IN719 Systems Administration
Installing and Trying Bacula

Introduction

Bacula is a powerful backup management system that will let you define and run backup and restore jobs across your network. Because it's a powerful system, it's also complex. Today we'll install Bacula and run through a basic backup and restore operation. On Friday we'll configure Bacula to run proper backups on our networks.

Step-by-step

1. Start a new Debian server in your vApp. Use the one identified as the Management server.
   NB: For today it will be ok to run as root for this exercise. You'll need to set up proper user accounts later.
2. Update your apt database by running `apt-get update`.
3. Install the Bacula server tools by running `apt-get install bacula-server`. At one point you'll be asked if you want to use SQLite. Say yes to this (We'll change this on Friday).
4. Install the Bacula client software by running `apt-get install bacula-client`.
5. Bacula's configuration files are in `/etc/bacula`. Well edit two of those today.
   (a) In `/etc/bacula/bacula-sd.conf`, look for the Device section named "FileStorage". Change the Archive Device to `/home/bacula/storage`.
   (b) In `/etc/bacula/bacula-dir.conf`, look for the Job section named "RestoreFiles". Change the Where property to `/home/bacula/storage`.
   (c) In the FileSet section just below this, change the File property to `/home/bacula/data_to_backup`.
6. You can learn a lot just by inspecting these configuration files, so be sure to do so.
7. Since we have modified the configurations, we need to restart the servers by issuing `/etc/init.d/bacula-director reload; /etc/init.d/bacula-sd reload`.
8. Create the directories `/home/bacula/storage` and `/home/bacula/data_to_backup`. Change the owner of `/home/bacula/storage` to `bacula`.
9. Create some files in `/home/bacula/data_to_backup`.
10. Now you're ready to do some backup and restore jobs. Open a second ssh session. In it, run the command `bconsole`. The commands below take place in `bconsole`.
11. Enter `show filesets` to see what files Bacula is configured to back up.
12. Enter the commands `status dir`, `status client`, `status storage` to see the statuses of those services.
13. Now let's do a backup. Start by entering `run` in `bconsole`. You'll see a list of available jobs. Enter 1 to run the `BackupClient1` job. Say yes at the next prompt.

14. Enter `messages` to view status messages. You'll see that your job is blocked because your storage device is not ready.

15. Enter `label` to prepare your storage device. If you get a menu of choices, pick the File option.

16. Name your new volume `TestVolume1`.

17. You'll need to put your volume in a Pool. Choose the File pool. Now your backup job should run.

18. In your other ssh session, delete some of the files you placed in `/home/bacula/data_to_backup`.

19. Now we'll restore the missing files. In `bconsole`, enter the command `restore all`. From the resulting menu, pick option 5.

20. Bacula will ask what files to restore. Just enter `done` to restore everything.

21. Bacula places the restored files under `/home/bacula/storage`. What if you want to restore the files directly to their original locations? Start a new restore job as you did above.

22. When you get to the yes/mod/no step, enter `mod`. Set the Where property of the restore to nothing or /. Now Bacula will restore the files to their original locations.

Feel free to play with Bacula a bit more, and consult the online documents for more information. At this stage, there's nothing you can break that isn't easy to fix. You may want to save copies of the configuration files before you make a lot of changes.