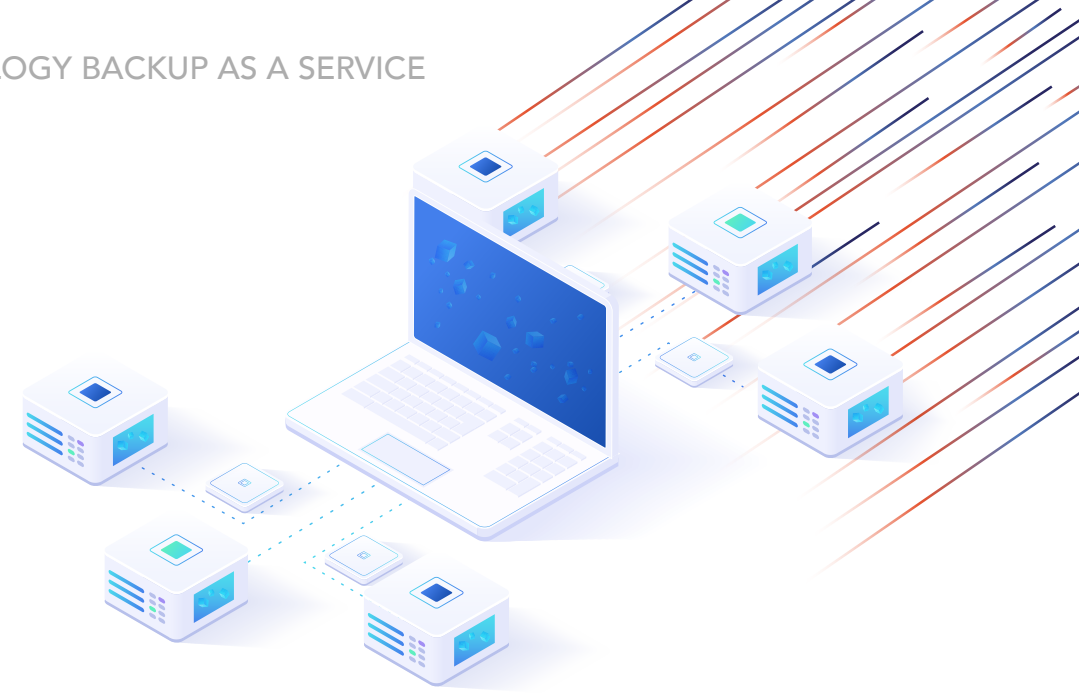

Net3 Technology
Backup Schedules

How to determine the best backup schedule for your business

Backup Schedules

Data loss results in both tangible damages (such as financial) and intangible damages (such as reputation) to your business. The only way to protect your business from losing essential data is by backing up that data regularly and consistently. By scheduling backups, you eliminate the need for someone to remember to perform the backup manually – ensuring the backup will be completed automatically.

Regular and consistent backup schedules are different for every business that adapt to individual business needs over the course of time. Here's a breakdown of what to consider for a thorough backup schedule:

TYPES OF BACKUP SCHEMAS:

Full backup - copies all data in a given system.

A Full backup contains all the data for a single machine and provides a starting point for all the other backups. A single full backup provides the ability to completely restore all blocks of data from the point in time it was taken. All of the backed-up data is contained in a single restore point. Because we touch ever block of data, full backups are the slowest backups to finish and the storage space required is the largest compared to differential and incremental.

Differential backup - copies data that has changed since the last full backup.

Since a differential backup will copy all changed data since the last full backup, duplicate data will not be backed up. An advantage of differential backups is that when data needs to be restored, it can be built from the last full back up and the last differential copy. However, since the size of the backup increases each time one is taken, the backup window duration and storage space needed are both increased.

Incremental Backup - copies everything that has changed since the last backup.

Incremental backups provide a faster way of backing up data instead of consistently conducting full backups. The advantages of incremental backups include that they are the fastest backups, less storage space is needed, and you get a shorter backup window on days between full backups. A disadvantage of incremental backups is that a full restore can be slower than other backups since you will need both the full backup and all increments since.

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Forever Incremental - after the first full backup only the change data is collected.

A modification of the incremental method, forever or always incremental backup chains attempt to combine the ease of recovery in a full backup and the efficiency of an incremental. Certain backup products such as Acronis and Veeam can create meta data that allows the backup to be restored from a single restore point and rolled into the initial full backup for a complete restore. This is accomplished by keeping a chain of backups within a single archive file.

GFS (Grandfather, Father, Son) - combines Full, Differential and Incremental

GFS backup schemas attempt to increase backup efficiency while still getting a frequent full backup. Typically this is done on a schedule like this:

1st Day of the Month – Full Backup is taken.
1st Day of Each Week – Differential Backup Taken
Every Day of The Week – Incremental Backup is taken.

This schedule shortens the chain of backup, but allows for relatively quick recovery times.
It is a more complicated schedule to get implemented, but for risk averse organization that are also seeing long backup times this can be advantageous.

OTHER IMPORTANT THINGS TO KNOW:

Your Backup Window.
What time can I start my backup so that it ends at an appropriate time, so I am not impacting backup users? Backup windows can be calculated by taking the amount of data to be backed up and dividing it by the speed of the connection between the backup location and the storage. Make sure to factor in current utilization of the network path and overhead for backup protocols.

Your RPO (Recovery Point Objective):
At what frequency do the backups need to be taken? Essentially, RPO answers the question, "How much data can I afford to lose?"

Your RTO (Recovery Time Objective): RTO answers the question "How much time can our organization afford to be without this application during an outage?"

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Your Retention: Only keep your data as long as you need it. Ask yourself, "When should the backups be deleted?" This can often be driven by industry compliance standards, so make sure to take that into account.

Conclusion

The simplest answer to "How often should I backup my data?" is backup regularly and as often as necessary to decrease the impact of data loss. Any of the backup schemas above are valid and will protect data. However, backup schedules should be dependent entirely on the needs of your organization and the amount of risk that can be tolerated. Ransomware attacks, power outages, natural disasters, and simple human error are all common reasons for data loss. The only way to really protect your business from losing critical data and the after affects associated, is to back up your data.

Acronis
CSP Partner
Platinum

VEEAM
CSPPARTNER
Silver

If you have any questions about your particular backup schedule, please contact us and Request More Info to speak with a Net3 Engineer.

Net3 Technology is a cloud services provider offering nationwide backup and disaster recovery solutions tailored to fit company requirements with flexible pricing options.

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