

Infosys AVS solution



Infosys Azure Practice Overview



Satya Nadella,
CEO Microsoft



Salil Parekh,
CEO Infosys

Competencies
Joint investments



Long-term partnership view

Setting up the foundation for larger transformation and invest in the future. A sentient partnership focused on delivering business outcomes.

Cost & outcome accountability

Committed gains and outcomes; noiseless operations with Integrated Operating Model for better accountability and ownership.

Innovation/out-of-the-box thinking

Innovation ecosystem with SAP and Azure, bringing in service assurance.

8 years of Azure Practice, 50+ Global Client with 150+ engagements

55000+ Trained & 6000+ certified Azure experts

Joint solution development for SAP S/4HANA powered by Azure

Enterprise Apps on Azure	Datacenter Transformation
Native Cloud App Development	Emerging Areas

Awards

- Country Partner of the Year in Philippines & SAP on Azure Award – APAC - 2020
- SAP on Azure – Finalist in 2019 and 2020
- Global Alliance SI Partner of the Year 2019
- SI & Azure growth partner of the year 2018
- MS certified Azure MSP - 2018, Microsoft Platform Modernization Award -2017
- Azure platform partner of the year award for 3 successive years

Why Infosys?



Drive & sustain migration velocity with maximised value



Azure accelerators for reliable at-scale migration



End to end Accountability with User & Region Centric Engagement



Always on Business' powered by continuity plans during migration



Invest in Reskilling & enabling the current team in cloud & digital tech

Differentiators

End to End Cloud Transformation Partner



Business Enabling not Technology Outsourcing



Cloud Expertise & Premier Partnerships



Extensive tools & accelerators



Proven Talent from other Cloud Engagements



Value Proposition

- Our clients trust and rely on us to **Think Cloud, Design Cloud, Migrate to Cloud and Run Cloud**
- **We are Cloud agnostic** – our interests are fully aligned with yours!
- **We bring proven best practices** based on **learning from 100+ engagements**
- With a true **partnership mindset** we bring a business transformation approach by focusing on **business process & application modernization** in the journey to cloud
- We are **AWS premiere Partner** with 2nd largest certified talent & consumption & **Azure premiere partner** with 1st in US and 2nd largest worldwide
- These partnerships enable **a) faster project execution** through experts, utilities & methodologies, **b) Investment and Funding** for POC's and joint solutions and **c) discounted cloud service pricing** for Infosys clients
- Proven **Cloud strategy models and frameworks**
- Proven **Cloud Migration factory (WLM)** to mitigate transformation risk & challenge
- Infosys Infrastructure Management Suite (**IIMS**) for **Hybrid cloud management**
- **Several IPs and accelerators** for cloud native development, automation etc.
- **Business and Domain aware team**
- **Day 1 readiness** with identified and proven **Cloud consulting resources**
- Trained pool of talent for **quick deployment and guaranteed success of Program**

Expand innovation with Infosys Cobalt cloud community

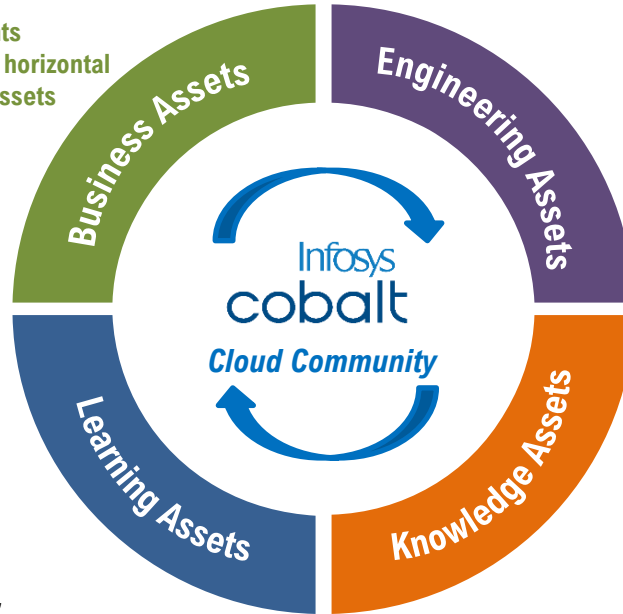
200 industry cloud-first solution blueprints, curated from 14,000 cloud assets

Platforms, solutions, services, industry blueprints focusing on industry verticals and sub verticals, horizontal business capabilities, cross-industry business assets

- Infosys Genome – Data mgmt. solutions
- Skava Commerce
- Telco on Tap
- Transaction Reconciliation System

Learning modules as videos, playgrounds, quizzes, assignments and assessments on technology, Hyperscalers and business solutions delivered through LEX

- Internally created and managed content
- Content sourced from Hyperscalers
- Content from providers like Udacity, Coursera, etc.



