AWS Compute

You work for a cosmetic company which has their production website on AWS. The site itself is in a two-tier configuration with web servers in the front end and database servers at the back end. The site is using Elastic Load Balancing and auto-scaling across 3 AZs. The databases maintain consistency by replicating changes to each other as and when they occur. This requires the databases to have extremely low latency. Your website needs to be highly redundant and must be designed so that if one availability zone goes offline and Auto Scaling cannot launch new instances in the remaining Availability Zones, the site will not go offline. How can the current architecture be enhanced to ensure this?

Deploy your website in 2 different regions. Configure Route53 with Weighted Routing. Assign a weight of 25% to region 1 and a weight of 75% to region 2.

Deploy your site in three different AZ's within the same region. Configure the Auto Scaling minimum to handle 50 percent of the peak load per zone.

Deploy your site in three different AZ's within the same region. Configure the Auto Scaling minimum to handle 33 percent of the peak load per zone.

Deploy your website in 2 different regions. Configure Route53 with a failover routing policy, and set up health checks on the primary site.

Sorry!

If you configure the auto-scaling to maintain 50% per AZ, then if you lose any one AZ the remaining two will carry the full load between them. This does mean that you carry and extra cost, but if the Board has decided that this level of resiliency is needed, that will be the cost.

You company has asked you to investigate the use of KMS for storing and managing keys in AWS. From the options listed below, what key management features are available in KMS?

Generate keys, disable and delete keys, operate as a private, native Hardware Security Module (HSM)

Import your own keys, disable and re-enable keys and define key management roles in IAM

Import your own keys, disable and re-enable keys and migrate keys between the default KMS key store and a custom key store

Generate keys, disable and re-enable keys and import keys into a custom key store

Sorry!

There are many features which are native to the KMS service. However, only option two contains items which are genuinely available within the KMS service. Option one includes the option of importing keys into a custom key store and this is not supported, therefore this option can be discarded as a correct option. Option three includes migrating keys from the default key store to a custom key store and can also be discarded as this is not possible. Option four includes operating as a private, native HSM and again, this is th function of CloudHSM and is not possible directly within KMS. The only correct answer is therefore option two, which lists some (of the many) correct management features available in KMS. Further information: <https://aws.amazon.com/kms/faqs/>