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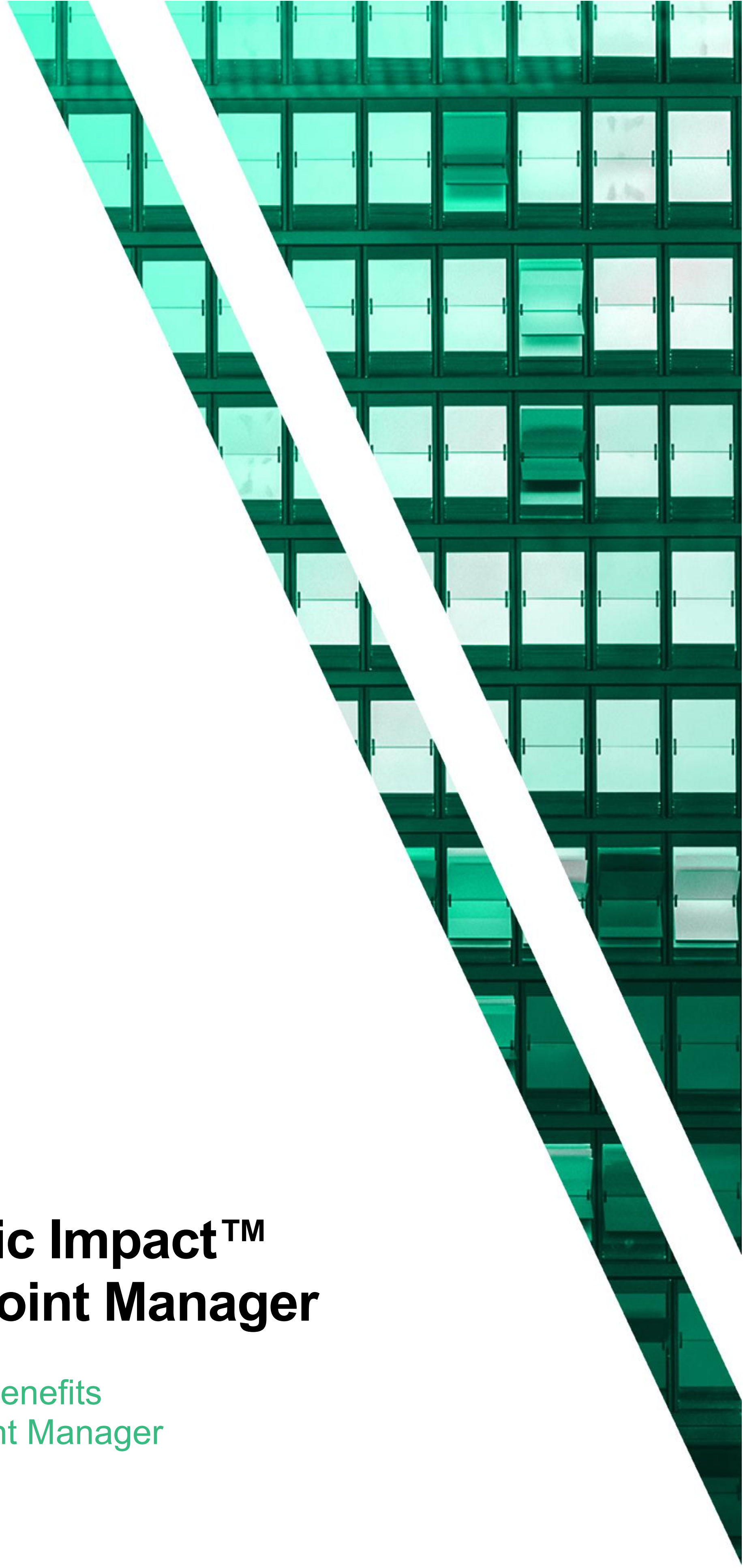

The Total Economic Impact™ Of Microsoft Endpoint Manager

Cost Savings And Business Benefits Enabled By Microsoft Endpoint Manager

APRIL 2021

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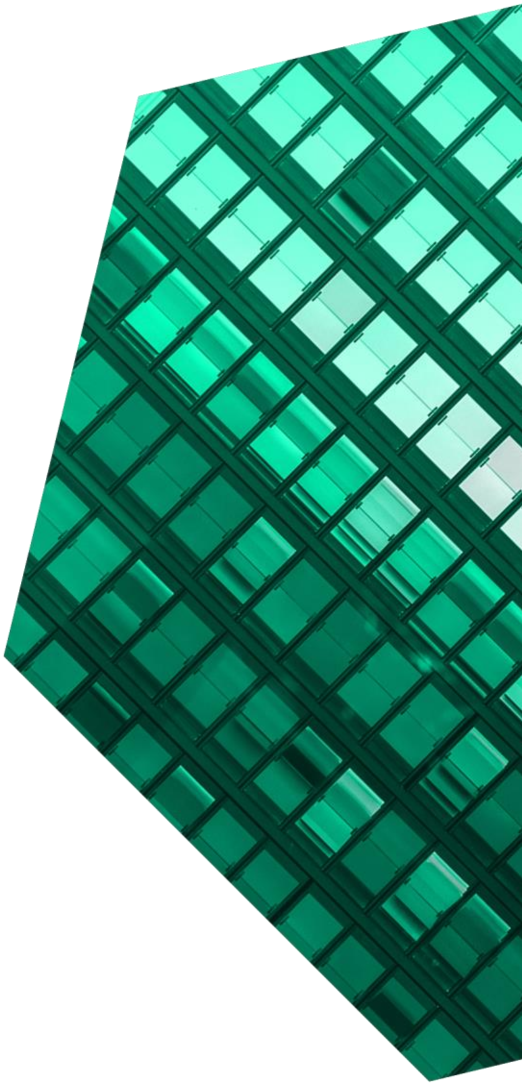


Executive Summary

In a post-COVID business environment, most business leaders expect to have many employees working remotely, sometimes on their own devices, and many others working on-site. Microsoft Endpoint Manager allows companies to manage all the devices that access their data and applications. It gives organizations the enhanced control and monitoring to confidently support highly productive employees with minimal impact on user experience while preventing data loss and applying Zero Trust best practices.

Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Microsoft Endpoint Manager. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Microsoft Endpoint Manager on their organizations.

Microsoft Endpoint Manager is a solution that provides both on-premises and cloud-based tools (as well as the ability to comanage with them) that provision, deploy, manage, and secure endpoints. It also provides insights into endpoint health and performance and remediates vulnerabilities in multiple areas of the estate.

The included endpoints may be desktop computers in the office, laptops signing in from home, or smartphones being used on the road. They could even be Windows 10 virtual desktops. The solution protects corporate data and assets while making it easy for employees to do their jobs even when they are not physically in the office.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four customers with experience using Endpoint Manager. For the purposes of this study, Forrester aggregated the experiences of the interviewed customers and combined the results into a single composite organization.

KEY STATISTICS

Return on investment (ROI)
278%

Net present value (NPV)
$2.9M

Before using Endpoint Manager, the customers managed primarily on-site endpoints, such as desktop and laptop computers, using tools deployed largely on-premises. However, as employees increasingly wanted to use their smartphones to access email and other applications, and as they asked for the flexibility to work remotely, even if only on nights and weekends, the organizations worked to accommodate that demand.

To protect their assets and systems while employees connected remotely from devices that may or may not have been company property, the organizations added controls and limitations that introduced a whole new set of problems. These included a less-than-ideal user experience when employees relied on their devices off-site, as well as additional monitoring and administration for technicians tasked with keeping corporate assets from being exposed or hacked.

The investment in Endpoint Manager provided the customers with an effective and flexible platform from which to improve compliance, monitor and remediate potentially risky activity, and safely enable productive work for employees using multiple devices in multiple locations. Additional key results from the investment included better end-user experience for employees no matter where they were, as well as improved productivity and job satisfaction for IT team members.

KEY FINDINGS

Quantified benefits. Risk-adjusted present value (PV) quantified benefits for the composite organization include the following:

- **Improved security adds $1.2 million to the organization's bottom line.** Interviewees reiterated that Microsoft Endpoint Manager is central to their overall security solutions. It is an integral tool in preventing data loss, keeping end users compliant and protecting sensitive data, so it is essential to keeping these companies' data assets secure.
- **Enhanced end-user experience translates into over $550,000 in savings.** Endpoint Manager saves end users hours of time each year waiting for their devices to be provisioned or brought into compliance — for employees working both on-site and remotely. End users also benefit from devices that run more responsively and consistently.
- **Reduced support needs save the organization $1.5 million.** Endpoint Manager significantly reduced the total ticket queue for all the interviewees' organizations. They redeployed virtually all that time within the IT organization to higher-value projects. As a result, technicians enjoy their work more and have become more skilled and valuable employees.
- **Redeployed IT time frees up more than $479,000 in human capital, to be applied to under-resourced projects.** Just as Endpoint Manager's automated patching and updating capabilities save end users hours of time each

> **With an enrolled laptop, they could access corporate applications without the need to get on the VPN. So, from a user experience perspective, it was much better.**
>
> — SVP, enterprise IT, technology

year, it frees up a similar amount of time for IT professionals. As a result, team members can spend more time addressing technical solutions to the organization's real business needs.

> **"Our team in Bangalore has much better job satisfaction than before. They're not only doing daily routine jobs; they are working on projects, and they can increase their knowledge and skills."**
>
> *Head of mobile device management, pharmaceutical*

- **Retired endpoint management tools decrease costs by over $305,000.** Organizations retired one or more less effective solutions they had been using for remote management. Often, these were piecemeal approaches to parts of the problem, so organizations could sometimes eliminate more than one annual subscription fee. To the extent that they wanted to move endpoint management to the cloud, they were also able to save the hardware and maintenance costs associated with those solutions.

Unquantified benefits. Benefits that are not quantified for this study include:

- **Protected investment in world class on-premises tools.** Endpoint Manager integrates Microsoft Intune, Microsoft's cloud-based endpoint management tool, and Microsoft Endpoint Configuration Manager, its on-premises tool, allowing customers to manage devices from a unified web-based administration console. Microsoft continues to develop and support both tools with new features and roadmaps, so interviewees felt confident that their investments in world-class on-premises management tools and processes were protected.

- **Platform familiarity, which leads to faster and easier implementation.** Interviewees told Forrester they were able to deploy and gain proficiency on Endpoint Manager much more quickly than they would another system simply because it is integrated with their Microsoft 365 licenses, and their teams can make use of their skills from operating other Microsoft products.

Costs. The three-year PV costs for Endpoint Manager include the following:

- **Licensing fees of $1.03 million comprise 97% of total costs.** The interviewees' organizations held enterprise licenses for Microsoft 365 that included Endpoint Manager. Forrester assigned a cost of $4.25 per user to cover any additional licenses or upgrades necessary to deploy Endpoint Manager across all 16,000 endpoints.

- **Implementation costs of just over $24,000 account for IT team member time.** The platform's ease of setup and its familiarity as a Microsoft product minimizes the time and resources required to deploy it.

