layout: post title: AWS存储服务 subtitle: S3 EBS EFS date: 2018-09-11 author: Galvin header-img: img/post-bg-ios9-web.jpg catalog: true tags: - AWS

最近简单的看了下AWS的服务，对存储做了个简单的分类

Elastic Block Store (EBS)
Simple Storage Service (Amazon S3)
Elastic File System (EFS)

特性	S3	EBS	EFS
存储类型	对象存储	块存储	块存储
存储大小	无限制	最大16TB	无限制
单个文件限制	5TB	无限制	52TB
IO吞吐量	如果使用single object upload 单个文件大小限制为5GB	可以选择HDD或者SSD的磁盘类型 以提供不同的IO	默认3GB
访问	能通过因特网访问	只能通过单个EC2实例访问	可以被上千个EC2实例同时访问
速度	最慢	最快	中等
价格	便宜	中等	最贵

S3存储类别

- Standard: The default storage class. If you don't specify the storage class when you upload an object, Amazon S3 assigns the STANDARD storage class.
- Standard-IA:minimum(128KB and 30days) Amazon S3 stores the object data

redundantly across multiple geographically separated Availability Zones (similar to STANDARD storage class). STANDARD_IA objects are resilient to the loss of an Availability Zone. This storage class offers greater availability, durability, and resiliency than the ONEZONE_IA class

- Onezone-IA: Amazon S3 stores the object data in only one Availability Zone, which makes it less expensive than STANDARD_IA.
- RRS: The Reduced Redundancy Storage (RRS) storage class is designed for noncritical, reproducible data that can be stored with less redundancy than the STANDARD storage class.
- Glacier: The GLACIER storage class is suitable for archiving data where data access is infrequent. Archived objects are not available for real-time access.
- Note: IA stands for infrequent access

Storage Class	Durability	Availability	Other Considerations
STANDARD	11 ↑ 9	99.99%	None
STANDARD_IA	11 ↑ 9	99.9%	There is a retrieval fee for STANDARD_IA objects. This class is most suitable for infrequently accessed data
ONEZONE_IA	11 ↑ 9	99.5%	Not resilient to the loss of the Availability Zone.
GLAC	11 ↑	99.99% (after you restore object	GLACIER objects are not available for real-time access. You must first restore archived objects

IER	9	s)	before you can access them.
RRS	99.999%	99.99%	None

生命周期
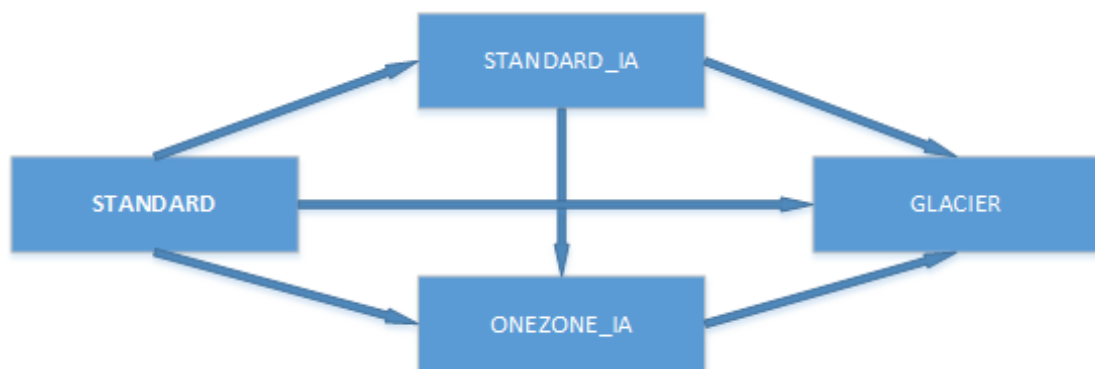
AWS主要服务

- Route53 – AWS的DNS服务
- Elastic Block System (EBS) – 块存储服务
- Elastic File System (EFS) – 文件服务器服务
- DirectConnect – 专线服务
- CloudFront CDN (Content Distribution Network) – 内容分发服务
- Storage Gateway – 存储服务的一种
- Snowball – 存储迁移服务
- Elastic Load Balancing – 负载均衡服务
- Auto Scaling Group – 弹性计算服务
- CloudWatch – 监控服务
- DynamoDB/RedShift/Aurora/Elasticache – 非关系型数据库，数据仓库，数据库缓存服务
- Simple Notification System (SNS) – 通知服务（邮件，短信等）
- Simple Queue System (SQS) – 队列服务
- Simple WorkFlow (SWF) – 工作流服务

- Lambda – 无服务服务。。
- API Gateway – API网关服务（新版本考试中出现的内容）
- WorkSpaces – 远程桌面服务（新版本考试中出现的内容）
- EC2 Container Service (ECS) – 容器服务（新版本考试中出现的内容）