

# VMtalks México

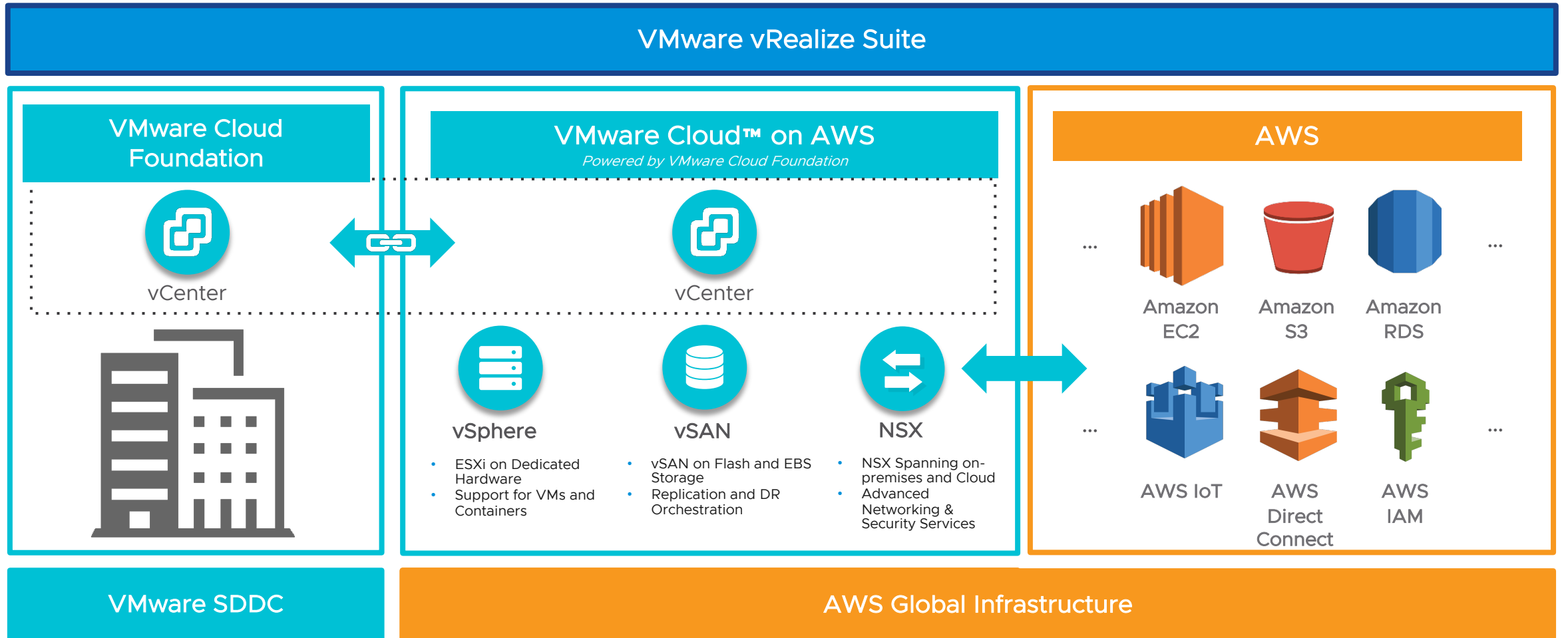
Profundizando con VMware  
Cloud: análisis de redes,  
servicios nativos AWS y  
casos de uso

Laura Garro  
Sr. Cloud Solutions Architect  
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# Agenda

- VMC on AWS Networking Overview
- Networking Options
- DEMO
- Internet Access to/from VMC
- Native AWS services connectivity
- DEMO

