

A Forrester Total Economic Impact™
Study Commissioned By Broadcom
July 2020

The Total Economic Impact™ Of Automic Automation Intelligence

Business Benefits Enabled By The
Workload Automation Analytics And
Intelligence Tool

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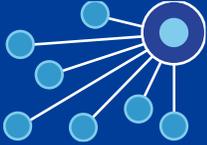
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Executive Summary

Benefits And Productivity Gains Across Three Key User Groups



For business users:
\$1,611,655



For automation developers:
\$676,822



For WLA production support team:
\$513,256

As organizations accelerate their automation and digital transformation, many are finding that their workloads are increasingly complex to manage. Not only are the volume of workloads increasing, so are both the interdependencies between them and the myriad of applications they interact with. Automic Automation Intelligence is an analytics platform that helps organizations optimize their workload automation (WLA) by providing monitoring, data visualization, predictive analytics, and simulation capabilities for workloads.

Broadcom commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Automic Automation Intelligence on top of their workload automation platforms. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Automic Automation Intelligence on their WLA environment.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed one customer with several years of experience using both AutoSys Workload Automation and Automic Automation Intelligence. The organization, a global financial services firm, had been using AutoSys Workload Automation solution before implementing Automic Automation Intelligence on top of it.

Prior to this investment, workloads were monitored by several automation production support staff, but with over 700 job streams under their purview the volume and complexity of these workloads had grown beyond their monitoring capacity, resulting in frequent breaches of service-level agreements (SLAs). The customer thus looked for help to better manage its WLA.

Key Findings

Quantified benefits. As a result of their investment in Automic Automation Intelligence, the interviewed organization experienced time savings and improved productivity across three groups of employees: 1) business users; 2) automation developers; and 3) the WLA production support team. The risk-adjusted present value (PV) of these productivity gains are as follows:

- › **Productivity gain for business users.** Within the interviewed customer's organization, WLA is responsible for generating reports daily for business users, who use the information provided to make time-sensitive business decisions. For these line-of-business users, a breach in the specific SLA results in a delay in receiving timely information, which then causes downtime and a disruption in business. With its predictive workload performance analytics, Automic Automation Intelligence helped to balance the organization's WLA capacity, while also preempting the automation support team on potential capacity and overrun issues. Overall, this has helped the organization reduce the number of WLA SLA breaches by 68%, and, subsequently, regained business productivity of \$1,611,655 over three years.



ROI
201%



Benefits PV
\$2.8 million



NPV
\$1.9 million



Payback
<3 months

- › **Improved automation developer productivity.** WLA job streams often interact with several different business systems and applications. Any changes in these source applications have an impact on and potential to disrupt WLAs in production. As such, with every new application release and/or update, developers would have had to spend additional time troubleshooting and rewriting code to ensure compatibility with WLA code. The Automic Automation Intelligence simulation environment allows developers to test schedule changes and their impact on SLAs before promoting them to production. This has helped developers save time on troubleshooting issues and developing follow-on releases to fix incompatibility between applications and workloads. The improved developer productivity is estimated to be \$676,822 over three years.
- › **Improved productivity of production support team.** Workloads in production still require active monitoring and management. Production support staff work to oversee the quality and timeliness of WLA execution — monitoring alerts, SLA adherence, reporting, etc. Having a WLA analytics tool in place has significantly reduced the amount of time and effort required on active monitoring and management of workloads, resulting in productivity gains of \$513,256 for the WLA support team over three years.

Unquantified benefits. Besides these productivity gains, the interviewed organization also experienced several other benefits which are not quantified for this study:

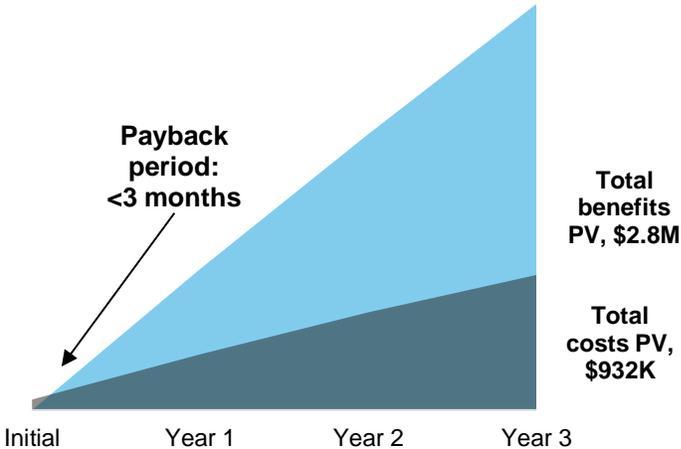
- › **Additional business insights from workload analytics data.** By analyzing how jobs performed and evolved over time, the WLA data also served as an additional data source for providing business insights. Such insights include historical performance data that served as a benchmark for ongoing workload performance.
- › **Avoided revenue loss associated with downtime.** Some business users also reported that delays in receiving time-sensitive information (due to SLA breaches) sometimes caused missed revenue opportunities. The potential for avoided revenue loss can vary widely depending on the workload, and it has therefore not been quantified in this study.
- › **Improved IT-business collaboration.** The lower SLA breach incidence rate, coupled with the added visibility into the causes of these breaches, provided higher transparency amongst both IT and business teams on WLA performance. The interviewed organization reported an improved working relationship between the two teams, as they now feel more empowered to fix WLA-related issues.

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

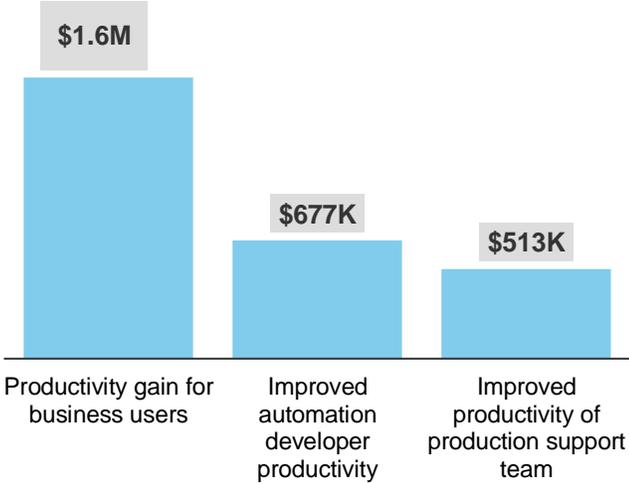
- › **Total license and service fees.** These fees, paid to Broadcom, comprise of annual license fees as well as professional services fees paid as part of implementation support. These fees only account for the use of the WLA analytics tool (Automic Automation Intelligence), and exclude the amount paid for use of the WLA platform (AutoSys Workload Automation) itself. Over three years, these fees amount to \$843,070.
- › **Internal implementation and ongoing management costs.** These costs account for the time and effort that the automation and/or IT team put into deploying the solution and the ongoing management of it. They total \$89,225 over three years.

Forrester's interview with an existing customer and subsequent financial analysis found that the interviewed organization experienced benefits of \$2,801,733 over three years versus costs of \$932,295, adding up to a net present value (NPV) of \$1,869,438 and an ROI of 201%.

Financial Summary



Benefits (Three-Year)



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

TEI Framework And Methodology

From the information provided in the interview, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing Automic Automation Intelligence.

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 Automic Automation Intelligence can have on an organization's WLA environment:



DUE DILIGENCE

Interviewed Broadcom stakeholders and Forrester analysts to gather data relative to Automic Automation Intelligence.



CUSTOMER INTERVIEW

Interviewed one organization using Automic Automation Intelligence on top of their AutoSys Workload Automation environment to obtain data with respect to costs, benefits, and risks.



FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interview using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organization.



CASE STUDY

Employed four fundamental elements of TEI in modeling Automic Automation Intelligence's impact: benefits, costs, flexibility, and risks. Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Broadcom and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Automic Automation Intelligence.

Broadcom 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.

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

The Automic Automation Intelligence Customer Journey

BEFORE AND AFTER THE AUTOMIC AUTOMATION INTELLIGENCE INVESTMENT

Interviewed Organization

For this study, Forrester interviewed a customer that had been using AutoSys Workload Automation, it later implemented Automic Automation Intelligence to help manage its WLA.

- › The organization is a global financial services firm offering investment banking and brokerage services.
- › It has over 7,500 employees worldwide, including 14 in its workload automation group.
- › These 14 WLA staff collectively manage about 700 job streams, containing thousands of individual jobs, across the entire organization.

