VMWARE HORIZON

Q. What is VMware Horizon?

A. VMware Horizon® is a family of desktop and application virtualization solutions designed to deliver Windows and online services from any cloud. With Horizon, VMware extends the power of virtualization—from data centers to devices—to deliver desktops and applications with great user experience, closed-loop manageability, and hybrid-cloud flexibility.

VMware Horizon is available for purchase through VMware. Horizon 7 for virtual desktops and applications runs from your data center, Horizon 7 Published Applications delivery and management, VMware Horizon Cloud Service™ for virtual desktops and applications is served up as a cloud-hosted service on-premises or from outside of your data center, and VMware Horizon FLEX™ for containerized virtual desktops runs locally.

VMware Horizon 7

Q. What is Horizon 7?

A. Horizon 7 allows IT to deliver virtual or RDSH published desktops and applications through a single platform to end users. These desktop and application services—including RDS hosted apps, packaged apps with VMware ThinApp®, SaaS apps, and even virtualized apps from Citrix—can all be accessed from one unified workspace to provide end users with all of the resources they want, at the speed they expect, with the efficiency business demands. Horizon 7 is available in four editions:

- Horizon Standard Edition – Simple, powerful VDI with great user experience
- Horizon Advanced Edition – Cost-effective delivery of desktops and applications through a unified workspace
- Horizon Enterprise Edition – Desktops and applications delivered with cloud automation and management
- Horizon Air with On-Premises Infrastructure – Pair Horizon Air service with Horizon 7 cloud-managed infrastructure and desktops

Q. What is Horizon Apps?

A. Horizon Apps is a new packaging offering that focuses on delivering and managing published (RDS) apps, including session-based desktops. Based on Horizon 7, it offers two editions—Standard and Advanced. Both offer reliable and secure published application delivery with tools and features that simplify management and provide a great user experience. Horizon Apps Advanced additionally streamlines app management with just-in-time app delivery powered by VMware Instant Clones™ technology and slashes the numbers of required images to be managed with VMware App Volumes™.

Q. When should I choose Horizon 7 and when should I choose Horizon Apps?

A. Both Horizon 7 and Horizon Apps offer reliable and secure published RDS application delivery and management that include session-based desktops. Horizon 7 additionally provides virtual desktops, which provide a desktop experience and a highly reliable, high-performance, personalized desktop. Session-based desktops are useful in certain use cases when high performance, reliability, and personalization are not critical. Horizon 7 editions also offer additional compelling features and products—such as VMware vRealize® Operations™ for Horizon and VMware vSAN™—with lower bundle pricing incentives.

Q. What are the key features of Horizon 7?

A. Horizon 7 allows organizations to extend the power of desktop and application virtualization to support workplace mobility while driving greater levels of operational efficiency at lower costs.

Key feature highlights include:

Desktops and Applications Delivered Through a Single Platform

- Deliver virtual or published desktops and applications through a single platform to streamline management, easily entitle end users, and quickly deliver Windows or Linux desktops and applications to end users across devices and locations.
- Horizon 7 supports a single platform for delivering hosted Windows applications and shared desktop sessions from Windows Server instances using Microsoft Remote Desktop Services (RDS), virtual desktops, and ThinApp packaged applications.
- Horizon 7 additionally supports both Windows and Linux-based desktops—including RHEL, Ubuntu, CentOS, and NeoKylin operating systems.

Smart Policies with Streamlined Access

With Horizon 7, end users can simply and securely access desktops and applications (including RDS hosted apps, packaged ThinApp apps, SaaS apps, and even virtualized apps from Citrix) through a unified digital workspace. IT organizations can similarly secure desktops and apps based on even the most stringent regulations and streamline the management of multiple identity sources like Active Directory and LDAP to efficiently manage end-user access. End users can also use single sign-on (SSO) from VMware Identity Manager™ to sign in to VMware Content Locker™ and to enroll their devices if they are also using VMware AirWatch® Mobile Device Management™.

Horizon 7 supports the ability to:

- Deliver seamless and secure access that allows only authenticated traffic access to all computing services.
- Streamline identity management across identity sources and provide end users with contextual and customizable access to resources through a single unified workspace.
- Support contextual, role-based security for end users that maps policies based on user, device, or location with ease.
- Simplify user access with True SSO for a single-click, password-free login to Windows desktop services.
- Provide fast end-user access and real-time validation with two-factor, smart-card, and biometric fingerprint authentication.
- Take advantage of FIPS 140-2 compliance to ensure that all cryptography meets common criteria standards.

Transformational User Experience

With Horizon 7, IT can deliver desktops and applications to end users through a digital workspace with Blast Performance to enable consistently great experiences across devices, locations, media, and connections. Horizon products now support customers with the flexibility to choose between PCoIP or the brand new Blast Extreme protocol to ensure that end users have the best possible user experience at all times across a wide variety of network types, from corporate LAN to public Wi-Fi and mobile networks with Blast Extreme Adaptive Transport (BEAT).

