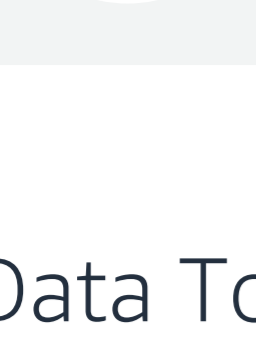


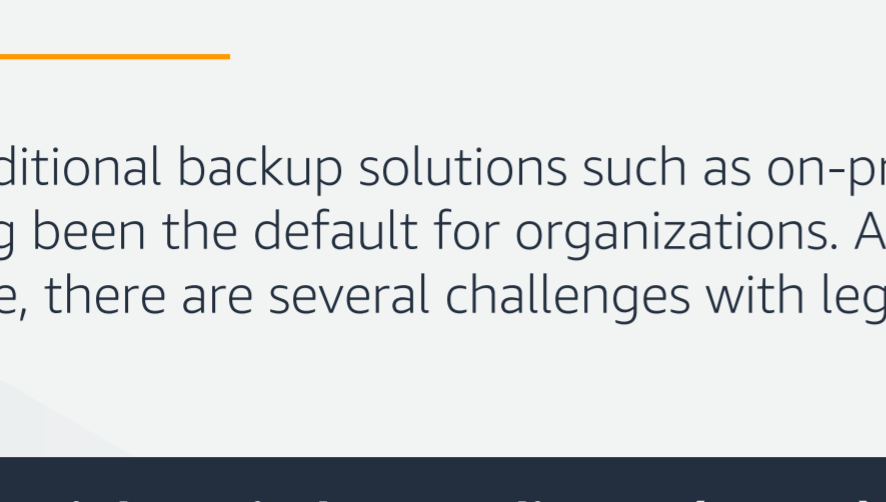
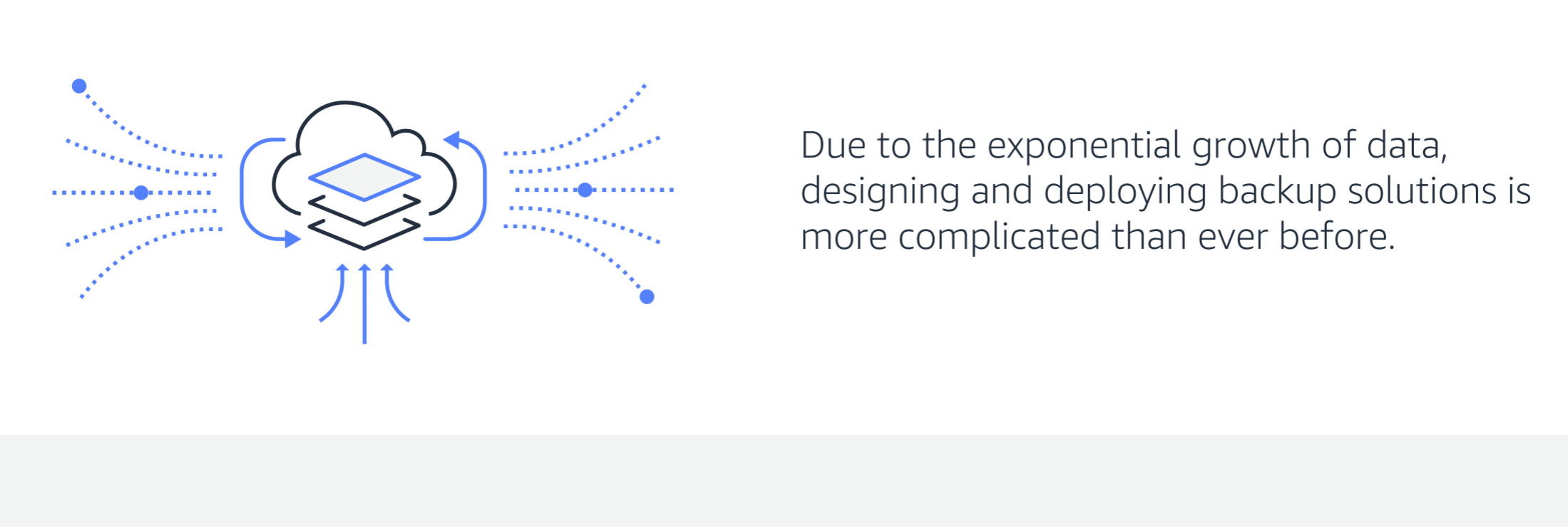
# Modernize Backup and Restore with AWS



Why do we back up data? Simply put: because we don't want to lose it. Lost data can impact business, brand, and trust while affecting current and future revenue streams as a result.

