avanade

G-Cloud 15

Lot3 – Cloud Support Services (Additional Services)

Avanade Microsoft Platform Modernisation

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1. Service Overview

The landscape of workforces and the modern workplace have undergone significant evolution, propelled by the ongoing digital transformation and the shifting dynamics of work post-pandemic. Organisations are increasingly adopting a hybrid model, enabling employees to blend remote office work seamlessly. This shift demands a more flexible, secure, and efficient approach to managing and deploying endpoint devices across diverse environments.

As demand for hybrid working increased following the pandemic, many organisations neither had resources or willingness to review and improve endpoint delivery methods to their staff. Legacy technology was often continually utilised with evolutionary processes of each iteration of workstation deployment (Windows 7, Windows 10, Windows 11) and non-Microsoft tooling leveraged to fill in any technology gaps.

These were traditionally:

- Autopilot used to build Modern Endpoint devices to staff.
- Hybrid-joined devices. Endpoints joined to Active Directory for security policy deployment via Group policy (and to access legacy on-premises resources).
- Microsoft System Center on-premises servers to package and deploy applications to endpoints.
- Citrix used for application packaging/Remote Desktop.
- VMWare/Hyper-V used for Published Desktops/VDI workstations.
- 3rd Party tooling for endpoint device lockdown (e.g. Crowdstrike).

Many organisations are unaware that Microsoft have improved their offerings and can now deliver the services provided by other vendors, negating the need for many of the above products.

As organisations move towards Cloud-First, the requirements for traditional On-Premise infrastructure for users dwindle. Whilst organisations may have business critical server infrastructure that cannot be moved quickly, Modern endpoints offer far more flexibility as devices are typically renewed every 2-3 years.

Modern Endpoint should be seen as the first step towards removing endpoint dependency on legacy on-premises resources (Active Directory, System Centre, Citrix).

With improvements in Microsoft offerings, a user can now have a Windows 11 workstation, managed by the cloud (Intune) to enforce an organisation's security hardening and application packaging and deployment, without any reliance on legacy Active Directory or Microsoft System Center.

Virtual Desktops (VDI) and Application publishing (previously traditionally a mixture of VMWare/Hyper-V and Citrix) can now be replaced by Microsoft AVD/W365. As both Citrix and VMWare have both increased licencing costs significantly over the last 2 years, moving to subscription licence modelling. Many organisations are aware of these increases, but the technology is so embedded within their user base they reluctantly continue with the vendors.

Avanade Modern Workplace are proposing 3 Hero offerings to encourage organisations towards Microsoft technology and cloud-first modernisation.

1.1. Endpoint Business Value Review

The Endpoint Business Value Review is designed to assess an organisation's current Endpoint state, reviewing the value they are currently getting from their Endpoint deployment and management.

Organisations may not realise their Endpoint management and deployment processes can be improved from both an operational and technical perspective as unaware of the extent of legacy architecture still being used.

By reviewing their working practices/methods, Endpoint deployment can be improved and optimised to save time and money.

It will produce a report identifying all strengths and weaknesses of their current approach with recommendations to adhere to Microsoft's latest technology and best practices.

This will culminate in providing a high-level implementation roadmap proposal to give senior management a realistic timeline, with necessary steps needed to achieve desired end-state.

1.2. Endpoint Business Value – Virtualisation

Organisations are still sceptical over the cost of Virtualisation. Many see AVD/W365 as too expensive compared to physical workstations when comparing against Microsoft's SKUs. Their on-going reliance on traditional hypervisor vendors (VMWare/Citrix) may also be due to historical pre-conceptions that Microsoft does not offer an equivalent service.

This offering is designed to offer a fresh perspective of the organisation's user base, highlighting their needs and requirements to show how they can be aligned to each of the Microsoft Virtualisation offerings (W365, AVD, Remote Applications) enabling the move away from legacy hypervisor vendors.

This will involve holding a series of workshops to understand the organisation's user base and their endpoint requirements, defining personas for their users. It will highlight how Microsoft Virtualisation can be beneficial for some (or all) of the personas, and which technology each persona should be aligned with.

