

## What's Backing Up Your Data?

Data is essential to a law office. Theft or loss of data can devastate both clients and lawyers, making proper storage and backup of data critical to the operation of a law firm. Most lawyers have no problem storing their data. Data backup, on the other hand, may not be at the forefront of lawyers' minds for many reasons.

The importance of data backup cannot be overstated. Imagine your laptop or desktop suddenly stops working or is lost or stolen. All the data you once took for granted is now gone. Some files can be recreated while others cannot.

Additionally, a defective or stolen computer means all the software applications and programs installed on your computer are also gone. You may be able to reinstall some software and programs but may need to repurchase others. The time, money, and energy put into restoring your computer – data and all – may cost more than the price of backing it up in the first place.

While a full computer backup done by disk imaging or disk cloning is preferable to just data backup, the latter is a first step for many lawyers. This article will focus on best practices to back up your data. First, let's distinguish between data storage and data backup.

### Data Storage

Storage is the location where your files are saved. For small firms and solos, this location is usually the internal hard drive of a desktop or laptop computer. For bigger firms, it's probably a file server. Other devices that store data include USB memory sticks, external hard drives,

external solid-state drives, optical media like CDs, other portable or desktop external drives, and cloud data storage providers such as Drop-Box and Google Drive.

### Data Backup

Backup is the act of creating and keeping a copy of your saved files in a device different from where they are stored. After you work on a file, you save it to your normal storage location (e.g., computer's internal hard drive or file server). You then periodically make a copy of these saved files or other data to a separate device. The words "different" and "separate" are crucial. You cannot use the same device to both store and back up your data. Some storage devices mentioned above can be used to back up data, while others are not suitable for the task.

### Best Practices to Back Up Data

The best way to back up your data is to use both onsite backup and offsite backup together.

#### Onsite Backup

Onsite backup is periodically backing up your data to a separate local device. The local device is usually kept in your office or home. Below are a few options for local onsite backup devices.

- **USB Flash Drive:** A universal serial bus (USB) flash drive, also known as a thumb drive, is a small portable device that plugs into the USB port of a computer. It is used to store and transfer information from one computer to another. This device is good for temporary storage of data, but it should not be used as a backup tool for several reasons.

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One, it's not big enough. A thumb drive simply does not have enough storage density to back up all data on your computer. Two, it's prone to data loss. Improperly removing the device from your computer can cause complete data loss. It could also fail due to temperature fluctuation. Three, it's easily misplaced or lost. Its small size makes it vulnerable to slip out of your briefcase, pocket, or purse. You may plug it into one device and then forget to retrieve it.

- **External Hard Drive:** An affordable and easy-to-use storage device that can be used to back up your data is an external hard drive. This is a device you plug into your computer, usually with a USB cord. It allows you to store the backed-up data in a location separate from the computer's internal hard drive. You can buy a 2-terabyte external hard drive for about \$100 at most retail stores and even cheaper online.

One disadvantage of using an external hard drive is that it can be connected to only one computer at a time. A firm with two or three attorneys with their own separate computers wishing to share or use only one external hard drive must wait for one computer to be backed up before another computer can be plugged in. It is better for each attorney to use his or her own separate external hard drive to back up the data on his or her own individual computer.

- **External Solid-State Drive:** Another device that can back up data is an external solid-state drive (SSD). SSD is different from a hard drive in that SSD uses a memory microchip to store information rather than a spinning disk. Because it has no moving parts, SSD is faster and more durable than a hard drive. SSD is better at resisting shock and handling motion, so it's less likely to crash or fail when dropped or moved around. However, SSD offers less capacity per drive and is much more expensive than an external hard drive. A 1-terabyte SSD costs about \$400 to \$500. However, considering the benefits it offers, it may be worth the price.

- **Network Attached Device:** Law offices with a computer network might consider using a network attached storage (NAS) as a way to back up their data. NAS is a hard-disk storage device that connects to your network rather than to your computer like an external hard drive. Therefore, it can back up all computers on the network at regular intervals. All contents – including settings, programs, and files – of all computers can be copied onto the NAS.

This device uses one or more internal hard drives to store data. You can add more drives for extra storage space. If two or more hard drives are used, the NAS can be set to automatically copy the content of one drive to another. This redundancy helps ensure your data will continue to be backed up even if one drive fails. As a storage device, NAS allows attorneys to store all files in a single secured location. You

can then access and share files from any device connected to the network.

One notable drawback of using a NAS is that it is harder to set up than an external hard drive. You may need an IT person to set up the NAS for proper backup.

Onsite backup is necessary but not a long-term backup solution. Your NAS or external hard drive will come in handy when your computer fails. You can easily restore your computer using the backup. However, these onsite backup devices can be destroyed in a fire or flood or stolen in a house or office robbery. Onsite backup is just the first step to fully protecting your data.

## Offsite Backup

Your backup strategy is incomplete without an offsite or remote backup plan. It is the offsite backup that will protect your data from cataclysmic events.

Offsite backup means backing up data to a different geographic location from where your original stored and onsite backed-up data are physically kept. One simple and affordable offsite backup measure is to have your data backed up to two devices. You keep those two devices in different locations. For example, you could keep one device at your office and take the other one home. If you practice from your home, then you could keep the other device at a trusted family member's home or even in a safe deposit box at the bank.

This offsite backup method seems like a sound plan, but it's not always optimal. You might forget to retrieve it from the offsite location. You or your family member might misplace it. Because it is out of sight, it might be out of your mind. You might end up backing up the offsite device only a few times a year. While this method is better than none, it still does not provide you with real geographic separation between your original stored data and your backed-up data. What happens if your entire city or town is hit with a natural disaster like a wildfire or earthquake? All of these catastrophic events have occurred in Oregon before and will likely happen again.

## Cloud Data Backup

If you are looking for a better offsite backup option with geographic separation, then consider using a cloud data backup service. Cloud backup (also called online backup) is backing up your data to a remote cloud-based server managed and maintained by a service provider. Backed-up data is stored in multiple data centers across the United States or the world. Your data will be safe in the event of a local disaster. One major advantage of using a cloud backup service is that the backup is done automatically and you don't have to worry about doing it on your own. You can set your own backup schedule and go about your practice without hav-

ing to think about it again. Most providers have continuous backup where changes made to your files are backed up immediately in real time. Reputable vendors have strong three-way encryption that protects data locally, in transit, and at rest. They offer features such as automatic versioning of files and automatic data de-duplication. Some top vendors include SpiderOak, Carbonite, CrashPlan, Mozy, SOS Online Backup, and Box.

Despite the distinct benefits of cloud backup, there are also disadvantages that attorneys should be aware of. First, the initial backup or first full recovery may take a very long time. Second, if you have no Internet connection, you cannot access your data. Third, no data that exists on the Internet can be 100% safe even with the highest form of encryption. However, the drawbacks are still outweighed by the advantages, and you should strongly consider using cloud backup as a part of your overall plan.

It is necessary to vet the vendors by carefully reviewing their user agreements and terms of services. To learn more about how to choose the right cloud data backup provider, please see our practice aid titled “Online Data Storage Providers” available at [www.osbplf.org](http://www.osbplf.org). Select Practice Management>Forms>Technology.

## **Conclusion**

You cannot afford to lose data. By taking a few precautions now and implementing a plan, you will be saved from headaches, anxiety, and lost time and money when a data disaster strikes.

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