FORRESTER®

New Technology: The Projected Total Economic Impact™ Of Trend Micro Cloud One™ Security Services Platform

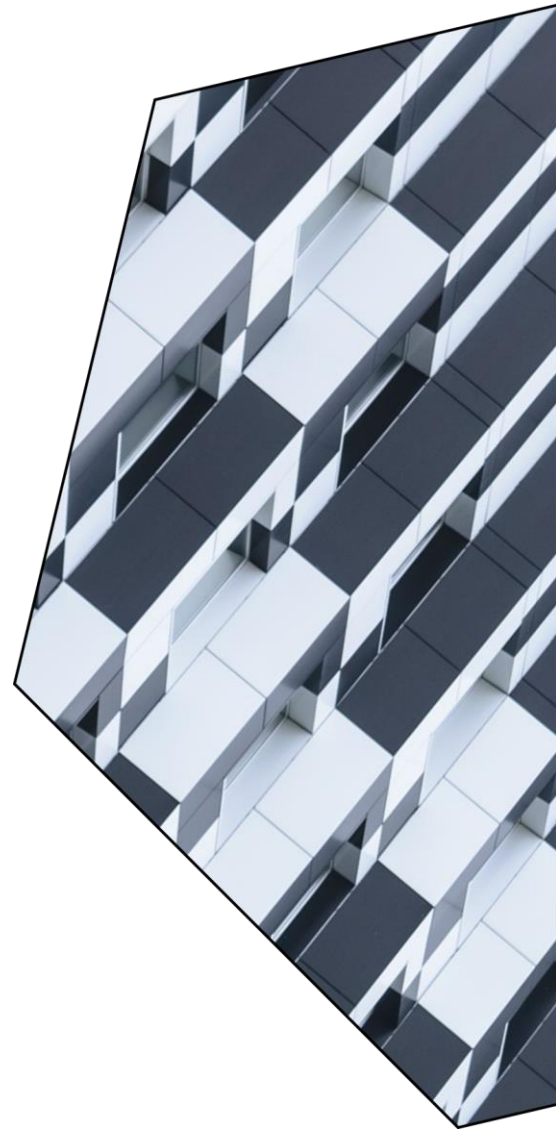Cost Savings And Business Benefits
Enabled By Trend Micro Cloud One

JUNE 2021

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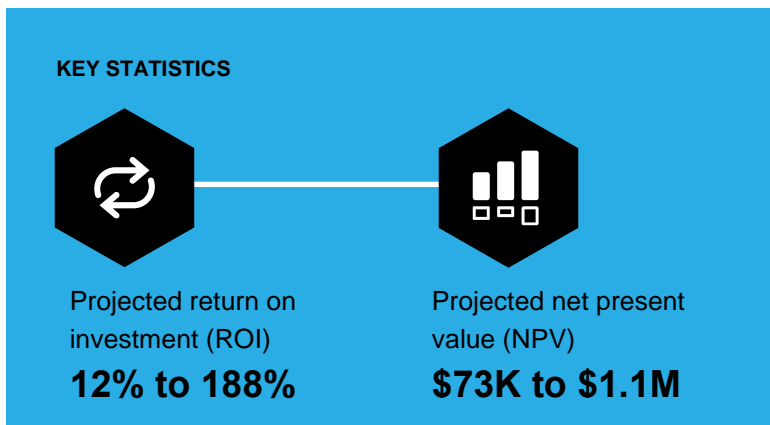*Consulting Team: Nick Mayberry*

Executive Summary

Trend Micro Cloud One includes cloud security services that combine a single-platform approach with added and immediate visibility and automation to improve the security of hybrid-cloud environments while saving on costs. Using medium-impact projections, Forrester determined: security administration cost savings of 4,160 hours; threat investigation and response savings of 24%; added value of development of 12%; savings to security tool cost of ownership of 16%; and a reduced cost of breach of 7.5%.

Trend Micro Cloud One is a hybrid cloud security services platform that enables and automates platform-agnostic cloud security administration and cloud threat detection and response. Trend Micro Cloud One Services include posture management and protection for cloud workloads, containers, file storage, applications, and networks.

Trend Micro commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Trend Micro Cloud One.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact and benefit of Trend Micro Cloud One on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five customers and surveyed 92 decision-makers with experience using Trend Micro Cloud One. For the purposes of this study, Forrester aggregated the experiences of the interviewed customers and combined the results into a single composite organization.

Prior to using Trend Micro Cloud One, the customers were at various points of maturity along their strategic transition to the cloud. As workloads were migrated to the cloud and new cloud accounts and instances were set up, customers were either not protecting these instances or they were utilizing legacy on-premises solutions or platform-native services to

KEY STATISTICS

Projected return on investment (ROI)
12% to 188%

Projected net present value (NPV)
$73K to $1.1M

protect them. Because of this, the customers suffered from a lack of protection, low visibility, a high amount of manual work, and inconsistent policy application across workloads.

Total projected benefits

$664K to $1.7M
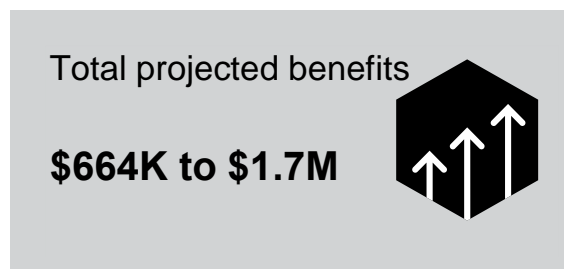
After the investment in Trend Micro Cloud One, the customers' cloud security environments were simplified. Regardless of the cloud applications, networks, accounts, workloads, or platforms, Trend Micro Cloud One enabled customers to reduce their risk of a security breach, view all cloud assets and threats from a single pane of glass, automate posture management and threat detection and response, and

consistently apply the appropriate policies regardless of platform or cloud service provider. Customers even noted that adopting Trend Micro Cloud One helped to accelerate their overall organizational migration to the cloud.

KEY FINDINGS

Quantified projected benefits. Risk-adjusted present value (PV) quantified benefits include:

- **Annual time saved to security administration of between 2,100 and 6,200 hours.** The Trend Micro Cloud One platform's approach to services, visibility into posture management, and automated features enabled time savings of up to 2,112 person-hours in the low-impact projection and up to 6,208 person-hours in the high-impact projection.

- **Reduced cost of threat detection and response of between 19% and 27%.** Trend Micro Cloud One reduced the number of unimportant and false-positive alerts by up to 35% in the low-impact projection and up to 65% in the high-impact projection. It also helped with the automated investigation and response by up to 43% in the low-impact projection and up to 73% in the high-impact projection. The combination of these two capabilities reduced costs by up to 19% in the low-impact projection and up to 27% in the high-impact projection.

- **Added value to development of between 8% and 16%.** By integrating security more seamlessly into the development cycle, Trend Micro Cloud One reduced the time developers spent on security work by up to 10% in the low-impact projection and up to 20% in the high-impact projection. This in turn improved the time-to-value of development projects by up to 7% in the low-impact projection and up to 13% in the high-impact projection, benefiting development by between 8% and 16% in aggregate.

- **Reduced cost of ownership of legacy security tools between 8% and 26%.** Trend Micro Cloud One enabled customers to move away from some legacy security tools, reducing their direct

> " **'Good enough,' isn't good enough when it comes to protecting our hybrid cloud and our public reputation, which is why we went with Trend Micro Cloud One.** "
>
> — Technical security architect, retail

spend on these tools by up to 8% in the low-impact projection and up to 26% in the high-impact projection. Furthermore, customers saved on the time associated with servicing these tools by up to 7% in the low-impact projection and up to 35% in the high-impact projection, leading to aggregate savings of between 8% and 26%.

- **Cost savings from reduced risk of a breach between 6% and 16%.** The Trend Micro Cloud One platform's improved security reduced the risk of a potential breach by up to 18% in the low-estimate projection and up to 48% in the high-estimate projection. Consequently, it boosted employee productivity previously lost to security-related downtime by up to 5% in the low-impact projection and up to 12% in the high-impact projection.

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

- **Accelerated migration to the cloud.** By removing delays associated with security compliance errors, Trend Micro Cloud One enabled customers to complete cloud migration projects by an estimated 10% faster.

- **Improved compliance.** In addition to automating portions of customers' posture management and threat detection and response workflows, Trend Micro Cloud One also improved efficiency for compliance workstreams by a customer-estimated 50%.

- **Improved brand reputation.** Improved security from Trend Micro Cloud One reduced the risk of material security breaches and improved client relationships for customers hosting client data in more secure environments. When combined, these benefits worked to improve Trend Micro Cloud One customers' brands and their market reputation.

Costs. Risk-adjusted PV costs include:

- **Trend Micro Cloud One fees.** Based on a subscription for four Trend Micro Cloud One services, the composite organization pays $86,250 for Year 1, $189,750 for Year 2, and $379,500 for Year 3 as the percentage of the organization's cloud environment — protected by Trend Micro Cloud One services — increases from 7% in Year 1 to 50% in Year 3.

"Do you anticipate that the benefits created by your investment in Trend Micro Cloud One will be greater than the costs (i.e., a positive return on your investment/positive ROI)?"

