ACE Professional

DAY **1**

ACE Team

ACE Learning Paths

CLOUD ARCHITECT LEARNING PATH

Learn CSP networking basics and review Aviatrix features. Mandatory course. Starting point of your cloud networking journey.
(5 Hours Self-Paced)

Design and Deploy cloud networks solving cloud networking pain points
(3 Days ILT)

Troubleshoot real-world Day 2 cloud and on-prem issues
(2 Days ILT)

Design a highly available, scalable, and secure multi-cloud architecture
(in-person)

Build a CSP agnostic cloud backbone for secure hybrid cloud connectivity
(1 Day ILT)

Learn to secure internet egress traffic and build Zero Trust Cloud Network
(1 Day ILT)

Use GitHub and Terraform to build, repeatable, and secure infrastructure
(1 Day ILT)

Create secure and high-performance hybrid cloud solutions using Aviatrix Edge
(1 Day ILT)

SUBJECT MATTER LEARNING PATH

aviatrix

ILT = Instructor Led Training

Joe Amendolara

Joe Amendolara serves as a Senior Solutions Architect - ACE at Aviatrix, where he brings a wealth of expertise in network engineering and design. As a Cisco Certified Internetwork Expert (*CCIEx4, HCIE*), he possesses profound technical knowledge and mastery of advanced networking concepts.

Before joining Aviatrix, Joe held prominent roles at Orange Business Services as a Senior Infrastructure Integration Solution Consultant and at Huawei Technologies as an IP Solution Sales Manager. His extensive experience also includes key positions at Whirlpool Corporation and Dimension Data, where he refined his skills in network engineering and service delivery management.

Joe's technical acumen encompasses a diverse range of areas, including:

- Multicloud Networking and Security
- QoS and Multicast Implementation
- IPv6 Solutions Deployment
- Cisco ACI (Application Centric Infrastructure)

https://linkedin.com/in/joe-amendolara

Rizwan Jamal

Rizwan Jamal is highly experienced Senior Solutions Architecture at Aviatrix. He is an expert on hybrid and public cloud networking

With over 25 years of experience in the technology sector, Rizwan has established himself as SME in Cloud Computing, Datacenters and Colocation networking services.

His past career highlights include:

- Principal Network Architect at Equinix, where he was responsible for global network architecture and engineering, introducing innovative solutions like Intent-based Programmable Network for Equinix Interconnection services.
- Senior Service Engineer at Microsoft, where he was a senior member of the NIS design team, developing scalable and cost-effective network designs for Microsoft's internal datacenters and worldwide network.
- Network Consulting Engineer at Cisco, where he was responsible for designing and building core networking for large enterprises and telcos such as Bell Canada.

https://linkedin.com/in/rizwan-j-35429723

John Smoker

John Smoker is a Principal Solutions Architect - ACE at Aviatrix, bringing a wealth of experience in infrastructure architecture, DevOps, and systems engineering. With a proven track record in the information technology, financial services, and hospitality industries, John is a seasoned technology professional skilled in infrastructure, networking, requirements analysis, enterprise architecture, and agile methodologies.

https://www.linkedin.com/in/johnsmoker

Prior to joining Aviatrix, John held key positions in various orgs.

- At Vacasa, as a Senior DevOps Engineer, he unified 80+ VPCs using AWS Transit Gateway and implemented Aviatrix gateways for enhanced visibility and security, resulting in significant cost savings.
- At Fiserv, he served as an Infrastructure Architect, designing solutions for digital banking products and providing technical leadership across project teams.

John leverages his extensive background to educate and guide professionals in cloud networking solutions. His expertise spans:

- Cloud network design and implementation
- Infrastructure as Code (IaC) and automation
- Security and compliance in cloud environments
- Multi-cloud and hybrid cloud architectures

Attendee Intro:

Prior Networking Experience?
Cloud Experience?
Aviatrix Experience?

