

Workspace ONE

By: Matthew Lake

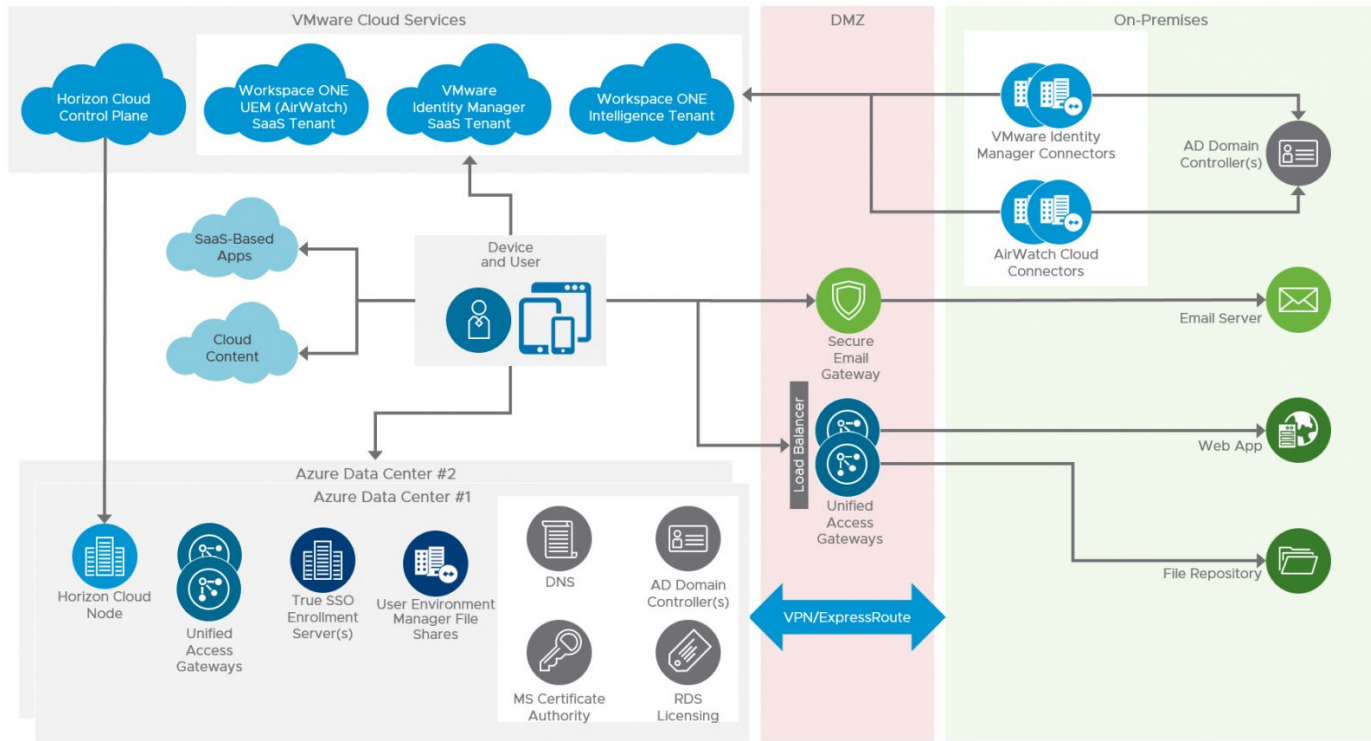
What is Workspace ONE?

- VMware Workspace ONE is a simple and secure enterprise platform that delivers and manages any app on any smartphone, tablet, or laptop.
- It begins with consumer grade self-service, single-sign on access to cloud, mobile, and Windows apps and includes powerfully integrated email, calendar, file and collaboration tools that engage employees.
- Workspace ONE automates traditional onboarding and laptop and mobile device configuration, and delivers real-time application lifecycle management that bridges between legacy enterprise client-server apps to the mobile-cloud era.

