Prashant Lakhera Follow Mar 28, 2019 · 3 min read · ▶ Listen 100 Days of DevOps — Day 46-Introduction to **Amazon Glacier** Welcome to Day 46 of 100 Days of DevOps, Focus for today is Amazon Glacier

Get started

Sign In

web service

S3 Glacier

Deep Archive

99.99999999%

(11 9's)

99.99%

99.9%

≥3

**40KB** 

180 days

per GB retrieved

select hours

Object

Yes

## What is Amazon Glacier?

• Data Archiving Solution

• It's designed for infrequently accessed data (you may require that data later for

Long term storage solution for low cost • 99.99999999(11 9's of durability)

business need or legal purpose)

- Key Terms
- Archive: Any object that you store in a Glacier or basic unit of storage in Glacier
- Vault: Vault is the container for storing archive.
- Access Policy: Determine who can and can't access the data stored in the Vault.
- It also controls what action user can and can't perform on the Vault. You can also create a Vault lock policy so that Vault can't be altered.

• Creating and Managing Vault Policies

- Only a few Glacier operations supported by AWS Management Console • Creating and Deleting Vault
- RESTful

For the rest of the operation, you need to rely on the below methods

Java or .NET **SDKs** 



• Expedited: 1–5 min(highest cost) Standard: 3-5 hour

Performance across the S3 Storage Classes

S3 Intelligent-

Tiering\*

99.99999999%

(11 9's)

30 days

N/A

millseconds

Object

Yes

Choose S3 Storage Class based on your requirement

**Amazon S3** 

No limit

PUT, COPY, POST,

LIST, and GET

Per request

Quick Comparision between S3 and Glacier

S3 Standard-IA

99.99999999%

(11 9's)

30 days

per GB retrieved

milliseconds

Object

Yes

S3 One Zone-IA†

99.99999999%

(11 9's)

99.5%

99%

1

128KB

30 days

per GB retrieved

milliseconds

Object

Yes

S3 Glacier

99.99999999%

(11 9's)

99.99%

99.9%

≥3

**40KB** 

90 days

per GB retrieved

select minutes

or hours

Object

Yes

**Amazon Glacier** 

No limit

min/hrs

40 TB max

**UPLOAD** and retrieval

Per request and per GB

Performance across the S3 Storage Classes

S3 Standard

99.99999999%

(11 9's)

N/A

N/A

milliseconds

Object

Yes

Data volume

Cost/GB per month

Billed requests

Retrieval pricing

Security with Amazon Glacier

Glacier manages key for you

Welcome to Amazon S3 Glacier

Region

Designed for

duration charge

First byte latency

Retrieval fee

Storage type

Lifecycle

transitions

durability

- - Designed for 99.99% 99.9% 99.9% availability Availability SLA 99% 99% 99.9% **Availability Zones** ≥3 ≥3 ≥3 Minimum capacity charge N/A N/A 128KB per object Minimum storage

• *Bulk: 5–12 hour(lowest cost)* 

- Average latency ms Item size 5 TB max
- <u>2.console.aws.amazon.com/glacier</u> → Create Vault

• Glacier access can be control using IAM

Glacier encrypt your data using AES-256

Go to the Glacier tab using AWS console <u>https://us-west-</u>

Amazon S3 Glacier Amazon S3 Glacier is an extremely low-cost storage service that provides secure, durable, and flexible storage for data backup and archival Create Vault Getting started guide Create Vaults Set data retrieval policies Set event notifications Set data retrieval limits such as "Free Tier Only" or You can configure vaults to send notifications to A vault is a container for storing archives. An archive is any object, such as a photo, video, or "Max Retrieval Rate" to manage retrieval costs with you or your application when retrieving data. a few clicks in the AWS console. Notifications are delivered by using the Amazon document, which you store in a vault. Simple Notification Service (Amazon SNS). Learn more Learn more Learn more

Data is stored in S3 Glacier in "archives." An archive can be any data such as a photo, video, or document. You can upload a

A single archive can be as large as 40 terabytes. You can store an unlimited number of archives and an unlimited amount of data in S3 Glacier. Each archive is assigned a unique archive ID at the time of creation, and the content of the archive is

Vaults allow you to organize your archives and set access policies and notification policies. Get started by giving your vault a

