VMWARE END-USER COMPUTING
Packaging and Licensing
Including VMware Workspace ONE and VMware Horizon
Table of Contents

Overview ................................................................. 3
General Purchasing Information ................................. 3
Online Selection Tools and Wizards ............................. 3
Product Details – Core Products ................................. 4
  VMware Workspace ONE ........................................ 4
  VMware Horizon 7 Editions .................................... 10
  Dell EMC VxRail with Horizon ............................... 17
  VMware Horizon Apps ......................................... 21
  VMware Horizon Cloud ......................................... 25
Product Details – Related Products ............................. 30
  App Volumes Editions .......................................... 30
  VMware User Environment Manager ....................... 31
  vSphere Desktop .............................................. 31
  vRealize Operations for Horizon (Formerly vCenter Operations Manager for View) ........... 32
  VMware vSAN for Desktop ..................................... 33
  NSX for Desktop .............................................. 34
End of Availability (EOA) Products ............................ 35
  VMware Identity Manager Standard and Advanced .... 35
  VMware Workspace Suite .................................... 35
  VMware Workspace Portal .................................... 35
  VMware App Volumes (Standalone) ......................... 35
  VMware Horizon Application Management Bundle ... 35
  VMware Collaboration Bundle ............................... 35
  VMware Mirage ............................................... 35
  Horizon FLEX ................................................... 35
  Downgrades .................................................... 36
Upgrades .................................................................... 36
  Product Version Upgrades (Entitled) ....................... 36
  Product Edition and Packages Upgrades (Paid) .......... 36
  Upgrade Paths .................................................... 37
  Upgrading to Horizon Enterprise Edition .................. 38
  Upgrading to Horizon Advanced Edition ................... 39
  Upgrading to Horizon Standard Edition .................... 39
  Upgrading from ThinApp to Horizon Standard Edition .. 40
Overview
VMware End-User-Computing products help IT break the current technology barriers and shift the focus from reacting to delivering services for business agility and workforce productivity. With VMware, IT organizations can meet end-user demands for a consistent and intuitive experience across devices—in the office, at home, or on the go—while ensuring that the business computing environment is secure, easy to manage, and in continuous compliance.

This white paper covers packaging and licensing of the VMware End-User-Computing products including VMware Horizon® Editions and VMware Workspace ONE™. Pricing is accessible through the pricebook, which is updated and posted internally monthly, or through your local VMware representative.

This guide is intended as a quick reference to understand the product portfolio at a high level, with corresponding SKUs. It does not contain detailed product or competitive information, which can be accessed through the Vault or Partner Central. It is not intended to replace or contradict the EULA. Please refer to the product EULA for more detailed information.

General Purchasing Information
VMware End-User-Computing products can be purchased through VMware distributors and Partners, or in certain cases, through VMware directly.

All VMware on-premises perpetual products must be purchased in conjunction with Support and Subscription (SnS). Support and Subscription is available in two different flavors: Basic and Production. The main difference between the two is that with Basic the user is entitled to support 12 hours a day, 5 days a week, and with Production the user is entitled to support 24 hours a day, 7 days a week. Both support options entitle the user to all updates and upgrades and can be purchased in either 1-year or 3-year contracts. For support details, access the Basic and Production Web pages.

Online Selection Tools and Wizards
Purchase SKUs and upgrade paths can be unnecessarily complicated. We have created two online lookup tools to help guide you.

- **Horizon Editions Selection Tool** – VMware Horizon is available in three editions: Horizon Standard, Advanced, and Enterprise. Access the selector guide to help choose the right edition for your needs.
- **Horizon Editions Upgrade Tool** – Enter the product or SKU the customer currently has, select the product the customer wants upgrade to, and the tool will provide the upgrade path. Use the Upgrade Tool to help choose the right upgrade path.
Product Details – Core Products

VMware Workspace ONE
VMware Workspace ONE is a simple and secure enterprise platform that delivers and manages any app on any device by integrating identity, application, and enterprise mobility management.

• Workspace ONE Application Access is a great entry point for use cases where end users only need access to a unified catalog with single sign-on (SSO) access to web and mobile applications from unmanaged devices. It is targeted at use cases where end users do not need unified endpoint management.

• Workspace ONE Standard also serves as an entry point for any “bring-your-own-device” (BYO) program and builds on Workspace ONE Application Access. It has basic data security and access control and includes unified endpoint management for enterprise line-of-business applications.

• Workspace ONE Advanced includes all the features of the Standard Edition and is targeted at users who require access to sensitive apps and data. Workspace ONE Advanced includes unified endpoint management for corporate-owned or BYO devices.

• Workspace ONE Enterprise includes all the features of the Advanced Edition and is designed for customers who require access to sensitive apps and data. Workspace ONE Enterprise includes unified endpoint management for corporate-owned or BYO devices.

• Workspace ONE Enterprise for VDI includes all the features of the Enterprise Edition and is designed for customers who require virtual desktops.

• Workspace ONE Enterprise Perpetual is a perpetual-only option that includes all the features of the Advanced Edition, and adds the ability for users to access Virtual Apps and Desktops (Horizon).

Workspace ONE can be obtained in two different ways: as a cloud subscription service, or purchased as a perpetual license for on-premises. Workspace ONE is sold on a per-device or per-named-user basis. It is available as shown in the table below.

A per-user license allows for a single user to manage up to five devices and access Workspace ONE from any browser. A per-device license means that users are only able to access the Workspace ONE portal and virtual desktops and apps from a single device that must be enrolled in VMware AirWatch®. For Workspace ONE editions that include Horizon, a per-device license (if available) includes a per-device license for the Workspace ONE portion, and a named user license for the Horizon portion.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workspace ONE Application Access, Perpetual</td>
<td>Includes: • Self-Service Catalog • Federation/ Single-Sign-On (SSO) • Basic Conditional Access • All App Types</td>
<td>1-pack, minimum order quantity of 25</td>
<td>On-Premises Deployment VA-WOAA-PLL-A-D-C (Per Device) VA-WOAA-PLL-A-U-C (Per User)</td>
<td>$22.70 $37.10</td>
</tr>
<tr>
<td>PRODUCT</td>
<td>DESCRIPTION</td>
<td>PACKAGING</td>
<td>SKU</td>
<td>PRICE</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>-----------</td>
<td>-----</td>
<td>-------</td>
</tr>
</tbody>
</table>
| **Workspace ONE Advanced, Perpetual** | Includes:  
• All Workspace ONE Standard features  
• Advanced Windows 10 management  
• Mobile productivity apps  
• Advanced per-app VPN and networking security requirements  
• Telecom usage monitoring | 1-pack, minimum order quantity of 25 | On-Premises Deployment  
VA-WOA-PLL-A-D-C (Per Device)  
VA-WOA-PLL-A-U-C (Per User) | $93  
$185.50 |
| **Workspace ONE Enterprise, Perpetual** | Includes:  
• All Workspace ONE Advanced features  
• Horizon 7 Enterprise Edition  
• Virtual Desktops and Applications | 10-pack 100-pack | V-WOE-PLL-10U-C  
V-WOE-PLL-U-C | $4,115.00  
$41,150.00 |
| **Workspace ONE Application Access, Cloud Subscription** | Includes:  
• Self-Service Catalog  
• Federation/Single-Sign-On (SSO)  
• Basic Conditional Access  
• All App Types | 1-pack, minimum order quantity of 25  
(Must be purchased for 1-year term, minimum) | Basic Support  
V-WOAA-CLD-D-G-C (Per Device)  
V-WOAA-CLD-U-G-C (Per User)  
Production Support  
V-WOAA-CLD-D-P-C (Per Device)  
V-WOAA-CLD-U-P-C (Per User) | Basic Support  
$1.55 (Per Device / Month)  
$2.58 (Per User / Month)  
Production Support  
$1.62 (Per Device / Month)  
$2.69 (Per User / Month) |
| **Workspace ONE Standard, Cloud Subscription** | Includes:  
• All Workspace ONE Application Access features  
• Configuration and access management  
• App delivery and security  
• Mobile SSO | 1-pack, minimum order quantity of 25  
(Must be purchased for 1-year term, minimum) | Basic Support  
V-WOS-CLD-D-G-C (Per Device)  
V-WOS-CLD-U-G-C (Per User)  
Production Support  
V-WOS-CLD-D-P-C (Per Device)  
V-WOS-CLD-U-P-C (Per User) | Basic Support  
$3.61 (Per Device / Month)  
$6.38 (Per User / Month)  
Production Support  
$3.78 (Per Device / Month)  
$6.52 (Per User / Month) |
<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workspace ONE Advanced, Cloud Subscription</td>
<td>Includes: • All Workspace ONE Standard features • Advanced Windows 10 management • Mobile productivity apps • Advanced per-app VPN and networking security requirements • Telecom usage monitoring</td>
<td>1-pack, minimum order quantity of 25 (Must be purchased for 1-year term, minimum)</td>
<td>V-WOA-CLD-D-G-C (Per Device) V-WOA-CLD-U-G-C (Per User) Production Support V-WOA-CLD-D-P-C (Per Device) V-WOA-CLD-U-P-C (Per User)</td>
<td>Basic Support $5.67 (Per Device / Month) $10.30 (Per User / Month) Production Support $6.01 (Per Device / Month) $10.90 (Per User / Month)</td>
</tr>
<tr>
<td>Workspace ONE Enterprise, Cloud Subscription</td>
<td>Includes: • All Workspace ONE Advanced features • Workspace ONE Intelligence • Mobile Flows • App Publishing</td>
<td>1-pack, minimum order of 25 (Must be purchased for 1-year term, minimum)</td>
<td>WSD-AEPAP-12PT0-C1S (Per Device) WSU-AEPAP-12PT0-C1S (Per User) WSD-AECAP-12PT0-C1S (Per Device) WSU-AECAP-12PT0-C1S (Per User)</td>
<td>Production Support $10 (Per Device / Month) $15 (Per User / Month)</td>
</tr>
<tr>
<td>Workspace ONE Enterprise for VDI, Cloud Subscription</td>
<td>• All Workspace ONE Enterprise features • VDI</td>
<td>1-pack, minimum order of 25 (Must be purchased for 1-year term, minimum)</td>
<td>WSD-AEPVP-12PT0-C1S (Per Device) WSU-AEPVP-12PT0-C1S (Per User) WSD-AECVP-12PT0-C1S (Per Device) WSU-AECVP-12PT0-C1S (Per User)</td>
<td>Production Support $20 (Per Device / Month) $25 (Per User / Month)</td>
</tr>
</tbody>
</table>
## PERPETUAL

