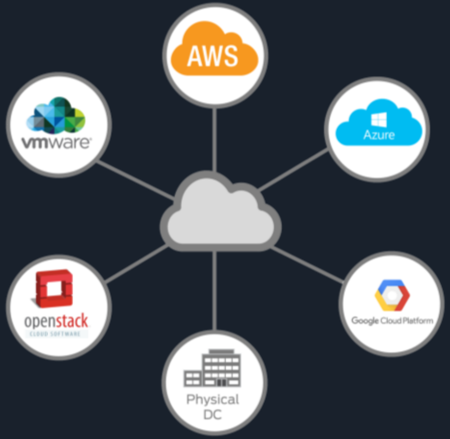

# Extending Enterprise Security to Multicloud and Public Cloud

NXTWORK2017
JUNIPER CUSTOMER SUMMIT

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# AGENDA

- □ Market trends
- □ Hybrid & multi-cloud
- □ Juniper’s opportunity
- □ Solution differentiation
- □ Juniper value proposition

# Why to Play Hard in the Hybrid / Multi-cloud Market

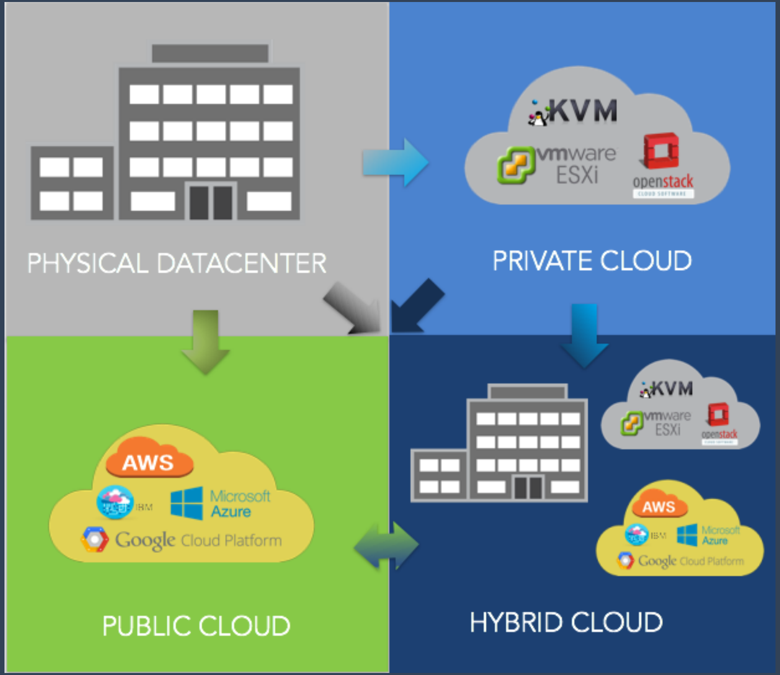
| | |
|---|---|
| Cloud Market size by 2020 | $ 230B |
| Enterprise IT organizations that will commit to multi-cloud architecture (IDC) | 85% |
| AWS revenue in 2016 | $12.2B |
| Azure revenue in 2016 | $ 2.5B |

Takeaway :

Real Money

Risk Tolerance

# Cloud Migration Trends



**$204B** GLOBAL MARKET FOR PUBLIC CLOUD (GARTNER)

Enterprises that will have deployed virtual firewalls by 2017 - INFONETICS **80%**