■ Yes ■ No ■ Don't Know
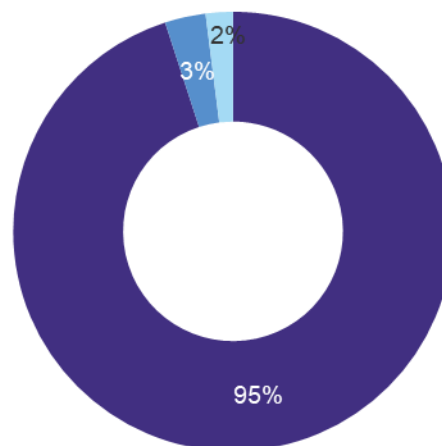
2%
3%
95%

Base: 92 security decision makers at an enterprise
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

- **Implementation and deployment costs.** Customers experienced an average cost of implementation and deployment consisting of five FTEs working at 20% for three months.

- **Training and ongoing management costs.** The composite organization needed 2 hours to train 10 FTE users of Trend Micro Cloud One services. By Year 3, it also utilized 1 hour of the time of three FTEs weekly on ongoing management of these services.

Forrester modeled a range of projected low-, medium-, and high-impact outcomes based on evaluated risk. This financial analysis projects that the composite organization accrues the following three-year NPV for each scenario by enabling Trend Micro Cloud One:

- Projected high impact of a $1,108,310 NPV and projected ROI of 188%.

- Projected medium impact of a $530,856 NPV and projected ROI of 90%.

- Projected low impact of a $73,088 NPV and projected ROI of 12%.

"What were some of the key factors that drove/are driving the investment in Trend Micro Cloud One?" (Showing top 6 responses)

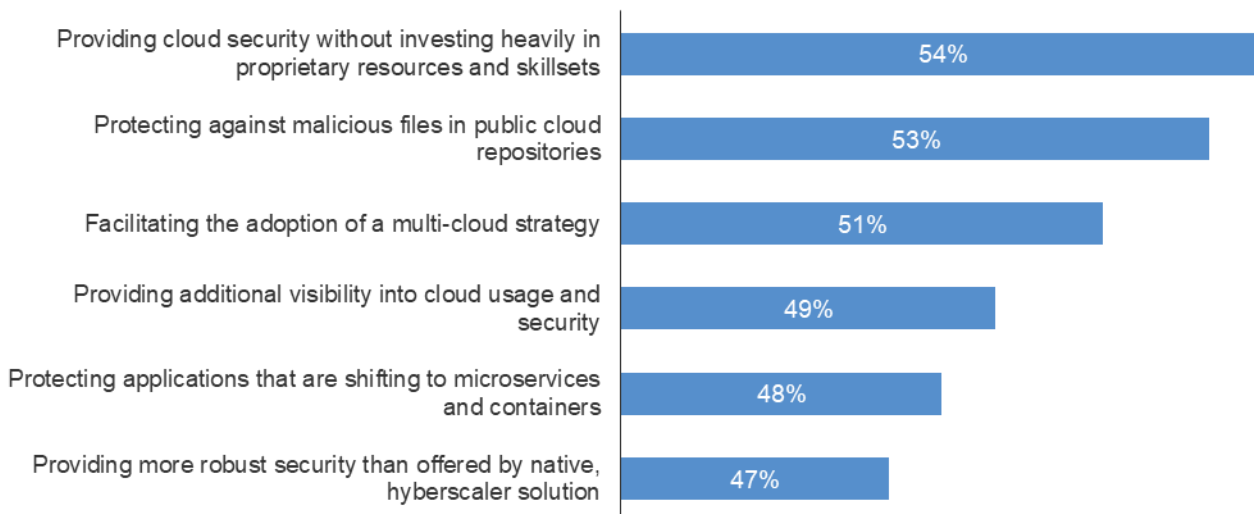| Factor	%
Providing cloud security without investing heavily in proprietary resources and skillsets	54%
Protecting against malicious files in public cloud repositories	53%
Facilitating the adoption of a multi-cloud strategy	51%
Providing additional visibility into cloud usage and security	49%
Protecting applications that are shifting to microservices and containers	48%
Providing more robust security than offered by native, hyberscaler solution	47%

Base: 92 security decision makers at an enterprise
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

PROI
12% to 188%

PROJECTED BENEFITS PV
$664K to $1.7M
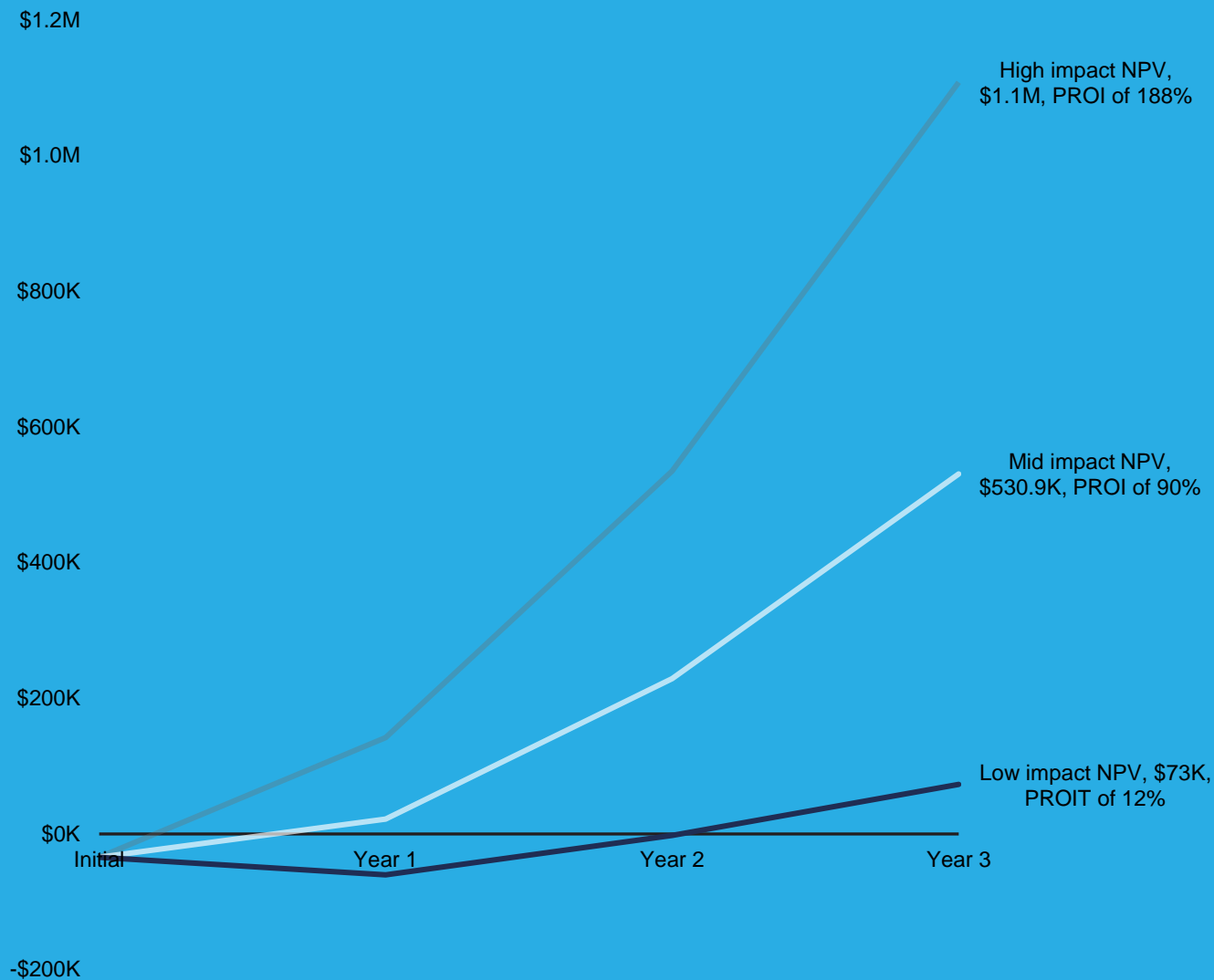
PROJECTED NPV
$73K to $1.1M

TOTAL COSTS
$590,894

Three-Year Projected Financial Analysis For The Composite Organization

$1.2M

$1.0M

$800K

$600K

$400K

$200K

$0K

-$200K

High impact NPV, $1.1M, PROI of 188%

Mid impact NPV, $530.9K, PROI of 90%

Low impact NPV, $73K, PROIT of 12%

Initial   Year 1   Year 2   Year 3

NEW TECH TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a New Technology: Projected Total Economic Impact™ (New Tech TEI) framework for those organizations considering an investment in Trend Micro Cloud One.

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

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Trend Micro 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 study to determine the appropriateness of an investment in Trend Micro Cloud One.

Trend Micro 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.

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

Forrester fielded the double-blind survey using a third-party survey partner.

DUE DILIGENCE
Interviewed Trend Micro stakeholders and Forrester analysts to gather data relative to the Trend Micro Cloud One.

EARLY-IMPLEMENTATION CUSTOMER INTERVIEWS AND SURVEY
Interviewed five decision-makers and surveyed 92 decision-makers at organizations using Trend Micro Cloud One in a production or pilot stage to obtain data with respect to projected costs, benefits, and risks.