<table>
<thead>
<tr>
<th>UPGRADE FROM</th>
<th>UPGRADE TO</th>
<th>SKU</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workspace ONE Standard Per Device</td>
<td>Workspace ONE Standard Per User</td>
<td>VA-WAOS-PLL-A-D-UG-C</td>
<td>$32.00</td>
</tr>
<tr>
<td>Workspace ONE Standard Per User</td>
<td>Workspace ONE Advanced Per User</td>
<td>VA-WAOS-PLL-A-DU-UG-C</td>
<td>$77.00</td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device</td>
<td>Workspace ONE Advanced Per User</td>
<td>VA-WAOA-PLL-A-D-UG-C</td>
<td>$77.00</td>
</tr>
<tr>
<td>Workspace ONE Advanced Per User</td>
<td>Workspace ONE Advanced Per User</td>
<td>VA-WAOA-PLLD-A-U-UG-C</td>
<td>$179.00</td>
</tr>
<tr>
<td>Workspace ONE Standard Per User</td>
<td>Workspace ONE Advanced Per User</td>
<td>VA-WAOS-PLL-A-D-UG-C</td>
<td>$163.00</td>
</tr>
<tr>
<td>Workspace ONE Standard Per Device</td>
<td>Workspace ONE Advanced Per Device</td>
<td>VA-WSA-PLLA-D-UG-C</td>
<td>$46.00</td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device</td>
<td>Workspace ONE Advanced Per User</td>
<td>VA-WSD-WA-PLA-U-UG-C</td>
<td>$147.00</td>
</tr>
<tr>
<td>Workspace ONE Standard Per User</td>
<td>Workspace ONE Advanced Per User</td>
<td>V-UG-WSA-PLL-U-C</td>
<td>$102.00</td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device</td>
<td>Workspace ONE Advanced Per User</td>
<td>VA-WAD-WA-PLA-U-UG-C</td>
<td>$102.00</td>
</tr>
</tbody>
</table>
The following are available within the Workspace ONE Editions:

<table>
<thead>
<tr>
<th>MOVE FROM</th>
<th>MOVE TO</th>
<th>SKU</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Support</td>
<td>Basic Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workspace ONE Application Access Per Device</td>
<td>Workspace ONE Application Access Per User</td>
<td>V-WOA-CLD-U-P-UG-C</td>
<td>$1.20</td>
</tr>
<tr>
<td>Production Support</td>
<td>Production Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device Basic Support</td>
<td>Workspace ONE Advanced Per Device Basic Support</td>
<td>V-UG-WSD-WOS-CLD-U-P-C</td>
<td>$88.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device Basic Support</td>
<td>Workspace ONE Advanced Per Device Basic Support</td>
<td>V-UG-WSD-WOS-CLD-D-G-C</td>
<td>$27.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workspace ONE Advanced Per User Basic Support</td>
<td>Workspace ONE Advanced Per User Basic Support</td>
<td>V-UG-WSD-WOA-CLD-U-G-C</td>
<td>$54.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device Basic Support</td>
<td>Workspace ONE Advanced Per User Basic Support</td>
<td>V-UG-WSD-WOS-CLD-U-P-C</td>
<td>$57.78</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device Basic Support</td>
<td>Workspace ONE Advanced Per User Basic Support</td>
<td>V-UG-WAD-WOA-CLD-U-G-C</td>
<td>$61.18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workspace ONE Advanced Per Device Basic Support</td>
<td>Workspace ONE Advanced Per User Basic Support</td>
<td>V-UG-WAD-WOA-CLD-U-P-C</td>
<td>$64.58</td>
</tr>
</tbody>
</table>

*One Add-on license available for purchase for every Horizon Enterprise license owned, regardless of licensing type (Named or Concurrent User). Note: For customers using kiosk mode, the license model should be CCU.
For Workspace ONE SaaS SKUs, shared hosting is included in the base SKU. Managed hosting is also available for the AirWatch portion of Workspace ONE (not offered for VMware Identity Manager). If Managed (formerly Dedicated) hosting is desired, then a Managed hosting add-on SKU and corresponding setup SKU are required.

<table>
<thead>
<tr>
<th>SKU DESCRIPTION</th>
<th>SKU</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHARED HOSTING SERVICE SKU</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SaaS: Default hosting, included in subscription SKU</td>
<td>No additional hosting SKU needed</td>
<td></td>
</tr>
<tr>
<td><strong>MANAGED HOSTING SERVICE SKU</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managed Hosting Environment of AirWatch Cloud Licenses: 1 User for 1 year</td>
<td>V-WOHOS-AMCL-U-C</td>
<td>$24.72</td>
</tr>
<tr>
<td>Managed Hosting Environment of AirWatch Cloud Licenses: 1 Device for 1 year</td>
<td>V-WOHOS-AMCL-D-C</td>
<td>$12.36</td>
</tr>
<tr>
<td><strong>MANAGED HOSTING SETUP - ONE-TIME FEE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VMware AirWatch Cloud - Dedicated Environment Setup, One-Time Fee / Environment</td>
<td>V-PS-DHE-SET</td>
<td>$10,250.00</td>
</tr>
<tr>
<td>VMware AirWatch Cloud - Dedicated UAT Environment, Annual Fee / Environment</td>
<td>V-PS-DHE-UAT</td>
<td>$10,250.00</td>
</tr>
</tbody>
</table>
VMware Horizon 7 Editions

Horizon is a family of desktop and application virtualization solutions designed to deliver Windows and online services on premises. With Horizon 7, VMware extends the power of virtualization—from data centers to devices—to deliver desktop and application virtualization with great user experience and closed-loop manageability.

VMware Horizon 7 is available in three editions: Horizon Standard, Advanced, and Enterprise. All three editions include all components needed for an end-to-end virtual desktop deployment. Access the selector guide to help choose the right edition for your needs.

• **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** - Desktop and application delivery with closed-loop management and automation
• **Horizon for Linux** - Simple, powerful VDI for Linux operating system
VMware Horizon 7 Edition Bundle Components

VMware Horizon Standard Edition, Advanced Edition, Enterprise Edition, and Horizon for Linux are composed of the individual components in the table below. Most of the components found in the Horizon Advanced and Enterprise editions are also licensed à la carte (e.g., VMware vSAN for Desktop can be purchased as a standalone product), the exception being VMware Identity Manager™ Standard.

Note: For customers using kiosk mode, the recommended license model is CCU.

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>LICENSE ENTITLEMENT</th>
<th>HORIZON FOR LINUX</th>
<th>HORIZON STANDARD</th>
<th>HORIZON ADVANCED</th>
<th>HORIZON ENTERPRISE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concurrent User (CCU)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Named User</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DESKTOP AND APPLICATIONS</th>
<th>SUB-COMPONENT/PRODUCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows virtual desktops</td>
<td>VMware Horizon</td>
</tr>
<tr>
<td>Linux desktops</td>
<td>VMware Horizon for Linux</td>
</tr>
<tr>
<td>Unified workspace – XenApp, RDSH, SaaS</td>
<td>VMware Identity Manager</td>
</tr>
<tr>
<td>Published applications (RDSH) and session-based desktops</td>
<td>RDS Published Apps</td>
</tr>
<tr>
<td>Packaged applications</td>
<td>VMware App Volumes™ Enterprise</td>
</tr>
<tr>
<td>BLAST Performance (3D, UC, MMR, etc.)</td>
<td>VMware Horizon</td>
</tr>
<tr>
<td>Virtualization Pack for Skype for Business</td>
<td>VMware Horizon</td>
</tr>
<tr>
<td>Application and desktop access with single sign-on</td>
<td>VMware Identity Manager</td>
</tr>
</tbody>
</table>
## Feature Table

<table>
<thead>
<tr>
<th>Feature</th>
<th>Sub-Component/Product</th>
<th>Horizon Standard</th>
<th>Horizon Advanced</th>
<th>Horizon Enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workspace Environment Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Desktop and Application Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-time application delivery</td>
<td>VMware App Volumes Enterprise</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Just-in-Time Delivery with Instant-Clone Technology</td>
<td>VMware Horizon</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>User Environment Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User, profile, and policy management</td>
<td>VMware User Environment Manager™</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Cloud Analytics and Operations Management</strong></td>
<td>VMware Horizon</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Help Desk Tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations dashboard – health monitoring and performance analytics</td>
<td>VMware vRealize Operations for Horizon</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Capacity management – planning and optimization</td>
<td>VMware vRealize Operations for Horizon</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virtual storage</td>
<td>VMware vSAN™ Advanced for Desktop* with all-flash</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Desktop Infrastructure</strong></td>
<td>VMware vSphere Desktop** and VMware vCenter™ Desktop</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

---

*On September 10, 2015, Horizon Advanced and Enterprise Editions were upgraded from vSAN Standard to vSAN Advanced which includes the all-flash add-on.