Workspace ONE Architecture

- VMware Workspace ONE combines identity and mobility management to provide frictionless and secure access to all the applications and data that employees need to work, wherever, whenever, and from whatever device they chose.
- VMware Horizon Cloud Service on Microsoft Azure delivers cloud-hosted virtual desktops and applications from your own Microsoft Azure Infrastructure.
- Mobile device and identity services are delivered through VMware Workspace ONE Unified Endpoint Management (UEM) powered by AirWatch and VMware Identity Manager.
- Workspace ONE integrates with VMware Horizon, either to cloud-hosted virtual desktops and applications with Horizon Cloud Service, or VMware Horizon 7 which is on-premises virtual desktops and published applications

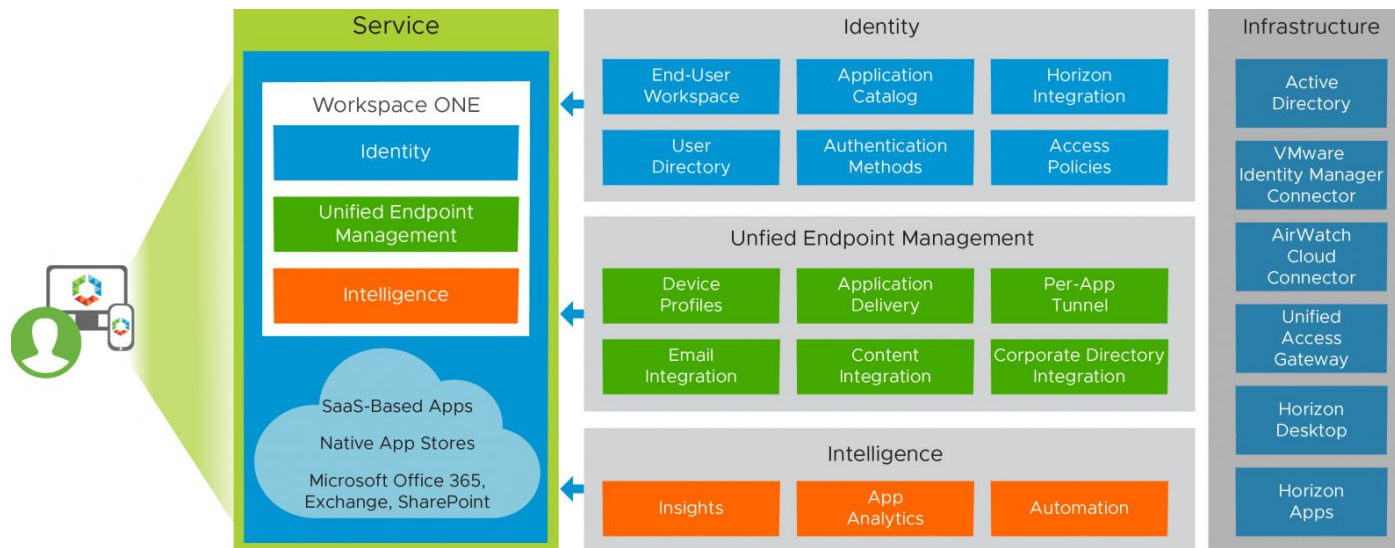
Workspace ONE Architecture



Workspace ONE Architecture

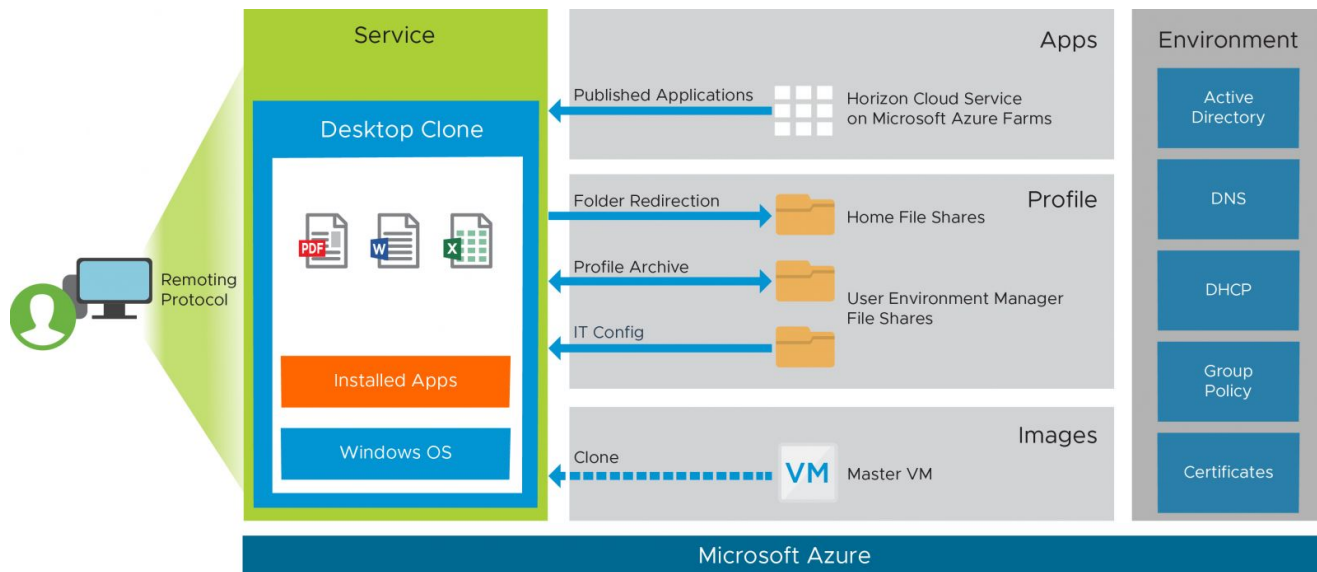
- The previous slide showed VMware Workspace ONE Cloud-Based Logical Architecture Overview
- This architecture shows all the components and parts that will need to be designed, built, and integrated in order to successfully deploy Workspace ONE
- This design shows how Workspace One can deliver a modern digital workspace that meets key business requirements and common use cases for the increasingly mobile workforce.
- This is a base design; depending on a business's requirements the architecture can change because every business has differences.

Sample Workspace ONE Service Blueprint



The following diagram shows a high-level blueprint of a Workspace ONE Standard deployment and all the available components.

Sample Horizon Cloud Service Blueprint



The following diagram shows a high-level blueprint of a Workspace ONE Advanced deployment and all the available components.

Workspace ONE Architecture

- To deliver a Workspace ONE solution, you build services efficiently from several reusable components. Our modular, repeatable design approach combines components and services to customize the end-user experience without requiring specific configurations for individual users.
