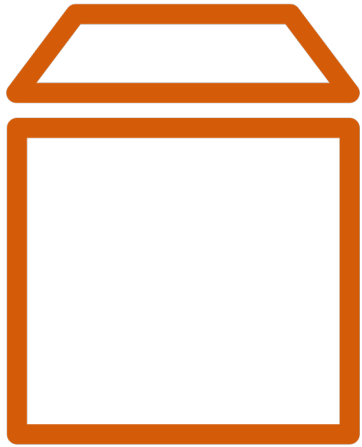# Instance Store

At the core of the lesson

You will learn how to identify what Amazon Elastic Compute Cloud (Amazon EC2) instance store volumes are and how they work.
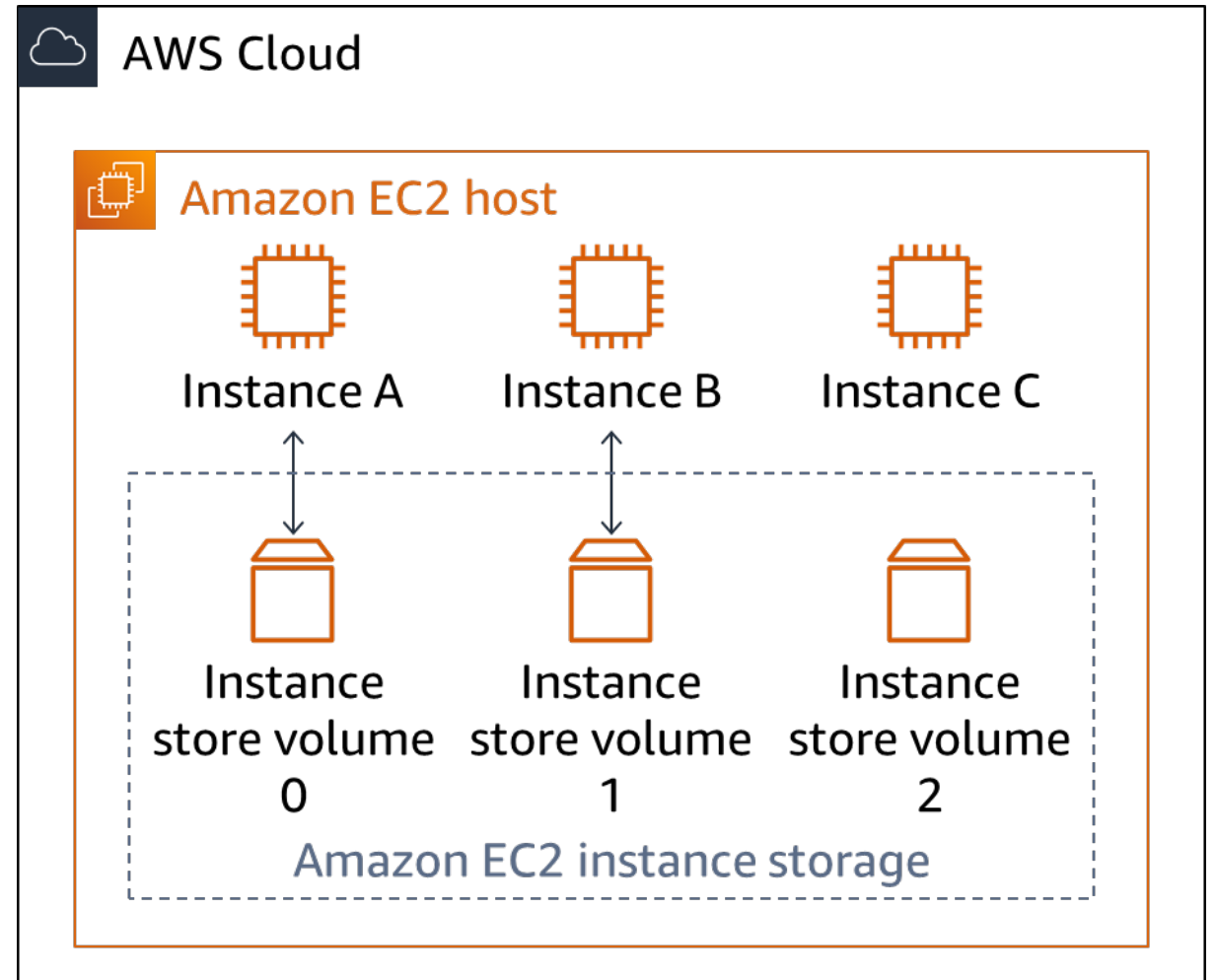
What is an instance store?