**vSphere Desktop included in Horizon Editions has the same features and functionality of vSphere Enterprise Plus.
<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
</table>
| Horizon 7 Standard (CCU) | Includes:  
• VDI  
• Workstation (1 admin license)  
• vSphere Desktop  
• vCenter Desktop (includes 25 Operating System Instances [OSIs] of VMware vRealize Log Insight™ for vCenter for Desktop) | 10-pack  
100-pack | HZ7-STD-10-C  
HZ7-STD-100-C |
| Horizon 7 Advanced (Named) | Includes:  
• Horizon 7 Standard  
• Hosted Apps (RDSH)  
• Virtualization pack for Skype for Business  
• VMware Fusion® Pro  
• vSAN Advanced for Desktop (Named) | 10-pack  
100-pack | HZ7-ADN-10-C  
HZ7-ADN-100-C |
| Horizon 7 Advanced (CCU) | Includes:  
• Horizon 7 Standard  
• Hosted Apps (RDSH)  
• Virtualization pack for Skype for Business  
• VMware Fusion® Pro  
• vSAN Advanced for Desktop (Named) | 10-pack  
100-pack | HZ7-ADC-10-C  
HZ7-ADC-100-C |
| Horizon 7 Enterprise (Named) | Includes:  
• Horizon 7 Advanced  
• App Volumes Enterprise  
• User Environment Manager  
• Instant Clones  
• vRealize Operations for Horizon (includes support for third-party VDI/RDSH environments)  
• Help Desk Tool  
• Linux VDI | 10-pack  
100-pack | HZ7-ENN-10-C  
HZ7-ENN-100-C |
| Horizon 7 Enterprise (CCU) | Includes:  
• Horizon 7 Advanced  
• App Volumes Enterprise  
• User Environment Manager  
• Instant Clones  
• vRealize Operations for Horizon (includes support for third-party VDI/RDSH environments)  
• Help Desk Tool  
• Linux VDI | 10-pack  
100-pack | HZ7-ENC-10-C  
HZ7-ENC-100-C |
| Horizon 7 for Linux | Includes:  
• Linux VDI  
• vSphere Desktop  
• vCenter Desktop | 10-pack  
100-pack | HZ7-LXC-10-C  
HZ7-LXC-100-C |
**Horizon Add-Ons**

Horizon Add-Ons include desktop components only and customers must already have vSphere in their environment or purchase vSphere separately. Horizon Add-Ons do not include vSphere, vCenter, or vSAN.

The Add-Ons are intended to provide a version of Horizon at a discounted price for customers that already have vSphere.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon Standard Add-On</td>
<td>For customers who already have vSphere and vCenter and want Horizon Standard Edition</td>
<td>10-pack 100-pack</td>
<td>HZ7-STD-A10-C HZ7-STD-A100-C</td>
</tr>
<tr>
<td>Horizon 7 Advanced Add-On (Named)</td>
<td>VMware Horizon 7 Advanced Add-On, Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-ADN-A10-C HZ7-ADN-A100-C</td>
</tr>
<tr>
<td>Horizon 7 Advanced Add-On (CCU)</td>
<td>VMware Horizon 7 Enterprise Add-On, Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-A10-AERC-C HZ7-A100-AERC-C</td>
</tr>
<tr>
<td>Horizon 7 Enterprise Add-On (Named)</td>
<td>VMware Horizon 7 Enterprise Add-On, Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-ENN-A10-C HZ7-ENN-A100-C</td>
</tr>
<tr>
<td>Horizon 7 Enterprise Add-On (CCU)</td>
<td>VMware Horizon 7 Enterprise Add-On, Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-E10-AERC-C HZ7-E100-AERC-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Advanced Add-on (Named)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Advanced Add-on, Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 2 Named 10-pack 100-pack</td>
<td>HZ7-STA-ADNA20-UG-C HZ7-STA-ADNA200-UG-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Advanced Add-on (CCU)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Advanced Add-on, Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 1 CCU 10-pack 100-pack</td>
<td>HZ7-STA-ADCA10-UG-C HZ7-STA-ADCA100-UG-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Enterprise Add-on (Named)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Enterprise Add-on, Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 2 Named 10-pack 100-pack</td>
<td>HZ7-STA-ENNA20-UG-C HZ7-STA-ENNA200-UG-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Enterprise Add-on (CCU)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Enterprise Add-on, Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 1 CCU 10-pack 100-pack</td>
<td>HZ7-STA-ENCA10-UG-C HZ7-STA-ENCA100-UG-C</td>
</tr>
<tr>
<td>Upgrade: Advanced Add-On to Enterprise Add-On (Named)</td>
<td>Upgrade: VMware Horizon 7 Advanced Add-On to Horizon 7 Enterprise Add-On, Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-ENN-A10-UG-C HZ7-ENN-A100-UG-C</td>
</tr>
<tr>
<td>Upgrade: Advanced Add-On to Enterprise Add-On (CCU)</td>
<td>Upgrade: VMware Horizon 7 Advanced Add-On to Horizon 7 Enterprise Add-On, Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-E10-AERC-UG-C HZ7-E100-AERC-UG-C</td>
</tr>
</tbody>
</table>
Horizon Desktop Licensing Model – Named User vs. Concurrent Connection

Horizon Advanced and Enterprise are available based on a **per-named-user** or a **per-concurrent-connection** model.

- **Per named user (NU)** – For virtual environments with staff that require dedicated access to a virtual machine throughout the day.
- **Perpetual per 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 the total number of users accessing or using the software at any given time to maintain an Active Connection to their workspace or desktop through an endpoint device.

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 it 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 View—the other associated components of the bundle (e.g., VMware Identity Manager) are also considered to be attached to that user and not available to be entitled to other users.

**Example:**

Organization A has 100 concurrent-connection licenses of Horizon Enterprise. User A connects to their virtual desktop and consumes 1 concurrent connection. However, User A is not using ThinApp. Does this free up ThinApp for another user, given that user A is not active on ThinApp?

The answer is no. Even if User A is not connected to all of the components in the bundle, once they connect 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 desktops and the customer has end users accessing their desktops in shifts (e.g., 300 in the morning and 200 in the evening, but never all 500 at the same time) and the customer does not foresee needing more than 300 instances of VMware Identity Manager at any given time, then the customer should buy 300 CCU of Horizon.

If the primary use case is around Horizon desktops and the customer does not have shift workers (e.g., all 500 employees are always connected at the same time) then the customer should buy NU. In this instance, the customer would also have access to 500 seats of VMware Identity Manager portal to entitle to these same 500 employees.

If the primary use case is around Horizon desktops and the customer has 300 shift workers in the morning and 200 in the evening, and the customer has 50 other non-shift workers that need VMware Identity Manager (for example), then the customer should buy 300 per-CCU licenses of Horizon and an additional 50 seats of VMware Identity Manager as part of another offering, such as Workspace ONE Application Access.

**Note:** If the primary use case is around Horizon desktops for kiosks, the customer should buy CCU.

**Reassigning Named User Licenses**

In Named User licensing, the license is consumed for 60 days after the last connection was made. However, as an exception, if the employee consuming the Named User license has their employment terminated with the company, the license would be available for reassignment immediately following the termination.
Concurrent Connection and Fusion Pro
While Horizon Advanced and Enterprise are available on a per-concurrent-connection basis, the Fusion Pro components in the bundle can only be consumed on a device basis. As such, if a customer has 500 workers and 300 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 Horizon desktops and apps and Fusion Pro—then the customer has two choices: they can buy 300 CCU of Horizon Advanced (or Enterprise) and a 200-pack of Fusion Pro, or they can buy 500 licenses of Fusion Pro. Clearly the first option is much more cost effective for most customers. However, regardless of the choice, the customer will need 500 seats of Mirage to cover the 500 employees, even if only 300 are ever connected at any given time.

Concurrent Connection and VMware Identity Manager, Standard Edition / Workspace Portal
When VMware Identity Manager (formerly known as Workspace Portal) is purchased as part of a bundle licensed as concurrent user (such as Horizon Advanced Edition, Horizon Enterprise Edition, or VMware Horizon Application Management™ Bundle—licensed CCU) there are specific licensing terms for this component. Identity Manager may always be used to access, and in conjunction with, a Horizon VDI or RDSH session. When accessing an application other than a Horizon-hosted application or a Horizon-hosted desktop virtual machine, Identity Manager is considered ‘checked out’ for the 8-hour period following that authentication.

The cumulative unique users logged during this period should not exceed the number of valid concurrent licenses purchased. For example, let’s say that at 8 AM, 100 users are accessing a Horizon desktop or RDSH session through VMware Identity Manager. If 25 of those original 100 users and an additional 50 new users log into a SaaS app via Identity Manager, also at 8 AM, there will be a total of 150 unique users logged in at that time. The 75 unique users that triggered an authentication for the SaaS app will each consume a license for 8 hours, or until 4 PM that same day. If 1 of those 75 users accesses another SaaS app again at 12 noon, then there would be 74 licenses consumed until 4 PM, and one license consumed until 8 PM.

The user would be in compliance if they had 150 or more concurrent licenses of Horizon Advanced or Enterprise or Horizon Application Management Bundle. If there is very high concurrency in the environment and many unique users are logging in for short periods of time, then we recommend purchasing additional VMware Identity Manager Advanced Edition licenses to stay in compliance.

