

# The Total Economic Impact™ Of VMware Workspace ONE

Cost Savings And Business Benefits Enabled By  
Workspace ONE For Windows 10 Modern Management

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## ABOUT FORRESTER CONSULTING

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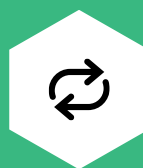
## Executive Summary

With VMware Workspace ONE for Windows 10 device management, organizations are able to provide a cloud-native and modern approach for today's remote and distributed workforces. This delivers benefits to IT managers, end users, and the business through: 1) powerful computing experiences; 2) a standard set of useful applications; 3) reduced legacy software and services costs; and 4) the right level of management and security.

VMware commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying [Workspace ONE](#) for Windows 10 device management. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of a new or expanded Workspace ONE investment for their organizations. With Workspace ONE, IT departments can leverage modern management strategies to Windows 10 desktop and laptop PCs that they have already been using for mobile devices. They can manage PCs remotely via cloud services, which means VPN connections are not required. This ensures more consistent access and reduces security risks. Employees also have access to the Workspace ONE Intelligent Hub for application requests and installation along with access to important company information.

To better understand the benefits, costs, risks, and longer-term opportunities associated with Workspace ONE, Forrester interviewed decision-makers from four organizations that have used Workspace ONE to manage mobile devices and recently added their portfolios of enterprise-managed laptops and desktops running Windows 10. These organizations use Workspace ONE to simplify management of Windows 10 laptops and desktops to provide secure, up-to-date devices to employees — including remote and home workers who may not connect to the office network often. For the purposes of this study,

### KEY STATISTICS



Return on investment (ROI)  
**175%**



Net present value (NPV)  
**\$39.98M**

Forrester aggregated the experiences of the interviewees' organizations and combined the results into a single [composite organization](#) with 100,000 employees and devices. This serves as the example organization to quantify financial benefits.

Previously, IT departments at these organizations provided employees with Windows-based PCs managed with traditional PC lifecycle management (PCLM) solutions. However, using a separate solution for mobile and PC devices required different management tools and tasks, and traditional PCLM typically required for devices to be "on office network" or for remote users to establish VPN connections. This was an inconvenience, and an added potential security risk for the interviewees' organizations. The majority have many home and remote workers (especially today), and they have migrated many collaboration and enterprise applications to public-cloud platform solutions. VPN connectivity has become less of a business need, which means

**“Not only can we manage our devices in the cloud from an IT administration perspective, but we can secure our devices from any network as well.”**

*Senior IT director, technology products and services*

employees either turned it off and missed or delayed important patch updates, or they kept it turned on and created an unnecessary device-wide network connection that could lead to potential security risks and increased costs for support and IT.

## KEY FINDINGS

**Quantified benefits.** Risk-adjusted present value (PV) quantified benefits for the composite organization over three years include:

- **Employees receive new and repaired PCs faster with more efficient setup and an average of one shipping leg avoided for each delivery.** Each refreshed or repaired PC delivery required one or more shipments to get a laptop or desktop to or from an employee's desk and to deploy the right setup processes. With Workspace ONE, PCs can be shipped directly from the manufacturer to the employee, who logs in to a preconfigured machine with priority apps needed to get ready to work. Any additional applications and settings traditionally applied via imaging processes are automatically downloaded correctly and securely without additional IT involvement. Avoided shipments and IT time savings add up to a total PV of \$10 million.
- **Patch saturation improved from 70% to 90% within one month.** With Workspace ONE patch saturation (the rate that patches are successfully applied across all devices within one month) has improved dramatically, leading to faster patch process completion and fewer patch remediation steps. IT management time savings because of more successful and accurate patch installation add up to a PV of \$13.2 million.
- **There are shorter and fewer PC support tickets.** With Workspace ONE, many desktop-support questions can be avoided, answered with self-serve information, or resolved more quickly. For the composite organization, an estimated 20% of support tickets are avoided, and help desk calls that do occur are resolved in half the time. This adds up to a total benefit PV of \$3 million.
- **Emergency responsiveness improved using current IT resources.** Events such as the COVID-19 pandemic, which can lead whole workforces to transition to remote work in a matter of days, can strain IT department personnel and require emergency staffing. Interviewed IT decision-makers reported that Workspace ONE reduced the number of emergency hires their organizations needed to make, and it helped them avoid hiring and paying resource costs for 100 junior IT administrators. For the composite organization, this adds up to a PV of \$11.6 million.
- **End user productivity increased from avoided application request time.** With legacy solutions, it would not only take days to finalize an application request, but it could also require the requesting employee to spend hours on the task. The vice president at the consumer internet services said: “VMware has been really helpful for us.” With Workspace ONE, total request and work time are each less than 1 hour. With two application requests per employee per year, total productivity benefits for the composite organization add up to a PV of \$9.8 million.
- **Saved on legacy software and services.** Workspace ONE can replace legacy software needs such as previous lifecycle management tools or VPN software, and this reduces license

# We implemented Workspace ONE in six days with less than 1% extra call volume to our help desk.

— Senior manager of end user computing, manufacturing

needs for many (if not all) employees. For the composite organization, legacy software cost savings add up to a PV of \$15.5 million.