Reference architectures, frameworks, solutions, services in the technology domain which can be utilized to create a higher-level solution on a cloud ecosystem

- Infosys Polycloud Platform
- Infosys Wingspan
- Infosys CyberSecurity Platform
- Infosys Cloud workload migration suite

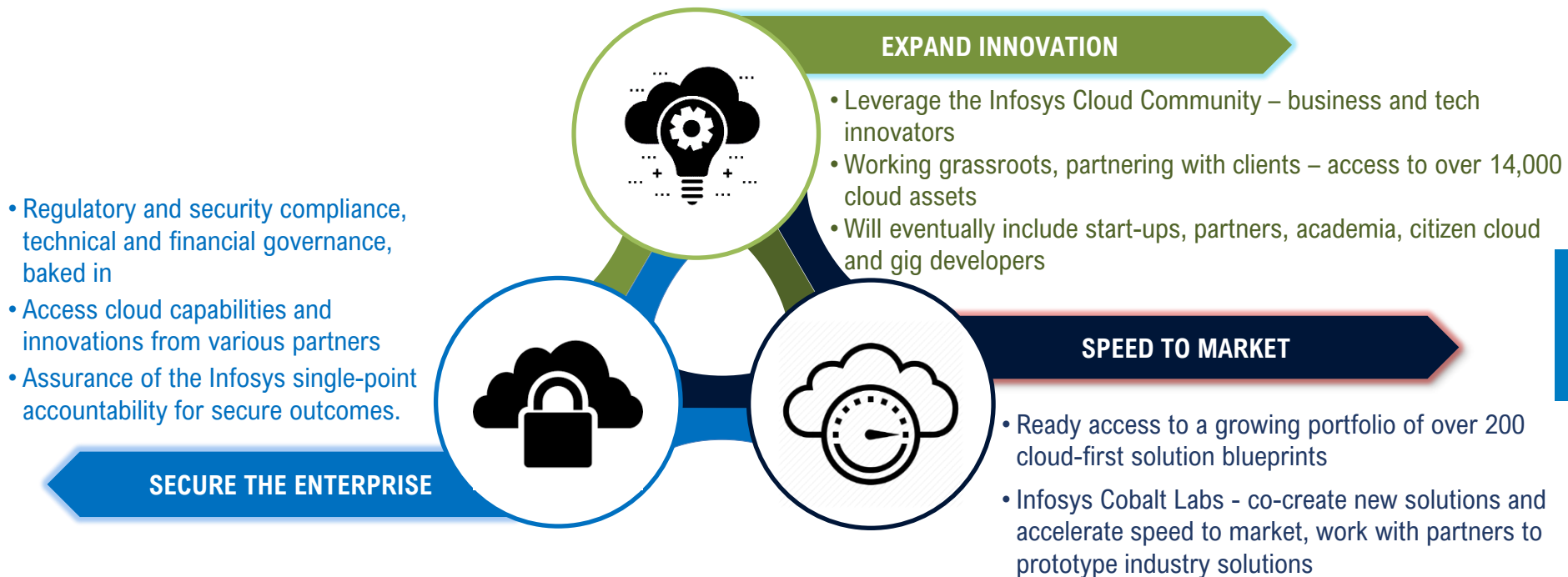
Frameworks, solution capability models, reference architectures, process models which can be utilized for project implementation

- Project documents
- Proposals Templates
- Large deal submissions
- Case studies

Assets will be continuously made available on the **Infosys Cobalt Cloud Store**

Over time, this **cloud community engine** will expand to include clients (and their organizations), partners, academia, startups, gig workers and citizen cloud developers.

What differentiates Infosys Cobalt?



Infosys Cobalt also taps into a rich ecosystem of startups and over 30 leading providers of public and private cloud infrastructure, SaaS, PaaS, applications and enterprise security

Speed to Market

CLOUD FIRST BUSINESS SOLUTIONS



DISRUPT THE NORM

- Cloud-First
- Business Solutions
- Technology Solutions
- Platforms
- Services

INFOSYS COBALT LABS AND PLAYGROUND



PROTOTYPE AND CO-CREATE

- Leverage Design Thinking
- Ideate & Experiment
- Incubate ideas
- Co-create prototypes
- Establish frameworks

VIBRANT PARTNER ECOSYSTEM



TRANSFORM INDUSTRIES

- Leverage Partner Ecosystem
- Preconfigure partnerships
- Transform specific domains

200+ Business Assets



Oil & Gas

- Infosys Vision Analytics Platform
- Critical Remote Equipment Monitoring System
- IoT based Field Service*
- Urban Grid*



Banking & Finance

- Mortgage as a Service
- Recon in a Box
- Business Banking – Virtual CFO
- Anti-money laundering



Telecom, Media

- Telco on Tap
- Sentient Telecom Operations
- Infosys Media Platform
- Open Network Automation Platform



Health Care & Insurance

- Life Science Insights
- Payer Platform
- Drug Repurpose Platform
- Correspondence Generation Solution



