A Forrester Total Economic Impact™
Study Commissioned By Microsoft
April 2019

# The Total Economic Impact™ Of Microsoft Defender ATP

## Cost Savings And Business Benefits Enabled By Microsoft Defender ATP

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## Key Benefits Of Defender ATP (Three-Year PV)

SecOps and IT efficiency gains:
**$601,792**

Business end user productivity recovery:
**$3,135,789**

Sunset software and new capability purchase avoidance:
**$2,347,912**

# Executive Summary

Microsoft Defender Advanced Threat Protection (ATP) is an endpoint security solution that helps organizations prevent, detect, and remediate advanced threats utilizing cloud-powered analytics. Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential ROI enterprises may realize by deploying Microsoft Defender ATP. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the solution at their organizations.

Forrester's prior research indicates that employee endpoints continue to be one of the most targeted enterprise assets by attackers.[1] Organizations must look to incorporate modern endpoint protection platform (EPP) and endpoint detection and response (EDR) solutions such as Microsoft Defender ATP to protect against growingly complex threats that defeat traditional endpoint security solutions.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed several customers with years of experience using Microsoft Defender ATP.

Our findings indicate that enterprise security teams that deployed Microsoft Defender ATP were able to improve their enterprise security posture by preventing attacks through advanced threat-hunting capabilities and by reducing the attack surface area. Additionally, security teams were able to improve the efficiency of investigation and response capabilities through automation.

Prior to using Microsoft Defender ATP, customers were using traditional on-premises and cloud solutions that could not keep up with the ever-evolving threat landscape. Organizations cited performance utilization issues that hampered the productivity of end users and required additional agents for support. Customers looked into simplifying their security, using one vendor instead of multiple disparate solutions. One IT security architect stated, "We were aware and conscious that as malware evolves, we need also to ensure that our security evolves to protect our employees and essentially fill our gaps."

Following the deployment of Microsoft Defender ATP, an enterprise architect said: "Our mission is to secure the financial future of our customers. We need to ensure that we are secure to keep that trust. It [Microsoft Defender ATP] helps our cyber security with better threat tracking and breach avoidance, making us more trustworthy to both regulators and customers."

## Key Findings

**Quantified benefits.** The following risk-adjusted present value (PV) quantified benefits are representative of those experienced by the companies interviewed:



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**ROI**
**194%**

**Benefits PV**
**$6.1 million**

**NPV**
**$4.0 million**

**Payback**
**<6 months**

- **Security and IT operations realized efficiency gains.** Organizations that had conducted proof of concept (POC) with Microsoft Defender ATP often ran the new solution against existing on-premises and cloud EPP and EDR solutions showing that Microsoft Defender ATP had significant improvements over previous solutions. With improved threat telemetry, automation, and intelligent remediation, the organizations soon found that they were able to address endpoint threats faster in the analysis and triage stage as well as being able to deflect help desk incidents. The efficiency impact over three years is worth more than $600K PV to an organization.
- **Business end users were less plagued by external threats and regained productivity.** The better protection, detection, and response capabilities of Microsoft Defender ATP led to increased uptime for business users. Where end users relied on help desk in the past when malware and viruses slipped by traditional EPP defenses, threats including those of the zero-day variety were now contained by Microsoft Defender ATP, helping end users vastly avoid the remediation calls and procedures. The end user productivity recovery is valued at $3.1 million PV.
- **Savings from retired EPP solutions and expenditure avoidance on modern EDR capabilities.** Organizations that moved to Microsoft Defender ATP found themselves able to sunset their existing EPP solutions, resulting in eliminated ongoing licensing costs, service and support costs, and solution management costs. In addition, by deploying Microsoft Defender ATP, these organizations benefit from behavioral-based EDR capabilities including automation, avoiding the need to purchase individual, siloed solutions. This capability, measured over three years, is worth $2.3 million PV.

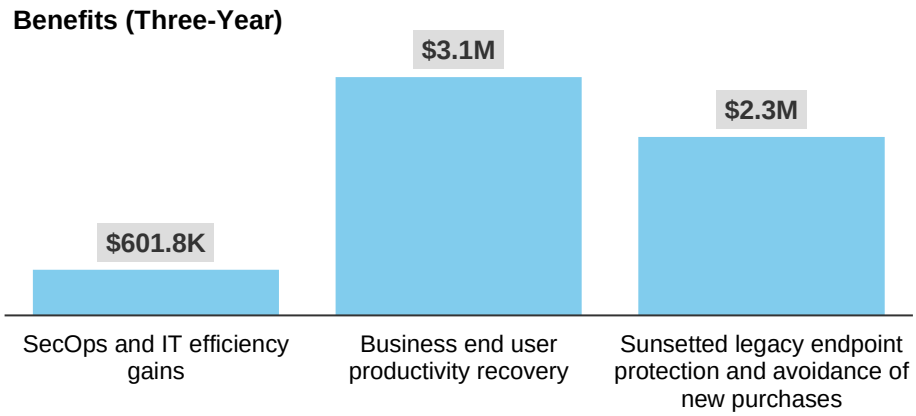
**Unquantified benefits.** The interviewed organizations experienced the following benefit, which is not quantified for this study:

- **Avoidance of breach and regulatory ramifications.** Some customers indicated that they feared the weakest link within their security schema was at their endpoints. Similarly, Forrester's Global Business Technographics® Security Survey in 2018 indicated that this area to be of the highest likelihood to be breached — at 33%.[2] The potential regulatory fines and brand value erosion can incur an enormous cost that Microsoft Defender ATP plays a significant role to mitigate.

**Costs.** The interviewed organizations experienced the following risk-adjusted PV costs:

- **Cost of licensing.** Microsoft Defender ATP is acquired through the upgrade from Windows 10 Enterprise E3 to E5. For an organization of approximately 15,000 users and growing, the relative costs would be $2.1 million dollars at list pricing over three years PV. Few other costs were realized to adopt Microsoft Defender ATP as automated deployment resulted in lower cost to deploy and manage than previous EPP and EDR solutions.

Forrester's interviews with four existing customers and subsequent financial analysis found that an organization based on these interviewed organizations experienced benefits of $6.1 million over three years versus costs of $2.1 million, adding up to a net present value (NPV) of $4.0 million and an ROI of 194%.


Benefits (Three-Year)
$601.8K
$3.1M
$2.3M
SecOps and IT efficiency gains
Business end user productivity recovery
Sunsetted legacy endpoint protection and avoidance of new purchases



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## TEI Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing Microsoft Defender ATP.

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 Microsoft Defender ATP can have on an organization:

The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

**DUE DILIGENCE**
Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to Microsoft Defender ATP.

**CUSTOMER INTERVIEWS**
Interviewed four organizations using Microsoft Defender ATP 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 Microsoft Defender ATP's impact: 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 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 Defender ATP.

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 Defender ATP Customer Journey

**BEFORE AND AFTER THE MICROSOFT DEFENDER ATP INVESTMENT**

## Interviewed Organizations

For this study, Forrester conducted four interviews with Microsoft Defender ATP customers. Interviewed customers include the following:

| INDUSTRY | INTERVIEWEE | REVENUE | ENDPOINTS |
|---|---|---|---|
| Financial services | Product owner, managed devices | $1B+ | 18,000 laptop devices and an additional 8K mobile devices |
| Technology | Enterprise endpoint security engineer | $10B+ | 120,000 laptop devices |
| Consumer goods | Infrastructure engineer | $1B+ | 11,000 desktops and 3K+ laptop of mobile devices |
| Retail food services | IT security architect | $100M+ | 1,200+ varied endpoints |

## Key Challenges

Forrester consistently heard that customers of Microsoft came from environments where it was increasingly difficult to defend and respond against modern threats. Previous on-premises and cloud-based solutions were no longer sufficient and required the use of advanced measures to protect enterprises. Even worse, malware and threats frequently breached the endpoint perimeter undetected, oftentimes proliferating within the network and compounding issues.

Some key factors that made these previous solutions ineffective for the interviewees are as follows:

- **Endpoint protection was inadequate with the evolution of malicious threats.** The on-premises and cloud-based solutions that organizations deployed were no longer sufficient to protect against modern, sophisticated attacks from organized threat actors such as crime groups and government entities. The threat and attack vectors have become increasingly complex, requiring advanced behavioral analysis and machine learning to truly detect malicious activity — especially in the case of zero-day threats. One interviewee recounted an event where over 1 terabyte of data was lost to malicious malware that could have been avoided with Microsoft Defender ATP.
- **High resource utilization was inhibiting business users from reaching their maximum productivity.** Traditional endpoint security solutions at the interviewed organizations utilized on-premises agents that sapped endpoint resources away, while in some cases providing spotty detection. Users constantly complained of sluggish performance, which was described by one interviewee as users who stare at their screen waiting for documents to launch. Further exacerbating the issue, numerous business users spent time with the IT help desk to remediate the issues that were missed by previous solutions — many of which became serious issues requiring advanced remediation by the time that users noticed something was amiss.

