A Forrester Total Economic Impact™ Study Prepared For Microsoft

The Total Economic Impact Of Microsoft Office 365

Enterprise Customers

Project Director: Jonathan Lipsitz

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About Forrester Consulting
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Executive Summary

Enterprises are recognizing and gradually realizing value from moving computing from their premises to the cloud. Companies that were the "producers" of their own computing in-house capabilities are now becoming designers and strategists around their vastly expanding computational requirements, as well as consumers of the computing power and applications, from 3rd party producers, that help make their companies competitive. The reasons are simple. First, in order to be relevant and justify their cost, IT professionals need to be doing things that drive an organization's top line and bottom line, not just keeping the hardware and software running. So if a cloud service provider can provide a business-ready alternative more securely, more efficiently, and at a competitive price, then IT organizations should be investigating those alternatives and redeploying IT staff to more business-critical projects. Second, as the workforce continues to become more remote, more mobile, and more reliant on multiple devices, the cloud is the right architecture to deliver services to employees anywhere, anytime, on any device, to keep them productive and enable them to collaborate. Today's cloud services have the points of presence, the scale, and the focus on mobile devices needed in today's location-flexible world; most on-premises solutions do not. For both reasons, IT organizations focused on business growth should ask the question, "can we run this in the cloud" first, and then look for reasons why a workload should remain on-premises.

In December 2010, Microsoft commissioned Forrester Consulting to examine the total economic impact and potential return on investment (ROI) companies may realize by deploying Office 365, consisting of cloud deployments of Exchange Online (with Forefront Online Protection for Exchange), Lync Online, SharePoint Online, and Office Professional Plus. The purpose of this study is to provide readers at "enterprise" organizations, defined by Microsoft as having at least 250 users, with a framework to evaluate the potential financial impact of Office 365 on their organizations. This study does not include all of the potential benefits associated with each individual product but describes the general benefits of the entire suite and the benefits of moving to Microsoft's cloud solution. Readers should refer to the individual, detailed Total Economic Impact™ (TEI) studies for Office 2010, SharePoint 2010, Exchange 2010 and Lync 2010 which can be searched for at www.microsoft.com/bpio. Appendix D contains a summary of these TEI studies.

Office 365 delivered a 315% return on investment with a four month payback period for the composite[#] enterprise organization. Office 365 has a lower TCO, and greatly reduces implementation times compared to a similar on premises solution.

The focus of this study is 10 organizations (see page 9 for their descriptions) that have made a commitment to moving all or part of their communications and collaboration computing into the cloud. Some have previous experience with Microsoft Business Productivity Online Suite (BPOS) and are now upgrading to Office 365. None of the IT leaders in our study would describe themselves as experts in cloud computing, yet these customers expect sizeable benefits from their decisions to move computing beyond the walls of their

[#] Forrester created a composite organization that reflects the characteristics of the ten interviewed customers. The financial results are for the enterprise composite organization.

companies. They will see cost savings in specific categories that are described in detail in this study: hardware, software, IT labor, less travel, and end users and IT administrators will experience increased productivity.

Forrester found that a composite organization, based on the companies we interviewed, could achieve benefits over and above the value accruing from its existing on premises software capabilities. Their knowledge workers will enjoy new software features and upgrades as soon as they are available instead of months or years later. Costs for the move to Office 365 are predictable and spread over time as operating expenses instead of capital expenditures, which the finance chiefs count on the plus side of the ledger. One of the IT leaders interviewed for this study summed it up when he told us, "The CIO is working with the CFO to drive costs out of the company. [Adopting Office 365] is one of the ways they have identified to do that." For others, greater mobility for information workers tops the list of value; "The world is now our office. We are not hindered by location. There is a real opportunity for remote working and reduced commuter time. Office 365 is a godsend." Forrester also learned of expected benefits from improved availability and disaster recovery; archiving and compliance; and IT security.

Forrester's one-on-one interviews with 10 Office 365 beta customers and subsequent financial analysis found that a composite organization based on these customer companies we interviewed can expect to experience the risk-adjusted ROI, costs, and benefits shown in Table 1. See Appendix A for a description of the composite organization.

Table 1
Composite Organization Three-Year Risk-Adjusted ROI[i]

ROI	Payback period	Internal rate of return (IRR)	Total benefits (PV)	Total costs (PV)	Net present value (NPV)	NPV per user
315%	4 months	452%	$5,426,329	($1,307,074)	$4,119,255	$4,119

Source: Forrester Research, Inc.

The time to deploy the solution and the payback period, measured from the go live date, were both substantially shorter than had the comparable solution been built on premises.

- **Benefits.** The composite organization experienced the following benefits (the first ten are included in the ROI analysis) that represent benefits experienced by the interviewed companies:
    - **Eliminated hardware.** As a cloud solution, Office 365 largely eliminates the need for installing and managing any hardware. Over three years, more than $217,000 to purchase and host Exchange, SharePoint, and Lync servers, along with storage, are eliminated. This includes the primary facility as well as a limited backup capability.
    - **Eliminated third party software.** Office 365 includes many features that are paid for separately in an on premises solution, typically from third-party vendors. More than $45,000 was saved by eliminating additional email antivirus/anti-spam (Forefront Online Protection for Exchange is included with Exchange Online) and email backup agent solutions.

- **Web conferencing savings.** Office 365 includes Microsoft Lync Online, a full feature web conferencing solution. Lync will replace much of the use of an existing web conferencing solution, saving $150,000 over three years.

- **Teleconferencing savings.** In addition to a web conferencing solution, the composite organization also has a traditional, phone based teleconferencing solution. The usage of this solution is reduced as more internal conference calls are completed using the Lync online solution. This amounts to $72,000 over three years.

- **Enterprise Agreement (EA) licenses substituted with Office 365 subscription.** Full, on premises, EA licenses are substituted with the Office 365 subscriptions along with Core CAL Bridge for Office 365 and Windows Software Assurance. Some organizations may find the move from capex to opex beneficial. Over the three-year period, nearly $477,000 in EA licenses are substituted. This benefit is a partial offset for the Microsoft Subscription and License costs described later in the study, and are included so that only the net increase in costs are factored into the ROI analysis. This does not represent any type of discount or a reduction in the total costs paid to Microsoft.

- **Avoided on premises implementation labor.** The time required to implement Office 365 is typically less than for a comparable on premises installation. Approximately $63,000, in on premises implementation costs was avoided.

- **Reduced IT support effort.** Office 365 eliminates the need to manage hardware as described above and greatly reduces the effort to manage applications. In the Office 365 model, Microsoft provides a help desk service, which also eliminates some third-tier help desk activity. The composite organization was able to reassign IT support and help desk resources, saving $525,000 over three years.

- **Reduced travel costs and corresponding CO2 emissions.** The Lync Online solution, along with other collaboration and productivity tools in Office 365, reduces the need for face-to-face meetings – both with customers and internally. More than $993,000 is saved, and the corresponding CO2 reduction from air travel is 238,000 kilograms.

- **Knowledge worker productivity gain.** The 2010 solution suite consisting of Exchange Online, Lync Online, SharePoint Online, and Office Professional Plus delivers substantial productivity benefits to all knowledge workers. This is largely attributable to improved communication and knowledge sharing. This benefit is similar in nature for both the online Office 365 solution and the on premises versions. $4,380,000 in productivity gains are realized over the life of the study.

- **Mobile worker incremental productivity gain.** In addition to the general productivity gain described above, Office 365 delivers incremental productivity gains for mobile workers who have better access to IT resources and documents while traveling. This covers 250 senior consultants and salespeople and results in approximately a $956,000 productivity gain over three years.

- **Improved/latest functionality and ease of upgrade (nonquantified).** Office 365 makes the latest features and functionality available without the need for the IT department to complete any upgrades. Users will see additional benefits from earlier availability of these features.

- **Better user experience (nonquantified).** Office 365 delivers better user experiences by providing improved access for working outside of the office, larger mailbox sizes, and easier collaboration with customers.

- **Improved IT security (nonquantified).** Office 365 can provide better IT security because all patching and updates are done by Microsoft as soon as available. Additionally, Microsoft may provide better encryption and authentication than a company's previous on premises solution.

- **Improved archiving and compliance (nonquantified).** Office 365 can improve archiving by eliminating local Outlook .PST files for email and by centralizing document storage in SharePoint folders. This simplifies and quickens discovery and compliance activities.

- **Improved availability and disaster recovery (nonquantified).** Office 365 offers full geographic redundancy of data storage and enables users to access their information from anywhere. Additionally, Microsoft provides a 99.9% uptime service-level agreement (SLA) for all components of Office 365. Readers should take into consideration the cost of failure to their organization when evaluating the value of improved availability and disaster recovery.

- **Enabled mixed on premises/cloud hybrid solutions (nonquantified).** Office 365 supports hybrid solutions in which some components and/or users are hosted on premises and others in the cloud. This allows greater flexibility to realize cost savings in some areas without giving up functionality from highly customized applications. Several of the customers interviewed indicated that they would be pursuing a hybrid solution, especially for SharePoint.

- **Costs.** The composite organization experienced the following costs:

  - **Initial planning and pilot labor.** The time to plan and test Office 365 will vary greatly based on the size of the company and migration. Two IT resources spent 2.5 months on this activity at a cost of approximately $22,000.

  - **Implementation/migration labor.** The actual implementation and migration is also driven by the number of users. Companies interviewed took either a phased or big-bang approach to migrating users. The composite organization had three IT resources working on this effort two months at a total cost of $35,000.

  - **Hardware.** In order to achieve SSO and identity federation, it is necessary to have an Active Directory Federation Services server (ADFS) on premises. For high availability, two may be required. The composite organization installed two servers and, along with three years of internal hosting, spent a little more than $21,000.

