

## Backing up your computer

For safety, you should always have a backup of your computer data, operating system, and programs. An inexpensive flash drive or external hard drive, along with some image software and a backup script is your best and safest method of security at a low cost. A good imaging software program costs around \$50 and an external 1TB hard drive will cost you less than \$90.

### ***Backup methods include:***

1. **Imaging software:** Makes an image of your OS, programs, and data much like a snapshot in time of your entire system. Completely rebuilding your system including reinstalling your operating System, all your applications, updates, printers, email, etc. then copying your data back usually takes hours of time and lots of money. For less than \$50, an imaging program saves you that time and money. If your system gets encrypted or your hard drive crashes, you can blast the image right back and have everything (programs and data) back and working just like it was when you made the image.
2. **Backup Scripts:** Copy just your user data files (pictures, Docs, etc.) to an external device. Backs up your data but not your operating system or programs. A good script copies everything in original native format to the backup device, and subsequent runs of the script copy only the files that are new or have changed.
3. **Online Data File backups like Carbonite or Gillware:** Backs up the data that you mark for it to do, good online backups keep several revisions of your files so if you get encrypted and it backs the encrypted or corrupted files up to the cloud, you can restore a good previous copy. Some manufacturers like Gillware / Storagecraft also offers an image based local backup of your entire system that also backs the complete image up to the cloud securely.
4. **Dropbox and OneDrive:** THIS IS NOT A VALID BACKUP METHOD! If you get hit by a crypto-locker, it will encrypt everything on your local computer including your Dropbox locally, which will then replace your files up in the cloud, then everywhere that synchs with that Dropbox. It is good for if your hard drive crashes to copy back your data, or to get files at home that you have at work, but it is not a reliable backup method.

If you need help choosing the right backup method for your needs, or help installing and learning how to use it, contact MCW and we will assist you to get properly protected and backed up. Backing up is much less costly than reactively cleaning up the mess that malware, updates, or failed hardware will make of your computer, and possibly your life!