

## Solution Snapshot

# Intel® Select Solutions for Virtual Desktop Infrastructure With VMware Horizon®



## Use Cases<sup>5</sup>



Manage From  
the Cloud



Secure Data and  
Achieve Compliance



Modernize  
Operations



Enable Remote  
Work



Build  
Resiliency



Improve  
ROI

## Solution Overview + Benefits

VMware Horizon® enables a digital workspace with the efficient delivery of virtual desktops and applications that equips workers anywhere, anytime, and on any device. With deep integration into the VMware technology ecosystem, the platform offers an agile cloud-ready foundation, modern best-in-class management, and end-to-end security that empowers today's Anywhere Workspace.

## The Challenge

As more companies adopt remote and hybrid workplace models, the need to keep employees securely connected has never been greater. These changing workforces require purpose-built technologies to remain efficient and adaptable.

Recent reports from Accenture claim 83% of 9,326 workers say they prefer a hybrid model where they can work remotely at least 25% of the time.<sup>1</sup> Additionally, remote work has become a massive success for both companies and employees alike. 73% of employers now say the shift to remote work has been successful for their company.<sup>2</sup>

The positives of remote and hybrid work continue to shine:

**51%** of survey respondents indicate that they have been more productive working from home during COVID-19<sup>3</sup>

**61%** of workers view remote work more positively<sup>3</sup>

**65%** of respondents want to become full-time remote employees post-pandemic<sup>3</sup>

**31%** would prefer a hybrid work arrangement<sup>3</sup>

Research shows that businesses lose **600 billion** a year to workplace distractions and that remote workers are **35–40% more productive** than their in-office counterparts<sup>4</sup>

## VMware Horizon® VDI + Intel Value Props

**Benefit from the simplicity and performance** of the virtual desktop experience offered by VMware Horizon® deployed on vSAN HCI infrastructure.

**Centralize IT functions** or provide remote IT help desk vs. placing IT staff in every location.

**Deploy VDI solutions** and scale VDI capacity quickly and with confidence, avoiding costly system downtime and ensuring business continuity.

**Stay compliant** with data regulations.

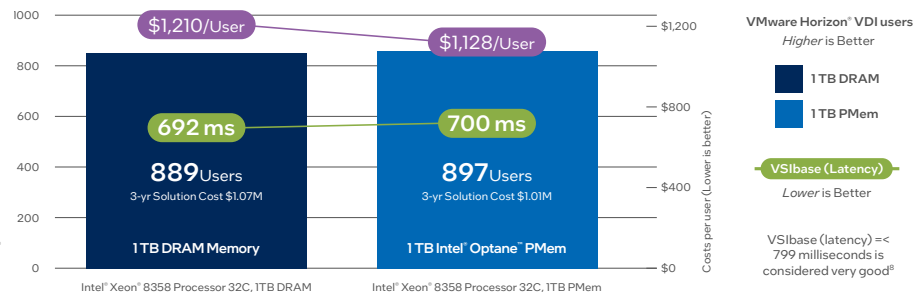
**Add flexibility and performance** to support both knowledge and power users on the same VDI infrastructure.

**Improve ROI** by providing a centralized, remote IT infrastructure that can securely and efficiently manage multiple devices and locations.

**Enable remote work** with a consistent, personalized desktop environment without compromising security, user experience, or productivity.