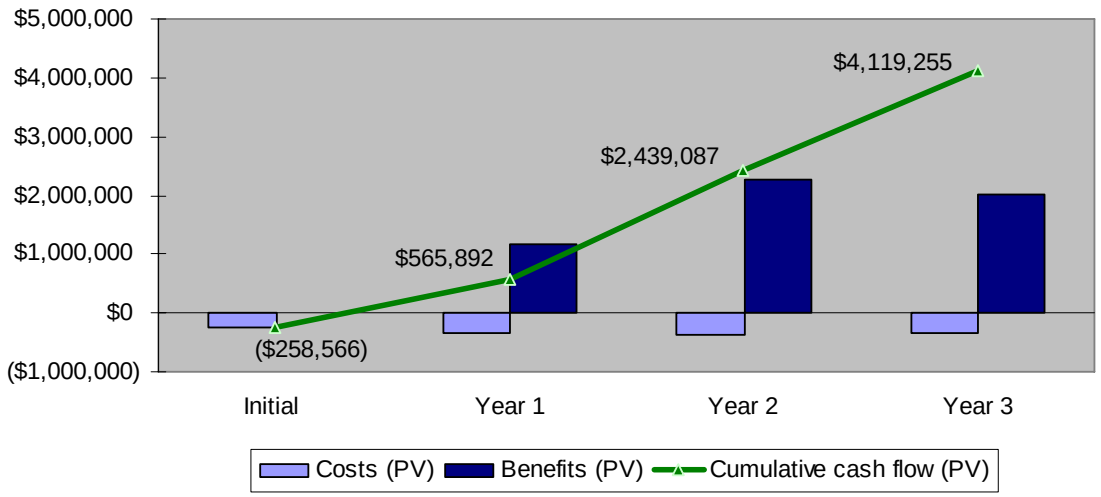
  - **Microsoft subscription and licenses.** During the first year in which a user is migrated to Office 365, the subscription is covered under the existing EA and server licenses. Beginning in the second year, a monthly subscription is charged, along with Core CAL Bridge for Office 365 and Windows Software Assurance 'true up' licenses. Over the life of the study, the composite organization spent approximately $1,013,000 on subscriptions and 'true up' licenses.

  - **Training.** End user training for SharePoint, Lync, etc., in the cloud is the same as for the on premises solution. Nonetheless, these costs are included in the financial analysis to give an accurate TCO for upgrading to the 2010 solution suite. Additionally, there is some limited training required

for the IT department on how to administer Office 365. Between these two categories, $90,000 was spent on training.

- **Ongoing administration.** Administering Office 365 requires significantly less effort than a comparable on premises solution. This is reflected in the corresponding benefit above. The composite organization required 1.5 full-time equivalent (FTE) resources to manage Office 365 for users in the US and two European countries. The total cost over three years was $315,000.
- **Additional bandwidth.** The need for additional bandwidth can vary greatly depending on the existing bandwidth available, number of users, and how much traffic they generate. The composite organization spent $60,000 over three years to increase bandwidth at headquarters and one other large office.

Figure 1
Composite Organization Three-Year Risk-Adjusted Cumulative Cash Flow



Source: Forrester Research, Inc.

Factors Affecting Benefits And Costs

Table 1 illustrates the risk-adjusted financial results the composite organization can expect to achieve. The risk-adjusted values take into account any potential uncertainty or variance that exists in estimating the costs and benefits, which produces more conservative estimates. The following factors may affect the financial results that an organization may experience:

- **Number of users**. Office 365 subscription costs are calculated on a per-user basis. Additionally, a greater number of users may require more data to be migrated, which would lengthen the implementation period and cost. Conversely, the larger the user base, the larger the benefits that should be realized. For productivity related benefits, larger organizations should see significantly larger gains that would increase the ROI and NPV.

- **Existing license structure**. The total license and subscription costs can vary based on existing license levels, having an EA and/or Software Assurance in place, and when the previous version (if applicable) was implemented. The composite organization had a Professional Desktop EA in place. Because determining these costs can be very complicated, the reader is strongly encouraged to work with Microsoft or their channel partner to understand any new license/subscription costs as well as previous license costs that may be eliminated.

- **Office 365 solution components used**. An organization may decide not to implement all of the Office 365 solution components – Exchange Online with Forefront Online Protection for Exchange, Office Professional Plus, Lync Online, and SharePoint Online. This will reduce the monthly subscription cost, but can also result in some of the benefit categories discussed in the study not being realized. The reader should take into consideration which, if any, benefits would not be realized if the entire suite is not being implemented.

Disclosures

The reader should be aware of the following:

- The study is commissioned by Microsoft and delivered by the Forrester Consulting group.

- Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers should 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.

- The customer names for the interviews were provided by Microsoft.

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 2). Specifically, we:

- Interviewed Microsoft marketing and sales personnel and Forrester analysts to gather data relative to Office 365 and the marketplace for cloud based collaboration and productivity solutions.
- Interviewed 10 organizations currently in beta with Microsoft Office 365 to obtain data with respect to costs, benefits, and risks.
- Designed a composite organization based on characteristics of the interviewed organizations (see Appendix A).
- Constructed a financial model representative of the interviews using the TEI methodology. The financial model is populated with the cost and benefit data obtained from the interviews as applied to the composite organization.

Figure 2
TEI Approach

Source: Forrester Research, Inc.

Forrester employed four fundamental elements of TEI in modeling Microsoft Office 365:

1. Costs.
2. Benefits to the entire organization.
3. Flexibility.
4. Risk.

Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves the purpose of providing a complete picture of the total economic impact of purchase decisions. Please see Appendix B for additional information on the TEI methodology.

Analysis

Interview Highlights

A total of 10 interviews were conducted for this study, involving representatives from the following companies (Microsoft customers based in the US and Europe):

1. International consulting company: global leader in consulting, technology, outsourcing, and local professional services with more than 100,000 employees. A worldwide company including IT services and hosted Microsoft services; currently running one global instance of Exchange 2007 along with Office Professional 2007 and Office Communications Server 2007 R2 (OCS 2007 R2).

2. Municipal utility company: municipal utility with 600 employees that is separating shared IT services from the city; currently using a mix of Office Professional 2003, 2007 and 2010, along with Exchange 2003. All Microsoft solutions will need to be replaced as part of the separation from the city infrastructure.

3. University: a private university with 12,000 users, including 6,000 students. The university has a homegrown email system and a third-party calendaring system that need to be replaced. There are 300 users on SharePoint 2007. The university has educational licenses for Microsoft products.

4. ICT professional services company: Europe-based ICT services company with more than 12,000 employees; currently using a mix of Office Professional 2007 and 2010, Exchange 2007, SharePoint 2007, and OCS 2007 R2.

5. Architecture firm: architecture firm with 600 employees spread across 13 offices — eight in the US and five spread around the world. The company uses 2003 versions of Exchange, SharePoint, and Office Professional.

6. Bank: This bank is working with a Microsoft partner on implementing Office 365. It has 1,500 employees and uses the 2003 versions of Exchange and Office Professional.

7. Media company: This company has outsourced a large part of its IT operations and infrastructure to a Microsoft partner. The company has more than 800 users who are on the 2007 versions of Exchange and Office Professional.

8. Agricultural commodity logistics company: This organization has 1,500 users of the Microsoft solutions out of a total of 4,000 employees. Employees are spread across dozens of countries around the world. Various versions of Exchange, SharePoint, and Office Professional are in use. There are also locations using solutions not authorized by the central IT group that will be eliminated as part of the global Office 365 rollout.

9. Automotive parts company: Europe-based company with 5,500 employees, 1,200 of whom are knowledge workers who will be using Office 365. The remainder are working on the factory floor. There are 11 offices spread across Europe, North America, and Asia. The company currently uses Exchange 2000 and Office Professional 2007.

10. Standards and testing organization: The company has more than 7,000 employees spread across dozens of countries. It is migrating from a competing email solution. Office Professional 2010, SharePoint 2010, and OCS 2007 R2 are currently deployed on premises.

The 10 interviews uncovered the following salient points:

- The main reasons given for upgrading/migrating to Office 365 were the desire to reduce TCO, simplify administration, and more quickly deliver the latest features. Selected comments from interviewees include:
    - "The basic driver was that I don't want to manage the hardware, software, or people needed to maintain the solution."
    - "We wanted to implement latest versions of SharePoint and Outlook. Basically, we want to have more capabilities and flexibility."
    - "We have grown significantly over the last few years, both organically and from acquisitions. IT has been playing catch-up. So, we were looking for a way of becoming more efficient in how we provide technology services to the firm."
    - "Our company is very decentralized across many countries. We operate a very lean IT organization. Using the cloud takes away the local complexity."
    - "The reason to go to the cloud was driven by cost savings. Letting Microsoft run email ensures that everything works well together."
    - "From a cost perspective, 365 was the most interesting solution. Especially since we already have an EA with Microsoft. From a functionality perspective, 2010 gives us a lot more than previous versions, especially Lync."
- Significantly reducing the costs and effort associated with typical three-to-four-year refresh cycles was very important.
    - "We would face upgrading all the hardware every three or four years. This, along with the associated labor, becomes very expensive."
    - "Eliminating the need to refresh our IT estate every few years is a huge win for us."
- Existing EA licenses and Software Assurance made the decision to switch to Office 365 very easy.
    - "It was a pretty simple decision since we had a Software Assurance agreement in place."
    - "Office 365 was offered as part of our EA upgrade."
    - "We were already on BPOS, so moving to Office 365 is a natural progression."
- Office 365 includes a lot of new, valuable services.
    - "Anti-spam/antivirus is included, which makes one less thing for me to worry about."
    - "The disaster recovery aspects of Office 365 are great."

  - "The improvements to SharePoint and OCS [Lync] are very important to our users."

