
AWS
re:Invent

ENT309

Architectural patterns & best practices for running workloads on VMware Cloud on AWS

Aarthi Raju

Senior Manager, Solutions Architecture
AWS

AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

The four tenets for success

Key architectural considerations and design principles

Lessons learned and best practices

Crucial questions to ask

Technical documentation and follow-up documentation

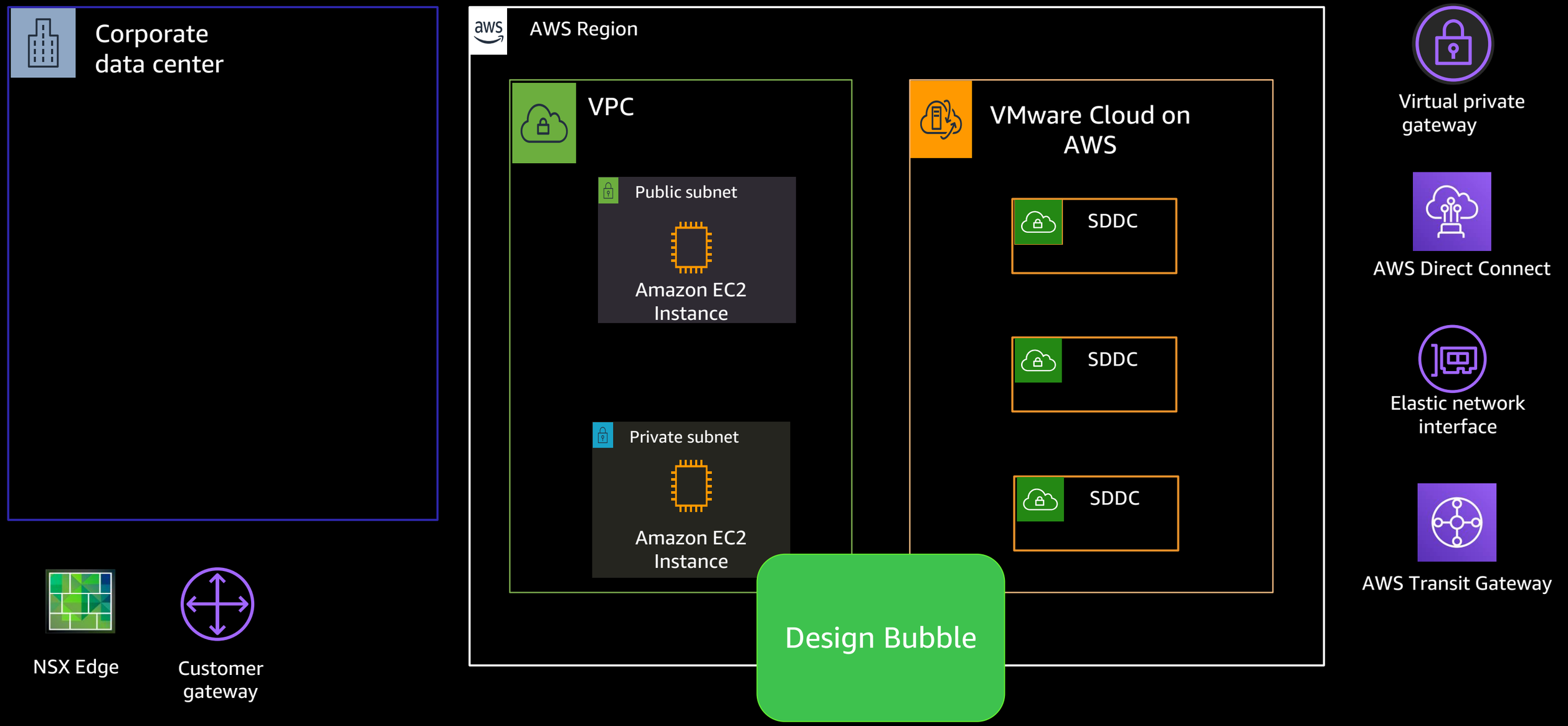


© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

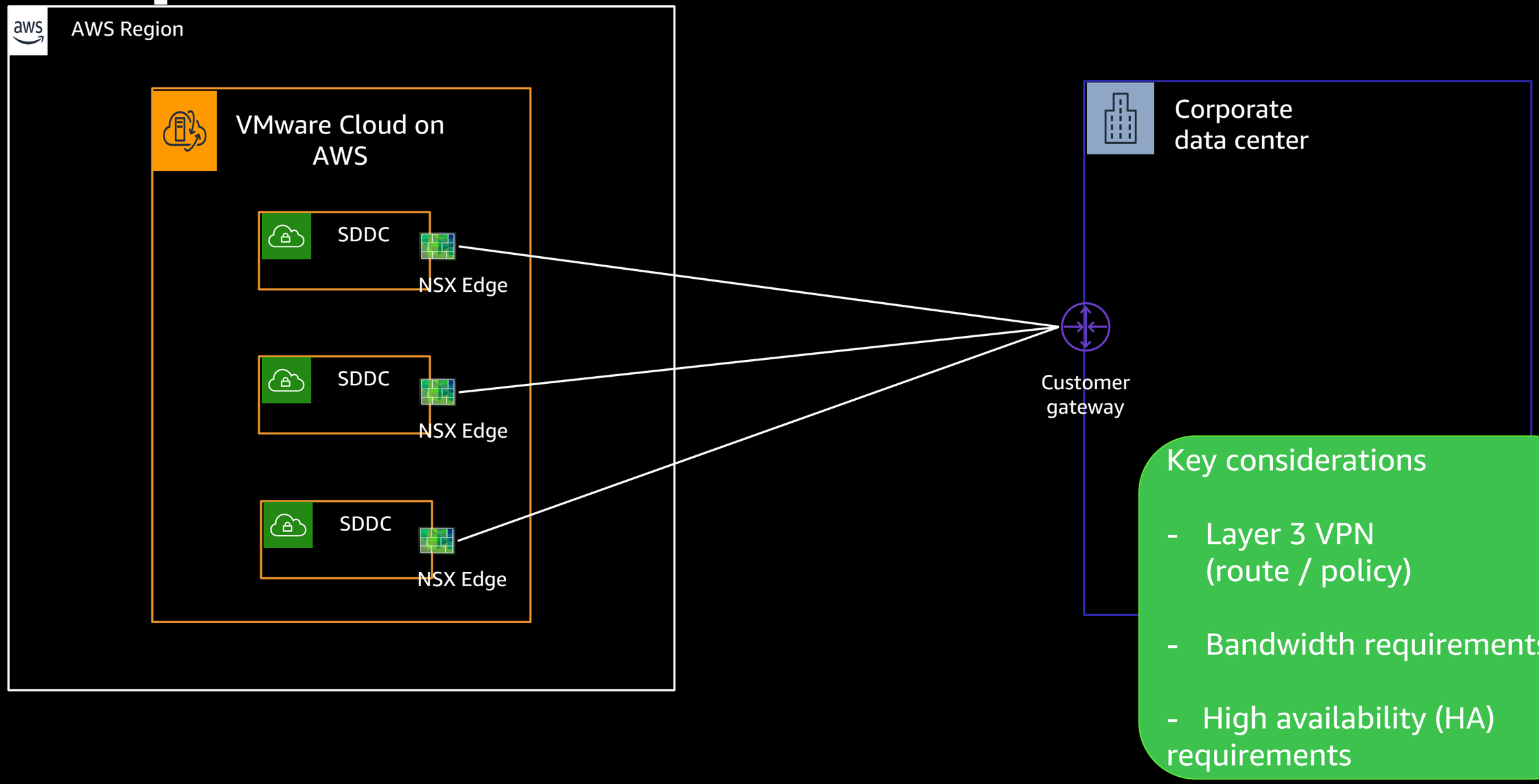
What network architecture is right for me?



© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.


Corporate data center
AWS Region
VPC
Public subnet
Amazon EC2 Instance
Private subnet
Amazon EC2 Instance
VMware Cloud on AWS
SDDC
SDDC
SDDC
Design Bubble
Virtual private gateway
AWS Direct Connect
Elastic network interface
AWS Transit Gateway
NSX Edge
Customer gateway

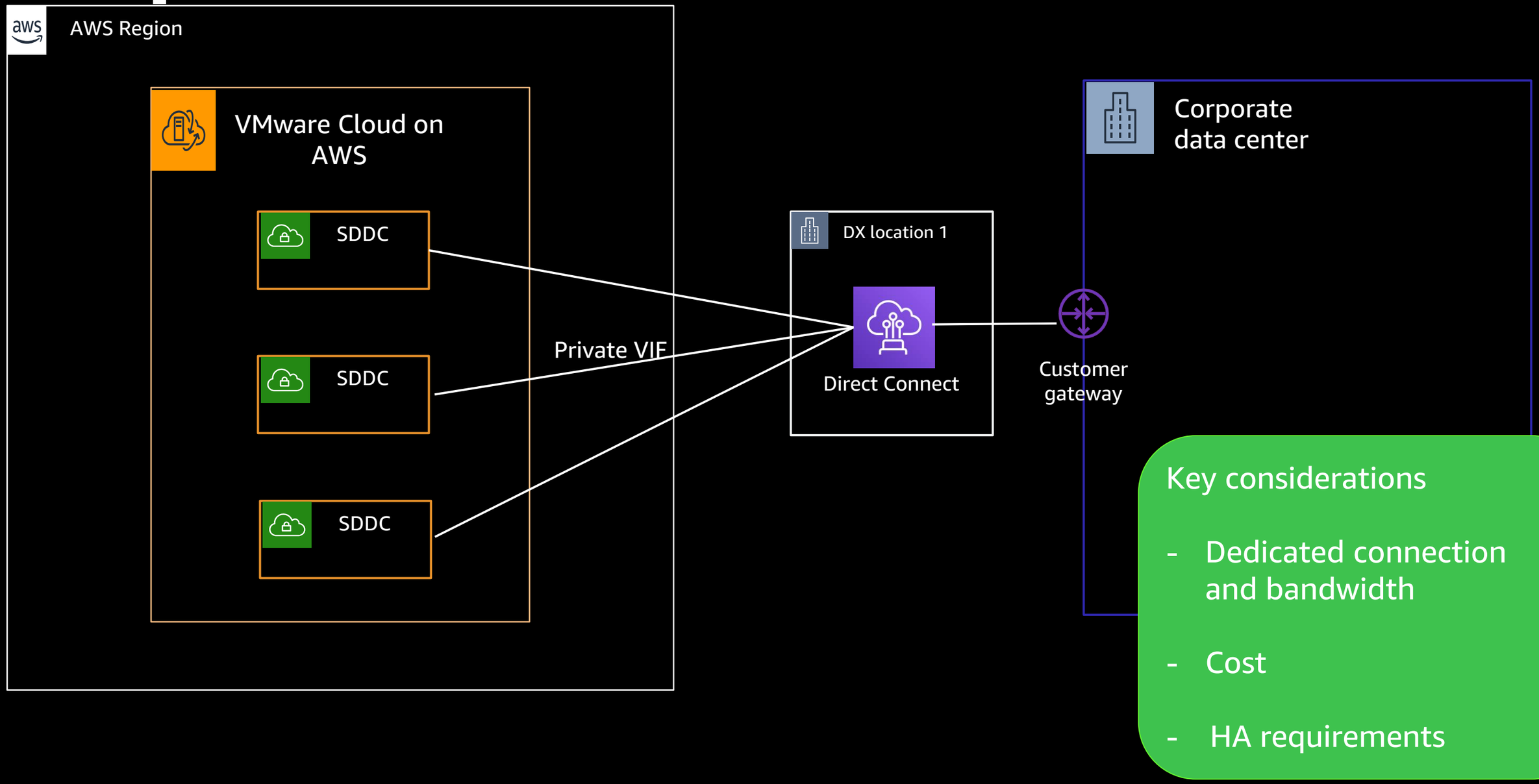
On-premises to SDDC



Key considerations

- Layer 3 VPN (route / policy)
- Bandwidth requirements
- High availability (HA) requirements