Where there are user personas virtualisation would not be appropriate for, the report will also highlight. The report aims to give an honest assessment of the user base and identify all the organisations personas, summarising where virtualisation would or would not be suitable and reasons why. It is not intended to encourage a move for the entire user base to virtualisation but identify for who it would be applicable, and how it can offer a more efficient deployment and end user experience (faster endpoint deployment on demand, cheaper running costs).

From a cost perspective, many organisations may have briefly reviewed Microsoft AVD, run the Microsoft calculator for an equivalent Microsoft SKU and dismissed the offering as too expensive. By utilising Nerdio tooling, significant cost optimisation can be achieved, providing a PAYG model, negating the doubts previously held. The report will highlight the running cost of the personas identified, and cost optimisation achieved by Nerdio PAYG optimisation compared to previous Microsoft calculators.

1.3. Endpoint Business Value – Modernisation

This offering assesses the capability of the organisation to move away from legacy Active Directory/On-Premises dependencies for Endpoints to be fully cloud-first, Entra managed devices.

Workstations no longer require to be joined to Active Directory domains (even to access legacy on premises resources, such as file shares), or have security applied through legacy on-premises Active Directory infrastructure. This offering highlights how organisations can move both Endpoint management and security into the cloud, utilising the latest Microsoft offerings (Intune/Endpoint management, Cloud Kerberos Trust).

It will provide a detailed report highlighting the current state and findings, identifying the legacy dependencies which may be preventing the organisation from fully optimising their endpoint management and deployment to Microsoft Cloud.

This will introduce Tanium tooling to assist in identifying how devices are currently managed and configured.

2. Service Scope & Constraints

The scope of the services covers all Endpoint device deployment and management. This includes the following:

- Device deployment – How the operating system is deployed to Endpoint devices (Autopilot/SCCM)
- Endpoint Management – How the endpoint devices are managed and controlled/configured (Microsoft Intune/Endpoint)
- Endpoint security – How the devices are protected and secured from an organisation perspective and best-practice security standpoint.
- On Premise dependency – Identifying the legacy dependencies on Endpoints (Active Directory, legacy infrastructure) and identifying and implementing ways forward to remove dependencies from endpoint builds, monitoring and application deployment.
- Legacy Hypervisor replacement – Identifying legacy hypervisor usage throughout an organisation and pinpointing where Microsoft Virtualisation solutions can be a viable alternative.
- Business value – How a consolidated cloud Endpoint and virtualisation solution can achieve cost savings, reduce technical debt and assist in moving the organisation away from legacy dependencies enabling their workforces to spend less time managing and maintaining legacy infrastructure and deploy endpoints to users in a far quicker timescale.
- User experience – How the latest technology will benefit the organisation's users and integrate seamlessly into their current experience vs the legacy constraints causing their deployment/build requests to take longer than expected/multiple store-fronts to navigate to access resources.

The services will not cover the following:

- Application remediation – Bespoke internal applications or systems developed by the organisation requiring in-house expertise to be able to run on a cloud-first environment. For example, packing internal applications into Intune or remediating internal systems to work on modern endpoints.
- Troubleshooting of non-Microsoft networking hardware/software/bespoke customisation – For example, network connectivity issues caused by 3rd party proxy solutions, network interfaces, custom scripting restricting access.

The following constraints would impact Avanade's delivery:

- Access rights – Avanade would require elevated permissions to run necessary tooling to assess environments in scope (Microsoft 365, Active Directory, VMWare, Hyper-V, Citrix). The service accounts/principals used by this tooling and/or consultants must have sufficient rights granted.
- Client resource availability – Client stakeholders must be available with pre-requested knowledge of their environments for workshops. They should be made aware of questions in advance and come to workshops with necessary information for workshops to achieve desired outcomes.

