

File Storage

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WHAT'S COVERED

In this lesson, you will explore options for saving your files. You will consider the advantages and disadvantages of each method. You will also explore how making the right selection can improve your productivity skill. You will also consider how strong technology skills can help you take initiative when it comes to organizing your files.

Specifically, this lesson will cover:

1. Internal Storage Devices
2. External Storage Devices
3. Network Storage
4. Cloud Storage



Technology: Apply Your Skill

Imagine you're on vacation, and you get a call about your dream job. You want to send over your resume right away, but you didn't bring your personal computer! As you review the storage options below, consider which one would allow you to access your resume no matter which device you can access.

1. Internal Storage Devices

As data is generated by a computer, there must be sufficient space in which to store it. Various types of storage media are available, each with its own storage capacities, pros, and cons. All computers have some kind of **internal storage** capability. Some you may have heard of include:

- **Hard Drive:** A storage device containing one or more disks on which information is magnetically recorded; short for "hard disk drive."
- **Solid-State Drive:** A computer drive that uses flash memory to store data, rather than storing data magnetically on a spinning disk as a hard disk drive does.
- **Flash Memory:** A form of computer memory that stores and erases information electronically; it is faster

and more energy-efficient than hard disk storage.

Anytime you save a document or other digital asset to your downloads or on your desktop, you are saving that file internally. It is a common practice to save files this way. One potential issue if you choose to save everything this way is that you could lose all data and files if something happens to your computer. That is an important note to keep in mind as you explore other options.



DID YOU KNOW

Internal storage is often referred to as local storage.



TERMS TO KNOW

Internal Storage

Storage that is part of the computer itself, such as a hard disk drive or a solid-state drive.

Hard Drive

A storage device containing one or more disks on which information is magnetically recorded.

Solid-State Drive

A computer drive that uses flash memory to store data, rather than storing data magnetically on a spinning disk as a hard disk drive does.

Flash Memory

A form of computer memory that stores and erases information electronically; it is faster and more energy-efficient than hard disk storage.

2. External Storage Devices

External storage devices have been around for some time. In the past, people would typically use them when their computer ran out of storage space. Today, they are still used for that reason but they are also used for a variety of other reasons. Two common external storage devices are listed below.

- **Portable Flash Drive:** A small external storage device with flash memory that plugs directly into one of the hardware ports on a computer; also known as a USB drive, jump drive, or thumb drive.
- **External Hard Drive:** A hard disk drive or solid-state drive that is not part of a computer but instead attaches to the computer with a cable or connects to it over Wi-Fi.

The devices above serve different purposes, but both can be very useful. Consider the scenarios below. Has anything similar ever happened to you?

IN CONTEXT

Scenario 1

Maria took some initiative and decided to create a budget for the new year. She was interrupted from her work when her son got home from school. She saved her spreadsheet on her hard drive, but she also saved a copy on her flash drive. When she got back to the computer to begin working again, she discovered the internet had gone out. No problem! She accessed her file on her flash drive and kept working.

Scenario 2

Last year Kerry lost all of his files when his laptop crashed. When he purchased his new laptop, he also purchased an external hard drive. He set things up so his laptop backs up every night to the external hard drive. Everything saved on his laptop is now also saved in a second location (the external hard drive). If his computer crashes again... he won't lose everything.



TERMS TO KNOW

External Storage Device

Storage devices that are not part of a computer, such as external hard drives and portable flash drives.

Portable Flash Drive

A small external storage device with flash memory that plugs directly into one of the hardware ports on a computer; it is also known as a USB drive, jump drive, or thumb drive.

External Hard Drive

A hard disk drive or solid-state drive that is not part of a computer, but instead attaches to the computer with a cable or connects to it over Wi-Fi.

3. Network Storage

Network storage is often found in the workplace. This storage is a collection of connected computers and devices that allows users to share hardware, software, and data, and to communicate with one another. There are several reasons why this is a good idea at work:

- A company's system administrators can manage files and back them up as needed
- Anyone authorized has access to the information they need
- Administrators can lock files that shouldn't be changed, and they can find previous versions of files if needed



TERM TO KNOW

Network Storage

A collection of connected computers and devices that allows users to share hardware, software, and data, and to communicate with one another.

4. Cloud Storage

Cloud storage is often called online storage. Using this method, you can save your files remotely so you can access them online. Some examples of cloud storage you may be familiar with are:

- Microsoft OneDrive
- Dropbox
- Google Drive



Some of these services only allow you to save your files in the cloud. Others offer you applications you can use like Google Docs or Google Sheets.

As with most storage options, there are advantages and disadvantages to cloud storage.

Advantages	Disadvantages
Can access files anywhere with an internet connection	You need an internet connection
Changes are automatically saved	If cloud server is not working, you cannot access your files
Can access files on a variety of digital tools	Data may be exposed if a hack occurs



Productivity: Skill Reflect

Choose one of the ways that you use or would like to use the cloud below and reflect on how it makes or could make you more productive.

- Reducing the need for one specific home base — your files are available everywhere
- Being able to share very large files quickly
- Sharing videos and pictures with your family members with ease
- Collaborating with someone else on a special project



TERM TO KNOW

Cloud Storage

Online storage.



SUMMARY

In this lesson, you reviewed **internal, external, network, and cloud storage**. You learned more about how each one works and when it might be best to use each one. You also reflected on how understanding these options can improve your technology skill. With this understanding, you can take initiative and make sure you choose the storage method that will make you as productive as possible... both at home and at work.



TERMS TO KNOW

Cloud Storage

Online storage.

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External Storage Device

Storage devices that are not part of a computer, such as external hard drives and portable flash drives.

Flash Memory

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Hard Drive

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Internal Storage

Storage that is part of the computer itself, such as a hard disk drive or a solid-state drive.

Network Storage

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Solid-State Drive

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