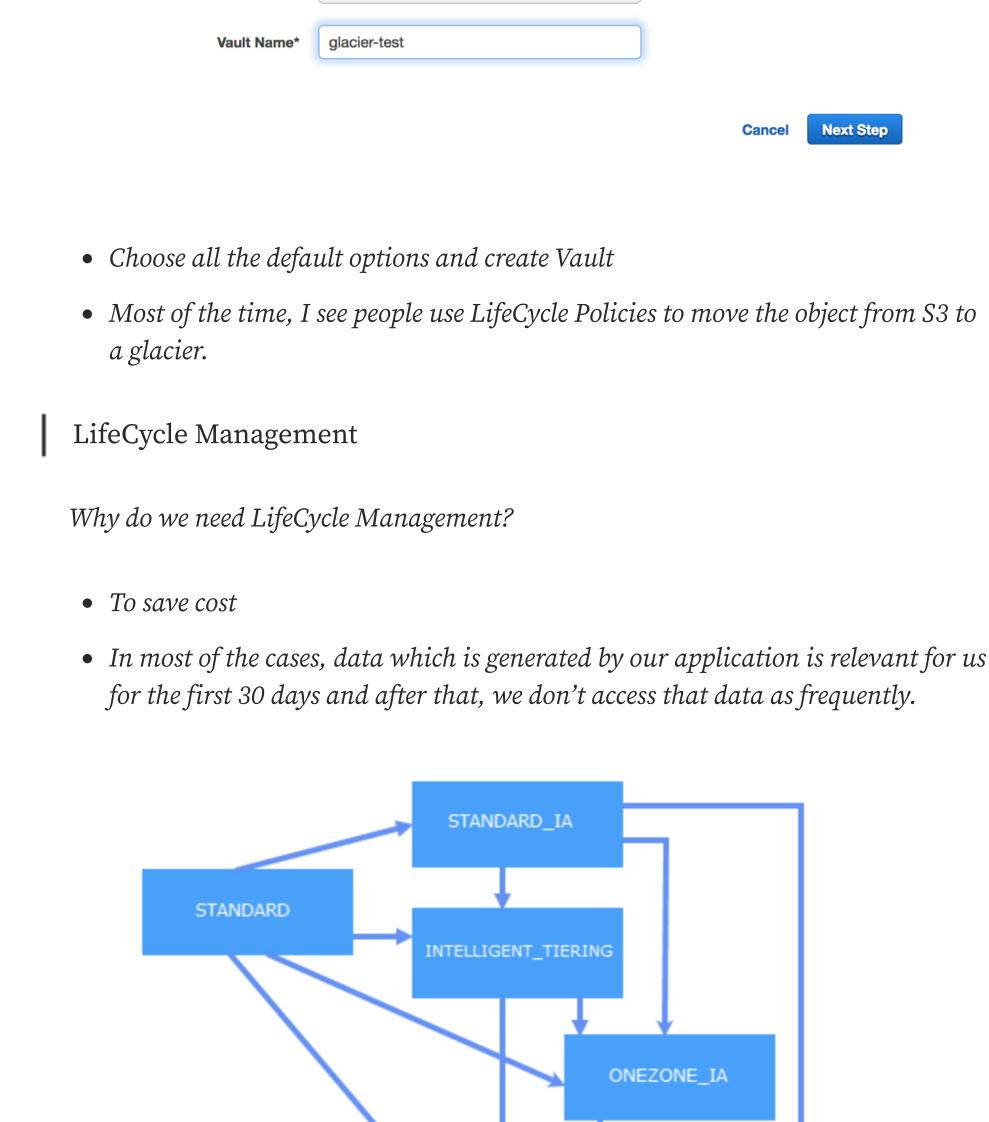
0

single file as an archive or aggregate multiple files into a TAR or ZIP file and upload as one archive.

name. You can then create your vault now or click Next Step to set up your vault's properties.

**US West (Oregon)** 

immutable, meaning that after an archive is created it cannot be updated.



**GLACIER** 

LifeCycle object supports the following but I am going to enable just the required

<u>enabled</u> — (Required) Specifies lifecycle rule status. <u>transition</u> - (Optional) Specifies a period in the object's transitions

Transitioning Objects — Amazon Simple Storage Service

transition objects to another Amazon S3 storage...

You can add rules in a lifecycle configuration to tell Amazon S3 to

Reference:

parameters

3

5

6

8

9

10

11

12

13

14

15

16

17

18

}

docs.aws.amazon.com

provider "aws" {

acl = "private"

lifecycle\_rule {

transition {

days = 30

transition {

}

days to GLACIER.

the below medium.

Reference

earlier)

Your email

practices.

1XGCP

Mar 27, 2019

AWS 2 min read

AWS 6 min read

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100 Days of DevOps — Day 0

days = 60

s3\_bucket\_policy.tf hosted with \(\vec{\psi}\) by GitHub

enabled = true

region = "us-west-2"

resource "aws\_s3\_bucket" "bucket" {

storage\_class = "STANDARD\_IA"

storage\_class = "GLACIER"

bucket = "terraform-20181219040316452900000001"

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D-day is just one day away and finally, this is a continuation of the post(I posted a month

Twitter: @100daysofdevops OR @lakhera2015

GitHub Link: <a href="https://github.com/100daysofdevops">https://github.com/100daysofdevops</a>

Get an email whenever Prashant Lakhera publishes.

Solution using S3, Glacier and VPC Endpoint

Here I am defining after 30 days move the objects to STANDARD\_IA and after 60

Looking forward from you guys to join this journey and spend a minimum an hour

every day for the next 100 days on DevOps work and post your progress using any of

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the AWS cloud. EC2 virtual server also referred to as an instance and E...

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