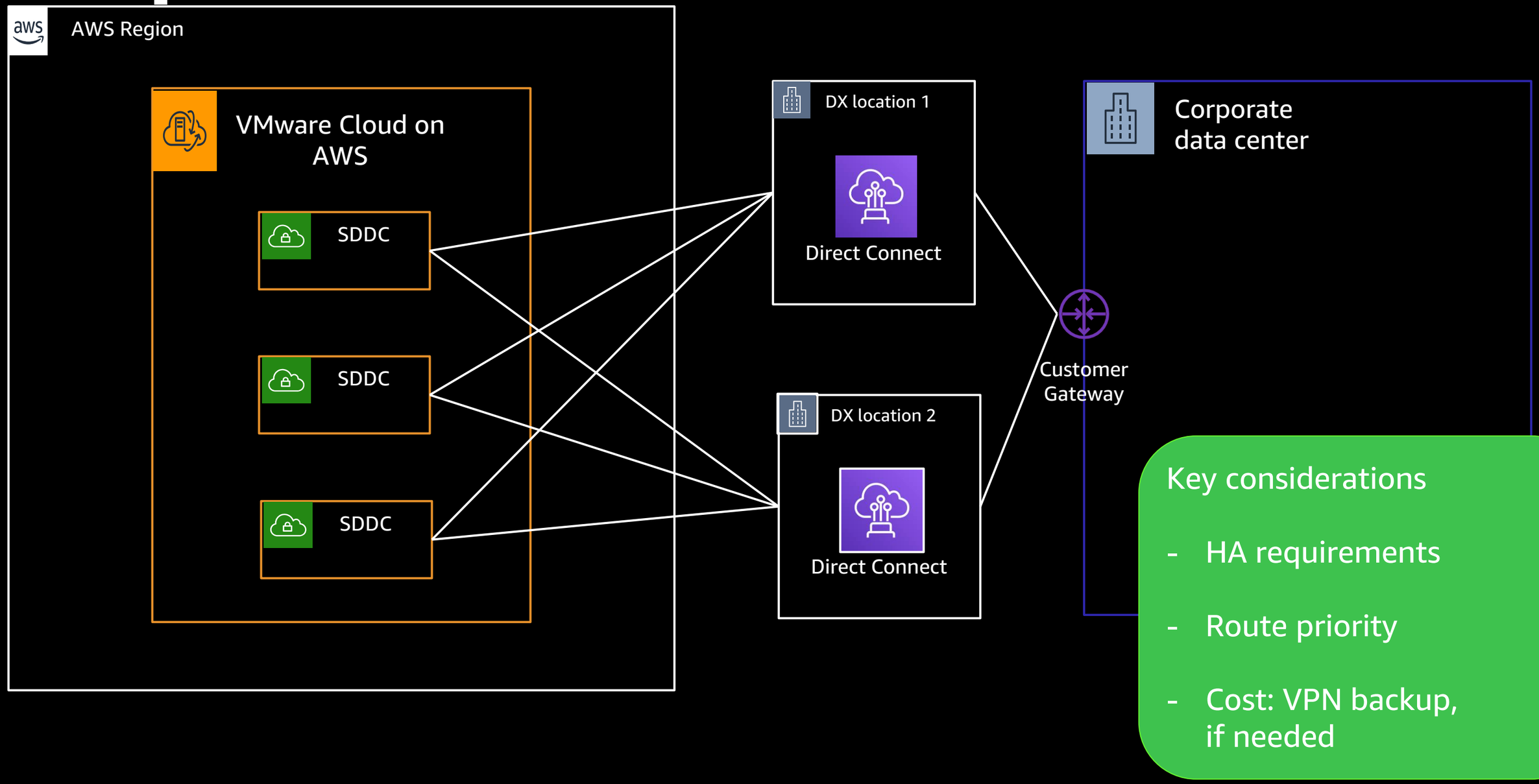
On-premises to SDDC



Key considerations

- Dedicated connection and bandwidth
- Cost
- HA requirements

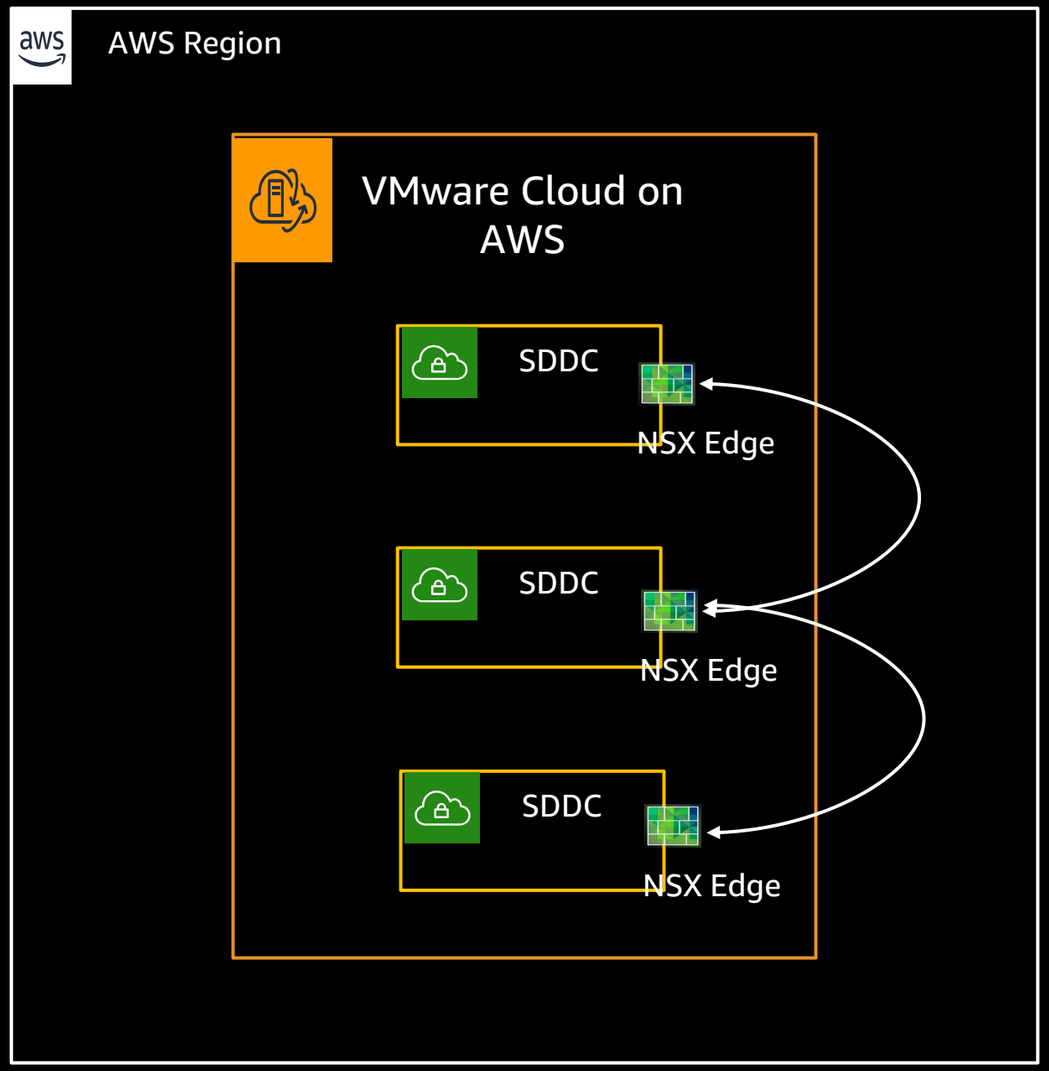
On-premises to SDDC



Key considerations

- HA requirements
- Route priority
