



Amazon

Exam Questions AWS-Certified-Advanced-Networking-Specialty

Amazon AWS Certified Advanced Networking - Specialty

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NEW QUESTION 1

A company is running multiple workloads on Amazon EC2 instances in public subnets. In a recent incident, an attacker exploited an application vulnerability on one of the EC2 instances to gain access to the instance. The company fixed the application and launched a replacement EC2 instance that contains the updated application.

The attacker used the compromised application to spread malware over the internet. The company became aware of the compromise through a notification from AWS. The company needs the ability to identify when an application that is deployed on an EC2 instance is spreading malware.

Which solution will meet this requirement with the LEAST operational effort?

- A. Use Amazon GuardDuty to analyze traffic patterns by inspecting DNS requests and VPC flow logs.
- B. Use Amazon GuardDuty to deploy AWS managed decoy systems that are equipped with the most recent malware signatures.
- C. Set up a Gateway Load Balance
- D. Run an intrusion detection system (IDS) appliance from AWS Marketplace on Amazon EC2 for traffic inspection.
- E. Configure Amazon Inspector to perform deep packet inspection of outgoing traffic.

Answer: A

Explanation:

This solution involves using Amazon GuardDuty to monitor network traffic and analyze DNS requests and VPC flow logs for suspicious activity. This will allow the company to identify when an application is spreading malware by monitoring the network traffic patterns associated with the instance. GuardDuty is a fully managed threat detection service that continuously monitors for malicious activity and unauthorized behavior in your AWS accounts and workloads. It requires minimal setup and configuration and can be integrated with other AWS services for automated remediation. This solution requires the least operational effort compared to the other options

NEW QUESTION 2

Your security team implements a host-based firewall on all of your Amazon Elastic Compute Cloud (EC2) instances to block all outgoing traffic. Exceptions must be requested for each specific requirement. Until you request a new rule, you cannot access the instance metadata service. Which firewall rule should you request to be added to your instances to allow instance metadata access?

- A. Inbound; Protocol tcp; Source [Instance's EIP]; Destination 169.254.169.254
- B. Inbound; Protocol tcp; Destination 169.254.169.254; Destination port 80
- C. Outbound; Protocol tcp; Destination 169.254.169.254; Destination port 80
- D. Outbound; Protocol tcp; Destination 169.254.169.254; Destination port 443

Answer: C

Explanation:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/instancedata-data-retrieval.html>

To view all categories of instance metadata from within a running instance, use the following URI.

<http://169.254.169.254/latest/meta-data/>

NEW QUESTION 3

An IoT company sells hardware sensor modules that periodically send out temperature, humidity, pressure, and location data through the MQTT messaging protocol. The hardware sensor modules send this data to the company's on-premises MQTT brokers that run on Linux servers behind a load balancer. The hardware sensor modules have been hardcoded with public IP addresses to reach the brokers.

The company is growing and is acquiring customers across the world. The existing solution can no longer scale and is introducing additional latency because of the company's global presence. As a result, the company decides to migrate its entire infrastructure from on premises to the AWS Cloud. The company needs to migrate without reconfiguring the hardware sensor modules that are already deployed across the world. The solution also must minimize latency.

The company migrates the MQTT brokers to run on Amazon EC2 instances. What should the company do next to meet these requirements?

- A. Place the EC2 instances behind a Network Load Balancer (NLB). Configure TCP listener
- B. Use Bring Your Own IP (BYOIP) from the on-premises network with the NLB.
- C. Place the EC2 instances behind a Network Load Balancer (NLB). Configure TCP listener
- D. Create an AWS Global Accelerator accelerator in front of the NLB Use Bring Your Own IP (BYOIP) from the on-premises network with Global Accelerator.
- E. Place the EC2 instances behind an Application Load Balancer (ALB). Configure TCP listener
- F. Create an AWS Global Accelerator accelerator in front of the AL
- G. Use Bring Your Own IP (BYOIP) from the on-premises network with Global Accelerator
- H. Place the EC2 instances behind an Amazon CloudFront distributio
- I. Use Bring Your Own IP (BYOIP) from the on-premises network with CloudFront.

Answer: B

NEW QUESTION 4

A company has developed an application on AWS that will track inventory levels of vending machines and initiate the restocking process automatically. The company plans to integrate this application with vending machines and deploy the vending machines in several markets around the world. The application resides in a VPC in the us-east-1 Region. The application consists of an Amazon Elastic Container Service (Amazon ECS) cluster behind an Application Load Balancer (ALB). The communication from the vending machines to the application happens over HTTPS.

The company is planning to use an AWS Global Accelerator accelerator and configure static IP addresses of the accelerator in the vending machines for application endpoint access. The application must be accessible only through the accelerator and not through a direct connection over the internet to the ALB endpoint.

Which solution will meet these requirements?

- A. Configure the ALB in a private subnet of the VP
- B. Attach an internet gateway without adding routes in the subnet route tables to point to the internet gatewa
- C. Configure the accelerator with endpoint groups that include the ALB endpoint
- D. Configure the ALB's security group to only allow inbound traffic from the internet on the ALB listener port.
- E. Configure the ALB in a private subnet of the VP
- F. Configure the accelerator with endpoint groups that include the ALB endpoint
- G. Configure the ALB's security group to only allow inbound traffic from the internet on the ALB listener port.

- H. Configure the ALB in a public subnet of the VPC
- I. Attach an internet gateway
- J. Add routes in the subnet route tables to point to the internet gateway
- K. Configure the accelerator with endpoint groups that include the ALB endpoint
- L. Configure the ALB's security group to only allow inbound traffic from the accelerator's IP addresses on the ALB listener port.
- M. Configure the ALB in a private subnet of the VPC
- N. Attach an internet gateway
- O. Add routes in the subnet route tables to point to the internet gateway
- P. Configure the accelerator with endpoint groups that include the ALB endpoint
- Q. Configure the ALB's security group to only allow inbound traffic from the accelerator's IP addresses on the ALB listener port.

Answer: A

Explanation:

Please read the below link typically describing ELB integration with AWS Global accelerator (and the last line of the extract) - <https://docs.aws.amazon.com/global-accelerator/latest/dg/secure-vpc-connections.html> "When you add an internal Application Load Balancer or an Amazon EC2 instance endpoint in AWS Global Accelerator, you enable internet traffic to flow directly to and from the endpoint in Virtual Private Clouds (VPCs) by targeting it in a private subnet. The VPC that contains the load balancer or EC2 instance must have an internet gateway attached to it, to indicate that the VPC accepts internet traffic. However, you don't need public IP addresses on the load balancer or EC2 instance. You also don't need an associated internet gateway route for the subnet."

NEW QUESTION 5

A network engineer must develop an AWS CloudFormation template that can create a virtual private gateway, a customer gateway, a VPN connection, and static routes in a route table. During testing of the template, the network engineer notes that the CloudFormation template has encountered an error and is rolling back. What should the network engineer do to resolve the error?

- A. Change the order of resource creation in the CloudFormation template.
- B. Add the DependsOn attribute to the resource declaration for the virtual private gateway
- C. Specify the route table entry resource.
- D. Add a wait condition in the template to wait for the creation of the virtual private gateway.
- E. Add the DependsOn attribute to the resource declaration for the route table entry
- F. Specify the virtual private gateway resource.

Answer: D

NEW QUESTION 6

A company has its production VPC (VPC-A) in the eu-west-1 Region in Account 1. VPC-A is attached to a transit gateway (TGW-A) that is connected to an on-premises data center in Dublin, Ireland, by an AWS Direct Connect transit VIF that is configured for an AWS Direct Connect gateway. The company also has a staging VPC (VPC-B) that is attached to another transit gateway (TGW-B) in the eu-west-2 Region in Account 2. A network engineer must implement connectivity between VPC-B and the on-premises data center in Dublin. Which solutions will meet these requirements? (Choose two.)

- A. Configure inter-Region VPC peering between VPC-A and VPC-B
- B. Add the required VPC peering route
- C. Add the VPC-B CIDR block in the allowed prefixes on the Direct Connect gateway association.
- D. Associate TGW-B with the Direct Connect gateway
- E. Advertise the VPC-B CIDR block under the allowed prefixes.
- F. Configure another transit VIF on the Direct Connect connection and associate TGW-B
- G. Advertise the VPC-B CIDR block under the allowed prefixes.
- H. Configure inter-Region transit gateway peering between TGW-A and TGW-B
- I. Add the peering routes in the transit gateway route table
- J. Add both the VPC-A and the VPC-B CIDR block under the allowed prefix list in the Direct Connect gateway association.
- K. Configure an AWS Site-to-Site VPN connection over the transit VIF to TGW-B as a VPN attachment.

Answer: BC

Explanation:

* B. Associate TGW-B with the Direct Connect gateway. Advertise the VPC-B CIDR block under the allowed prefixes. This will allow traffic from VPC-B to be sent over the Direct Connect connection to the on-premises data center via TGW-B. C. Configure another transit VIF on the Direct Connect connection and associate TGW-B. Advertise the VPC-B CIDR block under the allowed prefixes. This will enable the use of the Direct Connect connection for VPC-B's traffic by connecting TGW-B to the Direct Connect gateway.

