

Notice the rather ominous “1” in the title. This is a subject that will take more than one blog post. So, today let’s just think about what “backups” mean and what they don’t mean.

When I asked Google to define “backup” the first offering was

an accumulation caused by clogging or a stoppage; “a traffic backup on the main street”; “he discovered a backup in the toilet”

You’ll be pleased to learn that that’s not what we mean here. A better definition (offered by Wikipedia) ...

In information technology, a backup or the process of backing up refers to making copies of data so that these additional copies may be used to restore the original after a data loss event. These additional copies are typically called “backups. ...”

So at its simplest, a backup is a copy that can be used to replace an original if it is lost, deleted, damaged. This backup can be a copy of a single file (eg an important spreadsheet) or many files. At its simplest, a backup can reside on the same drive as the original. The problem is that if the entire drive fails then the backup is also lost. Having a backup on an external drive is a much better idea but that still wouldn’t avail you if all your computer stuff was stolen or in the event of flood or fire. The only way to be really sure that the backup will be there if you need it is to keep a backup in a location physically separated from the original. In practice, I’ve only ever very rarely managed to train my clients to such a degree!



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What a Backup Isn’t

A backup is not usually a copy of any of the myriad files that make up the Windows (or Mac) operating system, nor a copy of the files that make up the programs on your computer (eg Microsoft Office, Photoshop). If we suspect that something has gone wrong with Windows or with a program file then the best thing to do usually is to un-install the program and re-install it. In other words, we don’t just copy back files that are in a backup, but set in motion the process of removing the program completely in the proper way and then putting it back from scratch from the original master CD/DVD or downloaded file. The reason for this is that program files have to be copied and set up so that they work in the specific situation and in concert with the other programs and operating system. Copying files is not enough to achieve this so we don’t back up program files.

What Data should be backed up?

Your own stuff. The documents and spreadsheets and pictures and videos and all the other stuff that is YOURS and that you would not want to lose.

There are also other types of file that are not quite so easily imaginable as data but which you wouldn't want to lose - eg that huge list of bookmarks (also known as favorites (sic)) that you build up in your web browser (Internet Explorer, Firefox, Chrome, Safari, Opera or whichever browser you use). That list of websites is nothing more than that - a list - but I've seen a lot of clients looking very deflated when they realise they've lost it.

A hugely important part of backup data can be your email data. This is the email messages themselves, but can also be your contact information. If you only send, view, and receive your data through a web browser then your email data is not being stored on your own computer but on the computers of the service providers. This covers services such as Hotmail, Gmail, AOL mail, Yahoo, and others. This is known as webmail.



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If, however, you access your email through a program on your computer (such as Windows Live Mail, Outlook, Outlook Express) then your email data is stored on your own computer. Your email provider may have a copy of your recent email history on their own computers (also known as mail servers) but it could be as little as the last seven days worth of data. Don't rely on your mail servers as email data backups.

It's also true that webmail can usually be accessed and downloaded with programs such as Outlook (as in the paragraph above), but we don't need to split hairs about that now.

Having established an idea of what it is that we want to back up, let's just finish this definition of what a backup is by considering some similar ideas:

An archive - in computer terms, an archive is just a backup but with one important difference. It is never over-written. Suppose you back up your data to an external hard drive. That drive is going to get full and you may wish to delete older backups to make room for newer ones. That means that you can't always rely on your backups to tell you exactly what your accounts data (for instance) looked like on 23rd April 2009 (for instance). So, we often create archives in the knowledge that whatever happens we can see the data as it looked at a particular time in the past. Archives can be created in exactly the same way as a backup or by a different method. Often, for instance, archives are created on CDs or DVDs, whereas backups are made on external hard drives or USB pen drives (also known as thumb drives or memory sticks. A Memory Stick is actually a proprietary Sony device, so it is a misnomer to describe a generic USB pen drive as such).

An image - when we're talking about backups an image is not a photograph. It's a different meaning of the word and what it means is a complete, thorough, 100%, copy of EVERYTHING that is on your hard drive (or a sub-division of a hard drive such as a partition). An image can only be created using special software but it does seem to contradict what I said earlier about not being able to back up programs because a complete total image of your drive can actually be used to restore your computer to exactly what it looked like at the time the image was made - operating system, programs, data, the whole lot. But it's not the panacea it sounds like because restoring an image could result in losing all the changes to the data that happened after the image was created.

A clone - similar to an image, a clone is the entire copying of one drive (or partition) to another similar drive so that it can be swapped with the original in case of disaster. The problem with images and clones is that they can take a while to create, you can only be completely certain they've worked by installing them, and they don't change as data is added or changed.



Pen Drive

That's an introduction to backups. The next blog on this subject will look at the actual creating of backups in more detail.

One final word: I implore you to keep your master program discs all in one place and know where that place is. I would include in that any data backups and archives on "loose" media such as CDs or DVDs. So many times in the past I have been summoned by a distraught client with an apparent disaster on their hands who needs programs (and maybe data) to be re-installed but they can't find their discs. This is already a fraught situation. It just makes it more stressful and more expensive if the client can't find the discs. This doesn't need to get complicated: just put everything in the same box and know where that box is.

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