

VMware Horizon Apps

AT A GLANCE

VMware Horizon® Apps is a modern platform for secure delivery and management of virtualized applications, along with RDSH session-based desktops, across the hybrid cloud. As a member of the industry-leading VMware Horizon® family, Horizon Apps leverages best-in-class technologies to radically transform app virtualization in terms of management capabilities, Total Cost of Ownership, and user experience, giving IT unprecedented simplicity, speed and control across clouds, and end users native-like app experience on any device, anywhere.

Business Challenges with Application Delivery

The way we work has permanently changed. The global workforce is required to be more mobile and productive than ever—with the need to securely access corporate resources from anywhere on any device, over any network. Organizations are asked to include future-proof capabilities to their digital workspace strategies, including the ability to easily migrate workloads across on-premises and cloud environments. However, managing and delivering services to end users across multi- and hybrid clouds with legacy application delivery tools has become increasingly challenging. Organizations are also struggling to contain ongoing operating costs due to the management silos caused by multi- or hybrid cloud deployments.

Secure Delivery of Virtual Applications to Any Device, Anywhere

Real-time application delivery and management

Leveraging the power of Just-in-Time Management Platform (JMP), IT can instantly deliver a set of personalized applications on a RDSH session-based desktop to end users every time they log in. JMP is composed of the following VMware technologies:

- **Instant Clone Technology** – Rapidly provision up to 500 RDSH virtual machines in about 30 minutes to easily and elastically support peak demand. Stay up to date with critical security patches by shutting down RDS farms daily/weekly with the speed and efficiency provided by the instant Clone Technology.
- **App Volumes** – Attach applications to the session-based desktops at boot time. Reduce storage and operational costs by up to 70 percent with one-to-many provisioning using AppStacks, which slashes the number of images managed by up to 95 percent.
- **Dynamic Environment Manager** – Retain user preferences and apply contextual policy across any virtual, physical, and cloud-based environment for personalization. Simplify end-user profile management by providing organizations with a single and scalable solution that leverages existing infrastructure.

The JMP approach provides several key benefits, including simplified RDSH image management, faster delivery and maintenance of applications, easily maintained compliance, and a persistent user experience with non-persistent economics. IT can scale up to 20,000 RDSH active connections per Horizon Pod, with up to 50 Pods and 15 sites to support the needs of large-scale enterprise deployments, in a fraction of the time of traditional application virtualization models. .

KEY BENEFITS

- Enhance productivity by enabling anywhere access to virtualized Windows and Linux, SaaS, web and mobile apps in one unified digital workspace.
- Centrally manage and secure virtual apps and session-based desktops in the data center for enhanced corporate resource security.
- Simplify cross-cloud deployments and unlock the full benefits of multi-cloud and hybrid cloud with the Horizon Control Plane, a set of hybrid cloud management services.
- Get up and running up to 30x faster than traditional solutions while reducing costs by as much as 50 percent.
- The ideal solution for industries that do not require full virtual desktops and only handle a standard set of tasks, such as healthcare, financial services, and public sector where data security and compliances are top priorities.

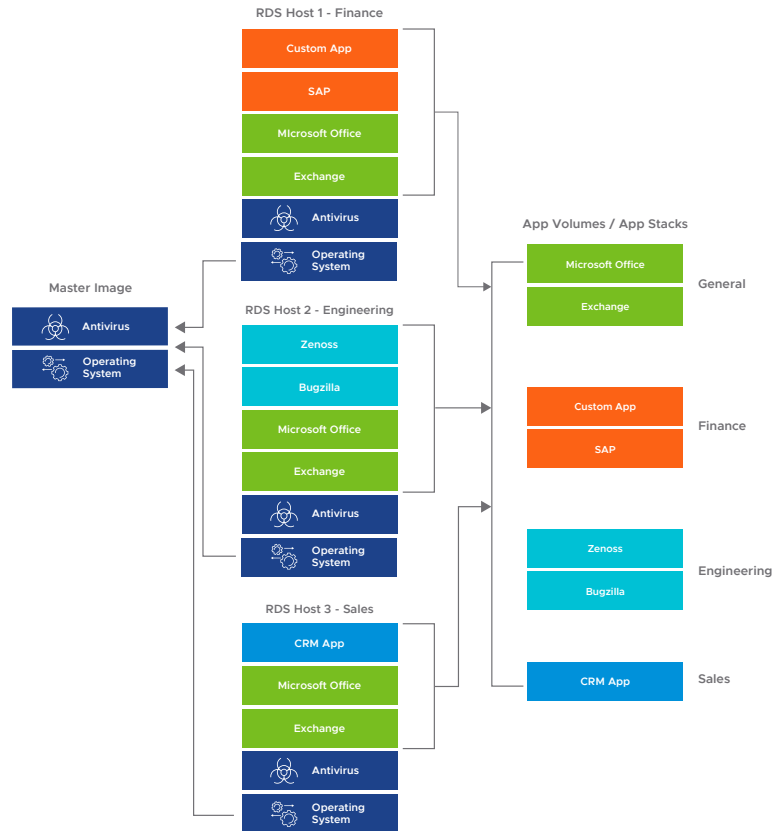


FIGURE 1: Instant Clones delivers the master image to the RDS host in seconds, making it quick to roll out updates or create brand new hosts. And with App Volumes, applications are virtualized above the operating system and delivered to RDS hosts via AppStacks, which allows admins to easily and quickly update or deploy new applications without the need to reimage.

