

A Forrester Total Economic Impact™ Study Prepared For Microsoft

The Total Economic Impact Of Microsoft Office 365

Midsized Customers

Project Director: Jonathan Lipsitz

June 2011

TABLE OF CONTENTS

| | |
|--|----|
| Executive Summary..... | 2 |
| Factors Affecting Benefits And Costs | 6 |
| Disclosures | 7 |
| TEI Framework And Methodology | 8 |
| Analysis..... | 9 |
| Interview Highlights..... | 9 |
| Costs | 12 |
| Benefits..... | 17 |
| Flexibility | 30 |
| Risk | 31 |
| Financial Summary | 34 |
| Microsoft Office 365: Overview | 36 |
| Appendix A: Composite Organization Description | 39 |
| Appendix B: Total Economic Impact™ Overview..... | 40 |
| Appendix C: Glossary | 41 |
| Appendix D: Considering This Study in Context with Other Recently Published TEI Studies..... | 42 |
| Appendix E: Endnotes | 46 |

© 2011, Forrester Research, Inc. All rights reserved. Unauthorized reproduction is strictly prohibited. Information is based on best available resources. Opinions reflect judgment at the time and are subject to change. Forrester®, Technographics®, Forrester Wave, RoleView, TechRadar, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies. For additional information, go to www.forrester.com.

About Forrester Consulting

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit www.forrester.com/consulting.

Executive Summary

Increasing numbers of small and medium-size businesses (SMBs) are looking to cloud computing for IT cost reduction, flexibility in delivering the latest tools to information workers, greater workforce productivity and collaboration, reduced infrastructure complexity, and improved IT security. A smaller business can now afford the benefits of enterprise-class IT infrastructure and the latest versions of software applications without the traditional financial hurdles (or roadblocks). Removing the large upfront capital expenditures in favor of the predictability of paying on a metered or per-user basis changes an SMB's financial statement in good ways. Not having to tie up IT staff with mundane on premises hardware and software maintenance and upgrade chores — freeing that talent for higher-value-adding work — while leveraging the IT IQ of a cloud computing provider is a compelling new option for many business executives with IT challenges. For one thing, if a cloud service provider can deliver a business-ready alternative more securely, more efficiently, and at a comparable or lower total cost of ownership, business owners and their IT staff should be investigating those alternatives and redeploying IT resources — staff and funds — to more business-critical projects. Furthermore, as the workforce continues to become more remote, more mobile, and more reliant on multiple devices, the cloud is the right architecture to reduce complexity and to deliver services to employees anywhere, anytime, and on any device. 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, SMB 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) that SMBs may realize by deploying Office 365, consisting of Office Professional Plus (as a subscription), Exchange Online (with Forefront Online Protection for Exchange), SharePoint Online, and Lync Online. The purpose of this study is to provide readers at these midsize companies, defined for this study as having fewer than 250 users, with a framework to evaluate the potential financial impact of Office 365 on their companies. 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 an ROI of 321% with a payback period of 2 months for the composite[#] midsize organization. Office 365 improves productivity, provides IT peace of mind, and reduces TCO compared to a similar on premises implementation.

This study is based on the experience of seven SMBs that have moved all or part of their communications and collaboration computing into the cloud. The interviews showed that these companies are enjoying knowledge

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

worker and mobile worker productivity gains as well as cost savings in specific categories that are described in detail in this study: redeploying time and talent formerly tied up in implementations; eliminating hardware and the need to maintain, upgrade or replace it; eliminating software license costs; cost savings on web conferencing; and a host of productivity savings for a range of roles throughout the company.

Forrester found that a composite organization, based on the seven companies we interviewed, could achieve benefits over and above the value accruing from its existing on premises software capabilities. A company that formerly worried about its own data security and large data storage concerns can become a consumer of services from a specialist provider such as Microsoft with the expertise and assurance to remove most of those worries. One of the IT leaders interviewed for this study summed it up when he told us, “Peace of mind is the biggest benefit for me. Knowing that someone else is taking care of everything is great.” Its knowledge workers will enjoy new software features and upgrades as soon as they are available from the vendor instead of months or years later. Costs for the move to Office 365 are predictable and spread over time as operating expenses (opex) instead of capital expenditures, (capex) putting a rare smile on the face of the finance guy.

Company executives interviewed for this study shared their motivations for investing in Office 365 and their findings based on early results. Cost savings and financial competitiveness top the list; as we heard frequently. “The cost savings that we see from a cloud-based solution are reason enough to choose Office 365. It saves the company money and allows our IT staff to work on business problems and add more value to the company.” For others, the rationale is multifaceted - a blend of financial and good business sense leading to stronger companies. One owner/founder told us: “I am a co-owner and also responsible for the overall management of our servers. This is a constant concern for me since we don’t have a lot of IT staff. I am tied to my servers, and for me to go on vacation is rough. When I put SharePoint in the cloud, it became easy for me to go on vacation. I could have hired a lot of staff, but that would have been a more expensive solution. It is a big win to move everything to the cloud.”

Forrester’s one-on-one interviews with seven 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, internal rate of return (IRR), 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 ROI¹

| ROI | Payback period | Internal rate of return (IRR) | Total benefits (PV) | Total costs (PV) | Net present value (NPV) | NPV per user |
|------|----------------|-------------------------------|---------------------|------------------|-------------------------|--------------|
| 321% | 2 months | 920% | \$1,167,564 | (\$277,084) | \$890,480 | \$5,936 |

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 if a comparable solution had been built on premises.

- **Benefits.** The composite organization could expect to see the following benefits that represent value experienced by the interviewed companies:

- **Knowledge worker productivity gain.** The features included in the 2010 solutions greatly improve the productivity of knowledge workers. All benefits seen in the on premises solutions are also realized in Office 365. \$657,000 in increased productivity was realized across all 150 employees.
- **Mobile worker incremental productivity gain.** In addition to the general productivity gain, mobile workers see an incremental improvement by being able to more easily access IT resources and content from the road. There are 50 ‘road warrior’ consultants who achieved a productivity gain of \$168,750 over three years.
- **Eliminated hardware.** As a cloud solution, Office 365 largely eliminates the need for on premises hardware. For the composite organization, five physical servers and 1.5 terabytes of storage are eliminated. This, along with maintenance and hosting costs, results in a savings of nearly \$64,000 over three years.
- **Eliminated third party software.** Office 365 includes software components for which an organization would typically pay extra. For the ROI analysis, third-party antivirus/anti-spam (FOPE) and email backup solutions were included. This totaled approximately \$10,000 over three years.
- **Web conferencing savings.** Lync Online includes a web conferencing solution that can replace third-party solutions. \$25,000 was saved over the life of the study.
- **Substituted Microsoft licenses.** The Office 365 subscription model substitutes the need for on premises Microsoft licenses. These include Office Professional Plus licenses, server licenses, and Client Access Licenses (CALs). The substituted license costs are included so that only the net increase in costs is included in the ROI analysis. This does not represent any type of discount or a reduction in the total costs paid to Microsoft. The substituted licenses total \$125,000 in the initial period of the study.
- **Avoided on premises planning and implementation labor.** The cost and effort to implement a comparable on premises solution would be higher than for Office 365. For the initial implementation, more than \$35,000 in internal labor and professional services costs were avoided.
- **Reduced IT support effort.** By outsourcing the administration of infrastructure, the IT administration effort for these solutions is largely eliminated. Additionally, the skills required by the remaining support staff are reduced, allowing for less expensive resources to be hired. This amounted to a savings of \$206,350 over three years.

