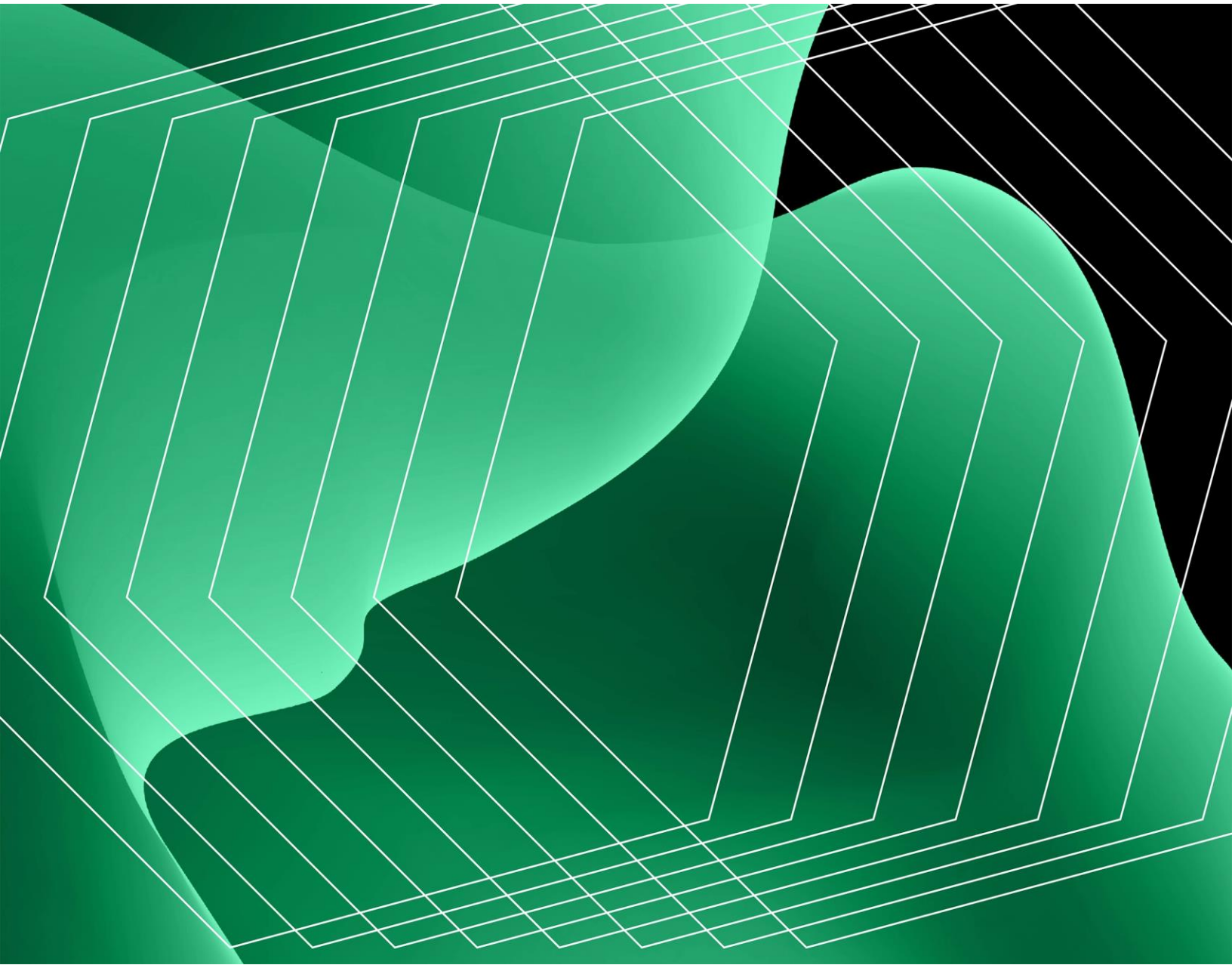
FORRESTER®

The Total Economic Impact™ Of The PagerDuty Operations Cloud

Cost Savings And Business Benefits Enabled By The PagerDuty Operations Cloud

A FORRESTER TOTAL ECONOMIC IMPACT STUDY
COMMISSIONED BY PAGERDUTY, AUGUST 2024



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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

Organizations today face pressure to simultaneously improve cost-effectiveness, enhance security, and create customer experiences with technology.[1] However, operational complexity is constantly increasing, complicated by legacy manual operations, organizational silos, and persistent operational disruptions from critical software outages.[2] The result is IT teams struggling to keep up, causing routine operational losses and brand damage.[3] To more effectively scale their efforts, organizations are turning to technologies like automation and AI for information technology (IT) operations (AIOps) that are needed to boost their IT capabilities and succeed.[4] Using a platform that incorporates these technologies, such as the PagerDuty Operations Cloud, can increase business value by improving operational awareness and resiliency — resulting in reduced costs and avoided revenue loss.

The PagerDuty Operations Cloud is an enterprise-class platform for building more resilient operations. It automates and accelerates mission-critical operations work for over 25,000 organizations. The PagerDuty Operations Cloud includes:

- **PagerDuty Incident Management.** This is an end-to-end incident management platform that operations teams use to navigate incidents from detection and mobilization to resolution and learning.
- **PagerDuty AIOps.** This AIOps solution helps reduce alert noise, accelerate triage, and automate toil, enabling customers to experience fewer incidents and faster resolution.
- **PagerDuty Automation.** This solution offers capabilities for automating repeatable, manual operations work across teams, tools, and environments.
- **PagerDuty Customer Service Ops.** This part of the PagerDuty Operations Cloud platform helps connect customer support and engineering teams to deliver better customer experiences.
- **PagerDuty Advance.** This solution is a suite of generative AI (genAI) capabilities that are built to provide contextual support and automate time-consuming tasks at every step of the incident lifecycle for faster resolution.

PagerDuty also offers services, including premium support and PagerDuty University, to help organizations adopt best practices and drive better operations outcomes, maximizing the value of their PagerDuty investments.

PagerDuty commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying the PagerDuty Operations Cloud.[5] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the PagerDuty Operations Cloud on their organizations.

Return on investment (ROI)
249%

Net present value (NPV)
$4.01M

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five representatives ranging from managers to vice presidents with experience using the PagerDuty Operations Cloud. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization that is an organization with revenue of $5 billion per year, 500 PagerDuty users, and more than 175,000 events per month.