**73%** Y/Y growth of virtual appliances - Dell'Oro research

Y/Y growth of physical appliances - Dell'Oro research **4%**

# Hybrid and Multi-Cloud

# Why Extend into the cloud?

**Simplicity**

**Scalability**

**Global Footprint**

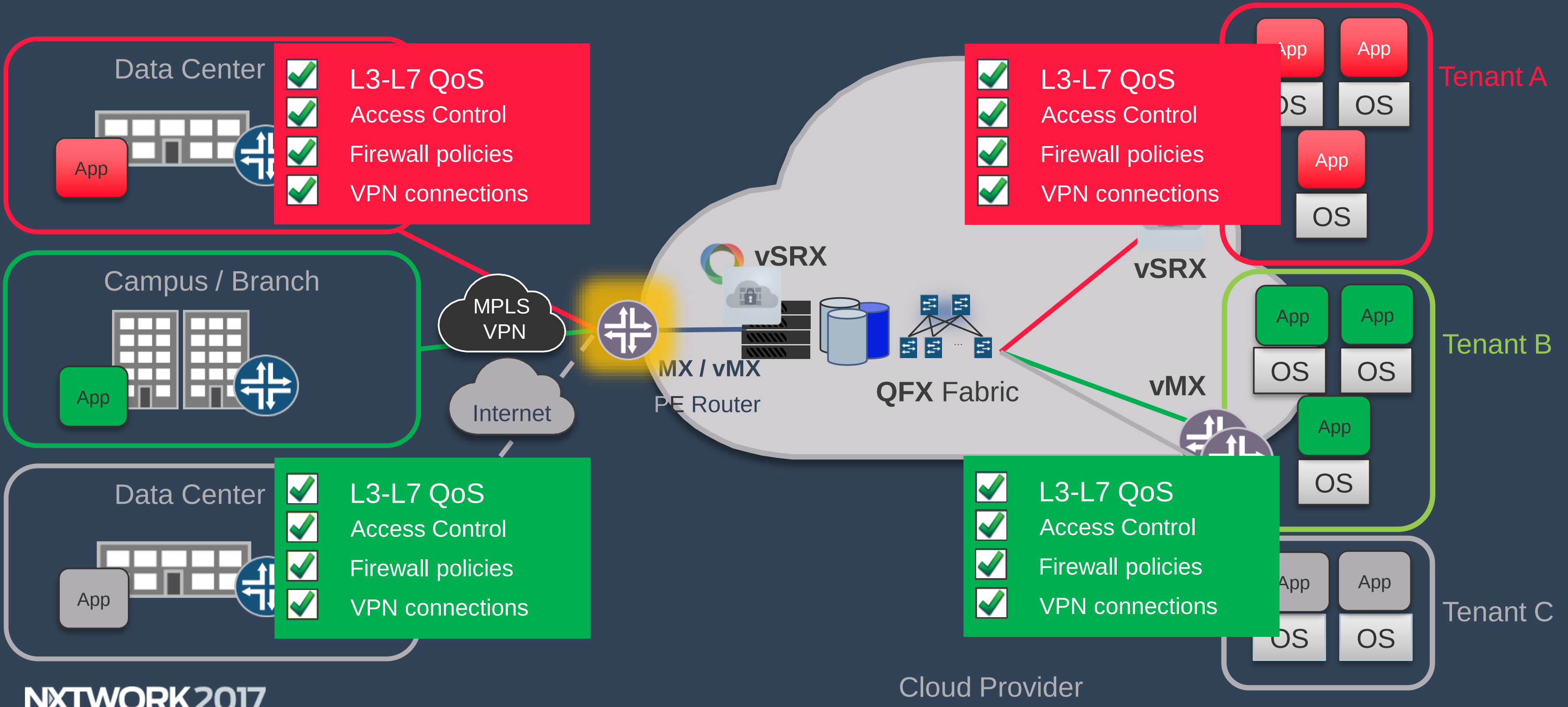
**Cost-effectiveness**

## Why multi-cloud?

Public cloud benefits + Cost optimization + Best-of-breed Technologies + Data center locale

