

## Lab – Backup Data to External Storage

- Objectives

Backup user data.

Part 1: Use a local external disk to backup data

Part 2: Use a remote disk to backup data

- Background / Scenario

It is important to establish a backup strategy that includes data recovery of personal files.

While many backup tools are available, this lab focuses on the Microsoft Backup Utility to perform backups to local external disks. In Part 2, this lab uses the Dropbox service to backup data to a remote or cloud-based drive.

- Required Resources
- PC or mobile device with Internet access
- Backing Up to a Local External Disk
  - Getting Started With Backup Tools in Windows

Computer usage and organizational requirements determine how often data must be backed up and the type of backup to perform. It can take a long time to run a backup. If the backup strategy is followed carefully, it is not necessary to back up all files every time. Only the files that have changed since the last backup need to be backed up.

Microsoft Windows includes backup tools that can be used to backup files. In versions earlier than Windows 8, you could use Backup and Restore to backup your files. Windows 8.1 ships with File History which can be used to back up the files in the Documents, Music, Pictures, Videos, and Desktop folders. Over time, File History builds a history of your files, allowing you to go back and recover specific versions of a file. This is a helpful feature if there are damaged or lost files.

Windows 7 and Vista ship with a different backup tool called **Backup and Restore**. When an external drive is selected, Windows 7 will offer the chance to use the new drive as a backup device. Use Backup and Restore to manage backups.

**To access the Backup and Restore utility in Windows 7, follow the steps below:**

1. Connect an external drive.
2. Execute the Backup and Restore by using the following path:

**Start > Control Panel > Backup and Restore**

**To get started with File History in Windows 8.1, follow the steps below:**

1. Connect an external drive.
2. Turn on File History by using the following path:

**Control Panel > File History > click Turn on**

**Note:** Other operating systems also have backup tools available. Apple OS X includes Time Machine while Ubuntu Linux includes Déjà Dup, by default.

- Backing up the Documents and Pictures folders

Now that the external disk is connected and you know how to find the backup tool, set it up to back up the Documents and Pictures folders every day, at 3 a.m.

8. Open **Backup and Restore** (Windows 7) or **File History** (Windows 8.x).
9. Select the external disk you want to use to receive the backup.
10. Specify what you want to be backed up to the disk. For this lab, choose the **Documents** and **Pictures**
11. Set up a backup schedule. For this lab, use daily at 3 a.m.

Why would you choose to perform backups at 3 a.m.?

Usually, the computer is not in use at this time or it has low-usage therefore making it an ideal time to backup files in the disk. Little to no impact on user operations is expected unless you do a lot of computing work at such an early time in the morning.

Start the backup by clicking the **Save settings and run backup**.

- Backing Up to a Remote Disk
  - Getting Familiar With Cloud-Based Backup Services

Another option for a backup destination is a remote disk. This might be a complete cloud service, or simply a NAS connected to the network, remote backups are also very common.

1. List a few of cloud-based backup services.

Google Drive, Dropbox, One Drive, iCloud, Mega, MediaFire

1. Research the services you listed above. Are these services free?

Majority of these services are free but come with a limited amount of cloud storage. If user requires additional storage from the one provided, then a subscription fee must be paid monthly depending on the required amount of storage.

1. Are the services listed by you, platform dependent?

Google Drive, Dropbox, MediaFire, and Mega are platform independent. One Drive can only be used to sync files on Windows and Mac OS (commonly used on Windows). iCloud can be used on Windows and Mac OS (commonly used on Mac OS). Most of the popular cloud backup services are not platform dependent and have web interfaces or clients available for all the major platforms.

1. Can you access your data from all devices you own (desktop, laptop, tablet and phone)?

Yes I can practically access all my data from the devices I own as long as I sync them together.

- Using Backup and Restore to Back Up Data to the Cloud

Choose a service that fits your needs and backup your copy of your Documents folder to the cloud. Notice that Dropbox and OneDrive allow you to create a folder on your computer that acts as a link to the cloud drive. Once created, files copied to that folder are automatically uploaded to the cloud by the cloud-service client that is always running. This setup is very convenient because you can use any backup tools of your choice to schedule cloud backups. To use Windows Backup and Restore to back up your files to Dropbox, follow the steps below:

1. Visit <http://dropbox.com> Links to an external site. and sign up for a free Dropbox account.
  2. When the account is created, Dropbox will display all the files stored in your account. Click **your name** and click **Install** to download and install the appropriate Dropbox client for your operating system.
  3. Open the downloaded program to install the client.
  4. After the installation is complete, the Dropbox client will create a folder named Dropbox inside your Home folder. Notice that any files copied into the newly created folder will be automatically copied to Dropbox's cloud-hosted servers.
  5. Open **Windows Backup and Restore** and configure it to use the new Dropbox folder as a backup destination.
- Reflection
    1. What are the benefits of backing up data to a local external disk?

These backups are always available to the user since it does not require an internet connection and this data is exclusively accessed by you as you are not using third party applications. To keep it simple, this data in an external disk is entirely under your discretion.

2. What are the drawbacks of backing up data to a local external disk?

Depends on the type of storage you use. If HDD, the disk surface can be damaged, files can be corrupted. To access information from this storage device, always make sure that the device you are connecting it to is virus-free, corrupt-free. Just as anything in your home is at risk to fire and flooding, so is your backup storage device.

3. What are the benefits of backing up data to a cloud-based disk?

Data is not at risk to local disasters. You practically don't have to spend for a storage device since data is placed at an off-site location.

4. What are the drawbacks of backing up data to a cloud-based disk?

Your data is now under the care of the company you placed your data in. It is possible that the company will access your data. A subscription fee is possible depending on the amount of data you need to store.