OVN @ Nutanix

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Outline

Brief introduction to Nutanix

Disaster recovery as a service

Need for SDN solution

OVN benefits and challenges

How can we contribute to OVN community?

Nutanix

Why?   Simplify hybrid cloud environment using hyperconverged infrastructure

How?   Manage any hypervisor (AHV, ESXi, Hyper-V) through one management plane

Software-defined compute, storage, and networks

What?   Hybrid cloud deployment and management

Orchestrate your apps across private and public clouds seamlessly

Disaster recovery

Maintaining a second data center for disaster recovery is cumbersome

We would like to solve that problem for our customers
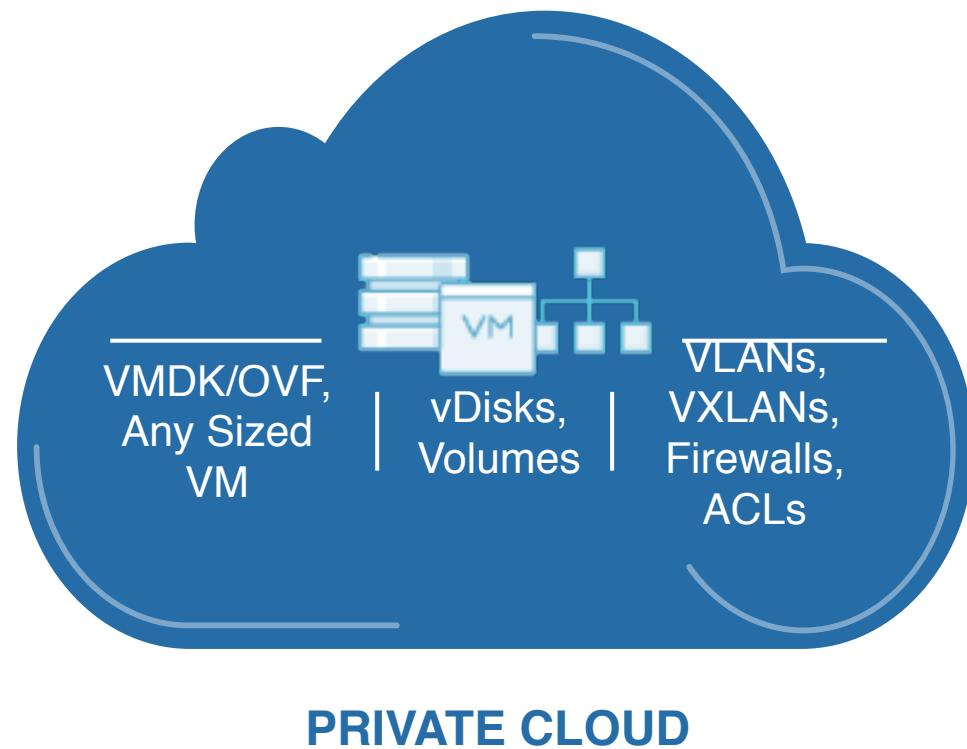
Xi cloud   A public cloud service for our on-premises customers

