

Navigating the transition from VMware or Hyper-V Solutions to Microsoft Cloud Solutions: [A business guide](#)



Executive summary

As organisations continually seek to optimise their IT infrastructure, many are exploring options to transition from traditional on premises, virtualised environments, such as VMware and Hyper-V environments to more modern, cloud-based solutions. Microsoft offers a suite of robust alternatives, including Azure, Azure Stack HCI, and Azure VMware Solution (AVS), each providing unique advantages tailored to different business needs. Complex hybrid and multi-cloud environments can be managed from a single pane of glass using technologies such as Azure Arc. This white paper aims to guide Hyper-V and VMware customers through their exit options, helping them understand the benefits, considerations, and steps involved in transitioning to Microsoft's hybrid cloud ecosystem.

Introduction

The evolving landscape of IT infrastructure demands agility, scalability, and cost-effectiveness. On Premises virtualisation technology has been a cornerstone of IT for years, but with the rise of cloud computing and hybrid solutions, many enterprises are reevaluating their current setups. Microsoft's Azure, Azure Stack HCI, and AVS offer compelling pathways for organisations looking to modernise their infrastructure.

It should be also noted that cloud is now the ecosystem for innovation. Most ISVs now offer SaaS versions of key platforms, key vendors like Microsoft now innovate more with their cloud solutions in mind, rather than their on-premises equivalents, and AI, advanced data and analytics services are all based out of the cloud. The use of DevOps and Infrastructure-as-Code can bring about automation and standardisation benefits, making organisations more efficient and able to do more with less.



Transition pathways

1. Migrating to Azure

Overview

Azure is Microsoft's public cloud platform, offering a comprehensive suite of services including computing, storage, databases, and networking. Migrating to Azure allows organisations to leverage a highly scalable and resilient infrastructure, with extensive global reach and advanced services like AI, machine learning, and analytics. However, Azure is also a global marketplace for innovative data and platform services such as Azure Databricks, Azure Machine Learning Studio and Azure Kubernetes Services (AKS) that customers can leverage on a Pay-as-you-Go basis.