## Data Today and Data Tomorrow

Each day, more people are interacting with more data than ever before. IDC predicts that the Global DataSphere will grow to 175 zettabytes (ZB) by 2025.\* (1 ZB = 1 million petabytes)

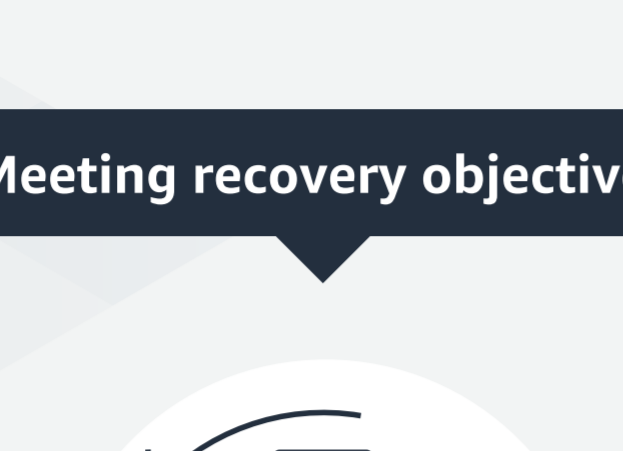


Due to the exponential growth of data, designing and deploying backup solutions is more complicated than ever before.

## Challenges of Traditional Backup Infrastructure

Traditional backup solutions such as on-premises backup appliances or tape libraries have long been the default for organizations. And while the technology has improved over time, there are several challenges with legacy and traditional backup infrastructure.

### High capital expenditures (CapEx)



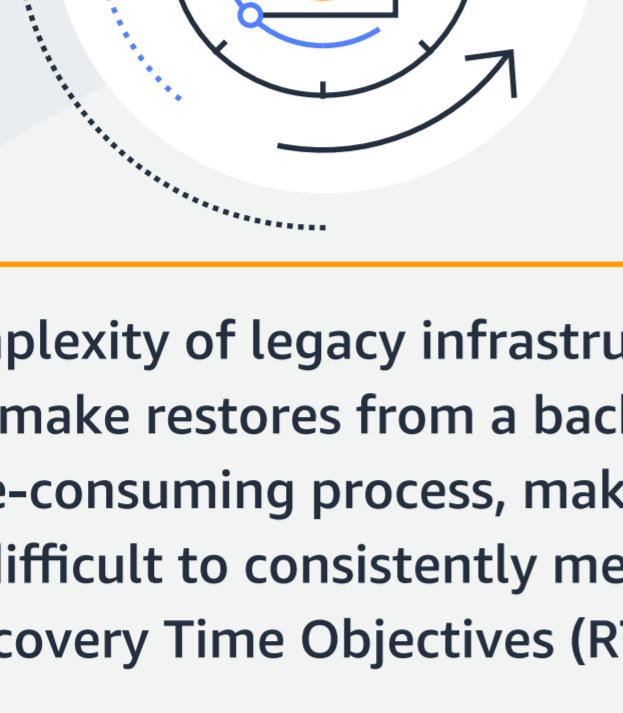
On-premises purpose-built backup appliances and robotic tape libraries are expensive to buy. Further, expensive maintenance contracts lock customers into solutions that do not scale.

### Operational complexities



Traditional solutions are complex to manage and prone to hardware failures, requiring a constant administrative overhead.

### Meeting recovery objectives

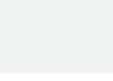


Complexity of legacy infrastructure can make restores from a backup a time-consuming process, making it difficult to consistently meet Recovery Time Objectives (RTO).

### Scalability limitations



Exponential data growth makes backup storage capacity planning unpredictable.