- Cost: VPN backup, if needed

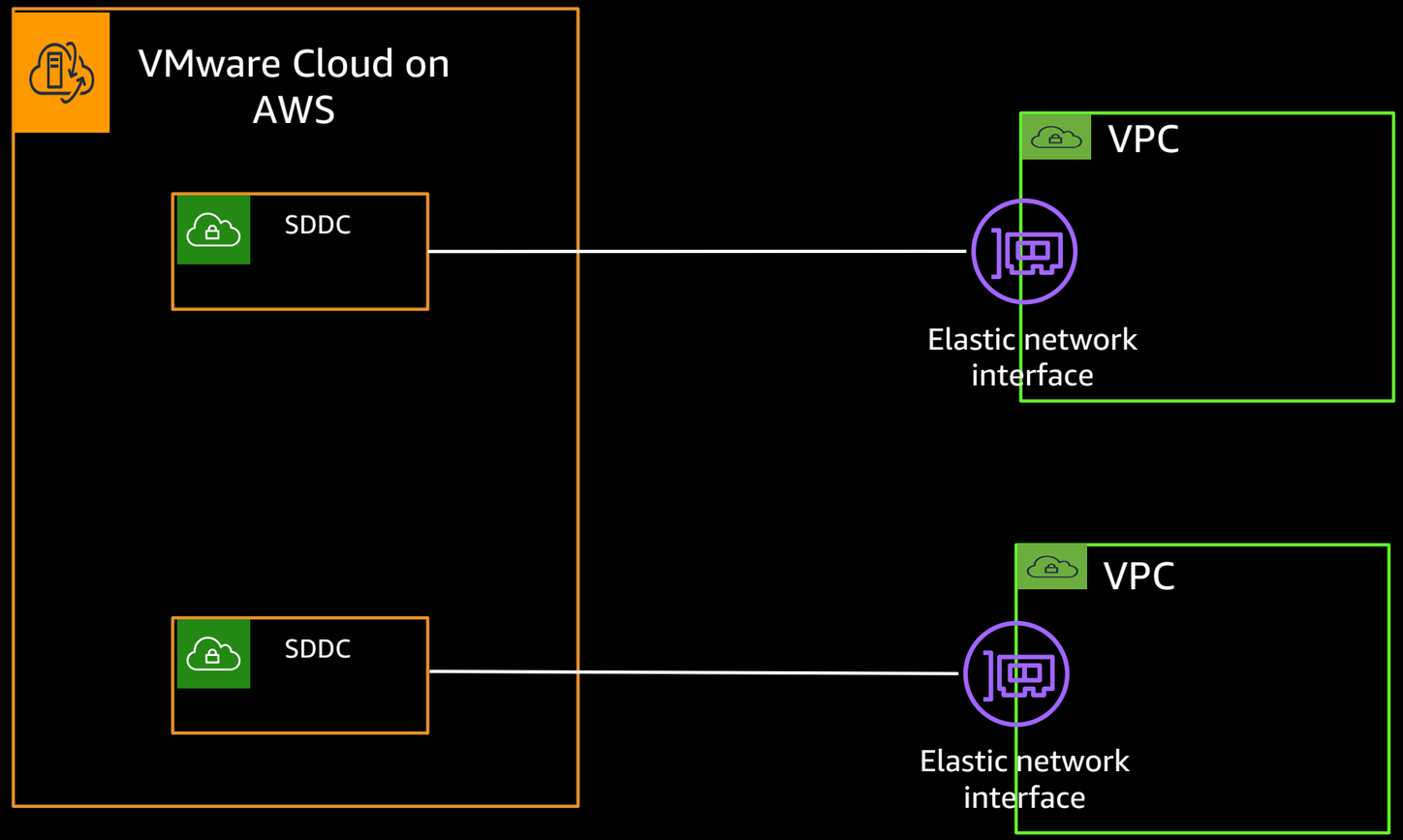
SDDC to SDDC



Key considerations

- L3 VPN
- Bandwidth
- Limits

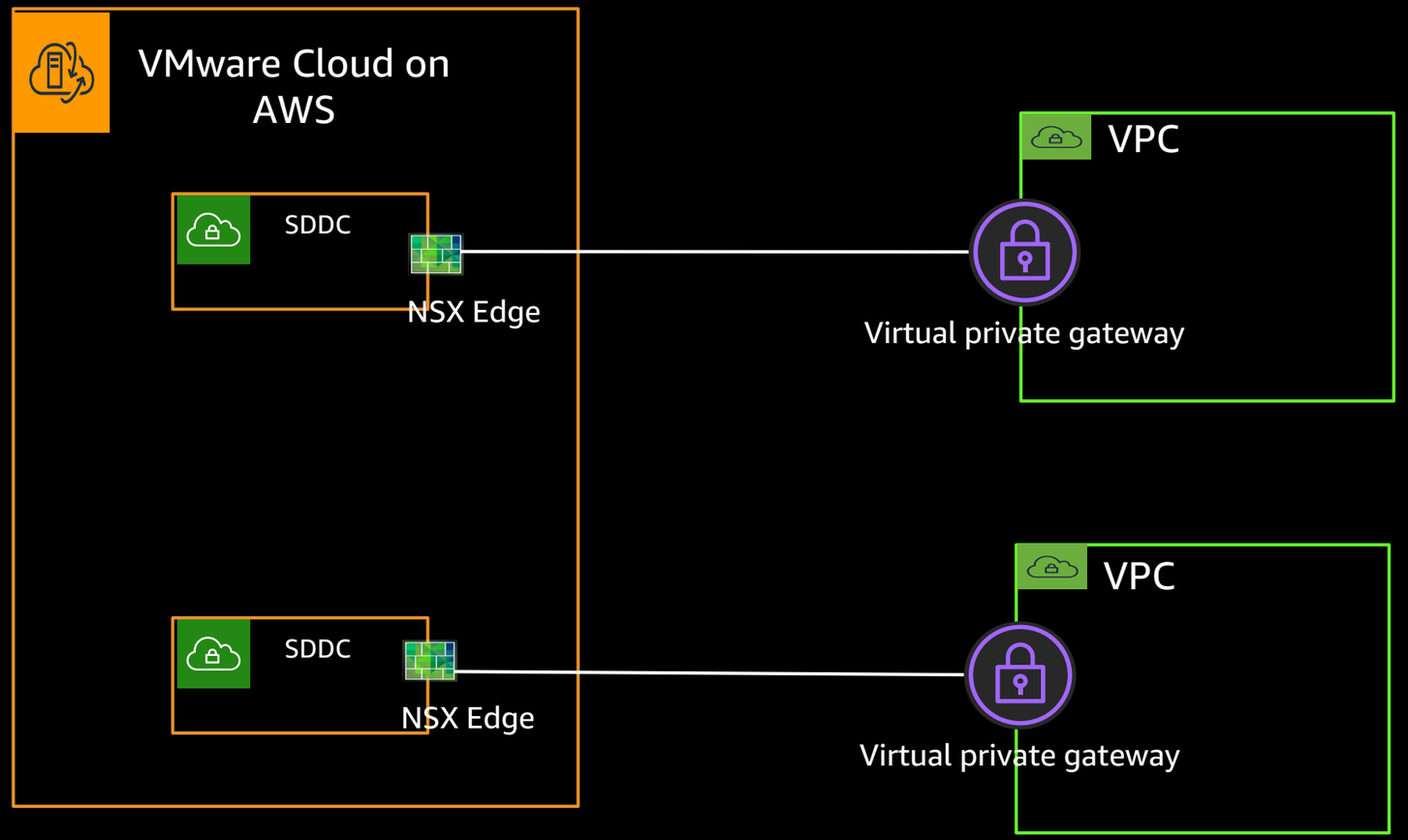
SDDC – customer VPC



Key considerations

- ENI connectivity
- AWS ENA
- Cost / scalability