Applications that can be delivered and accessed through the unified workspace include:

- XenApp 5.0 and later
- Microsoft RDS-hosted apps and desktops for Windows Server 2008 and later
- SaaS applications
- ThinApp 5.0 and later
- DaaS desktops and applications

Applications with Modernized Lifecycle Management

Horizon 7 ensures that IT can consolidate, control, deliver, monitor, and protect user compute resources.

Horizon 7 now includes support for:

Real Time Application Delivery and Management

- Scale published applications effortlessly at the push of a button while deploying them 5–10x faster and eliminating image sprawl.
- Simplify deployments with a tightly integrated stack and fewer components, along with half the required steps when deploying or scaling as compared to competitive solutions.
- Easily package applications to avoid compatibility issues.
- Instantly provision applications at scale.
- Uniquely capture and isolate applications and also add and remove individual applications from a single AppStack to a user or pool of users on demand.
- Dynamically attach applications to users, groups, or devices, even when users are logged in to their desktop.
- Provision, deliver, update, and retire applications in real time.

User Environment Management

VMware User Environment Manager™ offers personalization and dynamic policy configuration across any virtual, physical, or cloud-based environment.

- Simplify end-user profile management by providing organizations with a single and scalable solution that leverages existing infrastructure.
- Provide end users with quick access to a Windows workspace and applications, with a personalized and consistent experience across devices and locations.

Image Management

- Support for desktop and application provisioning and entitlement.
- Support for VMware Mirage™ unified image management for streamlined management across virtual data centers of physical and full clone virtual machines.

Analytics and Automation

- Cloud analytics with VMware vRealize Operations for Horizon provides comprehensive visibility across a Horizon desktop and application environment as well as Citrix XenApp and XenDesktop 7.6 environments, allowing IT to optimize the health and performance of desktop and application services.

Optimized for the Software-Defined Data Center

- Horizon 7 extends the power of virtualization with virtual compute, virtual storage, and virtual networking and security to drive down costs, enhance the user experience, and deliver greater business agility.
- Only Horizon 7 can leverage native storage optimizations from VMware vSphere®, including SE Sparse, VAAI, and storage acceleration, to drive down storage costs while delivering a superior user experience.
- Horizon 7 with VMware vSAN Advanced for Desktop automates storage provisioning and leverages direct-attached storage resources to drive down storage costs for desktop workloads. Horizon supports all-flash capabilities to better support more end users at lower costs across distributed locations.
- Horizon 7 with Virtual Volumes™ simplifies NAS and SAN storage management and policy setting and delivers the benefits of VMware View® Composer™ Array Integration (VCAI) on block storage and NFS to speed offloading for better SLAs and performance.
- VMware VSAN Ready Nodes and other hyper-converged infrastructure appliances leverage vSAN and the power of the software-defined data center (SDDC) to enable organizations to cost-effectively and quickly transform physical desktops into secure virtual workspaces with a hyper-converged appliance that's easier to procure, deploy, manage, and scale with consistently great performance.
- VMware NSX® with Horizon brings speed and simplicity to VDI networking with security policy that dynamically follows end users across infrastructure, devices, and locations. Learn more about this solution and how to add VMware NSX to your Horizon deployment.

Flexible Subscription Pricing Plans

Subscription pricing options make it possible to purchase Horizon Cloud Service with on-premises cloud-managed desktops and infrastructure for one low annual rate.

- Take advantage of low annual rates and the flexibility to pair the cloud service with infrastructure and desktops running on-premises, managed by your IT or VMware.
- Leverage a complete cloud-hosted desktop and application service from VMware at low, predictable costs with a broad range of options.
- Try Horizon Cloud for less when you renew your support and subscription on Horizon Enterprise perpetual licenses.

Q. What is included in the Horizon editions?

A. Horizon 7 Standard, Horizon 7 Advanced, Horizon 7 Enterprise, and Horizon Apps are bundled with the components and capabilities shown in Table 1.

Q. What happened to Horizon View (formerly VMware View)?

A. VMware Horizon View™ is still available as a standalone offering in Horizon Standard Edition on a per concurrent connection basis at the same price as the former Horizon View Premier bundle. If you are looking for a simple and powerful desktop virtualization solution with a great user experience, consider Horizon Standard Edition. To leverage the best of Horizon and extend these benefits beyond VDI to provide end users with one place to securely access all their desktops and applications, purchase Horizon Advanced Edition. If you want to deliver desktops and applications with the benefits of cloud management, automation, and orchestration, choose Horizon Enterprise Edition.