Reduced travel costs and corresponding CO₂ emissions. The “road warriors” described above have been able to significantly reduce the number of trips to client sites. Additionally, another seventy employees were able to eliminate some travel. The total travel savings was \$260,625 over the life of the study. This resulted in a reduction of 47,000 kg of CO₂ emissions from air travel.

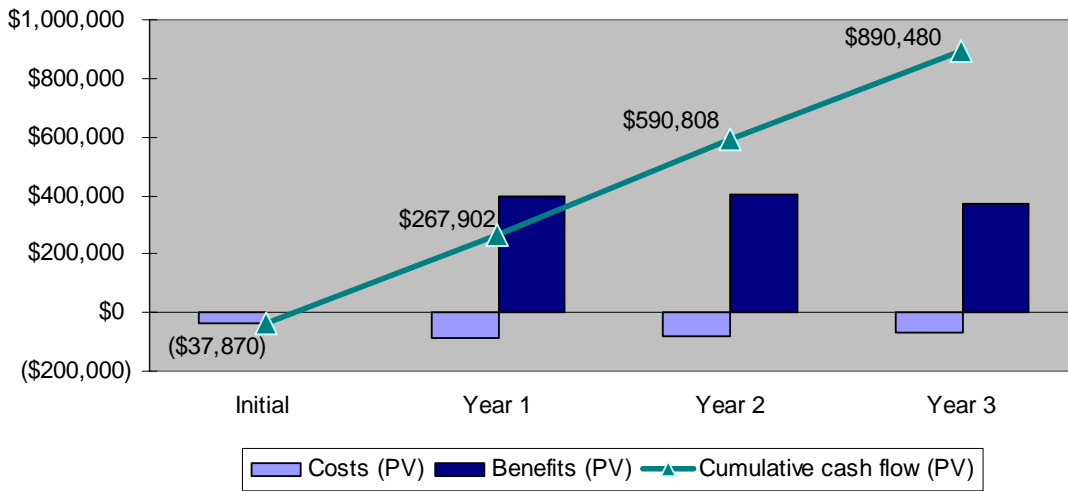
- **Improved/latest functionality and easy upgrade.** Office 365 provides a clear and easy path to upgrade to the latest versions of the Microsoft solutions. Several of the companies interviewed felt that always being on the latest version gave them a competitive advantage.
- **Better customer service and opportunities to grow business.** Many of the benefits above translated into better customer service. Additionally, freeing up business and IT users’ time allowed

- them to focus on growing the business and decreased time-to-market with new products and services.
- **Better cost predictability.** The companies interviewed found it very valuable to have an accurate prediction of what IT expenditure would be for the next year. This also greatly simplified the budgeting process.
 - **Reducing capex.** Approximately half of the companies interviewed said it was important to move expenditures from capex to opex, both in terms of predictability and the ability to get the funding approved by the CFO.
 - **Improved IT security.** The Office 365 solution ensures that the latest security patches and updates are in place. Improved IT security is also realized through the use of world-class IT security solutions such as FOPE and a highly secure infrastructure provided by Microsoft.
 - **Improved archiving and compliance.** Office 365 has improved archiving through the use of SharePoint shared document stores and native email archiving in Exchange Online that eliminates the need for local Outlook .pst files. This has also reduced the time to address regulatory compliance inquiries.
 - **Improved availability and disaster recovery.** Microsoft provides full geographic redundancy, something that none of the companies interviewed could come close to meeting on their own. It also allows users to come back to work much more quickly if an office needs to be shut down.
- **Costs.** The composite organization experienced the following costs:
 - **Initial planning and implementation/migration labor.** The amount of effort to plan and implement Office 365 is low compared with an on premises solution. Some of the companies interviewed completed all activities with in-house labor, while some used a combination of in house resources and professional services. The composite organization used professional services to help design the solution and create the migration process, with most of the work being completed by in-house resources. The initial period implementation costs were nearly \$17,000.
 - **Hardware.** For single sign-on (SSO) and identity federation, an Active Directory Federation Services (ADFS) server is required. The server, along with three years of maintenance and in-house hosting, costs approximately \$10,000.
 - **Microsoft subscription and licenses.** The Office 365 E3 solution is offered at \$24 per month per user. If SharePoint will be used to collaborate and share documents with customers and other external users, a separate subscription is required. For the three years of the study, the total costs paid to Microsoft were around \$133,000. This was \$8,000 more than for a similar on premises solution.
 - **Training.** Training end users on Office 365 is very much the same as the training needed for a comparable, new on premises solutions. There are different approaches to training ranging from providing basic documentation to users all the way up to face-to-face training sessions. The interviewed organizations typically arranged training for IT resources that will be supporting Office 365. Total training costs for end users and IT was less than \$13,000 in the initial period.

- **Ongoing administration.** Administering Office 365 requires less effort than a comparable on premises solution. For the composite organization 0.75 full-time equivalent (FTE) resources were required to support workers in the US and Europe. This amounts to \$146,250 over the life of the study.
- **Additional bandwidth.** Office 365 may require additional bandwidth to be added. For the composite organization, an additional T1 line was added at the headquarters. This cost \$15,000 over three years.

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.
- **Office 365 solution components used.** An organization may decide not to implement all of the Office 365 solution components – Office Professional Plus, Exchange Online, SharePoint Online, and Lync 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.
- 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 seven midsize 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 seven interviews were conducted for this study, involving representatives from the following companies (Microsoft customers based in the US and Europe):

1. A rapidly growing graphic design shop with 65 employees, most of who work from home. One of the co-founders serves as the IT director. The company was using Exchange Online as part of Microsoft's Business Productivity Online Services (BPOS) offering and is migrating from SharePoint 2010 on premises and LiveMeeting.
2. A mortgage origination company with 200 employees. The company was in the middle of a BPOS migration when it decided to adopt Office 365 instead. It was using the 2007 versions of Office Professional (on premises), Exchange Online, and a limited deployment of SharePoint hosted by a third party vendor.
3. A European safety engineering consulting firm with 100 employees and more than 700 consulting projects running simultaneously around the world. The company is moving from on premises versions of Exchange 2010, Office Professional 2010, SharePoint 2010, and Office Communications Server 2007 R2 (OCS 2007 R2) to Office 365.
4. A neurology medical practice with six doctors and 38 employees. The practice has five satellite offices and also serves international patients from the Middle East. The main impetus for moving to Office 365 was to use Lync Online as a telemedicine solution. It is also considering moving from on premises Exchange and Office Professional 2003 to Office 365.
5. A small manufacturing company with 50 employees spread among offices in four European countries. The company uses Exchange Online as part of BPOS and Office Professional 2010 deployed on local machines. It does not use Lync or SharePoint but is considering adding those in the future.
6. A software-as-a-service (SaaS) company that provides broadcast text and voice messaging services for large companies. It has three offices and two data centers. The company will be using Office 365 for Exchange, moving from Exchange Online as part of BPOS. It also uses the on premises versions of Office Enterprise, SharePoint, and Lync 2010. These may be migrated to Office 365 in the future.
7. A 25-person, UK-based hosting and digital design agency. The company is replacing a non-Microsoft email solution with Office 365 and migrating from BPOS for OCS to Lync Online. It will also be adding the Office 365 version of SharePoint.