NEW QUESTION 7

A company has deployed a web application on AWS. The web application uses an Application Load Balancer (ALB) across multiple Availability Zones. The targets of the ALB are AWS Lambda functions. The web application also uses Amazon CloudWatch metrics for monitoring. Users report that parts of the web application are not loading properly. A network engineer needs to troubleshoot the problem. The network engineer enables access logging for the ALB. What should the network engineer do next to determine which errors the ALB is receiving?

- A. Send the logs to Amazon CloudWatch Log
- B. Review the ALB logs in CloudWatch Insights to determine which error messages the ALB is receiving.
- C. Configure the Amazon S3 bucket destination
- D. Use Amazon Athena to determine which error messages the ALB is receiving.
- E. Configure the Amazon S3 bucket destination
- F. After Amazon CloudWatch Logs pulls the ALB logs from the S3 bucket automatically, review the logs in CloudWatch Logs to determine which error messages the ALB is receiving.
- G. Send the logs to Amazon CloudWatch Log
- H. Use the Amazon Athena CloudWatch Connector to determine which error messages the ALB is receiving.

Answer: B

Explanation:

Access logs is an optional feature of Elastic Load Balancing that is disabled by default. After you enable access logs for your load balancer, Elastic Load Balancing captures the logs and stores them in the Amazon S3 bucket that you specify as compressed files. You can disable access logs at any time. <https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-access-logs.html>

NEW QUESTION 8

An insurance company is planning the migration of workloads from its on-premises data center to the AWS Cloud. The company requires end-to-end domain name resolution. Bi-directional DNS resolution between AWS and the existing on-premises environments must be established. The workloads will be migrated into multiple VPCs. The workloads also have dependencies on each other, and not all the workloads will be migrated at the same time. Which solution meets these requirements?

- A. Configure a private hosted zone for each application VPC, and create the requisite record
- B. Create a set of Amazon Route 53 Resolver inbound and outbound endpoints in an egress VPC
- C. Define Route 53 Resolver rules to forward requests for the on-premises domains to the on-premises DNS resolver
- D. Associate the application VPC private hosted zones with the egress VPC, and share the Route 53 Resolver rules with the application accounts by using AWS Resource Access Manager
- E. Configure the on-premises DNS servers to forward the cloud domains to the Route 53 inbound endpoints.
- F. Configure a public hosted zone for each application VPC, and create the requisite record
- G. Create a set of Amazon Route 53 Resolver inbound and outbound endpoints in an egress VPC
- H. Define Route 53 Resolver rules to forward requests for the on-premises domains to the on-premises DNS resolver
- I. Associate the application VPC private hosted zones with the egress VPC
- J. and share the Route 53 Resolver rules with the application accounts by using AWS Resource Access Manager
- K. Configure the on-premises DNS servers to forward the cloud domains to the Route 53 inbound endpoints.
- L. Configure a private hosted zone for each application VPC, and create the requisite record
- M. Create a set of Amazon Route 53 Resolver inbound and outbound endpoints in an egress VPC. Define Route 53 Resolver rules to forward requests for the on-premises domains to the on-premises DNS resolver
- N. Associate the application VPC private hosted zones with the egress VPC and share the Route 53 Resolver rules with the application accounts by using AWS Resource Access Manager

Answer: A

Explanation:

Creating a private hosted zone for each application VPC and creating the requisite records would enable end-to-end domain name resolution for the resources. Creating a set of Amazon Route 53 Resolver inbound and outbound endpoints in an egress VPC would enable bi-directional DNS resolution between AWS and the existing on-premises environments. Defining Route 53 Resolver rules to forward requests for the on-premises domains to the on-premises DNS resolver would enable DNS queries from AWS resources to on-premises resources. Associating the application VPC private hosted zones with the egress VPC and sharing the Route 53 Resolver rules with the application accounts by using AWS Resource Access Manager would enable DNS queries among different VPCs and accounts. Configuring the on-premises DNS servers to forward the cloud domains to the Route 53 inbound endpoints would enable DNS queries from on-premises resources to AWS resources.

NEW QUESTION 9

A company is deploying third-party firewall appliances for traffic inspection and NAT capabilities in its VPC. The VPC is configured with private subnets and public subnets. The company needs to deploy the firewall appliances behind a load balancer. Which architecture will meet these requirements MOST cost-effectively?

- A. Deploy a Gateway Load Balancer with the firewall appliances as target
- B. Configure the firewall appliances with a single network interface in a private subnet
- C. Use a NAT gateway to send the traffic to the internet after inspection.
- D. Deploy a Gateway Load Balancer with the firewall appliances as target
- E. Configure the firewall appliances with two network interfaces: one network interface in a private subnet and another network interface in a public subnet
- F. Use the NAT functionality on the firewall appliances to send the traffic to the internet after inspection.
- G. Deploy a Network Load Balancer with the firewall appliances as target
- H. Configure the firewall appliances with a single network interface in a private subnet
- I. Use a NAT gateway to send the traffic to the internet after inspection.
- J. Deploy a Network Load Balancer with the firewall appliances as target
- K. Configure the firewall appliances with two network interfaces: one network interface in a private subnet and another network interface in a public subnet
- L. Use the NAT functionality on the firewall appliances to send the traffic to the internet after inspection.

Answer: B

NEW QUESTION 10

Your company runs an application for the US market in the us-east-1 AWS region. This application uses proprietary TCP and UDP protocols on Amazon Elastic Compute Cloud (EC2) instances. End users run a real-time, front-end application on their local PCs. This front-end application knows the DNS hostname of the service. You must prepare the system for global expansion. The end users must access the application with lowest latency. How should you use AWS services to meet these requirements?

- A. Register the IP addresses of the service hosts as "A" records with latency-based routing policy in Amazon Route 53, and set a Route 53 health check for these hosts.
- B. Set the Elastic Load Balancing (ELB) load balancer in front of the hosts of the service, and register the ELB name of the main service host as an ALIAS record with a latency-based routing policy in Route 53.
- C. Set Amazon CloudFront in front of the host of the service, and register the CloudFront name of the main service as an ALIAS record in Route 53.
- D. Set the Amazon API gateway in front of the service, and register the API gateway name of the main service as an ALIAS record in Route 53.

Answer: B

NEW QUESTION 10

A company has two AWS accounts one for Production and one for Connectivity. A network engineer needs to connect the Production account VPC to a transit gateway in the Connectivity account. The feature to auto accept shared attachments is not enabled on the transit gateway. Which set of steps should the network engineer follow in each AWS account to meet these requirements?

- A. * 1. In the Production account: Create a resource share in AWS Resource Access Manager for the transit gateway
- B. Provide the Connectivity account ID
- C. Enable the feature to allow external accounts* 2. In the Connectivity account: Accept the resource.* 3. In the Connectivity account: Create an attachment to the VPC subnets.* 4. In the Production account: Accept the attachment
- D. Associate a route table with the attachment.
- E. * 1. In the Production account: Create a resource share in AWS Resource Access Manager for the VPC subnet
- F. Provide the Connectivity account ID
- G. Enable the feature to allow external accounts.* 2. In the Connectivity account: Accept the resource.* 3. In the Production account: Create an attachment on the transit gateway to the VPC subnets.* 4. In the Connectivity account: Accept the attachment
- H. Associate a route table with the attachment.
- I. * 1. In the Connectivity account: Create a resource share in AWS Resource Access Manager for the VPC subnet
- J. Provide the Production account ID
- K. Enable the feature to allow external accounts.* 2. In the Production account: Accept the resource.* 3. In the Connectivity account: Create an attachment on the transit gateway to the VPC subnets.* 4. In the Production account: Accept the attachment
- L. Associate a route table with the attachment.
- M. * 1. In the Connectivity account: Create a resource share in AWS Resource Access Manager for the transit gateway
- N. Provide the Production account ID Enable the feature to allow external accounts.* 2. In the Production account: Accept the resource.* 3. In the Production account: Create an attachment to the VPC subnets.* 4. In the Connectivity account: Accept the attachment
- O. Associate a route table with the attachment.

Answer: A

Explanation:

step 1: In the Production account, create a resource share in AWS Resource Access Manager for the transit gateway and provide the Connectivity account ID. Enabling the feature to allow external accounts is also required to share resources between accounts. Step 2: In the Connectivity account, accept the shared resource. This action will allow the Production account to use the transit gateway in the Connectivity account. Step 3: In the Connectivity account, create an attachment to the VPC subnets. This attachment will enable communication between the VPC in the Production account and the transit gateway in the Connectivity account. Step 4: In the Production account, accept the attachment and associate a route table with the attachment. This will enable the VPC to route traffic through the transit gateway to other resources in the Connectivity account.

