The Total Economic Impact™ Of VMware Workspace ONE

Cost Savings And Business Benefits Enabled By VMware Workspace ONE

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Benefits And Costs

Reduced IT effort to support PCs:
$15.1 million

Reduced cost of support audit and compliance:
$363,702

Total cost of Workspace ONE over three years:
$5.2 million

Executive Summary

VMware Workspace ONE is an integrated digital workspace platform for end user computing that includes capabilities ranging from device management to app and desktop virtualization, including an identity-based app catalog for all employees. 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.

The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Workspace ONE on their organizations' end user computing tasks. To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four customers with years of experience using Workspace ONE.

Prior to using Workspace ONE, customers used a combination of specialized tools and manual processes to manage the same tasks. Executives worried about perceived inefficiencies, mistakes, and security holes with aging management tools. One executive told Forrester: "Using Workspace ONE moved us beyond silos of physical and virtual desktops; it gave us a path for consolidating many different environments for users. It gives access to our systems via a single pane of glass. Users don't have to access two or three segmented portals."

As a result of using Workspace ONE, the clients dramatically increased the level of automation and precision with which they could manage and secure endpoints and apps across their organizations. The clients told Forrester that they provided integrated and consistent experiences across devices and use cases. An interviewee said: "Workspace ONE actually changed the way we delivered services to our customers. We were able to deploy devices out to remote individuals, devices stayed consistent, they stayed compliant, they stayed secure, and they had the right tools installed."

Key Findings

Quantified benefits. The following risk-adjusted present value (PV) quantified benefits are representative of those experienced by the companies interviewed:

› **Reduced IT effort to support PCs valued at $15.1 million.** Using VMware Workspace ONE enabled organizations to streamline the deployment, updating, management, problem resolution, and retirement of devices. The result was a significant shift in the average number of PCs managed per IT staff, which avoided the need to hire additional employees to support company growth.

› **Reduced time required to create and manage IT dashboard valued at $1,252,130.** Prior to using Workspace ONE, the typical organization employed one full-time employee to track and manage IT operations that were reported on a unified dashboard. The automated capabilities of Workspace ONE provided the same function.
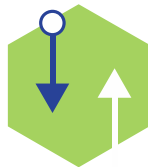
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ROI
206%

Benefits PV
$15.8 million

NPV
$10.6 million

Payback
<6 months

› **Reduced cost of audit and compliance support of $363,702.** Workspace ONE created greater visibility and simpler accessibility to information for teams supporting audit and compliance requirements. On average, it reduced the level of support by 25%. Compliance audits were often a distraction from the day-to-day work of employees; the improved capabilities reduced this distraction from their normal tasks.

Unquantified benefits. The interviewed organizations experienced the following benefits, which are not quantified for this study:

› **Improved quality of asset inventories.** The interviewed executives told Forrester that using Workspace ONE improved the quality of their asset inventories, which previously had been tenuous and uncertain. The confidence was especially valuable when negotiating agreements with software partners where the asset count had previously been a "sticking point" in discussions.
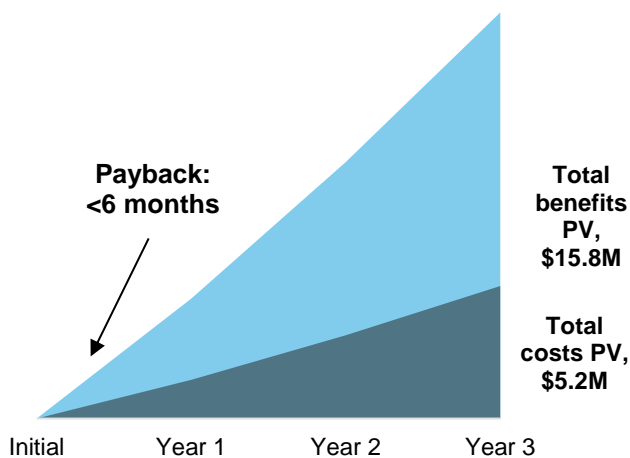
› **Streamlined use of one tool rather than a combination of products.** Each of the organizations reported that Workspace ONE replaced a number of previously used products. While the cost outlay was similar, the simplified and integrated use of a single toolset proved valuable not only to the desktop management team, but in communicating and working on projects across the IT organization.

