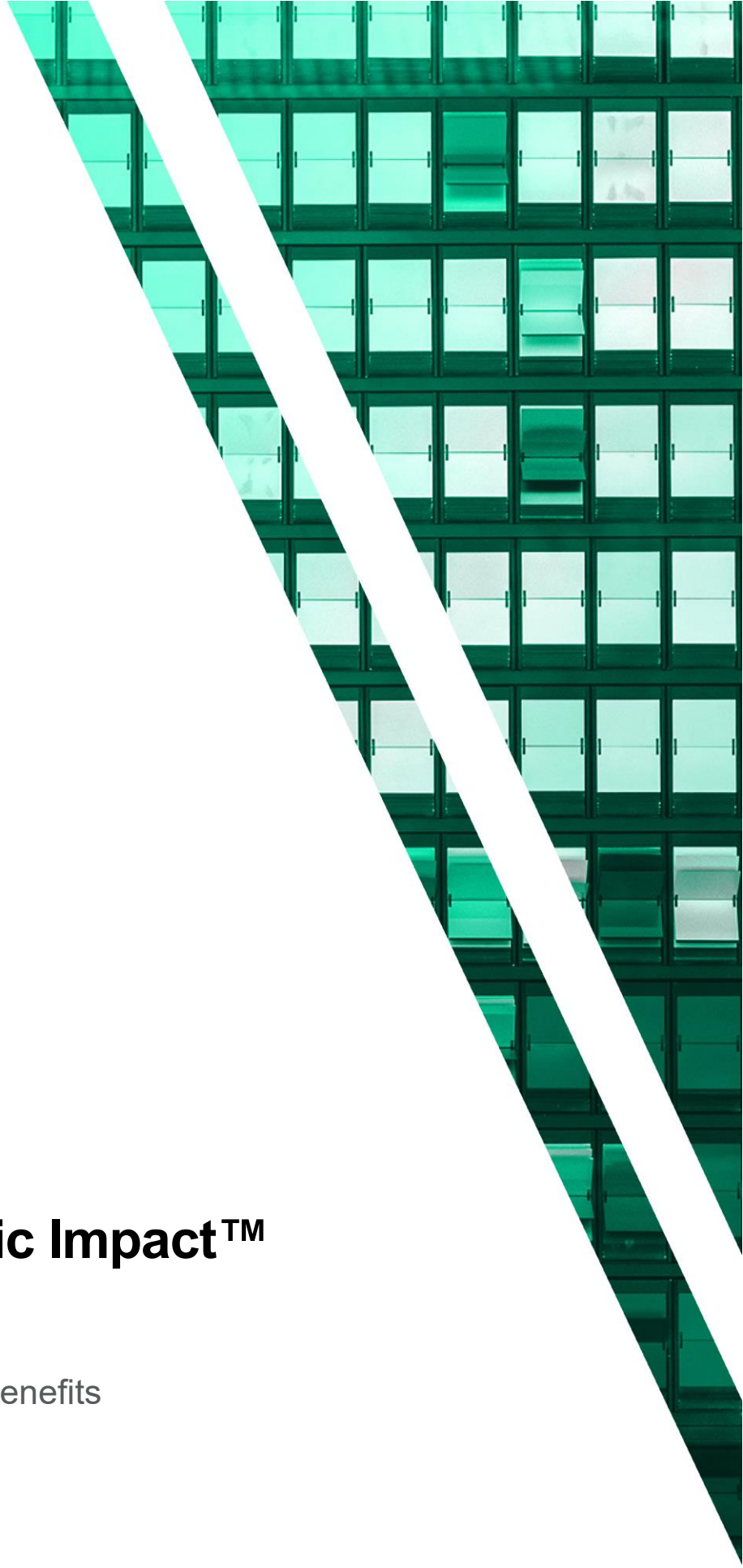
FORRESTER®



# The Total Economic Impact™ Of Dynatrace

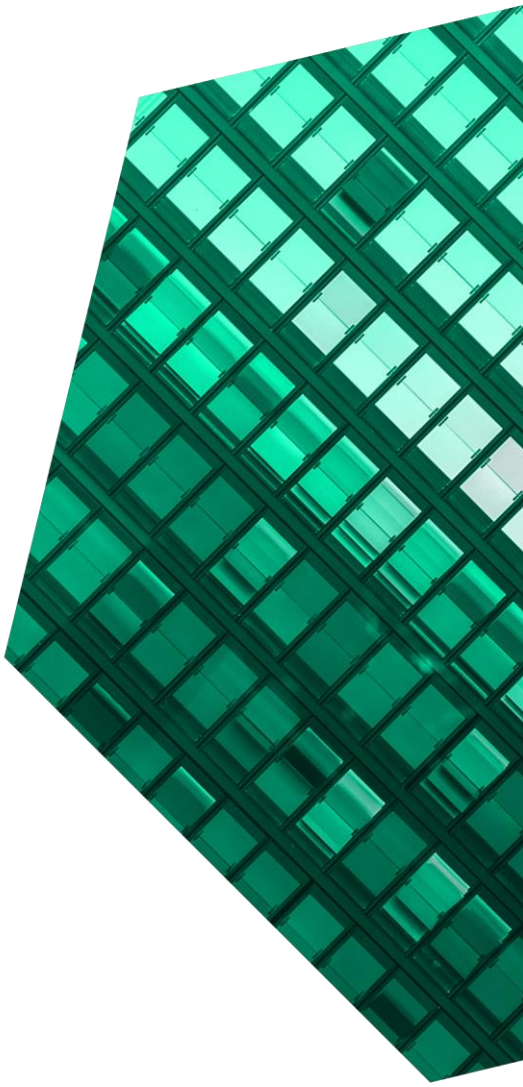
## Cost Savings And Business Benefits Enabled By Dynatrace

**FEBRUARY 2022**

# Table Of Contents




*Consulting Team: Chris Layton*
*Henry Huang*
*Luca Son*
*Tony Lam*


ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. For more information, visit forrester.com/consulting.

© Forrester Research, Inc. All rights reserved. Unauthorized reproduction is strictly prohibited. Information is based on the best available resources. Opinions reflect judgment at the time and are subject to change. Forrester®, Technographics®, Forrester Wave, RoleView, TechRadar, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies.

## Executive Summary

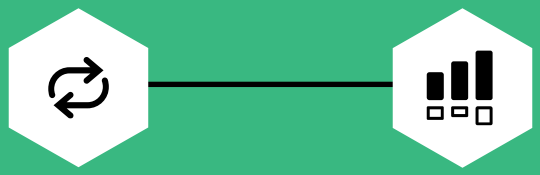
Dynatrace is an observability and application security platform with artificial intelligence for IT operations (AIOps) at its core. It delivers continuous, precise, and actionable insights on the performance and security of applications, the underlying infrastructure, and the experience of all users. Key benefits of the Dynatrace investment include a reduction in outages and degradations, growth in customer acquisition and retention, and more time to innovate, which are each enabled by Dynatrace AI and automation.