# Solución completa en la Nube



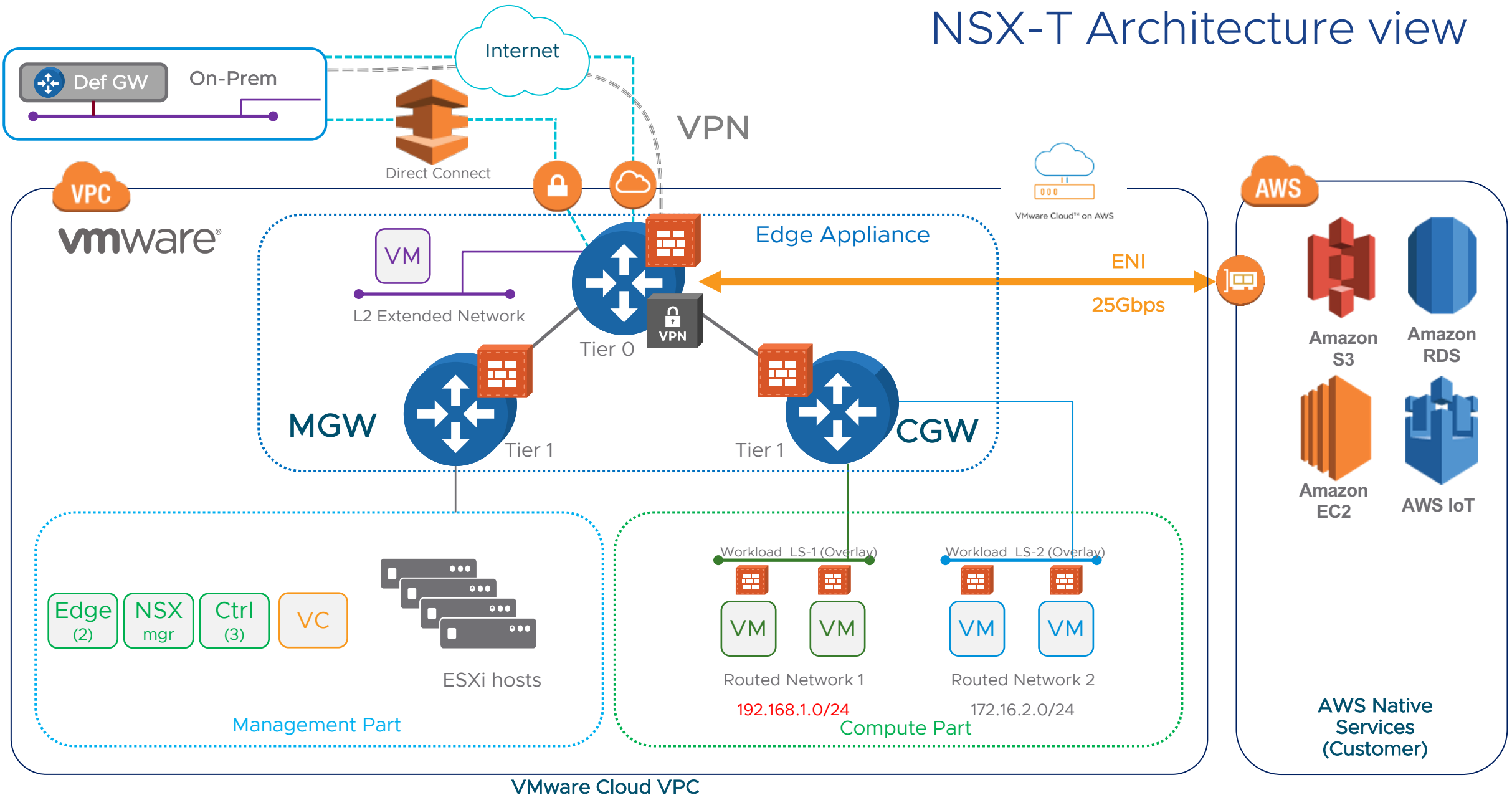
# Networking Inside the SDDC

Powered by VMware NSX-T

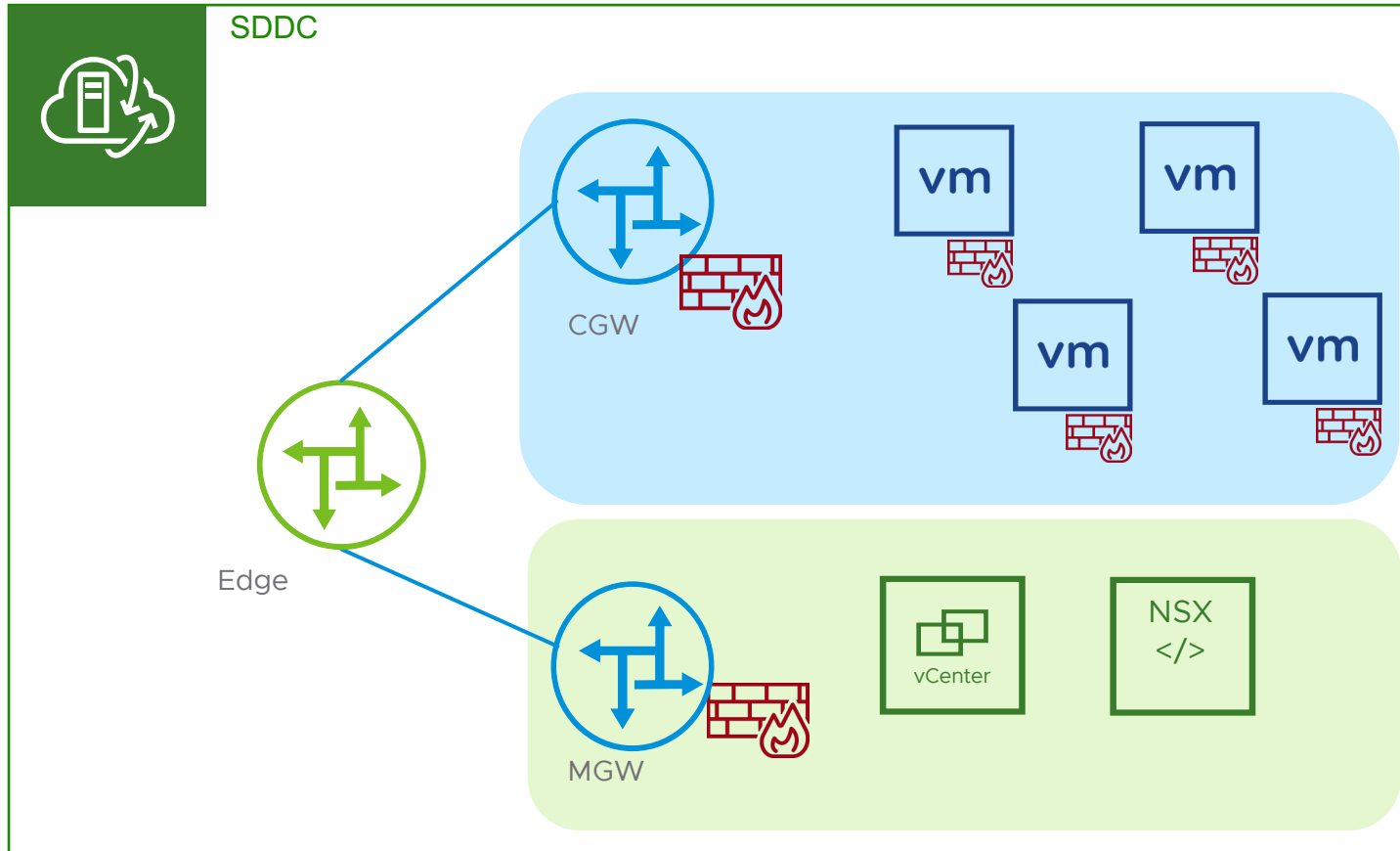
- Key features from on-premises brought to the cloud
  - Networking
  - Security
- Scalable and easy to consume networking
  - Simplified Interface
  - API access available
- Multiple connectivity options



