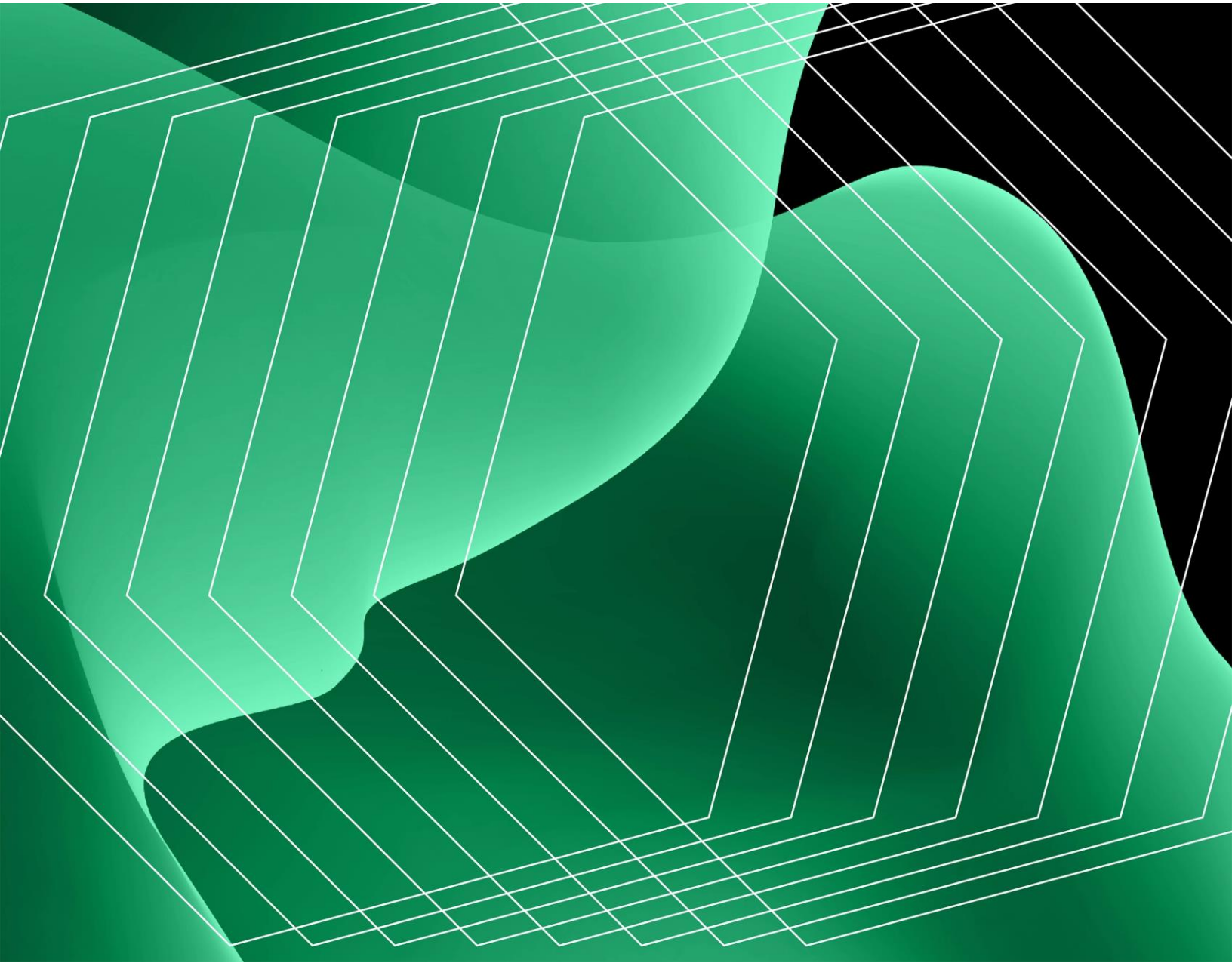
FORRESTER®

The Total Economic Impact™ Of Elastic Observability

Cost Savings And Business Benefits Enabled By Elastic Observability

A FORRESTER TOTAL ECONOMIC IMPACT STUDY
COMMISSIONED BY ELASTIC, NOVEMBER 2023



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ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key outcomes. Fueled by our customer-obsessed research, Forrester's seasoned consultants partner with leaders to execute their specific priorities using a unique engagement model that ensures lasting impact. For more information, visit forrester.com/consulting.

Executive Summary

As enterprises expand their technology infrastructures, prioritizing and integrating observability can enable them to manage increasingly complex and distributed systems while also increasing stability and resiliency. Through observability, organizations can improve real-time visibility and provide actionable insights into their business and IT systems and applications. Elastic Observability helps organizations accelerate problem resolution, increase operational efficiency, and reduce mean time to "x" (MTTx) metrics including mean time to detect (MTTD), mean time to investigate (MTTI), and mean time to respond (MTTR), all while boosting developer productivity and accelerating innovation.

Observability tools increase visibility into end-user experiences, infrastructure, and applications by providing a holistic view of organizational ecosystems.[1] Beyond traditional monitoring efforts that just collect and analyze data from logs, metrics, and traces in silos, observability solutions seek to proactively disambiguate a system's behavior, identify issues or bottlenecks, and improve incident detection and response. Observability solutions also provide enhanced insights through data exploration and the corresponding insight characteristics to deliver a contextual perspective for monitoring data, automation, and artificial intelligence (AI)/machine learning (ML) analytics. Ultimately, using an end-to-end observability solution can help an organization accelerate time to insight by providing IT teams with a tool kit that speeds up problem resolution and improves application and system performance.

Elastic Observability is a solution built on the Elastic Stack, an AI-powered data analytics platform that combines the power of search and AI to enable organizations to go from insight to outcome quickly. With a single data store that ingests telemetry data at scale, Elastic Observability breaks down silos and delivers correlation and context for fast root cause analysis. Customers can deploy Elastic Observability as a managed cloud solution or manage it themselves as an on-premises solution.

Elastic Observability allows for storage and ingestion of high-dimensionality metrics, logs, and traces to enable correlation and visualization, automated alerting, interactive modeling of large data sets, application performance management (APM), synthetics, security, AI and ML capabilities such as anomaly detection, and integrations with large language models (LLMs). These capabilities provide value to site reliability engineering (SRE), development, and DevOps teams across organizations by improving visibility into business and operational data so teams can develop dashboards to engage business and executive end users and automate workflows. In addition, Elastic Observability improves profit margins by helping organizations avoid revenue loss while improving customer service and retention.

Elastic commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Elastic Observability. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Elastic Observability on their organizations.[2]

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed seven representatives from five organizations with experience using Elastic Observability. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization that is an online services organization with 10 million customers and revenue of $1 billion per year.

Interviewees said that prior to using Elastic Observability, their organizations used unscalable and siloed monitoring tools they either developed internally or via legacy third-party monitoring vendors. These tools were often slow, difficult to manage, or posed security risks, and they did not provide operational and business visibility. Logging and monitoring data was siloed or distributed across different solutions or environments, leading to excessive time spent detecting, identifying, and responding to errors or system outages. These concurrent issues resulted in teams responding to issues once they affected customers and employees instead of proactively remediating the root causes of issues.

After the investment in Elastic Observability, interviewees' organizations consolidated their telemetry data, which increased visibility and improved

operational efficiency across their applications. They created dashboards to improve real-time monitoring and business insight efforts, improved development pipelines, and automated proactive actions against outages or errors. Key results from the investment include an improved ability to detect, resolve, and prevent issues, better decision-making, improved system and application performance, higher-quality customer service and retention, and more efficient workflows for SREs and developers across the organization.

KEY STATISTICS

Return on investment (ROI)
243%

Net present value
$11.12M

Benefits PV
$15.69M

KEY FINDINGS

Quantified benefits. Three-year, risk-adjusted present value (PV) quantified benefits for the composite organization include:

- **An 85% reduction in monitoring and incident resolution labor, resulting in $1.8 million in avoided revenue loss through reduced system downtime.** Before using Elastic Observability, the composite organization experienced an average of 90 hours of system downtime annually. Elastic Observability reduces this by 68% in Year 3 of the deployment, which cuts revenue loss with improved system and application reliability and proactive issue resolution. SREs save more than 30,000 hours each year due to more efficient issue identification and resolution and automated alerts. Over three years, the value of the avoided revenue loss and SRE labor savings are worth more than $5.8 million to the composite organization.

