



# Empower today's distributed workforce

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Most business leaders are well aware of the benefits that distributed workforce models can deliver, and many allow employees to work wherever they want. In fact, 52 percent of executives say hybrid work improves employee productivity and 90 percent of employees say the flexibility it provides boosts their morale.<sup>1</sup>

As a result, distributed workforces are fast becoming the de facto standard. However, without the right technology in place, "work from anywhere" doesn't work for everyone. Organizations are wrestling with increased costs, complexity and risk caused by the proliferation of technologies and platforms required to ensure that remote, hybrid and frontline/on-site employees have access to all applications from any device in order to work productively, smartly, happily and securely. Surveys reveal that 77 percent of security practitioners feel they have too many point products to track and manage, and just as many—78 percent—are concerned that this complicates policy controls. What's more, 91 percent reported an increase in cyberattacks since shifting to a hybrid work model.<sup>2</sup>

### Reduce costs. Save time. Gain peace of mind.

Moving forward, hybrid work will be driven by the concept of autonomous workspaces, whereby one's digital environment leverages data science and proactive automations across endpoint management, security and end-user experience to become self-configuring, self-healing and self-securing.

- **Self-configuring** A workspace is configured to the desired state of an end user, and remains in that state without the need for IT teams to continuously monitor it for changes and manually maintain policies.
- **Self-healing** This capability combines data science with automation to intelligently detect and isolate end-user experience incidents, and then automatically remediate issues to return to the normal state. Self-healing workflows learn from both human and system feedback to drive better experiences.
- **Self-securing** Data science and automation principles intelligently detect security and compliance vulnerabilities, and take automatic actions to secure workspace access, quarantine apps or devices, and remediate anomalies to ensure a return to desired posture.





VMware Anywhere Workspace is an integrated platform leveraging market-leading Unified Endpoint Management, Virtual Applications and Desktops, Workspace Security and Digital Employee Experience technologies. Anywhere Workspace empowers frontline, hybrid and remote workers to work from anywhere while reducing silos and operational overhead, as well as providing broader and more effective security.



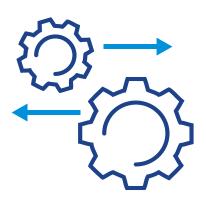


- Make onboarding faster and easier, and enable on-demand access to applications.
- Provide consistent experiences across all platforms and support any endpoint, including mobile (Android and iOS), desktop (Windows 10 and 11, macOS, ChromeOS and Linux), rugged, AR/VR headsets, and even IoT.
- Deliver secure virtual desktops and applications to users anywhere across public and private clouds.



### Secure the distributed edge

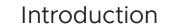
- Embrace least privilege by shrinking the attack surface with real-time continuous authentication and authorization from access control policies.
- Gain visibility across devices and applications, with threat intelligence that is trustworthy, actionable and readily available.
- Achieve compliance goals and proactively secure and remediate the workspace by leveraging continuous machine learning to take automated actions.



### Streamline IT workflows with intelligent automation and orchestration

- Simplify processes through an outcome-based approach.
- Provision and deploy endpoints faster and more securely with zero-touch IT.
- Extend visibility, management and compliance to more devices.





Unified endpoint management

Virtual desktops and applications

Workspace security

In order to fully understand how organizations are realizing the true value of the integrated platform, as well as the ROI provided by each of the four technologies, VMware—along with industry analyst IDC<sup>3</sup> and a commissioned Forrester Consulting study—interviewed decision-makers and compiled the findings across key areas including

- Costs Organizations consolidated products and thereby reduced—and in some cases eliminated—expenses related to multiple hardware devices, IT infrastructure and software licenses.
- Time IT teams efficiently scaled resources to meet business requirements while minimizing the time, effort and costs associated with device provisioning, management, networking, security and support.
- Productivity End users were happier and more productive as a result of consistent, high-quality experiences from any location, on any device.
- Security Organizations avoided the cost and reputational damage associated with a security breach.



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## Unified endpoint management

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Organizations need simplified PC and device management that can provide seamless experiences for employees—at scale—in any location, from any device, on or off the company network. While many modern approaches claim to be cloud-ready, only those that are cloud native—meaning they are built-in and designed for the cloud—can support unified modern management of all endpoints and business processes from one place.

VMware Workspace ONE is a true cloud native unified endpoint management solution that abstracts siloed tools and technologies into one self-optimizing autonomous workspace solution. An autonomous workspace is the evolution from manual playbooks and isolated automations for specific tasks to comprehensive, outcomes-driven actions to ensure systems run in the desired state with little to no human interaction.

The central data science engine inside Workspace ONE Intelligence, which continuously gathers and analyzes complex data sets, proactively provides insights and recommendations for IT. When combined with the global orchestration and automation framework, Workspace ONE enables truly data-driven decisions and automations across management, security and end-user experience.

As a result, organizations can rely on Workspace ONE technology to offset the operational burden of their IT team and enable them to focus on higher-value strategic endeavors.

