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Rationalizing Remote Working

SHOULD YOU STILL STICK TO YOUR VDI?

WHITEPAPER | FEBRUARY 2021

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Executive Summary

The increased demand of virtual working environments and acceleration in cloudification has compelled enterprises to think about deployment of a **remote working solution**. However, it is indeed a critical decision to make, as organizations not just need to scrutinize the available options but also ensure that the chosen option aligns with their core business objective and contributes significantly to their vision for the future.

This white paper elaborately lays out the **differentiation between an on-premise Virtual Desktop Infrastructure (VDI) and a Desktop as a Service (DaaS)** solution that an organization may find useful while planning migration to Azure Virtual Desktop. It sheds light on how the challenges of high capex, complexity, inflexibility and poor user experience can be tackled by migrating to a cloud-hosted VDI/DaaS solution.

Some of the **key benefits of DaaS** include:

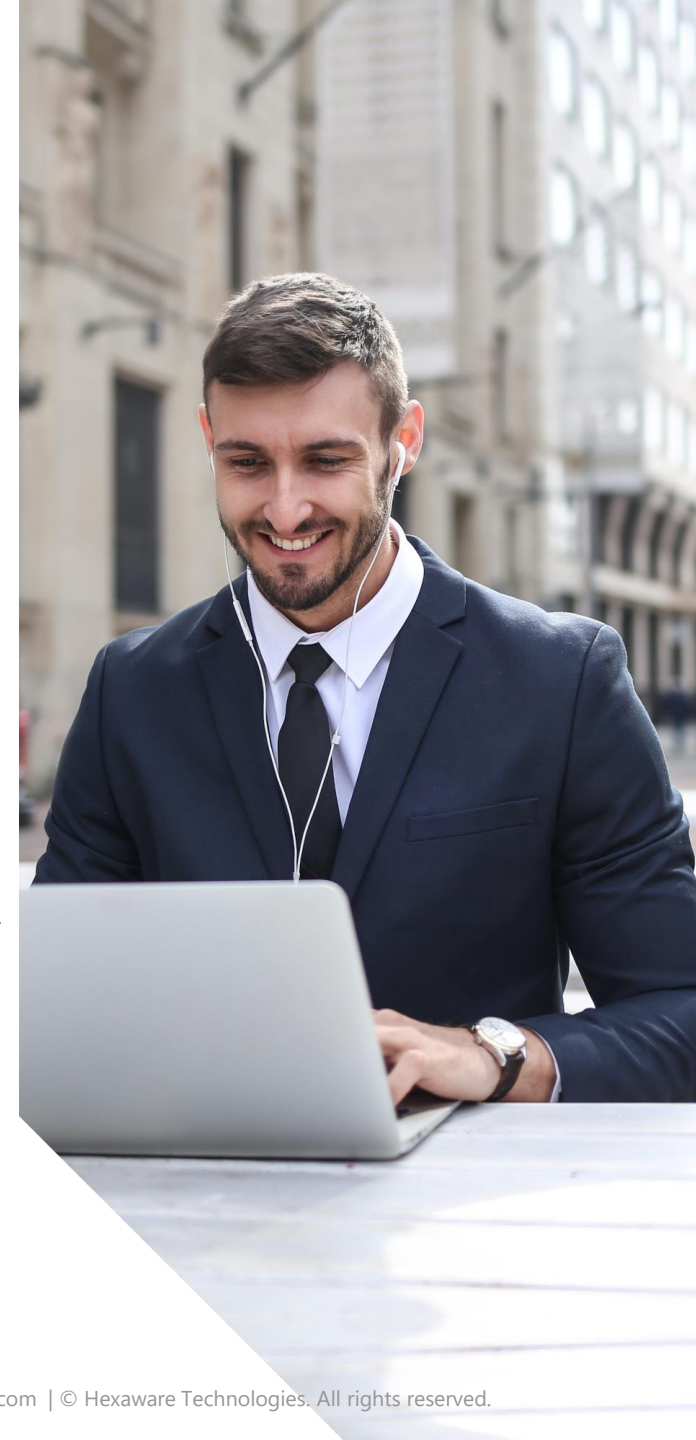
- Low deployment and licensing cost
- Enhanced security as all data and applications are stored on cloud
- Simple to use as the infrastructure management and maintenance is taken care by the provider
- Agile and flexible deployment

As organizations plan to move to a cloud based VDI, Azure Virtual Desktop emerges as the most effective solution, leveraging cloudification benefits of Microsoft Azure and low cost of operations.