# Network Extension into the Cloud

## Control the Cloud Experience



☑ L3-L7 QoS
☑ Access Control
☑ Firewall policies
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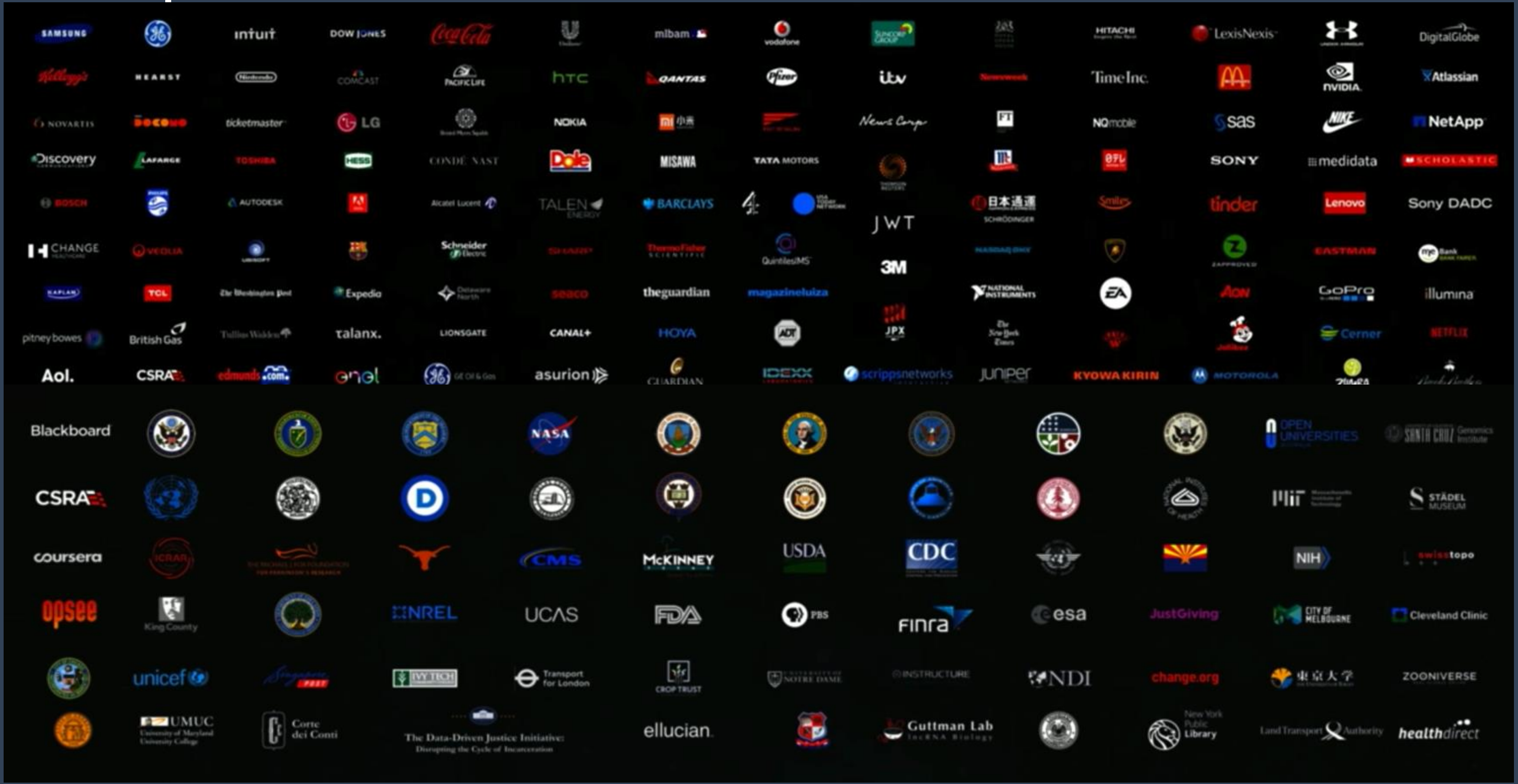
# Juniper’s Opportunity