- IT departments are excited to free up time to work on more strategic projects.
  - "We want our IT folks focused on strategic projects, not babysitting infrastructure."
  - "Our clients are looking for ways to free themselves from doing commodity [IT] work."
- Providing larger mailboxes is seen as important.
  - "More capacity will help with productivity. We have users spending a lot of time cleaning their inbox because they can no longer send email."
  - "Larger mailboxes will save IT time because this is the reason people are banging on the door — requesting a bigger inbox."
  - "Mailbox space is running out, and we can't effectively provide larger mailboxes with an on premises solution."
- The beta implementation and migration of Office 365 was viewed as pretty straightforward.
  - "Defining security policies for email took some time, but it was something we needed to do anyway."
  - "Setting up the ADFS servers was a little confusing, but the documentation on this has improved a lot."
  - "Data migration is not presenting any challenges, and it is providing us with a great opportunity to clean our data."
- There was a wide range of opinions on the benefit of capital expenditures (capex) versus operational expenditures (opex), but for the companies that preferred opex, deploying Office 365 is very useful.
  - "Opex was attractive because it makes it easier to bill internal groups for mandatory and optional services."
  - "The importance of one model over the other varies from year to year. Right now, it is easier to get opex funding."
  - "More and more companies are looking to reduce capex. Not buying hardware every three years and hiring consultants to do the work is very beneficial."
  - "A cloud solution was appealing from an opex perspective. Looking at the TCO, we found it was a better approach."

Composite Organization

Based on the interviews with the 10 existing customers provided by Microsoft, 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 a US-based manufacturing company with some operations in Europe. There are a total of 3,500 employees, 1,000 of whom

are knowledge workers being migrated to Office 365. The organization is moving from Office Professional and Exchange 2003, along with a limited deployment of SharePoint 2003. It will be implementing the full Office 365 E3 suite, consisting of Exchange Online, SharePoint Online, Office Professional Plus, and Lync Online. As part of its existing licensing, the composite organization had Professional Desktop EA and Software Assurance contracts in place. A more detailed description of the composite organization can be found in Appendix A.

Framework Assumptions

Table 2 provides the model assumptions that Forrester used in this analysis.

Table 2

Model Assumptions

Ref.	Metric	Value
A1	Annual fully burdened cost* per IT FTE resource	$70,000
A2	Annual fully burdened cost* per mobile worker	$106,250
A3	Annual fully burdened cost* per knowledge worker (across all roles in the organization)	$60,000
A4	Number of users on Office 365	1,000
*Fully burdened cost includes insurance, paid vacation, and any other cost borne by the organization.		

Source: Forrester Research, Inc.

The discount rate used in the PV and NPV calculations is 12%, and time horizon used for the financial modeling is three years. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult with their respective company's finance department to determine the most appropriate discount rate to use within their own organizations.

All calculations in this study are done in US dollars even though some of the customers interviewed use the euro as their primary currency. Some dollar values presented in this study have been rounded to the nearest whole cent or dollar. Therefore, some of the calculation results in the subsequent tables may not exactly match the results if the reader follows the formulas and values presented.

Costs

Office 365 largely follows a software-as-a-service (SaaS) cost model, with many cost categories being replaced by a service subscription. As with any large IT project, there are upfront planning and implementation costs. For some of the cost categories, there is a corresponding benefit. These are referenced in the individual cost areas and fully explored in the Benefits section. Many of the costs can vary widely depending on the size of the reader's organization. Therefore, the reader is strongly encouraged to use this model as a basis for determining the TEI to their own organization.

Initial Planning And Pilot Labor Costs

The customers who participated in this study were all beta users of Office 365. The effort required for the beta is taken as a proxy for initial planning and conducting a pilot. Overall, customers described the process as straightforward. The time for this phase varied from one month, in the case of a BPOS customer migrating, to four months for a customer moving from a non-Microsoft solution. In all cases, the majority of the time was spent on defining the solution and migrating users' mailboxes. Typically, one week was spent setting up the ADFS infrastructure.

The composite organization completed this effort solely with internal labor. If external consultants are used, the total costs should be more or less the same, but with external labor substituted for internal labor.

For the composite organization, two FTEs spent 2.5 months working on this. The monthly fully loaded cost for one FTE was $5,833. Two FTEs x 2.5 months x $5,833 is equal to $21,875.

Table 3
Initial Planning And Pilot Labor Costs

Ref.	Metric	Calculation	Initial
B1	Number of IT FTEs		2
B2	Number of months		2.5
B3	Monthly fully burdened cost	A1/12 months	$5,833
Bt	Initial planning and pilot labor costs	B1*B2*B3	$21,875

Source: Forrester Research, Inc.

Implementation/Migration Labor Costs

The majority of this effort is spent defining policies and migrating data — mailboxes and SharePoint documents. The duration of this effort is directly tied to the number of users and/or the amount of data to be migrated. At one end of the spectrum, an organization with more than 100,000 users is planning on one year for the migration. For organizations in the 500-to-2,000-employee range, the general feeling was one to two months.

Companies followed a typical implementation and testing methodology followed by the migration. One interviewee said, "the speed of migration is dependent on the appetite for disrupting normal operations." The typical approach was to migrate a certain number of users each night or over the weekend, completing one location or group at a time. Once all users were migrated, the on premises infrastructure was decommissioned.

Training is also completed during this period and is covered in a separate cost category later on in this study.

This effort can be completed by in-house IT staff if the skills exist. Most of the customers interviewed were, in fact, using in-house resources. Another alternative is to use IT services organizations. One such organization estimated that the charge for design services alone would be approximately $10,000 to $20,000, while

outsourced management of a full migration could be $30,000 to $100,000 (or higher) depending on the number of users. The composite organization used in-house resources.

This total effort is less than what would be expected for an on premises installation. The corresponding benefit is covered in the Benefits section of this study.

Table 4
Implementation/Migration Labor Costs

Ref.	Metric	Calculation	Initial
C1	Number of IT FTEs		3
C2	Number of months		2
C3	Monthly fully burdened cost	A1/12 months	$5,833
Ct	Implementation/migration labor costs	C1*C2*C3	$35,000

Source: Forrester Research, Inc.

Hardware Costs
While Office 365 allows an organization to eliminate hardware, there is still a need for an ADFS server for identity federation and SSO. This typically requires one server, and a second can be added for high availability. The technical requirements are not great, so a typical middle-of-the-road server configuration will suffice.

The servers can be hosted on premises or at a collocation-type facility. Most of the companies interviewed are hosting these on-site. The composite organization hosts the servers on-site and allocates overheads for power, space, cooling, etc. These servers would be replaced every three to four years, following the organization's regular refresh cycle.

The corresponding benefit for the Exchange, Lync, and SharePoint servers not installed is covered in the Benefits section of this study.

Table 5
Hardware Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total
D1	Number of ADFS servers		2				
D2	Cost per server		$7,000				
D3	Maintenance	(D1*D2) [initial period]*10%		$1,400	$1,400	$1,400	
D4	In-house hosting costs	D1 [initial period]*$500		$1,000	$1,000	$1,000	
Dt	Hardware costs	(D1*D2)+D3+D4	$14,000	$2,400	$2,400	$2,400	$21,200

Source: Forrester Research, Inc.

Microsoft Subscription And Licenses

Office 365 is a subscription service that is priced per user per month. There are various price points depending on which solution components are included. The composite organization is consuming the E3 solution set, which includes the latest versions of Exchange Online, Lync Online, SharePoint Online, and Office Professional Plus. The list price is $24 per user per month, with volume and length of contract discounts available. During the first year a user is migrated to Office 365, all subscription costs are covered under the existing EA. In subsequent years, the subscription model is used, and these charges are credited against existing EA charges.

EAs typically cover additional components beyond the user-facing products in Office 365. According to Microsoft: "CAL Suite Bridges are used when transitioning from a CAL Suite (on premises) to a comparable Product and Online service combination. As such, CAL Suite Bridges are comprised of those CAL Suite workloads not found in Office 365 or Windows Intune, and [they] allow existing CAL Suite customers to retain their SA coverage, companywide commitment, and corresponding platform discounts for those workloads remaining on-premises."

Software Assurance often covers the Windows operation system in addition to the applications running on it. Office 365 does not include an upgrade path for Windows. Therefore, a reader's organization may wish to pay separately for Software Assurance on the Windows operating system in addition to the Office 365 and CAL Suite Bridge costs.

In order to provide a true apple-to-apple comparison, the composite organization has elected to pay for the Core CAL Bridge for Office 365 and Windows Software Assurance. The result is that every Microsoft solution license the organization had prior to the migration is still in place.

The composite organization continues to pay the EA for Professional Desktop and server licenses during the initial period, when planning and migration are under way, as well as Year 1. For the initial period, this is equivalent to 4.5 months of costs.

The EA costs that have been substituted beginning in Year 2 are included in the Benefits section of this study to reflect the credits.

Table 6
Microsoft Subscription And Licenses

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total
E1*	EA and server licenses (Initial and Year 1 only)		$89,314	$238,171	$0	$0	
E2*	Office 365 subscription costs (beginning Year 2)	$23.25*1,000 users [A3]*12 months			$279,000	$279,000	
E3*	Core CAL Bridge for Office 365				$15,000	$15,000	
E4*	Windows Software Assurance				$49,000	$49,000	
Et	Microsoft subscription and licenses	E1+E2+E3+E4	$89,314	$238,171	$343,000	$343,000	($1,013,485)

*These reference numbers are row designates and should not be confused with Office 365 solution sets.

Source: Forrester Research, Inc.

Training

User training for Office 365 would be the same for the on premises solution, and the level required depends on what version the users are migrating from, i.e., Office Professional 2003. Nonetheless, user training costs are included so the reader has a complete TCO picture. Some of the companies interviewed were using external training organizations, and others were using in-house resources to deliver training. It was typically a mix of classroom and online training. Many users would likely opt out of training.

There is some specialized training on Office 365 administration required by the IT organization. The number of individuals sent can vary based on the size of the company, but the consensus number for a company the size of the composite organization was two IT resources.

Table 7
Training

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total
F1	IT training		$10,000	$0	$0	$0	
F2	End user training		$80,000	$0	$0	$0	
Ft	Training	F1+F2	$90,000	$0	$0	$0	$90,000

Source: Forrester Research, Inc.