The Dynatrace Software Intelligence Platform provides full-stack, automatic, and intelligent observability across applications, infrastructure, and user experiences, as well as modern open-source standards including OpenTelemetry. It extends this observability with runtime application security capabilities, continuous automation, and Davis®, Dynatrace's AI engine. Davis continuously analyzes digital entity relationships at the code level to detect and diagnose anomalies and provide root-cause context. These insights enable IT and cloud operations, security, DevOps, SRE, and digital experience teams to improve system performance and security of critical applications, which drives better business outcomes. In addition, the Dynatrace platform's full-stack observability capabilities integrate into the application development process. This enables developers to detect potential issues earlier in the development cycle, helping them to improve the efficiency, quality, and security of releases.

Dynatrace 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 Dynatrace platform.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Dynatrace on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four decision-makers with experience using Dynatrace. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization.

**KEY STATISTICS**



Return on investment (ROI)
**274%**

Net present value (NPV)
**$14.77M**

Prior to using Dynatrace, these interviewees had attempted to migrate to a modern, multicloud environment while still leveraging legacy monitoring tools. As multicloud environments are dynamic and complex, and produce a volume, velocity, and variety of data that quickly surpassed human ability to manage with dashboards alone, they quickly realized that to be efficient and proactive, they needed to embrace AI and automation.

Legacy tools did not provide their teams with depth of insight required to prevent critical issues or to effectively communicate with business leaders. In addition, sifting through and consolidating log reports from multiple sources was labor-intensive and often led to inefficiency and misalignment of teams due to conflicting data.

After investment in Dynatrace, business leaders at the interviewees' organizations could leverage AI-powered insights to improve business operations and team productivity and define the impact of digital innovations. In addition, developers could innovate faster at a higher level of quality, and IT teams were able to make proactive changes to improve application and infrastructure resiliency and significantly reduce system outages and degradations.

**KEY FINDINGS**

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

- **Increased DevOps efficiency by 40% by shifting left observability in the software development lifecycle (SDLC) process.** Dynatrace automatically checks preproduction applications against service-level-objective (SLO)-based quality gates to stop errors from moving through the delivery pipeline. DevOps and SRE teams can focus less on troubleshooting and more on delivering innovation and shortening the time required to successfully deploy applications and updates. Over three years, this provides almost $5.2 million in value to the composite organization.
- **Continuously improved application and infrastructure quality by reducing major outages and degradations by 60% and mean-time-to-recovery by 90%.** Outages and degradations are significantly less common and easier to resolve with Dynatrace. Interviewees said its AI identified issues before the issues became critical and then directed teams on the appropriate action. For the composite organization, the decrease in major outages and degradations over three years leads to nearly $2.2 million in increased profit.

**"Other tools lack the AI that Dynatrace has. There are times [when] Dynatrace catches issues before other systems do. Dynatrace helps other tools work better by showing them the right direction."**
*Chief cloud and delivery officer, financial services*

**"Because Dynatrace resolves issues early on, they [aren't raised] to the level of major accident. … We've gotten to the point where we don't go to many critical incidents."**
*Chief cloud and delivery officer, financial services*

- **Increased operational efficiency and reduced false-positive alerts by 95% with proactive observability.** Teams using Dynatrace eliminate the alert noise they might experience with other solutions. Resolution calls are significantly faster, and executives trust the recommendations that Davis makes. For the composite organization, the combined benefit of proactive observability over three years is worth more than $1.8 million.
- **Increased customer acquisition growth by 12% through insight into the way releases**

**and features affect customer behavior.** Dynatrace increases customer acquisition in two ways. First, it provides product leadership with insight into how organizations use their products, and it pinpoints issues. Second, it improves overall resiliency during heavy surges in online traffic, enabling systems to accommodate drastic changes in online activity, and increases the number of successfully completed transactions. For the composite organization, the addition of new customers and improved resiliency generates more than $2.0 million in additional profit over three years.

- **Reduced customer churn rate by 4% due to improved user experience enabled by digital experience monitoring.** Dynatrace enables teams to improve experiences for existing customers, which leads to greater satisfaction and increased likelihood of repeat business. For the composite organization, retaining more customers over three years provides an additional value of almost $4.9 million.

**"We have distributed tracing all the way down from the user click down to the data storage. So, we can tell what's making [the application] slow and [we can] make recommendations to the application team. … A core application used to take 7 seconds to run, which is a lifetime. Dynatrace helped us reduce that to 2 seconds."**
*Director of IT service, retail*

- **Increased service employee productivity and reduced attrition due to improvements to core internal systems and applications.** Teams use Dynatrace to find issues with performance in core applications and services that service employees use. This not only saves a significant amount of time for those employees, but employee satisfaction also rose and there was even a slight reduction in attrition rate among groups using those applications. For the composite organization, improvements to service employee productivity and attrition rates results in nearly $4.1 million in benefits.

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

- **Improving time-to-value.** Interviewees said applications could be updated more quickly and frequently with Dynatrace, and that their organizations realized the value of additional features faster than previously possible.

**"Dynatrace has made a huge difference. Before, we could wait a year for our feature to release, but now we [can release] it within a month."**
*Chief cloud and delivery officer, financial services*

- **Guiding business vision.** Interviewees shared that the impact of Dynatrace extends beyond technology teams. They said product and marketing teams, as well as the broader organization, benefitted from the insights

provided by the platform. This cohesion helped to direct the future vision of their organizations.

- **Improving interdepartmental alignment.** Interviewees said Dynatrace is a single source of truth for themselves and their organization's business leaders. This allowed departments to align more effectively with the goals of the organization and to centralize company metrics and information.

**"Before Dynatrace, we didn't have post-incident recaps of issues, but now we have them within 24 hours. With Dynatrace's telemetry, people aren't constantly defending their domains, and they're more collaborative about focusing on the solution. Our calls have shifted to be more productive."**
*Director of IT service, retail*

- **Enabling cross-team collaboration.** Interviewees said Dynatrace provided a deeper level of telemetry into their organizations' cloud environments and more actionable insights. This helped teams to work better together and focus on proactively identifying solutions rather than blaming each other and wasting time trying to identify the symptoms of an issue.
- **Adding security monitoring.** Dynatrace recently added application security to its platform, but the interviewees' organizations have not used this service long enough to quantify its benefit. However, interviewees expressed interest in using Dynatrace to improve their application security in pre-production and production environments.

**"It just makes sense that Dynatrace monitors your security for you since it already has all the information. If [Dynatrace] can apply [its Davis AI] with the same capabilities in terms of security, that's a huge benefit."**
*Head of tech area lead, healthcare*

**Costs.** Risk-adjusted PV costs include:

- **Dynatrace license and support-related costs.** Dynatrace has annual costs that depend on data usage levels. This also includes support. License costs for the composite organization are more than $4.9 million during a three-year period.
- **Integration and ongoing management costs.** Although Dynatrace can be installed with minimal effort, interviewees said teams using Dynatrace needed some initial training. They also needed additional change management resources to adapt internal processes to receive the full benefit of Dynatrace and ongoing system management. The combined cost of training and management cost the composite organization less than $500,000 over three years.