Q. Is Horizon Enterprise Edition equivalent to the View Enterprise Edition?

A. No. Horizon Enterprise Edition is the most comprehensive solution in the Horizon portfolio. View Enterprise Edition reached its end of availability in 2013. Customers with VMware View Enterprise with current support and subscription (SnS) continue to receive support. These customers can also upgrade to any new Horizon edition.

Horizon 7 Features by Edition

FEATURE	SUBCOMPONENT/ PRODUCT	HORIZON FOR LINUX	HORIZON STANDARD	HORIZON ADVANCED	HORIZON ENTERPRISE	HORIZON APPS STANDARD	HORIZON APPS ADVANCED	HORIZON AIR (HYBRID MODE)
License Entitlement								
Concurrent User (CCU)		•	•	•	•	•	•	•
Named User				•	•	•	•	•
Subscription Pricing Plan								•
Desktop and Applications								
Windows virtual desktops	VMware Horizon		•	•	•			•
Linux Desktops	VMware Horizon for Linux	•			•			
Unified workspace —XA, RDSH, SaaS, ThinApp	VMware Identity Manager Std			•	•	•	•	
Published Applications (RDSH) and session-based desktops	RDS Published Apps			•	•	•	•	•
Packaged Applications	VMware ThinApp		•	•	•	•	•	•
Blast Extreme Protocol	VMware Horizon	•	•	•	•	•	•	•
Virtualization Pack for Skype for Business	VMware Horizon			•	•		•	•
Application and Desktop Access with Single Sign On	VMware Identity Manager Standard			•	•	•	•	
Cloud Connector	Horizon Air Cloud Managed							•
Workspace Environment Management								
Image Management								
Image management for physical desktop	VMware Mirage			•	•			
Desktop and Application Management								
Real-time application delivery	VMware App Volumes				•		•	•
Just-in-time delivery with Instant Clone technology	VMware Horizon				•		•	•
User Environment Management								
User, profile, and policy management	VMware User Environment Manager				•	•	•	•

FEATURE	SUBCOMPONENT/ PRODUCT	HORIZON FOR LINUX	HORIZON STANDARD	HORIZON ADVANCED	HORIZON ENTERPRISE	HORIZON APPS STANDARD	HORIZON APPS ADVANCED	HORIZON AIR (HYBRID MODE)
Cloud Analytics and Operations Management								
Help Desk Tool	VMware Horizon				•		•	
Operations Dashboard—Health Monitoring & Performance Analytics	VMware vRealize Operations for Horizon				•			•
Capacity Management—Planning & Optimization	VMware vRealize Operations for Horizon				•			•
Infrastructure								
Storage								
Virtual Storage	VMware vSAN Advanced for Desktop with all-flash			•	•			•
Desktop Infrastructure								
Cloud infrastructure	VMware vSphere Desktop & VMware vCenter® Desktop	•	•	•	•	•	•	•

Q. What is the difference between Horizon Enterprise and VMware Horizon Suite?

A. Horizon Enterprise has all the features and functionality included in VMware Horizon Suite, with the exception of support for file sharing. However, Horizon Enterprise includes features not bundled with Horizon Suite, such as support for hosted RDS applications and desktops, App Volumes for just-in-time application delivery, and vSAN Ready Nodes.

Q. What is VMware Identity Manager?

A. VMware Identity Manager is an identity-as-a-service (IDaaS) offering, providing application provisioning, self-service catalog, conditional access controls, and SSO for SaaS, web, cloud, and native mobile applications. It supports access to applications and desktops running Microsoft Windows Remote Desktop Services, XenApp 5.0 and later, ThinApp, SaaS, and virtual desktops with Horizon View. The unified workspace also provides IT with a central point of control on the back end to manage reporting, policy access, and delivery. VMware Identity Manager Standard is included in Horizon Advanced and Enterprise editions.

Q. What is Blast Performance?

A. Blast Performance is a comprehensive set of technologies available with Horizon 7 that are designed to ensure that end users have a consistently great experience across devices, locations, media, and connections. Blast Performance extends across the following:

- Blast Adaptive UX – Optimized access across the WAN and LAN through an HTML browser or Horizon Clients with PCoIP or Blast Extreme protocols. Blast Extreme offers a new protocol purpose-built and optimized for the mobile cloud, built on industry standard H.264.
- Blast Extreme Adaptive Transport – BEAT maintains a great user experience across a wide variety of network types, ranging from corporate LAN to public Wi-Fi and mobile networks.
- Blast Multimedia – High-performance multimedia streaming for rich user experience.
- Blast 3D – Rich virtualized graphics delivering workstation-class performance.
- Blast Live Communications – Fully optimized unified communications and real-time audio-video (RTAV) support. Horizon 7 now includes support for Microsoft Lync with Windows 10.

- Blast Unity Touch – Intuitive and contextual user experience across devices, making it easy to run Windows on mobile.
- Blast Local Access – Access to local devices, USB, and device peripherals.
- Horizon Clients with Blast – Unified client for consistently great experience across devices and locations.

