The Total Economic Impact™ Of Box's Enterprise Content Management And Collaboration Platform

Cost Savings And Business Benefits Enabled By Box

FORRESTER®

Table Of Contents

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 forrester.com/consulting.

FORRESTER®

Executive Summary

Box commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Box's enterprise content management (ECM) and collaboration platform. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Box on their organizations, to leverage enterprise content management and collaboration to win, serve, and retain customers.

To better understand the benefits, costs, and risks associated with a Box implementation, Forrester interviewed and surveyed enterprise customers with multiple years of experience using Box. Box offers companies of all sizes a secure content management and collaboration platform in order to help them achieve results faster while staying in full control of their information. Box enables employees across all departments in an organization to complete business workflows ranging from basic sync and share, mobile productivity, and internal collaboration all the way to project management, external collaboration, and process management on its cloud-based platform.

Box can help achieve faster collaboration, save IT costs, and improve productivity.

The costs and benefits for a composite organization with 8,000 Box users, based on customer interviews, are:

- **Investment costs: $520,250.**
- **Annual costs: $1 million to $1.3 million.**
- **Total cost savings and benefits (over three years): $17.99 million.**

Prior to Box, customers had implemented traditional legacy ECM solutions. However, these organizations were also looking for easier ways to collaborate securely with their external partners, as well as faster and more cost-efficient ways to share data and collaborate through mobile devices. A number of these customers also wanted to expand the benefits that small teams using Box within their company had already seen. With Box, customers were able to collaborate faster across the organization and improve collaboration for mobile and remote users as well as external partners. They were also able to quickly deliver digital applications and experiences with increased IT agility and improved security and achieve the corresponding cost savings.

BOX ENABLES NEW WORK STYLES AND FASTER COLLABORATION, COUPLED WITH IT COST SAVINGS

Our interviews with six existing customers, a survey of 11 additional customers, and subsequent financial analysis found that a composite organization based on these organizations experienced the risk-adjusted ROI, benefits, and costs shown in Figure 1.[1] See Appendix A for a description of the composite organization.

The composite organization analysis points to benefits of $17.99 million versus implementation costs of $2.9 million, adding up to a net present value (NPV) of $14.4 million.

With Box, organizations were able to improve collaboration with internal users and external partners, with as much as 20% productivity gains for power users. Apart from productivity savings, the composite organization experienced additional cost savings for IT administration, infrastructure and storage, backup and application development, avoidance of data loss and breaches, as well as direct savings as a result of improved collaboration.

FIGURE 1
Financial Summary Showing Three-Year Risk-Adjusted Results

ROI: 405%	NPV: $14.4 million	Payback: under two months	Productivity improvement: ▲ 20%

Source: Forrester Research, Inc.

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

- **Business efficiency and productivity gains: savings from enabling new work styles and faster collaborative processes.** With Box, the composite organization was able to enable new work styles with improved collaboration for mobile and remote workers, provide faster and easier access to shared workspaces for its users, and improve collaboration with external partners. These general users saved an average of 30 minutes of time a week as a result of working with Box. This overall productivity improvement translates to $6.4 million in savings over the three-year analysis.

  Box also sped up collaborative processes, particularly for more active content creators in the organizations. Power users included sales teams who benefited from the faster access to relevant content on any device, as well as teams with heavy external collaboration needs such as marketing, research and development (R&D), and mergers and acquisition. These power users saw 20% improvements in productivity, which over three years is quantified as $5.5 million.

- **Total cost of ownership: IT ECM administrative savings, infrastructure and storage savings, backup cost savings, and PC refresh savings.** As Box provided easier ways to collaborate externally and internally, companies realized cost savings in administration of their legacy ECM solutions. The composite organization saved 2.5 full-time equivalents (FTEs) per year in IT administration costs, resulting in cost savings of $460,689 over three years.

  Organizations were also able to quickly scale implementation within their enterprise, while significantly reducing infrastructure and software costs by using Box. This increased IT agility for the composite organization was quantified in terms of infrastructure and storage savings of $952,484; backup cost savings of $686,912; and PC refresh savings of $340,747. Total savings were $1.98 million over the three-year analysis.

- **Improved security and compliance.** Organizations were also able to improve security and compliance by implementing Box for enterprise content collaboration. With the business continuity enabled by Box, the composite organization improved data loss prevention and saved the organization $3.07 million over three years in cost avoidance of recovery effort.

- **Digital IT transformation, resulting in app development savings and savings from improved processes.** Box enabled enterprises to deliver new information-driven digital applications and experiences at lower costs compared with their previous environments. These application development savings over three years are valued at $559,542 for the composite organization.

  Organizations were able to develop new applications using the Box platform that improved effectiveness of line-of-business (LOB) processes with easy access to content. One particular mobile application developed for its supply chain saved the composite organization $4.5 million a year at a development cost of $100,000. The total benefit to the composite organization was $6.3 million over the three-year analysis.

- Other benefits experienced by the interviewed organizations included scalability, ease of use of the collaboration tool, faster user adoption, improved external collaboration, and increased IT credibility**.**

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

- **Box subscription fees ranging from $864,000 to $1,152,000.** These are annual fees paid to Box for access to the solution.

- **Professional services costs of $258,500 upfront and $99,000 each year.** These include costs for data migration, custom applications, and special projects for the Box implementation. These costs also include ongoing development and support for productivity applications created with Box that bring strategic collaboration and productivity benefits.

FORRESTER®

- **Implementation costs of $214,500.** The composite organization was replacing a legacy ECM system that was integrated with another application; therefore, these costs also capture the internal labor spent on this transition as well as the rollout of Box.

- **Administrative costs of $76,781 each year.** Ongoing administration of Box required three-quarters of an FTE annually. One interviewed organization went from supporting 3,500 users to 9,000 users with the same headcount allocated to Box.

- **Training costs of $47,250.** The composite organization allocated six personnel to train users throughout the organization over a period of four weeks.

Disclosures

The reader should be aware of the following:

› The study is commissioned by Box 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 Box for enterprise content collaboration.

› Box 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.

› Box provided the customer names for the interviews but did not participate in the interviews.

TEI Framework And Methodology

INTRODUCTION

From the information provided in the interviews and client survey, Forrester has constructed a Total Economic Impact (TEI) framework for those organizations considering implementing Box's enterprise content and collaboration platform. The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision, to help organizations understand how to take advantage of specific benefits, reduce costs, and improve the overall business goals of winning, serving, and retaining customers.

APPROACH AND METHODOLOGY

Forrester took a multistep approach to evaluate the impact that Box can have on an organization (see Figure 2). Specifically, we:

› Interviewed Box marketing, sales, and consulting personnel, along with Forrester analysts, to gather data relative to the Box platform and the marketplace for collaboration solutions.

› Interviewed six organizations currently using Box to obtain data with respect to costs, benefits, and risks.

› Surveyed 11 organizations currently using Box to obtain a broader picture of client impact from the Box investment.

› 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).

› Risk-adjusted the financial model based on issues and concerns the interviewed organizations highlighted in interviews. Risk adjustment is a key part of the TEI methodology. While interviewed organizations provided cost and benefit estimates, some categories included a broad range of responses or had a number of outside forces that might have affected the results. For that reason, some cost and benefit totals have been risk-adjusted and are detailed in each relevant section.

Forrester employed four fundamental elements of TEI in modeling the Box product: benefits, costs, flexibility, and risks.