Manufacturing

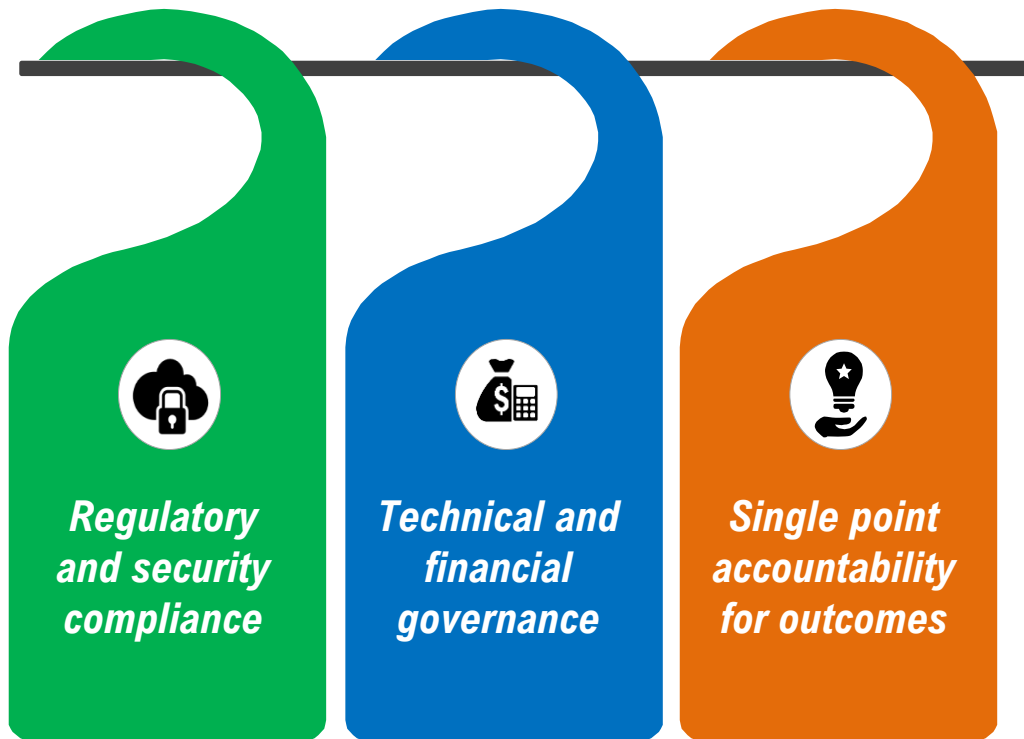
- Digital Agriculture
- Blockchain Based Supply Chain
- Digital Factory – IoT*
- Auto Factory Automation*



Retail

- Boundless Store
- Shopping Analytics Solution
- Location Based Solutions*
- Infosys Voice Solutions*

Securing the cloud ecosystem by design



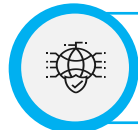
Data Privacy & Protection

Improve visibility and control of sensitive data in compliance with regulatory and business requirements



Emerging Technologies

Minimize the risk surface in IoT, OT, Blockchain, RPA and other emerging technological initiatives



Threat Detection and Response

Strengthen ability to detect and manage security incidents with a robust and integrated architecture and automated process



Managed Security Services

Continually improve cybersecurity maturity by leveraging Infosys Cyber Defense Centers powered by advanced security platforms



Governance, Risk and Compliance

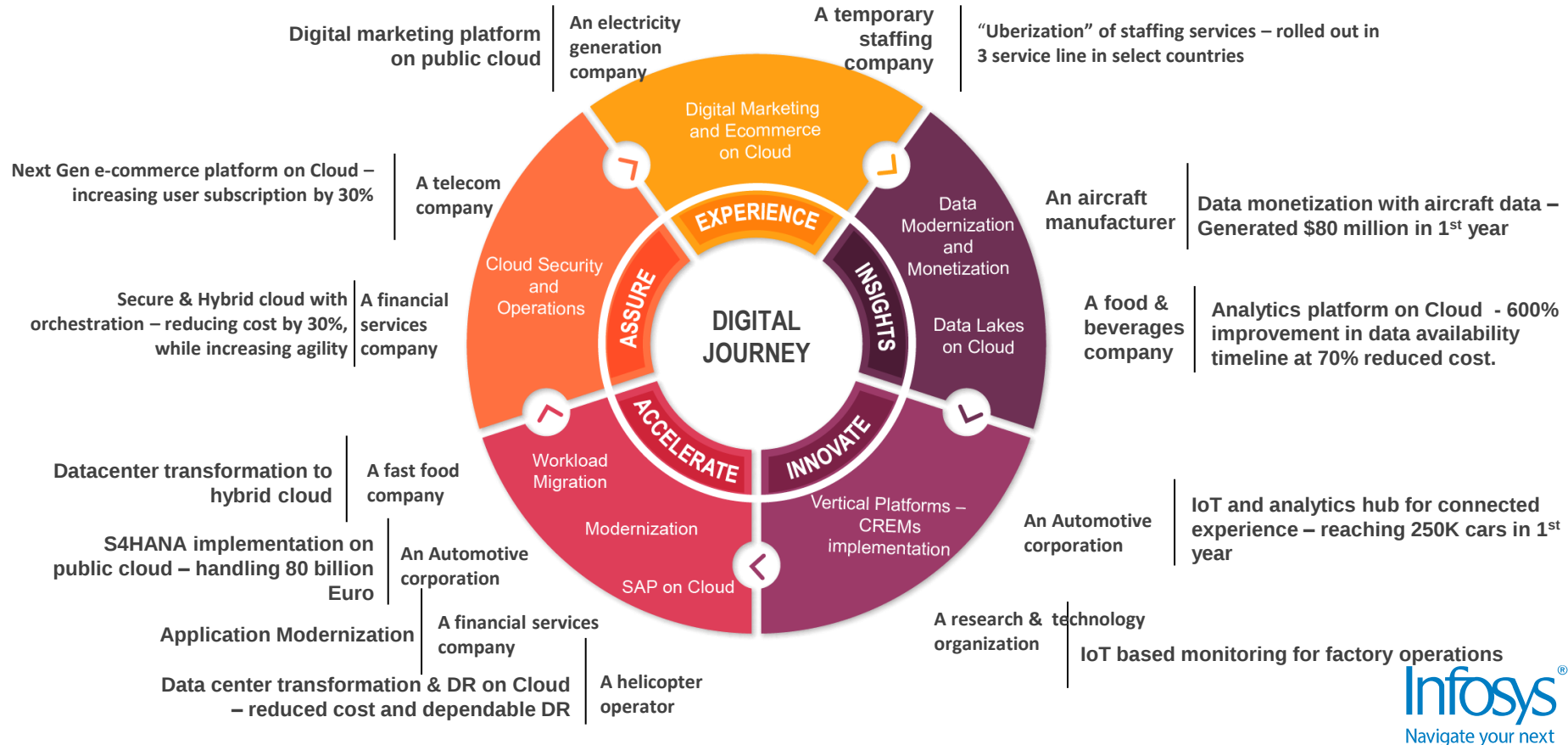
Effectively and efficiently govern risk, maintain compliance and improve decision making in a constantly evolving business and regulatory environment



