



# **LTI Mindtree Azure VMware Solution**

## Why AVS?

- AVS is a comprehensive VMware environment on dedicated Azure infrastructure. Build by Microsoft and VMware. It runs your VMware workloads natively on Azure, supported and operated by Microsoft. It allows you to manage, and secure applications across VMware environments and Microsoft Azure with a consistent operating framework.
- This solution document specifically focuses on the Azure VMware solution approach to perform on premises VMWare infrastructure migration to Microsoft Azure VMware Solution.
- Azure VMware Solution (AVS) lets you seamlessly move VMware workloads from your datacenter to Azure and integrate additional Azure services with ease—all while continuing to manage your IT environments with the same VMware tools you already know.

## Use cases

- Disaster recovery and business continuity
- Datacenter expansion, reduction or retirement
- Application modernization, development and testing
- Speed and simplification of migration/hybrid cloud

## Challenges with native cloud migration approach

- Monotonous process of migration from on-premise to cloud using Azure migrate services
- Traditional approach uses different hypervisor, VM format, VM tools, networking and Storage
- Traditional approach needs VM conversion from VMware VM to Azure native hypervisor VM
- Traditional approach requires you to rebuild your existing automation, needs App replatforming
- Native cloud management is done using Azure portal, CLI or Azure power-shell
- You require new skills to manage your native cloud infrastructure
- In native cloud migration there is no support for migration back to on-premises
- vSphere HA protection is lost while we use native cloud approach

## Why LTIMindtree for AVS?

- LTIMindtree has pool of VMware experts to understand and assess clients on-premises infrastructure
- LTIMindtree has pool of Azure VMware solution experts to support VMware on prem infrastructure migration to Azure VMware Solution
- We do Assessment, Design & Plan, Migrate & Validate, manage and operate
- We Identify potential workloads, Define migration paths, build target environment
- 2 weeks of On premises Discovery, assessment and setup and initial one application migration will be done, post that customer will be benefitted with free POC AVS environment for 2 weeks to test migration, validate performance/security as per defined benchmarks

## AVS Features

- Run your VMware platform and workloads today in the cloud without needing to re-architect applications and gain the continuity, scale, and fast provisioning of your VMware workloads on global Azure infrastructure.
- AVS provides the path forward to move to the cloud on your terms. Gain the choice and flexibility to determine what workloads to migrate and the right time to migrate them. With platform symmetry, you have the control to transform based on your cloud journey.
- Reduce, retire, or consolidate your datacenter footprint with a one-time redeployment of your VMware-based virtual machines. Lift and shift any vSphere-based workloads to Azure in a nondisruptive, automated, scalable, and highly available way without changing the underlying vSphere hypervisor.
- Built-in continuity, speed and scale with modern infra
- Seamlessly modernize apps overtime with Azure
- Leverage existing VMware skills and tools
- Unmatched pricing for Windows and SQL server

## LTIMindtree Solution Features

- LTIM provides end to end solution for migrating on Prem infrastructure to Azure. With this solution LTIM offers end to end - Assessment, Design/Plan, Migration/Validation, management and operation of client infra in AVS. LTIM will Work with Microsoft to Setup Target AVS, prepare Target Architecture, Setup migration environment. As an LTIM Customer, customer can will be benefitted with POC AVS environment for 30 days at no cost, during these 30 days customer can test migration validate performance/security benchmarks defined for critical apps and INFRA
- With LTIM AVS offering customers can achieve Powerful deliverables in just few weeks like Cloud Strategy, Deployment Model and Migration Path.
- LTIM has expertise in leveraging AVS for migration of on prem VMware Infrastructure to Azure. Azure VMWare Solution is a Microsoft service, verified by VMware, that runs on Azure infrastructure. If you are running VMware vSphere and considering a move to the cloud, AVS lets you deploy in SDDC and migrate your VMs with ease. This is simple vSphere to vSphere Migration and customer can maintain all their existing VMware investments they have today. Reap the benefits of cloud elasticity and scale, while saving on cost and without the change to current processes or re-skilling existing teams