COMPOSITE ORGANIZATION
Designed a composite organization based on characteristics of the interviewed and surveyed organizations.

PROJECTED FINANCIAL MODEL FRAMEWORK
Constructed a projected financial model representative of the interviews and survey using the New Tech TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed and surveyed organizations.

CASE STUDY
Employed four fundamental elements of New Tech TEI in modeling the investment's potential 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.

The Trend Micro Cloud One Customer Journey

Drivers leading to the Trend Micro Cloud One investment

KEY CHALLENGES

Forrester interviewed decision-makers at organizations using Trend Micro Cloud One in a production or pilot stage to obtain data with respect to projected costs, benefits, and risks. Forrester also surveyed an additional 92 decision-makers. For more details on the organizations that participated in this study, see Appendix B.

Before investing in Trend Micro Cloud One, the interview and survey respondents were all in the process of adopting cloud technologies and migrating parts of their on-premises computing environments to the cloud. These firms were either not protecting their cloud workloads, repurposing on-premises security tools for these workloads (rather than using cloud-based tools), or utilizing platform-native security tools that were specific to cloud platforms.

The interviewed and surveyed organizations struggled with common challenges prior to their investment in Trend Micro Cloud One, including:

- **Prior lack of visibility and protection.** For some interviewees, the lack of visibility and protection of cloud workloads constituted the core challenge in their prior environment. Customers noted being unable to easily view their security posture in one place, leading to confusion regarding the status of updates and patches on various systems. They also noted the inability to run vulnerability scans. Additionally, some organizations that were tasked with hosting and protecting their own clients' workloads struggled with their burden of proof to clients, that such workloads were adequately protected as native solutions lacked a centralized structure to run multi-account security reporting.

"There's a sense of security with physical infrastructure that is lost in the cloud. That's why it's vital for us to make sure our cloud security solutions are cloud-native solutions. Trend Micro Cloud One gave us back that sense of security very quickly."

Solution architect, financial services

- **Prior inconsistent security policies.** Customers also struggled with the inconsistent application of security policies across their cloud environments. Various workloads on different platforms were following different standards and configuration management policies. Interviewees encountered difficulty establishing the same practices and scoreboards across all groups. Establishing universal standards required a large amount of manual work, which opened up enterprisewide posture management to delays and human error. After deploying Trend Micro Cloud One, customers noted being able to move away from manually working on individual instances and toward running full platform upgrades.

"Conformity with Trend Micro Cloud One allows us to apply the same controls across the entirety of our cloud environment every single time."

Head of public cloud, telecom

COMPOSITE ORGANIZATION

Based on the interviews and survey, Forrester constructed a TEI framework, a composite company, and a ROI analysis that illustrates the areas financially affected. The composite organization is representative of the five companies that Forrester interviewed and the 92 surveyed decision-makers, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The global, business-to-consumer organization generates $2.4 billion in revenues annually while employing 5,000 people. The composite organization is currently undergoing a large-scale digital transformation initiative, one step of which includes a long-term migration of organizational workloads and customer data to be moved from an on-premises environment to the cloud. By Year 3, the composite organization has moved 50% of its accounts and workloads to the cloud and has chosen to deploy Trend Micro Cloud One to protect these workloads across various cloud platforms.

Deployment characteristics. The composite organization has chosen to deploy the following four of the seven Trend Micro Cloud One Services:

- **Conformity.** Cloud security and compliance posture management.

- **Workload Security.** Runtime protection for workloads (virtual, physical, cloud, and containers).

- **Network Security.** Cloud network layer IPS security.

- **Container Security.** Image scanning in your build pipeline and runtime container security.

The composite has not yet deployed but is currently investigating the deployment of:

- **File Storage Security.** Security for cloud file and object storage services.

- **Application Security.** Security for serverless functions, APIs, and applications.

- **Open Source Security by Snyk.** Visibility and monitoring of open-source risks.

Key assumptions
- **$2.4 billion in revenue**
- **5,000 employees**
- **Using Conformity, Workload Security, Network Security, and Container Security**

Analysis Of Benefits

■ Quantified benefit data as applied to the composite

Total Projected Benefits					
Projected Benefits	Year 1	Year 2	Year 3	Total	Present Value
Total projected benefits (low)	$61,006	$273,260	$509,358	$843,624	$663,982
Total projected benefits (mid)	$151,378	$453,580	$810,944	$1,415,902	$1,121,750
Total projected benefits (high)	$283,726	$678,227	$1,172,282	$2,134,235	$1,699,204

IMPROVED EFFICIENCY OF SECURITY ADMINISTRATION

Evidence and data. Customers noted that the Trend Micro Cloud One platform's unified view, immediate visibility of assets and vulnerabilities, and virtual patching technology all had a positive impact on the efficiency of their security administration. At a high level, the customer from the manufacturing industry reduced their security team's overall time spent administering cloud security by 50%. The telecom customer noted similar time savings of between 20% and 25%. The professional services firm further corroborated these findings, sharing that it is saving between 20% and 50% of its time on this same work.

> **"The interface for Trend Micro Cloud One is modern and intuitive. Without much training, we've been able to ramp up our operations team in short order, [it has been] much faster than with our prior tool."**
>
> *Solution architect, financial services*

The financial services firm also noted saving 50% of the time it previously took them to apply security configurations to new applications being onboarded. In their prior environment, they were leveraging a services partner and would have to submit a request to complete these configurations. With Trend Micro Cloud One, their own security team now manages the work and can complete it in at most a couple of days, where the request model could take one week or more.

Reduced security administration time

20% to 50%

The same customer noted that despite being relatively immature in their patching process, they were able to reduce the time it takes their team to apply patches from a couple weeks down to a couple days using the virtual patching technology of the Trend Micro Cloud One platform. Virtual patching automatically applies temporary patching to known and unknown security vulnerabilities, shortening the time previously required to manually patch and cutting the amount of time vulnerabilities that remain

exploitable. Virtual patching proved to further benefit this customer by reducing business interruptions caused by patching errors and delays due to human error. The same technology is reportedly saving the retail customer the equivalent of one full-time employee, or 2,000 hours annually. With Trend Micro Cloud One, the manufacturing firm hopes to get to near full automation of the patching process, but they more reasonably expect to automate 70% of this work in three years.

The professional services firm also noted benefiting from Trend Micro as they no longer had to keep up with all the public cloud platform changes that occur annually. Trend Micro Cloud One would integrate capabilities that acknowledged and addressed such changes for them.

Modeling and assumptions. For the composite organization, Forrester estimates:

- Two FTEs spend 160 hours annually on patching.

> **"With Trend Micro Cloud One, we don't have to look around for new solutions or fixes every time there's a cloud platform update. We trust Trend Micro to do this because they've been in the ecosystem for a long time, and they continue to invest in what's current."**
>
> *Principal cloud architect, professional services*

- Trend Micro Cloud One reduces this work between 5% and 35% (low) and between 15% and 65% (high).

- Trend Micro Cloud One saves the organization between 500 and 2,000 person-hours (low) and between 1,500 and 6,000 person-hours (high) previously spent on posture management.

- A fully burdened hourly rate of security professionals of $60.

"Which of the following benefits has your organization experienced/do you expect to experience due to the investment in Trend Micro Cloud One?"
(Showing top 6 responses)
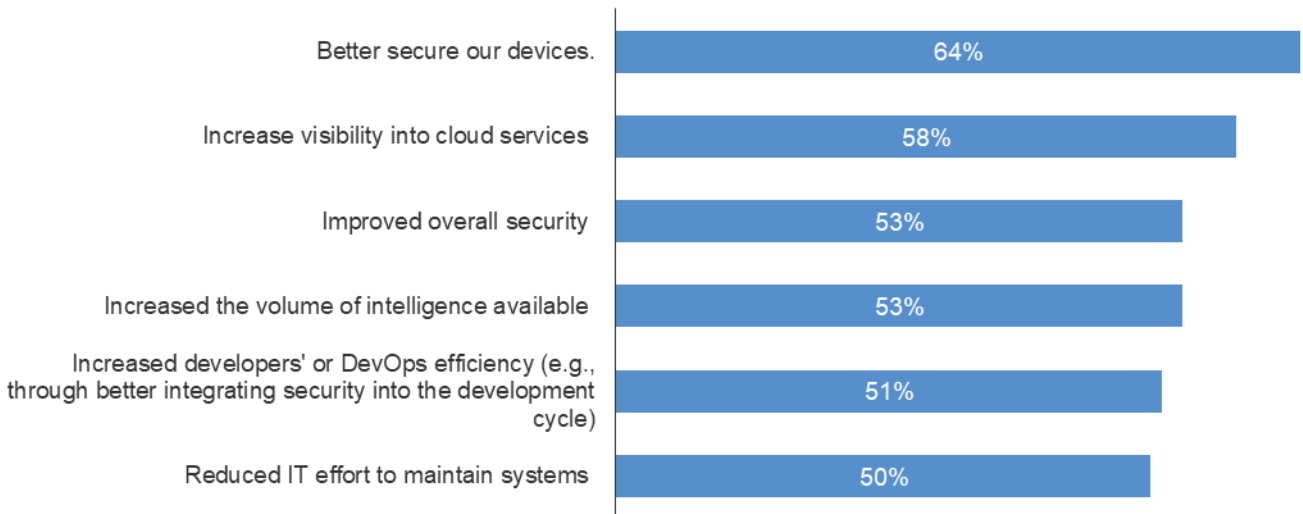
Benefit	Percentage
Better secure our devices.	64%
Increase visibility into cloud services	58%
Improved overall security	53%
Increased the volume of intelligence available	53%
Increased developers' or DevOps efficiency (e.g., through better integrating security into the development cycle)	51%
Reduced IT effort to maintain systems	50%

Base: 92 security decision makers at an enterprise
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

Results. This yields a three-year projected PV (discounted at 10%) that ranges from $176,112 (low) to $519,394 (high).

