Backup Backup & Recovery

Automated Backup: How It Works & Why To Use It | Unitrends

Most businesses know the importance of backup and recovery when it comes to the protection of digital assets from deletion, corruption, malware and other threats. That's why backup is the last line of defense. A good backup should

December 22, 2021 12:02 PM 6 minute read

Most businesses know the importance of backup and recovery when it comes to the protection of digital assets from deletion, corruption, malware and other threats. That's why backup is the last line of defense.

A good backup should quietly run in the background, allowing IT pros to focus on daily critical tasks. Unfortunately, manual backup and recovery is a complex, labor-intensive process. It includes maintaining correct configurations and compatibility with changing production environments, keeping a close eye on retention and storage overheads, and consistently rotating media for off-site safekeeping, among other things.

Businesses need a modern backup solution programmed to perform specific activities at designated times, aka automated backup.

What is automated backup?

Automatic backup is primarily enabled through backup software that automates the entire backup process. It means organizations can back up files, folders and systems without any human intervention. Essentially, automated backups simplify backup procedures to drive speedy recoveries.

What is an automated backup system?

Automated backup systems (ABS) gather, compress, encrypt and transfer data automatically from a computer system to a backup service provider's server(s). An ABS comes with an automated backup mechanism that schedules backups. It also includes a simple user interface to ensure daily automatic backups occur without further input from the end user.

How does an automated backup system work?

According to an IBM study, the average total cost of a ransomware breach is $4.62 million. That's why businesses back up critical data to have a fail-safe to restore systems should ransomware or other such cyberattacks occur. There are three automated backup types and understanding how they work will help refine your backup and recovery strategy.

Full backup

A full backup is the most basic and comprehensive backup method, where all data is backed up into a single version and moved to a storage device.

Incremental backup

Backs up all files that have changed since the last backup occurred. It could be the most recent full backup in the chain or the last incremental backup.

Differential backup

Differential backup falls between full backup and incremental backup. It involves backing up files, folders and hard drives created or changed since the last full backup (compared to just the changes since the last incremental backup).

Why use automated backup?

Automating backup offers a host of benefits:

Schedule – Automated scheduling to run necessary jobs while not interfering with production (whether the host or network) helps simplify many processes.

Address granular file loss – Organizations reduce the chances of data loss before a backup occurs. By utilizing automation to back up digital assets regularly as per

your RPO needs, organizations reduce the likelihood of losing in-use files and data.

Disaster recovery readiness – Having more frequent backups reduces your organization's RPO, lessening the amount of data loss should an incident occur. Furthermore, modern solutions that automate the creation of synthetic full backups will also help reduce RTO by automatically creating a "full backup" from within a chain of incremental backups. It shortens the number of dependent backups in the chain and reduces overall recovery time.

Recovery testing – Automate backup verification for applications and services validates whether the backup will perform as expected upon restore. It provides proof and confidence of recoverability and frees staff from having to execute more labor-intensive manual testing processes.

What is the advantage of performing automated backups as compared to manual backups?

Automated backups are valuable to businesses because they successfully make up for the shortcomings of manual backups in the following ways:

Backup democratization

Unlike manual backups, automated backups do not require you to remember to back up data every time. Simply set a schedule and the system will take care of the rest. Automated backups can be used even by tech-challenged employees without breaking a sweat.

No human intervention

Human error is still the primary cause of data loss. Manual backups involve human intervention, which means there is a high probability of human error. On the other hand, automated backups will back up your data with impeccable consistency and precision.

Syncs everything

Automated backups allow synchronized backups across tablets, laptops and other supported devices. This means you can access the latest version of your backup

data from any device. You don't need to change your work routine to accommodate backup activities; which is a norm for manual backups.

Instant restoration

Businesses can't afford long periods of downtime, which generally tends to occur if you're performing a manual backup where you must go over and recover every single file. Automated backups provide restoration of the most recent data almost instantly.

What is automated backup software?

Automatic backup software implements automated backups. Once installed, the software will ask you to choose the hardware, file and systems that need to be backed up and how often you want it to run. Automatic backup software is often packaged as Software-as-a-Service (SaaS) or Backup-as-a-Service (BaaS) and purchased on a subscription basis.

How to set up automated backup

Using standards-based RESTful application programming interfaces (APIs) is the easiest way to connect automated backup to even the most complex systems.

Here's how to set up automated backup software:

Step 1 – Leverage the API

Use the API to enable functionality from relevant systems and build an automated backup workflow.

Step 2 – Run scripts

Use Microsoft PowerShell to run scripts for building an automated backup workflow using the APIs.

Step 3 – Set up the interface

Integrate the resulting backup automation workflow into the API. Once the backup software is configured, it runs automatically without human intervention.

How to restore from automated backup

Today's automated backed software comes with a one-click "recovery" button to restore data in near real time. In most cases, automated backup is an integral part of a comprehensive disaster recovery plan (DRP). In any disaster scenario, automated backups enable you to choose individual files to restore, leading to seamless business continuity.

Automated backup and restore with Unitrends

Unitrends Data Center Backup and Recovery solutions offer advanced automation that simplifies complex systems and reduces occurrences of data loss and downtime.

SLA Policy Automation

Unitrends SLA Policy Automation enables users to build a policy based on the desired RPO for a group of assets protected in the same way (assets protected with file-level, image-level or host-level backups). It's easy to establish multiple policies to meet the needs of all your protected assets.

Ransomware Detection

Unitrends Ransomware Detection uses machine learning to identify behavior symptomatic of a ransomware infection. It runs automatically against every backup, analyzing the randomness of file changes and other attributes to identify infected backups.

Helix

Unitrends Helix is a SaaS-based solution that automatically identifies and fixes production issues within the environment (such as VSS errors) before they can negatively impact backups. The result is fewer errors, greater resilience and more successful backups.

Recovery Assurance

Unitrends Recovery Assurance is an automated testing engine that enables you to perform recovery testing against a single machine or multiple, orchestrated machines in a highly automated fashion. Once configured, the job spins up an isolated environment directly from your backups and executes customized testing, including boot sequencing, machine reconfiguration and application-level scripts to certify workloads performance. In addition to testing, this job can be used for one-click failover, which spins up your most recent tested backups into production according to their orchestrated sequence.

Gain peace of mind when it comes to your backups with Unitrends.

See Everything Unitrends Backup Appliances Have to Offer

Appliances range from 2-120TB and are available in high-performance desktop and robust rackmount formfactors. Regardless of the use case, there's a backup appliance that caters to it.

REQUEST A DEMO