Hexaware's AMAZE® for Virtual Desktop is a comprehensive offering, providing an automated, cost effective and highly secure and seamless migration to Azure Virtual Desktop.

Being one of top 70 companies worldwide, to be certified with *Advanced specialization for Azure Virtual Desktop*, Hexaware has deep expertise and differentiated offering, following the Cloud Adoption Framework, laid down by Microsoft.

Hexaware brings to you a 1-on-1 *Value Discovery Workshop* to assist and plan your migration to Azure Virtual Desktop today!



Introduction

As the world moves to a virtual office environment, many organizations are seeking the possibility to let their employees work from remote locations. The deployment of a remote desktop solution thus becomes imperative and necessary.

This is further accelerated by the cloudification journey that these organizations envision and thus the choice of virtual desktop solution is a critical decision to make. With many options available in the market, with multiple benefits and disadvantages, the organizations need to focus not only on their needs, but also on the future roadmap.

In this paper, we take you through the differentiation between an on-premise Virtual Desktop Infrastructure (VDI) and a Desktop as a Service (DaaS) solution and assist you with the planning and execution of your journey to Azure Virtual Desktop (formerly known as Windows Virtual Desktop).



Challenges you may face with on-prem VDI/RDS Solutions:

While Virtual Desktop Infrastructure (VDI) seems like a promising alternative, it is too costly and complex for most companies to successfully implement on-premise solutions. Although premise-based VDI does promise to solve a lot of challenges presented by the physical desktops, they do come with their own set of challenges. Let's delve a bit deeper into these challenges:

Complexity

VDI solutions like Citrix and VMWare Horizon have specific requirements for machine images, operating systems and other software required for different components of desktop virtualization. VDI solutions also come with the responsibilities of managing the server, storage and networking.



Inflexibility

VDI deployments typically take a long time to set up and can be difficult to modify once established. The scalability with a VDI deployment is limited by the server resources. If you want to scale services up, the requirement at your end is to first purchase, install, and configure more hardware.



Huge Cost

From purchasing the licences to the cost of upgrading servers and data centers, VDI deployments require significant capital expenses (CapEx) upfront. To this, the operating costs are then added, which leads to higher expense for an overall on-premise VDI solution.



User Experience

A VDI solution, if physically deployed near end users, provides good user experience. But, if the data center is too far away from the users, the user experience gets impacted by high latency and low bandwidth. Also, VDI solutions may not be able to provide the OS or application versions that users expect, which might lead to incompatibility and cause inconvenience to the end users.



The answer lies on the cloud

Move your virtual desktop and app environment to Azure to lower your infrastructure costs and reduce your hardware management burden

Responsibility	VDI On-Premises	VDI on Azure	Azure Virtual Desktop
Identity	Customer	Customer	Customer
End user devices (mobile and PCs)	Customer	Customer	Customer
Application Security	Customer	Customer	Customer
Session host operating system	Customer	Customer	Customer
Deployment configuration	Customer	Customer	Customer
Network controls	Customer	Customer	Customer
Virtualization Control Plane	Customer	Customer	Microsoft
Physical hosts	Customer	Microsoft	Microsoft
Physical network	Customer	Microsoft	Microsoft
Physical datacenter	Customer	Microsoft	Microsoft

Customer Microsoft



Desktop-as-a-service was identified as 1 of the 6 emerging trends

Gartner states:

According to Gartner Hype Cycle for 2020 Desktop-as-a-Service was identified as 1 of the 6 emerging trends. Gartner states "Desktop as a Service (DaaS) provides users with an on-demand, virtualized desktop experience delivered from a remotely hosted location. It includes provisioning, patching and maintenance of the management plane and resources to host workloads. Organizations have long been interested in adopting virtual desktop infrastructure, but complexity and capital investment have made implementations difficult. COVID-19 highlighted the value and business continuity strength of DaaS in its ability to rapidly enable remote work where on-premises options have stalled. The pandemic is likely to accelerate adoption of DaaS, and it may even perpetuate as a delivery architecture when employees return to the office."

