

A Forrester Total Economic  
Impact™ Study

Commissioned By  
Microsoft

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# The Total Economic Impact™ Of Microsoft Office 365

Enterprise Customers

FORRESTER®

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### ABOUT FORRESTER CONSULTING

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## Executive Summary

Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Office 365. The purpose of this study is to provide readers at large organizations (more than 1,000 users) with a framework to evaluate the potential financial impact of Office 365 on their organizations.

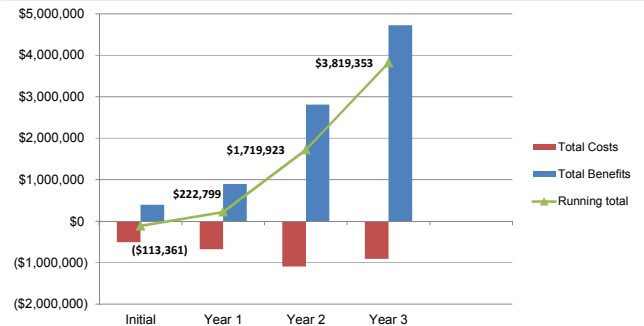
To better understand the benefits, costs, and risks associated with an Office 365 implementation, Forrester interviewed three existing customers with multiple years of experience using Office 365 and conducted an online survey with 60 large organizations also using Office 365. Office 365 is the software-as-a-service (SaaS) version of Microsoft business products including Office Professional Plus, Exchange, Lync, SharePoint, Yammer, and OneDrive.

Prior to moving to Office 365, customers had implemented various solution components in a traditional on-premises model. With Office 365, customers were able to accelerate the deployment of the latest versions of Microsoft solutions, decrease technology costs, increase business and IT user productivity, and stay up-to-date with the latest features and solutions. Said one IT manager: “We were looking at our five-year IT plan, and the trends were clear. We knew we had to move to a subscription model in order to keep up-to-date on the latest technologies in an effective and efficient way.”

Our interviews with three existing customers, online survey responses from 60 organizations, and subsequent financial analysis found that a composite organization (a light manufacturing, distribution and sales organization that moved from an on-premises 2010 version solution to Office 365 in the cloud) based on these interviewed and surveyed companies experienced the risk-adjusted ROI, IRR, benefits, and costs shown in Figure 2. See Appendix A for a description of the composite organization.<sup>1</sup>

The composite organization analysis points to total benefits of \$8.8 million versus total costs of \$3.2 million, resulting in a net present value (NPV) of \$5.6 million.

**FIGURE 1**  
Financial Summary — Risk-Adjusted Results



Source: Forrester Research, Inc.

**FIGURE 2**  
Financial Summary Showing Three-Year Risk-Adjusted Results

**ROI:**  
**162%**

**IRR:**  
**468%**

**NPV**  
**per user:**  
**\$1,348**

**Payback:**  
**7 months**

Source: Forrester Research, Inc.

Forrester looked at benefits across a wide range of areas, or “pillars,” that Microsoft has defined. In each pillar, Forrester quantified one or more of the benefits. The other benefits that the interviewed and surveyed customers described but could not be quantified for the study are included in the discussion later in this study. Readers should take these other benefits into consideration when evaluating the total value that Office 365 can deliver to their organization.

FIGURE 3

Microsoft Office 365 Benefit Pillars



# Office 365

## Benefit Pillars



**Technology** Includes hardware and software savings as well as reduced IT effort. It also covers improved uptime, disaster recovery capabilities, and IT security.



**Mobility** Considers how workers having anywhere anytime access to information and applications improves worker efficiency resulting in faster time to market,



**Control & Compliance** Looks at lowering compliance cost and effort by using built-in industry standards and best practices.



**Business Intelligence** Looks at opportunities to make better decisions through more timely access to data across multiple repositories. Reduction in decision times can lead to increased worker productivity.



**Enterprise Social** Considers how collaboration has improved and business processes have been shortened by using social features built into Office 365 to improve communication.

Source: Forrester Research, Inc.

› **Benefits.** The composite organization experienced the following quantifiable risk-adjusted benefits that represent those experienced by the interviewed and surveyed companies:

- **Technology:**

- **The organization avoided adding new infrastructure hardware.** The move from the 2010 version of the Microsoft solutions to the Office 365 cloud-based solution meant that new infrastructure did not need to be purchased, installed, and maintained. In total, 30 highly virtualized physical servers were not added over the life of the study, and SAN requirements were reduced by half. The total savings to purchase, maintain, and host the hardware amounted to \$672,791.
- **Server licenses for various Microsoft solutions were no longer needed.** An on-premises solution comparable to Office 365 would have required 163 Windows Server licenses, 12 Exchange Server licenses, two Lync Server licenses, and seven SharePoint licenses. The avoided purchase cost plus annual maintenance totaled \$60,060.

- **The implementation effort was 40% less than for a comparable on-premises solution.** The Office 365 implementation consisted of three phases (see the Costs section for more detail). Had a traditional on-premises deployment of Microsoft 2013 solutions been implemented, the internal effort and professional services fees would have been 40% greater. This savings across all phases equaled \$272,000.
- **The manpower required to support the solution is reduced by more than half.** The total number of resources required to maintain and grow the Microsoft solutions — Office Professional Plus, Exchange, Lync, SharePoint, Yammer, and OneDrive — was reduced by Year 3 of the study from nine down to four full-time employees (FTEs). Much of this is in the form of avoiding additional hires as well as redeploying two existing system administrators who could focus on other, higher-value activities. The three-year associated savings was \$1.42 million.
- **Mobility:**
  - **Three hundred highly mobile “road warrior” employees save 1 hour per day by Year 3.** Out of the knowledge workers using Office 365, 300 salespeople and engineering consultants are on the road the vast majority of their time. They save a lot of time from not having to use VPNs to access systems and having better collaboration tools and access to information. This increased productivity grows from a quarter hour per day in Year 1 up to 1 hour per day in Year 3 as more Office 365 solutions are rolled out, e.g., Lync and SharePoint, and as the users become more comfortable using them. The total productivity savings, discounted 50% since not all productivity gains result in more work accomplished, was \$2.81 million.
- **Control and Compliance:**
  - **Using Office 365 eliminated the need to undertake four projects that would have otherwise been required.** Office 365 had all of the required features and security that eliminated the need for additional projects to deploy encrypted email, data leakage, eDiscovery, and rights management capabilities. In total, 9.5 man-months were saved with a corresponding cost avoidance of \$90,250.
- **Business Intelligence:**
  - **Six hundred users make faster, better decisions because of more timely access to information.** A subset of users — analysts, managers, and salespeople — see a reduction in time required to hunt for information or waiting for information in order to make the best decisions possible. The benefit begins to be realized in Year 2 of the study, and the daily savings is 30 minutes per day by Year 3. The productivity opportunity, discounted 50% since not all productivity gains result in more work accomplished, totaled \$3.25 million.
- **Enterprise Social:**
  - **Third-party social/collaboration tools are eliminated since they come standard within Office 365.** In addition to the productivity gains that social and collaboration tools deliver, there is a hard savings by discontinuing the use of other tools and by moving communications from traditional telephones to Internet-based solutions. Combined, the composite organization saved \$247,000 over three years.
- › **Costs.** The composite organization experienced the following risk-adjusted costs:
  - **Internal implementation labor.** The full deployment of Office 365 was completed in three phases. Phase one, completed in the initial period, consisted of standing up the Office 365 solution, migrating all email accounts and users to Exchange Online from Exchange 2010 on-premises, moving all users to Office 365 Professional Plus from Office Professional Plus 2010 local clients, and deploying OneDrive for all users. Phase two, completed in Year 1, consisted of a completely new deployment of Lync and Yammer. Phase three was completed in the second year of the study and consisted of migrating from SharePoint 2010 on-premises to the latest version of SharePoint Online. Total internal implementation labor was \$396,000.

- **Professional services.** The composite organization used Microsoft Professional Services during all phases of deployment. Professional services were used to help properly set up the solutions and with any especially challenging areas. The total professional services cost was \$420,000.
- **Training.** Training was required for the IT team on the new and updated solutions being deployed, as well as some training on the differences in administering Office 365 compared with on-premises versions. One hundred and fifty man-days of IT training took place in the initial period, with additional training, involving significantly less man-days, in years 1 and 2. Additionally, three internal employees provided user training to the rest of the composite organization. In total, the external training charges for IT and the internal costs for user training amounted to \$910,350.
- **Ongoing system administration.** The Benefits section described the number of system administrator positions that did not need to be added or could be reassigned. The remaining system administration team consisted of 1.5 FTEs in Year 1 to administer Exchange and Lync, and the team grew to four FTEs by Year 3 to handle additional requirements with SharePoint and overall greater usage. The three-year associated costs were \$1.07 million.
- **Incremental Microsoft licenses.** For individual user licenses, Office 365 was compared with the Software Assurance pricing model to provide the best apple-to-apple comparison of a solution that always has users on the latest version of Microsoft technologies. Office 365 cost \$24.12 more per year for each user compared with the Software Assurance licenses. The accumulated additional cost over three years was \$241,652.
- **Federation hardware.** The composite organization desired to use identity federation for improved single sign-on (SSO) internally and with partner/customer companies. This required the installation and ongoing maintenance of two Active Directory Federation Services (ADFS) servers. The three-year cost to purchase, maintain, and host the servers was \$41,625.
- **Additional bandwidth.** Moving to Office 365 resulted in a net increase of bandwidth required. Some areas saw a reduction, e.g., Exchange, while other areas saw an increase, e.g., new deployment of Lync. There was also additional bandwidth required during the initial data migrations. Over three years, \$103,400 in additional bandwidth was required.