### Workspace ONE technology benefits at a glance

- Consolidate management silos across desktops and devices.
- Aggregate and correlate digital workspace data to drive insights, analytics and automation.
- Enhance the employee experience and delight employees.







### Calculating the ROI of Workspace ONE

To determine the potential ROI value of Workspace ONE, VMware commissioned Forrester Consulting to conduct a Total Economic Impact™ study. After they interviewed enterprise decision-makers with experience using Workspace ONE, Forrester combined their findings into a single composite organization with

- 100,000 employees
- 100 employees on PC management and support teams
- 3-year PC refresh rate<sup>4</sup>

The study revealed a 175 percent ROI for Workspace ONE over 3 years with a payback period of less than 6 months, and a total of \$38 million in total IT task and resource cost savings. Following are the risk-adjusted present value (PV) quantified benefits for the composite organization over 3 years.



Unified endpoint

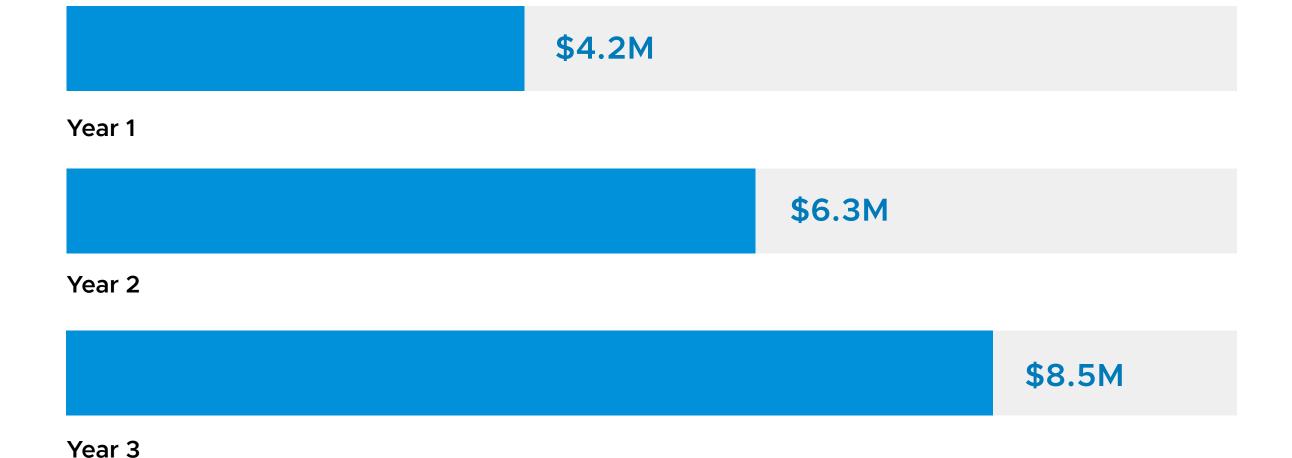
management

### Third-party software consolidation savings

With Workspace ONE, organizations reduced third-party software tools and license needs for PC lifecycle management, VPN, encryption, remote access, app catalogs and imaging tools traditionally required for processing, imaging and other tasks.

### **RESULT:** \$15.5 million in legacy software cost savings

### **Software Cost Savings**







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### PC device shipping, delivery and setup time savings

By drop shipping to employees a new device preconfigured with priority apps they need to be productive, organizations eliminated at least one shipment for each delivery, along with the time traditionally required for processing, imaging and other tasks.

**RESULT:** \$10 million in device shipments and IT time savings

**Year 1 Cost Savings** 

\$1M Shipping cost savings

\$2.5M

Delivery and set up resource cost savings

PC Delivery and Setup Resource Time Savings in Year 1

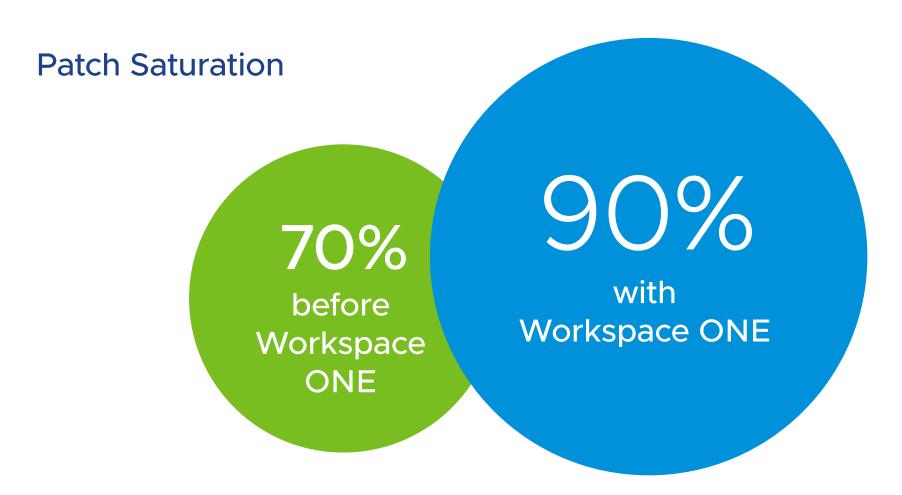


### PC patch remediation time savings

With real-time patching, organizations saved time for IT staff and employees while also greatly improving patch saturation.

