

The image features a white background with four purple triangles in the corners, pointing towards the center. The word "ondia" is centered in a bold, lowercase, sans-serif font. The letters "o", "n", and "d" are a medium purple, while "i" and "a" are a darker blue-purple. The letter "d" has a decorative graphic element on its upper right side, consisting of a light blue semi-circle and a teal shape that overlaps the top of the letter.

ondia



# AMI & Snapshot

# AGENDA



- ▶ **Amazon Machine Image (AMI)**
- ▶ **Snapshot**



# Amazon Machine Image (AMI)

# Amazon Machine Image (AMI)

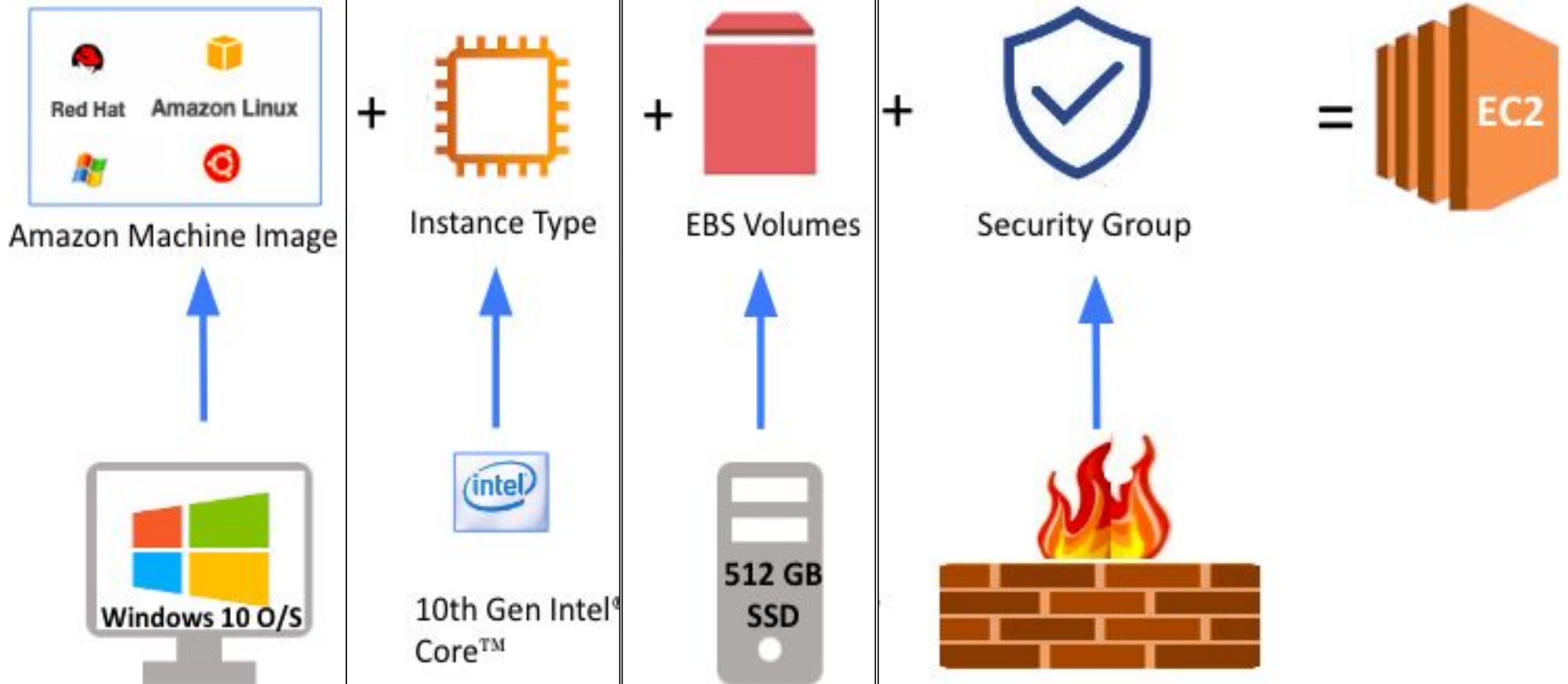


## What is AMI?



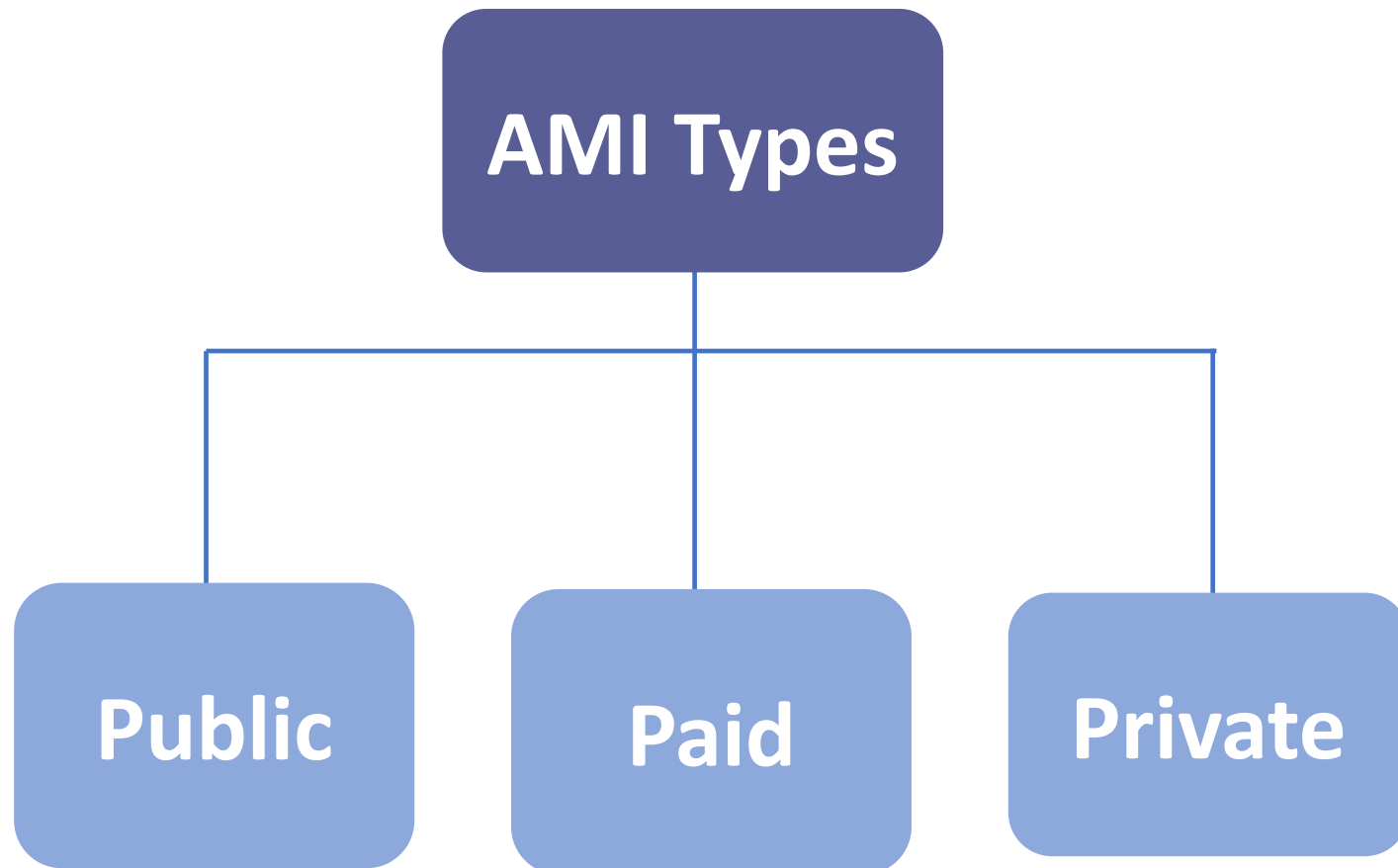
- An Amazon Machine Image (AMI) is used for the launching an virtual instances in the AWS environment.
- AMI are like templates that are configured with an operating system and other software, which determine the user's operating environment.
- You can copy an AMI . So you can launch multiple instances from a single AMI with the same configuration.