**Unquantified benefits.** Interviewees highlighted some benefits that are not quantified for this study. See the Unquantified Benefits section for a full list of these benefits, which includes:

- **Improved security.** With Workspace ONE, IT admins 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 connect to the network when they don't need to, and this reduces the risk of security breaches or human error.
- **Employee onboarding and offboarding.** With Workspace ONE Intelligent Hub, new hires can be provided "day zero" access to company information and forms, speeding up employee onboarding. Automated offboarding can also help ensure accounts are disabled or shut off, which avoids license costs or security issues.
- **Asset management.** With Workspace ONE Intelligence, it's much easier and more efficient to

conduct audits and create reports on devices and applications.

**Costs.** Risk-adjusted PV costs include:

- **Workspace ONE licensing.** For the composite organization, Workspace ONE licensing for all employees adds up to a risk-adjusted PV of \$22.8 million over the three-year period.
- **Initial implementation and ongoing management resource costs.** While Workspace ONE reduces overall IT task time and costs, there are some new tasks for the setup and management of Workspace ONE for Windows 10 PCs. These tasks are included here to show both sides of the cost-benefit analysis. For the composite organization, this adds up to just over \$176,000 for initial planning and implementation, and an additional risk-adjusted PV of \$190,000 for ongoing IT tasks over three years.

The customer interviews and financial analysis found that a composite organization experiences benefits of \$62.79 million over three years versus costs of \$22.81 million, adding up to a net present value (NPV) of \$39.98 million and an ROI of 175%.





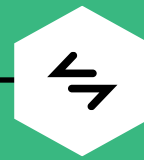
ROI  
**175%**



BENEFITS PV  
**\$62.79M**



NPV  
**\$39.98M**



PAYBACK  
**less than  
6 months**

### Benefits (Three-Year)

PC device shipping, delivery, and setup  
time savings

\$10.0M

PC patch remediation time savings

\$13.2M

PC-related help desk cost savings

\$3.2M

IT management resource savings

\$11.6M

End-user productivity savings

\$9.3M

Legacy software savings

\$15.5M

\$38 million in total IT task and  
resource cost savings

**With Workspace ONE and modern  
management, we moved into a zero-  
trust model. We can patch faster at  
better rates. We've seen very  
positive results.**

— Senior IT director, technology products and  
services

## TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Workspace ONE.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that Workspace ONE can have on an organization.

### DISCLOSURES

Readers should be aware of the following:

This study is commissioned by VMware and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in the Workspace ONE.

VMware reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

VMware provided the customer names for the interviews but did not participate in the interviews.



### DUE DILIGENCE

Interviewed VMware stakeholders and Forrester analysts to gather data relative to Workspace ONE.



### CUSTOMER INTERVIEWS

Interviewed four decision-makers at organizations using Workspace ONE to obtain data with respect to costs, benefits, and risks.



### COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed organizations.



### FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.



### CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

# The VMware Workspace ONE Customer Journey

## ■ Drivers leading to the Workspace ONE investment

Interviewed Organizations			
Industry	Region	Interviewee	Employees
Manufacturing	United States with global operations	Senior manager of end user computing	150,000
Technology products and services	United States with global operations	Senior IT director	175,000
Consumer internet services	Southeast Asia	Vice president	40,000
Business and technology services	United States	Compute engineering lead	90,000

### KEY CHALLENGES

Most of the interviewees' organizations had already been Workspace ONE customers for several years to enable modern management of mobile phone and tablet devices. But PC device management was more traditional and based on always-on and always-connected devices. While this approach worked great for offices with desktop computers wired to network connectivity, modern device management needs to support devices that stay in the office, as well as devices that connect from employees' homes or public cafes and that sometimes don't connect at all for days or weeks at a time, all while maintaining a high level of security. Forrester Research's report, "Embrace Modern Management To Improve Employee Experience," emphasizes how employee experience (EX) should be a key goal of modern management—not just IT efficiency.<sup>1</sup> The senior manager for the manufacturing organization said: "We support 200,000 users globally that includes employees, contractors, suppliers, and client representatives. We have to support multiple device types, technologies, security requirements, and regulations."

That means IT needs to be able to "see" and authenticate a device from anywhere to be able to monitor usage, apply updates, and ensure security. The senior IT director at the technology products and

services vendor said, "Two things we want to see are cost efficiencies and [being able to] use a single pane of glass with insights for endpoint administrators."

The interviewees' organizations struggled with common challenges, including:

- **Standard and timely PC management.** PC management required separate systems that also required VPN access for remote workers to be able to fully monitor and apply updates and security patches. This could lead to compliance issues. The compute engineering lead for the business and technology services company said: "Many employees work from home, but they also need to meet compliance requirements for our banking clients. For example, [they need to make] sure employees can't paste data, take a screenshot, or attach a USB."
- **PC security.** Implementing full IT PC management required connection to the companies' networks. But with ongoing migrations to cloud services, very few additional resources required company access. This means that employees were working from home outside of the firewall and connected to company resources via VPN. But in situations where VPN connections remained active but largely unused, they can become more of a security concern. The senior IT director for the technology products and



services vendor said, “We want to make sure that we are enhancing our security posture, but [that we are removing] a lot of the interference that a user may typically deal with by putting it behind the scenes.”