Interviewees said that prior to using the PagerDuty Operations Cloud, their organizations usually relied on outdated systems and manual processes that had developed over time. They typically relied on a mix of monitoring and observability tools but lacked a solution like AIOps to aggregate and correlate signals. They also had limited automation in place and did not have a well-defined process for managing incidents, which led to increased downtime and reactive, uncoordinated responses. As a result of this prior state, they faced challenges, including poor customer experiences, complex and inefficient operations, and toilsome processes — all of which hindered business outcomes.

After the investment in the PagerDuty Operations Cloud, the interviewees' organizations more effectively and efficiently reduced alert noise, managed incidents, automated manual work, and supported customers. Key results from the investment include improved operational efficiency with reduced toil, avoided profit loss from reduced downtime, cost savings, and more.

KEY FINDINGS

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

- **Fewer alerts, achieved by reducing signal noise by 91%.** By investing in the PagerDuty Operations Cloud, the composite organization reduces the number of alerts its team needs to address with AIOps reducing noise and removing toil. This drives a productivity gain with less time spent searching for the signal amongst the noise and managing alerts, enabling additional benefits such as fewer incidents and faster incident resolution. Over three years, this benefit is worth $2.4 million to the composite organization.
- **Reduced incidents by 50%.** Driven by event orchestration to deduplicate, suppress, enrich, and route events with AIOps, the composite organization can more accurately identify and prioritize incidents, only surfacing those that require human attention. This results in fewer incidents and time savings, enabling team members to focus on more valuable work driving business outcomes. Over three years, this benefit is worth $326,000 to the composite organization.
- **Faster incident resolution with 50% less labor.** The PagerDuty Operations Cloud enables the composite organization to accelerate incident resolution with event-driven automation, preconfigured automated workflows, and more efficient assignment and escalation leading to a 93% faster mean time to acknowledge (MTTA) and a 25% faster mean time to resolve (MTTR) for major incidents. The resulting time savings drives productivity gains with fewer team members involved per incident, allowing the team to focus on more value-added tasks. Over three years, this benefit is worth $180,000 to the composite organization.
- **Operating profit saved from avoided downtime.** By reducing the number of major incidents and resolving incidents faster, the composite organization achieves 59% less downtime per month. With less downtime, the composite organization protects its revenue-at-risk from potential downtime loss, allowing it to continue business as usual with no negative customer impact. Over three years, this benefit is worth $1.4 million to the composite organization.
- **Software consolidation savings.** The composite organization eliminates legacy internal systems and software, including licensing, labor, maintenance, and

hardware costs, after adopting the PagerDuty Operations Cloud. Over three years, this benefit is worth $560,000 to the composite organization.

- **Fewer service-level agreement (SLA) penalties.** With less downtime and better incident handling with an incident management platform that guides remediation to ensure critical steps are not missed, the composite organization achieves fewer SLA penalties, resulting in reduced costs and improved operating profits. Over three years, this benefit is worth $761,000 to the composite organization.

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

- **Improved customer experiences and trust.** The composite organization delivers better customer experiences driven by reduced downtime and improved operations with the PagerDuty Operations Cloud. This improvement is not only supported by effective incident management but also by event-driven automation and AIOps, which help proactively address issues before they impact customers. Additionally, transparent communication through status pages further strengthens customer trust.
- **Proactive stakeholder communication.** The composite organization efficiently and easily keeps its internal and external stakeholders, such as customers, partners, and executives, up to date on incidents using status updates, internal and external status pages, and stakeholder licenses.
- **Accelerated innovation with analytics.** PagerDuty helps the composite organization gather and analyze data across incidents to surface insights and recommendations so the organization can make better data-driven operational decisions. This enables it to optimize operations and pursue other opportunities for improvement, such as identifying common, costly incidents and making corrections to reduce their frequency, and make better decisions regarding team management and responder health, such as reducing the number of off-hour interruptions team members are experiencing.
- **Better employee experiences with enhanced collaboration and communication.** The composite organization benefits from improved employee experiences along with enhanced collaboration and communication for both

centralized and remote employees as driven by PagerDuty's features, including on-call management and notifications and integrations with communication and collaboration platforms.

- **PagerDuty services and support.** After choosing to invest in PagerDuty, the composite organization realizes further value from PagerDuty's services and support to optimize setup/configuration and change management for better KPIs and business outcomes, maximizing the ROI and accelerating time to value.

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

- **Operations Cloud licensing costs of $1.4 million.** The composite organization pays PagerDuty for use of the PagerDuty Operations Cloud platform as the core part of its investment. Additionally, it purchases services from PagerDuty, including premium support and training, to maximize the value of its investment.
- **Implementation, integration, management, and training internal costs of $185,000.** After investing in the PagerDuty Operations Cloud, the composite organization devotes sufficient labor for implementing and integrating the platform before training its team members and managing the platform over time.

The representative interviews and financial analysis found that a composite organization experiences benefits of $5.62 million over three years versus costs of $1.61 million, adding up to a net present value (NPV) of $4.01 million and an ROI of 249%.

"PagerDuty has been an absolutely phenomenal win for us."

DIRECTOR OF IT OPERATIONS, TRUCKING

Return on investment (ROI)

249%

Benefits PV

$5.62M

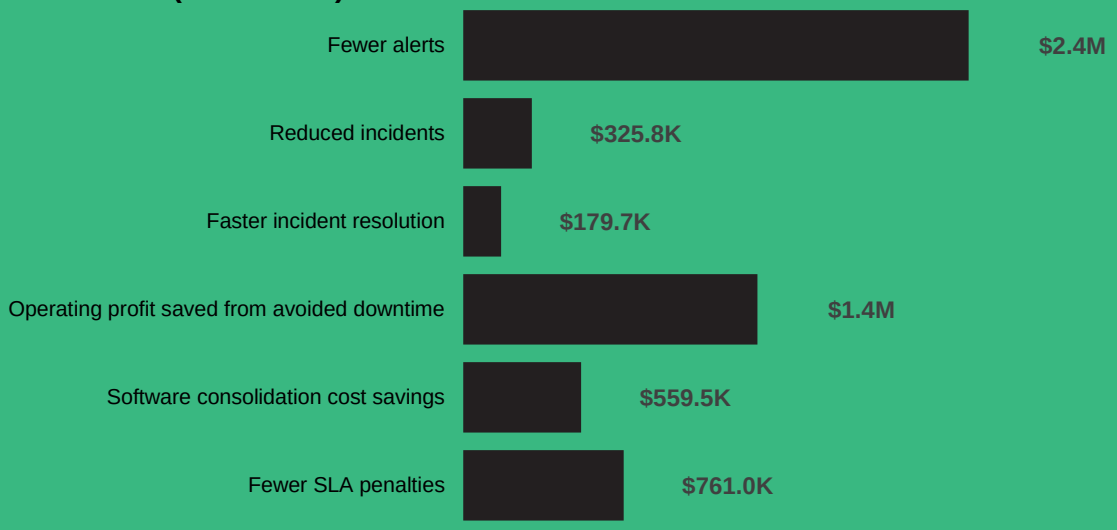
Net present value (NPV)

$4.01M

Payback

<12 months

Benefits (Three-Year)



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 the PagerDuty Operations Cloud.