# Enterprises in Amazon AWS



# So Far, So Good, So What?

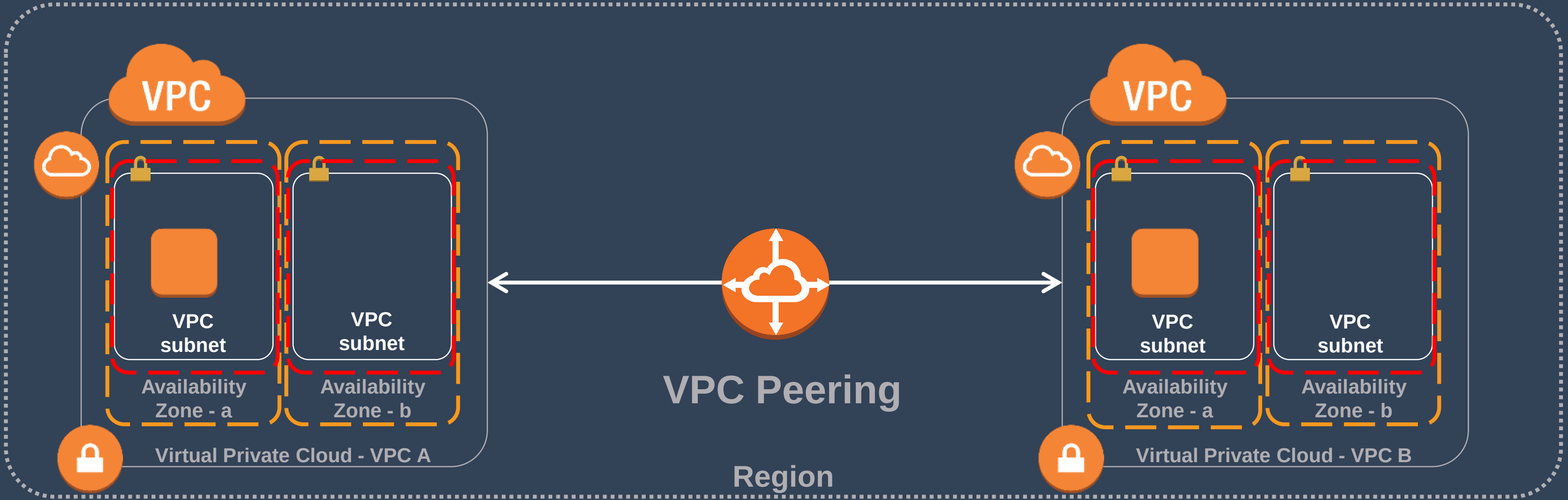
Challenge of Securing the clouds

→

Huge Opportunity for Juniper

# Virtual Private Cloud (VPC) Peering Limitations

- VPC Peering connects 2 (and only 2) VPCs together to share the private IP space between them
- Both VPCs can be in the same AWS account or different accounts
- Both VPCs must be in the same region

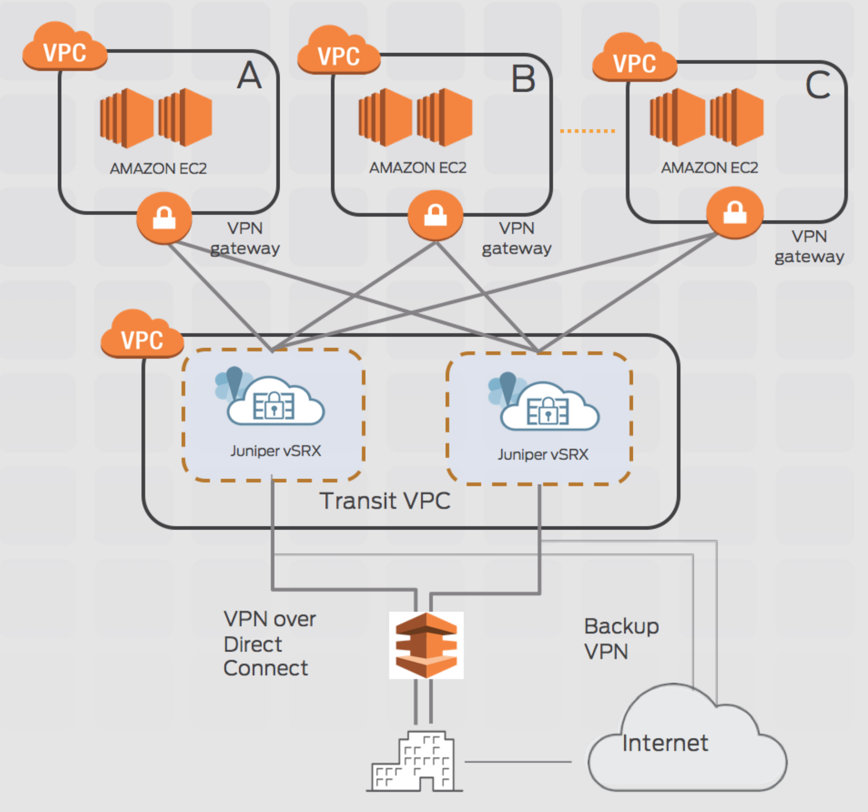


# Amazon AWS Security: Juniper Insertion Points

1. AWS security is implemented via stateless ACLs or based on security groups
2. Virtual gateways cannot initiate VPN connections to other virtual gateways
3. AWS VPNGW is restricted to 1G VPN throughput
4. Advanced security features are not supported
5. Lack of dynamic routing between VPCs

# Solution Differentiation

# Transit VPC secure hub



- Inter-VPC and intra-VPC security (IDS/IPS, NGFW, ATP)
- Hub and Spoke topology
- IPSec VPN termination
- Automated Solution