- **Application delivery.** Reviewing an employee’s request to install an application and then installing the application was a manual and intensive process. The compute engineering lead for the business and technology services company said: “If an employee requested an application, we had to send someone to your desk and our turnaround time was 72 hours. Today, when we open a ticket, the application is automatically pushed in an hour or so.”
- **Legacy costs.** Interviewees said their organizations’ IT departments realized that expanding Workspace ONE to manage PCs would cost less than maintaining a separate,

**“We were always running behind on patching, always.”**

*Compute engineering lead, business and technology services*

traditional PC management solution. The organizations would be able to reduce or retire other software such as licensing VPN software only for those users who require frequent remote network access. The vice president for the consumer internet services company said: “I didn’t always know what was coming. I didn’t know all the things I needed, what software to provide, or what licenses to acquire.”

## COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four interviewees’ companies, it is used to present the aggregate financial analysis in the next section, and has the following characteristics:

**Description of composite.** The organization is a global enterprise with 100,000 employees and a desktop management staff of 100. The standard refresh rate is three years, and patches are typically deployed to 70% of employees after one month. Employees submit an average of three PC-related help desk tickets and request an average of two applications each year.

**Deployment characteristics.** The organization has been a Workspace ONE customer for several years, using it to manage mobile phone and tablet devices. So, adding PC devices to its modern management strategy does not require completely new training and licensing.

### Composite organization key assumptions

- **100,000 employees with 10% year-over-year growth**
- **100 employees on PC management and support teams**
- **3-year PC refresh cycle**
- **70% patch saturation (within one month)**
- **3x PC-related help desk calls per employee per year**
- **2x application requests per employee per year**

# Analysis Of Benefits

■ Quantified benefit data as applied to the composite

Total Benefits						
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	PC device shipping, delivery, and setup time savings	\$3,600,000	\$4,050,000	\$4,500,000	\$12,150,000	\$10,000,751
Btr	PC patch remediation time savings	\$4,860,000	\$5,346,000	\$5,832,000	\$16,038,000	\$13,218,032
Ctr	PC-related help desk cost savings	\$1,311,000	\$1,278,225	\$1,230,883	\$3,820,108	\$3,172,983
Dtr	IT management resource savings	\$6,800,000	\$4,488,000	\$2,244,000	\$13,532,000	\$11,576,860
Etr	End-user productivity savings	\$3,420,000	\$3,762,000	\$4,104,000	\$11,286,000	\$9,301,578
Ftr	Legacy software savings	\$4,250,000	\$6,375,000	\$8,500,000	\$19,125,000	\$15,518,407
	Total benefits (risk-adjusted)	\$24,241,000	\$25,299,225	\$26,410,883	\$75,951,108	\$62,788,611

## PC DEVICE SHIPPING, DELIVERY, AND SETUP TIME SAVINGS

**Evidence and data.** With Workspace ONE, organizations can send a new PC directly to an employee. When they log in, everything traditionally associated with an image is downloaded and applied. Applications are installed, settings are applied, URL favorites are added, background images are set, etc. This means organizations can eliminate at least one shipment for each PC delivery, which saves shipping costs as well as the time required for processing, imaging, or other tasks.

Companies like the manufacturing organization also need a solution like Workspace ONE to maintain IT management and security policies while providing end users with the convenience of working on-site or from home. The senior manager said: “You cannot connect to our corporate network if we don’t manage your device.”

Additionally, better management and remote access tools can help staff diagnose an issue that might have previously led to a warranty claim that required

shipment. Examples from customer interviews include:

- The senior manager at the manufacturing organization said: “On average, nine people touched a PC before it arrived in an employee’s hands. If we go to a drop-ship provisioning model, we are eliminating all of that.”
- The compute engineering lead for the business and technology services company outlined how new laptops required direct IT intervention in an office. They said: “Before, I had to prepare the new laptop for a specific employee and log in as them to get everything set up. Today, an employee can be anywhere. I can just ship a machine, they log in, and everything configures with no security threat.”
- The senior IT director at the technology products and services vendor highlighted automation as a key value enabler. They said: “We deliver devices more efficiently with an improved, automated experience and less IT overhead. Systems can be delivered directly to our end

users. So, when they sign in for the first time, they receive their custom applications and configurations quickly.”

- The vice president of the consumer internet services provider said their organization often had new employees take screenshots of relevant screens to make sure configurations were set properly. That step is now completely avoided with Workspace ONE.

**Modeling and assumptions.** For the composite organization, Forrester assumes:

- The organization orders between 40,000 and 50,000 new devices each year, which reflects a three-year refresh cycle, additional unexpected PC replacements, and avoided repairs on existing PCs sent for warranty service or replacement.

- An average of one shipping leg is eliminated per PC shipment.
- A laptop shipment costs \$30.
- A laptop delivery requires eight touches on average (imaging, settings, asset management, etc.) that each take an average of 20 minutes.
- Workspace ONE can eliminate six of these touches.
- The average fully burdened hourly rate for an IT desktop engineer is \$35.

**Risks.** PC delivery and setup requirements can vary greatly depending on if an employee is based at home, at a remote office, or at a main office. To allow for overestimation in deliveries avoided or steps reduced, Forrester applied a 10% risk adjustment.