Improved Efficiency Of Security Administration (Three-Year)

Projection	Value
High-impact projection	$519,394
Mid-impact projection	$347,753
Low-impact projection	$176,112
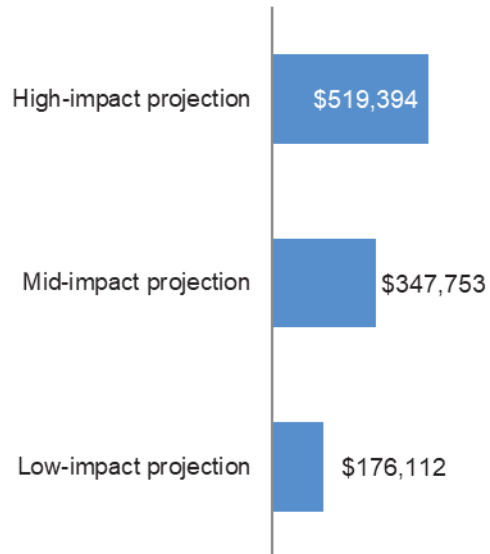
Improved Efficiency Of Security Administration: Calculation Table

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Number of FTEs patching	Composite	2	2	2
A2	Prior hours spent patching	Interviews	160	160	160
A3$_{Low}$	Reduction in time patching from Trend Micro Cloud One virtual patching	Interviews; Forrester	5%	20%	35%
A3$_{Mid}$			10%	30%	50%
A3$_{High}$			15%	40%	65%
A4$_{Low}$	Subtotal: annual person-hours saved from virtual patching	A1*A2*A3	16	64	112
A4$_{Mid}$			32	96	160
A4$_{High}$			48	128	208
A5$_{Low}$	Total person-hours saved to posture management	Interviews; Forrester	500	1,000	2,000
A5$_{Mid}$			1,000	2,000	4,000
A5$_{High}$			1,500	3,000	6,000
A6	Fully burdened hourly rate per security professional	Composite	$60	$60	$60
At$_{Low}$	**Improved efficiency of security administration**	(A4+A5)*A6	$30,960	$63,840	$126,720
At$_{Mid}$			$61,920	$125,760	$249,600
At$_{High}$			$92,880	$187,680	$372,480

Improved Efficiency Of Security Administration: Summary Table					
Projected Benefits	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Improved efficiency of security administration (Low)	$30,960	$63,840	$126,720	$221,520	**$176,112**
Improved efficiency of security administration (Mid)	$61,920	$125,760	$249,600	$437,280	**$347,753**
Improved efficiency of security administration (High)	$92,880	$187,680	$372,480	$653,040	**$519,394**

IMPROVED EFFICIENCY OF THREAT INVESTIGATION AND RESPONSE

Evidence and data. Trend Micro Cloud One also positively impacted customers' efficiency in investigating and responding to cloud security threats. The telecom customer described how the instant visibility, real-time compliance, and event alerts of Trend Micro's Cloud One platform all impacted the ability to investigate and respond to threats faster than in their prior environment.

The manufacturing firm noted that the information provided by Trend Micro Cloud One helped to reduce their time spent on investigations in particular. In their prior environment, investigations could take between two and three days, when looking for what machine was potentially impacted. With Trend Micro Cloud One, that information is now delivered as a part of the alert, reducing this two-to-three-day window down to nothing.

> **"Trend Micro Cloud One gives us the information we need to get a head start on threat investigation. We're not just throwing spaghetti at the wall to start. We have some targeted haystack that we get to look through."**
>
> *Information security manager, manufacturing*

The retail customer noted that the alerting system in Trend Micro Cloud One's platform is an improvement over their prior tooling. The customer shared experiencing sometimes hundreds of alerts daily, with their security analysts suffering from resulting alert fatigue. With Trend Micro Cloud One, these alerts have been reduced by 90% or more, with only the truly important ones remaining. Thanks to this and other efficiency impacts, related to investigation and response, the retail customer estimated saving at least the equivalent of five full-time employees.

> **"Trend Micro Cloud One saves us a lot of costs specifically to threat investigation and response. We're a retailer, not a security organization. If we had to build a security team to manage threats without Trend Micro Cloud One, it would be impossible."**
>
> *Technical security architect, retail*

Modeling and assumptions. For the composite organization, Forrester assumes:

- Total incidents requiring investigation and response total 300 before Trend Micro Cloud One.

- An average labor time of 48 person-hours is required per incident.

- Reduction in incidents between 1% and 35% (low) and between 10% and 65% (high).

- Reduction in hours per event between 1% and 43% (low) and between 10% and 73% (high).

Results. This yields a three-year projected PV (discounted at 10%) that ranges from $211,507 (low) to $351,651 (high).

Improved Efficiency Of Threat Investigation And Response (Three-Year)

High-impact projection	$351,651
Mid-impact projection	$284,613
Low-impact projection	$211,507
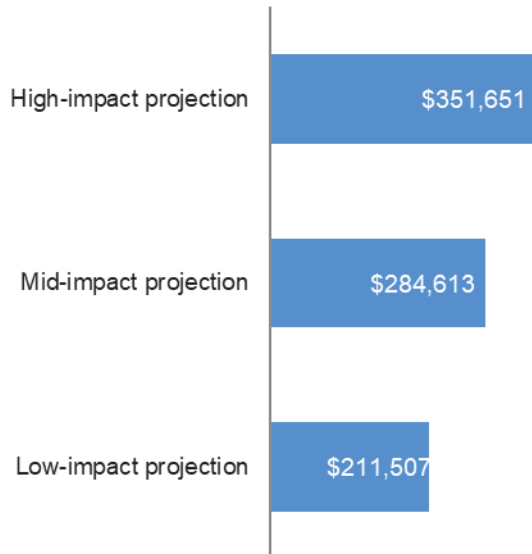
"Which tasks has Cloud One enabled your team to execute more quickly?"
(Showing top 3 responses)

Monitoring	79%
Investigation	64%
Remediation	48%
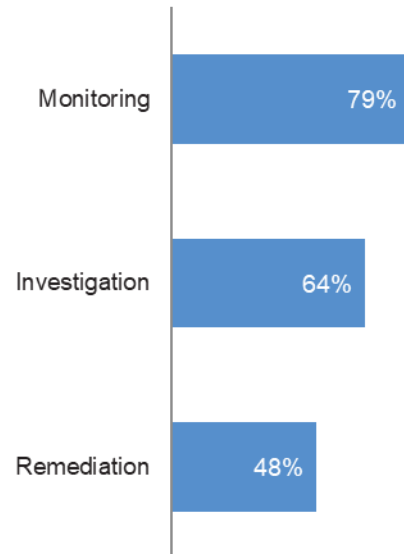
Base: 33 security decision-makers at an enterprise
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

Improved Efficiency Of Threat Investigation And Response: Calculation Table

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Total incidents requiring attention before Trend Micro Cloud One	Composite	300	300	300
B2	Total hours of labor time per incident before Trend Micro Cloud One	Survey	48	48	48
$B3_{Low}$			1%	18%	35%
$B3_{Mid}$	Reduction in incidents requiring attention from Trend Micro Cloud One	Interviews; Forrester	5%	28%	50%
$B3_{High}$			10%	38%	65%
B4	Fully burdened hourly rate of security professional	Composite	$60	$60	$60
B5	Productivity recapture rate	Forrester	30%	30%	30%
$B6_{Low}$			$2,592	$46,656	$90,720
$B6_{Mid}$	Subtotal: cost savings from reduced incidents	B1*B2*B3*B4*B5	$12,960	$72,576	$129,600
$B6_{High}$			$25,920	$98,496	$168,480
$B7_{Low}$			1%	26%	43%
$B7_{Mid}$	Reduction in labor time for remaining incidents from Trend Micro Cloud One	Survey	5%	31%	58%
$B7_{High}$			10%	37%	73%
$B8_{Low}$			$2,566	$55,261	$72,446
$B8_{Mid}$	Subtotal: cost savings from reduced labor time	B1*B2*(1-B3)*B7*B4*B5	$12,312	$57,853	$75,168
$B8_{High}$			$23,328	$59,460	$66,226
Bt_{Low}			**$5,158**	**$101,917**	**$163,166**
Bt_{Mid}	**Improved efficiency of threat investigation and response**	**B6+B8**	**$25,272**	**$130,429**	**$204,768**
Bt_{High}			**$49,248**	**$157,956**	**$234,706**