                   A hybrid cloud solution

Advantages   Recover your workloads on Xi cloud upon a disaster

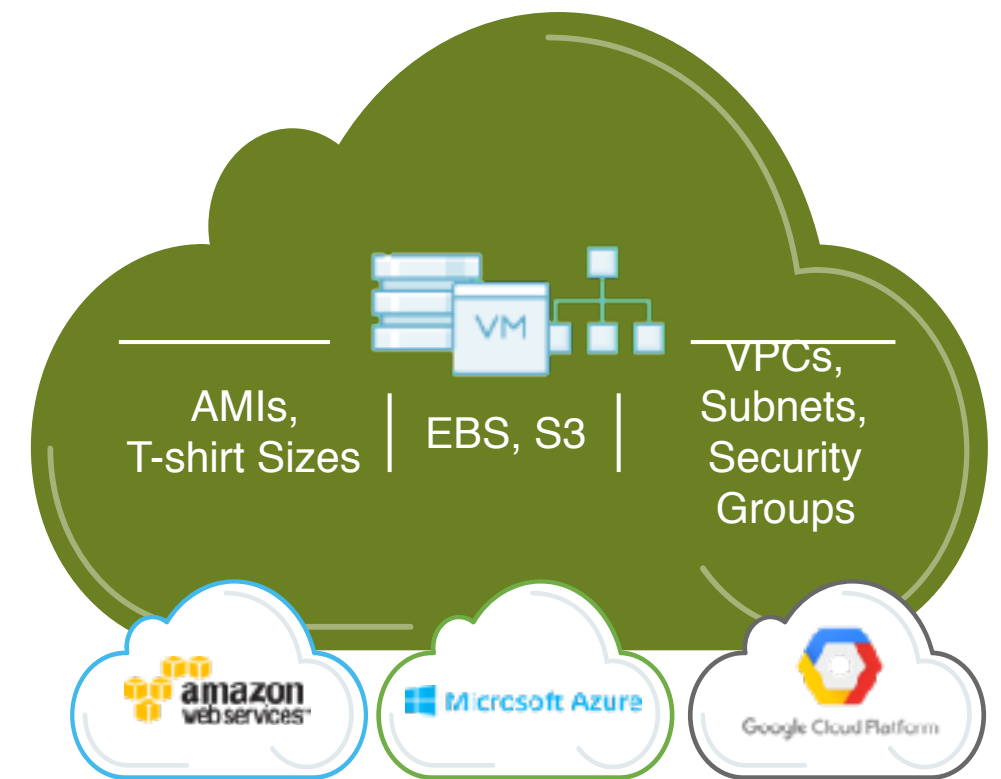   Use same tools for on-premises