

1. AWS Public VIF for DirectConnect announces the CIDR ranges of the publicly-a ----
the selected publicly-available services from all AWS regions
the selected publicly-available services from the selected AWS region
all publicly- available services from all AWS regions
all publicly-available services from the selected AWS region
2. Private, Public, Transit VIFs (Virtual Interfaces) are terms related to which
Azure ExpressRoute
AWS Virtual Private Gateway (VGW)
AWS DirectConnect
AWS Transit Gateway
3. Azure Firewall (native service):
Performs Load Balancing and SNAT automatically
Handles UDR updates and route propagation for all the peered spoke VNETs
is encrypting the traffic in transit
By default provides Malware Protection, IDS (Intrusion Detection) and IPS (Int...
4. The IPSec tunnels terminating at AWS TGW/VGW, Azure VPN GW, and other native VPN...
support interconnecting networks with overlapping IP ranges
False
True
5. One difference between Microsoft ExpressRoute circuits as compared to other cloud providers
direct connect options, is that ExpressRoute is always provisioned as a redundant pair with two
physical connections to the Microsoft Enterprise Edge Routers (MSEE)?
False
True
6. Match the Pairs
Using an NVA – The Method*
Hairpinning through MSEE (Microsoft Enterprise Edge) routers- While Documented*
VNet Peering - While the perfect option*

While undocumented and not preferred...
By the MSFT Product Groups, this is the ...
Most common transit routing...
Mechanisms deployed by customers...
--
This method can provide more granular...
Control but UDR management at scale...
can become problematic...

--

While the preferred option by Microsoft...
Product Group, this option fails to scale....
as customer grow due to the ...
mapping this method depends upon....

7. Stateful Firewall rule:
Is another name for Azure Active Directory Firewall
Requires explicit rule for the return traffic
Allows the return traffic implicitly
Alone can easily satisfy the enterprise security needs
8. In an Azure setup where all VNets are directly peered (full-mesh) using VNet Peering
It is easy to insert a centralized FW
Peering needs to be broken for VNet CIDR change
There are no real limitations for bandwidth
ExpressRoute Edge Router does the actual routing
9. AWS Guard Duty automatically enforces its findings through the ingress routing feature,
blocking the....
Traffic by default
False
True
10. Drag the Following in the Correct Order
Internet GW
Security Group
Network ACL
Route Table
Network Interface ENI
11. An example of a Network Virtual Appliance (NVA) in Azure would include which of the
following...
Virtual Network Gateway (VNG)
Azure Load Balancer
UDR
Pal Alto Firewall
12. Using AWS Terraform provider, a customer created an AWS Transit Gateway with 50 VPCs at ...
Attaching the VPCs and spinning up some EC2 instances in them, none of the instances can ..

other. What should be done to resolve the issue?

There must be security group rules blocking traffic as BGP in VPC auto configures VPC routing tables

There must be security group rules blocking traffic as AWS auto configures VPC routing tables
Configure BGP communities in VPC such that all VPCs that need to communicate with each other have same community...

Create routing tables in each VPC, add CIDR all the other VPCs in the routing table pointing to AWS Transit Gateway...

13. What is an Availability Zone?

A technology developed for Multi Cloud for automatic moving of resources between DC and Cloud regions..

A zone provides by Cloud Service Providers (CSP) that is available to multiple regions across the globe to ...

Grouping of many on-prem data centers with a geographic area to provide regional service availability.

Distinct location within cloud provider's network that is engineered to be isolated from failures of other such ...

14. You can peer AWS TGWS within a Region

False

True

15. Which Aviatrix feature customer might leverage to help prevent connected partners from affecting cloud routing when peered with dynamic routing protocols?

VCN Route Audit

BGP Route Approval

TGW Audit

TGW Orchestrator

16. AWS Security Group, Azure Network Security Group, GCP Firewall Service, by default support FQDN based firewall rules (e.g. www.yahoo.com) as a destination in their configuration, to allow/block traffic to the specified domain.

GCP Firewall Service, others not

AWS Security Group does, others not

True

False

17. In order for a customer to leverage Aviatrix Firenet to orchestrate the deployment and insertion of NGFWs, customers must leverage Aviatrix gateways in the spokes VPC/VNETs in order to program the necessary routing to insert the firewall into the traffic flow?

