AWS re:Invent

ENT306-R

Getting hands on with VMware Cloud on AWS and native AWS service integrations

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AWS re:Invent

aws

Workshop agenda

VMware Cloud on AWS

Hands-on workshop

Resources

Related breakouts

ENT318-R - [REPEAT] Building hybrid cloud architectures with VMware and AWS

ENT212-S - Transform your business with the VMware & AWS hybrid cloud

NET334-R - [REPEAT] Designing hybrid connectivity for VMware Cloud on AWS

CON332-S - Extreme infrastructure automation with Wavefront by VMware

19 different sessions – Breakouts, Builders Sessions, Chalk Talk, Partner Presentations

Search for "VMware" in the session catalog

VMware Cloud on AWS

AWS re: Invent

Innovation jointly engineered by VMware and AWS

Connectivity

AWS Direct Connect

High availability and reliability
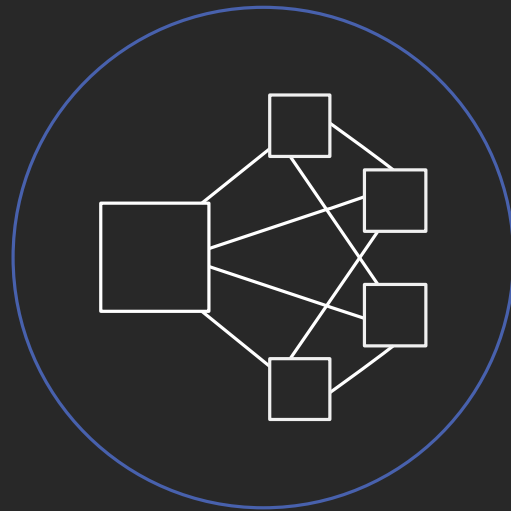
Stretch cluster

Security

Distributed firewall
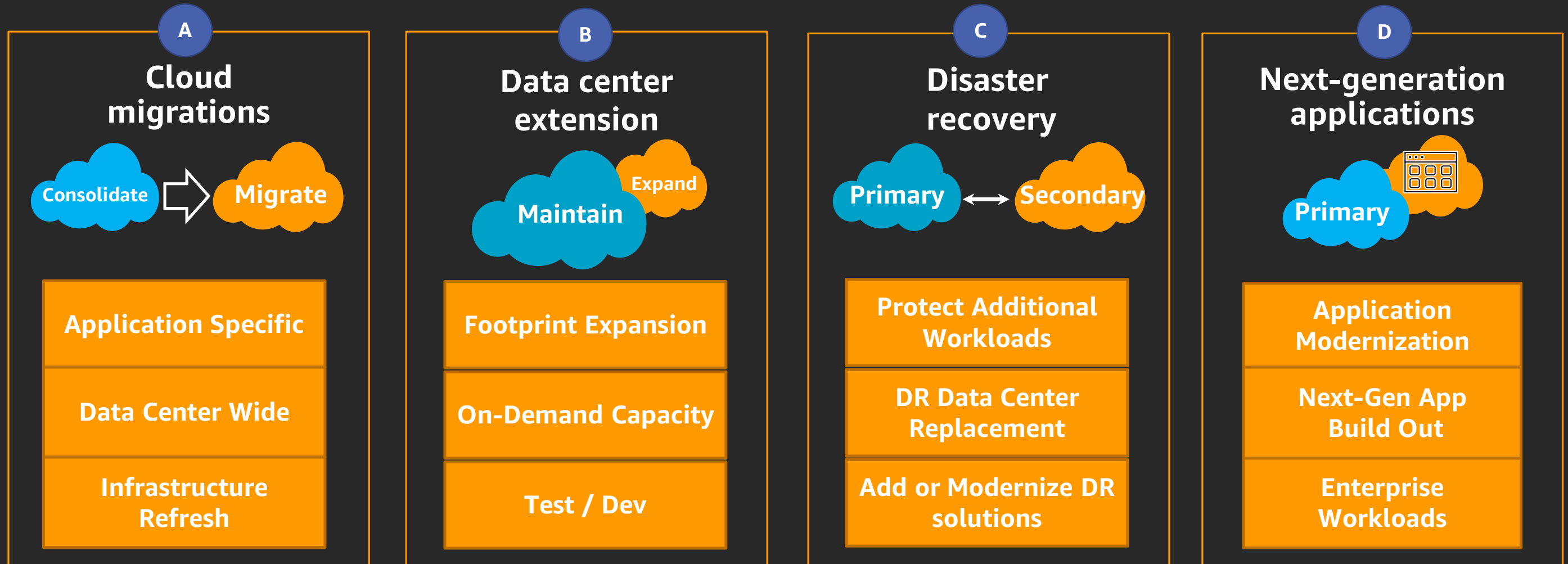
Storage

vSAN with instance store and Amazon EBS

Integration

Access to AWS services
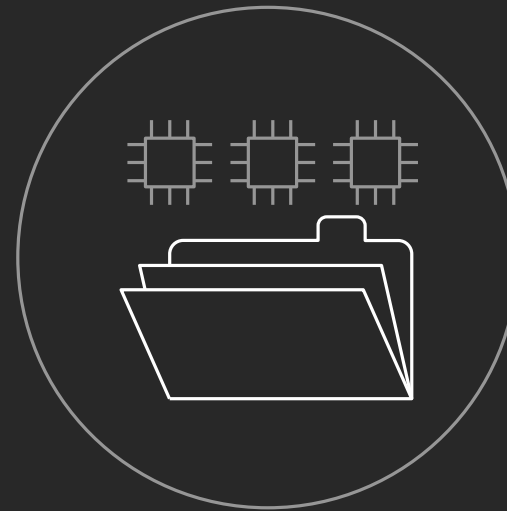
VMware Cloud on AWS – Use cases