### PC Device Shipping, Delivery, And Setup Time Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Total PCs managed with Workspace ONE	Interviews	100,000	110,000	120,000
A2	PCs deliveries each year for planned refreshes and unplanned replacements	Interviews	40,000	45,000	50,000
A3	Shipping legs avoided per PC with Workspace ONE	Interviews	1	1	1
A4	Average cost per PC shipment leg	Assumption	\$30	\$30	\$30
<b>A5</b>	<b>Subtotal: PC shipping cost savings</b>	<b>A2*A3*A4</b>	<b>\$1,200,000</b>	<b>\$1,350,000</b>	<b>\$1,500,000</b>
A6	Average number of touches (or steps) per delivery before Workspace ONE	Interviews	8	8	8
A7	Average time per step (minutes)	Interviews	20	20	20
A8	Average number of touches (or steps) per delivery with Workspace ONE	Interviews	2	2	2
A9	Average fully burdened hourly salary per desktop engineer	Interviews	\$35	\$35	\$35
<b>A10</b>	<b>Subtotal: PC delivery and setup resource time savings</b>	<b>A7/60*(A6-A8)*A9*A2</b>	<b>\$2,800,000</b>	<b>\$3,150,000</b>	<b>\$3,500,000</b>
At	PC device shipping, delivery, and setup time savings	A5+A10	\$4,000,000	\$4,500,000	\$5,000,000
	Risk adjustment	↓10%			
Atr	PC device shipping, delivery, and setup time savings (risk-adjusted)		\$3,600,000	\$4,050,000	\$4,500,000
<b>Three-year total: \$12,150,000</b>			<b>Three-year present value: \$10,000,751</b>		

**Result.** The three-year, risk-adjusted total PV (discounted at 10%) for reduced PC shipment and setup costs is just over \$10 million.

### PC PATCH REMEDIATION TIME SAVINGS

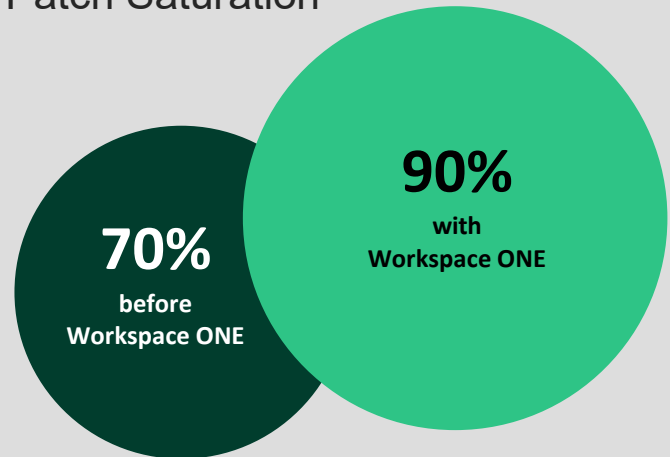
**Evidence and data.** With Workspace ONE, organizations can use enhanced remote-access tools to apply patch updates to PCs without VPN. That means patch saturation (i.e., the rate of PCs with successful patches applied within one month) are greatly improved. Employees that never needed to use their corporate network's VPN likely would not receive the latest application and security patches, and they could face security or device issues. And IT staff would spend extra time trying to connect with those employees to try to install the update again.

- Even before work-from-home mandates as a result of the COVID-19 pandemic, the business and technology services company had trouble delivering patches. The compute engineering lead said: "Pre-COVID, when everyone was working in the office, the best we could do was a patch rate between 60% to 80%. With Workspace ONE, even with a more remote workforce, it is now 80% to 95%."
- Workspace ONE enabled the technology products and services vendor not only to provide continuous updates to all of its employees, but it also offered the ability to leverage Intelligent Hub automation to ensure these updates are automatically added to new device setups. The senior IT director said: "Workspace ONE really

**"We have higher patch saturation with Workspace ONE, and we are able to get to that number more quickly."**

*Senior IT director, technology products and services*

### Patch Saturation



helps [us] keep up with our continuous delivery model. We can make small fixes and store configurations as opposed to rebuilding our image once or twice per year."

**Modeling and assumptions.** This section explains how the modeling is done.

- Patch saturation before Workspace ONE was about 70%.
- Patch saturation rates are 90% or better with Workspace ONE.
- The time it takes to remediate a failed patch is 30 minutes on average.
- The average fully burdened hourly rate for a senior IT desktop engineer is \$45. Note: Forrester assumes these desktops engineers in support roles are slightly more senior than asset management or imaging specialists.

**Risks.** The number of failed patches that require remediation and the time required for remediation may be overestimated. To account for these risks, Forrester adjusted this benefit downward by 10%

**Result.** The three-year, risk-adjusted total PV is more than \$13.2 million.

PC Patch Remediation Time Savings					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Number of PC patch updates delivered each month	Interviews	100,000	110,000	120,000
B2	Patch saturation before Workspace ONE (within 1 month)	Interviews	70%	70%	70%
B3	Patch saturation with Workspace ONE (within 1 month)	Interviews	90%	90%	90%
B4	Average time needed for remediation or rework required per failed PC patch (minutes)	Interviews	30	30	30
B5	Average fully burdened hourly salary per senior IT resource	Interviews	\$45	\$45	\$45
Bt	PC patch remediation time savings	$B1 \cdot (B3 - B2) \cdot B4 / 60 \cdot B5 \cdot 12$	\$5,400,000	\$5,940,000	\$6,480,000
	Risk adjustment	↓10%			
Btr	PC patch remediation time savings (risk-adjusted)		\$4,860,000	\$5,346,000	\$5,832,000
Three-year total: \$16,038,000			Three-year present value: \$13,218,032		

## PC-RELATED HELP DESK COST SAVINGS

**Evidence and data.** Workspace ONE Intelligent Hub, remote access and automation features, and modern management tools helped the interviewees organizations to avoid support calls related to desktop support and security and to reduce the time spent on calls that still take place.