NEW QUESTION 12

A network engineer needs to update a company's hybrid network to support IPv6 for the upcoming release of a new application. The application is hosted in a VPC in the AWS Cloud. The company's current AWS infrastructure includes VPCs that are connected by a transit gateway. The transit gateway is connected to the on-premises network by AWS Direct Connect and AWS Site-to-Site VPN. The company's on-premises devices have been updated to support the new IPv6 requirements.

The company has enabled IPv6 for the existing VPC by assigning a new IPv6 CIDR block to the VPC and by assigning IPv6 to the subnets for dual-stack support. The company has launched new Amazon EC2 instances for the new application in the updated subnets.

When updating the hybrid network to support IPv6 the network engineer must avoid making any changes to the current infrastructure. The network engineer also must block direct access to the instances' new IPv6 addresses from the internet. However, the network engineer must allow outbound internet access from the instances.

What is the MOST operationally efficient solution that meets these requirements?

- A. Update the Direct Connect transit VIF and configure BGP peering with the AWS assigned IPv6 peering address
- B. Create a new VPN connection that supports IPv6 connectivity
- C. Add an egress-only internet gateway
- D. Update any affected VPC security groups and route tables to provide connectivity within the VPC and between the VPC and the on-premises devices
- E. Update the Direct Connect transit VIF and configure BGP peering with the AWS assigned IPv6 peering address
- F. Update the existing VPN connection to support IPv6 connectivity
- G. Add an egress-only internet gateway
- H. Update any affected VPC security groups and route tables to provide connectivity within the VPC and between the VPC and the on-premises devices.
- I. Create a Direct Connect transit VIF and configure BGP peering with the AWS assigned IPv6 peering address
- J. Create a new VPN connection that supports IPv6 connectivity
- K. Add an egress-only internet gateway
- L. Update any affected VPC security groups and route tables to provide connectivity within the VPC and between the VPC and the on-premises devices.
- M. Create a Direct Connect transit VIF and configure BGP peering with the AWS assigned IPv6 peering address
- N. Create a new VPN connection that supports IPv6 connectivity
- O. Add a NAT gateway
- P. Update any affected VPC security groups and route tables to provide connectivity within the VPC and between the VPC and the on-premises devices.

Answer: B

NEW QUESTION 15

A company is planning a migration of its critical workloads from an on-premises data center to Amazon EC2 instances. The plan includes a new 10 Gbps AWS Direct Connect dedicated connection from the on-premises data center to a VPC that is attached to a transit gateway. The migration must occur over encrypted paths between the on-premises data center and the AWS Cloud.

Which solution will meet these requirements while providing the HIGHEST throughput?

- A. Configure a public VIF on the Direct Connect connection
- B. Configure an AWS Site-to-Site VPN connection to the transit gateway as a VPN attachment.
- C. Configure a transit VIF on the Direct Connect connection
- D. Configure an IPsec VPN connection to an EC2 instance that is running third-party VPN software.
- E. Configure MACsec for the Direct Connect connection
- F. Configure a transit VIF to a Direct Connect gateway that is associated with the transit gateway.
- G. Configure a public VIF on the Direct Connect connection
- H. Configure two AWS Site-to-Site VPN connections to the transit gateway
- I. Enable equal-cost multi-path (ECMP) routing.

Answer: C

Explanation:

<https://aws.amazon.com/blogs/networking-and-content-delivery/adding-macsec-security-to-aws-direct-connect-c>

NEW QUESTION 19

A company uses a 1 Gbps AWS Direct Connect connection to connect its AWS environment to its on-premises data center. The connection provides employees with access to an application VPC that is hosted on AWS. Many remote employees use a company-provided VPN to connect to the data center. These employees are reporting slowness when they access the application during business hours. On-premises users have started to report similar slowness while they are in the office.

The company plans to build an additional application on AWS. On-site and remote employees will use the additional application. After the deployment of this additional application, the company will need 20% more bandwidth than the company currently uses. With the increased usage, the company wants to add resiliency to the AWS connectivity. A network engineer must review the current implementation and must make improvements within a limited budget.

What should the network engineer do to meet these requirements MOST cost-effectively?

- A. Set up a new 1 Gbps Direct Connect dedicated connection to accommodate the additional traffic load from remote employees and the additional application
- B. Create a link aggregation group (LAG).
- C. Deploy an AWS Site-to-Site VPN connection to the application VPC
- D. Configure the on-premises routing for the remote employees to connect to the Site-to-Site VPN connection.
- E. Deploy Amazon Workspaces into the application VPC. Instruct the remote employees to connect to Workspaces.
- F. Replace the existing 1 Gbps Direct Connect connection with two new 2 Gbps Direct Connect hosted connections
- G. Create an AWS Client VPN endpoint in the application VPC
- H. Instruct the remote employees to connect to the Client VPN endpoint.

Answer: A

Explanation:

Setting up a new 1 Gbps Direct Connect dedicated connection to accommodate the additional traffic load from remote employees and the additional application would provide more bandwidth and lower latency than a VPN connection over the public internet¹. Creating a link aggregation group (LAG) with the existing and new Direct Connect connections would provide resiliency and redundancy for the AWS connectivity².

NEW QUESTION 22

An IoT company sells hardware sensor modules that periodically send out temperature, humidity, pressure, and location data through the MQTT messaging protocol. The hardware sensor modules send this data to the company's on-premises MQTT brokers that run on Linux servers behind a load balancer. The hardware sensor modules have been hardcoded with public IP addresses to reach the brokers.

The company is growing and is acquiring customers across the world. The existing solution can no longer scale and is introducing additional latency because of the company's global presence. As a result, the company decides to migrate its entire infrastructure from on premises to the AWS Cloud. The company needs to migrate without reconfiguring the hardware sensor modules that are already deployed across the world. The solution also must minimize latency.

The company migrates the MQTT brokers to run on Amazon EC2 instances. What should the company do next to meet these requirements?

- A. Place the EC2 instances behind a Network Load Balancer (NLB). Configure TCP listener
- B. Use Bring Your Own IP (BYOIP) from the on-premises network with the NLB.
- C. Place the EC2 instances behind a Network Load Balancer (NLB). Configure TCP listener
- D. Create an AWS Global Accelerator accelerator in front of the NLB. Use Bring Your Own IP (BYOIP) from the on-premises network with Global Accelerator.
- E. Place the EC2 instances behind an Application Load Balancer (ALB). Configure TCP listener
- F. Create an AWS Global Accelerator accelerator in front of the ALB
- G. Use Bring Your Own IP (BYOIP) from the on-premises network with Global Accelerator
- H. Place the EC2 instances behind an Amazon CloudFront distribution
- I. Use Bring Your Own IP (BYOIP) from the on-premises network with CloudFront.

Answer: B

NEW QUESTION 25

A company has expanded its network to the AWS Cloud by using a hybrid architecture with multiple AWS accounts. The company has set up a shared AWS account for the connection to its on-premises data centers and the company offices. The workloads consist of private web-based services for internal use. These services run in different AWS accounts. Office-based employees consume these services by using a DNS name in an on-premises DNS zone that is named example.internal.

The process to register a new service that runs on AWS requires a manual and complicated change request to the internal DNS. The process involves many teams.

The company wants to update the DNS registration process by giving the service creators access that will allow them to register their DNS records. A network engineer must design a solution that will achieve this goal. The solution must maximize cost-effectiveness and must require the least possible number of configuration changes.

Which combination of steps should the network engineer take to meet these requirements? (Choose three.)

- A. Create a record for each service in its local private hosted zone (serviceA.account1.aws.example.internal). Provide this DNS record to the employees who need access.
- B. Create an Amazon Route 53 Resolver inbound endpoint in the shared account VPC
- C. Create a conditional forwarder for a domain named aws.example.internal on the on-premises DNS server
- D. Set the forwarding IP addresses to the inbound endpoint's IP addresses that were created.
- E. Create an Amazon Route 53 Resolver rule to forward any queries made to onprem.example.internal to the on-premises DNS servers.
- F. Create an Amazon Route 53 private hosted zone named aws.example.internal in the shared AWS account to resolve queries for this domain.
- G. Launch two Amazon EC2 instances in the shared AWS account
- H. Install BIND on each instance
- I. Create a DNS conditional forwarder on each BIND server to forward queries for each subdomain under aws.example.internal to the appropriate private hosted zone in each AWS account
- J. Create a conditional forwarder for a domain named aws.example.internal on the on-premises DNS server
- K. Set the forwarding IP addresses to the IP addresses of the BIND servers.
- L. Create a private hosted zone in the shared AWS account for each account that runs the service. Configure the private hosted zone to contain aws.example.internal in the domain (account1.aws.example.internal). Associate the private hosted zone with the VPC that runs the service and the shared account VPC.