## Disclosures

The reader should be aware of the following:

- › The study is commissioned by Microsoft 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 report to determine the appropriateness of an investment in Microsoft Office 365.
- › Microsoft 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.
- › Microsoft provided the customer names for the interviews but did not participate in the interviews.

## TEI Framework And Methodology

### INTRODUCTION

From the information provided in the interviews, Forrester has constructed a Total Economic Impact (TEI) framework for those organizations considering implementing Microsoft Office 365. The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision.

### APPROACH AND METHODOLOGY

Forrester took a multistep approach to evaluate the impact that Microsoft Office 365 can have on an organization (see Figure 4). Specifically, we:

- › Interviewed Microsoft marketing, sales, and consulting personnel, along with Forrester analysts, to gather data relative to Office 365 and the marketplace for productivity solutions.
- › Interviewed three organizations and surveyed 60 organizations online that currently use Microsoft Office 365 and have 1,000 or more employees to obtain data with respect to costs, benefits, and risks.
- › Designed a composite organization based on characteristics of the interviewed/surveyed organizations (see Appendix A).
- › Constructed a financial model representative of the interviews/surveys using the TEI methodology. The financial model is populated with the cost and benefit data obtained from the interviews/surveys as applied to the composite organization.
- › Risk-adjusted the financial model based on issues and concerns the interviewed organizations highlighted. Risk adjustment is a key part of the TEI methodology. While interviewed organizations provided cost and benefit estimates, some categories included a broad range of responses or had a number of outside forces that might have affected the results. For that reason, some cost and benefit totals have been risk-adjusted and are detailed in each relevant section.

Forrester employed four fundamental elements of TEI in modeling the Microsoft Office service: 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 B for additional information on the TEI methodology.

**FIGURE 4**  
TEI Approach



Source: Forrester Research, Inc.

## Analysis

### COMPOSITE ORGANIZATION

For this study, Forrester conducted a total of three interviews with representatives from the following companies, which are Microsoft customers based in various countries around the world:

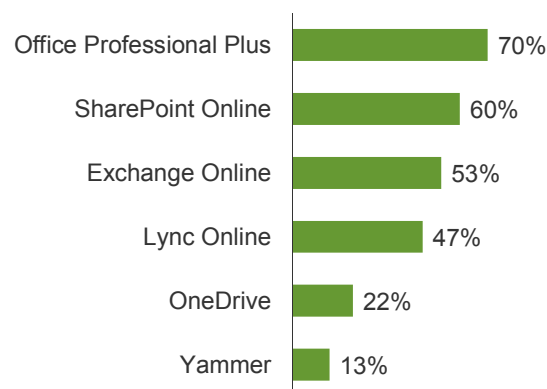
- › **Global IT and engineering services company.** This company is headquartered in India and has approximately 9,000 employees in more than a dozen countries. At the time of the interview, there were 8,300 users on Office 365. Previously, they were using on-premises 2010 versions of Office Professional Plus, Exchange, SharePoint, and Lync. They also had brand-new deployments of Yammer and OneDrive as part of the Office 365 deployment.
- › **Global nonprofit.** This US-based company works on development projects in more than 70 countries around the world. A couple of years prior to the Office 365 project, there was a merger of two companies. This resulted in the need to consolidate and remove redundant user systems. There are a total of 5,500 Office 365 users out of 6,500 employees, of which 3,500 use Office 365 on a daily basis. Previously, the organization was using both the 2003 and 2010 versions of Office Professional Plus and was using Exchange 2010 as well as GroupWise. It was also using both SharePoint 2007 and 2010. The organization is now using all Office 365 components, including brand-new use of Lync, Yammer, and OneDrive.
- › **Fast-moving consumer goods (FMCG) company.** This company is based in the Asia/Pacific region and manufactures and distributes products to more than five countries in the region. It has 6,000 Office 365 users out of a total employee count of 17,000. Employees are spread across more than 200 locations. They are now using the Office 365 versions of Office Professional Plus, SharePoint, Lync, and OneDrive. Previously, they were using Lotus Notes.

In addition to the interview, Forrester conducted an online survey of 60 organizations with 1,000 or more employees in North America and the UK that have deployed Microsoft Office 365. Online survey participants included line-of-business and IT professionals who make, influence, or have knowledge around decisions related to technology.

On average, the survey respondents had 7,658 Office 365 users. Seventy-seven percent of the organizations were planning to add additional users over the next year. Office 365 solution components in use varied across organizations.

**FIGURE 5**  
Office 365 Solution Components In Use

“Which of the following products are you currently using?”



Base: 60 North American and UK organizations that currently use Office 365 products

Source: Forrester Research, Inc.



Based on the interviews and online surveys, Forrester constructed a TEI framework, a composite company, and an associated ROI analysis that illustrates the areas financially affected. The composite organization that Forrester synthesized from these results represents an organization with the following characteristics:

- › It is a US-based light manufacturing company with operations in North America, Europe, and Asia.
- › Forrester named the composite organization Acme Supply Corporation.
- › The first deployment of Office 365, which this study looks at, is for the North American operations only.
- › At the time Office 365 was initially deployed, there were 6,000 employees. Of this, there were 2,500 knowledge workers and 3,500 factory, warehouse, and distribution employees. All knowledge workers were moved to Office 365, and there were new hires added in following years.

Table 1 shows the Office 365 solution components in use by the composite organization, when they were added, and what they replace.

**TABLE 1**  
**Office 365 Solution Components**

Office 365 Component	When Added	What Was Replaced
Office 365 Professional Plus — cloud	Phase one (initial period)	2010 Office Professional Plus — local client
Exchange Online	Phase one (initial period)	2010 Exchange — on-premises
SharePoint Online	Phase three (Year 2)	2010 SharePoint — on-premises
2013 Lync Online	Phase two (Year 1)	None
Yammer	Phase two (Year 1)	None
OneDrive	Phase one (initial period)	None

Source: Forrester Research, Inc.

## INTERVIEW HIGHLIGHTS

The composite organization faced similar challenges and opportunities as the interviewed companies. Moving to Office 365 delivered immediate and sustainable benefits.

While completing an IT strategic review looking at the road map for the next several years, business executives asked IT, “How can you reduce IT costs and increase productivity?” At the same time, the Microsoft Enterprise Agreement (EA) was due for renewal. Within this context, the IT organization looked at strategic options to address the following challenges and opportunities:

- › Support for mobile users and mobile initiatives was becoming very important. This included the need to adopt bring-your-own-device (BYOD) policies.

*“Moving to Office 365 is part of an overall program to cut support costs in half. To do that we needed to move to more of a consumer style support model.”*

~Director of information systems and services

- › It was necessary to deploy a unified communications solution — audio, video, and document sharing — to improve internal collaboration and productivity.
- › There was a strong desire to move from a capex to opex funding model to make budgeting more predictable and balanced across years.
- › The company wanted to move as much to the cloud as possible as a way to reduce costs.

The IT team then evaluated several options — cloud-based and on-premises — to select the one that best met the organization’s needs. Selection criteria included:

- › Fit with business priorities.
- › Fit with existing infrastructure.
- › Total cost of ownership.
- › Alignment with technology road map.
- › Features and functionality.
- › Enterprise security.
- › Ease of deployment.

Office 365 was selected as the best option by the composite organization. The Office 365 contract was negotiated as part of the EA renegotiation. The various solution components were deployed in three phases as outlined in the composite organization description above.

Moving to Office 365 delivered many benefits described throughout the study. At a high level, the organization achieved the following results:

- › **Lower TCO.** The total cost of ownership for Office 365 compared with a comparable on-premises solution was significantly lower. Contributing elements were the elimination of capital expenditures on hardware and software, less effort to deploy and maintain the solutions, taking advantage of included capabilities that eliminated other third-party solution costs, and the ability to very efficiently deploy the latest features going forward.
- › **Higher productivity.** Higher levels of productivity were achieved by all Office 365 users. This was especially pronounced for highly mobile workers and those who are very dependent on data to make important decisions. Higher productivity has reduced sales cycle time and increased business agility.
- › **Greater focus on strategic priorities.** For the IT organization, considerably less time is spent on blocking and tackling activities such as deploying and patching servers. This frees up their time to work on projects that deliver true business value. This, in turn, means that business users have the solutions and support they need to focus on business priorities.
- › **Improved uptime.** Availability for the Microsoft solutions “has gone from 98% to practically 100%.” Microsoft’s service-level agreements (SLAs) are better than the previous internal ones. This is very important since email is one of the most mission-critical applications.

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*“We were reaching a tipping point with over half of our system users being mobile users. All roads lead to mobile first, and we needed to support it through the cloud.”*

~IT director

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*“We were looking for a strategic partner to achieve our goals and fell into the Office 365 camp. It’s a decision we have never regretted.”*

~Direct of infrastructure

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## BENEFITS

The composite organization experienced a number of quantified and unquantified benefits in this case study that align to each of the Microsoft benefit pillars:

- › Technology.
- › Mobility.
- › Compliance & Control.
- › Business Intelligence.
- › Enterprise Social.