The decision-maker interviews and financial analysis found that a composite organization experiences benefits of $20.16 million over three years versus costs of $5.40 million, adding up to a net present value (NPV) of $14.77 million and an ROI of 274%.

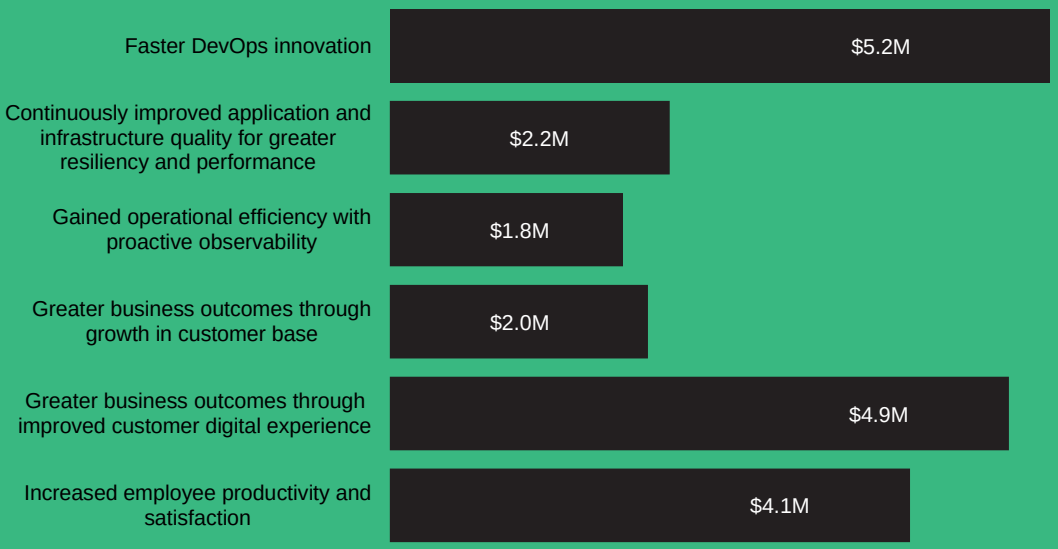
ROI
**274%**

BENEFITS PV
**$20.16M**

NPV
**$14.77M**

PAYBACK
**<6 months**

**Benefits (Three-Year)**




**The big difference [of] Dynatrace and the selling point for me was the intelligence, [the] root-cause analysis, and that Dynatrace automatically analyzes the whole stack. Using Dynatrace felt like what I wanted from another world.**

— Head of tech area lead, healthcare

## 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 Dynatrace.

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 Dynatrace can have on an organization.


**DISCLOSURES**

Readers should be aware of the following:

This study is commissioned by Dynatrace 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 Dynatrace.

Dynatrace 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.

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

# The Dynatrace Customer Journey

Drivers leading to Dynatrace investment

**Interviewed Decision-Makers**

| Interviewee | Industry | Region | Revenue |
|---|---|---|---|
| Director of IT service | Retail | North America | $100 billion |
| Chief cloud and delivery officer | Financial services | Oceania | $5 billion |
| Performance engineer lead | Financial software | Europe | $1 billion |
| Head of tech area lead | Healthcare | North America | $500 million |

## KEY CHALLENGES

Prior to investing in Dynatrace, interviewees' organizations used a mixture of off-the-shelf application monitoring products and homegrown solutions. These environments required a large amount of manual labor to sift through log reports, and they caused confusion and conflict among teams that had difficulty interpreting results correctly.

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

- **Difficulties solving outages and degradation, resulting in "war rooms."** Interviewees described a great deal of complexity and difficulty with their organizations' cloud observability prior to investing in Dynatrace. Siloed teams struggled to work together because each looked at different data, and they wasted time and energy by pointing fingers and constantly meeting in war rooms. As a result, degradation and outages took considerable time and effort to resolve, and employees often had to work late nights or weekends.
- **Missed alerts and added noise of false positives.** Many issues did not trigger an alert until they became critical. Interviewees said their organizations didn't detect issues in their environments early on and that when they became large enough, they would create dozens of different alerts. These alerts were not helpful in diagnosing and solving the core problem, and they sent teams on wild goose chases. False positives were common, and they took resources from IT operations staff who spent time investigating each one.
- **Inability to handle major traffic changes (e.g., traffic changes during digital promotions).** Because outages and degradation often take a long time to resolve, some interviewed decision-makers said their organization was unable to scale cloud services and maintain performance to

**"When our website went down, we realized that we [became] our own software vendor, but we didn't have the visibility we needed. We looked at the options out there, and Dynatrace was the complete package."**
*Director of IT service, retail*

meet sharply increasing traffic demands. Business leaders were frustrated that issues could not be better anticipated, and that service was unpredictable during periods of peak customer engagement such as online promotions.

## SOLUTION REQUIREMENTS/INVESTMENT OBJECTIVES

Interviewees said their organizations searched for a solution that could:

- Protect customer trust in the organization as well as brand image by providing reliable service.
- Enable DevOps teams to be more efficient and innovate faster.
- Provide more efficient cloud services and application and infrastructure monitoring through intelligent insights and recommended actions.
- Act as a consolidated and central observability platform with one source of truth to enable better inter-team relationships and problem-solving.

## COMPOSITE ORGANIZATION

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

**Description of composite.** The composite organization has a mature brand and global operations, and it has transitioned away from on-premises operations to a modern cloud environment. It has roughly 50,000 employees including hundreds of application developers. Of those, 200 use Dynatrace. The composite organization has an annual revenue of $20 billion and 64 million customers.

**Deployment characteristics.** The composite organization prioritizes deploying Dynatrace to the cloud and infrastructure, which are impactful to its business operations. It deploys Dynatrace to 30% of its cloud services and infrastructure in Year 1, and it scales up to 50% by Year 3. The composite also brings 160 developers onto the platform in Year 1 and scales up to 200 in Year 3.

**Key assumptions**

- **$20 billion revenue**
- **64 million customers**
- **50,000 employees**
- **200 developers using Dynatrace**

# 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 | Faster DevOps innovation | $1,660,120 | $2,150,610 | $2,515,333 | $6,326,063 | $5,176,371 |
| Btr | Continuously improved application and infrastructure quality for greater resiliency and performance | $734,635 | $902,115 | $1,041,121 | $2,677,871 | $2,195,610 |
| Ctr | Gained operational efficiency with proactive observability | $648,648 | $741,480 | $833,976 | $2,224,104 | $1,829,052 |
| Dtr | Greater business outcomes through growth in customer base | $267,750 | $779,153 | $1,514,448 | $2,561,350 | $2,025,164 |
| Etr | Greater business outcomes through improved customer digital experience | $957,961 | $1,915,921 | $3,197,774 | $6,071,656 | $4,856,815 |
| Ftr | Increased employee productivity and satisfaction | $1,039,125 | $1,980,075 | $1,996,650 | $5,015,850 | $4,081,197 |
| | Total benefits (risk-adjusted) | $5,308,239 | $8,469,354 | $11,099,303 | $24,876,895 | $20,164,209 |

### FASTER DEVOPS INNOVATION

**Evidence and data.** Interviewed decision-makers reported that integrating Dynatrace into their organizations' development cycles sharply reduced the time it took to deploy new features and updates. In part, Dynatrace enabled developers to shift left and find issues earlier in the innovation process.