and public cloud orchestration of applications
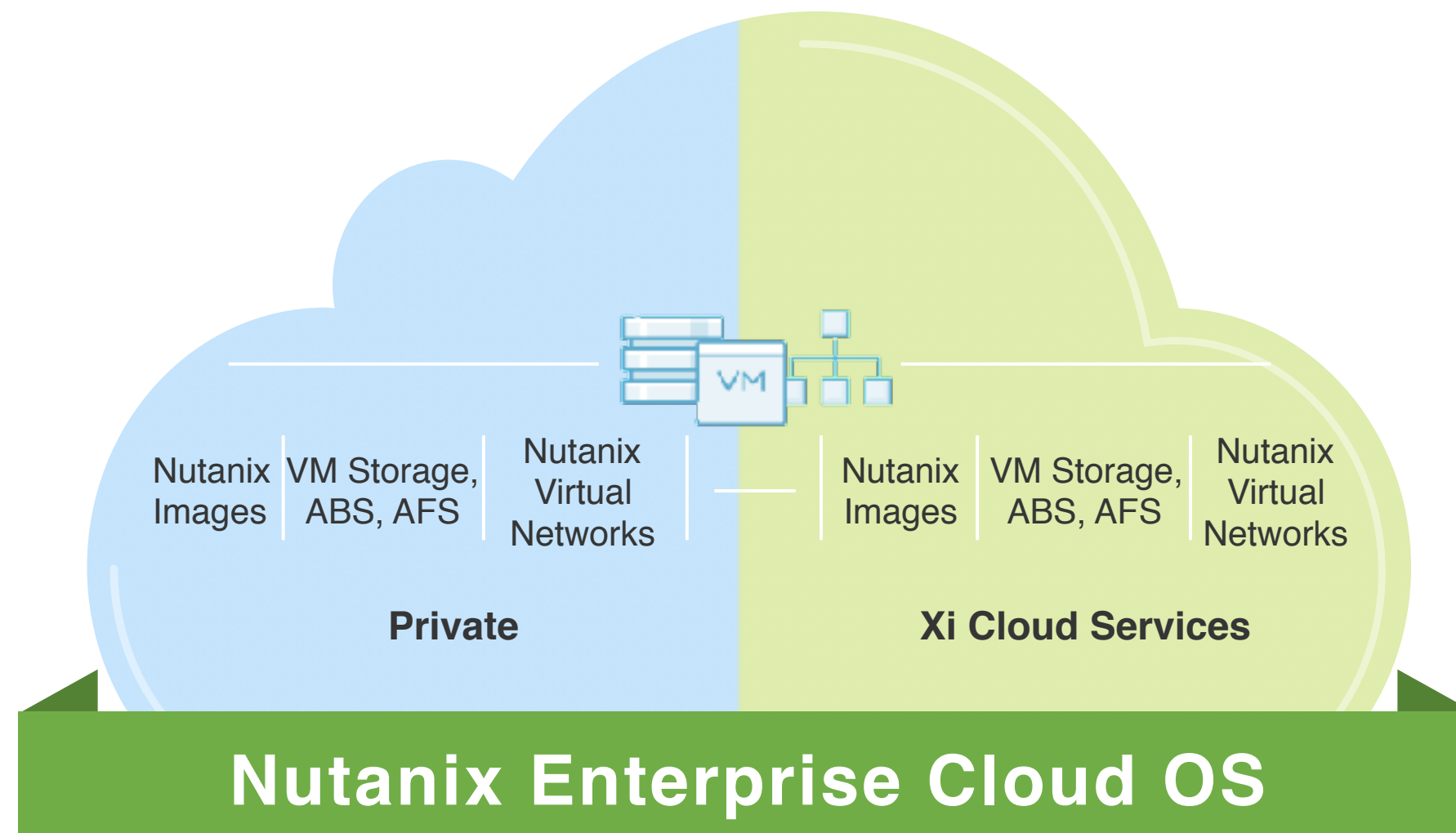
Hybrid cloud deployments are complex
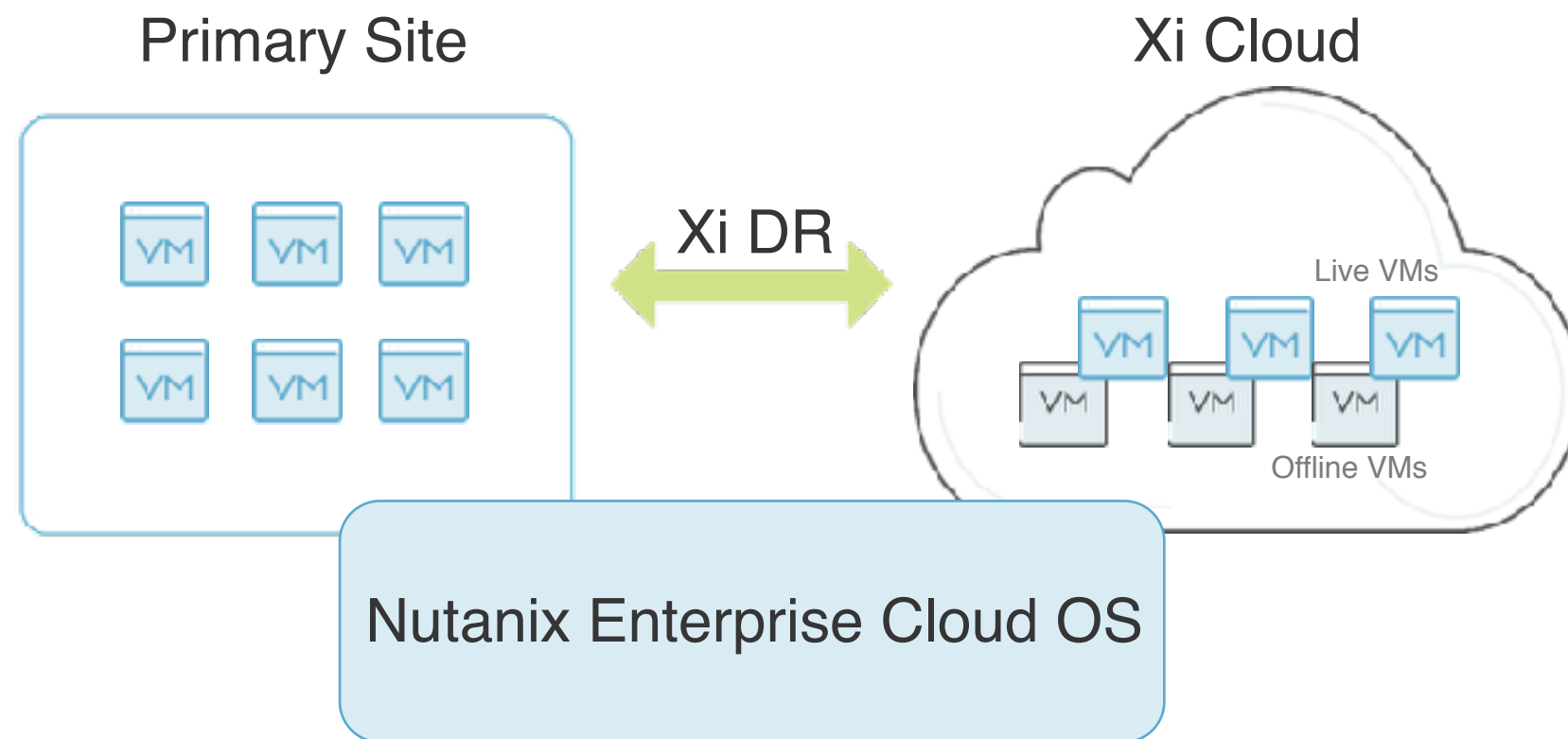
Siloed tools