The seven interviews uncovered the following salient points:

- Reducing the total cost of ownership (TCO) for productivity and collaboration tools was the primary reason the interviewed companies chose to implement Office 365.

- “The cost savings that we see from a cloud-based solution are reason enough to choose Office 365. It saves the company money and allows our IT staff to work on business problems and add more value to the company.”
- “We started investigating our options and found that Microsoft’s online solution can reduce our costs.”
- “I looked at running a basic set of servers, and at first thought, this would be the right way to go. When I took into consideration all of the hardware and licensing costs, as well as the complexity, I realized I didn’t want to manage it all myself and that Office 365 was the right solution.”
- Office 365’s ability to simplify the administration of IT was very appealing to managers at smaller companies and provides greater assurance of continuity and security compared with a company’s own in-house capabilities.
 - “Peace of mind is the biggest benefit for me. Knowing that someone else is taking care of everything is great.”
 - “I want to reduce complexity and move commodity services to the cloud. Since 100% of our Internet technology is based on Microsoft, it made sense to look at Office 365.”
 - “We do not have enough technical expertise in-house to adequately support our infrastructure.”
 - “We had a single Exchange 2003 server that had been deployed a very long time and was not well maintained. I needed to find a way to migrate to the latest solution but manage it with limited staff.”
 - “I am a co-owner and also responsible for the overall management of our servers. This is a constant concern for me since we don’t have a lot of IT staff. I am tied to my servers, and for me to go on vacation is rough. When I put SharePoint in the cloud, it became easy for me to go on vacation. I could have hired a lot of staff, but that would have been a more expensive solution. It is a big win to move everything to the cloud.”
- Companies that are committed to the cloud as part of their future found that Office 365 was an important part of the overall solution.
 - “Microsoft’s long-term vision is to have 100% parity between their on premises and cloud solutions. When this is achieved, who in their right mind would want to keep things on premises?”
 - “We believe most small business will be moving to the cloud over the next 10 years, and that they will go with one of the main software vendors. It is not only important to be on the right technology path, but to look for opportunities the cloud provides. We are currently figuring out how to take advantage of that.”
- Improved operability between the various Microsoft solutions as well as other systems in the cloud was also very important.

- “Office 365 met my wish for perfect harmonization of all services. The infrastructure results in the perfect orchestration of Lync, Office, Exchange, and SharePoint all working together.”
- “The main reason we are committed to cloud services is the ability of everything to work together. Office 365 plays nicely with our hosted ERP solution.”
- Existing familiarity with Microsoft solutions made Office 365 a compelling choice.
 - “We dove into our options and after a half day of research realized that our familiarity with Exchange made Office 365 the right choice.”
 - “Because our users and IT staff already know how to use the Microsoft solutions, adoption of Office 365 will be very easy.”
- Office 365 makes it easier to serve customers and employees at remote locations.
 - “Rural patients, particularly those with chronic conditions, no longer need to routinely drive long distance for follow-up visits.”
 - “Lync should create a sense of community between employees working at multiple locations.”
 - “We don’t have a primary location where everyone comes in to work. Most people work from home or client locations. That is why have a cloud solution is so appealing. It reaches out to everyone and removes barriers.”
 - “We tried telemedicine with OCS and realized it would not work. Lync has the high resolution we need to work with doctors and patients in far away locations, including Saudi Arabia and Peru.”
- Office 365 strengthens businesses’ operations and processes.
 - “We found Office 365 to be a very powerful way to get a business started very fast. We have the same enterprise-level services that a large corporation would have. It makes it easier for us to compete.”
 - “Technology is one of our differentiators. We invest more in technology than facilities. Our engineers run meetings on customers’ construction sites, so Office 365 supports our daily business processes.”

Composite Organization

Based on the interviews with the seven existing midsize 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 IT consulting organization with small but growing operations in Europe. There are a total of 150 employees, all of whom are knowledge workers using Office 365. Fifty employees work in the headquarters, 70 work between four other US offices or from home, and 30 workers are based in Europe. Of the consultants, 50 are classified as “road warriors” and spend most of their time traveling to customer sites.

Prior to implementing Office 365, the organization was on Exchange 2003 and Office Professional 2003. There was no prior use of SharePoint or Lync/OCS. The implementation of the previous solution took place in 2004. 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 | \$65,000 |
| A2 | Annual fully burdened cost* per mobile worker | \$93,750 |
| A3 | Annual fully burdened cost* per knowledge worker (across all roles in the organization) | \$60,000 |
| A4 | Number of users on Office 365 | 150 |
| *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 SaaS cost model, with many cost categories being replaced by a service subscription. 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 Implementation / Migration Labor

The customers were all participating in an Office 365 beta pilot at the time of being interviewed. Based on this experience, they were able to estimate the level of effort for planning, piloting, and implementing Office 365. The typical planning and piloting effort involved four to eight hours per week, lasting from two to six weeks.

Once the necessary Office 365 configurations were completed, users were migrated in blocks over a series of nights or weekends. The duration of the migration depends on the number of users and the amount of data to be migrated, both mailboxes and SharePoint files.

Some of the companies used professional services, and others completed the effort solely with in-house resources. The deciding factor was how much time the staff had available to work on the migration. For a midsize company, professional services are typically used to define the solution and a migration process. In-house resources then manage the migration. Many Microsoft partners are developing fixed-price migration offerings, similar to the BPOS migration services they offered.

For the composite organization, the effort was split between multiple resources. These amounted to one FTE resource over two months. In addition, professional services were used for design and configuration, as well as defining the migration process. One FTE x 2 months x \$5,417 per month is equal to \$10,833 of internal effort. This plus \$6,000 for professional services totals \$16,833 in planning and implementation labor costs.

There is a corresponding benefit for the avoided incremental effort to implement a comparable on premises solution. This is discussed in the Benefits section of this study.

Table 3

Initial Planning And Implementation/Migration Labor

| Ref. | Metric | Calculation | Initial |
|------|---|-----------------|----------|
| B1 | Number of internal IT FTEs | | 1 |
| B2 | Number of months | | 2 |
| B3 | Monthly fully burdened cost | A1/12 months | \$5,417 |
| B4 | Professional services | | \$6,000 |
| Bt | Initial planning and implementation/migration labor | $(B1*B2*B3)+B4$ | \$16,833 |

Source: Forrester Research, Inc.

Hardware

While Office 365 allows an organization to eliminate hardware, there is still a need for an ADFS server if a company wishes to implement identity federation and SSO. For a smaller organization, this typically requires one server. The technical requirements are not great, so a middle-of-the-road server configuration will suffice.

