

All about Backups

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Introduction

This article is all about the personal information that is stored on your computer. More specifically, this article is all about the personal information that is stored on your computer's hard disk drive – *or HDD*.

As to the importance or the significance of this article – this will be entirely dependent on your answer to one simple question,

"If, for whatever reason, you were not able to access the personal information that is stored on your computer's HDD, such as music, pictures, documents and videos, would this inability to access this personal information be of any concern to you?"

If your answer to this question is "No" – then this article may not be of any real interest to you. However, if your answer to this question is "Yes!", or even, "I am not sure?" – Then this article will be of interest to you.

Potential Causes of Data Loss

It is imperative to understand that the inability to access the personal information – we will refer to this as "*data loss*", that is stored on your computer's HDD *is an ever-present reality*.

For example, in 2016, 44% of data loss was caused by mistaken deletion, software corruption or a system crash, 14% was due to a virus attack, and 15% was due to theft. And though this article will focus entirely on HDD failure as the primary cause of data loss – the other *causes* of data loss should not be ignored or overlooked.

Data Loss Prevention

The manner in which to prepare yourself for potential personal data loss – and *it is reasonable* to consider all data loss *as potential data loss*, is through the routine backup of this personal information. To prevent data loss then, the personal information – or "*data*", that is stored on your computer's HDD *should be backed-up*.

A backup is simply the process of making a copy of this data to some form of external media – such as an external HDD or to "the cloud". More on this in a moment. Once a backup has been completed, if the computer's HDD should ever fail, then the backed-up data can be accessed from the external media or "the cloud".

HDD Recovery

In the event that a backup of your data has never been implemented, and the computer's HDD were to fail, *it may be possible* to recover the data from the failed HDD. However, this recovery process is both *a costly and a lengthy one* – with costs starting at \$695.00, and taking anywhere from four to seven days to complete. And there are other costs to be considered as well – such as the cost of some form of external media that will be used to store the recovered data, as well as the costs associated with the rebuilding of the "*crashed*" system, application installation and data restoration on the original computer. *Such costs can be in excess of \$300.00!*

HDD Recovery versus HDD Backup

Compared to the cost and the time required in implementing a backup procedure both are considered, *inconsequential*. Both approaches will require the cost of external media – in this case an external HDD.

If you consider yourself "computer-savvy" enough to be able to implement a backup procedure on your own, then the cost savings can be even greater. If you are *unable* to do so, then expect one hour to one and a half hours to have a service-tech perform this operation for you.

The following is a simple cost comparison. As can be seen, the difference in the overall costs and down-time are indeed significant:

HDD Recovery	Cost
HDD – up to 1TB	\$695.00
Restore media ¹	\$69.95
Reinstall Windows OS ²	\$74.00
Reinstall applications ²	\$74.00
Restore user data ²	\$74.00
Total:	\$986.35

Local Backup	Cost
1TB portable HDD ¹	\$69.95
Backup software	Free
Configure backup ²	\$111.00
Total:	\$180.00

Total down-time - approximate	12 days
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Total down-time - approximate	1.5 hours
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¹ This media would have to be purchased regardless.

² Using the services of Customer First Computing.

Local Backup versus Off-Site Backup

When considering a backup *strategy*, there are two *locations* where a backup could be performed, 1) locally, or 2) off-site. A local backup is performed where the computer is actually located. An off-site backup is performed using a *service* that is provided by a *service-provider* located on the Internet. The latter type of backup is commonly referred to as a "*cloud*" backup.

As to which backup strategy is best – you will need to perform the necessary research on your own. Both strategies do have their "pros and cons". However, *for me and my house*, we use and will continue to use local backups – and is therefore, the backup method that will be used here.

Performing a "Local" Backup

As mentioned previously, if you happen to consider yourself "computer-savvy" enough to be able to implement a backup procedure on your own, then the following information *might* be of assistance to you.

- Please note: The terms that are being used here *should be familiar* to those who are attempting to perform a backup on their own. If any of these terms *are unfamiliar to you*, then it is strongly recommend that you seek out the assistance or the services of someone else.

