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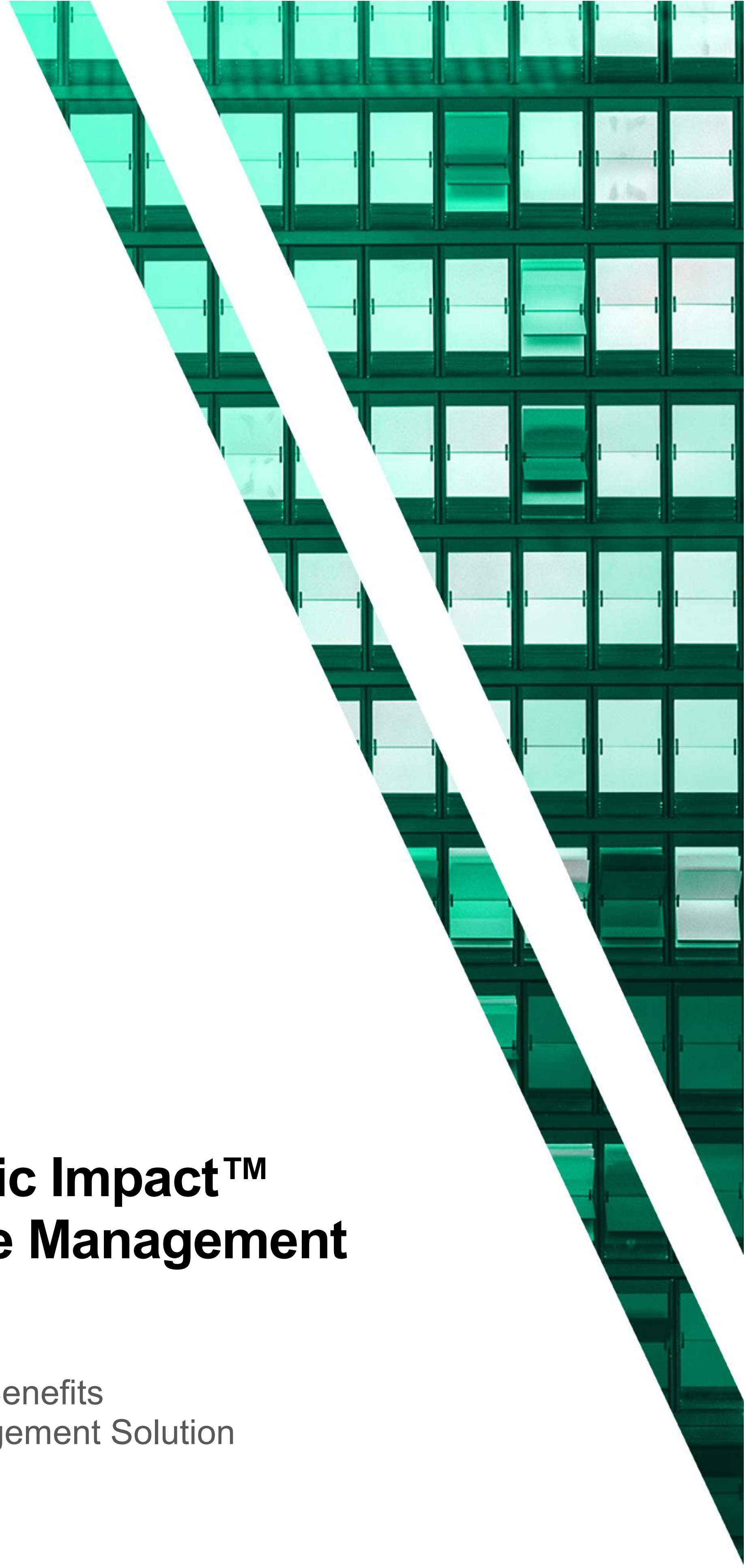