# Amazon Machine Image (AMI)



# Amazon Machine Image (AMI)

## Types of AMIs





# Snapshot





# Snapshot

## What is Snapshot?

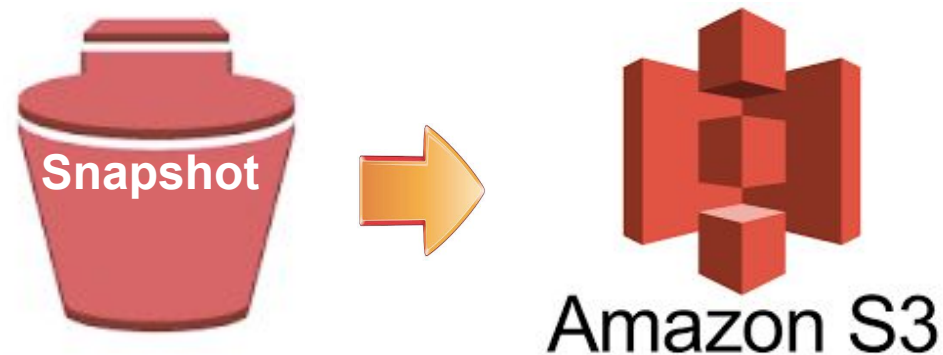


- It is a **point-in-time copy** of your Amazon EBS Volume/Instance
- Snapshots are used for the **purpose of**
  - Backup
  - Copying AMI for creating multiple instances with the same features.
  - Creating a new Volume