The server can be hosted on premises or at a colocation-type facility. Most of the companies interviewed are hosting on-site. The composite organization hosts the server 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 avoidance of Exchange, Lync, and SharePoint server installation is covered in the Benefits section of this study.

Table 4
Hardware

| Ref. | Metric | Calculation | Initial | Year 1 | Year 2 | Year 3 | Total |
|------|------------------------|--|---------|--------|--------|--------|---------|
| C1 | Number of ADFS servers | | 1 | | | | |
| C2 | Cost per server | | \$7,000 | | | | |
| C3 | Maintenance | $(C1 * C2) [\text{initial period}] * 10\%$ | | \$700 | \$700 | \$700 | |
| C4 | In-house hosting costs | $C1 [\text{initial period}] * \200 | | \$200 | \$200 | \$200 | |
| Ct | Hardware | $(C1 * C2) + C3 + C4$ | \$7,000 | \$900 | \$900 | \$900 | \$9,700 |

Source: Forrester Research, Inc.

Microsoft Subscription And Licenses

Office 365 for midsize customers has a very straight forward pricing model. Depending on the services included – Office Professional Plus, Exchange Online, SharePoint Online, and Lync Online – a monthly per user subscription cost is incurred. For the composite organization, the Office 365 E3 offering was chosen, which includes all of these components. The corresponding monthly cost was \$24 per user.

If a company wishes to make SharePoint available to external users, i.e., customer extranets, there is a small charge for this. The first 50 external users are free, and the price then increases in 50 user blocks. The composite organization is creating customer extranets early on in order to facilitate greater collaboration and to reduce the travel required.

Table 5
Microsoft Subscription And Licenses

| Ref. | Metric | Calculation | Initial | Year 1 | Year 2 | Year 3 | Total |
|------|---------------------------------------|---|---------|----------|----------|----------|-----------|
| D1 | Office 365 subscription costs | $\$24 * 150 \text{ users} [A4] * 12 \text{ months}$ | | \$43,200 | \$43,200 | \$43,200 | |
| D2 | SharePoint external user subscription | | | \$1,200 | \$1,200 | \$1,200 | |
| Dt | Microsoft subscription and licenses | $D1 + D2$ | | \$44,400 | \$44,400 | \$44,400 | \$133,200 |

Source: Forrester Research, Inc.

Training

User training requirements 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. The approach companies took to provide training varied greatly. Some used external trainers for live sessions, some used internal trainers, and others made all training available through online tutorials. The composite organization was very proactive in providing training so that user productivity benefits could be realized early on. This training was primarily in-person training sessions along with online training tools

There is some specialized training on Office 365 administration needed by the IT organization. The number of individuals who can benefit from this training can vary based on the size of the company, but the consensus number for a company the size of the composite organization was one IT resource who could then train colleagues.

Table 6

Training

| Ref. | Metric | Calculation | Initial | Year 1 | Year 2 | Year 3 | Total |
|------|-------------------|-------------|----------|--------|--------|--------|----------|
| E1* | IT training | | \$5,000 | \$0 | \$0 | \$0 | |
| E2* | End user training | | \$7,500 | \$0 | \$0 | \$0 | |
| Et* | Training | E1+E2 | \$12,500 | \$0 | \$0 | \$0 | \$12,500 |

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

Source: Forrester Research, Inc.

Ongoing Administration

The ongoing administration of Office 365 is significantly less than for a comparable on premises solution. The level of effort varies by the number of users and which solutions are being used. For the companies interviewed, the expected level of effort was between 0.5 and one FTE. For the composite organization, 0.75 of an FTE was included, with the majority of the work completed by IT staff in the US and very limited effort in Europe. 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 7
Ongoing Administration

| Ref. | Metric | Calculation | Initial | Year 1 | Year 2 | Year 3 | Total |
|------|-------------------------------|-------------|---------|----------|----------|----------|-----------|
| F1 | Number of IT FTEs | | | 0.75 | 0.75 | 0.75 | |
| F2 | Annual IT fully burdened cost | A1 | | \$65,000 | \$65,000 | \$65,000 | |
| Ft | Ongoing administration | F1*F2 | | \$48,750 | \$48,750 | \$48,750 | \$146,250 |

Source: Forrester Research, Inc.

Additional Bandwidth

None of the companies interviewed had yet determined if any additional bandwidth would be required. Microsoft provides many tools and whitepapers 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, which 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, perhaps 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, the conservative assumption was made that an additional T1 line would be required for the headquarters. A placeholder value of \$5,000 per year for a T1 line was included. The reader should consider any additional bandwidth requirements for each of their offices.

Table 8
Additional Bandwidth

| Ref. | Metric | Calculation | Initial | Year 1 | Year 2 | Year 3 | Total |
|------|----------------------|-------------|---------|---------|---------|---------|----------|
| G1 | Additional bandwidth | | \$0 | \$5,000 | \$5,000 | \$5,000 | |
| Gt | Additional bandwidth | G1 | \$0 | \$5,000 | \$5,000 | \$5,000 | \$15,000 |

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 9 below.

Table 9

Total Costs (Non-Risk-Adjusted)

| Ref. | Costs | Initial | Year 1 | Year 2 | Year 3 | Total |
|------|---|-------------------|-------------------|-------------------|-------------------|--------------------|
| Bt | Initial planning and implementation/migration labor | (\$16,833) | | | | (\$16,833) |
| Ct | Hardware | (\$7,000) | (\$900) | (\$900) | (\$900) | (\$9,700) |
| Dt | Microsoft subscription and licenses | | (\$44,400) | (\$44,400) | (\$44,400) | (\$133,200) |
| Et | Training | (\$12,500) | | | | (\$12,500) |
| Ft | Ongoing administration | | (\$48,750) | (\$48,750) | (\$48,750) | (\$146,250) |
| Gt | Additional bandwidth | | (\$5,000) | (\$5,000) | (\$5,000) | (\$15,000) |
| | Total | (\$36,333) | (\$99,050) | (\$99,050) | (\$99,050) | (\$333,483) |

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.

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 that 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 25 GB 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 also see productivity gains from features such as scheduling assistant and conversation view.

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

- “From a user perspective, the productivity and collaboration improvements from the integration of Lync with SharePoint will be huge. I can’t even put a value on that. It’s priceless in my opinion.”
- “All of our users will see productivity gains. The productivity gain from SharePoint is insane.”

- “Everyone being able to work in a collaborative environment is essential. We can work smarter and fewer hours.”
- “We are a knowledge company. IT has to make us more productive, smarter.”
- “Without Lync we have no mechanism for communicating across the company – except phones and shouting. Lync will be a huge improvement in terms of time savings.”
- “Lync will be a great successor to Live Meeting. Project managers use Live Meeting 3 to 4 hours a day now, and Lync will take that even further. Seeing who is available to speak instead of sending email is invaluable.”