The Total Economic Impact™ Of NICE Workforce Management Solution

Cost Savings And Business Benefits
Enabled By Workforce Management Solution

MARCH 2021

A FORRESTER TOTAL ECONOMIC IMPACT™ STUDY COMMISSIONED BY NICE

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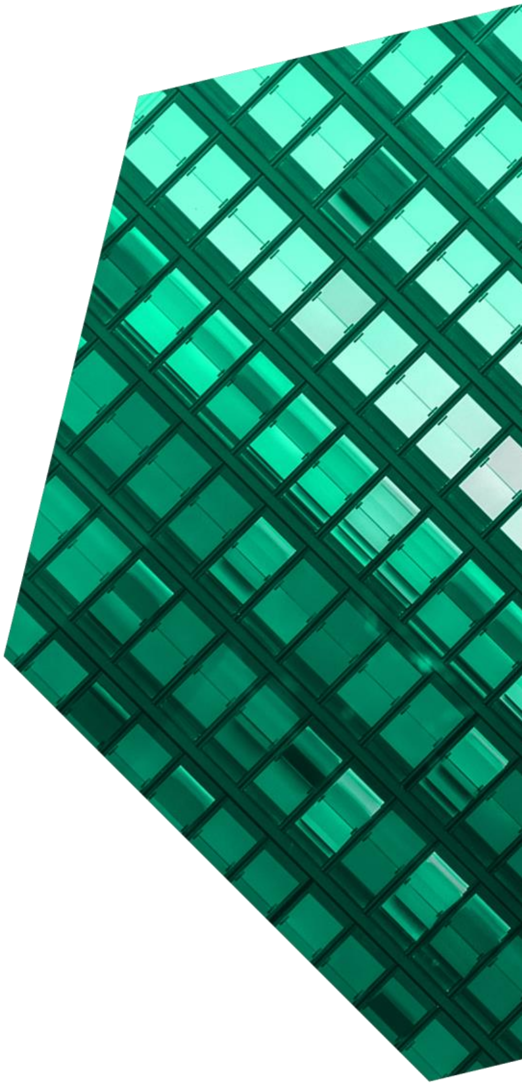
Consulting Team: Aashish Sharma



Executive Summary

Contact center departments comprise of a set of complex, unintegrated technologies that deliver quality service to its customers. The workforce management teams need cloud-ready, deeply integrated technology suites to both meet the evolving demands of their customers and to provide better experiences to their agent workforce. These organizations can significantly enhance the workforce processes while reducing operational costs by using a single integrated workforce management solution.

NICE commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying its Workforce Management (WFM) solution. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the WFM solution on their organizations.

NICE's WFM solution caters to the complete workforce lifecycle from planning, to hiring, to forecasting, to managing the workforce by automating key operations and processes. This leads to a reduction in complexity and more effective workforce planning and scheduling — all rapidly achieved through a single, cloud-powered platform.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four customers with experience using the WFM solution. For the purposes of this study, Forrester aggregated the experiences of the interviewed customers and combined the results into a single composite organization.

Prior to using the NICE WFM solution, the interviewees struggled with: outdated internal systems; homegrown efforts for intensive forecasting and scheduling; limited phone, online, and back-office volume forecasting capabilities; discrepancies in timekeeping; and manual planning, hiring, and scheduling capabilities.

KEY STATISTICS

Return on investment (ROI)
388%

Net present value (NPV)
$8.46M

These experiences yielded limited success and lacked visibility for the cross-channel workforce. Additionally, they limited organizations' control on real-time schedule adherence and the intraday monitoring of the workforce.

After the investment in the NICE WFM solution, these customers were able to improve the rigor and accuracy of their workforce planning and forecasting. The solution increased agent efficiency and led to a reduction in contact center operating costs. Customers also experienced increased satisfaction scores from both their employees and customers. The following benefits are representative of those experienced by the interviewees' companies.

KEY FINDINGS

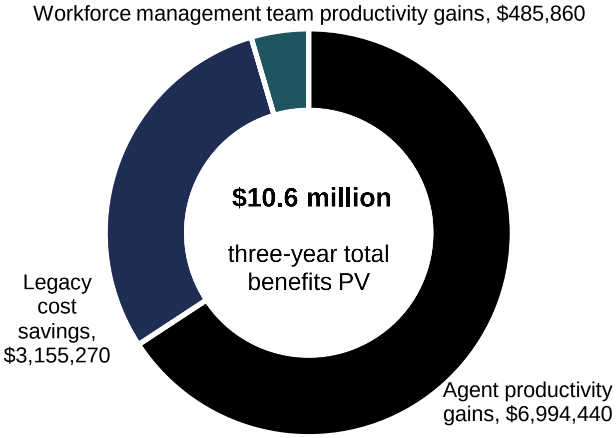
Quantified benefits. Risk-adjusted present value (PV) quantified benefits include:

- **Agent productivity gains of nearly $7 million.** The agent productivity gains are mainly driven by the improved accuracy of forecasting and agent schedule adherence. The ability to plan better has resulted in tighter daily forecasts, which leads to improved agent utilization. The composite organization was able to reduce its contact center workforce by at least 10% from 2,000 agents initially to 1,800 in Year 3, due to productivity gains. These agent productivity gains have a three-year, risk-adjusted PV of nearly $7 million.

> **"Through the forecasting module of the NICE WFM system, we saw drastic improvements to our timelines and the productivity of our agents that performed that workload."**
>
> *Manager of WFM team, insurance*

- **Legacy system cost savings of $3.1 million.** Following the introduction of the NICE WFM solution, companies were able to retire legacy, outdated, or third-party WFM systems. The reduction in licensing and ongoing professional services resulted in significant cost savings. For the composite organization, the associated savings have a three-year, risk-adjusted PV of $3.1 million.