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 the PagerDuty Operations Cloud can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by PagerDuty 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 the PagerDuty Operations Cloud.

PagerDuty 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.

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

1. **Due Diligence**
   Interviewed PagerDuty stakeholders and Forrester analysts to gather data relative to the PagerDuty Operations Cloud.
2. **Interviews**
   Interviewed five representatives at organizations using the PagerDuty Operations Cloud 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 PagerDuty Operations Cloud Customer Journey

Drivers leading to the PagerDuty Operations Cloud investment

Interviews			
Role	**Industry**	**Revenue**	**Employees**
Director of service development	Media	$6.5 billion	25,000+
Director of IT operations	Trucking	$5.5 billion	15,000+
First responders manager	Software	$900 million	3,000+
Vice president of technology	Software	$500 million	2,000+
Senior service manager	Software	$500 million	1,000+

KEY CHALLENGES

Interviewees' organizations knew they needed a platform that could support them at every step of the incident lifecycle, from customer signal and event detection through remediation and learning with post-incident processes. Before the PagerDuty Operations Cloud, they typically used legacy operations tools and manual processes for incident management, event management, and more. However, these tools were not enough. The interviewees' organizations found themselves facing overwhelming event noise, poor understanding of service ownership, and negative customer experiences.

The interviewees noted how their organizations struggled with common challenges, including:

- **Poor customer experiences that hindered business outcomes.** Interviewees' organizations' customers often discovered issues before the operations teams were even aware of it — and poor visibility and uncoordinated response meant

incidents resulted in prolonged downtime, which further negatively impacted the customer experience. Forrester's research shows how customer experience is directly linked to business metrics like churn, which can affect revenue, and how downtime impacts the bottom line. Even a one-point improvement in Forrester's Customer Experience Index (CX Index™) score can translate into millions, if not billions, of annual incremental revenue for the largest brands.[6] However, outages and incidents that negatively impact customer experience put this potential revenue at risk, threatening to disrupt the bottom line.

- **Complex and inefficient operations that increased costs and slowed innovation.** Prior to adopting the PagerDuty Operations Cloud, interviewees' organizations suffered from alert fatigue, causing teams to constantly miss issues and prolong downtime due to not knowing where to look first when there was an outage. When detected, incident response was slowed by manual on-call processes for identifying and contacting the right team members to respond, resulting in increased time to resolve incidents, overwhelmed staff, confusion, and more. This, along with their organizations' legacy systems (e.g., alert aggregation), resulted in inefficient operations and lost revenue. With teams constantly fighting fires, they faced challenges innovating and general productivity. Interviewees saw the PagerDuty Operations Cloud as an opportunity to simultaneously increase innovation velocity, grow revenue, reduce cost, and mitigate the risk of operational failure.

> "We were spending too much time and money on operational processes, such as managing incidents, events, and tickets. When we would add up the costs ... [it was] an astronomically high number."
>
> DIRECTOR OF IT OPERATIONS, TRUCKING

- **Toilsome processes that held businesses back.** Interviewees noted how their operations lacked modern technologies like automation or AI, which contributed to the unproductive toil their organizations' teams experienced. They saw the move to the PagerDuty Operations Cloud as an opportunity to modernize their operations practices and environments with a platform that is automation-led, AI-powered, and human-centric to help scale operational efficiency across their teams.

SOLUTION REQUIREMENTS

The interviewees' organizations searched for a solution that could:

- Offer the functionality they needed to provide support throughout the entire incident lifecycle including technologies such as AIOps and automation in a single platform.
- Provide enterprise-grade resilience and reliability.
- Be easy to use and well-documented with clear operations guides and best practices.
- Offer API and integration support for the critical operations applications in their existing tech stacks.

> "The platform [we chose] needed to be very reliable. It's the system where we put our alerts to know if our system is down, so it had to have a higher uptime than us. We were confident in PagerDuty."
>
> VICE PRESIDENT OF TECHNOLOGY, SOFTWARE

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 five interviewees, 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-business (B2B) organization is an enterprise with $5 billion in annual revenue. It has 175,000 events per month in Year 1. This increases to 180,000 events per month in Year 2 and 185,000 events per month in Year 3 as operational complexity grows. The composite organization has 500 PagerDuty Incident Management users.

Deployment characteristics. The composite organization deploys the PagerDuty Operations Cloud with 1,000 hours of labor and begins using the platform in Year 1.

Key Assumptions

$5 billion revenue

175,000+ events per month

500 PagerDuty Incident Management users

Market Overview

Key Forrester Definitions

Incident management: The processes and practices involved in responding to unplanned events/outages that can affect service quality or service operations.

AIOps: A practice that combines human and technological applications of AI/machine learning (ML), advanced analytics, and operational practices with business and operations data. AIOps enhances human judgment, proactively alerts on known scenarios, predicts likely events, recommends corrective actions, and enables automation. It's fueled by coalescing and transforming sensory data into AI-enriched actionable information. A retrospective causal analysis and governance structure fuels foundational improvements and trust.[7]

Infrastructure automation: Tools that automate lifecycle management tasks across all technology infrastructure resources: on-premises, in public cloud, or at the edge. They integrate with tools such as enterprise service management platforms, development pipelines, configuration management databases (CMDBs), and other automation tools and support enterprise efforts via analytics and reporting, policy management, and compliance.[8]

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	Fewer alerts	$939,330	$966,168	$993,006	$2,898,504	$2,398,482
Btr	Reduced incidents	$124,236	$134,232	$135,660	$394,128	$325,801
Ctr	Faster incident resolution	$65,688	$75,684	$76,398	$217,770	$179,664
Dtr	Operating profit saved from avoided downtime	$501,965	$596,083	$596,083	$1,694,131	$1,396,809
Etr	Software consolidation cost savings	$225,000	$225,000	$225,000	$675,000	$559,542
Ftr	Fewer SLA penalties	$306,000	$306,000	$306,000	$918,000	$760,977
	Total benefits (risk-adjusted)	$2,162,219	$2,303,167	$2,332,147	$6,797,533	$5,621,275

FEWER ALERTS

Evidence and data. Interviewees told Forrester how PagerDuty AIOps helped better group, sort, and suppress signals from their organizations' operating environments, which were growing increasingly complex. As a result, their organizations were able to reduce alert volume by up to 98%. By freeing operations teams from constant unnecessary alert review and processing, PagerDuty enabled interviewees' organizations' teams to instead focus their time on more meaningful tasks and identify true issues faster, leading to better financial performance.