- **Training costs of approximately $6,000 are included only for completeness.** These are all internal costs and negligible in the overall model.

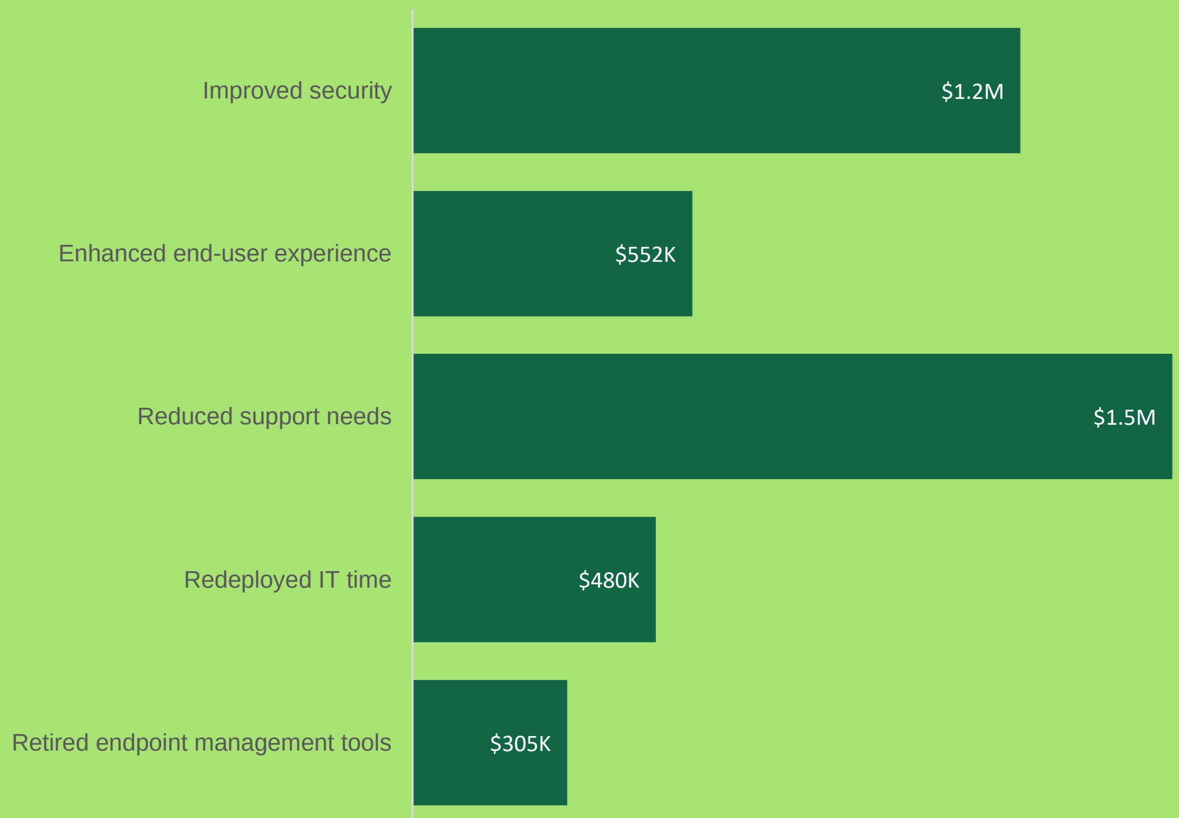
The customer interviews and financial analysis found that a composite organization experiences benefits of $4.0M over three years versus costs of $1.1M, adding up to a net present value (NPV) of $2.9M and an ROI of 278%.

ROI
278%

BENEFITS PV
$4.0M

NPV
$2.9M

PAYBACK
<6 months



TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Microsoft Endpoint Manager.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that Endpoint Manager can have on an organization.

DUE DILIGENCE

Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to Microsoft Endpoint Manager

CUSTOMER INTERVIEWS

Interviewed four decision-makers at organizations using Endpoint Manager to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed organizations.

FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.

CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

DISCLOSURES

Readers should be aware of the following:

This 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 Endpoint Manager.

Microsoft reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

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

The Microsoft Endpoint Manager Customer Journey

Drivers leading to the investment in Endpoint Manager

Interviewed Organizations

Industry	Region	Interviewee	Endpoints
Technology services	Global	SVP, enterprise IT	20,000 endpoints
Insurance	United States	Infrastructure services senior advisor	7,000 endpoints
Pharmaceutical	Global	Head of mobile device management	33,000 endpoints
Healthcare	United Kingdom	Mobile services lead	25,000 endpoints

KEY CHALLENGES

Before implementing Endpoint Manager, the organizations in this study had been seeing increased demand for and usage of employee-owned devices to provide their workforce with the flexibility to work remotely as required. The pandemic heightened this urgency.

The interviewees' organizations struggled with common challenges, including:

- **Balancing the need for employee flexibility and corporate security.** While the benefits of providing working flexibility for employees are clear, it significantly increases the likelihood of exposing corporate data and opening up systems to malware and other security risks. The executives told Forrester that their firms had taken action to mitigate those security risks, but those measures themselves cost end users in terms of easy, reliable access to the functionality they needed on their devices.

  Users were unproductive, sometimes for hours, when they needed to leave their devices with a technician to be enrolled, configured, or updated. These security measures also cost the firms money in the form of software, hardware, administration, and maintenance expenses.

- **Increasing the IT team's workload with user service issues related to remote access.** The problems end users experienced as a result of the need to manage their access to corporate systems resulted in a significant increase in requests for help from IT teams. These IT teams also spent time ensuring that patches, updates, and upgrades were delivered successfully to these remote devices and that they stayed in compliance with corporate policies.