- **105,000 hours saved by developers with more efficient application deployment.** Elastic Observability provides the composite organization with real-time visibility into the entire application development pipeline from development to staging to production, and this helps developers quickly conduct root cause analyses and identify and correct performance issues. With less time spent on testing, deploying, and debugging new code and applications, developers produce applications more quickly and with fewer errors. These labor savings are worth almost $5.5 million to the composite organization over three years.
- **A 90% increase in data analyst efficiency.** Data analysts at the composite organization use Elastic Observability to connect telemetry data to business data and create dashboards across system, infrastructure, application, and business data for both internal and external applications. Ultimately, Elastic Observability automates 60% of the data analyst's work in Year 2 by increasing their direct access to real-time business and telemetry data and 90% by Year 3, when self-serve data dashboards deliver insights directly to users. Over three years, the value of the time saved by data analysts is worth nearly $1.1 million to the composite organization.
- **Increased customer retention resulting in $2.1 million of additional profit over three years.** With greater application and system reliability and better access to incident and customer data, the composite organization improves the quality of its products and customer service, which increases customer satisfaction and improves customer retention. A 3% increase in the composite's retention in Year 3 is directly attributable to Elastic Observability, and this delivers an additional $24 million in revenue.
- **Infrastructure optimization that delivers $1.2 million in savings over three years.** Because the composite organization invests in the enterprise version of Elastic Observability, it retires its legacy monitoring tools, which saves it just less than $250,000 per year in external and labor costs. The composite also uses Elastic Observability to identify inefficiencies and to optimize its data storage, infrastructure usage, and system performance. This optimization generates an additional $915,000 of savings over three years.

Reduction in time spent monitoring and resolving incidents with Elastic Observability in Year 3

85%

Unquantified benefits. Benefits that provide value for the composite organization but are not quantified for this study include:

- **Additional revenue from accelerated business decisions and application releases.** The composite organization signs and launches new clients faster with improved visibility into its capabilities to fulfill client requests. In addition, the composite more quickly releases new versions of customer applications that improve top-line revenue.
- **Fast, high-quality, data-driven decision-making.** With Elastic Observability, decision-makers at the composite organization have more comprehensive access to business and operational data, and they use this access to make faster and more-informed decisions.
- **Improved application performance and reduced support tickets.** Along with reduced downtime, the composite's application reliability improves, which reduces the number of software issues it experiences due to automated actions and proactive monitoring by SRE teams. The reduction in issues generates fewer support tickets that IT teams must resolve.
- **Improved collaboration across teams.** Employees at the composite organization benefit from improved cross-team collaboration as each team has more unified data access with Elastic Observability working to connect systems and applications across teams.
- **Retained employee knowledge base.** With a dedicated knowledge base including data, alerts, and automation, Elastic Observability helps the composite organization ensure processes and knowledge are retained and shared consistently despite employee turnover.
- **Faster innovation and facilitated growth.** With faster application development and deployment timelines, the composite organization

iterates on existing products more often and spends more time on creative or innovative work. Elastic Observability's subscription cost structure and scalability and functionality as a single solution also remove barriers to data and infrastructure growth.

> "Elastic allowed us to pretty much use [its] entire suite for no extra charge. We just pay storage costs. [Elastic's capabilities and open platform] allowed us to open the door to say, 'How else can we use this?' Now, we're using it as a security appliance through SIEM (security information and event management) and endpoint protection, [and] using it to monitor servers and data center attributes as well as business data. … If it's data oriented, I pretty much push everything through Elastic now."
>
> HEAD OF ENGINEERING, DIGITAL MEDIA

- **Easier employee staffing and onboarding.** With Elastic Observability as a unified solution, the composite onboards and trains developers and operations employees on applications more quickly and effectively. Removed data silos and remote access to the solution and relevant data allows for more flexible staffing allocation.
- **Improved security and compliance.** Elastic Observability helps security teams at the composite organization gain visibility into vulnerabilities at the application level, and it enables federated security for application

developers. Vulnerabilities are found and resolved more frequently and efficiently, and applications are more secure when first released.

- **Flexibility and scalability with Elastic's open ecosystem, OpenTelemetry, and the Elastic Common Schema (ECS).** Because Elastic Observability is built on an open and extensible platform with support for open standards, the composite can connect Elastic to and bring on any data from any cloud infrastructure or applications desired.

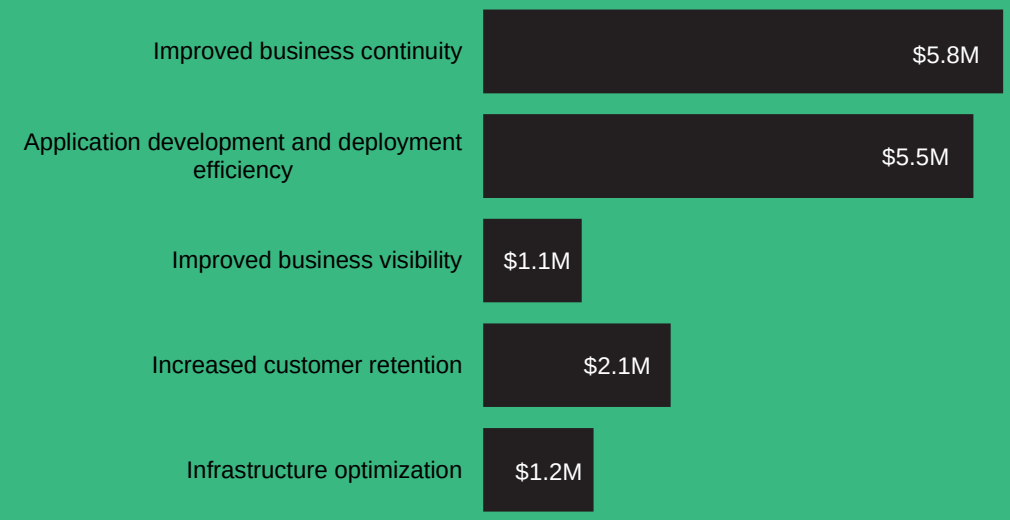
Costs. Three-year, risk-adjusted PV costs for the composite organization include:

- **$3.7 million in Elastic Observability subscription and professional services costs.** The composite organization pays $975,000 in Year 1 for Elastic Observability, and this cost increases to $1.8 million in Year 3 as the organization expands its system and application coverage and use of Elastic. The subscription is inclusive of compute and storage costs. Additionally, the composite pays Elastic $35,000 for professional services fees.
- **Implementation and training labor costs amounting to $365,000.** The composite dedicates three full-time equivalent (FTE) employees to its initial bare-bones Elastic setup and implementation as a managed cloud service over two weeks. Integration and expansion labor continues throughout the first half of Year 3. Twenty engineers along with 38 developers and data analysts spend time learning how to use Elastic Observability, which amounts to $94,000 in training costs in Year 1.
- **Optimization and management labor costs of $534,000.** The composite organization fully dedicates one FTE employee to ongoing optimization and management labor, and this includes providing change management, coordinating internal integrations for new applications and data, and troubleshooting and resolving issues.

The representative interviews and financial analysis found that a composite organization experiences benefits of $15.69 million over three years versus costs of $4.58 million, adding up to a net present value (NPV) of $11.12 million and an ROI of 243%.

ROI	BENEFITS PV	NPV
243%	**$15.69M**	**$11.12M**

Benefits (Three-Year)



“It’s tied everything together — logs, metrics and APM — so that people can correlate events and say, ‘Okay, because of this issue, this is what happened, and this is the root cause of it.’ So you arrive at a conclusion much faster.”

DIRECTOR OF ENGINEERING, FINTECH

TEI Framework And Methodology

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

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 Elastic Observability can have on an organization.

1. **Due Diligence**
   Interviewed Elastic stakeholders and Forrester analysts to gather data relative to Elastic Observability.
2. **Interviews**
   Interviewed seven representatives at organizations using Elastic Observability to obtain data about costs, benefits, and risks.
3. **Composite Organization**
   Designed a composite organization based on characteristics of the interviewees' organizations.
4. **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 interviewees.
5. **Case Study**
   Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

The Elastic Observability Customer Journey

Drivers leading to the Elastic Observability investment

Interviews					
Role	**Industry**	**Region**	**Elastic instance**	**Revenue**	**Number of employees**
Senior operations engineer	Manufacturing	Global (US headquarters)	Elastic Cloud	$53B	82,000
Director of engineering	Fintech	Global (US headquarters)	Elastic Cloud	$100M	250
VP of IT	Insurance	US	Elastic Cloud and on-premises	$2.6B	2,500
Development and integration manager	Insurance	US	Elastic Cloud and on-premises	$2.6B	2,500
Head of engineering	Digital media	US	Elastic Cloud and on-premises	$16B	14,000
Product owner	Public sector	Europe	Elastic Cloud and on-premises	N/A	11,500
IT specialist	Public sector	Europe	Elastic Cloud and on-premises	N/A	11,500

Key Challenges

Before investing in the enterprise version of Elastic Observability, most of the interviewees' organizations used a combination of specialized logging or monitoring tools built in-house or with a third party. Each interviewee said their organization previously utilized the free, open-source components of Elastic as part of its logging stack. One organization did not have any formal monitoring or logging solution in place while another was utilizing a different, established observability provider. The interviewees noted their organizations struggled with common challenges in their prior environments including:

- **Siloed logging data.** Multiple interviewees described environments in which application, system, and container logs were decentralized and difficult to navigate, which created inefficiencies in identifying issues. The senior operations engineer in manufacturing said some applications

weren't tracking logs at all. They shared: "If an application [had] an issue and we [didn't] have the logs gathered and we [didn't] have the other metrics gathered, we might [have gotten] an alert that [the] app isn't working. But the developers [couldn't] look at it to see how to fix it."

