


# Getting started with Amazon S3

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Amazon S3

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# Agenda – Getting started with Amazon S3

→ Overview of Amazon S3

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→ Storing your Data

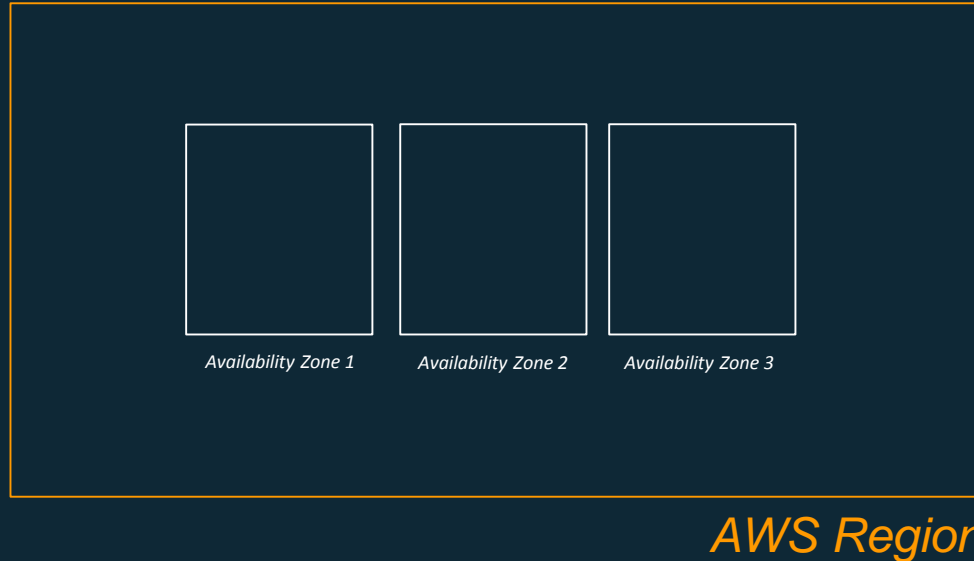
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→ Securing your Data

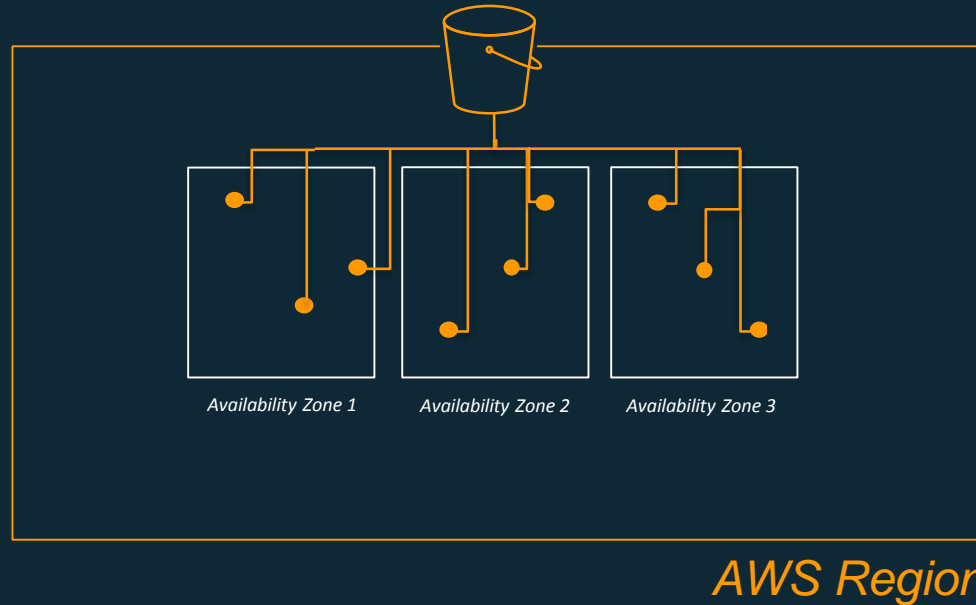
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→ Protecting your Data