- The consumer internet services company has seen improvements in management and efficiency that has improved the overall business

and reduced IT support needs. The vice president said: “It’s obvious that the level of manageability has improved. Given the number of PCs we have now, we haven’t had the number of tickets [or] the number of support requests we might have normally expected in the past.”

- The business and technology services company has used intelligence automation to identify and resolve issues even before they happen. The compute engineering lead said: “We have

**[We can] predict user problems, solving them before the user even notices.**

— Compute engineering lead, business and technology services

hundreds of automations in place to monitor and predict user problems [and solve] them before the user even notices.” Additionally, the company was able to improve its rate of Level-1 support resolution from 45% to more than 95%.

- The manufacturing organization has seen significant help desk call savings with automation and proactive troubleshooting. The senior manager said, “Now we can offer remote assistance for devices at other offices or outside the office, which [leads] to reduced call volumes and call handle times.”

**“When [the COVID-19 pandemic] happened, we planned three weeks, then we rolled out 90,000 machines in six days.”**

*Senior manager of end user computing, manufacturing*

**Modeling and assumptions.** For the composite organization, Forrester assumes:

## Help desk savings

**Between 20% and 30% fewer calls**

- Each employee logs three PC-related help desk tickets each year or 300,000 total tickets in the first year.
- Before using Workspace ONE, each ticket took 20 minutes to complete.
- With Workspace ONE, the organization avoids 20% of tickets in Year 1, and this grows to 30% in Years 2 and 3. By Year 3, the ratio of tickets to employees is just more than 2 to 1.
- Completing PC-related support tickets that still occur now only takes 10 minutes.

**Risks.** The ratio of help desk calls to employees or the time saved per help desk call may be overestimated. To account for these risks, Forrester adjusted this benefit downward by 5%.

**Result.** The three-year, risk-adjusted total PV of reduced help desk calls is nearly \$3.2 million.

## PC-Related Help Desk Cost Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Average number of PC-related security and management help desk calls per year	Interviews	300,000	270,000	260,000
C2	Time per call before Workspace ONE (minutes)	Interviews	20	20	20
C3	Time per call with Workspace ONE (minutes)	C2/2	10	10	10
C4	Reduction in calls that are now avoided or handled with self-service options	Interviews	20%	30%	30%
C5	Fully burdened hourly salary per help desk resource	Interviews	\$23	\$23	\$23
Ct	PC-related help desk cost savings	$C1 \cdot (C2 \cdot C4 + (C2 - C3) \cdot (1 - C4)) / 60 \cdot C5$	\$1,380,000	\$1,345,500	\$1,295,667
	Risk adjustment	↓5%			
Ctr	PC-related help desk cost savings (risk-adjusted)		\$1,311,000	\$1,278,225	\$1,230,883
Three-year total: \$3,820,108			Three-year present value: \$3,172,983		



## IT MANAGEMENT RESOURCE SAVINGS

**Evidence and data.** With the onset of work-from-home mandates implemented in 2020 due to the COVID-19 pandemic, many IT departments were stretched thin as they tried to keep up with the demand of a suddenly remote workforce that needed access to work files, updated software, or perhaps even portable PCs.

Most of the interviewees' organizations had completed their Workspace ONE deployments, or their deployments were well underway by the time the emergency occurred. Their modern management strategies coincided with a focus on business-cloud solutions, which meant IT departments were more prepared for an emergency. Interviewees said their organizations were able to avoid making a significant number of extra hires to keep up with support and management needs during the pandemic, which would still be in place today and in the near future. With Workspace ONE, these organizations were able to keep up with emergency demand without making any additional hires.

Several interviewees said their organizations would have required significantly more resources to keep up with the demands of the pandemic and other emergencies without Workspace ONE. For example, the compute engineering lead at the business and technology services company said, "Without

Workspace ONE we would have needed to hire at least 100 more people to do what we are doing today."

**Modeling and assumptions.** For the composite organization, Forrester assumes:

- Without Workspace ONE, the organization would have needed to hire 100 additional resources due to the pandemic.
- About two-thirds of those hires would remain through Year 2, and one-third would remain through Year 3.
- They would likely be junior or mid-level resources with an average annual salary of \$80,000.

**Risks.** Emergency IT resource needs can vary greatly. Risks of benefit overestimation include:

- Whether or not employees have the option to work at home.
- The number of Workspace ONE and/or cloud deployments by the time an emergency occurs.
- The level of resources required.

To account for these risks, Forrester adjusted this benefit downward by 15%.

**Result.** The three-year, risk-adjusted total PV of avoided resource costs is nearly \$11.6 million.

IT Management Resource Savings					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
D1	Desktop management team FTE	Interviews	100	100	100
D2	Additional FTE required to maintain standard response and readiness during emergencies without Workspace ONE	Interviews	100	66	33
D3	Fully burdened annual salary per desktop engineer	Interviews	\$80,000	\$80,000	\$80,000
Dt	IT management resource savings	D2*D3	\$8,000,000	\$5,280,000	\$2,640,000
	Risk adjustment	↓15%			
Dtr	IT management resource savings (risk-adjusted)		\$6,800,000	\$4,488,000	\$2,244,000
Three-year total: \$13,532,000			Three-year present value: \$11,576,860		

## END-USER PRODUCTIVITY SAVINGS

**Evidence and data.** Delivery, setup, patching, and support efficiencies also lead to end-user productivity improvements. With legacy solutions, application requests required long waits and more than an hour of employee time to request an application, get it approved, and install the software. With Intelligent Hub, organizations can easily add applications to the library, make them available for specific roles or employees, and automatically route authorizations.