Infrastructure Security

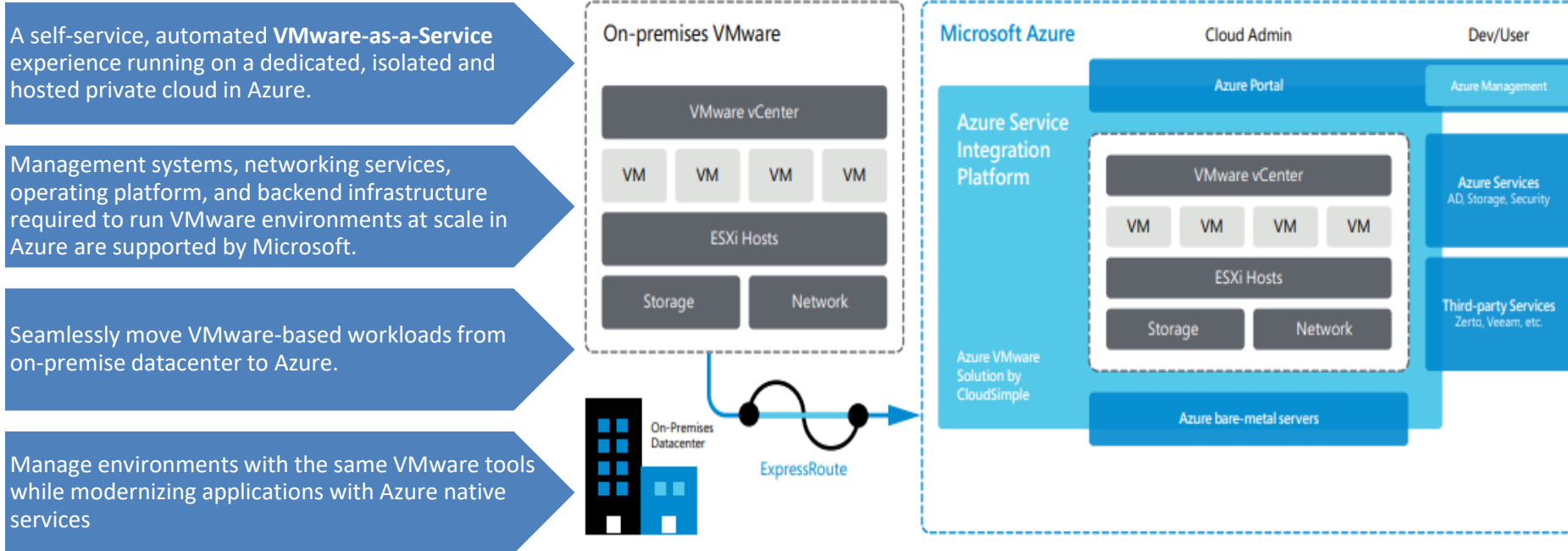
Enhance cyber defense by bringing cybersecurity skills-at-scale and deploying best in class ilities

We have helped clients across industry segments to navigate their digital transformation with cloud



Azure VMware Solution

The Azure VMware Solution is an Azure service to bring VMware-based environments to Azure. It allows to run VMware workloads natively on Azure. Below is the Logical Design of the Solution and its key features:



Azure VMware Solution Components

Compute:

The underlying infrastructure features Azure bare-metal servers equipped with Intel Xeon processors.

Hypervisor:

Microsoft managed hypervisor with no host access to VMware or any third party.
Supports vSphere 5.5. and earlier.
VMware HCX is included as a part of service.

Storage:

The storage infrastructure is based on hyperconverged vSAN, can be easily expanded by adding more nodes. Use of Azure storage for various purposes.

Network and Security:

Built in NSX-T, including full support for microsegmentation. Underlay network segmentation is provided via vLAN and network security groups.
Edge services for access are available via VPN, public IP, and internet.