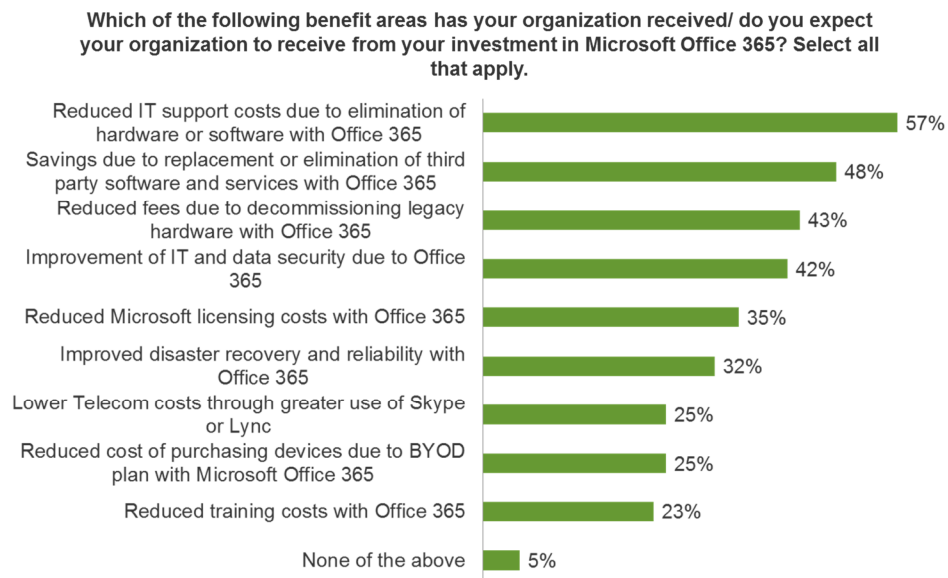
For each of these pillars, the interviewed companies and online survey respondents spoke to multiple benefits. For each area, Forrester quantified at least one benefit that is specifically highlighted and comprises the ROI analysis component of this study. Benefits that could not be quantified or are very specific and excluded from the ROI analysis are also discussed in each area, and relevant online survey results are presented.

### Technology

The technology pillar includes many infrastructure- and IT operations-related benefits. Some of these benefits can overlap with ones in other pillars. Where this occurred for quantified benefits included in the study, that benefit was only included under the pillar that made the greatest contribution. For example, eliminated web conferencing solutions are included under the enterprise social pillar and not the technology pillar.

Figure 6 shows areas in which the online survey respondents expected to realize technology pillar benefits.

**FIGURE 6**  
**Technology Benefits**



Base: 60 North American and UK organizations that currently use Office 365 products

Source: Forrester Research, Inc.

Additional online survey questions looked into some of the benefit categories in greater detail. By averaging the answers from all respondents, Forrester found that in aggregate they realized the following benefits by moving to Office 365 compared with an on-premises solution:

- › 11.2% reduction in Microsoft licensing costs (21 respondents).
- › 9.4% reduction in third-party license and software costs, e.g., other email packages (29 respondents).
- › 11.9% reduction in IT support costs for legacy systems (34 respondents).

In the interviews, Forrester heard more specifics about some of the benefits achieved. Some of the most important comments and examples were:

- › Users are bringing more of their own devices into the workplace. Since an Office 365 user license is good for up to five devices, costs have come down and users are happier. Office 365 is available on iPads, which was viewed as very positive.
- › All of the interviewed companies saved money on back-end hardware and hosting. One company said, “If we wanted to provide all of the Office 365 features in an on-premises solution, we would have had to invest \$400,000 in servers and storage.” Another reported shrinking its LAN by 50%, which resulted in a \$150,000 savings per year.
- › One company that was previously using Lotus Notes and on-premises Microsoft solutions was able to cut annual license costs by \$1 million.
- › Interviewed companies reported less downtime. One organization gave an example of a remote data center that went down for 2.5 days, which severely impacted productivity for 10% of the workforce. The existing infrastructure was not big enough to provide the needed global redundancy.
- › Two of the interviewed companies spoke about improved data security. One company said: “We are now less concerned about perimeter security and locking down desktops. Data security is much better than before. It is easier to have Microsoft deal with these things than to try and do it ourselves.”
- › Disaster recovery capabilities are now part of the Office 365 hosted solution. For one company, that meant a savings of \$80,000 over three years compared with maintaining DR capabilities in-house.
- › One of the interviewed companies is using Lync with PSTN integration in place of traditional office PBXes. This saves it \$65,000 in setup costs for an office with 40 workers. It typically opens five offices per year.

Forrester quantified four benefit areas within the technology pillar.

#### ★ **Avoided Back-End Hardware**

The composite organization was planning a divisionwide migration from 2010 versions of Microsoft solutions and introduction of new ones as explained in the composite organization description. The previous infrastructure was due for life-cycle replacement and would not have been large enough to handle the added solutions, e.g., Microsoft Lync.

The number of servers required is based primarily on the number of users. The following server types would be needed: Windows Servers, Exchange Servers, Lync Servers, and SharePoint Servers. They would be needed in both production and DR data centers. The servers would all be deployed in a highly virtualized environment with, on average, 10 VMs per physical server. In total, this comes out to 30 servers over the life of the study. Costs are avoided for the initial purchase, ongoing maintenance, and internal hosting.

Additionally, the SAN requirements were greatly reduced. Inbox sizes were increased without having to add any storage. Greater use of SharePoint did not require additional storage since all of the information resides in Microsoft’s cloud. In total, SAN requirements were reduced by 50%.

Interviewed organizations provided a broad range of back-end hardware that did not need to be added. This can also vary based on where in its lifecycle existing hardware is. To compensate for this range, this benefit was risk-adjusted and reduced by 10%. The risk-adjusted total benefit resulting from eliminated back-end infrastructure over the three years was \$672,791. See the section on Risks for more detail.

**TABLE 2**  
**Avoided Back-End Hardware**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
A1	Number of users added		2,500	0	250	500
A2	Total number of users	A2 [previous period] + A1 [current period]	2,500	2,500	2,750	3,250
A3	Number of users per Windows Server		20	20	20	20
A4	Number of virtual Windows Servers not added	A2/A3 [rounded up] - A4 [previous periods]	125	0	13	25
A5	Number of users per Exchange Server		300	300	300	300
A6	Number of virtual Exchange Servers not added	A2/A5 [rounded up] - A6 [previous periods]	9	0	1	2
A7	Number of users per Lync Server			1,600	1,600	1,600
A8	Number of virtual Lync Servers not added	A2/A7 [rounded up] - A8 [previous periods]		2	0	0
A9	Number of users per SharePoint Server				500	500
A10	Number of virtual SharePoint Servers not added	A2/A9 [rounded up] - A10 [previous]			6	1
A11	Total virtual servers not added — primary	A4+A6+A8+A10	134	2	20	28
A12	Total virtual servers not added — DR	A11*50%	67	1	10	14
A13	Average number of VMs per physical server		10	10	10	10
A14	Number of physical servers not added	(A11+A12)/A13 [rounded up]	21	1	3	5
A15	Cost per physical server		\$12,000	\$12,000	\$12,000	\$12,000
A16	Added physical server costs avoided	A14*A15	\$252,000	\$12,000	\$36,000	\$60,000
A17	Annual maintenance avoided	A16 [through current year] * 10%		\$26,400	\$30,000	\$36,000
A18	Avoided hosting costs	A14 [through current year]*\$750 per year (5 months in initial period)	\$6,563	\$16,500	\$18,750	\$22,500
A19	Total server-related savings	A16+A17+A18	\$258,563	\$54,900	\$84,750	\$118,500
A20	Annual SAN savings		\$20,833	\$50,000	\$75,000	\$85,000
At	Avoided back-end hardware	A19+A20	\$279,396	\$104,900	\$159,750	\$203,500
	Risk adjustment		↓ 10%			
Atr	Avoided back-end hardware (risk-adjusted)		\$251,456	\$94,410	\$143,775	\$183,150

Source: Forrester Research, Inc.

### ★ Avoided Microsoft Server Licenses

Eliminating the need (or nearly so in the case of a hybrid deployment) for on-premises servers reduces the corresponding server license costs for various Microsoft solutions. The savings includes the initial purchase price and ongoing maintenance. The savings realized by the composite organization is similar to the savings expressed by the interviewed companies.

This benefit was risk-adjusted and reduced by 10% to match the risk adjustment for the avoided back-end hardware benefit. The risk-adjusted total benefit resulting from avoided Microsoft Server licenses over the three years was \$60,060.