> "Our old solution had a poor hit rate, frequent false positives, and was a heavy burden to our system. Combined with a major incident, we decided it was time to pursue the Microsoft solution."
>
> *Infrastructure engineer, consumer goods company*

> "We were aware and conscious that as malware evolves, we need also to ensure that our security evolves to protect our employees and essentially fill our gaps. . . . That was the main driver for us to move to the Microsoft solution."
>
> *IT security architect, retail food servicer*



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- **Lack of a single source of intelligence collection on endpoints and other security mechanisms.** Previously deployed tools provided some detection capabilities, but they fell short in providing telemetry beyond the malware or virus information. Modern security professionals need additional telemetry on the threat's effect on data, along with exact user activity on the network, and how it all correlates on a timeline so that they can dig deeper to harden defenses on key areas. This was extremely difficult or not possible with previously deployed solutions as its telemetry was not shared with other security components. As a result, security operators needed to perform significant triage and analytical work with disparate information silos to gain any meaningful insight. In effect, responding and becoming proactive with endpoint security measures was out of the question.

## Key Results

The interviews revealed that key results from the Microsoft Defender ATP investment include:

- **Advanced detection methods and automation decreased security risk and increased SecOps efficiency.** The improved detection engine of Microsoft Defender ATP stopped significantly more threats than the previous solutions. Advanced persistent threats and zero-day threats were also stopped. More importantly, however, much of these threats were treated automatically, decreasing the effort that SecOps and IT Ops needed to spend on investigation and remediation. Advanced threat-hunting became the new priority for security professionals to further strengthen the security posture of the organization.
- **Consolidated data to produce more insightful analyses.** Risk analysis and reporting became a much simpler process. The single pane of glass that Microsoft Defender ATP offers across all of the Windows security features provided transparency and new insights, allowing organizational leaders to improve business decision making and reduce risk. Furthermore, there was a marked decrease in the overall effort to manage and protect endpoints. An engineer described Microsoft Defender ATP as being, "easier to manage with constant updates, easier to identify with greater visibility across multiple Microsoft security tools, and easier to control."
- **End users enjoyed fewer downtimes and improved productivity.** Multiple factors contributed to an increase in end user productivity following the migration to Microsoft Defender ATP: 1) fewer false positives generated from previous anti-virus solutions that at times would block productive activities; 2) decreased remediation efforts as fewer machines now need to be reflashed/rebuilt; and 3) heavy weight on-premises agents became a thing of the past and systems were no longer bogged down. Cumulatively, end users were now recovering thousands of productivity hours annually.

> "If I need to look in 15 different management tools and maintain them all, then we'll lose track. That is one of the great advantages of Microsoft, so that you can make your automated investigation and it's so much easier because it's integrated with everything and will be in the same portal."
>
> *Infrastructure engineer, consumer goods company*

> "Microsoft Defender ATP is much easier [to manage] and requires a smaller team to handle, block, and investigate than our previous environment. In fact, it's allowing us to do an auto-investigation when it sees something that it deems necessary to do so. That helps gather the information and make things easier to handle"
>
> *Enterprise endpoint engineer, technology company*

## Composite Organization

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 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 that Forrester synthesized from the customer interviews has the following characteristics:

**The composite organization.** This is a Fortune 500, multibillion-dollar B2B organization. As a whole, the organization has a strong brand, global operations, and is well-respected among its peers in the industry. It has a workforce that is highly mobile, utilizing mostly Windows-based laptops. Many of these endpoints traverse off the corporate network from time to time and require up-to-date protection 24/7.

The composite organization is in the process of setting up a central security operations center (SOC) and intends to improve its security posture to tackle regulatory and client-demanded compliance measures. Recently the organization migrated from Windows 7 to Windows 10, leveraging many of the built-in security features such as BitLocker, Windows Hello, and Microsoft Defender ATP — which all provide an abundance of telemetry due to the integrated nature of these tools to the operating system. This was imperative to the organization as it needed to scale its security efforts without drastically increasing difficult-to-hire security professionals.

**Deployment characteristics.** The deployment of Microsoft Defender ATP was set in three stages:

- An initial POC was performed that included running Microsoft Defender ATP on some pilot systems while the remainder of endpoints ran the previous EPP and EDR solutions. After finding improved protection, detection, and response capabilities on Microsoft Defender ATP, the green light was given for procurement of Windows 10 with Microsoft Defender ATP.
- Windows 10 E5, which is the Windows license that includes Microsoft Defender ATP, was deployed to both existing and all new endpoints. The entire process took four months, mainly due to the timing of the Windows 10 OS rollout, rather than any difficulty with Microsoft Defender ATP. Agents did not need to be manually deployed as it was already built into Windows 10 itself and just needed to be enabled.
- Initial optimization of Microsoft Defender ATP took less than two weeks to reach operational speed, but fine-tuning the optimization is an ongoing process to continuously improve the organizational security posture.

