

The Total Economic Impact Of Microsoft Office 365 For Hospitality Organizations

For many industries, cloud computing has resulted in employee productivity and process efficiency improvements. This is especially true for hospitality companies because they usually operate many geographically disparate locations. Additionally, hospitality companies have a higher proportion of employees who do not sit at a computer or have regular access to software. Examples include wait staff, housekeeping, and maintenance staff. Lastly, the rise of social feedback websites means that hospitality companies need to provide excellent experiences or risk damage to their brand.

Forrester Consulting looked at ways hospitality companies benefit from Microsoft Office 365, which is the cloud-based version of Office Professional Plus, Exchange, Skype for Business (formerly Lync), SharePoint, Yammer, and OneDrive. We found it lowered the solution's total cost of ownership (TCO), increased employee productivity and efficiency, enabled delivery of better products and services, helped IT organizations to complete more projects without adding additional resources, and improved IT security and compliance. Specifically, hospitality companies shared that Office 365 helped them:

- › Support sales reps visiting potential and existing customers.
 - › Manage and monitor sustainability projects across all locations.
 - › Share best practices across all locations.
 - › Gather information for better/more timely pricing and yield management.
 - › Open new locations faster and with lower cost.
- Provide access to HR systems for non-knowledge workers, e.g., wait staff.

To explore the potential benefits of using Office 365 in a hospitality organization, Forrester created a composite organization that had the characteristics of the interviewed and surveyed organizations. The composite organization was a nationwide hotel company that operates more than 50 hotels with restaurants and bars, and it moved 5,000 users from an on-premises 2010 version of Microsoft solutions to Office 365 in the cloud. The Total Economic Impact™ study looks at the financial impacts to the composite organization.

Key Findings

Forrester's study yielded the following key findings for the composite organization:

ROI:
111%

IRR:
262%

NPV:
**\$4.9
million**

**Payback
period:**
7 months

METHODOLOGY

Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study to provide business and IT leaders with an understanding of how hospitality companies can benefit by moving from an on-premises Microsoft Office solution to Microsoft Office 365.

To achieve these objectives, Forrester conducted two in-depth phone interviews with a nationwide restaurant chain and a global hotel operator. Forrester also conducted an online survey with 32 hospitality companies that have migrated to Office 365.











Forrester then designed a composite organization based on the characteristics of these companies. A representative financial model was constructed using the TEI methodology.

Lastly, Forrester risk-adjusted the financial model based on issues and concerns the surveyed organizations highlighted. Some cost and benefit categories included a broad range of responses or had a number of outside forces that might have affected the results. For that reason, some cost and benefit totals have been risk-adjusted and are detailed in each relevant section.

The Five Benefit Pillars And Results Summary

Forrester looked at hospitality company business and IT benefits across five broad areas. These pillars, as Microsoft defines them, encompass business transformation, cost savings, and employee productivity gains. In each pillar, we explored the various ways that the interviewed and surveyed hospitality organizations have benefited from moving their employees to Office 365. We also included at least one example from each pillar in the ROI analysis portion of the study. All of the responding companies experienced benefits across the areas highlighted in Figure 1.

Figure 1
Microsoft Office 365 Benefit Pillars And Risk-Adjusted Financial Benefits

Pillar	How Quantified In Study	Financial Impact	Goal
 Technology	Reduce hardware, software, and IT labor costs.	 \$4,295,454	Improve agility, reduce costs , and provide the tools to work efficiently.
 Mobility	Increase worker efficiency with anytime, anywhere access.	 \$2,395,713	Enable managers, sales reps, and inspectors to work from anywhere on almost any device.
 Control & Compliance	Lower compliance costs and improve capabilities.	 \$1,712,875	Help protect customer data and ensure regulatory compliance.
 Business Intelligence	Save money through better decisions from more timely access to information.	 \$1,693,359	Gain insights into customer trends and yield management/pricing to increase revenue .
 Real-time Communication	Improve process efficiency and user productivity.	 \$1,137,938	Improve product and service offerings through improved collaboration.

Source: Forrester Research, Inc.

The financial results calculated in the Benefits and Costs sections can be used to determine the return on investment (ROI), internal rate of return (IRR), net present value (NPV), and payback period for the composite hospitality company's investment in Microsoft Office 365.

The table below shows the risk-adjusted ROI, IRR, NPV, and payback period values.