# NSX-T Architecture view



# Networking Inside the SDDC – A Closer Look



## Edge Router

- All connectivity to workloads flows through the Edge
- Configured for Active/Standby to provide High Availability (HA)

## Management Gateway

- Management traffic for vCenter, NSX, ESXi hosts, etc.

## Compute Gateway

- Workload traffic, including network to network

## Programmatic route configuration

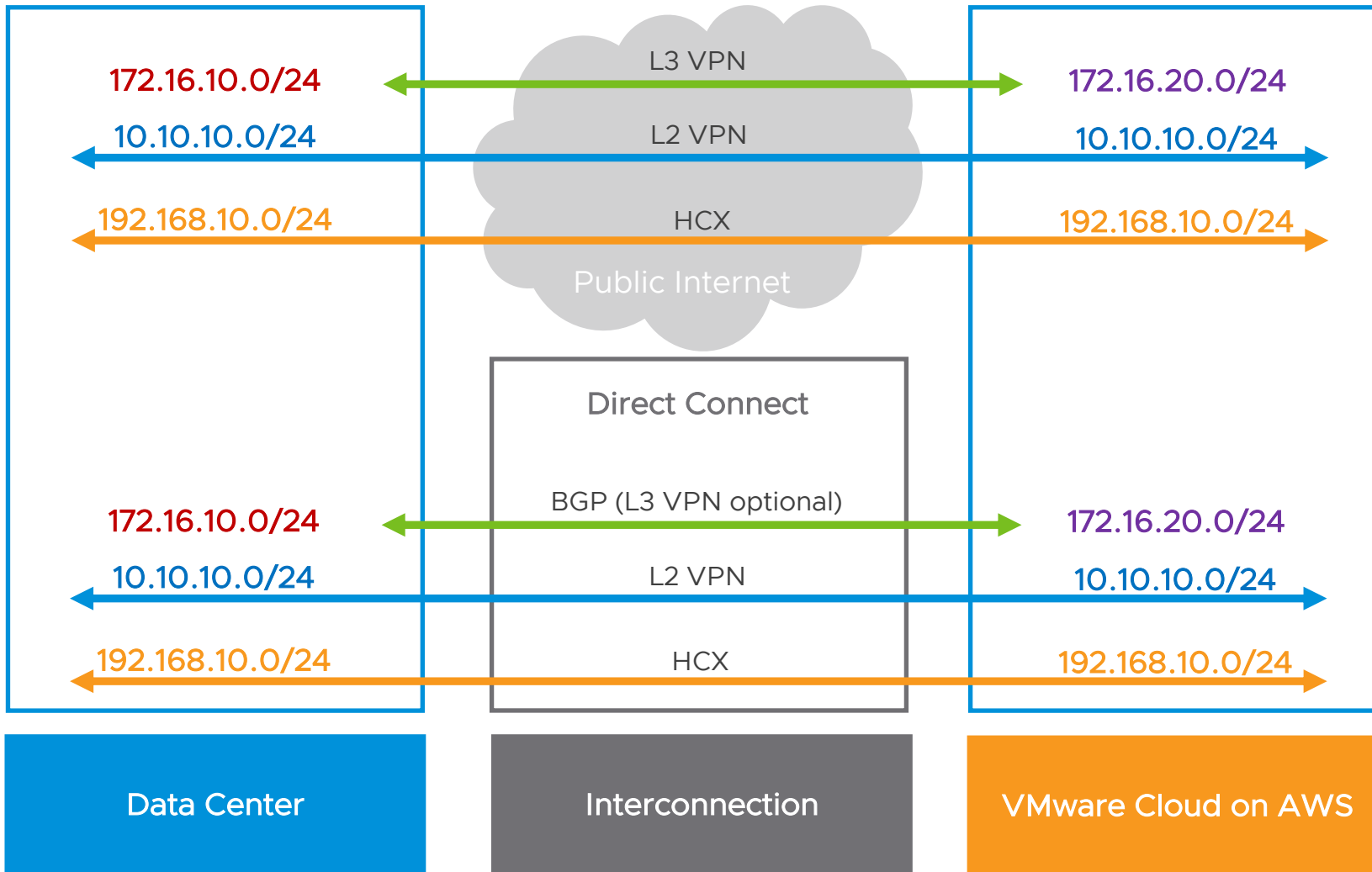
- No routing protocol overhead

## Pervasive security

- Edge firewall
- Distributed firewall

# VMware Cloud on AWS

## Networking Options



↔ L3 VPN / BGP

Traditional IPsec VPN Tunnel over Internet or BGP over DX  
Compatible with any on-premises router.  
Interconnect two distinct network ranges.

