

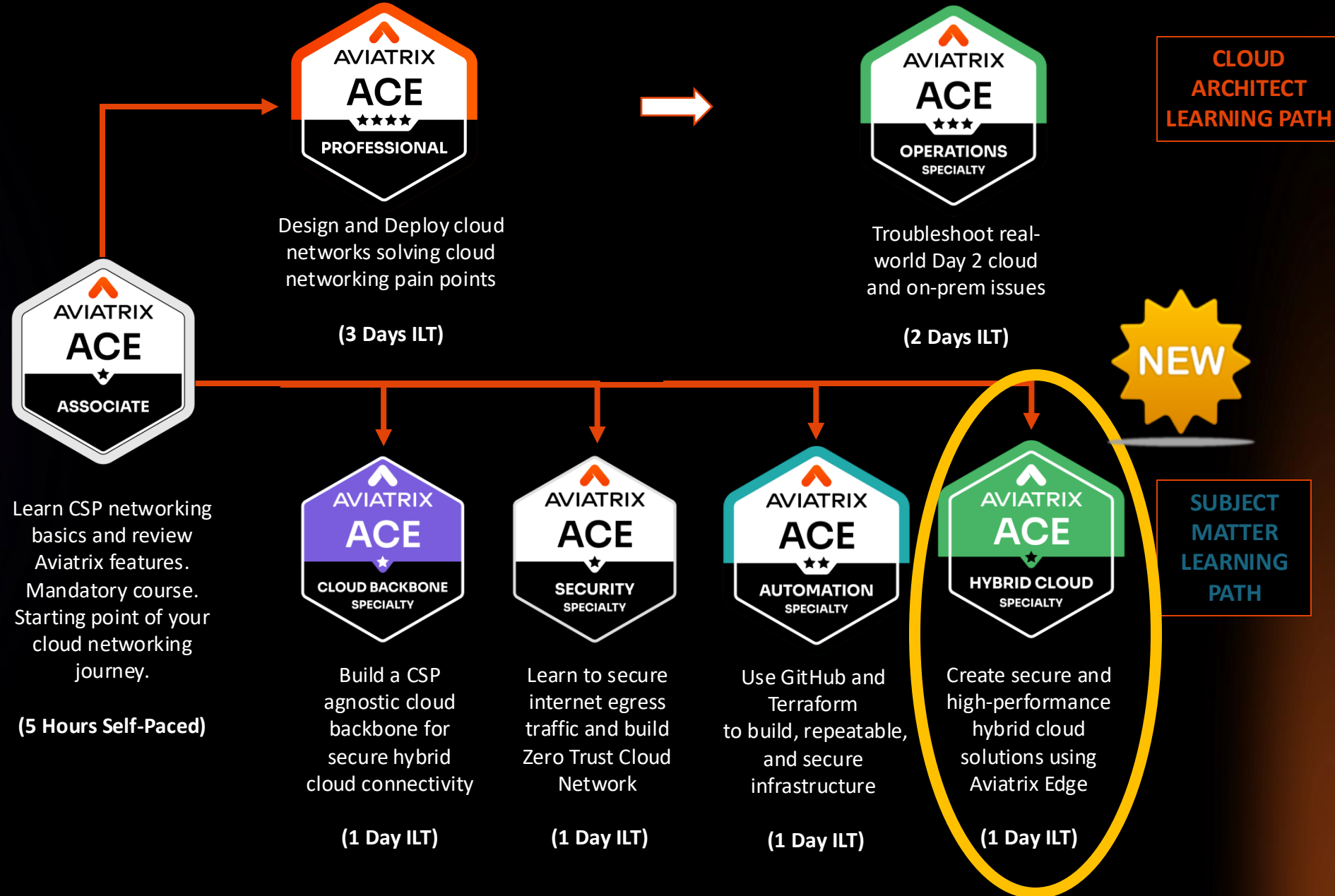


# ACE Professional

DAY 1

ACE Team

# ACE Learning Paths



ILT = Instructor Led Training



Meet the Solutions Architects – ACE Europe

## 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>



Meet the Solutions Architects – ACE North America

## 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>

# 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 after the final day of training.**



# The ACE Associate certification is a mandatory step

- 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](mailto:ace@aviatrix.com) to request your ACE-Pro certificate