Q. You mentioned support for 3D above; does Horizon support NVIDIA vGPU today?

A. VMware Horizon supports NVIDIA GRID vGPU with vSphere to deliver secure, immersive 3D graphics from the cloud, via virtual desktops or RDSH hosted applications that can be easily accessed across devices and locations, more affordably than ever before.

Q. What are some of the capabilities in Horizon that support RDS hosted apps and desktops?

A. VMware offers a number of features with RDS hosted apps and desktops, including support for printing, USB flash drive, imaging devices and scanners, HTML access, chrome clients, multimedia redirection, file association, Lync 2013 support, NVIDIA GRID vGPU support, and more.

VMware also offers support for RDSH hosted applications with linked clones and instant clones to allow IT to quickly update RDSH server farms. Organizations can take advantage of load balancing support for RDSH optimized server utilization while ensuring great user experience. Additionally, VMware is now supporting cloud pod architecture for hosted apps, allowing organizations to build the largest, most distributed infrastructure while enabling easy access to RDSH hosted apps and desktops across geographic locations.

Q. Does Horizon also support Linux operating systems in addition to Windows operating systems?

A. Yes, Horizon Enterprise supports both Windows and Linux (RHEL, Ubuntu, CentOS, and NeoKylin).

Q. What is VMware workspace environment management?

A. Workspace environment management encompasses a core set of management and automation capabilities that customers can take advantage of with Horizon. These capabilities consolidate, control, orchestrate, and protect user compute resources and leverage VMware App Volumes, VMware Mirage, VMware User Environment Manager, and vRealize Operations for Horizon. With Horizon products, customers can now access these core capabilities through a single pane of glass to streamline desktop, application, and infrastructure management.

Q. What is image management for physical machines?

A. Image management for physical and virtual machines leverages Mirage to ensure that IT can easily deploy images to end users across all physical endpoints. This capability is included in Horizon Advanced and Enterprise editions.

Q. What is VMware App Volumes?

A. VMware App Volumes supports real-time application delivery to virtualized desktop environments. With Horizon 7 and App Volumes, IT can build a real-time application delivery system that ensures all applications are centrally managed. Applications are delivered to virtual desktops through VMDK virtual disks, without modifying the VM or applications themselves, and can be scaled out to virtual desktops with superior performance, at lower costs and without compromising end-user experience.

Q. Does App Volumes support published applications?

A. Yes, App Volumes technology can also be leveraged to publish applications. App Volumes simplifies management and can be used to quickly update or add new applications without the need to reimage the master template.

Q. What is User Environment Manager?

A. VMware User Environment Manager offers personalization and dynamic policy configuration across any virtual, physical, or cloud-based environment. User Environment Manager can simplify end-user profile management by providing organizations with a single and scalable solution that leverages existing infrastructure. IT can simply map infrastructure (including networks and printer mappings) and dynamically set policies for end users to securely support more use cases. With this solution, end users can also enjoy quick access to their Windows workspace and applications, with a personalized and consistent experience across devices and locations.

Q. What happened to persona management previously available in Horizon and VMware View products?

A. Persona management is still available in Horizon 7 products to support customers looking to continue to take advantage of this capability.

Q. What are cloud analytics and operations management?

A. VMware vRealize Operations for Horizon provides cloud analytics and operations management for virtual desktop and application environments, allowing IT to optimize the health, availability, performance, and efficiency of desktop and application services. vRealize Operations for

Horizon is included in the Horizon Enterprise Edition, and in addition to monitoring Horizon environments, it supports Citrix XenApp 6.5 and XenDesktop/XenApp 7.6 environments.

Q. What is cloud pod architecture?

A. The cloud pod architecture allows customers to dynamically move and locate Horizon VDI and RDSH pods across multiple data centers for efficient management of end users across distributed locations. This feature is available with all Horizon editions. Instant Clone technology is available through Horizon Enterprise Edition and in Horizon Cloud Service™ with On-Premises Infrastructure.

Q. What is VMware vSAN?

A. VMware vSAN, a software-defined storage tier, pools compute and direct-attached storage resources and clusters server disks and flash to create resilient shared storage. vSAN provides customers with a low-cost storage alternative that eliminates the need to overprovision storage to ensure that end users have enough IOPS per desktop. Customers can additionally simplify storage provisioning by managing this through Horizon. VMware vSAN Advanced for Desktop is included in Horizon Advanced and Enterprise editions.

Q. What is NSX for Horizon, and is it included with Horizon editions?

A. NSX for Horizon is a standalone offering available to customers who are looking for a fast and easy way to set networking security policy for end users that follows them across devices and locations—regardless of changes in the underlying physical infrastructure. NSX for Horizon does not come with any of the Horizon editions.