Costs. The interviewed organizations experienced the following risk-adjusted PV costs:

› **Subscription cost for VMware Workspace ONE of $5.2 million over three years.** An organization with roughly 5,500 employees would pay $25 per month per user, which is the highest pricing tier and includes Workspace ONE Enterprise and VDI.

Forrester's interviews with four existing customers and subsequent financial analysis found that an organization based on these interviewed organizations experienced benefits of $16.7 million over three years versus costs of $5.2 million, adding up to a net present value (NPV) of $11.6 million and an ROI of 225%.

Financial Summary
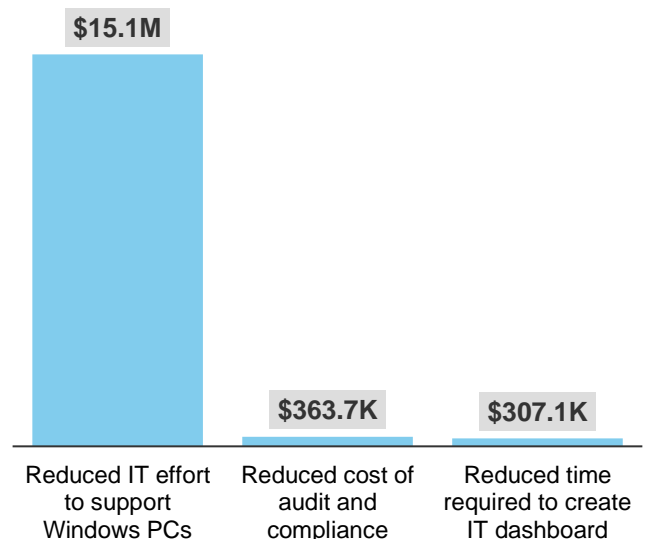
Payback:
<6 months

Initial   Year 1   Year 2   Year 3

Total benefits PV, $15.8M

Total costs PV, $5.2M

Benefits (Three-Year)

$15.1M

$363.7K

$307.1K

Reduced IT effort to support Windows PCs

Reduced cost of audit and compliance

Reduced time required to create IT dashboard

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TEI Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing VMware 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 VMware Workspace ONE can have on an organization:

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

CUSTOMER INTERVIEWS
Interviewed four 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 VMware Workspace ONE's impact: benefits, costs, flexibility, and risks. Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

> The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

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The Workspace ONE^{TM} Customer Journey

BEFORE AND AFTER THE WORKSPACE ONE INVESTMENT

Interviewed Organizations

For this study, Forrester conducted four interviews with VMware Workspace ONE customers. Interviewed customers include the following:

INDUSTRY	INTERVIEWEE	LOCATION	PRIOR CHALLENGES
Security services	Vice president, information technology	North America headquartered; globally operated	Deploying and managing PCs to hundreds of employees around the world, while complying with local legal requirements.
Education institution	Manager, information technology	North America	Providing a singular experience for diverse populations of users working with a myriad of self-provided devices.
Transportation company	General manager, operations	North America headquartered; globally operated	Equipping front-line employees with updated information required by law while also permitting users to maintain the individuality of their devices.
Healthcare not-for-profit organization	Director, technology solutions	North America	Enabling nontechnical practitioners who worked with customers to easily set up and manage local PCs, many of which were aging or even obsolete.

Key Challenges

During interviews, the executives shared key challenges or problems that drove their need for an alternate solution. Those issues included:

› **Providing a standard operating environment on a myriad of aging devices.** The director from the healthcare not-for-profit stated: "We went for a number of years without any financial funding, which resulted in our having thousands of devices that many companies would consider obsolete. We needed to provide a common, quality experience that was independent of the device quality."

› **Having the precision to manage critical components without interfering with the user experience.** The transportation industry general manager said: "We had more than 10,000 tablets that are required to be updated with accurate information. Compliance is audited by government agencies, so it had to be done right. We struggled to identify a software platform that would give us the power to manage compliance issues centrally while allowing users the autonomy to use and manage their device locally."

"When I joined the company, the IT staff was manually setting up laptops. They would spend three days configuring [and] installing software and downloading patches using USB drivers and CD-ROMs. It was a nightmare."