Key Challenges

Prior to the investment in a WLA analytics tool, workloads were monitored and manually managed by several staff within their automation groups. The key challenges they faced, which drove their investment into automation intelligence, include:

- › **Frequent SLA breaches.** As the WLA environment grew larger and more complex, capacity became an issue, and the team started missing SLA windows more frequently.
- › **Lack of transparency into how their AutoSys Workload Automation environment was performing.** Beyond tracking SLA adherence, the team was limited in the analytics they could perform on the WLA data that they had accumulated over the year. This lack of visibility also impeded their ability to pinpoint the causes of their SLA misses.
- › **Overreliance on application development teams to review their performance.** Without visibility into WLA data, the organization had to rely on application data to assess the performance and problems of their workload automations. This was inefficient, with no way to validate the claims, and often ineffective.

“Prior to Automic Automation Intelligence, we had no good way to understand how our baseline AutoSys environment was performing.”

Manager, integration services



Solution Requirements

The interviewed organization searched for a solution that could:

- › Analyze back-end data to validate the performance of their AutoSys Workload Automation environment.
- › Provide analytics based on historical AutoSys data to inform optimization efforts.
- › Customize a user-friendly interface to allow business users to access data and analytics tools.

Key Results

The interview revealed that key results from the investment include:

- › Fewer SLA breaches from detailed insights into batches at the job level and early detection of irregular performance.
- › Less rework and troubleshooting after the go-live date from better testing in simulation environment.
- › Improved the relationship and collaboration environment between the IT and business teams.

“The ability to run analyses of our job scheduling runs, and use those insights to make changes in our base [WLA] environment, has been a game changer.”

Manager, integration services



Analysis Of Benefits

QUANTIFIED BENEFIT DATA

| Total Benefits | | | | | | |
|----------------|--|-------------|-------------|-------------|-------------|---------------|
| REF. | BENEFIT | YEAR 1 | YEAR 2 | YEAR 3 | TOTAL | PRESENT VALUE |
| Atr | Productivity gain for business users | \$590,940 | \$650,034 | \$715,037 | \$1,956,011 | \$1,611,655 |
| Btr | Improved automation developer productivity | \$272,160 | \$272,160 | \$272,160 | \$816,480 | \$676,822 |
| Ctr | Improved productivity of production support team | \$206,388 | \$206,388 | \$206,388 | \$619,164 | \$513,256 |
| | Total benefits (risk-adjusted) | \$1,069,488 | \$1,128,582 | \$1,193,585 | \$3,391,655 | \$2,801,733 |

Productivity Gain For Business Users

The interviewed customer's key use case for WLA is to generate daily reports for trading managers, who use the provided information to make time-sensitive investment decisions. For these line-of-business users, a breach in SLA results in a delay in receiving this timely information, which then causes downtime and a disruption in business. On average, these overruns were 1 hour long and affected 10 business users each.

The interviewee shared that with Automic Automation Intelligence they managed to reduce the SLA breach incidences by 69% for this particular job stream (from 102 taking place in one year down to 32). To scale this benefit across the entire WLA landscape, Forrester applied the same 69% improvement to the other business-critical WLA job streams throughout the organization, which is estimated to be 15% of all workloads.

In all, the interviewed organization managed to avoid 73,500 hours of downtime in Year 1. Forrester estimates that the employee productivity impact of this downtime is 15%, i.e., for 1 hour of downtime or delay, there is 9 minutes (15%) of productivity loss. Employees will be able to fill the other 51 minutes with other work tasks. Therefore, given a downtime reduction of 73,500 hours, the productivity loss avoided in Year 1 is 11,025 hours.

Assuming a fully loaded salary rate of \$67 per hour for each business user, the organization realized productivity gains of \$738,675 for business users in Year 1.

These productivity gains will vary from one organization to the next, depending on the complexity of their workloads, severity of SLA breaches, and average salaries of business users. To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of \$1,611,655.

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the interviewed organization expects risk-adjusted total benefits to be a PV of more than \$2.8 million.



With Automic Automation Intelligence, the interviewed organization managed to reduce SLA breach incidences by 69%.