Q. What is Instant Clone technology?

A. Instant Clone technology provides a new, dramatically accelerated means to provision virtual machines in vSphere. With Instant Clone technology, a booted-up parent VM can be quiesced and "hot-cloned" to produce derivative (child) VMs rapidly, leveraging the same disk and memory of the parent VM, with the clone starting in an already "booted-up" state. This process bypasses the cycle time incurred with traditional cloning, where several power cycle and reconfiguration calls are usually made. When administrators combine Instant Clone technology with App Volumes and User Environment Manager, they can rapidly spin up desktops for users that retain user customization and persona from session to session, even though the desktop itself is destroyed when the user logs out.

Q. Does Instant Clone technology support published applications?

A. Yes, Instant Clone technology also supports RDS published applications, creating a live copy of an application publishing host in seconds, using the same storage and memory footprint as the original master image. This enables new applications and updates to existing applications to roll out quickly to a large number of clones, with no downtime during rollout. Scaling is also radically simple—a new clone can spin up as needed to elastically support peak demand.

Q. What is the difference between fat clones, linked clones, and instant clones?

A. Fat clones, or "full clones," are those virtual machines (desktops) that will persist across sessions. Each user is allocated a virtual desktop that uses a system image dedicated only to that user with no dependencies on a parent VM/clone. Virtual desktops deployed as "linked clones" share a common system image across all users, made from the snapshot of a parent virtual machine. If the central image is recomposed, user changes to a virtual desktop are not retained. These desktops are considered nonpersistent. This dramatically reduces the total required storage space, because there is no need to copy the same system image repeatedly for each new virtual desktop user. Instant clones, like linked clones, are derived from a parent virtual machine. However, the provisioning process is much faster, because the parent VM is captured in a booted-up state such that the creation of each child VM does not require power cycle and reconfiguration steps required of linked clones.

Q. What is True SSO?

A. True SSO streamlines the user login experience by leveraging a Horizon certificate to authenticate users accessing their Horizon desktop via Identity Manager, all the way through to their Windows desktop. Prior to True SSO, users would be presented with the usual Microsoft Active Directory login prompt before they could access their desktop, incurring a secondary login step after authenticating through Identity Manager.

Q. What is the difference between Blast Extreme and PCoIP?

A. Blast Extreme is a new display technology built on the H.264 protocol. It offers customers an additional means by which their Horizon workspace can be remoted to their client device. Horizon 7 continues to support devices that leverage PCoIP, and with the addition of Blast Extreme, customers can choose the display technology that best fits their use cases.

Q. Which Horizon products support Windows 10 today?

A. Horizon 7 and Horizon Cloud both support Windows 10.

Q. What is the SysTrack Desktop Assessment?

A. The SysTrack Desktop Assessment (SDA) is a free self-service platform that provides customers with comprehensive visibility into their end-user environment, infrastructure, and applications. It provides solution recommendations based on user segmentation to put customers on the path to success as they move forward with VMware and Horizon products.

Q. How do I buy VMware Horizon 7?

A. VMware Horizon 7 is available through the VMware Store and authorized VMware resellers and desktop competency partners. For more information, visit http://www.vmware.com/go/horizon.

Q. What happens if I am using an earlier version of Horizon (e.g., VMware Horizon View)?

A. All customers with a valid VMware SnS contract are eligible to upgrade to the latest version of Horizon at no cost. If you do not have a current SnS contract and want to reinstate your contract, contact VMware Support or visit http://www.vmware.com/support/questions.html.

Horizon 7 Licensing

Q. How is Horizon 7 licensed?

A. The Horizon Advanced and Horizon Enterprise editions and Horizon Apps are available in two perpetual license models.

- Per named user (NU) – For virtual environments with staff that require dedicated access to a virtual machine throughout the day.
- Concurrent connection (CCU) – For virtual environments with a high number of users who share machines throughout the day, such as students and shift workers. A concurrent connection is defined as a powered-on VM and connected virtual desktop session.

Note: Horizon Standard is only available on a concurrent connection basis.

In both NU and CCU metrics, the components of the bundle cannot be split between users. This applies to both named and concurrent connection instances. Although the bundle has individual components, they should be thought of as a single product. In this manner—even if an end user in a concurrent connection scenario is only connected to a virtual desktop—the other associated components of the bundle (e.g., VMware Identity Manager and Mirage) are also considered to be attached to that user and not entitled to other users.

Example:

Suppose organization A has 100 concurrent connection licenses of Horizon Enterprise. User A connects to their virtual desktop and consumes one concurrent connection. However, user A is not using Mirage. Does this free up Mirage for another user—given that user A is not active on Mirage? No. Even if user A is not connected to all of the components in the bundle, once user A connects to any one of the components in the bundle, the others by default become attached to that user for as long as they are connected to their session.