Additional improvement came from Dynatrace enabling automated deployment, which took significantly less effort and could also safely occur any time of day. Developers could invest this saved time into more valuable activities such as building out new features.

- Interviewees said integrating Dynatrace into DevOps processes drastically reduced the development cycle through added efficiency and ensured releases do not cause additive issues.
- The Chief cloud and delivery officer of a financial institution said their organization reduced a new feature's time-to-value from approximately a year to a month.
- Interviewees said Dynatrace increased the efficiency of development processes and ultimately allowed developers to save time troubleshooting and fixing issues.

**"Before [using Dynatrace], we could wait for a year for a new feature. Now, we can have it within a month. Dynatrace gives us more releases and greater confidence in those releases."**
*Chief cloud and delivery officer, financial services*

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

- 200 developers work with Dynatrace. In Year 1, it integrates Dynatrace into the environments of 160 developers, and this scales up to 200 developers by Year 3.
- Before using Dynatrace, developers spent an average of 60% of their time on new development projects, or approximately 1,248 hours per year.
- Dynatrace allows DevOps throughput to shift left, and the throughput becomes 40% faster through automatic code and quality tests to detect errors before they move through the delivery pipeline.

**"We do more and more with Dynatrace because it minimizes our effort. We build it into pipelines and test automation, and that automation gets us to a position where our services auto-heal."**
*Head of tech area lead, healthcare*

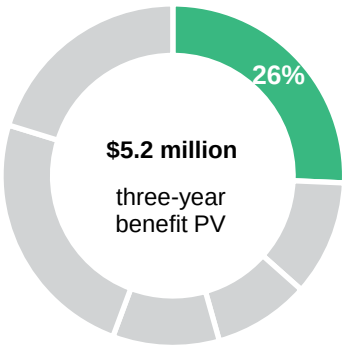
- 66% of developer innovation time is benefited from using Dynatrace. The remaining time is spent on services not monitored by Dynatrace and developers do not receive the same efficiency.
- Developers invest 60% of their saved time to value-adding activities.

**"Dynatrace lets you deploy within five minutes. Whether it's one server or one hundred, it's done within five minutes."**
*Chief cloud and delivery officer, financial services*

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- Whether or not the organization's development teams require buy-in or a shift in mindset. Change management can be difficult, and resistance to adopting a new tool in the process could reduce these time savings.
- The value of saved developer time, which varies by business needs and what is available for developers to work on.

**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 $5.2 million.



| Faster DevOps Innovation | | | | | |
|---|---|---|---|---|---|
| **Ref.** | **Metric** | **Source** | **Year 1** | **Year 2** | **Year 3** |
| A1 | Developers using Dynatrace | Composite | 160 | 180 | 200 |
| A2 | Percent of software development time that benefits from Dynatrace in the workflow | Composite | 66% | 66% | 66% |
| A3 | Time spent on new development per developer annually (hours) | Interviews | 1,248 | 1,248 | 1,248 |
| A4 | Increased development efficiency from shifting left with Dynatrace | Interviews | 33% | 38% | 40% |
| A5 | Developer hourly fully burdened wage | TEI Standard | $71 | $71 | $71 |
| A6 | Utilization modifier to account for downtime | Interviews | 60% | 60% | 60% |
| At | Faster DevOps innovation | A1*A2*A3*A4*A5*A6 | $1,844,578 | $2,389,567 | $2,794,815 |
| | Risk adjustment | ↓10% | | | |
| Atr | Faster DevOps innovation (risk-adjusted) | | $1,660,120 | $2,150,610 | $2,515,333 |
| | **Three-year total: $6,326,063** | | | **Three-year present value: $5,176,371** | |

### CONTINUOUSLY IMPROVED APPLICATION AND INFRASTRUCTURE QUALITY FOR GREATER RESILIENCY AND PERFORMANCE

**Evidence and data.** Interviewees reported a significant reduction in performance degradation and outages because of continuous insights and automation provided by Davis AI. In addition, they said issues that did arise took much less time to resolve than before.

- A head of tech area lead in the healthcare industry said integrating Dynatrace into their organization's infrastructure reduced system outages from being a daily occurrence to happening just once in six months.

**"We acquired a system that was not very stable, and we had to restart it constantly or we had outages every day. After Dynatrace, we went six months with only one outage."**
*Head of tech area lead, healthcare*

- A chief cloud and delivery officer in the financial services industry reported that insights provided by Dynatrace allowed teams at their organization to resolve outages and degradations much faster than before. Applications monitored by Dynatrace had a 75% lower mean-time-to-recovery than applications that were not.
- The same interviewee said Dynatrace proactively highlighted potential performance issues, which was a significant improvement over previously used observability platforms.

**"Our application teams have never had this level of observability before, and now they do with Dynatrace and its AI. … Applications monitored by Dynatrace had a 75% lower mean-time-to-recovery than applications that weren't."**
*Chief cloud and delivery officer, financial services*

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

- Before using Dynatrace, the composite had an average of 18 major outages and degradations each year, and each took an average of 5 hours to resolve.
- Five percent of the revenue the composite does not collect during a major outage or degradation is permanently lost. The remaining 95% is collected after the outage or degradation is resolved.
- With Dynatrace, proactive alerts and prescriptive advice from Davis AI enables the composite organization to avoid 30% of major outages and degradation in Year 1, and this improves to 60% in Year 3.
- By Year 3, the mean-time-to-recovery from the remaining outages and degradations is reduced by 75%.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the

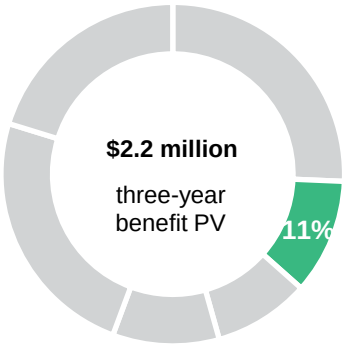
benefit will vary between organizations depending on the following factors:

- The extent to which Dynatrace reduces outages and degradation among the systems the organization deploys it in. If the organization only deploys Dynatrace in a small part of its environment, the reduction in major outages and performance degradation may be smaller.
- Whether or not all teams consider Dynatrace to be a single source of truth. Depending on the organization, this shift may take some time, and benefits may take longer to realize.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of nearly $2.2 million.