3. Service Approach & Outcomes

FREE CONSULTATION	ASSESS CURRENT STATE	HYBRID DESKTOP BLUEPRINT	MAKE THE CHANGE	ON-GOING 2 WEEKLY ENABLEMENT SPRINTS
A structured conversation with one of our modern Workplace experts to understand your pain areas and to discuss our approach and how it could help you rapidly design your hybrid endpoint strategy. Output: Vision of Hybrid Working possibilities	Understand your current technology capabilities, use cases, pain points and your remote workforce needs, expectations and risks. Hold workshops with business stakeholders to identify use case personas. Output: Identify Use Cases/Personas, Pain points and Risks	Document quick wins to achieve hybrid desktop working and define blueprint level solutions for identified use cases, based on high risk/reward focus. Define Blueprints for Security and technology solutions for pain points and use cases that need focus. Output: Secure Hybrid Working Blueprint	Drive up to 2 quick wins through the business change and technology configuration process. Pilot with an identified pilot group and iterate in the next sprint as required. Output: 1st quick win delivered	Using the agile methodology map out the PBIs required to secure and improve remote working. Rapid and iterative Pilots to identify risks/issues/challenges with newly enabled technology to secure or enable remote working. Extend successful pilots to larger groups with Post Go Live support. Output: Defined PBIs and release plan for ongoing delivery.
Get started	**Discovery meeting**	**Prioritize Quick Wins**	**Drive Quick a Win**	**Move to agile delivery**

3.1. Expected Outcomes

The expected outcomes of the implementations will be as follows:

- Security Enhancement: Strengthened defence mechanisms across all endpoints, by removing previous on-premises attack vectors and integrating fully with Microsoft's best-practice Cloud security products (Defender).
- Device Management efficiency: Simplification of It processes through a centralised management platform, leading to reduced administrative efforts.
- Remote Workforce Support: Assurance of security, compliance and connectivity for remote team members, regardless of their location.
- Scalable Management solutions: The ability to easily and efficiently expand endpoint management systems in line with organisational growth, integrating new devices and technology with ease.
- Operational Cost reduction: Implementation of automated processes to decrease both downtime and associated costs of managing and deploying endpoints.
- Move away from Legacy dependencies: Provide a realistic timeline to move away from legacy on-premises infrastructure dependencies for modern endpoints.
- Uninterrupted Business operations: Maintenance of operational integrity through resilient, secure endpoint access, even in disruptive scenarios.
- Insightful Data utilisation: Enhanced ability to gather and utilise data on user patterns, device health, and potential security threats to inform strategic IT decision making.
- User Experience Improvement: Devices maintained effectively, minimising downtime and ensuring a consistent and efficient work environment for all users.

Avanade's Modern Endpoint solutions consist of:

- EndPoint Modernisation
- Windows 365
- Azure Virtual Desktop (AVD)
- Microsoft Managed Devices and Device As A Service (DaaS)

The next sections describe each of the solutions in more detail.

3.2. Endpoint Modernisation

Many organisations are unaware they have aging endpoint infrastructure. Whilst they are aware they are meeting necessary security requirements for their endpoints (Latest operating system, security patches, CIS levels) they may not realise the architecture responsible for distributing and managing the endpoints is still legacy on-premise requiring user's endpoints to still retain line of sight to on-premise infrastructures through a client VPN or having to bring their endpoint physically into the workplace for any major upgrades/resolution of issues.

Since the early 2000s many organisations have the following infrastructure forming the backbone of their user identities and endpoints.

- Active Directory – Active Directory houses the user and computer identities. Typically hosted within organisation's data centres and accessed via internal network when users are physically in an office, or via a client VPN when working remotely. Active Directory authenticates users against their endpoints and requires user's devices to check-in regularly to provide access to resources.
- Microsoft System Center (SCCM)/Microsoft Endpoint Configuration Manager – An on-premise tool used to deploy software, manage software updates, enforce security. Providing centralised control for servers, desktops and laptops.

Iterations and improvements have been introduced with Windows Server releases, but the service fundamentally remains the same. Endpoints are controlled by Active Directory and must have line of sight to a Domain Controller to authenticate access to resources and on-premises server to deploy applications to devices.

Microsoft is encouraging a Cloud-First approach, recommending organisations away from Active Directory and On-premises infrastructure. Microsoft provides EntraID as the cloud-based identity platform to house user identities, endpoint devices and act as an Identity provider (IDP) for SaaS and internal application authentication.