Instance store volume

Instance stores provide temporary block-level storage for your EC2 instance. This storage is located on disks that are physically attached to the host computer.
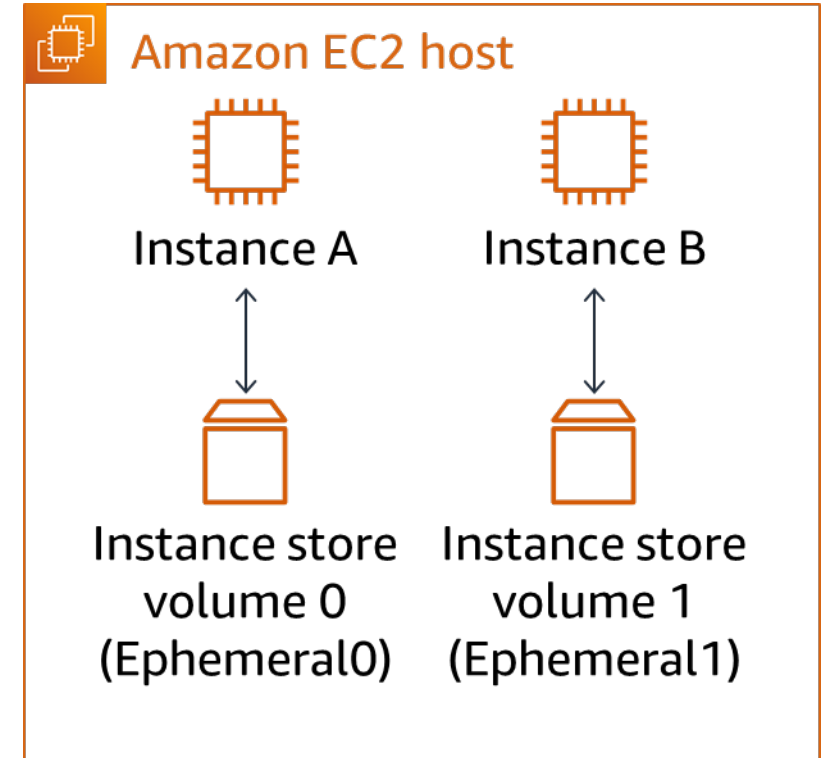
Amazon EC2 instance store

- Provides temporary, non-persistent storage for your EC2 instances

- Is physically attached to the host of the EC2 instance, which allows for fast low-latency storage

- Is made of volumes running on virtual devices providing ephemeral block storage

- Is dedicated to a particular instance

How instance stores work

- You use the block device mapping feature of the Amazon EC2 API and the AWS Management Console to attach an instance store to an instance.

- Instance store data persists for only the lifetime of its associated instance.

- You cannot create or destroy instance store volumes independently from their instances.

- You can control the following:

  - Whether instance stores are exposed to the EC2 instance

  - What device name is used

Amazon EC2 host

Instance A   Instance B

Instance store volume 0 (Ephemeral0)   Instance store volume 1 (Ephemeral1)

Instance store features

- Features are available for many instance types but not all instance types.

- The number, size, and type—such as hard disk drive (HDD) compared with solid state drive (SSD)—differ by instance type.

- Note the following information about mounting an instance:

  - An instance store must be mounted before you can access it.

  - Mounting occurs automatically or manually on Linux depending on the instance type.

Use cases

- Instance store volumes are used for temporary storage of information that is continually changing, such as the following:
  - Buffers
  - Caches
  - Scratch data
  - Other temporary content
- Instance store volumes are used for data that is replicated across a fleet of instances, such as a load-balanced pool of web servers.

Checkpoint questions

1. Which type of storage does an instance store provide?

2. After an instance has been terminated, what happens to the data in the associated instance store?

3. After an instance has been rebooted, what happens to the data in the associated instance store?

Key ideas

- An instance store provides temporary block storage and is physically attached to an instance's host.

- Use an instance store to store information that does not need to be kept beyond the life of the instance.

- The size and number of instance store volumes that you can attach to an instance depend on the instance type.

Thank you

Corrections, feedback, or other questions?
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