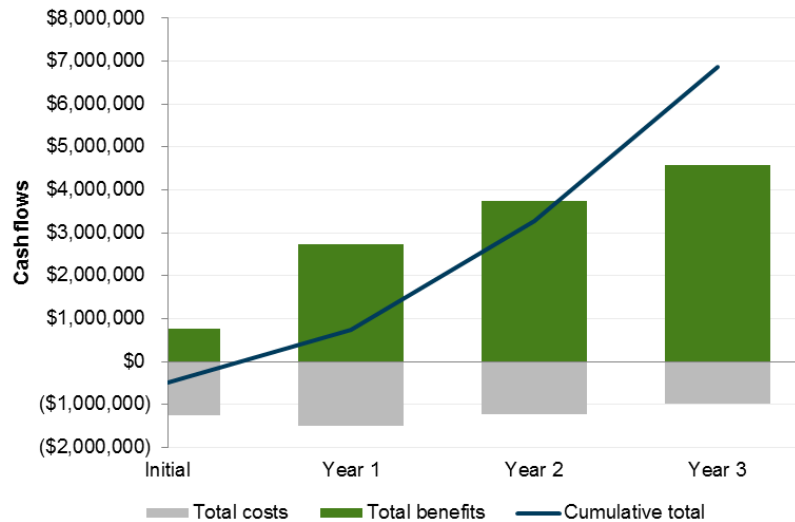
Results Summary

	Initial	Year 1	Year 2	Year 3	Total	PV
Costs	(\$1,265,812)	(\$1,507,379)	(\$1,220,447)	(\$991,208)	(\$4,984,846)	(\$4,389,500)
Benefits	\$768,352	\$2,419,316	\$3,418,968	\$4,628,702	\$11,235,338	\$9,270,936
Net benefits	(\$497,460)	\$911,937	\$2,198,521	\$3,637,494	\$6,250,492	\$4,881,436
ROI	111%					
IRR	262%					
Payback period	Seven months (after go-live)					

Source: Forrester Research, Inc.

The graph below shows the risk-adjusted cash flow.

Figure 2
Risk-Adjusted Cash Flow



Source: Forrester Research, Inc.

“Every hospitality organization should give Office 365 a look. It certainly reduces the headache of IT and gives you all of the benefits you want but in the past couldn’t deliver.”

~Development manager for emerging technologies, restaurant operator

Benefits

For each of the above pillars, the interviewed hospitality companies and online survey respondents spoke to multiple benefits. In each area, Forrester quantified at least one benefit that is specifically highlighted and comprises the ROI analysis component of this study.

Technology Benefits

In interviewing and surveying hospitality companies, Forrester uncovered that these organizations realized the following benefits by moving to Office 365 compared with an on-premises solution:

- A 14% reduction in Microsoft licensing costs.
- An 18.7% reduction in third-party license and software costs, e.g., other email solutions and antispyware software.
- A 16.1% reduction in IT support costs for legacy systems.

“Compared to our previous on-premises solution, we are spending 40% less effort. Patching, backups and restores, updates — all of that has gone away.”

~Group IT general manager, hotel operator

In addition, Forrester quantified six benefit areas within the technology pillar:

› **The composite hospitality company avoided adding new infrastructure hardware.** The move from the 2010 version of the Microsoft solutions to the Office 365 cloud-based solution meant that the organization did not need to purchase, install, and maintain new infrastructure. In total, 49 highly virtualized physical servers were not added over the life of the study, and storage area network (SAN) requirements were reduced by half. This benefit also includes an annual \$750 saving per server, which includes data center hosting costs and labor to maintain, update, and patch the physical servers. The total three-year risk-adjusted savings to purchase, maintain, and host the hardware amounted to \$1,001,993.

› **Server licenses for various Microsoft solutions were no longer needed.** An on-premises solution comparable to Office 365 would have required 274 Windows Server licenses, 20 Exchange Server licenses, three Skype for Business Server licenses, and 13 SharePoint licenses. The total three-year risk-adjusted avoided purchase cost plus annual maintenance totaled \$106,952.

› **The implementation effort was 41% less than for a comparable on-premises solution.** Had the composite organization implemented a traditional on-premises deployment of Microsoft 2013 solutions, the internal effort and professional services fees would have been 50% and 40% greater, respectively. This total three-year risk-adjusted savings across all phases equaled \$384,760.

“The way I’m using my IT team is much more efficient. In the past we were reactive and making sure things were up and running. Now we are proactive with Office 365 and delivering new services to the business.”

