

Amazon Simple Storage Service

Overview

- Simple storage service
 - Stored in buckets
- Object based storage
 - Files Not OS or DB
 - Region based
 - Objects up to 5TB
- Data Consistency
 - Read after write
 - New Objects
 - Puts
 - Eventual
 - Overwrites
 - Deletes
 - Atomic Results
 - Old
 - New
 - Never mixed
- Attributes
 - Key File Name
 - Version ID
 - Metadata
 - Info on file
 - Value
 - Header
 - Value The Data
 - Sub-resources ACLS
 - Torrent

- LifeCycle Management
 - create filters
 - Create Transitions
 - Current versions
 - Previous Versions
 - 128k upwards
 - Copy and delete data to move to SLAs
 - clean up
 - retention
 - S3-IA
 - Glacier

- Costs
 - Capacity
 - Requests
 - Data Transfer
 - In Free
 - Services Charged
 - Logical Management (tags)

Static Web Hosting

- host a website from S3 bucket
- https://<bucket name>.s3-website-<region>.amazonaws.com

Naming

- DNS compliant name
- s3.<region>.amazonaws.com/<bucket_name>
- Must be unique - universal namespace
- Global naming if you delete consider name loss

Storage Tiers

- S3
 - 11 9s durability
 - lose 2 datacenters
 - 99.9% SLA Availability
- S3-RRS
 - Reduced redundancy storage
 - Lower fee
 - Lose 1 facility
 - Lower durability
- S3-IA
 - Infrequently accessed
 - Access straightaway
 - Lose 2 facilities
 - 30 day Retention min
 - Lower fee
- Glacier
 - Archival only
 - Longer to recover 1 to 5 minutes
 - Cheaper

- Versioning
 - suspended
 - once enabled cannot be disabled
 - consider costs
 - Delete
 - MFA possible
 - versioning must be enabled
 - Needed for replication

- Cross-region replication
 - per region
 - Needs versioning enabled
 - 1:1
 - Configure
 - source
 - destination
 - Behaviour
 - Existing objects not copied
 - Changes
 - New objects
 - Revert must be on both objects

- Encryption
 - In Transit
 - SSL / TLS
 - At rest
 - Client Side
 - upload already completed
 - Server Side
 - AWS Managed Service
 - KMS SSE-KMS
 - Customer Managed key
 - Customer SSE-C
 - Amazon manages service
 - S3 SSE-S3

- Security
 - Access logs
 - Permissions
 - Private
 - Levels
 - Policy
 - ACLs
 - Tags
 - None
 - Defaults
 - Logging Disabled
 - Encryption Disabled
 - Versioning Disabled
 - changes immediately applied

- s3 - Transfer Acceleration
 - CDN End location upload
 - Transfer to bucket region