Answer: ABD

Explanation:

To meet the requirements of updating the DNS registration process while maximizing cost-effectiveness and minimizing configuration changes, the network

engineer should take the following steps:

- Create an Amazon Route 53 Resolver inbound endpoint in the shared account VPC. Create a conditional forwarder for a domain named aws.example.internal on the on-premises DNS servers. Set the forwarding IP addresses to the inbound endpoint's IP addresses that were created (Option B).
- Create an Amazon Route 53 private hosted zone named aws.example.internal in the shared AWS account to resolve queries for this domain (Option D).
- Create a record for each service in its local private hosted zone (serviceA.account1.aws.example.internal). Provide this DNS record to the employees who need access (Option A).

These steps will allow service creators to register their DNS records while keeping costs low and minimizing configuration changes.

NEW QUESTION 29

A company has deployed a software-defined WAN (SD-WAN) solution to interconnect all of its offices. The company is migrating workloads to AWS and needs to extend its SD-WAN solution to support connectivity to these workloads.

A network engineer plans to deploy AWS Transit Gateway Connect and two SD-WAN virtual appliances to provide this connectivity. According to company policies, only a single SD-WAN virtual appliance can handle traffic from AWS workloads at a given time.

How should the network engineer configure routing to meet these requirements?

- A. Add a static default route in the transit gateway route table to point to the secondary SD-WAN virtual appliance
- B. Add routes that are more specific to point to the primary SD-WAN virtual appliance.
- C. Configure the BGP community tag 7224:7300 on the primary SD-WAN virtual appliance for BGP routes toward the transit gateway.
- D. Configure the AS_PATH prepend attribute on the secondary SD-WAN virtual appliance for BGP routes toward the transit gateway.
- E. Disable equal-cost multi-path (ECMP) routing on the transit gateway for Transit Gateway Connect.

Answer: A

NEW QUESTION 30

A company is deploying an application. The application is implemented in a series of containers in an Amazon Elastic Container Service (Amazon ECS) cluster. The company will use the Fargate launch type for its tasks. The containers will run workloads that require connectivity initiated over an SSL connection. Traffic must be able to flow to the application from other AWS accounts over private connectivity. The application must scale in a manageable way as more consumers use the application.

Which solution will meet these requirements?

- A. Choose a Gateway Load Balancer (GLB) as the type of load balancer for the ECS service
- B. Create a lifecycle hook to add new tasks to the target group from Amazon ECS as required to handle scaling
- C. Specify the GLB in the service definition
- D. Create a VPC peer for external AWS account
- E. Update the route tables so that the AWS accounts can reach the GLB.
- F. Choose an Application Load Balancer (ALB) as the type of load balancer for the ECS service
- G. Create path-based routing rules to allow the application to target the containers that are registered in the target group
- H. Specify the ALB in the service definition
- I. Create a VPC endpoint service for the ALB. Share the VPC endpoint service with other AWS accounts.
- J. Choose an Application Load Balancer (ALB) as the type of load balancer for the ECS service
- K. Create path-based routing rules to allow the application to target the containers that are registered in the target group
- L. Specify the ALB in the service definition
- M. Create a VPC peer for the external AWS account
- N. Update the route tables so that the AWS accounts can reach the ALB.
- O. Choose a Network Load Balancer (NLB) as the type of load balancer for the ECS service
- P. Specify the NLB in the service definition
- Q. Create a VPC endpoint service for the NLB
- R. Share the VPC endpoint service with other AWS accounts.

Answer: D

NEW QUESTION 34

A company has created three VPCs: a production VPC, a nonproduction VPC, and a shared services VPC. The production VPC and the nonproduction VPC must each have communication with the shared services VPC. There must be no communication between the production VPC and the nonproduction VPC. A transit gateway is deployed to facilitate communication between VPCs.

Which route table configurations on the transit gateway will meet these requirements?

- A. Configure a route table with the production and nonproduction VPC attachments associated with propagated routes for only the shared services VPC
- B. Create an additional route table with only the shared services VPC attachment associated with propagated routes from the production and nonproduction VPCs.
- C. Configure a route table with the production and nonproduction VPC attachments associated with propagated routes for each VPC
- D. Create an additional route table with only the shared services VPC attachment associated with propagated routes from each VPC.
- E. Configure a route table with all the VPC attachments associated with propagated routes for only the shared services VPC. Create an additional route table with only the shared services VPC attachment associated with propagated routes from the production and nonproduction VPCs.
- F. Configure a route table with the production and nonproduction VPC attachments associated with propagated routes disabled
- G. Create an additional route table with only the shared services VPC attachment associated with propagated routes from the production and nonproduction VPCs.

Answer: A

NEW QUESTION 37

A company is hosting an application on Amazon EC2 instances behind an Application Load Balancer. The instances are in an Amazon EC2 Auto Scaling group. Because of a recent change to a security group, external users cannot access the application.

A network engineer needs to prevent this downtime from happening again. The network engineer must implement a solution that remediates noncompliant changes to security groups.

Which solution will meet these requirements?

- A. Configure Amazon GuardDuty to detect inconsistencies between the desired security group configuration and the current security group configuration
- B. Create an AWS Systems Manager Automation runbook to remediate noncompliant security groups.
- C. Configure an AWS Config rule to detect inconsistencies between the desired security group configuration and the current security group configuration

- D. Configure AWS OpsWorks for Chef to remediate noncompliant security groups.
- E. Configure Amazon GuardDuty to detect inconsistencies between the desired security group configuration and the current security group configuration.
- F. Configure AWS OpsWorks for Chef to remediate noncompliant security groups.
- G. Configure an AWS Config rule to detect inconsistencies between the desired security group configuration and the current security group configuration.
- H. Create an AWS Systems Manager Automation runbook to remediate noncompliant security groups.

Answer: D

Explanation:

Configuring an AWS Config rule to detect inconsistencies between the desired security group configuration and the current security group configuration would enable evaluation of the compliance status of the security groups based on predefined or custom rules³. Creating an AWS Systems Manager Automation runbook to remediate noncompliant security groups would enable automation of the remediation process². Additionally, configuring AWS Config to trigger the runbook when a noncompliant change is detected would enable timely and consistent remediation of security group changes.

NEW QUESTION 39

A company hosts an application on Amazon EC2 instances behind an Application Load Balancer (ALB). The company recently experienced a network security breach. A network engineer must collect and analyze logs that include the client IP address, target IP address, target port, and user agent of each user that accesses the application.

What is the MOST operationally efficient solution that meets these requirements?

- A. Configure the ALB to store logs in an Amazon S3 bucket
- B. Download the files from Amazon S3, and use a spreadsheet application to analyze the logs.
- C. Configure the ALB to push logs to Amazon Kinesis Data Stream
- D. Use Amazon Kinesis Data Analytics to analyze the logs.
- E. Configure Amazon Kinesis Data Streams to stream data from the ALB to Amazon OpenSearch Service (Amazon Elasticsearch Service). Use search operations in Amazon OpenSearch Service (Amazon Elasticsearch Service) to analyze the data.
- F. Configure the ALB to store logs in an Amazon S3 bucket
- G. Use Amazon Athena to analyze the logs in Amazon S3.

Answer: D

Explanation:

The most operationally efficient solution to collect and analyze logs that include the client IP address, target IP address, target port, and user agent of each user that accesses the application would be to configure the ALB to store logs in an Amazon S3 bucket and use Amazon Athena to analyze the logs in Amazon S3 (Option D). This solution allows for quick and easy analysis of log data without requiring manual download or manipulation of log files.

NEW QUESTION 40

A network engineer must provide additional safeguards to protect encrypted data at Application Load Balancers (ALBs) through the use of a unique random session key.

What should the network engineer do to meet this requirement?

- A. Change the ALB security policy to a policy that supports TLS 1.2 protocol only
- B. Use AWS Key Management Service (AWS KMS) to encrypt session keys
- C. Associate an AWS WAF web ACL with the ALB
- D. and create a security rule to enforce forward secrecy (FS)
- E. Change the ALB security policy to a policy that supports forward secrecy (FS)

Answer: D

NEW QUESTION 43

A company's development team has created a new product recommendation web service. The web service is hosted in a VPC with a CIDR block of 192.168.224.0/19. The company has deployed the web service on Amazon EC2 instances and has configured an Auto Scaling group as the target of a Network Load Balancer (NLB).

The company wants to perform testing to determine whether users who receive product recommendations spend more money than users who do not receive product recommendations. The company has a big sales event in 5 days and needs to integrate its existing production environment with the recommendation engine by then. The existing production environment is hosted in a VPC with a CIDR block of 192.168.128.0/17.

A network engineer must integrate the systems by designing a solution that results in the least possible disruption to the existing environments.

Which solution will meet these requirements?

- A. Create a VPC peering connection between the web service VPC and the existing production VPC
- B. Add a routing rule to the appropriate route table to allow data to flow to 192.168.224.0/19 from the existing production environment and to flow to 192.168.128.0/17 from the web service environment
- C. Configure the relevant security groups and ACLs to allow the systems to communicate.
- D. Ask the development team of the web service to redeploy the web service into the production VPC and integrate the systems there.
- E. Create a VPC endpoint service
- F. Associate the VPC endpoint service with the NLB for the web service. Create an interface VPC endpoint for the web service in the existing production VPC.
- G. Create a transit gateway in the existing production environment
- H. Create attachments to the production VPC and the web service VPC
- I. Configure appropriate routing rules in the transit gateway and VPC route tables for 192.168.224.0/19 and 192.168.128.0/17. Configure the relevant security groups and ACLs to allow the systems to communicate.