Key benefits of choosing a Cloud-hosted VDI/DaaS solution



Low deployment and licensing cost

DaaS deployments require almost no CapEx, which is replaced with an ongoing subscription fees. This cost model makes it easier to dynamically scale operations and ensures that you are only paying for the resources you are actively using. Also, most Azure Virtual Desktop deployments leverage Windows 10 Enterprise Virtual Desktops (multi-session) OS instead of Server-class operating system. Therefore, there is no need to pay anything extra for the RDS license or anything similar since Windows 10 Enterprise Virtual Desktop (EVD) is already included in the subscription.



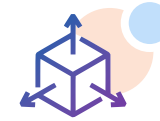
Security

DaaS is an attractive security option because data and applications reside in the cloud, rather than on vulnerable end-user devices. DaaS also helps alleviate other challenges associated with BYOD (Bring Your Own Device) by enabling a consistent set of security controls across mobile devices, regardless of operating system or hardware. DaaS customers can also leverage the security expertise of their service providers to improve their security and compliance posture.



Beating the complexity

For a typical DaaS solution (example Azure Virtual Desktop), the infrastructure management and maintenance is taken care by the provider and not the end user. This makes the user free from worrying about the hardware, monitoring, upgrades, availability as well as troubleshooting and support.



Agility and elasticity

In typical DaaS deployments, it is up and running is minimal time. This is because the infrastructure and platform are already configured for you; you simply need to define desktop settings and users. Scaling with DaaS services only involves requesting additional desktop instances or user licenses. You don't need to purchase or spend time preparing new hardware. Additionally, OS licensing is often built-in to service prices, meaning you can combine or change the OS as needed.

Comparative Analysis

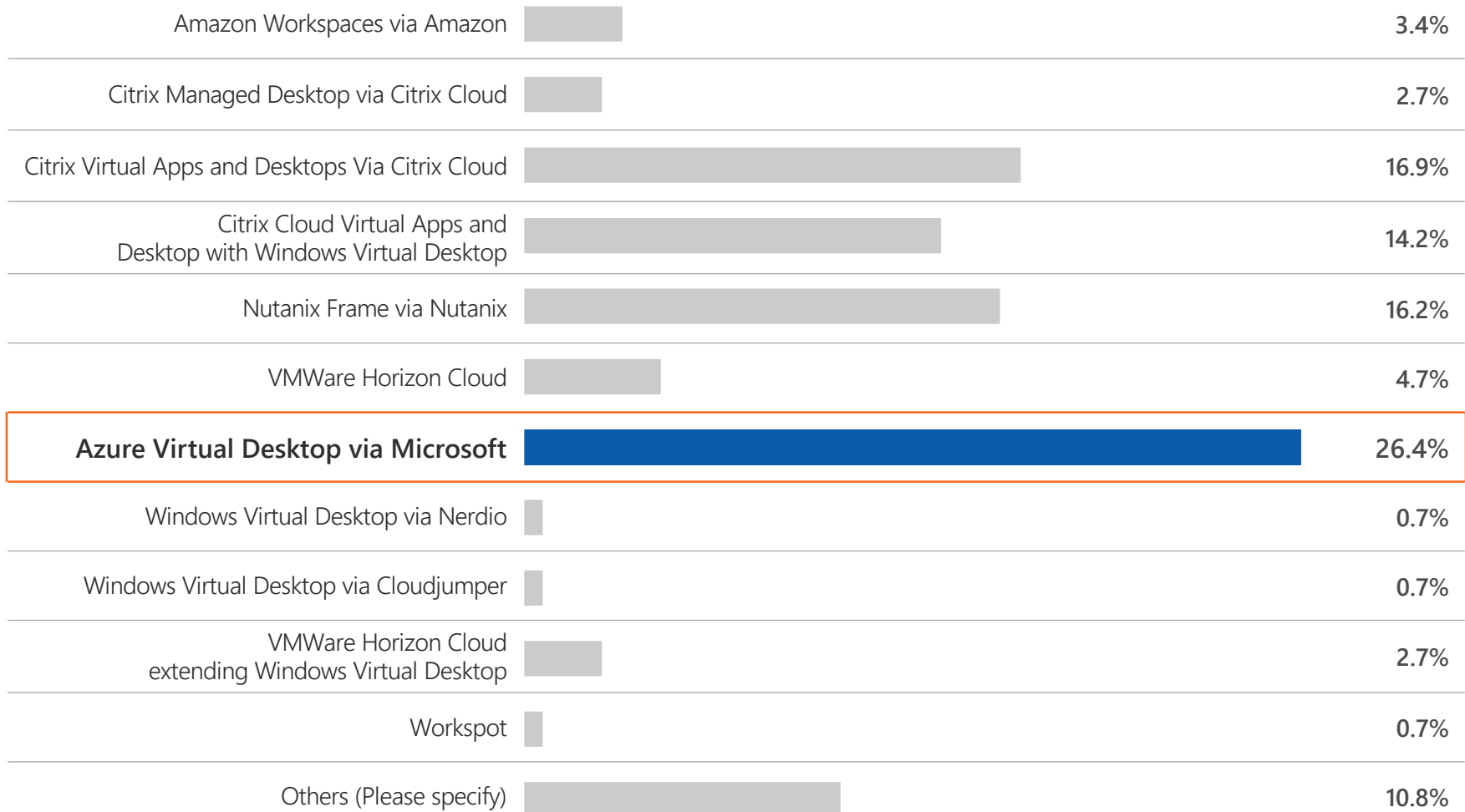
The following table does a comparative analysis of the features and capabilities available with various VDI/DaaS solutions in discussion:

Component	Physical Estate	Traditional VDI	Cloud based VDI
Infrastructure	Decentralized & Managed by customer/ SI partner	Centralized & Managed by customer/ SI partner	Centralized & Managed by Hexaware
Sizing	Non-elastic, complex workflows for scale-up/out	Fixed from Design standpoint	Scalable & elastic
Implementation Times	Very Long	Long	Short
Management Platform	OSD platform managed by customer / SI partner	VDI Managed by customer/ SI partner	DaaS managed by Hexaware
Availability	Local / Branch offices	Local / Private clouds	Global / Public clouds
Updates	Staggered & inconsistent updates	Annual release channels	Constant updates (as a service)
Maintenance	Managed by customer/ SI partner	Managed by customer/ SI partner	Managed by Hexaware
Image	Multiple Images per device model & Managed by customer/ SI partner	Lesser golden images & Managed by customer/ SI partner	Consolidated golden images & Managed by Hexaware/customer
Licensing	Annual perpetual	Annual perpetual	Monthly subscription
Billing	CapEx model	CapEx model	OpEx model

Preferred Choice

According to the 2020 survey by VDI Like a Pro,

Microsoft Azure Virtual Desktop has been the preferred choice for the industry in the last year.



What are the options available?

By moving desktops and applications to the cloud, rather than an internally deployed and managed data center, businesses can realize all the promised benefits of virtualized desktops—centralized management, improved data security and simplified deployment, while avoiding exorbitant costs, limitations and hassles. For organizations that are already on an on-prem VDI, there are broadly two options to move to a cloud-based desktop solution:

1

Re-hosting Citrix on-prem to Citrix on Azure

Hybrid cloud support to manage on-premises and Azure deployments from one place for a unified experience



Streamlined management for virtual desktop deployments of any scale to simplify your daily operations



Advanced security and monitoring capabilities to help you stay ahead of risks and incidents



Citrix high-definition experience (HDX) technology for an optimized user experience on any connection and device



2

Re-hosting VMWare on-prem to VMWare Horizon cloud on Azure

Cloud and on-premises VMware Horizon environment management in a single solution



Advanced power management capabilities help to lower costs



Horizon Cloud global service broker optimizes the user experience



Advanced remote protocols adapt to changing network conditions



3

Migration from Citrix/VMWare on-prem Infrastructure to AVD-native

Deliver Windows 10 desktops on any device, anywhere

Provide employees the best virtualized experience with the only solution fully optimized for Windows 10 and Office 365.



Built-in intelligent security

Keep your applications and data secure and compliant with security capabilities that can proactively detect threats and take remedial action.



Deploy and scale in minutes

Simplify deployment and management of your infrastructure and quickly scale based on your business needs.



