Determining Information Backup Priorities

Focus on the Important Information, Not on the "Fluff"

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What Should Be Backed Up?

Business information is not all created. Some categories of information are much more critical to the survival and normal operation of the business than others. When you are paying for online backup space according to the volume of information being stored in the online data vault, you want to use the space for the most critical information to your business.

When you look at the massive number of files on a typical personal computer, PC or Mac, most businesses don't depend on a lot of the files on your computers. Many files on a computer are parts of Windows or MacOS, office applications or are temporary files left over from browsing the Internet. I did a quick inventory on my own laptop and of 189,000 files on it, less than 28% are files related to running my business. They include the accounting system databases, emails and attachments, proposals, correspondence, reports and so forth. The rest are program or Windows parts. Of the two, I can recover the program and Windows parts from a CD if my PC crashes. The documents and other files are harder to or impossible to recreate. These are the files to focus upon for regular backups.

It is not cost effective to consider all business information as equally important to the firm. This leads to over-spending to backup and protect easily reinstalled programs and files that can be recovered from the Internet or master CDs quickly after a computer crash.

Let's look at the contents of your desk as an analogy for a computer hard disk drive. There are probably items in your desk drawers that you work with every day - the phone list, paperclips, extra pens and pencils, the telephone and other common items. Then there are things at the bottom of the drawers that you probably haven't used in a long time. I went looking through my desk drawers and found a manual for a cell phone I tossed out two years ago, a business card for someone I haven't talked to in five years, 32 cent stamps (!), and a few things that had more dust on them than I care to admit. I suspect your desk is much the same. If my desk was destroyed by a water leak (it almost happened last year) I certainly wouldn't care about the things at the bottom of the drawers – I'd want to replace the frequently used items first and perhaps never replace some of the old stuff. The same concept applies to the files in your computers.

List Information Categories

The first step in this process is to list all of the types of information in your computer. This process will begin filling out Table 1. I have started the process with the most common information categories found on business computers: email, accounting system, customer files, etc. Your job is to enter any additional categories in the table.

Don't get bogged down with tiny categories that won't have more than one or two files in them. Focus on broad information or file categories instead of specific file names and cases. A few considerations in determining additional categories include:

- How frequently is the information in the files changed?
- Does this category overlap with another one?
- Would there be just a few small files in the category or would it have thousands of files or a few very large files?

Use the blank lines at the bottom of the table to add your categories to the list. Many firms will only need the categories already in the table.

Information Category	Question Number					Criticality Factor
	1.	2.	3.	4.	5.	
Accounting System and Supporting Files	Yes No					
Email System	Yes No					
Proposals, Contracts, Customer Files	Yes No					
Current Files, Letters, Reports, etc.	Yes No					
Archived Proposals, Letters, etc.	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					

Table 1

Segregating highly critical business information from the less important provides you with the information to get the highest return on investment from online offsite data backup services.

Describe Your Information Categories

The next step is to go through your information category list recording the answers for each question posed in Table 2 - Information Classification Questions for each category. The goal of this effort is to develop a Criticality Factor which will help you prioritize backups for that information category.

Number	Characteristics	Answers
1.	Can you recreate or replace this information easily?	Yes No
2.	How critical is this information to the business?	High Medium Low
3.	How quickly would there be a significant impact on sales and expenses if this information were not available?	1 day 7 days 1 month+
4.	How long would it take to recreate this information?	1 day 7 days 1 month Impossible
5.	How significant an impact would the unavailability of this information have in terms of contractual, regulatory or legal obligations?	High Medium Low

Table 2

The time required to recreate files / information compared to the impact on the business helps identify information that must be available quickly after a crash or disaster.

The first question asks whether or not the files in that category can be reinstalled easily from a manufacturers CD or other outside source. If the information can be easily recovered from a CD or downloaded from a web site, you should consider recovering it from that source rather than spending the resources to backup files in that category.

Deciding how critical each information category is to your business is the next step. This information will help determine how often files in that category will be backed up to the online backup vault. Highly critical information includes the Accounting System since over 80% of the companies that lose their accounting files will fail within 5 years of the information loss. Most companies put email into the "High" group as well.

The next two questions establish how dependant business operations and obligations are on this information. If the information was unavailable, how much time could pass before there was a significant (you decide what significant is) impact on revenues, sales and expenses? In some businesses, there is a direct impact on daily sales if the inventory and order entry system is unavailable starting within an hour of it going down. Other businesses don't function at such a fast pace and information unavailability has less impact on sales.