Mixing Licenses
Mixing NU and CCU Bundles under the Same Instance of Horizon
Mixing NU and CCU bundles in the same Horizon instance is permitted, but not recommended. While not restricted within the EULA, there is no mechanism to monitor which licenses are NU and which licenses are CCU once they are activated. Customers must ensure they are in compliance at all times.

Mixing Horizon Editions under the Same Instance of Horizon
Mixing different Horizon Editions (e.g., Standard, Advanced, and Enterprise) in the same Horizon instance is permitted, but not recommended. While not restricted within the EULA, there is no mechanism to monitor which features in each edition (Horizon Standard, Advanced, and Enterprise) are in use by which users. Customers must ensure that they are in compliance at all times.

Mixing vSphere Desktop Hosts with vSphere Hosts That Are Licensed per Processor
A mixed environment is not recommended because during disaster recovery, server workloads might live-migrate via VMware vSphere vMotion® to a host running the vSphere Desktop license, which would violate the EULA. Customers are advised to keep their environments separate or purchase à la carte vSphere and vCenter licenses (licensed per Processor) to entitle the deployment of a mixed environment.
Mixing Horizon Editions in the Same vRealize Operations Managed Cluster

Mixing different Horizon Editions (e.g., Standard, Advanced, and Enterprise) on the same vRealize Operation cluster is not EULA restricted and can be implemented by customers. Customers must make sure they are in compliance at all times.

Dell EMC VxRail with Horizon

Jointly developed by EMC and VMware, Dell EMC VxRail™ is the only fully integrated, preconfigured, and tested HCI appliance powered by VMware Hyper-Converged Software and is the easiest and fastest way to stand up a fully virtualized software-defined data center (SDDC) environment. With the power of a whole SAN in just two rack units, it provides a simple, cost-effective, hyper-converged solution for a wide variety of applications and workloads. The VxRail appliance delivers resiliency, QoS, and centralized management functionality enabling faster, better, and simpler management of consolidated workloads, virtual desktops, business-critical applications, and remote office infrastructure. More information about VxRail can be found on the Dell EMC website or on the VMware website.

VxRail is well suited for use as infrastructure for virtual desktops. VxRail with Horizon enables organizations to cost-effectively and quickly transform physical desktops into secure virtual workspaces with a hyper-converged appliance that is easier to procure, deploy, manage, and scale as demand grows. Organizations can start small and grow their environment as needed without sacrificing performance. Remote workers can now enjoy desktops and applications delivered from this local appliance solution, with consistently great user experience that scales.

When deploying Horizon on VxRail, there are two general approaches—dedicate the appliance to VDI or have mixed workloads. Depending on your anticipated workload, either Horizon Editions or Horizon Add-on Editions can be used in conjunction with VxRail. The difference is in the licensing.
Note that Horizon Editions include vSphere Desktop in the bundle, which is licensed in such a way that it may only be used in conjunction with exclusively desktop environments. For mixed workloads, we recommend buying an edition of vSphere, which is licensed per CPU and buying a Horizon Add-on to run on top of that. Horizon Add-ons are for customers who already have vSphere, and are sold at a lower price because vSphere is eliminated from the Horizon packaging. The chart below shows the most economical way to purchase Horizon and vSphere depending on workloads and licensing needs.

<table>
<thead>
<tr>
<th></th>
<th>DESKTOP WORKLOAD (CAN USE vSPHERE DESKTOP)</th>
<th>MIXED WORKLOAD (vSPHERE PER PROCESSOR LICENSING RECOMMENDED)</th>
<th>ALREADY OWN vSPHERE LICENSES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td>Version of Horizon to buy</td>
<td>Horizon Standard Edition (full version, includes vSphere Desktop)</td>
<td>Horizon Standard Add-On</td>
</tr>
<tr>
<td></td>
<td>Version of vSphere to buy</td>
<td>vSphere per processor, standalone license</td>
<td>N/A, already own</td>
</tr>
<tr>
<td><strong>Advanced, Named</strong></td>
<td>Version of Horizon to buy</td>
<td>Horizon Advanced Edition, NU (full version, includes vSphere Desktop)</td>
<td>Horizon Advanced Add-On, NU</td>
</tr>
<tr>
<td></td>
<td>Version of vSphere to buy</td>
<td>vSphere per processor, standalone license</td>
<td>N/A, already own</td>
</tr>
<tr>
<td><strong>Advanced, CCU</strong></td>
<td>Version of Horizon to buy</td>
<td>Horizon Advanced Add-On, CCU</td>
<td>Horizon Advanced Add-On, CCU</td>
</tr>
<tr>
<td></td>
<td>Version of vSphere to buy</td>
<td>vSphere Desktop, standalone license</td>
<td>N/A, already own</td>
</tr>
<tr>
<td><strong>Enterprise, Named</strong></td>
<td>Version of Horizon to buy</td>
<td>Horizon Enterprise Edition, NU (full version, includes vSphere Desktop)</td>
<td>Horizon Enterprise Add-On, NU</td>
</tr>
<tr>
<td></td>
<td>Version of vSphere to buy</td>
<td>vSphere per processor, standalone license</td>
<td>N/A, already own</td>
</tr>
<tr>
<td><strong>Enterprise, CCU</strong></td>
<td>Version of Horizon to buy</td>
<td>Horizon Enterprise Add-On, CCU</td>
<td>Horizon Enterprise Add-On, CCU</td>
</tr>
<tr>
<td></td>
<td>Version of vSphere to buy</td>
<td>vSphere Desktop, standalone license</td>
<td>N/A, already own</td>
</tr>
</tbody>
</table>
All the Horizon SKUs and Add-on SKUs are summarized in the chart below for convenience.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
</table>
| Horizon 7 Standard (CCU) | Includes:  
• VDI  
• ThinApp Packager / Client  
• Workstation (1 admin license)  
• vSphere Desktop  
• vCenter Desktop (includes 25 Operating System Instances [OSIs] of vRealize Log Insight for vCenter for Desktop) | 10-pack  
100-pack          | HZ7-STD-10-C  
HZ7-STD-100-C       |
| Horizon 7 Advanced (Named) | Includes:  
• Horizon 7 Standard  
• Hosted Apps (RDSH)  
• Virtualization pack for Skype for Business  
• VMware Fusion Pro  
• vSAN Advanced for Desktop | 10-pack  
100-pack          | HZ7-ADN-10-C  
HZ7-ADN-100-C       |
| Horizon 7 Advanced (CCU) | Includes:  
• Virtualization pack for Skype for Business  
• VMware Fusion Pro  
• vSAN Advanced for Desktop | 10-pack  
100-pack          | HZ7-ADC-10-C  
HZ7-ADC-100-C       |
| Horizon 7 Enterprise (Named) | Includes:  
• Horizon 7 Advanced  
• App Volumes Enterprise  
• User Environment Manager  
• Instant Clones  
• vRealize Operations for Horizon (includes support for third-party VDI/RDSH environments)  
• Help Desk Tool  
• Linux VDI | 10-pack  
100-pack          | HZ7-ENN-10-C  
HZ7-ENN-100-C       |
| Horizon 7 Enterprise (CCU) | Includes:  
• User Environment Manager  
• Instant Clones  
• vRealize Operations for Horizon (includes support for third-party VDI/RDSH environments)  
• Help Desk Tool  
• Linux VDI | 10-pack  
100-pack          | HZ7-ENC-10-C  
HZ7-ENC-100-C       |
| Horizon 7 for Linux | Includes:  
• Linux VDI  
• vSphere Desktop  
• vCenter Desktop | 10-pack  
100-pack          | HZ7-LXC-10-C  
HZ7-LXC-100-C       |

Horizon Add-Ons include desktop components only and customers must already have vSphere in their environment or purchase vSphere separately. Horizon Add-Ons do not include vSphere, vCenter or vSAN.
The Add-Ons are intended to provide a version of Horizon at a discounted price for customers that already have vSphere.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon Standard Add-On</td>
<td>For customers who already have vSphere and vCenter and want Horizon Standard Edition</td>
<td>10-pack 100-pack</td>
<td>HZ7-STD-A10-C HZ7-STD-A100-C</td>
</tr>
<tr>
<td>Horizon 7 Advanced Add-On (Named)</td>
<td>VMware Horizon 7 Advanced Add-On. Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-ADN-A10-C HZ7-ADN-A100-C</td>
</tr>
<tr>
<td>Horizon 7 Advanced Add-On (CCU)</td>
<td></td>
<td>10-pack 100-pack</td>
<td>HZ7-A10-AERC-C HZ7-A100-AERC-C</td>
</tr>
<tr>
<td>Horizon 7 Enterprise Add-On (Named)</td>
<td>VMware Horizon 7 Enterprise Add-On. Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-ENN-A10-C HZ7-ENN-A100-C</td>
</tr>
<tr>
<td>Horizon 7 Enterprise Add-On (CCU)</td>
<td></td>
<td>10-pack 100-pack</td>
<td>HZ7-E10-AERC-C HZ7-E100-AERC-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Advanced Add-on (Named)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Advanced Add-on. Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 2 Named</td>
<td>HZ7-STA-ADNA20-UG-C HZ7-STA-ADNA200-UG-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Advanced Add-on (CCU)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Advanced Add-on. Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-STA-ADCA10-UG-C HZ7-STA-ADCA100-UG-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Enterprise Add-on (Named)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Enterprise Add-on. Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 2 Named</td>
<td>HZ7-STA-ENNA20-UG-C HZ7-STA-ENNA200-UG-C</td>
</tr>
<tr>
<td>Upgrade: Standard Add-on to Enterprise Add-on (CCU)</td>
<td>Upgrade: VMware Horizon 7 Standard Add-on to Horizon 7 Enterprise Add-on. Does not include vSphere, vCenter, and vSAN</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-STA-ENCA10-UG-C HZ7-STA-ENCA100-UG-C</td>
</tr>
<tr>
<td>Upgrade: Advanced Add-On to Enterprise Add-On (CCU)</td>
<td>Upgrade: VMware Horizon 7 Advanced Add-On to Horizon 7 Enterprise Add-On. Does not include vSphere, vCenter, and vSAN</td>
<td>10-pack 100-pack</td>
<td>HZ7-E10-AERC-UG-C HZ7-E100-AERC-UG-C</td>
</tr>
</tbody>
</table>
VMware Horizon Apps
VMware Horizon Apps delivers virtualized Windows apps alongside SaaS apps and mobile apps, through a single consolidated workspace to end users. These RDS published apps run securely in the data center and can all be accessed from one digital workspace from any device, anywhere.