A · **Cloud migrations**

Consolidate → Migrate

| Application Specific |
| Data Center Wide |
| Infrastructure Refresh |

B · **Data center extension**

Maintain / Expand

| Footprint Expansion |
| On-Demand Capacity |
| Test / Dev |

C · **Disaster recovery**

Primary ↔ Secondary

| Protect Additional Workloads |
| DR Data Center Replacement |
| Add or Modernize DR solutions |

D · **Next-generation applications**

Primary

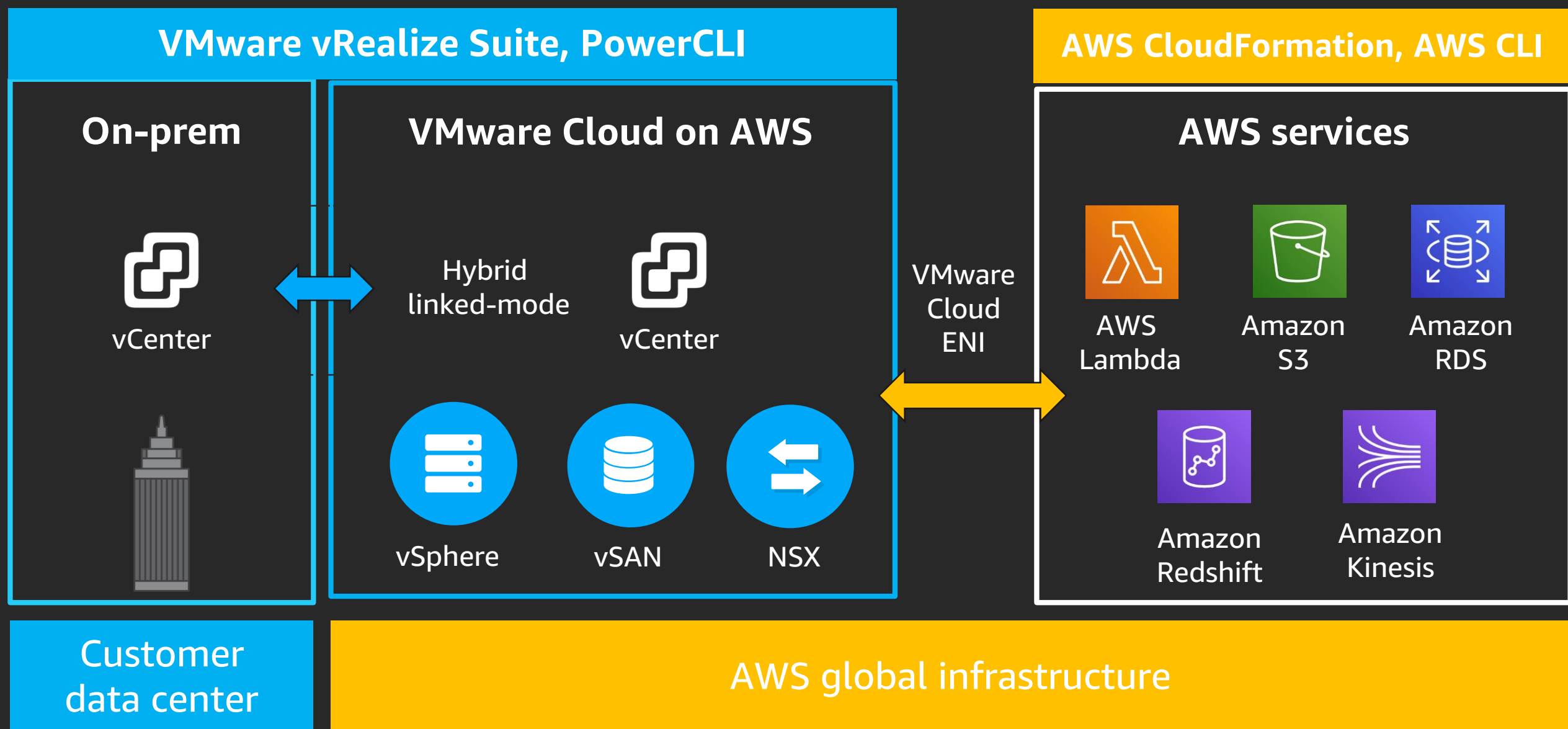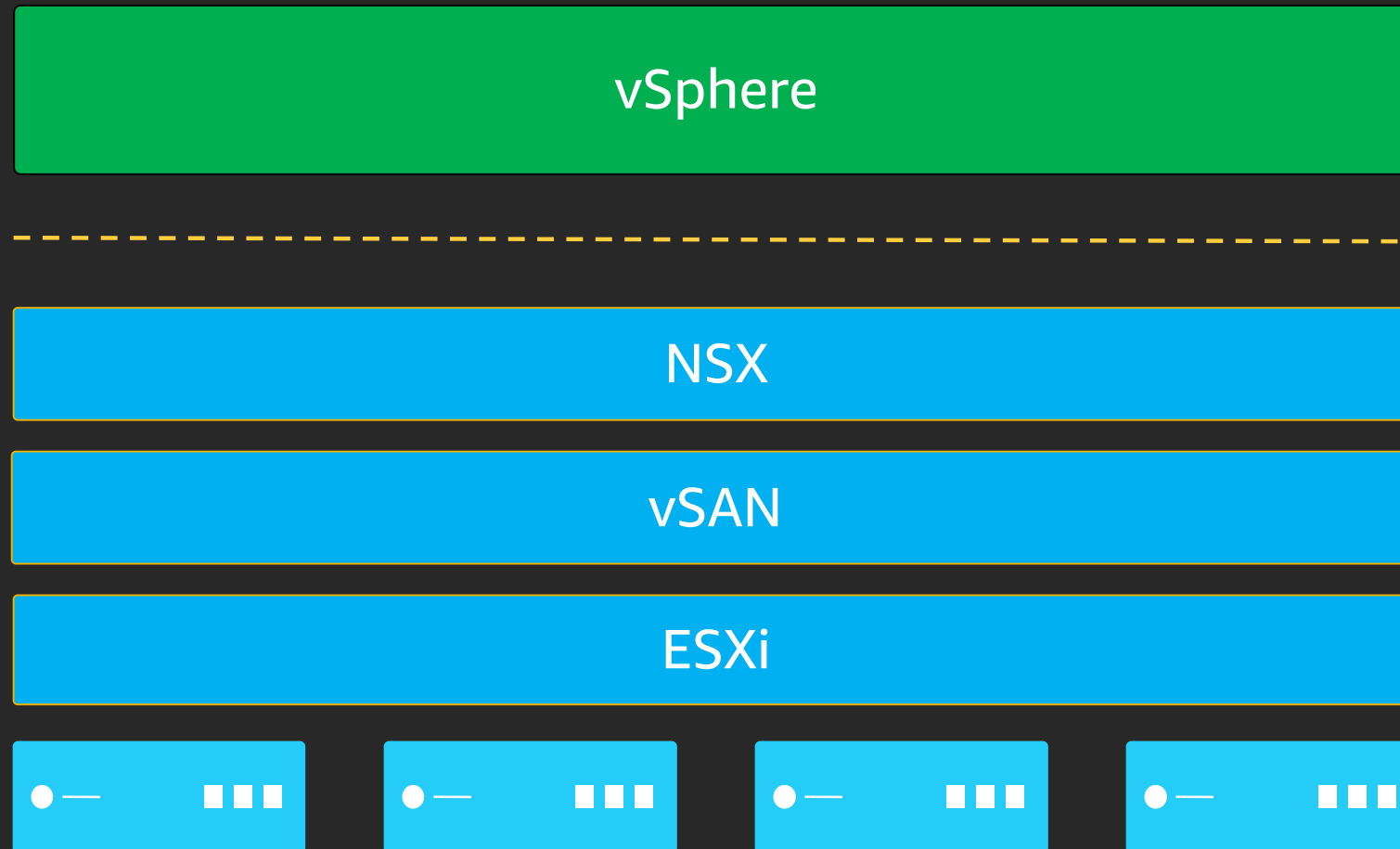| Application Modernization |
| Next-Gen App Build Out |
| Enterprise Workloads |