# Snapshot

## Features of the Snapshot

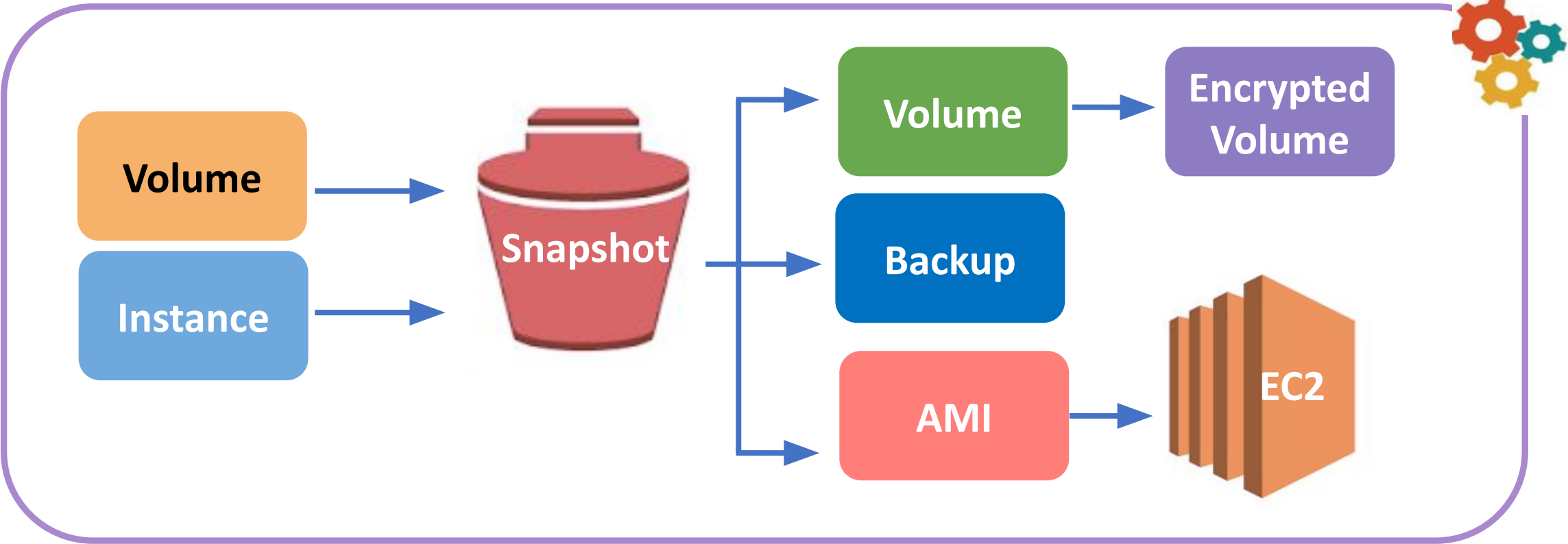


- Source from **Volume or Instance**
- Stored in **Amazon S3**
- **Incremental** storage
- **Data Lifecycle Manager (DLM)**