When to Use Named User (NU) and When to Use Concurrent Connection User (CCU)

If the primary use case is around Horizon virtual desktops and the customer has end users accessing their desktops in shifts (e.g., 200 in the morning and 200 in the evening, but never all 400 at the same time), and the customer does not foresee needing more than 200 instances of Mirage or Identity Manager at any given time, then the customer should buy 200 CCU of Horizon.

If the primary use case is around Horizon with View and the customer does not have shift workers (e.g., all 400 employees are always connected at the same time), then the customer should buy NU. In this instance, the customer would also have access to 400 seats of Mirage and Identity Manager to entitle to these same 400 employees.

If the primary use case is around Horizon with View and the customer has 200 shift workers in the morning and 200 in the evening, and the customer has 50 other nonshift workers who need Mirage, then the customer should buy 200 per CCU licenses of Horizon and an additional 50 seats of Mirage standalone.

Concurrent Connection: Mirage, Identity Manager (formerly VMware Workspace Portal), Fusion Pro

Although Horizon Advanced and Enterprise are available on a per concurrent connection basis, the Mirage and Identity Manager components in the bundle can be consumed only a named user (Mirage, Identity Manager) or device (Mirage, VMware Fusion® Pro) basis. If a customer has 400 workers and 200 of these workers come in during the day and 200 at night—and if the customer wants to give all of these workers access to View and Mirage—then the customer has two choices. They can buy 200 CCU of Horizon Advanced and a 200 pack of VMware Mirage, or they can buy 400 CCU of

Mirage. Clearly the first option is much more cost-effective for most customers. However, regardless of the choice, the customer will need 400 seats of Mirage to cover for the 400 employees even if only 200 are ever connected at any given time. The same rules apply to Identity Manager.

Q. How do I get a Horizon Client for my devices, and how much does it cost?

A. Horizon clients for different devices are included as part of the Horizon solution at no additional cost and are available in the product download portal.

- Horizon Client for iOS is available from the Apple iTunes store.
- Horizon Client for Android is available from the Google Play store.

Q. Which VMware vSphere edition does the VMware Horizon 100-pack contain? How many licenses are included?

A. All Horizon editions include VMware vSphere® Desktop, which has the same functionality and features as vSphere Enterprise Plus Edition™. vSphere Desktop is licensed on a per concurrent connection basis, so you can deploy as many hosts as needed to support the number of concurrent connections for which you are licensed.

Q. What if I have a third-party or homegrown connection broker but want to deploy my desktops on VMware infrastructure?

A. You can purchase vSphere Desktop on a per powered-on desktop virtual machine basis.

Q. Can I mix vSphere hosts with licenses from the Horizon 7 and vSphere hosts that are licensed via vSphere a la carte?

A. A mixed environment is not recommended because during disaster recovery, server workloads might live-migrate via VMware vSphere vMotion® to a vSphere host running the Horizon license, which would violate the EULA. Customers are advised to keep their environments separated or purchase a la carte vSphere, vCenter, and Horizon licenses to entitle the deployment of a mixed environment.

Q. If I buy Horizon 7 on-premises licenses, can I use them with Horizon Cloud Service with On-Premises Infrastructure?

A. No, you need to buy Horizon Cloud Service with On-Premises Infrastructure to be able to leverage the Horizon 7 cloud connector for cloud-hosted management.

Q. Are add-ons still available?

A. Yes, customers with excess vSphere licenses can buy Horizon Standard, Horizon Advanced, or Horizon Enterprise add-ons.

Q. Can I run other server workloads on the vSphere component that is included in Horizon editions?

A. The Horizon vSphere and vCenter components are restricted to desktop deployments. A desktop virtual machine is defined as a virtual machine running the following operating systems: Windows 95/98, Windows 2000 Professional, Windows XP Professional, Windows Vista Ultimate, Windows Vista Business, Windows Vista Enterprise, Windows 7, Windows 8, Windows 8.1, Windows 10, or Windows Server 2008/2012. Components that make up the virtualized desktop infrastructure include VMware View Manager™, VMware vCenter Server® (or another connection broker), and any desktop management, performance monitoring, and automation tools used solely for hosted desktop virtual machines.

Q. Can I run Horizon Standard Edition and Horizon Standard Add-ons in the same environment?

A. Horizon includes all the components for end-to-end desktop deployments and is licensed on a concurrent connection basis. Horizon Standard Add-on SKUs only include the desktop components included in Horizon Manager. Horizon Add-ons require an a la carte vSphere license to support the concurrent connections purchased. You cannot deploy Horizon Add-ons on the vSphere edition included in Horizon, because add-ons are restricted to the number of concurrent connections purchased. It is recommended that customers choose a licensing path of bundles or add-ons to simplify license management.