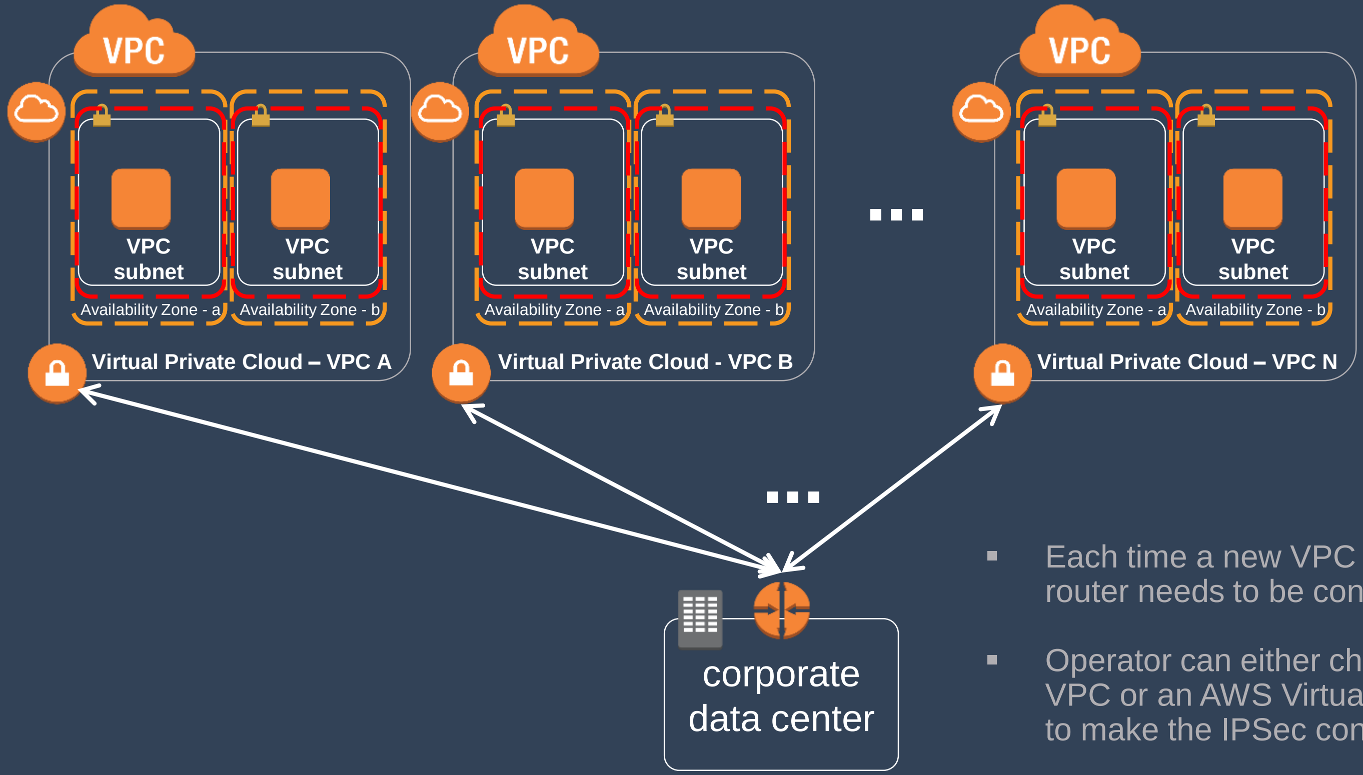
**Integrated security**
(No SPAN port needed as in other's solution)