# Snapshot

## Lifecycle of Snapshot



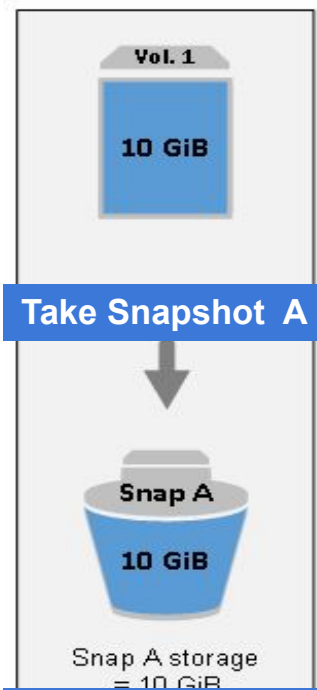
# Snapshot

## Incremental Backups

32 GiB vs. 16 GiB

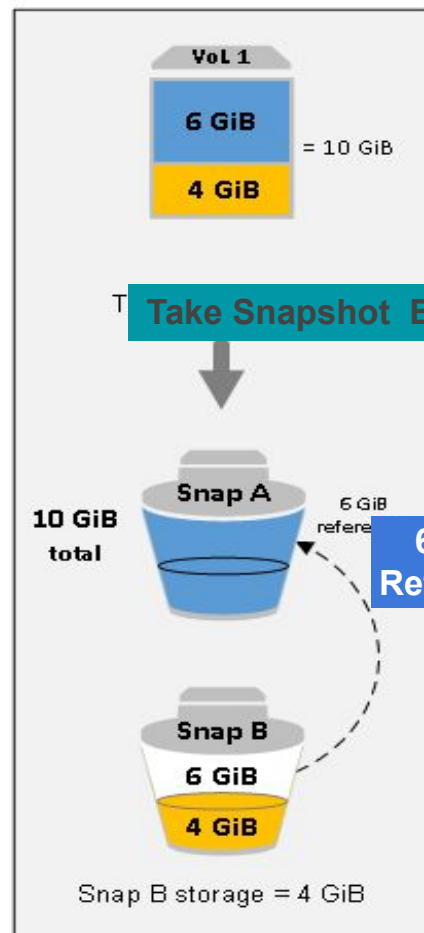


State 1 – 10 GiB



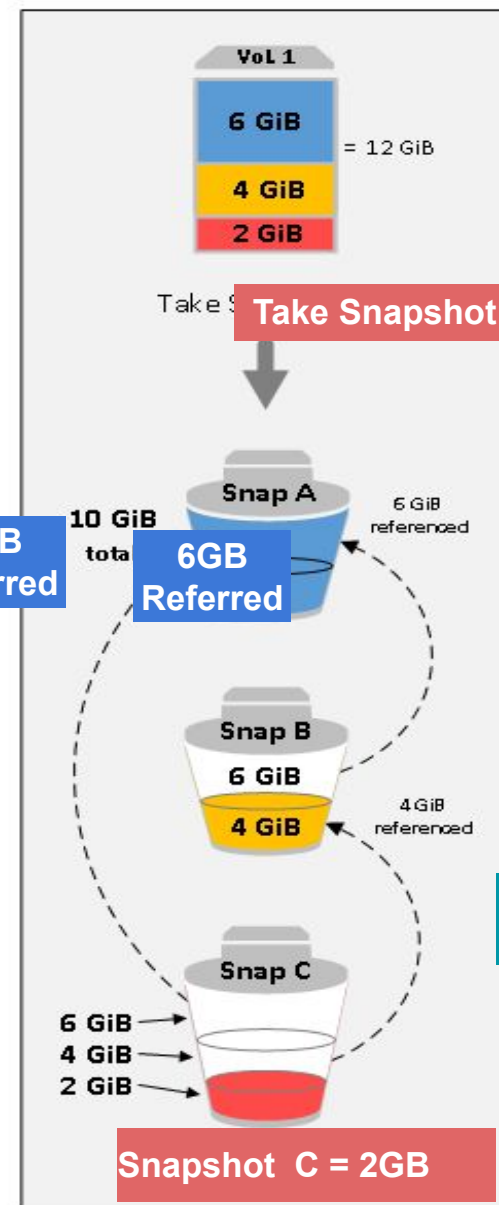
Snapshot A=10GB

State 2 – 4 GiB changed



Snapshot B = 4GB

State 3 – 2 GiB added



4GB Referred

Snapshot A = 10 GB

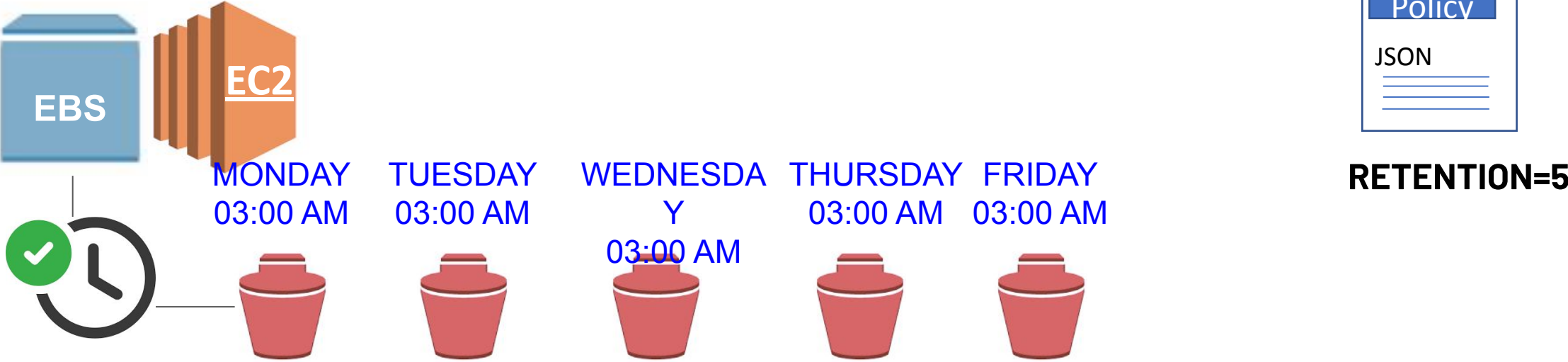
Snapshot B = 4 GB Changed + Referred 6 GB Snapshot A