# The unique architecture of Amazon S3



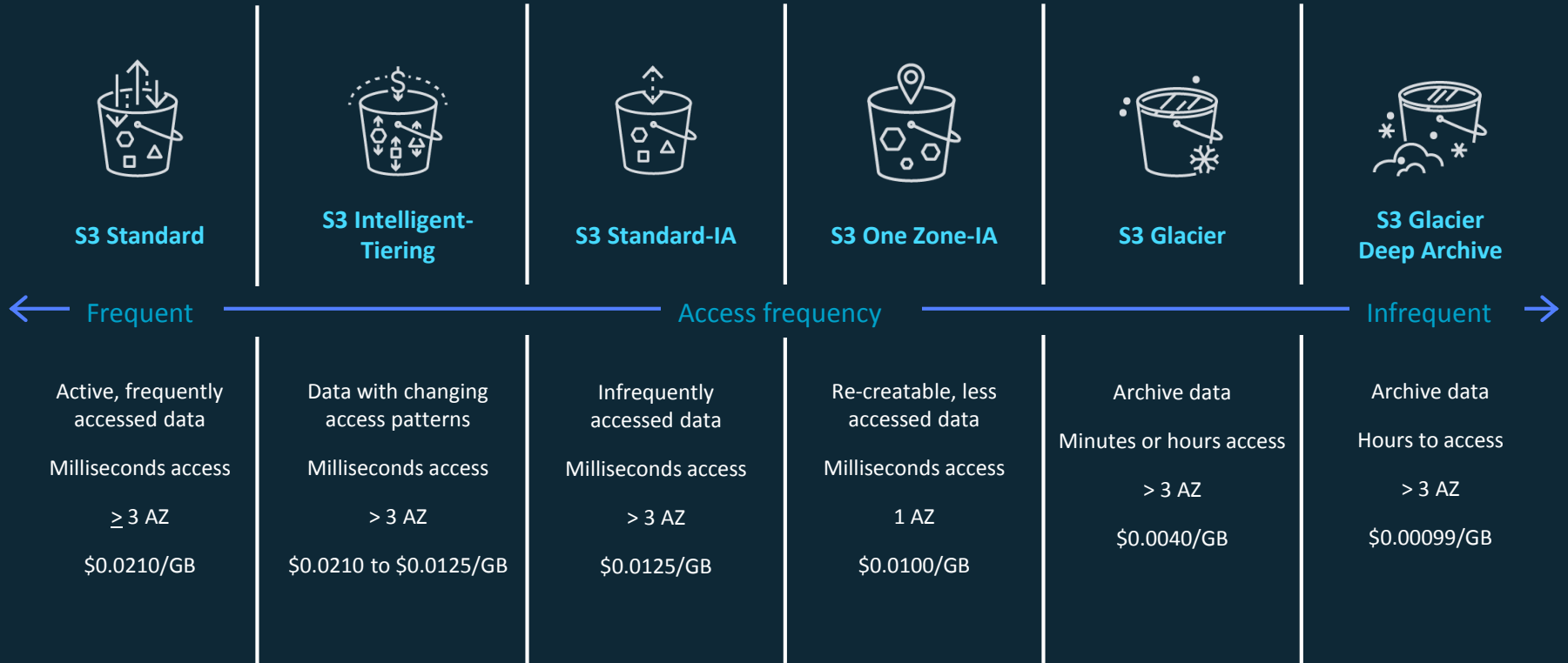
# The unique architecture of Amazon S3



# Storing your Data



# Amazon S3 storage classes



# Lifecycle policies use rules to manage your storage

## Use lifecycle policies to transition objects to another storage class

Lifecycle rules take action based on object age. Here's an example:

1. Move objects older than 30 days to S3 Standard — Infrequent Access
2. Move objects older than 365 days to S3 Glacier Deep Archive



S3 Standard



S3 Standard —  
Infrequent Access



S3 Glacier  
Deep Archive

# Object tags work with lifecycle policies

Perform automated actions on a subset of your data with object tags

## Lifecycle

Specify a tag filter to transition or expire objects

Use S3 batch operations to apply object tags at scale

Ex: Transition all objects tagged “Project : Delta” to S3 Glacier



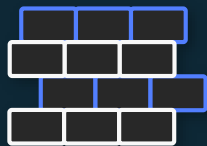


# Securing your Data



# Security is at the core of everything we do

Data stored in Amazon S3 is secure by default



Amazon S3  
Block Public  
Access



Encrypt data by  
default in Amazon  
S3



Encryption  
status in  
Amazon S3  
inventory

# Block Public Access



Applies blanket protection against accidental public access

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Can be applied to ACL access, bucket policy access, or both

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Can be applied to new data or to all data

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Set at the bucket level or at the account level

# Amazon S3 default encryption



One-time  
bucket-level  
setup



Automatically  
encrypts all new  
objects



Simplified  
compliance



Supports SSE-S3  
and SSE-KMS

Provides Amazon S3 encryption-at-rest support for applications that do not otherwise support encrypting data in Amazon S3

# Amazon S3 inventory

A managed alternative to using the LIST API



Regularly generates a list of objects  
for [analytics](#) and [auditing](#).