#### **RESULTS:**

Annual Cost Savings: \$13.2 million in IT management time savings over 3 years Patch Saturation Increases: 70 percent to 90 percent within 1 month





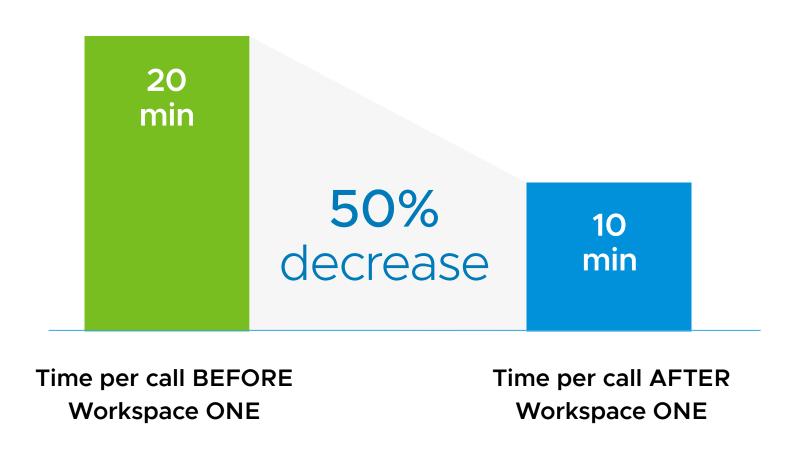
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### PC-related help desk cost savings

Avoid an estimated 20 to 30 percent of support tickets and resolve the help desk calls that do occur in half the time.

**RESULT:** \$3 million cost savings

### Time per call before and after Workspace ONE



### IT management resource savings

With Workspace ONE, organizations reduced the need for emergency IT hires and significantly reduced the time, effort and expense of responding to a sudden shift to remote work.

### **RESULT:** \$11.6 million in savings

### **Resource Savings**



"When [the COVID-19 pandemic] happened, we planned 3 weeks, then we rolled out 90,000 machines in 6 days."

Senior manager of end-user computing, manufacturing



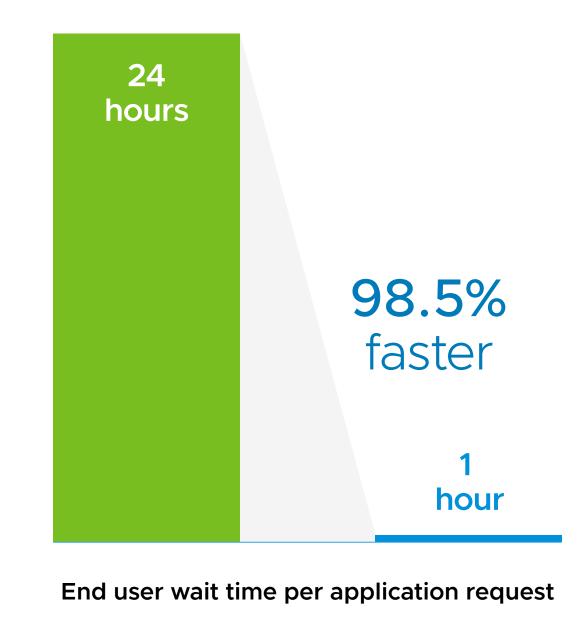
**m**ware<sup>®</sup>

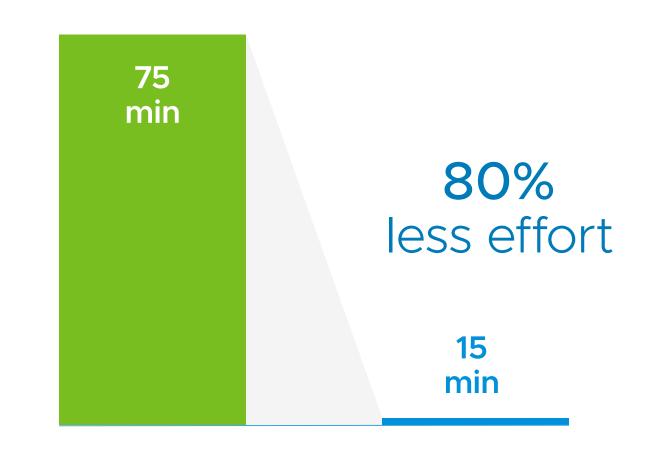
### **End-user productivity savings**

Organizations improved end-user productivity and reduced IT support time. With legacy approaches, application requests from employees took IT days to complete. Using Workspace ONE, total request and work time are each less than 1 hour.