SDDC – customer VPC



Key considerations

- VPN connectivity
- Bandwidth
- HA

Introducing VMware Transit Connect

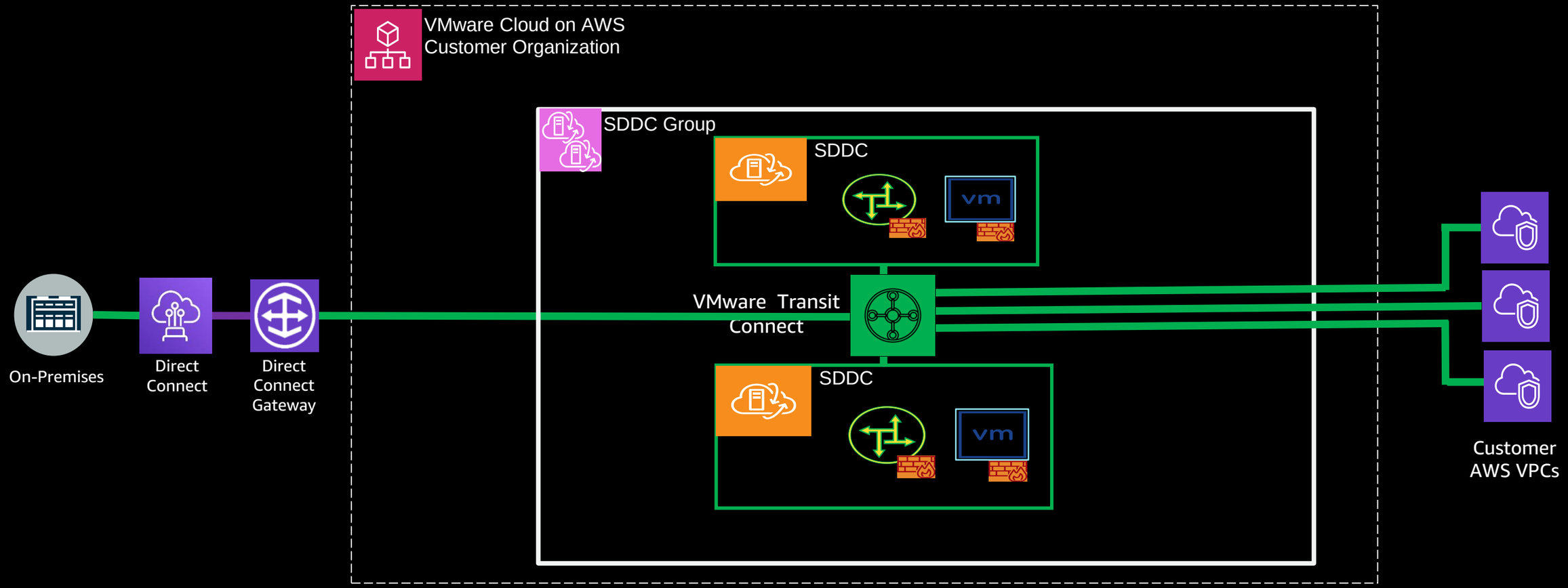


AWS re:Invent

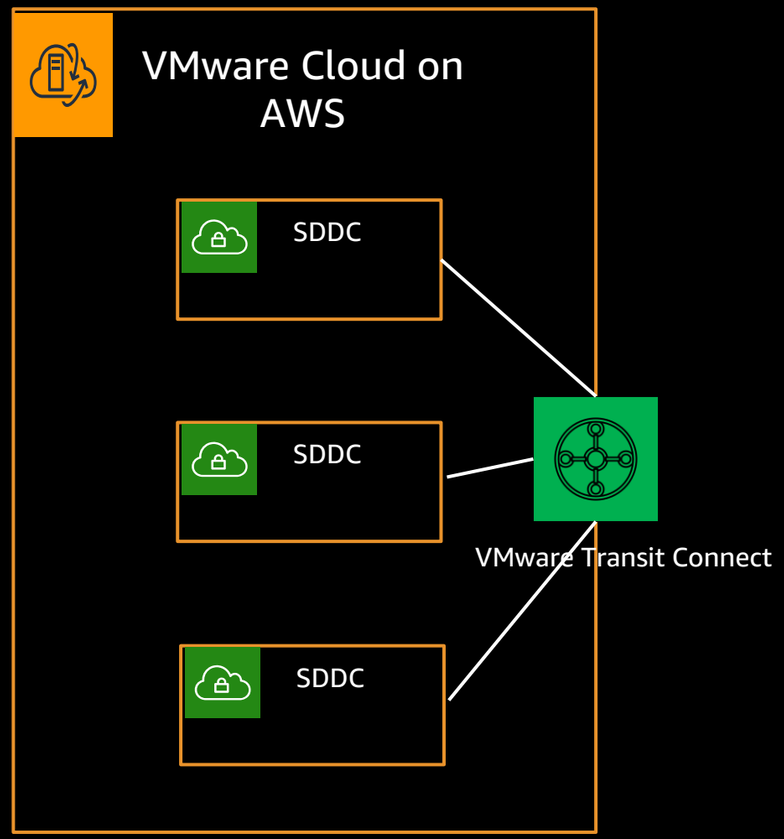
© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