Ongoing Administration
The effort to administer Office 365 is significantly less than for a comparable on premises solution. The level of effort varies by the number of users. The smaller companies interviewed planned on at least one FTE, regardless of size. An organization with 10,000 users was planning for three FTEs, one for Exchange and two for SharePoint. For the composite organization, 1.5 FTEs is in line with what companies of this size were planning. These resources will cover both the US and European operations. The majority of the effort is spent in user account management, configuration of Office 365, and upkeep of the ADFS servers.

The administration effort savings is covered in the Benefits section of this study.

Table 8
Ongoing Administration

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total
G1	Number of IT FTEs			1.5	1.5	1.5	
G2	Annual IT fully burdened cost	A1		$70,000	$70,000	$70,000	
Gt	Ongoing administration	G1*G2		$105,000	$105,000	$105,000	$315,000

Source: Forrester Research, Inc.

Additional Bandwidth
None of the companies interviewed had decided yet how much, if any, additional bandwidth would be required. Microsoft provides many tools and whitepaper for calculating bandwidth needs. The additional bandwidth required depends on both the size of the pipe already in place and the expected future usage. One of the companies interviewed that is also a Microsoft consulting company said that: "I haven't had a client yet that has needed to increase bandwidth for BPOS [the predecessor to Office 365]. If there is a situation where an upgrade is needed, it is usually a company that has a T1 and needs to add another one (probably $500 to

$700 a month). If it is a larger company, maybe it needs to move from a few T1s to a fiber connection (100 MB). A 100 MB connection can be had in my city for $700 to $1,000 a month."

For the composite organization, a placeholder of $20,000 a year for additional bandwidth at the headquarters and possibly some other large offices has been assumed. The reader is encouraged to work with Microsoft to calculate future bandwidth requirements and make the necessary provisions. Without this, there is a risk of performance problems and unexpected costs.

Table 9
Additional Bandwidth

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total
H1	Additional bandwidth		$0	$20,000	$20,000	$20,000	
Ht	Additional bandwidth	H1	$0	$20,000	$20,000	$20,000	$60,000

Source: Forrester Research, Inc.

Total Costs
Total costs incurred by the composite organization to implement and manage the Office 365 solution are shown in Table 10 below.

Table 10
Total Costs (Non-Risk-Adjusted)

Ref.	Costs	Initial	Year 1	Year 2	Year 3	Total
Bt	Initial planning and pilot labor costs	($21,875)				**($21,875)**
Ct	Implementation/migration labor costs	($35,000)				**($35,000)**
Dt	Hardware costs	($14,000)	($2,400)	($2,400)	($2,400)	**($21,200)**
Et	Microsoft subscription and license costs	($89,314)	($238,171)	($343,000)	($343,000)	**($1,013,485)**
Ft	Training	($90,000)				**($90,000)**
Gt	Ongoing administration		($105,000)	($105,000)	($105,000)	**($315,000)**
Ht	Additional bandwidth		($20,000)	($20,000)	($20,000)	**($60,000)**
	Total	**($250,189)**	**($365,571)**	**($470,400)**	**($470,400)**	**($1,556,560)**

Source: Forrester Research, Inc.

Benefits

The first half of the Benefits section details the quantitative benefits of the composite organization included in the ROI analysis. The second half describes the qualitative benefits that the interviewed customers experienced but cannot be fully described in the financial model. The qualitative benefits are potentially as valuable as the quantitative ones and should be taken into consideration when analyzing the total ROI realized by implementing Office 365.

Eliminated Hardware

Office 365 removes the need for Exchange, SharePoint, and Lync servers. It also removes the need for a large storage implementation — SAN and/or direct attach. The size of the on premises infrastructure estate depends on the number of users, locations, mailbox size, etc. Additionally, Microsoft offers 25 GB mailboxes, which would be very difficult for a company to deploy at a reasonable cost on premises. Creating an infrastructure with full geographic redundancy like the one Microsoft offers would also add significant cost.

Companies larger than the composite organization can expect significantly larger benefits in this category. As an example, one interviewed customer with more than 10,000 users is expecting to eliminate 40 Exchange servers. It is also very important for the reader to consider that all hardware costs would be incurred again every three to four years, based on the regular refresh cycle.

For the composite organization, the cost of moving from a 250 MB to a 1 GB mailbox is included. The server count in the table below is based on building out a high-availability infrastructure. There would be two Exchange servers residing in one of the European offices for those users. In addition to the primary 13 servers, four servers have been set up in a 'cold' disaster recovery facility to provide limited, key services in case of a major disaster. This does not come close to providing the level of disaster recovery resiliency inherent in Office 365. A further discussion on disaster recovery is included in the qualitative benefits section of this study.

The storage would most likely be a combination of SAN for SharePoint and direct attach for Exchange. For simplicity, a single price per terabyte was used across the board.

Table 11
Eliminated Hardware

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
I1	Number of Exchange servers		6			
I2	Number of SharePoint servers		4			
I3	Number of Lync servers		3			
I4	Additional servers for 'cold' DR facility		4			
I5	Cost per server		$7,000			
I6	Storage not added (TB) — Exchange and SharePoint		4	0	2	
I7	Cost per terabyte		$5,000	$5,000	$5,000	
I8	Total hardware costs	([I1+I2+I3+I4]*I5)+(I6*I7)	$139,000	$0	$10,000	
I9	Avoided maintenance	Sum I8 [through current year]*10%	$13,900	$13,900	$14,900	
I10	In-house hosting costs	(I1+I2+I3+I4)*$500	$8,500	$8,500	$8,500	
It	Eliminated hardware	I8+I9+I10	$161,400	$22,400	$33,400	$217,200

Source: Forrester Research, Inc.

Eliminated Third Party Software

Office 365 includes some features that would otherwise be purchased separately – typically from third party vendors. Examples given by interviewed customers include email antivirus/anti-spam (which is included in Office 365 with Forefront Online Protection for Exchange), enterprise mailbox search, email backup, and archiving. The composite organization only had anti-virus/anti-spam and email backup solutions, so these costs are included in the study.

Another area to possibly eliminate third party software and solution costs is voicemail systems. Exchange Online includes a full hosted voicemail solution for on-premises phone systems. Customers who integrate their on-premises phone systems with Exchange Online can retire their on-premises voicemail systems and eliminate the associated maintenance and backup costs. None of the interviewed customers had implemented this option, but a couple were considering it.

Table 12
Eliminated Third Party Software

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
J1	Antivirus/anti-spam	1,000 users [A4]*$1/month*12	$12,000	$12,000	$12,000	
J2	Email backup agent	($1,000*I1)+20%	$7,200	$2,600	$2,600	
Jt	Eliminated third party software	J1+J2	$19,200	$13,200	$13,200	$45,600

Source: Forrester Research, Inc.

Web Conferencing Savings
Lync Online provides a full feature web conferencing solution that will result in less usage of third party web conferencing solutions in favor of integrated, simplified multimodal communications. The benefit is less in Year 1 as users get accustomed to Lync Online and migrate away from the incumbent web conferencing solution.

Table 13
Web Conferencing Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
K1	Web conferencing solution fees		$30,000	$60,000	$60,000	
Kt	Web conferencing savings	K1	$30,000	$60,000	$60,000	$150,000

Source: Forrester Research, Inc.

Teleconferencing Savings
In addition to web conferences that will migrate to Lync Online, a significant portion of internal, phone based teleconferences will also be completed using Lync Online. Presence, one click conferencing, and other features make setting up and conducting conference calls much easier. This drives the behavioral change to use Lync instead of setting up a teleconference. In the first year of the study fewer calls are completed using Lync as this behavioral change takes place.

Readers should note that the current version of Lync Online does not include traditional PSTN voice telephone service. Therefore, this benefit reflects a migration of some conference calls from a teleconference solution and not a complete elimination of the third party service.

Table 14
Teleconferencing Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
L1	Cost per minute		$0.12	$0.12	$0.12	
L2	Average reduced usage per user (minutes)		120	240	240	
L3	Number of users	A4	1,000	1,000	1,000	
Lt	Teleconferencing savings	L1*L2*L3	$14,400	$28,800	$28,800	$72,000

Source: Forrester Research, Inc.

Enterprise Agreement (EA) licenses substituted for Office 365 subscription

The nuances of EA licenses were discussed earlier in the corresponding cost category. Beginning in Year 2, the prior EA licenses for Professional Desktop, as well as relevant server licenses such as Exchange, are replaced by Office 365 subscriptions. The composite organization also pays for Core CAL Bridge for Office 365 and Windows Software Assurance to 'true up' the offering. This benefit shows the original EA costs that have been substituted. If the reader's organization will be a new Microsoft customer, it should determine what the license costs for a new, on premises solution would be and include them here.

These substituted costs are included in the benefits section so that the ROI analysis will be based on the incremental solution costs paid to Microsoft. That is to say the difference between the Office 365 subscription costs and the on premises license costs. That way, readers can get a clearer understanding of the financial impact associated with benefits they may realize by investing more for Office 365 compared to maintaining their older Microsoft solutions. This does not reduce the total payments to Microsoft as outlined in the cost section of the study.

Table 15
EA Licenses Substituted

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
M1	EA licenses substituted	E1 [Year 1]	$0	$238,171	$238,171	
Mt	EA licenses substituted	M1	$0	$238,171	$238,171	$476,342

Source: Forrester Research, Inc.

Avoided On Premises Implementation Labor
This avoided cost is the corollary to the cost of implementing the cloud version of the solution. In addition to the either/or nature of these two costs, the on premises implementation would also require more time and

effort. One customer said: "I doubt we would have been able to set up Lync, Exchange, and SharePoint by end of year. All the communication features Lync offers is something we really need today so our employees spread around the world can collaborate more effectively and serve our customers better."

For the interviewed companies roughly the size of the composite organization, the consensus view was that the on premises installation would take a couple of FTEs four to six months. If one of the components (i.e., SharePoint) is being added for the very first time, the duration would be on the high end of this range. For the composite organization, this is the first time it is implementing Lync Online to take advantage of the IM, Presence, and Web Conferencing features. The implementation also includes a full rollout of SharePoint Online.