A single platform for hybrid-cloud application delivery

The *Horizon Control Plane* is a single management console with always-up-to-date services that efficiently deploy, manage and scale virtual apps and desktops across all Horizon environments, on-premises or in the cloud, drastically simplifying monitoring and image, application and lifecycle management. The Universal Broker, one of the Horizon Control Plane services, delivers a global entitlement layer that brokers end users into their personal desktop or apps located in the ideal Horizon Pod based on proximity, optimizing the costs of delivery and user experience.

With the Horizon Control Plane, VMware Horizon Apps simplifies and optimizes your cloud investment, addressing key hybrid cloud use cases such as business continuity, real-time bursting, disaster recovery, and high availability. It allows IT to use a common set of tools and a unified architecture to easily extend app delivery capabilities across on-premises data centers and supported public clouds, such as Microsoft Azure, VMware Cloud™ on AWS, and Google Cloud.

End-to-end security and single sign-on

Built on a trusted VMware digital foundation, VMware Horizon Apps enables secure remote access to corporate resources with built-in intrinsic security from the device into the data center and cloud. As end users access their virtual apps across the network, *VMware NSX® Advanced Load Balancer™ (Avi Networks)* and *VMware SD-WAN by VeloCloud®* ensure constant connection and enterprise-grade security. For added protection to centrally hosted apps, *VMware NSX* secures east-west traffic with micro-segmentation and *VMware Carbon Black* adds next-generation threat protection to all your endpoints.

With *VMware Workspace ONE® Access*, IT can support real-time validation, streamlined identity management across identity sources like Active Directory and LDAP, and authenticate end users with contextual and customizable access to resources through secure and simple single sign-on from any device. VMware Horizon Apps supports two-factor, smart card, and biometric authentication. It is designed and certified to meet the most demanding compliance regulations, including those of the U.S. federal government and healthcare organizations.

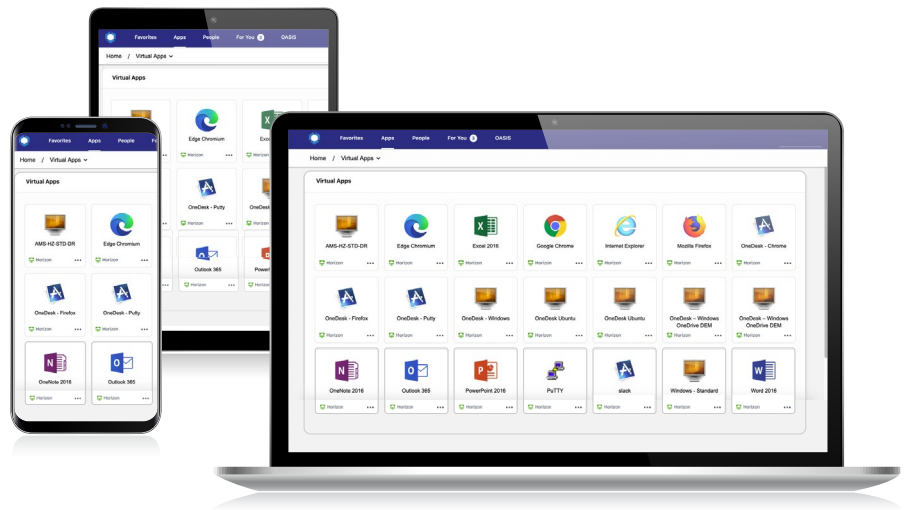


FIGURE 2: Digital Workspace

The Best Digital Workspace Experience

End users can access all their apps, including virtual apps packaged and delivered by VMware Horizon Apps, through a unified app catalog in *VMware Workspace ONE® Intelligent Hub* with a seamless single sign-on experience. The Blast Extreme protocol dynamically optimizes high-latency and low-bandwidth network conditions across devices and locations, providing rich 2D and 3D graphics and workstation-class performance for remote users. Enhanced audio and video support for Microsoft Teams, Zoom, Cisco WebEx and other communication and collaboration tools provides a better user experience, minimizing productivity loss caused by poorly performed collaboration tools.

Optimized for Industry-Leading SDDC

Built on *VMware Cloud Foundation™*, VMware Horizon Apps can leverage the marketing-leading virtualization capabilities of *VMware vSphere®* for compute, *VMware vSAN™* for storage, and VMware NSX for networking and security. The tight integration between VMware Horizon Apps and the VMware technology stack eliminates the need to build, test and support disparate storage, virtualization and networking products, providing a seamless turnkey solution for Just-In-Time virtual application delivery on-premises and in the cloud.