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

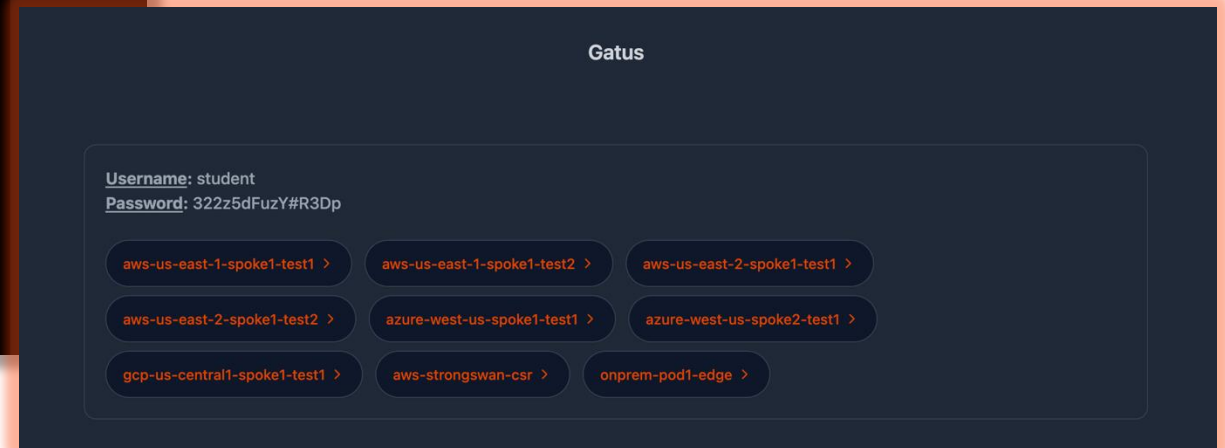
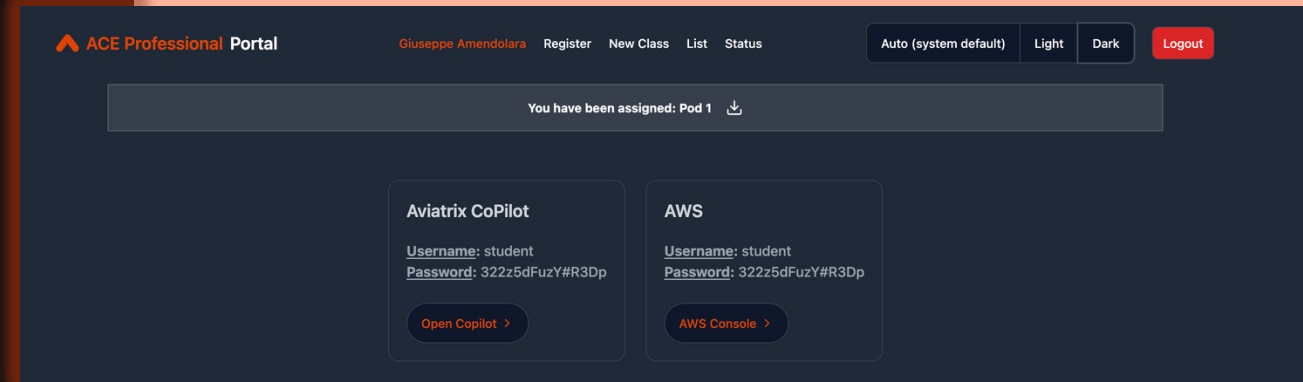
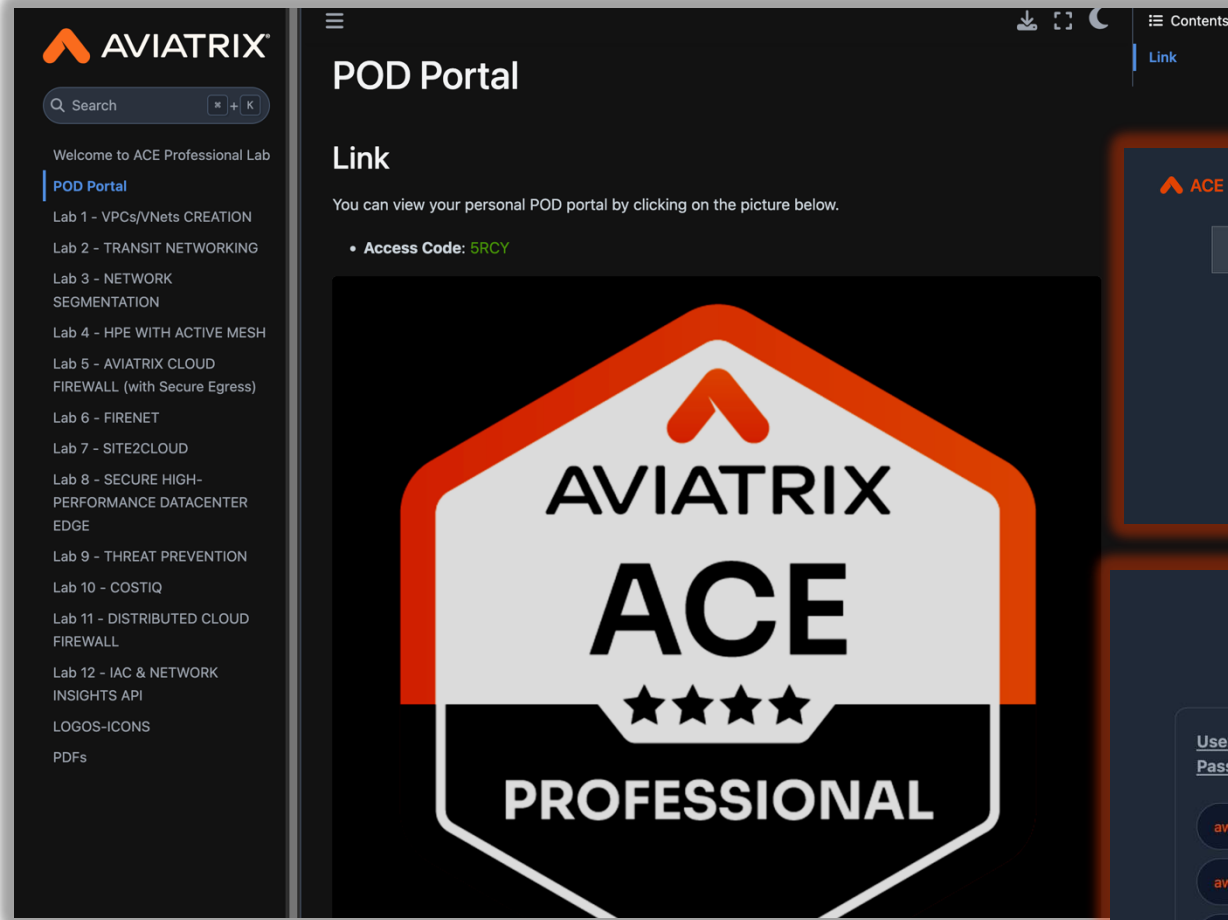