↔ NSX L2 VPN

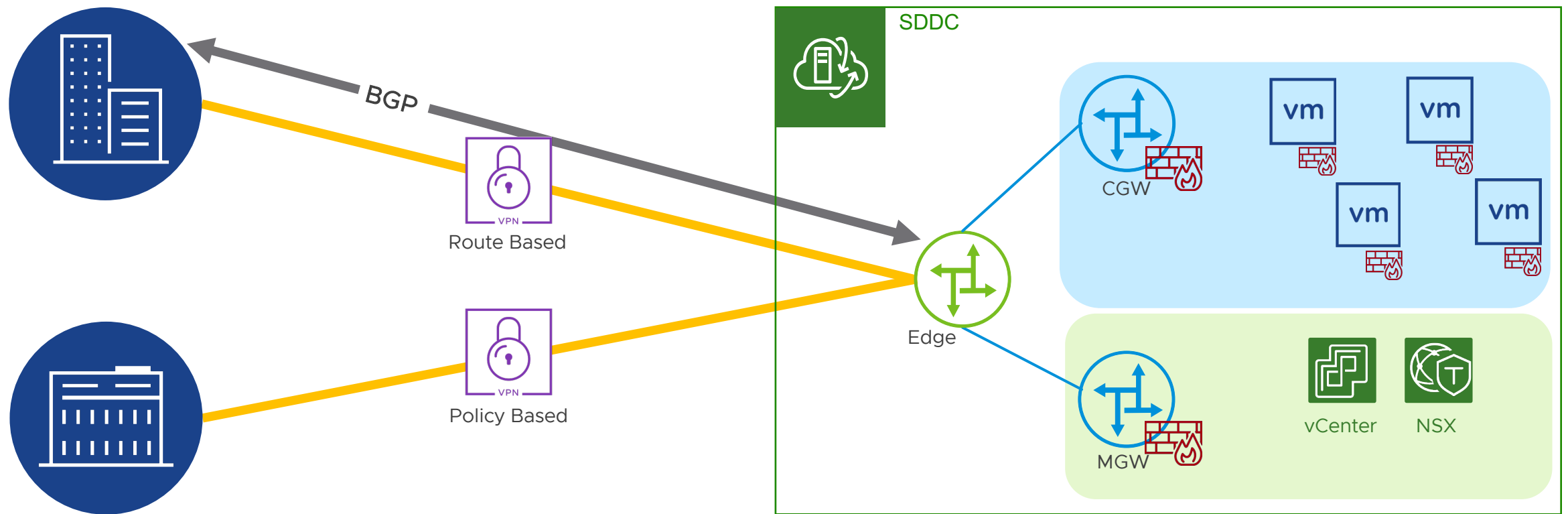
Stretch networks between private and public cloud.  
Requires installation of NSX Standalone Edge Client on-prem (does not require NSX licensing on-prem).  
Easy to configure.

↔ HCX

L2VPN (or L3VPN if no requirement to stretch network), combined with WAN Optimization engine and vSphere compatibility back to vSphere 5.0.  
Best option for bulk migration.  
Highly Secure (IPsec with AES 256 Suite-B encryption)

# Route and Policy Based VPN

Fastest way to get connected and start using VMC



Supports any IPSec compliant endpoint  
Policy based VPN for simple connectivity requirements