#### Recovery Time Objective (RTO)

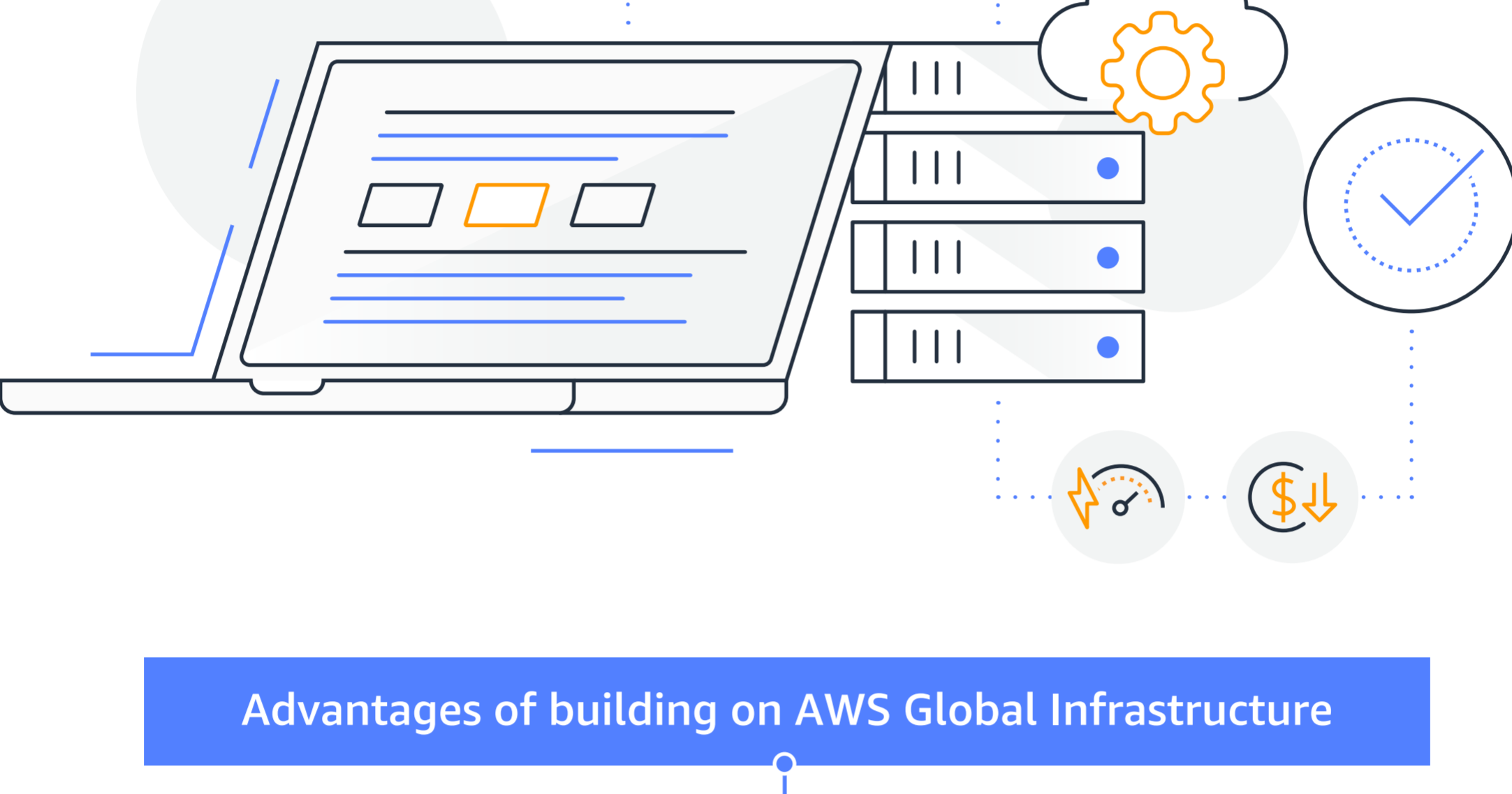
Amount of downtime of an application or service your business can withstand in the event of an outage



#### Recovery Point Objective (RPO)

Amount of data loss your business can withstand in the event of an outage

## Protect your data with unlimited scalability, industry-leading security, and increased agility with cost-effective backup solutions from AWS and AWS Partner Network (APN) storage partners

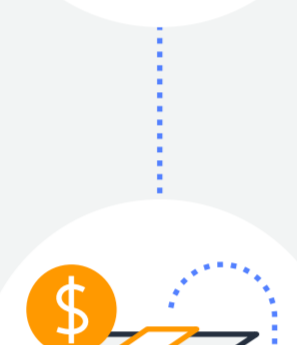


### Advantages of building on AWS Global Infrastructure



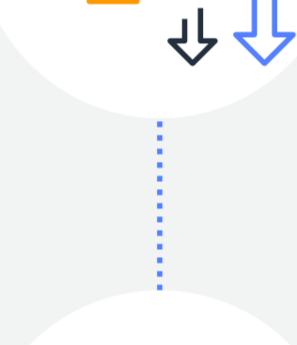
#### Unlimited scalability

Scale IT resources on-demand and meet unpredictable backup capacity demands



#### World-class security

Protect backup data on a global infrastructure built for the most security-sensitive organizations