> "If we have no observability for [our services], we're sitting blind, hoping that nothing happens."
>
> SENIOR OPERATIONS ENGINEER. MANUFACTURING

- **Existing tools that were slow, difficult to manage, and lacking in security.** The director of engineering at a fintech organization noted that their company's previous logging solution lacked security and required lots of manual troubleshooting, while interviewees from manufacturing and public sector organizations reported legacy monitoring or observability tools that had long response times and required manual support that kept engineering teams from spending time on more valuable work.
- **Inaccessible data.** Without consolidated logging and monitoring data, information was not democratized and accessible to employees who needed it, which led to inefficiencies. The VP of IT at an insurance organization told Forrester that before using Elastic, they had to engage up to 10 teams at once to properly identify issues. And the director of engineering in fintech noted, "There is always one person in the team who knows the entire stack, and you have to wait for [them] to come and join everything because you don't know where the [dependency] is."
- **Limited visibility into business data.** The head of engineering at a digital media organization told Forrester that if they wanted to pull any data, they had to sample a small data set because their company's data systems weren't set up for proper analysis. They said: "We were doing a lot of in-house coding and doing things pretty statically. … There wasn't a lot of visibility within the data processes on a day-to-day basis. It was a lot of sampling."

- **Excess time spent watching for, identifying, and responding to issues.** Siloed data and a lack of access to visibility across their entire stacks ultimately meant interviewees' organizations had to allocate excess resources to simple processes, such as creating and sorting through logs, checking applications for issues, or responding to customers' questions. The head of engineering at a digital media organization said their company employed an entire team of 12 employees that was dedicated to watching for lights, emails, or alerts that indicated an issue.

> "Elastic really has the best value. It gives you a tremendous amount of value for the cost."
>
> SENIOR OPERATIONS ENGINEER. MANUFACTURING

- **Requests for enterprise-level support and guidance.** Nearly every interviewee mentioned a desire for additional support and guidance from Elastic while using the free, open-source version. Usually, this was because their organization was expanding its use of Elastic to more complex applications and systems and decision-makers hoped to continue enabling growth and scale in a sustainable way.

Investment Objectives

The interviewees' organizations searched for a solution that could:

- Cover multiple use cases in one solution.
- Support growth with the option for both hybrid cloud and on-premises deployment.
- Enable flexibility and scalability at the organization.
- Provide a single source for all telemetry data.

- Consolidate previous logging, monitoring, or compliance tools into one end-to-end solution.
- Increase visibility into logs, errors, and operations throughout the organization.
- Make work easier for developers.
- Improve performance of infrastructure and applications.

> "We're working towards 100% coverage of non-workforce applications into a single pane of glass and a 100% alerting out to the respective operations and dev teams behind them."
>
> **VP OF IT, INSURANCE**

Some of the interviewees' organizations deployed Elastic Observability as a self-managed solution on-premises and some deployed it as a managed solution with one or multiple cloud providers. Most used a "land and expand" model that started with a single use case like logging or monitoring infrastructure and then expanded Elastic's purview to apply OpenTelemetry and include metrics, telemetry data indexing, additional infrastructure or applications, continuous integration (CI)/continuous delivery (CD) pipelines, endpoint protection and other security applications, centralized agent management, business data analytics and dashboards, ML use cases, and more.

Overall, the organizations leveraged Elastic Observability across infrastructure monitoring, IT support, SRE, application development, DevOps, and security teams. After a few years of using the enterprise-level of Elastic, the organizations' Elastic deployments covered 75% to 99% of their application environments.

> “I wanted to get further into the enterprise capabilities through the fact that I needed something that can be supportable, sustainable, [and] have a team behind it as well as getting into some of the newer technologies like artificial intelligence and other, more advanced capabilities.”
>
> HEAD OF ENGINEERING, DIGITAL MEDIA

Composite Organization

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the interviewees’ five organizations, 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, billion-dollar composite organization provides online services to both businesses and consumers, and it has a customer base of about 10 million and a profit margin of 10%. The organization operates globally with 2,500 employees and more than 300 internal applications. Before investing in the enterprise version of Elastic, it used one external point solution to monitor its infrastructure, one in-house solution to manage existing logs, and the open-source version of Elastic — which includes basic Elastic search, observability, and security capabilities.

Deployment characteristics. The composite organization deploys Elastic Observability as a managed cloud service with its existing multicloud architecture. The organization starts with Elastic coverage of logs, metrics, and traces across critical applications. It then includes internal apps and then

customer-facing apps. In Year 1, the Elastic coverage includes about half of all apps, which reaches 75% of the organization's applications in Year 2 and 90% in Year 3. Its application development team uses Elastic to gain visibility into the organization's pre-production and production environments, and its data analytics team uses Elastic's dashboarding tool, Kibana, to run analytics on and create dashboards for business data from both internal and external applications.

KEY ASSUMPTIONS

$1B annual revenue

2,500 employees

10M customers

300+ applications

Analysis Of Benefits

Quantified benefit data as applied to the composite

Total Benefits						
Ref.	**Benefit**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Atr	Improved business continuity	$2,084,750	$2,387,856	$2,576,395	$7,049,001	$5,804,345
Btr	Application development and deployment efficiency	$1,204,403	$2,340,258	$3,248,045	$6,792,706	$5,469,314
Ctr	Improved business visibility	$0	$356,429	$1,069,286	$1,425,715	$1,097,940
Dtr	Increased customer retention	$0	$768,000	$1,938,432	$2,706,432	$2,091,083
Etr	Infrastructure optimization	$440,784	$494,784	$562,284	$1,497,852	$1,232,077
	Total benefits (risk-adjusted)	$3,729,937	$6,347,326	$9,394,442	$19,471,706	$15,694,759

Improved Business Continuity

Evidence and data. With Elastic Observability, interviewees' organizations consolidated and streamlined their telemetry data and gained new and greater visibility into their systems and applications functionality and failures. Their organizations' monitoring efforts became much more efficient, the performance of their infrastructures and applications improved, and SRE teams more proactively detected and resolved issues before they impacted users. When instances of application outages and system failures did arise, SREs were able to identify and resolve the issues much faster due to a more comprehensive and consolidated view of their infrastructures. Interviewees said Elastic Observability ultimately helped their organizations save time and money in the following ways:

- **Proactive application and system monitoring and associated labor reduction.** Consolidated telemetry data and alerting reduced the amount of manual work teams had to do to monitor customer- and internal-facing applications for issues. The senior operations engineer at the manufacturing organization noted that Elastic Observability helped their team see what was happening to tens of thousands of data points in one

place to know how the ecosystem as a whole was behaving. They said: “It was a tremendous value [that] we could see what was going on with our logs. It would save us time [by] not having to look at different systems or log into different machines. We can see it in a nice web browser.” The interviewee added that with this visibility, they can see trends that may become an issue even before it gets to the level that will trigger an alert.

The head of engineering at the digital media organization said their company was able to uplevel an entire team of monitoring employees to new, more value-add activities because Elastic Observability automated their work. They told Forrester: “I had 12 people dedicated in a technical operation center who sat there day in and day out and just watched blinky lights for me, watched email, [and] watched alerts, and then [they] would escalate whenever they saw something out of the ordinary. … Those 12 are no longer in those positions anymore. …. Some of them were able to get promoted and start working on future projects.”