VMware Transit Connect™

Simplifying multi-environment connectivity at scale



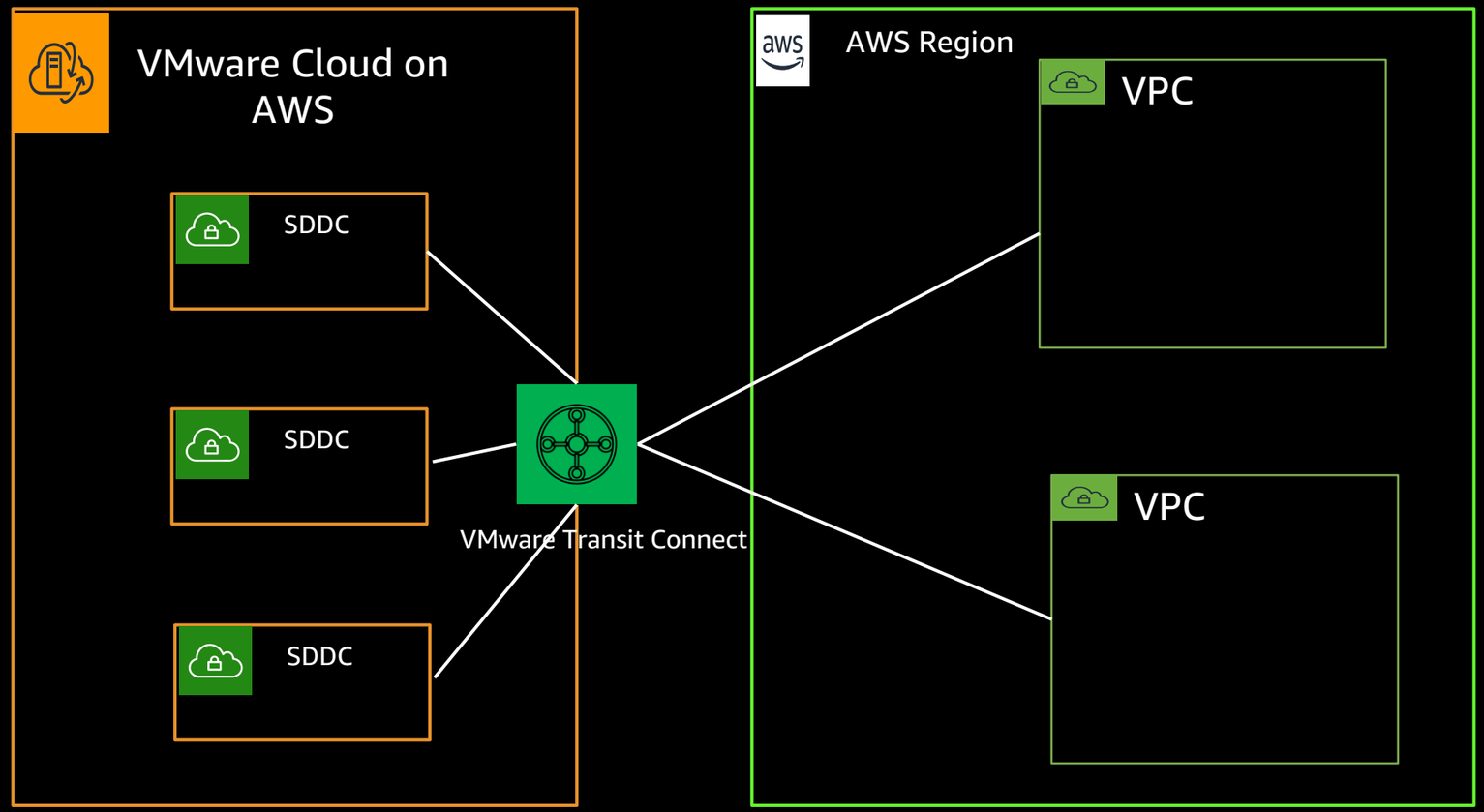
Bringing it all together



Key considerations

- Regional
- Managed by VMware
- SDDC groups

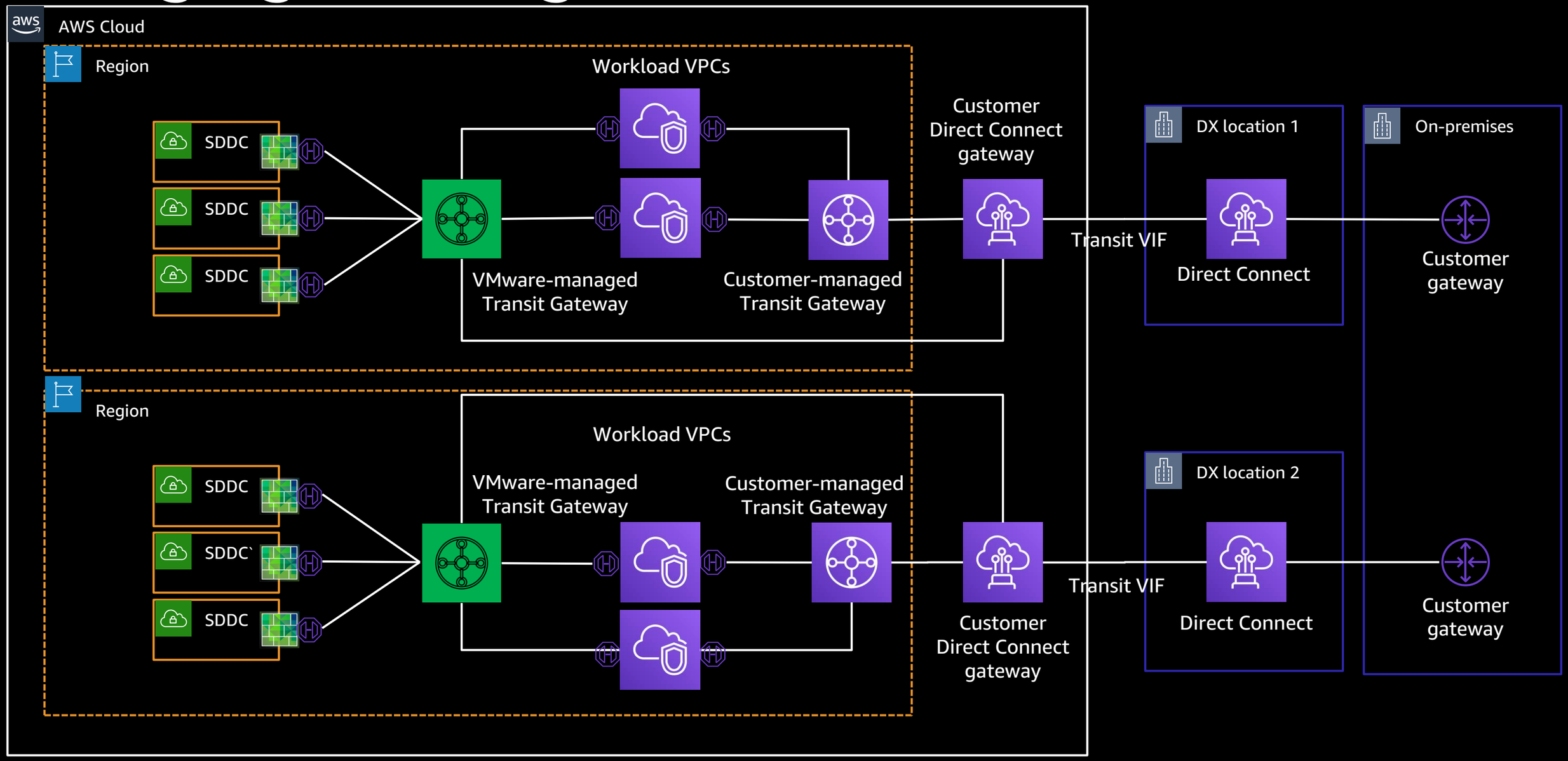
Bringing it all together



Key considerations

- Traffic patterns
- Scalability
- Regional

Bringing it all together

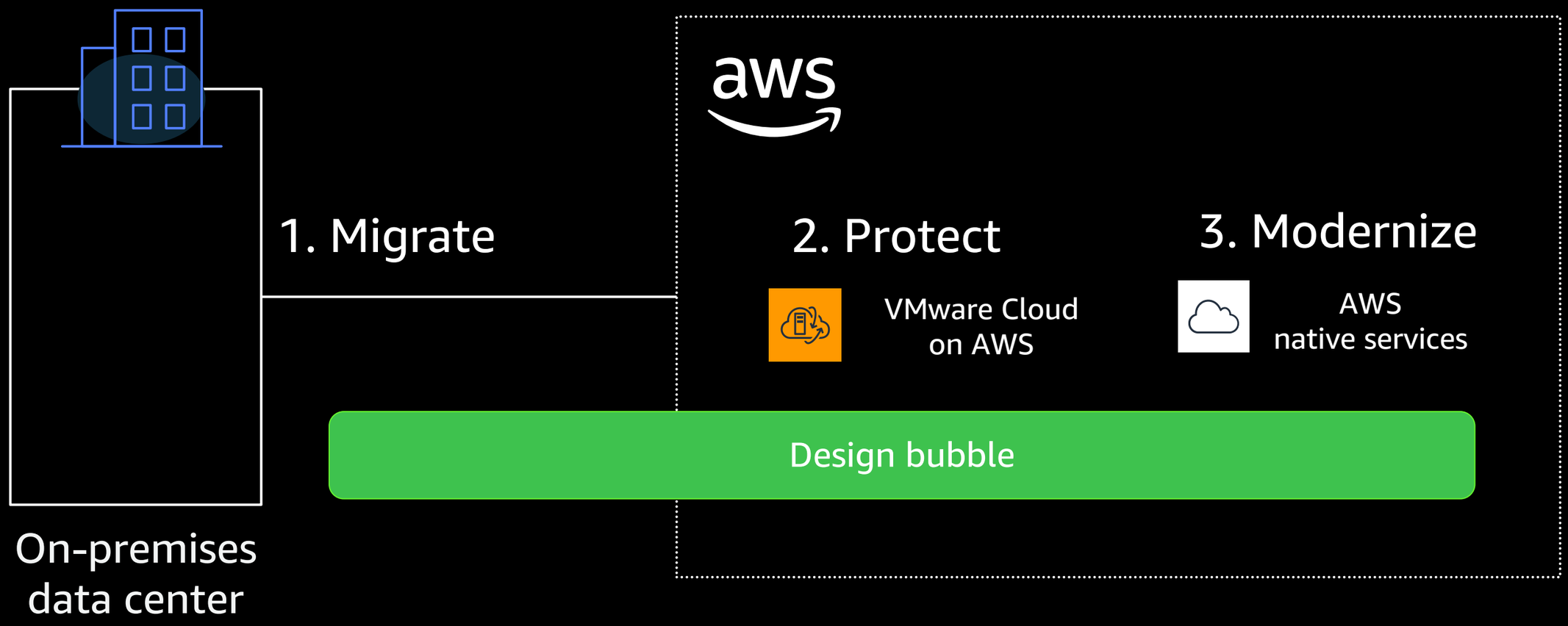


How should I think about data storage?