Extensive Deployment Options

Customers can leverage both on-premises hyperconverged infrastructure such as Dell EMC VxRail, vSAN Ready Nodes, and other HCI appliances, and public clouds such as Microsoft Azure, IBM Cloud, Google Cloud, and VMware Cloud™ on AWS, to support easy, scalable and cost-optimized VMware Horizon Apps deployments. VMware Horizon Apps supports VMware vSAN with all-flash. VMware vSAN automates storage provisioning and leverages direct-attached storage resources to drive down storage costs for desktop workloads.

Business Benefits

IT organizations that leverage VMware Horizon Apps can benefit from the following:

- **Lower operating costs** – Modernized management tools, leveraging JMP technology and the Horizon Control Plane, to drastically reduce storage and operational costs.
- **Increased productivity** – End users can easily and securely access all their business-critical apps from any device, anywhere, with single sign-on.
- **Enhanced security** – Work at the speed of light while sensitive apps and data are secured in the data center.

Make the Move Today

VMware Horizon Apps is available in two editions, and can be purchased through *subscription* or *perpetual* licensing.

For subscription offerings, VMware Horizon Apps is included in VMware Horizon Universal Subscription, VMware Horizon Apps Universal Subscription, and VMware Horizon Apps subscription.

For perpetual offerings, VMware Horizon Apps is available in two editions:

- **Horizon Apps Standard** – Powerful app virtualization with great user experience
- **Horizon Apps Advanced** – Just-in-Time app virtualization made simple

FEATURE	SUB-COMPONENT/ PRODUCT	HORIZON APPS STANDARD (PERPETUAL)	HORIZON APPS ADVANCED (PERPETUAL)	HORIZON APPS UNIVERSAL SUBSCRIPTION	HORIZON APPS SUBSCRIPTION
LICENSE ENTITLEMENT					
Concurrent User (CCU)		●	●	●	●
Named User		●	●	●	●
DESKTOP AND APPLICATIONS					
Published applications (RDSH) and session-based desktops	RDS published apps	●	●	●	●
Linux-hosted apps	VMware Horizon			●	●
Remote Windows 10 physical PC access	VMware Horizon	●	●	●	●
Support for Windows 10 multi-session (Microsoft Windows Virtual Desktop)	VMware Horizon			●	●
VM-hosted apps (Windows 10 OC)	VMware Horizon		●	●	●
Support for non-vSphere RDSH	VMware Horizon			●	●
MANAGEMENT					
Access to always up-to-date control plane (requires outbound internet connection to Horizon Cloud Connector using port 443)	VMware Horizon			●	●
VMware-managed, multi-tenant DaaS deployment option	VMware Horizon			●	●
Horizon Control Planes services (image management, app management, monitoring, Universal Broker)	VMware Horizon			●	●
Global Entitlement layer with Cloud Pod Architecture	VMware Horizon	●	●	●	●

FEATURE	SUB-COMPONENT/ PRODUCT	HORIZON APPS STANDARD (PERPETUAL)	HORIZON APPS ADVANCED (PERPETUAL)	HORIZON APPS UNIVERSAL SUBSCRIPTION	HORIZON APPS SUBSCRIPTION
MANAGEMENT					
Rest APIs	VMware Horizon			●	●
Instant clones for non-persistent desktops (available for 8.x)	VMware Horizon		●	●	●
Full clones for persistent desktops	VMware Horizon	●	●	●	●
Real-time application delivery and lifecycle management with App Packages/AppStacks	VMware App Volumes		●	●	●
App packaging and isolation	VMware ThinApp®	●	●		
User profile, personalization and smart policies	VMware Dynamic Environment Manager™ Enterprise	●	●	●	●
Help desk tool	VMware Horizon		●	●	●
USER ACCESS AND PROTOCOLS					
Unified catalog of published apps, packaged apps, and virtual desktops with single sign-on (SSO) access	VMware Workspace ONE Access	●	●	●	●
Single sign-on (SSO) access to SaaS and web apps	VMware Workspace ONE Access			●	●
Multi-factor authentication (e.g., Radius, SecurID)	VMware Workspace ONE Access and VMware Verify™	●	●	●	●
Blast Extreme, PCoIP, RDP protocols	VMware Horizon	●	●	●	●
Secure external access and edge services using multi-service proxy	VMware Unified Access Gateway™	●	●	●	●

FEATURE	SUB-COMPONENT/ PRODUCT	HORIZON APPS STANDARD (PERPETUAL)	HORIZON APPS ADVANCED (PERPETUAL)	HORIZON APPS UNIVERSAL SUBSCRIPTION	HORIZON APPS SUBSCRIPTION
COLLABORATION TOOLS					
Optimized video and audio experience for collaboration software (e.g., Microsoft Teams, Zoom, WebEx)	VMware Horizon		●	●	●
INFRASTRUCTURE					
Software-defined data center infrastructure	VMware vSphere Desktop and VMware vCenter® Desktop	●	●	Yes – For on-premises deployment	
Cloud/hybrid, multi-cloud deployment	VMware Horizon			●	●
On-premises deployment	VMware Horizon	●	●	●	●