Improved Efficiency Of Threat Investigation And Response: Summary Table

Projected Benefits	Year 1	Year 2	Year 3	Total	Present Value
Improved efficiency of threat investigation and response (Low)	$5,158	$101,917	$163,166	$270,241	**$211,507**
Improved efficiency of threat investigation and response (Mid)	$25,272	$130,429	$204,768	$360,469	**$284,613**
Improved efficiency of threat investigation and response (High)	$49,248	$157,956	$234,706	$441,910	**$351,651**

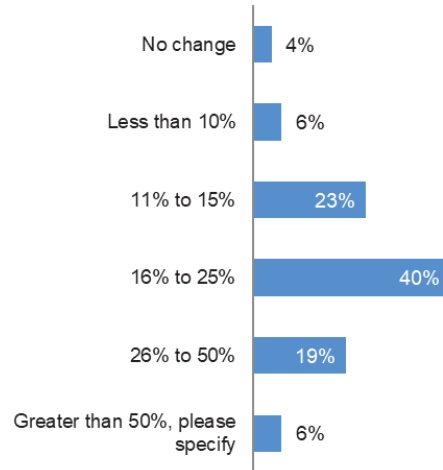## IMPROVED COST AND TIME-TO-VALUE OF DEVELOPMENT

Evidence and data. Customers also shared that Trend Micro Cloud One enabled them to incorporate security into their development workflows, contributing to the adoption of DevSecOps and reducing the time to securely develop applications. For example, the customer from the telecom firm shared that the Trend Micro Cloud One platform helped them to better incorporate security compliance into the development cycle, removing work from the development team while giving the security team better insight into the security posture of these applications.

"What has been/do you expect to be the percentage reduction in time spent by DevOps on cloud security?"

No change	4%
Less than 10%	6%
11% to 15%	23%
16% to 25%	40%
26% to 50%	19%
Greater than 50%, please specify	6%

Base: 47 security decision-makers at an enterprise
Note: Percentages may not total 100 because of rounding.
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

> **"We used to have a whole big manual checklist in security controls that the developers had to go through and adhere to. Trend Micro Cloud One is saving them at a minimum 10% of their time."**
>
> *Head of public cloud, telecom*

> **"Nobody wants to write a SQL injection or buffer overflow. With virtual patching, we put bugs in the backlog, do the patch, and then move forward. It really helps us with time-to-market."**
>
> *Principal cloud architect, professional services*

The professional services customer specifically noted how Trend Micro Cloud One beneficially impacted their time-to-value of developed applications. In their prior development workflow, security would come at the end, but now it is part and parcel of the process, with vulnerability scanning and virtual patching taking place as part of the development cycle. The prior security workflow typically added about one week to the time-to-deployment. With Trend Micro Cloud One, that one week has completely gone away for every release, which for them occurs monthly.

Modeling and assumptions. For the composite organization, Forrester estimates:

- Four developers are needed per project, with 66% of their time being spent on security-related work.

- Trend Micro Cloud One reduces this time between 1% and 10% (low) and between 10% and 20% (high).

- The fully burdened annual rate per developer is $200,000.

- The number of development projects in Year 1 is 2, in Year 2 is 3, and in Year 3 is 4.

- The average value of each development project is $150,000, which is $1,000,000 in revenue with a 15% profit margin.

- The acceleration of development project occurs at a rate between 1% and 7% (low) and between 7% and 13% (high).

Results. This yields a three-year projected PV (discounted at 10%) that ranges from $111,727 (low) to $307,677 (high).

Improved Cost And Time-To-Value Of Development (Three-Year)

High-impact projection	$307,677
Mid-impact projection	$206,434
Low-impact projection	$111,727
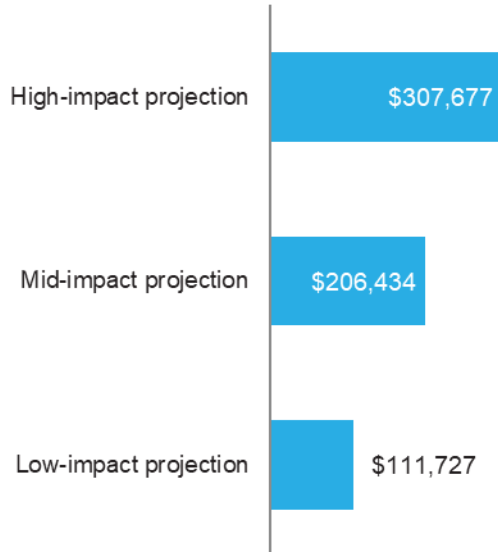
Improved Cost And Time-To-Value Of Development: Calculation Table

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Number of developers	Interviews	4	4	4
C2	Current time spent on security	Survey	66%	66%	66%
$C3_{Low}$			1%	5%	10%
$C3_{Mid}$	Reduction from Trend Micro Cloud One	Survey; Forrester	5%	10%	15%
$C3_{High}$			10%	15%	20%
C4	Fully burdened annual rate	Composite	$200,000	$200,000	$200,000
$C5_{Low}$			$5,280	$26,400	$52,800
$C5_{Mid}$	Subtotal: improved cost of development	C1*C2*C3*C4	$26,400	$52,800	$79,200
$C5_{High}$			$52,800	$79,200	$105,600
C6	Number of development projects per year	Composite	2	3	4
C7	Average value per development project	Composite; $1,000,000 revenue * 15% profit margin	$150,000	$150,000	$150,000
$C8_{Low}$			1%	3%	7%
$C8_{Mid}$	Acceleration of projects from Trend Micro Cloud One	C2*C3	3%	7%	10%
$C8_{High}$			7%	10%	13%
$C9_{Low}$			$3,000	$13,500	$42,000
$C9_{Mid}$	Subtotal: improved time-to-value of applications	C6*C7*C8	$9,000	$31,500	$60,000
$C9_{High}$			$21,000	$45,000	$78,000
Ct_{Low}			**$8,280**	**$39,900**	**$94,800**
Ct_{Mid}	**Improved cost and time-to-value of development**	**C5+C9**	**$35,400**	**$84,300**	**$139,200**
Ct_{High}			**$73,800**	**$124,200**	**$183,600**

Improved Cost And Time-To-Value Of Development: Summary Table

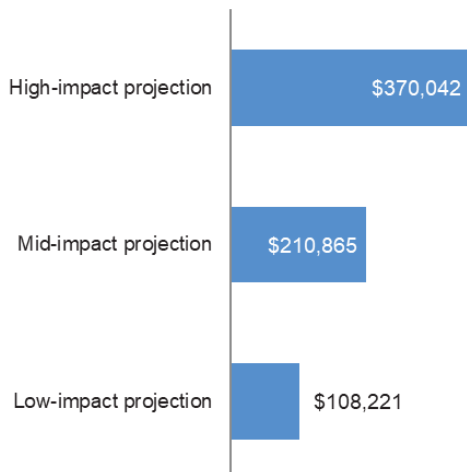| Projected Benefits	Year 1	Year 2	Year 3	Total	Present Value
Improved cost and time-to-value of development (Low)	$8,280	$39,900	$94,800	$142,980	**$111,727**
Improved cost and time-to-value of development (Mid)	$35,400	$84,300	$139,200	$258,900	**$206,434**
Improved cost and time-to-value of development (High)	$73,800	$124,200	$183,600	$381,600	**$307,677**

REDUCED COST OF LEGACY SECURITY TOOLS

Evidence and data. Lastly, those customers that were using third-party or platform-native security solutions to protect their cloud workloads before investing in Trend Micro Cloud One were able to reduce their use of these tools. This reduction in use resulted in cost savings, both as it related to the direct price paid for the prior solution and the internal costs required to service these tools.

Modeling and assumptions. For the composite organization, Forrester estimates:

- A prior spend on security tools of $950,000 annually.

- A reduction in this spend of between 1% and 8% (low) and between 5% and 26% (high).

- Prior person-hours spent on servicing these tools total 480 hours annually.

- A reduction in labor time from Trend Micro Cloud One between 2% and 7% (low) and between 10% and 35% (high).

Results. This yields a three-year projected PV (discounted at 10%) that ranges from $108,221 (low) to $370,042 (high).

"What has been/do you expect to be the percentage reduction in spend on systems and tools related to cloud security?"
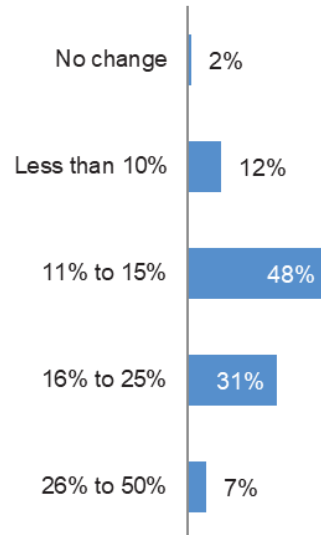
No change	2%
Less than 10%	12%
11% to 15%	48%
16% to 25%	31%
26% to 50%	7%

Base: 42 security decision-makers at an enterprise
Note: Percentages may not total 100 because of rounding
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

Reduced Cost Of Legacy Security Tools (Three-Year)

High-impact projection	$370,042
Mid-impact projection	$210,865
Low-impact projection	$108,221

"What has been/do you expect to be the percentage reduction in time spent maintaining the systems and tools related to cloud security?"