Question 4 then explores how significantly the information being unavailable has on contractual, legal and regulatory obligations. Again, some businesses are legally required to publish their purchases and sales within a few minutes of a transaction occurring, such as securities and commodities brokers. Does your business have a contractual relationship that requires it to notify a partner of certain figures or activities within a certain timeframe? Perhaps one of you suppliers requires a daily sales summary report by midnight every business day? Consider all of your relationships and obligations in answering this question.

Finally, if information in this category was destroyed, how long would it take to recreate it if it can be recreated at all? Some information, such as recreating sales records from paper copies, is very labor intensive and expensive to recreate. One of my clients was the victim of an internal malicious incident that destroyed 10 weeks of accounting records and all of the onsite backup tapes. It took six staff members about three months of overtime to rekey the information back into the accounting system from paper reports. The only thing that kept the incident recovery from being more expensive was a backup tape that was taken offsite ten weeks earlier. Select the time it may take to recreate this information and record its point value in the Information Category table.

The quicker missing information will adversely impact the firm, the more critical it is to the business.

Assign the Criticality Factor

Now it's time to assign the Criticality Factor. This is a somewhat subjective exercise based on the values recorded in Table 1. The broad brush rules for assigning the Criticality Factor include:

Rule of Thumb	Criticality Factor
• If the information is business critical, can't be replaced easily and will have a medium or high impact on contractual, regulatory or legal obligations	High
• If the information is business critical, can't be replaced easily and will adversely impact sales and costs in less time than it takes to recreate the information	High
• The information can't be recreated very quickly, suggest less than 1 day, and will have a medium or high impact on contractual, regulatory or legal obligations	High
• The information can be recreated in easily before it can impact the business	Low or Medium
• The information is easily available from a CD or web site and does not require significant customization before your firm can use it	Low
• Other combinations of circumstances that you feel warrant assigning the category a "High" Factor	High

Table 2

The accounting system, email, prospect lists and customer files are generally critical to every business. They are difficult, time consuming or very expensive to recreate.

Other critical files are best identified by the staff that rely on them daily to perform their jobs.

Record the Criticality Factor for each Information Category in the right column in Table 3.

Backup Strategy

Now that you have each Information Category and its associated Criticality Factor, you have a logical basis for deciding which Categories should be backed up to the online data vault. Every Category that has a High Criticality Factor should be placed into the online data vault. This information is clearly the lifeblood of your company – without it, the firm is significantly impacted and may be at risk of going out of business. Consequently, protecting it like the crown jewels is appropriate.

Information that falls into the Medium Criticality Factor group can go either way. The costs associated with losing and recreating files in this Information Category may easily be high enough or critical enough to the firm to warrant protecting it in the online data vault. This is a subjective judgment call on your part. As a numbers oriented individual, I would consider the labor cost of recreating the information and the intangible "hassle factor" of having to recreate it as I decided whether to place a given category in the online data vault. Most of the time I would place my company's Medium Criticality Factor information into the online data vault.

The Low Criticality Factor information is generally backed up locally to an external hard disk, another PC or server or other local resource instead of to the online data vault. The value of the information compared to the cost of storing it in the online vault generally indicates keeping local backups only. The key question I ask myself about files in this category is "If there is a fire in the office and I lose these files forever, will it be a minor nuisance or cause problems rebuilding the business?" If the answer is that losing it would cause rebuilding problems, I'd put it into the online data vault anyway. That's relatively cheap insurance.

Use local backup technology, such as an external hard disk, for less critical files and fast, online offsite backups for business critical information.

Think in terms of multiple backups within your overall backup strategy. Match the backup to the criticality of the information – one size does not fit all any more.

Summary

This exercise's goal was to help you develop a list of the different types of information stored in your company's computers and determine how critical each type is to the company's ongoing health and operations. Based on the results, you can make an informed decision about what to store in the online data vault vs. the Information Categories that should be backed up locally. (The techniques used in this exercise can also be used to evaluate which paper files are critical enough to the business that they should be protected by storing them in fire resistant cabinets or have scanned copies stored outside the office.) This will help give you the confidence that you are not overspending for online data vault space yet are getting the most benefit from the service by protecting the information that keeps your business alive.