Answer: C

NEW QUESTION 48

A company has a hybrid cloud environment. The company's data center is connected to the AWS Cloud by an AWS Direct Connect connection. The AWS environment includes VPCs that are connected together in a hub-and-spoke model by a transit gateway. The AWS environment has a transit VIF with a Direct Connect gateway for on-premises connectivity.

The company has a hybrid DNS model. The company has configured Amazon Route 53 Resolver endpoints in the hub VPC to allow bidirectional DNS traffic flow. The company is running a backend application in one of the VPCs.

The company uses a message-oriented architecture and employs Amazon Simple Queue Service (Amazon SQS) to receive messages from other applications over a private network. A network engineer wants to use an interface VPC endpoint for Amazon SQS for this architecture. Client services must be able to access the endpoint service from on premises and from multiple VPCs within the company's AWS infrastructure.

Which combination of steps should the network engineer take to ensure that the client applications can resolve DNS for the interface endpoint? (Choose three.)

- A. Create the interface endpoint for Amazon SQS with the option for private DNS names turned on.
- B. Create the interface endpoint for Amazon SQS with the option for private DNS names turned off.
- C. Manually create a private hosted zone for sqs.us-east-1.amazonaws.co
- D. Add necessary records that point to the interface endpoint
- E. Associate the private hosted zones with other VPCs.
- F. Use the automatically created private hosted zone for sqs.us-east-1.amazonaws.com with previously created necessary records that point to the interface endpoint
- G. Associate the private hosted zones with other VPCs.
- H. Access the SQS endpoint by using the public DNS name sqs.us-east-1.amazonaws.com in VPCs and on premises.
- I. Access the SQS endpoint by using the private DNS name of the interface endpoint.sqs.us-east-1.vpc.amazonaws.com in VPCs and on premises.

Answer: ADF

NEW QUESTION 51

A company has deployed its AWS environment in a single AWS Region. The environment consists of a few hundred application VPCs, a shared services VPC, and a VPN connection to the company's on-premises environment. A network engineer needs to implement a transit gateway with the following requirements:

- Application VPCs must be isolated from each other.
- Bidirectional communication must be allowed between the application VPCs and the on-premises network.
- Bidirectional communication must be allowed between the application VPCs and the shared services VPC. The network engineer creates the transit gateway with options disabled for default route table association and default route table propagation. The network engineer also creates the VPN attachment for the on-premises network and creates the VPC attachments for the application VPCs and the shared services VPC.

The network engineer must meet all the requirements for the transit gateway by designing a solution that needs the least number of transit gateway route tables. Which combination of actions should the network engineer perform to accomplish this goal?(Choose two.)

- A. Configure a separate transit gateway route table for on premise
- B. Associate the VPN attachment with this transit gateway route table
- C. Propagate all application VPC attachments to this transit gateway route table.
- D. Configure a separate transit gateway route table for each application VPC
- E. Associate each application VPC attachment with its respective transit gateway route table
- F. Propagate the shared services VPC attachment and the VPN attachment to this transit gateway route table.
- G. Configure a separate transit gateway route table for all application VPC
- H. Associate all application VPCs with this transit gateway route table
- I. Propagate the shared services VPC attachment and the VPN attachment to this transit gateway route table.
- J. Configure a separate transit gateway route table for the shared services VPC
- K. Associate the shared services VPC attachment with this transit gateway route table
- L. Propagate all application VPC attachments to this transit gateway route table.
- M. Configure a separate transit gateway route table for on premises and the shared services VPC
- N. Associate the VPN attachment and the shared services VPC attachment with this transit gateway route table
- O. Propagate all application VPC attachments to this transit gateway route table.

Answer: BD

NEW QUESTION 55

A company is planning to create a service that requires encryption in transit. The traffic must not be decrypted between the client and the backend of the service. The company will implement the service by using the gRPC protocol over TCP port 443. The service will scale up to thousands of simultaneous connections. The backend of the service will be hosted on an Amazon Elastic Kubernetes Service (Amazon EKS) cluster with the Kubernetes Cluster Autoscaler and the Horizontal Pod Autoscaler configured. The company needs to use mutual TLS for two-way authentication between the client and the backend.

Which solution will meet these requirements?

- A. Install the AWS Load Balancer Controller for Kubernetes
- B. Using that controller, configure a Network Load Balancer with a TCP listener on port 443 to forward traffic to the IP addresses of the backend service Pods.
- C. Install the AWS Load Balancer Controller for Kubernetes
- D. Using that controller, configure an Application Load Balancer with an HTTPS listener on port 443 to forward traffic to the IP addresses of the backend service Pods.
- E. Create a target group
- F. Add the EKS managed node group's Auto Scaling group as a target. Create an Application Load Balancer with an HTTPS listener on port 443 to forward traffic to the target group.
- G. Create a target group
- H. Add the EKS managed node group's Auto Scaling group as a target
- I. Create a Network Load Balancer with a TLS listener on port 443 to forward traffic to the target group.

Answer: B

Explanation:

<https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-target-groups.html#target-groups>

NEW QUESTION 59

A company has a global network and is using transit gateways to connect AWS Regions together. The company finds that two Amazon EC2 instances in different Regions are unable to communicate with each other. A network engineer needs to troubleshoot this connectivity issue. What should the network engineer do to meet this requirement?

- A. Use AWS Network Manager Route Analyzer to analyze routes in the transit gateway route tables and in the VPC route table
- B. Use VPC flow logs to analyze the IP traffic that security group rules and network ACL rules accept or reject in the VPC.
- C. Use AWS Network Manager Route Analyzer to analyze routes in the transit gateway route tables. Verify that the VPC route tables are correct
- D. Use AWS Firewall Manager to analyze the IP traffic that security group rules and network ACL rules accept or reject in the VPC.

- E. Use AWS Network Manager Route Analyzer to analyze routes in the transit gateway route tables. Verify that the VPC route tables are correct.
- F. Use VPC flow logs to analyze the IP traffic that security group rules and network ACL rules accept or reject in the VPC.
- G. Use VPC Reachability Analyzer to analyze routes in the transit gateway route table.
- H. Verify that the VPC route tables are correct.
- I. Use VPC flow logs to analyze the IP traffic that security group rules and network ACL rules accept or reject in the VPC.

Answer: C

Explanation:

Using AWS Network Manager Route Analyzer to analyze routes in the transit gateway route tables would enable identification of routing issues between VPCs and transit gateways¹. Verifying that the VPC route tables are correct would enable identification of routing issues within a VPC. Using VPC flow logs to analyze the IP traffic that security group rules and network ACL rules accept or reject in the VPC would enable identification of traffic filtering issues within a VPC². Additionally, using VPC Reachability Analyzer to analyze routes in the transit gateway route tables would enable identification of routing issues between transit gateways in different Regions. VPC Reachability Analyzer is a configuration analysis tool that enables connectivity testing between a source resource and a destination resource in your VPCs.

NEW QUESTION 60

A banking company is successfully operating its public mobile banking stack on AWS. The mobile banking stack is deployed in a VPC that includes private subnets and public subnets. The company is using IPv4 networking and has not deployed or supported IPv6 in the environment. The company has decided to adopt a third-party service provider's API and must integrate the API with the existing environment. The service provider's API requires the use of IPv6.

A network engineer must turn on IPv6 connectivity for the existing workload that is deployed in a private subnet. The company does not want to permit IPv6 traffic from the public internet and mandates that the company's servers must initiate all IPv6 connectivity. The network engineer turns on IPv6 in the VPC and in the private subnets.

Which solution will meet these requirements?

- A. Create an internet gateway and a NAT gateway in the VPC.
- B. Add a route to the existing subnet route tables to point IPv6 traffic to the NAT gateway.
- C. Create an internet gateway and a NAT instance in the VPC.
- D. Add a route to the existing subnet route tables to point IPv6 traffic to the NAT instance.
- E. Create an egress-only Internet gateway in the VPC. Add a route to the existing subnet route tables to point IPv6 traffic to the egress-only internet gateway.
- F. Create an egress-only internet gateway in the VPC.
- G. Configure a security group that denies all inbound traffic.
- H. Associate the security group with the egress-only internet gateway.

Answer: C

NEW QUESTION 61

A company is planning to deploy many software-defined WAN (SD-WAN) sites. The company is using AWS Transit Gateway and has deployed a transit gateway in the required AWS Region. A network engineer needs to deploy the SD-WAN hub virtual appliance into a VPC that is connected to the transit gateway. The solution must support at least 5 Gbps of throughput from the SD-WAN hub virtual appliance to other VPCs that are attached to the transit gateway.

Which solution will meet these requirements?

