



AMI & Snapshot



Today's Takeaways

- ▶ Amazon Machine Image (AMI)
- ▶ Snapshot



1

Amazon Machine Image (AMI)

CLARUSWAY
WAY TO REINVENT YOURSELF



Amazon Machine Image (AMI)

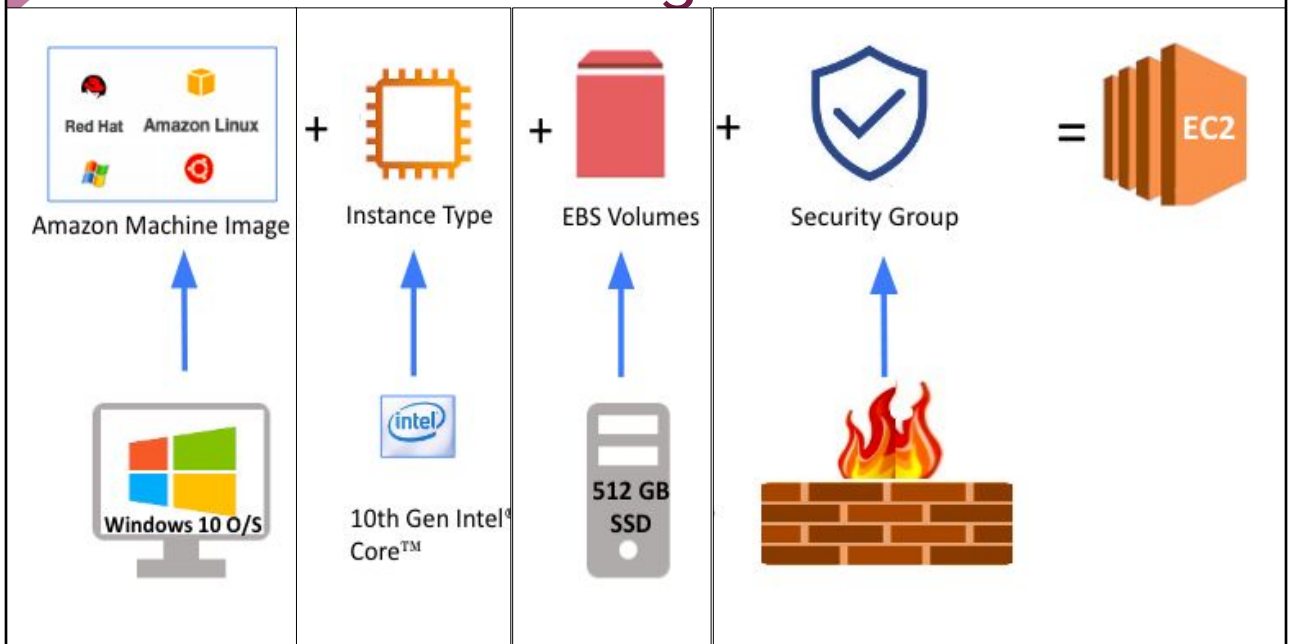
What is AMI?



- 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**.

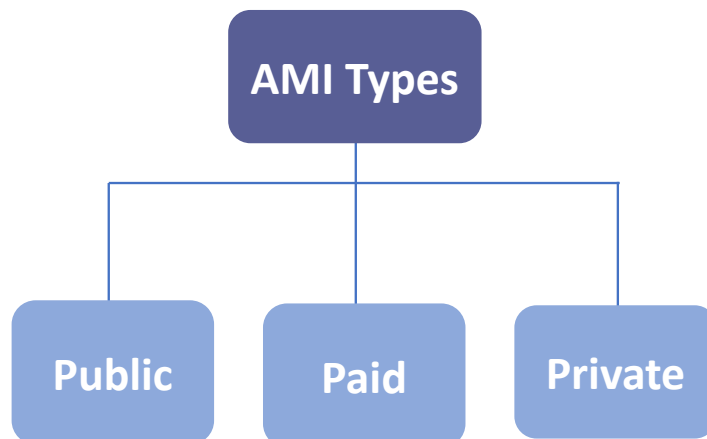


Amazon Machine Image



Amazon Machine Image (AMI)

Types of AMIs





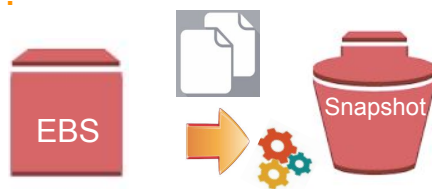
2 Snapshot

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Snapshot

What is Snapshot?

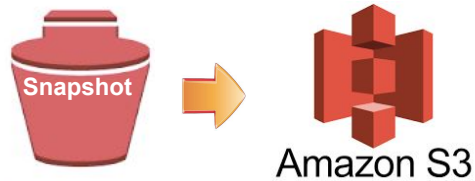


- It is a **point-in-time copy** of your Amazon EBS Volume/Instance
- Snapshots are used for the **purpose of**
 - Backup
 - Copying AMI for creating multiple instances with the same features.
 - Creating a new Volume