- **Avoided system and application downtime and associated revenue loss.** More comprehensive coverage and visibility directly avoided instances of application and system downtime at the interviewees’ organizations. The VP of IT at the insurance organization shared, “[Elastic Observability] saves us outages [and] gives us visibility into how we better manage our environments, which is crucial.” Interviewees from a public sector organization noted their company was able to have 24-hour coverage of system monitoring with Elastic, which it was unable to accomplish before.
  Interviewees shared that by avoiding system downtime, their organizations reduced business disruption that would have caused them to miss out on earning revenue or offering critical services. The senior operations engineer at the manufacturing organization explained that if their company’s applications aren’t working, then employees aren’t getting the data need and their productivity loss affects customers and product and service delivery. The director engineering at the fintech organization said Elastic also reduced the frequency of P0 incidents (the highest-priority incidents) that indicate downtime of critical systems or applications that directly impact revenue. The interviewee said, “With the help of Elastic, we

don't reach a P0 [incident]. … If it's already [at the P2 or P1 level], we already got alerted, and people would fix it in the business hours so it won't even reach a P0 [level]."

- **Decreased employee time spent on issue resolution**. Interviewees said before using Elastic, the interviewees' organizations struggled to isolate the source of issues across sprawling systems. The head of engineering at the digital media organization said: "Before, if we did have issues, it was hard to pinpoint where the issues were. Now, Elastic points at it for us, and we know at least where to start. We can go straight to the source of the problem and work on it. It's replaced a lot of my tier 1 support." They also noted that Elastic Observability gives more descriptive and targeted identification than their legacy system did: "Elastic can tell me it's this server that's down versus in the past when I got a call that [part of our service was down]. I [would have] to say, 'Well, there [are] 12 pieces of gear between you and that, so let's go look at them all.'"
    - The senior operations engineer in manufacturing told Forrester that Elastic Observability increases visibility across and into their systems, which decreased its MTTR. They said: "[SREs] can get to the root [of the problem faster], and actually work on fixing the issue. They're spending a lot less time finding the issue than they were before."
    - The director of engineering at the fintech organization said issue identification is also faster because their company was able to give everyone centralized access to all of its telemetry data, rather than having individual owners with views into specific systems. They told Forrester, "Everything works as a single, cohesive unit so that we don't need to run behind different tools to identify a Kubernetes issue versus an infrastructure upgrade versus a service deployment." Additionally, they said consolidating their organization's prior tools for logging and APM to full-stack observability with Elastic enabled the company to correlate events with application performance to quickly pinpoint issues.

- The same interviewee noted that having simplified access to data through Elastic's search functionality, alerts, and dashboards removed SRE involvement entirely for some issues because other employees could perform issue identification themselves. They said: "With Elastic, [other teams] don't bother SREs [because] they have tools [in] hand. They can look at [issues] themselves and see where the issue is happening. They know how to search for [the data they need], and they can plot and see what the pattern is and … do everything on their own."

> "It's dramatically faster [to resolve issues]. It used to take us sometimes days depending on the issue. If it's a [network] signal issue, [our system could be] down for minutes. Now, we're [back up] in the seconds."
>
> HEAD OF ENGINEERING, DIGITAL MEDIA

- Interviewees from an insurance organization also described savings from centralized data visibility and noted they no longer have to engage multiple teams to inform issue response. The development and integration manager told Forrester there was an instance in which multiple developers were held up on an issue for almost two days because it was occurring in the load balancer, not in their application, and they couldn't figure out what their problem was. The interviewee said: "Once we got our load balancer pulling data into Elastic again, building out that single pane [was] a huge time saver. Now, they immediately have all that information at their fingertips and don't burn a day on something that they can't see to be an issue."

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- Before using Elastic Observability, the composite organization experienced an average of 90 hours of system downtime annually.
- With Elastic Observability, the composite reduces its total downtime by 52% in Year 1, by 60% in Year 2, and by 68% in Year 3. This includes avoided outages and shortened outages due to faster resolution.
- The composite organization has a 10% profit margin and annual revenue of $1 billion, which translates to an average of about $114,000 lost per hour during system downtime.
- Before using Elastic Observability, 20 SREs spent 85% of their time (about 1,750 hours) identifying and resolving system and application incidents.
- This SRE time spent identifying and resolving incidents is reduced by 70% in Year 1, by 80% in Year 2, and by 85% in Year 3.
- The SREs reinvest 80% of their saved time into value-added work.
- The average fully burdened hourly compensation rate of an SRE at the composite organization is $90.

Risks. The expected financial impact is subject to risks and variation based on:

- The scope and speed of the organization’s deployment and its use cases.
- The frequency and length of incidents of system downtime the organization experiences before investing in Elastic Observability.
- The organization’s operating margin, total revenue, and revenue structure including the level that system downtime directly affects revenue accrual.
- The scale, structure, and efficiency of the organization’s SRE team before investing in Elastic Observability.
- The percentage of time SREs spent identifying and resolving issues before investing in Elastic Observability.
- The organization’s compensation amounts and structure for employees and its recapture rates of productivity on saved time.

- The organization's level of internal investment in learning how to best utilize Elastic Observability's capabilities and its efforts to optimize use and value of the solution.
- The organization's unique business requirements and complexities that may reduce potential savings from improved business visibility.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $5.8 million.

> "My team is able to figure out issues in a matter of 15 minutes whereas it used to take 45 minutes to 1 hour."
>
> DIRECTOR OF ENGINEERING, FINTECH

Improved Business Continuity					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
A1	Previous hours of system downtime	Composite	90	90	90
A2	Reduction in system downtime with Elastic Observability	Interviews	52%	60%	68%
A3	Total annual revenue	Composite	$1,000,000,000	$1,000,000,000	$1,000,000,000
A4	Revenue loss per hour of system downtime	A3/(365*24)	$114,155	$114,155	$114,155
A5	Operating margin	Composite	10%	10%	10%
A6	Subtotal: Avoided revenue loss	A1*A2*A4*A5	$534,245	$616,437	$698,629
A7	Site reliability engineers in prior environment	Composite	20	20	20
A8	SRE hours on monitoring applications and identifying and resolving incidents in prior environment	A7*2080*85%	35,360	35,360	35,360
A9	Reduction in time spent monitoring and resolving incidents with Elastic	Interviews	70%	80%	85%
A10	SRE hours saved	A8*A9	24,752	28,288	30,056
A11	Average SRE fully burdened hourly compensation	TEI standard	$90	$90	$90
A12	Recapture rate on saved time	TEI standard	80%	80%	80%
A13	Subtotal: Incident resolution efficiency	A10*A11*A12	$1,782,144	$2,036,736	$2,164,032
At	Improved business continuity	A6+A13	$2,316,389	$2,653,173	$2,862,661
	Risk adjustment	↓10%			
Atr	Improved business continuity (risk-adjusted)		$2,084,750	$2,387,856	$2,576,395
	Three-year total: $7,049,001			**Three-year present value: $5,804,345**	

Application Development And Deployment Efficiency

Evidence and data. According to the interviewees, Elastic Observability provides real-time visibility into deployment pipelines and assists with troubleshooting and root-cause analysis during development, staging, and production. Elastic's APM service enables end-to-end visibility of entire applications and connected infrastructure so developers can quickly identify and correct bottlenecks, performance issues, and errors. Interviewees said that ultimately, this saved their organizations' developers time and accelerated development and deployment

timelines, which allowed them to produce new applications faster and with fewer errors and less rework.

- The product owner at the public sector organization told Forrester that Elastic helped many of their company's development teams monitor apps and identify bugs in their code more quickly while getting ahead of production issues or inefficiencies.
- The director of engineering at a fintech organization explained that having this visibility was especially helpful when pushing out new code or software. They said the code their engineers release into production has fewer bugs, which reduces the overall number of issues and bugs that need resolution. They said: "The moment I roll it out, I know within the next 5 minutes what services are going to get impacted [and] I can take a corrective action and start to roll out in that sense. [Previously,] it was much more difficult to find that out. [With] the [old solution], it took us a day or a couple of days to figure out which services had issues. Now, we can just do that in a matter of minutes."
- The head of engineering at the digital media organization told Forrester that improvements to their company's CI/CD pipeline allowed it to improve the initial quality and security of its applications. They said: "Our CI/CD pipelines used to be a functionality test. [We could say if it was functional] … but I couldn't tell you about performance. I couldn't tell you about security. I couldn't tell you about anything [built] off of it. Now, it's an all-in-one inclusive test."
- They explained that with Elastic, they can easily pull previous performance metrics to compare against new metrics and adjust baselines automatically. They said: "I can overlay trending lines and [say], 'This one is 3% faster or there's a 50% lag here in this one process. We need to go figure out what that is before we send it out to our customers.'"
- With these efficiencies in its development pipelines, the organization completed sprints more than six times faster, which accelerated the release cycles for new features or applications. The head of engineering said: "It used to be that we were on a quarterly methodology for our sprints because that's just as fast as we could move. We are now doing sprints

every two weeks. … Now, if it's three sprints, we're talking six weeks versus three quarters of a year."