**TABLE 3**  
**Avoided Microsoft Server Licenses**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
B1	Number of Windows Server licenses not added	=A4	125	0	13	25
B2	Cost per license		\$174	\$174	\$174	\$174
B3	Number of Exchange Enterprise licenses not added	=A6	9	0	1	2
B4	Cost per license		\$795	\$795	\$795	\$795.00
B5	Number of Lync licenses not added	=A8	0	2	0	0
B6	Cost per license		\$716	\$716	\$716	\$716
B7	Number of SharePoint licenses not added	=A10	0	0	6	1
B8	Cost per license		\$1,334	\$1,334	\$1,334	\$1,334
B9	Total avoided license costs	$B1*B2+B3*B4+B5*B6+B7*B8$	\$28,905	\$1,432	\$11,061	\$7,274
B10	Avoided maintenance costs	$B9$ [through current year] *15%		\$4,551	\$6,210	\$7,301
Bt	Avoided Microsoft server licenses	$B9+B10$	\$28,905	\$5,983	\$17,271	\$14,575
	Risk adjustment		↓ 10%			
Btr	Avoided Microsoft server licenses (risk-adjusted)		\$26,015	\$5,384	\$15,544	\$13,117

Source: Forrester Research, Inc.

### ★ Reduced Implementation Effort

The full Office 365 deployment was completed by the composite organization in three phases. Phase one was completed in the initial period and consisted of migrating all North American users to Exchange Online, moving all users to Office Professional Plus — cloud edition, and doing a net new deployment of OneDrive. Phase two was completed the next year and consisted of a net new Lync Online and Yammer deployment. Phase three consisted of a SharePoint migration from a 2010 SharePoint on-premises deployment to SharePoint Online.

Details on the time and costs for these efforts can be found in the Costs section of this study. Interviewed companies said that had they moved to a new on-premises solution as part of their refresh, the effort would have been much greater. For the

composite organization, Forrester estimates that an on-premises deployment would have required 40% more internal effort and professional services in the initial period and 50% more in subsequent years.

This benefit can vary greatly depending on which, if any, Microsoft solutions were previously in use, the level of in-house expertise to manage the implementation and migration, as well as the overall size of the deployment. To compensate, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit over the three years was \$272,000.

**TABLE 4**  
**Reduced Implementation Effort**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
C1	Reduced internal effort	$I_t * 40\%$	\$80,000	\$20,000	\$60,000	\$0
C2	Reduced consulting fees	$J_t * 40\%$	\$60,000	\$25,000	\$75,000	\$0
Ct	Reduced implementation effort	$C1 + C2$	\$140,000	\$45,000	\$135,000	\$0
	Risk adjustment		↓ 15%			
Ctr	Reduced implementation effort (risk-adjusted)		\$119,000	\$38,250	\$114,750	\$0

Source: Forrester Research, Inc.

### ★ Reduced IT Support Effort

Moving Microsoft Office solutions to the cloud reduces the work required by the IT team to maintain the technologies and support users. The interviewed customers reported substantial savings, including:

- › “Overall, operations maintenance tasks have dropped significantly compared with our on-premises solutions. We used to have three full-time equivalent (FTE) Exchange administrators and now only need one. The freed-up resources are now working on projects that deliver more value.”
- › “We have avoided a lot of new hires on our system administration teams.”
- › “Our help desk costs have gone down roughly 20%.”

The composite organization was able to redeploy system administrators who previously supported Exchange. Additionally, there were avoided future hires for Lync and SharePoint administrators. The size and cost of the remaining support team can be found in the Costs section of this study.

No user help desk savings was included in the study. While the effort would decrease for email-related inquiries, it increased in other areas because new solutions were deployed (Lync) or user adoption increased (SharePoint). It was assumed that these savings and increases netted each other out.

This benefit can vary depending on how thinly stretched the existing support team was, and if new solutions are being added or only replacing old ones. To compensate, this benefit was risk-adjusted and reduced by 5%. The risk-adjusted total benefit over the three years was \$1,425,000.



**TABLE 5**  
**Reduced IT Support Effort**

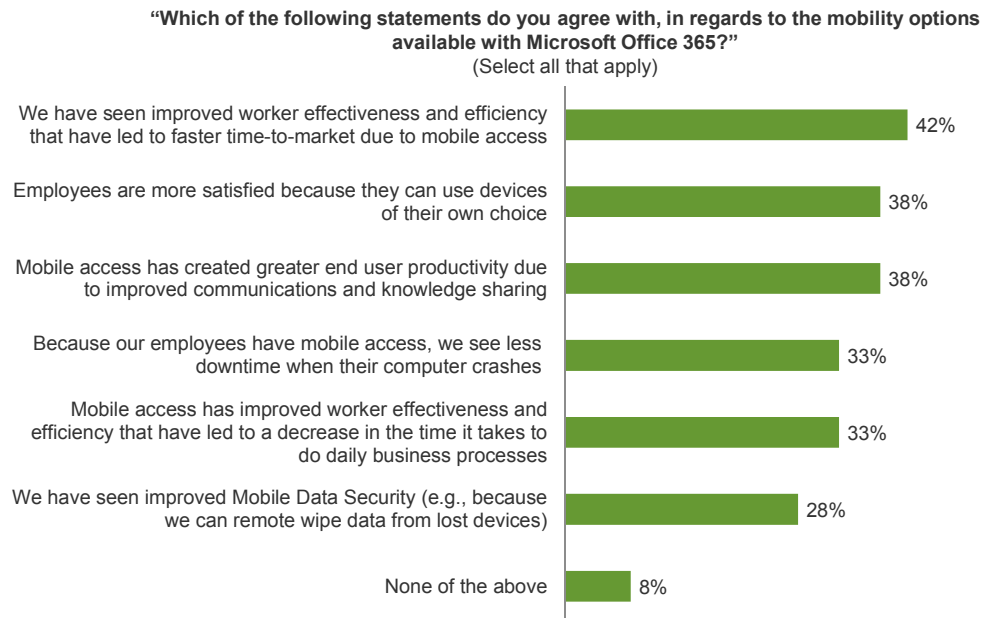
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
D1	Number of Exchange administrators redeployed			1.5	2.0	2.0
D2	Number of Lync administrators not added			1.0	1.5	1.5
D3	Number of SharePoint administrators not added				1.5	1.5
D4	Total number of affected administrator positions	D1+D2+D3		2.5	5.0	5.0
D5	Annual fully burdened cost			\$120,000	\$120,000	\$120,000
Dt	Reduced IT support effort	D4*D5		\$300,000	\$600,000	\$600,000
	Risk adjustment			↓ 5%		
Dtr	Reduced implementation effort (risk-adjusted)			\$285,000	\$570,000	\$570,000

Source: Forrester Research, Inc.

### Mobility

Office 365 provides significant benefits to mobile workers by giving them access to information and colleagues from practically anywhere. Figure 7 shows which benefits the online survey respondents have realized.

**FIGURE 7**  
**Mobility Benefits**



Base: 60 North American and UK organizations that currently use Office 365 products

Source: Forrester Research, Inc.

The interviewed companies provided some specific examples of benefits:

- › “Office 365 has made things much easier for our home workers. They comprise roughly 7% of the organization.”
- › “It is now more convenient for our US workers to support locations around the world at odd hours of the day.”
- › “Our employees can now get their data and apps from anywhere without having to mess with VPNs. Office 365 is really intuitive and simple to use.”
- › “We no longer need to open remote offices everywhere since people can work from home. We expect to start saving \$2 million to \$3 million per year in office costs next year.”

### ★ Increased Mobile Worker Productivity

For the financial analysis, Forrester looked at improved productivity for the 300 highly mobile workers, or “road warriors.” This group is comprised primarily of salespeople and consultant engineers. On average, they are travelling four days a week, 45 weeks a year. Their productivity is improved by reducing time to access systems and information since a VPN is no longer needed, and by having a more seamless user experience with less downtime.

In Year 1 of the study, the daily savings is a quarter of an hour. This increases to 1 hour per day by Year 3 as Lync and SharePoint are fully integrated and as users become more comfortable working in this new paradigm. This productivity gain can be used to close additional sales or can be a source of cost savings through avoided additional hiring. Forrester discounted this benefit by 50% since not all productivity gains translate into additional work.

Because not all organizations have a mobile workforce and not all productivity gains result in additional value-add activities, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit resulting over the three years was \$2,811,375.

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*“Mobility and sharing in the field greatly improves workplace efficiency.”*

~Director of infrastructure

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**TABLE 5**  
**Increased Mobile Worker Productivity**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
E1	Number of “road warriors”			300	300	300
E2	Number of days on the road	4 days*45 weeks		180	180	180
E3	Hours saved per user day			0.25	0.50	1.00
E4	Hours saved per user per year	E2*E3		45	90	180
E5	Total man-days saved	E1*E4/8 hours		1,688	3,375	6,750
E6	Fully burdened daily cost	\$140,000/250 workdays		\$560.00	\$560.00	\$560.00
E7	Total potential productivity gain	E5*E6		\$945,000	\$1,890,000	\$3,780,000
E8	% of benefit realized			50%	50%	50%
Et	Increased mobile worker productivity	E7*E8		\$472,500	\$945,000	\$1,890,000
	Risk adjustment			↓ 15%		
Etr	Increased mobile worker productivity (risk-adjusted)			\$401,625	\$803,250	\$1,606,500

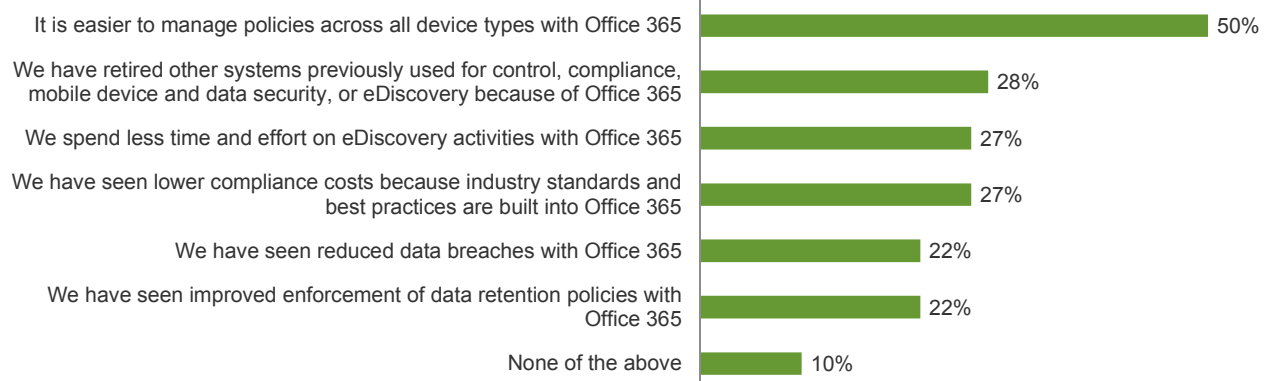
Source: Forrester Research, Inc.