Q. Can I run Horizon Add-ons on any edition of vSphere?

A. Customers running Horizon Add-on SKUs can run these workloads on vSphere Desktop or vSphere Enterprise Plus Edition™, but may lose some functionality if running workloads on vSphere Standard Edition™. However, mixed workloads cannot be run on vSphere Desktop and must be run on vSphere that is licensed per processor. If customers have an exclusively desktop workload, they may run it on vSphere Desktop, but they are advised to

purchase the full version of the Horizon bundles that include vSphere Desktop and vCenter Server for Desktop, unless they have extra vSphere Desktop licenses (purchased as a standalone) that they can repurpose.

Q. How can I tell if I have a vSphere Desktop license, and how is the license licensed?

A. The vSphere license included with Horizon is designated for use with client and server OS desktop and application workloads only and appears in the license portal as "vSphere Desktop" for tracking and auditing purposes. vSphere Desktop is licensed for the total number of Horizon named users or concurrent connections you have purchased.

Q. How is vSAN for Desktop licensed in Horizon 7?

A. vSAN Advanced for Desktops is a feature of the Horizon Advanced and Horizon Enterprise editions. VSAN is licensed for up to the total number of Horizon named users or concurrent connections that you have purchased.

Q. How is User Environment Manager (formerly of Immidio) licensed in Horizon 7?

A. User Environment Manager is licensed with Horizon Enterprise on a per named user or per concurrent connection basis and will map directly to the licensing of the overall bundled offering. In a concurrent setting, customers need to ensure that they do not exceed the maximum agreed-upon active and powered-on sessions. This offering is also available as a standalone, a la carte offering for customers using Citrix or looking to manage physical and cloud-hosted environments.

Q. How is App Volumes (formerly of Cloud Volumes) licensed in Horizon 7?

A. App Volumes is licensed with Horizon Enterprise on a per named user or per concurrent connection basis and will map directly to the licensing of the overall bundled offering. In a concurrent setting, customers need to ensure that they do not exceed the maximum agreed-upon active and powered-on sessions. App Volumes is also available as a standalone, a la carte offering for customers looking to use it with Citrix environments.

Q. How is Horizon for Linux licensed in Horizon 7?

A. Horizon for Linux is licensed on a per named user or per concurrent connection basis and will map directly to the licensing of the overall bundled offering. In a concurrent setting, customers need to ensure that they do not exceed the maximum agreed-upon active and powered-on sessions. This feature is available only in Horizon Enterprise Edition to support users looking to access both Windows and Linux sessions. It is also available as a standalone offering on a concurrent connection user basis.

Q. How is VMware Mirage licensed in Horizon 7?

A. Mirage is a feature of the Horizon Advanced and Horizon Enterprise editions. Mirage is licensed for up to the total number of Horizon named users or concurrent connections that you have purchased. Mirage, however, cannot be used on a concurrent connection basis. If you purchase 200 licenses (regardless of whether these are named user or concurrent), you will only be able to deploy the Mirage licenses on a per named user basis, because once they are deployed, they remain active and connected at all times.

Q. If I have Mirage, is there an upgrade path to Horizon FLEX?

A. Horizon FLEX™ is a different product that supports centralized management of BYO and disconnected MacBook and Windows laptop users with advanced policy settings, while ensuring that end users can enjoy local compute resources. There is no upgrade path from Mirage to Horizon FLEX.

Q. How is ThinApp licensed in Horizon 7?

A. ThinApp is licensed per named user, device, or concurrent connection when purchased as part of Horizon 7. You can deploy ThinApp client licenses included in Horizon 7 to physical or virtual machines. As a result, you can use ThinApp licenses purchased separately or as part of Horizon interchangeably.

Q. I notice you have an App Volumes Enterprise Edition (formerly Horizon Application Management™ Bundle)—can I purchase this as a Horizon customer?

A. The VMware App Volumes Bundle includes ThinApp, App Volumes, User Environment Manager, and vRealize Operations for Published Applications™. This version of vRealize Operations supports only Citrix XenApp 6.5 and XenDesktop/XenApp 7.6 environments. Horizon customers who wish to purchase this bundle may do so—but it is important to note that the instance of vRealize Operations that is included does not support a Horizon environment.

Q. Which products can be purchased standalone?

A. You can purchase Mirage, ThinApp, App Volumes, User Environment Manager, vRealize Operations for Horizon, vSphere for Desktop, Horizon for Linux Desktops, and vSAN as standalone products.

Q. If I am a Mirage, App Volumes, User Environment Manager, or Identity Manager customer, can I upgrade to Horizon Advanced or Enterprise?

A. Yes, you can upgrade to Horizon Advanced or Enterprise.

Q. Can I upgrade from ThinApp to a Horizon 7 edition?

A. Yes, you can upgrade in a two-step process to either the Thin Client Suite or Horizon Add-ons and then to Horizon Standard Edition.

