A Forrester Total Economic Impact™
Study Commissioned By CA
Technologies
May 2017

The Total Economic Impact™ Of CA Workload Automation iDash

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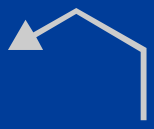
Benefits And Costs



Workload SLA monitoring and remediation efforts were reduced across multiple teams:

$1.2 million

Fewer failed workloads protected revenue and business outcomes:

$446,250

iDash license and maintenance costs for 1,000 agents were 70% of all costs incurred:

$384,000

Executive Summary

CA provides workload automation and service level agreement (SLA) monitoring solutions that help its customers ensure that mission-critical workloads complete on time and give users the needed information to improve processes and business outcomes. CA commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying CA Workload Automation (CA WLA) iDash (CA WLA iDash) for CA Workload Automation AE (CA WLA AE). The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of CA WLA iDash on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed two customers using the latest version of CA WLA iDash. Prior to using CA WLA iDash, the customers used the tools built into CA Workload Automation AE along with manual tracking. However, these prior approaches resulted in failed jobs, missed SLAs, and too much effort across the organization.

Key Findings

Quantified benefits. The following risk-adjusted quantified benefits are representative of those experienced by the companies interviewed:

- **The CA Workload Automation AE team would have grown 30% without CA WLA iDash.** The introduction of CA WLA iDash has made the workload team more efficient and enabled them to cover more applications and SLAs. This means more processes complete on time and can be further streamlined, which improves business outcomes. The current team has 10 full-time equivalents (FTEs). Two additional hires were avoided in Year 1 of the study, and one further hire was avoided in Year 3. Over three years, the total savings were $831,250.
- **Application development teams save time managing system changes.** Application developers used to spend 3 hours per month on change requests for the workload automation team and other manual activities that are now fully automated or streamlined. This frees up their time to work on system enhancements that can improve business performance. One hundred application developers are each saving 3 hours per month, which totaled $286,875 in additional productive output over three years.
- **Operations teams spend less time monitoring and reporting.** Operations teams have real-time access to information, which empowers them to make decisions faster. Twenty affected users are each saving 1 hour per week, for a total savings of $82,875.
- **Having fewer failed jobs protects revenue and improves other business outcomes.** Most importantly, using CA WLA iDash means that fewer mission-critical workloads/processes fail or are delayed. For this study, Forrester included fewer missed SLAs that result in lost revenue. The total revenue protection over three years was $446,250.

Unquantified benefits. The interviewed organizations experienced the following benefits, which are not quantified for this study:

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ROI
168%

Benefits PV
$1.35 million

NPV
$844,717

Payback
10 months

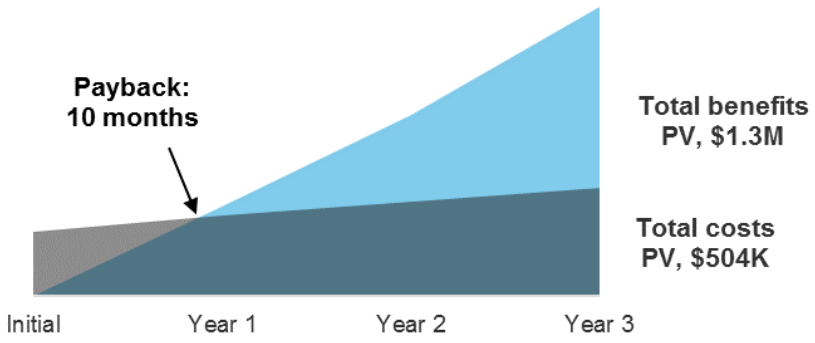
- **IT security is improved through Active Directory (AD) integration.** By tying CA WLA AE directly into AD, users have access to information and tools based on their role and position within the organization. This improves security and separation of duties, and it also saves time managing these users.
- **More SLAs are defined across more processes and applications, which means that fewer critical processes fail.** Creating and monitoring SLAs is much faster in CA WLA iDash. A larger part of workloads is monitored and more users are alerted if there is a problem, resulting in fewer failed jobs and the associated negative repercussions.