- **The need to juggle multiple tools to monitor compliance and activity across all endpoints.** Interviewees frequently mentioned the problems caused by using multiple tools to manage endpoints. Technicians need to sign on to and monitor multiple systems, understand the different ways each tool interfaced with the endpoint, and appreciate where problems may be

> **"There were many scenarios where the enrolment would fail completely, and we'd have another support case as a result. Only about 40% were being completely enrolled in all the functionality we were trying to deliver."**
>
> *Infrastructure services senior advisor, insurance*

missed by platforms that were not fully integrated.

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The global manufacturing company employs 20,000 people in multiple countries. Approximately half of the company's employees are office/knowledge workers, 6,000 of whom use smartphones to connect to work. Each of these knowledge/administrative workers also has either a desktop computer in the office or a company-owned laptop, tablet, or notebook they use to work remotely.

"I don't need another set of administrators and another tool we have to look at. Endpoint Manager reduces our workload by providing that single pane of glass to manage our endpoints."

VP, enterprise IT, technology services

Deployment. The organization begins by enrolling its knowledge workers' mobile phones in Endpoint Manager, leaving its desktops and laptops managed on-premises. It then moves half of its laptops/desktops to cloud management in Year 2 of the model and the other half in Year 3.

Key assumptions

- **Manufacturer**
- **Global operations**
- **20,000 employees**
- **16,000 endpoints**

Analysis Of Benefits

Quantified benefit data as applied to the composite

Total Benefits						
Ref.	**Benefit**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Atr	Improved security	$483,551	$483,551	$483,551	$1,450,654	$1,202,521
Btr	Enhanced end-user experience	$52,569	$226,704	$422,013	$701,275	$552,213
Ctr	Reduced support needs	$423,667	$529,584	$847,334	$1,800,586	$1,459,440
Dtr	Redeployed IT time	$21,904	$204,435	$386,967	$613,306	$479,601
Etr	Retired endpoint management tools	$0	$148,500	$243,000	$391,500	$305,297
	Total benefits (risk-adjusted)	$981,692	$1,592,774	$2,382,865	$4,957,331	$3,999,072

IMPROVED SECURITY

Evidence and data. Microsoft Endpoint Manager is part of an enhanced suite of tools for identity and threat protection, as well as information protection and compliance. Not only does Endpoint Manager improve the security posture of an organization and reduce the threat of a security incident, but it also reduces the burden of managing multiple tools for security teams.

Modeling and assumptions. To model the value of this benefit for the composite, Forrester began with data from its own study, "Cost Of A Security Breach."[1]

- According to the surveyed cybersecurity leaders, the average cost of a security breach for an organization with just 10,819 employees is $654,846, so the cost for the composite organization, with its 20,000 employees, is estimated at $1,210,548.
- In addition, survey respondents estimated that each affected employee loses 3.6 hours of productivity per breach. Forrester assumes that any given breach affects 10% of the knowledge workers, or 2,000 employees per breach.
- At an average fully burdened hourly wage of $32.45, the total loss of productivity per breach is $233,640.
- Survey respondents told Forrester that, on average, they experience 2.5 breaches per year.
- Given that most enterprises have a security stack in place already, the incremental reduction in breaches due to the new solution, including Endpoint Manager, is estimated at 4%
- The portion of that reduction that is attributable to Endpoint Manager alone, as a part of the full stack, is 20%.
- In addition to breach avoidance, Endpoint Manager also allows security teams to manage the environment more efficiently, which frees up time for analysts to spend on monitoring and addressing security issues rather than administering the security environment.
- The composite organization has 20 FTEs dedicated to managing the security environment, in keeping with its size, and these professionals earn a fully burdened salary of $135,000.

- Microsoft Endpoint Manager allows them to spend 20% less time on these management functions and focus their attention on more value-added activities.

Risks. Several factors may affect whether other organizations will experience the same values:

- The size of their security management team.
- The salaries of those professionals.
- A greater or lesser risk of security breach or greater or lesser likely cost of such a breach.
- Deployment of fewer Microsoft security tools than in the composite organization.

To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $1,202,521.

Improved Security

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Average out-of-pocket cost of security breach (scaled to composite)	Forrester study	$1,210,548	$1,210,548	$1,210,548
A2	Hours of lost productivity per affected employee		3.6	3.6	3.6
A3	Average number of affected employees	20,000*10%	2,000	2,000	2,000
A4	Average fully burdened hourly wage	$50,000+35% benefits multiplier/2,080 hours	$32.45	$32.45	$32.45
A5	Cost of lost productivity per breach	A2*A3*A4	$233,640	$233,640	$233,640
A6	Average frequency of data breach	Forrester study	2.5	2.5	2.5
A7	Total expected data breach costs	(A1+A5)*A6	$3,610,470	$3,610,470	$3,610,470
A8	Incremental reduction in breaches due to full security stack	Forrester	4%	4%	4%
A9	Portion attributable to Endpoint Manager	Interviews	20%	20%	20$
A10	Data breach costs avoided	A7*A8*A9	$28,884	$28,884	$28,884
A11	FTEs dedicated to managing security environment	Assumption	20	20	20
A12	Average fully burdened security team salary	$100,000+35% benefits multiplier	$135,000	$135,000	$135,000
A13	Reduction in time required to manage environment due to Endpoint Manager		20%	20%	20%
A14	Savings from improved security management	A11*A12*A13	$540,000	$540,000	$540,000
At	Improved security	A10 + A14	$568,884	$568,884	$568,884
	Risk adjustment	↓15%			
Atr	Improved security (risk-adjusted)		$483,551	$483,551	$483,551
	Three-year total: $1,450,654		**Three-year present value: $1,202,521**		

ENHANCED END-USER EXPERIENCE

Evidence and data. Interviewees told Forrester that the need for Endpoint Manager was a result of their organizations' attempts to improve employee flexibility and productivity by allowing use of their smartphones to access corporate applications. An SVP of enterprise IT at a technology company recalled, "The entry point for us was that we wanted users to be able to use their smartphones to access our corporate applications, but we needed to be able to manage and monitor that activity."