Q. If I have perpetual licenses, is there currently a migration path to take these licenses and convert them to subscription or term-based licenses?

A. This is not something that is currently supported.

Horizon Support

Q. What kind of technical support is available for VMware Horizon?

A. VMware requires Basic (12x5) and Production (24x7) support for all components included in the Horizon editions, including vSphere, vCenter, and View Manager. In addition, customers can purchase Business Critical Support to complement Production Support. VMware Business Critical Support offers access to a dedicated account team who will build and maintain a profile of your Horizon installation and provide regular account reviews. The VMware Professional Services organization is also available for Horizon consultations or to deploy Horizon in your organization.

For more information, visit http://www.vmware.com/support/horizon.

Q. Do I need to buy a VMware support contract for the Horizon 7 offerings?

A. To ensure that you realize the benefits of Horizon quickly, a minimum of one year of Basic VMware SnS is required with the purchase of any Horizon edition. You can upgrade to Production Support and then elect to add Business Critical Support. Multiyear discounted offerings for all VMware support levels are also available.

Q. Where can I get more information on Desktop EOA and lifecycle management?

A. For more information around VMware Enterprise Desktop EOA and support policies, please visit https://www.vmware.com/support/policies/enterprise-desktop/faqs.html.

Horizon Cloud

Q. What is Horizon Cloud?

A. Horizon Cloud supports customers with a cloud managed service for desktops and applications that can be paired with on-premises desktops and infrastructure (Horizon Cloud Services with On-Premises Infrastructure) or Horizon Cloud Services with Hosted Infrastructure.

Q. What is Horizon Cloud Services with Hosted Infrastructure?

A. VMware Horizon Cloud Services with Hosted Infrastructure (formerly Horizon Air™ Desktops and Apps) is a VMware managed offering that enables organizations to rapidly deploy desktops and applications as an easily managed, integrated cloud service to any device, anywhere, at an affordable price. Horizon Cloud Service with Hosted Infrastructure allows end users to securely access their virtual desktops from any device or browser, and enables IT to easily manage their deployment using existing skills and tools. Backed by the trusted foundation of VMware vSphere, Horizon Cloud Service with Hosted Infrastructure delivers the reliability, security, and performance that IT expects, with VMware business-essential support. For more information on Horizon Cloud Service with Hosted Infrastructure, please visit http://vmware.com/go/daas.

Q. What is Horizon Cloud Service with On-Premises Infrastructure?

A. Formerly referred to as Horizon Air Hybrid-Mode, Horizon Cloud Service with On-Premises Infrastructure is a new cloud-scale architecture that draws on cloud-based management, intelligent orchestration, and hyper-converged infrastructure to radically transform virtual desktop and application delivery—making it easier and more cost-effective than ever before to deploy, scale, and move desktops and apps across private or public clouds or back and forth between the two.

Q. When would I choose among Horizon 7, Horizon Cloud Service with Hosted Infrastructure, and Horizon Cloud Service with On-Premises Infrastructure?

A. Customers can choose the Horizon offering that best fits their preferred IT consumption model and maturity stage of cloud services adoption. For those who are aligned with private cloud on-premises deployments and are not interested in hybridized deployments or subscription pricing, Horizon 7 is an ideal fit. For those who are embracing hybridized deployments with the ability to unify management across pools of desktop capacity residing in both on-premises and cloud-hosted deployments, Horizon Cloud Service with On-Premises Infrastructure may be preferred. For those who seek a completely cloud-hosted approach with all desktop capacity residing in the cloud, Horizon Cloud Service with Hosted Infrastructure is an ideal solution.

Horizon FLEX

Q. What is Horizon FLEX?

A. Horizon FLEX is a complementary solution to the Horizon portfolio. Its key feature is that the data is stored locally, allowing end users to work offline or on the road. It is a bundled offering that includes a FLEX policy server, FLEX clients (Fusion Pro for Macs and Player Pro for PCs), and image management capabilities. Common use cases for Horizon FLEX include BYO PCs, disconnected workers where VDI is not a viable option, temporary workers or contractors, development and training environments, and regional offices.

Choosing Among Horizon Offerings

FEATURES	ON-PREMISES MANAGEMENT WITH ON-PREMISES INFRASTRUCTURE	HORIZON CLOUD WITH ON-PREMISES INFRASTRUCTURE	HORIZON CLOUD WITH HOSTED INFRASTRUCTURE
Built-in security required	•	•	•
Security & compliance mandates	•	•	
Need desktops & app services near end users for performance reasons	•	•	
Ease of getting set up		•	•
Predictable payments/costs		•	•
Ease of day-to-day management	•	•	•
Corporate IT control	•		
Ability to quickly burst up or down to accommodate changing number of end users			•
Ability to leverage existing infrastructure/SDDC knowledge and skills	•		
Ability to fully outsource solution procurement and management			•

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