VMware Horizon Apps is available in two editions: Horizon Apps Standard and Horizon Apps Advanced. Both editions include all components needed to publish apps in the data center and deliver them to the digital workspace.

• **Horizon Apps Standard** – Powerful app virtualization with great user experience
• **Horizon Apps Advanced** – Just-in-Time app virtualization made simple
VMware Horizon Apps Bundle Components
VMware Horizon Apps Standard and Advanced Editions are composed of the individual components in the table below.

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>SUB-COMPONENT/ PRODUCT</th>
<th>HORIZON APPS STANDARD</th>
<th>HORIZON APPS ADVANCED</th>
</tr>
</thead>
<tbody>
<tr>
<td>LICENSE ENTITLEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concurrent User (CCU)</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Named User</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>APPLICATIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unified workspace – XenApp, RDSH, SaaS, ThinApp</td>
<td>VMware Identity Manager Standard</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Published applications (RDSH)</td>
<td>RDS Published Apps</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Published desktops (RDSH)</td>
<td>RDS Published Desktops</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Packaged applications</td>
<td>VMware ThinApp</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>BLAST Performance (3D, MMR, etc.)</td>
<td>VMware Horizon</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Application and desktop access with single sign-on</td>
<td>VMware Identity Manager Standard</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>APPLICATION MANAGEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-time application delivery</td>
<td>VMware App Volumes</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Just-in-Time Delivery with Instant Clone Technology</td>
<td>VMware Horizon</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>USER ENVIRONMENT MANAGEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User, profile and policy management</td>
<td>VMware User Environment Manager</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OPERATIONS MANAGEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help Desk Tool</td>
<td>VMware Horizon</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>INFRASTRUCTURE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESKTOP INFRASTRUCTURE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cloud infrastructure</td>
<td>VMware vSphere Desktop and VMware vCenter Desktop</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* vSphere Desktop included in Horizon Editions has the same features and functionality of vSphere Enterprise Plus.
<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
</table>
| Horizon Apps Standard (Named) | Includes:  
• RDS published apps  
• Identity Manager Standard  
• User Environment Manager  
• ThinApp Packager/Client  
• Workstation (1 admin license)  
• vSphere Desktop  
• vCenter Desktop (includes 25 operating System Instances [OSIs] of VMware vRealize Log Insight™ for vCenter for Desktop) | 10-pack  
100-pack | HZ7-AP-STN10-C  
HZ7-AP-STN100-C |
| Horizon Apps Standard (CCU) | Includes:  
• Horizon Apps Standard  
• App Volumes  
• Instant Clones for RDS  
• Help Desk Tool | 10-pack  
100-pack | HZ7-AP-ADC10-C  
HZ7-AP-ADC100-C |
| Upgrade: to Horizon Apps Advanced from Horizon Apps Standard (Named) | Includes:  
• Horizon Apps Standard  
• App Volumes  
• Instant Clones for RDS  
• Help Desk Tool | 10-pack  
100-pack | HZ7-AP-STN-ADN10-UG-C  
HZ7-AP-STN-ADN100-UG-C |
| Upgrade: to Horizon Apps Advanced from Horizon Apps Standard (CCU) | Includes:  
• Horizon Apps Standard  
• Instant Clones for RDS  
• Help Desk Tool | 10-pack  
100-pack | HZ7-AP-STC-ADC10-UG-C  
HZ7-AP-STC-ADC100-UG-C |
| Upgrade: to Horizon Apps Advanced from App Volumes Standard (Named) | Includes:  
• Horizon Apps Standard  
• Instant Clones for RDS  
• Help Desk Tool | 10-pack  
100-pack | HZ7-AVS-APADN10-UG-C  
HZ7-AVS-APADN10-UG-C |
| Upgrade: to Horizon Apps Advanced from App Volumes Standard (CCU) | Includes:  
• Horizon Apps Standard  
• Instant Clones for RDS  
• Help Desk Tool | 10-pack  
100-pack | HZ7-AVS-APADC10-UG-C  
HZ7-AVS-APADC10-UG-C |
<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
</table>
| Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Standard (Named) | Includes:  
- Horizon Apps Standard  
- VDI  
- Linux VDI  
- Instant Clones for RDS  
- Skype for Business Virtualization Pack  
- VMware Fusion Pro  
- App Volumes  
- Help Desk Tool  
- vRealize Operations for Horizon  
- (includes support for third-party VDI/RDSH environments)  
- vSAN Advanced for Desktop | 10-pack  
100-pack | HZ7-APS-ENN10-UG-C  
HZ7-APS-ENN100-UG-C |
| Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Standard (CCU) | Includes:  
- Horizon Apps Standard  
- VDI  
- Linux VDI  
- Instant Clones for RDS  
- Skype for Business Virtualization Pack  
- VMware Fusion Pro  
- App Volumes  
- Help Desk Tool  
- vRealize Operations for Horizon  
- (includes support for third-party VDI/RDSH environments)  
- vSAN Advanced for Desktop | 10-pack  
100-pack | HZ7-APS-ENC10-UG-C  
HZ7-APS-ENC100-UG-C |
| Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Advanced (Named) | Includes:  
- Horizon Apps Advanced  
- VDI  
- Linux VDI  
- Skype for Business Virtualization Pack  
- VMware Fusion Pro  
- vRealize Operations for Horizon | 10-pack  
100-pack | HZ7-APA-ENN10-UG-C  
HZ7-APA-ENN100-UG-C |
| Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Advanced (CCU) | Includes:  
- Horizon Apps Advanced  
- VDI  
- Linux VDI  
- Skype for Business Virtualization Pack  
- VMware Fusion Pro  
- vRealize Operations for Horizon | 10-pack  
100-pack | HZ7-APA-ENC10-UG-C  
HZ7-APA-ENC100-UG-C |
VMware Horizon Cloud

Horizon Cloud gives customers the flexibility to manage virtual desktops and applications from the cloud. Horizon Cloud also brings new features such as Just-in-Time desktops, App Volumes and User Environment Manager integration, vGPU-enabled virtual desktops using NVIDIA GRID technology, and a User + Capacity pricing model designed to give customers more freedom in configuring their virtual desktops and applications.

- **Horizon Cloud with Hosted Infrastructure** – Desktops and applications delivered and managed from IBM Cloud infrastructure managed by VMware with a 99.9% SLA.
- **Horizon Cloud on Microsoft Azure** – Delivers RDS-hosted applications and session-based desktops hosted in your own Microsoft Azure environment.

**Horizon Cloud with Hosted Infrastructure**

Horizon Cloud with hosted infrastructure simplifies the delivery of Windows desktops and applications as a cloud service. Choose from persistent or stateless desktops and hosted applications to meet the needs of your diverse workforce. And with easily configurable capacity from VMware, you can now control desktop specifications at time of deployment instead of buying preset models up front.

**Step 1: Horizon Cloud User License Subscription**

The customer must purchase a Horizon Cloud user subscription with their choice of either Named or Concurrent user licensing. Note that licensing types cannot be mixed under a single management console. Customers must first purchase a ‘core subscription’ with 50 seats minimum.

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>50 SEATS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>License metric</td>
<td>Named User</td>
</tr>
<tr>
<td>SKU</td>
<td>HAH-CRNUB-C**</td>
</tr>
<tr>
<td>Price per seat / month</td>
<td>$16.50</td>
</tr>
</tbody>
</table>

*50 seat minimum initial purchase quantity

**SKU suffix required that includes contract length and billing preference
Second, additional user licenses can be purchased in increments of 10 seats with the same licensing and bundle options. Add-on services are co-termed with the initial core subscription.

**STEP B**

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>50 SEATS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>License metric</td>
<td>Named User</td>
</tr>
<tr>
<td>SKU</td>
<td>HAH-ADNUB-C**</td>
</tr>
<tr>
<td>SKU</td>
<td>HAH-ADCUB-C**</td>
</tr>
<tr>
<td>Price per seat / month</td>
<td>$16.50</td>
</tr>
</tbody>
</table>

**SKU suffix required that includes contract length and billing preference**

Subscriptions are available in 1-, 12-, 24-, or 36-month terms. The above pricing is based on a 12-month contract and can be paid monthly, annually, or prepaid. Horizon Cloud customers can cancel or change their service with 30 to 60 days’ notice. In order to change or terminate a contract, it must be a 12-month service contract minimum and cannot be prepaid. More information about Horizon Cloud terms of service can be found in the Service Description.