Vice president, information technology, security services

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> **Automating and standardizing device preparation and delivery, especially from remote locations.** One executive said: "When I joined the company, the IT staff was manually setting up laptops. They would spend three days configuring [and] installing software and downloading patches using USB drivers and CD-ROMs. It was a nightmare."

Key Results

The interviews revealed several key results from the Workspace ONE investment. The solution:

> **Provided a consistent, singular user experience.** The manager from the education institution said: "We were able to leverage and scale different applications and different needs using Workspace ONE. We looked at other tools that didn't integrate in a seamless fashion. Users arrive here with a wide range of devices — some old and some new; some with lots of computer power and others with little. We now provide a consistent, seamless experience regardless of the device."

> **Simplified deployment of devices globally.** The security services vice president told Forrester: "We have employees working in home offices all around the world. A lot of times, international employees had to travel to one of our regional offices to get a laptop that was properly configured. With about 80% of our employees working from home, just deploying new devices was becoming complicated."

> **Streamlined communication among IT professionals.** An executive told Forrester: "A common platform also gives the IT organization improved security, server administration, desktop administration, and moves them up the learning curve, and improves leverage of IT resources. We are all speaking the same language, and it improves our ability to communicate because we speak the same language."

> **Increased first-call resolution of trouble tickets**. Another executive added: "Workspace ONE allows our service desk to resolve tickets on the first call. When a user calls requesting software, the desk can tag the device with the software. In many cases, the technician can verify that the installation in in progress or even completed before they get off the call with the user."

Composite Organization

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an associated ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The organization begins with 5,500 employees and previously used a combination of tools to manage desktops and applications.

> "We were able to leverage and scale different applications and different needs using Workspace ONE. We looked at other tools that didn't integrate in a seamless fashion. Users arrive here with a wide range of devices — some old and some new; some with lots of computer power and others with little. We now provide a consistent, seamless experience regardless of the device."
>
> *Manager, information technology, education institution*

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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	Reduced IT effort to support PCs	$4,855,500	$6,142,500	$7,488,000	$18,486,000	$15,116,382
Btr	Reduced time required to create and manage IT dashboard	$146,250	$146,250	$146,250	$438,750	$363,702
Ctr	Reduced cost of audit and compliance support	$123,500	$123,500	$123,500	$370,500	$307,126
	Total benefits (risk-adjusted)	$5,125,250	$6,412,250	$7,757,750	$19,295,250	$15,787,210

Reduced IT Effort To Support PCs

Using Workspace ONE enabled the organization to more efficiently manage devices through the life cycle of deployment, updates, problem resolution, and retirement. Specifically, functionality within Workspace ONE:

› Standardized configuration and deployment of new devices. In addition to streamlining configuration, the ability to provision and configure devices remotely was advantageous to companies with a large number of employees working from home in different countries.

› Provided a singular user experience regardless of the device being used. Some of the companies interviewed used older-than-typical devices or devices provided by the users themselves. In such situations, Workspace ONE was a superb bridge to a consistent user experience.

› Shifted the average number of PCs managed per employee by the IT organization from 40 to 1 up to 100 to 1, which allowed the organization to avoid hiring additional employees to support rampant company growth. The value is likely to vary widely between organizations based and Forrester recommends that readers focus on the increase rather than the absolute ratios. Customers told Forrester how they realized value in improved device management ratios:

- One interviewed executive shared: "We can take a master key and put it in AirWatch and deploy it across all the right devices. That way I'm sure that all my installations have the same key, and it's all trued up."

- Another executive added: "Workspace ONE gives us a path for consolidating many different types of environments and it provides that single pane of glass for student access. They don't have to have two or three different segmented portals to get access to something, and we don't have to manage a more complex environment."

> The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to be a PV of more than $16.7 million.