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

- **Implementation and rollout of 400 SLAs took 440 hours.** The effort to roll out CA WLA iDash was described as very simple and fast. The total cost in the initial period was $28,875.
- **A small amount of professional services was used for initial configuration and training the workload team.** Fifteen days of professional services were used for the deployment, and an additional 10 days were used for training. The total cost was $34,125.
- **CA WLA iDash licenses cover 1,000 agents.** Forrester used the list price for CA WLA iDash based on 1,000 agents. The number of agents was kept constant over the life of the study for simplicity. The initial licenses and annual maintenance fees totaled $384,000.
- **Ongoing support of iDash does not require much time.** The total effort required to maintain and install updates to iDash is 0.25 FTEs. The effort is higher during upgrades, and it is lower when the system is operating in a business-as-usual state. The total cost was $98,438.

Forrester's interviews with two existing customers and subsequent financial analysis found that an organization based on these interviewed organizations (a European-headquartered bank) experienced benefits of $1.35 million over three years versus costs of approximately $504,000, adding up to a net present value (NPV) of about $844,000 and an ROI of 168%.

Financial Summary



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 interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing CA WLA iDash.

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 iDash can have on an organization:

DUE DILIGENCE
Interviewed CA stakeholders and Forrester analysts to gather data relative to CA WLA iDash.

CUSTOMER INTERVIEWS
Interviewed two organizations using CA WLA iDash to obtain data with respect to costs, benefits, and risks.

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

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

CASE STUDY
Employed four fundamental elements of TEI in modeling CA WLA iDash'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.

The CA Workload Automation iDash Customer Journey

BEFORE AND AFTER THE CA WLA IDASH INVESTMENT

Interviewed Organizations

For this study, Forrester conducted two interviews with CA WLA iDash customers. Interviewed customers include the following:

INDUSTRY	HEADQUARTERS	INTERVIEWEE	KEY STATISTICS
Financial services	Europe	Batch technical lead	415 SLAs 7,000 agents
Financial services	United States	Batch service-level management head	1,200 SLAs covering Asia Pacific, EMEA, and North America

Key Challenges

Both organizations reported similar challenges before using CA WLA iDash, which are summarized below.

- **Failed and delayed workloads that hurt the business.** Workloads would fail or complete late on a regular basis. Some had significant impacts to the business, such as lost revenue. Without CA WLA iDash, the application owners did not have forward-looking visibility into workloads that were likely to miss, which deprived them of the opportunity to take easy corrective actions early on.
- **Need for enterprisewide SLA monitoring and reporting.** There was a need for a consistent, enterprisewide SLA framework to track workload and business process performance. Prior to CA WLA iDash, the effort to define, set up, and monitor SLAs was too onerous.
- **Time-consuming, manual processes that overwhelmed IT organizations.** Manual processes took too much time for the batch management and application teams. This resulted in higher labor costs and a lack of time to work on higher value IT projects.

> "Before iDash, there was no formal management of critical path workloads. We needed to get our hands around that, set SLAs, and look at performance trends."
>
> *Batch service-level management head, financial services company*

Key Results

The interviews revealed that key results from the CA WLA iDash investment include:

- **Better business outcomes because workloads complete on time.** Critical workloads can have significant business implications if they fail or complete late. Interviewed organizations provided examples that have financial and regulatory implications. Adding CA WLA iDash on top of CA Workload Automation has improved on-time completion rates and business performance.
- **Improved capacity planning from better monitoring and trending analysis.** Using the trending tools within CA WLA iDash enables the IT organization to better plan for future infrastructure requirements to ensure that there is enough capacity for workloads to complete on time. It also helps identify process bottlenecks and organizational priorities for SLA definition and monitoring.

> "The big thing right now is using iDash's predictive and prioritization capabilities. This gives us a better idea of what is going on and more buffer time to take corrective actions."
>
> *Batch service-level management head, financial services company*

- **More time for IT resources to work on other, high-value projects.** Batch management, application development, and operations teams have all seen their time freed up to work on other projects. In some cases, this has meant future hires were avoided, and in other areas it has meant the IT organization could be more responsive to changing business requirements.