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

Productivity Gain For Business Users: Calculation Table

| REF. | METRIC | CALCULATION | YEAR 1 | YEAR 2 | YEAR 3 |
|------|---|-------------|-----------|-----------|-----------|
| A1 | Number of WLA job streams in organization | Interviewee | 700 | 770 | 847 |
| A2 | Number of business-critical WLA job streams in organization | A1*15% | 105 | 115.5 | 127.1 |
| A3 | Number of SLA breaches per business-critical job stream (before investment) | Interviewee | 102 | 102 | 102 |
| A4 | Number of SLA breaches per business-critical job stream (after investment) | Interviewee | 32 | 32 | 32 |
| A5 | Number of SLA breaches avoided per business-critical job stream | A3-A4 | 70 | 70 | 70 |
| A6 | Average overrun per SLA breach (hours) | Interviewee | 1 | 1 | 1 |
| A7 | Total downtime avoided per user (hours) | A5*A6 | 70 | 70 | 70 |
| A8 | Number of business users affected | Interviewee | 10 | 10 | 10 |
| A9 | Total downtime avoided (hours) | A2*A7*A8 | 73,500 | 80,850 | 88,935 |
| A10 | Estimated employee productivity impact | Assumption | 15% | 15% | 15% |
| A11 | Avoided productivity loss (hours) | A9*A10 | 11,025 | 12,128 | 13,340 |
| A12 | Average fully-loaded salary of business user (per hour) | Assumption | \$67 | \$67 | \$67 |
| At | Productivity gain for business users | A11*A12 | \$738,675 | \$812,543 | \$893,797 |
| | Risk adjustment | ↓20% | | | |
| Atr | Productivity gain for business users (risk-adjusted) | | \$590,940 | \$650,034 | \$715,037 |

Improved Automation Developer Productivity

WLA job streams often interact with several different business systems and applications. Any changes in these source applications have the potential to disrupt WLA streams in production, causing SLA breaches and delays down the line. According to the interviewed customer, they would typically need six to eight follow-on releases to fix issues, but with the ability to run simulations in the Automic Automation Intelligence test environment, this has been reduced.

Overall, with these testing and simulation capabilities in place, developers have saved significant time on troubleshooting issues and developing follow-on releases to fix incompatibility between applications and workloads.

Assuming an application refresh and/or release rate of 5% per year, the interviewed organization has 20 major application releases/refreshes per year. For each of these applications, the organization can save 336 hours of developer time in troubleshooting and fixing errors. With over 20 application updates, this adds up to a total time savings of 6,720 developer hours. Forrester assumes that 75% of these time savings, or 5,040 hours, are captured and used towards productive work.

Assuming a fully loaded salary rate of \$60 per hour for each developer, the organization realized improved automation developer productivity of \$302,400 every year.

These productivity gains will vary from one organization to the next, depending on the complexities of their application and workload environment, and the average salaries and workloads of developers. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$676,822.

Improved Automation Developer Productivity: Calculation Table

| REF. | METRIC | CALCULATION | YEAR 1 | YEAR 2 | YEAR 3 |
|------|--|---|-----------|-----------|-----------|
| B1 | Number of applications within organization | Assumption | 400 | 400 | 400 |
| B2 | Number of application releases and/or updates | B1*5% | 20 | 20 | 20 |
| B3 | Avoided additional troubleshooting and development time with simulation/testing capabilities (hours) | ~35% of time spent on this over 8 weeks | 112 | 112 | 112 |
| B4 | Number of automation developers involved per application release/update | Interviewee | 3 | 3 | 3 |
| B5 | Total time savings for automation developers (hours) | B2*B3*B4 | 6,720 | 6,720 | 6,720 |
| B6 | Productivity captured | B5*75% | 5,040 | 5,040 | 5,040 |
| B7 | Average fully loaded salary of automation developers | Assumption | \$60 | \$60 | \$60 |
| Bt | Improved automation developer productivity | B6*B7 | \$302,400 | \$302,400 | \$302,400 |
| | Risk adjustment | ↓10% | | | |
| Btr | Improved automation developer productivity (risk-adjusted) | | \$272,160 | \$272,160 | \$272,160 |

Improved Productivity Of Production Support Team

Workloads in production require active monitoring and management. Production support staff work to oversee the quality and timeliness of WLA execution — monitoring alerts, SLA adherence, reporting, etc.

Having a WLA analytics tool in place has significantly reduced the amount of time and effort required on active monitoring and management of workloads. The interviewee recounted that before Automic Automation Intelligence, their WLA system could raise as many 15,000 alarms a day, which would have to be monitored or addressed by the automation production support team. With better capacity management (see Benefit 1), and predictive monitoring and alerting, the interviewed customer has seen an “80% of noise reduction on the console” by prioritizing alarms so the organization could focus on just those that are deemed critical.