In a desired end-state, an organisation's endpoints would adhere to the following:

- Microsoft Entra-joined device (not AD Hybrid joined).
- Endpoint devices managed and secured by Microsoft Intune/Endpoint Manager.
- Application packaging and deployment via Microsoft Intune.
- Client VPN to connect to legacy resources (if needed).
- Microsoft Cloud Kerberos trust used to provide access to legacy file shares/legacy on-premises services.

3.3. Windows 365

Windows 365 is deemed as the Cloud PC. It is a complete SaaS service that securely streams your personalised Windows desktop, apps, settings, and content from the Microsoft cloud to any device.

Windows 365 is a fixed-price offering, irrespective of usage. It can be deployed rapidly to users without requiring additional Microsoft dependencies and infrastructure (networking, subscriptions, image management).

As such, it can be introduced into an organisation relatively quickly with minimal dependency on infrastructure teams.

It has the following benefits:

- Users can access content wherever they go.
- Provides consistent settings across devices.
- Offers scalable storage based on user's needs.
- Has various SKUs for differing compute requirements of user personas.
- Delivers application when needed.
- Has integrated security and identity management.

There are various use cases where Windows 365 will be a suitable solution to meet an organisation's needs:

- Data Security – Improve regulatory compliance and IP protection via data centralisation and reduced threat surface.
- High-capacity computing – Cloud Scale compute and storage to support specialised workloads, such as design and development.
- BYOPC programs – Enable secure Cloud PCs even on user's personal, non-corporate devices.
- Disaster Recovery – Help ensure continuity and access for your workforce and company data even in the most challenging circumstances.
- Temporary Workforces – Simplify and accelerate the onboarding and offboarding process for elastic workforces, such as contractors, interns etc.
- Mergers and Acquisitions – Provides seamless transitions and access to common Desktop for growing businesses.

Windows 365 extends end-user computing from the client to the cloud, leveraging the unified management of Microsoft Endpoint Manager and natively integrated with Microsoft cloud services. It extends the reach to meet the needs of your office-based and Front-Line Worker personas. What this means for your enterprise workforce is it securely streams your personalised Windows desktop, apps, settings, and content from the cloud to any device:

- For end-users – Can securely access a familiar personal Windows experience, wherever and whenever, across devices.
- For business – Enable Hybrid Work scenarios, unlock new opportunities, improve business continuity, and mitigate risk.
- For IT – Simplify cloud-powered computing with a complete service to securely buy, manage and scale, all in one place.