Composite Organization

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

Description of composite. The composite organization is a European-headquartered financial services institution. It has operations across Europe and is also present in major financial capitals around the world. Before adding CA WLA iDash for batch workloads, it was using the tools and reports built into CA WLA AE. It set up the necessary teams and processes to roll out a global SLA framework as part of the CA WLA iDash implementation.

Deployment characteristics. The composite organization has 1,000 iDash agent licenses. It has set up and monitors 400 application SLAs across 10 broad application team areas.

> "We had to explain to the application teams how iDash does most of the work once they set up an SLA. Now that they understand that, they want to put everything into iDash."
>
> *Batch technical lead, financial services company*

Financial Analysis

QUANTIFIED BENEFIT AND COST DATA AS APPLIED TO THE COMPOSITE ORGANIZATION

Total Benefit

REF.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	Avoided hires — workload management team	$237,500	$237,500	$356,250	$831,250	$679,846
Btr	Application team time savings	$95,625	$95,625	$95,625	$286,875	$237,805
Ctr	Operations team time savings	$27,625	$27,625	$27,625	$82,875	$68,699
Dtr	Revenue protection	$95,625	$159,375	$191,250	$446,250	$362,336
	Total benefits (risk-adjusted)	**$456,375**	**$520,125**	**$670,750**	**$1,647,250**	**$1,348,686**

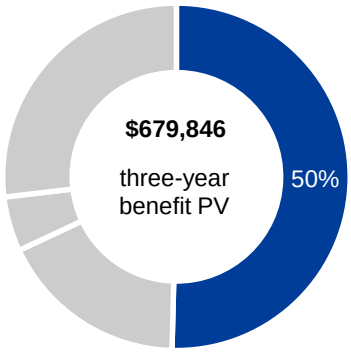
Avoided Hires — Workload Management Team

The interviewed organizations said that the level of effort required to proactively monitor workloads and set up SLAs and reports is significantly less with CA WLA iDash compared with trying to replicate these capabilities with the base tools built into CA Workload Automation. One interviewee said: “The workload team is made up of 13 people around the world. Without iDash, it would need to be larger to create more reports, tweak alarms, and make the required changes to the product environment. We probably would have needed another two people to start.”

For the financial analysis, Forrester assumed that the existing CA WLA AE team consisted of 10 FTEs. Time savings did not result in a reduction in team size since the team was already overworked because many tasks were very manual. However, the team was able to take on additional responsibilities and support future growth without adding headcount. They avoided hiring two FTEs in Year 1, and a third added position was avoided in Year 3.

The level of savings can vary from one organization to another. This is dependent on the existing team size, its breadth of remit and how overworked it already is, and the amount of automation that already exists. To account for these risks and uncertainty, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of $679,846.

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 composite organization expects risk-adjusted total benefits to be a PV of more than $1.34 million.

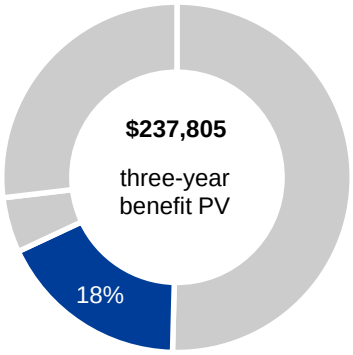


Impact risk is the risk that the business or technology needs of the organization may not be met by the investment, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for benefit estimates.

Avoided Hires — Workload Automation Team: Calculation Table					
REF.	**METRIC**	**CALC.**	**YEAR 1**	**YEAR 2**	**YEAR 3**
A1	Number of avoided additional hires		2	2	3
A2	Average fully loaded salary		$125,000	$125,000	$125,000
At	Avoided hires — workload management team	A1*A2	$250,000	$250,000	$375,000
	Risk adjustment	↓5%			
Atr	**Avoided hires — workload management team (risk-adjusted)**		**$237,500**	**$237,500**	**$356,250**

Application Team Time Savings

The interviewed companies said that application developers across various application development teams save time because of greater self-service capabilities and because they can take early, preemptive actions versus spending more time fixing problems after a workload misses a deadline. More importantly, they have better visibility into how their applications are performing, so they can constantly improve application and business process performance.