In addition to improving user experience simply by making remote work feasible, the platform also made it easier for employees. The controls needed for laptops and home devices often made the remote experience slower, more complex, and less predictable than the on-site experience. Interviewees told Forrester they deployed Endpoint Manager to provide a working environment as close to on-site as possible, without exposing their firms to more risk.

> **"With our previous product, we only had about 40% of people who got completely enrolled in all services from start to finish, and that's not a good statistic. As a result, employees weren't able to use all the features intended, and that led to more support cases."**
>
> *Infrastructure services senior advisor, insurance*

Because IT can configure and update machines remotely and automatically, the amount of time users find themselves without access to their devices is limited to the actual time it takes an upgrade or update to run. There is no need to physically take the machine to IT and leave it there for several hours while it waits its turn to be configured. Because Endpoint Manager is more likely to deliver a complete, successful enrollment or update, users generate fewer tickets and spend less time waiting for them to be resolved.

COVID-19 resulted in an explosion of this need for remote connection across the organizations and highlighted the need for effective security protocols for that remote work. Interviewees told Forrester that having Endpoint Manager made the transition to remote working under COVID much smoother and faster than it would have been without it.

Modeling and assumptions. To model this benefit for the composite organization, Forrester assumes:

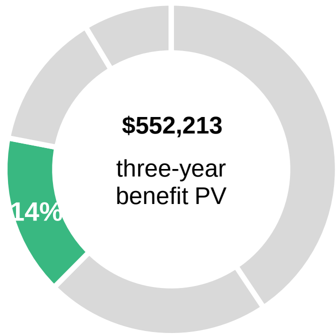
- Before using Endpoint Manager, end users lost 3 hours of downtime per year when surrendering their laptops and desktops for updating, as well as 30 minutes per year on their mobile devices.
- After Endpoint Manager, with remote management, end users are only without their computers for 45 minutes and their mobile devices for 15 minutes per year.
- In addition, end users avoid downtime related to the help desk queue as that team becomes increasingly able to resolve incidents quickly.
- Only 30% of these saved hours are recaptured for productive use in the organization because they are experienced in relatively small increments.
- The organization's office/knowledge workers earn an average salary of $50,000, with 35% benefits costs.

Risks. Several factors may impact the returns other organizations experience in this regard.

- The organization may have a more or less efficient process for handling both planned and unplanned end-user downtime before the investment in Endpoint Manager.

- It may have a different mix of mobile versus nonmobile devices, which would impact the magnitude of the time savings for this type of planned IT activity.
- The affected workforce may command a higher or lower salary than the composite modeled here.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $552,213.



Enhanced end-user experience
14% of total benefits

Enhanced End-User Experience					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
B1	Number of users	Assumption	6,000	7,500	10,000
B2	Laptops/desktops on MEM	Assumption	0	5,000	10,000
B3	Mobile devices on MEM	Assumption	6,000	6,000	6,000
B4	Hours of downtime per year per laptop/desktop due to updates	1 major (2 hours), 1 minor (1 hour)		3.0	3.0
B5	Hours of update downtime per laptop/desktop after MEM	1 major (0.5 hours), 1 minor (0.25 hours)		0.75	0.75
B6	Hours of downtime per year per mobile device due to updates	1 major update	0.5	0.5	0.5
B7	Hours of update downtime per year per endpoint after MEM	Interviews	0.141	0.1	0.1
B8	Saved hours of downtime due to remote operating system updates	((B4-B5)*B2)+((B6-B7)*B3)	2,400	13,650	24,900
B9	Improvement in ticket resolution speed	Interviews	20%	25%	40%
B10	Saved hours of downtime due to faster ticket resolution	1 incident/year*(1 hour*B9)*B1	1,200	1,875	4,000
B11	Average fully burdened hourly wage	$50,000+35% benefits multiplier/2,080 hours	$32.45	$32.45	$32.45
B12	Percent recaptured		50%	50%	50%
Bt	Enhanced end-user experience	(B8+B10)*B11*B12	$58,410	$251,893	$468,903
	Risk adjustment	↓10%			
Btr	Enhanced end-user experience (risk-adjusted)		$52,569	$226,704	$422,013
	Three-year total: $701,326		**Three-year present value: $552,213**		

REDUCED SUPPORT NEEDS

The interviewed executives all reported that Endpoint Manager significantly reduced the total ticket queue for their IT teams. They redeployed virtually all that time within their IT organizations, such that technicians who used to spend most of their time resolving issues could instead spend most of their time working on higher-value projects on the team. This resulted in IT teams that were more responsive to the organizations' business needs, as well as team members who were more satisfied with their jobs.