**Step 2: Choose Your Infrastructure**

Next, customers must purchase hosted capacity which comes in fixed units of compute, memory, and storage. These units of capacity can be configured to the available desktop and app server configurations in the chart below. Pricing tools are available to help customers determine how many capacity units they need to purchase.

**AVAILABLE CONFIGURATIONS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Units</th>
<th>$ / Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1</td>
<td>$16.50</td>
</tr>
<tr>
<td>Professional</td>
<td>2</td>
<td>$33</td>
</tr>
<tr>
<td>Premium</td>
<td>4</td>
<td>$66</td>
</tr>
<tr>
<td>Performance</td>
<td>8</td>
<td>$132</td>
</tr>
<tr>
<td>Hosted Apps Server</td>
<td>8</td>
<td>$132</td>
</tr>
</tbody>
</table>
Step 3: Choose Add-Ons

Next, customers can purchase add-on services as needed. Add-on services match the terms of the core subscription.

- Onboarding services
- Additional hard disk storage (1 TB)
- Direct Connect – 1 and 10 Gbps

To purchase, customers must first purchase a core subscription, which includes required components of the service. Core subscriptions are available in 1-, 12-, 24-, and 36-month terms.

Here is a summary of Horizon Cloud offerings. Pricing shown is for a 12-month term in North America data centers. Longer terms have additional discounts and regional pricing may vary.

<table>
<thead>
<tr>
<th>Core SKU (One / customer)</th>
<th>Configuration</th>
<th>QTY</th>
<th>Term*</th>
<th>Price / month**</th>
<th>$ / user / month</th>
<th>Billing Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon Cloud Named User License</td>
<td>Entitles user to access to Horizon Cloud desktops/apps</td>
<td>50</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$825</td>
<td>$16.50</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Horizon Cloud Concurrent User License</td>
<td>Entitles user to access to Horizon Cloud desktops/apps</td>
<td>50</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$1335</td>
<td>$26.70</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Horizon Cloud Apps Named User License</td>
<td>Entitles user to access to Horizon Cloud apps</td>
<td>50</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$412</td>
<td>$8.24</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Horizon Cloud Apps Concurrent User License</td>
<td>Entitles user to access to Horizon Cloud apps</td>
<td>50</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$670</td>
<td>$13.40</td>
<td>Pre-paid, monthly, annual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Add-on Desktop SKUs</th>
<th>Configuration</th>
<th>QTY</th>
<th>Term*</th>
<th>Price / month**</th>
<th>$ / unit / month</th>
<th>Billing Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon Cloud Standard Capacity (VCS)</td>
<td>1 vCPU, 2 GB RAM, 30 GB HD</td>
<td>1</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$16.50</td>
<td>$16.50</td>
<td>Pre-paid, monthly, annual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Add-on Options</th>
<th>Configuration</th>
<th>QTY</th>
<th>Term*</th>
<th>Price / month**</th>
<th>$ / user / month</th>
<th>Billing Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon Cloud Named User License</td>
<td>Entitles user to access to Horizon Cloud desktops/apps</td>
<td>10</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$165</td>
<td>$16.50</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Horizon Cloud Concurrent User License</td>
<td>Entitles user to access to Horizon Cloud desktops/apps</td>
<td>10</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$378</td>
<td>$37.80</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Horizon Cloud Apps Named User License</td>
<td>Entitles user to access to Horizon Cloud apps</td>
<td>10</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$825</td>
<td>$82.50</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Horizon Cloud Apps Concurrent User License</td>
<td>Entitles user to access to Horizon Cloud apps</td>
<td>10</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$134</td>
<td>$13.40</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Onboarding Service – Basic</td>
<td>Helps customers get up and running with Horizon Cloud</td>
<td>1</td>
<td>One-time fee</td>
<td>$18.60 (one time)</td>
<td>N/A</td>
<td>Pre-paid</td>
</tr>
<tr>
<td>Onboarding Service – Plus</td>
<td>Helps customers get up and running with Horizon Cloud</td>
<td>1</td>
<td>One-time fee</td>
<td>$8,240 (one time)</td>
<td>N/A</td>
<td>Pre-paid</td>
</tr>
<tr>
<td>1 TB Additional Storage</td>
<td>1 TB Storage</td>
<td>1</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$124</td>
<td>N/A</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Direct Connect – Cross Connect 1 Gbps</td>
<td>1 Gbps</td>
<td>1</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$1385</td>
<td>N/A</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Direct Connect – Cross Connect 10 Gbps</td>
<td>10 Gbps</td>
<td>1</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$6,425</td>
<td>N/A</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Direct Connect – Network Exchange 1 Gbps</td>
<td>1 Gbps</td>
<td>1</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$695</td>
<td>N/A</td>
<td>Pre-paid, monthly, annual</td>
</tr>
<tr>
<td>Direct Connect – Network Exchange 10 Gbps</td>
<td>10 Gbps</td>
<td>1</td>
<td>1, 2, 3, 4, 5 years</td>
<td>$4,945</td>
<td>N/A</td>
<td>Pre-paid, monthly, annual</td>
</tr>
</tbody>
</table>

* 1-month terms are also available at ~40% uplift.
** Monthly prices based upon 12-month term. Discounts available for longer terms.
*** 4- and 5-year terms available via pre-paid billing only.
Horizon Cloud on Microsoft Azure

Horizon Cloud on Microsoft Azure offers an option for customers who want or need their desktops and data to be hosted in their own instance of Microsoft Azure.

**Step 1: Horizon Cloud User License Subscription**

The customer must purchase a Horizon Cloud user subscription with their choice of either Named or Concurrent user licensing. Note that licensing types cannot be mixed under a single management platform. Customers must first purchase a ‘core subscription’ with 50 seats minimum.

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>50 SEATS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>License metric</td>
<td>Named User</td>
</tr>
<tr>
<td>SKU</td>
<td>HAH-CRNUB-C**</td>
</tr>
<tr>
<td>Price per seat / month</td>
<td>$16.50</td>
</tr>
</tbody>
</table>

*50 seat minimum initial purchase quantity

**SKU suffix required that includes contract length and billing preference

Second, add-on user licenses can be purchased in increments of 10 seats with the same licensing and bundle options. Add-on services are co-termed with the initial core subscription.

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>10 SEATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>License metric</td>
<td>Named User</td>
</tr>
<tr>
<td>SKU</td>
<td>HAH-ADNUB-C**</td>
</tr>
<tr>
<td>Price per seat / month</td>
<td>$16.50</td>
</tr>
</tbody>
</table>

**SKU suffix required that includes contract length and billing preference

Subscriptions are available in 1-, 12-, 24-, or 36-month terms. The above pricing is based on a 12-month contract and can be paid monthly, annually, or prepaid. Horizon Cloud customers can cancel or change their service with 30 to 60 days’ notice. In order to change or terminate a contract, it must be a 12-month service contract minimum and cannot be prepaid. More information about Horizon Cloud terms of service can be found in the Service Description.
Step 2: Connect Your Microsoft Azure Infrastructure

Next, customers must set up and connect their own Microsoft Azure infrastructure to the Horizon Cloud service. More information about setting up your Microsoft Azure environment can be found in the Requirements Checklist.

The latest Microsoft Azure pricing can be found at https://azure.microsoft.com/en-us/pricing/calculator/

Regional infrastructure availability can be found at https://azure.microsoft.com/en-us/regions/services/
Product Details – Related Products

App Volumes Editions
VMware App Volumes is a portfolio of application and user-management solutions for virtual environments, such as Horizon, Citrix XenApp and XenDesktop, and RDSH.

- **App Volumes Standard** – An application and user management solution for virtual environments powered by Horizon, Citrix XenApp and XenDesktop, and RDSH.
- **App Volumes Advanced (formerly App Volumes)** – An advanced application and user management solution for enterprise customers with virtual environments powered by Horizon, Citrix XenApp and XenDesktop, and RDSH.
- **App Volumes Enterprise (formerly Horizon Application Management Bundle)** – A complete enterprise application and user management solution that provides application delivery, isolation, and end-to-end monitoring for Citrix XenApp and XenDesktop environments.

App Volumes takes Horizon, Citrix XenApp and XenDesktop, and RDSH virtual environments to the next level with an app delivery architecture and user environment management that helps IT reduce costs and increase productivity. IT can improve their return on investment when they standardize on App Volumes to drive down infrastructure and end-user-management costs. End users can enjoy a more personalized user experience with the ability to consistently access applications across devices and locations. App Volumes Editions are licensed on a Named or Concurrent User basis and available in quantities of 10 or 100 licenses.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
<tbody>
<tr>
<td>App Volumes Standard</td>
<td>Includes:</td>
<td>10-pack</td>
<td>AV-STDN-10-C</td>
</tr>
<tr>
<td></td>
<td>• App Volumes</td>
<td>100-pack</td>
<td>AV-STDN-100-C</td>
</tr>
<tr>
<td></td>
<td>• User Environment Manager</td>
<td></td>
<td>AV-STDC-10-C</td>
</tr>
<tr>
<td></td>
<td>• Platform for cloud-based technologies</td>
<td></td>
<td>AV-STDC-100-C</td>
</tr>
<tr>
<td>App Volumes Advanced</td>
<td>Includes:</td>
<td>10-pack</td>
<td>AV-ADVN-10-C</td>
</tr>
<tr>
<td></td>
<td>• App Volumes</td>
<td>100-pack</td>
<td>AV-ADVN-100-C</td>
</tr>
<tr>
<td></td>
<td>• User Environment Manager</td>
<td></td>
<td>AV-ADVC-10-C</td>
</tr>
<tr>
<td></td>
<td>• AppToggle, AppCapture, and AppScaling with Multizones capabilities</td>
<td></td>
<td>AV-ADVC-100-C</td>
</tr>
<tr>
<td></td>
<td>for cloud-based platform</td>
<td></td>
<td></td>
</tr>
<tr>
<td>App Volumes Enterprise</td>
<td>Includes:</td>
<td>10-pack</td>
<td>AV-ENTN-10-C</td>
</tr>
<tr>
<td></td>
<td>• App Volumes</td>
<td>100-pack</td>
<td>AV-ENTN-100-C</td>
</tr>
<tr>
<td></td>
<td>• User Environment Manager</td>
<td></td>
<td>AV-ENTC-10-C</td>
</tr>
<tr>
<td></td>
<td>• AppToggle, AppCapture, and AppScaling with Multizones capabilities</td>
<td></td>
<td>AV-ENTC-100-C</td>
</tr>
<tr>
<td></td>
<td>for cloud-based platform</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• VMware vRealize Operations for Published Applications™</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
VMware User Environment Manager

VMware User Environment Manager offers personalization and dynamic policy configuration across any virtual, physical, and 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. The net effect—organizations leveraging User Environment Manager can increase workplace productivity while driving down the cost of acquisition and day-to-day desktop support and operations.

