Disaster Recovery **Explained:**



Backup vs Traditional DR vs DRaaS

Protecting data, ensuring business continuity, and recovering from an incident is more important than ever.

Organizations face numerous threats, from natural disasters to cyberattacks, making efficient and reliable data recovery solutions essential.

Section 1: Definitions

Disaster Recovery as a Service (DRaaS)

- Overview DRaaS leverages cloud-based resources to provide disaster recovery services. This approach automates significant portions of the recovery processes and offers near real-time data replication. By utilizing the cloud, DRaaS delivers a flexible and scalable DR solutions.
- **Key Components Include** Cloud infrastructure, replication software, and service providers. The cloud infrastructure is where the replicated data is stored and from where it can be recovered. The replication software copies the data to the cloud in real-time. The service provider typically offers management and security services, ensuring data recovery is effective, secure, and meets client needs.

Traditional Disaster Recovery (DR)

- Overview Traditional DR involves comprehensive policies, tools, and procedures for restoring IT systems after a catastrophic event. It typically requires a secondary physical site equipped with the necessary infrastructure to take over operations. This method ensures business continuity even in the face of significant disruptions.
- **Key Components Include** Reserve power supplies ensure operations can continue during power outages. Redundant hardware provides a fail-safe against equipment failure. Detailed recovery plans outline the steps during a disaster, ensuring a swift and effective response.

Backups

- Overview A backup copies and stores data to ensure it can be restored in case of loss. Safeguards against data corruption, accidental deletion, or hardware failures. Crucial for businesses and individuals alike to protect valuable information.
- **Key Components Include** The data being protected, the storage medium, where the data is stored, and the backup software used to perform the backup. These components work together to ensure data is protected and can be recovered.

Section 2: Feature Comparison

Setup and Maintenance

ongoing maintenance. Once configured, the process can often run automatically, requiring little intervention from IT staff. Traditional DR setups are complex and involve

Backups require a basic setup and minimal

- significant maintenance. This process requires establishing a secondary site, regular testing, and ongoing updates to ensure readiness. DRaaS offers a simplified setup and low
- maintenance. The service provider handles the setup and ongoing maintenance, freeing internal IT resources.

• **Backups** have limited scalability. As data

Scalability

volumes grow, managing backups becomes more challenging, requiring additional storage and resources. • **Traditional DR** provides moderate scalability.

Expanding capacity involves significant

investment in additional infrastructure and resources. DRaaS offers high scalability. Cloud-based resources can easily accommodate growing

data volumes, making it an ideal solution for

businesses experiencing rapid growth. **Recovery Point Objective (RPO)**

Cost

- **Backups** are commonly low-cost solutions, involving minimal investment in hardware and software, making them accessible for smaller businesses. Traditional DR has high upfront and ongoing
- costs. Establishing and maintaining a secondary site involves significant capital expenditure and operational costs.

DRaaS is cost-effective with predictable

expenses, eliminating the need for a secondary site, reducing capital and operational costs while providing a scalable solution.

• **Backups** generally have longer recovery times.

Recovery Time Objective (RTO)

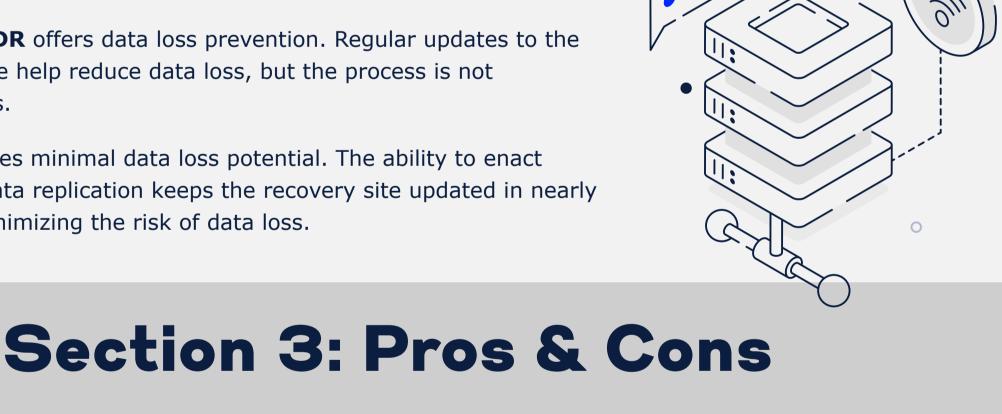
- Restoring data from backups can be time-consuming, especially if large volumes of data are involved. Traditional DR offers moderate recovery times.
- While faster than backups, activating a secondary site and restoring operations still takes time. • **DRaaS** typically provides the quickest recovery

times. Automated recovery processes and

real-time replication enable businesses to resume operations rapidly after a disruption.

• **Backups** have a higher potential for data loss. The frequency of backups determines the amount of data that might be lost, with less frequent backups resulting in greater data loss.

- Traditional DR offers data loss prevention. Regular updates to the secondary site help reduce data loss, but the process is not instantaneous.
- **DRaaS** ensures minimal data loss potential. The ability to enact continuous data replication keeps the recovery site updated in nearly real-time, minimizing the risk of data loss.



DRaaS

Provides a simple way to protect data against accidental loss or corruption without significant investment.

Backups

• **Cons** – Recovery speed is limited, and data loss is more likely making them less suitable for mission-critical applications requiring fast recovery.

Pros – Cost-effective and easy to implement.

Traditional DR practice for enterprises.

without requiring extensive physical infrastructure.

• **Cons** – Dependency on the service provider. Businesses must trust the provider's reliability and performance, which can be a concern for

those requiring high levels of control.

Pros – Fast recovery, scalable, and cost-effective

solution. Leverages cloud to offer DR capabilities

Pros – Reliable and established method. Offers robust protection and has been a longstanding standard

Cons – Expensive and complex to maintain. The high costs and resource demands make it less feasible for smaller businesses or those looking for more flexible solutions.

- Section 4: Use Case Scenarios

Backup

protection for non-critical applications.

Protects against accidental deletions, hardware

Useful for small businesses needing basic data

recovery is not essential.

failures, and minor data corruption.

Suitable for environments where fast data

Cost-effective for organizations with limited IT budgets.

Benefits companies leveraging cloud technology

cost-effective solutions.

internal IT resources.

DRaaS

for DR.

Suited for businesses of all sizes seeking scalable,

minimal data loss, flexibility, and scalability without high capital investment.

Suitable for organizations needing quick recovery,

Managed by the provider, reducing the need for

Best for mission-critical applications needing minimal downtime.

Traditional DR

- Ideal for large enterprises that can afford high costs and complexity.
- Suitable for businesses with established IT infrastructures and dedicated teams. Provides comprehensive recovery with backup power and redundant hardware.

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US Signal's ReliaCloud DRaaS delivers robust, highly customizable protection for your essential infrastructure. Built on Nutanix, ReliaCloud offers a flexible and cost-efficient service, making it perfect for businesses aiming to protect their operations from disruptions.