It is also worth noting that a portion of these labor costs would be incurred again whenever the hardware or software solution is updated as part of a company's normal refresh life cycle.

Table 16
Avoided On Premises Implementation Labor

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
N1	Number of man-days avoided		200			
N2	Daily IT fully burdened cost	A1/220 workdays	$318.18			
Nt	Avoided on premises implementation labor	N1*N2	$63,636			$63,636

Source: Forrester Research, Inc.

Reduced IT Support Effort
A major advantage of Office 365, like other SaaS solutions, is a greatly reduced effort for IT administration. This includes eliminating all effort associated with managing servers and reducing the effort for user account management. How this savings is realized will vary from organization to organization. Some may avoid hiring additional resources, and other may be able to redeploy surplus capacity to work on more strategic projects.

For companies the size of the composite organization, the range of savings was 1.5 to four FTEs. For a larger organization, the savings should be much greater. One organization with more than 10,000 users thought it would be able to reduce IT support from 1.5 to seven FTEs. It will also be possible to hire lower-skill/lower-cost IT support resources going forward.

As part of Office 365, Microsoft provides a tier-3 help desk. This will allow further resource savings. For companies the size of the organization, one to two FTEs was the anticipated savings. For larger organizations, help desk savings ranged from four to more than 10 FTEs.

For both categories of workers, a smaller savings was realized in Year 1 since it takes time to transition staff out of existing roles and into new ones.

Table 17
Reduced IT Support Effort

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
O1	Number of additional IT administrator FTEs avoided		1	2	2	
O2	Number of tier-three help desk FTEs avoided		0.5	1	1	
O3	Annual fully burdened cost	A1	$70,000	$70,000	$70,000	
0t	Reduced IT support effort	(O1+O2)*O3	$105,000	$210,000	$210,000	$525,000

Source: Forrester Research, Inc.

Reduced Travel And CO2 Emissions

The Lync Online and other collaboration and communication tools included in Office 365 will reduce the amount of travel required – both for visits to customers and for internal meetings. In addition to the cost savings, there are quality of life benefits for those who would otherwise be travelling. The 250 mobile workers travel, on average, 15 times per year, and another 400 employees travel, on average, two times per year. In the first year of the study, total travel was reduced by 2.5% as users become comfortable with replacing face-to-face meetings with online communication and collaboration. By Year 2, this has increased to 5% of all travel, or 265 trips per year.

Table 18
Reduced Travel

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
P1	Number of mobile workers		300	300	300	
P2	Average number of mobile worker trips per year		15	15	15	
P3	Number of in-office employees travelling		400	400	400	
P4	Average number of in-office worker trips per year		2	2	2	
P5	Average cost per trip		$1,500	$1,500	$1,500	
P6	Percent of trips avoided via online collaboration, video conferencing, etc.		2.5%	5.0%	5.0%	
Pt	Reduced travel	((P1*P2)+(P3*P4))*P5*P6	$198,750	$397,500	$397,500	$993,750

Source: Forrester Research, Inc.

Table 19 shows the metric calculation for the corresponding improvement in the composite organization's carbon footprint, an important input for sustainability and corporate social responsibility reporting.[ii]

Table 19
Reduced CO2 Emissions

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
Q1	Number of air travel trips avoided	((P1*P2)+(P3*P4))*P6	133	265	265	
Q2	Average distance (kilometers)		2,000	2,000	2,000	
Q3	Passenger kilometers avoided	Q1*Q2	266,000	530,000	530,000	
Q4	CO2 emissions reduction	Kilograms CO2 per passenger air kilometer		0.18	0.18	
Qt	Carbon footprint improvement: KG CO2	Q3*Q4	47,880	95,400	95,400	238,680

Source: Forrester Research, Inc.

Knowledge Worker Productivity Gain

Office 365, like the on premises solution, provides many tools for increased productivity in SharePoint, Lync and Office Professional. Features in Lync Online that contribute to productivity gains which were cited by the companies interviewed include Presence, IM, and unified communications. For SharePoint Online, interviewees talked about easier collaboration and document search/retrieval. Outlook was especially important for productivity gains in Office Professional.

Increasing to a 25GB mailbox will save users time from having to regularly delete items to free up space. In addition to consuming time, this activity is also a source of annoyance for users. Users will also save time from other features such as conversation view and scheduling assistant.

Below is a sampling of quotes from the interviewed customers describing ways in which productivity will improve.

- "Lync will reduce driving time for our employees between multiple locations. We currently have 50 to 100 people driving around a lot."
- "We will use videoconference with our customers and vendors to reduce the amount of travel."
- "I expect a 25% increase in productivity from better scheduling, document sharing, etc."
- "Users will save time spent cleaning out mailboxes because they are too small."

- "There will be a lot of savings with SharePoint. Collaboration with contractors will be good for running projects more efficiently."
- "We will save several days (20%) in RFI/RFP response times."
- "In the collaboration realm, we expect to see lots of positive change. Users love our current, small, on premises SharePoint solution and beg to use it. We have to say no because we can't support expanding it."

A smaller benefit is realized in Year 1 of the study as users become more familiar with the Office 365 solutions.

Table 20
Knowledge Worker Productivity Gain

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
R1	Exchange (inbox management, conversation view, etc.) - minutes saved per week		5	5	5	
R2	Lync (IM, Presence, unified communication) - minutes saved per week		20	70	70	
R3	SharePoint (document search and collaboration) - minutes saved per week		15	40	40	
R4	Office Professional plus - (co-authoring, OneNote, and enhanced features) minutes saved per week		15	40	40	
R5	Hourly time savings per week	(R1+R2+R3+R4) / 60 minutes	0.92	2.58	2.58	
R6	Work weeks per year		48	48	48	
R7	Number of users	A4	1,000	1,000	1,000	
R8	Average hourly fully burdened cost (knowledge worker)	A3/2,000 hours	$30.00	$30.00	$30.00	
R9	Total potential productivity gain	R4*R5*R6*R7	$1,320,000	$3,720,000	$3,720,000	
R10	Percent captured		50%	50%	50%	
Rt	Knowledge worker productivity gain	R8*R9	$660,000	$1,860,000	$1,860,000	$4,380,000

Source: Forrester Research, Inc.

Note on percent captured: Forrester assumes that for knowledge workers, only a portion of the time gained from improved productivity – ranging from 50% to 75% - will actually be realized by the organization; not all of the time saved will be converted into productive output. This percentage is higher for workers engaged in more task- and process-related activities, and lower for workers in knowledge-intensive roles.

Mobile Worker Incremental Productivity Gain

Most of the interviewed companies discussed the ways in which Office 365 will improve the productivity of workers on the road. This would mainly be achieved by allowing them to access corporate IT resources more easily, collaborating with SharePoint Online, and utilizing Lync Online. This is incremental to the general productivity gains discussed above. Some comments heard include:

- "Everything is in the cloud, so it doesn't matter where the person is located. They will have easy access to Exchange, Lync, and documents. That is something I really like about the solution. When I go home, I just take my laptop and can get access to everything without a VPN."
- "Office 365 will remove one layer of pain for our consultants and improve their productivity. It will provide key users with the tools to be as effective as they need to be in the field. Painless access to email and SharePoint, without a VPN, is great. With Lync, a lot productivity tools are at their fingertips, and [this] makes them able to respond more quickly in any situation."

For the composite organization, 250 high value users are regularly on the road. They are senior engineers and sales people. It was conservatively assumed that a 60 minute per week incremental productivity gain is realized, and that only half of this gain is realized in Year 1 as users become more familiar with the Office 365 solution. Readers are encouraged to think about how many mobile users face difficulties that can be solved by Office 365, and what type of productivity gain can be expected.

Table 21
Mobile Worker Incremental Productivity Gain

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total
S1	Number of mobile workers	P1	300	300	300	
S2	Additional productivity gain - minutes per week		30	60	60	
S3	Work weeks per year	R6	48	48	48	
S4	Average hourly fully burdened cost (mobile worker)	A2/2,000 hours	$53.13	$53.13	$53.13	
S5	Total potential productivity gain	(S1*S2*S3*S4)/60 minutes	$382,500	$765,000	$765,000	
S6	Percent captured		50%	50%	50%	
St	Mobile worker incremental productivity gain	S5*S6	$191,250	$382,500	$382,500	$956,250

Source: Forrester Research, Inc.

Total Quantified Benefits

Table 22 below summarizes the total quantified benefits the composite organization realized by implementing Microsoft Office 365.

Table 22

Total Quantified Benefits (Non-Risk-Adjusted)

Ref.	Benefits	Year 1	Year 2	Year 3	Total
It	Eliminated hardware	$161,400	$22,400	$33,400	**$217,200**
Jt	Eliminated third party software	$19,200	$13,200	$13,200	**$45,600**
Kt	Web conferencing savings	$30,000	$60,000	$60,000	**$150,000**
Lt	Teleconferencing savings	$14,400	$28,800	$28,800	**$72,000**
Mt	EA licenses substituted with Office 365 subscription		$238,171	$238,171	**$476,342**
Nt	Avoided on premises implementation labor	$63,636			**$63,636**
Ot	Reduced IT support effort	$105,000	$210,000	$210,000	**$525,000**
Pt	Reduced travel	$198,750	$397,500	$397,500	**$993,750**
Rt	Knowledge worker productivity gain	$660,000	$1,860,000	$1,860,000	**$4,380,000**
St	Mobile worker incremental productivity gain	$191,250	$382,500	$382,500	**$956,250**
	Total	**$1,443,636**	**$3,212,571**	**$3,223,571**	**$7,879,778**

Source: Forrester Research, Inc.

Qualitative Benefits

Improved/Latest Functionality And Ease Of Upgrade

Office 365 provides a simple way to provide users with the latest functionality with very little effort. All updates and new features are included in the subscription cost. They can be rolled out to some or all users through automated provisioning. The interviewed customers provided some specific examples of how they will take advantage of new features and functionality and how this process will be simplified.