### Control & Compliance

Compliance and control includes regulatory compliance, eDiscovery, audit, policy management, and other similar activities. Online survey respondents realized numerous benefits as shown in Figure 8.

**FIGURE 8**  
**Control & Compliance Benefits**

“Looking at the following statements about control and compliance, which of the following statements do you agree your organization seen from your investment in Microsoft Office 365?”  
(Select all that apply)



Base: 60 North American and UK organizations that currently use Office 365 products  
Source: Forrester Research, Inc.

Further analysis of the online survey findings showed that, on average, the respondents reduced compliance costs by 6.8% and reduced time spent on eDiscovery efforts by 10.7%. Additionally, they reported that the number of data breaches and the cost of those breaches have decreased by 73% and 32%, respectively.

### ★ Avoided Control And Compliance Efforts

In the customer interviews, Forrester learned that many of the capabilities included in Office 365 would have needed to be added separately had the companies stuck with an on-premises solution. For the composite organization, Forrester calculated the avoided labor costs of implementing these solutions. Specifically, we looked at projects for encrypted email, data leakage, eDiscovery, and rights management. There may be additional savings for removed third-party systems or ongoing support; since these can vary greatly depending on individual requirements, these potential savings were excluded. Readers should take the other potential cost avoidances into consideration when evaluating the ROI of Office 365 on their organization.

While the nature of additional projects required to backfill features included in Office 365 can vary, Forrester believes that most organizations would need to do some of them. To compensate for this variance, this benefit was risk-adjusted and reduced by 5%. The risk-adjusted total benefit over the three years was \$90,250.

**TABLE 6**  
**Avoided Cost And Compliance Efforts**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
F1	Encrypted email — number of months			2.0		
F2	Encrypted email — number of FTEs			1.5		
F3	Data leakage — number of months			1.0		
F4	Data leakage — number of FTEs			1.5		
F5	eDiscovery — number of months				2.0	
F6	eDiscovery — number of FTEs				1.5	
F7	Rights management — number of months				1.0	
F8	Rights management — number of FTEs				2.0	
F9	Total man-months of effort saved	$(F1 * F2) + (F3 * F4) + (F5 * F6) + (F7 * F8)$		4.5	5.0	
F10	Monthly average fully burdened cost	\$120,000/12 months		\$10,000	\$10,000	
Ft	Avoided control and compliance projects	$F9 * F10$		\$45,000	\$50,000	
	Risk adjustment			↓ 5%		
Ftr	Avoided control and compliance projects (risk-adjusted)			\$42,750	\$47,500	

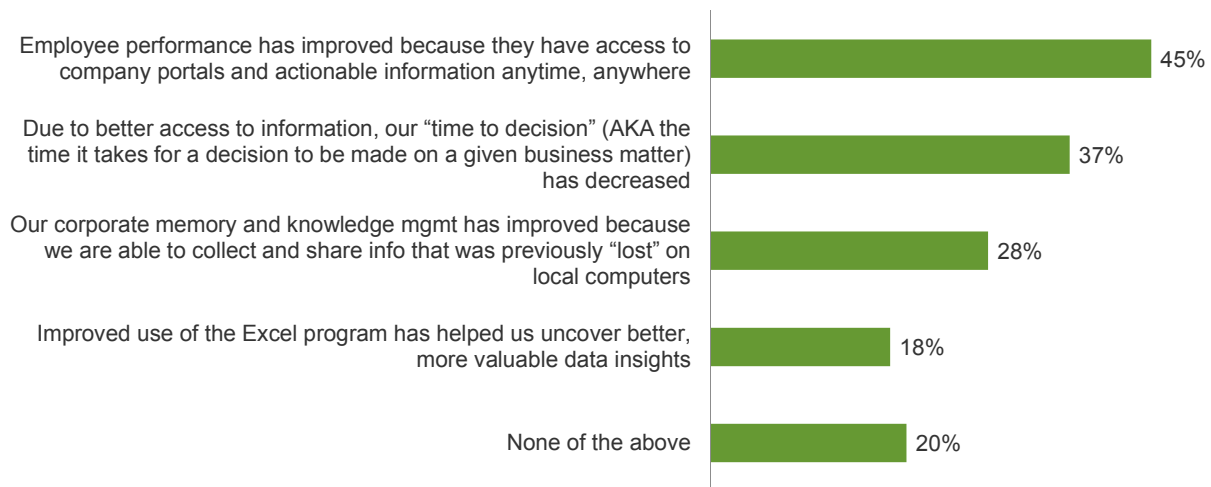
Source: Forrester Research, Inc.

### Business Intelligence

The importance of business intelligence and the value of data within an organization have become more important in the past several years. Nearly every industry and company speaks regularly about the role “big data” will play going forward. The surveyed companies were asked which business intelligence-related benefits they have realized, and the results are summarized in Figure 9. Respondents also said that, on average, Office 365 has led to an 8.5% decrease in time-to-decision.

**FIGURE 9**  
**Business Intelligence Benefits**

“Looking at the following statements about business intelligence, which of the following do you agree your organization has seen from your investment with Microsoft Office 365?”  
(Select all that apply)



Base: 60 North American and UK organizations that currently use Office 365 products

Source: Forrester Research, Inc.

Interviewed companies described how the elimination of multiple repositories and the ability to find information more quickly has resulted in demonstrable benefits. One interviewee said: “Time-to-decision has definitely decreased. People can find the information they need, and there has been 100% system availability.”

### ★ Reduced Decision-Making Time

For the composite organization, Forrester looked at the increased productivity of 550 users (increasing to 600 by Year 3) who spend a good portion of their day making decisions or completing analyses. These include executive leadership, managers, salespeople, and analysts. This benefit begins to be realized in Year 2 of the study with the SharePoint implementation, even though Lync, Office Professional Plus, and Exchange Online implementations completed in previous phases also contribute.

In Year 2, these workers see an average savings of 15 minutes per day. This increases to 30 minutes per day beginning in Year 3. This time savings can be used to complete additional value-add work as well as avoid the need for new hires. Because not all time savings result in added work, Forrester discounted this benefit by 50%.

Since the number of decision-makers as a proportion of all employees varies greatly from one organization to another, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit over the three years was \$3,253,906.

**TABLE 7**  
**Reduced Decision-Making Time**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G1	Number of affected workers				550	600
G2	Hours saved per day				0.25	0.50
G3	Workdays per year				250	250
G4	Total man-days saved	$G1 * G2 * G3 / 8$ hours			4,297	9,375
G5	Fully burdened daily cost	$\$140,000 / 250$ workdays			\$560	\$560
G6	Total potential savings	$G4 * G5$			\$2,406,250	\$5,250,000
G7	% of benefit realized				50%	50%
Gt	Reduced decision-making time	$G6 * G7$			\$1,203,125	\$2,625,000
	Risk adjustment				↓15%	
Gtr	Reduced decision-making time (risk-adjusted)				\$1,022,656	\$2,231,250

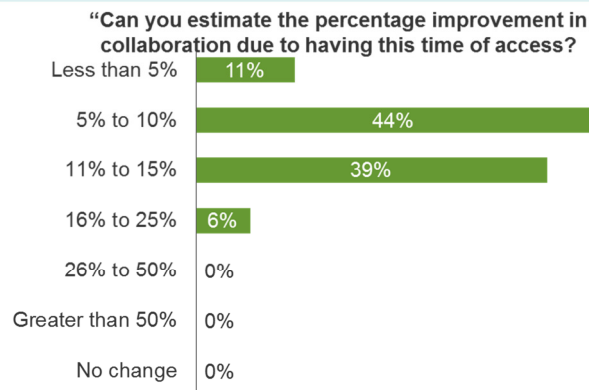
Source: Forrester Research, Inc.

### *Enterprise Social*

The way individuals live their personal lives in terms of using online social interaction services is affecting how people communicate and collaborate in the workplace. A major component of Office 365 is enabling these social interactions to improve knowledge sharing, collaboration, and productivity. Figure 10 shows that online survey respondents reported an average increase in productivity of 10% from various Office 365 social components included in the solutions.