## 3rd Gen Intel® Xeon® Platinum Processors and Intel® Optane™ Persistent Memory Deliver a Low-Cost VDI Solution

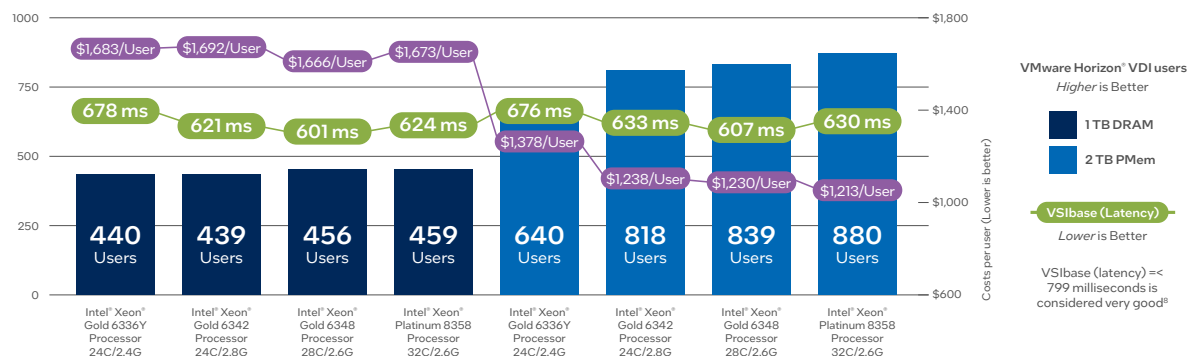
VMware Horizon® VDI on VMware vSphere® ESXi 7.0 vSAN 4-Node Cluster, Login VSI Knowledge Worker Workload (2 vCPUs, 4 GB memory/user)<sup>6</sup>



## Intel® Optane™ PMem Enables More Users at Lower Cost/ User Across a Range of 3rd Gen Intel® Xeon® processors<sup>7</sup>

VMware Horizon® VDI on VMware vSphere® ESXi 7.0 vSAN 4-Node Cluster, LoginVSI Knowledge Worker Profile (4 vCPU/8GB of memory)<sup>7</sup>

3rd Gen Intel® Xeon® Gold and Intel® Xeon® Platinum Processors with DRAM and with Intel® Optane™ Persistent Memory



1 <https://www.forbes.com/sites/joemkendrick/2021/05/30/remote-work-evolves-into-hybrid-work-and-productivity-rises-the-data-shows/?sh=7e641cb4825e>

2 <https://www.pwc.com/us/en/library/covid-19/us-remote-work-survey.html>

3 <https://www.flexjobs.com/blog/post/survey-productivity-balance-improve-during-pandemic-remote-work/>

4 <https://www.flexjobs.com/blog/post/remote-work-statistics/>

5 <https://www.vmware.com/products/horizon.html>

6 Chart data source: Evaluator Group, Lab Insight, Intel vs. AMD for VMware Horizon® VDI: Leveraging Intel PMem to Improve Efficiency, November 2021. 2 - Knowledge worker workload is allocated 2 vCPUs and 4GB of memory per user. Results may vary.

Config 1 - 3rd Gen Intel® Xeon® Platinum processor, 889 users 4-node, Each node, Intel® Software Development Platform, 2x Intel® Xeon® Platinum 8358 processors (32C, 2.6GHz, 250W TDP), HT On, Turbo ON, SNC OFF, Total Memory: 1 TB (16 slots/ 64GB/ 3200 MHz), ucode: x280, 2x 25GbE Intel® E810-XXVDA2, Gen4x8, Per node cache tier: 2x400GB Intel® Optane™ SSD P5800x, Gen4, Per node capacity tier: 6x Intel® SSD P5510 3.84TB, Gen4, ESXi 7.0u2 17630552, vCenter 7.0u2 17694817, Horizon 8 2106, LoginVSI4.140. Knowledge worker profile 2vCPU/4GB. Tested by Evaluator Group as of September 2021.

Config 2 - 3rd Gen Intel® Xeon® Platinum processor, 897 users 4-node, Each node, Intel® Software Development Platform 1TB PMem, 2x Intel® Xeon® Platinum 8358 processors (32C, 2.6GHz, 250W TDP), HT On, Turbo ON, SNC OFF, Total Memory: 1TB (16 slots/ 16GB/ 3200 MHz + 8 slots/ 128GB/ PMem), ucode: x280, 2x 25GbE Intel® E810-XXVDA2, Gen4x8, Per node cache tier: 2x400GB Intel® Optane™ P5800x, Gen4, Per node capacity tier: 6x Intel® SSD P5510 3.84TB, Gen4, ESXi 7.0u2 17630552, vCenter 7.0u2 17694817, Horizon 8 2106, LoginVSI 4.1.40. Knowledge worker profile 2vCPU/4GB. Tested by Evaluator Group as of September 2021.

7 Chart data source: Evaluator Group, Lab Insight, Intel vs. AMD for VMware Horizon® VDI: Leveraging Intel® Optane™ PMem to Improve Efficiency, November 2021. 2 - Knowledge worker workload is allocated 4vCPUs and 8GB of memory per user. Results may vary.