# DEMO

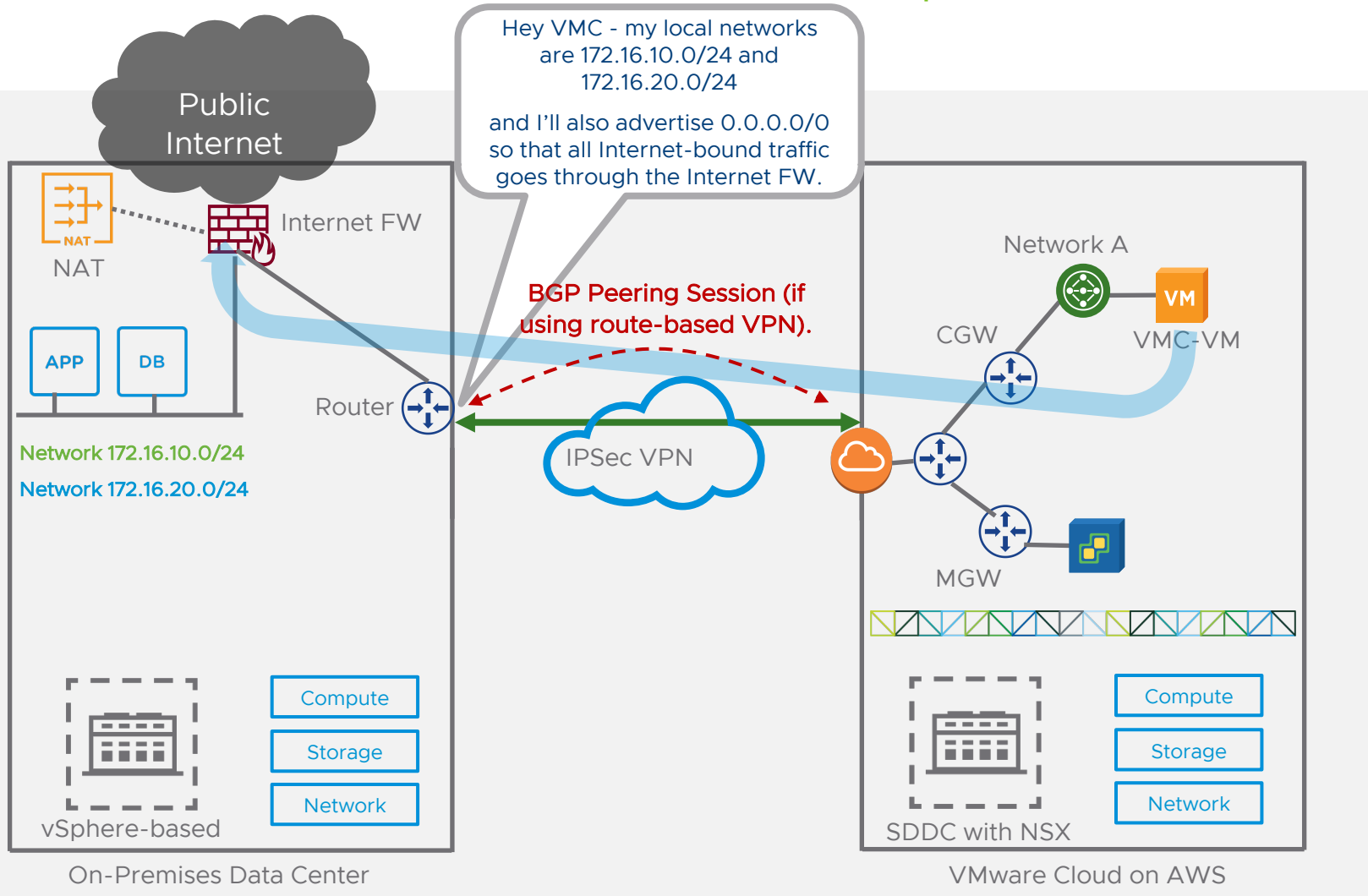
A photograph of a person in a light blue shirt using a white tablet. The person's hands are visible, with the right hand touching the screen. The tablet is held horizontally. In the background, another person's hands are visible, also using a tablet. The scene is set at a wooden table. A blue diagonal overlay covers the left side of the image.

# Outbound Internet Access

Via IPsec VPN

# Outbound Internet Access

## With IPsec VPN, Internet breakout on-prem



The on-prem router/firewall will advertise 0.0.0.0 to VMC over IPsec.

All traffic from VMC-VM in VMware Cloud on AWS would be sent (encrypted) over IPsec VPN (over the AWS IGW) to exit to the Internet.

Traffic path highlighted in [blue line](#).