← Customer decides and places workloads between on-premises and AWS →

Hybrid and integrated connectivity

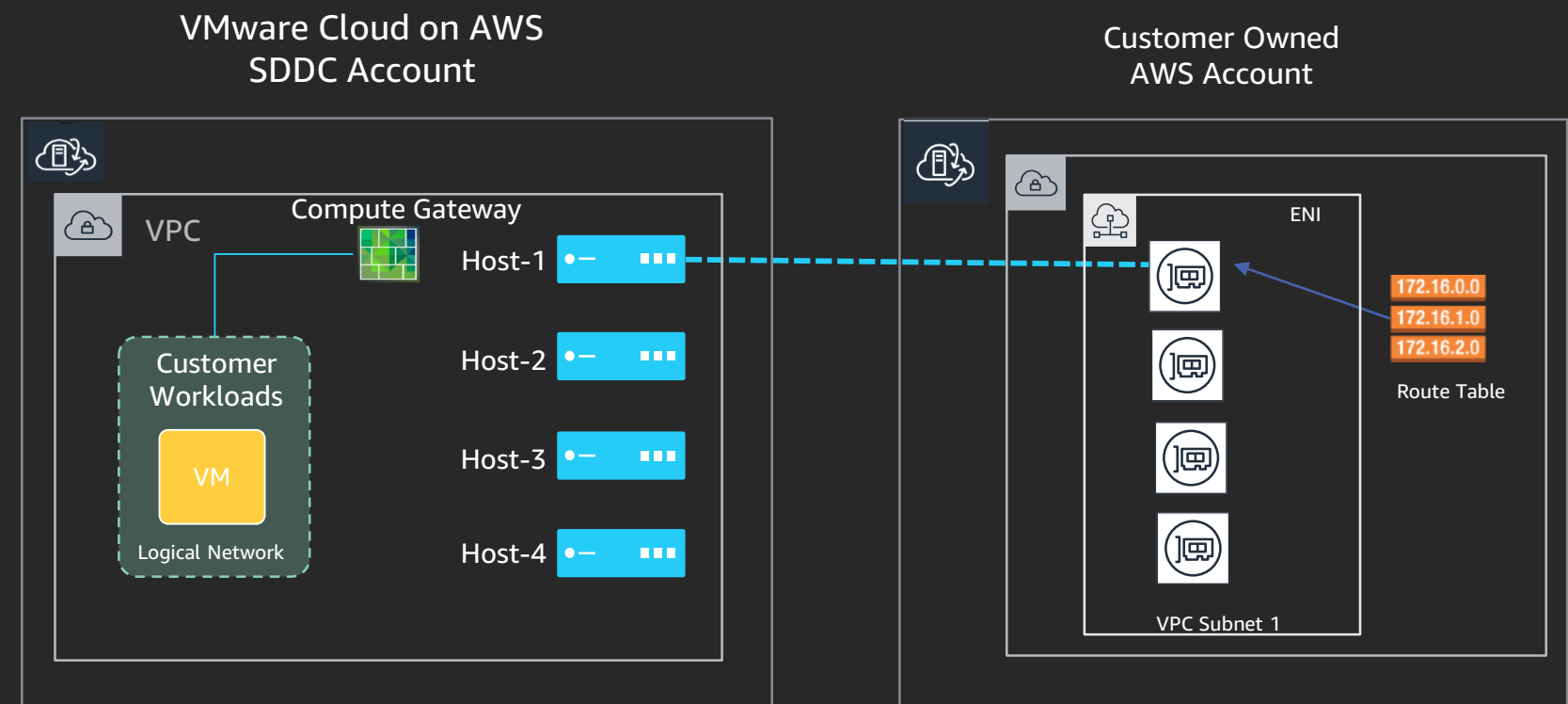# VMware Cloud on AWS – Components

Software defined data center

vSphere

- -

NSX

vSAN

ESXi

VMware Cloud on AWS – Components & features

Virtualization	vSphere 6.5+, Hybrid linked-mode, Elastic DRS	
Security	IKEv1 & IKEv2, DFW, IPFIX, Port Mirroring, Micro-segmentation	
Networking	Backed by NSX-T – includes advanced networking features; micro-segmentation, DFW, IPSec VPN, DX and more	
	I3.metal	R5.metal
Storage	All Flash NVMe instance store based vSAN 15 TB	EBS (gp2) backed VSAN up to 35 TB with EBS
Compute	2 CPU Sockets 36 CPU Cores [customizable] 512 GiB RAM 25 GB ENA	2 CPU Sockets 48 CPU Cores [customizable] 768 GiB RAM 25 GB ENA

Integration with AWS services

- Integrate with 160+ AWS services

- Enabled via VMware Cloud ENI (Elastic Network Interface)

- High-bandwidth, low-latency, highly available network connection

- Run VPC endpoints for private connection from VPC to AWS services

VMware Cloud on AWS
SDDC Account

Customer Owned
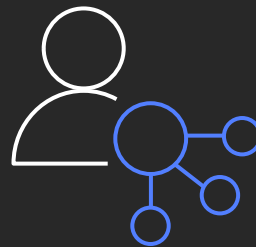AWS Account

VPC

Compute Gateway

Host-1
Host-2
Host-3
Host-4

Customer
Workloads

VM

Logical Network

ENI

172.16.0.0
172.16.1.0
172.16.2.0

Route Table

VPC Subnet 1

Hands-on workshop

Workshop modules

VMware Cloud on AWS

Security

Monitoring

Data resilience

Analytics

Module – Outcomes

Security

Improve security for VMware Cloud on AWS workloads using AWS services

Data resilience

Increase resiliency of your VMware Cloud on AWS workloads using AWS services

Monitoring

Add monitoring and operational insight to your VMware Cloud on AWS workloads using AWS services

Analytics
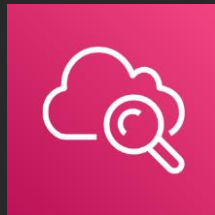
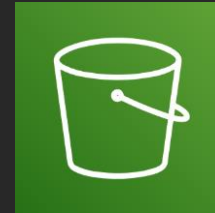Do analytics and gain insights from your data on VMware Cloud on AWS