On the time savings front, one interviewee said: “Our application teams are spread all over the place. In the past, they had to raise master change requests and undertake other manual activities. Now with iDash, they are saving time because of automation and self-service tools.”

Another interviewee talked about how application developers now have much needed information to make improvements and understand how their applications are performing: “Seeing graphs and trends of how many SLAs have been missed gives them a better understanding of how their applications are performing. It gives them the information they need to have conversations with the business on how to make things better.”

For the composite organization, Forrester assumes that there are 10 application teams with an average of 10 members each. Each individual is saving 3 hours per month in making system change requests and monitoring their applications’ performance. Because not all productivity gains result in actual additional work being completed, Forrester only recognizes 50% of productivity gains.

The time saved will vary from one organization to the next based on absolute size, previous tools and processes in place, and if the organization previously had an SLA framework in place. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year risk-adjusted total PV of $237,805.

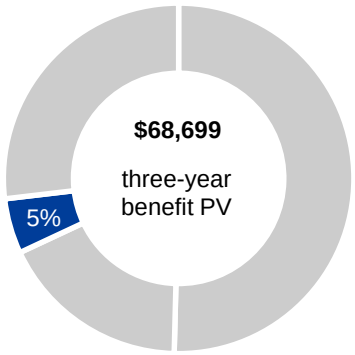
Application Team Time Savings: Calculation Table					
REF.	**METRIC**	**CALC.**	**YEAR 1**	**YEAR 2**	**YEAR 3**
B1	Number of affected application developers	10 teams * 10 resources	100	100	100
B2	Time saved (hours)	3 hours * 12 months	36	36	36
B3	Hourly fully loaded cost	$125,000/2,000 hours	$62.50	$62.50	$62.50
B4	Percentage of benefit realized		50%	50%	50%
Bt	Application team time savings	B1*B2*B3*B4	$112,500	$112,500	$112,500
	Risk adjustment	↓15%			
Btr	**Application team time savings (risk-adjusted)**		**$95,625**	**$95,625**	**$95,625**

Operations Team Time Savings

The last of the IT team savings areas is for the operations team. CA WLA iDash saves them time in a variety of ways, including less time looking at change reports and dealing with escalations. One interviewee said: "The operations team checks change tickets every day. The [CA WLA AE] change reports are now generated directly by iDash, which saves time. The operations team also saves time from having real-time visibility and predictive alerting, which means fewer escalations and less time chasing people. This is about 1 hour per week."

For the financial analysis, Forrester included this savings of 1 hour per week. The operations team offers 24x7 coverage, and the total team size is 20 FTEs. Only 50% of this benefit was included since not all time savings translate into additional work completed.

Similar to application team savings, this savings can vary across companies based on absolute size, previous systems and processes, and how CA WLA iDash is used. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year risk-adjusted total PV of $68,699.

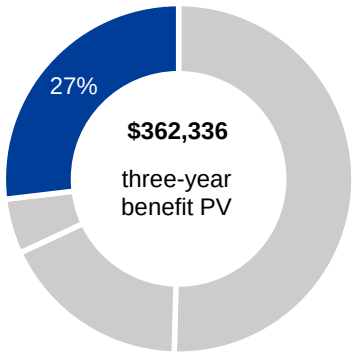


Operations Team Time Savings: Calculation Table					
REF.	**METRIC**	**CALC.**	**YEAR 1**	**YEAR 2**	**YEAR 3**
C1	Number of FTEs		20	20	20
C2	Time saved	1 hour * 52 weeks	52	52	52
C3	Hourly fully loaded cost	= B3	$62.50	$62.50	$62.50
C4	Percentage of benefit realized		50%	50%	50%
Ct	Operations team time savings	C1*C2*C3*C4	$32,500	$32,500	$32,500
	Risk adjustment	↓15%			
Ctr	**Operations team time savings (risk-adjusted)**		**$27,625**	**$27,625**	**$27,625**

Revenue Protection

The final and most important quantified benefit Forrester looked at was how the business itself improves with CA WLA iDash. Batch workloads are steps in business processes, many of them critical. As one interviewee said, "these workloads can be anything and everything — payroll, regulatory compliance, revenue generating, etc."