Snapshot C = 2 GB Added + Referred 6 GB Snapshot A + 4 GB Snapshot B



# Snapshot

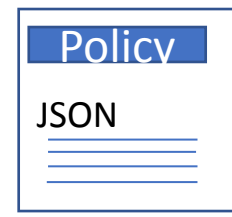
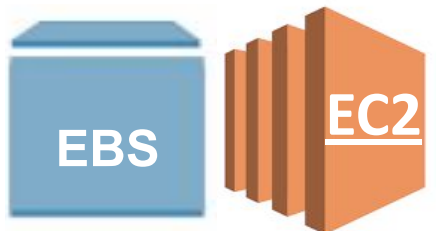
## Data Lifecycle Manager (Amazon DLM)





# Snapshot

## Data Lifecycle Manager (Amazon DLM)



**RETENTION=5**

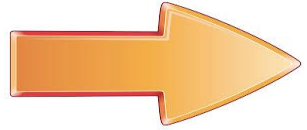
MONDAY 03:00 AM   TUESDAY 03:00 AM   WEDNESDAY 03:00 AM   THURSDAY 03:00 AM   FRIDAY 03:00 AM



MONDAY 03:00 AM   TUESDAY 03:00 AM   WEDNESDAY 03:00 AM   THURSDAY 03:00 AM   FRIDAY 03:00 AM   SATURDAY 03:00 AM



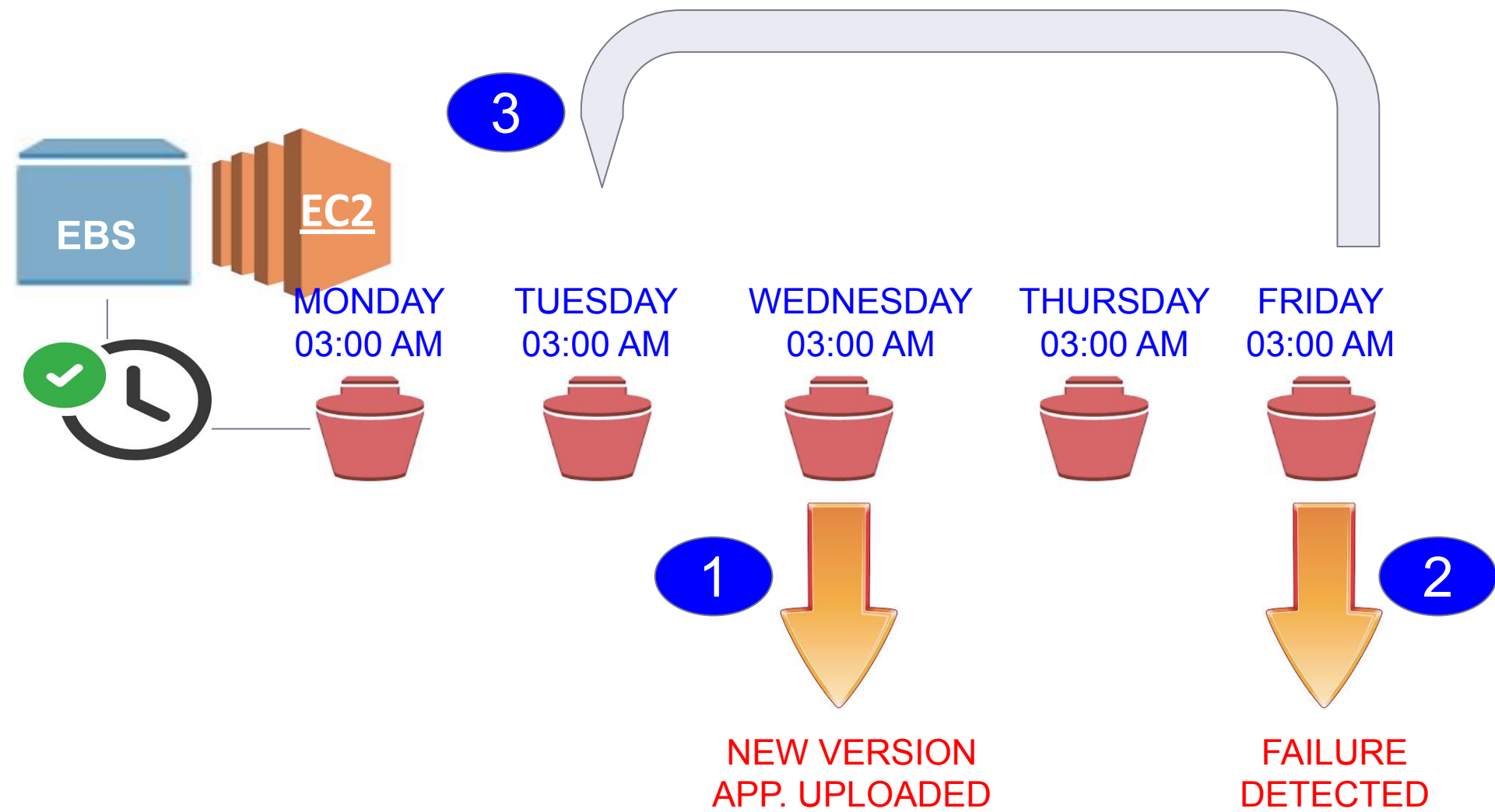
MONDAY 03:00 AM   TUESDAY 03:00 AM   WEDNESDAY 03:00 AM   THURSDAY 03:00 AM   FRIDAY 03:00 AM   SATURDAY 03:00 AM   SUNDAY 03:00 AM