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

FIGURE 2

TEI Approach

Perform due diligence	Conduct customer interviews and survey	Design composite organization	Construct financial model using TEI framework	Write case study

Source: Forrester Research, Inc.
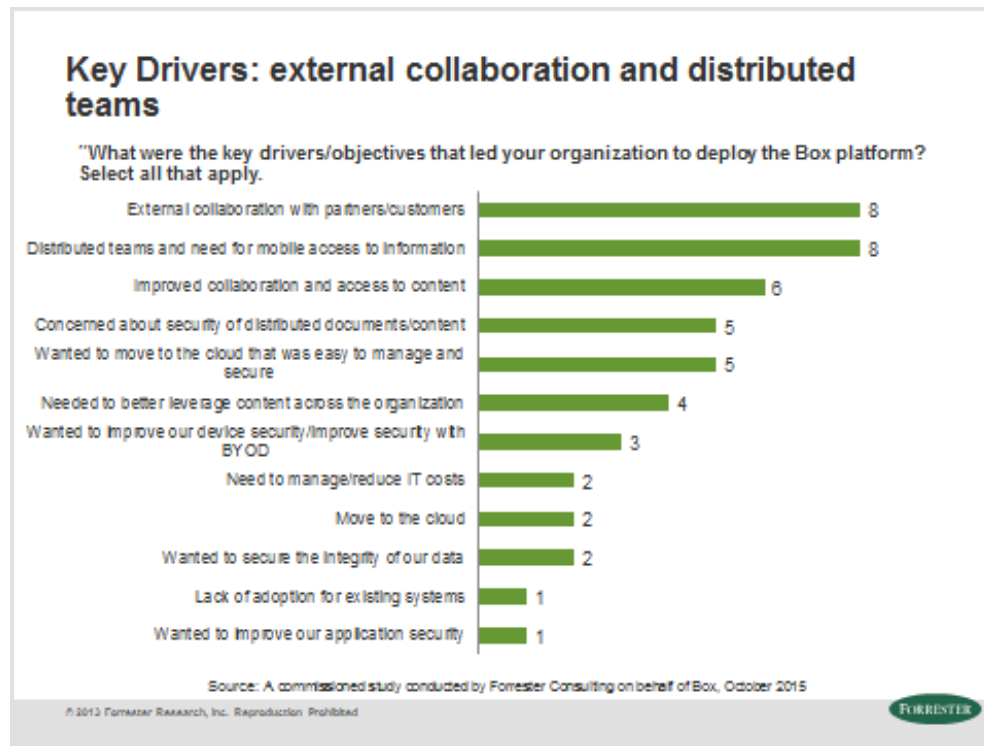
FORRESTER®

Analysis

COMPOSITE ORGANIZATION

For this study, Forrester conducted a total of six interviews with representatives from the following companies, which are Box customers:

› An American global pharmaceutical company, with offices in the United States and across 17 other countries. Its products are sold in approximately 125 countries.

› An American construction company concentrated on single-family attached and detached homes. This organization also includes a capital arm that invests in real estate and provides mortgage financing, title insurance, and closing services.

› An international company that designs, develops, and supplies analog, digital, mixed signal, and optoelectronics components and subsystems.

› A Japanese automotive manufacturer.

› A global pharmaceutical company focused on eye care, neurosciences, medical dermatology, medical aesthetics, breast enhancement, obesity intervention, and urologics.

› An American managed health care company that sells traditional and consumer-directed health care insurance plans and related services, such as medical, pharmaceutical, dental, behavioral health, long-term care, and disability plans.

In addition, Forrester collected data from 11 existing Box clients to supplement the client interviews. Characteristics of these clients include:

› Fifty-five percent of respondents had 20,000 or more employees; 9% had between 5,000 and 19,000 employees; and 36% had between 1,000 and 4,999 employees.

› Sixty percent of respondents reported more than $5 million in annual revenue, while 40% reported less than $5 billion.

› Seventy-three percent of respondents were using Box for more than two years, while 27% had been using Box for between one and two years.

› Seventy-five percent of respondents plan to increase the number of users, while 25% expect the number of users to remain the same.

› Across all respondents, the average number of office locations was 47, the average amount of data in the current Box environment was 30.5 TB, and the average number of documents was 12.75 million.

› Key drivers for adoption focused on improved collaboration with internal and external teams, the need to drive cost efficiency, and improved flexibility within the collaboration process. Figure 3 illustrates the summary responses.

FORRESTER®

FIGURE 3

Key Drivers: external collaboration and distributed teams

"What were the key drivers/objectives that led your organization to deploy the Box platform? Select all that apply.

External collaboration with partners/customers	8
Distributed teams and need for mobile access to information	8
Improved collaboration and access to content	6
Concerned about security of distributed documents/content	5
Wanted to move to the cloud that was easy to manage and secure	5
Needed to better leverage content across the organization	4
Wanted to improve our device security/improve security with BYOD	3
Need to manage/reduce IT costs	2
Move to the cloud	2
Wanted to secure the integrity of our data	2
Lack of adoption for existing systems	1
Wanted to improve our application security	1

Source: A commissioned study conducted by Forrester Consulting on behalf of Box, October 2015

© 2015 Forrester Research, Inc. Reproduction Prohibited

Source: Forrester Research, Inc.

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

› It is a global company with headquarters in the US.

› It has 12,000 employees.

› It has $6.5 billion in revenue.

After evaluating multiple ECM vendors, the composite organization chose Box and began deployment:

› Implementation started two years ago, with Box deployed to 6,000 users by the end of the first year and 8,000 users by the end of the second year.

› The initial driver was the strategic decision that the organization's field representatives would have an iPad as their only client. The organization also wanted to improve its collaboration with external entities such as research institutions and marketing agencies.

"Box has been the only cloud company that our security guys have given a gold star to. They were highly impressed, and Box got a 10 out of 10."

~ Director, digital workplace services, global pharmaceutical firm

FORRESTER®

INTERVIEW HIGHLIGHTS

Situation

Most of the organizations interviewed were searching for a content solution that would work well for mobile users and would allow them to securely and easily collaborate with external partners. Highlights from discussions with the companies interviewed include:

› Seventy-three percent of survey respondents noted that email was the primary platform that Box was replacing for collaboration.

› A number of the interviewed organizations were replacing their legacy ECM applications with Box. One company was storing purchasing and invoice data through a service offering that had become cumbersome to use due to lack of vendor support. One construction company used Box to replace a legacy industry platform that was the primary repository for all architectural diagrams and other site-specific content.

› Several organizations had moved toward an iPad/mobile device-based model for their sales teams and other field personnel. They were searching for a solution that would improve collaboration for their distributed teams and provide an easy way to access information over mobile devices.

› External collaboration with partners and other vendors was also a main driver for these customers' Box implementations. One large pharmaceutical organization had many interactions with outside research and scientific institutions, and onboarding these external parties to its internal legacy content applications was a long and laborious process.

› Some of the companies interviewed had different business units and smaller teams within the organization using different document management solutions for their collaboration needs. These companies wanted to implement a consistent ECM solution that met the functional needs of teams throughout their organization and that also had the necessary security features for their enterprise.

Solution

The composite organization selected Box for its ability to provide a better user experience for mobile and remote users, easy adoption and productivity benefits to the general user population, robust IT compliance and regulation controls, and improved flexibility through features such as Box Sync and Office 365 integration.

Results

The interviews and survey of Box customers revealed the following benefits:

› **User productivity gains as Box enabled new work styles and sped up collaborative processes**. The most significant benefits experienced by the interviewed organizations were in faster and easier collaboration across the organization as well as the improved ability to work for mobile and remote users, which resulted in productivity gains.

"What drew us to the Box solution was that it was designed for the enterprise. It's flexible and open. We can build and construct applications with its extensible backend infrastructure."

~ CTO, leading American construction company

"The best thing about Box is I can scale up, and no matter how many users I have, I won't need additional support headcount. We don't need a huge army."