- The business and technology services company has a large application library with very specific rights for each project, and it has been able to use smart-assignment rules to manage application deployment and requests. The compute engineering lead said: “Packaging and delivery was a nightmare for nearly a thousand applications. Each [were] only needed by a few employees. Now, I can set up profiles for delivery of applications with each different combination. Software delivery was an amazing capability we enabled with Workspace ONE.”
- The senior IT director with the technology products and services vendor said their organization sees significant value in being able to automatically deliver applications to new employees with Workspace ONE. This eliminates the need for more application requests. The senior IT director said: “We have a library with between 400 and 500 applications. Once we assign a user to the right profile, application delivery is automated. No one from IT needs to be involved.”

**Modeling and assumptions.** Interviewees reported end-user benefits. For the composite organization, Forrester assumes:

**“We want to allow our users to access what they need when they need on any platform.”**

Senior IT director, technology products and services

- Each employee makes two requests each year for a total of 200,000 in Year 1.
- Before Workspace ONE, an application request took an average of 75 minutes of work. With Workspace ONE, that time is just 15 minutes.
- The entire application request and fulfillment process took up to three days before Workspace ONE. With Workspace ONE, organizations can typically resolve application requests in less than an hour.

Total application request wait time

**From 3 days before to 1 hour today**



**Risks.** Since the number of application requests can vary, Forrester adjusted this benefit downward by 10%.

**Result.** The three-year, risk-adjusted total PV for employee time savings is \$9.3 million.

## End-User Productivity Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
E1	Application requests each year	A1*2	200,000	220,000	240,000
E2	Average work time spent requesting and installing an application before Workspace ONE (minutes)	Interviews	75	75	75
E3	Average work time spent requesting and installing an application with Workspace ONE (minutes)	Interviews	15	15	15
E4	Average fully burdened hourly salary per information worker salary	Interviews	\$38	\$38	\$38
E5	Productivity capture	Assumption	50%	50%	50%
Et	End-user productivity savings	$E1*(E2-E3)/60*E4*E5$	\$3,800,000	\$4,180,000	\$4,560,000
	Risk adjustment	↓10%			
Etr	End-user productivity savings (risk-adjusted)		\$3,420,000	\$3,762,000	\$4,104,000
Three-year total: \$11,286,000			Three-year present value: \$9,301,578		

## LEGACY SOFTWARE SAVINGS

**Evidence and data.** Finally, Workspace ONE can take the place of several other software applications and tools — especially legacy PC lifecycle management solutions. In addition, interviewees said their organizations were able to retire applications that separately supported one or more of the following: VPN, encryption, remote access, app catalog, and deployment imaging.

- Each of the interviewees said their organization's legacy device management solution would eventually be retired once all use cases were migrated and licensing agreements were completed.
- The senior IT director with the technology products and services vendor highlighted how Workspace ONE's security enabled legacy VPN software savings. They said: "We're not going to need full access VPN for as many use cases. Just team members who need and manage our infrastructure, security, and applications will continue using it."

**Modeling and assumptions.** For the composite organization, potential savings add up to a total of \$10 million per year. In addition, Forrester assumes:

- Legacy software savings are at 50% in Year 1 and 75% in the Year 2 as legacy solutions are retired and license agreements continue.
- For example, one application might require a \$5 license per user, per-month. For all of the composite organization's employees, that adds up to \$6 million per year. Two or three applications from the list above (perhaps with continued use for some small groups of employees) would add up to or exceed the estimate for the composite.

**Risks.** Legacy software costs will vary greatly across organizations in terms of size of deployment and license. To allow for overestimated benefits, Forrester applied a 15% risk adjustment.

**Result.** The three-year, risk-adjusted total PV of legacy software cost savings is more than \$15.5.

## Legacy Software Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
F1	Total legacy software reduction or retirement savings due to Workspace ONE	Interviews	\$10,000,000	\$10,000,000	\$10,000,000
F2	Percentage of legacy software savings realized each year	Interviews	50%	75%	100%
Ft	Legacy software savings	F1*F2	\$5,000,000	\$7,500,000	\$10,000,000
	Risk adjustment	↓15%			
Ftr	Legacy software savings (risk-adjusted)		\$4,250,000	\$6,375,000	\$8,500,000
Three-year total: \$19,125,000			Three-year present value: \$15,518,407		

## UNQUANTIFIED BENEFITS

Interviewees said their organizations experienced additional benefits that they were not able to quantify. These include:

- **Security.** Workspace ONE helped improve endpoint security with greater device enforcement and remote management. The risk of a breach or data leak, whether malicious or accidental, could mean millions or even billions in lost business opportunities. The senior IT director at the technology products and services vendor highlighted how Workspace ONE reinforces a zero-trust strategy. They said: “Workspace ONE can allow us to not need full access VPN for as many use cases. We can provide the per-app VPN for the common scenarios that team members need to do day-to-day work. And we don’t want them on the network with the vulnerabilities that can come via endpoints.” The senior manager with the manufacturing organization said, “[Workspace ONE] delivers full command and control over devices in a way we never had before.”
- **Additional end user productivity.** Other than application-request time savings, there are other opportunities for improved employee productivity and effectiveness, particularly in automation to avoid help desk calls and other interruptions, and single sign-on (SSO) to streamline user

authentication and access. The senior manager with the manufacturing organization said: “Automation has led to improved user experience for us. We can monitor hardware proactively. For example, the end user knows that we see a battery issue with his or her laptop, and [they know] that we’ve already shipped a new one. The user doesn’t even have to think about it, and we don’t need to wait for their battery to die. ... Single sign-on means a more seamless end-user experience while actually adding security with conditional and risk-based access.”