- VMware User Environment Manager is licensed on a Named or Concurrent User basis.
- Available in quantities of 10 or 100 licenses.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
</tr>
</thead>
</table>
| VMware User Environment Manager, CCU | Includes:  
• Personalization and policy management | 10-pack  
100-pack | UEM-CCU-10-C  
UEM-CCU-100-C |
| VMware User Environment Manager, Named | Includes:  
• Personalization and policy management | 10-pack  
100-pack | UEM-NU-10-C  
UEM-NU-100-C |

vSphere Desktop

- vSphere Desktop is used to host Horizon Add-Ons, custom, and third-party desktop virtualization solutions, desktop management solutions, and products within the Horizon Suite.
- vSphere Desktop is licensed by per powered-on desktop VM.
- Available in 100 pack only.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU</th>
</tr>
</thead>
<tbody>
<tr>
<td>vSphere Desktop</td>
<td>Host Horizon Add-Ons custom, and third-party desktop virtualization solutions</td>
<td>VS6-DT100VM-C (100 packs only)</td>
</tr>
</tbody>
</table>

In a Horizon Virtual Desktop environment, vSphere Desktop can be used to power virtual desktops, as well as the underlying infrastructure for the VDI environment. Examples include the View Connection Server, security server, Active Directory, monitoring tools, and other infrastructure directly related to and exclusive to the VDI environment.

To report usage and enforce compliance, vSphere Desktop counts powered on VMs. In the case of vSphere Desktop as a component of the Horizon Editions, the ‘VM’ serves as a proxy for ‘user.’ In a Horizon environment, the users accessing the environment are not always accurately represented by the total counts of VMs. In this case, the administrator needs to keep track of total desktop and infrastructure VMs and ensure that they are in compliance.
In a Citrix XenApp or XenDesktop environment, you can use vSphere Desktop to power virtual desktops and the underlying VDI infrastructure as mentioned above. In this use case, the VMs used to host the underlying infrastructure will count against your “total powered on VM” count. For example, if your Citrix environment has a 100-pack of vSphere Desktop and you are using it to host 90 virtual desktops and 10 VMs that host the VDI environment, you have used up all the licenses for vSphere Desktop in that environment.

vRealize Operations for Horizon (Formerly vCenter Operations Manager for View)

vSphere Desktop is restricted to an exclusively desktop environment and is licensed by user and not subject to the number of processors. Each pack comes with one instance of vCenter Server Desktop, so if you plan to deploy over multiple sites, you should purchase 10 packs (instead of 100 packs) to get multiple instances of vCenter Server Desktop and maximize flexibility.

- vRealize Operations for Horizon is purchased separately, to be used for monitoring Horizon with View environments, as well as Citrix XenApp environments.
- vRealize Operations for Horizon is licensed by concurrent connection.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU - 10/100 PACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>vRealize Operations for Horizon</td>
<td>End-to-end monitoring of View and XenApp and XenDesktop environments</td>
<td>VR6-VU10-C, VR6-VU100-C</td>
</tr>
</tbody>
</table>

vRealize Operations for Horizon now also monitors the VDI environment of Citrix shops. It is available as a free entitlement and can be downloaded in the admin portal.

vRealize Operations for Horizon requires two license keys to work: vRealize Operations Manager key and an Adapter key. vRealize Operations Manager license key quantity will be a quantity of 1 regardless of whether it is sold in a 10- or 100-pack. The Adapter license key quantity should align to either 10 or 100, corresponding to the pack purchased.

In the case of vRealize Operations for Horizon as part of Horizon Enterprise Edition, the existing Horizon Suite key is leveraged as the Adapter license key, so it aligns with the appropriate pack quantity, and vRealize Operations Manager license key is fulfilled at a quantity of 1 for each 10- or 100-pack.

vRealize Operations for Published Applications monitors a Citrix XenApp or XenDesktop environment and is included in App Volumes Enterprise Edition. More information can be found in the FAQ on vmware.com.
VMware vSAN for Desktop

VMware vSAN is the VMware software-defined storage solution for hyper-converged infrastructure, a software-driven architecture that delivers tightly integrated compute, networking, and shared storage from a single, virtualized x86 server. vSAN delivers high-performance, highly resilient shared storage by clustering server-attached flash devices and/or hard disks (HDDs). vSAN delivers enterprise-class storage services for virtualized production environments along with predictable scalability and all-flash performance—all at a fraction of the price of traditional, purpose-built storage arrays. Just like vSphere, vSAN provides users the flexibility and control to choose from a wide range of hardware options and easily deploy and manage it for a variety of IT workloads and use cases. vSAN can be configured as all-flash or hybrid storage.

- Use this edition for VDI workloads only (VMware or Citrix).
- Packs of 10 and 100.
- Licensed by Concurrent User.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>PACKAGING</th>
<th>SKU</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>vSAN Standard for Desktop</td>
<td>• Storage-based policy management</td>
<td>10-pack</td>
<td>ST6-VSDT10-C</td>
<td>$50 per Desktop</td>
</tr>
<tr>
<td></td>
<td>• Read/write SSD caching</td>
<td>100-pack</td>
<td>ST6-VSDT100-C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Distributed RAID (RAID 1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• vSAN snapshots and clones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Rack awareness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replication (5 minute RPO)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Software checksum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All-flash support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Block access (iSCSI)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quality of Service IOPS limits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vSAN Advanced for Desktop</td>
<td>Includes:</td>
<td>10-pack</td>
<td>ST6-AD-D10-C</td>
<td>$100 per Desktop</td>
</tr>
<tr>
<td></td>
<td>• vSAN for Desktop Standard</td>
<td>100-pack</td>
<td>ST6-AD-D100-C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inline deduplication and compression (All-flash only)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Erasure Coding – RAID (All-flash only)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All-flash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vSAN Enterprise for Desktop</td>
<td>Includes:</td>
<td>10-pack</td>
<td>ST6-EN-D10-C</td>
<td>$120 per Desktop</td>
</tr>
<tr>
<td></td>
<td>• vSAN for Desktop Advanced</td>
<td>100-pack</td>
<td>ST6-EN-D100-C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Data-at-rest encryption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Stretch cluster with local failure protection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vSAN Enterprise for Desktop- Horizon Add-on*</td>
<td>Includes:</td>
<td>10-pack</td>
<td>ST6-ED-HA10-C</td>
<td>$33 per Desktop</td>
</tr>
<tr>
<td></td>
<td>• vSAN for Desktop Advanced</td>
<td>100-pack</td>
<td>ST6-ED-HA100-C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Data-at-rest encryption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Stretch cluster with local failure protection</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* This SKU is an add-on for customers who received vSAN Advanced for Desktop as part of the Horizon Bundle. There are separate upgrade SKUs to take a customer from vSAN Advanced for Desktop (standalone) to vSAN Enterprise for Desktop (standalone).
NSX for Desktop
• Use this edition for VDI workloads only (VMware or Citrix)
• Packs of 100
• Licensed by Concurrent User

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU - 10/100 PACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSX Advanced for Desktop</td>
<td>Network virtualization platform for Horizon, XenApp, and XenDesktop environments</td>
<td>NX-ADVC-100-C</td>
</tr>
<tr>
<td>NSX Enterprise for Desktop</td>
<td>Includes:</td>
<td>NX-ENTC-100-C</td>
</tr>
<tr>
<td></td>
<td>• NSX Advanced for Desktop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Multi-site NSX optimizations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• VPN (IPsec and SSL) Remote Gateway</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Integration with hardware VTEPs</td>
<td></td>
</tr>
</tbody>
</table>

VMware NSX™ is the leading network virtualization platform that delivers the operational model of a virtual machine for the network. Similar to virtual machines for compute, virtual networks are programmatically provisioned and managed independent of underlying hardware. NSX reproduces the entire network model in software, enabling any network topology—from simple to complex multi-tier networks—to be created and provisioned in seconds. It enables a library of logical networking elements and services, such as logical switches, routers, firewalls, load balancers, VPN, and workload security. Users can create isolated virtual networks through custom combinations of these capabilities.
End of Availability (EOA) Products

**VMware Identity Manager Standard and Advanced**
VMware ended availability ("EOA") of VMware Identity Manager Standard and VMware Identity Manager Advanced effective January 1, 2017. Note that VMware Identity Manager is an investment area for VMware and will continue to be supported within Workspace ONE.