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- There are 375 application developers at the composite organization, and each spends an average of 20% of their time testing, deploying, and debugging new code and applications.
- Elastic Observability covers 50% of the composite's software and hardware infrastructure in Year 1, 75% in Year 2, and 90% in Year 3. The number of application developers who save time with Elastic Observability follows the same progression.

> "[For] anything infrastructural [and] new rollouts, Elastic Observability is going to help out so we can ramp from [development] to production at a much faster pace than we used to."
>
> DIRECTOR OF ENGINEERING, FINTECH

- With Elastic Observability, testing, deploying, and debugging new code and applications is 50% more efficient in Year 1, 65% more efficient in Year 2, and 75% more efficient in Year 3.
- The application developers reinvest 50% of their saved time into value-added work.
- The average fully burdened hourly compensation rate of an application developer at the composite organization is $77.

Risks. The expected financial impact is subject to risks and variation based on:

- The scope and speed of the organization's Elastic Observability deployment and its use cases.

- The scale, structure, and efficiency of the organization's application development team before investing in Elastic Observability.
- The percentage of time application developers spend testing, deploying, and debugging applications before investing in Elastic Observability.
- The organization's compensation amounts and structures for employees and its recapture rates of productivity on saved time.
- The organization's level of internal investment in learning how to best utilize Elastic Observability's capabilities and efforts to optimize use and value of the solution.
- The organization's unique business requirements and complexities that may reduce potential savings from improved business visibility.

Results. To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $5.5 million.

Reduction in time spent on new application development and deployment

75%

Application Development And Deployment Efficiency					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
B1	Application developers working on applications covered by Elastic Observability	Composite	188	281	338
B2	Developer hours spent testing, deploying, and debugging applications in prior environment	B1*2080*20%	78,208	116,896	140,608
B3	Reduction in time spent on application deployment with Elastic Observability	Interviews	50%	65%	75%
B4	Application developer hours saved with Elastic Observability	B2*B3	39,104	75,982	105,456
B5	Average developer fully burdened hourly compensation	TEI standard	$77	$77	$77
B6	Recapture rate on saved time	TEI standard	50%	50%	50%
Bt	Application development and deployment efficiency	B4*B5*B6	$1,505,504	$2,925,322	$4,060,056
	Risk adjustment	↓20%			
Btr	Application development and deployment efficiency (risk-adjusted)		$1,204,403	$2,340,258	$3,248,045
	Three-year total: $6,792,706			**Three-year present value: $5,469,314**	

Improved Business Visibility

Evidence and data. When Elastic Observability connects operational telemetry data to business data, interviewees noted that their organization's data analysts and engineers benefited from improved data accessibility and insights. They also said Elastic's open user interface, Kibana, allowed their organizations to easily visualize data and create dashboards across systems, infrastructures, and business data for both internal and external applications.

- The head of engineering at the digital media organization shared that their company used Elastic visualizations to provide self-serve data access to external clients and internal business teams. They described time savings for engineers who were able to answer questions faster and for business teams that no longer had to wait for answers. They said: "I would give [a business question] to my senior team members who actually understood the platform all the way through and ask: 'Can you go look into this? Are we able to put IP television on 12% of our market?' Now, when they ask us questions, [they say] 'quick question,' because they know it's going to be a

quick answer. … I can give them an instant answer versus before [when] it took time."

- They said being able to answer these questions in real time helped inform proposals and client conversations, which led to business opportunities and faster revenue recognition. They told Forrester: "[The value is in] being able to facilitate answers quickly because there are a lot of times when these opportunities are short-lived. If we can get going and get moving on quickly, get that contract signed, get moving on it, and start [generating] revenue, it's a lot easier."
- The director of engineering at the fintech organization also described significant time savings for engineers who can pull business reports much more quickly. They told Forrester: "Now, the engineering team is able to pull the reports in 10 to 15 minutes. [The reports say:] 'These are the customers, these are the transactions that would have failed, and the transaction status is XYZ.' They can pull this report in 10 to 15 minutes [whereas] it used to take … one full day because they [had] to query a MySQL table."
- The head of engineering at the digital media organization said that before using Elastic, their organization delivered static reports to clients. But now it gives its clients direct access to its data so they can log into an Elastic interface to view data dashboards, run reports, and get answers without needing to contact the digital media organization. The interviewee said their company's clients benefit from improved data access and that their organization gets fewer data requests.
- The VP of IT in insurance mentioned that analysts saved time due to Elastic's searching, tagging, and data-visualization capabilities. They said: "Instead of sorting and sifting through a million lines of server logs, we have very customized tagged events to say: 'Hey, somebody logged in. Somebody registered. Somebody reset their password. Somebody's browsing for document X, they retrieved Document X, [and] they paid their bill.' And we fed that into a set of indexes with all kinds of different types of data and permutations of it, and we hooked up Kibana to go visualize what's happening inside of our portals."

> "[We are] able to take all [our] data and put it at our fingertips to build dynamic reports for different vendors, advertisers, and clients. Knowing how the field is doing in a near real-time solution is what we were looking for. We're talking billions of records a day that we needed to ingest and correlate and build reports off of to the point where I wasn't waiting to hit a button and go to lunch, come back, and, hopefully, I [would] have a report and, hopefully, I got it right. It had to be quick."
>
> HEAD OF ENGINEERING, DIGITAL MEDIA

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- There are 12 FTE data analysts at the composite organization.
- In Year 2, about half of these data analysts work on data related to the noncritical internal applications covered by Elastic Observability, and the remaining data analysts cover customer-facing applications.
- Elastic Observability automates 60% of the data analysts' work in Year 2 by increasing their direct access to real-time business and telemetry data, and it automates 90% of this work by Year 3 when self-serve data dashboards deliver insights directly to users.
- The data analysts reinvest 80% of their saved time into value-added work.

- The average fully burdened hourly compensation rate of a data analyst at the composite organization is $70.

Risks. The expected financial impact is subject to risks and variation based on:

- The scope and speed of the organization's Elastic Observability deployment and its use cases.
- The scale, structure, and efficiency of the organization's application development team before investing in Elastic Observability.
- The percentage of time application developers spend testing, deploying, and debugging applications before investing in Elastic Observability.
- The organization's compensation amounts and structures for employees and its recapture rates of productivity on saved time.
- The organization's level of internal investment in learning how to best utilize Elastic Observability's capabilities and efforts to optimize use and value of the solution.
- The organization's unique business requirements and complexities that may reduce potential savings from improved business visibility.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $1.1 million.

Total data analyst time saved in Year 3

22,464 hours

Improved Business Visibility					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
C1	Data analysts with insights data under the scope of Elastic Observability	Composite	0	6	12
C2	Data analyst hours spent delivering relevant business insights in prior environment	C1*2,080	0	12,480	24,960
C3	Reduction in time spent delivering business insights with Elastic	Interviews	0%	60%	90%
C4	Data analyst hours saved with Elastic Observability	C2*C3	0	7,488	22,464
C5	Average data analyst fully burdened hourly compensation	TEI standard	$70	$70	$70
C6	Recapture rate on saved time	TEI standard	80%	80%	80%
Ct	Improved business visibility	C4*C5*C6	$0	$419,328	$1,257,984
	Risk adjustment	↓15%			
Ctr	Improved business visibility (risk-adjusted)		$0	$356,429	$1,069,286
	Three-year total: $1,425,715			**Three-year present value: $1,097,940**	

Increased Customer Retention

Evidence and data. Interviewees told Forrester that having greater application and system reliability and better access to incident and customer data improved their organizations' product delivery and customer service and that the improved customer experience helped their organizations improve customer satisfaction and retain additional customers or clients. In one case, the improved service delivery boosted client acquisition in addition to retention.

- The director of engineering at the fintech organization told Forrester that their company's technical account managers delivered a better customer experience with Elastic Observability because they had real-time, direct access to information such as incident status or failure rates instead of needing to ask the engineering team questions. With this direct access, they resolved customer issues more quickly.
- The head of engineering at the digital media organization said their company's customer-facing application development teams gained the ability to roll out new code to customers much faster and that this was

especially helpful when it could detect issues with a customer's technology before the customer did. They said: "We were definitely [taking] a reactive approach before. … [With] that proactive approach I can now see, we pushed that code set to the boxes, and we saw an unforeseen problem. We can now pick up the phone, call the customer, [and say]: 'We're seeing an issue with your box. When can we [send someone to fix it]?' And that's been quite a bit better."