~ Director, global IT, international electronics company

FORRESTER®

› **IT administration savings with a modernized content platform.** Box customers reported that they were able to reduce IT administration resources by moving to Box from their legacy enterprise collaboration software solutions. For some of these customers, moving from their legacy on-premises solutions to the cloud with Box contributed to this reduction in IT administration costs.

› **Improved IT agility, leading to IT cost savings.** Box also brought IT agility to the customers interviewed, as these organizations were able to realize IT savings by using Box instead of legacy solutions. Apart from IT administrative costs, these organizations also saved on server infrastructure, storage, and software costs. Savings also came from using Box instead of alternative backup solutions and the onsite support time saved from using Box Sync for PC refresh. One Box customer noted that upgrading and customizing its existing application platform would have cost four times more in infrastructure and storage expenditure compared with the cost of its Box deployment.

> "With Box, I don't have to think about storage anymore. We know storage is getting cheap, but if you consider storage growth, infrastructure growth, backup growth, overhead, and infrastructure, you get these savings. Box is more than just a collaboration or document sharing tool."
> — *Director, global IT, international electronics company*

› **Improved security and compliance.** For the majority of the companies interviewed, security was one of the biggest drivers for the choice of Box as an enterprise content management solution. One IT director remarked that it wasn't the cost of unlimited storage that made the company move to Box, but the fact that Box's security features were more advanced than other providers it was considering. As customers improved their enterprise security with the Box solution, they saw quantified savings from a reduction of risk of loss as well as audit savings. Survey respondents noted that they saw a 10.5% reduction in compliance costs in their current environment with Box.

> "For us, Box was the only option from an enterprise perspective. One of the main benefits of Box is its complete and total security architecture. We did a bunch of security audits and assessments, and we got comfortable with Box really fast."
> — *Director, digital workplace services, global pharmaceutical company*

› **Enabling transformation to digital with new information-driven applications and digital experiences, as well as improving effectiveness of business processes.** Box customers also consistently cited instances where they were able to quickly build and deliver new applications that enabled better collaboration for their internal users, customers, and external partners. They did not have to spend as much time and resources in creating these applications when compared with their pre-Box environment. These applications, in turn, drove business process savings for their organizations. Apart from these new applications, organizations also realized efficiencies from business processes that now ran on Box.

> "It's a good idea to have Box as your content engine for applications; it's not something you can easily do on other solutions. Employees are mobile now, and you need a tool like Box with a really good mobile solution."
> — *Divisional information officer, Japanese automotive manufacturer*

> "With Box, we established external management artifacts with a folder taxonomy and standard template. It provided turnkey operations, and we could spin up a new project within seconds."
> — *Senior manager, enterprise content management, American pharmaceutical company*

› **Ease of use of the collaboration tool, including seamless integration with other productivity apps.** Features singled out by the interviewees as contributing to the usability of Box were Box Edit, Box Sync, remote access, and Microsoft O365 integration. One information officer also noted that Box search was very good compared with other ECM search engines the company had used in the past. Other users also brought up that the interoperability of the Box platform was another benefit, with one IT director noting: "Box's most valuable feature for our organization was their client-agnostic approach. Box aligns with everything that we want." Customers found that Box could easily integrate with their other productivity applications. The interviewed organizations use a wide range of productivity applications, but for all of the applications they saw improved productivity with Box. They were able to integrate Box faster and with lower IT resource costs compared with the integration with their legacy ECM systems.

FORRESTER®

"We've really benefited from the flexibility of the platform. Box can seamlessly integrate with our current applications."
— *VP, software development, leading American construction firm*

› **Faster user adoption.** Customers also noted that their end users readily adopted Box compared with other ECM solutions. One manufacturing firm with an older employee population noted that it didn't need to have a formal project for its implementation, as Box went viral at the company. Even with the company's chargeback structure, Box "went viral from the beginning," and the company now has 4,500 active users, with sales and manufacturing comprising the majority of users. One electronics company noted that 80% of its target users used Box within one month of launch. By the end of the first year, this company achieved 100% adoption of the Box platform.

"Box is pretty intuitive. Usability is pretty straightforward. In our industry, we're not dealing with tech workers, and having a simple user experience is a critical component to our adoption rate. We've seen twice as fast an adoption rate for Box compared to our other applications."
— *CTO, leading American construction firm*

› **Improved external collaboration.** With Box, companies found that they could now easily collaborate with external partners, vendors, and customers compared with their pre-Box environment. One organization, while discussing its previous vendor onboarding process, remarked: "The process of getting people onboard was painful. As soon as Box was running, it went off like gangbusters since now it's easier to get things done." This benefit translated to IT administrative savings for the organizations interviewed as they replaced their previous external collaboration systems. Security of this external collaboration was also a consideration in their choice of Box. Some of these companies were collaborating on important research and IP with scientific institutions and academia; other companies had sensitive marketing material, such as Superbowl ads that they were working on with agencies, that required a secure platform. One organization used Box to replace its external collaboration platform that was extensively used by R&D, corporate communications, and manufacturing for 3,000 partners accessing over 1,000 sites.

"Box has increased the ease and speed of collaboration with our partners. We had partner.net with 3,000 partners in that environment. To get a partner authorized to access this site was a 30-step process that literally took days or even weeks. Now within minutes we can set them up with a Box account and a Box folder."
— *CTO, leading American construction firm*

› **Increased scalability.** Another benefit noted by the interviewed organizations was their increased scalability with Box. Interviewees observed that they could easily scale up their Box implementation to a bigger user base without increasing the number of IT administrative resources allocated to the solution.

› **Increased IT credibility.** One interviewed company noted that an interesting byproduct of its Box implementation was the increase in credibility for its IT organization. This stemmed from the quick implementation of digital collaboration experiences that answered the needs of the business. As one senior IT manager remarked: "For a while we had a reputation of being stuck in technologies which we had invested in, that we had our head in the sand and were ignoring the mobile revolution. I need to adapt more turnkey applications like Box, where we delivered a huge benefit, such as convenience, quite easily within a tool set."

BENEFITS

The composite organization experienced a number of quantified benefits in this case study. These benefits could be grouped into four major categories listed in Table 1 below:

TABLE 1
Total Benefits (Risk-Adjusted)

Benefit Category	Year 1	Year 2	Year 3	Total	Present Value
Business efficiency and transformation	$3,809,500	$5,358,000	$5,358,000	$14,525,500	$11,916,826
Total cost of ownership	$1,013,869	$949,269	$977,769	$2,940,908	$2,440,832
Security and compliance	$1,020,000	$1,360,000	$1,360,000	$3,740,000	$3,073,028
Digital IT transformation	$225,000	$225,000	$225,000	$675,000	$559,542
Total benefits (risk-adjusted)	**$6,068,369**	**$7,892,269**	**$7,920,769**	**$21,881,408**	**$17,990,228**

Source: Forrester Research, Inc.

Business Efficiency And Transformation: General User Productivity Benefits From Enabling New Work Styles And Speeding Up Collaborative Processes

One of the key benefits cited by both the interviewed organizations and the survey respondents was the ability of Box to match the demands of an increasingly distributed and mobile workforce. In particular, survey respondents noted the following key benefit areas driven by the implementation of Box: improved mobile productivity (36% of respondents); access to shared workspaces (36% of respondents); improved ability to work remotely/removed need to use VPN (54% of respondents); and improved ability to collaborate with external partners and customers (73% of respondents).

All the organizations interviewed cited improved collaboration as a benefit for their users with their Box implementations. Estimates for time saved for the average user from the interviewed organizations ranged from 30 minutes a week for an organization with 4,500 users to 1 hour a week for an organization with 15,000 users. One pharma organization with 6,000 users estimated an average 5% productivity improvement by leveraging Box's collaboration capabilities.