**VMware Workspace Suite**
VMware ended availability ("EOA") of VMware Workspace Suite effective June 1, 2016. Note that each product component of Workspace Suite (Horizon Enterprise Edition, Horizon FLEX, AirWatch Yellow) is an investment area for VMware and will continue to be supported per their individual lifecycle policies. After EOA, customers can continue to purchase Workspace Suite 1-year support, or support for the subcomponents.

**VMware Workspace Portal**
VMware ended availability ("EOA") of VMware Workspace Portal, effective December 31, 2015. No further orders for VMware Workspace Portal will be accepted after this date. Customers can continue to purchase 1-year support until EOSL (end of service life).

**VMware App Volumes (Standalone)**
VMware ended availability ("EOA") of VMware App Volumes (standalone product), effective March 2016. No further orders for VMware App Volumes will be accepted after this date. Customers will be automatically entitled to App Volumes Advanced.

**VMware Horizon Application Management Bundle**
VMware ended availability ("EOA") of VMware Horizon Application Management Bundle, effective March 2016. No further orders for VMware Horizon Application Management Bundle will be accepted after this date. Customers will be automatically entitled to App Volumes Enterprise and Identity Manager Standard.

For more information around VMware Product Lifecycle timeframes, including general availability, support, and technical guidance, see the [VMware Lifecycle Product Matrix](#).

For more information around VMware Enterprise Desktop EOA and support policies, see the [Enterprise Desktop Support page](#).

**VMware Collaboration Bundle**
VMware ended availability ("EOA") of VMware Collaboration Bundle, effective March 6, 2017. No further orders for VMware Collaboration Bundle will be accepted after this date.

For more information about VMware Product Lifecycle timeframes, including general availability, support, and technical guidance, see the [VMware Lifecycle Product Matrix](#).

**VMware Mirage**
VMware ended availability of VMware Mirage effective May 11, 2018. No further orders of VMware Mirage will be accepted after this date. Customers can continue to purchase 1-year support until EOSL (end of service life).

**Horizon FLEX**
VMware ended availability ("EOA") of VMware Horizon FLEX effective August 4, 2018. No further orders for Horizon FLEX will be accepted after this date. Customers can continue to purchase 1-year support until EOSL (end of service life).
Downgrades
Most desktop and workspace service products support the ability to downgrade or stay on previous versions.

Upgrades
Product Version Upgrades (Entitled)
Existing customers with current Subscription and Support (SnS) contracts are entitled to the next product version. For example, customers with Horizon View 5.0 and current on SnS are able to upgrade to Horizon View 5.3. Customers with a lapsed SnS contract must contact VMware Support before upgrading. The value of any unused SnS for existing products will be preserved through an SnS extension.

Product Edition and Packages Upgrades (Paid)
Upgrade paths between VMware End-User-Computing products and editions are shown in the figure below. Each column represents a step or SKU needed for that particular upgrade.

Horizon Suite customers were entitled to Horizon Enterprise in July 2014.
Upgrade Paths

Paid Upgrade
Free Entitlement

Active
EOA

Horizon Standard CCU
Horizon Advanced CCU

Horizon for Linux

Horizon Enterprise CCU

Mirage: Windows Migrations
Mirage
Workspace Portal
App Volumes Adv (Named)
User Environment Manager (Named)
Horizon Suite Named (EOA)

App Volumes Std (Named)
App Volumes Adv (Named)
App Volumes Adv (CCU)
App Volumes Std (CCU)
App Volumes Adv (CCU)

Horizon View Std Add-on
Mirage
App Volumes (CCU)
App Volumes Adv (CCU)
User Environment Manager (CCU)
Horizon Suite CCU (EOA)
Upgrading to Horizon Enterprise Edition

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU</th>
<th>PACKAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon 7 Standard Add-On (CCU) to Horizon 7 Enterprise (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-VAD-ENC-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-VAD-ENC-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Horizon 7 Standard (CCU) to Horizon 7 Enterprise (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-ST-ENC-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-ST-ENC-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Horizon 7 Standard (CCU) to Horizon 7 Enterprise (Named)</td>
<td>1 CCU to 2 Named Users</td>
<td>HZ7-ST-ENN-20-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-ST-ENN-200-UG-C</td>
<td></td>
</tr>
<tr>
<td>Horizon 7 Advanced (CCU) to Horizon 7 Enterprise (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-ADC-ENC-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-ADC-ENC-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Horizon 7 Advanced (Named) to Horizon 7 Enterprise (Named)</td>
<td>1 Named to 1 Named</td>
<td>HZ7-ADN-ENN-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-ADN-ENN-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Horizon 7 Enterprise (Named) to Horizon 7 Enterprise (CCU)</td>
<td>1 Named to 1 CCU</td>
<td>HZ7-ENN-ENC-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-ENN-ENC-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Horizon 7 for Linux (CCU) to Horizon 7 Enterprise Edition (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-LXC-ENC-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-LXC-ENC-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>User Environment Manager (Named) to Horizon 7 Enterprise (Named)</td>
<td>1 Named to 1 Named</td>
<td>HZ7-UEM-ENN-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-UEM-ENN-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>User Environment Manager (CCU) to Horizon 7 Enterprise (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-UEM-ENC-10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-UEM-ENC-100-UG-C</td>
<td></td>
</tr>
<tr>
<td>App Volumes Enterprise (Named) to Horizon 7 Enterprise (Named)</td>
<td>1 Named to 1 Named</td>
<td>HZ7-AVE-ENN10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-AVE-ENN100-UG-C</td>
<td></td>
</tr>
<tr>
<td>App Volumes Enterprise (CCU) to Horizon 7 Enterprise (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-AVE-ENC10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-AVE-ENC100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Upgrade: Advanced Add-on to Enterprise Add-on (Named)</td>
<td>1 Named to 1 Named</td>
<td>HZ7-ENN-A10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-ENN-A100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Upgrade: Advanced Add-on to Enterprise Add-on (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-E100-AERC-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-E10-AERC-UG-C</td>
<td></td>
</tr>
<tr>
<td>Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Standard (Named)</td>
<td>1 Named to 1 Named</td>
<td>HZ7-APS-ENN10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-APS-ENN100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Standard (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-APS-ENC10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-APS-ENC100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Advanced (Named)</td>
<td>1 Named to 1 Named</td>
<td>HZ7-APA-ENN10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-APA-ENN100-UG-C</td>
<td></td>
</tr>
<tr>
<td>Upgrade: to Horizon 7 Enterprise Edition from Horizon Apps Advanced (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-APA-ENC10-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ7-APA-ENC100-UG-C</td>
<td></td>
</tr>
</tbody>
</table>
### Upgrading to Horizon Advanced Edition

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU</th>
<th>PACKAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon 7 Standard Add-On (CCU) to Horizon 7 Advanced (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-VAD-ADC-10-UG-C, HZ7-VAD-ADC-100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td>Horizon 7 Standard (CCU) to Horizon 7 Advanced (Named)</td>
<td>1 CCU to 2 Named Users</td>
<td>HZ7-ST-ADN-20-UG-C, HZ7-ST-ADN-200-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td>Horizon 7 Standard (CCU) to Horizon 7 Advanced (CCU)</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-ST-ADC-10-UG-C, HZ7-ST-ADC-100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td>Mirage to Horizon 7 Advanced (Named)</td>
<td>1 Named User to 1 Named User</td>
<td>HZ7-MRG-ADN-10-UG-C, HZ7-MRG-ADN-100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td>Mirage to Horizon 7 Advanced (CCU)</td>
<td>1 Device to 1 CCU</td>
<td>HZ7-MRG-ADC-10-UG-C, HZ7-MRG-ADC-100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
</tbody>
</table>

### Upgrading to Horizon Standard Edition

#### Upgrade from Horizon View Add-On to Horizon Standard Edition

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU</th>
<th>PACKAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon View Add-On to Horizon 7 Standard</td>
<td>For customers who have View add-ons and want the full bundle. Includes: • vSphere Desktop • vCenter Desktop 1 CCU to 1 CCU</td>
<td>HZ7-STD-STD10-UG-C, HZ7-STD-STD100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
</tbody>
</table>

#### Upgrade from View Enterprise* to Horizon Standard

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU</th>
<th>PACKAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Enterprise Bundle to Horizon 7 Standard</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-VENT-ST10-UG-C, HZ7-VENT-ST100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td>View Enterprise Add-On to Horizon 7 Standard Add-On</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-ENTA-STD10-UG-C, HZ7-ENTA-STD100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td>View Enterprise Add-On to Horizon 7 Standard</td>
<td>1 CCU to 1 CCU</td>
<td>HZ7-EAD-STD10-UG-C, HZ7-EAD-STD100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
</tbody>
</table>

*VMware announced the EOA of View Enterprise packaging in 2013.
## Upgrading from ThinApp to Horizon Standard Edition

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>SKU</th>
<th>PACKAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ThinApp Suite to Horizon 7 Standard</td>
<td>Existing ThinApp Suite (50 clients) will be null and void for new licenses in Horizon View</td>
<td>HZ7-THIN-ST100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
<tr>
<td>VMware ThinApp Client License to Horizon 7 Standard Add-On</td>
<td></td>
<td>HZ7-TCL-STA10-UG-C HZ7-TCL-STA100-UG-C</td>
<td>10-pack 100-pack</td>
</tr>
</tbody>
</table>