$15.1 million
three-year benefit PV

90%
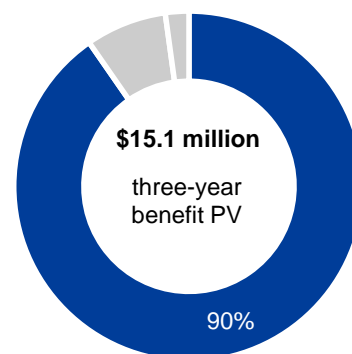
Reduced IT effort to support PCs: **90%** of total benefits

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- Another executive said: "We're a worldwide organization with limited staff and most employees working from home. When an employee leaves the company, whether voluntarily or involuntarily, employees don't show up at an office and then walk out of a door. We were able to develop our routine for each operating system so that when somebody leaves, we disable the computer."
- One person told Forrester that the benefit extends beyond the desktop support teams: "A common platform also helps streamline work for the IT organization generally in terms of security, server administration, and desktop administration."

The increased management ratio of devices allowed the organization to avoid hiring a cumulative total of hundreds of employees. At an average burdened salary of $65,000 per year, the savings totaled more than $1.8 million over three years.

Forrester acknowledges that at the higher levels of employees, most organizations would invest in alternate technologies to standardize images, manage backups, and introduce automation rather than merely hiring more employees. Forrester believes that for the purposes of this financial model, the linear approach used by calculating the number of employees required based on the ratio of PCs being managed results in a correctly representative value, even if the actual delivery approach was more nuanced.

The level of benefit that readers will realize from the improved efficiency of their existing teams will vary based on the current operations before adopting Workspace ONE. As such, Forrester risk adjusted this benefit downward by 10% to account for readers who may realize lesser results. The total benefit yielded a three-year risk-adjusted total PV of $15.1 million.

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
Reduced IT Effort To Support PCs: Calculation Table					
A1	Number of employees		5,500	7,000	8,500
A2	Devices managed per IT staff with previous tools		40	40	40
A3	Devices managed per IT staff with Workspace ONE		100	100	100
A4	Number of staff who would have been needed with previous tools (rounded)	(A1/A2)-(A1/A3)	83	105	128
A5	Average burdened salary		$65,000	$65,000	$65,000
At	Reduced IT effort to support PCs	A4*A5	$5,395,000	$6,825,000	$8,320,000
	Risk adjustment	↓10%			
Atr	Reduced IT effort to support PCs (risk-adjusted)		$4,855,500	$6,142,500	$7,488,000

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Reduced Time Required To Create And Manage IT Dashboard

One of the organizations had an employee who dedicated about 60% of their time to tracking performance statistics for the IT organization and placing the information on a dashboard. With the reporting functionality within Workspace ONE, the organization could create a similar dashboard without the manual effort of an employee.

The financial model is based on avoiding the cost of two FTEs at an averaged burdened salary of $65,000, resulting in a savings of $130,000 per year. In addition, the organization avoided spending an estimated $400,000 per year on a comparable, standalone dashboard solution. The results realized by readers will depend on having a similar dashboard capability. To account for this risk, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of $1.3 million.

> Implementation risk is the risk that a proposed investment may deviate from the original or expected requirements, resulting in higher costs than anticipated. The greater the uncertainty, the wider the potential range of outcomes for cost estimates.

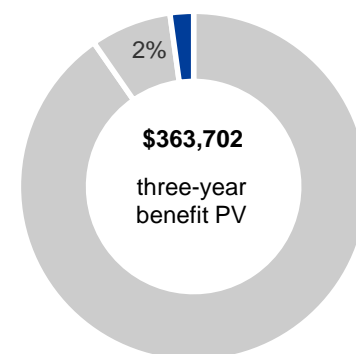| REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
Reduced Time Required To Create And Manage IT Dashboard: Calculation Table					
B1	Reduced FTEs required		2	2	2
B2	Average burdened salary		$65,000	$65,000	$65,000
B3	Avoided purchase of dashboard software		$400,000	$400,000	$400,000
Bt	Reduced time required to create and manage IT dashboard	(B1*B2)+B3	$530,000	$530,000	$530,000
	Risk adjustment	↓5%			
Btr	Reduced time required to create and manage IT dashboard (risk-adjusted)		$503,500	$503,500	$503,500

Reduced Cost Of Audit And Compliance Support

The organizations interviewed experienced an improvement in the ability to comply with audit and compliance requirements. During the interviews, one executive said: "From a security standpoint, Workspace ONE gives visibility for our compliance teams. Segmentation and visibility are very important to our security teams. They now have access to more audit information with fewer clicks."