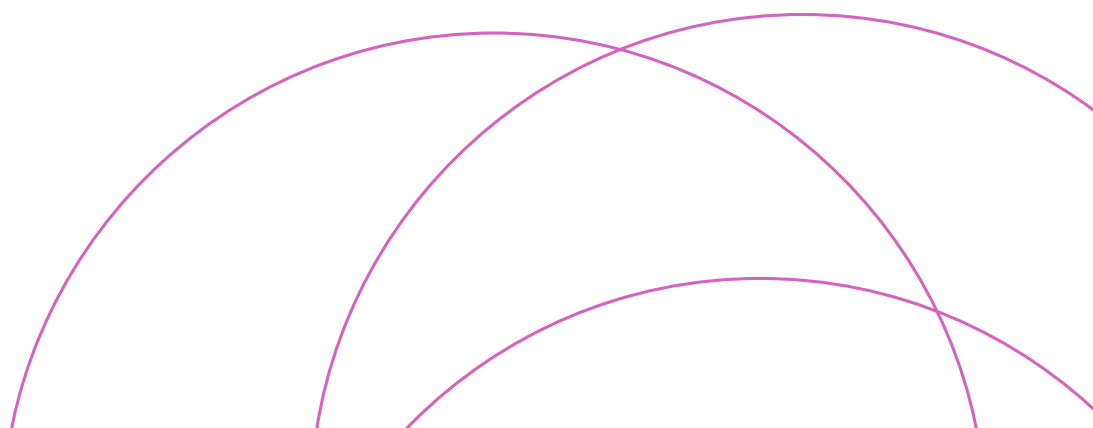


Benefits

- ✔ **Automation:** Many of our customers are struggling with small IT teams and shrinking IT budgets. IT teams are effectively being asked to do more with less. One of the overlooked advantages (in our view possibly the key advantage) is the ability to automate using Infrastructure-as-code (IaC). This means that code templates can be deployed to stand up entire compute and application environments. Deployment from scratch of networks, subnets, VMs, provision of operating systems, deployment of management tools, backups and security tools in an on premises environment can take weeks or even months. Deployment of the same infrastructure using IaC, using tools such as Terraform, can be done in days, if not weeks. Application of DevOps and CI/CD can bring about even further automation.
- ✔ **Scalability:** On-demand resources that can scale automatically to meet business needs.
Cost Efficiency: Pay-as-you-go pricing models reduce capital expenditure. Also, customers can trial innovative technologies like Chatbots, Data and Analytics, AI and ML without an expensive upfront investment. This makes innovation a far less risky proposition than in an on premises environment.
- ✔ **Advanced Services:** As mentioned previously, innovative services like Microsoft Fabric, for data and analytics, Generative AI, Machine Learning, as well as Serverless technologies like AKS, Functions and Webapps can all be accessed via Azure. Azure and other cloud ecosystems are now the primary playground for innovation. Remaining on entirely on-premises risks stagnating and organisations losing their competitive edge.
- ✔ **Global Reach:** For organisations that have a global presence or a global supply chain, an extensive network of data centres across the globe, technologies such as CDNs, Traffic Manager and Azure Virtual WAN makes IT user and customer experience a much better proposition.

Considerations

- ✔ **Compatibility:** Assess compatibility of existing Hyper-V or VMware workloads with Azure services. Things to check are operating system levels. We at Trustmarque often come across customers who have legacy applications (for example in the case of NHS customers, these can be clinical applications), that are designed for SQL Sever 2008 for example, or Windows Server 2008, or even older versions. Moving these to Azure, or even keeping them running on premises is a security hazard, as they are no longer subject to security updates. In such cases we have often worked with customers to containerise these applications and their ecosystem, as this is often easier than a forklift OS or SQL upgrade. Containers are also an extremely secure solution as they massively reduce the attack surface.
- ✔ **Migration strategy:** Choose between rehosting, refactoring, or rearchitecting applications. To de-risk migrations, some of our customers lift and shift their VMs to Azure, then as a second project, look at modernisation and application of PaaS services. The prevalence of tools such as Azure Migrate and Dr. Migrate have made a lift and shift migration relatively painless. It should be noted that that savings can be availed from moving Windows Server and SQL Server to Azure. By doing this, customers can leverage free Extended Security Updates for over two years.
- ✔ **Security and compliance:** Ensure compliance with industry regulations and standards. Designing and deploying a safe and secure Landing Zone, with control and Azure Policy built in ensures that data in the cloud remains secure and compliant.
- ✔ **Skills transfer:** As with all technologies, the best way to learn how to manage workloads in Azure it to get stuck in. We recommend building migration tranches into a migration so that IT teams can come to grips with management, monitoring and troubleshooting in Azure across several early, low risk migration tranches. For example, customers could take a subset of test and dev workloads to migrate first so that they can get to grips with the basics of Azure administration without disrupting business operations. For VMware customers, Azure VMware Solution (AVS) can provide an even safer, initial onboarding ramp. IT Administrators can continue to use VMware management technologies such as vCentre to manage their cloud workloads, then subsequently look at moving to pure Azure services.



2. Transitioning to Azure VMware Solution (AVS)

Overview

Azure VMware Solution (AVS) provides a straightforward pathway for VMware customers to extend or migrate their on-premises VMware environments to Azure. AVS supports running VMware-based workloads natively on Azure infrastructure. Put simply, if a workload is working on premises on VMware, it will work on Azure VMware Solution. For VMware customers, this is the path of minimal risk.