In order to quantify the impact of this benefit for the composite organization, we looked at the total number of workers using Box, ranging from 6,000 in the first year to 8,000 in the second and third years, as well as their fully loaded hourly rate (based on an annual rate of $60,000). We then estimated the hours saved per year at 26 hours, or 30 minutes a week. To be conservative, Forrester assumes that only half of this saved time is captured for productive use. The half hour saved per week is associated with collaboration, new work styles, document sharing, and mobility, as confirmed by the survey respondents. This leads to a total value of $2.25 million in the first year, growing to $3 million in the second and third years.

FORRESTER®

Due to the inherent uncertainty in estimating productivity benefits, we applied a risk-adjustment of 5%, lowering the total over the three years from $8.25 million to $7.84 million.

TABLE 2

Enabling New Work Styles — General User Productivity Benefits

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
A1	Number of workers		6,000	8,000	8,000		
A2	Hourly rate per person	$60,000 per year/2,080 hours	$28.85	$28.85	$28.85		
A3	Hours saved per year	30 minutes/week	26	26	26		
A4	Percent captured		50%	50%	50%		
At	General user productivity benefits	A1*A2*A3*A4	$2,250,000	$3,000,000	$3,000,000	$8,250,000	$6,778,738
	Risk adjustment	↓5%					
Atr	**General user productivity benefits (risk-adjusted)**		**$2,137,500**	**$2,850,000**	**$2,850,000**	**$7,837,500**	**$6,439,801**

Source: Forrester Research, Inc.

Business Efficiency And Transformation: Power User Productivity Benefits From Enabling New Work Styles And Speeding Up Collaborative Processes

Another key benefit cited by Box customers was around the ability of Box to speed up the collaborative process across distributed teams. Specifically, survey respondents noted general collaboration improvement (64% of respondents); increased user adoption compared with other ECM solutions (45% of respondents); better access to content and driving processes with content (45% of respondents); improved task management (27% of respondents); improved visibility into content (27% of respondents); and streamlined processes with workflow automation (9% of respondents).

Apart from general user productivity gains, a number of organizations noted that smaller teams with more need for external collaboration or those with mobile requirements saw more time savings when compared with the general user. One international electronics company highlighted the benefit of faster collaboration among R&D engineers as it acquired companies. This company's director for global IT noted that without Box, it would have needed at least two or three weeks to onboard these engineers, but with Box, it took only two days. Another company noted that one division that collaborated extensively with trade partners saw a 25% improvement in productivity with its move to Box. Another organization that had recently expanded through multiple acquisitions noted that people on its M&A teams had saved at least 20% of their time over the course of a year through Box.

To include this benefit in the financial model, we began by estimating the number of power users within the composite organization, at 160 people in the first year and rising to 240 in years 2 and 3. Power users are more active content creators; this category encompasses mergers and acquisitions teams, mobile workers, lawyers, salespeople, and other similar job functions. These resources have an average fully loaded rate of $110,000 annually. We then estimated their productivity improvement at 20%. Similar to the previous benefit, we estimated that 50% of this productivity improvement is captured for other work, leading to a total benefit of just over $7 million. We risk-adjusted this calculation by 5% to account for the uncertainly inherent in productivity gains, to arrive at a total benefit over three years of $6.7 million. The details of this calculation are shown in Table 3.

FORRESTER®

TABLE 3

Speeding Up Collaborative Processes — Power User Productivity Benefits

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
B1	Number of power users		160	240	240		
B2	Annual rate per person		$110,000	$110,000	$110,000		
B3	Percentage improved productivity		20%	20%	20%		
B4	Percent captured		50%	50%	50%		
Bt	Power user productivity benefits — specific use cases	B1*B2*B3*B4	$1,760,000	$2,640,000	$2,640,000	$7,040,000	$5,765,289
	Risk adjustment	↓5%					
Btr	**Power user productivity benefits — specific use cases (risk-adjusted)**		**$1,672,000**	**$2,508,000**	**$2,508,000**	**$6,688,000**	**$5,477,025**

Source: Forrester Research, Inc.

Total Cost Of Ownership: Enabling New Work Styles — IT ECM Administrative Savings

Box customers reported that they were able to reduce IT administration resources by moving to Box and its modernized content platform from their legacy enterprise collaboration software solutions. Survey respondents indicated that these IT administrative savings came from faster onboarding of new locations, additional capacity, and/or new devices (18% of respondents); reduced cost of integration with existing line-of-business apps such as Salesforce, DocuSign, and others (18% of respondents); and improved ability to rapidly build digital apps and experiences (9% of respondents).

The interviewed respondents reported a range of IT administrative savings due to Box, dependent on the size and nature of their implementation. One construction company observed, "I got more functionality with the same staff" by replacing its legacy content management system with Box. It estimated that it would have had to hire two additional IT resources without Box. One organization with over 5,000 users estimated that it saved half an FTE in administrative costs for tasks such as account administration and ID requests by replacing its external collaboration tool with Box. Another interviewed organization with 15,000 users estimated that it saved at least four resources on its infrastructure team by moving from its legacy platform to Box just for its external collaboration use case.

As part of the new work styles enabled by Box, the composite organization was able to realize IT labor savings associated with the change in ECM. This included FTEs involved in both internal ECM administration as well as external collaboration, which was a total of 2.5 FTEs each year. The annual rate of these resources was $97,500, leading to an annual savings of $195,000. As with other benefits resulting from the new work styles, we risk-adjusted this benefit by lowering the totals 5%, leading to a three-year total of $555,750.

FORRESTER®

TABLE 4

Enabling New Work Styles — IT ECM Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
C1	Number of people saved — internal ECM administration		2	2	2		
C2	Number of people saved — external collaboration		0.5	0.5	0.5		
C3	Annual rate per person		$97,500	$97,500	$97,500		
Ct	IT ECM admin savings	C1*C3	$195,000	$195,000	$195,000	$585,000	$484,936
	Risk adjustment	↓5%					
Ctr	**IT ECM admin savings (risk-adjusted)**		**$185,250**	**$185,250**	**$185,250**	**$555,750**	**$460,689**

Source: Forrester Research, Inc.

Total Cost Of Ownership: Increased IT Agility

IT agility was another benefit area from Box for IT administrators and staff, noted by 45% of survey respondents. Interviewed and surveyed organizations saw value by leveraging Box for hardware and software cost reduction. The survey respondents stated that their organizations were able to significantly reduce infrastructure and software costs (36% of respondents) as a result of the IT agility they achieved through their Box implementation. For the surveyed organizations, the average savings from no longer needing to invest in other content collaboration software licenses and costs was $131,250 per year. Surveyed organizations also saw an average 3.5% cost reduction in building applications through the use of Box, and a 10.5% average cost reduction to integrate existing line-of-business applications.

We have broken down the quantification of the IT agility benefit for the composite organization into three areas: 1) IT infrastructure and storage savings; 2) backup cost savings; and 3) PC refresh savings (as shown in Tables 5, 6, and 7). For each one, we detail the components of the cost savings benefit.

For the majority of the organizations interviewed, IT infrastructure and storage savings was one of the main factors in their business cases for their Box implementations. We heard from one interviewee that his organization was able to retire 30 file servers, eliminating $1.1 million in server upgrades and maintenance costs over five years. This organization also estimated an additional $1.75 million savings over five years in server backups and future upgrades as it moved 28 TB of data to Box and planned to move another 45 TB of data in the future. Another organization reported $750,000 of storage savings for its 4,000 users.

