

Quiz: Storage

Chandra Lingam, Copyright © 2019 Cloud Wave LLC. All Rights Reserved.

1. When you terminate an EC2 instance with Elastic Block Store root volume, what happens to the root volume?
 - A. Root volume is deleted by default
 - B. Root volume persists
2. When EC2 instance is terminated, Elastic Block Store non-root volume attached to the instance is:
 - A. Deleted by default
 - B. Persists by default
3. General Purpose Volume uses:
 - A. SSD Storage
 - B. Magnetic Storage
 - C. Customer can specify desired storage
4. Baseline IOPS performance offered by General Purpose Volume is
 - A. 3 IOPS per GB
 - B. 50 IOPS per GB
 - C. 3000 IOPS
5. When comparing General Purpose volume and Provisioned IOPS volume of similar size, which of these statements is NOT correct?
 - A. Provisioned IOPS volume can be configured to a higher performance configuration
 - B. General Purpose Volume is cheaper
 - C. General purpose volumes use I/O credit to temporarily burst performance
 - D. Provisioned IOPS uses I/O credits to temporarily burst performance
6. Which volume type is suitable for applications that perform frequent random I/O?
 - A. General Purpose
 - B. Provisioned IOPS
 - C. Throughput Optimized
 - D. Either General Purpose or Provisioned IOPS
7. Which volume type is suitable for applications that perform large sequential reads at low cost?
 - A. General Purpose
 - B. Provisioned IOPS
 - C. Throughput Optimized
 - D. General Purpose or Provisioned IOPS
8. Elastic File System is supported on:
 - A. Linux
 - B. Windows
 - C. Both
9. You are using Elastic File System (EFS) for your application needs. For every request some amount of storage is needed in EFS and size of storage needed for each request

varies depending on the type of request. You are expecting a large increase in volume during a marketing event.

How do you manage storage for EFS?

- A. Allocate maximum possible based capacity estimation
 - B. Setup CloudWatch metrics monitors and raise alarms so you can increase storage
 - C. EFS is managed service and elastic. It auto scales and shrinks based on storage needed
 - D. EFS is not suitable for this use case. S3 is preferable
10. When you use an encrypted EBS volume, you get:
- A. Encrypted storage for data at rest
 - B. Encrypted disk I/O
 - C. Encrypted snapshots
 - D. All the above
11. You need to change the encryption key associated with an EBS volume. Which option will NOT work?
- A. Change the key associated with the volume using EC2 management console
 - B. Change the key during snapshot copy process
 - C. Mount a new volume with desired encryption key and copy data from old volume to new volume
12. Elastic Block Store (EBS) volumes are accessible only within
- A. Region
 - B. Availability Zone

Answers:

- 1. A – Root volume is deleted by default but can be persisted by setting Delete On Termination flag to 'N'
- 2. B – Non-root volume persists by default. You can change this behavior by setting Delete On Termination flag to 'Y'
- 3. A – General Purpose Volumes use SSD storage
- 4. A – Baseline performance offered by General Purpose storage is 3 IOPS per GB up to a maximum of 16,000 IOPS Ref:
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html>
- 5. D – Provisioned IOPS volume offers a consistent performance based on configuration specified. General Purpose volumes are lower cost compared to provisioned volumes of similar size. General purpose volumes use I/O credit to temporarily burst capacity up to a maximum of 3,000 IOPS (Volumes > 1000 GB already meets the 3000 IOPS performance). Provisioned IOPS do not use I/O credits
- 6. D - Both are SSD based and suitable for random I/O workloads
- 7. C – Throughput Optimized storage uses magnetic storage and is suitable for throughput intensive workload at lower cost. Provisioned IOPS also offer high throughput, but they are more expensive
- 8. A – Elastic File System is currently supported only on Linux

9. C – EFS automatically scales and shrinks based on your need. For frequent, small storage usage, S3 is not suitable.
10. D – When you use Encrypted EBS volumes, all I/O, Snapshots are encrypted and data is encrypted at rest
11. A – you cannot directly change encryption key for an existing volume. You can modify the encryption key during snapshot copy process or by copying the data to a newly encrypted volume
12. B – EBS volumes are scoped at availability zone level