The "Tools"

To be able to perform a backup, you will require the following "tools":

1. A backup storage device.
2. A backup software application.

We will consider each of these "tools" in turn.

Tool #1: A backup storage device

To perform a local backup, you will require an external HDD, such as the one shown below:



About Thumb Drives

Before continuing, a word or two needs to be mentioned about the use of flash drives – or thumb drives, for backup. I personally do *not* recommend the use of thumb drives for backup. This being said, there *are* situations where the use of thumb drives for backup just might be *more practical*. In such situations, you need to obtain two thumb drives for use in performing backups. This being said, the reason for my non-recommendation of the use of thumb drives for backups is beyond the scope of this present article.



Tool #2: A backup software application

Though Microsoft Windows does provide a somewhat *usable* backup alternative – this alternative is most definitely *not the most practical*. Therefore, what is commonly referred to as "third party" backup software is recommended. Two such third party backup software applications are 1) QTDSync¹ and 2) Cobian Backup² – *both of which are free*.

- Note: See the Reference Section at the conclusion of this article on how to obtain these free backup applications.

The Procedure

The following is an outline of the procedure that I personally use in performing a local backup. The procedure consists of six parts in total.

Part A: Determine the total capacity of all data stores

I have determined that I have an approximate total of 25GB's worth of data.

- I recommend always "rounding-up" the totals of each data store location. For example, 1.04GB will be 2.0GB, and so on.

Part B: Preliminaries

Obtain an external HDD.

- I will be using a 1TB, Seagate Expansion portable HDD.

Obtain a backup software application.

- I will be using QTDSync.

Part C: Configure the HDD

I will re-format the external HDD using NTFS.

- This is to ensure that the HDD is, 1) indeed formatted, and then 2) formatted correctly – as external HDD's generally *are not formatted correctly*.

Part D: Install QTDSync

I will install QTDSync using all of the installation defaults.

Part E: Create a Backup Set using QTDSync

I will then create a new backup set using the data that is located on the computer's HDD as the "source" data and the external HDD as my "destination" location for the actual backup.

Part F: Perform the Backup

Once Part A to Part E has been completed, I am now ready to perform the first backup of my source data to the destination external HDD.

- Note; This initial backup will take the longest as it will copy all of the 25GB's worth of data to the external HDD. Subsequent backups will take less time as such backups will copy only previously copied data *that has been changed* or will copy any new data *that has been added* since the last backup was performed. All other data will simply be skipped. Repeat the backup procedure at least once a month – or whenever you feel that a backup should be performed.

Using "Wizard" Backup Solutions

Since the introduction of Windows Vista, many software vendors have implemented the use of "wizards" to simplify both the installation and the use of software. And though the use of such wizards may be useful in performing some of the tasks of software installation – such wizards are not recommended for learning how to use the actual software – especially *utility* software, such as backup software.

Configuring a backup of a computer system requires a working knowledge of just where and how data is stored on the computer's HDD, and more importantly, just what data should actually be backed up. And though wizards may be able to perform *some* of the required tasks, such wizards cannot and should not be expected to perform *all* of the required tasks. This begs the question then, "*What particular tasks would the wizard not be able to perform?*" And in my estimation, if a wizard cannot perform all the required tasks – then the wizard *is really no wizard at all!* I do hope that I am making sense here?

Therefore, both QTDSync and Cobian are utility applications that will require some prior knowledge of computers and computing to be used effectively!

In closing...

I sincerely hope that the information provided in this article has been of some assistance in helping you to see the importance of, 1) the necessity of backing up your personal data, 2) the implementation of a backup strategy, and 3) the routine performance of backups of your computer's HDD? As I have personally witnessed numerous times over the years – those to whom have suffered the loss of personal data – I want to do all that I can to ensure that such an event *does not happen to others*.

I thank you for your time, attention, and interest in the above.

Sincerely,

Dell Krauchi

References

¹ QTDSync

Link: <http://qtdtools.doering-thomas.de/page.php?tool=QtdSync&page=QtdSync&lang=en>

² Cobain

Link: <https://www.cobiansoft.com>