- "It will be easier to migrate to newer of versions. Microsoft does most of the migration work for you. You just need to make sure it works in your business processes."
- "We will get everything sooner and be able to stay on the latest versions."

- "When Microsoft upgrades, we get the latest and greatest without paying extra to build it out. And Microsoft is doing integration testing between the various Office 365 components and ensuring backward compatibility."
- "The additional features and functionality we will get through Office 365 are very valuable, especially compared to the older version of online SharePoint and OCS."
- "People are excited about possibilities with Lync. We do not have any online meeting tools now. I can see may new ways users will communicate with each other."

Better User Experience

End users should have improved experiences with Office 365 compared with a typical on premises installation. Examples provided by the interviewees include:

- Mailboxes increased to 25 GB.
- Better remote access allowing them to work from home.
- Less downtime and faster resolution of some access problems.
- Easier collaboration with customers and other third parties.

Improved IT Security

Some large enterprises are able to provide world-class IT security. In these cases, security with Office 365 should be just as good. For many companies, it is hard to keep on top of all the security challenges, and these organizations should see improved IT security. Some of the reasons for improved IT given by the companies interviewed include:

- "The infrastructure security provided by Microsoft is better than we could put in ourselves, especially in the areas of encryption and authentication."
- "Data security will be much better since all files will be stored centrally instead of on local drives."
- "We will have improved granularity and control of security settings compared to some of our current in-house solutions and BPOS."
- "We will still have to manage our own firewalls, but email and SharePoint security is all filtered by Exchange. This will reduce security issues by 98%."
- "We will not have to worry about having the latest patches in place."
- "From a security perspective, this is a no-brainer for us. Especially for small, satellite offices."

Improved Archiving And Compliance

Office 365 will provide great benefits in the areas of archiving and compliance because of larger mailboxes and shared data stores, as well as features like legal hold and Web-based e-discovery that have been added to Exchange Online. The time required to fulfil compliance and discovery research obligations should be reduced. There is a hard benefit associated with these solutions that is not included in the ROI analysis.

Readers should take this potential cost avoidance into consideration when determining the full financial impact on their organizations.

- "Our current policy is we retain everything forever. The plan is to use SharePoint for document management in order to improve archiving and data retention. This is still a couple of years away, but it will free up storage in the future."
- "We are moving more to electronic storage in SharePoint. This is one of the main reasons we are moving to Office 365. Users are scanning and storing more, which will improve our archiving."
- "Discovery can be very painful. There are a lot of nice features in Office 365 to help with this."
- "At a minimum, it will force us to think about archiving policy. It will differ by country and customer, which can be very complicated."
- "We are putting in place new data retention policy for email for email. Archiving will only be allowed within Office 365; no more PST archiving."
- "For the IT department, I don't have to get my team to do research for compliance and discovery. Legal can directly access the Office 365 document stores. I estimate we spend 250 hours per year on these efforts."
- "We get audited three times a year, and this will make it easier."

Improved Availability And Disaster Recovery

Microsoft's infrastructure for Office 365 will be better, in terms of reliability and availability, than what many companies could reasonably afford to build out in-house. Full geographic redundancy is one area that would be especially difficult to replicate. For many of the companies interviewed, this was a major selling point. The quantitative portion of this study includes a limited disaster recovery capability that does not come close to meeting the full capabilities of Office 365. Below are some statements heard on the value of the Office 365 high availability and disaster recovery capabilities:

- "Availability should be better when it is outsourced to Microsoft. Their geospatial failover protection is something we would not be able to do in-house. The reliability and SLA is important."
- "Availability will absolutely be better. We have several outages a year. I can sleep better at night knowing that if there was a problem with the email server, Microsoft will take care of it — probably before I am even aware of it."
- "Multiple data centers are great. The 99.9% uptime SLA is important because my internal customers want email to up all the time."
- "Microsoft has dual location infrastructure that companies like ours can't fully create. We will now have a hot spare instead of disaster recovery location that we test once a year. This is critical because I consider email the most used application and central to work."
- "Microsoft provides a highly resilient failover capability that we don't have now. This will result in better recovery times."

Enabled mixed on premises/cloud hybrid solutions

Office 365 allows for hybrid solutions to be deployed in which components, i.e. Exchange, can be hosted on premises, in the cloud, or in rich coexistence. This was viewed as very valuable by several of the interviewed companies because it gives them the ability to maintain highly customized applications, typically SharePoint, and to support different user groups based on local requirements. Readers should consider which Office 365 components might continue to be hosted on premises or in a coexistence model. Some statements heard from the interviewees include:

- "The ability to handle a hybrid model is very important to us. We will have on premises and cloud solutions running in tandem."
- "We are looking at a hybrid model with online and remote versions of the Office 365 solution components running side by side. This will allow tighter integration with our SharePoint applications."
- "The ability to integrate regardless of where mailboxes are located is very important. This will change, depending on if an employee is in the office or on the road."

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).

Office 365 creates inherently more flexible organizations both in terms of structure and business processes. Organizationally, outsourced infrastructure enables greater scalability, ability to reorganize, and the ability to work from remote locations. Business processes are more flexible because collaboration is made easier and workflows are not set in stone. Interviewees were quite vocal regarding the way in which their organizations will see improved flexibility.

- "We will have the flexibility to accommodate reorganization efforts."
- "Faster integration of acquisitions will now be possible."
- "Office 365 makes us more agile. We are in a business where our capability to rapidly integrate a company after an acquisition is important. Outsourced infrastructure will help with this. We just pay for more seats and can onboard new employees as soon as they exist in the directory."
- "We can scale much faster than if we had to build out more infrastructure in-house."
- "Collaboration allows things to get done faster."
- "We can more easily add new features in the future when the business needs them. Additionally, we can give these features to a subset of users only. This will save money compared to traditional licenses."
- "In the next five years, there will be a revolution in how we work. Remote working will benefit everyone and may result in lower heating and real estate costs."

- "The world is now our office. We are not hindered by location. There is a real opportunity for remote working and reduced commuter time. In fact, I am working from home today. Office 365 is a godsend."

Because Office 365 can be run in rich coexistence, it gives organizations the flexibility to migrate users over a longer period of time or to keep some users permanently in a hybrid, on premises solution. This can be very valuable in larger organizations with many users to move.

None of the flexibility benefits were included in the ROI analysis.

Risk

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.

Quantitatively capturing investment and impact risk by directly adjusting the financial estimates results in 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, as they represent the expected values considering risk.

The following implementation risks that affect costs are identified as part of this analysis:

- Initial implementation timelines can be longer for larger organizations or ones that are migrating from non-Microsoft solutions.
- Microsoft license and subscription costs can be significantly higher if an EA and Software Assurance agreements are not already in place.

The following impact risks that affect benefits are identified as part of the analysis:

- Eliminated costs such as implementation labor, hardware, and software may not be fully realized if only a subset of users is moved to the cloud solution. The cost of maintaining an in-house infrastructure will not be entirely removed.
- Productivity savings unique to Office 365 may not exist if there are very few mobile workers. However, the general productivity benefits associated with integrating the 2010 solutions — Exchange, Lync, SharePoint, and Office Professional — will all still apply.

There are four risks not associated with the ROI analysis that are unique to the Office 365 solution.

1. The first is allowing sensitive data to reside outside of the organization. While this was mentioned by a couple of interviewees, they felt that the risk of a data breach would actually be less in a Microsoft data center than in their own.
2. The second risk is associated with giving up some level of control in terms of configuration and rollout schedules of the Microsoft solution. It was said that this risk is the same as with any

outsourcing opportunity, and the key to addressing this is having a clear channel of communication with the outsourcing vendor.

3. The third risk is Microsoft's service going down. While Microsoft has designed their solution and provides a 99.9% uptime SLA, there is always the risk that Microsoft could experience a data center outage or some other type of service glitch. This risk of the service going down is, in most cases, less than for an on premises solution. Additionally, if Microsoft does not meet an SLA, the customer will be entitled to a service credit.

4. Lastly, there is the risk a company's connection to the Internet goes down. While this is unlikely to occur, it is something that should be taken into consideration. One interviewee said, "The risk of this is not great enough to deter us from going with Office 365." Additionally, this risk can be mitigated by using SharePoint Workspaces (previously called Groove) which allows users to work in an offline mode and sync document changes when the internet becomes available.

Table 23 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates. The TEI model uses a triangular distribution method to calculate risk-adjusted values. To construct the distribution, it is necessary to first estimate the low, most likely, and high values that could occur within the current environment. The risk-adjusted value is the mean of the distribution of those points. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

Table 23
Cost And Benefit Risk Adjustments

Costs	Low	Most likely	High	Mean
Initial planning and pilot labor costs (medium risk)	100%	100%	115%	105%
Implementation/migration labor costs (medium risk)	100%	100%	115%	105%
Hardware costs (low risk)	98%	100%	105%	101%
Microsoft subscription and license costs (low risk)	98%	100%	105%	101%
Training (medium risk)	100%	100%	115%	105%
Ongoing administration (low risk)	98%	100%	105%	101%
Additional bandwidth (medium risk)	100%	100%	115%	105%
Benefits	**Low**	**Most likely**	**High**	**Mean**
Eliminated hardware (low risk)	90%	100%	105%	98%
Eliminated third party software (medium risk)	80%	100%	103%	94%
Web conferencing savings (medium risk)	80%	100%	103%	94%
Teleconferencing savings (medium risk)	80%	100%	103%	94%
EA licenses substituted with Office 365 (low risk)	90%	100%	105%	98%
Avoided on premises implementation labor (low risk)	90%	100%	105%	98%
Reduced IT support effort (medium risk)	80%	100%	103%	94%
Reduced travel (medium risk)	80%	100%	103%	94%
Knowledge worker productivity gain (high risk)	50%	100%	100%	83%
Mobile worker incremental productivity gain (medium risk)	80%	100%	103%	94%

Source: Forrester Research, Inc.