When these workloads complete on time, the business operates as intended. When they are delayed or fail, there can be serious consequences. One interviewee shared the following example of a failed workload: "There was a critical batch process that was supposed to start on a Friday night. It failed 10 minutes in. Nobody picked up the alarm, and nobody knew until Tuesday because it was a holiday weekend. This was the credit application process, so no credit applications got processed for three days. It was very difficult to explain to management why this happened. If we would have had iDash as our SLA management tool then, it would have kept notifying the team, and the problem would have been fixed right away."



Interviewees also said that CA WLA iDash makes things easier for the business users. They have visibility into their business processes and performance. This helps them to streamline their business processes and make changes. "The ability to see predicted misses and overall performance is a big selling point for us with the business teams," said one interviewee.

For the financial analysis, Forrester looked at missed SLAs associated with revenue-generating processes similar to the credit application example given above. The reader is encouraged to think about the critical workloads that would be monitored with CA WLA iDash and what the business implications of missed SLAs would be. They are likely much larger than the cost savings discussed earlier or the financial example included in this study.

Six fewer SLA misses/failed workloads tied to revenue were included in Year 1 of the study, and this increased over the life of the study as CA WLA iDash was more broadly applied. Each event is responsible for $75,000 in revenue that may not have been captured. In reality, the full potential business impact is not experienced, since the workloads can be rerun and the affected customers or other parties followed up with if needed. Therefore, Forrester assumed that only 25% of the total potential business impact was felt.

The size of the business impact will vary greatly depending on what workloads are being monitored, industry, and absolute size. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year risk-adjusted total PV of $362,336.

Revenue Protection: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
D1	Number of revenue-affecting critical SLA misses		6	10	12
D2	Total affected revenue		$75,000	$75,000	$75,000
D3	Percentage of revenue lost		25%	25%	25%
Dt	Revenue protection	D1*D2*D3	$112,500	$187,500	$225,000
	Risk adjustment	↓15%			
Dtr	**Revenue protection (risk-adjusted)**		**$95,625**	**$159,375**	**$191,250**

Unquantified Benefits

There were two additional benefits that Forrester did not quantify in the study. The first is improved security because CA WLA iDash and CA Workload Automation are directly tied into Active Directory. The second, which underpins some of the quantified benefits, is the broader use of SLAs and proper governance across the entire organization. Some of what Forrester heard includes the following:

Comprehensive SLAs and governance means more parts of the organization achieve operational improvements.

- "iDash and Workload Automation link directly into AD. This lets people use iDash based on their AD groups, which is a huge benefit. It saves us a lot of time, and users get what they need automatically when they move departments. It also means people don't have access to information they shouldn't."
- "We now have a governance model with formalized SLAs. This was a big gap before iDash. Now there is no secrecy as to what is going on."
- "We have more data we can visualize when defining SLAs. Looking at trends is very valuable to the application owners. They can use the data to improve their business processes and application batch flows."
- "With trending over time and broader awareness, there is a net reduction in missed SLAs. This benefits the overall organization."

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 CA WLA iDash and later realize additional uses and business opportunities, including:

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.

- **More SLAs and applications can be added into CA WLA iDash.** A CA WLA iDash implementation is a journey. More applications and workloads are added into CA WLA iDash over time. Often, this is because different application owners hear about the benefits others are realizing with CA WLA iDash and then join in. This means that benefits are realized across more parts of the organization over time and grow in absolute value.
- **Application developers can be more responsive to business requirements.** By consistently monitoring and improving workflow performance, application developers have the information they need to change systems as business requirements change. This can deliver new value, reduce time-to-market, and create other business benefits.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A). None of these flexibility benefits were included in the financial analysis.