**RESULT:** \$9.8 million in total productivity benefits

### **Application Requests Metrics**





IT effort per application request

#### **Additional benefits**

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### **Improved security**

With Workspace ONE, IT administrators can choose to have software and settings applied automatically when a user logs in for the first time and manage all devices with a single tool. Additionally, reducing the need for VPN means fewer employees need to connect to the network, reducing both VPN costs and the risk of security breaches or other issues caused by human error.

### **Employee onboarding and offboarding**

Provide "day zero" access to company information and forms for new hires and shut off accounts via automated offboarding in order to avoid license costs or security issues.

### Asset management and application rationalization

Track device usage and measure application adoption and engagement across the organization in order to help business owners make data-driven decisions on what to deploy, retire or consolidate.

### Device problem resolution

Leverage Workspace ONE Intelligence data to quickly identify and remediate the root cause of issues and thus reduce the duration of support calls.

### Keep going

Forrester Consulting study: The Total Economic Impact™ of VMware Workspace ONE

Download the study.

**VMware Workspace ONE** 

Visit the website.



## Virtual desktops and applications

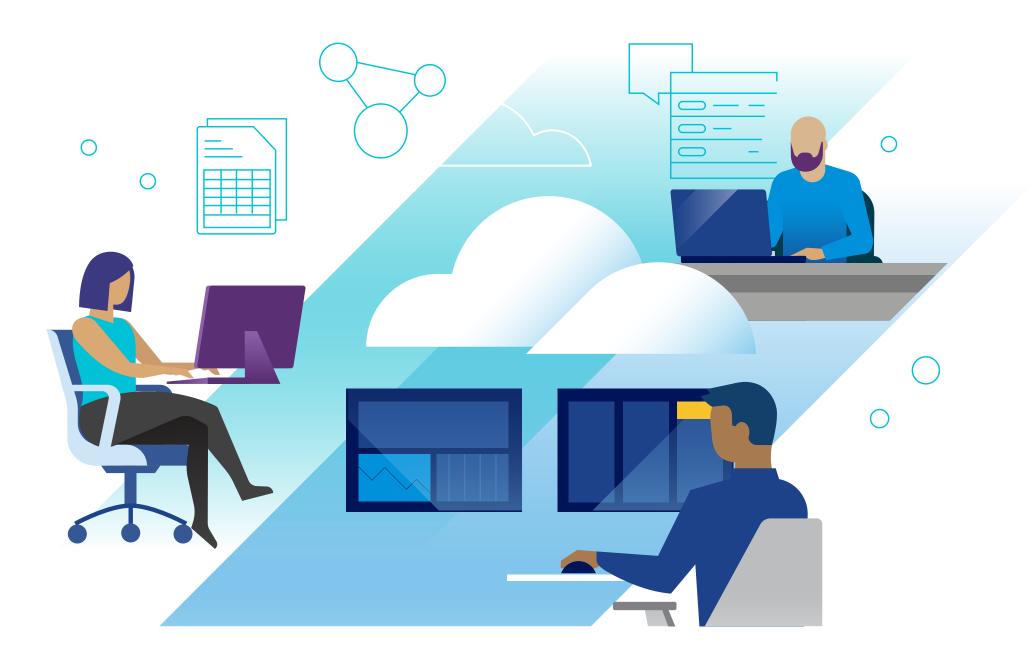
VMware Horizon® is a modern platform for the secure delivery of virtual desktops and applications across the hybrid cloud. The centralized management and execution capabilities of Horizon enable IT to reduce the time spent managing images, applications and devices. Deep integration into the VMware technology ecosystem including VMware vSphere®, VMware vSAN™, VMware NSX® and the Workspace ONE® platform provide a holistic solution for unified endpoint management, workspace intelligence, intrinsic security, and desktop virtualization to help organizations support an anywhere workforce.

IT teams can choose where they deploy and what they manage, on-premises to public cloud, including

- VMware Horizon Cloud on Microsoft Azure
- Horizon on Azure VMware Solution

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- Horizon on VMware Cloud™ on AWS
- Horizon on VMware Cloud on Dell EMC
- Horizon on Oracle Cloud VMware Solution
- Horizon on Google Cloud VMware Engine



### Horizon technology benefits at a glance

- Automate the provisioning and management of virtual desktops and applications and deliver the personalization required by end users.
- Deliver, manage and scale virtual desktops and applications across private, hybrid and multi-cloud deployments using a cloud-based console and SaaS management services.
- Adopt a scalable, cloud-based platform that offers the resiliency needed to meet change head-on with flexible deployment options across private and public clouds.







### Calculating the ROI of VMware Horizon

To determine the ROI value of using Horizon as a platform for desktop and application virtualization, IDC interviewed decision-makers at organizations with an average of

- 1,491 employees
- 87 IT staff responsible for 181 business applications
- \$1.07 billion annual revenue

In the IDC white paper, sponsored by VMware, The Business Value of VMware Horizon, IDC projects annual benefits of \$4.50 million per organization or \$356,200 per 100 VDI users across four areas.