FIGURE 10

## Enterprise Social Results Capabilities Deliver Greater Collaboration



Base: 18 North American and UK organizations that have Microsoft Office 365 deployed and improved collaboration

Source: Forrester Research, Inc.

In interviews, the companies provided many examples of how increased social interaction is improving the workplace and company performance. Some examples of user experiences include:

- › “Integration with Yammer has improved collaboration. We are seeing knowledge sharing increase.”
- › “Tight integration between Office 2013 and Lync is absolutely resulting in productivity improvements.”
- › “Presence has been huge. We are definitely seeing benefits for our geographically disperse organization.”
- › “Our employees can start communities, use SharePoint social tools, and blog. It all works very well together.”
- › “People are using a lot more Lync-based collaboration. In the past they would book a conference room or email spreadsheets. Now they can just share a desktop. These ad hoc meetings are critical.”

Additionally, the social aspect of Office 365 has resulted in direct cost savings by being able to eliminate other social and collaboration services and reducing long-distance telephone calls. Interviewed companies reported eliminating web conferencing solutions as well as telepresence rooms. One interviewee said: “We moved into a new office building last year. Previously we had six conference rooms fitted out with telepresence conferencing capabilities. In this new office we only have three. People are more productive now than when we had twice as many enabled conference rooms.” Another reported reducing telephone costs by \$75,000 per year and eliminating other web conferencing solutions with an annual cost of \$60,000.

### ★ Eliminated Communication Technologies

For the quantified portion of the Enterprise Social benefits pillar, Forrester looked only at the hard cost savings possible since productivity gains were explored under a couple of other pillars. The composite organization was able to eliminate web conferencing solutions provided by other vendors. It was also able to reduce long-distance and teleconference solution costs as users have more scheduled and ad hoc meetings using Lync and Yammer.

These benefits should be realizable by all organizations previously using other solutions for web conferencing or audio conferencing. Because the amount of long-distance phone usage varies based on geographic reach, this benefit was risk-adjusted and reduced by 5%. The risk-adjusted total benefit over the three years was \$247,000.

**TABLE 8**  
**Eliminated Communication Technologies**

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
H1	Eliminated web conferencing solutions		\$20,000	\$45,000	\$60,000
H2	Eliminated long-distance phone charges		\$15,000	\$50,000	\$70,000
Ht	Eliminated communication technologies	H1 + H2	\$35,000	\$95,000	\$130,000
	Risk adjustment		↓ 5%		
Btr	Eliminated communication technologies (risk-adjusted)		\$33,250	\$90,250	\$123,500

Source: Forrester Research, Inc.

### Total Quantified Benefits

Table 9 shows the total of all benefits across all of the pillars, 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 \$7 million, or \$2,180 per user.

**TABLE 9**  
**Total Quantified Benefits (Risk-Adjusted)**

Ref.	Benefit	Initial	Year 1	Year 2	Year 3	Total	Present Value
Atr	Avoided back-end hardware	\$251,456	\$94,410	\$143,775	\$183,150	\$672,791	\$593,709
Btr	Avoided Microsoft Server licenses	\$26,015	\$5,384	\$15,544	\$13,117	\$60,060	\$53,611
Ctr	Reduced implementation effort	\$119,000	\$38,250	\$114,750		\$272,000	\$248,607
Dtr	Reduced IT support effort		\$285,000	\$570,000	\$570,000	\$1,425,000	\$1,158,415
Etr	Increased mobile worker productivity		\$401,625	\$803,250	\$1,606,500	\$2,811,375	\$2,235,944
Ftr	Avoided control and compliance projects		\$42,750	\$47,500		\$90,250	\$78,120
Gtr	Reduced decision-making time			\$1,022,656	\$2,231,250	\$3,253,906	\$2,521,542
Htr	Eliminated communication technologies		\$33,250	\$90,250	\$123,500	\$247,000	\$197,601
	<b>Total benefits</b>	<b>\$396,471</b>	<b>\$900,669</b>	<b>\$2,807,725</b>	<b>\$4,727,517</b>	<b>\$8,832,382</b>	<b>\$7,087,549</b>

Source: Forrester Research, Inc.



## COSTS

The composite organization experienced a number of costs associated with the Office 365 solution:

- › Internal implementation labor.
- › Professional services.
- › Training.
- › Ongoing system administration.
- › Incremental Microsoft licenses.
- › Federation hardware.
- › Incremental bandwidth.

These represent the mix of internal and external costs experienced by the composite organization for initial planning, implementation, and ongoing maintenance associated with the solution.

### 💰 Internal Implementation Labor

The composite organization's implementation of Office 365 consisted of three phases:

- › The first phase was the initial deployment. It consisted of planning and the implementation of Exchange Online, Office Professional Plus Online, and OneDrive. There was a brief pilot for some users in the IT department and then a rollout to all North American users. This phase lasted five months, and the internal team consisted of four FTEs (excluding trainers, who are discussed separately).
- › The second phase followed shortly afterwards (in Year 1 of the study). It consisted of completely new implementations of Lync Online and Yammer. This phase lasted two months and consisted of two FTEs (excluding trainers, who are discussed separately).
- › The third phase followed in Year 2 and consisted of migration to SharePoint Online. This effort lasted six months and consisted of two FTEs. The majority of the effort was migrating old SharePoint sites onto the new platform.

One interviewed organization said: "Once we got the tools set up, the Exchange data transfer was pretty straightforward. We were able to migrate our users remotely and typically did a block of 500 to 600 over a weekend." This ease of setup was consistent across companies and should be expected with SaaS implementations.

The total effort to implement Office 365 will vary depending on which components are being used and how many users are involved. Additionally, some organizations may choose to use more (or less) professional services, which may decrease (or increase) the amount of internal effort. To compensate, this cost was risk-adjusted up by 10%. The risk-adjusted cost over the three years was \$396,000.

**TABLE 10**  
**Internal Implementation Labor**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
I1	Number of internal FTEs		4	2	2	
I2	Number of months		5	2	6	
I3	Average monthly fully burdened cost	\$120,000/12 months	\$10,000	\$10,000	\$10,000	
I <sub>t</sub>	Internal implementation labor	I1 * I2 * I3	\$200,000	\$40,000	\$120,000	
	Risk adjustment		↑ 10%			
I <sub>tr</sub>	Internal implementation labor (risk-adjusted)		\$220,000	\$44,000	\$132,000	

Source: Forrester Research, Inc.

### 💰 Professional Services

The composite organization used Microsoft's consulting services as part of the implementations. The consultants brought best practices and focused on system integration and solution configuration. The composite organization's IT team was able to learn quickly from the consultants to do a lot of the daily operations work in-house very quickly.

The level of outside assistance required varies greatly. Factors to consider are spare capacity within the internal IT organization to work on the project, previous experience with Microsoft solutions, and the overall size and complexity of the deployment. To compensate, this cost was risk-adjusted up by 20%. The risk-adjusted cost over the three years was \$420,000.

**TABLE 11**  
**Professional Services**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
J1	Consulting fees		\$150,000	\$50,000	\$150,000	
J <sub>t</sub>	Professional services	=J1	\$150,000	\$50,000	\$150,000	
	Risk adjustment		↑ 20%			
J <sub>tr</sub>	Professional services (risk-adjusted)		\$180,000	\$60,000	\$180,000	

Source: Forrester Research, Inc.

### 🎓 Training

All of the interviewed companies needed training for their IT teams. End user training depended on if the company was on a previous, on-premises version of the solution. If so, much of the transition was invisible to users. If there are new solutions, such as Lync and Yammer in the case of the composite organization, end user training is likely to be needed.

The IT team required 150 man-days of training to come fully up to speed on implementing and managing the Office 365 solutions during the initial phase. By investing in training upfront, it was able to reduce its ongoing professional service needs. In years 1 and 2 of the study, there was an additional 20 man-days of training to learn about new solutions and upgrades. For end user training, three internal FTEs were trained up by the IT team and provided training to the rest of the organization on an ongoing basis over the life of the study.

The cost of training will vary based on how many IT resources and end users need to be trained. If completely new solutions are being introduced, this will require more training. If more professional services will be used, the training costs may be lower. To compensate, this cost was risk-adjusted up by 5%. The risk-adjusted cost over the three years was \$910,350.

**TABLE 12**  
**Training**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
K1	Number of man-days of technology training		150	20	20	
K2	Cost per day — technology training		\$300	\$300	\$300	
K3	User training	3 FTE trainers * \$90,000		\$270,000	\$270,000	\$270,000
Kt	Training	$K1 * K2 + K3$	\$45,000	\$276,000	\$276,000	\$270,000
	Risk adjustment		↑ 5%			
Ktr	Training (risk-adjusted)		\$47,250	\$289,800	\$289,800	\$283,500

Source: Forrester Research, Inc.

### ➤ Ongoing System Administration

The Benefits section describes the number and types of system administrator positions that can be redeployed or not added. There was still the need for a system administration team, albeit roughly half the size, to deal with user administration, configuration, and setup of new features. Initially, 1.5 FTEs continued to work on Exchange-related activities such as mailbox administration and Active Directory tree updates. An additional 1.5 FTEs were subsequently needed for Lync and Yammer and in preparation for the SharePoint migration. One more FTE was need after the SharePoint migration, meaning the remaining system administration team totaled five FTEs.