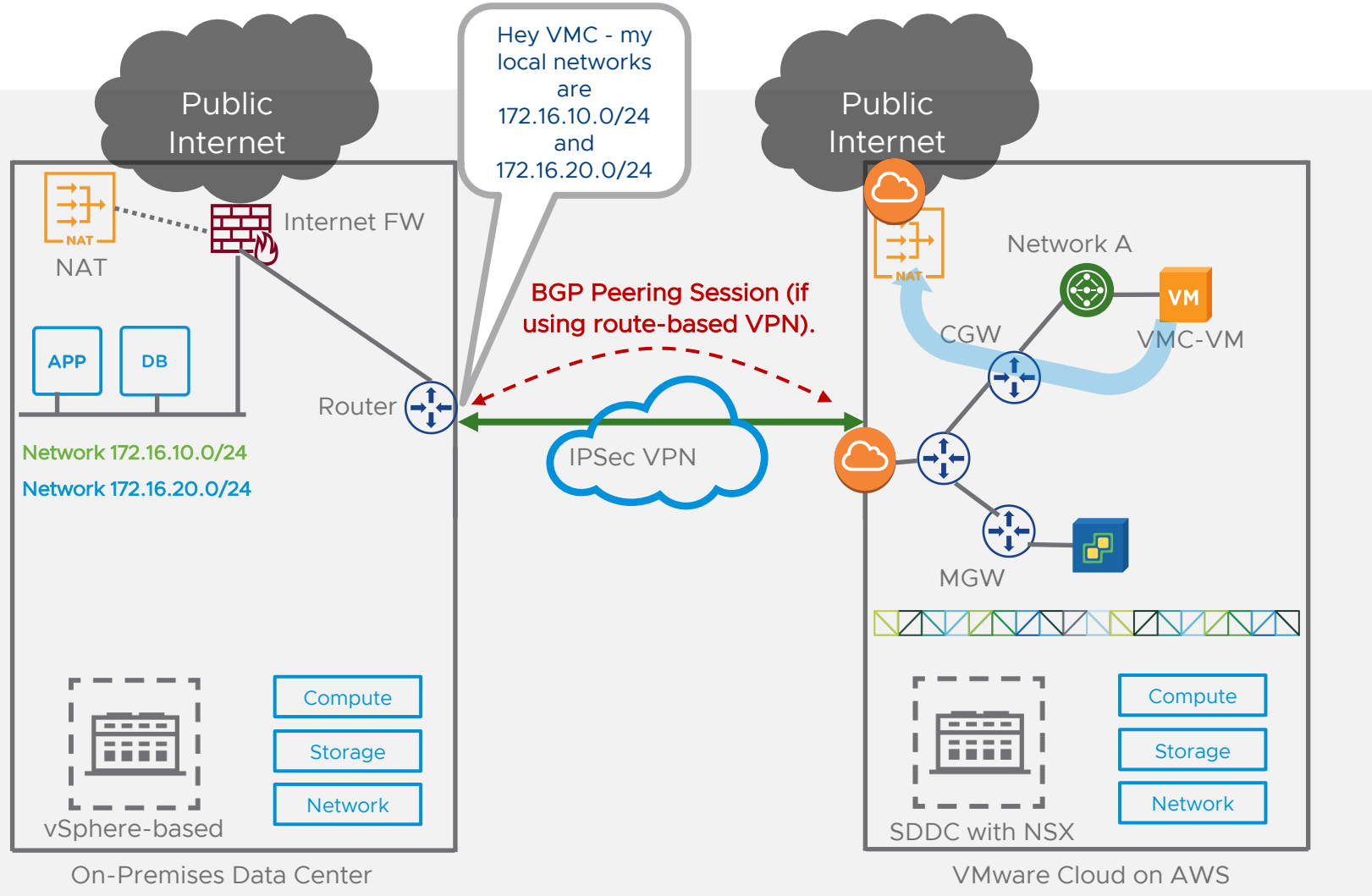
### Additional notes:

Traffic can go via standard Internet Proxy.

Use the 'route-based' VPN instead of 'policy-based' VPN if possible.

# Outbound Internet Access

## With IPsec VPN, Internet breakout on AWS



All traffic from VMC-VM in VMware Cloud on AWS would go through the CGW directly to the AWS Internet gateway to the Internet.

Traffic path highlighted in [blue line](#).

### Additional notes:

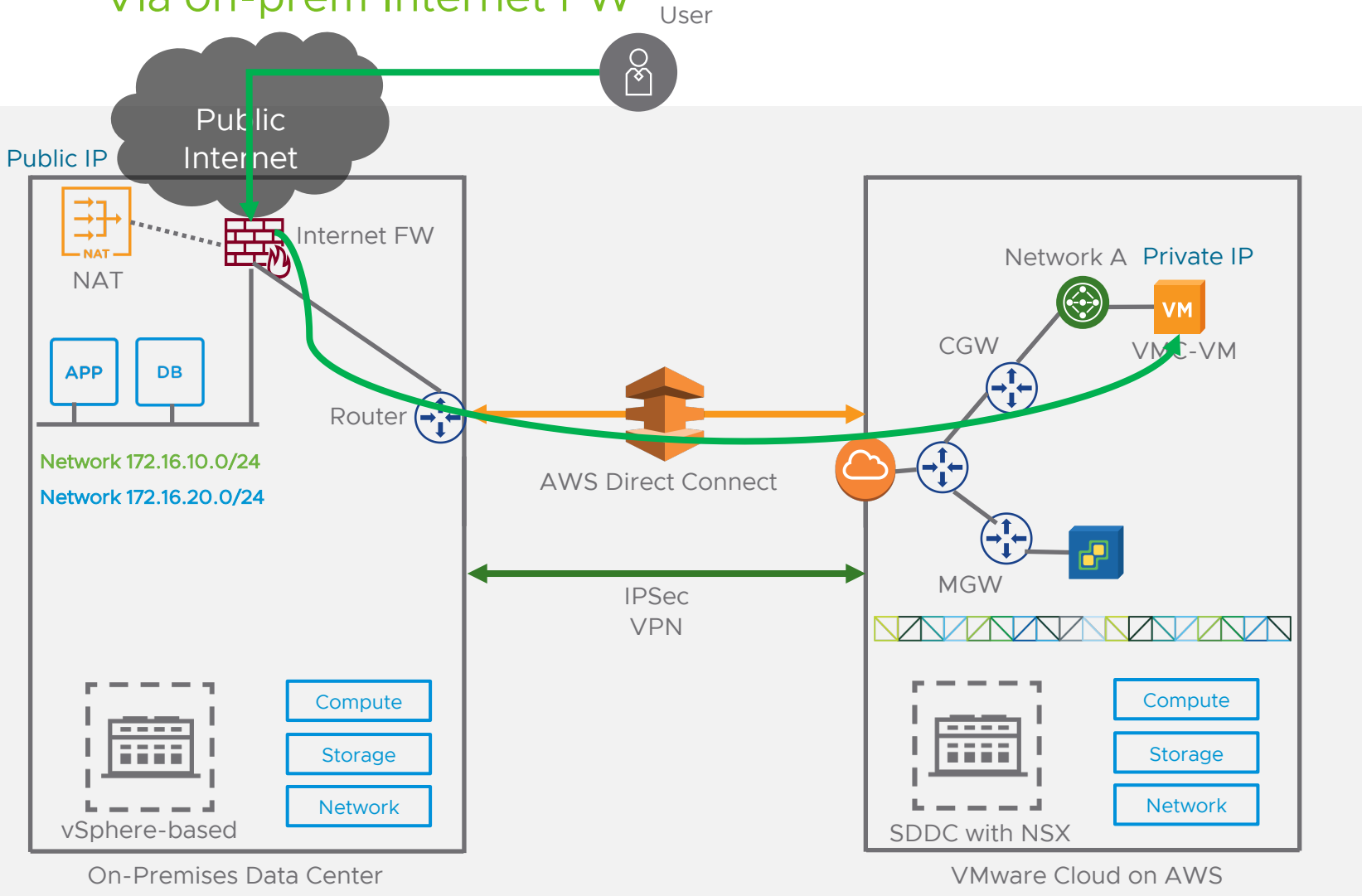
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# Inbound Internet Access