### **Business productivity**

IDC calculates that end users on the VMware Horizon platform gain an average of more than 78 productivity hours per year—the equivalent of almost 2 weeks of additional productivity per user. With VMware Horizon, built-in automation enables IT to eliminate manual processes and reduce wait times so that employees are able to work in a more seamless, integrated and uninterrupted manner.

#### **RESULT:** \$15.5 million in software cost savings

### Business Productivity Benefits: Improved User Access Experience

	Per Organization	Per 100 VDI Users
Net productivity gain (FTEs)	52.7	4.2
Hours of additional productive time gained per users per year	78.5	7,847
Net productivity gain	4.2%	4.2%
Net productivity gain (\$ of higher productivity per year)	\$3.69M	\$292,200

Source: IDC In-depth interviews, May 2021







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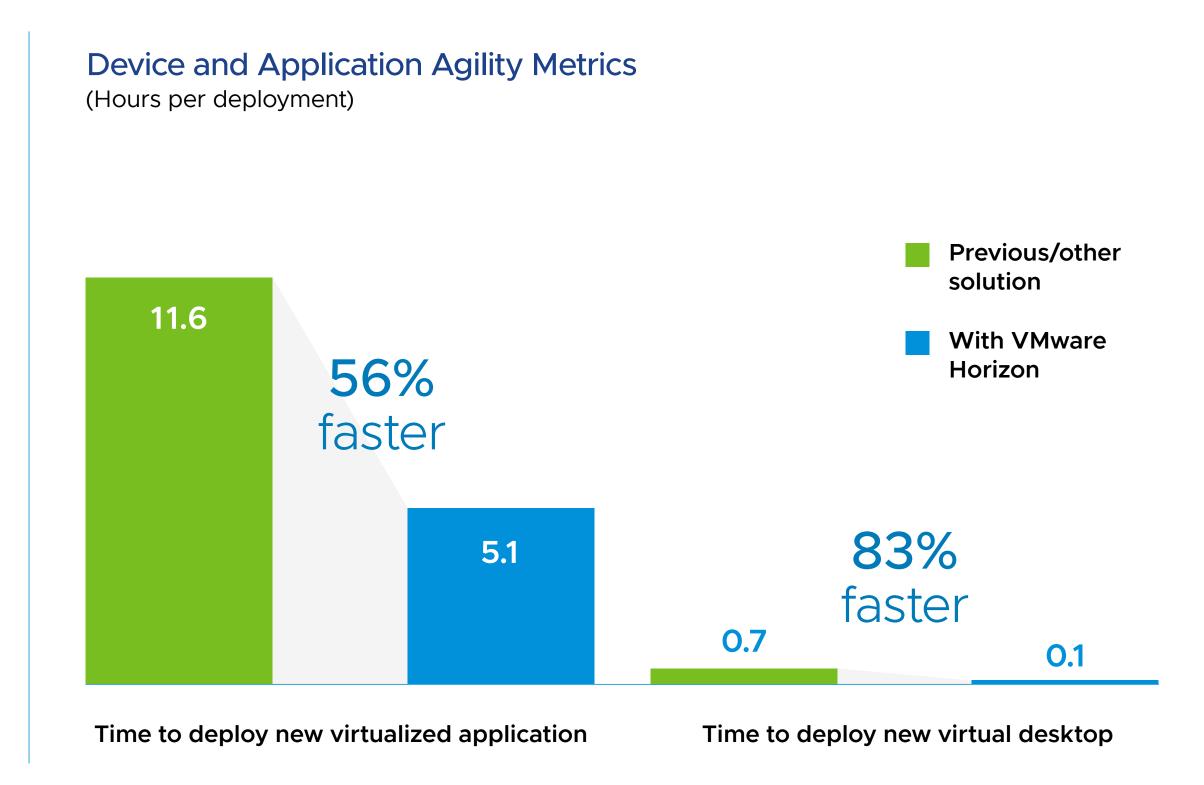
For both management and support efforts, VMware Horizon has generated substantial efficiencies as a result of streamlined and automated device management.

### **RESULT:** \$397,700 in time savings

### **Device Management Team Efficiencies**

Average per organization	Previous / Other Solution	With VMware Horizon	Difference	Change
Staff time to manage equivalent devices (FTEs per organization)	6.7	2.7	4.0	60%
Hours of staff time per 100 VDI users per year	992	400	592	60%
Equivalent value of staff time to manage devices per organization per year	\$666,600	\$268,900	\$397,700	60%







### Risk mitigation/increased user productivity

Organizations reported a reduction in the overall impact of outages related to applications and devices virtualized on the Horizon platform by 92 percent.