#### Cost efficiencies

Pay only for what you use with no upfront capital expenditure or maintenance and overhead costs with backwards incompatible legacy solutions



#### Business agility

Easily access data and quickly deploy new business models, or gain ability to run analytics and extract valuable business insights

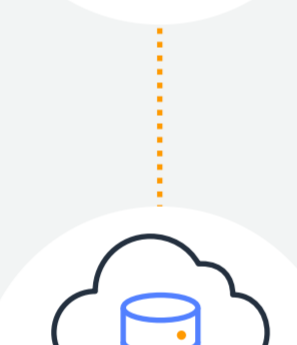
### Benefits of backing up to AWS Storage



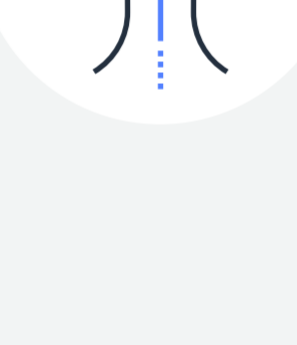
#### Protect backups with 99.99999999% (11 9s) of durability where data is stored across at least 3 geographically separated data centers



#### Back up all types of data: unstructured and structured



#### Streamline backup operations and restore backup data and efficiently to meet RTO and RPO targets



#### Perform non-disruptive and low-effort migration to cloud backups using the many data transfer services of AWS

### AWS Storage data transfer services



#### AWS DataSync

Easily transfer data to and from AWS up to 10x faster



#### AWS Transfer Family

Simple and seamless file transfer to Amazon S3 using SFTP, FTPS, and FTP



#### AWS Snow Family

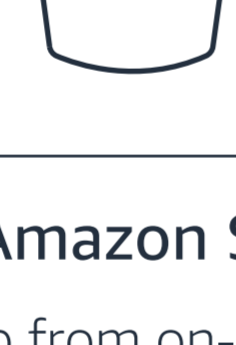
Physical devices to migrate data into and out of AWS



#### AWS Storage Gateway

Hybrid cloud storage that provides on-premises access to virtually unlimited cloud storage

## AWS Storage services for Backup and Restore



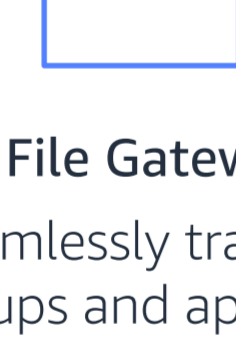
### Amazon S3

Backup from on-premises to S3 storage classes and protect backups with 11 9s of durability



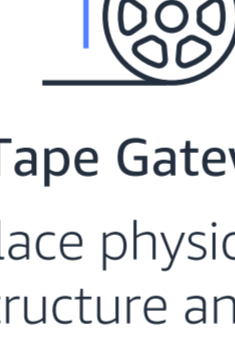
### AWS Storage Gateway

Hybrid cloud storage service that enables you to securely and easily store backups in the cloud



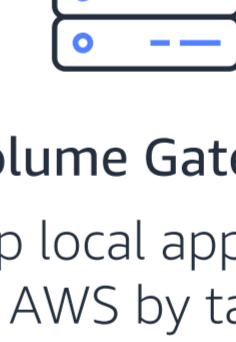
### File Gateway

Seamlessly transition backups and application data to the cloud using SMB and NFS interfaces of file gateway



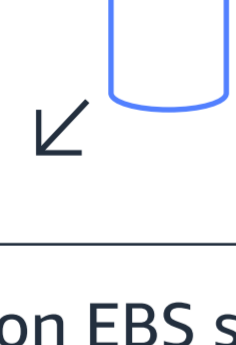
### Tape Gateway

Replace physical tape infrastructure and backup on-premises data as virtual tapes to AWS without making any changes to existing backup workflows



### Volume Gateway

Backup local applications to AWS by taking point-in-time copies of gateway volumes in the form of Amazon EBS snapshots



### Amazon EBS snapshots

Protect block storage volumes in AWS with point-in-time snapshots of volumes stored durably within S3