No change	4%
Less than 10%	13%
11% to 15%	30%
16% to 25%	33%
26% to 50%	13%
Greater than 50%, please specify	4%
Don't know	2%
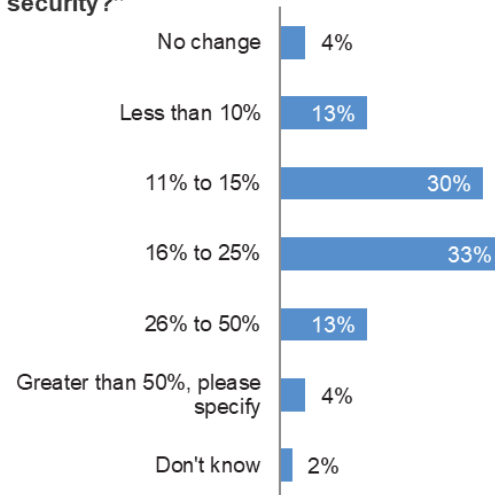
Base: 46 security decision-makers at an enterprise
Note: Percentages may not total 100 because of rounding)
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

Reduced Cost Of Legacy Security Tools: Calculation Table

Ref.	Metric	Source	Year 1	Year 2	Year 3
D1	Prior spend on security tools	Survey	$950,000	$950,000	$950,000
$D2_{Low}$			1%	5%	8%
$D2_{Mid}$	Reduction in spend from Trend Micro Cloud One	Survey	2%	9%	16%
$D2_{High}$			5%	16%	26%
D3	Prior person-hours spent servicing security tools	Survey	480	480	480
$D4_{Low}$			2%	5%	7%
$D4_{Mid}$	Reduction in labor from Trend Micro Cloud One	Survey	5%	13%	20%
$D4_{High}$			10%	23%	35%
D5	Fully burdened hourly rate of IT	Composite	$60	$60	$60
Dt_{Low}			$10,076	$48,940	$78,016
Dt_{Mid}	Reduced cost of legacy security tools	(D1*D2)+(D3*D4* D5)	$20,440	$89,244	$157,760
Dt_{High}			$50,380	$158,624	$257,080

Reduced Cost Of Legacy Security Tools: Summary Table

Projected Benefits	Year 1	Year 2	Year 3	Total	Present Value
Reduced cost of legacy security tools (Low)	$10,076	$48,940	$78,016	$137,032	$108,221
Reduced cost of legacy security tools (Mid)	$20,440	$89,244	$157,760	$267,444	$210,865
Reduced cost of legacy security tools (High)	$50,380	$158,624	$257,080	$466,084	$370,042

REDUCED RISK OF SECURITY BREACH AND IMPROVEMENT TO PRODUCTIVITY

Evidence and data. Customers reported reducing their risk of a security breach after investing in Trend Micro Cloud One, saving on the direct costs associated with material security breaches as well as improving any employee productivity that is lost.

The customer from the telecom industry noted that Trend Micro Cloud One provided their security teams with real-time visibility into both the organization's cloud security posture and its vulnerabilities. This enabled the firm to view and share the compliance of their various systems to anyone within the organization they allowed, while also creating real-time security alerts to notify teams of vulnerabilities sooner. The interviewee shared: "Using these tools ensures that no one is standing anything up that they're not supposed [to] in any of our regions, and when they do stand up an approved instance, it follows the appropriate rules. These rules apply universally across our regions as well."

> **"Trend Micro Cloud One has really improved our risk profile for security breaches. We've got real-time compliance and real-time threat detection, neither of which we had before."**
>
> *Head of public cloud, telecom*

The customer from the financial services sector stated that reporting was better with Trend Micro Cloud One than with their on-premises security vendor. This customer was able to more quickly and easily note where agents were either failing or not being updated properly with Trend Micro Cloud One, reducing the time required to notice an issue by 50%.

Customers noted how their security environment was being further bolstered by the virtual patching technology of the Trend Micro Cloud One platform. The customer from the retail sector shared that they were now able to apply virtual patches once a week

to remediate potential vulnerabilities, whereas in their prior environment, patches were only applied twice annually.
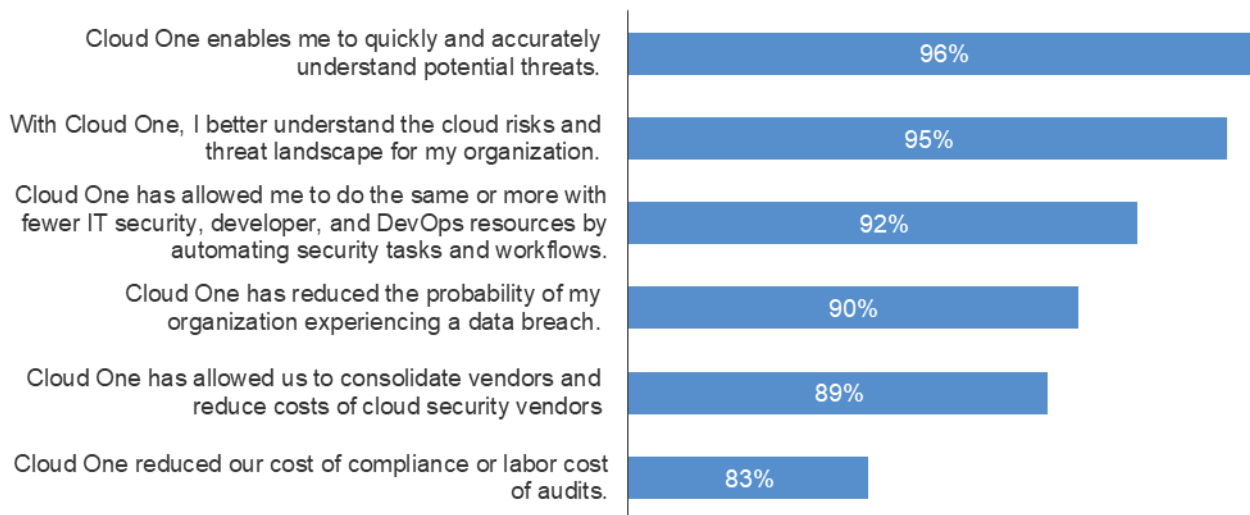
The professional services customer shared that they lacked the ability to quantify any improvement to the organization's overall security posture before investing in Trend Micro Cloud One. They had to simply trust that protection was sufficient or potentially improved by the implementation of best practices. With Trend Micro Cloud One Conformity, the customer was able to get a scoreboard to measure their security posture and effectively benchmark itself.

> **"We took 2,000 previously unknown negative security posture assessments across our entire cloud environment down to 150 known errors in a couple of months."**
>
> *Principal cloud architect, professional services*

"On a scale of 1 to 5, where 1 means do not agree at all and 5 means strongly agree, how much do you agree with the following statements?"

(Per respondents that selected "Agree" and "Strongly agree")

Statement	Percentage
Cloud One enables me to quickly and accurately understand potential threats.	96%
With Cloud One, I better understand the cloud risks and threat landscape for my organization.	95%
Cloud One has allowed me to do the same or more with fewer IT security, developer, and DevOps resources by automating security tasks and workflows.	92%
Cloud One has reduced the probability of my organization experiencing a data breach.	90%
Cloud One has allowed us to consolidate vendors and reduce costs of cloud security vendors	89%
Cloud One reduced our cost of compliance or labor cost of audits.	83%

Base: 92 security decision-makers at an enterprise
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

The customer from the manufacturing industry even shared that they expected to save on costs related to their cybersecurity insurance, thanks to the improvements that Trend Micro Cloud One made to their risk profile.

> **"If you don't have certain components in play, your insurance costs go up. One thing we're investigating is how much we'll be saving on insurance now that we have Trend Micro Cloud One."**
>
> *Information security manager, manufacturing*

Modeling and assumptions. For the composite organization, Forrester estimates:

- An average annual number of material breaches of 3.6.

- An average total internal and external cost per material breach of $66,000.

- A percentage coverage of Trend Micro Cloud One in terms of overall organizational accounts and workloads of 7% in Year 1, 20% in Year 2, and 50% in Year 3.

- An estimated percentage risk improvement between 18% and 48% due to Trend Micro Cloud One.

- Average prior downtime hours per breach of 3.9.

- Twenty percent of the composite organization is impacted by each breach, with the benefit accruing based on the percentage coverage of Trend Micro Cloud One.

- An average fully burdened hourly rate per affected employee of $40.

- A productivity recapture rate of 50%.

Results. This yields a three-year projected PV (discounted at 10%) that ranges from $56,415 (low) to $150,440 (high).