### **RESULT:** \$256,000 in productivity gains

### **Unplanned Downtime Metrics**

Average per organization	Previous / Other Solution	With VMware Horizon	Difference	Change
Number of unplanned outages per year (system wide)	1.9	1.3	0.7	35%
Number of unplanned outages per year (individual device level)	4,057	2,401	1,656	41%
MTTR	7.6	1.6	6.0	79%
Hours of lost productivity per user per year	5.9	0.5	5.4	92%
Productivity loss (FTEs per organization)	4.0	0.3	3.7	92%
Value of lost productive time per organization per year	\$277,300	\$21,200	\$256,000	92%

Source: IDC In-depth interviews, May 2021

"Our employees are more productive with VMware Horizon because of better performance because the devices don't break ... Also, in the virtual desktop environment, there are many layers of redundancy and resiliency that benefit the employee's ability to continue working."

Study participant



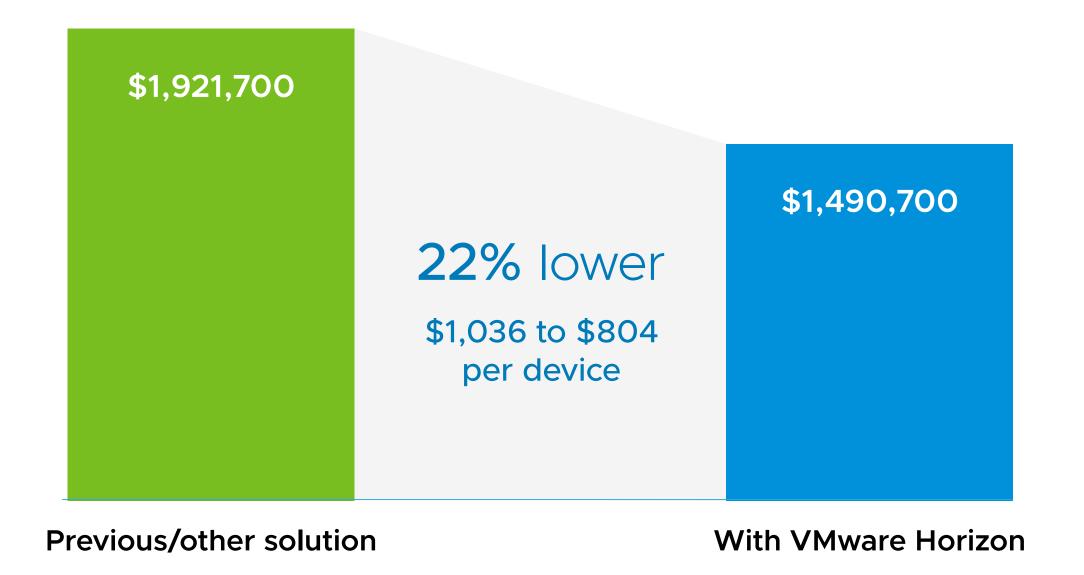
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### IT infrastructure cost reductions

Organizations reduced the overall device cost by issuing lighter desktops such as Chromebooks and using virtualized applications that run in Horizon.

**RESULT:** Device-related savings of more than \$400,000 over 3 years



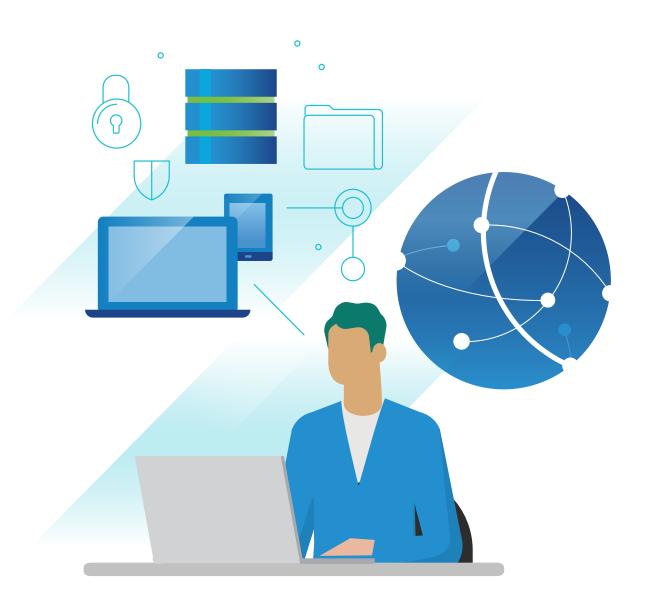
### Keep going

IDC White Paper, sponsored by VMware: The Business Value of VMware Horizon

Download the report.

**VMware Horizon** 

Visit the website.



## Workspace security

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Today's distributed workforce has amplified the proliferation of technologies and platforms in use. Information is siloed in different systems, more applications are moving to the cloud, and the mix of devices in use is increasing. As a result, the traditional enterprise security perimeter no longer exists. While Zero Trust security models are emerging, they are siloed and thus compromise visibility while increasing complexity. Moreover, point products within unified workspace security solutions are siloed themselves, which only creates more complexity.

VMware makes Zero Trust faster to implement and easier to manage by combining intrinsic security across devices, users and applications to simplify the enablement of Zero Trust access control. VMware Workspace Security solutions comprise authentication, access and defense technologies that enable organizations to successfully implement hybrid work—and support frontline workers.