- **Asset management.** With Workspace ONE, asset management for devices and applications is much more efficient. The vice president for the consumer internet services company provided an example. They said: “We have stringent audits for asset management. In the past, I would have had to assign 20 people or more just to do this exercise that probably took two or three weeks.”
- **Employee onboarding.** Workspace ONE Intelligent Hub can improve employee onboarding processes by consolidating onboarding tasks and providing new hires a “day zero” experience even before they’ve started their first day. In addition, better onboarding can lead to improvements in employee retention and overall employee skill and quality. The senior IT director with the technology products and

services vendor said: “We’re really focused on giving our employees all the tools they need on Day 1. The Hub experience is an important part. When a user logs in for the first time, it’s a reflection of who we are as a company. And we’ve probably saved one or two days getting an employee fully ramped up.”

- **Employee offboarding.** Workspace ONE helps improve business security and eliminate unexpected costs. The vice president of the consumer internet services company said, “It’s a cost issue as well, because if you don’t offboard the employee properly, you’ll continue to pay for licenses.”
- **Employee satisfaction.** Reduced issues, less invasive security, and improved updates all mean less interruptions for employees. The senior IT director with the technology products and services organization said, “Not only have our incidents decreased, but we’ve also increased our customer satisfaction rates.”

## FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Workspace ONE and later realize additional uses and business opportunities, including:

- **Mobile device management.** Some interviewees said their organizations had not already deployed Workspace ONE for mobile devices. Their organizations started with Windows 10 device management with this investment, but they are planning to explore further implementation to mobile devices that could enable greater benefits in lower device management costs and new productivity opportunities. The vice president of the consumer internet services company said: “The operations team is happy. We will look at whether or not to extend the scope for mobile device management, and we will investigate the added commercial and business opportunities.”

- **Bring-your-own (BYO) mobile device support.** BYO device support is much more prevalent with mobile devices. In addition to corporate-owned mobile devices, Workspace ONE can support BYO policies for all employees who bring their own phones and want to access email and other work information with them.
- **Asset management and employee onboarding and offboarding.** While some of the interviewees’ organizations have implemented or started implementing these features of Workspace ONE, others have plans to implement them in the future. Those organizations can take advantage of these added benefits as described above (e.g., streamlined asset management and more efficient and high-quality employee onboarding and offboarding processes).
- **Workspace ONE long-term strategy.** Most of the interviewees’ organizations have been VMware customers for some time, even before the company acquired AirWatch mobile-device management technology, which evolved into the Workspace ONE solution. This has led to a level of trust that leads to interest and involvement in new tools and features in the future. The senior manager at the manufacturing organization said: “We felt strongly that Workspace ONE was the right solution when we first looked for a new mobile management solution. When [the pandemic] happened, we planned three weeks, and then we rolled out 90,000 machines in six days. [Workspace ONE] delivers full command and control over devices in a way we never had before, including remote wipe.” The senior manager said their organization’s decision-makers look forward to continuing its implementation of existing and new Workspace ONE features.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in [Appendix A](#)).

# Analysis Of Costs

■ Quantified cost data as applied to the composite

Total Costs							
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Gtr	Workspace ONE license costs	\$0	\$7,800,000	\$8,580,000	\$9,360,000	\$25,740,000	\$21,214,125
Htr	Ongoing resource costs	\$0	\$76,440	\$76,440	\$76,440	\$229,320	\$190,095
ltr	Implementation resource costs	\$1,404,900	\$0	\$0	\$0	\$1,404,900	\$1,404,900
	Total costs (risk-adjusted)	\$1,404,900	\$7,876,440	\$8,656,440	\$9,436,440	\$27,374,220	\$22,809,120

## WORKSPACE ONE LICENSE COSTS

**Evidence and data.** Workspace ONE licensing is based on a per-user or per-device cost. For the composite organization (which historically used Workspace ONE for its mobile devices), licensing was previously based per-device. But that's changed to a per-user model now that most employees have multiple devices managed by Workspace ONE (e.g., their Windows 10 PC as well as their phone or

tablet). Some users need the Advanced license and others require the more in-depth Enterprise license.

**Risks.** Licensing costs are conservatively based on retail, public pricing. Forrester did not apply a risk adjustment.

**Result.** The three-year, risk-adjusted total PV (discounted at 10%) of Workspace ONE licensing is \$21.2 million.

Workspace ONE License Costs						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G1	Workspace ONE license costs	Interviews	\$0	\$7,800,000	\$8,580,000	\$9,360,000
Gt	Workspace ONE license costs	G1	\$0	\$7,800,000	\$8,580,000	\$9,360,000
	Risk adjustment	0%				
Gtr	Workspace ONE license costs (risk-adjusted)		\$0	\$7,800,000	\$8,580,000	\$9,360,000
Three-year total: \$25,740,000			Three-year present value: \$21,214,125			



## ONGOING RESOURCE COSTS

**Evidence and data.** Ongoing resource costs measured as part of a Workspace ONE investment only includes net-new tasks specific to Workspace ONE. For the composite organization, regular desktop management tasks were already in place and would have continued with or without the investment in Workspace ONE. Forrester assumes one FTE is required to manage tasks associated with

new monitoring, management, and reporting tasks available with Workspace ONE. That resource is assumed to be a junior employee with a fully burdened hourly rate of \$35.