- Encryption status
- Storage class
- Creation date
- Replication status
- Object size, and more
- S3 Intelligent-Tiering access tier [new!](#)

# Protecting your Data



# S3 Data Protection capabilities

## GOAL

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Replicate data for compliance and bad actor protection

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Protect data from accidental deletes

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Protect data for governance and compliance purposes

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## AMAZON S3 FEATURES

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Use [S3 Replication](#) with [Replication Time Control](#) and [ownership override](#)

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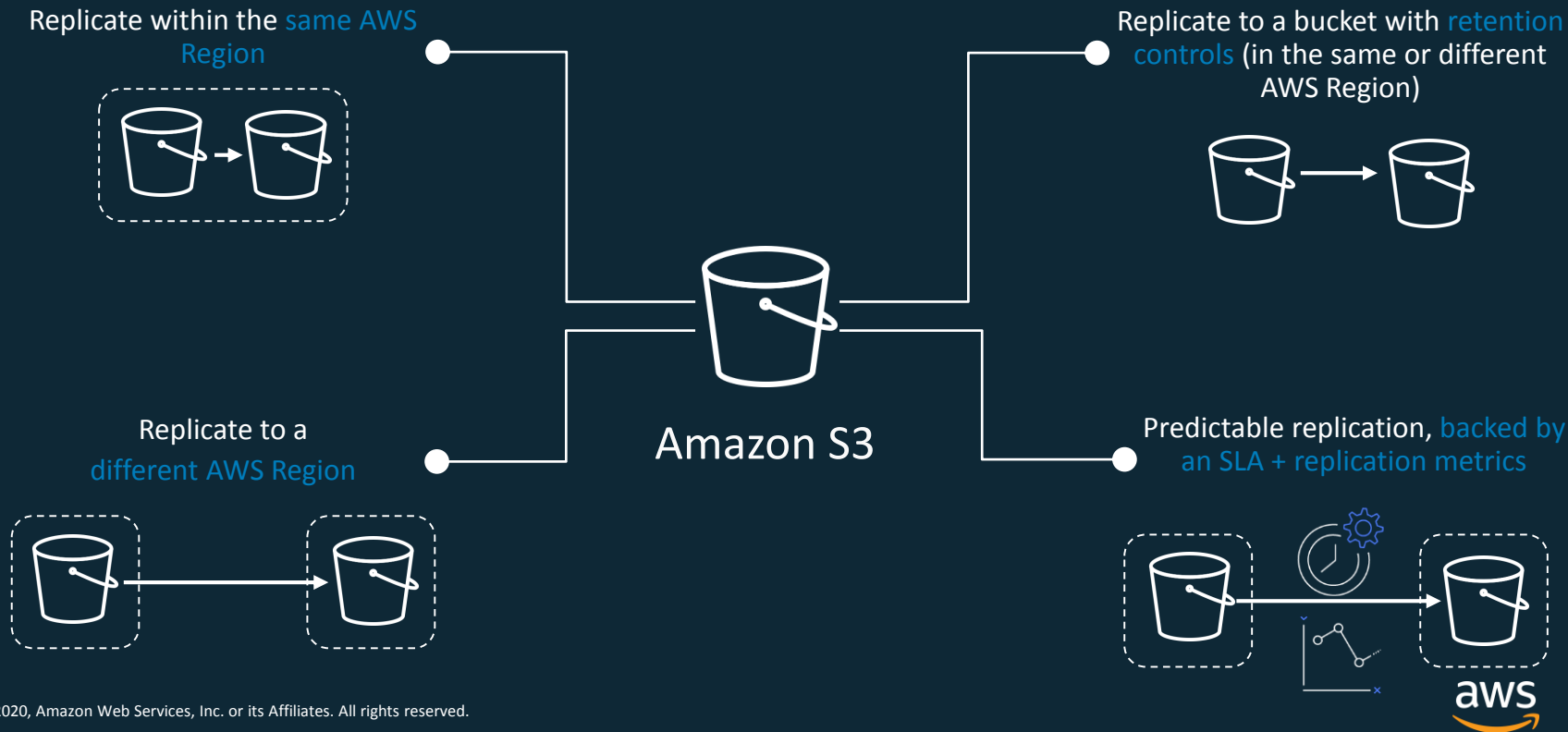
Use [bucket versioning](#) while reducing cost with [Lifecycle policies](#)