- Interviewees noted significantly fewer alerts after their organizations began using the PagerDuty Operations Cloud. The senior service manager for a software organization explained: "Before we implemented [PagerDuty AIOps and the PagerDuty Operations Cloud], [we had] 80,000 [monthly alerts]. We reduced it down to 2,000 alerts a month [with the PagerDuty Operations Cloud]. The noise went away once we had the AI in place."

- Similarly, the director of IT operations for a trucking organization said: "[PagerDuty] clears 80% to 85% of noise. Our old tool [only] cut 20% of the noise."

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

- The composite organization sends 175,000 events per month to PagerDuty from monitoring tools in Year 1. Forrester research states that IT complexity will only get worse and that AIOps is the answer to IT complexity.[9] Forrester assumes the number of events per month increases to 180,000 per month in Year 2 and 185,000 per month in Year 3 due to this increasing complexity. A subset of events then become alerts and then incidents.
- With its prior operations systems and processes, the composite organization previously reduced signal noise by 20% before the PagerDuty Operations Cloud.
- The composite organization reduces signal noise by 91% with the PagerDuty Operations Cloud, resulting in a 71% incremental noise reduction and incremental avoided alerts as compared to the previous 20% noise reduction.
- The composite organization's team spends just over 1 minute per alert (0.02 hours) watching, reading, and processing.
- The fully burdened hourly rate for the composite's team is $70.
- The composite organization recaptures 50% of this time savings for productive work.

Risks. This benefit may vary based on:

- The number of signals or events per month.
- The amount of signal noise an organization reduced before PagerDuty and the percentage it reduces afterward.
- The amount of time spent per alert.
- The fully burdened hourly rates for the team members involved.
- An organization's ability to reallocate any time savings to productive work.

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 $2.4 million.

> "[Our team] has peace of mind and can focus on resolving the outage rather than trying to acknowledge every single alert."
>
> SENIOR SERVICE MANAGER, SOFTWARE

Fewer Alerts					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
A1	Events per month	Composite	175,000	180,000	185,000
A2	Incremental signal noise reduction with PagerDuty	Interviews	71%	71%	71%
A3	**Subtotal: Incremental additional avoided alerts per month with PagerDuty**	**A1*A2**	**124,250**	**127,800**	**131,350**
A4	Hours spent per alert	Composite	0.02	0.02	0.02
A5	Fully burdened hourly rate for composite's team	TEI standard	$70	$70	$70
A6	Productivity recapture rate	TEI standard	50%	50%	50%
At	Fewer alerts	A3*A4*A5*A6*12 months	$1,043,700	$1,073,520	$1,103,340
	Risk adjustment	↓10%			
Atr	Fewer alerts (risk-adjusted)		$939,330	$966,168	$993,006
	Three-year total: $2,898,504			**Three-year present value: $2,398,482**	

REDUCED INCIDENTS

Evidence and data. By reducing operational noise and alerts with more accurate grouping, sorting, and suppressing, interviewees told Forrester that PagerDuty helped their organizations more accurately identify true incidents. With fewer incidents to resolve, interviewees highlighted their organizations' productivity gains. This time savings was then reallocated to more valuable work, such as resolving true incidents or service development that drove business outcomes.

- Interviewees clearly stated that the PagerDuty Operations Cloud reduced the total number of incidents their organizations' teams needed to address across all priority levels. The vice president of technology for a software organization explained, "We have continually reduced the number of P1, P2, and P3 outages [with PagerDuty]."
- The director of IT operations for a trucking organization said: "The number of P2s is 25% of what it used to be. There are way fewer impactful outages, and they don't last as long."
- This reduction in total incidents then translated into time savings and reduced total cost of operations with improved efficiency and productivity gains. The director of IT operations for a trucking organization detailed how their organization's overall time savings from PagerDuty, including that from fewer incidents, allowed them to reallocate work hours and budget from support to strategic development, driving business outcomes: "We took [millions] out of support and moved that to our strategic development budget. That budget went up by $5 million without us having to increase the overall tech budget."

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

- The composite organization segments its incidents as major and minor, with major incidents requiring significantly more team members and labor to resolve than minor incidents.
- A percentage of the composite organization's events become alerts after the signal noise is reduced. Then, a percentage of those alerts become major and minor incidents requiring further labor from the composite organization's team.

- Before PagerDuty, the composite organization averaged 50 hours of labor per major incident and 3 hours of labor per minor incident. This is split across multiple team members.
- The PagerDuty Operations Cloud helps the composite organization more precisely identify incidents and reduce the number of incidents by reducing signal noise and, correspondingly, the number of alerts, which can reduce duplicate incidents and help with prioritization. As a result of this signal noise reduction, the composite organization reduces both major and minor incidents.
- The fully burdened hourly rate for the composite's team is $70. Given this rate, the composite's labor cost is $3,500 for a major incident and $210 for a minor incident.
- The composite organization recaptures 50% of this time savings for productive work.

Risks. This benefit may vary based on:

- An organization's definition of major and minor incidents.
- The number of labor hours per incident before PagerDuty as determined by the number of team members involved and the total effort required. This may vary significantly from organization to organization.
- An organization's ability to reduce signal noise with PagerDuty and reduce incidents as a result.
- The fully burdened hourly rates for the team members involved.
- An organization's ability to reallocate any time savings to productive work.

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 $326,000.

45%

Reduction in major incidents with PagerDuty

Reduced Incidents					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
B1	Major incidents per month without PagerDuty	Composite	8	9	9
B2	Reduction in major incidents with PagerDuty	Interviews	45%	45%	45%
B3	Labor hours per major incident before PagerDuty	Composite	50	50	50
B4	**Subtotal: Fewer major incidents hours per month**	**B1*B2*B3**	**180**	**203**	**203**
B5	Minor incidents per month without PagerDuty	Composite	112	115	118
B6	Reduction in minor incidents with PagerDuty	Interviews	50%	50%	50%
B7	Labor hours per minor incident before PagerDuty	Composite	3	3	3
B8	**Subtotal: Fewer minor incidents hours per month**	**B5*B6*B7**	**168**	**173**	**177**
B9	Fully burdened hourly rate for the composite's team	TEI standard	$70	$70	$70
B10	Productivity recapture rate	TEI standard	50%	50%	50%
Bt	Reduced incidents	(B4+B8)*B9*B10*12 months	$146,160	$157,920	$159,600
	Risk adjustment	↓15%			
Btr	Reduced incidents (risk-adjusted)		$124,236	$134,232	$135,660
	Three-year total: $394,128			**Three-year present value: $325,801**	

FASTER INCIDENT RESOLUTION

Evidence and data. In addition to having fewer incidents, interviewees also highlighted their organizations resolved incidents faster and with less labor. Fewer team members had to be involved with fewer hours required per team member. The PagerDuty Operations Cloud enabled interviewees' organizations to manage incidents more effectively with an improved signal-to-noise ratio, automated routing and escalation, and streamlined workflows with preconfigured steps, such as team coordination and stakeholder communication built-in. The reduced labor required to resolve the remaining incidents allowed interviewees' organizations' teams to reallocate their time saved to more valuable tasks aligned with business outcomes, such as service or product development.