Management:

VMware standard suite can be used for management.
Azure key features are supported, such as access control, audit logging, alerting, and metrics management, as well as Azure Monitor.

Azure VMware Solution (AVS) Deployment Approach

Plan & Design

- IP Segmentation
- Host Sizing
- Define VMware HCX Network Segments

Deploy

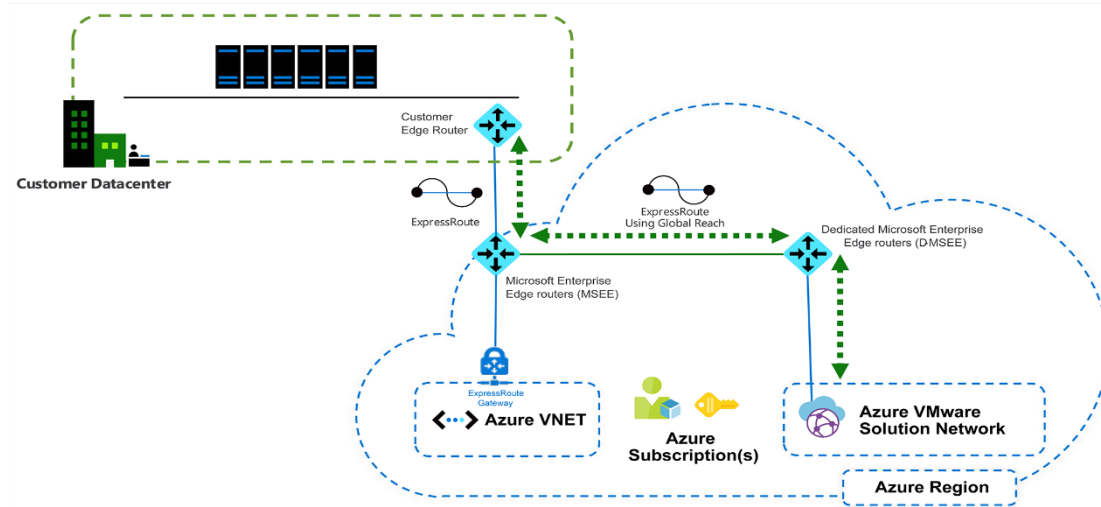
- Create AVS private Cloud
- Connect VNet with Express Route

Connect to On Premise

- Establish ER Global Reach
- Verify On Prem Connectivity

Deploy & Configure VMware HCX

- Deploy the on-premises VMware HCX OVA
- Pair with HCX Connector with your Azure VMware Solution HCX Cloud Manager.



- ExpressRoute Global Reach connection between on-premises environment and Private Cloud.
- Firewall configuration on the on-premise servers
- HCX and application ports & protocols
- Gateway CIDR from RFC 1918 space with address range /28
- vSphere/vSAN CIDR with address range /22 or higher
- Public IP for peer identification for on premises gateway