Snapshot

Features of the Snapshot



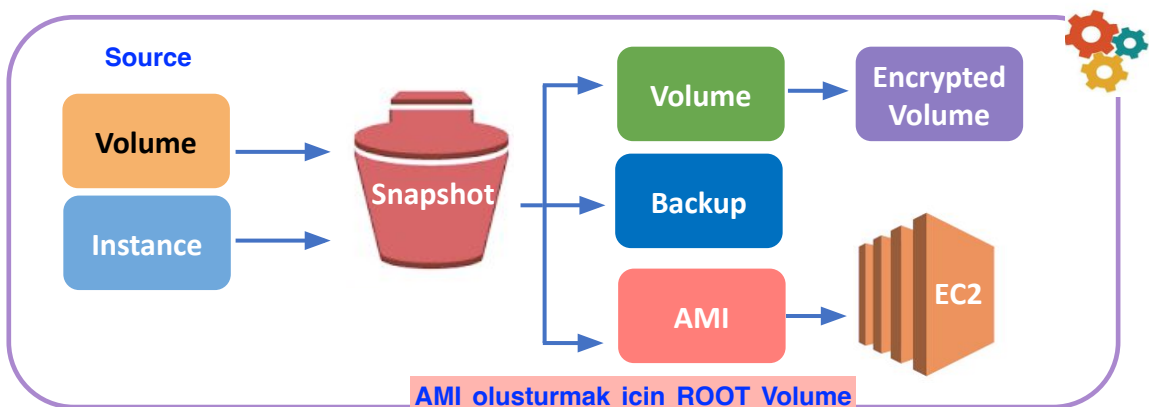
- Source from **Volume** or **Instance**
- Stored in **Amazon S3**
- **Incremental** storage
- **Data Lifecycle Manager (DLM)**

Snapshotlari 5 gun tut sonra sil. En fazla 10 tane snapshot olsun. Fazla olanlari sil gibi yönetimi saglar



Snapshot

Lifecycle of Snapshot



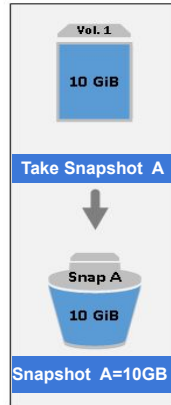
AMI olusturmak icin ROOT Volume olamali.Yani icinde OS olmalı Ama her Instance dan AMI olusturulabilir

Snapshot

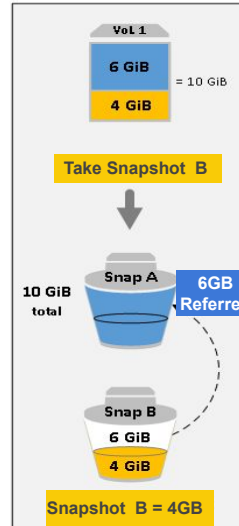
Incremental Backups

32 GiB vs. 16 GiB

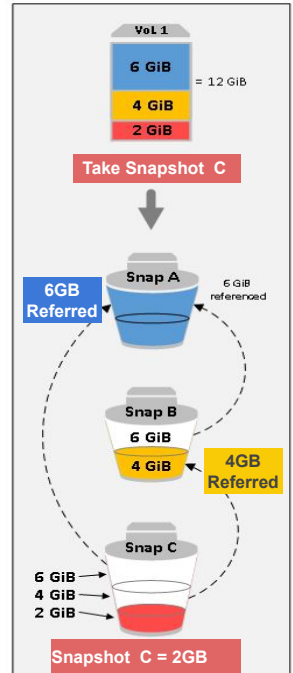
State 1 – 10 GiB



State 2 – 4 GiB changed



State 3 – 2 GiB added



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)



MONDAY
03:00 AM

TUESDAY
03:00 AM

WEDNESDAY
03:00 AM

THURSDAY
03:00 AM

FRIDAY
03:00 AM



RETENTION=5



Snapshot

Data Lifecycle Manager (Amazon DLM)



RETENTION=5



MONDAY
03:00 AM

TUESDAY
03:00 AM

WEDNESDAY
Y
03:00 AM

THURSDAY
03:00 AM

FRIDAY
03:00 AM

MONDAY
03:00 AM

TUESDAY
03:00 AM

WEDNESDAY
Y
03:00 AM

THURSDAY
03:00 AM

FRIDAY
03:00 AM

SATURDAY
03:00 AM

MONDAY
03:00 AM

TUESDAY
03:00 AM

WEDNESDAY
Y
03:00 AM

THURSDAY
03:00 AM

FRIDAY
03:00 AM

SATURDAY
03:00 AM

SUNDAY
03:00 AM

CLARUSWAY
WAY TO REINVENT YOURSELF



Snapshot

Data Lifecycle Manager (Amazon DLM)- Backup and Restore



MONDAY
03:00 AM

TUESDAY
03:00 AM

WEDNESDAY
Y
03:00 AM

THURSDAY
03:00 AM

FRIDAY
03:00 AM

3

EC2 çalışırken snapshot alınabilmekte

1



NEW VERSION
APP. UPLOADED

2



FAILURE
DETECTED

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Snapshot

Encryption of Root Device via Snapshot

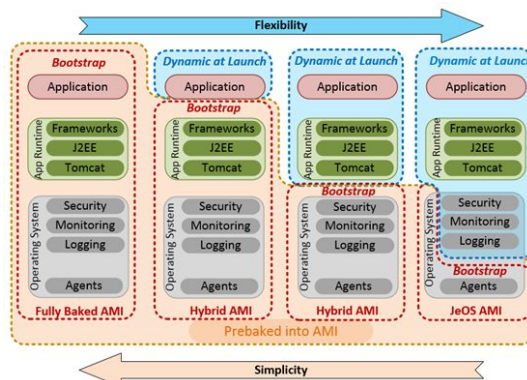


- Root device (volume) cannot be encrypted after creation. “How to encrypt unencrypted volume after creation” is a common question that can be asked in certification exams!
 - Take snapshot of unencrypted volume.
 - Copying the unencrypted Snapshot,
 - You are able to encrypt this Snapshot while coping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





Snapshot

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?

