

# Lab 10.1: 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 procedure on your **storage** server.

1. Use **apt-get** to install the **bacula-server** package<sup>1</sup>. 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* 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/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**, **/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.

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<sup>1</sup>We will bypass Puppet for today's lab, but we will create puppet modules for Bacula later.

17. Bacula will ask what files you want to restore. Enter **done** to restore everything.
18. Bacula will place 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.