Protect Critical Data with a 3-2-1 Backup Strategy

Data is central to every aspect of your business, making data protection paramount. The risk of data exfiltration, deletion, or corruption can come from different directions, including ransomware, natural disasters, and human error.

Backups are the last line of defense in all instances, which is why backup data is becoming a standard attack target. It is imperative to deploy a robust data and business resiliency strategy around your backup data. The 3-2-1 backup strategy is a proven method for maintaining resilience in the event of a data incident.

3-2-1 Backup Strategy Definition

The 3-2-1 backup strategy offers a solid foundation that balances diversity, redundancy, and off-site storage, assuring the availability and resilience of crucial data. The name refers to the *what*, *where*, and *how* of your backup approach.

What: Three Copies
Maintain three copies of your data, specifically your production data plus two backups. This redundancy ensures that even if one copy becomes inaccessible or corrupt, you still have two available for restoration. Maintaining three copies significantly reduces the risk of permanent data loss.

Where: Two Different Media
Store the data copies in two different formats or media. Diversification provides an additional layer of protection against specific types of failures. For example, storing one copy on a physical external hard drive and another in the cloud protects against hardware malfunctions and online security breaches. This approach minimizes the chances of losing all copies simultaneously.

How: One Immutable or Air-Gapped Copy
Ensure that one backup copy is immutable and/or air-gapped to ensure the integrity and availability of critical data for cyber resiliency and protection against ransomware.

Many regulations for compliance and data retention mandate that you store data in an unalterable state for a specific period. Immutable backups ensure the authenticity and reliability of the backup copy, making it a trustworthy source for recovery and compliance requirements.

The final recommendation is to retain one data copy off-site. This means keeping it geographically separated from where you create and maintain your primary data. This protects against physical dangers such as hurricanes, fires, floods, and other catastrophes that might physically damage your site. Having an off-site copy ensures that you can still retrieve your data and continue operations in event of a catastrophic occurrence or theft.

3-2-1 BACKUP STRATEGY

3 Your production data plus two backup copies.

2 It's important to store the backup copies on different media. Make sure one is immutable storage.

1 Keep a copy offsite and isolated from the main network with an air gap to create a data vault.

Top Reasons to Implement a 3-2-1 Strategy

CYBER RESILIENCY

"Ransomware is the only form of cryptocurrency-based crime on pace to grow in 2023," according to blockchain analytics firm Chainalysis. In its mid-year study, the firm reported that attackers had extorted $175.8 million more than by the same date in 2022.

If cybercriminals take out both production and backup data, they can cripple your organization and hold it hostage. This lets them extort higher payments or disrupt your business beyond repair. With a 3-2-1 backup strategy in place, you can quickly recover by restoring from an isolated recovery environment that is located off-site, has data encryption, and exists on an immutable and indelible storage device.

DISASTER RESILIENCY

In our 2022 report, 27% of respondents reported that a natural disaster had caused downtime for their organization in the previous two years. Implementing a 3-2-1 strategy mitigates the chance of business disruption and severe data loss. Creating an off-site data storage location in an area with low risk of natural disaster, can help you recover rapidly if you lose production data due to an event at your primary site. No matter what nature delivers, data remains safe and restorable.

BUSINESS CONTINUITY

Downtime is a dirty word. Risks to communications, operations, and supply chain are increasing year over year, coupled with higher customer expectations for faster services and fulfillment. It is critical to have a robust business resiliency strategy. A 3-2-1 backup strategy provides a clear, quick way to seamlessly restore operations and maintain productivity.

PROFESSIONAL REPUTATION

Data loss or exfiltration due to an attack can do more than disrupt business continuity. It can be devastating to your reputation and permanently cripple customer trust. According to the 2022 Thales Consumer Digital Trust Index, 82% of data breach victims saw a negative impact on their lives. To protect customer trust, it is vital to quickly restore the customer experience after a disruption. This is in addition to mitigation and remediation plans. Rapid recovery of customer data is just part of demonstrating a commitment to data security and reliability, and can enhance your standing within the market.

Turnkey 3-2-1 Solutions

Veritas provides comprehensive turnkey backup options including NetBackup™ powered Appliances and Veritas Alta™ Recovery Vault. These help you protect, detect, and recover rapidly in the event of a disaster, whether it's a cyberattack, natural disaster, or human error.

Veritas cloud-based offerings ensure data redundancy, scalability, and remote accessibility. They provide additional protection and flexibility for critical data. We simplify implementation of the best approach for your 3-2-1 backup, so you can focus on increasing productivity, reducing your operational costs, and delivering an excellent customer experience.

Learn more about disaster-recovery solutions from Veritas. **>**

About Veritas

Veritas Technologies is a leader in multi-cloud data management. Over 80,000 customers—including 95 percent of the Fortune 100—rely on Veritas to help ensure the protection, recoverability, and compliance of their data. Veritas has a reputation for reliability at scale, which delivers the resilience its customers need against the disruptions threatened by cyberattacks, like ransomware. No other vendor is able to match the ability of Veritas to execute, with support for 800+ data sources, 100+ operating systems, 1,400+ storage targets, and 60+ clouds through a single, unified approach. Powered by Cloud Scale Technology, Veritas is delivering today on its strategy for Autonomous Data Management that reduces operational overhead while delivering greater value. Learn more at www.veritas.com. Follow us on Twitter at @veritastechllc.

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