Forrester estimates that this translates into a 70% reduction in time spent on monitoring jobs and addressing alerts with their investment in Automic Automation Intelligence. Across the organization’s 14 production support staff, these time savings add up to 5,096 hours a year. Forrester assumes that 75% of these time savings, or 3,822 hours, are captured and used towards productive work.

Assuming a fully loaded salary rate of \$60 per hour for each support staff, the organization realized improved productivity of production support team of \$229,320 every year.

These productivity gains will vary from one organization to the next, depending on the complexity of their workload automation environment, and the average salaries and workloads of production support staff. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$513,256.

Improved Productivity Of Production Support Team: Calculation Table

| REF. | METRIC | CALCULATION | YEAR 1 | YEAR 2 | YEAR 3 |
|------|---|-------------|-----------|-----------|-----------|
| C1 | Number of employees involved in production support | Interviewee | 14 | 14 | 14 |
| C2 | Number of hours spent on monitoring jobs and addressing alerts per week (before investment) | Assumption | 10 | 10 | 10 |
| C3 | Total hours spent on monitoring jobs and addressing alerts (with investment) | $C2*52$ | 520 | 520 | 520 |
| C4 | Reduction in time spent on manual workload monitoring and management | Interviewee | 70% | 70% | 70% |
| C5 | Total time savings for production support team | $C1*C3*C4$ | 5,096 | 5,096 | 5,096 |
| C6 | Productivity captured | $C5*75\%$ | 3,822 | 3,822 | 3,822 |
| C7 | Average fully loaded salary of production support team | Assumption | \$60 | \$60 | \$60 |
| Ct | Improved productivity of production support team | $C6*C7$ | \$229,320 | \$229,320 | \$229,320 |
| | Risk adjustment | ↓10% | | | |
| Ctr | Improved productivity of production support team (risk-adjusted) | | \$206,388 | \$206,388 | \$206,388 |

Unquantified Benefits

Besides, the productivity gains quantified above, the interviewed organization also experienced several other benefits which are not quantified for this study:

- › **Additional business insights from workload analytics data.** By analyzing how jobs performed and evolved over time, the WLA data also served as an additional information source for providing business insights. This was especially important for the interviewed organization, which noted, “We have gone from enabling business [users] to have tools at their fingertips, to now delivering data to the tools for them to decide what’s the better investment decision.”
- › **Avoided revenue loss associated with downtime.** Some business users also reported that delays in receiving time-sensitive information (due to SLA breaches) sometimes caused missed revenue opportunities.
- › **Improved IT-business collaboration.** The lower SLA breach incidence rate, coupled with the added visibility into the causes of these breaches, provided higher transparency amongst both IT and business teams on WLA performance. The interviewed organization reported an improved working relationship between the two teams, as they feel now more empowered to fix WLA-related issues.



By analyzing how jobs performed and evolved over time, the WLA analytics data also served as an additional information source for providing business insights.

Flexibility

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

- › **Business optimization through the analysis of WLA data.** Considering the volume of jobs in a typical WLA environment, WLA data can be a rich source of information that's useful not only to the automation team to optimize their operations but also for business analysts to explore too.
- › **Reassignment of production support resources to more value-added activities.** Reduction in manual job monitoring and analysis allows production support to focus on strengthening business relationships, including but not limited to finding additional business processes to automate.

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

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for a future additional investment. This provides an organization with the "right" or the ability to engage in future initiatives but not the obligation to do so.

Analysis Of Costs

QUANTIFIED COST DATA

| Total Costs | | | | | | | |
|-------------|---|----------|-----------|-----------|-----------|-------------|---------------|
| REF. | COST | INITIAL | YEAR 1 | YEAR 2 | YEAR 3 | TOTAL | PRESENT VALUE |
| Dtr | Total license and service fees | \$33,600 | \$325,500 | \$325,500 | \$325,500 | \$1,010,100 | \$843,070 |
| Etr | Total implementation and ongoing management costs | \$38,016 | \$20,592 | \$20,592 | \$20,592 | \$99,792 | \$89,225 |
| | Total costs (risk-adjusted) | \$71,616 | \$346,092 | \$346,092 | \$346,092 | \$1,109,892 | \$932,295 |

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the interviewed organization expects risk-adjusted total costs to be a PV of more than \$930,000.