One healthcare organization whose business case was comprised of storage savings as well as administration and management for these servers projected that, over the period of its Box contract, it saved 20% more by using Box instead of building its own solution.

To capture these benefits for the composite organization, we estimated that the organization is able to avoid $220,000 in file server upgrades and maintenance costs annually for each of the three years. We also included the cost avoidance associated with 28 TB of data in the first year, 20 TB in the second year, and 25 in the third year, while assuming a cost per TB of $6,000. This leads to a total storage savings of $438,000 over the three years. We also include $100,000 for data storage solution savings in the first year. In total, the composite organization saves approximately $1.2 million over the three years in IT infrastructure and storage savings. After a 5% risk adjustment, this is still a total of $1.1 million. The details of this calculation are shown in Table 5.

FORRESTER®

TABLE 5

IT Agility — IT Infrastructure And Storage Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
D1	File server upgrades and maintenance		$220,000	$220,000	$220,000		
D2	Storage savings	At $6,000/TB	$168,000	$120,000	$150,000		
D3	Data storage solution savings		$100,000				
Dt	IT infrastructure and storage savings	D1+D2+D3	$488,000	$340,000	$370,000	$1,198,000	$1,002,615
	Risk adjustment	↓5%					
Dtr	**IT infrastructure and storage savings (risk-adjusted)**		**$463,600**	**$323,000**	**$351,500**	**$1,138,100**	**$952,484**

Source: Forrester Research, Inc.

The composite organization also used Box for PC backup. If it had tried to create an on-premises internal backup solution, it would have needed two locations with the corresponding infrastructure and licensing costs. An alternative cloud solution would cost $40 per year for each user. Table 6 shows the calculations associated with the backup cost savings. For each user, the composite organization would have spent $40 on backup without Box. Including a 5% risk adjustment, this leads to a total savings of $836,000 over the three years.

TABLE 6

IT Agility — Backup Cost Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
E1	Number of users		6,000	8,000	8,000		
E2	Annual cost per user of backup solutions		$40	$40	$40		
Et	Backup cost savings	E1*E2	$240,000	$320,000	$320,000	$880,000	$723,065
	Risk adjustment	↓5%					
Etr	**Backup cost savings (risk-adjusted)**		**$228,000**	**$304,000**	**$304,000**	**$836,000**	**$686,912**

Source: Forrester Research, Inc.

The composite organization also capitalized on Box Sync to enable faster refresh for its users. The savings associated with using Box for PC refresh include labor and support time saved. Without Box, the composite organization would have spent 4 hours for onsite support for each PC refresh. With an average of 1,000 users undergoing a PC refresh each year and an annual rate of $75,000 per year for the resources performing the refresh processes, this leads to a savings of $144,231 annually; as in the previous IT agility benefits, we risk-

adjusted this total down by 5% to arrive at a total of $411,058 over the three years. See Table 7 for the details of this calculation.

TABLE 7

IT Agility — PC Refresh

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
F1	Number of PCs		1,000	1,000	1,000		
F2	Support hours per PC refresh		4	4	4		
F3	Hourly rate per person	$75,000 per year/2,080 hours	$36.06	$36.06	$36.06		
Ft	PC refresh	F1*F2*F3	$144,231	$144,231	$144,231	$432,693	$358,681
	Risk adjustment	↓5%					
Ftr	**PC refresh (risk-adjusted)**		**$137,019**	**$137,019**	**$137,019**	**$411,057**	**$340,747**

Source: Forrester Research, Inc.

Improved Security And Compliance

Interviewed and surveyed customers also noted that improved security and governance were benefits of their Box implementation. This includes improved security of data, devices, cloud, and applications (noted by 36% of survey respondents); improved regulatory compliance/lower compliance costs (noted by 18% of survey respondents); and increased data governance and data retention (noted by 18% of survey respondents). For 18% of the survey respondents, the average reduction in compliance costs as a result of implementing Box was 10.5%.

One global pharmaceutical organization observed that Box improved its eDiscovery and compliance since, given the high level of regulation in its industry, it was able to leverage Box to provide the most accurate and up-to-date information to health providers and customers. In the past, it would have relied on paper updates that would have taken weeks.

One interviewed organization quantified the improved security and compliance due to Box in terms of the reduction of risk of loss of data compared with its previous environment, where research and development personnel would stand to lose as much as six months' worth of work in the event of solid-state drive (SSD) failure.

By using Box, the composite organization was able to ensure business continuity and reduce the risk of data loss. To quantify this benefit, we assumed a 1% failure rate across the enterprise annually that would result in data loss. We further conservatively quantified each data loss incident as three months' worth of productivity. At an annual fully loaded compensation of $85,000 per R&D personnel, these three months are valued at $21,250. As Box reduces this risk of data loss by 100%, the total quantified benefit of improved data governance and retention is quantified at $3,841,285 net present value for the composite organization. To account for the variability in quantification of data loss for each organization, this benefit is risk-adjusted down by 20%, resulting in a total of $3,073,028 net present value in savings over the three-year analysis.

FORRESTER®

TABLE 8
Improved Security And Compliance — Risk Reduction Of Data Loss

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
G1	Number of PCs		6,000	8,000	8,000		
G2	Failure rate		1.0%	1.0%	1.0%		
G3	Productivity loss	Three months	$21,250	$21,250	$21,250		
Gt	Improved security and compliance	G1*G2*G3	$1,275,000	$1,700,000	$1,700,000	$4,675,000	$3,841,285
	Risk adjustment	↓20%					
Gtr	**Improved security and compliance (risk-adjusted)**		**$1,020,000**	**$1,360,000**	**$1,360,000**	**$3,740,000**	**$3,073,028**

Source: Forrester Research, Inc.

Digital IT Transformation — App Development Savings

One of the benefits that Box brought to the interviewed organizations was a modernized content platform for ECM. Apart from the resulting IT management cost savings quantified earlier, Box also enabled these organizations to deliver new information-driven digital applications and experiences at a faster pace and lower cost compared with collaboration projects in their pre-Box environments.

Interviewed organizations observed that they could now "create simple applications" with Box that were easy to use for their employees. One Fortune 500 healthcare company integrated Box with bigtincan, a mobile content platform, to provide sales and marketing presentations securely to mobile devices and solved "one of the largest frustrations" of its mobile users, as these users could now access content stored locally in a secure cache. Another organization created an application using Box to provide electronic packets to customers and other external stakeholders attending its conferences. Quickly delivering mobile applications was one of the big wins cited by the companies interviewed. One organization with 2,000 mobile users noted that one of its big mobile use cases involved creating secure Box folders for its executive team to receive the most up-to-date operational figures for its company. By leveraging the mobile application powered by Box as a delivery mechanism, the organization was able to save $250,000 in development costs. This organization estimated that about 10% of its projects developed on Box had that level of cost savings impact.

The composite organization delivered a number of projects each year using Box that would improve collaboration for mobile users, partners, and customers. We assumed that one of these projects per year will save the composite organization $250,000 in cost savings by leveraging Box for these development efforts. Over the three-year analysis, the total benefit of application development savings as a result of Box is quantified as $750,000.

To account for the differences in projects and the variability in development savings due to Box, we risk-adjusted this benefit downward by 10%, leading to a total benefit of $675,000 over the three years.

FORRESTER®

TABLE 9

Enable Transformation To Digital — App Development Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
H1	Number of major projects a year		1	1	1		
H2	Development savings		$250,000	$250,000	$250,000		
Ht	Enable transformation to digital — app development savings	H1*H2	$250,000	$250,000	$250,000	$750,000	$621,713
	Risk adjustment	↓10%					
Htr	**Enable transformation to digital — app development savings (risk-adjusted)**		**$225,000**	**$225,000**	**$225,000**	**$675,000**	**$559,542**

Source: Forrester Research, Inc.