Total Costs

REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Etr	Implementation effort	$28,875	$0	$0	$0	$28,875	$28,875
Ftr	Professional services	$34,125	$0	$0	$0	$34,125	$34,125
Gtr	iDash license costs	$240,000	$48,000	$48,000	$48,000	$384,000	$359,369
Htr	Ongoing administration	$0	$32,813	$32,813	$32,813	$98,438	$81,600
	Total costs (risk-adjusted)	**$303,000**	**$80,813**	**$80,813**	**$80,813**	**$545,438**	**$503,969**

Implementation Effort

The interviewed companies reported that implementing and getting started with iDash was very fast and easy. One described standing up CA WLA iDash as "a couple of resources spending one day deploying CA WLA iDash on virtual servers." The remaining effort is spent bringing in applications and setting up SLAs.

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 composite organization expects risk-adjusted total costs to be a PV of more than $503,000.

For the financial analysis, Forrester assumed that there are 30 applications initially brought into iDash, and that each requires 10 hours of effort. An additional 40 hours was spent on standing up the solution, doing project management, and defining a governance model. Lastly, 400 SLAs across the applications were defined and codified in CA WLA iDash. One interviewee described it as follows: "We follow a critical path framework. I created a holistic model that included governance processes and SLAs. CA WLA iDash was the first step in the process to develop a change management model."

As with all IT projects, there is a risk that it can go over time and over budget. Factors contributing to this include how workload monitoring was done previously, the size and existing skills of the workload team, and the overall complexity of systems and infrastructure. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a risk-adjusted total PV of $28,875.

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.

Implementation Effort: Calculation Table

REF.	METRIC	CALC.	INITIAL
E1	Number of hours — implementation and configuration	30 applications * 10 hours + 40 hours	340
E2	Number of hours setting up SLAs	(400 SLAs * 15 minutes)/60 minutes	100
E3	Hourly fully loaded cost	= B3	$62.50
Et	Implementation effort	(E1+E2)*E3	$27,500
	Risk adjustment	↑5%	
Etr	**Implementation effort (risk-adjusted)**		**$28,875**

Professional Services

Companies reported using some professional services during the initial implementation to configure CA WLA iDash, bring in best practices, and train the IT organization. Overall, interviewees said that most of the effort was completed in house and that the professional services requirements were limited. These services were provided by CA partners.

For the financial analysis, Forrester assumed 15 man-days of configuration and best practices consulting, and 10 days of training. The consultants also helped with the Active Directory integration. All services assume a blended daily rate of $1,500 per man-day.

As with the internal development effort, there is the risk of a project going over time and over budget. This was viewed as a low risk, so Forrester adjusted this cost upward by 5%, yielding a risk-adjusted total PV of $34,125.

Professional Services: Calculation Table

REF.	METRIC	CALC.	INITIAL
F1	Professional services costs	15 days*$1,500	$22,500
F2	Training	10 days*$1,000	$10,000
Ft	Professional services	F1+F2	$32,500
	Risk adjustment	↑5%	
Ftr	**Professional services (risk-adjusted)**		**$34,125**

CA WLA iDash Licenses

By far, the largest cost is for CA WLA iDash licenses and ongoing maintenance. License costs vary based on how many agents are needed. Forrester used the list price with standard discounting for 1,000 agents. Twenty percent annual support and maintenance was included beginning in Year 1.

Because Forrester used the list price with standard volume discount, no risk adjustment was made. The three-year total cost had a PV of $359,369.

CA WLA iDash Licenses: Calculation Table

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
G1	Number of agents		1,000			
G2	Total agent purchase costs	G1*$240	$240,000			
G3	Annual maintenance costs	G2[initial period]*20%		$48,000	$48,000	$48,000
Gt	CA WLA iDash licenses	G2+G3	$240,000	$48,000	$48,000	$48,000
	Risk adjustment	0%				
Gtr	**iDash licenses (risk-adjusted)**		**$240,000**	**$48,000**	**$48,000**	**$48,000**

Ongoing Administration

Ongoing management and administration of CA WLA iDash is minimal. One interviewee said: “A couple of times a year we update the system, which takes two FTEs a couple of weeks. Other than that, there is very little to do, and

it is part of our business-as-usual operations." Because CA WLA iDash was deployed on virtual servers for this analysis, there is very little infrastructure-related effort. Across the entire year, the level of effort equates to 0.25 FTEs.