Module 1 – Security

Users

Region

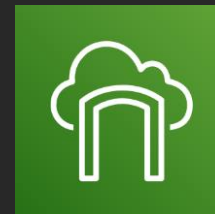Amazon VPC

Internet Gateway

AZ-A

AZ-B

Elastic Load Balancing

AWS WAF

1

Elastic Network Interface

VMC on AWS SDDC

AZ-A

Tier-0

Customer Gateway

VM

2

10.200.NNN.10/24
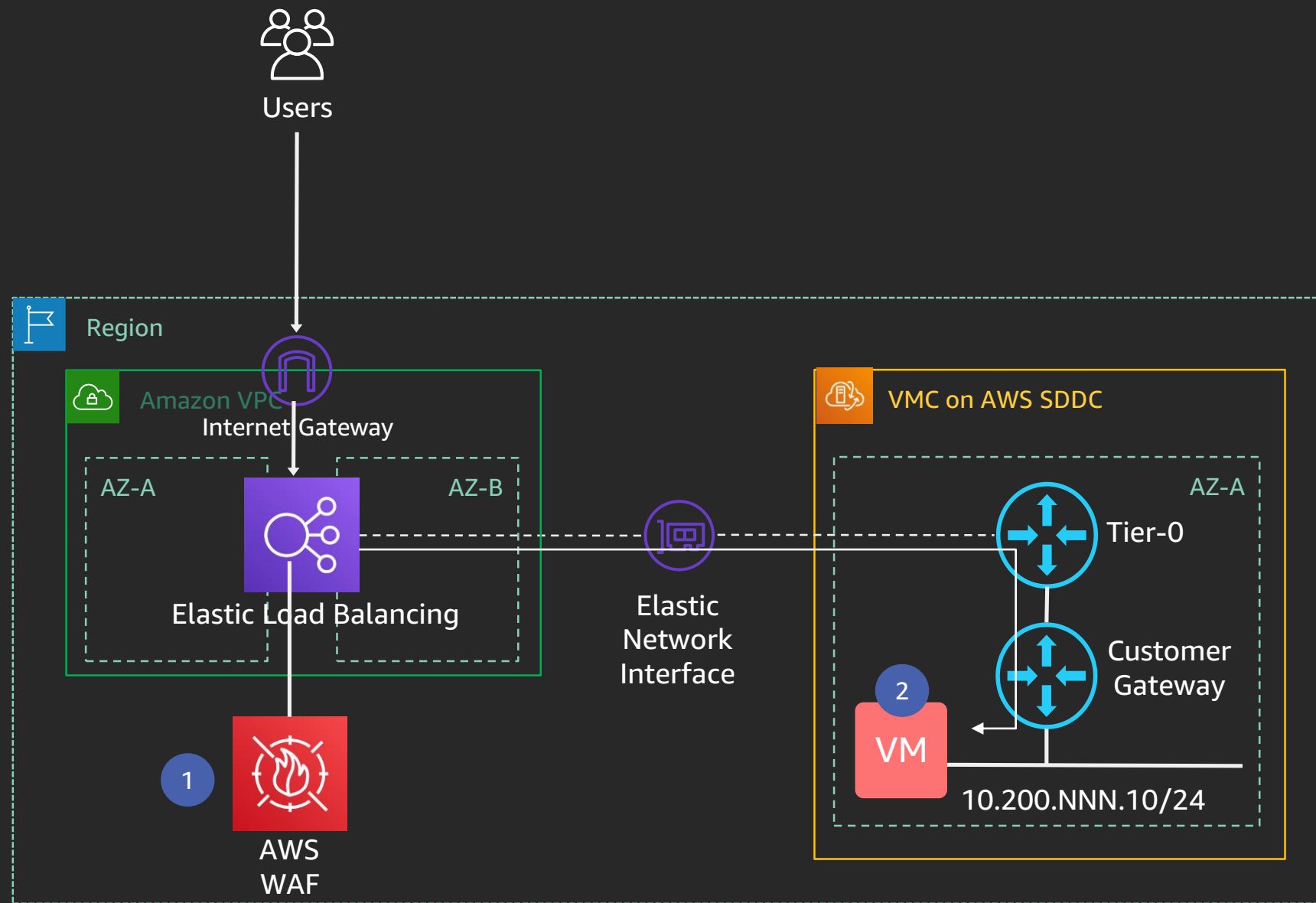
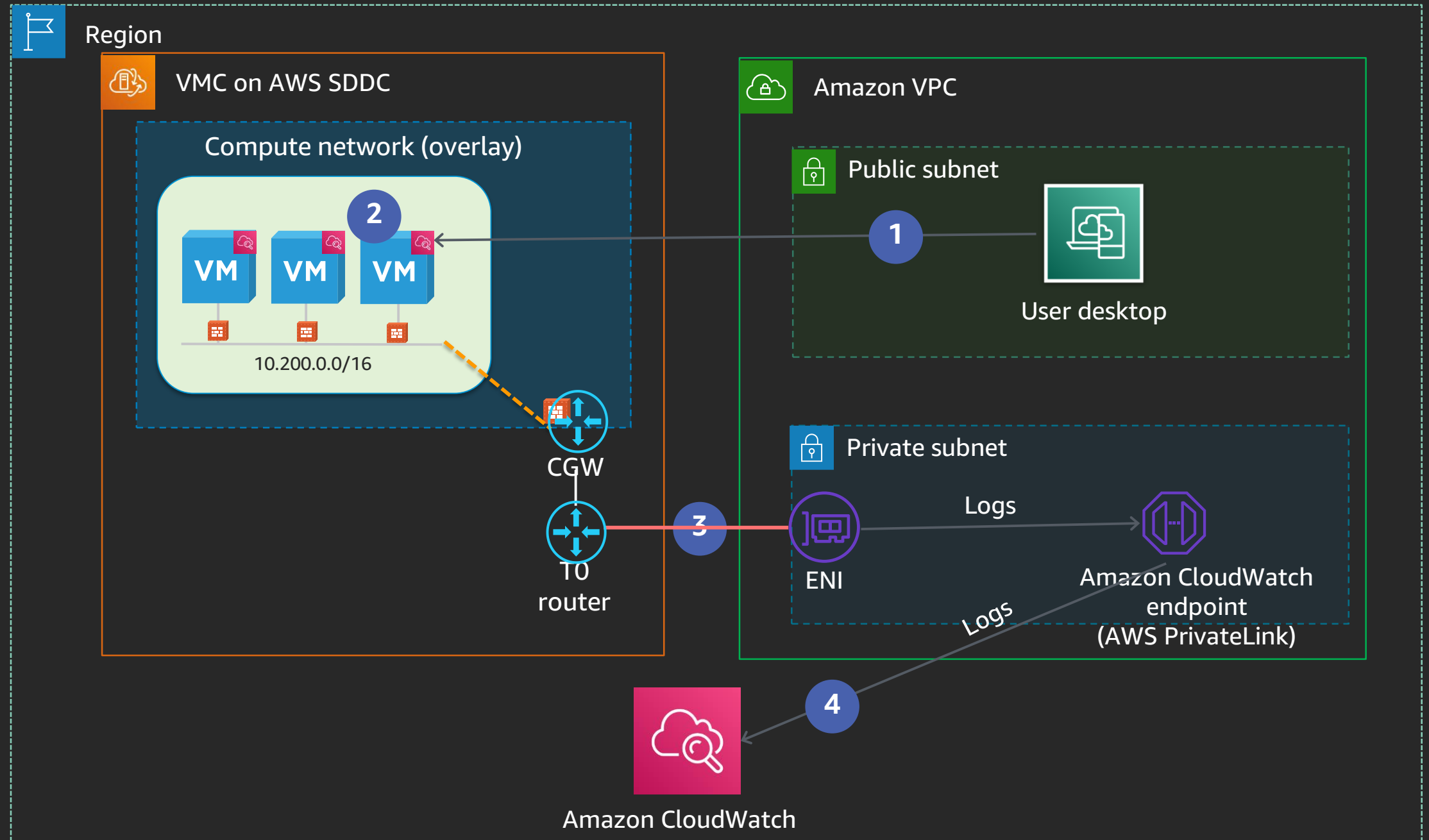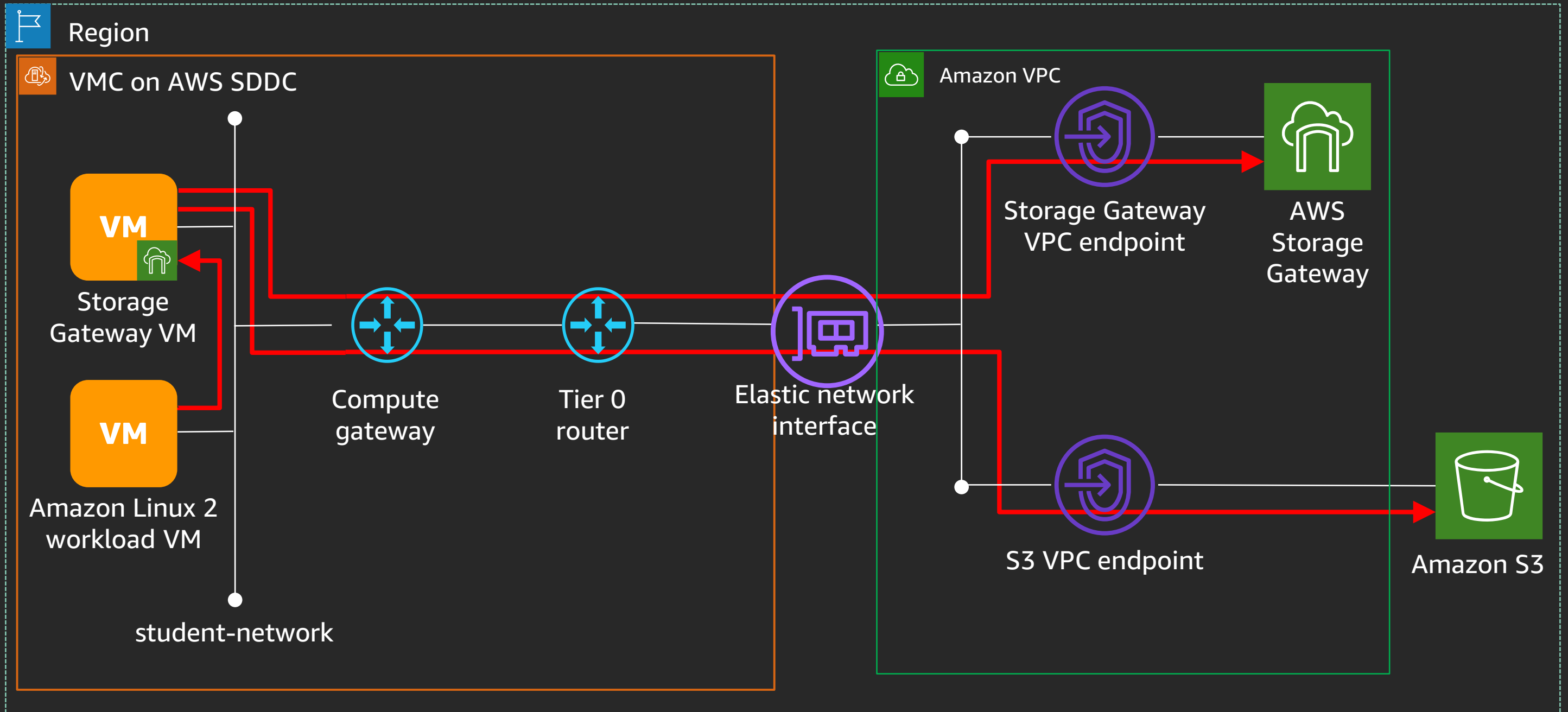**1** Elastic Load Balancing service integrated with AWS WAF is deployed into the customer VPC