No IP Change Required

No Downtime

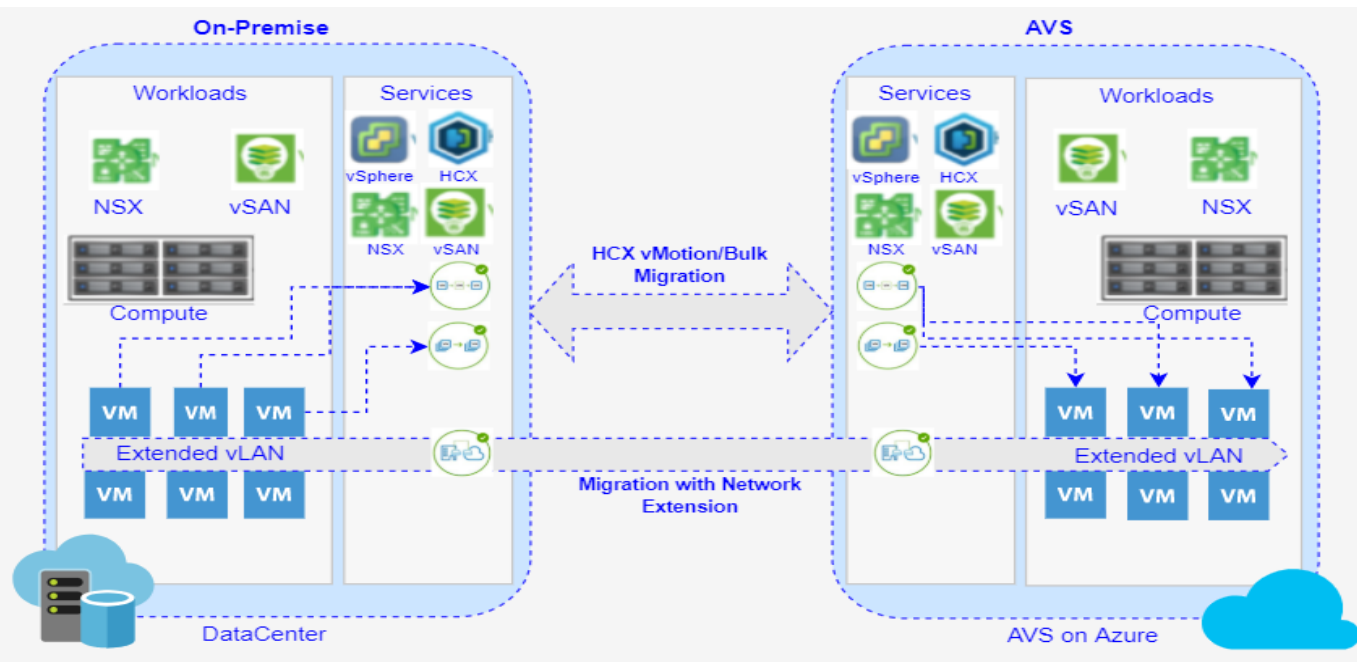
Large Scale Bulk Migration

Mobility Groups – Logical grouping

Azure VMware Solution - Migration Approach

Virtual Machines (Workloads) Migration from OnPrem VMware datacenter to AVS can be achieved by :

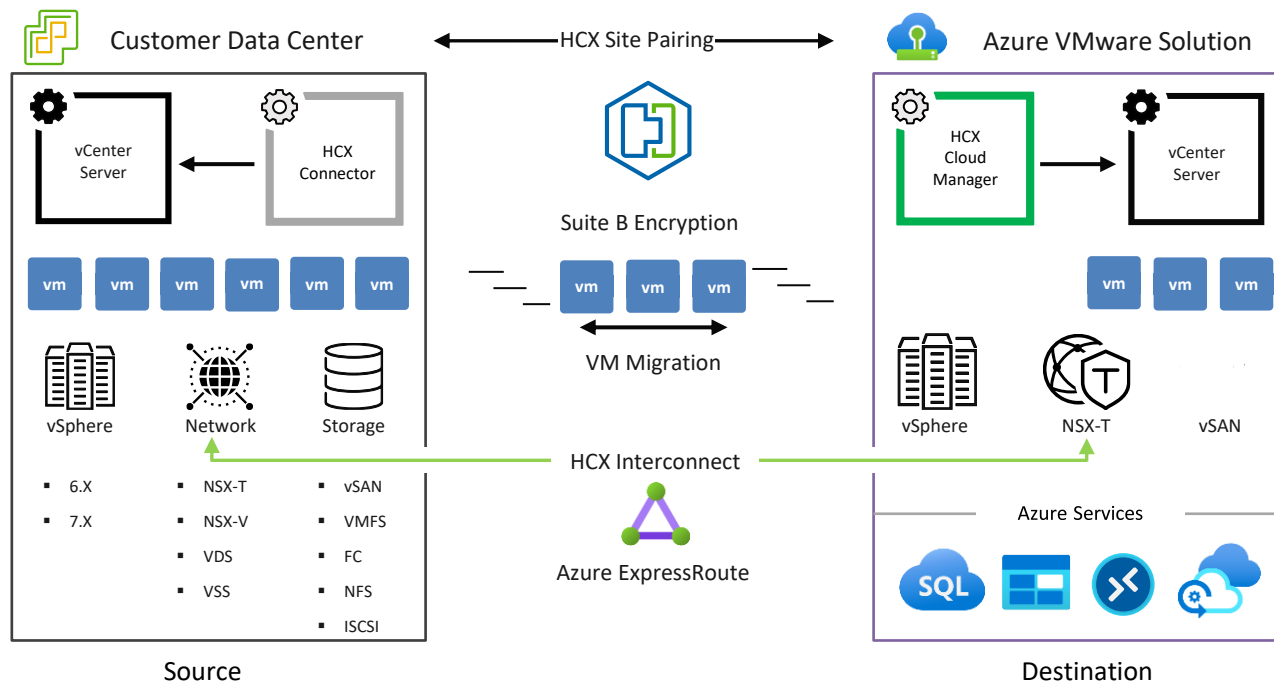
- HCX vMotion Bulk Migration by changing IP of VMs and creating new vLANs in AVS
- Extending existing On-premise vLAN to AVS, without changing IP of VMs