Total License And Service Fees

The major cost component in an investment in Automic Automation Intelligence is the license model and its associated fees. Forrester assumes an annual license agreement for this model, though other payment models are available. For its particular scale of deployment, the interviewed organization incurred annual license costs of \$310,000. In addition, it paid \$32,000 in professional service fees for implementation support during the initial phase of the project.

These fees only account for the use of the WLA analytics tool (Automic Automation Intelligence), and exclude the amount paid for use of the WLA platform (AutoSys Workload Automation) itself.

To account for variances in deployment and discount rates, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of \$843,070.



Forrester assumes an annual license agreement for this model, though other payment models are available.

Implementation risk is the risk that a proposed investment may deviate from the original or expected requirements, resulting in higher costs than anticipated. The greater the uncertainty, the wider the potential range of outcomes for cost estimates.

Total License And Service Fees: Calculation Table

| REF. | METRIC | CALCULATION | INITIAL | YEAR 1 | YEAR 2 | YEAR 3 |
|------|--|-------------|----------|-----------|-----------|-----------|
| D1 | License fees | | \$0 | \$310,000 | \$310,000 | \$310,000 |
| D2 | Professional service fees | | \$32,000 | | | |
| Dt | Total license and service fees | D1+D2 | \$32,000 | \$310,000 | \$310,000 | \$310,000 |
| | Risk adjustment | ↑5% | | | | |
| Dtr | Total license and service fees (risk-adjusted) | | \$33,600 | \$325,500 | \$325,500 | \$325,500 |

Total Implementation And Ongoing Management Costs

The second cost component in the investment is the resources needed to deploy the solution and manage it on a day-to-day basis. To calculate these costs, Forrester first considered the time that different users would have to spent working on the project — from implementation throughout the entire three-year period.

The interviewee recounted that implementation took about six months, during which two to three project managers spent several hours a week in meetings about this project. Forrester estimates that the total time put into the implementation effort is at 192 hours.

Once configured and installed, minimal effort is required to keep the solution running. The interviewee estimates that one employee spends about 6 hours a week overseeing the program.

To account for the risk of a project going over time, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of \$89,225.



Six months
Total implementation and deployment time

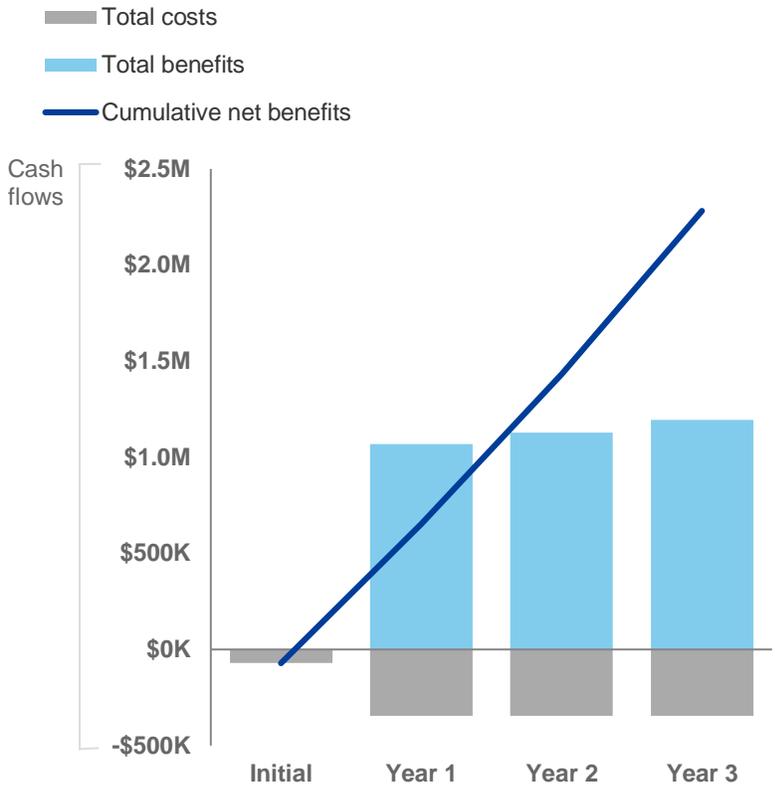
Total Implementation And Ongoing Management Costs: Calculation Table