> "At the end of the day, [Elastic Observability] helps our customers because they're looking for and getting [the data they want] faster."
>
> SENIOR OPERATIONS ENGINEER, MANUFACTURING

- This proactive approach to resolving customer issues helped the organization reduce the volume of customer support calls it received and increased customer retention. The head of engineering said: "We are now able to see errors before the customers are calling the call center. … Our call-center metrics are actually down almost 25% year over year so far."
- In addition to increasing visibility for customers, the digital media organization's improved visibility into issues improved its relationships with business clients. The same interviewee told Forrester: "It's been a great thing for our partners and ourselves. Many times before, if there was an issue, the partner would ask, 'What did you guys do?' And there was no way for us to know whether or not it was us or them or someone in between. Now, it's easy to come back to the client and say, 'This is what happened.' And they're more than happy with the answer. They just need to know the answer."
- Furthermore, the organization used insights and dashboards from Elastic Observability to increase the value it delivered to advertising clients, which helped it retain clients and attract new ones. The head of engineering said:

> "We took the [advertising partner] revenue from almost $600 million to over $1 billion this last year. Being able to bring in extra clients brings us extra money, and in order to bring those clients in, we need to have that added value. [We] have to have the portals to be able to [tell] them, 'This is what happened from point A to point Z through your data,' because that's their inventory. It's a win-win scenario. They're making more money. We're making more money. And that's why the cost of Elastic is a drop in the bucket because of what we can leverage with it now."

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- In its prior environment, the composite organization had 10 million customers. Its average annual revenue per customer was $100 and its customer retention rate was 80%.
- After focusing on its business-critical infrastructure in Year 1 of its Elastic Observability deployment, the composite organization connects and correlates operational telemetry with business data at the start of Year 2. Its customer retention increases by 3% in Year 2 and then by 5% in Year 3. Sixty percent of the increase in retention is attributable to Elastic Observability.
- The organization's operating margin is 10%.

Risks. The expected financial impact is subject to risks and variation based on:

- The scope of the organization's Elastic Observability deployment and its use cases.
- The organization's number of existing customers and its customer retention rate before investing in Elastic.
- The organization's average annual revenue per customer.
- The organization's revenue structure and operating profit margin.
- The organization's unique business requirements and complexities that may reduce potential savings.

Results. To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $2.1 million.

Reduction in customer support calls

25%

Increased Customer Retention					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
D1	Number of customers in prior environment	Composite	10,000,000	10,000,000	10,000,000
D2	Previous customer retention rate	Composite	80%	80%	80%
D3	Increase in customer retention attributed to Elastic Observability	Interviews	0%	1.2%	3.0%
D4	Number of additional customers retained with Elastic Observability	(D1+B4 previous year)*D2*D3	0	96,000	242,304
D5	Average revenue per customer	Composite	$100	$100	$100
D6	Operating margin	A5	10%	10%	10%
Dt	Increased customer retention	D4*D5*D6	$0	$960,000	$2,423,040
	Risk adjustment	↓20%			
Dtr	Increased customer retention (risk-adjusted)		$0	$768,000	$1,938,432
	Three-year total: $2,706,432			**Three-year present value: $2,091,083**	

Infrastructure Optimization

Evidence and data. With the enterprise version of Elastic Observability, the interviewees' organizations retired and consolidated various legacy project or work management tools in favor of standardizing the use of Elastic across their organizations, which reduced external and internal IT expenditure. In addition, interviewees said Elastic Observability helped their organizations optimize resource utilization and reduce infrastructure costs by identifying inefficiencies and optimizing system performance and storage usage.

- The VP of IT at the insurance organization said, “Piece by piece, we’ve been displacing the [legacy system] with more and more customized tagged events that we have, and it’s been pretty amazing.”
- The director of engineering at the fintech organization noted that their team benefitted from only needing to manage one product instead of multiple and that they could build on top of Elastic as their one tool for the future instead of having to add additional ones.

> “We’re working our way out of [an alternative solution provider] to replace with Elastic. We’re all in with Elastic.”
>
> **VP OF IT, INSURANCE**

- Multiple interviewees said Elastic helped their organization save on storage costs by making data stored in less accessible areas more searchable and identifying data that could be moved into lower-cost storage levels that require less expensive disks. Interviewees from the fintech and public sector organizations said their companies moved large amounts of data into less-expensive storage options, either in Elastic or on their own object storage.
- The product owner from the public sector organization said their company’s old solution lacked the flexibility to move data between different storage levels. But they said with Elastic, the organization reduced storage costs by 75% because Elastic’s searchable snapshot capabilities allowed it to search through data in searchable lower-cost data tiers, which allowed it to keep less data in more-expensive storage tiers. As the organization’s data storage needs have grown, its savings have compounded over time.
- The senior operations engineer at the manufacturing organization said their company retired multiple monitoring tools when it invested in the

enterprise version of Elastic Observability and that it also developed an anomaly detector based on Elastic Observability that helped it save almost half a million dollars in three months by identifying cost issues or areas for optimization. The interviewee said: “We have all of our [cloud-provider] cost data coming in from a hundred accounts, and [Elastic] will look for [instances] when something goes out of spec or is [unusual for a cloud-provider] component or per-cost bucket. We will get an alert on that.”

- The same interviewee also said having data insights within Elastic helped their organization save money by moving a large amount of data to a different, lower-cost storage option in its public cloud. They said, “We were able to do that by loading a bunch of data we were collecting from [our cloud provider] into our Elastic cluster to figure out where the savings were.”

> “Elastic allows us to be more cost-efficient with storage, and we save time and have the chance to grow. And Elastic Cloud Enterprise is a very good GUI (graphical user interface) to see all the deployments and administrate them and scale them, and [it] makes it easy to scale clusters. It’s very flexible.”
>
> PRODUCT OWNER, PUBLIC SECTOR

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- The composite previously spent $100,000 annually on an application-monitoring point solution.

- Previously, one FTE engineer dedicated 80% of their time to managing the organization's legacy monitoring or logging tools, including the application-monitoring solution and a homegrown logging tool.
- The fully burdened hourly compensation rate of this engineer is $90.
- Upon investing in the enterprise version of Elastic Observability, the composite retires its legacy application-monitoring solution in Year 1, and it no longer needs an engineer to manage that solution or its homegrown logging solution.
- With Elastic Observability, the organization optimizes its use of cloud infrastructure and storage over time to flex compute usage according to time-based compute needs, and it moves data from hot to cold tier and frozen tier storage, which reduces its expenditure on cloud infrastructure and storage by $240,000 in Year 1, by $300,000 in Year 2, and by $375,000 in Year 3.

Risks. The expected financial impact is subject to risks and variation based on:

- The organization's previous monitoring or logging tools and the associated expenditure and maintenance labor costs.
- The organization's willingness and ability to retire solutions after investing in Elastic Observability.
- The organization's expenditure in its prior environment on cloud infrastructure and storage and the level of internal investment in utilizing Elastic Observability to minimize infrastructure and storage costs.
- The organization's unique business requirements and complexities that may reduce potential savings.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $1.2 million.

Infrastructure Optimization					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
E1	Expenditure on third party legacy monitoring solutions	Composite	$100,000	$100,000	$100,000
E2	Previous engineer hours spent managing legacy solutions	Interviews	1,664	1,664	1,664
E3	Average engineer fully burdened hourly compensation	A11	$90	$90	$90
E4	Savings from consolidation and retiring legacy solutions	E1+E2*E3	$249,760	$249,760	$249,760
E5	Reduction in cloud infrastructure and storage spend due to optimization	Interviews	$240,000	$300,000	$375,000
Et	Infrastructure optimization	E4+E5	$489,760	$549,760	$624,760
	Risk adjustment	↓10%			
Etr	Infrastructure optimization (risk-adjusted)		$440,784	$494,784	$562,284
	Three-year total: $1,497,852			**Three-year present value: $1,232,077**	

Unquantified Benefits

Interviewees mentioned the following additional benefits that their organizations experienced but were not able to quantify:

- **Additional revenue from accelerated business decisions and application releases.** With Elastic Observability, the digital media organization had immediate access to operational data that helped them immediately deliver data to clients and quickly confirm the feasibility of new initiatives or client requests. With better answers, they signed multi-million advertising contracts immediately and launched clients faster. In addition, with shortened application development timelines, the interviewees' organizations accessed revenue from new services sooner.
- **Fast, high-quality, data-driven decision-making.** With Elastic Observability, decision-makers have more comprehensive access to business and operational data, and they can use this access to make faster and more-informed decisions. The head of engineering at the digital media organization said that before using Elastic Observability, their company's data insights team had to pull partial data sets to answer data-driven questions, and they only relied on 10% of their data at a time to

provide insights. With Elastic Observability, the team gained the ability to access the entire data set and its confidence level in answering business questions improved as well as its speed. They said: “Most of the time [the team’s confidence level] is 99% or greater. It’s definitely a great feeling.”