**High Performance**
(Major advantage against pure-security players)

**CloudFormation template-ready**

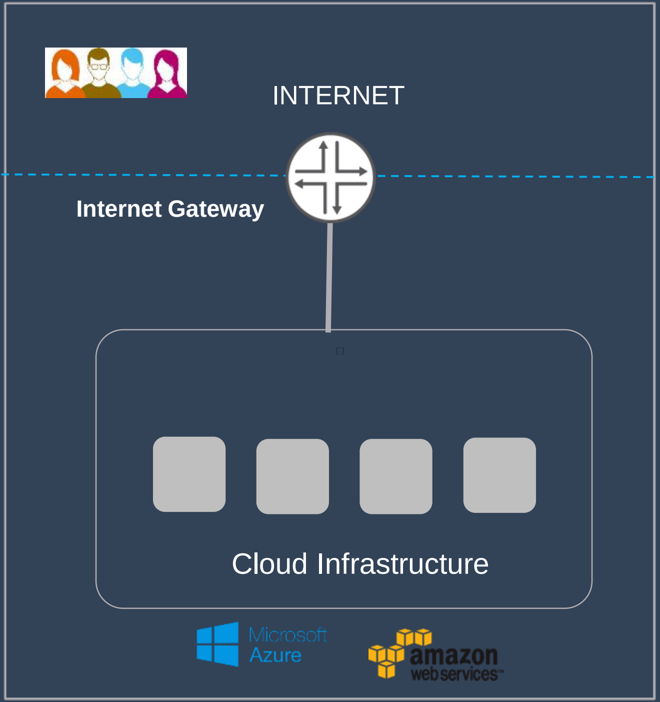
**Or**
**Deploy via Ansible**

# Backhaul VPCs back to Datacenter via IPSec

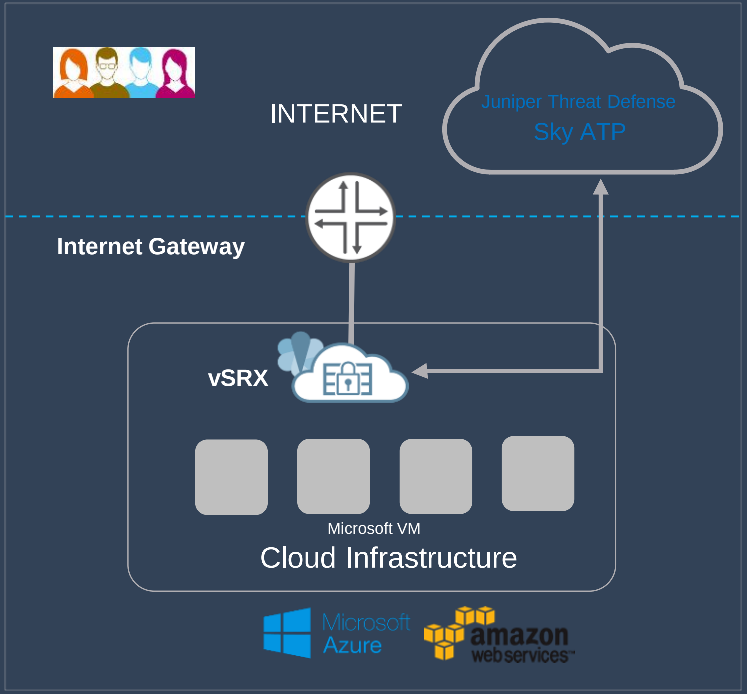


- Each time a new VPC is deployed, the on-prem router needs to be configured for the new spoke.
- Operator can either choose to use vSRX in each VPC or an AWS Virtual Private Network gateway to make the IPSec connections

# Juniper Networks’ vSRX Benefits



- User Firewall
- Intrusion Prevention
- Unified Threat management
- APP Secure
- Advanced Threat Prevention
- VPN Termination
- Carrier Class routing



# Stacking up Against the Competition

Transit VPC solution with integrated security

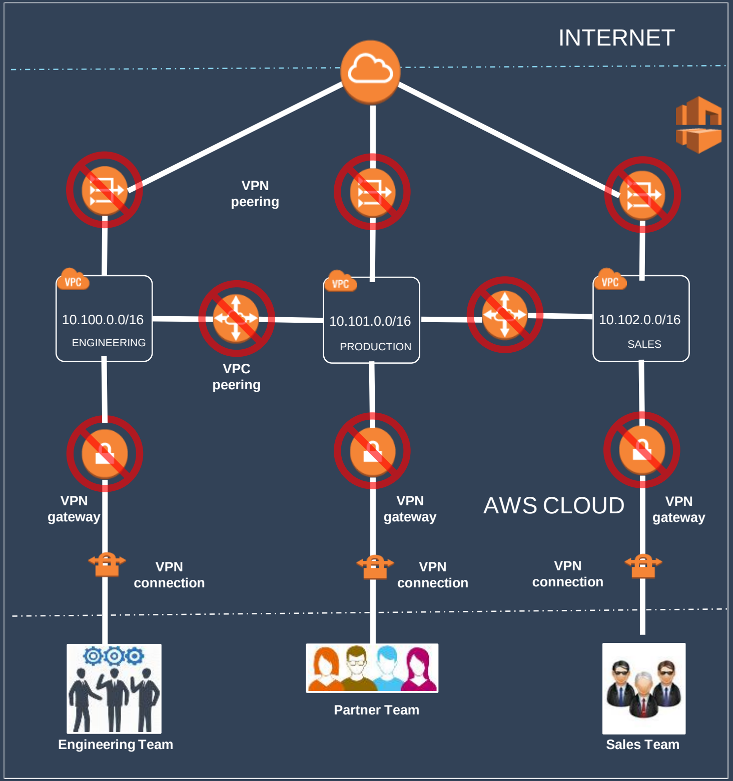
High performance requirement in Transit VPCs