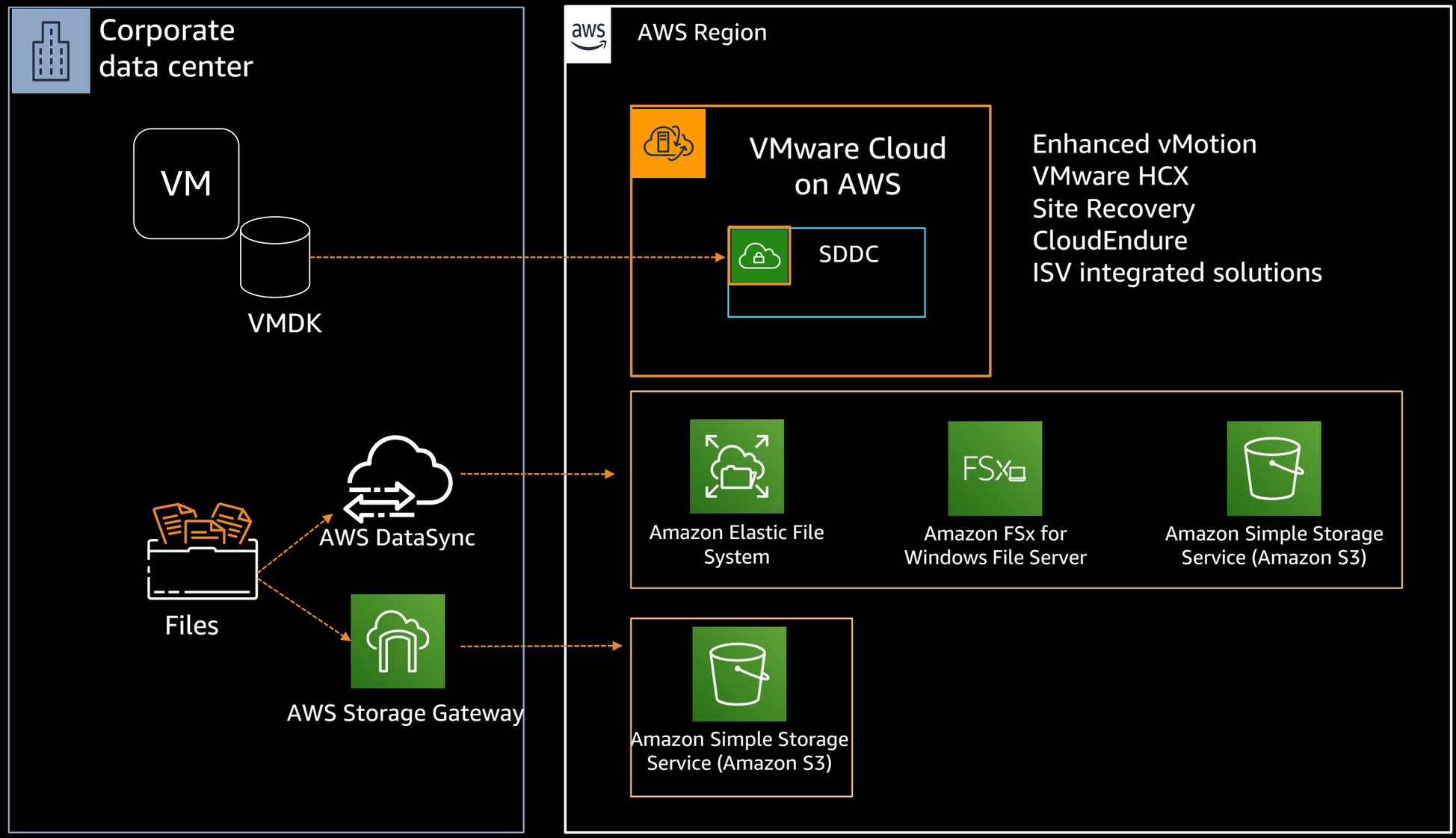


© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

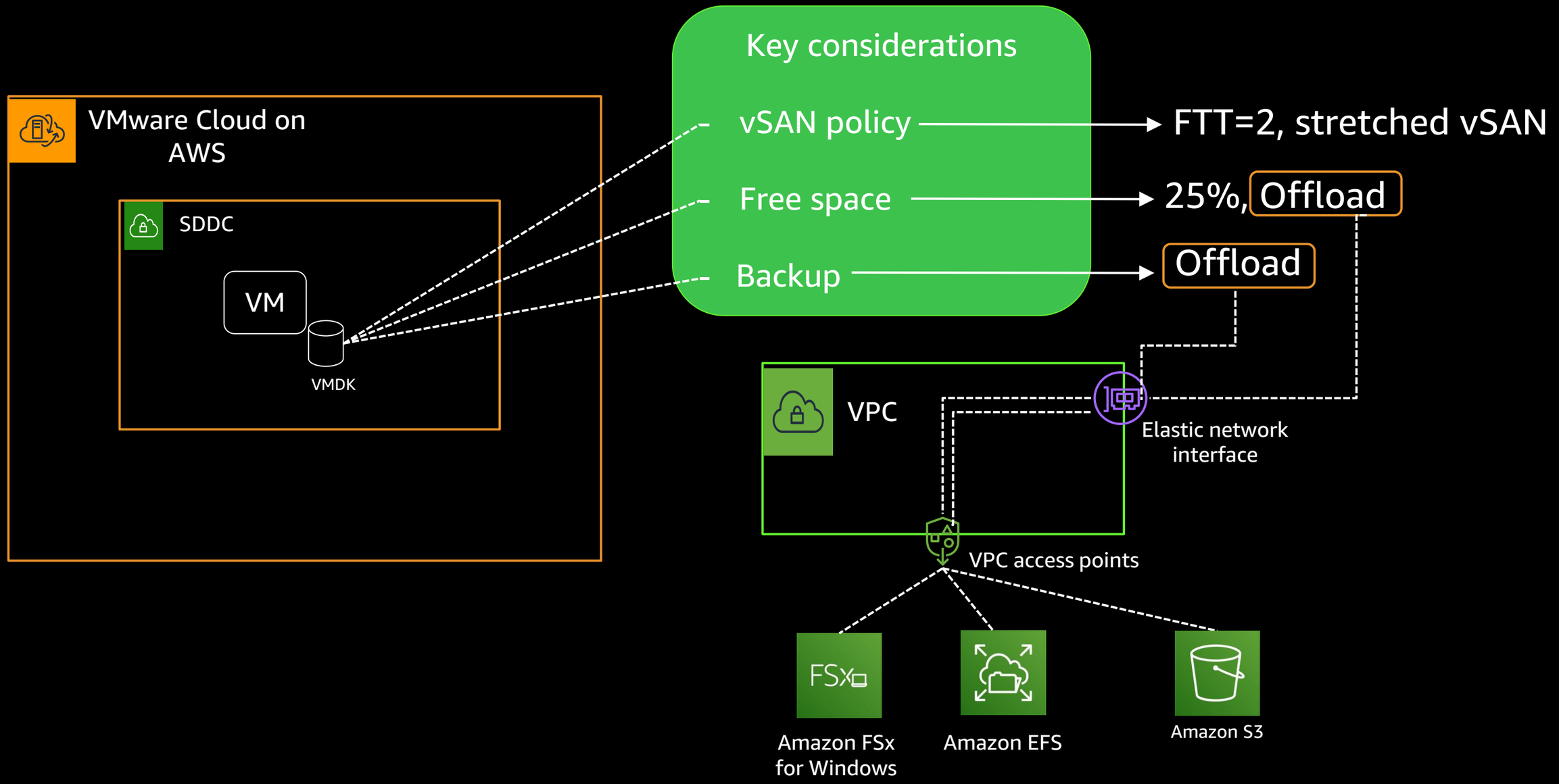
Architectural patterns



Architectural pattern – migrate



Architectural pattern – protect



Architectural pattern – protect

Key considerations

- Built-in service capabilities
- Life cycle policy

AWS Cloud

FSx

✓ File-level restore

✓ Backup policy

AWS Cloud

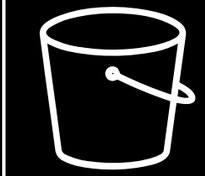


✓ Amazon EFS Standard

DataSync

✓ Amazon EFS IA

AWS Cloud



✓ Amazon S3 Standard

✓ Amazon S3 Standard - IA

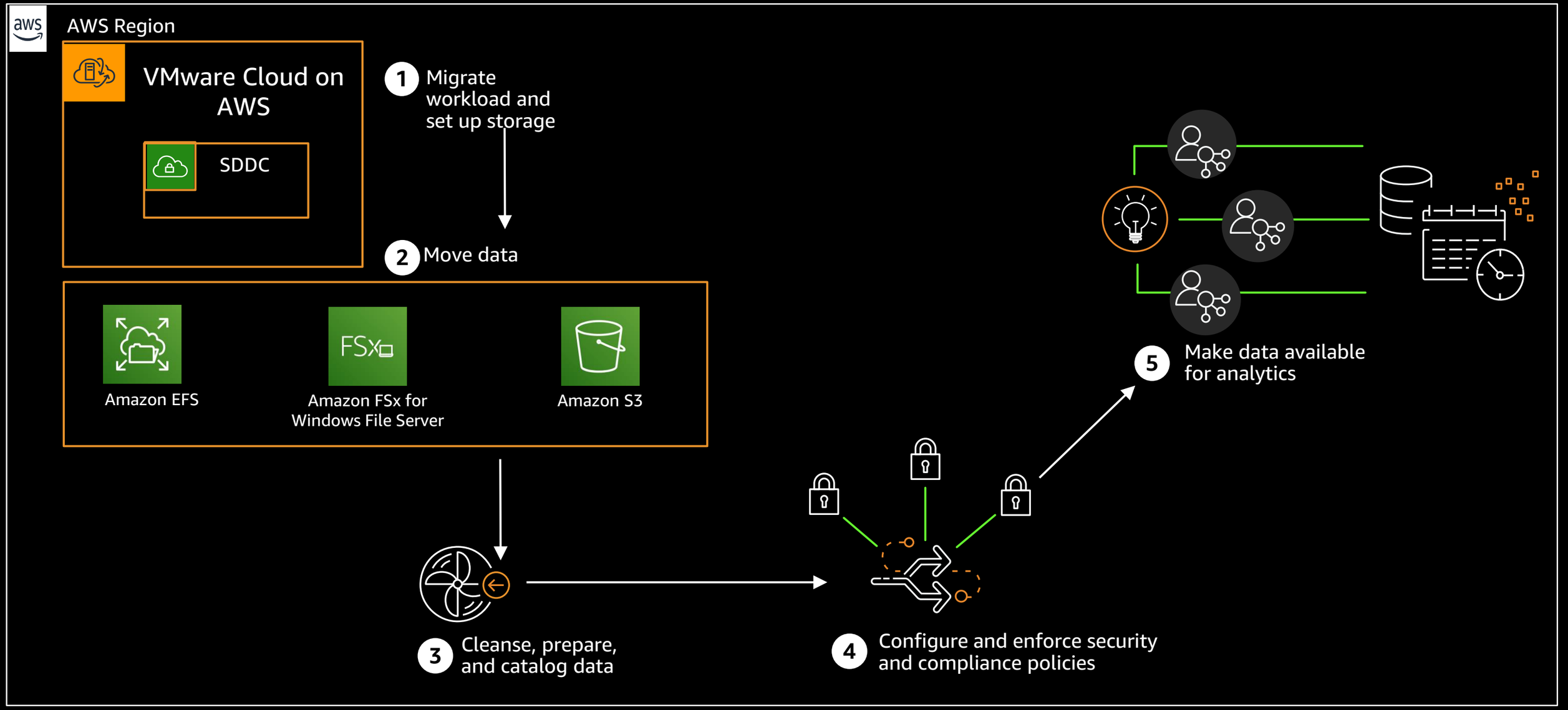
✓ Amazon S3 One Zone - IA

S3 Lifecycle

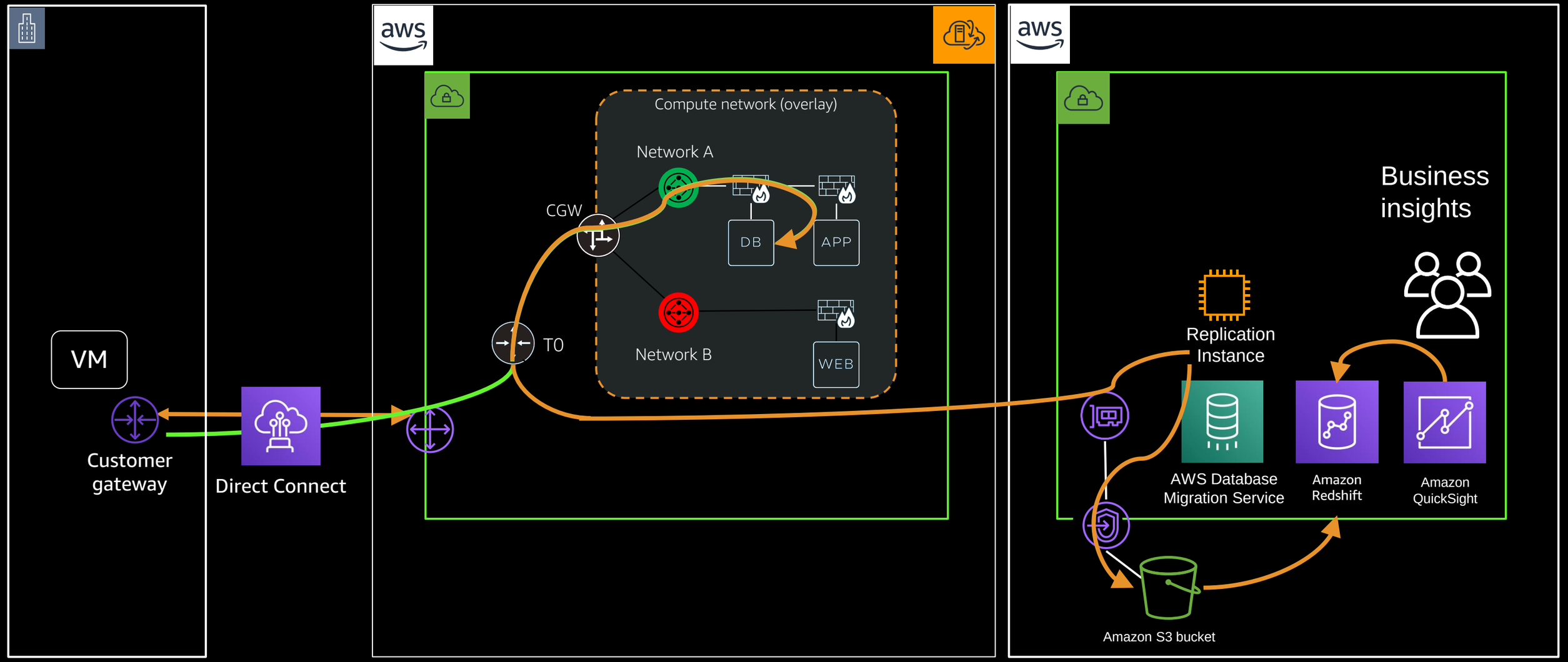
✓ Amazon S3 Glacier

✓ Amazon S3 Glacier Deep Archive

Architectural pattern – modernize



Bringing it all together



In summary

1. Follow architectural considerations and design principles

2. Implement best practices

3. Iterate from lessons learned

4. Document and automate

Resources and next steps

- Reference architectures: aws.amazon.com/vmware/resources/
- Getting started with VMware Cloud on AWS: www.vmw.re/vmc/gettingstarted
- Engage with your AWS Solutions Architect to help with architecture reviews

Thank you!



AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Please complete the session survey

AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.