### Key assumptions

- 15,000 total endpoints
- 15,000 business end users
- 15 minutes spent per security related help desk call

# 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 | SecOps and IT efficiency gains | $230,983 | $242,567 | $254,672 | $728,222 | $601,792 |
| Btr | Business end user productivity recovery | $1,203,661 | $1,263,851 | $1,327,069 | $3,794,582 | $3,135,789 |
| Ctr | Sunset previous endpoint protection and avoidance of new purchases | $903,200 | $946,200 | $991,379 | $2,840,779 | $2,347,912 |
| | Total benefits (risk-adjusted) | $2,337,844 | $2,452,618 | $2,573,120 | $7,363,582 | $6,085,493 |

The table above shows the total of all benefits across the areas listed below, 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 nearly $4.6 million.

### Benefit 1: SecOps And IT Efficiency Gains

Traditional endpoint protection platforms provided marginal defenses to the organizations interviewed. The detection rates from the previous solutions could not keep pace with the evolving malware and attack schemes. Many interviewees stated that they had no idea if their existing solution was able to keep up with the evolving schemes and felt that they could not depend on the previous solution to detect advanced threats. Following bakeoffs where their previous solutions and Microsoft Defender ATP (WDATP) ran in parallel, it became clear that many of the benefits of the cloud-based Microsoft Defender ATP solution were superior. Collectively, we found Microsoft Defender ATP to be able to:

- Increase detection efficacy, with the rate more than double that of previous solutions in some cases. Advanced persistent threats (APT) and zero-day threats were among the types of threats that were more frequently detected.
- Automatically contained and remediate on 97% of post-breach detections. This eliminates many of the manual tasks associated with attack response — helping SecOps and IT Ops to move onto other value producing tasks like advanced threat-hunting or operations support.
- Minimize the need for IT help desk to reimage or rebuilt endpoint systems due to higher and faster catch rate with a lower total dwell time. Previous solutions required nearly 35% of breached systems to be reimaged/rebuilt. In addition, IT help desk calls.
- Provide rich telemetry of attacks so that SecOps can take the right course of response action and do deep threat analyses.

An Enterprise endpoint security engineer stated: “We have new found visibility. The [Microsoft Defender ATP] EDR capabilities raise alerts based on behavior and can act more quickly on issues. The capabilities it gives us are much more in-depth that other solutions that we’ve tried.”

With these drivers applied to the composite organization over a three-year period, the composite gained a benefit value of $601,792 PV.

Microsoft Defender ATP eliminates noise and protects against advanced threats so that SecOps and IT Ops can work on other productive tasks like threat-hunting and bug elimination.



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| SecOps And IT Efficiency Gains: Calculation Table | | | | | |
|---|---|---|---|---|---|
| **REF.** | **METRIC** | **CALC.** | **YEAR 1** | **YEAR 2** | **YEAR 3** |
| A1 | Total endpoints using WDATP | | 15,000 | 15,750 | 16,538 |
| A2 | Endpoint infection detected in current state with WDATP | Incidents alerts per year | 1,950 | 2,048 | 2,150 |
| A3 | Percentage increase in detection efficiency over previous endpoint protection solution | | 220% | 220% | 220% |
| A4 | Delta in infections detected from existing state to current state with WDATP | A2-(A2/A3) | 1,064 | 1,117 | 1,173 |
| A5 | Percentage of threats automatically eliminated or contained | A4*97% elimination | 1,032 | 1,084 | 1,138 |
| A6 | IT help desk call time deflected, in hours | 0.25 hours to resolve per incident*A5 | 258 | 271 | 285 |
| A7 | IT help desk time savings from reimage/rebuild of system | 35% of infections on existing solution needing reimage/rebuild x 4 hours x actual time spent modifier | 3,900 | 4,096 | 4,300 |
| A8 | SecOps investigation and triage hours saved per year | | 644 | 676 | 710 |
| A9 | IT help desk cost per hour, fully loaded | | $44.40 | $44.40 | $44.40 |
| A10 | SecOps cost per hour, fully loaded | | $72.00 | $72.00 | $72.00 |
| At | SecOps and IT efficiency gains | (A6+A7)*A9+A8*A10 | $230,983 | $242,567 | $254,672 |
| | Risk adjustment | 0% | | | |
| Atr | SecOps and IT efficiency gains (risk-adjusted) | | $230,983 | $242,567 | $254,672 |

## Benefit 2: Business End User Productivity Gain

Before switching to Microsoft Defender ATP, many organizations cited the performance utilization of previous EPP and EDR agents. End users often complained about system sluggishness and occasionally, malware intrusion, necessitating a call to IT help desk for remediation. Following the deployment of Microsoft Defender ATP, performance degradation and endpoint breaches were largely reduced. The built-in sensors of Microsoft Defender ATP utilize very little system resources, returning a "snappiness" to endpoint systems. Improvements in detection and automated resolution, deflected a number of help desk calls and system restoration and remediation tactics.