For example, Swiss transit operator Basler Verkehrs-Betriebe leveraged VMware Workspace Security solutions to implement and optimize digital workspaces throughout the company, but especially for its bus and tram drivers. VMware Workspace ONE delivers a seamless, end-to-end digital workspace solution to support these drivers, and personalized iPads with built-in security features enable drivers to access internal applications and documents such as timetables. As a result, the organization is reaping the rewards in the form of greater efficiency, better security and a superior employee experience.





**76 percent** of organizations agree their training and protocols need to be improved to address the current cybersecurity landscape and **75 percent** of organizations say they require better tools to adequately secure their data.<sup>5</sup>



### Multifactor authentication

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With VMware, multifactor authentication is integrated with Workspace ONE Intelligent Hub, which delivers a number of benefits, including one fewer application to deploy and maintain and faster, easier onboarding for end users.

### **Unified Access Gateway**

VMware Unified Access Gateway™ enables secure application access for deployments of VMware Horizon and Workspace ONE. This appliance helps enable secure remote access for users of virtual desktops, internal sites, applications and file repositories, and provides several proxy services for different use cases and protocols. Deploying Unified Access Gateway is simple and secure, providing the necessary security hardening and multi-cloud support across Amazon AWS, Microsoft Azure, and Google Cloud Platform, in addition to vSphere.

### **VMware Tunnel**

VMware Tunnel™ provides secure access for connecting to corporate resources. Tunnel is a modern VPN replacement providing full device and per-application modes to enable remote access to any type of user. The Unified Access Gateway appliance serves as the on-premises option for Zero Trust Network Access (ZTNA) leveraging the Tunnel application.

### Workspace ONE Mobile Threat Defense

Remote working requires specialized protection from phishing and application, device, and rogue network–originated threats. Through integrations with the Workspace ONE platform, VMware Workspace ONE Mobile Threat Defense is easy to deploy and manage, and offers enhanced protection designed to secure the workspace and enhance Zero Trust initiatives. Workspace ONE Mobile Threat Defense addresses the dangers of phishing and web content, as well as threats, vulnerabilities and behaviors unique to mobile.

## Digital employee experience

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Digital employee experience defines employees' perceptions of and feelings about their interactions with the digital tools they use to perform their jobs. Providing a positive digital employee experience correlates with improved business outcomes, making it imperative for maintaining a productive and engaged workforce. In fact, an April 2022 Forrester Consulting study commissioned by VMware, Optimizing Digital Employee Experience for Anywhere Work, revealed that more than 80 percent of surveyed global IT decision-makers and influencers are implementing, piloting, or already have implemented a dedicated digital employee experience platform.

However, many approaches to digital employee experience management rely on multiple technologies from multiple providers that aren't well integrated or comprehensive. In fact, in Optimizing Digital Employee Experience for Anywhere Work, Forrester found that 71 percent of decision-makers cited integration challenges as the reason driving interest in solutions that improve the ability to scale access to critical applications and data, while 52 percent cited the need for a holistic view across multiple technologies. Research also revealed that 42 percent of decision-makers use three to five vendors to support their workforces' digital employee experiences, which may be

why 65 percent of respondents report that it's difficult to achieve ROI from their existing tools.

Only a well-integrated, holistic digital employee experience solution can provide the comprehensive delivery, monitoring and remediation capabilities required to drive employee productivity, efficiency and engagement while mitigating security risk and minimizing complexity. The holistic VMware digital employee experience solution, which is comprised of Workspace ONE Intelligent Hub, Workspace ONE Hub Services, Workspace ONE Assist and Digital Employee Experience Management (DEEM) provides the comprehensive delivery, monitoring and remediation capabilities required for today's hybrid workforce.



**Three-quarters** of organizations are making digital employee experience a higher or top priorityimproving DEX drives revenue through increased employee productivity.6







### Workspace ONE Intelligent Hub

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VMware Workspace ONE Intelligent Hub is an easily integrated digital workspace solution designed to improve employee engagement and productivity through a single application. It provides services and resources throughout the employee lifecycle, from pre-hire to onboarding to day-to-day application access and corporate communications. Intelligent Hub also provides a self-service capability that empowers employees to solve their own problems and enables remote troubleshooting assistance powered by Workspace ONE Assist.

### Workspace ONE Hub Services

With Workspace Hub Services, IT teams can personalize how employees use the Workspace ONE Intelligent Hub app to access, discover and connect with corporate resources.

### **Workspace ONE Assist**

Workspace ONE Assist is a real-time remote support solution that enables organizations to maximize employee experience and reduce TCO. With Workspace ONE Assist, IT and help desk staff can quickly resolve employee device issues, across any use case, with remote view and control capabilities.

