**QUESTION 1**

A company has a website hosted on AWS. The website is behind an Application Load Balancer (ALB) that is configured to handle HTTP and HTTPS separately. The company wants to forward all requests to the website so that the requests will use HTTPS. What should a solutions architect do to meet this requirement?

1. Update the ALB's network ACL to accept only HTTPS traffic
2. Create a rule that replaces the HTTP in the URL with HTTPS.
3. Create a listener rule on the ALB to redirect HTTP traffic to HTTPS.
4. Replace the ALB with a Network Load Balancer configured to use Server Name Indication (SNI).

**Answer:** C

**Explanation:**

https://aws.amazon.com/premiumsupport/knowledge-center/elb-redirect-http-to-https-using-alb/

**QUESTION 11**

A company's HTTP application is behind a Network Load Balancer (NLB). The NLB's target group is configured to use an Amazon EC2 Auto Scaling group with multiple EC2 instances that run the web service.

The company notices that the NLB is not detecting HTTP errors for the application. These errors require a manual restart of the EC2 instances that run the web service. The company needs to improve the application's availability without writing custom scripts or code.

What should a solutions architect do to meet these requirements?

1. Enable HTTP health checks on the NLB. supplying the URL of the company's application.
2. Add a cron job to the EC2 instances to check the local application's logs once each minute. If HTTP errors are detected, the application will restart.
3. Replace the NLB with an Application Load Balancer.

Enable HTTP health checks by supplying the URL of the company's application. Configure an Auto Scaling action to replace unhealthy instances.

1. Create an Amazon Cloud Watch alarm that monitors the UnhealthyHostCount metric for the NLB.

Configure an Auto Scaling action to replace unhealthy instances when the alarm is in the ALARM state.

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**Answer:** C

**QUESTION 116**

A company that operates a web application on-premises is preparing to launch a newer version of the application on AWS.

The company needs to route requests to either the AWS-hosted or the on-premises-hosted application based on the URL query string.

The on-premises application is not available from the internet, and a VPN connection is established between Amazon VPC and the company's data center.

The company wants to use an Application Load Balancer (ALB) for this launch.

Which solution meets these requirements?

1. Use two ALBs: one for on-premises and one for the AWS resource.

Add hosts to each target group of each ALB.

Route with Amazon Route 53 based on the URL query string.

1. Use two ALBs: one for on-premises and one for the AWS resource.

Add hosts to the target group of each ALB.

Create a software router on an EC2 instance based on the URL query string.

1. Use one ALB with two target groups: one for the AWS resource and one for on premises.

Add hosts to each target group of the ALB.

Configure listener rules based on the URL query string.

1. Use one ALB with two AWS Auto Scaling groups: one for the AWS resource and one for on premises.

Add hosts to each Auto Scaling group.

Route with Amazon Route 53 based on the URL query string.

**Answer:** C

**Explanation:** <https://aws.amazon.com/blogs/aws/new-advanced-request-routing-for-aws-application-loadbalancers/>

The host-based routing feature allows you to write rules that use the Host header to route traffic to the desired target group.

Today we are extending and generalizing this feature, giving you the ability to write rules (and route traffic) based on standard and custom HTTP headers and methods, the query string, and the source IP address.

**QUESTION 177**

A company provides a Voice over Internet Protocol (VoIP) service that uses UDP connections. The service consists of Amazon EC2 instances that run in an Auto Scaling group.

The company has deployments across multiple AWS Regions.

The company needs to route users to the Region with the lowest latency.

The company also needs automated failover between Regions.

Which solution will meet these requirements?

1. Deploy a Network Load Balancer (NLB) and an associated target group.

Associate the target group with the Auto Scaling group.

Use the NLB as an AWS Global Accelerator endpoint in each Region.

1. Deploy an Application Load Balancer (ALB) and an associated target group. Associate the target group with the Auto Scaling group.

Use the ALB as an AWS Global Accelerator endpoint in each Region.

1. Deploy a Network Load Balancer (NLB) and an associated target group.

Associate the target group with the Auto Scaling group.

Create an Amazon Route 53 latency record that points to aliases for each NLB.

Create an Amazon CloudFront distribution that uses the latency record as an origin.

1. Deploy an Application Load Balancer (ALB) and an associated target group. Associate the target group with the Auto Scaling group.

Create an Amazon Route 53 weighted record that points to aliases for each ALB.

Deploy an Amazon CloudFront distribution that uses the weighted record as an origin.

**Answer:** C