With Microsoft Defender ATP, organizations experienced the following:

- A decrease in help desk calls related to security issues, which typically required at least 15 minutes.
- A decrease in endpoint unavailability due to advance remediation tasks by IT.

End users recoup productivity from fewer incident calls and improved performance on Microsoft Defender ATP.

- A decrease in endpoint performance utilization due to additional EPP and EDR agent resource use — amounting to a collective 10 minutes or more per workday.

For the composite organization, Forrester assumes the above characteristics from interviewees and the following:

- Advanced endpoint remediation affecting end user productivity is halved from total remediation time as extra available endpoint units are available for short-term lending.
- Malicious malware that was not detected by the previous EPP and EDR tools had protracted dwell times, and potentially caused increased performance degradation. As the characteristics and activities of these malware varied, this has not been calculated quantitatively.
- Productivity lost to endpoint performance degradation is spread loosely across entire workdays and is likely difficult to piece into substantial periods of productivity. As such, we anticipate that only 5% of the time recovered can actually be utilized effectively. Users' experience, however, will be greatly improved.

This case study also accounts for impact risk factors that affect this benefit category:

- User time, that is lost to workstations requiring advanced remediation, can differ greatly based upon the number of extra machines available.
- Productivity lost to high resource utilization can vary from one solution to another.

To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a total three-year, risk-adjusted total PV of $3.1 million.

Impact risk is the risk that the business or technology needs of the organization may not be met by the investment, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for benefit estimates.

| Business End User Productivity Recovery: Calculation Table | | | | | |
|---|---|---|---|---|---|
| REF. | METRIC | CALC. | YEAR 1 | YEAR 2 | YEAR 3 |
| B1 | Endpoint infections not detected by previous solution | A4 | 1,064 | 1,117 | 1,173 |
| B2 | Time spent on help desk calls | B1*0.25 hours per call | 266 | 279 | 293 |
| B3 | Time spent on advanced remediation | A7/2 | 1,950 | 2,048 | 2,150 |
| B4 | End user productivity hours saved from endpoint remediation acceleration | B2+B3 | 2,216 | 2,327 | 2,443 |
| B5 | Productivity time lost to previous endpoint solution CPU load and effect on application performance, in hours per year | 10 minutes per day/ 60 minutes in hour* 250 days of work | 42 | 42 | 42 |
| B6 | Total full-time end users | | 15,000 | 15,750 | 16,538 |
| B7 | Average hourly wage of internal business user | $70K*1.2x benefits modifier/2,000 hours | $42.00 | $42.00 | $42.00 |
| B8 | Percent capture of productivity from high resource utilization elimination | | 5% | 5% | 5% |
| Bt | Business end user productivity recovery | (B4*B7)+(B5*B6*B7*B8) | $1,416,072 | $1,486,884 | $1,561,258 |
| | Risk adjustment | ↓15% | | | |
| Btr | Business end user productivity recovery (risk-adjusted) | | $1,203,661 | $1,263,851 | $1,327,069 |

## Benefit 3: Previous Endpoint Protection And Avoidance Of New Capability Purchases

In investigating the possibility of adopting Microsoft Defender ATP, many of the interviewed organizations determined that they would be able to eliminate the license and support costs associated with their older subscription-based EPP and EDR solutions. These organizations found that while they paid for subscriptions, the rate at which the solutions were updated with new intelligence was just not conducive to stopping or finding threats — especially of the zero-day variety. Furthermore, to bring capabilities up to a level that could provide adequate detection and monitoring, these organizations would have required additional tools that would have made little financial sense as an aggregate endpoint solution.

Following the switch to Microsoft Defender ATP, these previous systems were sunsetted, eliminating the associated ongoing costs of licensing, maintenance, and support. When applied to the composite, the cost of these retired components resulted in savings of over $900K per year or $2,347,912 PV over the course of three years.

With Microsoft Defender ATP, the need to purchase additional, and frequently disparate, tools for EPP and EDR can be eliminated.