Digital IT Transformation: Savings From Improved Processes And Developed Applications

Apart from the cost avoidance of application development time and resources, Box also brought direct cost savings and business process benefits as a result of these Box collaboration projects. In one use case, the company was planning to move 2,000 sales, marketing, and manufacturing employees to headquarters in a different state, with the proviso that each employee could only bring two boxes of paper. The rest of their files, such as contracts, would be digitized to Box, capitalizing on its unlimited storage offering. Assuming each employee would have added an average of three more boxes of paper to be shipped, and total shipping and handling costs were $30 per box, Box could potentially save the company $180,000 in shipping costs.

In another use case, one automotive manufacturer had developed a mobile application through Box for its delivery drivers, which allowed it to film the drop-off of parts for dealers. These drop-offs were usually conducted after-hours at dealer locations. By using this video proof of drop-off, the automotive manufacturer saw dealer delivery claims reduced by 90%. Prior to this Box application, claims could range from $5 million to $10 million a year. This translates to direct business savings of $4.5 million to $9 million a year with the mobile application developed on the Box platform.

In the second year of its Box implementation, the composite organization developed a mobile application for its supply chain that capitalized on unlimited storage offered by Box to record and store video files. This supply chain application resulted in a 90% reduction in partner claims. Formerly, claims averaged $5 million a year, so by utilizing this mobile application, the composite organization was able to save $4.5 million annually. The application was developed in the first year of the analysis, at a cost of $100,000, yielding a total savings over the three years of $8.9 million. As this is a very specific benefit associated with this business process, we risk-adjusted this benefit down by 10%, leading to a total benefit of just over $8 million over three years.

As not all instances of revenue and costs savings from app development on the Box ECM platform may yield such extensive savings, Forrester conservatively does not include this benefit when computing the final ROI numbers for the composite organization. Readers of this study may choose to include this benefit in their own analysis, as applicable to their circumstances.

TABLE 10

Enable Transformation To Digital — Mobile Apps

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
I1	Claims per year			$5,000,000	$5,000,000		
I2	Drop in claims after application was launched			90%	90%		
I3	Cost of enhancement		($100,000)				
It	Enable transformation to digital — mobile apps	I1*I2+I3	($100,000)	$4,500,000	$4,500,000	$8,900,000	$7,009,016
	Risk adjustment	↓10%					
Itr	**Enable transformation to digital — mobile apps (risk-adjusted)**		**($90,000)**	**$4,050,000**	**$4,050,000**	**$8,010,000**	**$6,308,114**

Source: Forrester Research, Inc.

Total Benefits

Table 11 shows the total of all benefits across the eight areas listed above, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to be a PV of more than $17 million.

TABLE 11

Total Benefits (Risk-Adjusted)

Ref.	Benefit Category	Year 1	Year 2	Year 3	Total	Present Value
BUSINESS EFFICIENCY AND TRANSFORMATION						
Atr	Enabling new work styles — general user productivity benefits	$2,137,500	$2,850,000	$2,850,000	$7,837,500	$6,439,801
Btr	Speed up collaborative processes — power user productivity benefits	$1,672,000	$2,508,000	$2,508,000	$6,688,000	$5,477,025
TOTAL COST OF OWNERSHIP						
Ctr	Enabling new work styles — IT ECM administrative savings	$185,250	$185,250	$185,250	$555,750	$460,689
Dtr	IT agility — IT infrastructure and storage savings	$463,600	$323,000	$351,500	$1,138,100	$952,484
Etr	IT agility — backup cost savings	$228,000	$304,000	$304,000	$836,000	$686,912
Ftr	IT agility — PC refresh	$137,019	$137,019	$137,019	$411,057	$340,747
SECURITY AND COMPLIANCE						
Gtr	Improved security and compliance — risk reduction	$1,020,000	$1,360,000	$1,360,000	$3,740,000	$3,073,028
DIGITAL IT TRANSFORMATION						
Htr	Enable transformation to digital — app development savings	$225,000	$225,000	$225,000	$675,000	$559,542
	Total benefits (risk-adjusted)	**$6,068,369**	**$7,892,269**	**$7,920,769**	**$21,881,408**	**$17,990,228**

Source: Forrester Research, Inc.

COSTS

The composite organization experienced a number of costs associated with the enterprise content collaboration solution:

› Box subscription fees.

› Professional services.

› Implementation costs.

› Administrative costs.

› Training fees.

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

Box Subscription Fees

Box subscription fees per user remain constant over the three-year analysis at $12 per user. In Year 1, the composite organization begins with 6,000 users, growing to 8,000 in years 2 and 3. This yields a total cost of approximately $3.2 million over three years, with a present value of approximately $2.6 million.

Professional Services

Professional services were used primarily for data migration, implementation and change management, and the development of custom applications. The data migration support was provided by a third party, with an initial cost of $30,000. Box provided implementation support initially as well, at a cost of $25,000. Finally, the composite organization also used third-party professional services for development of custom applications at a cost of $180,000 initially, with a continuing cost of $90,000 annually.

According to the interviewees, ongoing development and support for productivity applications bring strategic collaboration and productivity gains, supporting the benefits described earlier.

Box Consulting packages can also be purchased by organizations to maximize user adoption and effectiveness of the Box deployment.

Due to the variability across organizations in the amount and type of professional services required, we have risk-adjusted the total cost up by 10%, yielding a total cost of $555,500 over the three years. The details of the calculation are shown in Table 12.

FORRESTER®

TABLE 12

Professional Services Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total	Present Value
J1	Data migration — third-party contractor		$30,000					
J2	Box implementation support		$25,000					
J3	Custom application development — third-party contractor		$180,000	$90,000	$90,000	$90,000		
Jt	Professional services	J1+J2+J3	$235,000	$90,000	$90,000	$90,000	$505,000	$458,817
	Risk adjustment	↑10%						
Jtr	**Professional services (risk-adjusted)**		**$258,500**	**$99,000**	**$99,000**	**$99,000**	**$555,500**	**$504,698**

Source: Forrester Research, Inc.

Implementation Costs

In addition to the costs for implementation described in the professional services section, the composite organization contributed internal resources to support the rollout. Over the first six months, four FTEs were involved in the project, at an annual fully loaded rate of $97,500 each. This leads to an initial cost of $195,000. Forrester notes that the composite organization is replacing a legacy system, not just gaining a net-new ECM system, so this calculation represents more effort than is typical for a Box implementation.

As with the previous benefit, this is a highly variable category of cost; therefore, we have risk-adjusted the cost up by 10% to account for this potential increase. The risk-adjusted total cost is $214,500.

TABLE 13

Implementation Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total	Present Value
K1	Number of people		4					
K2	Annual rate per person		$97,500					
K3	Years		0.5					
Kt	Implementation costs	K1*K2*K3	$195,000	$0	$0	$0	$195,000	$195,000
	Risk adjustment	↑10%						
Ktr	**Implementation costs (risk-adjusted)**		**$214,500**	**$0**	**$0**	**$0**	**$214,500**	**$214,500**

Source: Forrester Research, Inc.

FORRESTER®

Administration Costs

The use of the Box solution required approximately three-quarters of an FTE on an ongoing basis for recurring tasks. As with other labor calculations, we risk-adjusted this total; however, as this is a category with less variability, we lowered the risk adjustment to 5%, leading to a total cost over three years of $230,344.