**Risks.** Because resource needs or rates may vary, Forrester added a 5% risk adjustment.

**Result.** The three-year, risk-adjusted total PV of resource costs is \$190,000.

Ongoing Resource Costs						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
H1	Average total net-new weekly ongoing management time for new Workspace ONE tasks	Interviews	0	40	40	40
H2	Average fully burdened hourly salary per desktop engineer	Interviews	\$0	\$35	\$35	\$35
Ht	Ongoing resource costs	$H1 \times H2 \times 52$	\$0	\$72,800	\$72,800	\$72,800
	Risk adjustment	↑5%				
Htr	Ongoing resource costs (risk-adjusted)		\$0	\$76,440	\$76,440	\$76,440
Three-year total: \$229,320			Three-year present value: \$190,095			

## IMPLEMENTATION RESOURCE COSTS

**Evidence and data.** It typically requires some organizational resources and outside consulting services to plan, test, and implement Workspace ONE. But interviewees noted that their organizations did not require a surprising amount of help. For example, the vice president of the consumer internet services firm said: “I figured this would probably take a while — maybe nine months to deploy to even a subset of our PCs. We passed that in the first three months. And, from then, it’s been very straightforward.” For the composite organization, Forrester assumes:

- Implementation requires about six employees working for 20 weeks at an average fully burdened hourly rate of \$35.
- Third-party consulting services add up to about 15% of the Workspace ONE license cost in Year 1.

**Risks.** To account for any underestimation, Forrester adjusted this cost upward by 5%.

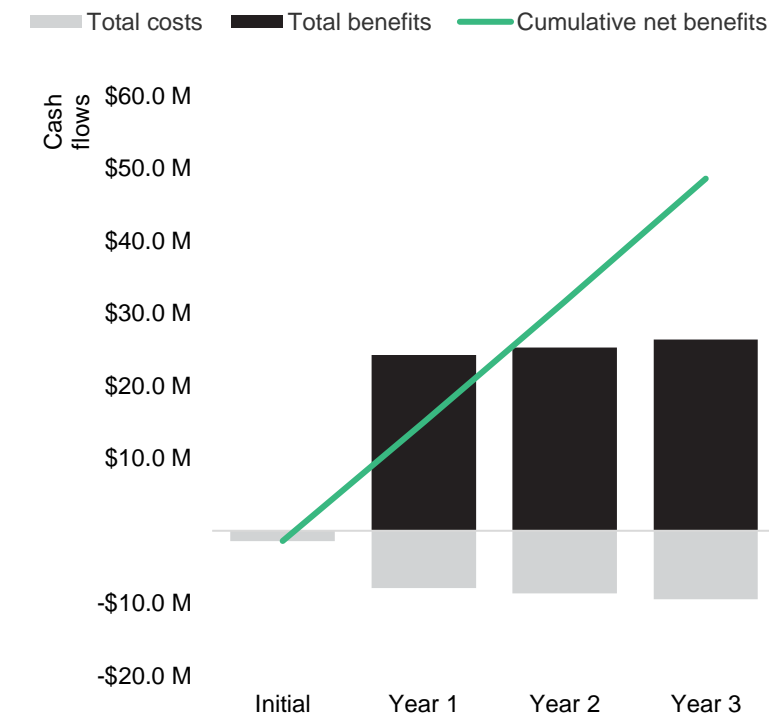
**Result.** Up-front implementation costs add up to \$1.4 million.

Implementation Resource Costs						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
I1	Implementation time (weeks)	Interviews	20	0	0	0
I2	Organization FTE involved in implementation	Interviews	6	0	0	0
I3	Average desktop engineer salary (fully burdened)	Interviews	\$35	\$0	\$0	\$0
I4	Professional services implementation assistance fees	$G1_{Y1} * 15\%$	\$1,170,000	\$0	\$0	\$0
It	Implementation resource costs	$I1 * I2 * I3 * 40 + I4$	\$1,338,000	\$0	\$0	\$0
	Risk adjustment	↑5%				
ltr	Implementation resource costs (risk-adjusted)		\$1,404,900	\$0	\$0	\$0
Three-year total: \$1,404,900			Three-year present value: \$1,404,900			

# Financial Summary

## CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

### Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

### Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	(\$1,404,900)	(\$7,876,440)	(\$8,656,440)	(\$9,436,440)	(\$27,374,220)	(\$22,809,120)
Total benefits	\$0	\$24,241,000	\$25,299,225	\$26,410,883	\$75,951,108	\$62,788,611
Net benefits	(\$1,404,900)	\$16,364,560	\$16,642,785	\$16,974,443	\$48,576,888	\$39,979,491
ROI						175%
Payback period (months)						<6 months

# Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

## TOTAL ECONOMIC IMPACT APPROACH

**Benefits** represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

**Costs** consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

**Flexibility** represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

**Risks** measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.



## PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.



## NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.



## RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



## DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.



## PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

## Appendix B: Endnotes

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<sup>1</sup> Source: "Embrace Modern Management To Improve Employee Experience," Forrester Research, Inc., September 9, 2019.

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