~ Group IT general manager, hotel operator

› **The corporate IT personnel required to support the solution were reduced significantly.** The total number of personnel required to maintain and grow the Microsoft solutions — Office Professional Plus, Exchange, Skype, SharePoint, Yammer, and OneDrive — in terms of system administration and management of user accounts was reduced significantly. This was in the form of avoiding 1.5 additional hires as well as redeploying 1.5 existing system administrators who could focus on other, higher-value activities. The total three-year risk-adjusted associated savings was \$836,000.

› **The local IT effort required to support the solution and users was also reduced.** At each property, IT staff saved 2 hours per day on tasks such as troubleshooting problems, restoring computers, and helping users. In total, 3,500 man-days of effort were saved across all locations. Because this benefit is in the form of a productivity gain as opposed to the elimination of positions, the total potential savings was reduced by 50% because not all productivity gains translate into additional work completed. The total three-year risk-adjusted associated savings was \$1,823,250.

› **The composite hospitality company eliminated its third-party antispam solution.** The company was spending \$75,000 per year on an antispam filtering solution. It eliminated this solution as antispam capabilities are built into Office 365. This benefit begins in Year 2 of the study when the contract expired. The total three-year risk-adjusted associated savings was \$142,500.

In the interviews, Forrester heard more specifics about some of the technology benefits achieved, such as greater interoperability across locations. One company told us: “It’s all about being on the latest version for us. If locations are on different versions, we have compatibility issues, and this can really slow down corporate wide initiatives.”

Table 1 highlights the total quantified technology benefits for our composite hospitality company.

Table 1
Total Technology Benefits

Ref.	Benefit Category	Initial	Year 1	Year 2	Year 3
Atr	Avoided backend hardware	\$479,138	\$167,175	\$171,585	\$184,095
Btr	Avoided Microsoft server licenses	\$51,314	\$27,353	\$13,905	\$14,380
Ctr	Reduced implementation effort	\$237,901	\$146,858	\$0	\$0
Dtr	Reduced central IT support effort	\$0	\$209,000	\$313,500	\$313,500
Etr	Reduced local IT effort	\$0	\$607,750	\$607,750	\$607,750
Ftr	Eliminated third party antispam solution	\$0	\$0	\$71,250	\$71,250
Total technology benefits		\$768,352	\$1,158,136	\$1,177,990	\$1,190,975

Source: Forrester Research, Inc.

Mobility Benefits

The interviews uncovered that these hospitality companies benefited from improved productivity for mobile workers, as well as anywhere, anytime access to information for all employees. Hospitality companies typically have many locations, which can be spread out across a city, region, country, or the entire world. Managers often have to visit the various locations in their territory. Additionally, there may be salespeople, such as travel agents, who need to visit their end customers or channel partners. “We have a big sales force. Skype allows for better productivity,” said one interviewee.

A use case that was not included in the financial component of this study is making forms and other information available to non-knowledge worker employees. This can be very useful for sharing information and streamlining certain processes such as requesting vacation. One interviewee explained what they are doing: “In the staff canteens there are multiple PCs for workers who don’t have their own Office 365 account or even their own computer. We have kiosk licenses for this. We are pushing all of these people, 4,000 in total, there for HR activities, to read about the company, etc.”

From the survey, Forrester learned that 59% of the hospitality companies said mobile access has created greater end user productivity due to improved communications and knowledge sharing. Fifty-six percent said that employees are more satisfied because they can use their own devices; 44% said mobile access has improved worker effectiveness and decreased business process times; and 41% reported that their mobile users are less affected by PC crashes, as they can access all the material from their mobile device.

For the financial analysis, Forrester looked at improved productivity for 200 mobile workers, growing to 240 by Year 3 of the study. This group comprises mainly salespeople, regional and corporate managers, and inspectors. The reduction in time to access systems and information improves their productivity; since a VPN is no longer needed because of direct access via IPv4 and IPv6, they can now access these systems from

“From a mobility point of view, whether it is an iPad, Windows laptop, or a smartphone, it is now easier for people to get into everything. Whatever they need, be it SharePoint or email, it is right there. This saves quite a few hours.”

~ Group IT general manager, hotel operator

wherever they are, even at very remote sites. Office 365 also provides these users with a more seamless user experience across devices with less downtime, which also improves their mobile productivity.