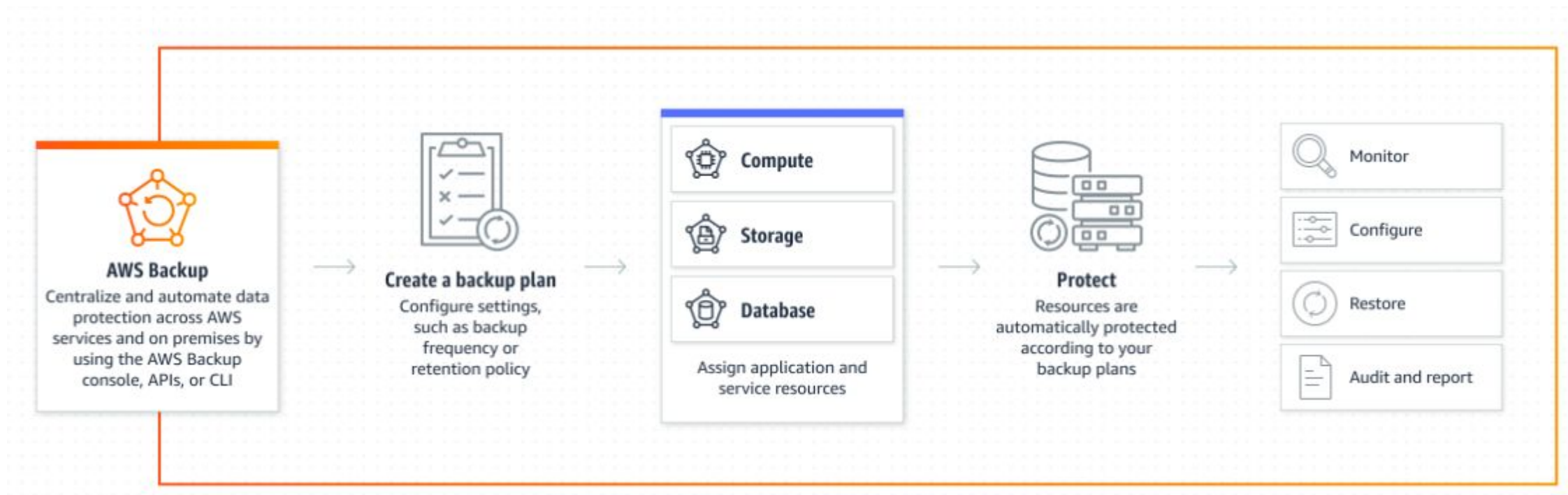
# Snapshot

## Data Lifecycle Manager (Amazon DLM)- Backup and Restore



# Snapshot

## AWS Backup



AWS Backup is fully managed service that centralizes the all backup process in your project including.





