Is backup and storage a must?

Data backup and storage operations all contain separate functions. There will be problems and even legal problems that occur if users do not know their nature.

If you want to make an employee backup your data crazy, call a backup copy. It is not too much to say that running RAID is enough and no backup is needed. Fortunately, the difference between backup and archive (archive) is quite clear and easy to understand.

Data backup and storage operations all contain separate functions. There will be problems and even legal problems that occur if users do not know their nature.

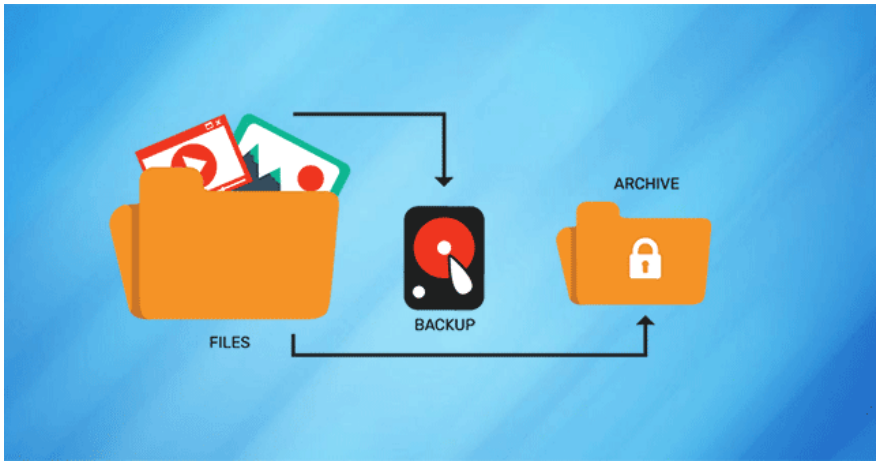
What is backup?

Backup is a copy of the data, created for the purpose of restoring that data in case they are damaged or lost. The original data will not be deleted after the backup process is performed.

Common examples of backing up data can be included as backup files on your laptop or desktop computer every night. Or all the photos in your iPhone are copied to iCloud in case you have a problem with your phone.

We also often back up file servers (unstructured data) and databases (structured data). A backup can focus on the data, similar to a database repository. Or also focus on the server's operating system, similar to a virtualized backup. Or you can focus on both the data and the operating system with the VMware's .VMDK file.

In essence, the definition of backup activity is tied to the purpose it was created for and the purpose of a backup copy is always the same: To restore data in necessary cases. Suppose a RAID 6 backup disk system can fail on three disks and the data in the disk needs to be restored. Or one or more of your VMware, Hyper-V and AWS EC2 virtual machines are accidentally or intentionally deleted by someone, and you need to restore them. Maybe someday you suddenly find out that all your files have been encrypted by ransomware. If you don't own a good backup system, you will have only one option to withdraw your wallet to redeem your own data. But conversely, with an effective backup system, you can completely find the root of extortion software, disable it, then restore your entire data without losing a any money for hackers.



What is hosting?

An archive is a copy of the data created for reference purposes. And the original is often deleted after archiving though not required.

If a backup is used to restore the current state of the data, usually the data state of the previous day, then a backup can be used for more purposes. One of the most common functions of a archive is to help users find the stored data long ago. It may be a standalone file containing important information, such as a contract signed several years ago. Or it could be a group of related data, such as the entire structural drawings of a collapsed building. Or CAD drawings of the utilities your company has used, they seem to be outdated but suddenly fit again.

It is also possible that related data such as all emails / files can be used to prove a problem. For example, an employee believed that they were allowed to work overtime, but were later fired for that reason. In the lawsuit, an electronic investigation can be conducted regarding incoming and outgoing emails that contain the keyword 'work overtime', 'after work', or the name of the company to which the employees are working outside the shift. In addition, someone wants to prove that he is working in an unfriendly environment and wants to see the entire email from a specific group of managers containing certain descriptive words for the there.

The above problems will be solved if you have a repository in hand. You can own the archive of orders, invoices or contracts that your company has made. You can save existing contracts and existing orders online, but keeping them all in the archive will help you have a specific index to retrieve orders and contracts through the content of the applications. Order it. You can also store all emails that your company sends or receives.

Some email archiving systems can filter from the server the archived emails that are larger than a certain size and / or have not been accessed for a period of more than n days. This not only saves storage resources and helps keep email systems more compact, but also makes backup easier.

Restore and retrieve

Even if the purpose of a repository is to save space on the main repository, being able to perform retrieval against recovery is extremely necessary for each repository. Backup and restore system and storage system for retrieval.

Recovered data is usually a single file, server or database. The information retrieved is usually a collection of related data, which may or may not be stored on the same server or even in the same format. Restoration is only applied to a certain time, such as restoring the database to the previous day's status. Access is applied for a period of time, such as retrieving all emails in the past three years.

To recover data, you need to know where files / data are backed up, otherwise you can't find them. In addition, you also need to know the name of the server to which the database or directory to which the data is stored, the name of the file or table you want to restore and the last day it is opened.

Whereas access does not require the above information, the user only needs all files or records that match a set of parameters, or the whole email contains certain terms or is sent from a specific person over the past three years.

What reason does this difference become important?

Many people are trying to use their backup system as a storage system. This is reflected in the fact that backups are kept by them for years or even forever. In the first time you are doing data retrieval, you will encounter many difficulties. Moreover, the retrieval process will take longer, maybe a few months instead of a few minutes - and cost a lot, lots of money - millions instead of a few dollars.

If data retrieval is a requirement that is considered simple in a lawsuit and you cannot do it within the time allowed, the judge will assume that you are trying to hide something, and they say it to jury. As a result, you will lose the case. The Morgan Stanley lawsuit is one of the classic examples of the dangers of this problem. In that case, the losing party lost billions.

Do not use backups as archives. If you have storage needs for a long time, invest in a real storage system. Of course you will have to spend the initial investment, but in the long run, this is a worthy investment.