The functionality of Workspace ONE with simplified access to critical records reduced the overall time for staff to respond to compliance audits by 25%. Because the staff supporting audits had normal, day-to-day tasks, organizations frequently considered supporting audits a distraction. Reducing the support requirements was a welcome change.

The financial model is based on an average of three FTEs of employee time each year. Reducing the burden by 25% reduced that level by 2.5 FTEs. At an average burdened salary of $65,000, the savings was valued at $162,500 per year.

The level of this benefit that readers will realize will vary based on their level of compliance or regulatory oversight. To account for this risk, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of $363,702.

2%

$363,702

three-year benefit PV

Reduced cost of audit and compliance support: **2%** of total benefits

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Reduced Cost Of Audit And Compliance Support: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
C1	Reduced FTEs required		7	7	7
C2	Impact on productivity		0.35	0.35	0.35
C3	Equivalent time (rounded FTEs)	C1*C2	2.5	2.5	2.5
C4	Average burdened salary		$65,000	$65,000	$65,000
Ct	Reduced cost of audit and compliance support	C3*C4	$162,500	$162,500	$162,500
	Risk adjustment	↓10%			
Ctr	Reduced cost of audit and compliance support (risk-adjusted)		$146,250	$146,250	$146,250

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Unquantified Benefits

In addition to the benefits outlined above, the interviewed executives shared other benefits that did not have specific financial implications. Specifically, the companies benefited from:

› **Improved quality of asset inventories.** The security services manager told Forrester: "Workspace ONE gives us accurate device inventories. I can take my master key, and I'm confident that it's reporting all my installations accurately."

› **Streamlined use of one tool rather than a combination of products.** One executive told Forrester: "We retired four separate tools when we deployed Workspace ONE. The overall cost of the other four tools was about the same as we paid for VMware, but having a single tool with integrated capabilities was far superior to managing four separate tools."

Flexibility

The value of flexibility is clearly unique to each customer, and the measure of its value varies from organization to organization. There are multiple scenarios in which a customer might choose to implement Workspace ONE and later realize additional uses and business opportunities, including:

› **Creating new services to differentiate the company.** An executive described: "We had a number of clients that would create their own performance dashboards. It was a laborious process for them. With the labor savings from managing desktops, the team was able to create a way to automate the dashboards for clients. It's become a differentiator for our business because none of our competitors have anything similar."

› **Devising new ways to automate device configuration.** The healthcare executive said: "We created a single QR code for each configuration and trained one of the field technicians. Instead of typing login information and selecting configuration options, they merely scan the QR code, and it builds the proper configuration for the team, location, and function of that group."

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

> Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for a future additional investment. This provides an organization with the "right" or the ability to engage in future initiatives but not the obligation to do so.

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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
Dtr	Subscription cost for VMware Workspace ONE	$0	$1,650,000	$2,100,000	$2,550,000	$6,300,000	$5,151,390
	Total costs (risk-adjusted)	$0	$1,650,000	$2,100,000	$2,550,000	$6,300,000	$5,151,390

Subscription Cost For VMware Workspace ONE

The organization had 5,500 users when it began using Workspace ONE. The company grew by more than 25% per year, raising the total number of users to 8,500 by the end of three years.

The financial model uses standard list pricing from VMware of $25 per user per month, resulting in a total cost of $5.2 million over three years. Forrester did not risk-adjust this cost.

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to be a PV of nearly $5.2 million.

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
D1	Number of licensed users			5,500	7,000	8,500
D2	Price per user per month			$25	$25	$25
Dt	Subscription cost for VMware Workspace ONE	D1*D2*12 months		$1,650,000	$2,100,000	$2,550,000
	Risk adjustment	↑0%				
Dtr	Subscription cost for VMware Workspace ONE (risk-adjusted)			$1,650,000	$2,100,000	$2,550,000

Subscription Cost For VMware Workspace ONE: Calculation Table

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Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)