### Digital Employee Experience Management (DEEM)

DEEM is an end user experience management software that empowers IT to measure, analyze and remediate employee experience, from anywhere and on any device. By leveraging machine learning models, DEEM enables organizations to move from reactive to proactive IT, cut through the noise and focus on what matters most. It also provides powerful tools to gather and analyze user sentiments in order to create an employee experience score to measure the success of the employee experience. Telemetry collected from devices is also used to analyze the environment in order to surface and predict incidents to maintain a quality employee experience that is powered by data science.



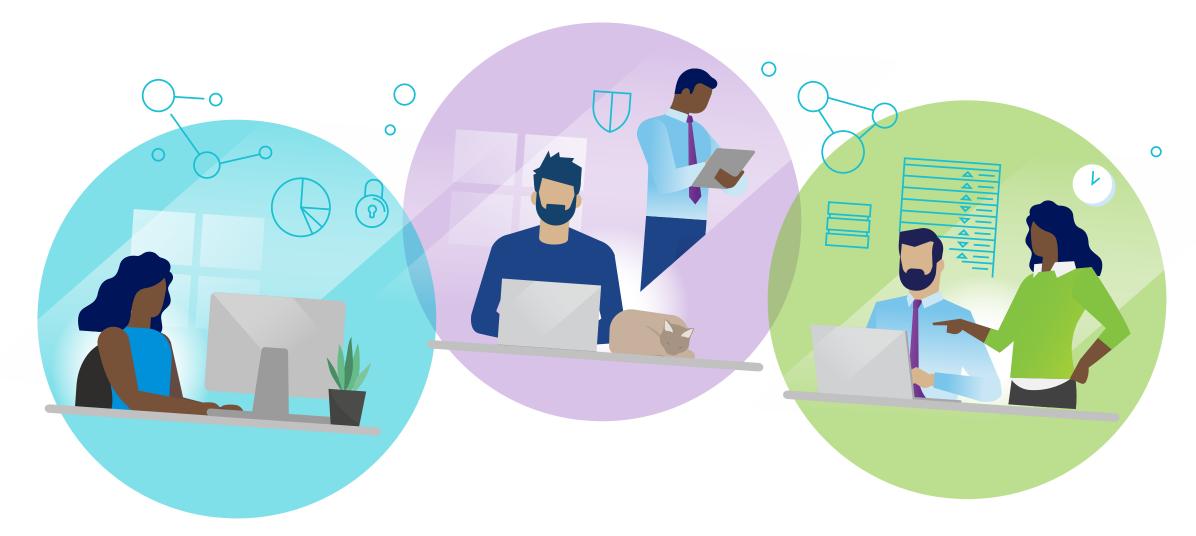
### A holistic vision for the future of work

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As evidenced by the findings of multiple studies detailed in this paper, the four technology pillars that comprise the Anywhere Workspace platform enable leaders to realize significant ROI by reducing costs, saving time and gaining peace of mind.

Unified Endpoint Management – In The Total Economic Impact™ of VMware Workspace ONE, Forrester Consulting calculated a 175 percent ROI over 3 years with a payback period of less than 6 months for a composite organization with 100,000 employees and devices with Workspace ONE, along with \$38 million in IT task and resource cost savings over 3 years.

Virtual Desktops and Apps – For an organization with roughly 1,500 employees, IDC calculated annual benefits of \$4.50 million or \$356,200 per 100 VDI Horizon users.



**Digital Employee Experience** – In Optimizing Digital Employee Experience For Anywhere Work, Forrester Consulting found that 71 percent of decision-makers cited integration challenges as the reason driving interest in solutions that improve the ability to scale access to critical applications and data, while 52 percent cited the need for a holistic view across multiple technologies.

VMware Digital Employee Experience Management solutions empower IT with end-to-end visibility, machine learning-driven root cause analysis, and prebuilt integrations for the anywhere workspace.

Workspace Security - Multifactor authentication, Mobile Threat Defense, and other security integrations with the Workspace ONE platform enable organizations to help protect devices from phishing and the wide range of application, device and rogue network-originated threats.



Unified endpoint management

Virtual desktops and applications

Workspace security

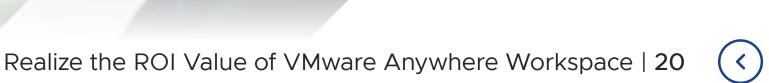
Digital employee experience

Get started

Unified endpoint management, virtual desktops and applications, digital employee experience and workspace security together in one integrated platform enable organizations to work toward providing a best-in-class experience at their own pace. Then they can realize additional time and cost savings by minimizing the number of products and vendors required to support an anywhere workforce. The integrated approach embraces the guiding principles of autonomous workspaces to enable an optimal digital state that self-configures, self-heals and self-secures. It promotes business agility and removes the friction between technology and employees, moving away from disjointed frustrating experiences to well-orchestrated and seamless experiences enabled by

For more information on VMware Anywhere Workspace, visit techzone.vmware.com/anywhereworkspace or contact your VMware representative.

continuous access to data and insights. As a result, VMware Anywhere Workspace helps organizations









deliver consistent workspaces without limitation.

