# Jenkins Backup & Restore

All Jenkins related files are normally located under '/var/lib/jenkins'. You can check the home directory of Jenkins to confirm from Jenkins server system configuration.

First ensure to stop the Jenkins services on source and destination server.

Backup is best done with tar command with packages all the files & directories under '/var/lib/jenkins' into one file which is easy to copy over to remote destination server.

**tar command syntax**

**tar**:

- **[options]:** Optional flags or settings that modify the behavior of the tar command.
- **[archive-file]:** The name of the archive file you are creating or working with.
- **[file or directory to be archived]**: The file or directory you want to include in the archive.

An Archive file is a file that is composed of one or more files along with metadata. Archive files are used to collect multiple data files together into a single file for easier portability and storage, or simply to compress files to use less storage space.

| Options | Description |
|---|---|
| -c | Creates an archive by bundling files and directories together. |
| -x | Extracts files and directories from an existing archive. |
| -f | Specifies the filename of the archive to be created or extracted. |
| -t | Displays or lists the files and directories contained within an archive. |
| -u | Archives and adds new files or directories to an existing archive. |
| -v | Displays verbose information, providing detailed output during the archiving or extraction process. |
| -A | Concatenates multiple archive files into a single archive. |
| -z | Uses gzip compression when creating a tar file, resulting in a compressed archive with the '.tar.gz' extension. |
| -j | Uses bzip2 compression when creating a tar file, resulting in a compressed archive with the '.tar.bz2' extension. |
| -W | Verifies the integrity of an archive file, ensuring its contents are not corrupted. |
| -r | Updates or adds files or directories to an already existing archive without recreating the entire archive. |

## Backup Jenkins on source Server

1. Stop Jekins service on source server

    $ sudo systemctl stop Jenkins

2. switch to root user

    $ sudo su –

3. Next switch to Jenkins user

    $ su Jenkins

4. Switch home directory of Jenkins user

    $ cd ~

    $ pwd

5. create a tar.gz file under /tmp that includes all the files under jenksins home directory (eg. /var/lib/Jenkins).

    $ tar -zcvf /tmp/jenkins-backup-01.tar.gz .

6. confirm the tar file creation. You see the Jenkins:jenkins as the owner:group for the tar file

    $ ls -l /tmp/jenkins-backup*

7. Now check the file size of tar to estimate the transfer time

    $ du -ah /tmp/jenkins-backup*

8. Now exit from jenkins user

    $ exit

9. Now exit from root user

    $ exit

## Transfer the backup tar file from source Jenkins server to remote Jenkins Server

1. Use scp command on source server and the ssh key file of remote server to transfer the tar file to /tmp on destination server

    Syntax to use to copy from source server

    $ scp -I <key-file> <source file path> <user-name>@<ip or hostname FQDN>:<destination path to copy>

    Example

    $ scp -i <pem file path> /tmp/jenkins-backup-01.tar.gz <user-name>@<public-ip>:/tmp/

2. When prompted for known host confirmation , enter ‘yes’ and the transfer will start

# Restore the backup tar file on Destination Jenkins Server

1. ssh to the Destination Jenkins server

2. stop Jenkins service on destination server

    $ sudo systemctl stop Jenkins

2. switch to root user

    $ sudo su –

3. Next switch to Jenkins user

    $ su Jenkins

4. Switch home directory of Jenkins user

    $ cd ~

    $ pwd

5. validate the backup tar file is transfer in /tmp

    $ ls -l /tmp/jenkins-backup*

6. extract tar file to Jenkins home directory on the destination server (Eg. /var/lib/jenkins)

    $ tar -xzvf /tmp/jenkins-backup-01.tar.gz

7. Once extraction is done, validate the jobs directory to confirm all the jobs config are restored. You should see directories name matching to the jobs present in the source jenkins server.

    $ ls -l /var/lib/jenkins/jobs/

8. Now start the jenkins service on the destination server and confirm the status

    $ sudo systemctl start jenkins

    $ sudo systemctl status jenkins

9. Now login to the destination jenkins url and validate.