- A. Create a new VPC for the SD-WAN hub virtual appliance.
- B. Create two IPsec VPN connections between the SD-WAN hub virtual appliance and the transit gateway.
- C. Configure BGP over the IPsec VPN connections.
- D. Assign a new CIDR block to the transit gateway.
- E. Create a new VPC for the SD-WAN hub virtual appliance.
- F. Attach the new VPC to the transit gateway with a VPC attachment.
- G. Add a transit gateway Connect attachment.
- H. Create a Connect peer and specify the GRE and BGP parameter.
- I. Create a route in the appropriate VPC for the SD-WAN hub virtual appliance to route to the transit gateway.
- J. Create a new VPC for the SD-WAN hub virtual appliance.
- K. Attach the new VPC to the transit gateway with a VPC attachment.
- L. Create two IPsec VPN connections between the SD-WAN hub virtual appliance and the transit gateway.
- M. Configure BGP over the IPsec VPN connections.
- N. Assign a new CIDR block to the transit gateway.
- O. Create a new VPC for the SD-WAN hub virtual appliance.
- P. Attach the new VPC to the transit gateway with a VPC attachment.
- Q. Add a transit gateway Connect attachment.
- R. Create a Connect peer and specify the VXLAN and BGP parameter.
- S. Create a route in the appropriate VPC for the SD-WAN hub virtual appliance to route to the transit gateway.

Answer: D

NEW QUESTION 64

A company hosts a web application on Amazon EC2 instances behind an Application Load Balancer (ALB). The ALB is the origin in an Amazon CloudFront distribution. The company wants to implement a custom authentication system that will provide a token for its authenticated customers.

The web application must ensure that the GET/POST requests come from authenticated customers before it delivers the content. A network engineer must design a solution that gives the web application the ability to identify authorized customers.

What is the MOST operationally efficient solution that meets these requirements?

- A. Use the ALB to inspect the authorized token inside the GET/POST request payload.
- B. Use an AWS Lambda function to insert a customized header to inform the web application of an authenticated customer request.
- C. Integrate AWS WAF with the ALB to inspect the authorized token inside the GET/POST request payload.
- D. Configure the ALB listener to insert a customized header to inform the web application of an authenticated customer request.
- E. Use an AWS Lambda@Edge function to inspect the authorized token inside the GET/POST request payload.
- F. Use the Lambda@Edge function also to insert a customized header to inform the web application of an authenticated customer request.
- G. Set up an EC2 instance that has a third-party packet inspection tool to inspect the authorized token inside the GET/POST request payload.
- H. Configure the tool to insert a customized header to inform the web application of an authenticated customer request.

Answer: C

NEW QUESTION 65

A company is deploying a new application in the AWS Cloud. The company wants a highly available web server that will sit behind an Elastic Load Balancer. The load balancer will route requests to multiple target groups based on the URL in the request. All traffic must use HTTPS. TLS processing must be offloaded to the load balancer. The web server must know the user's IP address so that the company can keep accurate logs for security purposes.

Which solution will meet these requirements?

- A. Deploy an Application Load Balancer with an HTTPS listener
- B. Use path-based routing rules to forward the traffic to the correct target group
- C. Include the X-Forwarded-For request header with traffic to the targets.
- D. Deploy an Application Load Balancer with an HTTPS listener for each domain
- E. Use host-based routing rules to forward the traffic to the correct target group for each domain
- F. Include the X-Forwarded-For request header with traffic to the targets.
- G. Deploy a Network Load Balancer with a TLS listener
- H. Use path-based routing rules to forward the traffic to the correct target group
- I. Configure client IP address preservation for traffic to the targets.
- J. Deploy a Network Load Balancer with a TLS listener for each domain
- K. Use host-based routing rules to forward the traffic to the correct target group for each domain
- L. Configure client IP address preservation for traffic to the targets.

Answer: A

Explanation:

An Application Load Balancer (ALB) can be used to route traffic to multiple target groups based on the URL in the request. The ALB can be configured with an HTTPS listener to ensure all traffic uses HTTPS. TLS processing can be offloaded to the ALB, which reduces the load on the web server. Path-based routing rules can be used to route traffic to the correct target group based on the URL in the request. The X-Forwarded-For request header can be included with traffic to the targets, which will allow the web server to know the user's IP address and keep accurate logs for security purposes.

NEW QUESTION 67

A company operates its IT services through a multi-site hybrid infrastructure. The company deploys resources on AWS in the us-east-1 Region and in the eu-west-2 Region. The company also deploys resources in its own data centers that are located in the United States (US) and in the United Kingdom (UK). In both AWS Regions, the company uses a transit gateway to connect 15 VPCs to each other. The company has created a transit gateway peering connection between the two transit gateways. The VPC CIDR blocks do not overlap with each other or with IP addresses used within the data centers. The VPC CIDR prefixes can also be aggregated either on a Regional level or for the company's entire AWS environment.

The data centers are connected to each other by a private WAN connection. IP routing information is exchanged dynamically through Interior BGP (iBGP) sessions. The data centers maintain connectivity to AWS through one AWS Direct Connect connection in the US and one Direct Connect connection in the UK. Each Direct Connect connection is terminated on a Direct Connect gateway and is associated with a local transit gateway through a transit VIF.

Traffic follows the shortest geographical path from source to destination. For example, packets from the UK data center that are targeted to resources in eu-west-2 travel across the local Direct Connect connection. In cases of cross-Region data transfers, such as from the UK data center to VPCs in us-east-1, the private WAN connection must be used to minimize costs on AWS. A network engineer has configured each transit gateway association on the Direct Connect gateway to advertise VPC-specific CIDR IP prefixes only from the local Region. The routes toward the other Region must be learned through BGP from the routers in the other data center in the original, non-aggregated form.

The company recently experienced a problem with cross-Region data transfers because of issues with its private WAN connection. The network engineer needs to modify the routing setup to prevent similar interruptions in the future. The solution cannot modify the original traffic routing goal when the network is operating normally.

Which modifications will meet these requirements? (Choose two.)

- A. Remove all the VPC CIDR prefixes from the list of subnets advertised through the local Direct Connect connection
- B. Add the company's entire AWS environment aggregate route to the list of subnets advertised through the local Direct Connect connection.
- C. Add the CIDR prefixes from the other Region VPCs and the local VPC CIDR blocks to the list of subnets advertised through the local Direct Connect connection
- D. Configure data center routers to make routing decisions based on the BGP communities received.
- E. Add the aggregate IP prefix for the other Region and the local VPC CIDR blocks to the list of subnets advertised through the local Direct Connect connection.
- F. Add the aggregate IP prefix for the company's entire AWS environment and the local VPC CIDR blocks to the list of subnets advertised through the local Direct Connect connection.
- G. Remove all the VPC CIDR prefixes from the list of subnets advertised through the local Direct Connect connection
- H. Add both Regional aggregate IP prefixes to the list of subnets advertised through the Direct Connect connection on both sides of the network
- I. Configure data center routers to make routing decisions based on the BGP communities received.

Answer: AD

NEW QUESTION 71

A company uses a 4 Gbps AWS Direct Connect dedicated connection with a link aggregation group (LAG) bundle to connect to five VPCs that are deployed in the us-east-1 Region. Each VPC serves a different business unit and uses its own private VIF for connectivity to the on-premises environment. Users are reporting slowness when they access resources that are hosted on AWS.

A network engineer finds that there are sudden increases in throughput and that the Direct Connect connection becomes saturated at the same time for about an hour each business day. The company wants to know which business unit is causing the sudden increase in throughput. The network engineer must find out this information and implement a solution to resolve the problem.

Which solution will meet these requirements?

- A. Review the Amazon CloudWatch metrics for `VirtualInterfaceBpsEgress` and `VirtualInterfaceBpsIngress` to determine which VIF is sending the highest throughput during the period in which slowness is observed
- B. Create a new 10 Gbps dedicated connection
- C. Shift traffic from the existing dedicated connection to the new dedicated connection.
- D. Review the Amazon CloudWatch metrics for `VirtualInterfaceBpsEgress` and `VirtualInterfaceBpsIngress` to determine which VIF is sending the highest throughput during the period in which slowness is observed
- E. Upgrade the bandwidth of the existing dedicated connection to 10 Gbps.
- F. Review the Amazon CloudWatch metrics for `ConnectionBpsIngress` and `ConnectionBpsEgress` to determine which VIF is sending the highest throughput during the period in which slowness is observed
- G. Upgrade the existing dedicated connection to a 5 Gbps hosted connection.

- H. Review the Amazon CloudWatch metrics for ConnectionBpsIngress and ConnectionPpsEgress to determine which VIF is sending the highest throughput during the period in which slowness is observed. Create a new 10 Gbps dedicated connection.
- I. Shift traffic from the existing dedicated connection to the new dedicated connection.