- The Horizon Cloud architecture content in this guide uses key features, such as VMware User Environment Manager™, to deliver a persistent end-user experience in nonpersistent environments while accelerating the delivery of OS, applications, and user configuration.

Workspace ONE Features

- **Unified Endpoint Management:** Manage all devices, including mobile, desktop, rugged, and IoT, from a single console with Workspace ONE UEM powered by AirWatch.
- **Secure digital workspace:** Provide security across your evolving digital workspace with capabilities that protect, detect, and remediate against modern-day threats.
- **Simplified access management:** Boost productivity and simplify the experience for employees with secure, password-free SSO to Windows, native, cloud, and web apps on any phone, tablet, or laptop—all through a single app catalog.
- **Modern Windows management:** Reduce IT time and cost with modern, over-the-air, complete PC lifecycle management (PCLM) of Windows 10 from the cloud.
- **Intelligence across the digital workspace:** Get integrated insights, app analytics, and powerful automation that improve user experience, help optimize resources, and strengthen security and compliance across your entire environment.

Workspace ONE Horizon Cloud Service on Microsoft Azure

- **Simplified deployment:** IT can save time getting up and running with an easy deployment process, simplified management, and an architecture built for the cloud.
- **Complexity redefined:** Easily deploy and manage virtual applications and desktops on Microsoft Azure while leveraging cloud resources.
- **Cloud architecture:** Use Microsoft's many Azure data center regions across the globe, including Microsoft Azure Government.
- **Cost control and flexibility:** For organizations with fluctuating app usage, the Horizon Cloud Service on Microsoft Azure solution provides flexible, consumption-based pricing.