In Year 1 of the study, the weekly time savings is 1.25 hours. This increases to 3.75 hours per week by Year 3, as Skype and SharePoint are fully integrated and employees become more comfortable working in this new paradigm. This productivity gain can be used to manage more locations and increase sales, or it can be a source of cost savings through avoided additional hiring. Forrester discounted this benefit by 50% since not all productivity gains translate into additional work.

As there are a variety of forces that could affect productivity outcomes within a hospitality company, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit resulting over the three years was \$1,535,313. Table 2 highlights how this benefit was calculated.

Table 2
Increased Mobile Worker Productivity

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
G1	Number of workers		200	220	240
G2	Hours per day saved with use of Office 365 on mobile devices		0.25	0.50	0.75
G3	Average hourly salary	\$85,000/2,000 hours	\$42.50	\$42.50	\$42.50
G4	Number of workdays per year		250	250	250
G5	Total potential savings	$G1 \times G2 \times G3 \times G4$	\$531,250	\$1,168,750	\$1,912,500
G6	Percent of benefit realized		50%	50%	50%
Gt	Increased mobile worker productivity	$G5 \times G6$	\$265,625	\$584,375	\$956,250
	Risk adjustment	↓15%			
Gtr	Increased mobile worker productivity (risk-adjusted)		\$225,781	\$496,719	\$812,813

Source: Forrester Research, Inc.

Interviewed companies also reported that salespeople had to attend fewer large meetings at regional or corporate headquarters or come in for one-on-ones. Instead, they could get information they needed more readily from SharePoint portals or conduct meetings using Skype. One interviewee reported: “Salespeople are saving one visit to HQ every other month. This affects roughly 200 salespeople. In addition to the costs, they would need to travel one day each way which affects their productivity.”

For the financial analysis, Forrester included this example of reduced travel. The composite organization has 100 salespeople in Year 1 of the study, and it increases slightly over the future years. In Year 1, only one trip is eliminated, as people become more comfortable using the new capabilities in Office 365. This increases to four fewer trips by Year 2 of the study. Each trip costs, on average, \$1,000 in lodging, transport, and per diems. Any benefits from less downtime during travel are not included.

Since the need for travel and how many people need to travel vary greatly, this benefit was risk-adjusted and reduced by 10%. The risk-adjusted total benefit resulting over the three years was \$860,400.

Table 3
Reduced Travel

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
H1	Number of traveling salespeople		100	104	110
H2	Reduced trips to regional HQ		1	4	4
H3	Cost per trip		\$1,000	\$1,000	\$1,000
Ht	Reduced travel	$H1 \times H2 \times H3$	\$100,000	\$416,000	\$440,000
	Risk adjustment	↓ 10%			
Htr	Reduced travel (risk-adjusted)		\$90,000	\$374,400	\$396,000

Source: Forrester Research, Inc.

Control And Compliance Benefits

Control and compliance includes regulatory compliance, eDiscovery, audit, policy management, IT security policies, and other similar activities. For hospitality companies, IT security and policy compliance can be very difficult because of the number of locations spread around and the possible lack of IT and/or compliance staff at each location. Forty-seven percent of survey respondents said it was easier to manage policies across all device types; 34% said they retired other systems previously used for compliance activities; and 34% said they spend less time on eDiscovery activities. We also learned that compliance costs were reduced, on average, by 14.3%. The time spent on eDiscovery activities was reduced by 14%.

In the survey and interviews, Forrester heard that Office 365 helped with meeting compliance requirements for:

- › Data processing agreements (DPAs).
- › ISO 27001.
- › European Union (EU) Model Clauses.
- › Sarbanes-Oxley (SOX).
- › Statements on Standards for Attestation Engagements No. 16 (SSAE 16).
- › OSHA.
- › PCI.

“Office 365 has helped a lot with internal IT security policies. Microsoft made it very easy for us to get all the items we need for compliance.”

~ Group IT general manager, hotel operator

Forrester included three benefits in the control and compliance area. The first is less user downtime during security-related outages. This was included in control and compliance because the downtime occurred, in most cases, because IT security policies were not being followed at one or more locations. One interviewee said: “We are seeing four fewer security-related outages per year. The number of employees and level of impact varies greatly depending on the location and nature of the breach.”

For the financial analysis, we included four fewer regional outages per year. One interviewee said: “We have eliminated three or four outages per annum. A variety of users were impacted, and outages could last an hour or longer.” Because the number of reduced outages and the number of employees affected can vary widely, this benefit was risk-adjusted and reduced by 10%. The risk-adjusted total benefit resulting over the three years was \$229,500.