# LAB POD Policy

- 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 the ACE-Pro Cert.

# Warm-Up (very important!)

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





# 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
<b>Break</b>	<b>0:15</b>	<b>10:50 AM</b>
<b>LAB 1:</b> 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
<b>Lunch Break</b>	<b>1:00</b>	<b>12:45 PM</b>
<b>LAB 2:</b> (MCNA) Transit Networking	0:55	1:45 PM
Network Segmentation	0:30	2:40 PM
<b>LAB 3:</b> Network Segmentation	0:30	3:10 PM
<b>Break</b>	<b>0:15</b>	<b>3:40 PM</b>
High Performance Encryption - HPE	0:25	3:55 PM
Multi-Region /Multicloud ActiveMesh	0:40	4:20 AM
<b>End</b>		<b>5:00 PM</b>

# Agenda – Day 2



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

# 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
<b>LAB 9</b> : Threat Prevention	0:30	9:40 AM
<b>LAB 10</b> : CostIQ	0:20	10:10 AM
Distributed Cloud Firewall	0:50	10:40 AM
<b>Break</b>	<b>0:15</b>	<b>11:30 AM</b>
<b>LAB 11:</b> Distributed Cloud Firewall	1:15	11:45 AM
laC and Network Insights API	0:20	1:00 PM
<b>Lunch Break</b>	<b>1:00</b>	<b>1:20 PM</b>
<b>LAB 12:</b> laC and Network Insights API	0:25	2:20 PM
Design Exercise Recap	0:20	2:45 PM
<b>Break</b>	<b>0:15</b>	<b>3:00 PM</b>
Let's Design Together! (breakout rooms)	1:00	3:15 PM
Design Presentations	0:30	4:15 PM
Survey + Closing	0:15	4:45 PM
<b>End</b>		<b>5:00 PM</b>