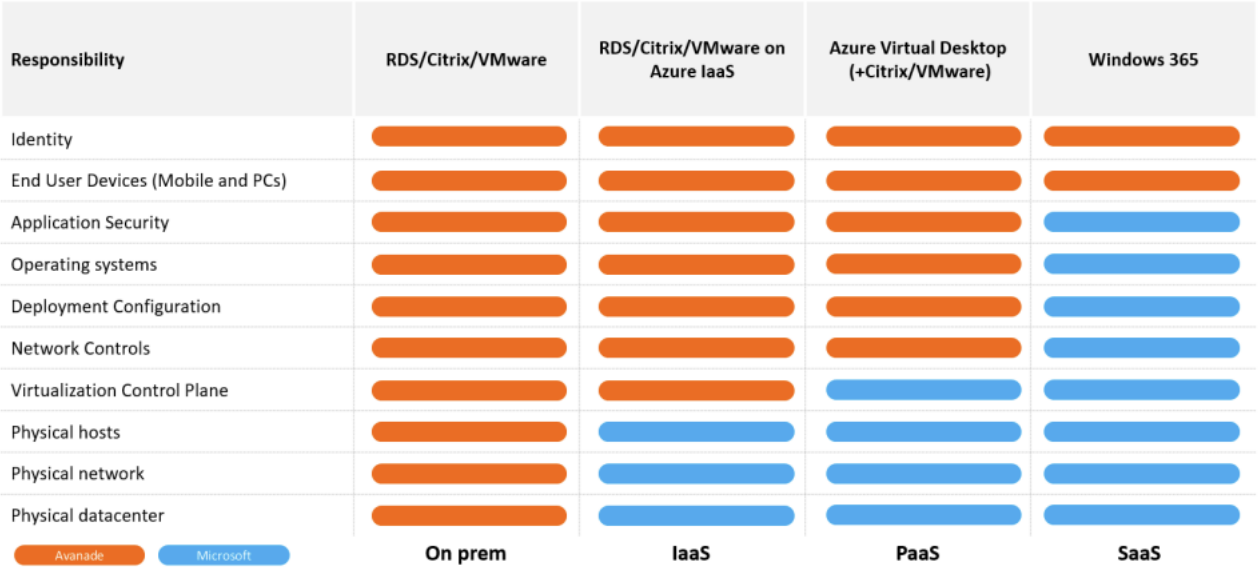

Figure 1: Microsoft vs Avanade managed components

3.4. Azure Virtual Desktop

Workplace Virtualisation is used by most Avanade clients. Azure Virtual Desktop (AVD) reduces complexity and cost by taking responsibility for hosting and delivering the service in the same way that Microsoft 365 already does for email, Office and file storage.

AVD is a new Desktop-As-A-Service (DaaS) solution managed by Microsoft and integrated into Azure. There is no charge for licenses for Avanade clients that already have E3, E5, or F1 licensing. Clients will be charged for the storage and compute AVD uses in Azure.

Organisations may also utilise AVD for short-term usage for applications which may not yet be able to run on Windows 11, hindering their upgrade path to Windows 11. These applications could be provided via Remote applications from Windows 10 AVDs to users seamlessly.

The value drivers for using AVD are:

- Cost:
  - Provides industry competitive consumption pricing (when used with Nerdio).
- Culture and adoption:
  - Provide technology and optimisations for enabling effective remote working in a familiar desktop experience with minimal training required to adapt to a constantly changing workplace environment
- Distributed continuity:
  - Enhance business continuity plans to include mass sick leave, travel restrictions and large-scale remote working environments
- Customisable Windows environment:
  - Flexibility in customising the Windows desktop environment to your requirements for your users

The Avanade differentiators with the AVD solution are that we provide end-to-end service design and run capability with unique deployment planning and management.

Unlike Windows 365. Azure Virtual Desktop requires expertise to deploy into an organisation, often the following pre-requisites carried out by Avanade SMEs:

- Session Hosts and Session Pools – Identifying what needs to be deployed and where. Creating Session pools to host AVD Virtual machines and applications and Session Pools to present to users.
- Workspace Deployment – Designing and creating workspaces to present Desktops and Applications to users.
- Scaling and cost optimisation – Designing and creating auto-scale plans to optimise resource usage and prevent unnecessary billing for resources not being used.
- FSLOGIX – Implementing profile roaming for users. Configuring necessary file system service to host Virtual Hard disks containing user profiles to be utilised by FSLOGIX platform.
- Resource allocation and billing – Creating necessary Management Groups/Resource Groups and tagging accordingly to enable cost-center billing of resources to relevant departments.
- Networking – Designing virtual networks and subnets to be used for AVD. Implementing necessary network segmentation and peering to on-premises networks via Virtual network Gateways/ExpressRoutes, and Bastion access.

Alongside the AVD infrastructure deployment. The Avanade differentiators with the AVD solution are that we provide end-to-end service design and run capability with unique deployment planning and management:

- AVD Infra as a Code based on Azure DevOps templates – Providing templated AVD Infrastructure deployment, Provisioning/De-provisioning, Patch management, App Assignments, Master Image management.
- Enhanced Auto Scaling Toolkit to save AVD usage costs – OS Disk autoscaling, Azure VM auto scaling.
- AVD Solution Kit – Design runbook templates. Estimators. AVD environment enhancement scripts.