Table 4
Fewer Security-Related Outages

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
I1	Number of outages eliminated		4	4	4
I2	Average number of affected workers		500	500	500
I3	Average downtime (hours)		1	1	1
I4	Hourly average fully burdened business user salary	\$85,000/2,000 hours	\$42.50	\$42.50	\$42.50
It	Fewer security-related outages	I1*I2*I3*I4	\$85,000	\$85,000	\$85,000
	Risk adjustment	↓10%			
Itr	Fewer security related outages (risk-adjusted)		\$76,500	\$76,500	\$76,500

Source: Forrester Research, Inc.

Interviewed agencies also reported less time spent on email archiving activities. “Archiving is now very easy to do. We have policies and procedures to automatically delete emails,” said one interviewee. They went on to explain how this also helps with eDiscovery for legal activities. “Within Office 365, there is a function called Legal Hold. It stores a copy of emails and makes it easy to find them when we are required to. In our old system, there was no way we could do that. I just had a meeting with our legal, audit, and risk teams. They are very happy with this.”

For the composite organization, Forrester included the reduced IT effort by both the corporate and local IT teams to delete, back up, and retrieve emails. The composite organization saved half of a full-time equivalent (FTE) at the corporate level, and each location saved 1 hour per day. The level of effort can vary greatly based on policies and what automation existed beforehand, as well as how many lawsuits require eDiscovery. To compensate for this variance, this benefit was risk-adjusted and reduced by 10%. The risk-adjusted total benefit over the three years was \$1,150,875.

Table 5
Reduced Email Archiving And eDiscovery Effort

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
J1	Number of central IT FTEs reduced		0.5	0.5	0.5
J2	FTEs saved across locations	M1*0.5 hours*250 workdays/2,000 hours	3.25	3.38	3.50
J3	Annual average fully burdened IT salary	\$110,000	\$110,000	\$110,000	\$110,000
Jt	Reduced email archiving and eDiscovery effort	(J1+J2)*J3	\$412,500	\$426,250	\$440,000
	Risk adjustment	↓10%			
Jtr	Reduced email archiving and eDiscovery (risk-adjusted)		\$371,250	\$383,625	\$396,000

Source: Forrester Research, Inc.

The last area we looked at in the control and compliance pillar was reduced disaster recovery (DR) and business continuity costs. This was a very strong benefit for the interviewed organizations. Email systems are generally considered mission-critical and more often than not lack adequate business continuity and disaster recovery capabilities.

The amount of savings reported by the interviewees for third-party DR solutions for email ranged from \$100,000 to \$200,000. This benefit began in Year 2 after the existing contract ended. Because the amount spent on DR solutions varies, we risk-adjusted this down 5%, resulting in a three-year risk-adjusted savings of \$332,500.

Table 6
Eliminated External DR Costs

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
K1	Eliminated external DR costs			\$175,000	\$175,000
Kt	Eliminated external DR costs	=K1		\$175,000	\$175,000
	Risk adjustment	↓5%			
Ktr	Eliminated external DR costs (risk-adjusted)			\$166,250	\$166,250

Source: Forrester Research, Inc.

Business Intelligence Benefits

The importance of business intelligence and the value of data within a hospitality company have grown over the past several years. With changing customer likes and a more demanding clientele, it is important to spot trends quickly and adjust accordingly. One interviewee said: “From a data sharing and workflow perspective, things are much faster. We now use SharePoint to provide the necessary information. In the past, everything used to be sent via email.”

Fifty-nine percent also said that employee performance has improved because they have better access to information through company portals; 44% stated that improved use of Excel has created more valuable data insights; and 44% of survey respondents reported a decrease in “time-to-decision” and said that the average reduction was 11.5%.

For the composite organization, Forrester looked at the increased productivity of 250 employees (increasing to 350 by Year 3) who spend a good portion of their day making decisions or completing analyses. These include marketing and pricing analysts, sales reps, and managers at different layers of the organization. In Year 1, these workers see an average savings of 45 minutes per week. As they become more comfortable working with the features and utilize Office 365 more to aid their decision-making process, this increases to 3.75 hours per week by Year 3. This time savings can be used to complete additional value-add work, identify where prices can be increased, and avoid the need for new hires.

Because not all time savings result in added work, Forrester discounted this benefit by 50%. Since the number of affected employees as a proportion of all employees varies greatly from one organization to another, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit over the three years was \$1,693,359.