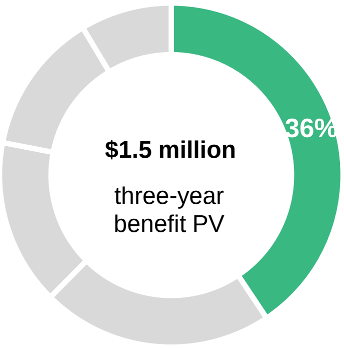
Modeling and assumptions. To quantify the value of this benefit, Forrester assumes:

- The ability to manage endpoints remotely and automatically results in an increasingly smaller number of requests for support, conservatively estimated at 20% in the first year and growing to a 40% reduction in the third year.
- The average salary of support technicians is $50,000 plus benefits.

Risks. The value of this benefit may vary in other organizations due to:

- A support team that is more or less efficient than the composite before using Endpoint Manager.
- An average support salary that is more or less than what is built into the model.

To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of $1,459,440.



Reduced support needs
36% of total benefits

Reduced Support Needs					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
C1	Help desk FTE hours before MEM	200:1 ratio*1,920 hours	96,000	96,000	96,000
C2	Ticket reduction due to MEM	Interviews	20%	25%	40%
C3	Hours help desk time redeployed	C1*C2	19,200	24,000	38,400
C4	Hourly fully burdened salary of help desk team	$50,000+35% benefits multiplier/2,080 hours	$32.45	$32.45	$32.45
C5	Percent of time recaptured		80%	80%	80%
Ct	Reduced support needs	C3*C4*C5	$498,432	$623,040	$996,864
	Risk adjustment	↓15%			
Ctr	Reduced support needs (risk-adjusted)		$423,667	$529,584	$847,334
	Three-year total: $1,800,586		**Three-year present value: $1,459,400**		

REDEPLOYED IT TIME

Evidence and data. Just as Microsoft Endpoint Manager saves time for end users, it also provides a similar benefit to IT teams. Endpoint Manager allowed faster and smoother provisioning and upgrading of remote devices compared to interviewees' former on-premises processes. The technicians responsible for this work were much more able to just let the process run, rather than spending time monitoring and shepherding each device through the upgrade. While the amount of time saved, and the specific drivers behind those savings, differed, all the interviewees agreed that it was significant across the IT teams.

> **"Whenever there was an upgrade to do, there was a significant risk. If the update failed, that would cause issues across the company. With things being cloud-based now, I don't have to do upgrades. It's a real benefit for me."**
>
> *Head of mobile services, healthcare*

Modeling and assumptions. Similar to the end-user benefit above, Endpoint Manager positively impacts the IT team:

- Endpoint Manager allows the IT team to spend less time monitoring and facilitating planned updates and reconfigurations. In this case, as above, since the gains come in relatively small increments, Forrester assumes that only 50% of that time is productively redeployed.
- The model also assumes that the average salary of the help desk personnel and technicians is $50,000 plus benefits.

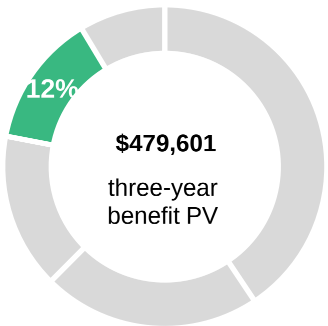
Risks. There are similar risks to this benefit as to the end-user time savings benefit.

- The IT team may be more or less efficient than the composite before Endpoint Manager.

> **"The switch to Endpoint Manager let us reduce our ticket queue by 60%. With that kind of reduction, we have been able to redeploy over half of the team handling that — and they have been able to contribute on projects, as well, which was never the case before."**
>
> *Head of mobile device management, pharmaceutical*

- The organization may have a recapture rate that differs from the 50% in the model.
- The company's IT employees may be paid more or less than those in the model.
- To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $479,601.

> **"Right now, with everybody working from home, the cloud monitoring features of Endpoint Manager let us exercise the same degree of control and insight that we had when the machines were all on site."**
>
> *SVP, enterprise IT, technology*



Redeployed IT time
12% of total benefit

Redeployed IT Time					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
D1	IT hours updating/maintaining endpoints before MEM	3 per computer; 0.5 per mobile	3,000	18,000	33,000
D2	IT hours updating/maintaining endpoints with MEM	0.5 per computer, 0.25 per mobile	1,500	4,000	6,500
D3	Percent of updating hours recaptured		50%	50%	50%
D4	Total IT hours redeployed on configuring/updating devices	(D1-D2)*D3	750	7,000	13,250
D5	Hourly fully burdened hourly salary of IT team members	$50,000+35% benefits multiplier/2,080 hours	$32.45	$32.45	$32.45
Dt	Redeployed IT time	D4*D5	$24,338	$227,150	$429,963
	Risk adjustment	↓10%			
Dtr	Redeployed IT time (risk-adjusted)		$21,904	$204,435	$386,967
	Three-year total: $613,306		**Three-year present value: $479,601**		

RETIRED ENDPOINT MANAGEMENT TOOLS

Evidence and data. Most of the interviewed executives told Forrester their organizations had been using a different solution to manage endpoints in the past. These were primarily on-premises solutions for managing on-premises devices. Their reasons for moving to the Microsoft solution varied from a pure cost consideration to a desire to improve security integration or user experience, but the result for all of them was a significant savings from retiring those former solutions.

> **"I think from the security point, the integration with the Microsoft platform saves efforts on integrating other solutions. Here you have it from one vendor in one platform, and this is a big benefit."**
>
> *Head of mobile device management, pharmaceutical*

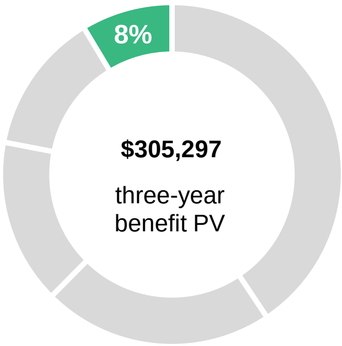
In addition to the savings from not paying a license fee for the retired software, when customers move to the cloud, there is a hardware/maintenance savings. The mobile services lead at a healthcare organization told Forrester: "We are still in a hybrid situation. As soon as we finish migrating our devices over, we will be able to shut down six servers."