Reduced Risk Of Security Breach And Improvement To Productivity (Three-Year)

High-impact projection	$150,440
Mid-impact projection	$72,086
Low-impact projection	$56,415
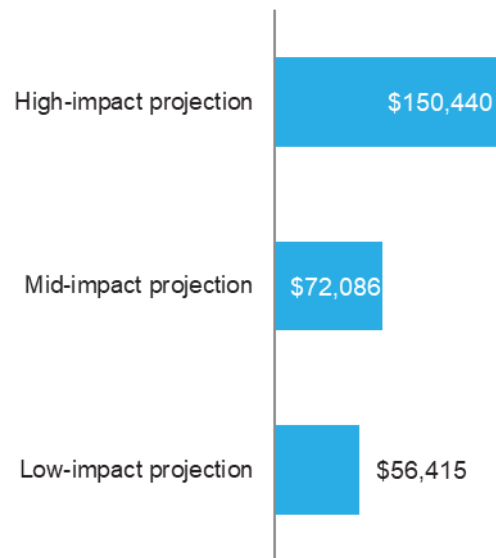
Reduced Risk Of Security Breach And Improvement To Productivity: Calculation Table

Ref.	Metric	Source	Year 1	Year 2	Year 3
E1	Average annual number of material breaches	Survey	3.6	3.6	3.6
E2	Average total internal and external costs of a material breach	Survey	$66,000	$66,000	$66,000
E3	Percentage of organization protected by Trend Micro Cloud One	Interviews	7%	20%	50%
E4$_{Low}$			18%	18%	18%
E4$_{Mid}$	Percentage risk improvement from Trend Micro Cloud One	Survey	23%	23%	23%
E4$_{High}$			48%	48%	48%
E5$_{Low}$			$2,994	$8,554	$21,384
E5$_{Mid}$	Subtotal: reduced risk of a security breach	E1*E2*E3*E4	$3,825	$10,930	$27,324
E5$_{High}$			$7,983	$22,810	$57,024
E6	Prior downtime hours from breach per employee annually	Forrester	3.9	3.9	3.9
E7	Number of employees affected	Composite; 20%*E3	70	200	500
E8	Average fully burdened hourly rate per employee	Composite	$40	$40	$40
E9	Productivity recapture rate	Forrester	50%	50%	50%
E10$_{Low}$			$3,538	$10,109	$25,272
E10$_{Mid}$	Subtotal: improved productivity from reduced downtime	E1*E6*E7*E8*E9* E4	$4,521	$12,917	$32,292
E10$_{High}$			$9,435	$26,957	$67,392
Et$_{Low}$			**$6,532**	**$18,663**	**$46,656**
Et$_{Mid}$	**Reduced risk of security breach and improvement to productivity**	E5+E10	**$8,346**	**$23,847**	**$59,616**
Et$_{High}$			**$17,418**	**$49,767**	**$124,416**

Reduced Risk Of Security Breach And Improvement To Productivity: Summary Table

Projected Benefits	Year 1	Year 2	Year 3	Total	Present Value
Reduced risk of security breach and improvement to productivity (Low)	$6,532	$18,663	$46,656	$71,851	**$56,415**
Reduced risk of security breach and improvement to productivity (Mid)	$8,346	$23,847	$59,616	$91,809	**$72,086**
Reduced risk of security breach and improvement to productivity (High)	$17,418	$49,767	$124,416	$191,601	**$150,440**

UNQUANTIFIED BENEFITS

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

- **Accelerated migration to the cloud.** Customers consistently noted that investing in Trend Micro Cloud One accelerated their organization's digital transformation and migration to the cloud. The telecom customer estimated that every cloud project they have is moving 10% faster than before thanks to the real-time, instant visibility into the cloud security posture that Trend Micro Cloud One provides. Previously, the lack of policy compliance would be a common factor that delays projects. The retail customer estimated saving half a year of work for one of their projects involving moving their loyalty program to cloud technology.

- **Improved compliance.** Interviewees also shared how Trend Micro Cloud one improved the efficiency of their compliance processes. The financial services firm estimated that reporting with Trend Micro Cloud One would save their security team 50% of the current time they spend on compliance workstreams. The telecom firm noted that the real-time posture assessment provided by Trend Micro Cloud One has allowed them to reduce the number of regular manual checks they will complete annually by an unspecified quantity.

Reduced time spent on compliance

50%

- **Improved brand reputation.** Trend Micro Cloud One also reportedly improved the brand reputation of customers in two key ways. First, the improved security provided by the solution reduced the risk of a security breach, which could have a significant negative reputational impact. Second, customers who were holding or hosting client or customer data noted improved relationships with these customers thanks to their improved security environments. The professional services customer noted improving retention so that the average customer lifetime improved by an unspecified amount.

> **"Trend Micro Cloud One is an investment to protect our brand. Financial institutions can't have breaches. We need immutability and auditability. Trend Micro Cloud One has really allowed us to have peace of mind regarding breaches."**
>
> *Solution architect, financial services*

FLEXIBILITY

- **Cloud Maturity fit.** Interviewees were all in different phases of cloud adoption, but each noted that one benefit of selecting Trend Micro Cloud One is the variety of services it offers in a single suite. Trend Micro Cloud One grows with customers as they mature in their cloud journey, allowing customers to adopt additional Trend Micro Cloud One services as their needs evolve, such as application security, container security, or open-source security.

- **Multicloud.** Customers benefited from the flexibility that Trend Micro Cloud One gives them in adopting multiple cloud platform providers, while managing security of these platforms from a single pane of glass.

> **"The flexibility to do multicloud with Trend Micro Cloud One is key. We use different cloud platforms for different use cases, so it's key for us that were selecting products that don't tie us into platform-specific security tools."**
>
> *Head of public cloud, telecom*

- **Agile and DevSecOps.** Lastly, some customers specifically noted how the Trend Micro Cloud One platform has enabled them to better adopt agile and DevSecOps practices in their development teams. The telecom customer stated: "We're completely moving to a DevSecOps model with Trend Micro Cloud One. For development teams and their apps, we provide the security requirements via Trend Micro Cloud One, and the developers can choose the cloud service provider platform of their choice and serve themselves, becoming owners of the risk."

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

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	Total cost of Trend Micro Cloud One	$0	$86,250	$189,750	$379,500	$655,500	$520,351
Gtr	Cost of implementation and deployment	$33,000	$0	$0	$0	$33,000	$33,000
Htr	Cost of training and ongoing management	$1,320	$3,300	$13,200	$29,700	$47,520	$37,543
	Total costs (risk-adjusted)	$34,320	$89,550	$202,950	$409,200	$736,020	$590,894

TOTAL COST OF TREND MICRO CLOUD ONE

Evidence and data. Trend Micro prices Trend Micro Cloud One at various per-unit rates depending on the service. Examples of units include accounts and workloads. Typically, Trend Micro Cloud One services are purchased via a cloud marketplace, reseller, or implementation partner. The composite organization's pricing takes into account the number of services purchased and the average of what interviewed customers paid for these services.

Modeling and assumptions. For the composite organization, Forrester estimates:

- Year 1 spend on Trend Micro Cloud One services is $78,409.

- Year 2 spend on Trend Micro Cloud One services is $172,500.

- Year 3 spend on Trend Micro Cloud One services is $345,000.

- These costs increase as the percentage of the composite organization's cloud environment protected by Trend Micro Cloud One increases from 7% in Year 1 to 50% in Year 3.

Risks. The total cost of Trend Micro Cloud One services will vary with:

- The number of accounts, applications, networks, workloads, and cloud infrastructure protected.

- The number of Trend Micro Cloud One services purchased.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $520,351.

Total Cost Of Trend Micro Cloud One

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Cost of Trend Micro Cloud One services	Interviews		$78,409	$172,500	$345,000
Ft	Total cost of Trend Micro Cloud One	F1	$0	$78,409	$172,500	$345,000
	Risk adjustment	↑10%				
Ftr	Total cost of Trend Micro Cloud One (risk-adjusted)		$0	$86,250	$189,750	$379,500
Three-year total: $655,500			**Three-year present value: $520,351**			

COST OF IMPLEMENTATION AND DEPLOYMENT

Evidence and data. Customers noted experiencing internal costs associated with the implementation and deployment of Trend Micro Cloud One services. Taking into account the number of services, the composite organization required five FTEs to work at 20% of the time for three months to implement its four Trend Micro Cloud One services.

Modeling and assumptions. For the composite organization, Forrester assumes:

- Three months are needed to implement the four Trend Micro Cloud One services.

- Five FTEs are required at 20% for implementation.

Risks. The cost of implementation and deployment will vary with:

- The number of Trend Micro Cloud One services purchased.

- The period of time over which services are purchased and whether any implementation synergies can be achieved.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $33,000.

Cost Of Implementation And Deployment

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
G1	Hours to implement	Interviews; 3 months	500			
G2	Number of FTEs needed for implementation	Interviews	5			
G3	Percent time spent on implementation	Interviews	20%			
G4	Fully burdened hourly rate per FTE	Composite	$60			
Gt	Cost of implementation and deployment	G1*G2*G3*G4	$30,000	$0	$0	$0
	Risk adjustment	↑10%				
Gtr	Cost of implementation and deployment (risk-adjusted)		$33,000	$0	$0	$0
	Three-year total: $33,000			**Three-year present value: $33,000**		

COST OF TRAINING AND ONGOING MANAGEMENT

Evidence and data. Customers also shared experiencing internal costs for training and ongoing management. For the composite organization, ten FTEs underwent 2 hours of training each, while three FTEs spent 1 hour each week managing Trend Micro Cloud One services by Year 3.