VMware Cloud on AWS

# Inbound Internet Access

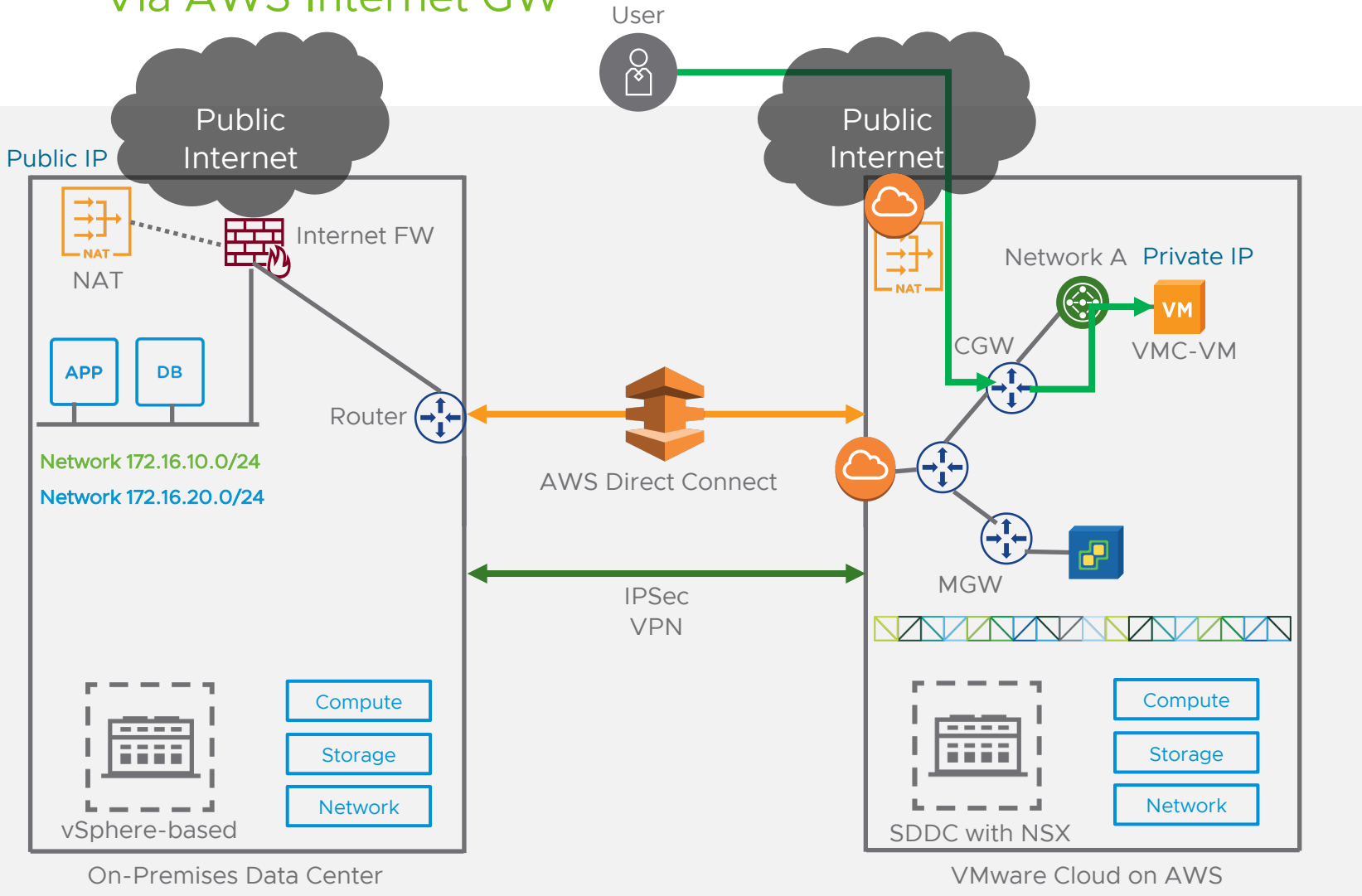
## Via on-prem Internet FW



If the customer uses his own Public IPs and advertise it to the Internet on-prem, inbound traffic from an Internet user will go through the on-prem Internet FW where the destination IP will be natted to the private IP of VMC-VM and transferred across DX/VPN to VMC-VM.