- **Improved application performance and reduced support tickets.** Interviewees said that along with reducing downtime, application reliability also improves with Elastic Observability, and this reduces the number of software issues due to automated actions and proactive monitoring by SRE teams. The reduction in issues generates fewer support tickets that IT teams must resolve.

> “It’s a very fun product to work with. It’s fun to have something to dig into [and] something that is exciting to work with. It’s a product that seems to be [at the] front of evolution in observability research. And it’s very easy to orchestrate clusters and upgrade, and lifecycle handling is very easy. I can do something else with my hours.”
>
> PRODUCT OWNER, PUBLIC SECTOR

- **Improved collaboration across teams.** The head of engineering at the digital media organization noted that employees benefited in their day-to-day work from having more unified data access with Elastic Observability working to connect systems and applications across teams. They said: “[Developers are] not only responsible for their own one area. Now they can work as a team and share responsibility.”

- **Retained employee knowledge.** With a dedicated knowledge base including data, alerts, and automation, Elastic Observability also helps organizations ensure processes and knowledge are retained and shared consistently despite employee turnover. The head of engineering at the digital media organization told Forrester: “A lot of the employees who work here [have spent] 20 [to] 30 years here, [and] there are a lot of them who are looking to retire. So, we as a company are taking observability as a [way to say] when they do retire, we probably don’t need to backfill [their positions]. We can do more with less now because we have more efficiency, automation, and observability.”
- **Faster innovation and facilitated growth.** With faster application development and deployment timelines, there is more room for product iteration. Time savings for data analyst and developer teams create space for more creative or more innovative work. Elastic Observability’s pricing model is based on back-end data resources instead of per-app or per-host licensing costs, which provides opportunities for organizations to increase their data sources and application coverage without increasing their costs. The IT specialist from the public sector organization told Forrester: “If we had been growing this amount of data with the previous solution, it would have been very difficult to handle. With licenses, it would be difficult to expand.”
- **Easier employee staffing and onboarding.** The VP of IT at the insurance organization mentioned that with Elastic Observability as a unified solution, their company could onboard and train developers and operations employees more quickly and effectively. And the head of engineering in digital media described a reduced need for in-person monitoring through remote access to relevant data, which helped their organization alleviate staffing issues.
- **Improved security and compliance.** Elastic Observability helps security teams gain visibility into vulnerabilities at the application level and enables federated security for application developers. Vulnerabilities are found and resolved more frequently and efficiently, and applications are more secure when first released. The development and integration manager in insurance said: “[Elastic Observability] has really brought security and

applications together [and brought] the awareness and information sharing to a whole other level."

- The head of engineering at the digital media organization also shared, "Any time there is a vulnerability, I'm able to determine it and fix it pretty quickly because of [Elastic Observability]."

> "We did have a cybersecurity issue back in February of this last year. Luckily, my servers were not affected. Elastic [Observability] stopped it in its tracks."
>
> HEAD OF ENGINEERING, DIGITAL MEDIA

- **Scalability and vendor flexibility with OpenTelemetry and the Elastic Common Schema.** Because Elastic Observability is built on an open and extensible platform with support for open standards, organizations can connect it to and bring on any data from any cloud infrastructure or applications they desire. The head of engineering in digital media said: "Most of the products I was looking at in the past were either on-prem or cloud. I use Elastic for both. Back in the day, we were only doing AWS. But now I can [also] use it in GCP (Google Cloud Platform) and on-prem, and I can monitor all three from the same application, which is great."

Flexibility

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Elastic Observability and later realize additional uses and business opportunities, including:

- **Flexibility in future technology vendor choices.** Elastic Observability is built to natively support open standards and multiple cloud providers, so organizations may further customize and extend the solution to work with

any cloud infrastructure or application provider they choose. This reduces instances of lock-in to specific vendors or deployment options, which can reduce risk and enable a best-of-breed approach.

- **Expansion of Elastic to new use cases or business areas.** The full-stack Elastic Observability solution includes APM, synthetics, profiling, and more. Interviewees said their organizations are in the process of expanding use of Elastic, which they believe will allow them to reap additional benefits such as expanding to security. The nature of an open platform also enables organizations to customize Elastic for their unique needs and use cases.
- **Access to new Elastic features and components.** As Elastic continues to improve the product and expand its capabilities, existing Elastic Observability customers have immediate access to product improvements and new capabilities. Interviewees specifically mentioned new AI and ML components as areas their organizations are excited to explore. These features include the Elastic AI Assistant, which leverages generative AI to improve root-cause analysis for users at any skill level.

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

> "[Elastic has] always brought the right people to the table to help us accelerate. [They] give us ideas of how to optimize to better use things, how to use new features, [and] things that are coming up from a beta perspective. They've been incredible partners."
>
> VP OF IT, INSURANCE

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	Elastic Observability costs	$27,500	$1,083,500	$1,447,875	$1,954,632	$4,513,507	$3,677,635
Gtr	Implementation and training labor	$25,658	$226,567	$113,058	$53,191	$418,473	$365,027
Htr	Optimization and management labor	$0	$214,590	$214,590	$214,590	$643,770	$533,654
	Total costs (risk-adjusted)	$53,158	$1,524,657	$1,775,523	$2,222,412	$5,575,750	$4,576,316

Elastic Observability Costs

Evidence and data. The interviewees' organizations paid subscription costs to use Elastic Observability, and these costs varied by the organization's data, infrastructure size, and complexity. According to interviewees, Elastic offers one-year and three-year contracts.

- Elastic may be deployed on-premises as part of an organization's self-managed infrastructure or as a managed cloud solution. Most of the interviewees' organizations were already using at least one public cloud solution and chose to deploy Elastic Observability as a managed cloud service. As a managed cloud service, compute and storage costs are included in the subscription cost.
- To inform pricing, Elastic measures usage in capacity units, which takes into account the infrastructure and storage resources associated with an organization's Elastic Observability coverage and use. Most of the interviewees said their organization's Elastic costs increased over time as their company increased observability coverage of its infrastructure and applications.
- Nearly all of the interviewees' organizations paid for professional services from Elastic to aid with implementation and to ensure rollout was optimized

across the organization. The director of engineering at the fintech organization told Forrester: "[Elastic is] ready to chip in, engaged with their product, [and] understanding [of] the roadmap. If I bring up the future product roadmap, whether they're going to kill this or whether an alternative product [is better] for this, all those conversations were happening with the Elastic professional [services team]."

> "The help was always great. We ran our solutions through [Elastic and] discussed extensively that this is what we need [and] this is why we want to build it. They understand our needs."
>
> DIRECTOR OF ENGINEERING, FINTECH

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- The composite organization pays $975,000 in Year 1 for Elastic Observability, and this cost increases to $1.3 million in Year 2 and to $1.8 million in Year 3.
- This composite's licensing cost includes compute and storage costs.
- The composite pays a total of $35,000 to Elastic for professional services during the initial implementation period and the start of Year 1.
- Pricing may vary. Contact Elastic for additional details.

Risks. Actual licensing or subscription costs depend on the resource requirements of Elastic usage and the inclusion of additional services and applications, such as Elastic professional services.

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 $3.7 million.

Elastic Observability Costs						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
F1	Subscription cost of Elastic Observability including compute and storage	Interviews	$0	$975,000	$1,316,250	$1,776,938
F2	Training and professional services costs related to Elastic Observability	Interviews	$25,000	$10,000	$0	$0
Ft	Elastic Observability costs	F1+F2	$25,000	$985,000	$1,316,250	$1,776,938
	Risk adjustment	↑10%				
Ftr	Elastic Observability costs (risk-adjusted)		$27,500	$1,083,500	$1,447,875	$1,954,632
	Three-year total:$4,513,507			**Three-year present value: $3,677,635**		

Implementation And Training Labor

Evidence and data. Implementing the most basic Elastic Observability functionality took the interviewees' organizations around one month on average. To realize maximum value from the enterprise solution, employees spent time learning the solution's functionality and capabilities after implementation.

- The initial implementation length for interviewees' organizations ranged from one week to three months. The head of engineering at the digital media organization said: "It was easy for us to go to the marketplace and have an [Elastic Observability] instance stood up in literally minutes, to start playing with it, to start putting real data into it, [and] to start [asking], 'Okay, what are the capabilities?'"
- Interviewees said implementation was simple because each of their organizations had previously implemented the free, open-source version of Elastic. The development and integration manager in insurance shared, "It took longer to get the paperwork [and] the contracts worked out than it did to get the platform up and running."
- Data migration and alignment, production-cluster creation, and storage provisioning all took additional time during implementation. While employees received some training on Elastic's functionality up front, they continued to spend time learning how to work with Elastic for up to a year. The head of engineering at the digital media organization told Forrester, "Elastic was great about giving us free resources for training, and then I

paid for official training for a few of my developers that gave them unlimited access to the training for a whole year."