Modeling and assumptions. For the composite organization, Forrester assumes:

- Ten FTEs are trained at a time cost of 2 hours each.

- One FTE spends 1 hour weekly managing Trend Micro Cloud One in Year 1, this number rises to 2 FTEs in Year 2 and 3 FTEs in Year 3.

- These costs increase as the percentage of the composite organization's cloud environment, which is protected by Trend Micro Cloud One, increases from 7% in Year 1 to 50% in Year 3.

- The fully burdened hourly rate is $60 for these FTEs.

Risks. The cost of training and ongoing management will vary with:

- The number of accounts, workloads, networks, cloud applications, and cloud infrastructure protected by Trend Micro Cloud One.

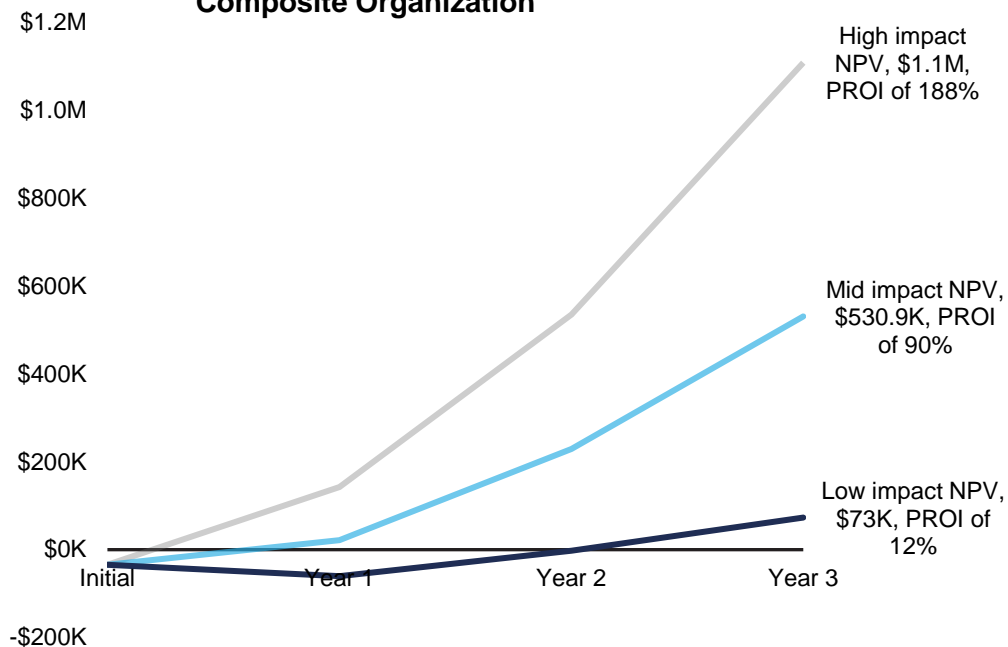- The number of Trend Micro Cloud One services purchased.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $17,213.

Cost Of Training And Ongoing Management

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
H1	Number of FTEs trained	Interviews	10			
H2	Hours of training	Interviews	2			
H3	FTEs required for ongoing management	Interviews		1	2	3
H4	Person-hours of ongoing management	Interviews; H3*1 hour weekly (50-week year)		50	100	150
H5	Fully burdened hourly rate per FTE	Composite	$60	$60	$60	$60
Ht	Cost of training and ongoing management	(H1*H2 +H3*H4)*H5	$1,200	$3,000	$12,000	$27,000
	Risk adjustment	↑10%				
Htr	Cost of training and ongoing management (risk-adjusted)		$1,320	$3,300	$13,200	$29,700
	Three-year total: $47,520			**Three-year present value: $37,543**		

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Three-Year Projected Financial Analysis For The Composite Organization

High impact NPV, $1.1M, PROI of 188%

Mid impact NPV, $530.9K, PROI of 90%

Low impact NPV, $73K, PROI of 12%

The financial results calculated in the Benefits and Costs sections can be used to determine the PROI and projected NPV for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted PROI and projected NPV 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	($34,320)	($89,550)	($202,950)	($409,200)	($736,020)	($590,894)
Total benefits (low)	$0	$61,006	$273,260	$509,358	$843,624	$663,982
Total benefits (mid)	$0	$151,378	$453,580	$810,944	$1,415,902	$1,121,750
Total benefits (high)	$0	$283,726	$678,227	$1,172,282	$2,134,235	$1,699,204
Net benefits (low)	($34,320)	($28,544)	$70,310	$100,158	$107,604	$73,088
Net benefits (mid)	($34,320)	$61,828	$250,630	$401,744	$679,882	$530,856
Net benefits (high)	($34,320)	$194,176	$475,277	$763,082	$1,398,215	$1,108,310
PROI (low)						12%
PROI (mid)						90%
PROI (high)						188%

Appendix A: New Technology: Projected Total Economic Impact

New Technology: Projected Total Economic Impact (New Tech TEI) is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value of their products and services to clients. The New Tech TEI methodology helps companies demonstrate and justify the projected tangible value of IT initiatives to senior management and key business stakeholders.

TOTAL ECONOMIC IMPACT APPROACH

Projected Benefits represent the projected value to be delivered to the business by the product. The New Tech TEI methodology places equal weight on the measure of projected benefits and the measure of projected costs, allowing for a full examination of the effect of the technology on the entire organization.

Projected Costs consider all expenses necessary to deliver the proposed value of the product. The projected cost category within New Tech TEI captures incremental ongoing costs over the existing environment that are 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.
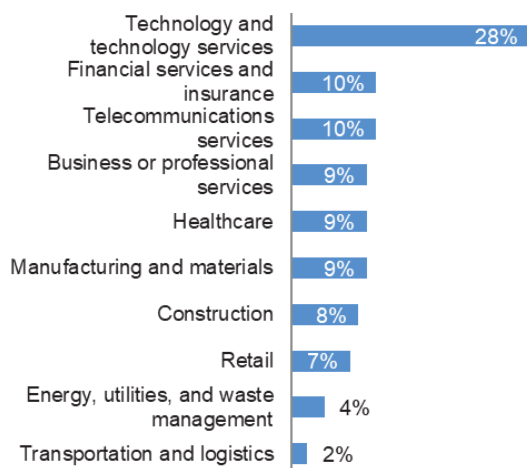
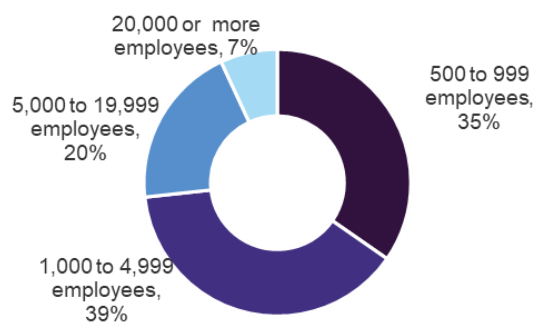# Appendix B: Interview And Survey Demographics

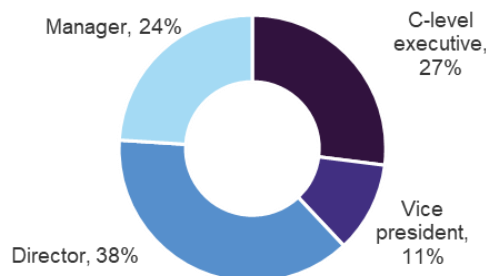| Interviewed Organizations			
Industry	**Region**	**Interviewee**	**Employees; Trend Micro Cloud One Services**
Retail	Europe	Technical security architect	2,500 employees; Conformity, Network Security, Workload Security
Financial services	North America	Solution architect	3,300 employees; Workload Security
Manufacturing	North America	Information security manager	4,500 employees; Workload Security
Telecom	Asia Pacific	Head of public cloud	5,000 employees; Conformity, Workload Security
Professional services	North America	Principal cloud architect	10,000 employees; Conformity, Container Security, Network Security, Workload Security

Survey Demographics

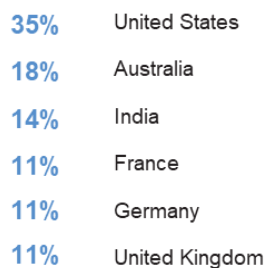**"Which of the following best describes the industry to which your company belongs?"**

- Technology and technology services: 28%
- Financial services and insurance: 10%
- Telecommunications services: 10%
- Business or professional services: 9%
- Healthcare: 9%
- Manufacturing and materials: 9%
- Construction: 8%
- Retail: 7%
- Energy, utilities, and waste management: 4%
- Transportation and logistics: 2%

"In which country are you located?"

- 35% United States
- 18% Australia
- 14% India
- 11% France
- 11% Germany
- 11% United Kingdom

"Using your best estimate, how many employees work for your firm/organization worldwide?"

- 20,000 or more employees, 7%
- 5,000 to 19,999 employees, 20%
- 1,000 to 4,999 employees, 39%
- 500 to 999 employees, 35%

"Which title best describes your position at your organization?"

- C-level executive, 27%
- Vice president, 11%
- Director, 38%
- Manager, 24%

Base: 92 security decision-makers at an enterprise
Note: Percentages may not total 100 because of rounding.
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, June 2021

Appendix C: Endnotes

[1] 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.

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