TABLE 14
Administration Costs

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Total	Present Value
L1	Number of people		0.75	0.75	0.75		
L2	Annual rate per person		$97,500	$97,500	$97,500		
Lt	Administrative costs	L1*L2	$73,125	$73,125	$73,125	$219,375	$181,851
	Risk adjustment	↑5%					
Ltr	**Administrative costs (risk-adjusted)**		**$76,781**	**$76,781**	**$76,781**	**$230,343**	**$190,944**

Source: Forrester Research, Inc.

Training Costs

The composite organization allocated six resources to training, for a total of four weeks each. Using a fully loaded hourly rate of close to $47, this leads to an initial training cost of $45,000. As in the previous cost, we risk-adjusted this calculation up by 5% to represent the inherent variability in training needs.

TABLE 15
Training Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Total	Present Value
M1	Number of people		6					
M2	Hourly rate per person	$97,500 per year/2,080 hours	$46.88					
M3	Number of hours		160					
Mt	Training fees	M1*M2*M3	$45,000	$0	$0	$0	$45,000	$45,000
	Risk adjustment	↑5%						
Mtr	**Training fees (risk-adjusted)**		**$47,250**	**$0**	**$0**	**$0**	**$47,250**	**$47,250**

Source: Forrester Research, Inc.

FORRESTER®

Total Costs

Table 16 shows the total of all costs as well as associated present values, discounted at 10%. Over three years, the composite organization expects total costs to total a net present value of over $3 million.

Ref.	Cost Category	Initial	Year 1	Year 2	Year 3	Total	Present Value
TABLE 16 Total Costs (Risk-Adjusted)							
Itr	Box subscription fees	$0	$864,000	$1,152,000	$1,152,000	$3,168,000	$2,603,035
Jtr	Professional services	$258,500	$99,000	$99,000	$99,000	$555,500	$504,698
Ktr	Implementation costs	$214,500	$0	$0	$0	$214,500	$214,500
Ltr	Administrative costs	$0	$76,781	$76,781	$76,781	$230,344	$190,944
Mtr	Training fees	$47,250	$0	$0	$0	$47,250	$47,250
	Total costs (risk-adjusted)	**$520,250**	**$1,039,781**	**$1,327,781**	**$1,327,781**	**$4,215,594**	**$3,560,427**

Source: Forrester Research, Inc.

FLEXIBILITY

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some future additional investment. This provides an organization with the "right" or the ability to engage in future initiatives but not the obligation to do so. There are multiple scenarios in which a customer might choose to implement Box's enterprise content management and collaboration platform 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).

Organizations in the early stages of their Box implementation would see additional productivity gains and IT cost savings as they expand the use of Box within their organization. Apart from savings from increased user adoption, these companies would also benefit from additional IT savings as they decommission legacy ECM applications and move this content to Box. Their Box deployments also positioned these companies well for future expansion of mobile use within the enterprise. As an increasing number of users shift to mobile devices for collaboration, productivity gains from Box will also increase. These organizations could also gain additional productivity and other collaboration benefits should they choose to take advantage of the mobile productivity applications available through Box OneCloud, an ecosystem of third-party mobile apps that integrate with Box services.

> "As we look at incorporating Box into our workflow, I see Box flexibility as being a strategic aspect of the tool. We can incorporate Box as the business redefines their processes."
> — *Senior director, social collaboration tools, Fortune 500 managed healthcare company*

Another area of future benefit identified by the interviewed organizations was improved collaboration and customer service from developing more customer-facing applications on the Box ECM platform. More collaboration applications through Box for external users such as vendors, partners, and customers could lead to increased customer satisfaction and revenue, faster time-to-market, and process cost savings. Incorporating Box into more internal workflow management processes

FORRESTER®

would also improve effectiveness for these tasks with corresponding savings. When reviewing Box partnerships, one senior IT manager also noted: "The relationship with IBM may be a game changer. I do think it's interesting if you can get those IBM documents into Box and do analytics."

The value of flexibility is unique to each organization, and the willingness to measure its value varies from company to company.

RISKS

Forrester defines two types of risk associated with this analysis: "implementation risk" and "impact risk." Implementation risk is the risk that a proposed investment in Box enterprise content collaboration 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 Box enterprise content collaboration, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for cost and benefit estimates.

TABLE 17
Benefit And Cost Risk Adjustments

Benefits	Adjustment
Enabling new work styles — general user productivity benefits	↓ 5%
Speeding up collaborative processes — power user productivity benefits	↓ 5%
Enabling new work styles — IT ECM savings	↓ 5%
IT agility — IT infrastructure and storage savings	↓ 5%
IT agility — backup cost savings	↓ 5%
IT agility — PC refresh	↓ 5%
Improved security and compliance — risk reduction of data loss	↓ 20%
Enable transformation to digital — app development savings	↓ 10%
Enable transformation to digital — mobile apps	↓ 10%

Costs	Adjustment
Professional services	↑ 10%
Implementation costs	↑ 10%
Administrative costs	↑ 5%
Training costs	↑ 5%

Source: Forrester Research, Inc.

FORRESTER®

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

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

› Customer benefits could vary depending on their pre-Box environment, what legacy ECM systems Box will be replacing, as well as the different use cases for their Box implementation.

› Productivity savings are dependent on the size and structure of the organizations as well as the number of internal and external end users of Box.

› Organizations that develop collaboration applications extensively through the Box platform may see more digital transformation benefits compared with firms that choose more basic Box deployments.

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

› Box fees may vary depending on the number of end users.

› Organizations may have varying requirements for professional services and internal labor at implementation depending on the size and complexity of the deployments. Organizations moving from legacy systems or integrating with other applications might need more support and services for areas such as data migration. Organizations may also not adequately anticipate the level of internal resources needed for configuration, deployment, and the change management required to get employees to fully utilize the benefits of Box.

Table 17 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates for the composite organization. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

FORRESTER®

Financial Summary

The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment in Box's enterprise content collaboration.

Table 18 below shows the risk-adjusted ROI, NPV, and payback period values. These values are determined by applying the risk-adjustment values from Table 17 in the Risks section to the unadjusted results in each relevant cost and benefit section.

FIGURE 4

Cash Flow Chart (Risk-Adjusted)

Financial Analysis (risk-adjusted)
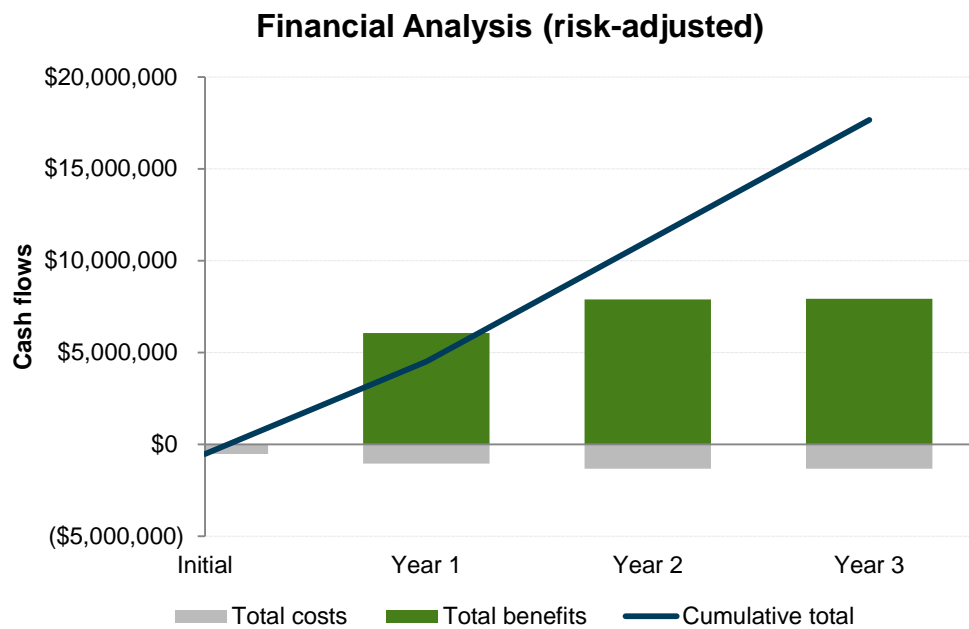
Source: Forrester Research, Inc.