Financial Summary

The financial results calculated in the Costs and Benefits sections can be used to determine the ROI, IRR, NPV, and payback period for the organization's investment in Microsoft Office 365. These are shown in Table 24 below.

Table 24
Cash Flow — Non-Risk-Adjusted

Cash flow — original estimates						
	Initial	Year 1	Year 2	Year 3	Total	PV
Costs	($250,189)	($365,571)	($470,400)	($470,400)	($1,556,560)	($1,286,413)
Benefits		$1,443,636	$3,212,571	$3,223,571	$7,879,778	$6,144,477
Net benefits	($250,189)	$1,078,065	$2,742,171	$2,753,171	$6,323,218	$4,858,064
ROI	378%					
IRR	532%					
Payback period	3 months					

Source: Forrester Research, Inc.

Table 25 below shows the risk-adjusted ROI, IRR, NPV, and payback period values. These values are determined by applying the risk-adjustment values from Table 23 in the Risk section to the cost and benefits numbers in Tables 10 and 20.

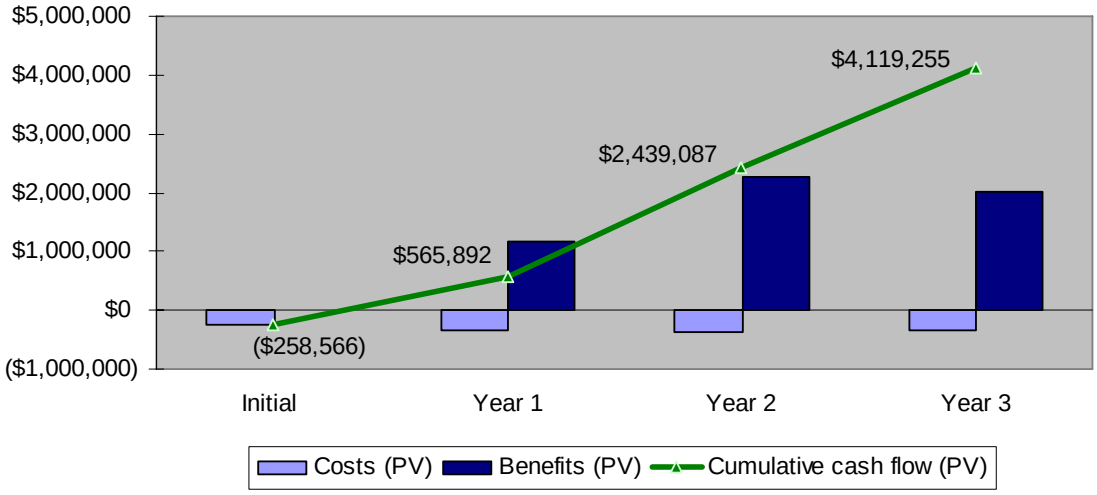
Table 25
Cash Flow — Risk-Adjusted

Cash flow — risk-adjusted estimates						
	Initial	Year 1	Year 2	Year 3	Total	PV
Costs	($258,566)	($370,027)	($475,904)	($475,904)	($1,580,401)	($1,307,074)
Benefits		$1,293,420	$2,825,640	$2,836,420	$6,955,479	$5,426,329
Net benefits	($258,566)	$923,393	$2,349,736	$2,360,516	$5,375,078	$4,119,255
ROI	315%					
IRR	452%					
Payback period	4 months					

Source: Forrester Research, Inc.

Figure 3

Composite Organization Three-Year Risk-Adjusted Cumulative Cash Flow



Source: Forrester Research, Inc.

Microsoft Office 365: Overview

Microsoft provided the following description of Office 365.

Office 365 High-Level Description

Microsoft Office 365 brings together cloud versions of communications and collaboration products with the latest version of desktop software and companion web applications. Office 365 is designed to meet the needs of organizations of all sizes — from independent professionals to small, midsize and large businesses and from government agencies to educational institutions.

Office 365 is collaboration for everyone. Office 365 has Office at the core which is the heart of collaboration, and is known and recognized for ease of use, familiarity, productivity. Office 365 is a cloud service provided and backed by Microsoft, and some of the best partners in the world.

Office 365 For Enterprises (Plans E1-E4) — For Organizations With Internal IT Or Partner IT

Microsoft Office 365 takes the industry's most recognized set of productivity and collaboration tools and delivers them as a subscription service. With our cloud services, your organization can lower overall costs and deliver the right set of tools for the right users, all with appropriate layers of security and compliance. Microsoft is a trusted provider — millions of customers use the Microsoft Business Productivity Online Services suite today. And, Office 365 includes a financially-backed service-level agreement, allowing you to feel confident that you chose the best cloud solution.

Office Professional Plus

Microsoft Office Professional Plus (available in select Microsoft Office 365 service plans) delivers Microsoft Office as a flexible, pay-as-you-go service—a complete, enterprise-class Office experience for organizations of all sizes. Microsoft Office Professional Plus provides the latest version of the Office desktop applications and the Office Web Apps, seamlessly connected and delivered with cloud services, to access your documents, email, and calendars from most devices.

Features:

- Manage the inbox and calendar with Conversation View and other advanced management tools in Microsoft Outlook.
- Leverage the power of business and social networking within Outlook with the Outlook Social Connector.
- Collaborate with control and confidence with real-time co-authoring.
- Instantly share slideshows across town or around the world with Microsoft PowerPoint Broadcast Slide Show.
- Create enhanced presentations using new video and photo editing tools in PowerPoint.
- Work from virtually any place and on any device with Office Web Apps.

Exchange Online

Microsoft Exchange Online is a full-featured email, calendar, and contacts solution delivered as a service hosted by Microsoft. Built on the same technologies as Microsoft Exchange Server, Exchange Online provides end users with a familiar experience across PCs, the Web and mobile devices, while giving IT administrators Web-based tools for managing their online deployment.

Exchange Online provides the core features of Exchange Server, including:

- Large mailboxes: Each user gets 25 GB of mailbox storage standard and the ability to send attachments up to 25 MB in size.
- Antivirus/anti-spam: Forefront Online Protection for Exchange is included, providing multiple filters and virus-scanning engines to help protect your organization from spam, viruses, and phishing scams.
- Web-based access: For web-client access, Outlook Web App provides a premium browser-based experience that matches the look and feel of the full Outlook client.
- Mobility: Mobile access is available from all phones capable of receiving email, including Windows Phone, iPhone, Android, Palm, and Nokia and Blackberry devices.
- Shared calendar and contacts: Users can compare calendars to schedule meetings with Exchange Online and have access to collaboration features like shared calendars, groups, global address list, external contacts, tasks, conference rooms, and delegation.

SharePoint Online

Microsoft SharePoint Online brings together the familiar Microsoft SharePoint Server technology now delivered as an online service. SharePoint Online helps businesses create sites to share documents and insights with colleagues, partners, and customers.

Features

- Manage and share personal documents and insights with colleagues by using MySites.
- Keep teams in sync with shared document libraries, task lists, and calendars with Team Sites.
- Stay up to date on company news, events, and business updates with Intranet Sites.
- Create Microsoft Office documents and save them directly to SharePoint Online.
- A single console for service provisioning, monitoring, and reporting to simplify management.
- Protect sensitive content with document-level permissions.
- Access important documents offline by using SharePoint Workspace.
- Enable real-time communication with colleagues from within SharePoint Online.

Lync Online

Microsoft Lync Online is a next-generation cloud communications service that connects people in new ways, anytime, from virtually anywhere. Lync Online provides intuitive communications capabilities with presence,

instant messaging, audio/video calling, and a rich online meeting experience with PC-audio, video, and web conferencing.

Lync Online enables IT administrators to reduce investment in IT infrastructure and to stay in control of end-users permissions and policies.

Features

- Connect with others through instant messaging (IM), video calls, Lync contact photos, activity update feed, and interactive contact card in Microsoft Office.
- Conduct online presentations to customers and colleagues including audio, video, screen sharing, and a virtual whiteboard.
- Invite external contacts to easily join online meetings through a native or web-based client.
- Communicate with external organizations running Lync by using IM, audio, and video through Lync federation.
- Connect with Windows Live Messenger contacts by using IM, audio, and video calls directly from Lync.
- View presence status and click to communicate from within Microsoft Outlook, SharePoint, and other Office applications.

On-premises Microsoft Lync Server for full enterprise voice (not included in the TEI Study)

Organizations that want to leverage the full benefits of Microsoft Unified Communications can purchase and deploy Microsoft Lync Server 2010 on their premises as part of Microsoft Office 365. Lync Server 2010 on-premises delivers full enterprise voice and premises-based, dial-in audio conferencing, enabling customers to reduce costs and increase productivity by replacing or enhancing traditional PBX systems. This deployment option requires that all Lync workloads (instant messaging, meetings, and voice) be deployed on-premises. Lync Server 2010 on-premises interoperates with Exchange Online and SharePoint Online, allowing customers to choose how to move to the cloud.

Appendix A: Composite Organization Description

Based on interviews with 10 enterprise customers currently in beta with 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 their on premises deployment of the 2003 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 Sigma Safety Systems. Sigma is a tier-two supplier to the aircraft industry, providing a range of flight safety systems. The company manufactures, sells, and distributes its products. Headquartered in Oklahoma, the majority of operations are in the US, with a small but quickly expanding business in Europe. There are a total of 3,500 employees — 1,000 knowledge workers and 2,500 manufacturing employees. Of the knowledge workers, 800 are spread across six offices in the US. Two hundred of them work out of three European offices. Across the organization, there are 200 sales and consulting employees who would be considered "road warriors," mobile workers spending the majority of their time traveling to customer sites.

All 1,000 knowledge workers are being migrated to the Office 365 E3 solution set — Exchange, Lync, SharePoint, and Office Professional Plus. Previously, all users were on Exchange 2003 and Office Professional 2003. There was a very limited deployment of SharePoint 2003, and no one was using Lync/OCS. The implementation of the previous solution took place in 2005.