Key Highlights

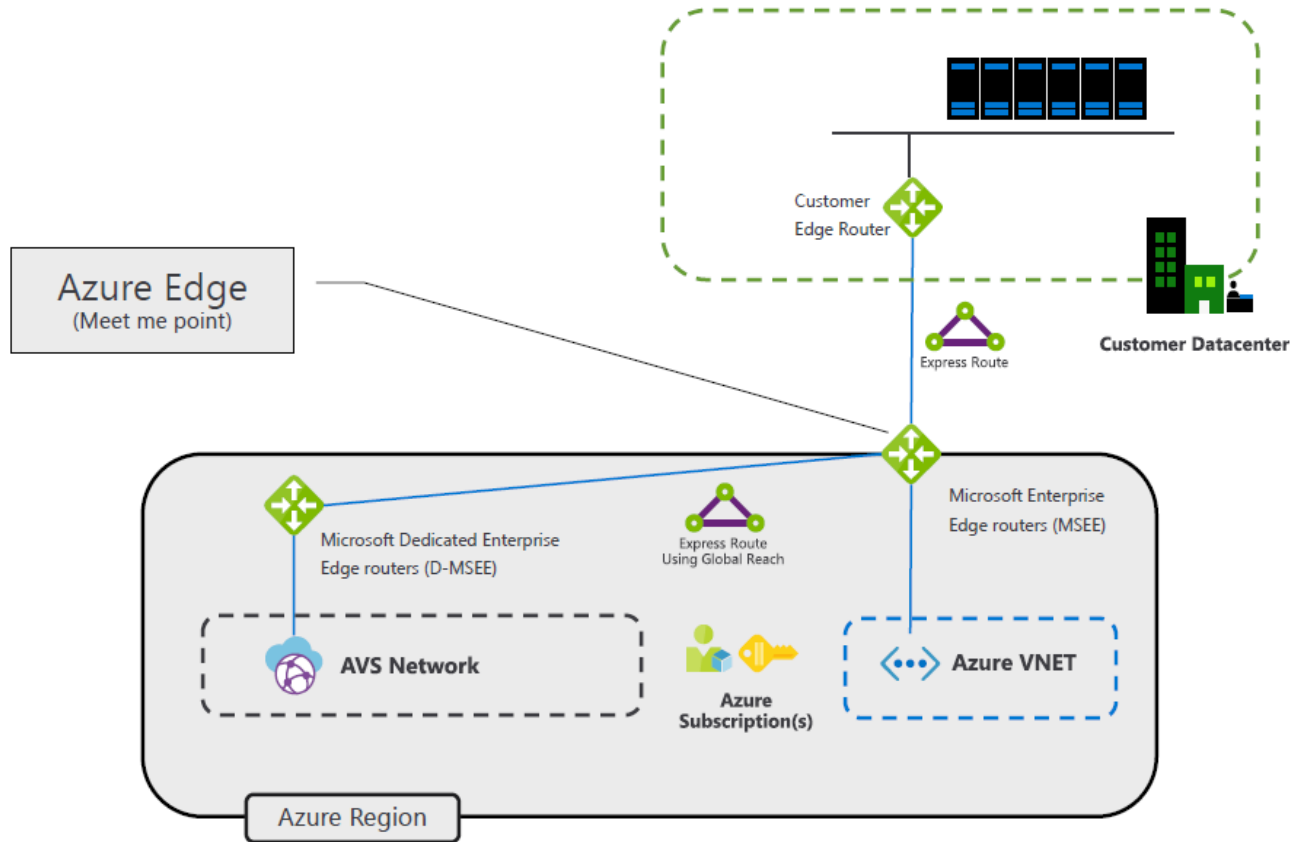
- Azure VMware migration with Layer2 stretch, network extension provides optimal ingress and egress connectivity for virtual machines at destination.
- IP addresses can be retained by migrating with Network Extension.
- Existing VMware tools and products, including vCenter, vSphere Client, vMotion, vRealize Operations, Power CLI, etc. can be leveraged