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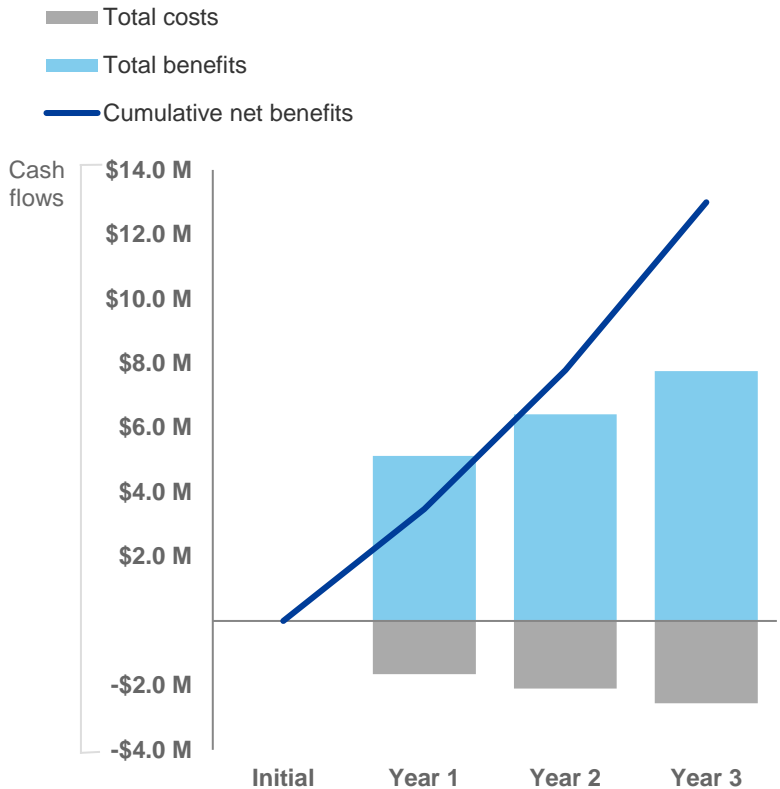
The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

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 Table (Risk-Adjusted)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	$0	($1,650,000)	($2,100,000)	($2,550,000)	($6,300,000)	($5,151,390)
Total benefits	$0	$5,125,250	$6,412,250	$7,757,750	$19,295,250	$15,787,210
Net benefits	$0	$3,475,250	$4,312,250	$5,207,750	$12,995,250	$10,635,820
ROI						206%
Payback period						<6 months

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VMware Workspace ONE: Overview

The following information is provided by VMware. Forrester has not validated any claims and does not endorse VMware or its offerings.

What Is Workspace ONE?

Workspace ONE is the intelligence-driven digital workspace platform that simply and securely delivers and manages any app on any device by integrating access control, application management, and multiplatform endpoint management. It begins with consumer-simple, single sign-on access to cloud, mobile, web, and Windows apps in one unified catalog and includes powerfully integrated email, calendar, file, and social collaboration tools that engage employees. Employees are put in the driver seat to choose their own devices or benefit from employer-provided devices with the ability for IT to enforce fine-grained, risk-based conditional access policies that also take into account device compliance information delivered by AirWatch Unified Endpoint Management technology. Workspace ONE automates traditional onboarding and laptop and mobile device configuration and delivers real-time application life cycle management that bridges between legacy enterprise client-server apps to the mobile-cloud era. The Workspace ONE platform is powered by Intelligence and uniquely combines workspace data aggregation and correlation to deliver integrated insights and automation that help organizations manage complexity and security without compromising on user experience.

Key Features

› Consumer-simple access to cloud, web, mobile, Windows, and Mac apps.

› Choice to use any device; BYOD or corporate owned.

› Secure productivity apps: mail, calendar, docs, and social.

› Data security and endpoint compliance with conditional access.

› Real-time app delivery and automation.

Key Benefits

Workspace ONE enables you to drastically improve experiences and tasks that were previously costly, time-consuming, and resource-intensive. With Workspace ONE, IT organizations can:

› Onboard a new employee with all of their apps and devices in under an hour without tickets or help desk calls.

› Set and enforce access and data policies across all apps, devices, and locations in one place.

› Complete business processes from a mobile device, similar to consumer experiences.

› Provision a new corporate laptop out of the box, anywhere in the world, from the cloud within minutes.

› Get insights and automation capabilities across your entire digital workspace environment.

Learn More

Find out more about VMware Workspace ONE by visiting www.vmware.com/products/workspace-one.

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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.

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