Sigma decided that it was time to upgrade the 2003 versions of Exchange and Office Professional to take advantage of new features, and that the company would benefit from adding Lync and SharePoint. Reducing costs and administrative effort led the IT organization to compare implementing the 2010 solution set on premises versus using Office 365 cloud services. In the end, the company decided to go with Office 365, with all documents, mailboxes, and administrative tools in the cloud. The applications — i.e., Word, Outlook, SharePoint, etc. — are installed on users' computers. This study explores the reasons Sigma decided to deploy Office 365 instead of the equivalent on premises solution.

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, risks, and flexibility.

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.

Risk

Risk measures 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 applies a probability density function known as "triangular distribution" to the values entered. At minimum, three values are calculated to estimate the underlying range around each cost and benefit.

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 in time. However, having the ability to capture that benefit has a present value that can be estimated. The flexibility component of TEI captures that value.

Appendix C: Glossary

Discount rate: The interest rate used in cash flow analysis to take into account the time value of money. Although the Federal Reserve Bank sets a discount rate, companies often set a 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 organization 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 net present value of cash flows.

Payback period: The breakeven point for an investment. 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.

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 Framework Assumptions section) at the end of the year. Present value (PV) calculations are calculated for each total cost and benefit estimate. Net present value (NPV) calculations are not calculated until the summary tables and are the sum of the initial investment and the discounted cash flows in each year.

Table [Example]

Example Table

Ref.	Category	Calculation	Initial cost	Year 1	Year 2	Year 3	Total

Source: Forrester Research, Inc.

Appendix D: Considering This Study in Context with Other Recently Published TEI Studies

Microsoft has commissioned Forrester Research to conduct Total Economic Impact™ case studies to calculate the potential return on investment (ROI) for many of the company's desktop and server products and online services. Each study contains a detailed quantitative analysis based on interviews with multiple Microsoft customers that have been using one or more products. Forrester relies on the experience of these customers and their articulation of the costs, benefits, flexibility options and risks as they relate to those financial impacts.

The reader of these studies should be careful in drawing conclusions about comparative value solely based on the ROI metric calculated by Forrester. ROI is a metric that will vary by size and type of organization as well as use cases of a given product. As a result, comparing the anticipated ROIs across studies without the full context of the assumptions behind the ROIs will not result in a fair comparison. When reviewing multiple Forrester TEI case studies we recommend you take the following into consideration:

- Each study bases its findings on a different set of customer organizations, of varied sizes and different industries.
- The "composite" organization that Forrester synthesizes based on the interviews conducted for each study vary by size, industry and use case, from 150 users to more than 5,000.
- Customers' deployments of Microsoft products vary in extent; at the time of the study many are still testing prior to full-scale deployment.
- Differences in the product features, functionality and their use cases (Lync Server 2010 versus Lync Online as part of Office 365, for example), will produce different cost, benefit and ROI calculations.

***

The Total Economic Impact ™ Of Microsoft Exchange 2010 Online
Prepared for Microsoft Corporation, July 2011 by Amit Diddee

> *"Forrester's in-depth interviews with Microsoft Exchange Online's customers yielded several important observations. Based on information collected in interviews with current Microsoft Exchange Online customers, Forrester found that organizations can realize benefits in the form of cost avoidance of storage, IT labor savings, cost avoidance of Microsoft Exchange and Windows server, enhanced message filtering, cost avoidance of providing mobile access to BlackBerry users, savings in backup systems and staff, and cost effective scalability.*
>
> *Based on these findings, companies looking to implement Microsoft Exchange Online can see cost savings and productivity benefits. Using the TEI framework, many companies may find the potential for a compelling business case to make such an investment."*

The Total Economic Impact TM Of Microsoft Forefront Endpoint Protection (FEP) 2010
Prepared for Microsoft Corporation, May 2011 by Michael Speyer

> *"The interviewed companies experienced the following economically quantifiable benefits:*
>
> - *Reduced labor effort for remediating malware infections.*

- *Reduced labor effort for investigating malware alerts.*
- *Reduced labor effort for desktop administration.*
- *Cost avoided for license fees associated with retired third party antimalware software.*

The labor savings for investigating and remediating malware infections arises from fewer malware incidents and reduced effort needed for remediation. We note that there are additional benefits that we have not quantified such as reduced exposure of sensitive date, disruption to business processes or data theft. Cumulatively, these represent a reduction in enterprise risk."

The Total Economic Impact ™ Of Microsoft Lync Server 2010
Prepared for Microsoft Corporation, November 2010 by Jeffrey North

"Forrester's in-depth interviews with Microsoft Lync Server 2010 customers yielded important observations on the business value of the Lync 201 investment. Forrester found that organizations can realize benefits in the form of:

- *Replacing PBX telephone systems with Lync Server 2010 software.*
- *Cost reductions for Web- and teleconferencing charges.*
- *IT and help desk labor cost savings.*
- *Enhanced individual and workgroup productivity.*
- *Travel cost savings.*

Further, although not quantified for this case study, Forrester recommends that prospective Lync Server 2010 implementers examine potential future options for these categories as well:

- *Embedding enhanced communications into line-of-business applications, changing the way these tools serve the enterprise.*
- *Extending unified communication beyond the enterprise, to partners, customers, and suppliers, through federation.*
- *Extending rich presence, audio conferencing, and access to multiple communication capabilities to mobile workers.*

Forrester believes that Lync Server 2010 offers the promise of significant competitive advantage in making employee, customer, and supplier/partner relationships stronger for firms that adopt these collaboration technologies."

The Total Economic Impact ™ Of Microsoft Office SharePoint 2010
Prepared for Microsoft Corporation, March 2010 by Jeffrey North

"In conducting the interviews with Microsoft customers, Forrester found that organizations can achieve significant financial benefits from consolidating collaboration, document management, internal and external portal software, and search onto SharePoint Server 2010. The new capabilities of SharePoint

2010 can encompass line of business applications – accounting and finance, business intelligence, and other complex workloads for some customer organizations, allowing organizations to reduce the number of vendors and achieve lower software license and maintenance costs. Additional benefits can be accrued from lower IT administration and simplified application development by upgrading SharePoint 2003 and 2007 environments to SharePoint Server 2010.

The study also uncovered benefits of improved collaboration and information worker productivity and indications of even stronger collaboration in the future as customer organizations take advantage of new capabilities in SharePoint Server 2010."

The Total Economic Impact ™ Of Microsoft Office 2010
Prepared for Microsoft Corporation, May 2010 by Bob Cormier

"In conducting the interviews with Microsoft customers, Forrester found that the composite Organization can achieve significant risk-adjusted benefits in the following areas (see Benefits section for more details):

- *Coauthoring productivity benefits in a sales and business development group.*
- *OneNote productivity benefits for 40 discrete project teams.*
- *Elimination of 3rd party photo/video editing tool.*
- *Benefits associated with "can't live without" features of Office 2010 in productivity benefits associated with the aggregate use of the following Office 2010 features/functionality: Microsoft Office Backstage view, Enhanced Ribbon across Office 2010 applications, Microsoft's Protected View feature, Paste/Preview, Conversation View, Quick Steps feature, Calendar Preview and Sparklines and Slicers (Excel 2010)."*

The Total Economic Impact ™ Of Implementing Microsoft's Productivity Platform
Prepared for Microsoft Corporation, May 2010 by Michelle Bishop

"The focus of this study was organizations that have implemented multi-product solutions based upon Microsoft's latest Office productivity-related offerings, often in conjunction with a Windows Server 2008 R2-based infrastructure. Forrester found that these organizations achieved additional "better together" benefits of integrating the products for end users and for IT administrators. In particular, we found that the composite organization, based on the companies we interviewed collectively, could achieve:

Improved Productivity and Collaboration

- *Improvements in workforce productivity, resulting in savings, on average, of 82.33 hours per year or 3.96% of time per employee per day for the composite organization. Productivity gains were due to:*

  1. *Less switching between applications as collaboration features among the different products are more integrated and work better together.*
  2. *Direct and efficient access to team members' availability through Presence that accelerates connecting to the person that can help.*

3. *Improved ease of finding and accessing topic and skills-based expertise and knowledge through SharePoint MySites, Active Directory, and better search capabilities.*

4. *Less time searching and managing documents and email due to improved search and better email management features.*

5. *Faster application use and higher feature use due to the consistency of the Ribbon User Interface (UI) interface across all applications.*

6. *Improved reporting - incorporating, analyzing, and sharing of data - for business intelligence (BI) users.*

- *Improved collaboration process via improvements like the document coauthoring feature for distributed teams, such as sales, clinical trial teams, or professional service.*

Cost Savings

- *Cost savings from replacing legacy business intelligence (BI) solutions and lessening demand for expensive developer resources due to functionality available in SharePoint 2010 and Excel 2010.*

- *Reduced instances of travel resulting in cost savings from more integrated and seamless conferencing collaboration and communications experiences, as well as viewing and editing on different devices with Microsoft Office 2010 and SharePoint 2010.*

- *Conferencing and long-distance telecom costs avoided by utilizing features such as Voice over IP (VoIP), web/video and dial-in audio conferencing.*

- *IT administration savings through implementing a standardized environment, with common administration and management tools across SharePoint 2010, Exchange 2010 and Office Communications Server.*

- *Reduction in email storage costs).*

- *Reduction in training costs primarily driven by a consistent user interface across applications.*

The study also identified possible areas of future benefits as customer organizations take advantage of new capabilities in enterprise voice and the flexibility of implementing hosted or on-premises solutions of SharePoint."

Appendix E: Endnotes

[i] Forrester risk-adjusts the summary financial metrics to take into account the potential uncertainty of the cost and benefit estimates.

[ii] CO2 emission in air travel vary by length of flight ranging from .24KG CO2 per passenger mile for short flights down to .18 KG CO2 for long flights. Source: Emissions factor based on 2006 data collected in the United Kingdom available from The World Resource Institute.