**"[Another solution] gave us insight, but it didn't have the same level of insight we got from Dynatrace. The way Davis AI presents the information [and] the way it highlights our problems was more powerful in Dynatrace. … Also, Dynatrace is less expensive."**
*Chief cloud and delivery officer, financial services*

**"From a monitoring perspective, Dynatrace is embedded as our standard framework, which is honestly a huge relief. … The observability from Dynatrace has paid off massively in dividends."**
*Chief cloud and delivery officer, financial services*



| Continuously Improved Application And Infrastructure Quality For Greater Resiliency And Performance | | | | | |
|---|---|---|---|---|---|
| **Ref.** | **Metric** | **Source** | **Year 1** | **Year 2** | **Year 3** |
| B1 | Annual revenue | Composite | $20,024,000,000 | $20,669,840,000 | $21,353,748,800 |
| B2 | Average revenue generated per hour (rounded) | B1/(365 days*24 hours) | $2,285,845 | $2,359,571 | $2,437,643 |
| B3 | Major outages and degradations per year before Dynatrace | Interviews | 18 | 18 | 18 |
| B4 | Average time to resolve outage or degradation (hours) | Interviews | 5.0 | 5.0 | 5.0 |
| B5 | Percent of revenue permanently lost during an outage or degradation | Composite | 5% | 5% | 5% |
| B6 | Revenue lost from outages and degradations prior to Dynatrace | B2*B3*B4*B5 | $10,286,301 | $10,618,068 | $10,969,392 |
| B7 | Reduction in major outages and degradation due to Dynatrace | Interviews | 30% | 45% | 60% |
| B8 | Number of outages and degradation per year after Dynatrace (rounded) | B3*(1-B7) | 13 | 10 | 7 |
| B9 | Reduction in mean time-to-recovery after Dynatrace (rounded) | Interviews | 55% | 65% | 75% |
| B10 | Revenue lost from outages and degradations after Dynatrace | B2*B4*(1-B9)*B5*B8 | $3,343,048 | $2,064,624 | $1,066,469 |
| B11 | Business profit margin | Composite | 10% | 10% | 10% |
| B12 | Subtotal: Retained profit from reduction in outages and degradations | (B6-B10)*B11 | $694,325 | $855,344 | $990,292 |
| B13 | Labor time to resolve one outage or degradation (hours) | Interviews | 100 | 100 | 100 |
| B14 | Engineer hourly fully burdened wage | TEI Standard | $65 | $65 | $65 |
| B15 | Annual cost to resolve outages and degradations prior to Dynatrace | B3*B13*B14 | $117,000 | $117,000 | $117,000 |
| B16 | Annual cost to resolve outages and degradations after Dynatrace | B8*(1-B9)*B13*B14 | $38,025 | $22,750 | $11,375 |
| B17 | Subtotal: Retained labor costs of resolving outages and degradations | B15-B16 | $78,975 | $94,250 | $105,625 |
| Bt | Continuously improved application and infrastructure quality for greater resiliency and performance | B12+B17 | $773,300 | $949,594 | $1,095,917 |
| | Risk adjustment | ↓5% | | | |
| Btr | Continuously improved application and infrastructure quality for greater resiliency and performance (risk-adjusted) | | $734,635 | $902,115 | $1,041,121 |
| | **Three-year total: $2,677,871** | | | **Three-year present value: $2,195,610** | |

### GAINED OPERATIONAL EFFICIENCY WITH PROACTIVE OBSERVABILITY

**Evidence and data.** Interviewees said their organizations' IT operations groups experienced significant time savings by using Dynatrace to address issues before they became critical.

- A chief cloud and delivery officer in the financial services industry estimated that before their organization used Dynatrace, each issue would create about 20 alerts and none were helpful in identifying the problem. The interviewee said Dynatrace reduced the number of alerts before the issue became critical to just one, and this alert included guidance from Davis AI about addressing the core issue. This resulted in a 95% reduction in alerts for the organization.
- A director of IT service in the retail industry said Dynatrace enabled a culture shift in their organization's IT groups to be more collaborative. The interviewee attributed this change to Dynatrace providing intelligent insights that guided teams in one direction.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

- The composite monitors 150 applications and services with Dynatrace.
- Its previous monitoring solution generated an average of 50 alerts per service per year.
- Prior to using Dynatrace, investigating each alert took an average of 2 labor hours when combining the time of all involved parties.
- In Year 3, the composite sees 95% fewer alerts because Davis AI eliminates false positives and the noise of multiple alerts per core issue.
- In Year 3, the composite reduced the mean-time-to-identify an issue by 80% because Davis AI provides insights into core issues instead of alerts of a symptom.

**"Dynatrace is allowing us to see problems and buildup before we actually have a critical error."**
*Chief cloud and delivery officer, financial services*

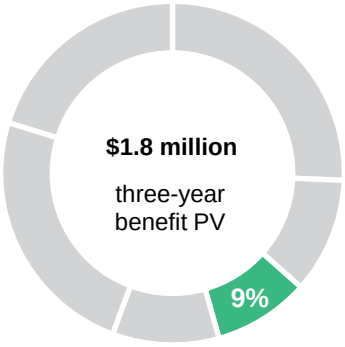
**"[We were] not only having fewer calls altogether, but the average size of a restoration call was much smaller. I would quantify that as hundreds of hours saved per call. [The savings] were that big."**
*Director of IT service, retail*

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- Whether or not shifting the organization's IT operations from reactive to proactive requires a change in culture. For some organizations, it may be easier to shift the mindsets of IT operations team members than members of other teams.
- The amount of time and number of human resources the organization requires to investigate

an alert. This may vary widely, so the time saved may also vary.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $1.8 million.




**"With Dynatrace, [because] people aren't constantly defending their domains, they're a little bit more collaborative about focusing on the solution. So, I just want to underline [that] while it's nice that we're not on calls as much anymore, the calls we do have shifted a little bit."**
*Director of IT service, retail*

**Gained Operational Efficiency With Proactive Observability**

| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|---|
| C1 | Number of business applications and services monitored by Dynatrace | Composite | 120 | 135 | 150 |
| C2 | Average number of alerts generated per application or service per year prior to Dynatrace | Composite | 50 | 50 | 50 |
| C3 | Labor time spent investigating one alert prior to Dynatrace (hours) | Interviews | 2 | 2 | 2 |
| C4 | Labor time spent investigating alerts each year prior to Dynatrace (hours) | C1*C2*C3 | 12,000 | 13,500 | 15,000 |
| C5 | Percent reduction in alerts due to Dynatrace eliminating false positives and noise | Interviews | 85% | 90% | 95% |
| C6 | Percent reduction in mean-time-to-identify enabled by Dynatrace | Interviews | 75% | 78% | 80% |
| C7 | Labor time spent investigating alerts each year after Dynatrace (hours) | C4*(1-C5)*(1-C6) | 450 | 297 | 150 |
| C8 | Engineer hourly fully burdened wage | TEI Standard | $78 | $78 | $78 |
| C9 | Utilization modifier to account for downtime | Composite | 80% | 80% | 80% |
| Ct | Gained operational efficiency with proactive observability | (C4-C7)*C8*C9 | $720,720 | $823,867 | $926,640 |
| | Risk adjustment | ↓10% | | | |
| Ctr | Gained operational efficiency with proactive observability (risk-adjusted) | | $648,648 | $741,480 | $833,976 |
| | **Three-year total: $2,224,104** | | | **Three-year present value: $1,829,052** | |

### GREATER BUSINESS OUTCOMES THROUGH GROWTH IN CUSTOMER BASE

**Evidence and data.** Interviewees reported that other business units of their organizations used insights from Dynatrace to attract more customers. In addition, they said marketing teams had greater success with their promotions because system stability was ensured.