# Snapshot

## Encryption of Root Device via Snapshot

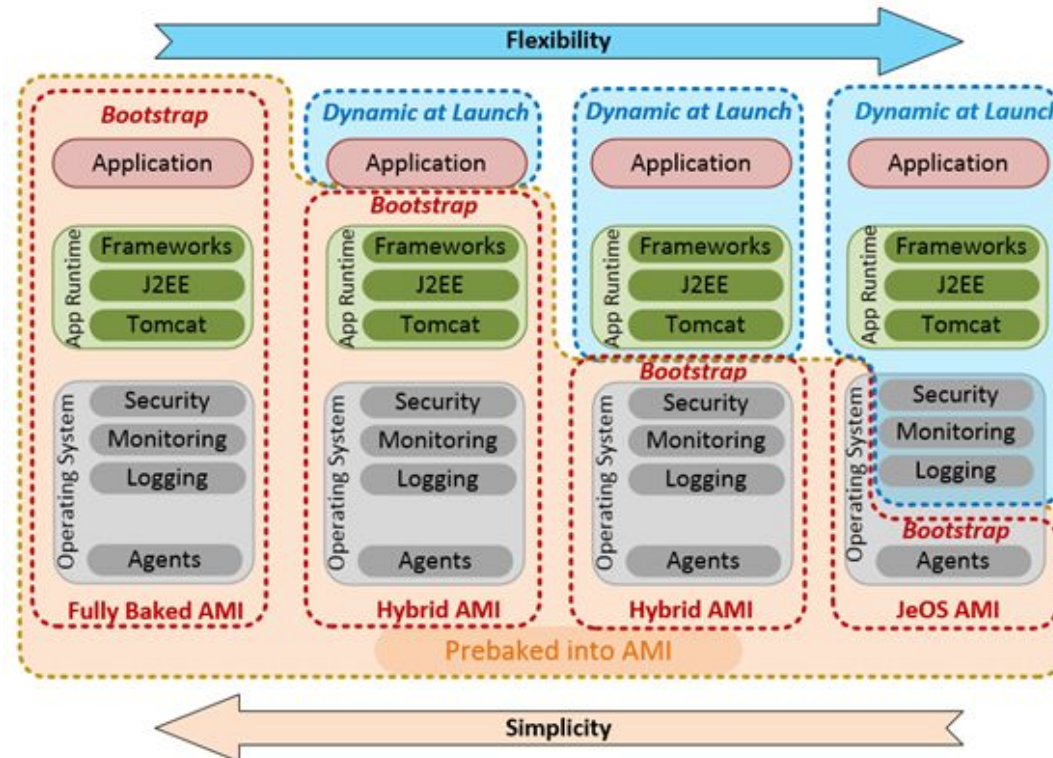


- Root device (volume) cannot be encrypted after creation. “How to encrypt unencrypted volume after after creation” is a common question that can be asked in certification exams!
  - Take snapshot of unencrypted volume.
  - Copying the **unencrypted** Snapshot,
  - You are able to encrypt this Snapshot while coping
  - Create an **encrypted** volume from this copied Snapshot.

# Golden AMI



- A golden AMI is an AMI that contains security patches, configuration, and agents required to by an organization. A “just enough OS” (jeOS) is the most basic golden AMI.
- It may also contain specific software components that make it easier and faster to start-up an instance .





## Let's get our hands dirty!

- Create Snapshots
- Make Public The Snapshot
- Data Life Cycle Manager
- Creating AMI from the Snapshot
- Creating Volume from the Snapshot
- Creating an Image from Instance



# THANKS!

**Any questions?**