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| Previous Endpoint Protection And Avoidance Of New Capability Purchases: Calculation Table | | | | | |
|---|---|---|---|---|---|
| **REF.** | **METRIC** | **CALC.** | **YEAR 1** | **YEAR 2** | **YEAR 3** |
| C1 | Cost of previous endpoint protection license | A1*$40/seat | $600,000 | $630,000 | $661,520 |
| C2 | Cost of service and support for previous EPP solution | C1*20% | $120,000 | $126,000 | $132,304 |
| C3 | Management of existing previous EPP solution | 30% utilization of 1x SecOps FTE | $43,200 | $43,200 | $43,200 |
| C4 | Cost avoidance of detection capabilities above and beyond previous solution | | $140,000 | $147,000 | $154,355 |
| Ct | Previous endpoint protection and avoidance of new capability purchases | C1+C2+C3+C4 | $903,200 | $946,200 | $991,379 |
| | Risk adjustment | 0% | | | |
| Ctr | Previous endpoint protection and avoidance of new capability purchases (risk-adjusted) | | $903,200 | $946,200 | $991,379 |

## Unquantified Benefits

Forrester's interviews and analysis of Microsoft customers pointed to an additional benefit that could not be reasonably quantified but is still important to note.

Some interviewees either at their current organization or in a previous capacity indicated prior breaches and incidents, which align with our general findings of other surveyed organizations:

- According the 2018 Study on Megatrends in Cybersecurity, from Ponemon Institute, less than half of IT security practitioners believed, in 2018, that they can protect their organizations from cyber threats — this percentage is down from 59% three years ago.[3] And according to Forrester's Global Business Technographics Security Survey in 2018, over 40% of breaches in 2018 were the result of external attacks.[4] The majority of data lost is personally identifiable information (PII), according to our survey — meaning brand reputation is in the direct line of sight for harm, not to mention regulatory fines following in line. This study has not quantified the value of brand erosion or the remediation costs, but assuming that the data breach is PII-related, the costs are likely to be in the millions for an average enterprise.
- Dwell time of malicious breaches using traditional EPP and EDR tools could not be quantified, as malware can stay dormant or act maliciously from the start. Additionally, organizations could not reasonably estimate the dwell time of breaches that they could not previously detect. Nevertheless, the effects of these threats that are now neutralized by Microsoft Defender ATP could have had profound differences for many organizations using previous tools.

Risk management is increasingly difficult with growingly complex threats, especially at the perimeter. Microsoft Defender ATP can protect against reputational harm and regulatory penalties by being the first line of defense.

## Flexibility

The value of flexibility is clearly unique to each customer, and the measure of its value varies from organization to organization. There are multiple scenarios in which a customer might choose to implement Microsoft Defender ATP and later realize additional uses and business opportunities, including:

- **Cloud updated security intelligence and analyses without having to worry about integration issues with the OS.** With updates on traditional systems happening multiple times through the day, it makes it difficult for some organizations to trust that the updates are going to work properly with their integrations and on the OS. With Microsoft being the provider of the OS, which enables near-instant access to the latest security intelligence for both the EPP and EDR scenarios, continuity is much more likely to persist.
- **REST API integration into SIEM and native integration to Microsoft System Center Configuration Manager (SCCM).** Microsoft provides the ability for organizations to easily connect to popular SIEMs for information and event collection. While Microsoft Defender ATP has built-in visualization for the endpoint, organizations using third-party products to secure other workloads (e.g., email) — especially those with SOCs — will want to integrate Microsoft Defender ATP data to SIEMs for a more centralized view of the entire security landscape. Further still, the provided APIs pave the way for further orchestration and automation for a comprehensive incident response workflow.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for a 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.

# Analysis Of Costs

**QUANTIFIED COST DATA AS APPLIED TO THE COMPOSITE**

## Total Costs

| REF. | COST | YEAR 1 | YEAR 2 | YEAR 3 | TOTAL | PRESENT VALUE |
|---|---|---|---|---|---|---|
| Dtr | Cost to license Microsoft Defender ATP | $795,000 | $834,750 | $876,514 | $2,506,264 | $2,071,141 |
| | Total costs (risk-adjusted) | $795,000 | $834,750 | $876,514 | $2,506,264 | $2,071,141 |

### Cost 1: Cost To License Microsoft Defender ATP

Microsoft Defender ATP is a component of Windows 10 Enterprise E5 license. Organizations can expect Microsoft Defender ATP to fully integrate with other Windows 10 security features creating a consolidated and comprehensive approach to endpoint security.