Avanade offers an AVD Express Support service. The scope and benefits are summarised below:

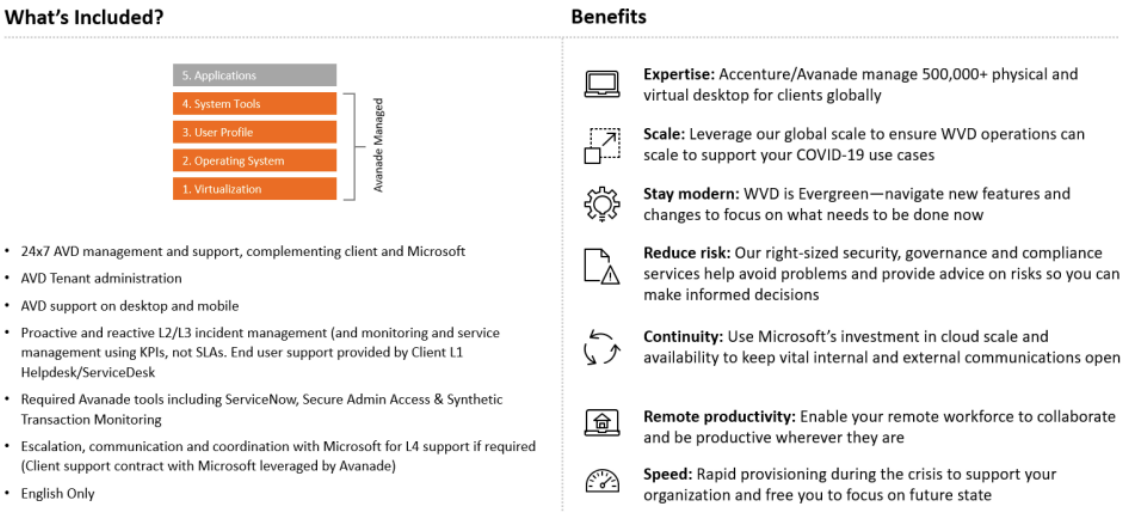

Figure 2: Avanade's AVD Express Support Service

3.5. Microsoft Managed Devices and Device As A Service (DaaS)

Device as a Service is a foundational component of a Living Platform, bundles hardware, software, and lifecycle management in a consumption-based evergreen model.

