HOW TO BACKUP SECURELY

This Tech Tip addresses some frequently asked questions about how to safeguard your computer data on a personal and business level. It assumes that you DO NOT have gigabytes of music and movies that require extensive security measures to protect.

1.) How should I begin to secure important data on my desktop computer or laptop?

First, it makes sense to designate 1 or 2 specific folders on your computer as the main folder for confidential file back-ups for several reasons. If you have to do a quick back-up, all you do is copy that folder to an external drive for an instant back-up.

Second, It provides a centralized location for all important data. Instead of having to hunt down the menu, sub-menu, sub-sub-menu of where you normally download company financial spreadsheets, you can set your browser and programs (such as Quickbooks, etc.) to save/download all important files to this folder.

Third, let's say you only save ALL important files on a flash drive/external hard drive. If your notebook gets lost/stolen, the thieves only have the programs and not the actual confidential files which are on the cheap flash drive.

2.) **Great, now how do I actually back-up my designated BACK UP folder(s)?**

Here's where it gets tricky. You have several back-up options such as:

A.) **Cloud** – Services such as **Carbonite** and **Mozy** offer low-priced back-up solutions. You basically upload all your confidential files to their cloud servers and are able to access them anywhere in the world where there is Internet access. The main issue is that, from a business

security perspective, you have no idea where your data is stored. **If, for example, it's stored in a server farm in China which gets hacked, then you're in trouble.**

B.) **External Hard Drives** – These nifty devices come in portable 2.5" and larger 3.5" flavors and offer more than generous dumping grounds for all things important. Once you plug it in, your OS recognizes it and pops you up with a folder showing it as a (giant) external drive with a letter (i.e. G:) Some even feature OTB (One Touch Backup) so you press one button and it backs up either your entire system or certain portions of it. Some **external hard drives**offer plug-in encryption that prevents unauthorized access. The issue with this solution is that you have to lug it around, which means it has a chance of getting lost/stolen and the formality of performing a back-up might become time-consuming to some.

C.) **Flash Drive** – These little drives are more nimble, have zero moving parts and are highly portable. Unfortunately, this is also its Achilles' Heel as its relatively small size makes it prone to becoming misplaced or stolen. Also it does not have the capacity of a larger external drive. The good news is that some flash drives have built-in encryption which can be useful if it lands in the wrong hands.

D.) **Home/Office Network Attached Storage Drive** – Also called NAS, this is an excellent solution for comprehensive back-up protection as these hard drives function as dumping grounds for an entire home or office network. It provides a centralized location for files, folders and documents which any connected computer can access and come in large drive sizes. However, security precautions should be utilized if the NAS has built-in measures as an unsecured NAS may be prone to prying eyes. For example, a NAS without security protocols activated while connected to a home Wi-Fi network is prone to being breached. Because of this, it's crucial to configure the NAS security as well as the router/network security for optimal protection.

E.) **Backing up to CD/DVD/Blu-Ray** – Optical media back-up is actually a very cost-effective solution because CDs and DVDs are very cheap nowadays. Furthermore, if you're looking to close the books for a certain month on your business, burning to a CD-R or DVD+R sets the data in stone so it can't be manipulated on the disc. The problem is that if you have lots of data to back-up, the formality of using several CD-R or DVD-R discs to save might also become time consuming. In addition, you would have to make sure said back-up discs are placed in a safe place where the chance of it getting stolen is minimized.

3.) **Which back-up method should I pick?**

While the above solutions offer many ways to back up your confidential data, the best way to minimize a data breach/loss is to follow a combination of multiple back-up solutions and proactive behavior. For example, it would be a good idea to store important sensitive data on your flash drive and encrypting it with TRUE Crypt while also saving duplicate file copies on your home NAS drive via secure VPN connection. If your flash drive is lost/stolen, True Crypt prevents the drive from being used without proper credentials and you can still access the very same duplicate files on your NAS server.

Regarding proactive behavior, you should be mindful of back-ups so you don't lose something you wish you saved 2 weeks ago.

There are also programs out there that can help secure data such as:

- **Folder Lock** – Locks and can hide any folder you wish from prying eyes.
- **True Crypt**– secures drives with extensive hardware encryption.
- **Acronis Drive Cleaner** – Completely erases all drive data with several methods (DoD, Gutmann method, etc.) – works great if you're planning to get ride of old computer hardware.

Source : http://www.geeks.com/techtips/2011/how-to-backup-securely.asp