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HOW TO IMPLEMENT A RELIABLE DATA BACKUP & RECOVERY STRATEGY

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To back up or not to back up: is there still a question? Data is your business' most valuable asset. Having reliable data backup and recovery strategies is vital for your organization's long-term success.

WHY SHOULD YOU CARE ABOUT DATA BACKUP & RECOVERY?

Data backup and recovery methods give you peace of mind. Protecting your business against data loss caused by human error, equipment failure and cyberattacks can prevent you from experiencing an unrecoverable data failure.

When it comes to natural disasters, 40% of small businesses never reopen after a disaster, according to FEMA. Of those that do reopen, another 25% fail within a year.

Today we'll take a closer look at different types of data backup, along with the best data recovery methods.

4 LEVELS OF DATA BACKUP

There are four basic levels of data backup. Let's review each so you can pick the most suitable place to store your data.

LEVEL ZERO: NO DATA BACKUP

Because data backup is crucial to any business' continuity, we're still shocked to come across companies that don't have any backup strategies in place. Common reasons given for not backing up data include, "it's an added expense," or, "a disaster will never happen to us."

There's a perception among small businesses that they're not at risk from data loss. However, 43% of data breach victims in 2019 were small and medium businesses. Hackers widely targeted SMBs due to the perception that they are unprepared or have fewer security measures in place.

LEVEL 1: LOCAL BACKUP

Using a local backup solution is a decent option. Local methods provide fast backup and restore times and give you control over who can access your data.

Traditional local backup solutions include:

- External hard drives
- Magnetic tape drives

Having an extra copy of your files on premise is a good move, but it will not provide the best protection from data loss.

The shortcomings of depending on a local backup solution include disasters like fires, earthquakes and floods, which can destroy your servers and backup drives. Additionally, cyberattacks, user error and hardware malfunctions that can lead to significant data loss render local backups alone less effective.

LEVEL 2: HYBRID CLOUD BACKUPS

Hybrid cloud backups refer to a mixture of local storage, private cloud storage and public cloud storage for redundancy. Storing your data in multiple locations ensures that you always have a local copy, as well as a copy stored securely offsite.

LEVEL 3: BACKUP TO THE CLOUD

Backing up your data to the cloud bypasses using any local devices for storage. If there's ever a natural disaster that destroys your building (or even your city block), you can rest easy knowing your data will be safe. The disadvantage of cloud-only storage is that backups can take longer, depending on your internet speed.

Ask your service provider about the locations of their cloud data centers. Ideally, you will want to go with a data backup solution that uses multiple data centers and has them spread throughout the country.

6 TYPES OF DATA BACKUP

Once you've established where you will backup your data, you can determine how.

1. FULL BACKUP

A full backup is a complete copy of all files on a designated system or drive. While this sounds like the best data backup method, the disadvantage of a full backup is that it also uses massive storage and network resources by creating copies of files that are seldom changed. A full backup takes longer than other backup methods.

2. MIRROR BACKUP

A mirror backup is comparable to a full backup. A mirror backup creates an exact copy of your data but without compression, taking up more of your storage space. While mirror backups offer fast recovery time, they do not store previous versions of backup data.

3. DIFFERENTIAL BACKUP

A differential backup copies all the files that have changed since the last full backup. This includes only the data that has been created, updated or altered in any way and does not copy all of the data every time.

4. INCREMENTAL BACKUP

An incremental backup only backs up the files that changed since the last backup. It's a great way of capturing daily changes.

For example: If you do a full backup on Monday, Tuesday's incremental backup will contain only the data that has changed since Monday. Wednesday's backup will contain only the data that has changed since Tuesday, etc.

Incremental backups are fast and require few resources but have slower data recovery time than other backup methods.

5. 3-2-1 BACKUP

The 3-2-1 backup method comprises three elements:
Three: Three distinct copies of your data are maintained: the original, or production data, plus two backup copies. All copies contain the same data from the same point in time. This method aims to save at least one copy of data should the others fail or disappear.
Two: Two copies of your data exist on media that's separate from one another, even if they're in the same geographic location. Example: One copy on a server, another on an external hard disk.
One: One data copy exists in an offsite location, like another office, data center or the cloud.

6. GFS (GRANDFATHER-FATHER-SON) BACKUP

GFS is a common backup strategy, "chunking" backups into more manageable timelines. Backups rotate daily, using a FIFO (first in, first out) system. GFS plans generally entail daily backups ("sons"), weekly backups ("fathers") and monthly backups ("grandfathers").

Note: Whatever backup method you choose, the process should be automated so that it's not reliant on humans to remember to keep it up-to-date. Out-of-date backups defeat the purpose and can be almost worthless.

3 TYPES OF DATA RECOVERY

Backing up your data is the first step – restoring that data is the second. The goal of any disaster recovery strategy is to restore your company's operational data and systems in the least amount of time possible and with the least amount of data and financial loss.

To determine the type of data recovery that's best for your business, you

Recovery Point Objective, or RPO, determines the amount of time your systems can be down before it becomes catastrophic to your business. The more often you run a backup, the better RPO you will achieve. How much data can you afford to lose between a backup and recovery period? This will determine the minimal method of recovery time (RTO) you should consider.

Recovery Time Objective, or RTO, measures how long your IT department or service provider takes to recover your data and bring your systems back online and running again. The shorter the time, the more expensive it is.

1. LOCAL DEVICE RECOVERY

Recovering backup data from a local device (like an external hard drive or tape drive) is one of the fastest data recovery methods. However, it also has the highest frequency of failure. If constant monitoring policies are instituted, reliability can be improved.

2. CLOUD/HYBRID CLOUD RECOVERY

Backup from the cloud can involve transferring massive amounts of data over your internet connection, which can cause excessive downtime. If you have internet connectivity issues, this can be problematic. The physical distance between your business and your cloud data center can determine recovery time and reliability.

3. BACKUP AND DISASTER RECOVERY (BDR)

For the ultimate protection, you should consider utilizing a backup and disaster recovery (BDR) solution for your business. A BDR solution creates a running copy of all files so that you can move to the live backup copy at the flip of a switch in the event of an emergency.

PARTNER WITH SUGARSHOT TO SECURE YOUR DATA

Can your business afford to fail due to something as simple as a poorly configured backup?

SugarShot can provide your business with the operational security it needs. With our Backup and Disaster Recovery (BDR) solution, we can redundantly back up your data to multiple data centers, and BDR can quickly recover your data to a terminal in the event of a data loss disaster. Get your business up and running again by partnering with Sugarshot. To give your business the highest level of data protection possible, reach out to us today!

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