- Interviewees detailed how their organizations were able to acknowledge incidents faster and with less labor with the PagerDuty Operations Cloud. The senior service manager for a software organization noted: "Six years ago, our MTTA was 1 hour with the right team. … Now, it's less than 5 minutes. … When trying to figure out who owns a particular service, [it went from] 2 to 3 hours to 5 minutes."
- As the senior service manager explained, interviewees' organizations often involved significantly more team members than necessary to acknowledge and resolve an incident before PagerDuty. "Engineers used to get an alert and figure out which team to ask for expertise, which team supports the service, who was managing it, how to reach out to them, and then talk about it to resolve it. That can be multiple people [and] at least 1 or 2 hours before reaching the right team. … [Now, with the PagerDuty Operations Cloud], it's just one [step]. It goes right to the right team."
- With faster MTTAs, interviewees noted both faster MTTR and less labor required to resolve incidents. The senior service manager for a software organization said, "[Our MTTR improved] from 3 hours to less than 30 minutes." Similarly, the vice president of technology for a software organization said, "We have a goal to have our MTTR below 200 minutes, and we are hitting that goal more over the last six months than we did [before PagerDuty]."

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

- A percentage of the composite organization's events become alerts after the signal noise is reduced. Then, a percentage of those alerts become major and minor incidents requiring further labor from the composite organization's team. Forrester accounts for the signal noise reduction, displaying the major and minor incidents after the incremental PagerDuty noise reduction for this benefit.
- The composite organization reduces 50% of the labor required per incident. PagerDuty reduces the number of team members involved as well as the total labor required by better managing alerts and assigning team members, escalating efficiently, using automation with incident remediation, and more.
- The fully burdened hourly rate for the composite's team is $70. Given this rate, the composite's labor cost is $3,500 for a major incident and $210 for a minor incident.
- The composite organization recaptures 50% of this time savings for productive work.

Risks. This benefit may vary based on:

- An organization's volume of incidents per month and how many incidents are major or minor.
- An organization's prior state, including the labor required to resolve an incident.
- The change management capabilities of an organization, including its ability to reduce the number of people involved in resolving an incident and the time involved.
- The fully burdened hourly rates for the team members involved.
- An organization's ability to reallocate any time savings to productive work.

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 $180,000.

93%

Faster MTTA

Faster Incident Resolution					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
C1	Major incidents per month after PagerDuty	B1*(1-B2)	4	5	5
C2	Labor hours per major incident before PagerDuty	B3	50	50	50
C3	Reduced labor per major incident	Interviews	50%	50%	50%
C4	**Subtotal: Hours saved per month with faster major incident resolution**	**C1*C2*C3**	**100**	**125**	**125**
C5	Minor incidents per month after PagerDuty	B5*(1-B6)	56	58	59
C6	Labor hours per minor incident before PagerDuty	B7	3	3	3
C7	Reduced labor per minor incident	Interviews	50%	50%	50%
C8	**Subtotal: Hours saved per month with faster minor incident resolution**	**C5*C6*C7**	**84**	**87**	**89**
C9	Fully burdened hourly rate for the composite's team	TEI standard	$70	$70	$70
C10	Productivity recapture rate	TEI standard	50%	50%	50%
Ct	Faster incident resolution	(C4+C8)*C9*C10*12 months	$77,280	$89,040	$89,880
	Risk adjustment	↓15%			
Ctr	Faster incident resolution (risk-adjusted)		$65,688	$75,684	$76,398
	Three-year total: $217,770			**Three-year present value: $179,664**	

OPERATING PROFIT SAVED FROM AVOIDED DOWNTIME

Evidence and data. Interviewees highlighted how their organizations reduced unplanned downtime because of fewer major incidents or outages and faster incident resolution. They highlighted the PagerDuty Operations Cloud's ability to increase their organizations' resiliency. With less downtime, the interviewees' organizations were able to deliver better customer experiences, increase revenue and operating profits, and achieve business outcomes.

- The vice president of technology for a software organization explained the value of more resilient operations with PagerDuty, saying: "Our offerings continue to grow, and when our customers do not have confidence that our services will be up, they don't roll out as fast. Revenue-wise, if they worry that their service quality will not be high, they will slow down. So, it's critical to demonstrate extreme competence at delivering those services to customers so they keep rolling. That's the direct tie [between PagerDuty and revenue]."
- Forrester's research details the costs of downtime on business and confirms how resilient infrastructure is critical to success.[10] These costs include revenue loss, productivity loss, penalties, and more. One large enterprise airline reported losing $82 million because of a single hour of downtime.[11]

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

- The composite organization reduces downtime by reducing both the number of major incidents and the duration of the remaining incidents.
- The number of major incidents before PagerDuty and the corresponding reduction are equal to the figures used in Benefit B. Each major incident avoided saves 3.5 hours of downtime. The remaining major incidents are resolved 25% faster, leading to less downtime.
- The composite organization generates $5 billion in revenue per year, and 5% of revenue is impacted by a major incident. Forrester uses an operating margin of 11.45% and the number of hours in a year (8,760) to calculate the operating profit that could be lost per hour during downtime and correspondingly saved.

Risks. This benefit may vary based on:

- An organization's prior state, including the total downtime per month. This is based on the number of major incidents before PagerDuty and the MTTR for major incidents before PagerDuty.
- An organization's ability to reduce the number of incidents per month and the length of the MTTR, resulting in downtime avoided.
- The amount of operating profit an organization would lose per hour during downtime as determined by an organization's revenue per year, its unique business circumstances, including the percentage of revenue impacted by an incident, and its operating margin.

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 $1.4 million.