ACE Professional– Prerequisite and How to get certified

Prerequisite:

- ACE Associate

Certification Requirements:

To achieve certification, you must fulfil the following criteria:

1. **Lab Completion:** Successfully complete at least **80%** of the labs, which equates to approximately 9 out of 12 labs. An automated script will assess the completion status of each lab.
2. **Course Attendance:** Full attendance is mandatory. Missing any class session will be considered a "no-show" for the entire course.
3. **Final Survey Completion:** You are required to complete a brief final survey, which should take no more than 3 minutes.

- By adhering to these guidelines, you will be well on your way to obtaining your certification.

The certification will be issued approximately seven business days later!

ACE Associate is must to get certification

- You are welcome to attend the training, but the ACE Associate certificate is a must to get the ACE-Pro certificate
- If after successfully finishing this training, should you proceed to attain ACE-Associate certification, kindly reach out to ace@aviatrix.com to request your ACE-Pro certificate

  It is a manual process and can take a minimum 5 business days

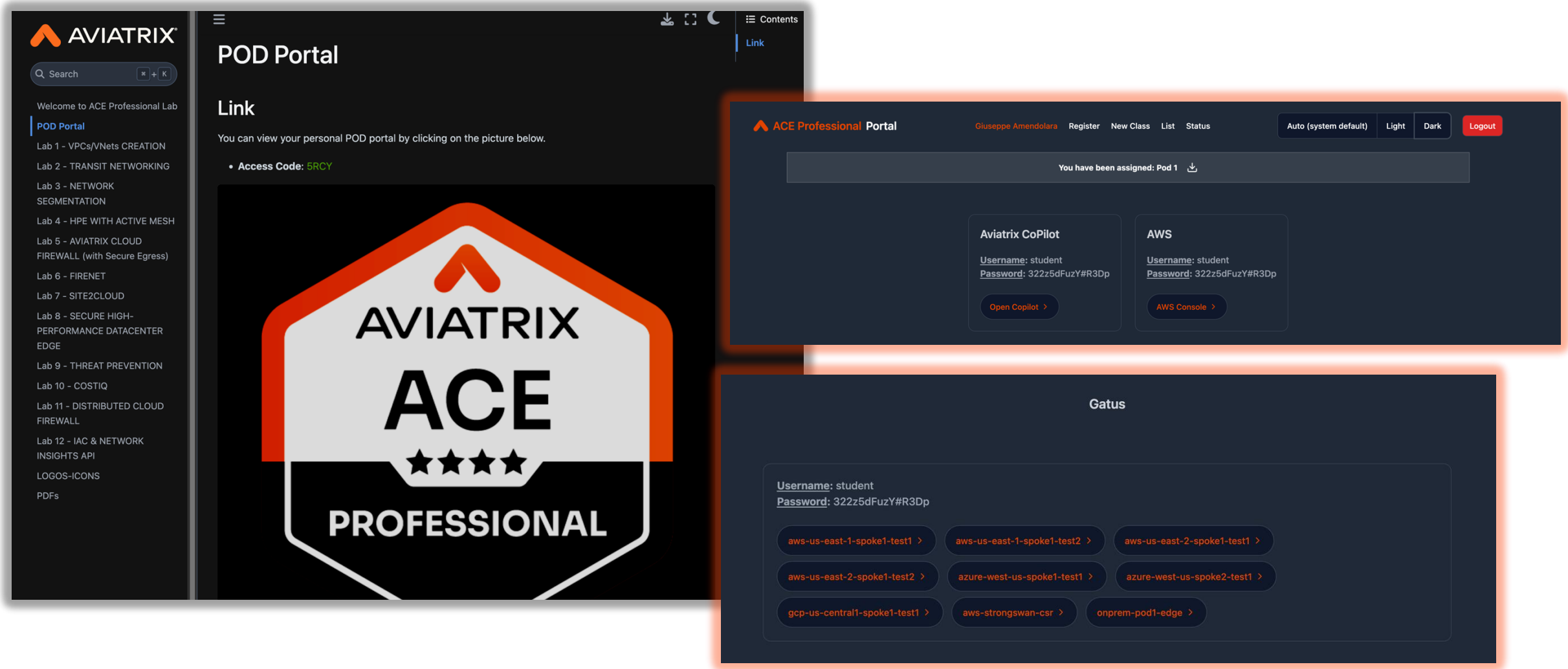
LAB POD Policy

- LAB POD will be destroyed if a person doesn’t show up on day1
- If a person shows up on day2, they can attend the training without the LAB POD
- They will not be issued ACE-Pro Cert

© Aviatrix Certified Engineer

Warm-Up (very important!)