Reduce cost using existing licenses

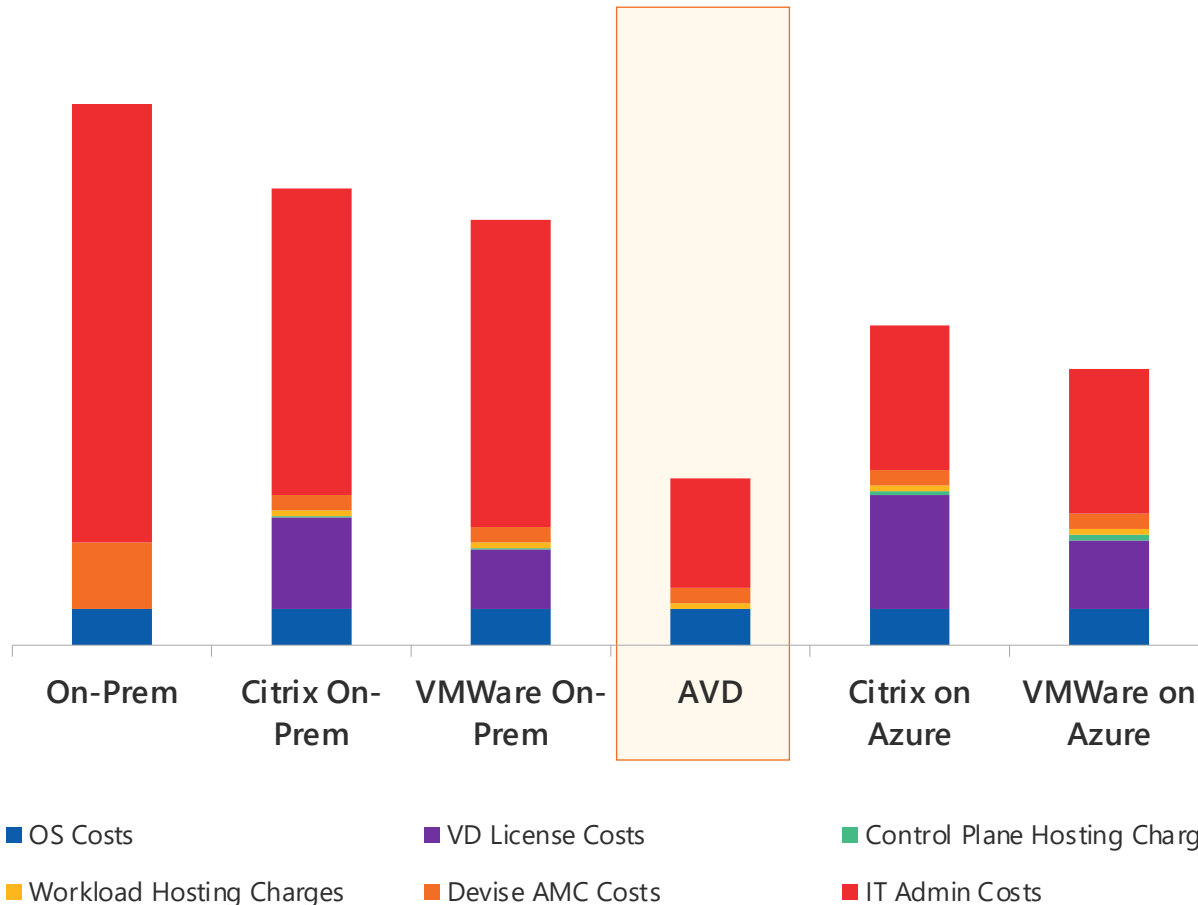
Use existing licenses to save cost with a modern cloud-based virtual desktop infrastructure (VDI) and pay only for what you use.



Cost Calculations

Now that we understand the options available and the qualitative benefits associated with them, let's talk money!

We have estimated some basic costs for all the scenarios that an organization finds itself in and calculated the cost benefits that it gets, by moving to Azure or AVD-native.

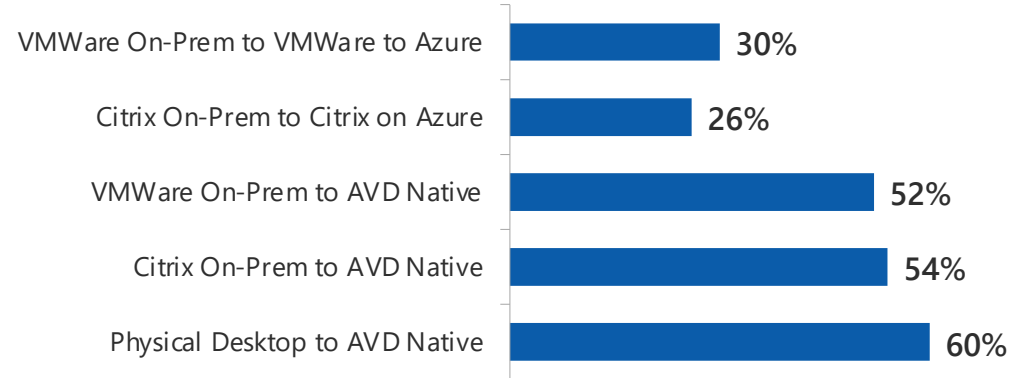


The bar chart shows the various costs associated with a PC vs VDI vs DaaS solution. As we observe, Azure Virtual Desktop offers the highest cost benefits, by eliminating the costs for a VD license and control plane hosting charges. Additionally, the IT Admin costs are comparatively low for not only the native AVD solution, but also for Citrix/VMWare on Azure offering.