# Inbound Internet Access

## Via AWS Internet GW



If the customer requests Public IPs via the VMC console, they can NAT them to VMs in VMware Cloud on AWS.

Inbound traffic from an Internet user will go through the AWS IGW and the VMC CGW.

# VPC



VPC = Virtual Private Cloud

Your virtual data center on AWS

Block of IPs that define your network (typically RFC 1918)

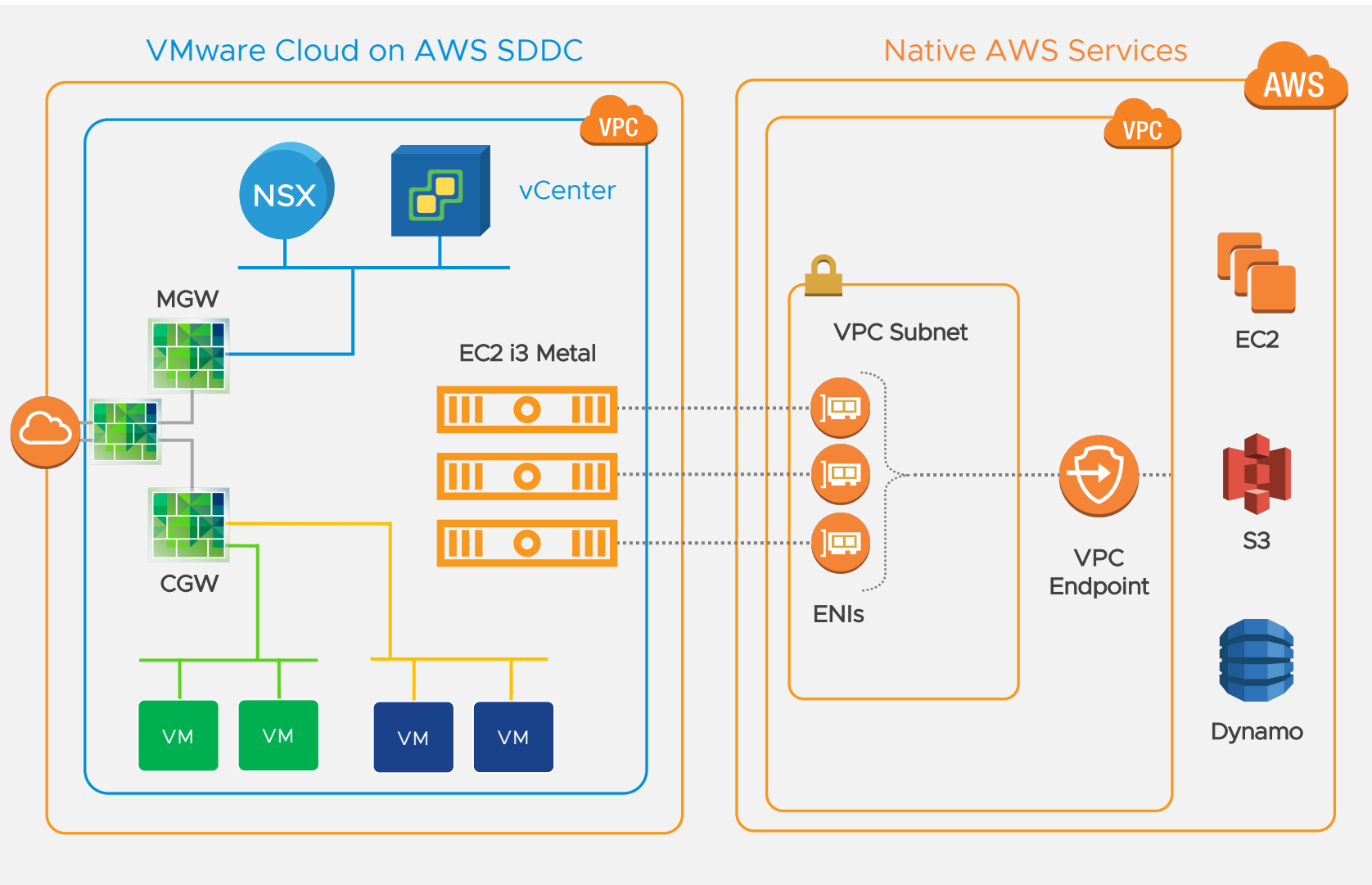
Can span multiple AZs

Default VPCs



# Native AWS Integration

## Elastic Network Interfaces



- Deploy Hybrid Applications across your VMware SDDC and native AWS services
- **Sub-Millisecond** latency via AWS Elastic Network Interfaces (ENI) and VPC Endpoints
- **No Cost** ingress/egress data transfers within AZ
- Modernise applications by integrating VMware with breadth of AWS services

# DEMO

A photograph of a person in a meeting room using a tablet. The person's hands are visible, interacting with the device. In the background, other people are seated at a table, and a laptop is open. The image is overlaid with a blue diagonal gradient.



# Thank You