The level of effort can vary depending on the size of the deployment and if CA WLA iDash sits on separate physical servers. This was viewed as a low risk, so Forrester adjusted this cost upward by 5%, yielding a risk-adjusted total PV of $81,600.

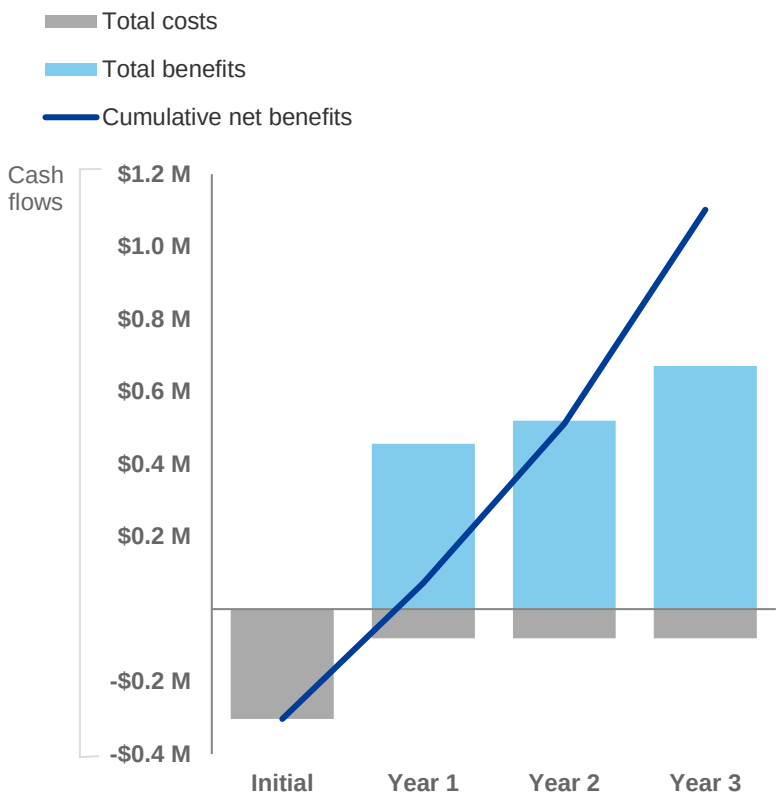
Ongoing Administration: Calculation Table

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
H1	Number of FTEs			0.25	0.25	0.25
H2	Annual fully loaded cost			$125,000	$125,000	$125,000
Ht	Ongoing administration	H1*H2		$31,250	$31,250	$31,250
	Risk adjustment	↑5%				
Htr	**Ongoing administration (risk-adjusted)**		**$0**	**$32,813**	**$32,813**	**$32,813**

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 Table (Risk-Adjusted)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	($303,000)	($80,813)	($80,813)	($80,813)	($545,438)	($503,969)
Total benefits	$0	$456,375	$520,125	$670,750	$1,647,250	$1,348,686
Net benefits	($303,000)	$375,563	$439,313	$589,938	$1,101,813	$844,717
ROI						168%
Payback period						10 months

CA Workload Automation iDash: Overview

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

CA Workload Automation iDash is designed to monitor the entire CA Workload Automation AE and CA Workload Automation CA 7® Edition environment, perform real-time forecasts based on the current status of the system, generate alerts when the thresholds are at risk of being missed and even execute automated recovery actions.

It helps organizations to proactively monitor and manage their service level agreements before they cause business disruption. Monitoring capabilities of users are enhanced by a consolidated dashboard and graphical views that enable each user to focus on the SLAs relevant to them. It helps streamline your critical business SLAs and automate repetitive tasks so you can better free your time to focus on improving your workload environment, maintain higher levels of availability and reduce the time and effort required to identify, diagnose and resolve performance issues.

CA Workload Automation iDash also provides the ability to store and report on historical and predicted workload and SLA data across the entire environment. It provides an extensive set of customizable reports, graphs, and charts for the archived data. These reporting capabilities significantly enhance visibility to help you to better optimize your workload environment.

For more information, please visit ca.com/iDash.

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.