1TB DDR Configs (users: 440, 439, 456, 459 users on 3rd Gen Intel® Xeon® Gold 6336Y processor, 3rd Gen Intel® Xeon® Gold 6342 processor, 3rd Gen Intel® Xeon® Gold 6348 processor, 3rd Gen Intel® Xeon® Platinum 8358 processor respectively - See Below).

4-node, Each node, Intel® Software Development Platform, 2x 3rd Gen Intel® Xeon® Processors (See below), HT On, Turbo ON, SNC OFF, Total Memory: 1 TB (16 slots/ 64GB/ 3200 MHz), ucode: x280, 2x 25GbE Intel® E810-XXVDA2, Gen4x8, Per node cache tier: 2x400GB Intel® Optane™ SSD P5800x, Gen4, Per node capacity tier: 6x Intel® SSD P5510 3.84TB, Gen4, ESXi 7.0u2 17630552, vCenter 7.0u2 17694817, Horizon Virtual Apps and Desktops 7 2103, LoginVSI4.140. Knowledge worker profile 4vCPU/8GB. Tested by Evaluator Group as of October 2021.

2TB PMem Configs (640, 818, 839, 880 users on 3rd Gen Intel® Xeon® Gold 6336Y processor, 3rd Gen Intel® Xeon® Gold 6342 processor, 3rd Gen Intel® Xeon® Gold 6348 processor, 3rd Gen Intel® Xeon® Platinum 8358 processor respectively - See Below).

4-node, Each node, Intel® Software Development Platform 2TB PMem, 2x 3rd Gen Intel® Xeon® Processors (See below), HT On, Turbo ON, SNC OFF, Total Memory: 2 TB (16 slots/ 32GB/ 3200 MHz + 16 slots/ 128GB/ PMem), ucode: x280, 2x 25GbE Intel® E810-XXVDA2, Gen4x8, Per node cache tier: 2x400GB Intel® Optane™ SSD P5800x, Gen4, Per node capacity tier: 6x Intel® SSD P5510 3.84TB, Gen4, ESXi 7.0u2 17630552, vCenter 7.0u2 17694817, Horizon Virtual Apps and Desktops 7 2103, LoginVSI4.140. Knowledge worker profile 4vCPU/8GB. Tested by Evaluator Group as of October 2021.

8 [https://loginvsi.com/documentation/index.php/Login\\_VSI\\_Analyzing\\_Results#Analyzer\\_Graphs](https://loginvsi.com/documentation/index.php/Login_VSI_Analyzing_Results#Analyzer_Graphs)

# Why Intel for VDI With VMware Horizon®

## Optimized Performance

- Leverage key Intel® technologies including Intel® Xeon® Scalable processors, Intel® Optane™ PMem, Intel® Optane™ SSDs, and Intel® Ethernet 800 Series Network Adapters
- Takes advantage of VMware vSphere® and VMware vSAN™ performance optimizations

## Cost Effectiveness

- Intel® Optane™ Persistent Memory (PMem) delivers comparable performance to DDR4 for VDI workloads, at a lower cost per user (See Graph 1)
- ~92% more users at ~27% less cost per user when using 2TB of PMem vs. 1TB of DRAM with 3rd Gen Intel® Xeon® Scalable processors (See Graph 2, 880 user vs 459 user proof point comparison)

## Scalability (See Graph 2)

- Paired with 3rd Gen Intel® Xeon® Scalable processors, Intel® Ethernet 800 Series Network Adapters enable users to scale, increase efficiency, and lower latency
- 3rd Gen Intel® Xeon® Scalable processors deliver efficient performance and price/performance, allowing IT Managers to optimize for the lowest latency, max users, or lower cost per user
- Utilizes 32 core CPUs to optimize VMware licensing costs

# Want More Information?

## Intel® Select Solutions

Speed time to value with workload-optimized hardware and software solutions that are ISV certified, OEM validated, and performance verified.

## Learn More

Contact your Intel® Partner Alliance or Intel® account executive to learn how we can help modernize your VMware Horizon® VDI Solution.

[VMware Horizon®](https://www.vmware.com/products/horizon.html)

[Intel® Select Solutions for VDI](https://www.intel.com/solutions/vdi)