25%

Faster MTTR for customer-impacting major incidents

59%

Less unplanned downtime

Operating Profit Saved From Avoided Downtime					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
D1	Number of customer-impacting major incidents per month before PagerDuty	B1	8	9	9
D2	MTTR for major incidents before PagerDuty (hours)	Interviews	3.5	3.5	3.5
D3	Reduction in the number of customer-impacting major incidents	B2	45%	45%	45%
D4	Faster MTTR for customer-impacting major incidents	Interviews	25%	25%	25%
D5	**Subtotal: Customer-impacting downtime hours saved per month**	**(D1*D2)-((D1*(1-D3))*(D2*(1-D4)))**	**16**	**19**	**19**
D6	Annual revenue	Composite	$5,000,000,000	$5,000,000,000	$5,000,000,000
D7	Percentage of revenue affected by a customer-impacting major incident	Composite	5%	5%	5%
D8	Operating margin	Composite	11.45%	11.45%	11.45%
D9	**Subtotal: Operating profit lost per hour during downtime**	**D6*D7*D8/8,760 hours**	**$3,268**	**$3,268**	**$3,268**
Dt	Operating profit saved from avoided downtime	D5*D9*12 months	$627,456	$745,104	$745,104
	Risk adjustment	↓20%			
Dtr	Operating profit saved from avoided downtime (risk-adjusted)		$501,965	$596,083	$596,083
	Three-year total: $1,694,131			**Three-year present value: $1,396,809**	

SOFTWARE CONSOLIDATION COST SAVINGS

Evidence and data. Most interviewees' organizations realized cost savings from retiring internal systems and software and consolidating to one platform after adopting the PagerDuty Operations Cloud. These savings included not only software licensing costs, but also associated labor, maintenance, and hardware costs, depending on the prior state. Additionally, PagerDuty integrated with interviewees' organizations' existing tech stacks, which helped make those investments more efficient and effective. These cost savings could then be reallocated to other organizational priorities, driving business growth and ultimately resulting in better margins.

- The vice president of technology for a software organization detailed their savings, saying, "We saved a… six-digit number in [alert management] vendor costs."
- The director of service development for a media organization elaborated on the nature of the cost savings, saying, "We saved on developer time and local hardware. It's in the $200,000 range."

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

- The composite organization replaces two internal systems or software solutions.
- The composite organization saves $125,000 per system or solution, including infrastructure, licensing, maintenance, and labor.

Risks. This benefit may vary based on:

- An organization's prior operations environment, including the software it licensed and the internal systems and processes it had.
- An organization's change management capabilities and its ability to retire systems and software.

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 $560,000.

$225,000

Software consolidation cost savings per year (risk-adjusted)

"We retired our business service management product. It was [several hundred thousand] a year in cost savings."

DIRECTOR OF IT OPERATIONS, TRUCKING

Software Consolidation Cost Savings					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
E1	Number of internal systems replaced	Composite	2	2	2
E2	Cost savings per system including infrastructure, license, and labor	Interviews	$125,000	$125,000	$125,000
Et	Software consolidation cost savings	E1*E2	$250,000	$250,000	$250,000
	Risk adjustment	↓10%			
Etr	Software consolidation cost savings (risk-adjusted)		$225,000	$225,000	$225,000
	Three-year total: $675,000			**Three-year present value: $559,542**	

FEWER SLA PENALTIES

Evidence and data. With less overall downtime by having fewer and shorter incidents, as detailed in the prior benefits, interviewees said that the PagerDuty Operations Cloud enabled their organizations to reduce penalties and fees associated with downtime and better meet contractual requirements with customers. In addition to less downtime, better incident management and reduced signal noise enabled faster, more prioritized responses to minimize and avoid these unnecessary operating costs and deliver better customer experiences.

- The director of IT operations for a trucking organization said: “The SLA has always been 3 hours. We very rarely met that before PagerDuty. Now, we’re averaging 2 hours.”
- The first responders manager for a software organization elaborated on this benefit, saying: “It’s the aspect of avoiding penalties. Our contracts state that if [our product] goes down for more than 40 minutes, financial penalties begin accruing. We also have in our contracts with customers that if they submit a severity-one issue, they will get a response in under 20 minutes. PagerDuty helps meet those contractual commitments and SLAs.” The impact of these potential penalties was significant. They continued, saying: “Every minute counts. If we are spending 30 minutes or a couple of hours to find the right engineer, that’s millions out the door.”

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

- The number of SLA penalties per month before PagerDuty is approximately equal to one-third the number of major incidents per month before PagerDuty.
- The composite organization achieves fewer SLA penalties by both reducing the number of major incidents and resolving major incidents more quickly.
- The composite organization has a $15,000 penalty per SLA violation.

Risks. This benefit may vary based on:

- An organization's prior environment and the number of SLA penalties it previously experienced, in addition to the nature of its business and contracts with customers.
- An organization's change management capabilities and the success it can realize in reducing incident count and resolving incidents faster with the PagerDuty Operations Cloud.
- The average total value of SLA penalties, customer credits, and other fees.

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 $761,000.

59%

Fewer SLA penalties

Fewer SLA Penalties					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
F1	Number of SLA penalties per month before PagerDuty	Composite	3	3	3
F2	Reduction in major incidents with PagerDuty	B2	45%	45%	45%
F3	Faster MTTR for customer-impacting major incidents	D4	25%	25%	25%
F4	**Subtotal: SLA penalties avoided per month with PagerDuty**	**(F1*F2)+((F1*(1-F2))*F3)**	**2**	**2**	**2**
F5	SLA penalty	Composite	$15,000	$15,000	$15,000
Ft	Fewer SLA penalties	F4*F5*12 months	$360,000	$360,000	$360,000
	Risk adjustment	↓15%			
Ftr	Fewer SLA penalties (risk-adjusted)		$306,000	$306,000	$306,000
	Three-year total: $918,000			**Three-year present value: $760,977**	

UNQUANTIFIED BENEFITS

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

- **Improved customer experiences and trust.** With less downtime and improved operations, interviewees' organizations were able to deliver better customer experiences, which could lead to revenue growth.[12] Better overall incident handling helped improve the customer experience by reducing the time it took to resolve an incident. The senior service manager at a software organization said: "The back-and-forth was reduced drastically. … It helped us improve our MTTA and MTTR." Using status pages helped interviewees' organizations clearly communicate with customers, bolstering trust and reducing customer-impacting incidents. The vice president of technology for a software organization said: "Our customers will not scale [with us] if they don't have trust. … We're getting better at [communicating with customers and quickly resolving incidents with PagerDuty]. That is driving real value for the business."
- **Proactive stakeholder communication.** Interviewees told Forrester how their organizations could help keep internal and external stakeholders, such as customers, partners, and executives, up to date on incidents with the PagerDuty Operations Cloud using status updates, internal and external status pages, and stakeholder licenses.
- **Accelerated innovation with analytics.** Interviewees told Forrester how their organizations' use of PagerDuty allowed them to gather and analyze data across incidents to surface insights and recommendations so their organizations could make better data-driven operational decisions, enabling them to optimize operations and pursue other opportunities for improvement, such as identifying common, costly incidents and making corrections to reduce their frequency. The director of IT operations for a trucking organization explained: "[Before PagerDuty], it was very difficult for us to get data on problems. With PagerDuty, we have operational dashboards that tell us the top incidents. … When we could see that the top incident was costing us about $200,000 a month in people closing tickets and managing it, then the question was about how to fix that. Once we started showing the data, we got a lot of buy in quickly." The vice president of technology for a software organization said, "The telemetry we

collect from the tools because of PagerDuty's APIs is opening opportunities for us to improve our processes."