### Familiar VMware Technology

- Native vSphere support
- Fully featured networking stack
- vSphere management, vSAN, and NSX-T
- HCX Enterprise now available to support migration

### Integration with Azure

- Management and governance
- Security
- Low-latency connectivity to Azure
- Leverage Azure ecosystem
- Single point of support
- DevOps toolchain

### High Performance Cloud Infrastructure

- Optimized elastic infrastructure
- Automated self-service provisioning
- Dedicated, isolated, bare metal infrastructure
- Redundancy and placement control
- Security and encryption

## What is in it for you?

- Reserved instance benefits for dedicated Nodes
- Extended Security Updates for 3 years for free for MS Windows & SQL Servers
- Bring in your own licenses with SA
- Assessment & Seamless Migration
- Applications across VMware environments and Microsoft Azure with a common operating framework e.g., Azure portal
- Connect to IaaS, PaaS and other Azure native services
- Modernization support for the applications to Azure Cloud Native Services
- Single pane of glass management platform for cloud & On-Premise

## What we deliver?

- Right Platform for each workloads
- Right Size & Right fit Target architecture
- Target High level Design
- Recommendation on cloud best practices
- BOM for Target Platform
- Deployment Report along with resource details
- Integration with Azure Native Toolset
- Integration with Azure Cloud Eco-System
- Hybrid CMP e.g., Azure Arc
- Cost Optimization

## What we need?

- RV Tools Output – VMs, Apps to migrate
- Timelines – Capacity Challenges, Aging hardware, End of Datacenter contract, Datacenter exit deadlines, Application Modernization
- Types of Workloads – Windows, Linux, Oracle etc.
- Existing Costs for preparation of Business case
- Details of Licensing & Software Assurance
- Presence on Azure
  - ExpressRoute available
  - Landing Zone readiness
  - Azure Subscriptions, RG, region etc.
- Want to retain IPs?

### Assessment

- Assessment using VMware RVTools or Azure Migrate
- Application Assessment for cloud readiness
- Data collection & Analysis
- Identify Potential Workloads for AVS, Azure PaaS, Managed instances or containerization
- Business Case Presentation

### Design & Plan

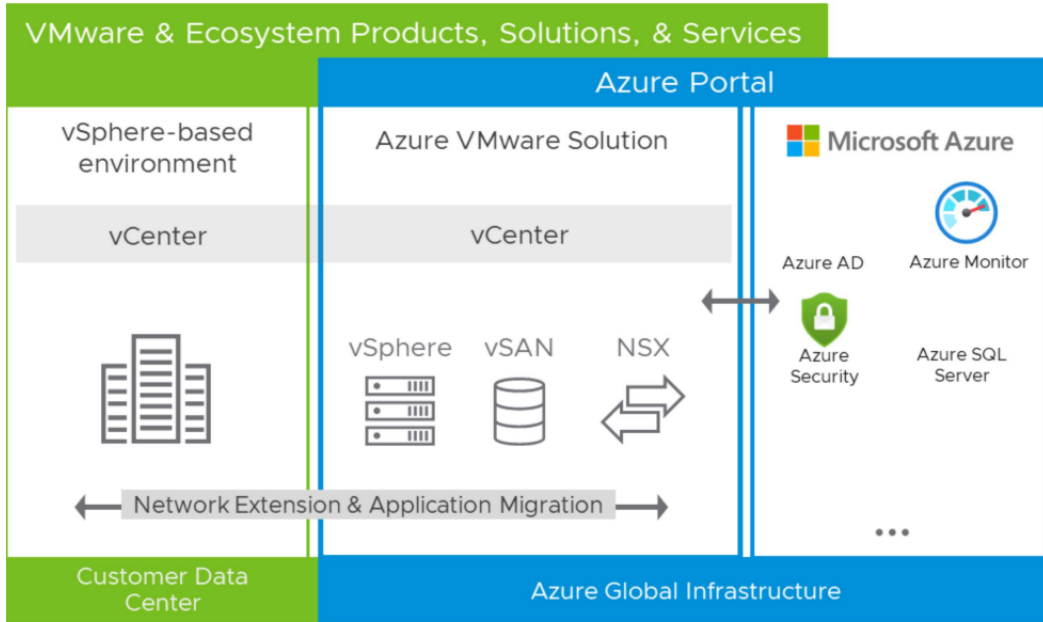
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### Migrate & Validate

