain server:
Name: localhost
Address: 127.0.0.1#53
Aliases:

router.dstar.local has address 10.0.0.1
```

• Download and run "g2_updates", this will configure dsgwd.conf and dsipsvd.conf for you. Note, you may copy/paste these commands into a terminal/shell window:

```
cd /tmp
wget dsync.dstar.info/g2_updates
chmod 775 g2_updates
./g2_updates
```

• Install DstarMonitor (Reports usage to www.dstarusers.org)

```
cd /tmp
wget dsync.dstar.info/dsm_installer_g2
chmod 775 dsm_installer_g2
./dsm_installer_g2
```

• Install g2 backup script

```
cd /tmp
wget dstar.info/dist/g2_backup_installer
chmod 755 ./g2_backup_installer
./g2_backup_installer
```

• Continue the ICOM instructions at Step #15 on page 16

• Once you have successfully registered your gateway, by following the steps below, you may continue the ICOM instructions on Page 20.

OPTIONAL PROGRAMS/ADD-ONS:

While it is not required that you install the dplus add-on, it is highly recommended. Because of the functionality and popularity of this add-on software, users tend to expect the features it provides to be available to them.

Install dplus (required to use dplus features including reflectors) copy and paste:

cd /root
wget http://www.opendstar.org/tools/G2/dplus-install-g2.sh
chmod 775 dplus-install-g2.sh
./dplus-install-g2.sh

ADMINISTRATOR REGISTRATION

Part of the approval process for acceptance by the Trust Server team is to have full information about the administrator and system. Administrators should create an account on the D-Starusers Repeater Directory listing (DLIST). http://www.dstarusers.org/dlist/dashboard.php. Please supply a good email address so we can contact you with special announcements or if we need to contact you concerning a database issue. The system information you provide will be used by the D-Starusers.org website to display information to amateurs' world wide looking for D-Star repeater systems.

Check your systems' status on the trust server at the following:

http://dsync.dstar.info

This page will show you the current status of your system. Your gateway sends an update to DSync every 15 minutes. The icon to the left of your gateway call sign should be a green check mark. If it is not, clicking on your gateway call sign will provide more detail on problems that have been detected.

TRUST SERVER APPROVAL:

You must request approval for inclusion on the Trust Server. Once you've confirmed that your gateway is configured properly, use the following link to register it with US Root:

http://dsync.dstar.info/register

Follow the instructions on that page and if you system is ready, it will be approved. If for some reason this fails you should correct any problems indicated, before trying again. If you require assistance, feel free to contact the Trust Server Administrators at: Trust-Server-Admins@DStarUsers.Org. Please be aware that it may take 24 hours or more to address your inquiry. All the trust server admins are volunteers so please take this into account.

Your approval will be based on a variety of factors including your application of the above updates and programs and the ability for your gateway to properly communicate with the Trust Server.

• REMEMBER: Do not license the administrator until your gateway has been registered.

After approval, continue the ICOM instructions:

• License the Administrator per Page 20 instructions
• Add the terminal information for the repeater module(s).
• Add users.

Installation of the backup program is important. If you do not have the user information database, your locally kept user registration information will be lost. Only the originating registration gateway can change records for users. So if user A moves and want to register with another system the original registration has to be removed with a request that originates from that original gateway. It's somewhat cumbersome, but, possible to rebuild the user information database, but their email address, name, and the password they set will be lost.

If your gateway computer system fails, and you lose the user information database, you will need to re-install the gateway using the steps above. Once done, please contact the trust server admins for further instructions on how to re-construct the user information database.

Finally, and most importantly, Have fun and Enjoy.

The Trust Server Admin Team
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