VMware HCX Connectivity across On-Premise and Azure

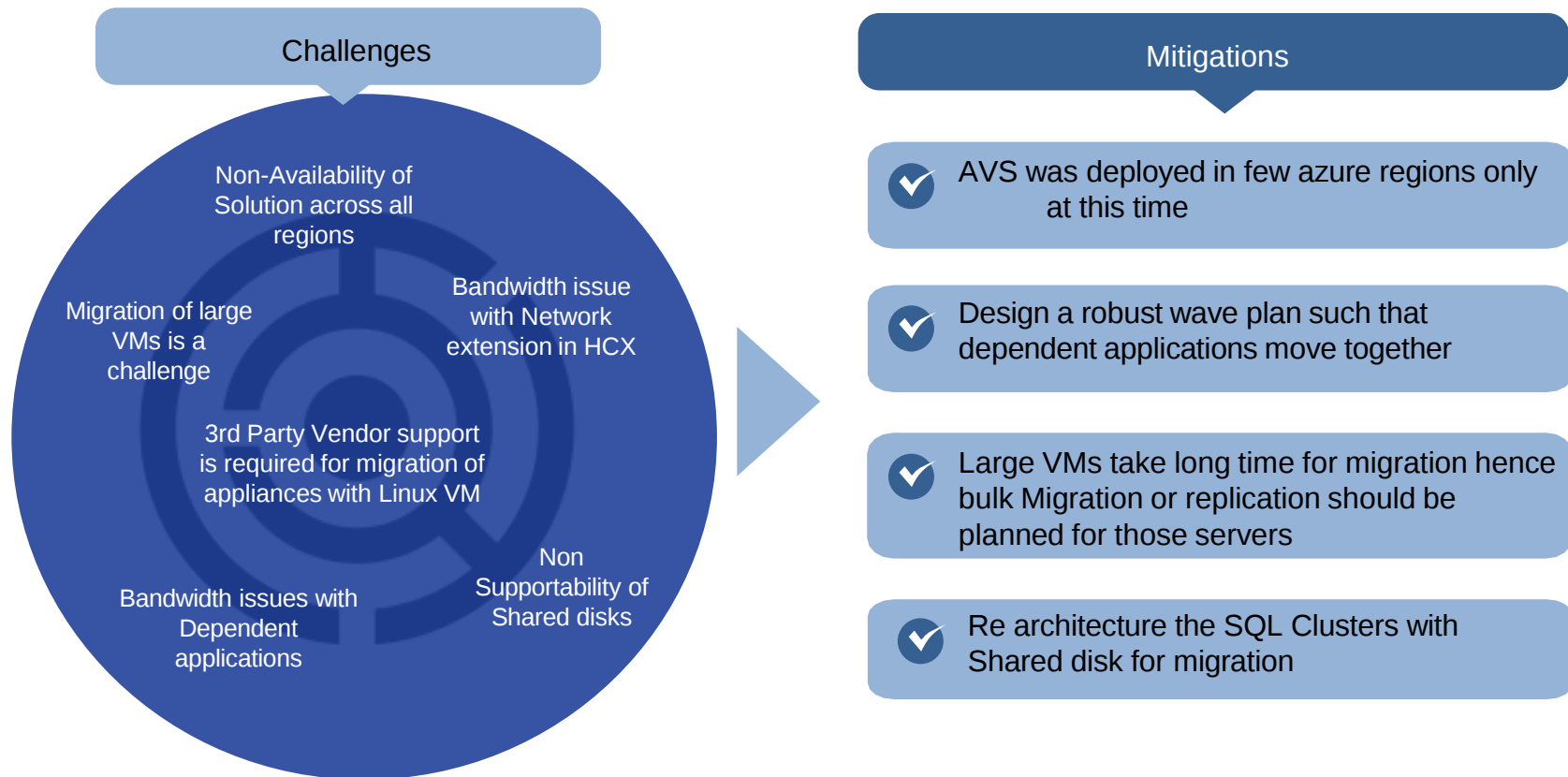


Detailed Activities to Setup connectivity from On-Premise – cloud migration

- Azure ExpressRoute across On-Premise and Azure
- NSX-T connectivity across Source & Destination
- HCX Connector and HCX Cloud Manager deployed on Source and Destination
- HCX Site Peering
- Enable Hybrid Interconnect Service and Bulk Migration Service
- VM Migration via HCX vMotion/Bulk Migration



- Site-to-Site VPN connection or ExpressRoute Global Reach connection between on-premises environment and Private Cloud.
- Firewall configuration on the on premise servers
- Ports need to be open (53, 8000) on On-premise as well as Azure and (80, 443) only on premise
- Gateway CIDR from RFC 1918 space with address range /28
- vSphere/vSAN CIDR with address range /24 or /23 or /22 or /21
- Public IP for peer identification for on premises gateway



Key Features of Azure VMware Solution

Deep integration with an existing On-Prem VMware environment.

- Continue with native VMware vSphere support in Azure without rearchitecting current setup or converting existing vSphere VMs.
- Leverage existing VMware tools and products, including vCenter, vSphere Client, vMotion, vRealize Operations, Power CLI, etc.
- Use built-in VMware products like VMware vSphere, vSAN, and NSX-T.
- Support existing VMware environment networking capabilities.

Resilient and high-performance infrastructure.

- Use a self-service, automated service running on a dedicated, isolated, and single-tenant environment in Azure
- Add or remove Software Defined Datacenter (SDDC) hosts with one click using integrated management with Azure Resource Manager (ARM).
- Access a high-performance, VMware optimized infrastructure that can be rightsized to match any application requirements.
- Support for high level of security and encryption.

Deep integration with Azure

- Broad access to the innovation, scale, elasticity, and economies of scale that Azure offers, including the massive array of Azure services such as Azure Active Directory, AI and Analytics.
- Leverage Azure AD as your VMware vCenter Single Sign-On identity source.
- Highly secure, high-speed, low latency connectivity to Azure using express route and VPN services.
- Support for the most popular DevOps toolchains (e.g., Terraform, Jenkins, Puppet, Chef, and others) to help automate IT environment.

Benefits of Azure VMware Solution



Lower costs

- Investment protection (tools, relationships, and skills)
- Free Extended Security Updates and reservation pricing
- Azure economies of scale



Innovation

- Access to a massive ecosystem of Azure services
- Ability to modernize applications
- DevOps toolchains in VMware environments



Operational and business agility

- No application refactoring
- Operational continuity
- Accelerated transition to Azure

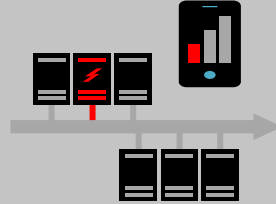
- Lower cost for Windows Server and SQL Server—provides major cost reductions for Windows Server and SQL Server with Extended Security Updates, including Azure reservations discounts
- Unified Management—enables a single pane of glass to manage vSphere-based and Azure native VMs with uniform identities, access control, and monitoring.
- Azure native service integrations— offers Azure AD as VMware vCenter SSO identity source. Connect to Azure services endpoints

AVS common Use Cases

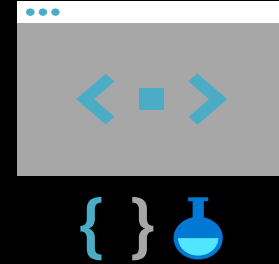
Datacenter footprint expansion,
reduction, or retirement



DR & Business continuity



Application modernization



Data Center
retirement or
migration

Expansion on
demand

Disaster
Recovery

Virtual
Desktops

Hosting High-
Performance
Apps

Hybrid
Cloud



Thank You