Support for 128 routing instances

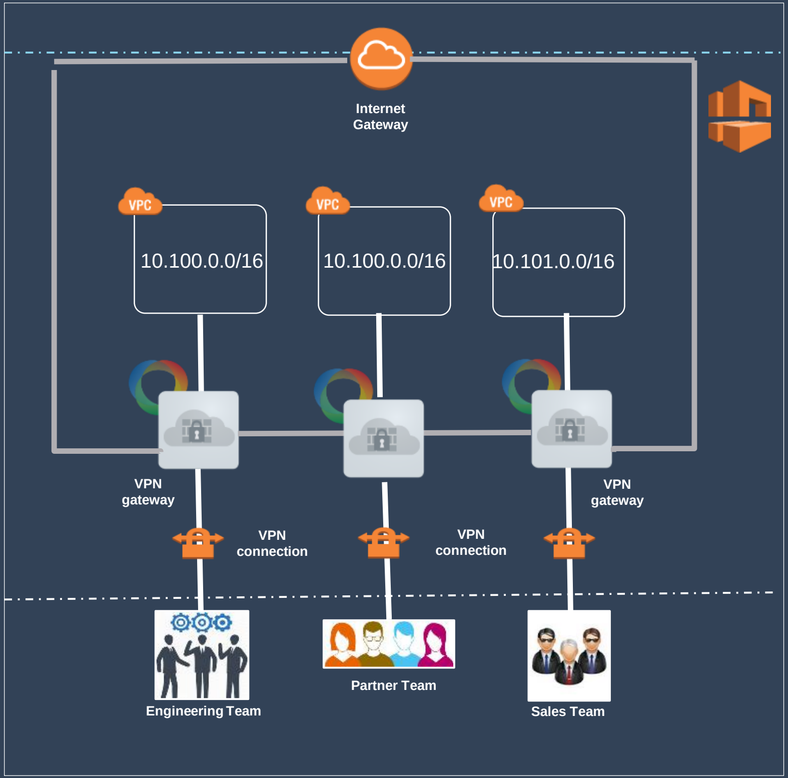
Alternate vendors claim cloud HA, but restricted to same Availability Zone

# Value Proposition

# vSRX value addition: offloading AWS paid features



- Eliminate dedicated NAT
- Eliminate dedicated VPN gateway
- Eliminate VPC Peering module
- Add Comprehensive security & **Intelligence** at Ingress, Egress and between VPCs
- Manage security from a single console (unified)
- BETTER ROI



# Key Juniper Benefits

***Carrier-class security and routing***

xSP security and routing built on the robust Junos OS

***Better TCO***

Lower prices and reduced resource requirement of VSRX directly translates to lesser AWS infrastructure costs and overall operating costs

***Unified Management***

Simple, intuitive management for extending security policies seamlessly, enforcing and monitoring security across public and hybrid clouds

***Investment Protection***

Comprehensive security whichever deployment option you choose with future support for Containers and SDSN implementation

***Programmability***

Extensive programming capabilities are critical to DevOps deployment

SIMPLE & INTELIGENT SECURITY WHEREVER THE NETWORK GOES

# What about Microsoft Azure?

***Transit VPC***

Not all use cases possible in Amazon AWS are currently supported in Azure (i.e. tVPC)

***Hybrid Cloud***

Securely extend on-premises networks into the Azure cloud
https://azuremarketplace.microsoft.com/en-us/marketplace/apps/juniper-networks.vsrx-security-gateway?tab=Overview

***Management***

CLI, API and Security Gateway Solution Template from Azure Marketplace

***Connectivity***

Create encrypted tunnels between Azure vNETs **as well as Amazon AWS**

***Deployment***

Security Gateway Solution Template from Azure Marketplace (NEW)
https://www.juniper.net/documentation/en_US/vsrx/topics/task/multi-task/security-vsrx-security-gateway-solution-template-azure-marketplace-deploying.html

SIMPLE & INTELIGENT SECURITY WHEREVER THE NETWORK GOES

# Enterprises in Azure:

Azure

malaysia airlines

Apollo HOSPITALS

asics®

DocuSign®

CORNELL UNIVERSITY FOUNDED A.D. 1865

University of Worcester

dishtv

Adobe

CARMAX

SAAB TECHNOLOGIES

SAAB

DESCHUTES BREWERY EST 1988

HAWAIIAN AIRLINES.