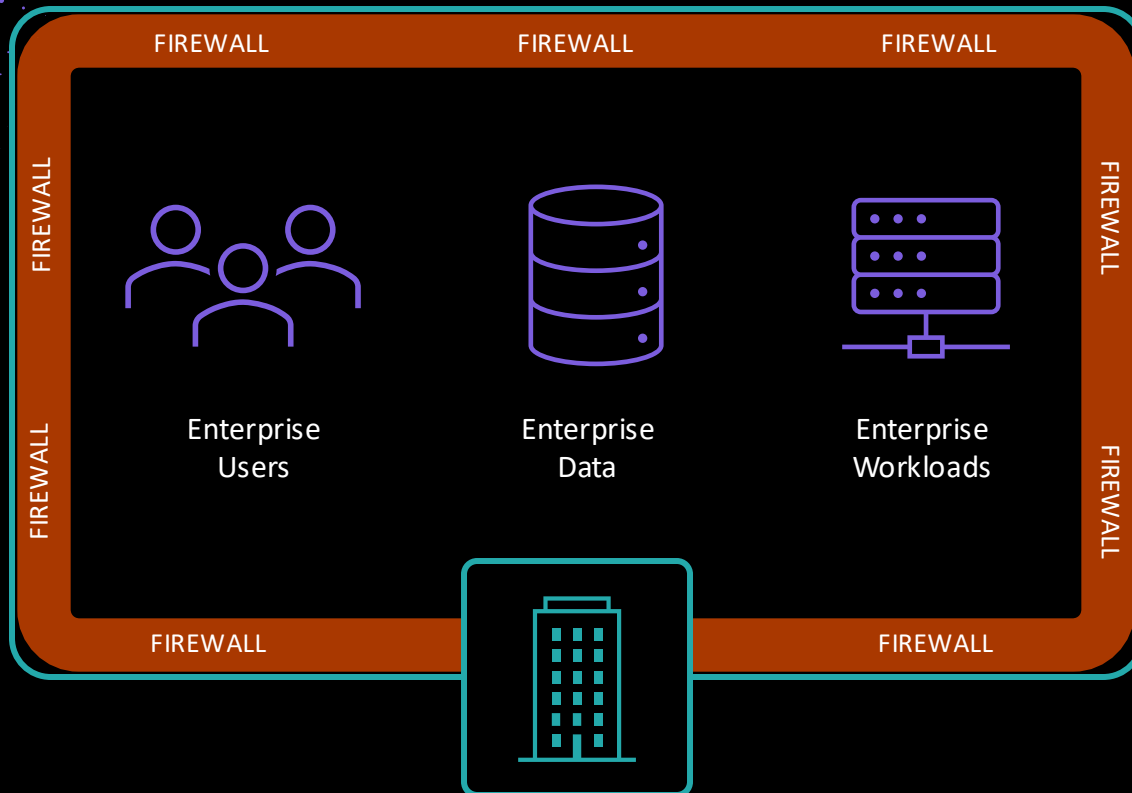
Who we are? What we do?

# The Cloud Security Challenge

*SECURING THE NEW ATOMIZED CLOUD PERIMETER*

## The Enterprise Network

A physical building with a cable to the Internet



## The Cloud Network

A highly dynamic and distributed environment



### The New Perimeter

Every Virtual Private Cloud (VPC), Kubernetes cluster, serverless function, PaaS service, and API endpoint