False

True

1. ACE Inc. currently uses AWS as their primary cloud provider with a strong desire to expand to Azure and GCP. IT team has strict security and control requirements from different business units that require isolation and control from each other. The different business units want

- to own their own transit architecture
- the ability to control firewall rules for their own application
- to not share same transit with other business units but have ability to connect to other business units if needed

The architecture board has mandated that there needs to be a single design pattern that accommodates above requirements irrespective of the public cloud vendor being used.

Choose the best design option to meet above needs. Each option presents a complete solution.

Ans: Use AWS Transit Gateway (TGW). Deploy several TGWs in each region and peer them together as needed. Use TGW VPN to build IPsec tunnels to Azure Virtual WAN and Google Cloud VPN.

2. Aviatrix Controller allows customers to export Netflow data from all or select Aviatrix Gateways to any Netflow collector on a custom port.

True

False

3. When AWS Direct Connect, Azure ExpressRoute, Google InterConnect and OCI FastConnect are encrypted without using Aviatrix High Performance Encryption, the effective throughput is reduced to _____.

A. 1.25 Gbps

B. 10.25 Gbps

C. 5.325 Gbps

D. 525 Mbps

4. Aviatrix Controller provides a VPC Creator tool that allows customers to create VPC, VNets across multiple clouds like AWS, GCP, Azure and OCI from single pane of glass

True

False

5. Using AWS Terraform provider, a customer created an AWS Transit Gateway with 50 VPCs attached to it. After attaching the VPCs and spinning up some EC2 instances in them, none of the instances can communicate with each other. What should be done to resolve the issue?

A. There must be security group rules blocking traffic as AWS auto configures VPC routing tables.

B. Configure BGP communities in VPC such that all VPCs that need to communicate with each other have same community defined.

C. Create routing tables in each VPC, add CIDR for all the other VPCs in the routing table pointing to AWS Transit Gateway

D. There must be security group rules blocking traffic as BGP in VPC auto configures VPC routing tables.

6. Choose TWO statements that best describe Aviatrix UserVPN/OpenVPN service.

Requires AWS NAT Gateway

Is limited to one Gateway per VPC/VNET

Can integrate with DUO for MFA

Can integrate with Active Directory

7. Aviatrix platform has several operational features and capabilities built-in to help network engineers perform day to day operational tasks.

Below, match the Aviatrix platform feature with the operational problem it addresses.

- A. Packet Capture - Ability to take live packet capture at any spoke VPC/VNet/VNC and also display it at Wireshark.
- B. Ping and Traceroute - Ability to run basic troubleshooting tools from simplified UI.
- C. Export to Terraform - A feature that allows users to export their current controller configurations (resources) into Terraform files (.tf) and import them into their Terraform environments, facilitating an easy transition to using Terraform to manage their infrastructure.
- D. VPC Tracker - A tool that collects and helps you manage your network CIDR ranges at a central place, eliminating the need to keep an Excel sheet on all your VPC network addresses allocations.

8. An operator needs to create a new VPC, VCN or VNet using Aviatrix Controller.

Can the operator use Aviatrix VPC Tracker feature to validate CIDR/Prefix/Address space duplication

True

False

9. Operations team has noticed that during the peak working hours, Aviatrix Gateway's throughput utilization stays around 80% of the current instance size. A decision has been made to scale up the instance size to provide more throughput. Which below statement accurately describes instance sizing of Aviatrix Gateways?

A. Aviatrix Gateways can scale down but not scale up

B. Aviatrix Gateways instance size has to be chosen at deployment and cant change later

C. Aviatrix Gateways can scale up but not scale down

D. Aviatrix Gateways can scale up and down both

10. As a Cloud Networking Consultant, you are reviewing a Microsoft Azure Virtual WAN network design that will be used to connect several VNets, branches, users and a Data Center (using ExpressRoute). What are some known challenges with this design pattern?

No support for multi-cloud

Lack of encryption within the cloud

Inability to selectively advertise routes

No support for BGP

No support for VPN Users

Inability to have default any to any connectivity

11. Which Aviatrix Controller feature automates the configuration of AWS Transit Gateway, VPC Route Tables, Direct Connect learned routes and Security Domain?