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

Table 10

Knowledge Worker Productivity Gain

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|--|----------------------------|-----------|-----------|-----------|-----------|
| H1 | Exchange (inbox management, conversation view, etc.) - minutes saved per week | | 5 | 5 | 5 | |
| H2 | Lync Online (IM, Presence, unified communication) - minutes saved per week | | 20 | 70 | 70 | |
| H3 | SharePoint Online (document search and collaboration) - minutes saved per week | | 15 | 40 | 40 | |
| H4 | Office Professional Plus (co-authoring, OneNote, and enhanced features) minutes saved per week | | 15 | 40 | 40 | |
| H5 | Hourly time savings per week | $(H1+H2+H3+H4)/60$ minutes | 0.92 | 2.58 | 2.58 | |
| H6 | Work weeks per year | | 48 | 48 | 48 | |
| H7 | Number of users | A4 | 150 | 150 | 150 | |
| H8 | Average hourly fully burdened cost per knowledge worker | A3/2,000 hours | \$30.00 | \$30.00 | \$30.00 | |
| H9 | Total potential productivity gain | $H5*H6*H7*H8$ | \$198,000 | \$558,000 | \$558,000 | |
| H10 | Percent captured | | 50% | 50% | 50% | |
| Ht | Knowledge worker productivity gain | $H9*H10$ | \$99,000 | \$279,000 | \$279,000 | \$657,000 |

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, and utilizing Lync Online. This is incremental to the general productivity gains discussed above. Some comments heard include:

- “Office 365 will provide tools to engineers so they can work well and be more productive while traveling. They can also interact better with customers, getting things done more quickly.”
- “For mobile workers, if they have the Internet, they have email and everything else readily available to them. This is much more efficient than using a VPN.”

For the composite organization, 50 “road warrior” senior consultants are constantly visiting clients. It was conservatively assumed that 1 hour per week is regained for other uses and that only half of this 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 11

Mobile Worker Incremental Productivity Gain

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|--|--------------------------|----------|-----------|-----------|-----------|
| I1 | Number of “road warrior” consultants | | 50 | 50 | 50 | |
| I2 | Additional productivity gain minutes per week | | 30 | 60 | 60 | |
| I3 | Work weeks per year | | 48 | 48 | 48 | |
| I4 | Average hourly fully burdened cost (mobile worker) | A2/2,000 | \$46.88 | \$46.88 | \$46.88 | |
| I5 | Total potential productivity gain | (I1*I2*I3*I4)/60 minutes | \$56,250 | \$140,625 | \$140,625 | |
| I6 | Percent realized | | 50% | 50% | 50% | |
| It | Mobile worker incremental productivity gain | I5*I6 | \$28,125 | \$70,313 | \$70,313 | \$168,750 |

Source: Forrester Research, Inc.

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 match. Creating an infrastructure with full geographic redundancy like the one Microsoft offers would also add significant cost.

The amount of hardware that did not have to be implemented varied across the interviewees. In terms of servers, the range was from two to eight servers, the former being for Exchange only and the latter for an installation of Exchange, OCS 2007 R2 and SharePoint. One interviewee said: “My servers are maxed out. If I had to expand my infrastructure to support Lync and SharePoint, it would require building out a full data center. This would be a very large investment.”

The composite organization would have deployed a one-tier solution for Lync and SharePoint, consisting of one server for each. Virtualization may be used to create a multitier installation and redundancy across the servers. This was not done by the composite organization. Three exchange servers would be required to support email in the US and Europe. If a company wanted to have any disaster recovery capabilities, additional servers would be required. The composite organization does not have additional servers at a disaster recovery facility.

The composite organization was offering 1 gigabyte mailboxes prior to Office 365. To make 25 gigabyte mailboxes available would have required a significant investment in additional storage. Every company interviewed said that they would not be able to provide such a large mailbox but that having a mailbox of this size is of great benefit to the employees and organization.

The added 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 12
Eliminated Hardware

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|--|-----------------------------------|----------|---------|----------|----------|
| J1 | Number of Exchange servers | | 3 | | | |
| J2 | Number of SharePoint servers | | 1 | | | |
| J3 | Number of Lync servers | | 1 | | | |
| J4 | Cost per server | | \$7,000 | | | |
| J5 | Storage not added (TB) - Exchange and SharePoint | | 1.5 | 0 | 1.0 | |
| J6 | Cost per terabyte | | \$5,000 | \$5,000 | \$5,000 | |
| J7 | Total hardware costs | $(J1+J2+J3)*J4+(J5*J6)$ | \$42,500 | \$0 | \$5,000 | |
| J8 | Avoided maintenance | Sum J7 [through current year]*10% | \$4,250 | \$4,250 | \$4,750 | |
| J9 | In-house hosting costs | $(J1+J2+J3)*\$200$ | \$1,000 | \$1,000 | \$1,000 | |
| Jt | Eliminated hardware | $J7+J8+J9$ | \$47,750 | \$5,250 | \$10,750 | \$63,750 |

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, enterprise mailbox search, email backup, and archiving. The composite organization only had antivirus/anti-spam (FOPE) 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.

In addition to the cost savings, the reader should also consider the solution capabilities. As an example, one of the companies interviewed only kept one day of email backed up in a readily accessible format. After that, it

was transferred to a tape drive, making recovery more time-consuming. Reducing the number of vendors that need to be contracted with also simplifies the procurement and accounts payable processes.

Table 13

Eliminated Third-Party Software

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|---------------------------------|-------------------------------|---------|---------|---------|----------|
| K1 | Antivirus/anti-spam | 150 users[A4]*\$1/month*12 | \$1,800 | \$1,800 | \$1,800 | |
| K2 | Email backup agent | (\$1,000*J1)[Year 1 only]+20% | \$3,600 | \$600 | \$600 | |
| Kt | Eliminated third-party software | K1+K2 | \$5,400 | \$2,400 | \$2,400 | \$10,200 |

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. This migration can also include eliminating cases in which an employee uses a credit card to purchase a web conferencing solution for their own use.

Table 14

Web Conferencing Savings

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|--------------------------------|-------------|---------|----------|----------|----------|
| L1 | Web conferencing solution fees | | \$5,000 | \$10,000 | \$10,000 | |
| Lt | Web conferencing savings | L1 | \$5,000 | \$10,000 | \$10,000 | \$25,000 |

Source: Forrester Research, Inc.

Substituted Microsoft Licenses

An on premises solution would have required a variety of Microsoft licenses for the 2010 solution set. This would have included server licenses for SharePoint, Exchange, and Lync. Per-asset licenses would have been required for Office Professional Plus as well as CALs for SharePoint, Exchange, and Lync. The assumption was made that each user would have only one asset. In addition, in order to create customer extranets a SharePoint for Internet Sites Standard 2010 license would be required.

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 the say the difference between the Office 365

subscription costs and the potential 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 with maintaining their older Microsoft solutions. This does not reduce the total payments to Microsoft as outlined in the Cost section of the study.

Most small and medium-size organizations do not have an enterprise agreement or purchase Software Assurance. Neither of these was included for the composite organization.