- A chief cloud and delivery officer in the financial services industry said their organization provided product managers with deeper insights into the health and value of their products by sharing insights from Dynatrace Digital Experience Monitoring across teams. This allowed product teams to make more informed decisions about product and feature offerings because these levels of insight were not available before.
- A director of IT service in the retail industry said Dynatrace enabled their organization to successfully complete a major promotion that had crashed its system prior to investing in Dynatrace. The interviewee said being able to support drastically different levels of traffic during a promotional event made marketing efforts more effective at gaining new customers.

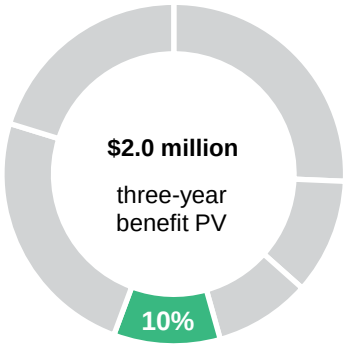
**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

- The composite has 8.4 million customers in the target segment in which decision-makers hope to improve customer experience.
- Product teams use insights from Dynatrace to improve their offerings to this segment. Marketing teams successfully complete large promotional activities with their infrastructure managing large changes in traffic.
- The combined benefit to customer growth is 12% by the end of Year 3. This is directly attributed to improvements enabled by Dynatrace, and it is in addition to the organic growth the composite saw prior to investing in Dynatrace.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- Whether or not product management and marketing teams shared their IT operations insights with other teams.
- The ability of product managers to act on the insights provided by Dynatrace. If decision-makers are unable to adapt their organization's products, the impact of this benefit will vary.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of more than $2.0 million.



| Greater Business Outcomes Through Growth In Customer Base | | | | | |
|---|---|---|---|---|---|
| **Ref.** | **Metric** | **Source** | **Year 1** | **Year 2** | **Year 3** |
| D1 | Number of customers without Dynatrace improvements in target segment | Composite | 8,400,000 | 8,652,000 | 8,911,560 |
| D2 | Additional growth through customer acquisition due to insights from Dynatrace | Interviews | 4.0% | 8.0% | 12.0% |
| D3 | Cumulative number of new customers gained by improvements enabled by Dynatrace (adjusted for 15% churn) | (D1*D2*3% net growth)+(85% of previous year) | 10,080 | 29,333 | 57,014 |
| D4 | Customer lifetime value per year | Composite | $313 | $313 | $313 |
| D5 | Profit margin | Composite | 10% | 10% | 10% |
| Dt | Greater business outcomes through growth in customer base | D3*D4*D5 | $315,000 | $916,650 | $1,781,703 |
| | Risk adjustment | ↓15% | | | |
| Dtr | Greater business outcomes through growth in customer base (risk-adjusted) | | $267,750 | $779,153 | $1,514,448 |
| | **Three-year total: $2,561,350** | | | **Three-year present value: $2,025,164** | |

### GREATER BUSINESS OUTCOMES THROUGH IMPROVED CUSTOMER DIGITAL EXPERIENCE

**Evidence and data.** Interviewees said Dynatrace enabled teams to provide better experiences for their organizations' customers, which increased retention rates and Net Promoter Scores.[2]

- A tech area lead in the healthcare industry reported that Dynatrace helped the organization protect its reputation among patients by preventing critical outages that would have affected patients' lives.
- A chief cloud and delivery officer in the financial services industry reported that Dynatrace enabled their organization to react in real time to shifts in customer activity. Previously, the organization would not have been aware of major changes until hours later and after it was too late. This improved customer experience was noticed by their users.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

- The composite has 8.4 million customers in the target segment in which decision-makers hope to improve customer experience.
- Customers in this segment currently have an average churn rate of 15% per year.
- The lifetime value of a customer in this segment is $2,500 during eight years. The value of retaining a customer for one year is $313.

**"Dynatrace is the last line [of defense in] the customer experience."**
*Director of IT service, retail*

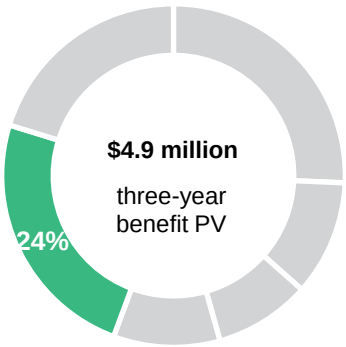
- By Year 3, improvements enabled by Dynatrace result in retaining 4% of customers who would have otherwise left for at least one additional year.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- How difficult it is to reduce customer churn rate, which may be more difficult in some industries than others.
- The importance of digital experience to the organization's customers.
- The value of retaining a customer, which may differ across industries and segments. Retention efforts for customers with a lower lifetime value may not provide the same benefit as those with a higher lifetime value.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $4.9 million.

**"A core part of turning things around over the last 12 months has been [gaining] the ability to be more responsive when things happen. And that has definitely resulted in increased 'referenceability' to us as a business from our customers."**
*Chief cloud and delivery officer, financial services*




**Greater Business Outcomes Through Improved Customer Digital Experience**

| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|---|
| E1 | Number of customers after improved acquisition in target segment | D1+D3 | 8,410,080 | 8,681,333 | 8,968,574 |
| E2 | Customer churn rate prior to Dynatrace | Composite | 15% | 15% | 15% |
| E3 | Relative percent reduction in churn rate due to improvements enabled by Dynatrace | Interviews | 2.7% | 3.5% | 4.0% |
| E4 | Cumulative number of customers retained due to improvements enabled by Dynatrace | (E1*E2*E3)+ Previous year | 34,061 | 68,122 | 113,699 |
| E5 | Customer lifetime value per year | Composite | $313 | $313 | $313 |
| E6 | Profit margin | Composite | 10% | 10% | 10% |
| Et | Greater business outcomes through improved customer digital experience | E4*E5*E6 | $1,064,401 | $2,128,802 | $3,553,083 |
| | Risk adjustment | ↓10% | | | |
| Etr | Greater business outcomes through improved customer digital experience (risk-adjusted) | | $957,961 | $1,915,921 | $3,197,774 |
| | **Three-year total: $6,071,656** | | | **Three-year present value: $4,856,815** | |

### INCREASED EMPLOYEE PRODUCTIVITY AND SATISFACTION

**Evidence and data.** Interviewees said teams used Dynatrace to improve core applications and services used by internal service employees. These improvements provided additional efficiency for internal service employees and improved employee satisfaction.