TABLE 18

Cash Flow (Risk-Adjusted)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Costs	($520,250)	($1,039,781)	($1,327,781)	($1,327,781)	($4,215,594)	($3,560,427)
Benefits	$0	$6,068,369	$7,892,269	$7,920,769	$21,881,408	$17,990,227
Net benefits	**($520,250)**	**$5,028,588**	**$6,564,488**	**$6,592,988**	**$17,665,814**	**$14,429,800**
ROI						**405%**
Payback period						**1.2 months**

Source: Forrester Research, Inc.

FORRESTER®

Box Enterprise Content Management And Collaboration Platform: Overview

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

Box is a content management and collaboration platform that enables businesses to easily share, manage, and secure their content.

In today's mobile-first, cloud-first world, providing employees with secure access to content at any time using any device is critical to creating a more productive, connected workforce and improved customer experiences.

Beyond secure file sharing, Box enables easy access to content and collaboration tools from any device with the security, scalability, and administrative controls that IT requires. Moreover, Box meets global compliance and security standards, maintaining SOC1 and SOC2, ISO 27001, HIPAA, PCI, FINRA SEC 17a-4, and more.

Businesses of all sizes are building mobile, vertical-specific, and collaboration apps on top of Box — whether they are customer-facing apps, such as a product catalog, or an internal tool, such as a sales portal — to improve process efficiencies and employee productivity.

Box Plans come in three categories: Business, Business Plus, and Enterprise.

Every Business Plan includes:

› Desktop sync.

› SSL and at-rest encryption.

› Rich file preview.

› File locking.

› Version history.

› Mobile access.

› Two-factor authentication.

› Full text search.

› Access stats.

› Box content API.

› Partner apps.

› Secure sharing.

› Auto-expiration.

› Granular permissions.

Available add-ons include:

› **Enterprise Key Management.** Take exclusive control of the encryption keys protecting your content.

› **Governance.** Implement data retention rules, support defensible eDiscovery, and enforce content security policies. **Assistance Box Premier.** Mitigate risk and enhance user experience with Box's industry-leading standards for first response times and 24x7 support.

Appendix A: Composite Organization Description

For this TEI study, Forrester has created a composite organization to illustrate the quantifiable benefits and costs of implementing Box's enterprise content management and collaboration platform. The composite company is intended to represent a global pharmaceutical company with 12,000 employees and is based on characteristics of the interviewed customers.

The composite company started with 6,000 Box users, which grew to 8,000 by the end of the second year. Prior to its Box implementation, the composite organization was using a legacy ECM system with a cumbersome onboarding process to manage external collaboration with its partners. There was no consistent standard for content management, as each business unit in the organization implemented its own ECM solution.

In purchasing Box, the composite company has the following objectives:

› Improve collaboration and document sharing for its mobile users, as the company made a strategic decision to use iPads as the only client for its field personnel.

› Improve collaboration and document sharing for its external partners and vendors.

› Provide a secure way to easily collaborate externally, as its IT team noticed that a number of small teams within the company were using ECM solutions that did not meet the firm's security standards to share files with its vendors.

› Reduce storage costs by shifting to Box from its legacy content management solutions.

FRAMEWORK ASSUMPTIONS

Table 19 provides the model assumptions that Forrester used in this analysis.

The discount rate used in the PV and NPV calculations is 10%, and the 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.

TABLE 19
Model Assumptions

Ref.	Metric	Calculation	Value
N1	Hours per week		40
N2	Weeks per year		52
N3	Hours per year (M-F, 9-5)		2,080
N4	Hours per year (24x7)		8,736
N5	IT infrastructure and operations		$97,500
N6	Hourly	(C5/C3)	$46.88

Source: Forrester Research, Inc.

FORRESTER®

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. TEI assists technology vendors in winning, serving, and retaining customers.

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

BENEFITS

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

COSTS

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

FLEXIBILITY

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

RISKS

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

FORRESTER®

Appendix C: Forrester And The Age Of The Customer

Your technology-empowered customers now know more than you do about your products and services, pricing, and reputation. Your competitors can copy or undermine the moves you take to compete. The only way to win, serve, and retain customers is to become customer-obsessed.

A customer-obsessed enterprise focuses its strategy, energy, and budget on processes that enhance knowledge of and engagement with customers and prioritizes these over maintaining traditional competitive barriers.

CMOs and CIOs must work together to create this companywide transformation.
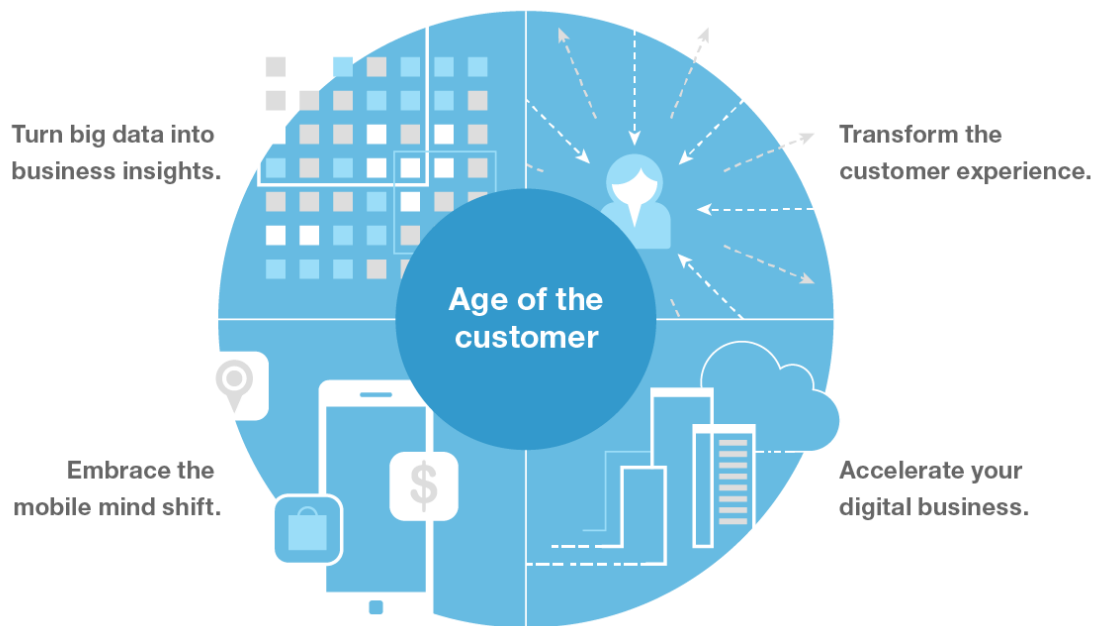
Forrester has a four-part blueprint for strategy in the age of the customer, including the following imperatives to help establish new competitive advantages:

Transform the customer experience to gain sustainable competitive advantage.

Accelerate your digital business with new technology strategies that fuel business growth.

Embrace the mobile mind shift by giving customers what they want, when they want it.

Turn (big) data into business insights through innovative analytics.

FORRESTER®

Appendix D: Glossary

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

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

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

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

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

A NOTE ON CASH FLOW TABLES

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

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

TABLE [EXAMPLE]
Example Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3

Source: Forrester Research, Inc.

FORRESTER®

Appendix E: Endnotes

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