Aviatrix Site to Cloud (S2C)

Aviatrix High Performance Encryption (HPE)

Aviatrix Firewall Networks (FireNet)

Aviatrix AWS TGW Orchestrator

12. What is a challenge of using VNet peering for transit in Azure?

Limited bandwidth available over peering connections

Requires BGP to be configured

Doesn't scale well as it's a 1:1 mapping

Limited to a single region

13. Choose the two best statements that describe challenges of deploying a NextGen Firewall (NGFW) in public cloud.

Reduced visibility due to NAT

Firewalls can only be deployed in Active/Standby

Reduced firewall feature availability

Reduced effective throughput of the NGFW

Firewalls can only be deployed in Active/Active

14. The feature in Aviatrix Controller that allows customers to see path between two instances/AMI/EC2/VM (including, but not limited to Security Groups, ACLs, Routes, etc.) is called:

FlightPath

Netflow

FlightControl

Network Connectivity Test

15. ACE Inc. has been using a 10 Gbps ExpressRoute connection into Microsoft Azure. Security and compliance team has recently flagged this as a policy violation as company data is going unencrypted over untrusted transport. What are the encryption options available to ACE Inc. for connecting to Azure?

Data over ExpressRoute is encrypted by default.

You can open a support ticket with Microsoft Azure to encrypt at 10 Gbps line rate.

Manually build IPSec tunnel from on-prem router to cloud over ExpressRoute to achieve a reduced throughput of 1.2 Gbps

16. Few key differences between Aviatrix based transit and other non-Aviatrix 3rd party transit (such as Cisco CSR) are: (Choose 2)

Aviatrix transit architecture lets you choose any instance size. Throughput will depend on the instance size characteristics

Cisco CSR based transit lets you choose any instance size. Throughput will depend on the instance size characteristics.

Aviatrix based transit can do 1.25 Gbps encrypted throughput whereas Cisco CSR can do up to 70 Gbps

With default settings, Cisco CSR based transit can do 1.25 Gbps encrypted throughput whereas Aviatrix can do up to 70 Gbps.

17. Match the issues of deploying firewalls in public cloud to appropriate problem statement.

When using 3rd party NextGen FWs deployed in a Azure Hub VNet – Scaling out of firewalls is not possible

When using native features of Google Cloud Platform and a 3rd party NextGen Firewall is needed – the general recommendation is to deploy firewalls in each VPC.

When using AWS native Transit Gateway and a 3rd party NextGen Firewall is deployed as Active/Active – throughput of each NetGen FW is limited to 500 Mbps.

When using AWS native Transit Gateway and a 3rd party NextGen Firewall is deployed as Active/Sandby – static routes are needed to manually redirect interesting traffic to load-balancers

18. Choose two examples where you would leverage the Aviatrix Controller's S2C (Site-2-Cloud) workflow?

Connect your branch office to the cloud resources

Connect two branch offices directly to each other

Connect several telecommuting employees to cloud resources based on their geographic location

Connect a partner directly to a VPC/VNET hosting your application

19. What is Aviatrix CoPilot?

A tool inside Aviatrix Controller to run FlightPath and other troubleshooting aspects

A tool that is used to upgrade Aviatrix Controller and perform other maintenance tasks

A Component of Aviatrix platform that provides end to end visibility showing deployment overview, cloud topology and provides views based on Netflow data

A product that runs analytics and machine learning against the architecture

20. Aviatrix Gateways support NAT capability in which public cloud?

A. AWS

B. Google Cloud

C. Microsoft Azure

D. All the Public Cloud listed here in the options

21. Aviatrix platform provides rich capabilities around networking security and operations in public cloud networks. In addition to Aviatrix Transit, it also helps customers overcome limitations of native public cloud constructs.

Below, match the Aviatrix platform capability for AWS Transit Gateway (TGW) with appropriate problem description.

AWS TGW Route Approval – When a route is advertised over BGP, this route is automatically propagated to all VPCs. There needs to be an ability for the network engineers to approve the route before it is propagated.

AWS TGW View – With multiple Transit Gateways and VPCs attached to them, there is a need for visualization to map how VPCs and TGWs are connected.

AWS TGW Route Audit – If someone makes a mistake and inserts bad routes, manually or via automation such as terraform, there is no ability to catch this common issue.

AWS TGW List – With multiple Transit Gateways and VPCs attached to them, there is a need for visualization to map how VPCs and TGWs are connected.