Table 15

Substituted Microsoft Licenses

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|---|-------------------|-----------|--------|--------|-----------|
| M1 | Office Professional Plus 2010 licenses | 150 devices*\$508 | \$76,200 | | | |
| M2 | Exchange Standard 2010 server licenses | J1*\$708 | \$2,124 | | | |
| M3 | SharePoint Standard 2010 server licenses | J2*\$4,926 | \$4,926 | | | |
| M4 | Lync Standard 2010 server licenses | J3*\$708 | \$708 | | | |
| M5 | SharePoint for Internet Sites Standard 2010 | | \$11,793 | | | |
| M6 | Client Access Licenses | 150 devices*\$195 | \$29,250 | | | |
| Mt | Substituted Microsoft licenses | M1+M2+M3+M4+M5+M6 | \$125,001 | | | \$125,001 |

Source: Forrester Research, Inc.

Avoided On Premises Planning And Implementation Labor

This benefit represents the incremental effort that would be required, above and beyond an Office 365 deployment, to build a comparable solution on premises. Deploying the 2010 solution set on premises requires fully specifying, installing and configuring both the hardware and software. There are still migration efforts to get users onto the new solution.

For most of the companies interviewed, IT resource constraints were one of the main reasons that Office 365 was so appealing. Finding the time to take on this project in addition to the normal daily activities would have been very difficult. Additional professional services would also be required, in most cases, to fill this resource gap – both time and knowledge.

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 Planning And Implementation Labor

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|---|-----------------|----------|--------|--------|----------|
| N1 | Number of IT FTEs | | 1.5 | | | |
| N2 | Number of months | | 2.5 | | | |
| N3 | Monthly fully burdened cost | A1/12 months | \$5,417 | | | |
| N4 | Professional services | | \$15,000 | | | |
| Nt | Avoided on premises planning and implementation labor | $(N1*N2*N3)+N4$ | \$35,313 | | | \$35,313 |

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 others may be able to redeploy surplus capacity to work on more strategic projects.

The amount of additional infrastructure administration effort required ranged from 0.5 to two FTEs. Additionally, Microsoft provided tier-three help desk support, which reduces help desk resources. This savings varied from 0.5 to one FTE.

In addition to the number of resources, there is a benefit from being able to use lower-skilled resources that come with a lower price tag. For the composite organization, this benefit was realized in Year 3 when the previous IT administrator left the company and was replaced with a lower-cost resource.

Some companies used professional service organizations to provide administration and help desk support. Whether it is done in-house or outsourced, the cost savings should be comparable.

The interviewees spoke very strongly about the many advantages of reducing IT support effort, not just the associated cost. Some of the comments on the way in which time is saved and the additional benefits include:

- “With Office 365, we can use lower-cost IT support staff. It requires more of a type of person who can deal with user errors than with network administration.”
- “IT professional service costs will go way down. I currently have a partner for each of the Office 365 products.”
- “The reason to move to the cloud was so I did not have to staff up with skilled IT resources.”
- “If you forget about the people to maintain it all, the cost of cloud and on premises solutions look about the same, but this cost is a huge factor. And, the peace of mind that the solution is in the best possible environment is very valuable. I get a much better solution at the same cost.”

- “I have 1.5 IT staff now and would have required a lot more, especially for our remote offices. It would have cost us \$120,000 in additional hires if we weren’t in the cloud.”
- “Things are getting more complex. Without Office, 365 we would need more people to understand it all.”

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 | 1 | 1 | |
| O2 | Annual IT fully burdened cost | A1 | \$65,000 | \$65,000 | \$65,000 | |
| O3 | Number of remaining support FTEs | F1 | 0.75 | 0.75 | 0.75 | |
| O4 | Salary (skill) reduction for remaining FTEs | | \$0 | \$0 | \$15,000 | |
| Ot | Reduced IT support effort | $(O1*O2)+(O3*O4)$ | \$65,000 | \$65,000 | \$76,250 | \$206,250 |

Source: Forrester Research, Inc.

Reduced Travel And CO2 Emissions

The 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 traveling. Interviewees said that “Office 365 would reduce the travel required to [customers] and also provide a higher level of service.” Internally, it would also “reduce travel for IT personnel and other internal meetings.”

The 50 ‘road warriors’ travel, on average, 25 times per year, and another 70 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 70 trips per year.

Table 18
Reduced Travel

| Ref. | Metric | Calculation | Year 1 | Year 2 | Year 3 | Total |
|------|---|---------------------------|----------|-----------|-----------|-----------|
| P1 | Number of mobile workers | I1 | 50 | 50 | 50 | |
| P2 | Average number of mobile worker trips per year | | 25 | 25 | 25 | |
| P3 | Number of in-office employees traveling | | 70 | 70 | 70 | |
| 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 | $((P1*P2)+[P3*P4])*P5*P6$ | \$52,125 | \$104,250 | \$104,250 | \$260,625 |

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 | $((P1*P2)+[P3*P4])*P6$ | 35 | 70 | 70 | |
| Q2 | Average distance (kilometers) | | 1,500 | 1,500 | 1,500 | |
| Q3 | Passenger kilometers avoided | $Q1*Q2$ | 52,125 | 104,250 | 104,250 | |
| Q4 | CO ₂ emissions reduction | Kilograms CO ₂ per passenger air kilometer | 0.18 | 0.18 | 0.18 | |
| Qt | Carbon footprint improvement: kg CO ₂ | $Q3*Q4$ | 9,383 | 18,765 | 18,765 | 46,913 |

Source: Forrester Research, Inc.

Total Quantified Benefits

Table 20 below summarizes the total quantified benefits the composite organization realized by implementing Microsoft Office 365.

Table 20

Total Quantified Benefits (Non-Risk-Adjusted)

| Ref. | Benefits | Year 1 | Year 2 | Year 3 | Total |
|------|---|------------------|------------------|------------------|--------------------|
| Ht | Knowledge worker productivity gain | \$99,000 | \$279,000 | \$279,000 | \$657,000 |
| It | Mobile worker incremental productivity gain | \$28,125 | \$70,313 | \$70,313 | \$168,750 |
| Jt | Eliminated hardware | \$47,750 | \$5,250 | \$10,750 | \$63,750 |
| Kt | Eliminated third-party software | \$5,400 | \$2,400 | \$2,400 | \$10,200 |
| Lt | Web conferencing savings | \$5,000 | \$10,000 | \$10,000 | \$25,000 |
| Mt | Substituted Microsoft licenses | \$125,001 | | | \$125,001 |
| Nt | Avoided on premises planning and implementation labor | \$35,313 | | | \$35,313 |
| Ot | Reduced IT support effort | \$65,000 | \$65,000 | \$76,250 | \$206,250 |
| Pt | Reduced travel | \$52,125 | \$104,250 | \$104,250 | \$260,625 |
| | Total | \$462,714 | \$536,213 | \$552,963 | \$1,551,889 |

Source: Forrester Research, Inc.

Other Benefits Of Office 365

Companies interviewed for this study described numerous categories of benefits from Office 365. To ascribe financial benefit for the composite company, Forrester included only the categories of benefit that a) are applicable to a professional services firm like the composite and b) were most compellingly articulated, quantified, and most certain to be realized by interviewed Microsoft customers. In related research, and in working with Microsoft and its customers, Forrester has identified more benefit areas that many prospective Office 365 customers may recognize and realize. These benefit categories follow.