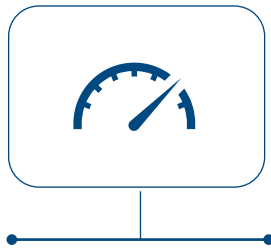
- Setup migration environment
- Collaborate and plan Migration Waves
- Build target environment for cloud native services
- Migrate workloads to appropriate target environment
- Define and execute VM or host placement policies
- Test and Validate
- Setup Integration AVS & Azure cloud native services

### Manage & Operate

# Technology components of AVS - Architecture



- AVS Provides a VMWare on bare-metal Azure infrastructure
- AVS make “Lift and Shift” migrations easy by developing a VMWare SDDC stack on bare-metal servers running in Microsoft’s VMWare cloud verified Azure Data centers.
- The VMWare SDDC provides a fully VMWare consistent platform of vSphere (compute), VMWare vSAN (Storage) and VMWare NSX-T (Networking) so your applications and VMs can easily migrate to Azure with no replat-forming or refactoring needed
- Azure VMWare Solution uses familiar VMWare management tools like vCenter and the vSphere client, so all your operational skills and processes works seamlessly
- AVS includes VMWare HCX to extend your on-premises network to your VMWare SDDC on Azure to enable bi-directional bulk, and even live migrations of applications and virtual machines
- By Stretching your on-premises ayer-2 network to Azure, HCX lets you avoid the complexity of changing the IP addresses of migrated VMs



Built-in continuity, speed and scale with modern infra



Leverage existing VMware skills, and tools



Seamlessly modernize apps overtime with Azure



Unmatched pricing for Windows and SQL Server

**Accelerate, Modernize, Simplify**

# Engagement Model for AVS & Azure Native

| Description   | Physical Infrastructure | Physical Security | Azure / AVS Portal | Hardware failures | ESXi Hosts | Host Patching | NSX-T       | Identity Management | vCenter     | vSAN        | HCX, SRM & 3rd party solutions | Virtual Machines | Guest OS    | Applications |
|---------------|-------------------------|-------------------|--------------------|-------------------|------------|---------------|-------------|---------------------|-------------|-------------|--------------------------------|------------------|-------------|--------------|
| Deployment    | Microsoft               | Microsoft         | Microsoft          | Microsoft         | Microsoft  | Microsoft     | Microsoft   | Microsoft           | Microsoft   | Microsoft   | Microsoft                      | LTIMindtree      | LTIMindtree | LTIMindtree  |
| LifeCycle     | Microsoft               | Microsoft         | Microsoft          | Microsoft         | Microsoft  | Microsoft     | Microsoft   | Microsoft           | Microsoft   | Microsoft   | Microsoft                      | LTIMindtree      | LTIMindtree | LTIMindtree  |
| Configuration | Microsoft               | Microsoft         | Microsoft          | Microsoft         | Microsoft  | Microsoft     | LTIMindtree | LTIMindtree         | LTIMindtree | LTIMindtree | LTIMindtree                    | LTIMindtree      | LTIMindtree | LTIMindtree  |

Microsoft

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## Migration to AVS and Azure Native

- *Discovery & Assessment with LTIMindtree Assessment Tools*
- *Azure VMware Solution (AVS) readiness with Sizing & Utilization*
- *Business Case with cost estimation*
- *Fulfil Pre-requisites & Plan Deployment*
- *Migration Setup Readiness*
- *Automated provisioning of Enterprise Landing Zone (If required)*
- *Target Cloud Design and Deploy*
- *Migrate On-Premise Workloads to AVS and Azure Native with LTIMindtree MigExpress migration framework*

## Additional value add services

- *Manage & Operate AVS & Azure Cloud Native Services*
- *Application Modernization assessment & approach after the workloads are moved to AVS – Monolith as containers, VM as containers, Cloud native containers, Serverless containers, Platform services as containers*



***LTIMindtree***