AWS TGW and VPC route table orchestration – Customers are responsible for managing route tables at TGW and all the VPCs which is a huge administrative and technical overhead for customers.

22. ACE Inc. needs to deploy a single consistent network infrastructure across AWS, Azure, GCP and OCI using Aviatrix. How many Aviatrix controllers will be needed?

3

2

4

1

23. As a Cloud Networking Consultant, you are reviewing a Microsoft Azure network design that will be using Microsoft Azure ExpressRoute Edge routers as transit for inter-VNet communication. What are some known challenges with this design pattern?

A. Multiple customers using same edge router may create noisy neighbor issues

B. Lack of visibility into traffic at the edge routers

C. No granular control to be able to route VNets selectively

All of the above

24. A Customer has 100 VPCs in GCP that they want to be able to route between. What are some of the solutions customers can use. Each option represents a complete solution. (Choose 2)

Google already provides global routing for Inter-VPC traffic

Use Aviatrix Transit solution to connect the VPCs with a Transit VPC running Aviatrix Gateways

Manually configure routing tables in each VPC

Use Google Routers

Build full mesh connectivity using VPC Peering

25. ACE Inc. has a Direct Connect for their on-premise location to connect to AWS. Security team has recently been notified of issues where employees and contractors working from the on-premise location are using non-corporate (personal or public) S3 buckets using ACE Inc.'s Direct Connect. This is overwhelming the Direct Connect and also showing the source of traffic to these S3 bucket as ACE Inc. which has potential compliance and security risks.

As a cloud architect, you are tasked with securing the Direct Connect for specific ACE Inc. corporate S3 buckets access only.

Which Aviatrix feature can help ACE Inc. overcome this problem?

Aviatrix FlightPath

Aviatrix CoPilot

Aviatrix Private S3

Aviatrix Multi-Account Onboarding

26. Which AWS feature does Aviatrix integrate with to provide Public Subnet Filtering for Ingress Internet Traffic to a VPC?

AWS GuardDuty

AWS Shield

AWS WAF

AWS Inspector

27. Customer has an Aviatrix Controller deployed in AWS and wants to back up the Aviatrix Controller configuration.

Where would the backup file be saved?

An S3 bucket

SFTP Server

On one of the Aviatrix Gateways

FTP Server

28. What is one of the limitations of Microsoft Azure ExpressRoute that becomes more problematic in a virtual WAN deployment with 'any-to-any' default connectivity behavior?

BGP is not allowed over ExpressRoute when used with Virtual WAN

From Azure cloud, only 200 routes can be advertised to on-prem over a single ExpressRoute Gateway

You have to use Microsoft Edge Routers as transit between VNets

Use of Azure Firewall is required

29. Customers do not need to sign a separate licensing agreement with Aviatrix to get started because controller can be launched from any cloud provider's Marketplace (Pay-As-You-Go meeting).

True

False

30. What are some limitations of using Public Cloud Provider's (AWS, Azure, GCP, OCI) native VPN Gateways that network engineers must account for in their deployments?

No support for NAT which becomes problematic in case of overlapping IPs and connecting to customer and partner) sites where IP allocation is out of your administrative control

No support for Active/Active deployment

Inability to use common troubleshooting tools like ping, traceroute

Only support UDP

31. An example of when would you use Aviatrix FlightPath is:

To insert Firewall into traffic path between 2 VPCs

To connect your branch office to the cloud resources

To view controller logs

To troubleshoot connectivity between EC2 instance in 2 AWS VPCs

32. Choose the best definition for Firewall Network (FireNet)?

Aviatrix turn key solution to scalably deploy firewall instances in the cloud

Azure functionality to deploy 3rd party firewalls in a VPC

AWS functionality to deploy 3rd party firewalls in a VPC

GCP functionality to deploy 3rd party firewalls in a VPC

33. ACE Inc. had been using a standard marketplace router as an NVA (Network Virtual Appliance) in the hub Virtual Network (VNet) for spoke to spoke communication. The NVA has just been replaced by Azure Firewall.

Now the security operations team is reporting that traffic between Virtual Machines in the same VNet is working however any inter-VNet traffic is being dropped by the NSGs (Network Security Groups) at destination. What could be a possible reason?