Improved/Latest Functionality And Easy 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 the ways in which they will take advantage of new features and functionality and how this process will be simplified.

- “We are faster and better than our competition. That is why we need the latest features from Microsoft. Getting the newest features automatically will improve our business.”

- “Now we don’t need to be knowledgeable on all the latest technologies in order to roll it out to our users. This will greatly speed up migrations. For example, Exchange 2010 provides much better performance and is more stable, and we can take advantage of that today.”

Better Customer Service And Opportunities To Grow Business

Office 365 enables companies to provide better service to employees and to customers. This results in better relationships with customers, stronger brands, and creates opportunities to increase revenue. This is very important for midsize companies, especially when working with customers that are much larger. Additionally, the time that is freed up through increased productivity can be used for innovation.

- “We can now provide a higher level of service. That translates to improved relationships and more customers.”
- “Office 365 gives our employees more time to help customers. They can focus on what is important to growing the business.”
- “Our IT staff did not have time to work on new ideas. Most of the time was spent managing infrastructure. Moving to the cloud allows us to focus on business process innovation.”
- “Managing servers, patching, and general troubleshooting were a lot of what we used to do. Now we can work on other projects that bring more value to the company.”

Better Cost Predictability

For small and medium-size companies, predicting and managing cash flow is always a top priority. The Office 365 subscription model removes the guesswork from forecasting IT spend. It also protects against unforeseen expenditures that can be quite high. All of the companies interviewed described this as very important to them.

- “We currently have a lot of different license costs, and it can be hard to keep track of them. With Office 365 we have very transparent cost model.”
- “We [now] know exactly how much we have to spend each month. That is very useful.”
- “The subscription amounts are known. After 12 months we can increase or reduce our services for a set price. We know what everything will cost in advance.”
- “Budgeting is much easier now, and that is very important.”

Reducing Capex

The preference for opex versus capex varies from company to company and over time. At the time the study was written, opex was overwhelmingly preferred by nearly every company interviewed. The Office 365 subscription model allowed for valuable IT projects to be completed now instead of waiting for some time in the future when capex funding would become available.

- “It is very important to us to move everything to the cloud so we can avoid capex.”

- “Since the financial crisis began two years ago, it has been very difficult for us to get capex projects approved. We were worried about how we would fund our infrastructure improvement before learning about Office 365.”
- “We prefer the predictability of the opex model. There are still some capex costs such as consultants to manage the implementation.”

Improved IT Security

For smaller companies, providing a world-class IT security infrastructure can be very difficult and cost-prohibitive. Office 365 makes this easier by offloading some of the responsibility to Microsoft. Additionally, any security problems can irreparably damage a company’s reputation and make it harder to compete against larger companies; FOPE protects against outbound spam and other reputation-damaging security events. Some of the reasons for improved IT given by the companies interviewed include:

- “Security has improved because it is no longer our responsibility. We might not have had all the best settings or latest patches. Things are definitely better now.”
- “We can’t take the chance that an infected computer results in accidentally spamming our large customers. We portray ourselves as a larger player than we actually are, and we need to have security to back that up.”
- “In the past, we had spam originating from one of our employee’s computers. That is no longer a risk.”

Improved Archiving And Compliance

Office 365 will provide great benefits in the areas of archiving and compliance because of larger mailboxes, shared data stores, and multi-mailbox search. The time required to fulfill compliance and discovery research obligations should be reduced. Retention policies can be better enforced, reducing the headache for audit and legal departments.

- “Compliance is an added benefit we did not originally factor in. Legal discovery and audits are much more efficient.”
- “Having 25 gigabyte mailboxes is great for archiving. We are eliminating PST files and other local archives.”
- “Office 365 enables better HIPAA compliance with automated workflows and sign-offs.”
- “Although we are not using the archiving and compliance capabilities in Office 365 today, it is very reassuring to know that we can easily add these features in the future.”

Improved Availability And Disaster Recovery

Microsoft’s Office 365 infrastructure will be better, in terms of reliability and availability, than what most midsize companies could reasonably afford to build out in-house. Full geographic redundancy is one area that would be especially difficult to replicate. For most of the companies interviewed, this was a major selling point. Below are some statements heard on the value of the Office 365 high availability and disaster recovery capabilities:

- “With Office 365 we have not had any downtime. That is very different than when we were running Exchange on premises.”
- “Microsoft’s service-level agreement is very important to us. All of our collaboration and communication now depends on Office 365 being up and running.”
- “The disaster recovery capabilities are vastly superior to what we could have provided on our own.”
- “When you have large clients, you don’t want to have fragile systems and outages that can negatively influence how they view you.”
- “We had a water pipe bust that shut down our main office for three weeks. It took one week for us to get email running again, during which pretty much no work got done. With Office 365, everyone would have been able to continue working from any location immediately afterwards, and we could have had everyone fully productive in a secondary office with access to all of their files in a couple of days.”

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).

For midsize companies, Office 365 creates organizations that are very flexible in terms of how employees work together and how they interact with customers. It frees up time for both IT and business users to focus on value-add activities and improving the business. Scalability is also an important factor, as many midmarket companies are undergoing rapid expansion. Office 365 allows for new locations, employees, and partners/customers to be onboarded in very little time.

Interviewees felt very strongly that Office 365 will make them more agile.

- “Office 365 allows us to easily provide IT services to part-time and seasonal workers. We can quickly turn services on and off.”
- “For mergers and acquisitions, we can get the new organization on our platform overnight.”
- “We had many projects we wanted to undertake but could not start because we did not have enough IT resources. Now we will be able to focus on more valuable projects and fix business problems.”
- “We are thinking of adding an office in Portugal. Office 365 will make this much easier and factor into our expansion decisions.”
- “We opened an office in Slovakia, and all we had to do was buy PCs and increase the number of Office 365 subscriptions. This costs a lot less and allows everyone to be productive much sooner.”

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 costs can be higher in larger organizations and those with multiple offices. Increased use of professional services can also increase these costs.
- Office 365 costs are based on the number of users, so larger organizations will pay more on a per-month basis. However, there should be a corresponding increase in benefits realized.
- Training costs can vary depending on how many new solution areas are being added (e.g., SharePoint) and what versions of existing solutions are being migrated from (e.g., Office Professional 2003).

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

- All eliminated costs such as implementation, hardware, and licenses are a direct function of which Microsoft solutions are being implemented and by how many users. The reader is encouraged to ignore benefits in the study that are tied to a solution that will not be used (e.g., Lync Online replacing existing web conferencing costs).
- Total productivity savings are a direct function of how many employees are affected. This can result in lower total benefits for companies smaller than the composite organization, but it can also mean substantially higher ROIs for larger organizations.

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, none of them felt that the Microsoft infrastructure was less secure than the one operated on premises.
2. The second risk is associated with giving up some level of control in terms of configuration and rollout schedules of the Microsoft solution. Customers said that the self-configuration tools in Office 365 were superior to those in BPOS and should not be a limiting factor in implementing Office 365.
3. The third risk is Microsoft’s service going down. While Microsoft has designed its 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 performance degradation. In most cases, the risk of a service outage should be less with the Office 365 infrastructure than with a self-managed solution.