| REF. | METRIC | CALCULATION | INITIAL | YEAR 1 | YEAR 2 | YEAR 3 |
|------|--|--|----------|----------|----------|----------|
| E1 | Number of FTEs involved in implementation | Interviewee | 3 | | | |
| E2 | Average fully loaded salary of IT staff | Assumption | \$60 | \$60 | \$60 | \$60 |
| E3 | Number of hours spent on implementation | Interviewee: 8 hours/week *24 weeks | 192 | | | |
| E4 | Implementation costs | $E1 * E2 * E3$ | \$34,560 | | | |
| E5 | Number of FTEs involved in ongoing management of solution | Interviewee | | 1 | 1 | 1 |
| E6 | Number of hours spent per week on ongoing management and maintenance | Assumption | | 6 | 6 | 6 |
| E7 | Ongoing management costs | $E6 * E2 * E5$ | | \$18,720 | \$18,720 | \$18,720 |
| Et | Total implementation and ongoing management costs | $E4 + E7$ | \$34,560 | \$18,720 | \$18,720 | \$18,720 |
| | Risk adjustment | ↑10% | | | | |
| Etr | Total implementation and ongoing management costs (risk-adjusted) | | \$38,016 | \$20,592 | \$20,592 | \$20,592 |

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 interviewed 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)

| | INITIAL | YEAR 1 | YEAR 2 | YEAR 3 | TOTAL | PRESENT VALUE |
|----------------|------------|-------------|-------------|-------------|---------------|---------------|
| Total costs | (\$71,616) | (\$346,092) | (\$346,092) | (\$346,092) | (\$1,109,892) | (\$932,295) |
| Total benefits | \$0 | \$1,069,488 | \$1,128,582 | \$1,193,585 | \$3,391,655 | \$2,801,733 |
| Net benefits | (\$71,616) | \$723,396 | \$782,490 | \$847,493 | \$2,281,763 | \$1,869,438 |
| ROI | | | | | | 201% |
| Payback period | | | | | | <3 months |

Automic Automation Intelligence: Overview

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

Adaptive Intelligence And Predictive Analytics For Workload Automation

Key Benefits

- **Risk reduction and avoidance:** Improved understanding of batch impact due to failures, latency, and operator error.
- **Improve efficiency and reduce costs:** Gain the visibility you need to manage value streams end-to-end and optimize costs, align execution to strategy, and prioritize strategic initiatives.
- **Transform customer experience:** Optimize customers' experiences by using AI-driven insights to detect and resolve issues faster, and to prevent them from occurring in the first place.

Key Capabilities

- **Cross platforms/vendors visibility:** Real-time single point of view across IWS z/d, CA 7, Jobtrac, AutoSys Workload Automation, and Tidal Workload Automation solutions.
- **Dynamic service-level management:** Discover and track service-level agreements (SLA) across platforms and schedulers simply by identifying the job that needs to be delivered.
- **Predictive monitoring and alerting:** Predict outcome of SLAs before they impact the business. Proactive alert management to resolve before any impact to the business.
- **Improved change control:** Simulate potential changes against defined SLAs before going to production. Limits SLA breaches and allows you to optimize complex batch processing across vendors and platforms.

Critical Differentiators

- **Cross platform/vendor:** Sole solution that allows you to monitor, manage, and improve workload automation across multiple vendors and platforms.
- **API-driven:** Includes in-house schedulers and application data to enhance SLA management to expand beyond the jobs that are scheduled.
- **Lifecycle management:** Simulate impact of schedule changes to understand impact on SLAs and operational efficiency.
- **Predictive analytics:** Gain insight and understanding of your entire workload environment. Find unseen impacts and dependencies across applications, platforms, and vendors.
- **Business monitoring:** See your workload from a line-of-business and business-process perspective instead of a series of unrelated job streams.
- **Proactive operations:** Adaptive intelligence and artificial intelligence provides unprecedented forecasting to accurately determine likely outcome.
- **Dynamic critical-path discovery:** Real-time discovery of critical path to determine requirements to meet SLAs.
- **Workload intelligence:** Long-term storage of historical activities to better identify outcomes to critical workload execution.
- **Audit and compliance:** Single repository of truth for outcome of workload execution over the long term.

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.