Azure Firewall is blocking all the traffic

There is no route at the Azure Firewall

Azure Firewall is doing SNAT for Inter-VNet traffic

BGP routes in UDRE need to be updated

34. What is a challenge of using ExpressRoute Edge Routers as transit to interconnect VNets in Azure?

No recommended by Microsoft Product Group / not officially documented

BW limited by ExpressRoute Gateway SKU

Limited Control of routing propagation

All of the above

35. Which networking entity in the cloud infrastructure allows operators to run commands to see BGP state, route tables, diagnostic, logs etc.

AWS VPC Implicit Router

Azure VNET Router

Google Cloud Router

Aviatrix Gateway

36. High speed private connectivity from customer locations (data centers, Headquarters) to public cloud such as AWS Direct Connect, Azure ExpressRoute, Google InterConnect and OCI FastConnect are encrypted by default?

True

False

37. What is/are the protocols(s) supported by Aviatrix Site2Cloud (S2C) Gateway?

GRE

UDP only

Both TCP & UDP

TCP only

38. ACE Inc. is currently using AWS Transit Gateway (TGW) with 100 VPCs attached to it from different security domains.

These 100 VPCs are used as following:

- 20 VPCs belong to Production
- 40 VPSs belong to Development
- 20 are part of UAT and
- 20 VPCs are for shared services and miscellaneous common needs.

ACE Inc. requirements are to:

- provide network and traffic segmentation between Prod, Development, UAT VPCs such that there is no traffic between VPCs belonging to different domains
- allow all VPCs in each domain to communicate with each other
- allow every VPC access to shared services VPCs

Which Aviatrix feature would help to not only provide this segmentation but also decrease the complexity of this topology and routing configuration by orchestrating life-cycle management of AWS Transit Gateways?

(Choose 2)

Aviatrix AWS-TGW Encrypted Peering

Aviatrix TGW Orchestrator

Aviatrix Security Domain

Aviatrix Site-to-Cloud (S2C)

39. ACE Inc. has a VNET-A hosting Database services which is peered with several app VNets. There is a new requirement to add another CIDR to VNet-A. How can you prevent a database connectivity outage for all the peered VNets while performing the task?

Use powershell to update the VNet A CIDR

You cannot add a CIDR to a VNet after it has been created

It's not possible to perform this action without an outage as you need to delete all existing peering before new CIDR can be added

First modify peering routes for all the VNets to add the new CIDR and then add the new CIDR to VNET-A

40. Match the terminology to the appropriate Public Cloud Provider

GuardDuty – AWS

VPC Global Routing – Google Cloud

Virtual Network (VNet) – Microsoft Azure

41. Can the Aviatrix platform help you interconnect VPCs/VNets/VCNs with overlapping IP address ranges?

Yes, using standard encrypted peering

Yes, using S2C (Site-to-Cloud)

Yes, using FlightPath

No

42. What are the connectivity options for consumers to access Azure?

Internet Only

VPN and Express Route

Internet , VPN and DirectConnect

Internet, VPN, ExpressRoute

43. Choose the correct behavior around software upgrade and security patching of Aviatrix Platform.

Aviatrix platform offers hitless upgrades

Aviatrix platform software upgrade requires long downtime

Security patching of the Aviatrix platform always requires a version upgrade for entire deployment

Security patching of the Aviatrix platform can be done without requiring version upgrade of entire platform

44. Which Aviatrix solution lets customers connect and manage their branch Cisco ISR routers to AWS or Azure without requiring any manual effort on branch routers or replacement of equipment?

High Performance Encryption (Insane Mode)

FlightPath

Direct Connect

CloudWAN

48. ACE Inc. has 50 VPCs in AWS with applications that need access to SaaS services on the internet using pre-defined FQDNs. Current deployment has AWS NAT instances deployed that allow full internet access.

ACE Inc.'s security team has mandated that these applications should only be allowed access to pre-approved FQDNs.

You have been tasked to solve this problem considering the following three goals

1. Solution must be easy to implement
2. Same URLs definitions can be used for multiple applications

3. Keep the cost down

Deploy a WAF solution

Deploy a NGFW firewall in each VPC

Deploy Aviatrix Gateways to perform FQDN filtering

Configure NAT policies on the AWS NAT instance

47. What native methods are available to configure Public Cloud Networks using Aviatrix Controller?

(Choose 3)

Bash

REST API

UI (User Interface)

PowerShell

Terraform