



# Data Storage

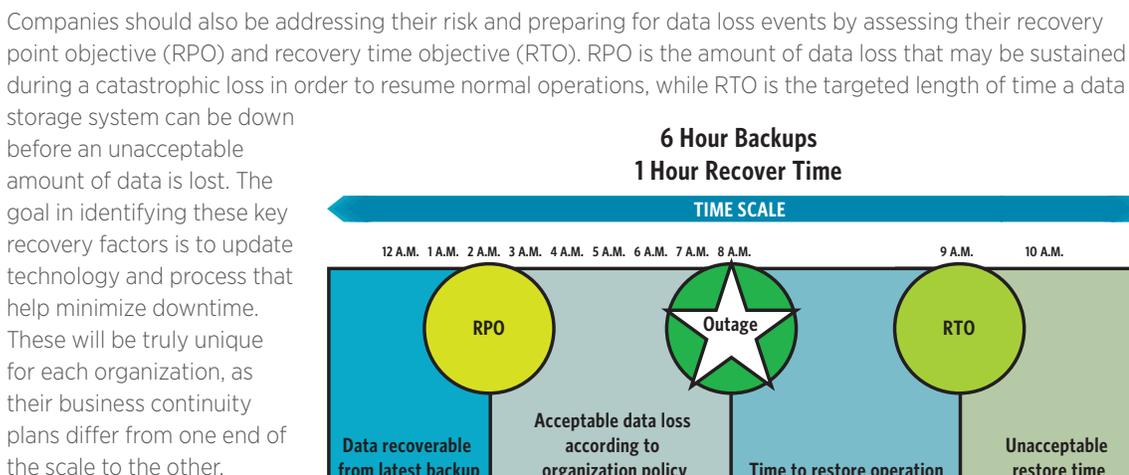
## The Most Important Thing You Aren't Thinking About

The availability of data is only a concern when someone has a need to retrieve it. Most companies understand that having a high-functioning data storage system in place is necessary, but often don't consider it integral to their daily operations. While many storage devices are designed to run seamlessly behind-the-scenes and include automation features, the failure of a system can result in the disruption of core processes, a loss of data, and affect profitability.

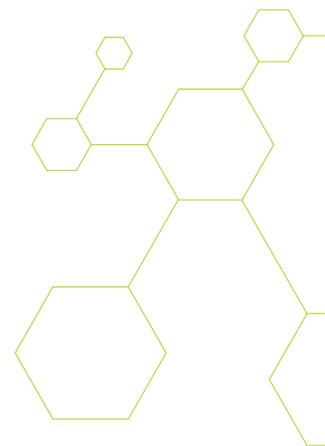
### The considerations of backup

The core process of data storage systems is backup, but when is that data needed? It is important to address that backup data is necessary in the event of a recovery incident. Many organizations fail to properly prepare and plan for disaster recovery, thinking that simply having the storage system in place is enough.

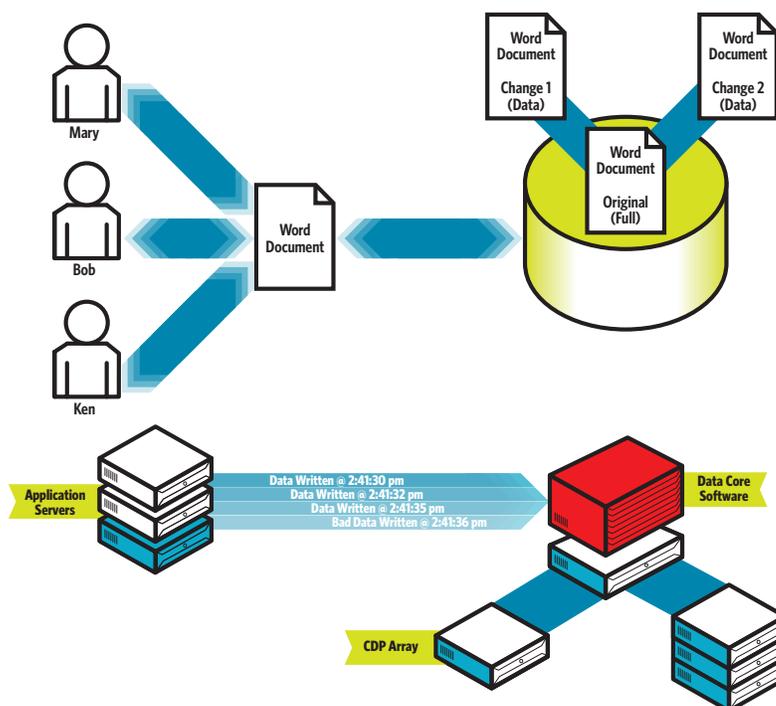
It is important to remember that not having an updated storage system could be as bad as not having one at all. Staying on top of patches, updates, and software releases is extremely important, as they typically address newly-discovered functionality disruptions and security threats. Make sure to test your backups at least quarterly to ensure that you are able to recover in a disaster situation you can recover. It's not only a matter of if you can recover, but in what amount of time it takes to recover.



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# Data Storage: The Most Important Thing You Aren't Thinking About



## Protection, constantly

While staying on top of updates and working toward your organization's RPO and RTO will certainly benefit your data storage efforts, you still may not be attaining your full backup potential. System outages can still happen, and data loss is always a possibility. While it is virtually impossible to truly avoid complete data retention with any system, some are turning to continuous data protection (CDP).

CDP saves a copy of every backed up file as new iterations are made. It is designed to provide

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continuous data protection, ensuring that files, databases, etc. can be restored at any given time to almost any iteration. Ideally this would keep every iteration of every file on the system being backed up for a given period of time, until that data expires and is deemed no longer necessary. The downside to this is that CDP typically requires much more data storage, and is replicating changes nearly 100% of the time which can be resource-intensive.

This is a great solution to ensure you have all of your data all of the time, which is the ultimate goal of a data backup solution. However it can become very resource-intensive, storing every change to everything record. Some companies find the prospect of CDP impractical, quickly realizing they have a large amount of space being wasted on retaining unnecessary data. A solution to this might be to place CDP data onto a virtual tape daily, using deduplication to get the most out of usable storage and free up resources for the CDP solution to focus on what it does best.

## Virtualization through archive

As you are accessing the potential impact a disaster event could pose, you should also be thinking about whether your archive storage is working to its full potential. After using the same storage for years (or decades, for some organizations), it becomes clear that key features that can make data backups easier, faster and more reliable are not being utilized.

Many companies that still use physical tape are embracing virtualization, since there many functions that were not previously available. These include read/write performance increases, much quicker recovery options, and the opportunity to create tape libraries with incredible amounts of storage. Not to mention the ease of replication site-to-site. Systems have the ability to export to physical tape, as well as create cross-site replication, meaning that if you no longer want to export to physical tape and manually carry off-site, your data can easily be replicated to a secondary location automatically.

When looking for a virtualized storage option, it is important that it can be used in collaboration with your CDP offering, standalone, or be able to integrate neatly with other backup solutions, creating an easy to operate, affordable, and reliable solution. One such solution that is still popular is virtual tape technology, since it is designed to work with other core process systems to archive data.