The cost of client access license (CAL) is typically assessed on an annual basis. With consideration that most organizations are either on Windows 10 or moving to Windows 10, the incremental cost to include Microsoft Defender ATP is $53 per license or $795,000 for the first year, for the composite organization. We have assumed FTE growth of 5% annually at the composite and the license costs are reflective of this in Years 2 and 3.

It is important to note that additive costs of management have not been included, as interviewed organizations believe this cost to be similar, if not less than that of alternative solution sets available currently — thanks in large to automation and the intelligent-handling of threats.

Measured over a three-year horizon, organizations that deploy Microsoft Defender ATP can expect a cost of $2,071,141 PV at list-level pricing.

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to be a PV of slightly under $2.1 million.

Microsoft Defender ATP is an incremental license upgrade that fully integrates with other Windows 10 security features like BitLocker and identity management.

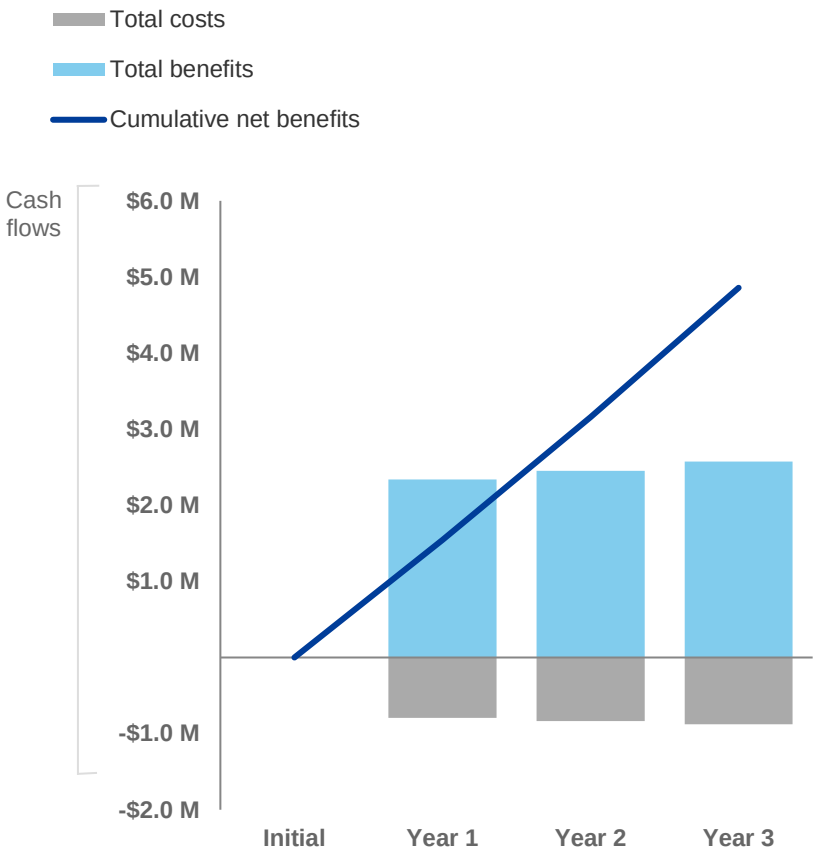
**Cost To License Microsoft Defender ATP: Calculation Table**

| REF. | METRIC | CALC. | INITIAL | YEAR 1 | YEAR 2 | YEAR 3 |
|---|---|---|---|---|---|---|
| D1 | Cost delta of E5 licenses over E3 | | | $795,000 | $834,750 | $876,514 |
| Dt | Cost to license WDATP | D1 | | $795,000 | $834,750 | $876,514 |
| | Risk adjustment | 0% | | | | |
| Dtr | Cost to license WDATP (risk-adjusted) | | $0 | $795,000 | $834,750 | $876,514 |

# Financial Summary

**CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS**

## Cash Flow Chart (Risk-Adjusted)




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 Table (Risk-Adjusted)**

| | INITIAL | YEAR 1 | YEAR 2 | YEAR 3 | TOTAL | PRESENT VALUE |
|---|---|---|---|---|---|---|
| Total costs | $0 | ($795,000) | ($834,750) | ($876,514) | ($2,506,264) | ($2,071,141) |
| Total benefits | $0 | $2,337,844 | $2,452,618 | $2,573,120 | $7,363,582 | $6,085,493 |
| Net benefits | $0 | $1,542,844 | $1,617,868 | $1,696,606 | $4,857,318 | $4,014,352 |
| ROI | | | | | | 194% |
| Payback period | | | | | | <6 months |