THE NOBLEST MOTIVE IS THE PUBLIC GOOD

COUNTY OF SAN DIEGO

MDCCCL

fracttal

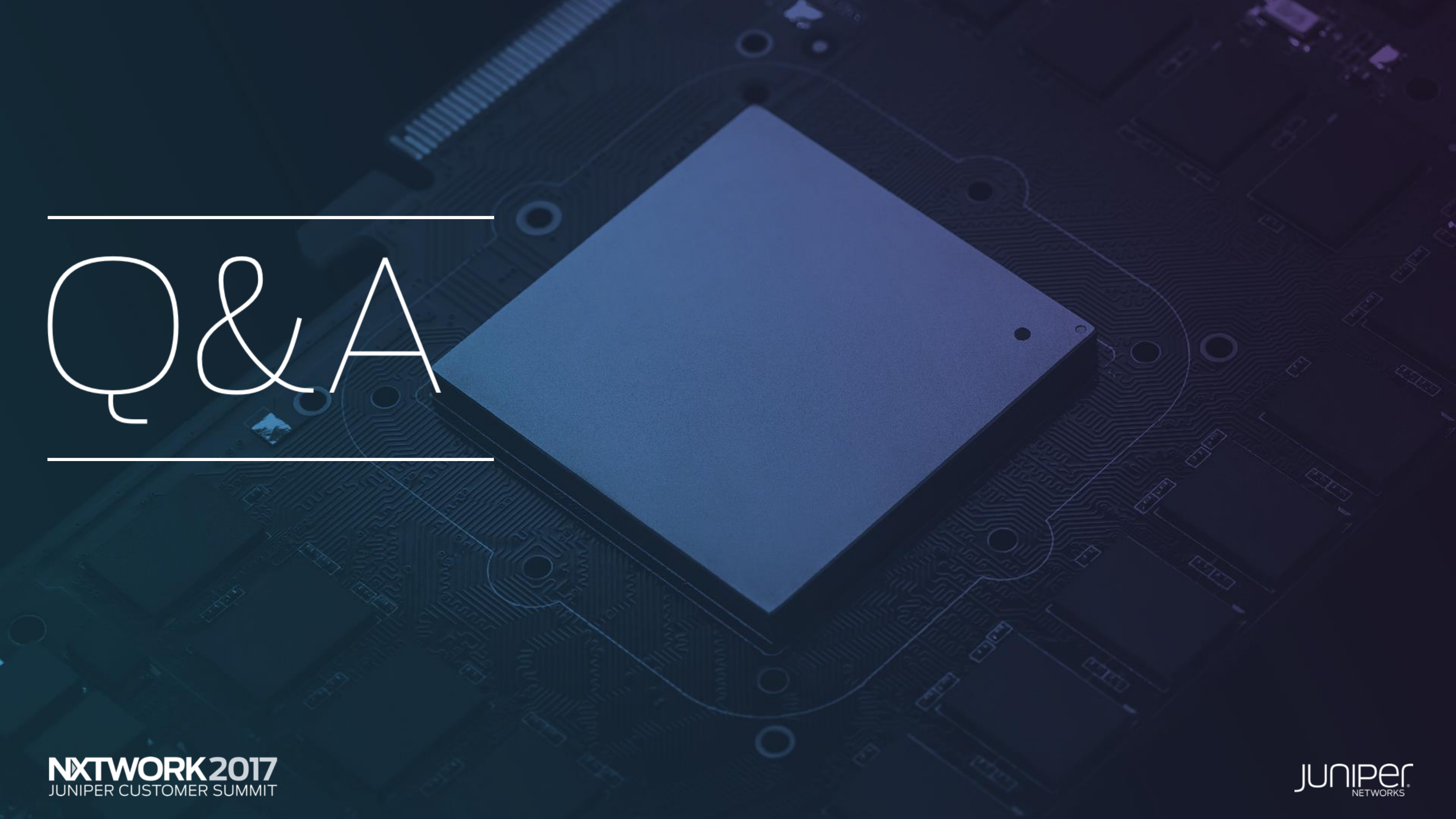
© WWF ®

wipro

# It’s Still All About Routing, and Who does it Best?

| | |
|---|---|
| *Internet of Things (IoT)* | Whoever says you won’t be using IPv6 as well as Dual-Stack IPv6/v4 routing, is lying |
| *Hybrid Cloud* | Internet-class security and routing built on the robust Junos OS End-to-End |
| *Public Cloud* | IPv6 containerized workloads need to tie back to IPv4 Private clouds |
| *Investment Protection* | Hardware or Software NGFW + L7 protection, with Junos routing |
| *Programmability* | API Extensibility First, ~*Since 1998* |

SIMPLE & INTELIGENT SECURITY WHEREVER THE NETWORK GOES



# Q&A