Table 7
Reduced Decision-Making Time

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
L1	Number of affected workers		250	300	350
L2	Hours saved per day		0.15	0.25	0.75
L3	Workdays per year		250	250	250
L4	Total effort saved (hours)	$L1 * L2 / 8 \text{ hours} * L3$	1,172	2,344	8,203
L5	Average daily salary	$\$85,000 / 250 \text{ workdays}$	\$340	\$340	\$340
L6	Total potential savings	$L4 * L5$	\$398,438	\$796,875	\$2,789,063
L7	Percent of benefit realized		50%	50%	50%
Lt	Reduced decision-making time	$L6 * L7$	\$199,219	\$398,438	\$1,394,531
	Risk adjustment	↓ 15%			
Ltr	Reduced decision-making time (risk-adjusted)		\$169,336	\$338,672	\$1,185,352

Source: Forrester Research, Inc.

Real-Time Communications Benefits

The way individuals live their personal lives in terms of using online social interaction services and other real-time communication tools is affecting how people communicate and collaborate in the workplace. A major component of Office 365 is enabling these interactions to improve knowledge sharing, collaboration, and productivity. Interviewed hospitality companies reported that the real-time communication tools and features improve their workplace, especially when collaborating across locations and properties.

The interviewed companies shared with us the variety of ways they are using these features to improve their business. For example, one interviewee said: “We now have a lot of collaboration between chefs. They get on Skype to discuss new menu items, and they put their recipes on SharePoint.” Another interviewee said: “From an operational point of view, everyone can easily share and communicate their best practices across all locations. From a management perspective, this is very good for us.”

“Yammer is currently used by our corporate staff, and they say they really like it.”

~ Development manager for emerging technologies, restaurant operator

There are many ways that the real-time communication features of Office 365 can have an impact on an organization. For the quantified portion of the real-time communication benefits pillar, Forrester looked at two areas. The first is the hard cost savings from eliminating other webconferencing solutions and reducing long-distance phone calls. The second area is the streamlined processes for various companywide initiatives.

The investment in Office 365 eliminated the need for the composite organization to continue to invest in webconferencing solutions provided by other vendors. Instead, scheduled and ad hoc meetings are completed using Skype and Yammer. Additionally, the composite organization could eliminate many long-distance calls. Hospitality companies have higher telecom bills compared with many other industries. “We have now moved all of our webconferences to Skype,” said one interviewee. “We are using a lot more video,

which is very useful for certain projects such as property renovations.” One interviewee reported saving \$1,000 per month at each corporate location and hotel property in webconferencing license costs.

These hard savings should be realizable by all organizations previously using other solutions for webconferencing or audioconferencing. Because costs vary based on usage and geographic reach, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit over the three years was \$780,300.

Table 8
Eliminated Communication Technology

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
M1	# of properties		52	54	56
M2	Eliminated web conferencing solution	M1*\$250*12 months	\$156,000	\$162,000	\$168,000
M3	Reduced long distance phone calls	\$15,000*12 months [1/2 in Year 1]	\$90,000	\$180,000	\$180,000
Mt	Eliminated communication costs	M1*\$250*12 months	\$246,000	\$342,000	\$348,000
	Risk adjustment	↓ 15%			
Ltr	Eliminated communication technology (risk-adjusted)		\$209,100	\$290,700	\$295,800

Source: Forrester Research, Inc.

With the use of real-time communication features, the composite hospitality company was able to save time on various initiatives to share best practices and coordinate operations around the world. Collaboration between people in the field and those in the office has improved and become faster. The hotel operator had five committees working in various areas — sustainability, food and beverage, finance/revenue management, HR, and facilities management — with one member from each location and three from corporate.

The model assumes that each committee has one fewer meeting per month on average because employees can easily post information to SharePoint and disseminate it to all members. As one interviewee said: “For our sustainability initiative, each engineer fills out a form in SharePoint to provide information. In the past, this required phone calls and meetings.” To compensate for the variety of process times and types of processes that can be streamlined, the benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit over the three years was \$357,638.