2 The protected web application (DVWA) is accessible only via Elastic Load Balancing and is located within the VMware Cloud on AWS environment
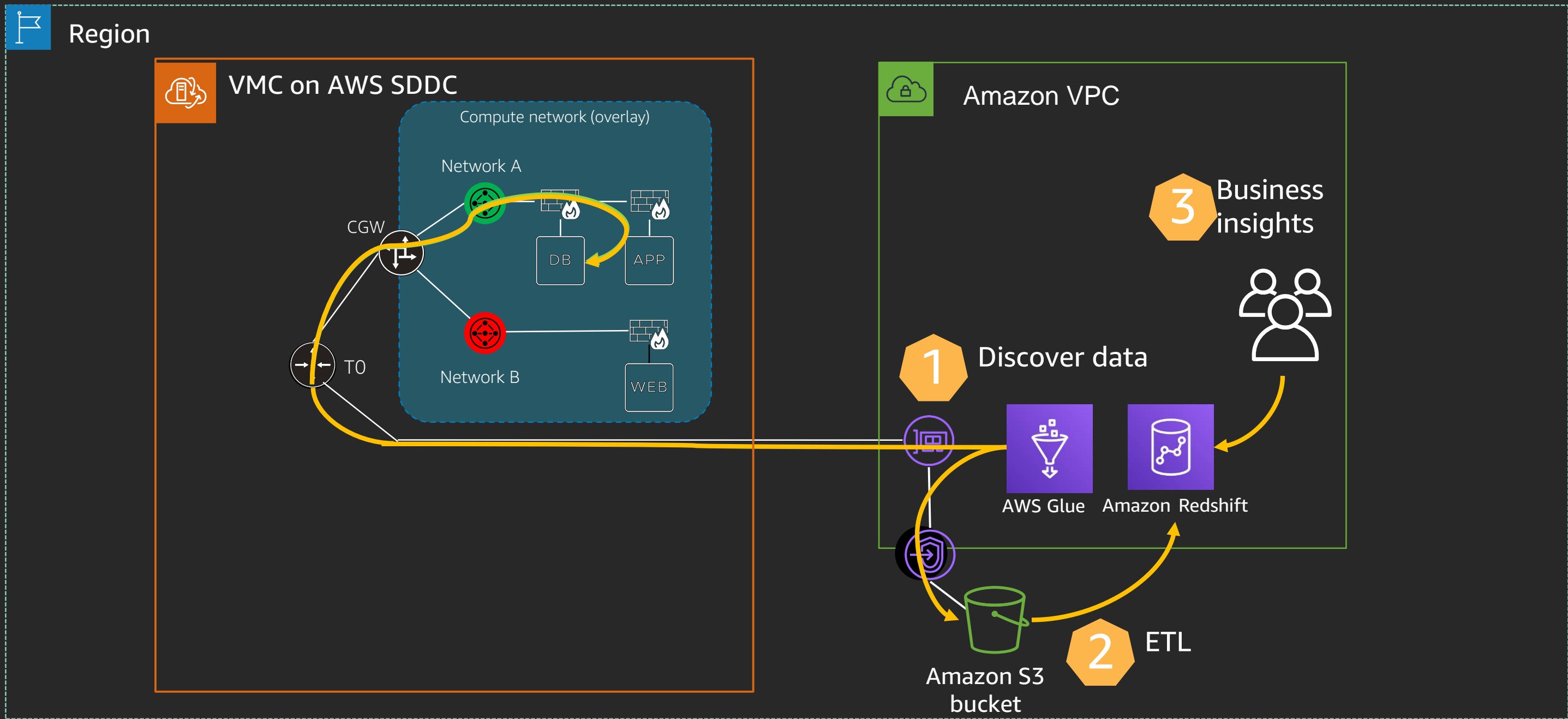
Module 2 – Monitoring

1. Web traffic is directed to workloads hosted on VMware Cloud on AWS

2. Based on configuration in config.json, the Amazon CloudWatch agent captures specific log files from the app VM

3. Logs from each VM are sent via the elastic network interface (ENI) connection to the Amazon CloudWatch endpoint in the connected VPC over private IP space

4. Amazon CloudWatch dashboards are automatically updated with the latest logs / metrics

Region

VMC on AWS SDDC

Compute network (overlay)

2

VM   VM   VM

10.200.0.0/16

CGW

T0 router

Amazon VPC

Public subnet

1

User desktop

Private subnet

Logs

ENI

Amazon CloudWatch endpoint (AWS PrivateLink)