Complex management

Disjointed constructs

VMDK/OVF, Any Sized VM | vDisks, Volumes | VLANs, VXLANs, Firewalls, ACLs

PRIVATE CLOUD

AMIs, T-shirt Sizes | EBS, S3 | VPCs, Subnets, Security Groups

Nutanix hybrid cloud infrastructure

Disaster recovery with hybrid cloud

Primary Site

Xi Cloud

Xi DR

Live VMs

Offline VMs

Nutanix Enterprise Cloud OS

Eliminates the need for a dedicated DR site

Centralized management through Prism

Flexible subscription plans

Xi networking requirements

More than 4K L2 segments as it is a cloud offering, hence need an overlay solution
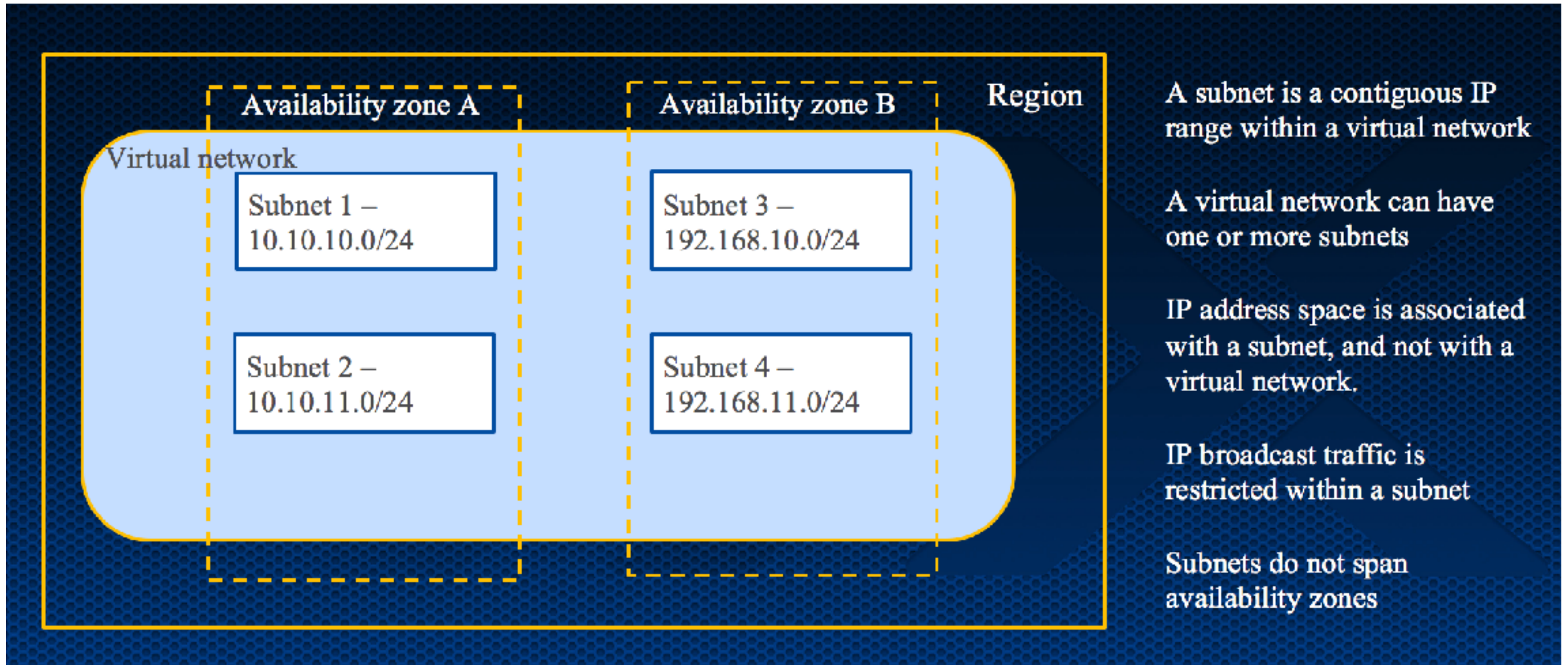
Distributed routing
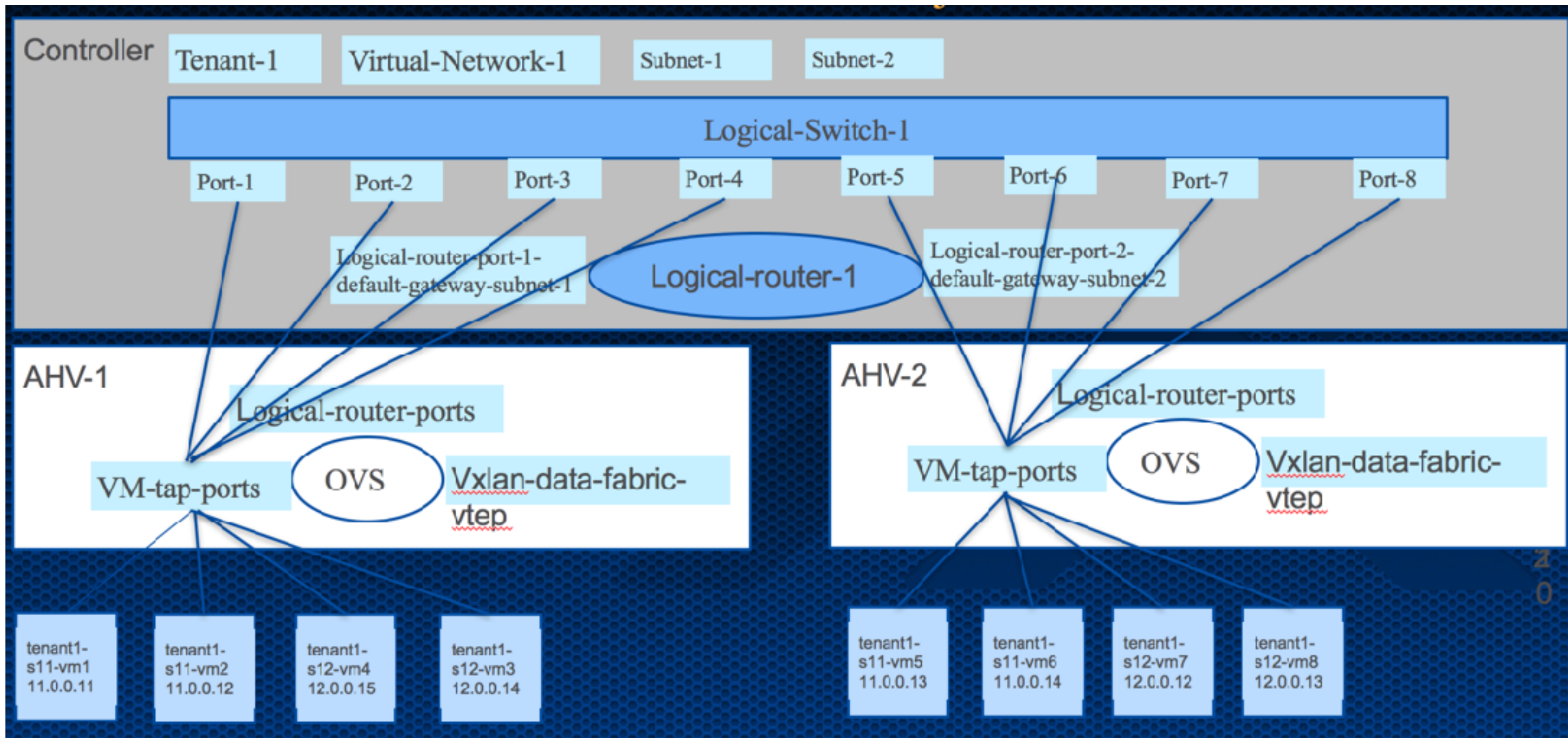
Floating IP

Microsegmentation

Service insertion

Monitoring

Xi cloud services network model

Xi cloud services object model

OVN benefits

Simpler abstraction of virtual network components

Separation of logical abstraction from physical elements

Easily understandable pipeline processing stages

Rich feature support (Overlay, DVR, Floating IP, SNAT, Microsegmentation, Monitoring)

Light-weight

OVS integration

OVN challenges

Limited documentation

More insights into testing/testing methodologies

Scaling limits

HA robustness

Feature parity across different encapsulation methods in future (VXLAN vs. Geneve)

No API/RPC — leads to scalability concerns

How can we contribute?

Improve documentation for easy understanding

Reference architectures and templates

Participate in code review and feature development

Share our experience by participating in community efforts

Thanks!

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