- Interviewees from organizations that did not opt for external support often needed to spend additional time on implementation and training.

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- Three FTE employees spend two weeks dedicated to setting up and implementing an initial, bare-bones Elastic setup as a managed cloud service.
- After the initial implementation period, the composite requires 0.6 FTE employees for integration and expansion in Year 1 and 0.5 FTE employees for this in Years 2 and 3. The employees continue this work throughout Years 1 and 2 and the first five months of Year 3 to complete rollout and cover 90% of the organization's 300 applications.
- 20 engineers spend an average of 20 hours learning Elastic, while developers and data analysts who use Elastic undergo 5 hours of training. Although these users do not need ongoing refreshers, new hires on these teams require training to effectively use Elastic.
- The fully burdened annual compensation rate of an engineer at the composite organization is $186,600, and the weighted average fully burdened hourly compensation rate of a trained employee is $79.

> "[Implementation] was actually very fast. [It took] less than a month from when we decided to actually do it."
>
> HEAD OF ENGINEERING, DIGITAL MEDIA

Risks. These costs will vary between organizations depending on the following factors.

- The size and complexity of the organization's IT operations and infrastructure and the effort needed for change management.
- The prioritization, speed, and breath of the organization's integration of Elastic Observability.
- The organization's level of internal investment in learning how to best utilize Elastic Observability's capabilities and efforts to optimize use and value from the solution.
- The expertise, skill sets, and burdened costs of the organization's existing employees who participate in Elastic implementation and training.
- Whether the organization pays for customer services and training from Elastic or a third party.

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 $365,000.

> "It was a pretty smooth transition to go from open source to the enterprise version of their product."
>
> DEVELOPMENT AND INTEGRATION MANAGER, INSURANCE

Implementation And Training Labor						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
G1	Months spent on Elastic Observability implementation and expansion	Interviews	0.5	12.0	12.0	5.0
G2	FTE employee implementation and expansion labor	Interviews	3.0	0.6	0.5	0.5
G3	Average fully burdened annual compensation of engineer	A11	$186,600	$186,600	$186,600	$186,600
G4	Subtotal: Implementation and expansion labor cost	G1*G2*G3/12	$23,325	$111,960	$93,300	$38,875
G5	Engineers dedicating learning time to Elastic Observability	Composite		20.0	2.0	2.0
G6	Average hours spent learning Elastic Observability	Interviews		50	50	50
G7	Additional employees dedicating learning time to Elastic Observability	Composite		38.0	4.0	4.0
G8	Average hours spent learning Elastic Observability	Interviews		5	5	5
G9	Average fully burdened hourly compensation of employees trained	TEI Standard		$79	$79	$79
G10	Subtotal: Training labor cost	(G5*G6+G7*G8) *G9	$0	$94,010	$9,480	$9,480
Gt	Implementation and training labor	G4+G10	$23,325	$205,970	$102,780	$48,355
	Risk adjustment	↑10%				
Gtr	Implementation and training labor (risk-adjusted)		$25,658	$226,567	$113,058	$53,191
	Three-year total:$418,473			**Three-year present value: $365,027**		

Optimization And Management Labor

Evidence and data. For interviewees' organizations, ongoing management labor associated with Elastic Observability included oversight of their Elastic relationships and subscriptions and time spent learning about new Elastic capabilities and training other employees on them, facilitating change management, coordinating internal integrations for new applications and data, and troubleshooting and resolving issues.

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- Interviewees estimated the total ongoing management labor of Elastic Observability at between 0.5 and one FTE, noting that an engineer usually performed this labor.
- The head of engineering at the digital media organization shared that because their company is an enterprise customer, all support for Elastic is included in its subscription costs, which helps reduce the amount of time spent resolving issues internally. They told Forrester: "[Elastic] didn't care how many tickets we opened. We can open up 100 tickets in a day and they would just go through them without any concern, which is nice."
- In addition, the interviewee said most of their asks to the Elastic team had to do with adding additional capabilities and integrations, rather than dealing with problems on the Elastic side.

> "[Elastic Observability is] pretty much self-reliant. It doesn't break hardly ever. Mostly it's new asks because the business is using more and more of it."
>
> HEAD OF ENGINEERING, DIGITAL MEDIA

Risks These costs will vary between organizations depending on the following factors:

- The size and complexity of the organization's IT operations and infrastructure.
- The extent and rate at which the organization integrates Elastic Observability with existing and new systems.
- The number, skill sets, compensation amounts, and compensation structures of the organization's existing technical resources who participate in ongoing management work.

Results. To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $534,000.

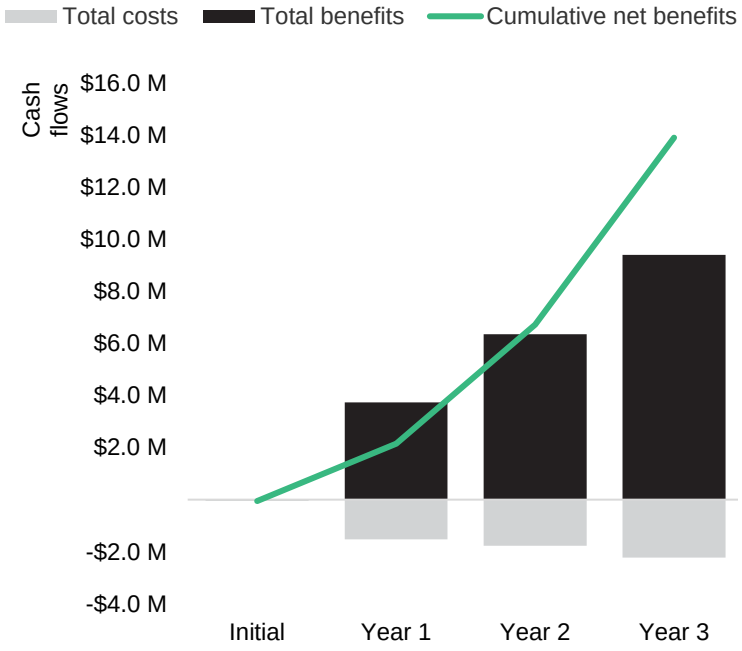
> "[Elastic Observability has] been pretty terrific and really has been true to form. Everything that was promised and sold has been delivered."
>
> DEVELOPMENT AND INTEGRATION MANAGER, INSURANCE

Optimization And Management Labor						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
H1	FTE employee optimization labor	Interviews	0.0	0.5	0.4	0.3
H2	FTE employee management labor	Interviews	0.0	0.5	0.6	0.7
H3	Average fully burdened annual compensation of engineer	A11	$186,600	$186,600	$186,600	$186,600
Ht	Optimization and management labor	(H1+H2)*H3	$0	$186,600	$186,600	$186,600
	Risk adjustment	↑15%				
Htr	Optimization and management labor (risk-adjusted)		$0	$214,590	$214,590	$214,590
	Three-year total:$643,770			**Three-year present value: $533,654**		

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 Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($53,158)	($1,524,657)	($1,775,523)	($2,222,412)	($5,575,750)	($4,576,316)
Total benefits	$0	$3,729,937	$6,347,326	$9,394,442	$19,471,706	$15,694,759
Net benefits	($53,158)	$2,205,280	$4,571,803	$7,172,030	$13,895,956	$11,118,443
ROI						243%

Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

Total Economic Impact Approach

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

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

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

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

Present Value (PV)

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

Net Present Value (NPV)

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

Return on investment (ROI)

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

Discount rate

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

Payback period

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

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.

Appendix B: Supplemental Material

Related Forrester Research

"Introducing The Forrester Observability Reference Architecture," Forrester Research, Inc, October , 7, 2022.

"The Forrester Wave™: Artificial Intelligence For IT Operations, Q4 2022," Forrester Research, Inc, December 15, 2022.

Carlos Casanova, Naveen Chhabra, "The Observability Dance — Enabling Observability By Design," Forrester Blogs.

Carlos Casanova, "Can You See Me Now? New Observability Reports!," Forrester Blogs.

Carlos Casanova, "A Vet, Doctor, And Biomechanical Engineer Walk Into A Bar: Monitoring, Observability, And AIOps In 2022," Forrester Blogs.

Appendix C: Endnotes

[1] Source: "The Forrester Observability Reference Architecture: Putting It Into Practice," Forrester Research, Inc., Oct 21, 2022.

[2] 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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