Internal team size will vary based on the solution components in use and the size of the deployment. To compensate, this cost was risk-adjusted up by 5%. The risk-adjusted cost over the three years was \$1,071,000.

**TABLE 13**  
**Ongoing System Administration**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
L1	Number of FTEs			1.5	3.0	4.0
L2	Annual fully burdened cost			\$120,000	\$120,000	\$120,000
Lt	Ongoing system administration	L1 * L2		\$180,000	\$360,000	\$480,000
	Risk adjustment			↑ 5%		
Ltr	Ongoing system administration (risk adjusted)			\$189,000	\$378,000	\$504,000

Source: Forrester Research, Inc.

### Incremental Microsoft Licenses

In order to have as much of an apple-to-apple comparison as possible, this study compares Office 365 with Microsoft's Software Assurance (SA) licensing model. In the SA model, customers pay an annual fee that entitles them to all upgrades and the latest solutions. In the previous solution, there was an ECAL and Office license required for each user. In the Office 365 model, E3 and ECAL Bridge to Office 365 licenses are required for each user.

There are many different license types that the reader's organization may be moving from. Forrester recommends working with your Microsoft account representative to fully understand the original pricing and the new pricing under Office 365. Forrester risk-adjusted this cost up by 5% to account for some organizations that may have had lower Software Assurance license costs. The risk-adjusted cost over the three years was \$241,652.

**TABLE 14**  
**Incremental Microsoft Licenses**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
M1	Number of users	=A2	2,500	2,500	2,750	3,250
M2	Office 365 annual license per user	Initial period for five months	\$86.85	\$208.44	\$208.44	\$208.44
M3	Previous Software Assurance annual license per user	Initial period for five months	\$76.80	\$184.32	\$184.32	\$184.32
Mt	Incremental Microsoft licenses	M1 * (M2 - M3)	\$25,125	\$60,300	\$66,330	\$78,390
	Risk adjustment		↑ 5%			
Mtr	Incremental Microsoft licenses (risk-adjusted)		\$26,381	\$63,315	\$69,647	\$82,310

Source: Forrester Research, Inc.

### ⊖ Federation Hardware

The composite organization wanted to use federated identity with customers, partners, and suppliers for SSO. This required some infrastructure to support federated identity. It added two federated AD servers into its data centers for high availability. This required the upfront purchase as well as ongoing maintenance and internal hosting cost allocation.

If federated identity is not required, this cost can be completely eliminated. Forrester risk-adjusted this cost up by 5% for organizations that want to use federated identity. The risk-adjusted cost over the three years was \$41,265.

**TABLE 15**  
**Federation Hardware**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
N1	Number of federated AD servers added		2			
N2	Server costs	$N1 * \$12,000$	\$24,000			
N3	Annual maintenance	$N2 * 15\%$		\$3,600	\$3,600	\$3,600
N4	Internal hosting costs	$N1 * \$750$		\$1,500	\$1,500	\$1,500
Nt	Federation hardware	$N2 + N3 + N4$	\$24,000	\$5,100	\$5,100	\$5,100
	Risk adjustment		↑ 5%			
Ntr	Federation hardware (risk-adjusted)		\$25,200	\$5,355	\$5,355	\$5,355

Source: Forrester Research, Inc.

### ⊖ Incremental Bandwidth

Moving to Office 365 required, in aggregate, more bandwidth. Exchange required less bandwidth than previous versions. The addition of Lync increased the total bandwidth required. More bandwidth was required during the Exchange and SharePoint migrations.

How much, if any, additional bandwidth required will depend on the size of existing “pipes” and if new solutions are being added. To compensate, this cost was risk-adjusted up by 10%. The risk-adjusted cost over the three years was \$103,400.

**TABLE 16**  
**Incremental Bandwidth**

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
O1	Number of months		5	12	12	12
O2	Additional monthly cost		\$2,000	\$2,000	\$2,500	\$2,500
Ot	Additional bandwidth	O1 * O2	\$10,000	\$24,000	\$30,000	\$30,000
	Risk adjustment			↑ 10%		
Otr	Incremental bandwidth (risk-adjusted)		\$11,000	\$26,400	\$33,000	\$33,000

Source: Forrester Research, Inc.

### Total Costs

Table 17 shows the total of all costs as well as associated present values, discounted at 10%. Over three years, the composite organization expects total costs to total a present value of a little more than \$2.7 million, or \$833 per user.

**TABLE 17**  
**Total Costs (Risk-Adjusted)**

Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Itr	Internal implementation labor	\$220,000	\$44,000	\$132,000		\$396,000	\$369,091
Jtr	Professional services	\$180,000	\$60,000	\$180,000		\$420,000	\$383,306
Ktr	Training fees	\$47,250	\$289,800	\$289,800	\$283,500	\$910,350	\$763,206
Ltr	Ongoing system administration		\$189,000	\$378,000	\$504,000	\$1,071,000	\$862,878
Mtr	Incremental Microsoft licenses	\$26,381	\$63,315	\$69,647	\$82,310	\$241,652	\$203,340
Ntr	Federation hardware	\$25,200	\$5,355	\$5,355	\$5,355	\$41,265	\$38,517
Otr	Incremental bandwidth	\$11,000	\$26,400	\$33,000	\$33,000	\$103,400	\$87,066
	<b>Total costs</b>	<b>\$509,831</b>	<b>\$677,870</b>	<b>\$1,087,802</b>	<b>\$908,165</b>	<b>\$3,183,667</b>	<b>\$2,707,404</b>

Source: Forrester Research, Inc.

### FLEXIBILITY

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some 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. There are multiple scenarios in which a customer might choose to implement Office

365 and later realize additional uses and business opportunities. Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix B).

Moving to Office 365 makes organizations inherently more flexible. IT organizations can more quickly provision users and roll out the latest features to make workers more productive. One organization reported using Office 365 to more quickly integrate two merged companies. It said, “It has given us tremendous agility.”

Another interviewed organization described a use case that has resulted in millions of dollars in additional revenue: “Opening an office used to take three to four months. Our latest opening, using Office 365, took 18 days. When we get a grant, we can only start to invoice once we begin to perform work. That means we were losing three months of revenue.” This amounted to nearly \$200,000 per month for one office, and five offices were being opened in a typical year.

The composite organization is looking into providing Office 365 to manufacturing and logistics workers via kiosks. It is also planning to roll out Office 365 to other geographies. None of the associated flexibility benefits were included in the ROI analysis.

## RISKS

Forrester defines two types of risk associated with this analysis: “implementation risk” and “impact risk.” Implementation risk is the risk that a proposed investment in Office 365 may deviate from the original or expected requirements, resulting in higher costs than anticipated. Impact risk refers to the risk that the business or technology needs of the organization may not be met by the investment in Office 365, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for cost and benefit estimates.

Table 18 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates for the composite organization. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

**TABLE 18**  
**Benefit And Cost Risk Adjustments**

<b>Benefits</b>	<b>Adjustment</b>
Avoided back-end hardware	↓10%
Avoided Microsoft server licenses	↓10%
Reduced implementation effort	↓15%
Reduced IT support effort	↓5%
Increased mobile worker productivity	↓15%
Avoided control and compliance projects	↓5%
Reduced decision-making time	↓15%
Eliminated communication technologies	↓5%
<b>Costs</b>	<b>Adjustment</b>
Internal implementation labor	↑ 10%
Professional services	↑ 20%
Training	↑ 5%
Ongoing system administration	↑ 5%
Incremental Microsoft licenses	↑ 5%
Federation hardware	↑ 5%
Additional bandwidth	↑ 10%

Source: Forrester Research, Inc.

Quantitatively capturing implementation risk and impact risk by directly adjusting the financial estimates results provides more meaningful and accurate estimates and a more accurate projection of the ROI. In general, risks affect costs by raising the original estimates, and they affect benefits by reducing the original estimates. The risk-adjusted numbers should be taken as “realistic” expectations since they represent the expected values considering risk.



## Financial Summary

The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, IRR, NPV, and payback period for the composite organization's investment in Office 365.