Modeling and assumptions. To quantify the impact of this benefit, Forrester assumes:

- The organization previously used an on-premises solution only to manage endpoints, and that software solution involved a $10 annual license fee per user.
- The solution also required server and associated maintenance costs of $20 per user each year.
- In Year 1, since only the mobile devices are moved to Endpoint Manager, the organization has no savings from this benefit, but in Years 2 and 3, as it moves endpoint management to the cloud, it retires the old software and the associated hardware costs.

Risks. The magnitude of this benefit depends primarily on the cost of the software and hardware the organization retires. This is, however, the most predictable of the benefits for any given organization, since the company will have a clear understanding of those costs.

To account for this potential variability, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk adjusted total PV of $305,297.



Retired endpoint management tools
8% of total benefits

Retired Endpoint Management Tools

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
E1	Annual licensing fees	$12/user/year		$90,000	$120,000
E2	Hardware costs (leasing and maintenance)	$15/user/year		$75,000	$150,000
Et	Retired endpoint management tools	E1+E2	$0	$165,000	$270,000
	Risk adjustment	↓10%			
Etr	Retired endpoint management tools (risk-adjusted)		$0	$148,500	$243,000
	Three-year total: $391,500		**Three-year present value: $305,297**		

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Continued support for on-premises assets.** Those interviewees who choose to manage at least some of their endpoints on-premises expressed appreciation for Microsoft's continued support for that choice. Endpoint Manager allows these organizations to integrate their on-premises and cloud endpoint management seamlessly through Configuration Manager and Intune.

  The SVP of enterprise IT at a technology company observed: "They [Microsoft] don't seem to be favoring one over the other. They seem to be pushing the envelope with both the on-premises and cloud-based solutions."

- **Platform familiarity, which leads to faster and easier implementation.** Interviewees told Forrester that they could get Endpoint Manager up and running much more easily than virtually any competing endpoint management solution, simply because it is part of the Microsoft ecosystem of products, with which their teams are already so familiar.

> **"It only cost us about 25% of the effort to deploy a comparable solution from another vendor because it's there already, baked into the operating system, so we don't really need to do anything."**
>
> *SVP, enterprise IT, technology*

FLEXIBILITY

The value of flexibility is unique to each customer. One of the scenarios in which a customer might implement Endpoint Manager and later realize additional uses and business opportunities relates to:

- **Accelerated use of technology to address business issues and opportunities.** Several interviewees mentioned the increased time and focus they were able to devote to nonemergency activities to help their business partners.

One executive in the insurance business shared: "I'm the senior adviser from an infrastructure perspective, so I'm interfacing with many different business units on how they can use technology. With our previous platform, we would have to manually patch everything ourselves, and every patch would introduce some unknown bug. I am having far fewer fires like that with [Endpoint Manager]. It's a more stable product, and it frees my time so that I can help other teams be more productive in their engagements."

Analysis Of Costs

Quantified cost data as applied to the composite

Total Costs							
Ref.	**Cost**	**Initial**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Ftr	Licensing costs	$0	$321,300	$401,625	$535,500	$1,258,425	$1,026,341
Gtr	Initial implementation	$24,127	$0	$0	$0	$24,127	$24,127
Htr	Training	$5,758	$0	$600	$600	$6,957	$6,704
	Total costs (risk-adjusted)	$29,885	$321,300	$402,225	$536,100	$1,289,510	$1,057,172

LICENSING COSTS

Evidence and data. The interviewees' organizations held enterprise licenses for Microsoft 365 that included Endpoint Manager in the cost. Even though the platform came at no extra cost to these organizations, Forrester assigned a cost to cover any additional licenses or upgrades necessary to deploy Endpoint Manager across all 16,000 endpoints.

The Endpoint Manager license also includes FastTrack, a service that allows customers to access Microsoft engineers to onboard Microsoft solutions and drive user adoption, as well as the company's 24/7 Global Support service at no additional cost.

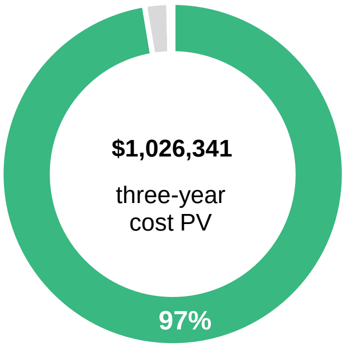
Modeling and assumptions. Forrester assumes that a cost of $4.25 per user to cover any additional license or upgrade costs.

Risks. The magnitude of this benefit may vary for any given organization based on the terms of the number of licenses needed.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $1,026,341.

"Microsoft has got quite a good support system. They're always available and answer our questions quickly. If we had issues with our former provider, we had to log onto their portal or log a call, and then wait for a response — and we paid extra for their premium service."

Mobile services lead, healthcare



Licensing costs
97% of costs

Licensing Costs						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
F1	Licensing costs	$4.25/user		$306,000	$382,500	$510,000
F2	Support and FastTrack	Included		$0	$0	$0
Ft	Licensing costs	F1+F2		$306,000	$382,500	$510,000
	Risk adjustment	↑5%				
Ftr	Licensing costs (risk-adjusted)			$321,300	$401,625	$535,500
	Three-year total: $1,258,425			**Three-year present value: $1,026,341**		

INITIAL IMPLEMENTATION

Evidence and data. Customers told Forrester that the process of implementing Endpoint Manager was smooth, fast, and easy, whether they were managing endpoints in the cloud or on-premises or comanaging in both environments. The platform's ease of setup and its familiarity as a Microsoft product minimized the time and resources required to deploy it.