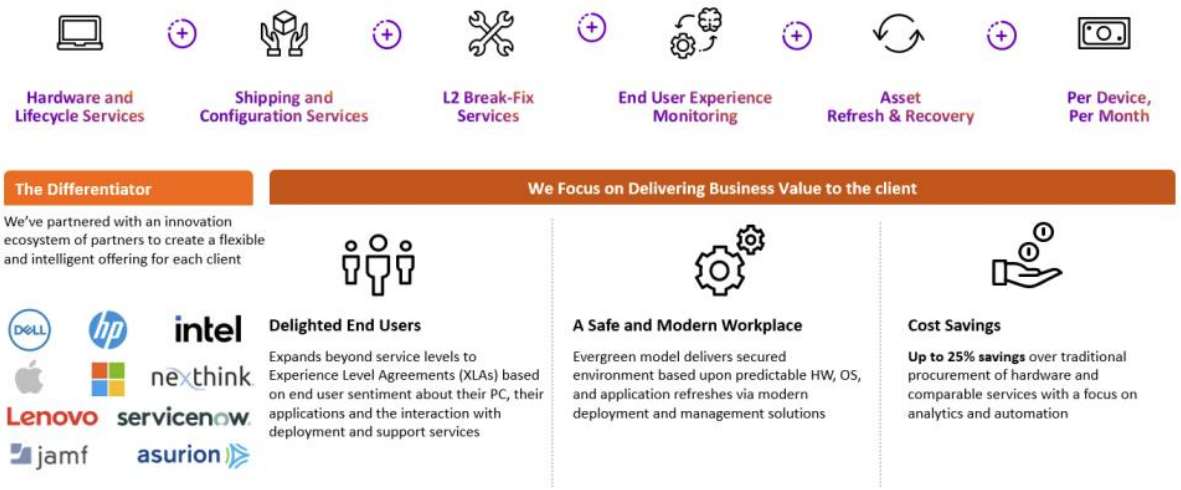

Figure 3: Device As A Service

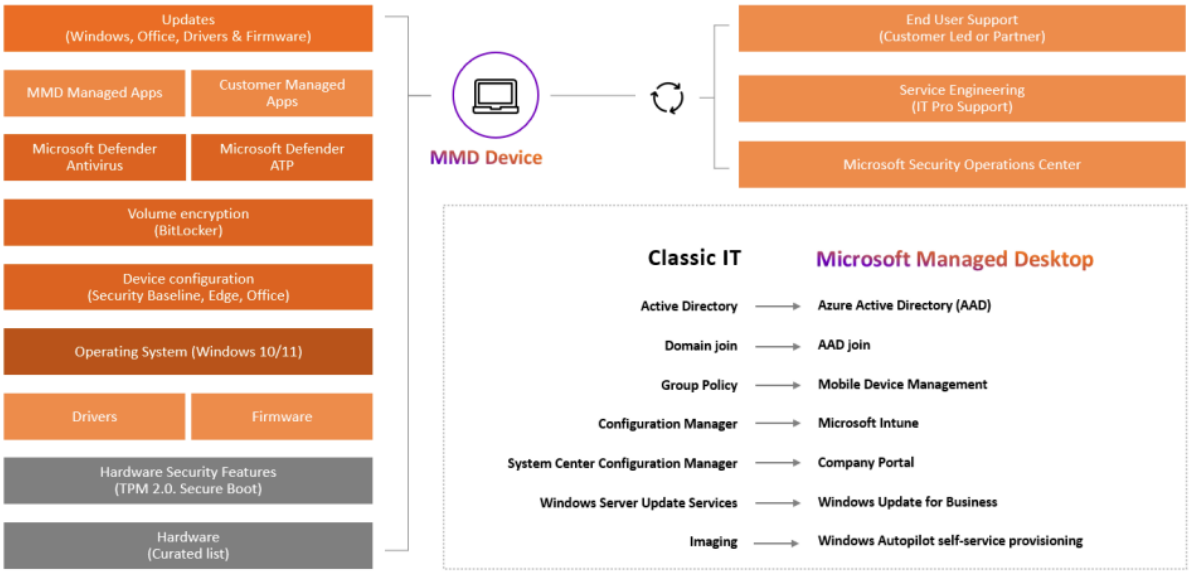

Figure 4: Architecture of a Microsoft Managed Desktop Device

Avanade's Modern Workplace Managed Services provides the following benefits:

- Reduced operational costs - reduced operational overhead by providing an end-to-end Microsoft 365 managed service solution backed by 24/7 support and SLAs
- Focus on your priorities - remove the support and administration burden from your internal team, allowing them to focus on high-value activities and business requirements

- Improved user satisfaction - decrease support tickets through Accenture's scripting and automation, which will reduce downtime for end-users and increase user satisfaction.

Our approach to managing your devices consists of these phases:

- Define (timeline: ~10 weeks):
  - Implement governance and establish KPIs for the program.
  - Complete baselines for the current state, including technologies, assets, applications, processes, and organization.
  - Align needs and expectations among the stakeholder teams.
  - Formulate the priorities for the program, including critical requirements and, initial user segments and risk & issues.
  - Agree on scope, schedule, and dependencies for enablement.
  - Establish "North Star" with executives and stakeholders.

- Enable and Deploy (timeline: ~12-24 months):
  - Design and build to-be state end-user engagement model.
  - Address and remediate necessary dependencies for success, including applications and identity
  - Execute transition plan to migrate users to-be state, balancing asset lifecycle, business requirements, and costing requirements for effectiveness.
  - Optional: enable new services through cloud productivity.
  - Conduct Change management and communications plan to empower users for success.
  - Onboard to-be State operating model for IT engagement.

- Maintain (timeline: ongoing):
  - Implement mechanisms for ongoing enhancement and engagement to continuously improve program KPIs.
  - Continue to development and enhance services rot new business expectations or cloud enabled services.
  - Proactively identify and address emerging security threats.
  - Increase stability and resiliency of services, including remote working and integration with acquired entities.
  - Achieve a sustainable and maintained cost basis through evergreen asset management.

4. Tools, Assets & Accelerators

4.1. Accelerate 365

Accelerate 365 for servicing is a solution by Avanade that helps desktops upgrade to Windows 11. This suite of tools has been tested and proven to automate Windows 11 servicing, lower risk and cost, and bring IT and the business together, using automation, scheduling, release management, and data analytics features. It is the core of the servicing method and data-driven choices, helping to rank applications, users, devices, and sites. It determines which user group is ready and which applications to tackle first and helps to find deployment requirements and how to manage distributed teams. Lastly, it automates the migration steps.

