

Backing up hamvoip Allstar

The backup procedure and filenames have recently changed as of a hamvoip update on March 23, 2018. The image backup files have been removed. It was never a good idea to image backup a running and mounted Linux system. Furthermore the integrity of the image backups would only be known if the user actually booted the backup which was rarely done.

With the advent of the down-loadable image and on-line updates doing a complete image backup has become much less of a necessity. If a user needs or wants to create an image backup the best way is still to shut the server down, remove the card, and read it to a file so you can create a backup SD card or cards at will. Remember that the backup is only good if it is tested! So check that you backup actually boots and works.

A much better way to backup is to selectively save the files that you change or are likely to change in configuring your Allstar server. The hamvoip distribution had `usb-backup.sh` and `usb-restore.sh` scripts that only saved a backup to a USB stick. It also had a `backup.sh` which saved files and directories to a compressed tar file. These files along with the image backup files have been removed from the distribution and combined into two new files – `file-backup.sh` and `file-restore.sh`.

The `file-backup.sh` script gives you the option of saving to a compressed tar file saved on the SD card or a compressed tar file save to a user supplied USB stick inserted in a Pi USB port. This can be a standard stick in vFAT, exFAT, NTFS or Linux format.

The `file-restore.sh` script is just for restoring files saved to the USB stick using the `file-backup.sh` script.

The default files that are included in the archive are:

```
/root /etc/asterisk /usr/local/etc /var/spool/cron /srv/http/allmon2/allmon.ini.php  
/srv/http/supermon/allmon.ini /srv/http/supermon/global.inc
```

If the above is a directory it also includes and child directories.

The included files and directories are defined in `/usr/local/etc/backup.conf`. The prior file `usb-backup.conf` in that directory is no longer used and can be deleted. Users can add, delete, change the included files as they wish by editing the `backup.conf` file. There is no need to save files that can be recovered from a new image so only save files and directories that you change and are important to you.

When either a tar file on the SD card or on the USB stick are created they have a very specific file name that looks like this:

```
Pi3-test_2018-03-21-2351.tgz
```

It consists of the systems host name, the date, and a time stamp. No two file names would be alike. Users can make backups as they make changes and they would have the ability to go back to a specific date and time.

When you save to a USB stick and use the `file-restore.sh` script you are presented with a menu and you can select the backup you would like to restore.

To extract the tar file created by the file backup of file-backup.sh or to manually untar a file created on a USB stick you would use the following command -

```
tar xvzf <filename.tar.gz>
```

All archives in the backup are made relative to the top '/' directory. So if you are doing it manually you must be in that directory. So to untar the above backup example name you would do this.

Make sure the archive file is in the '/' top directory and you are executing the tar command from there!

```
cd /
```

```
tar -xvzf Pi3-test_2018-03-21-2351.tgz
```

This would restore ALL of the directories and files in the archive. If you want a specific file you would need to call it out by its full path and name. To list all files and the directories they are in you can use this command -

```
tar -tzvf Pi3-test_2018-03-21-2351.tgz
```

Then pick a file or directory to restore. So if you wanted to restore the /srv/http/supermon/allmon.ini file the command would look like this -

```
tar -xvzf Pi3-test_2018-03-21-2351.tgz /srv/http/supermon/allmon.ini
```

Sometimes you may want to extract a file to a specific directory but you just want the file and not the directory structure it was stored under in the tar file. Here is a method to do that -

```
tar -xzvf /Pi3-test_2018-03-22-2351.tgz /srv/http/supermon/allmon.ini -O > /root/allmon.ini
```

This extracts just the allmon.ini file archived from the /srv/http/supermon directory and places it in /root.

There is a great deal of tar info and examples on the Internet so use that as a resource for other options.

Archives can be copied to other computers or just stored on the USB stick. One stick could backup many servers. All names would be sorted by hostname, date, and time. This is why it is important to use a meaningful hostname on your server not the default. A recommended name is your call-node#.

Remote backup

Many users deal with servers located at remote locations. You could leave a USB stick installed in the remote server and backup to it or you could backup to a file and then use scp or winscp to copy the file from the remote server to a local computer. This of course requires an ssh connection to the remote server. Backups are typically less than 100K in size.

So is a backup really necessary?

For the average users who does not change anything much on their server other than doing the setup it is probably not necessary to backup. If you had another virgin image on hand and the details about your node – node#, node password, IAX port , SSH port, etc. You could run the setup again on a virgin image and be back on the air in minutes.

On the other hand if did considerable configuration on your node changing and adding many files then yes it would be a good idea to backup.

Where can I put my files so they will be backed up?

With the default include file all Asterisk config files are archived. This includes the /etc/asterisk/local directory where you can put files and directories you create. Also the /root directory is archive and is a good place to put files and directories related to things you create. The backup list is expandable using the /usr/local/etc/backup.conf file where you can add (include) additional files and directories to be backed up.