Logs

3

4

Amazon CloudWatch

Module 3 – Data resilience

Module 4 – Analytics

Workshop logistics

- Each module is independent
  - Start in any order
  - 25 minutes recommended for each module
- Analytics is an advanced module
  - Recommendation: Work other modules first. Keep it towards the end
- If you run into issues, talk to the AWS session support

Resources

aws

Resources

- https://aws.amazon.com/vmware/

- https://cloud.vmware.com/vmc-aws

Email us at aws-vmware-cloud@amazon.com

AWS Training and Certification for the enterprise

Resources to help your organization build cloud skills and achieve business objectives

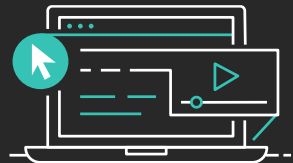Cost savings (TCO)

Staff productivity
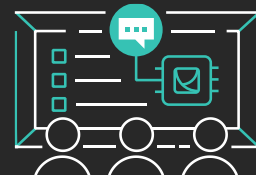
Operational resilience

Business agility

Comprehensive skill development plan for broad cloud fluency

Digital training

Classroom training

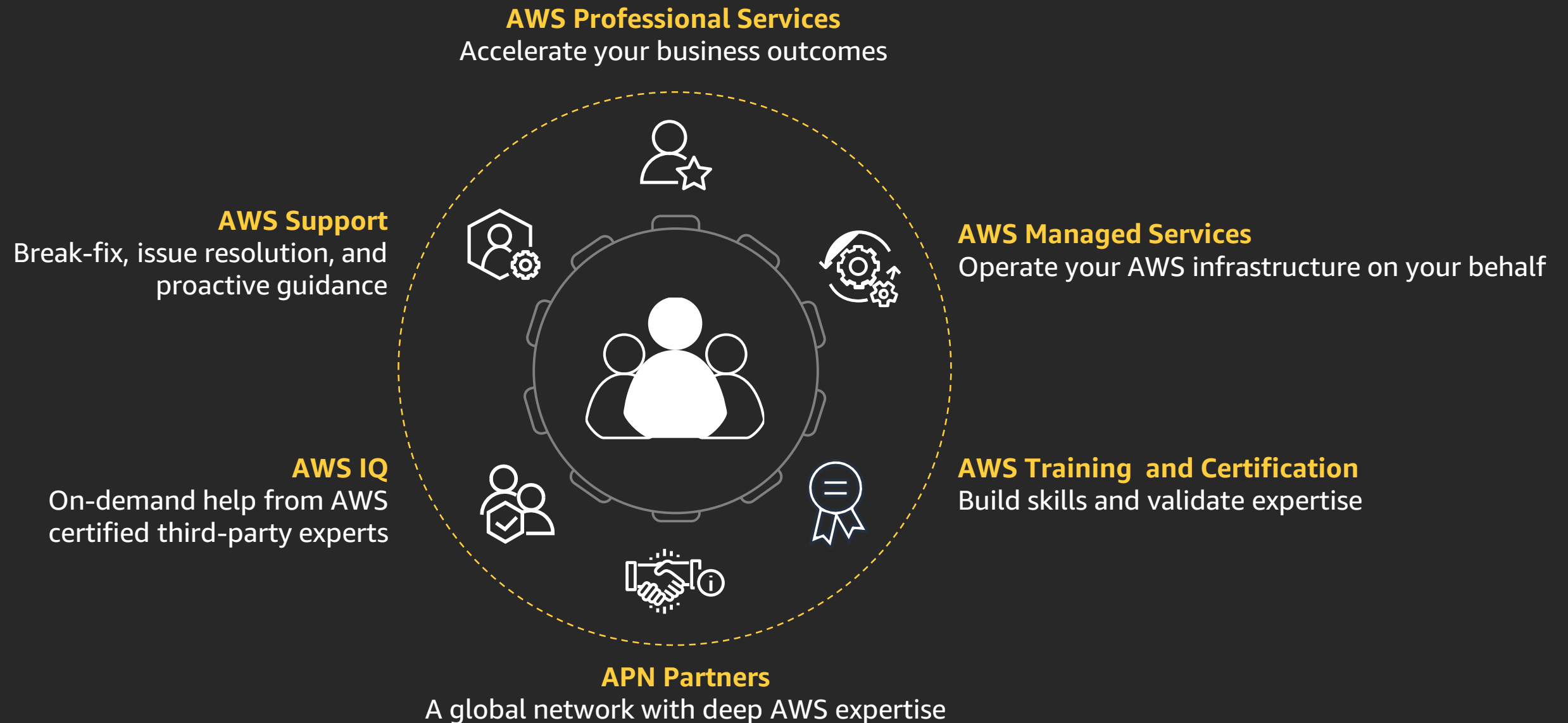AWS Certification

Enterprise resources

Talent pipeline

Visit aws.amazon.com/training/enterprise

aws training and certification

AWS customer enablement
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AWS Support
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AWS Managed Services
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AWS IQ
On-demand help from AWS certified third-party experts

AWS Training and Certification
Build skills and validate expertise

APN Partners
A global network with deep AWS expertise

Thank you!

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