- POD Portal: https://docs.aviatrixlab.com/ace-pro/docs/home.html



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Agenda – ACE PRO Day 1

Topics	Approx. Duration	Start time
Welcome / Logistics / Agenda / Intro / Warm-Up	0:50	9:00 AM
CoPilot UI tour	1:00	9:50 AM
Break	**0:15**	**10:50 AM**
LAB 1: Create VPCs/VNet using CoPilot	0:30	11:05 AM
MultiCloud Network Architecture (MCNA)	0:20	11:35 AM
Transit Networking	0:50	11:55 AM
Lunch Break	**1:00**	**12:45 PM**
LAB 2: (MCNA) Transit Networking	0:55	1:45 PM
Network Segmentation	0:30	2:40 PM
LAB 3: Network Segmentation	0:30	3:10 PM
Break	**0:15**	**3:40 PM**
High Performance Encryption - HPE	0:25	3:55 PM
Multi-Region /Multicloud ActiveMesh	0:40	4:20 AM
End		**5:00 PM**

Note: Schedule might change if modules are running longer than expected.

Agenda – Day 2

Topics	Approx. Duration	Start time
Day 1 Recap (Quiz)	0:20	9:00 AM
LAB 4: HPE with ActiveMesh	0:50	9:20 AM
Security	0:50	10:10 AM
Break	**0:15**	**11:00 AM**
LAB 5: Aviatrix Cloud Firewall	0:50	11:15 AM
Firewall Network - FireNet	0:45	12:05 PM
Lunch Break	**1:00**	**12:50 PM**
LAB 6: Firewall Network with PAN	0:55	1:50 PM
Site2Cloud	1:00	2:45 PM
Break	**0:15**	**3:45 PM**
LAB 7: Site2Cloud	0:30	4:00 PM
LAB 8: Aviatrix Edge	0:30	4:30 AM
END		**5:00 PM**

Note: Schedule might change if modules are running longer than expected.

Agenda – Day 3

Topics	Approx. Duration	Start time
Day 2 Recap (Quiz)	0:20	9:00 AM
ThreatIQ and CostIQ	0:20	9:20 AM
LAB 9 : Threat Prevention	0:35	9:40 AM
LAB 10 : CostIQ	0.10	10:15 AM
Distributed Cloud Firewall	0:50	10:25 AM
Break	**0:15**	**11:15 AM**
LAB 11: Distributed Cloud Firewall	1:15	11:30 AM
IaC and Network Insights API	0:20	12:45 AM
Lunch Break	**1:00**	**1:05 PM**
LAB 12: IaC and Network Insights API	0:25	2:05 PM
User VPN	0:20	2:30 PM
Design Exercise Recap	0:20	2:50 PM
Break	**0:15**	**3:10 PM**
Let's Design Together! (breakout rooms)	1:00	3:25 PM
Design Presentations	0:25	4:25 PM
Survey + Closing	0:10	4:50 PM
End		**5:00 PM**

Note: Schedule might change if modules are running longer than expected.

Who we are? What we do?

Aviatrix: Pioneering Cloud-Native Network Security Fabric

Aviatrix has revolutionized cloud security by creating the innovative **Cloud-Native Network Security Fabric.** This groundbreaking approach seamlessly integrates networking and security across multi-cloud environments, providing organizations with unprecedented control and visibility.

By reimagining how cloud networks should function from the ground up, Aviatrix delivers a comprehensive solution that addresses the unique challenges faced by modern enterprises operating in dynamic cloud ecosystems.

Aviatrix Cloud Network Platform Software

Not a SaaS. It's Yours.