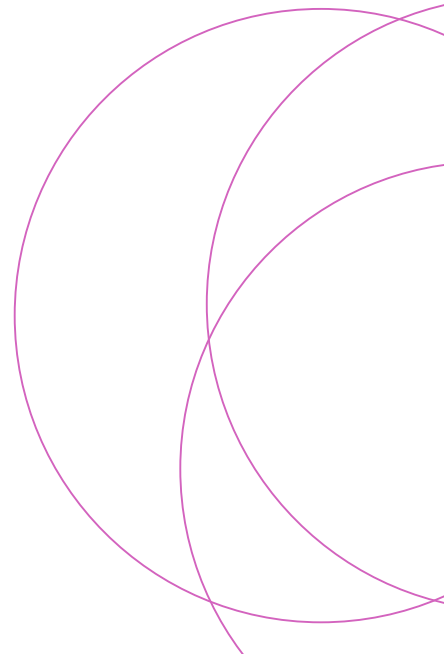


Benefits

- ✔ **Seamless migration:** Maintain existing VMware skills and tools, reducing the learning curve.
- ✔ **Consistent Environment:** Retain operational consistency with on-premises VMware environments. Some businesses even use an on-premises environment for DR and production in the cloud or the other way around.
- ✔ **Scalability:** Easily scale resources as needed within the Azure infrastructure. When more infrastructure is needed, simply increase the number of AVS nodes.
- ✔ ***Integrated services:** Access to Azure's wide range of services and capabilities. For example, all data will be migrated to cloud by leveraging AVS. This means that this data can easily be exposed to PaaS Data and Analytics tools such as Azure Data Factory, Azure Fabric, AI and ML leading to new insights from existing data.

Considerations

- ✔ **Networking:** Ensuring that high throughput, resilient networks are in place. Azure ExpressRoute is the recommended solution for networking.
- ✔ **Cost:** Compare costs of running VMware on-premises versus AVS. Recent changes in the marketplace have made AVS a very cost effective option for VMware customers.
- ✔ **Strategic roadmap:** We recommend building out a longer term roadmap that starts with Azure VMware Solution but then gradually leveraging more of the native services in Azure to allow for innovation and automation. Azure VMware Solution is a great option for VMware customers as a first step into cloud as it massively minimises any risks from cloud migration.



3. Moving to Azure Stack HCI

Overview

Azure Stack HCI is a hybrid cloud solution that combines the benefits of Azure with on-premises infrastructure. It enables organisations to run virtualised workloads on-premises with the flexibility to connect to Azure for cloud services. Using related hybrid technologies from the Azure portfolio, like Azure Arc, modern platform services such as Azure SQL can also be run on premises. This solution is a great blend of using on premises technology in conjunction with cloud, and managing it through a single pane of glass. Customers can keep certain workloads on premises if required for governance purposes or latency, while leveraging PaaS services on premises and bursting into the cloud when required, thereby leveraging the scale of the cloud.



Benefits

- ✓ **Hybrid flexibility:** Maintain on-premises control while extending capabilities to the cloud.
- ✓ **Integrated management:** Seamless integration with Azure services for hybrid management. Leverage Azure Arc for an additional layer of management integration. Technologies like Azure Monitor, Defender for Cloud, Azure AD and Sentinel can all operate in this hybrid environment for close control over security and governance.
- ✓ **Improved performance:** Where required, leverage low latency as workloads can be on premises or in the cloud. Azure Stack is a high-performance, hyper-converged infrastructure optimised for modern workloads.
- ✓ **Cost savings:** Some services can be leveraged on a Pay-as-You-Go basis. Multiple vendors such as Dell Technologies, HPE and Lenovo offer their own choice of hardware leading to flexibility on specification and price.

Considerations

- ✔ **Hardware compatibility:** Ensure hardware is compatible with Azure Stack HCI requirements by using authorised vendors and partners.
- ✔ **Network integration:** Plan for seamless network integration between on-premises and Azure. Site-to-site VPNs may not suffice and customers with specific SLAs may need to look at ExpressRoute.
- ✔ **Skillset:** Evaluate internal capabilities to manage a hybrid environment. This can be mitigated by the use of the right tools (Azure Arc, Azure Monitor) and good implementation and enablement partners.



Conclusion

Transitioning from an on premises virtualised environment (VMware, Hyper-V, AHV etc.) to Microsoft cloud solutions like (Azure, Azure Stack HCI, or AVS offers a range of benefits including enhanced scalability, cost efficiency, and access to advanced technologies for innovation on a Pay-as-You-Go basis. Each pathway presents unique opportunities and considerations. By carefully assessing current infrastructure and business needs, on premises Hyper-V and VMware customers can select the most appropriate Microsoft solution and successfully navigate their transition to a modern, cloud-based future.

Resources and next steps

To further explore your options and plan your migration, consider the following resources:

- ✔ [Comprehensive tools and guides for migrating to Azure.](#)
- ✔ [Detailed information on deploying Azure Stack HCI.](#)
- ✔ [Guides and resources for transitioning to AVS.](#)

For personalised assistance, reach out to Trustmarque's migration specialists or certified architects who can provide expert guidance and support throughout your transition journey.

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