Workspace ONE Components

- **VMware Workspace ONE UEM:** Enterprise mobility management
- **VMware Identity Manager:** Identity platform
- **VMware Workspace ONE Intelligence:** Integrated insights, app analytics, and automation
- **Workspace ONE app:** End-user access to applications
- **VMware Horizon:** Virtual desktops and Remote Desktop Services published applications delivered either through Horizon Cloud or VMware Horizon 7 (on-premise)
- **VMware Workspace ONE Boxer:** Secure email clients
- **VMware Workspace ONE Browser:** Secure web browser

Workspace ONE Components continued

- **VMware Workspace ONE Content:** Mobile content repository
- **VMware Workspace ONE Tunnel:** Secure and effective method for individual applications to access corporate resources
- **VMware AirWatch Cloud Connector:** Directory sync with enterprise directories
- **VMware Identity Manager Connector:** Directory sync with enterprise directories and syncs to Horizon resources
- **VMware Unified Access Gateway:** Gateway that provides secure edge services
- **VMware Workspace ONE Secure Email Gateway:** Email proxy service

Workspace ONE User Experience

- Workspace ONE provides a consistent end-user experience, regardless of the device.
- The user experience is the same for every operating system, but as for native apps, the applications can leverage features specific to each operating system.
- Workspace ONE provides simple authentication combined with contextual authentication policies based on factors like; location of the device and what type of device is being used
- Users can launch different types of applications from within their workspace

Workspace ONE Environment Infrastructure Design

- Several environmental resources are required to support a VMware Workspace ONE deployment, most cases these resources will already exist in the environment.
- Workspace ONE and VMware Horizon® Cloud Service™ on Microsoft Azure require an Active Directory domain structure for user authentication and management.
- Group Policy objects (GPOs) can be used in a variety of ways to control and configure both Horizon Cloud Service on Microsoft Azure components and also standard Windows settings.
- The Domain Name System (DNS) is widely used in a Workspace ONE and Horizon Cloud Service on Microsoft Azure environment, from server components communication to clients and virtual desktops. Follow standard design principles for DNS, making it highly available.

Workspace ONE Environment Infrastructure Design Continued

- In a Horizon Cloud Service on Microsoft Azure environment, desktops and remote desktop session host servers rely on DHCP to get IP addressing information.
- Distributed File System store various types of data used to configure or apply settings that contribute to a persistent-desktop experience.
- The namespace is the referred entry point to the distributed file system.
- A Microsoft Enterprise Certificate Authority (CA) is often used for certificate-based authentication, SSO, and email protection.

Workspace ONE Communication

- The Workspace ONE platform uses connectors to integrate components.
- These systems communicate through the connectors, and this enables admins to send policies and configurations through their respective consoles to the Workspace ONE application on devices.
- Configure the rest API admin key for communication with the VMware Identity Manager Service in the AirWatch admin console.

Workspace ONE Centralized and Secure Data and Devices

- In Workspace ONE all components are designed with security as a top priority.
- Workspace ONE UEM policies can also be established to prevent distribution of corporate files, control where files can be opened and by which apps, and prevent such functions as copying and pasting into other apps, or printing.
- Workspace ONE Intelligence detects and remediates security vulnerabilities at scale. Quickly identify out-of-compliance devices and automate access control policies based on user behavior.
- Horizon Cloud Service on Microsoft Azure is the platform for delivering virtual desktops or published applications where user data, applications, and desktop activity do not leave the data center.

Work Cited

<https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/products/workspace-one/vmware-workspace-one-faq.pdf>

<https://techzone.vmware.com/resource/vmware-workspace-one-cloud-based-reference-architecture>

<https://techzone.vmware.com/resource/vmware-workspace-one-cloud-based-reference-architecture/business-drivers-use-cases>

<https://docs.vmware.com/en/VMware-Workspace-ONE/services/vmware-workspace-one-overview-and-documentation-reference-guide.pdf>

<https://docs.vmware.com/en/VMware-Identity-Manager/2.9.1/aw-vidm-ws1integration-911.pdf>

<https://techzone.vmware.com/resource/vmware-workspace-one-cloud-based-reference-architecture/vmware-workspace-one-solution-overview>

<https://techzone.vmware.com/resource/vmware-workspace-one-cloud-based-reference-architecture/user-experience-validation>