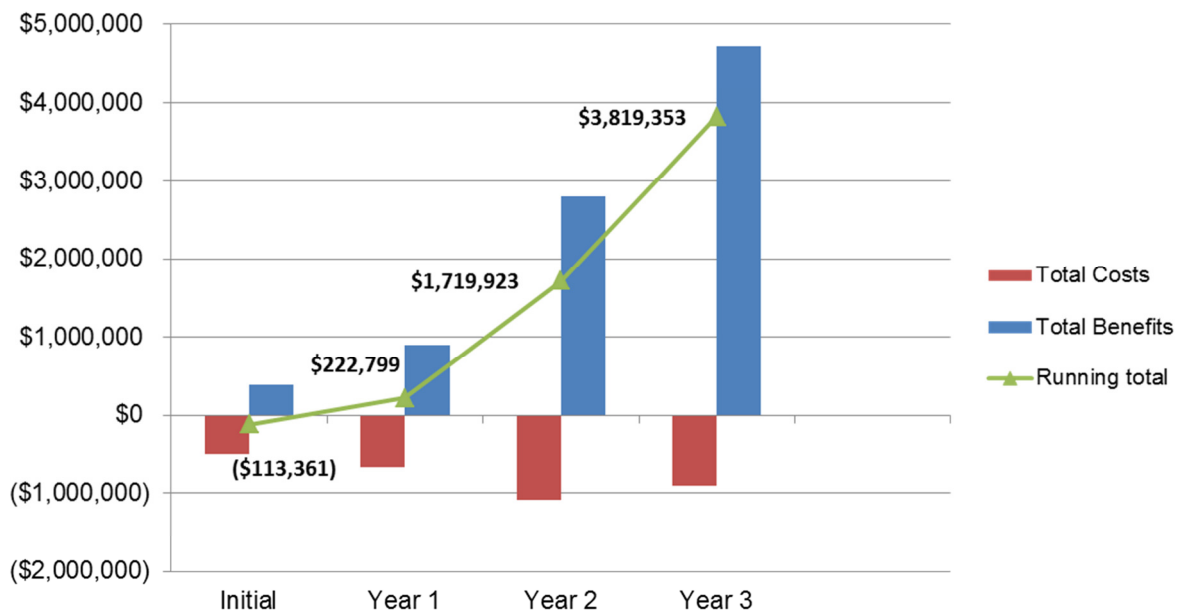
Table 19 below shows the risk adjusted ROI, IRR, NPV, and payback period values. These values are determined by applying the risk-adjustment values from Table 18 in the Risks section to the unadjusted results in each relevant cost and benefit section.

**TABLE 19**  
**Cash Flow (Risk-Adjusted)**

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Costs	(\$509,831)	(\$677,870)	(\$1,087,802)	(\$908,165)	(\$3,183,667)	(\$2,707,404)
Benefits	\$396,471	\$900,669	\$2,807,725	\$4,727,517	\$8,832,382	\$7,087,549
Net benefits	(\$113,361)	\$222,799	\$1,719,923	\$3,819,353	\$5,648,715	\$4,380,145
ROI	162%					
IRR	468%					
Payback period	7 months					

Source: Forrester Research, Inc.

**FIGURE 11**  
**Cash Flow Chart (Risk-Adjusted)**



Source: Forrester Research, Inc.

## Microsoft Office 365: Overview

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

Office 365 is the same Office you already know and use every day — and then some. Because Office 365 is powered by the cloud, you can get to your applications and files from virtually anywhere — such as a PC, Mac, and select mobile devices — and they're always up to date. Same goes for updates to features — you get them automatically. Business-class email and calendaring put you in sync and help you avoid communication glitches. With business-class email and shared calendars that you can get to from virtually anywhere, people stay in sync and on schedule

Specific feature related benefits include:

- › **Online conferencing puts everyone on the same page.** With online conferencing, distance really isn't an issue. Need to get everyone together? Host an online meeting complete with real-time note-taking and screen sharing.
- › **Extend your reach with simple, more secure file sharing.** Office 365 makes it easy to more securely share files with co-workers, customers, and partners. Work together on documents that are always current and accessible from virtually anywhere.
- › **Build your online presence, minus the hosting fees.** More effectively market your business with a public website that's easy to set up and update. It's DIY with online tools and absolutely zero hosting fees.
- › **One familiar experience, even on the go.** Office 365 mobile apps let you view and edit your Word, Excel, and PowerPoint files and more on your mobile device. And when you get back to your desk, there they are, with content and formatting intact.
- › **Create docs from any browser.** With the touch-friendly applications of Office Online, you can create, edit, and share your Office files from any browser. You can even share and work on docs at the same time as others and avoid versioning hassles later.
- › **Security, compliance, and privacy you can trust.** Security, compliance, and privacy in the cloud? Yes. And Microsoft is continually making improvements in Office 365 to earn, and maintain, your trust.

## Appendix A: Composite Organization Description

Based on interviews with three enterprise customers and a survey of 60 additional enterprise customers currently using Office 365, Forrester constructed a composite organization that encompasses characteristics heard across the interviews. Forrester then created a TEI financial framework and an associated ROI analysis for this composite company. By aggregating the findings from the customer interviews and portraying a composite organization that has benefited from replacing its on-premises deployment of the 2010 version of various Microsoft solutions with Microsoft Office 365, this Forrester study illustrates the financial impact of using Microsoft Office 365 for a typical enterprise customer.

Forrester named the composite organization Acme Supply Corporation. Acme is involved in the light manufacturing, distribution, and sales of equipment for a range of industries. The company is headquartered in Chicago (United States) with divisions in North America, Europe, and Asia. This study looks only at the initial Office 365 deployment for its North American operations, which include global corporate and North America-specific personnel. There are a total of 6,000 employees in North America: 2,500 knowledge workers and another 3,500 working in manufacturing, warehousing, and transportation.

The 2,500 knowledge workers are spread between eight offices in the United States and Canada. Of these 2,500 workers, 300 of them are sales and consulting employees who would be considered “road warriors” and are on the road most of the time. All knowledge workers are migrated to Office 365 in this study. Below is a summary of the previous and new Microsoft deployment.

**TABLE 20**  
**Composite Organization Solution Components**

Product	Previous Version	Office 365 Deployment
Office 365 Professional Plus	2010 Office Professional Plus — local client	Office 365 Professional Plus — cloud
Exchange	2010 Exchange — on-premises	Exchange Online
SharePoint	2010 SharePoint — on-premises	SharePoint Online
Lync	None	2013 Lync Online
Yammer	None	Yammer
OneDrive	None	OneDrive

Source: Forrester Research, Inc.

Acme decided that it was time to upgrade the 2010 versions of Exchange, SharePoint, and Office Professional Plus to take advantage of new features. It also decided that it would benefit from adding Lync. Acme was interested in Office 365 versus a traditional on-premises deployment as a means to reduce total cost of ownership (TCO), convert much of the costs from capex to opex, and improve user productivity and collaboration. In the end, Acme decided to go with an Office 365 deployment with everything in the cloud except for Lync. It wanted to use Lync/PSTN integration for voice, which requires on-premises servers. This study explores the benefits Acme achieved compared with an equivalent on-premises deployment.

## Appendix B: Total Economic Impact™ Overview

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.

The TEI methodology consists of four components to evaluate investment value: benefits, costs, flexibility, and risks.

### BENEFITS

Benefits represent the value delivered to the user organization — IT and/or business units — by the proposed product or project. Often, product or project justification exercises focus just on IT cost and cost reduction, leaving little room to analyze the effect of the technology on the entire organization. The TEI methodology and the resulting financial model place 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. Calculation of benefit estimates involves a clear dialogue with the user organization to understand the specific value that is created. In addition, Forrester also requires that there be a clear line of accountability established between the measurement and justification of benefit estimates after the project has been completed. This ensures that benefit estimates tie back directly to the bottom line.

### COSTS

Costs represent the investment necessary to capture the value, or benefits, of the proposed project. IT or the business units may incur costs in the form of fully burdened labor, subcontractors, or materials. Costs consider all the investments and expenses necessary to deliver the proposed value. In addition, the cost category within TEI captures any incremental costs over the existing environment for ongoing costs associated with the solution. All costs must be tied to the benefits that are created.

### FLEXIBILITY

Within the TEI methodology, direct benefits represent one part of the investment value. While direct benefits can typically be the primary way to justify a project, Forrester believes that organizations should be able to measure the strategic value of an investment. Flexibility represents the value that can be obtained for some future additional investment building on top of the initial investment already made. For instance, an investment in an enterprisewide upgrade of an office productivity suite can potentially increase standardization (to increase efficiency) and reduce licensing costs. However, an embedded collaboration feature may translate to greater worker productivity if activated. The collaboration can only be used with additional investment in training at some future point. However, having the ability to capture that benefit has a PV that can be estimated. The flexibility component of TEI captures that value.

### RISKS

Risks measure the uncertainty of benefit and cost estimates contained within the investment. Uncertainty is measured in two ways: 1) the likelihood that the cost and benefit estimates will meet the original projections and 2) the likelihood that the estimates will be measured and tracked over time. TEI risk factors are based on a probability density function known as "triangular distribution" to the values entered. At a minimum, three values are calculated to estimate the risk factor around each cost and benefit.

## Appendix C: Glossary

**Discount rate:** The interest rate used in cash flow analysis to take into account the time value of money. Companies set their own discount rate based on their business and investment environment. Forrester assumes a yearly discount rate of 10% for this analysis. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult their respective organizations to determine the most appropriate discount rate to use in their own environment.

**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.

**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.

**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.

**Return on investment (ROI):** A measure of a project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits minus costs) by costs.

**Internal rate of return (IRR):** The interest rate that will bring a series of cash flows (positive and negative) to an NPV of zero.

### A NOTE ON CASH FLOW TABLES

The following is a note on the cash flow tables used in this study (see the example table below). The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1. Those costs are not discounted. All other cash flows in years 1 through 3 are discounted using the discount rate (shown in the Framework Assumptions section) at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations are not calculated until the summary tables are the sum of the initial investment and the discounted cash flows in each year.

Sums and present value calculations the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.

TABLE [EXAMPLE]  
Example Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3

Source: Forrester Research, Inc.

## Appendix D: Endnotes

<sup>1</sup> Forrester risk-adjusts the summary financial metrics to take into account the potential uncertainty of the cost and benefit estimates. For more information, see the section on Risks.