Terraform Single Multicloud Provider

Centralized Automation, Orchestration and Control Plane

1 **Aviatrix Controller**

NetFlow Data

2 **Aviatrix Gateways**

Cloud Fabric (*Distributed Data Plane*)

Cloud Networking Abstraction

Native Cloud Constructs

API

3

API

Basic Cloud Network and Security

FORTINET

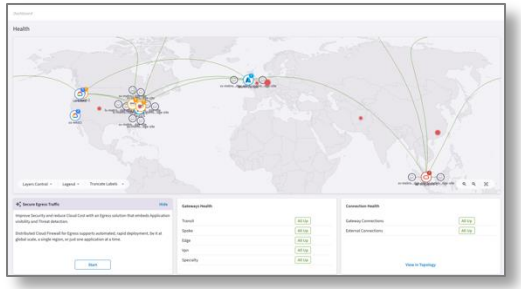
Check Point SOFTWARE TECHNOLOGIES LTD.

paloalto NETWORKS

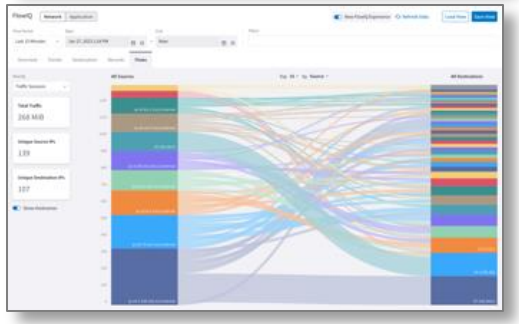
Service Insertion and Chaining

4 **Aviatrix CoPilot**

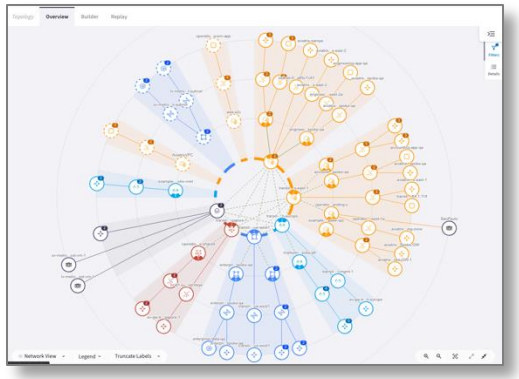
Centralized Management Plane



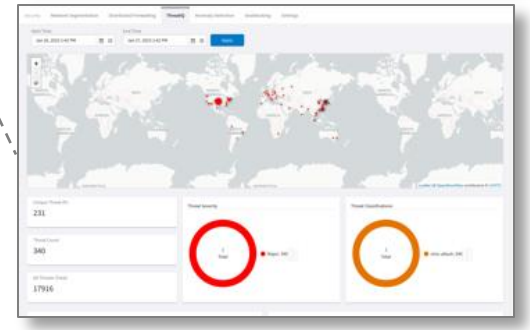
Multicloud Operational Visibility



FlowIQ Multicloud Traffic Flow Analysis



Multicloud Dynamic Topology Mapping



ThreatIQ

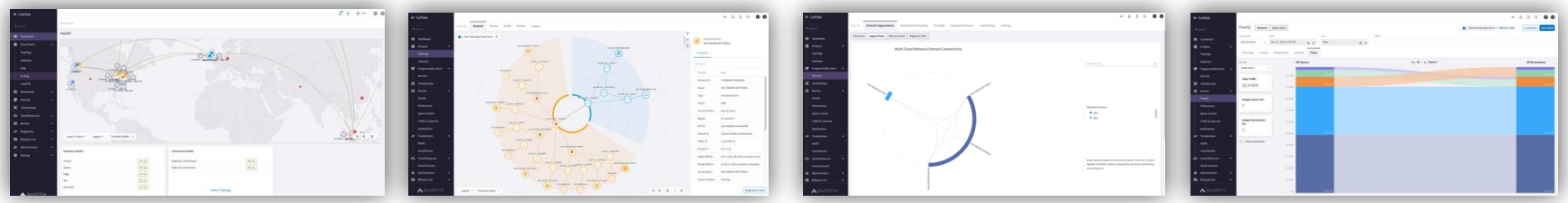
aviatrix

There are two products: Aviatrix Enterprise and Aviatrix PaaS

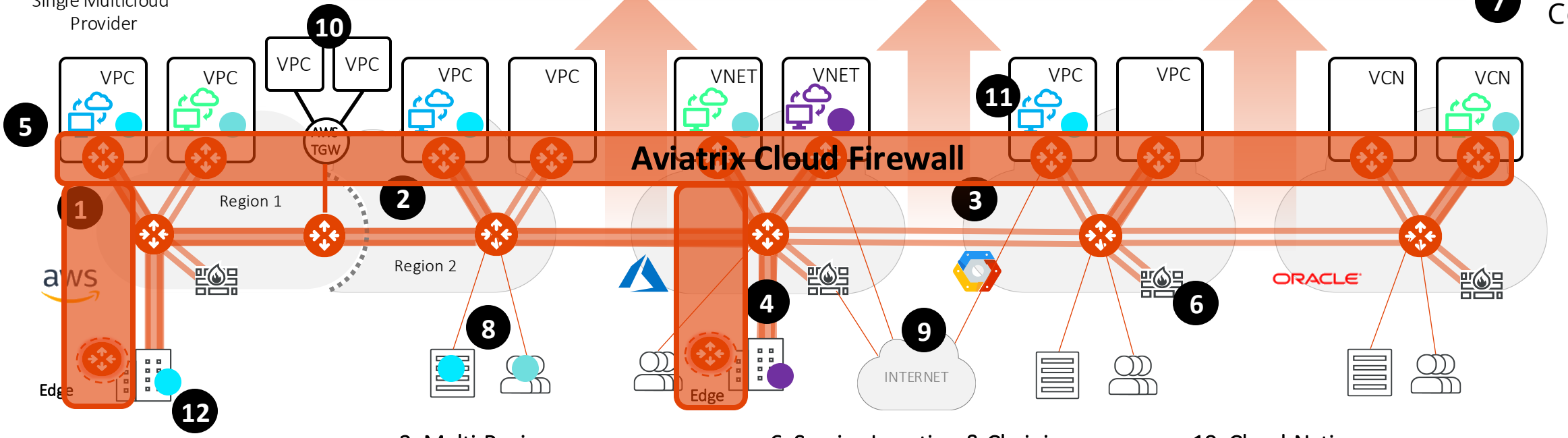
Aviatrix – Foundation of Your Multicloud Networking and Security

Aviatrix Controller

Terraform
Single Multicloud Provider



Aviatrix CoPilot



1. Single Cloud
   Multi-Account
   High-Availability (Active-Active)
   Secure Hybrid-Cloud Connectivity

2. Multi-Region

