

Are You Prepared For Disaster? Is Your Data Really Protected?

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Whether it be hurricane, flood, fire or simply a member of staff accidentally hitting the delete key, your company's data is constantly at risk from being permanently wiped out. Companies need to ask themselves, 'Do we have the strategy in place to cope with a disaster?' The need to store, back-up, archive and retrieve both current and archived data is growing rapidly as companies get bigger and investment in IT increases. By 2004, world data storage capacity will reach 2,000,000 terabytes, but despite this, only 12% of European Boards of Directors are taking responsibility for disaster recovery planning. Now is the time to recognise the value of information and the impact that a disaster could have on your business. The best storage offering may not necessarily be the most expensive, or the cheapest. It may use tape or optical technology or a combination of both. The most important thing to bear in mind when making storage decisions is to choose carefully, think wisely and expect the unexpected.

Think about the impact on the organisation if your systems failed for just one day. How much money would you lose? How many customers would you forfeit? Now imagine that the same systems failure resulted in a complete loss of data. All your files, records and accounts could be lost forever. Could your company even survive? Broadcasters Network International analyst, Phil Proffit, says that the vast majority of data loss occurs because of accidental deletion and not due to viruses. The Financial Times reinforces this idea with the statistic that 50% of companies suffer data loss through human error. With this in mind, it is no wonder that storage strategy is increasingly becoming a boardroom topic of discussion.

It is obvious that organisations should want to protect their data. Research at Gartner states that 93% of businesses experiencing significant data loss are out of business within five years. PriceWaterhouseCoopers expands upon this by highlighting that 90% of all companies encountering a computer 'disaster' with no pre-existing survival plan go out of business within 18 months. A good storage strategy ensures that your organisation's most valuable asset is protected and permanently available.

All this suggests that choosing the right storage products to protect your data is vitally important. The next hurdle is to decide which solution best suits your needs. When looking at the range of storage products on offer, it is easy to see why companies might be confused. Should you go for MO or LTO, DVD or CD-R, DLT or SDLT? Then there is RAID, WORM, AIT, 3480, Blu-Ray, Mammoth, Timberwolf, 3490 and UDO to consider. When companies approach a vendor to provide them with a storage solution there are three things to consider: what the customer thinks he wants, what the vendor proposes and what the customer actually needs. The discrepancies between these can often be solved through simple education. Storage products have to be tailored to each company's needs and the best solutions may not necessarily be the most expensive or the cheapest, it is entirely dependent on the application and user requirements.

If storage is critical to the survival of your business then surely it is vital that companies work with their storage provider to

ensure that the applications they are buying are the right ones. In the past few years, there have been many changes in the way we approach our storage decisions all resulting in an increased number of considerations when looking for a storage solution. Firstly, businesses need fast, reliable access to their data. Secondly, vendors and their customers must appreciate that because of the amount of data being created, storage has become a critical issue, and that storage now has a major impact on company budgets, staffing, network response and availability. Thirdly, the growing importance of storage world-wide has meant that organisations cannot afford to ignore their storage needs and have not had to address them, but need to consider them directly as part of company policy and the planning process. Recent global events have demonstrated the importance of data protection and show how vital it is to make information security and back-up a primary concern. And finally, it is becoming increasingly apparent that the application and user requirements are dictating the type of storage needed. It is now the vendor's role to clarify the complex process of storage selection and create a solution that fits with the customer's needs and expectations.

In order to make an informed decision, it is important that companies have an understanding of the technology and exactly what it does. This may seem an obvious statement until we consider that many staff within an organisation do not understand the principles of storage, how it operates, what it is for and why they need it. This lack of understanding all too often leads to a simplistic approach of adding expensive primary storage which can often raise more problems than it solves.

Secondary storage utilises tape or optical technology, but could also include elements of NAS or RAID. In very basic terms, secondary storage exists to compliment your primary storage e.g. hard drive. It is usually in the form of removable media, such as tape, MO, DVD or CD, and is commonly situated in an automated environment.

The type of secondary storage used depends heavily on the speed and frequency that the customer needs to access data. The access time is the time it takes to retrieve files and documents from your stored information. Access to data is measured in seconds and speed of access, and the solution you choose will depend on access to the data that you are storing. If files are not used regularly it is possible to store them in a form where access time is slightly longer, whereas vitally important files must be available at the touch of a button.

Each type of secondary storage provides different access times to the data stored. While tape can store very large files, the access time to data is slower, whereas files stored on MO, DVD or CD (i.e. optical technology) can be accessed much more quickly but less information can be stored because the capacity of optical products is lower.

Once we have taken all of these elements into consideration and have a basic understanding of the technology, it is time to enter the final stage of the storage decision-making process which leads us to the big question: Should you choose tape or optical storage technology for your secondary storage requirements?

Tape technology is a tried and tested method of data back-up. It is a removable form of storage offering high capacity. Tape storage has proved itself as a secure and reliable way to store

and protect your data effectively, so where is the need for optical? Optical storage is often misunderstood. It is a highly specialised technology offering faster time to data for smaller file sizes. Basically, optical tends to be used for file based access and archiving where standards require the use of WORM media is used for short-term access to files that need to be obtained quickly. When data is used less frequently, it can be moved onto tape, which is more cost effective, and has higher data capacity. Both mediums of storage can be used separately or in conjunction with the other. Most companies have data which ages and goes through ever changing access requirements from creation to archive storage.

Choosing a storage solution that suits the requirements of your organisation can be a daunting experience. Different companies operating within different sectors have many priorities to consider when managing their data. Selecting a storage solution that will protect your company's most valuable assets should disaster occur is about evaluating the particular needs of your organisation. Storage vendors and providers should work together with their customers to bridge the gap of misunderstanding between companies and their storage needs; only then will those companies be able to benefit from the right solution to survive the ever-expanding data jungle.

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Plasmon are exhibiting at [Storage Expo](#), the UK's largest and most important event dedicated to data storage that is being held in London from 13 - 14 October 2004.