- **Better employee experiences with enhanced collaboration and communication.** Interviewees detailed how the PagerDuty Operations Cloud led to improved internal collaboration and communication, along with better employee experiences. The senior service manager for a software organization specifically described how the on-call management and notifications could help improve employee happiness: "Part of the platform service management [team's duty] is to check on [alert patterns and on-call happiness]. Having that functionality in PagerDuty has given us an opportunity to … [improve the employee experience by making adjustments to alert management and notifications]." Furthermore, they noted how fewer alerts and less wasted, unproductive time could impact team retention. The director of service development for a media organization added: "PagerDuty's on-call scheduling is helpful. It gives team leaders an easier time managing vacations and weekends." They also noted: "The PagerDuty app is nice. The notifications and incidents are now available [anywhere]."
- **PagerDuty services and support.** Interviewees highlighted the value of the PagerDuty team, including the services and support they provided, which could help maximize the returns on their Operations Cloud investments and accelerate time to value. The senior service manager at a software organization said, "[The PagerDuty team is] easy to approach." They added: "[PagerDuty] has been a great partner. I've been in touch with multiple [people] at PagerDuty, and everybody has been great."

> “PagerDuty has been invaluable for us. There’s still so much more we can do and so much more value we can get out of it. We have no shortage of use cases where PagerDuty can help us be better and more mature.”
>
> FIRST RESPONDERS MANAGER, SOFTWARE

FLEXIBILITY

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

- **Scalability.** Interviewees explained how the PagerDuty Operations Cloud scaled with the growth of their businesses, ensuring their organizations could effectively and efficiently manage operations growth and deliver resilient services to customers. The first responders manager for a software organization said: “PagerDuty has allowed us to scale. When we first started off with PagerDuty, we had one customer in the cloud. Now, we are well over 40. PagerDuty has enabled our ability to scale to where we want to be as a company and in the cloud. … Our team started off with four to six people and is now at 120. PagerDuty’s value has increased.”
- **New use cases.** Interviewees told Forrester how their organizations found unique additional uses for the PagerDuty Operations Cloud after their initial investment. Multiple interviewees noted opportunities to further use automation and add new integrations over time. The director of IT operations for a trucking organization said: “We have automated cases now where the users can use their phones to run automated responses to specific conditions. There’s a lot of excitement.” Similarly, they discussed how their organization successfully used

PagerDuty for a security services use case that involved their board of directors. The first responders manager for a software organization noted: “We’re on a journey of maturing our PagerDuty usage. … There’s so much more potential.”

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

> “As we scaled, PagerDuty became more valuable and critical [for monitoring and managing alerts]. PagerDuty facilitates the logic of who gets what [alerts].”
>
> FIRST RESPONDERS MANAGER, SOFTWARE

> “We had a security services use case [for PagerDuty] with emergency notifications. That was a big win with our board of directors.”
>
> DIRECTOR OF IT OPERATIONS, TRUCKING

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**
Gtr	Operations Cloud licensing	$50,925	$550,533	$550,533	$556,820	$1,708,811	$1,424,743
Htr	Implementation, integration, management, and training	$154,000	$7,700	$15,400	$15,400	$192,500	$185,298
	Total costs (risk-adjusted)	$204,925	$558,233	$565,933	$572,220	$1,901,311	$1,610,041

OPERATIONS CLOUD LICENSING

Evidence and data. According to the interviewees, the primary component of the PagerDuty investment was the cost of the PagerDuty Operations Cloud. As a part of this cost, interviewees told Forrester that their organizations also purchased support and professional services to accelerate and maximize the return on the investment.

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

- The composite organization purchases the complete Operations Cloud including Incident Management, Customer Service Ops, AIOps, and Automation. It pays for stakeholder licenses and PagerDuty Status Pages, too.
- The composite organization has 500 Incident Management users. For AIOps, the composite organization has 175,000 events per month in Year 1. This grows to 180,000 events per month in Year 2 and 185,000 events per month in Year 3.
- The composite organization purchases Premium Support, PagerDuty University, and professional services.
- Pricing may vary. Contact PagerDuty for additional details.

Risks. This cost may vary based on:

- The size and structure of an organization and the complexity of its operational environment.
- The PagerDuty Operations Cloud products an organization chooses to purchase and the associated plans.
- The services and support an organization chooses to purchase.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $1.4 million.

> "The cost [of PagerDuty] is modest for the value if teams are achieving the shift-left behavior."
>
> VICE PRESIDENT OF TECHNOLOGY, SOFTWARE

Operations Cloud Licensing						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
G1	Operations Cloud licensing	Composite	$48,500	$524,317	$524,317	$530,305
Gt	Operations Cloud licensing	G1	$48,500	$524,317	$524,317	$530,305
	Risk adjustment	↑5%				
Gtr	Operations Cloud licensing (risk-adjusted)		$50,925	$550,533	$550,533	$556,820
	Three-year total: $1,708,811			**Three-year present value: $1,424,743**		

IMPLEMENTATION, INTEGRATION, MANAGEMENT, AND TRAINING

Evidence and data. Besides licensing costs for the PagerDuty Operations Cloud, interviewees' organizations also committed sufficient labor to implement the platform and integrate it into their environment, train employees, and manage the platform post-implementation.