Figure 5: Accelerate 365 for Servicing Capabilities

Accelerate 365 for Servicing is a tool that simplifies the process of updating windows systems by showing which systems can upgrade to a specific build of Windows 11 and which systems need fixes before an upgrade is possible. Accelerate 365 does this by listing the windows systems and applications and the relative importance of those applications to an organisation. It uses risk-based testing to check if a version of an application is compatible with the chosen Windows upgrade. Accelerate 365 works based on what are called "Profiles", where a profile is a migratable entity that can be monitored and linked with a countdown plan. Windows 11 servicing, user, device and application are the profile types in Accelerate 365. For clarity, Accelerate 365 is a tool for exclusive use by Accenture and Avanade consultants to perform assessment and migration activities.

5. Trials & Associated Services

Due to the strong relationship between vendors and Avanade (Quest, Nerdio, Tanium) we can offer trial licences to the software needed for Modernisation work.

The above vendors can provide suitably sized evaluation licences to cover the scope of workstations needed for assessment, with the expectation if business is won then the product(s) will be implemented for the deployment phase.

Avanade are offering Hero offerings for the following Modernisation services:

- Endpoint Business Value review – A high-level exercise to evaluate an organisation's Endpoint architecture and working practices, providing a report on how processes can be improved and modernised.
- Endpoint Business Value review (Virtualisation) – A series of workshops to understand use-case personas with Nerdio reporting run to show how Virtualisation can be implemented for each persona and associated cost savings achieved via Nerdio optimisation.
- Endpoint Business Value review (Modernisation) – A detailed assessment of an organisation's current Endpoint deployment state and Active Directory dependencies utilising Tanium, with roadmap to achieving desired end-state and milestones of key actions/dependencies/constraints.

6. Avanade Experience

Avanade have successfully completed a large-scale modernisation of a large Energy company's Endpoint infrastructure to Modern Workplace best practice.

Prior to modernisation the environment was as follows:

- User identities split over 3 Active Directory Domains.
- Mobile access to Email via BlackBerry Works.
- Insecure Domains, not adhering to any CIS standards. Compromised regularly.
- Exchange On-Premises.
- Windows 10 devices hybrid-joined to EntraID.
- Endpoints and software deployed via Microsoft SCCM on-site.
- Over 300 VDI devices running on VMWare for end users with frequent performance complaints.
- Citrix used for publishing c50 applications to users.

Post Modernisation we achieved the following:

- User identities consolidated to one CIS L2 Active Directory domain.
- Mobile Access via native Microsoft applications.
- Migration of all mailboxes to Exchange Online and decomissioning of Exchange On-Premise
- Windows 11 devices Entra-joined with Cloud Kerberos Trust used to access legacy resources.
- Devices deployed remotely via Autopilot.
- Applications packaged and deployed via Intune.
- Microsoft AVD deployment with Session Host Pools for Desktops and Applications and re-deployment of existing VMWare VDI workstations to AVD. Controlled via Nerdio.
- Citrix application packaging replaced with Microsoft Remote Applications.

7. Service Pricing

Please refer to the associated Pricing Document relevant to this Service.

8. Contact Information

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9. About Avanade

Avanade, a joint venture between Accenture and Microsoft, is a privately held company was founded in 2000 with the goal of delivering innovative services and solutions to enterprises worldwide using the Microsoft platform. Avanade's main business focus is to purely deliver innovative services and solutions to enterprises worldwide on Microsoft technology. Avanade is a global organisation with over 56,000+ professionals worldwide, serving our clients in major geographic business areas in 26 countries.

This vast network of highly skilled resources is further complemented by our network of delivery centres that we refer to as Advanced Technology Centres (ATCs). This complementary capability provides the agility, cost efficiency and diversity of skills that today's businesses demand. This construct underpins the results we generate for our clients and forms the foundation for our long-term relationships with them.