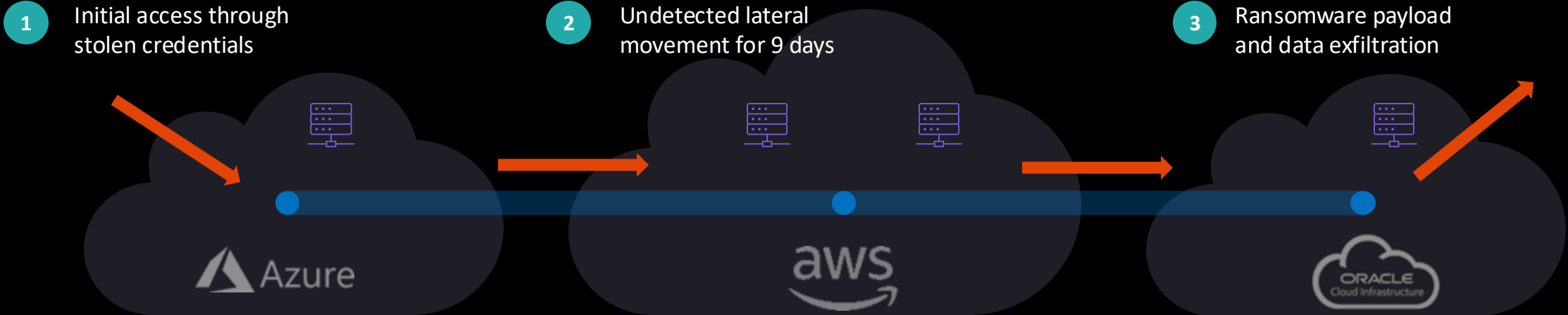
# Anatomy of Today's Threats

*RECENT SUCCESSFUL ATTACKS ARE FOLLOWING THE SAME PATTERNS*

Identity Compromise

Lateral Movement

Total Chaos

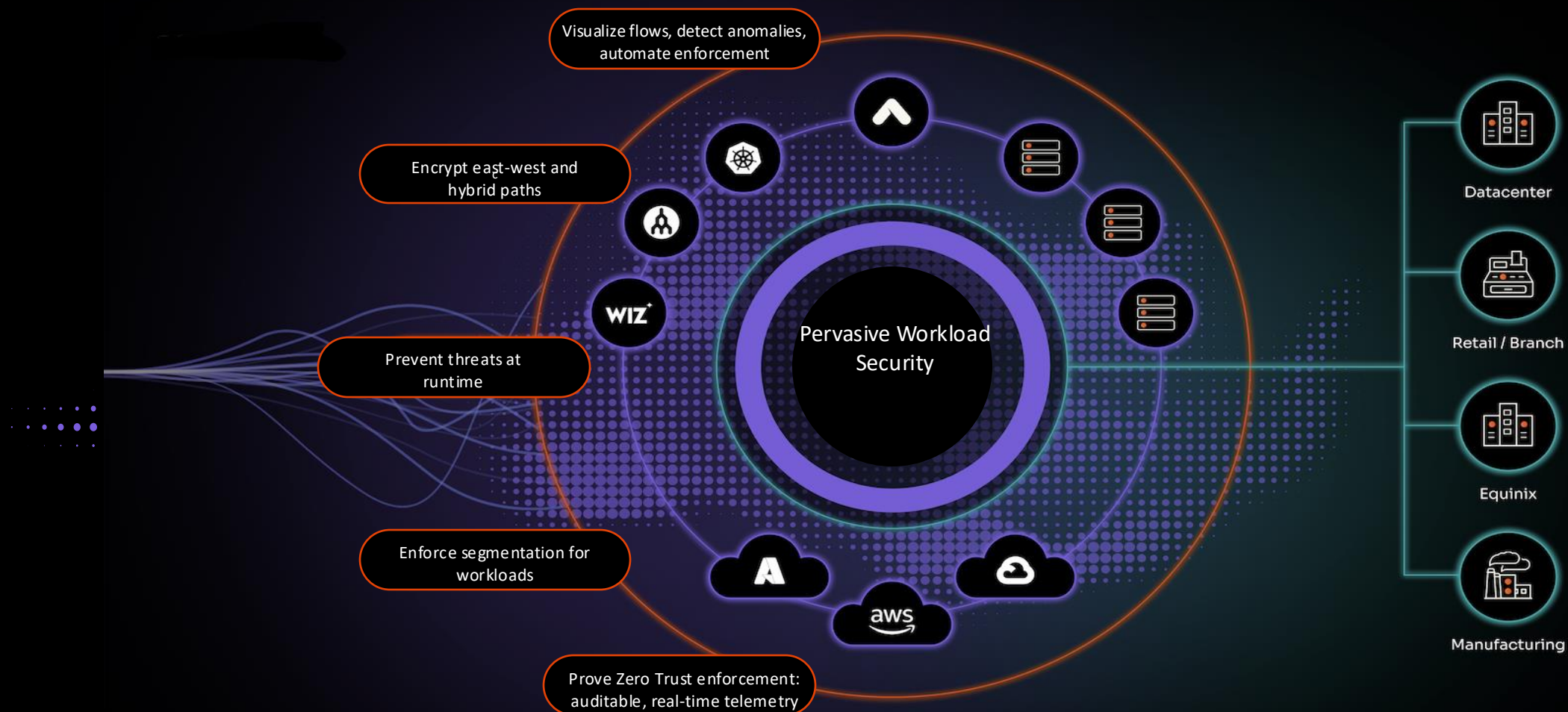


## UHG Operational Disruption and Impact

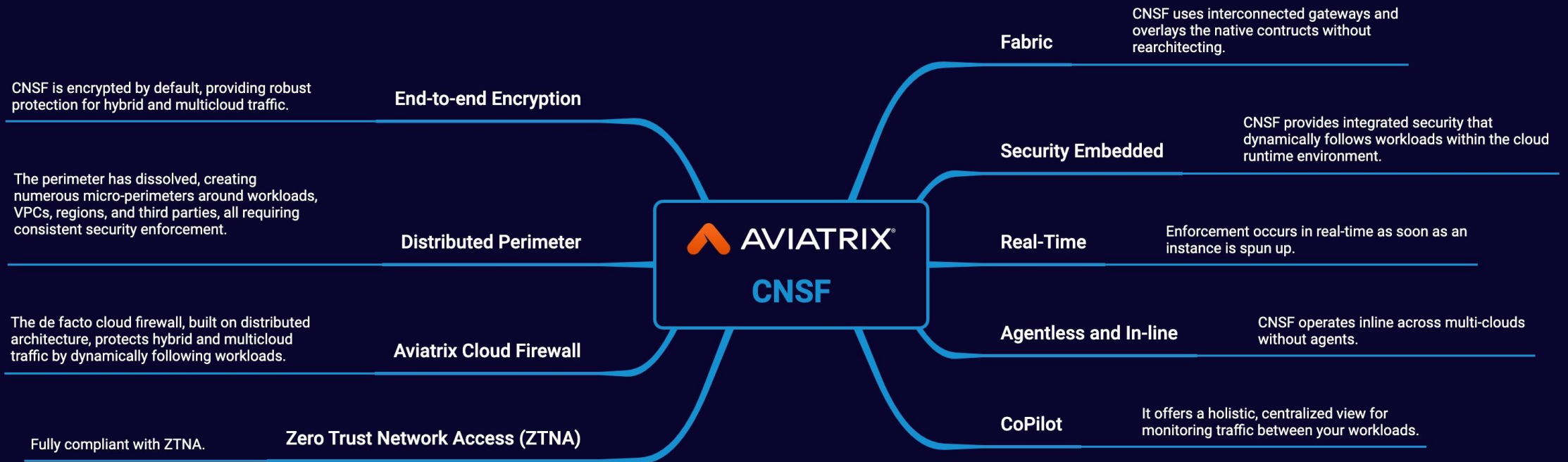
- **\$22M ransom paid in Bitcoin** — yet stolen data remains in the hands of threat actors, signaling a failed containment
- **190 million Americans exposed**, including full identity profiles (names, DOBs, SSNs, driver's license numbers) — the largest healthcare breach in U.S. history
- **Nationwide halt in claims processing** disrupted patient care and provider payments for weeks — forcing Congressional intervention and federal investigation
- **\$3.96B in damages reported** — including \$3.09B in remediation and \$867M in operational losses, with long-tail legal and reputational fallout still unfolding