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Use [S3 Object Lock](#) to store objects as write-once-read-many (WORM)

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# S3 replication





# Amazon S3 Replication time control **new!**

Designed to replicate 99.99% of objects within 15 minutes



15 minute replication  
time backed by an **AWS**  
**Service Level**  
**Agreement (SLA)**



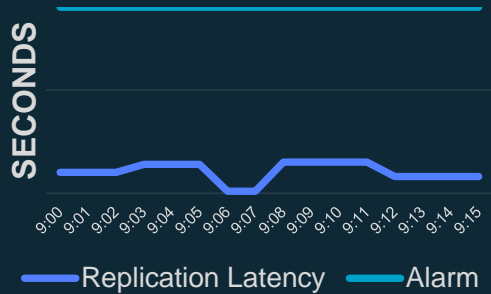
**Monitor replication** using  
Amazon CloudWatch  
metrics and event  
notifications

# Amazon S3 Replication time control

Designed to replicate 99.99% of objects within 15 minutes

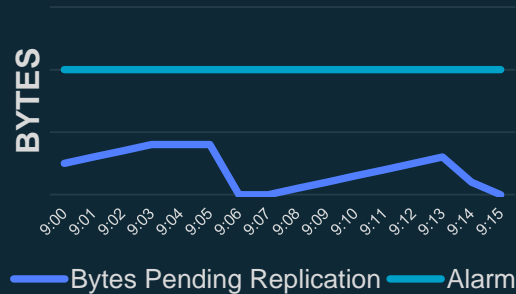
Monitor your replication with 3 new CloudWatch metrics

Optional: Set up alarms on your metrics



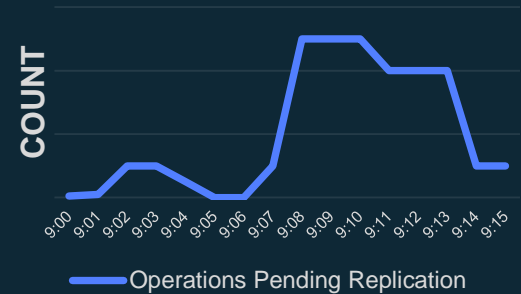
## Replication latency

The maximum number of seconds by which the destination region is behind the source region for a given replication rule



## Bytes pending replication

The total number of bytes of objects pending replication for a given replication rule

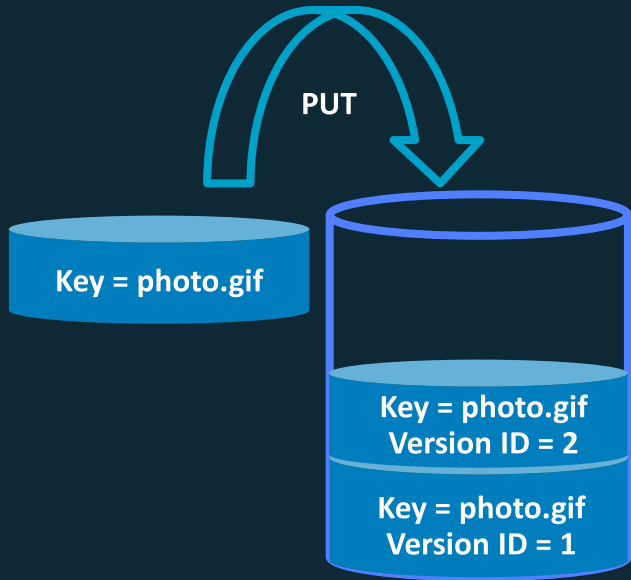


## Operations pending replication

The number of operations pending replication for a given replication rule

# Enable Amazon S3 bucket versioning

Use versioning to protect your data from accidental deletion



Create a **new version with every upload** Previous versions are retained, not overwritten

Making **delete requests without a version ID** removes access to objects, but keeps the data

**Manage previous versions with lifecycle** Transition or expire objects a specified number of days after they are no longer the current version

# Amazon S3 Object Lock

Use **Object Lock** to store objects as write-once-read-many (WORM)



## Compliance mode

Store compliant data


## Governance mode

Store data in WORM format; privileged users can modify retention controls

## Legal hold

If you're unsure how long you want your objects to stay immutable

# Thank You!

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