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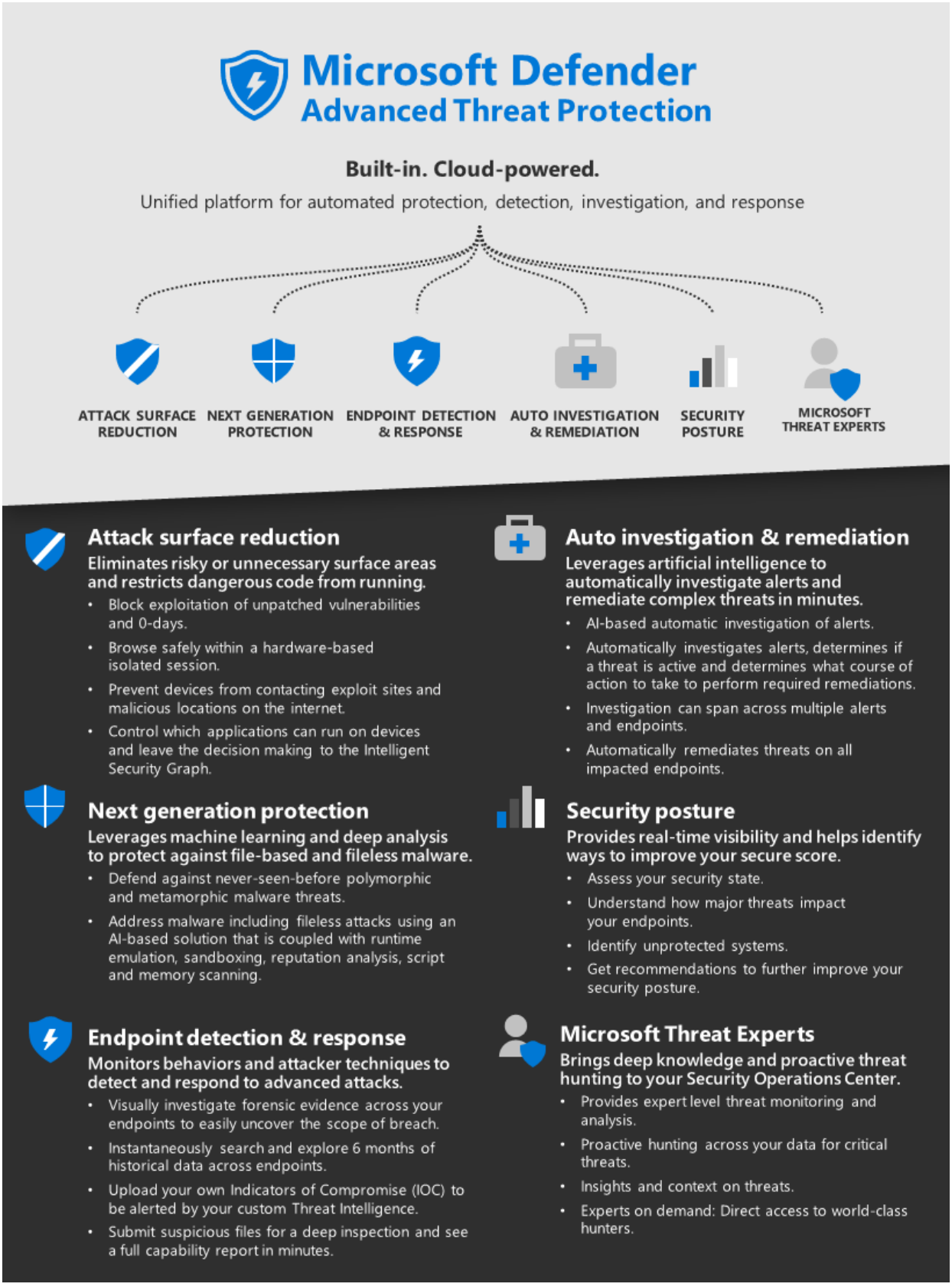
# Microsoft Defender ATP: Overview

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



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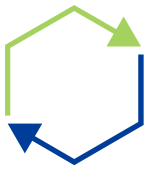
# Appendix A: Total Economic Impact

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."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in 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.

**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 C: Endnotes

[1] Source: “The Forrester Wave™: Endpoint Security Suites, Q2 2018,” Forrester Research, Inc., June 21, 2018.
[2] Source: Forrester Analytics Global Business Technographics Security Survey, 2018.
[3] Source: “2018 Study on Global Megatrends in Cybersecurity,” Ponemon Institute LLC, February 2018 (https://www.raytheon.com/sites/default/files/2018-02/2018_Global_Cyber_Megatrends.pdf).
[4] Source: Forrester Analytics Global Business Technographics Security Survey, 2018.