# The Solution – “Security From The Inside Out”

*CLOUD NATIVE SECURITY: EMBEDDED, NOT BOLTED ON*

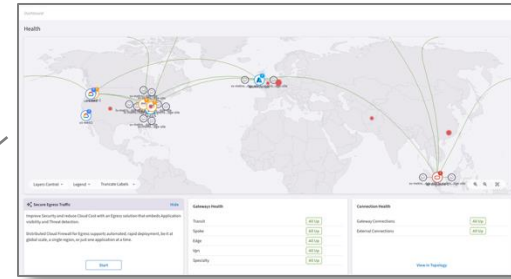
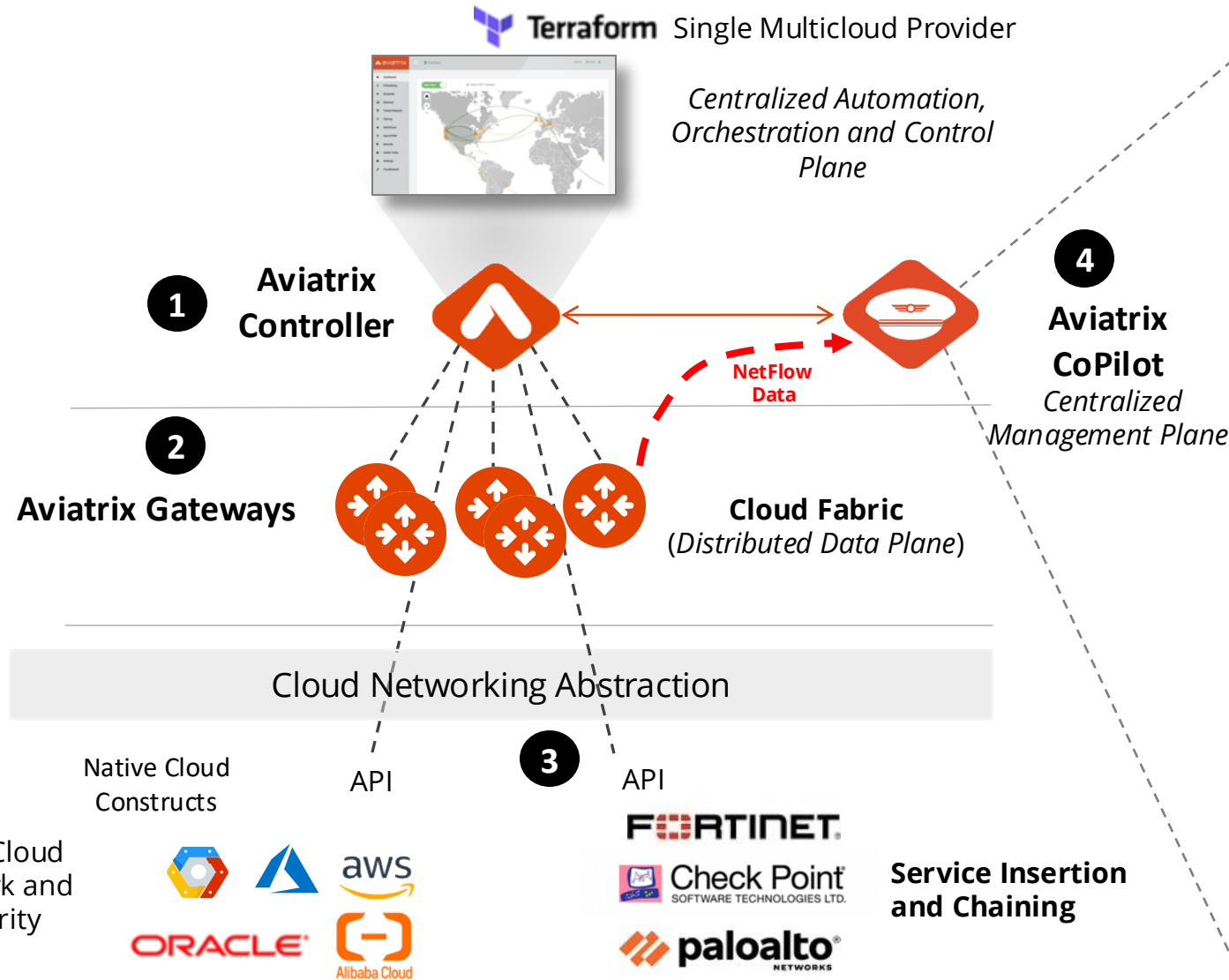


# CNSF – Characteristics

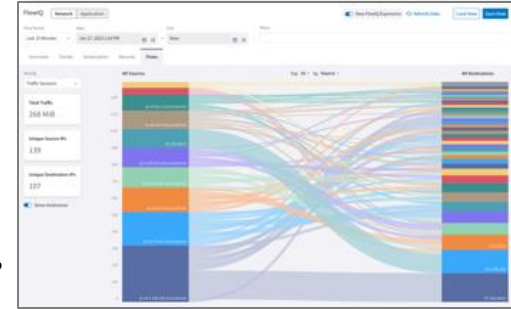




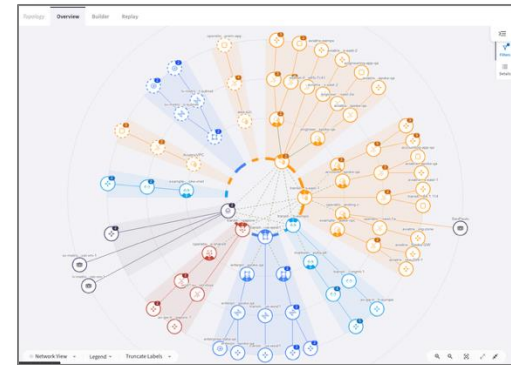
# Aviatrix Cloud Native Security Fabric (Enterprise)