- Interviewees noted a significant improvement in application performance enabled by insights provided by Dynatrace. They said this resulted in several hours of added productivity per year.
- A director of IT service in the retail industry said Dynatrace enabled their organization to improve the response time of its internal applications. After an internal audit, the organization determined that these improvements reduced employee turnover and that the value of this reduction alone was worth nearly half a million dollars.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

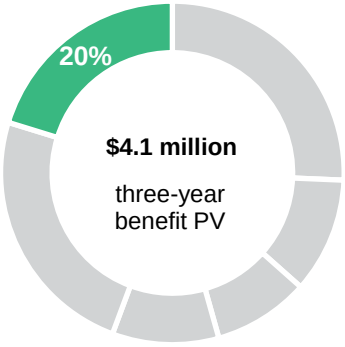
- The composite has 18,000 service employees who use internal applications monitored by Dynatrace.
- By years 2 and 3, employees save an average of 12 hours per year due to improvements enabled by Dynatrace for frequently used applications.
- Employees reinvest half of the saved time.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- Whether or not employees use different applications.
- Whether or not the applications have performance issues.
- The organization's employee retention rate, which may be difficult to improve through user experience alone.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of $4.1 million.

**"Who would have even considered that a benefit of [Dynatrace] is in reducing turnover? That has been really big for us for user behavior. … Dynatrace is capturing every user interaction, and if it's slow in a specific store, we'll know it's slow, and we can tell what's making it slow down to the user level. So, that has been hugely valuable for us."**
*Director of IT service, retail*




## Increased Employee Productivity And Satisfaction

| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|---|
| F1 | Number of service employees using internal applications monitored by Dynatrace | Composite | 18,000 | 18,000 | 18,000 |
| F2 | Average time saved per service worker per year due to Dynatrace (hours) | Interviews | 6.0 | 12.0 | 12.0 |
| F3 | Saved time able to be reinvested | Composite | 50% | 50% | 50% |
| F4 | Service worker average fully burdened hourly wage | TEI Standard | $20 | $20 | $20 |
| F5 | Subtotal: Retained customer service worker productivity | F1*F2*F3*F4 | $1,080,000 | $2,160,000 | $2,160,000 |
| F6 | Service attrition rate prior to Dynatrace | Interviews | 35.0% | 35.0% | 35.0% |
| F7 | Relative reduction in service worker attrition rate due to improved experience | Interviews | 1.5% | 1.8% | 2.0% |
| F8 | Number of avoided service rehires | F1*F6*F7 | 95 | 113 | 126 |
| F9 | Cost to hire and train a new service employee | Composite | $1,500 | $1,500 | $1,500 |
| F10 | Subtotal: Cost savings in employee attrition reduction | F8*F9 | $142,500 | $169,500 | $189,000 |
| Ft | Increased employee productivity and satisfaction | F5+F10 | $1,222,500 | $2,329,500 | $2,349,000 |
| | Risk adjustment | ↓15% | | | |
| Ftr | Increased employee productivity and satisfaction (risk-adjusted) | | $1,039,125 | $1,980,075 | $1,996,650 |
| | **Three-year total: $5,015,850** | | | **Three-year present value: $4,081,197** | |

### UNQUANTIFIED BENEFITS

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

- **Improving time-to-value.** Although interviewees said faster and more stable deployment saved labor hours for developers, they were not able to quantify having access to new features faster than before. Depending on how critical an update was or how much an organization's customers valued a new feature, being able to innovate and release faster provided significant value.
- **Guiding business vision.** Dynatrace insights about customers and product engagement were valuable not only to product and marketing teams, but also to business leaders. Interviewees said having ready access to this information allowed these leaders to take data-driven approaches to shaping their companies' business visions.

**"With Dynatrace, our resolution calls became top-down. I was kind of impressed. The VPs would get on the call and say, 'Tell me: What does Dynatrace say?' And it wasn't DBAs (database administrators) pulling out one tool and other teams pulling out their logs from other tools. We were all looking at the same thing."**
*Director of IT service, retail*

- **Improving interdepartmental alignment.** Interviewees said Dynatrace is the single source of truth at their organizations and that this allowed teams to align more easily and efficiently when major decisions had to be made.
- **Enabling cross-team collaboration.** Interviewees noted a significant change in how teams worked together with Dynatrace. Although Forrester included inter-team efficiency gains as a quantified benefit, it is likely that an organization would see additional benefits from teams more readily working together.
- **Adding security monitoring.** Dynatrace recently added application security to its platform, but the interviewees' organizations have not used this service long enough to quantify its benefit.

### FLEXIBILITY

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

- **Collaborating with a consultative and adaptive partner.** Interviewees reported that their organizations were able to leverage Dynatrace as a consultative partner in developing their long-term plans. They also indicated that Dynatrace was willing to adapt to their organizations' needs in ways that other service providers had not.

**"Dynatrace is very innovative, and [the company] listens to you. It's really the first company that listened to what we needed. Other companies didn't do that."**
*Head of tech area lead, healthcare*

- **Having an easy installation.** Dynatrace OneAgent technology allows teams to migrate with minimal effort. Interviewees said they were surprised by the ease and speed with which they could receive these insights. This could provide additional opportunities for decision-makers.

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

**"By having Dynatrace's full-stack coverage, we have improved the relationship between our infrastructure and our network teams. … They actually believe and trust each other now."**
*Chief cloud and delivery officer, financial services*

# 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 | Dynatrace license and support-related costs | $0 | $1,739,925 | $1,935,667 | $2,335,163 | $6,010,754 | $4,935,917 |
| Htr | Integration and ongoing management | $33,136 | $172,310 | $172,310 | $172,310 | $550,065 | $461,645 |
| | Total costs (risk-adjusted) | $33,136 | $1,912,235 | $2,107,976 | $2,507,472 | $6,560,819 | $5,397,562 |

### DYNATRACE LICENSE AND SUPPORT-RELATED COSTS

**Evidence and data.** Interviewees said their organizations paid Dynatrace licensing fees (typically in annual payments) to use the observability platform. The usage licenses also included support for the organizations' teams.

- The organizations paid yearly license fees based on the service units of data monitored and analyzed by Dynatrace. These licenses costs also included support for the platform.
- In addition to paying for Dynatrace license fees, many of the interviewees' organizations also found it useful to pay for additional integration and ongoing management services to better leverage the insights provided and assist with internal training.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

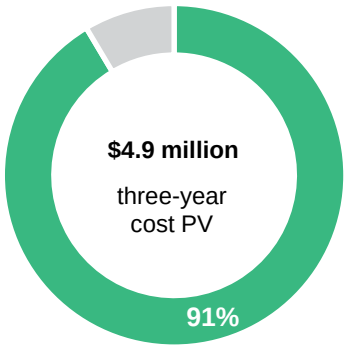
- As the composite scales up how much it uses Dynatrace to monitor its environment, usage and license fees increase in proportion.
- The composite's services, support, and customer success costs are much less than license fees, but they also scale up with usage over three years.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the costs will vary between organizations depending on the following factors:

- Whether the organization scales its cloud usage over time or starts with broader deployment.
- How much data the organization needs to observe.