Answer: A

Explanation:

To meet the requirements of finding out which business unit is causing the sudden increase in throughput and resolving the problem, the network engineer should review the Amazon CloudWatch metrics for VirtualInterfaceBpsEgress and VirtualInterfaceBpsIngress to determine which VIF is sending the highest throughput during the period in which slowness is observed (Option B). After identifying the VIF that is causing the issue, they can upgrade the bandwidth of the existing dedicated connection to 10 Gbps to resolve the problem (Option B).

NEW QUESTION 73

A company wants to improve visibility into its AWS environment. The AWS environment consists of multiple VPCs that are connected to a transit gateway. The transit gateway connects to an on-premises data center through an AWS Direct Connect gateway and a pair of redundant Direct Connect connections that use transit VIFs. The company must receive notification each time a new route is advertised to AWS from on premises over Direct Connect. What should a network engineer do to meet these requirements?

- A. Enable Amazon CloudWatch metrics on Direct Connect to track the received route
- B. Configure a CloudWatch alarm to send notifications when routes change.
- C. Onboard Transit Gateway Network Manager to Amazon CloudWatch Logs Insight
- D. Use Amazon EventBridge (Amazon CloudWatch Events) to send notifications when routes change.
- E. Configure an AWS Lambda function to periodically check the routes on the Direct Connect gateway and to send notifications when routes change.
- F. Enable Amazon CloudWatch Logs on the transit VIFs to track the received route
- G. Create a metric filter Set an alarm on the filter to send notifications when routes change.

Answer: B

Explanation:

<https://docs.aws.amazon.com/network-manager/latest/cloudwan/cloudwan-cloudwatch-events.html>

To receive notification each time a new route is advertised to AWS from on premises over Direct Connect, a network engineer should onboard Transit Gateway Network Manager to Amazon CloudWatch Logs Insights and use Amazon EventBridge (Amazon CloudWatch Events) to send notifications when routes change (Option B). This solution allows for real-time monitoring of route changes and automatic notification when new routes are advertised.

NEW QUESTION 76

An organization is replacing a tape backup system with a storage gateway. there is currently no connectivity to AWS. Initial testing is needed. What connection option should the organization use to get up and running at minimal cost?

- A. Use an internet connection.
- B. Set up an AWS VPN connection.
- C. Provision an AWS Direct Connection private virtual interface.
- D. Provision a Direct Connect public virtual interface.

Answer: A

NEW QUESTION 80

A company is deploying a new application on AWS. The application uses dynamic multicasting. The company has five VPCs that are all attached to a transit gateway. Amazon EC2 instances in each VPC need to be able to register dynamically to receive a multicast transmission. How should a network engineer configure the AWS resources to meet these requirements?

- A. Create a static source multicast domain within the transit gateway
- B. Associate the VPCs and applicable subnets with the multicast domain
- C. Register the multicast senders' network interface with the multicast domain
- D. Adjust the network ACLs to allow UDP traffic from the source to all receivers and to allow UDP traffic that is sent to the multicast group address.
- E. Create a static source multicast domain within the transit gateway
- F. Associate the VPCs and applicable subnets with the multicast domain
- G. Register the multicast senders' network interface with the multicast domain
- H. Adjust the network ACLs to allow TCP traffic from the source to all receivers and to allow TCP traffic that is sent to the multicast group address.
- I. Create an Internet Group Management Protocol (IGMP) multicast domain within the transit gateway. Associate the VPCs and applicable subnets with the multicast domain
- J. Register the multicast senders' network interface with the multicast domain
- K. Adjust the network ACLs to allow UDP traffic from the source to all receivers and to allow UDP traffic that is sent to the multicast group address.
- L. Create an Internet Group Management Protocol (IGMP) multicast domain within the transit gateway. Associate the VPCs and applicable subnets with the multicast domain
- M. Register the multicast senders' network interface with the multicast domain
- N. Adjust the network ACLs to allow TCP traffic from the source to all receivers and to allow TCP traffic that is sent to the multicast group address.

Answer: C

NEW QUESTION 81

A company's AWS architecture consists of several VPCs. The VPCs include a shared services VPC and several application VPCs. The company has established network connectivity from all VPCs to the on-premises DNS servers. Applications that are deployed in the application VPCs must be able to resolve DNS for internally hosted domains on premises. The applications also must be able to resolve local VPC domain names and domains that are hosted in Amazon Route 53 private hosted zones. What should a network engineer do to meet these requirements?

- A. Create a new Route 53 Resolver inbound endpoint in the shared services VPC
- B. Create forwarding rules for the on-premises hosted domain

- C. Associate the rules with the new Resolver endpoint and each application VP
- D. Update each application VPC's DHCP configuration to point DNS resolution to the new Resolver endpoint.
- E. Create a new Route 53 Resolver outbound endpoint in the shared services VP
- F. Create forwarding rules for the on-premises hosted domain
- G. Associate the rules with the new Resolver endpoint and each application VPC.
- H. Create a new Route 53 Resolver outbound endpoint in the shared services VPC
- I. Associate the rules with the new Resolver endpoint and each application VP
- J. Create a new Route 53 Resolver inbound endpoint in the shared services VP
- K. Create forwarding rules for the on-premises hosted domain
- L. Associate the rules with the new Resolver endpoint and each application VPC.

Answer: B

Explanation:

Creating a new Route 53 Resolver outbound endpoint in the shared services VPC would enable forwarding of DNS queries from the VPC to on-premises¹. Creating forwarding rules for the on-premises hosted domains would enable specifying which domain names are forwarded to the on-premises DNS servers². Associating the rules with the new Resolver endpoint and each application VPC would enable applying the rules to the VPCs². This solution would not affect the default DNS resolution behavior of Route 53 Resolver for local VPC domain names and domains that are hosted in Route 53 private hosted zones³.

NEW QUESTION 85

A media company is implementing a news website for a global audience. The website uses Amazon CloudFront as its content delivery network. The backend runs on Amazon EC2 Windows instances behind an Application Load Balancer (ALB). The instances are part of an Auto Scaling group. The company's customers access the website by using service.example.com as the CloudFront custom domain name. The CloudFront origin points to an ALB that uses service-alb.example.com as the domain name.

The company's security policy requires the traffic to be encrypted in transit at all times between the users and the backend.

Which combination of changes must the company make to meet this security requirement? (Choose three.)

- A. Create a self-signed certificate for service.example.co
- B. Import the certificate into AWS Certificate Manager (ACM). Configure CloudFront to use this imported SSL/TLS certificat
- C. Change the default behavior to redirect HTTP to HTTPS.
- D. Create a certificate for service.example.com by using AWS Certificate Manager (ACM). Configure CloudFront to use this custom SSL/TLS certificat
- E. Change the default behavior to redirect HTTP to HTTPS.
- F. Create a certificate with any domain name by using AWS Certificate Manager (ACM) for the EC2 instance
- G. Configure the backend to use this certificate for its HTTPS listene
- H. Specify the instance target type during the creation of a new target group that uses the HTTPS protocol for its target
- I. Attach the existing Auto Scaling group to this new target group.
- J. Create a public certificate from a third-party certificate provider with any domain name for the EC2 instance
- K. Configure the backend to use this certificate for its HTTPS listene
- L. Specify the instance target type during the creation of a new target group that uses the HTTPS protocol for its target
- M. Attach the existing Auto Scaling group to this new target group.
- N. Create a certificate for service-alb.example.com by using AWS Certificate Manager (ACM). On the ALB add a new HTTPS listener that uses the new target group and the service-alb.example.com ACM certificat
- O. Modify the CloudFront origin to use the HTTPS protocol onl
- P. Delete the HTTP listener on the ALB.
- Q. Create a self-signed certificate for service-alb.example.co
- R. Import the certificate into AWS Certificate Manager (ACM). On the ALB add a new HTTPS listener that uses the new target group and the imported service-alb.example.com ACM certificat
- S. Modify the CloudFront origin to use the HTTPS protocol onl
- T. Delete the HTTP listener on the ALB.

Answer: BDE

NEW QUESTION 89

A company is migrating an application from on premises to AWS. The company will host the application on Amazon EC2 instances that are deployed in a single VPC. During the migration period, DNS queries from the EC2 instances must be able to resolve names of on-premises servers. The migration is expected to take 3 months. After the 3-month migration period, the resolution of on-premises servers will no longer be needed.

What should a network engineer do to meet these requirements with the LEAST amount of configuration?

- A. Set up an AWS Site-to-Site VPN connection between on premises and AW
- B. Deploy an Amazon Route 53 Resolver outbound endpoint in the Region that is hosting the VPC.
- C. Set up an AWS Direct Connect connection with a private VI
- D. Deploy an Amazon Route 53 Resolver inbound endpoint and a Route 53 Resolver outbound endpoint in the Region that is hosting the VPC.
- E. Set up an AWS Client VPN connection between on premises and AW
- F. Deploy an Amazon Route 53 Resolver inbound endpoint in the VPC.
- G. Set up an AWS Direct Connect connection with a public VI
- H. Deploy an Amazon Route 53 Resolver inbound endpoint in the Region that is hosting the VP
- I. Use the IP address that is assigned to the endpoint for connectivity to the on-premises DNS servers.