3. Repeatable Design

4. High-Performance Encryption

5. Network Segmentation
   (*aka* Macro-Segmentation)

6. Service Insertion & Chaining

7. Enterprise Operational Visibility

8. Secure Cloud Access
   (User VPN)

9. Aviatrix Cloud Firewall
   (Secure Cloud Egress)

10. Cloud-Native

11. Micro-Segmentation

12. Distributed Cloud Firewall

13. Secure High-Performance
    Datacenter Edge

aviatrix

Abbott
abbvie
Adobe
Aflac
ABInBev
APPTIO
AVIS Budget
BAKER HUGHES a GE company
BankUnited
BHP
Biogen
BNY MELLON
CHOICE HOTELS
CENTENE Corporation
CHANGE HEALTHCARE
chewy.com
CHS
Constellation Brands
covetrus
Cummins
DELL
dōTERRA
DXC TECHNOLOGY
e·on
FACTSET
FEMA
Ford
Genworth
GN
GUIDEWIRE
Heineken
Home Office
IHG
Informatica
inmarsat
Johnson Controls
Jefferies
Lufthansa Systems
lululemon
LG
Mercedes-Benz
NASA
navitaire an AMADEUS company
NIKE
PACCAR
pwc
Raytheon Technologies
RheinEnergie
Roche
salesforce
SIEMENS
splunk>
Takeda
THALES
UNITED AIRLINES
VERINT
WiX
YARA

aviatrix
Secure Cloud Networking
Simplify Operations
Improve Security
Reduce Costs

Next: Walkthrough of CoPilot UI

AVIATRIX CLOUD COFFE BREAK

- Core feature: **Feel free to grab a coffee**