4. Lastly, there is the risk that a company's connection to the Internet goes down. While this does not occur frequently in the US and Western European countries, it is something that should be taken into careful consideration for offices in countries with less reliable Internet service. 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 21 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 21

Cost And Benefit Risk Adjustments

| Costs | Low | Most likely | High | Mean |
|---|------------|--------------------|-------------|-------------|
| Initial planning and implementation/migration labor (medium risk) | 100% | 100% | 115% | 105% |
| Hardware (low risk) | 98% | 100% | 105% | 101% |
| Microsoft subscription and licenses (no risk) | 100% | 100% | 100% | 100% |
| Training (medium risk) | 100% | 100% | 115% | 105% |
| Ongoing administration (low risk) | 98% | 100% | 105% | 101% |
| Additional bandwidth (low risk) | 98% | 100% | 105% | 101% |
| Benefits | Low | Most likely | High | Mean |
| Knowledge worker productivity gain (medium risk) | 80% | 100% | 103% | 94% |
| Mobile worker incremental productivity gain (medium risk) | 80% | 100% | 103% | 94% |
| Eliminated hardware (low risk) | 90% | 100% | 105% | 98% |
| Eliminated third-party software (medium risk) | 80% | 100% | 103% | 94% |
| Web conferencing savings (low risk) | 90% | 100% | 105% | 98% |
| Substituted Microsoft licenses (low risk) | 90% | 100% | 105% | 98% |
| Avoided on premises planning and implementation labor (medium risk) | 80% | 100% | 103% | 94% |
| Reduced IT support effort (medium risk) | 80% | 100% | 103% | 94% |
| Reduced travel (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 22 below.

Table 22

Cash Flow — Non-Risk-Adjusted

| Cash flow — original estimates | | | | | | |
|--------------------------------|-----------------------|------------|------------|------------|-------------|-------------|
| | Initial | Year 1 | Year 2 | Year 3 | Total | PV |
| Costs | (\$36,333) | (\$99,050) | (\$99,050) | (\$99,050) | (\$333,483) | (\$274,235) |
| Benefits | | \$462,714 | \$536,213 | \$552,963 | \$1,551,889 | \$1,234,190 |
| Net benefits | (\$36,333) | \$363,664 | \$437,163 | \$453,913 | \$1,218,405 | \$959,955 |
| ROI | 350% | | | | | |
| IRR | 1,018% | | | | | |
| Payback period | Less than 2 months | | | | | |

Source: Forrester Research, Inc.

Table 23 below shows the risk-adjusted ROI, IRR, NPV, and payback period values. These values are determined by applying the risk-adjustment values from Table 21 in the Risk section to the cost and benefits numbers in Tables 9 and 20.

Table 23

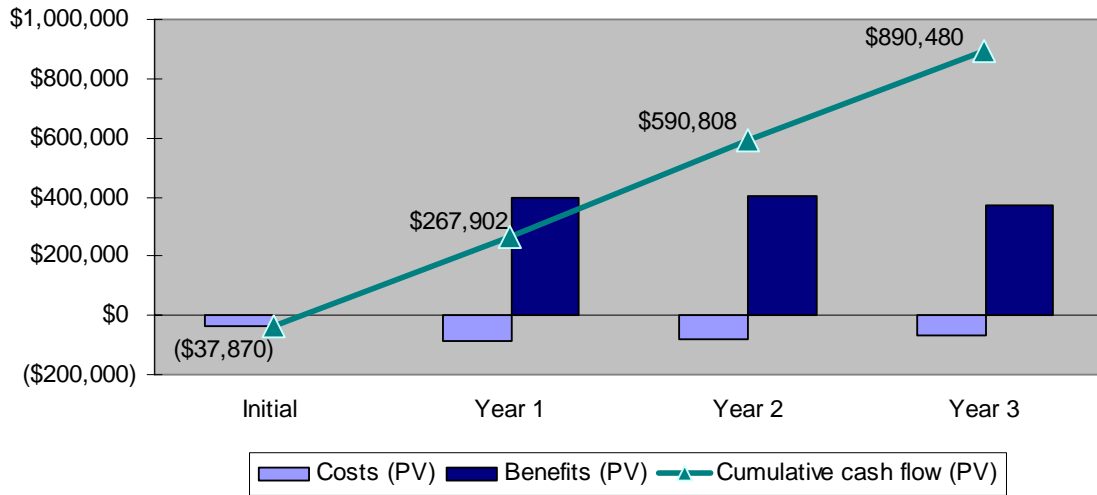
Cash Flow — Risk-Adjusted

| Cash flow — risk-adjusted estimates | | | | | | |
|-------------------------------------|------------|------------|------------|------------|-------------|-------------|
| | Initial | Year 1 | Year 2 | Year 3 | Total | PV |
| Costs | (\$37,870) | (\$99,597) | (\$99,597) | (\$99,597) | (\$336,660) | (\$277,084) |
| Benefits | | \$442,061 | \$504,650 | \$520,615 | \$1,467,325 | \$1,167,564 |
| Net benefits | (\$37,870) | \$342,464 | \$405,053 | \$421,018 | \$1,130,666 | \$890,480 |
| ROI | 321% | | | | | |
| IRR | 920% | | | | | |
| Payback period | 2 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

Office 365 is a set of cloud-based services that bring together Office 2010 with sites to share documents, IM, web conferencing, and the power of Exchange Online, the industry's leading business-class email with 25GB mailboxes & built-in layers of anti-virus and anti-spam protection.

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 35 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 seven midsize 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 its 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 midsize customer.

Forrester named the composite organization Third Way Consulting. Third Way is an IT consulting company that helps clients deploy and manage IT solutions in support of business objectives. The company is headquartered in Chicago, with the majority of employees and clients in the US. There are a total of 150 employees, all of whom are knowledge workers using Office 365. Fifty employees work at the headquarters, and another 70 are spread among four US offices or work from home. Thirty employees work out of two European offices.

Fifty consultants are termed ‘road warriors’ by management because they spend nearly all of their time at client offices and are always traveling. They almost never come into one of the company’s offices. Ensuring these workers are fully productive is very important to Third Way’s financial success.

All 150 users are being migrated to the Office 365 E3 solution set – Exchange, Lync Online, SharePoint, and Office Professional Plus. Previously, all users were on Exchange 2003 and Office Professional 2003. There was no prior use of SharePoint or Lync/OCS. The implementation of the previous solution took place in 2004.

Third Way 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. It also wants to use SharePoint to create extranets for use with clients.

A major concern was how much cost and effort would be required to manage the full 2010 solution set on premises. After careful analysis of deploying Office 365 or a comparable on-premises solution, Third Way decided to do a complete migration to Office 365. The plan was to move all mailboxes, documents and administrative tools to the cloud with applications – i.e., Word, Outlook, SharePoint, etc. – installed on users’ computers. This study explores the reasons Third Way decided to deploy Office 365 and the financial implications of this decision.

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 enterprise wide 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 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™ 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 data, 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 emissions 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.