**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 $4.9 million.

**"Dynatrace had the best breadth of different capabilities of everything we evaluated. The OneAgent approach was much better than the competitors where you have to buy different agents for different types of technology."**
*Managing director of cloud, financial services*




## Dynatrace License And Support-Related Costs

| Ref. | Metric | Source | Initial | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|---|---|
| G1 | Licensing, usage, and support at the host level | Composite | | $1,425,000 | $1,585,313 | $1,912,500 |
| G2 | Services, support, and customer success at the premium level | Composite | | $156,750 | $174,384 | $210,375 |
| Gt | Dynatrace license and support-related costs | G1+G2 | $0 | $1,581,750 | $1,759,697 | $2,122,875 |
| | Risk adjustment | ↑10% | | | | |
| Gtr | Dynatrace license and support-related costs (risk-adjusted) | | $0 | $1,739,925 | $1,935,667 | $2,335,163 |
| | **Three-year total: $6,010,754** | | | **Three-year present value: $4,935,917** | | |

### INTEGRATION AND ONGOING MANAGEMENT

**Evidence and data.** Interviewees said integrating Dynatrace required internal alignment and training. They also said IT groups needed to invest resources and time to ensure the transition was successful.

- Interviewees reported that integrating Dynatrace into their environment using OneAgent technology was a fast process that did not require a measurable net investment. In cases where interviewees did not invest in the same premium and support laid out in cost row G2, some groups including infrastructure, application, and development teams needed additional training and support.
- Some interviewees said change management was necessary during the initial integration at their organizations. Decision-makers had to meet to review the structural changes, and short-term task forces developed process changes that helped the organizations fully leverage Dynatrace.
- Interviewees also said their organizations each introduced one full-time employee to fully manage Dynatrace throughout the year. These employees spent most of their time managing licenses and training for other teams.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about the composite organization:

- A total of 400 labor hours are required for initial change management across teams. One FTE is then required to manage Dynatrace licenses and integrations on an ongoing basis.
- The composite has included premium support as a part of their subscription package in cost row G2. The amount of additional training required is not net new to the organization and has not been included in this section as it replaces training for legacy tools.

> **"Dynatrace [representatives] told us, 'You just need to install OneAgent, and it will auto-check all your software.' And we were like, 'That's not possible.' We were on the train [returning] from the conference, got out our laptops, and rolled out [Dynatrace] right there on the train. And then it started giving us insights about our dev environment. That was crazy. That was the beginning of the journey for us."**
> *Head of tech area lead, healthcare*

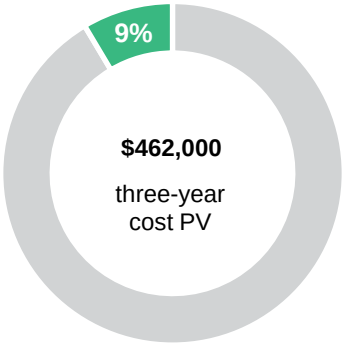
- Although users do not need ongoing refreshers, new hires on these teams need training to effectively use Dynatrace. This training time is not a net new investment and takes the place of training for legacy tools that would have been previously required.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the costs will vary between organizations depending on the following factors:

- The size and complexity of the organization's IT operations and the effort needed for change management.
- Whether or not the organization fully integrates Dynatrace into all its teams at once, because that would affect the number of employees who would need to be trained and the resources required to conduct that training.

- How difficult it is to implement change management at the organization.
- Whether the organization pays for premium services, support, and customer success. Organizations who did not opt for premium support tended to need to spend additional time training their employees.

**Results.** To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year, risk-adjusted total PV of $462,000.




**"Every team has a minimum of 2 hours training [on Dynatrace], where we walk them through their own applications. They get a lot more context that way. [The training has] had massive benefits. … [Employees] don't really need refreshers."**
*Chief cloud and delivery officer, financial services*

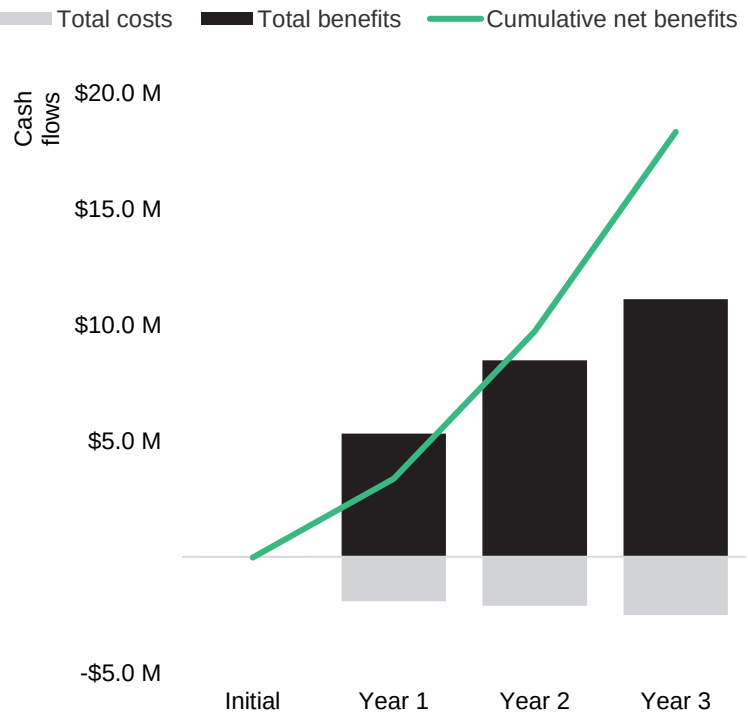
**Integration And Ongoing Management**

| Ref. | Metric | Source | Initial | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|---|---|
| H1 | Process change management time to integrate Dynatrace into the organization (hours) | Interviews | 400 | 0 | 0 | 0 |
| H2 | Time to manage Dynatrace per year (hours) | Interviews | 0 | 2,080 | 2,080 | 2,080 |
| H3 | Fully burdened hourly wage of 1 FTE to integrate and manage Dynatrace | TEI Standard | $72 | $72 | $72 | $72 |
| Ht | Integration and ongoing management | (H1+H2)*H3 | $28,814 | $149,834 | $149,834 | $149,834 |
| | Risk adjustment | ↑15% | | | | |
| Htr | Integration and ongoing management (risk-adjusted) | | $33,136 | $172,310 | $172,310 | $172,310 |
| | **Three-year total: $550,065** | | | **Three-year present value: $461,645** | | |

# 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 | ($33,136) | ($1,912,235) | ($2,107,976) | ($2,507,472) | ($6,560,819) | ($5,397,562) |
| Total benefits | $0 | $5,308,239 | $8,469,354 | $11,099,303 | $24,876,895 | $20,164,209 |
| Net benefits | ($33,136) | $3,396,004 | $6,361,378 | $8,591,831 | $18,316,076 | $14,766,647 |
| ROI | | | | | | 274% |
| Payback | | | | | | <6 months |

# Appendix A: Total Economic Impact

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

### TOTAL ECONOMIC IMPACT APPROACH

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

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

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

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

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.

### PRESENT VALUE (PV)

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

### NET PRESENT VALUE (NPV)

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

### RETURN ON INVESTMENT (ROI)

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

### DISCOUNT RATE

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

### PAYBACK PERIOD

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

# Appendix B: Endnotes

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

[2] Net Promoter, NPS, and the NPS-related emoticons are registered U.S. trademarks, and Net Promoter Score and Net Promoter System are service marks, of Bain & Company, Inc., Satmetrix Systems, Inc. and Fred Reichheld.


FORRESTER®