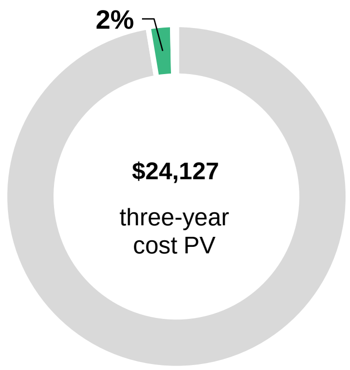
Modeling and assumptions. Forrester assumes the following conditions surrounding implementation:

- The organization deploys Endpoint Manager over the course of three months.
- Two IT professionals spend two days per week over that time period.
- The annual salary for those IT professionals is $88,000, plus 35% benefits.

Risks. These costs may vary for another organization due to several factors:

- The solution takes a longer (or shorter) time to install and test or requires different resources from the IT team.
- Salaries may vary from the assumptions in the model.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $24,127.



Initial implementation
2% of cost

Initial Implementation						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
G1	IT hours spent on implementation	2 employees*16 hours/week for 12 weeks	384			
G2	Hourly IT fully loaded salary	$88,000+35% benefits multiplier/2,080 hours	$57.12			
Gt	Initial implementation	G1*G2	$21,934			
	Risk adjustment	↑10%				
Gtr	Initial implementation (risk-adjusted)		$24,127			
	Three-year total: $21,934		**Three-year present value: $24,127**			

TRAINING

Evidence and data. The interviewed executives explained that Microsoft provided in-depth training for one or two team members who would be the primary users of the platform. The companies also used Microsoft's online training modules to provide less-intensive training for other members of the team who would interact with Endpoint Manager.

Modeling and assumptions. While this cost is extremely small in relation to other values in the model, Forrester includes it here for completeness.

- The calculation assumes that the two employees most involved in endpoint management receive 20 to 30 hours of training; six other team members receive 8 to 10 hours of training.
- At an employee turnover of 12%, one new team member needs to be trained in Years 2 and 3.

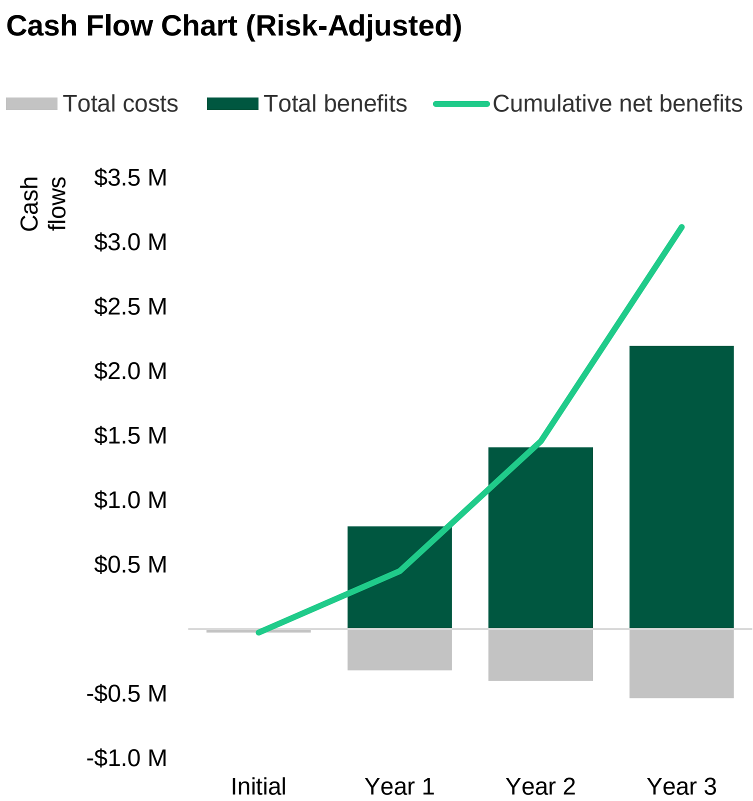
Risks. The main risk to this cost is in the size and capabilities of the endpoint management team, which will drive the amount of training required to make effective use of the tools.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $6,704.

Training						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
H1	IT members to be trained		8		1	1
H2	Hours of training		12		10	10
H3	Average fully burdened hourly wage		$57.12		$57.12	$57.12
Ht	Training	H1*H2*H3	$5,484		$571	$571
	Risk adjustment	↑5%				
Htr	Training (risk-adjusted)		$5,758	$0	$600	$600
	Three-year total: $6,957			**Three-year present value: $6,704**		

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS



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. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($29,885)	($321,300)	($402,225)	($536,100)	($1,289,510)	($1,057,172)
Total benefits	$0	$981,692	$1,592,774	$2,382,865	$4,957,331	$3,999,072
Net benefits	($27,302)	$660,392	$1,190,549	$1,846,765	$3,667,821	$2,941,900
ROI						278%
Payback period						< 6 months

Appendix A: Total Economic Impact

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.

TOTAL ECONOMIC IMPACT APPROACH

Benefits represent the value delivered to the business by the product. The TEI methodology places 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.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

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.

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.

RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.

DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.

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.

Appendix B: Endnotes

[1] Source: Forrester Consulting Cost Of A Cybersecurity Breach Survey, Q4 2020.