- The length of interviewees' organizations' implementation and integration processes varied depending on organization size, operations complexity, and implementation decisions. Interviewees reported durations as short as one to two weeks and as long as four months when facilitating broader operations changes. The director of IT operations for a trucking organization explained: "To get PagerDuty set up so that integrations were in place and we could receive alerts … was five weeks. Then we onboarded all the teams into the notification system. ... That wasn't difficult."
- Interviewees then detailed how their organizations committed time to train their teams on the PagerDuty Operations Cloud. The director of IT operations for a trucking organization elaborated: "We took every responder through 2 hours of PagerDuty onboarding on how to respond to calls, what to expect, sending test notifications, and showing how they can respond. It was a simple onboarding process for our responders and stakeholders."
- Last, interviewees' organizations committed time to manage PagerDuty after the initial implementation, integration, and training stages. The director of IT operations for a trucking organization explained how this was a minimal commitment, saying, "Day-to-day, there's little [labor required]."

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

- The composite organization devotes 1,000 hours of labor, split amongst multiple employees, to the implementation and integration process.
- The composite organization allots 2 hours of training time per Incident Management user. It has an employee turnover rate of 10% and trains new employees in Years 2 and 3.

- The composite organization's team spends under 2 hours per week managing the PagerDuty Operations Cloud after launch.

Risks. This cost may vary based on:

- The size and complexity of an organization's operations environment and the resulting degree of labor required for the implementation and integration process.
- The number of team members requiring training for PagerDuty, the number of hours dedicated to training each employee, and an organization's turnover rate.
- The degree of labor required for ongoing management.
- The roles engaging in this work and the corresponding fully burdened hourly rates of those team members.

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 $185,000.

> "Implementing PagerDuty has been seamless."
>
> FIRST RESPONDERS MANAGER, SOFTWARE

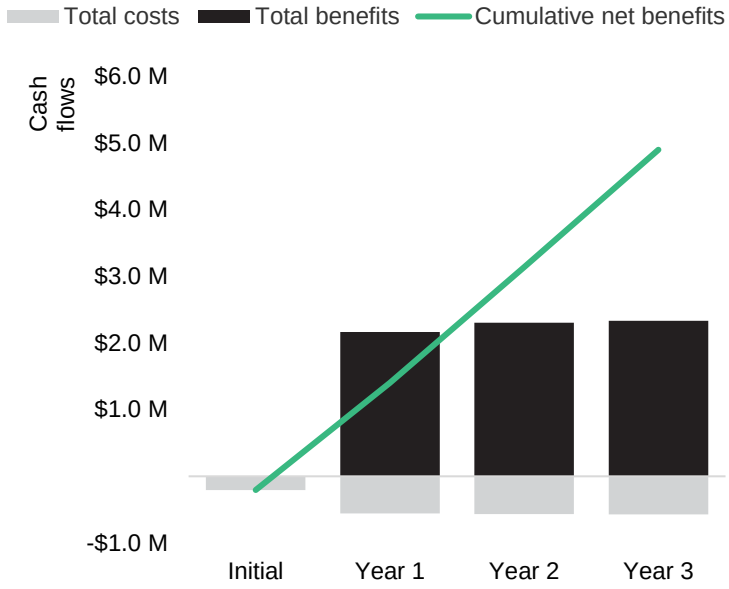
> "Onboarding new teams to PagerDuty is simple."
>
> DIRECTOR OF SERVICE DEVELOPMENT, MEDIA

Implementation, Integration, Management, And Training						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
H1	Implementation and integration hours	Composite	1,000	0	0	0
H2	Training hours per year	Composite	1,000	0	100	100
H3	Management hours per year	Composite	0	100	100	100
H4	Fully burdened hourly rate for the composite's team	TEI standard	$70	$70	$70	$70
Ht	Implementation, integration, management, and training	(H1+H2+H3)*H4	$140,000	$7,000	$14,000	$14,000
	Risk adjustment	↑10%				
Htr	Implementation, integration, management, and training (risk-adjusted)		$154,000	$7,700	$15,400	$15,400
	Three-year total: $192,500			**Three-year present value: $185,298**		

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	($204,925)	($558,233)	($565,933)	($572,220)	($1,901,311)	($1,610,041)
Total benefits	$0	$2,162,219	$2,303,167	$2,332,147	$6,797,533	$5,621,275
Net benefits	($204,925)	$1,603,986	$1,737,234	$1,759,927	$4,896,222	$4,011,234
ROI						249%
Payback						<12 months

APPENDIX A: TOTAL ECONOMIC IMPACT

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

Total Economic Impact Approach

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

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

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

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

PRESENT VALUE (PV)

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

NET PRESENT VALUE (NPV)

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

RETURN ON INVESTMENT (ROI)

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

DISCOUNT RATE

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

PAYBACK PERIOD

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

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

Budget Planning Guide 2025: Technology Executives, Forrester Research, Inc., August 1, 2024.

Redefining Resilience In The Aftermath Of The CrowdStrike Outage, Forrester Research, Inc., July 26, 2024.

Charles Betz, et al., The CrowdStrike Moment Calls For A Redefinition Of Business Resilience, Forrester Blogs.

Ian Bruce, et al., Don't Wait For A Crisis To Act, Forrester Blogs.

Andras Cser, et al., CrowdStrike Global Outage: Critical Next Steps For Tech And Security Leaders, Forrester Blogs.

APPENDIX C: ENDNOTES

[1] Source: High-Performance IT, Forrester Research, Inc., January 16, 2024.

[2] Source: The State Of AIOps And Observability, Forrester Research, Inc., January 31, 2024.

[3] Source: The Forrester Guide To Incident And Crisis Management, Forrester Research, Inc., May 20, 2022.

[4] Source: High-Performance IT: The Right Next Tech For You, Forrester Research, Inc., January, 16, 2024; High-Performance IT: The Essential Technology And Practices, Forrester Research, Inc., January 16, 2024.

[5] 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.

[6] Source: How Customer Experience Drives Business Growth, 2023, Forrester Research, Inc., October 13, 2023; Identify And Estimate The Costs Of Downtime On Your Business, Forrester Research, Inc., January 13, 2021; Why CX: Proof That Investing In Experience Improves Revenue, Cost, And Resilience, Forrester Research, Inc., June 7, 2022.

[7] Source: The Process-Centric AIOps Landscape, Q1 2023, Forrester Research, Inc., February 22, 2023.

[8] Source: The Infrastructure Automation Platforms Landscape, Q3 2024, Forrester Research, Inc., July 9, 2024.

[9] Source: The State Of AIOps And Observability, Forrester Research, Inc., January 31, 2024.

[10] Source: Identify And Estimate The Costs Of Downtime On Your Business, Forrester Research, Inc., January 13, 2021.

[11] Source: 2024 IT Network Benchmarks, Global, Forrester Research, Inc., July 16, 2024.

[12] Source: How Customer Experience Drives Business Growth, 2023, Forrester Research, Inc., October 13, 2023.

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