Lab 10.01: Installing and Trying Bacula
IN719 Systems Administration

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. Later we will configure Bacula to run proper backups on our networks.

Step-by-step

Carry out the following procudure on your `storage` server.

1. Use `apt-get` to install the `bacula-server` package[1]. At one point you will be asked if you want to use SQLite; say yes to this.
2. Install the `bacula-client` package.
3. Bacula's configuration files are in `/etc/bacula`. We will edit two of them today.
   (a) In `/etc/bacula/bacula-sd.conf`, look for the *Device* sections named "`FileChgr1-Dev1`" and "`FileChgr1-Dev2`" . Change the *Archive Device* to `/home/bacula/storage/dev1` and `/home/bacula/storage/dev2`.
   (b) In `/etc/bacula/bacula-dir.conf`, look for the *Job* section named *RestoreFiles*. Change the *Where* property to `/home/bacula/restores`.
   (c) In the *FileSet* section just below this, change the *File* property to `/home/bacula/data-to-backup`.

   You can learn a lot about Bacula just from inspecting these configuration files, so be sure to do so.
4. Since we have modified the configuration files, we will need to use the `service` command to reload the services `bacula-director` and `bacula-sd` (e.g., `service bacula-director reload`).
5. Create the directories `/home/bacula/storage/dev1`, `/home/bacula/storage/dev2`, `/home/bacula/restores`, and `/home/bacula/data-to-backup`. Change the owner of the first two to `bacula`.
6. Create some files in `/home/bacula/data-to-backup`.
7. Now you are ready to run some backup and restore jobs. Open a second ssh session to your `storage` server. In it, run the `bconsole` command. The next several commands take place inside the `bconsole`.
8. Enter `show filesets` to see what files Bacula is configured to back up.
9. Enter the commands `status dir`, `status client`, and `status storage` to see the statuses of those services.
10. Now let's do a backup. Start by entering `run` in bconsole. You will see a list of available jobs. Enter 1 to run the `BackupClient1` job. Say yes at the next prompt.
11. Enter `messages` to view status messages. You will see that your job is blocked because your storage device is not ready.
12. Enter `label` to prepare your storage device. If you get a menu of choices, pick the *File* option.
13. Name your new volume `TestVolume1`
14. You will need to put your volume in a *Pool*. Choose the *File* pool. Now your backup job should run.
15. In your other ssh session, delete some of the files you placed in `/home/bacula/data-to-backup`.
16. Now we will restore the missing files. In bconsole, enter the command `restore all`. From the resulting menu, pick option 5.

[1] We will bypass Puppet for today's lab, but you should create puppet modules for Bacula later.

17. Bacula will ask what files you want to restore. Enter `done` to restore everything.
18. Bacula will placed the restored files under `/home/bacula/restores`. Verify that the files are correct before manually copying them to the desired location.
19. What if you want to restore the files to their original locations? Start a new restore job as you did above. When you get to the yes/no/mod step, enter `mod`. Set the *Where* property of the restore to nothing or /. Now Bacula will restore the files directly to their original locations.

Play with Bacula a bit more and consult the online documentation to get a feel for it. You may want to save copies of the configuration files before you modify them.