Table 9
Reduced Time Spent On Companywide Initiatives

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
N1	Number of committees/teams		5	5	5
N2	Average number of members	$M1*1+3$	55	55	55
N3	Reduced number of meetings		12	12	12
N4	Average length of meeting (hours)		2	2	2
N5	Hourly average fully burdened business salary		\$42.50	\$42.50	\$42.50
N6	Total potential savings	$N1*N2*N3*N4*N5$	\$280,500	\$280,500	\$280,500
N7	Percent of benefit realized		50%	50%	50%
Nt	Reduced time spent on companywide initiatives	$N4*N5$	\$140,250	\$140,250	\$140,250
	Risk adjustment	↓15%			
Ntr	Reduced time spent on companywide initiatives (risk-adjusted)		\$119,213	\$119,213	\$119,213

Source: Forrester Research, Inc.

Total Quantified Benefits

The total quantified benefits, as well as present values (PVs) discounted at 10%, are shown in the table below. Over three years, the composite hospitality company expects risk-adjusted total benefits to be a PV of \$9.27 million.

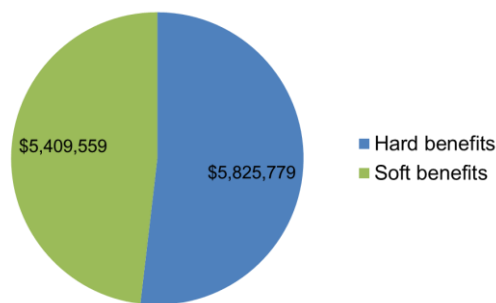
Table 10
Total Quantified Benefits (Risk-Adjusted)

Ref.	Benefit Category	Initial	Year 1	Year 2	Year 3	Total	Present Value
Atr	Avoided backend hardware	\$479,138	\$167,175	\$171,585	\$184,095	\$1,001,993	\$911,234
Btr	Avoided Microsoft server licenses	\$51,314	\$27,353	\$13,905	\$14,380	\$106,952	\$98,476
Ctr	Reduced implementation effort	\$237,901	\$146,858	\$0	\$0	\$384,760	\$371,409
Dtr	Reduced central IT support effort	\$0	\$209,000	\$313,500	\$313,500	\$836,000	\$684,628
Etr	Reduced local IT effort	\$0	\$607,750	\$607,750	\$607,750	\$1,823,250	\$1,511,384
Ftr	Eliminated third-party antispam solution	\$0	\$0	\$71,250	\$71,250	\$142,500	\$112,415
Gtr	Increased mobile worker productivity	\$0	\$225,781	\$496,719	\$812,813	\$1,535,313	\$1,226,445
Htr	Reduced travel	\$0	\$90,000	\$374,400	\$396,000	\$860,400	\$688,760
Itr	Fewer security-related outages	\$0	\$76,500	\$76,500	\$76,500	\$229,500	\$190,244
Jtr	Reduced eDiscovery effort	\$0	\$371,250	\$383,625	\$396,000	\$1,150,875	\$952,066
Ktr	Eliminated external DR costs	\$0	\$0	\$166,250	\$166,250	\$332,500	\$262,303
Ltr	Reduced decision-making time	\$0	\$169,336	\$338,672	\$1,185,352	\$1,693,359	\$1,324,408
Mtr	Eliminated communication costs	\$0	\$209,100	\$285,600	\$285,600	\$780,300	\$640,699
Ntr	Reduced time spent on companywide initiatives	\$0	\$119,213	\$119,213	\$119,213	\$357,638	\$296,464
Total benefits (risk-adjusted)		\$768,352	\$2,419,316	\$3,418,968	\$4,628,702	\$11,235,338	\$9,270,936

Source: Forrester Research, Inc.

While all of the benefits included in the ROI analysis are very important, Forrester looked at the soft benefits versus hard benefits delivered by Office 365. Hard benefits include specific external cost savings such as reduced license payments to Microsoft and discreet labor savings such as reduced implementation time. Soft savings include general process efficiency gains that can improve the productivity of many workers; this included Etr, Gtr, Ltr, and Ntr in Table 11 above. Approximately 52% of the benefits included fall into the hard category.

Figure 3
Hard Versus Soft Benefits



Source: Forrester Research, Inc.