These costs are taken into consideration for a total of 500 user personas, 300 being heavy user personas and 200 being light user personas. Using these, we calculated the financial benefits of migrating from physical desktops to a virtual desktop across the three platforms that are part of the solution:



TCO Savings



The savings are calculated on a 'per user per month' basis and done for a typical business user with standard application requirements like MS Office, Outlook, Teams and Adobe Reader.



As we observe, the TCO benefits are maximum when migrating to AVD-native, from Citrix or VMWare, owing to the low cost and subscription-based model offered by Microsoft Azure.

Find out which option suits you the best

Hexaware can calculate the TCO benefits for your organization Hexaware Cost Calculator framework and help you in choosing the right solution. Join us for a free workshop and let us do the planning for you.



JOIN US FOR THE WORKSHOP

Hexaware's AMAZE® for Virtual Desktop

Now that you know what your migration strategy is, let Hexaware help you with the road ahead. Hexaware's IP offering AMAZE ® for Virtual Desktop offering provides a **FASTER – BETTER – CHEAPER** Migration to Microsoft WVD or re-hosting to Azure. Our cloudification platform for virtual desktop provides secure virtual desktop enablement on Microsoft Azure Virtual Desktop, with persona-defined right fit design architecture. Some of its key features are:



Combines the **best of breed virtual desktop solutions** to cater to every customer need



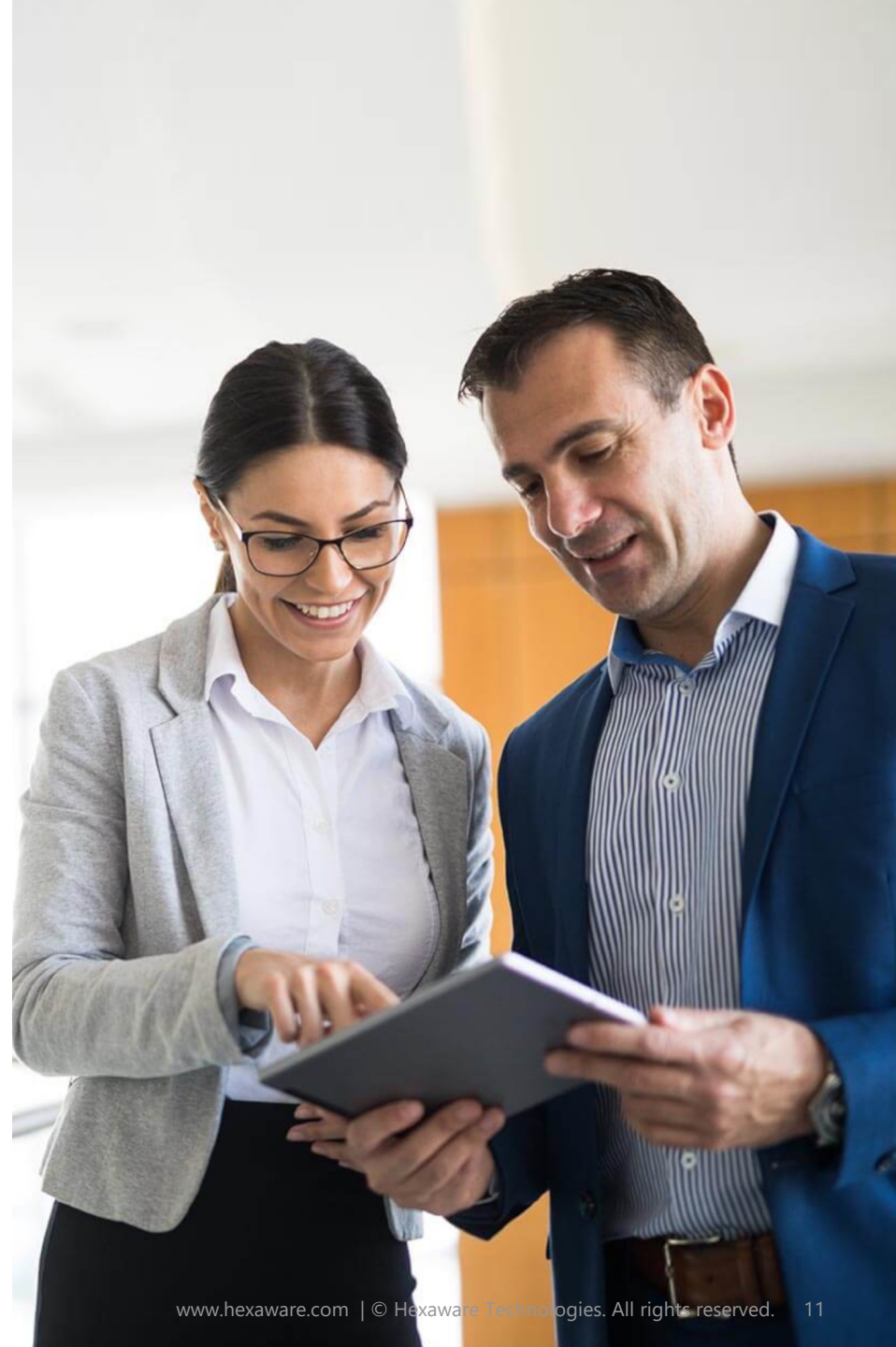
Flexible **subscription-based pricing model** to scale according to the business requirements