### Amazon EFS

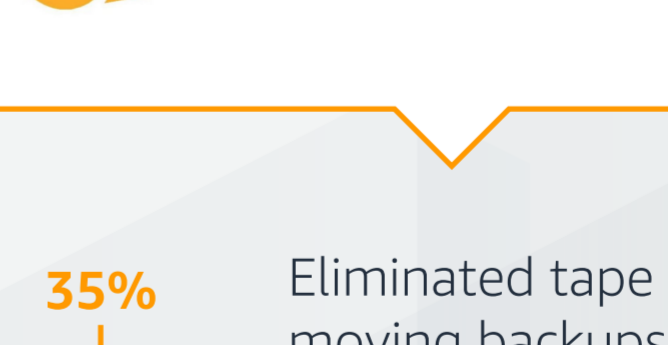
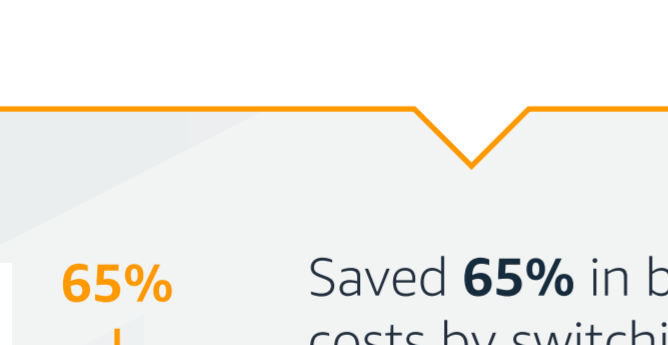
Create portable database backups using native application tools or enterprise backup applications and store them in the cloud



### AWS Backup

Centrally automate and manage backups across AWS resources, such as Amazon EBS volumes, Amazon RDS databases, Amazon Aurora clusters, Amazon EC2 instances, Amazon DynamoDB tables, Amazon EFS file systems, and AWS Storage Gateway volumes

## Customers



65%

Saved **65%** in backup costs by switching tape backups to the cloud using AWS Storage Gateway and storing them in S3 Glacier and S3 Glacier Deep Archive

[Learn more](#)

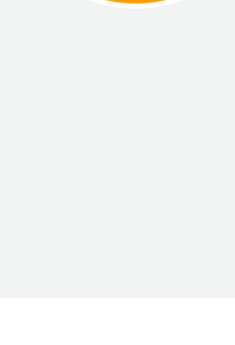
35%

Eliminated tape storage by moving backups to AWS with S3 Glacier, and saved **35%**. Employees now use time previously spent monitoring tape backups to plan future projects in strategic roles

[Learn more](#)



"Using AWS Storage Gateway, we switched from physical to virtual tape backup simply by dropping the gateway's virtual appliance into our existing Veeam workflow. Setting it all up took three hours, at most. We can now provision virtual tapes on AWS with the click of a button."



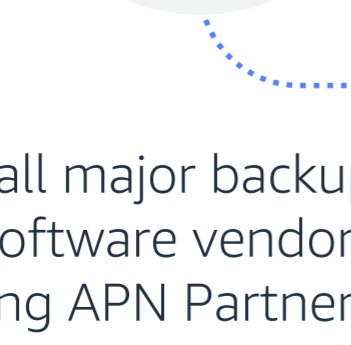
**Jesse Martinich**  
Network Service Manager  
Southern Oregon University

[Learn more](#)

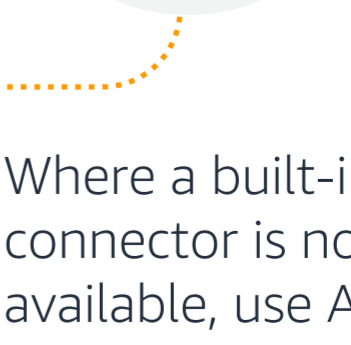
## Partner-based Backup Solutions

Modernizing your backup strategy with AWS does not require abandoning your current backup solution or learning new technology. AWS Partner Network (APN) Storage Partners offer many of the same secure, efficient, and cost-effective backup and archive solutions you are currently deploying, but built on AWS services for the scale and reliability of the AWS Cloud.

### AWS Partner Network (APN) Storage Partners make it easy to use AWS Storage for your backups



Almost all major backup software vendors including APN Partners such as Commvault, Veritas, Druva, Rubrik, and Cohesity provide built-in connectors to backup to Amazon S3



Where a built-in connector is not available, use AWS Storage Gateway and extend backup targets to the AWS Cloud, without making any changes to your existing backup workflows

Regardless of industry, size, or location, all organizations experience data loss from unintentional human errors to data center outages. While there are measures you can take to mitigate data loss events, the most effective data-protection method is having an enterprise-wide backup solution that is durable, scalable, flexible and secure.

## AWS solutions for Backup and Restore

Durable • Scalable • Secure

[Learn More](#)

[aws.amazon.com/backup-restore/](https://aws.amazon.com/backup-restore/)