Costs

The quantified costs include:

- › **Internal implementation labor.** The full deployment of Office 365 was undertaken in two phases. Phase one, completed in the initial period, consisted of standing up the Office 365 solution, migrating all email accounts and users to Exchange Online from Exchange 2010 on-premises, moving all users to Office 365 Professional Plus from Office Professional Plus 2010 local clients, and deploying OneDrive for all users. Five internal FTEs worked on this for seven months. Phase two, completed in Year 1, consisted of a completely new deployment of Skype for Business and Yammer, as well as migrating from SharePoint 2010 on-premises to the latest version of SharePoint Online. Five FTEs worked on this for five months. The total internal implementation labor, risk-adjusted up 10%, was \$605,022.
- › **Professional services.** The composite organization used Microsoft partner professional services during both phases of deployment. It used the professional services to properly set up the solutions and help with any challenges. The composite organization spent \$225,000 during the first phase and \$100,000 during the second phase. In subsequent years, it spent \$50,000 to help with expanding usage. The total professional services cost, risk-adjusted up 15%, was \$488,750.
- › **Training.** Training was required for the IT team on the new and updated solutions being deployed, as well as some training on the differences in administering Office 365 compared with on-premises versions. Sixty days of IT training took place in the initial period to train the entire IT organization, with 30 additional training days in years 1 and 2. Additionally, two internal employees provided user training to the rest of the composite organization. In total, the external training charges for IT and the internal costs for user training, risk-adjusted up 10%, amounted to \$765,600. The interviewees noted that one of the reasons they selected Office 365 as their cloud solution was because it is so similar to the on-premises solutions employees already used, and this meant less training and change management issues.
- › **Ongoing system administration.** The Benefits section describes the number of system administrator positions that did not need to be added or could be reassigned. The remaining system administration team consisted of two FTEs at the corporate level. The three-year associated costs, risk-adjusted up 5%, were \$693,000.
- › **Incremental Microsoft licenses.** For individual user licenses, the composite organization compared Office 365 with the Software Assurance (SA) pricing model to provide the best apple-to-apple comparison of a solution that always has users on the latest version of Microsoft technologies. Office 365 cost \$47.88 more per year for each user compared with the Software Assurance licenses. The accumulated additional cost, risk-adjusted up 5%, was \$945,989 over three years.
- › **Federation hardware.** The composite organization desired to use identity federation for improved single sign-on (SSO) internally and with partner/customer companies. This required the installation and ongoing maintenance of two Active Directory Federation Services (ADFS) servers. The three-year cost to purchase, maintain, and host the servers was \$41,265. One of the interviewed companies reported using virtual servers with no incremental charge. Forrester included the costs of adding physical servers to be conservative.
- › **Additional bandwidth.** Moving to Office 365 resulted in a net increase of bandwidth required. Some areas, such as Exchange, saw a reduction, while other areas, such as a new deployment of Skype for Business, saw an increase. The interviewed hotel operator saw increased monthly bandwidth costs of \$1,000 per property. The restaurant company required no additional bandwidth. For the composite organization, Forrester assumed an additional \$600 per month per property. The three-year costs, risk-adjusted up 5%, were \$1,445,220.

Total Costs

The total costs, as well as present values (PVs) discounted at 10%, are shown in the table below. Over three years, the composite organization expects risk-adjusted total costs to be a PV of \$4.39 million.

Table 11
Total Costs (Risk-Adjusted)

Ref.	Cost Category	Initial	Year 1	Year 2	Year 3	Total	Present Value
Otr	Internal implementation labor	\$352,930	\$252,093	\$0	\$0	\$605,022	\$582,105
Ptr	Professional services fees	\$258,750	\$115,000	\$57,500	\$57,500	\$488,750	\$454,017
Qtr	Training costs	\$261,800	\$251,900	\$251,900	\$0	\$765,600	\$698,982
Rtr	Ongoing system administration	\$0	\$231,000	\$231,000	\$231,000	\$693,000	\$574,463
Str	Incremental Microsoft licenses	\$146,633	\$258,911	\$266,452	\$273,993	\$945,989	\$808,070
Ttr	Federation hardware	\$25,200	\$5,355	\$5,355	\$5,355	\$41,265	\$38,517
Utr	Increased bandwidth	\$220,500	\$393,120	\$408,240	\$423,360	\$1,445,220	\$1,233,347
Total costs (risk-adjusted)		\$1,265,812	\$1,507,379	\$1,220,447	\$991,208	\$4,984,846	\$4,389,500

Source: Forrester Research, Inc.

About Microsoft Office 365

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

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

Specific feature-related benefits include:

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

Disclosures

- › The study is commissioned by Microsoft and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.
- › Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Microsoft Office 365.
- › Microsoft reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

GLOSSARY

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

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

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

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

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

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

About Forrester Consulting

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About TEI

Total Economic Impact™ (TEI) 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.

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