Provides seamless **enterprise integration, enhanced zero trust security** and integration with enterprise active directory for **SSO capability**



Enables the **Anywhere Employee** with hassle-free access from any end point device or network



Hexaware's Value Proposition



Faster

- Automated Control Plane configuration
- Prebuilt library of images and machine sizes
- In built accelerators resulting in 70% automation
- 35% Reduction in implementation time



Better

- Repeatable implementation framework
- Delivers consistent service quality and savings
- SLA backed service delivery



Cheaper

- Flexible licensing structure enabling BYOL
- 50% - 60% savings in your landscape TCO
- Post migration support & optimization



Hexaware Differentiators

Microsoft Advanced Specialization for AVD



- Hexaware holds the advanced specialization by virtue of demonstration of deep knowledge, extensive experience, and proven successful deployments

IP CO-sell ready & CAF Enabled



- Solution validated by Microsoft experts and leverages Microsoft engineering
- Implementing best practices, well-defined frameworks, policies, blueprints, and guidelines

Azure Expert MSP & AMP



- Access to End Customer investment Funds (ECIF) through Microsoft Azure Migrate Program and other programs
- Optimized Azure consumption



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About Hexaware

Hexaware is the fastest growing next-generation provider of IT, BPO and Consulting services. Our focus lies on taking a leadership position in helping our clients attain customer intimacy as their competitive advantage. Our digital offerings have helped our clients achieve operational excellence and customer delight. We are now on a journey of metamorphosing the experiences of our customer's customers by leveraging our industry-leading delivery and execution model, built around the strategy—'AUTOMATE EVERYTHING®, CLOUDIFY EVERYTHING®, TRANSFORM CUSTOMER EXPERIENCES®.' Hexaware services customers in over two dozen languages, from every major time zone and every major regulatory zone. Our goal is to be the first IT services company in the world to have a 50% digital workforce.



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Safe Harbor Statement

Certain statements in this press release concerning our future growth prospects are forward-looking statements, which involve a number of risks, and uncertainties that could cause actual results to differ materially from those in such forward-looking statements. The risks and uncertainties relating to these statements include, but are not limited to, risks and uncertainties regarding fluctuations in earnings, our ability to manage growth, intense competition in IT services including those factors that may affect our cost advantage, wage increases in India, our ability to attract and retain highly skilled professionals, time and cost overruns on fixed-price, fixed-timeframe contracts, client concentration, restrictions on immigration, our ability to manage our international operations, reduced demand for technology in our key focus areas, disruptions in telecommunication networks, our ability to successfully complete and integrate potential acquisitions, liability for damages on our service contracts, the success of the companies in which Hexaware has made strategic investments, withdrawal of governmental fiscal incentives, political instability, legal restrictions on raising capital or acquiring companies outside India, and unauthorized use of our intellectual property and general economic conditions affecting our industry.



 **Microsoft Azure**