Answer: A

Explanation:

Setting up an AWS Site-to-Site VPN connection between on premises and AWS would enable a secure and encrypted connection over the public internet¹. Deploying an Amazon Route 53 Resolver outbound endpoint in the Region that is hosting the VPC would enable forwarding of DNS queries for on-premises servers to the on-premises DNS servers². This would allow EC2 instances in the VPC to resolve names of on-premises servers during the migration period. After the migration period, the Route 53 Resolver outbound endpoint can be deleted with minimal configuration changes.

NEW QUESTION 93

A company has several production applications across different accounts in the AWS Cloud. The company operates from the us-east-1 Region only. Only certain partner companies can access the applications. The applications are running on Amazon EC2 instances that are in an Auto Scaling group behind an Application

Load Balancer (ALB). The EC2 instances are in private subnets and allow traffic only from the ALB. The ALB is in a public subnet and allows inbound traffic only from partner network IP address ranges over port 80.

When the company adds a new partner, the company must allow the IP address range of the partner network in the security group that is associated with the ALB in each account. A network engineer must implement a solution to centrally manage the partner network IP address ranges.

Which solution will meet these requirements in the MOST operationally efficient manner?

- A. Create an Amazon DynamoDB table to maintain all IP address ranges and security groups that need to be update
- B. Update the DynamoDB table with the new IP address range when the company adds a new partne
- C. Invoke an AWS Lambda function to read new IP address ranges and security groups from the DynamoDB table to update the security group
- D. Deploy this solution in all accounts.
- E. Create a new prefix lis
- F. Add all allowed IP address ranges to the prefix lis
- G. Use Amazon EventBridge (Amazon CloudWatch Events) rules to invoke an AWS Lambda function to update security groups whenever a new IP address range is added to the prefix lis
- H. Deploy this solution in all accounts.
- I. Create a new prefix lis
- J. Add all allowed IP address ranges to the prefix lis
- K. Share the prefix list across different accounts by using AWS Resource Access Manager (AWS RAM). Update security groups to use the prefix list instead of the partner IP address rang
- L. Update the prefix list with the new IP address range when the company adds a new partner.
- M. Create an Amazon S3 bucket to maintain all IP address ranges and security groups that need to be update
- N. Update the S3 bucket with the new IP address range when the company adds a new partne
- O. Invoke an AWS Lambda function to read new IP address ranges and security groups from the S3 bucket to update the security group
- P. Deploy this solution in all accounts.

Answer: C

Explanation:

Creating a new prefix list and adding all allowed IP address ranges to the prefix list would enable grouping of CIDR blocks that can be referenced in security group rules. Sharing the prefix list across different accounts by using AWS Resource Access Manager (AWS RAM) would enable central management of the partner network IP address ranges. Updating security groups to use the prefix list instead of the partner IP address range would enable simplification of security group rules. Updating the prefix list with the new IP address range when the company adds a new partner would enable automatic propagation of the changes to all security groups that use the prefix list.

NEW QUESTION 95

A company uses a hybrid architecture and has an AWS Direct Connect connection between its on-premises data center and AWS. The company has production applications that run in the on-premises data center. The company also has production applications that run in a VPC. The applications that run in the on-premises data center need to communicate with the applications that run in the VPC. The company is using corp.example.com as the domain name for the on-premises resources and is using an Amazon Route 53 private hosted zone for aws.example.com to host the VPC resources.

The company is using an open-source recursive DNS resolver in a VPC subnet and is using a DNS resolver in the on-premises data center. The company's on-premises DNS resolver has a forwarder that directs requests for the aws.example.com domain name to the DNS resolver in the VPC. The DNS resolver in the VPC has a forwarder that directs requests for the corp.example.com domain name to the DNS resolver in the on-premises data center. The company has decided to replace the open-source recursive DNS resolver with Amazon Route 53 Resolver endpoints.

Which combination of steps should a network engineer take to make this replacement? (Choose three.)

- A. Create a Route 53 Resolver rule to forward aws.example.com domain queries to the IP addresses of the outbound endpoint.
- B. Configure the on-premises DNS resolver to forward aws.example.com domain queries to the IP addresses of the inbound endpoint.
- C. Create a Route 53 Resolver inbound endpoint and a Route 53 Resolver outbound endpoint.
- D. Create a Route 53 Resolver rule to forward aws.example.com domain queries to the IP addresses of the inbound endpoint.
- E. Create a Route 53 Resolver rule to forward corp.example.com domain queries to the IP address of the on-premises DNS resolver.
- F. Configure the on-premises DNS resolver to forward aws.example.com queries to the IP addresses of the outbound endpoint.

Answer: BCE

Explanation:

To replace the open-source recursive DNS resolver with Amazon Route 53 Resolver endpoints in a hybrid architecture where on-premises applications need to communicate with applications running in a VPC, a network engineer should take the following steps:

- > Create a Route 53 Resolver inbound endpoint and a Route 53 Resolver outbound endpoint. (Option C)
- > Configure the on-premises DNS resolver to forward aws.example.com domain queries to the IP addresses of the inbound endpoint. (Option B)
- > Create a Route 53 Resolver rule to forward corp.example.com domain queries to the IP address of the on-premises DNS resolver. (Option E)

These steps will allow for seamless replacement of the open-source recursive DNS resolver with Amazon Route 53 Resolver endpoints and enable communication between on-premises and VPC applications.

NEW QUESTION 98

A security team is performing an audit of a company's AWS deployment. The security team is concerned that two applications might be accessing resources that should be blocked by network ACLs and security groups. The applications are deployed across two Amazon Elastic Kubernetes Service (Amazon EKS) clusters that use the Amazon VPC Container Network Interface (CNI) plugin for Kubernetes. The clusters are in separate subnets within the same VPC and have a Cluster Autoscaler configured.

The security team needs to determine which POD IP addresses are communicating with which services throughout the VPC. The security team wants to limit the number of flow logs and wants to examine the traffic from only the two applications.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Create VPC flow logs in the default forma
- B. Create a filter to gather flow logs only from the EKS nodes. Include the srcaddr field and the dstaddr field in the flow logs.
- C. Create VPC flow logs in a custom forma
- D. Set the EKS nodes as the resource Include the pkt-srcaddr field and the pkt-dstaddr field in the flow logs.
- E. Create VPC flow logs in a custom forma
- F. Set the application subnets as resource
- G. Include the pkt-srcaddr field and the pkt-dstaddr field in the flow logs.
- H. Create VPC flow logs in a custom forma

I. Create a filter to gather flow logs only from the EKS nodes. Include the pkt-srcaddr field and the pkt-dstaddr field in the flow logs.

Answer: D

NEW QUESTION 102

A company delivers applications over the internet. An Amazon Route 53 public hosted zone is the authoritative DNS service for the company and its internet applications, all of which are offered from the same domain name.

A network engineer is working on a new version of one of the applications. All the application's components are hosted in the AWS Cloud. The application has a three-tier design. The front end is delivered through Amazon EC2 instances that are deployed in public subnets with Elastic IP addresses assigned. The backend components are deployed in private subnets from RFC1918.

Components of the application need to be able to access other components of the application within the application's VPC by using the same host names as the host names that are used over the public internet. The network engineer also needs to accommodate future DNS changes, such as the introduction of new host names or the retirement of DNS entries.

Which combination of steps will meet these requirements? (Choose three.)

- A. Add a geoproximity routing policy in Route 53.
- B. Create a Route 53 private hosted zone for the same domain name Associate the application's VPC with the new private hosted zone.
- C. Enable DNS hostnames for the application's VPC.
- D. Create entries in the private hosted zone for each name in the public hosted zone by using the corresponding private IP addresses.
- E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that runs when AWS CloudTrail logs a Route 53 API call to the public hosted zone.
- F. Create an AWS Lambda function as the target of the rule.
- G. Configure the function to use the event information to update the private hosted zone.
- H. Add the private IP addresses in the existing Route 53 public hosted zone.

Answer: BCD

NEW QUESTION 106

A company recently migrated its Amazon EC2 instances to VPC private subnets to satisfy a security compliance requirement. The EC2 instances now use a NAT gateway for internet access. After the migration, some long-running database queries from private EC2 instances to a publicly accessible third-party database no longer receive responses. The database query logs reveal that the queries successfully completed after 7 minutes but that the client EC2 instances never received the response.

Which configuration change should a network engineer implement to resolve this issue?

- A. Configure the NAT gateway timeout to allow connections for up to 600 seconds.
- B. Enable enhanced networking on the client EC2 instances.
- C. Enable TCP keepalive on the client EC2 instances with a value of less than 300 seconds.
- D. Close idle TCP connections through the NAT gateway.

Answer: C

Explanation:

When a TCP connection is idle for a long time, it may be terminated by network devices, including the NAT gateway. By enabling TCP keepalive, the client EC2 instances can periodically send packets to the third-party database to indicate that the connection is still active, preventing it from being terminated prematurely.

NEW QUESTION 111

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