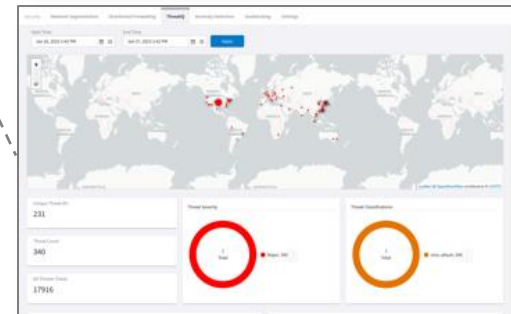
Multicloud  
Operational  
Visibility



FlowIQ  
Multicloud  
Traffic Flow  
Analysis



Multicloud  
Dynamic  
Topology  
Mapping

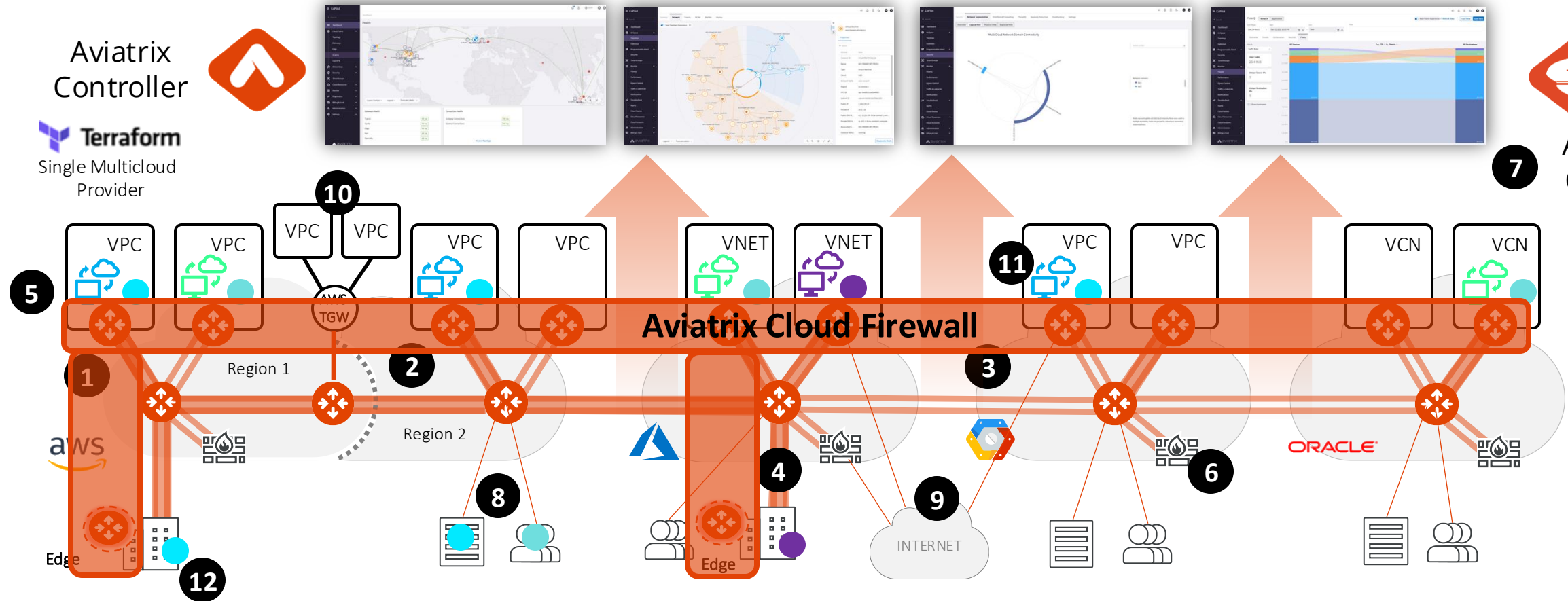


ThreatIQ

# Aviatrix – Characteristics of the Cloud Native Security Fabric (CNSF)



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



Next: Walkthrough of CoPilot UI