- **Workforce management team productivity gains of $485,860.** With the implementation of the NICE WFM solution, WFM teams were able to improve their processes and compliance and ultimately experience efficiency gains. The composite organization saw cost and time savings that were driven by the improved efficiency of WFM managers. This increase in efficiency is due to managers' limited admin tasks and lesser number of agent complaints. The automation of previously manual processes created additional bandwidth for teams to do incremental remit. These factors led to the optimization of the WFM team, and they enabled decision-makers to reallocate WFM resources to other tasks. For the composite organization, these productivity gains have a three-year, risk-adjusted PV of $485,860.



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

- **Increased employee and customer satisfaction.** The NICE WFM solution enabled interviewee's organizations to establish more effective scheduling through the use of the EEM module; and this led to better work-life balance and increased employee satisfaction.

- **Indirect cost savings due to better management of unplanned volumes.** The interviewee's organizations attain cost savings with better planning around the number of agents required during seasonal business fluctuations. They are able to save costs by offering voluntary time off to agents during quieter times such as spring and autumn.

- **Indirect cost savings due to lower maintenance costs.** The organizations achieved further cost savings due to the avoidance of costs related to the hardware maintenance of both legacy systems and database and operating systems. Most were able to decommission legacy WFM solutions, which nullified the costs around system upgrades, backups, and disaster recovery.

- **HR benefits.** Visibility of historical data leads to a better understanding of employee retention trends. Managers can also view agent schedule history, in the event of any grievance made against the company. Moreover, higher confidence levels on forecasting helps to reach an agreement between WFM team and their HR colleagues on hiring plans.

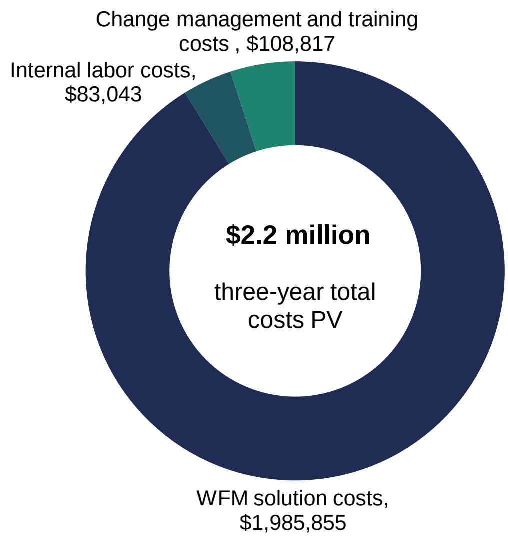
- **Cross-training and multiskilling.** The NICE WFM solution shows gaps in the current state of agents' skills and indicates opportunities for cross-training. Also, licensed agents were able to focus on more value-add activities related to sales and services, as opposed to being tied to their desks making calls.

Costs. Risk-adjusted PV costs include:

- **WFM solution costs total $1.98 million.** These fees include both the professional services fees for the setup of the cloud solution as well as the annual software licensing costs for agents. They have a three-year, risk-adjusted PV of $1,985,855.

- **Internal labor costs total $83,043** These costs are associated with the time and effort an organization's internal resources spend on the initial implementation and rollout of the WFM solution, ongoing support, enablement, and overall governance. The associated costs have a three-year, risk-adjusted PV of $83,043.

- **Change management and training costs total $108,817.** These expenses include an estimation of change management resource and material costs, communication, and travel costs, as well as time spent on training by WFM team end users as estimated for the composite organization. The change management costs have a risk-adjusted, three-year PV of $108,817.



The customer interviews and financial analysis found that a composite organization experiences benefits of $10.64M over three years versus costs of $2.18M, adding up to a NPV of $8.46M and an ROI of 388%.

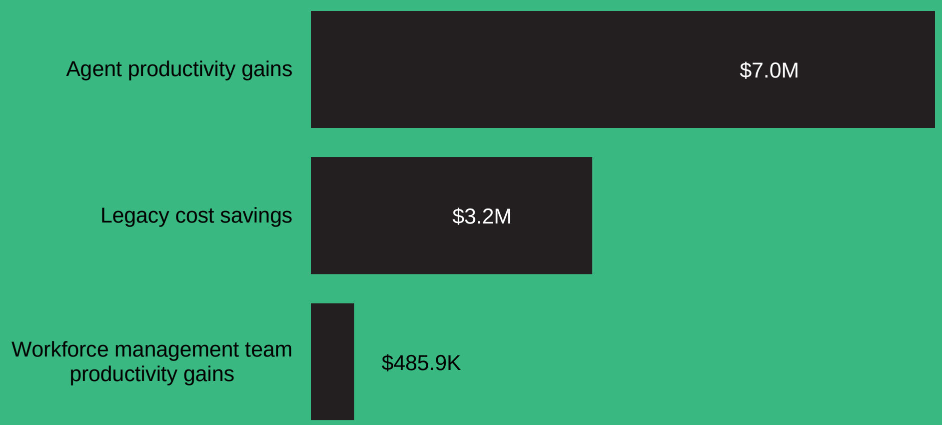
ROI
388%

BENEFITS PV
$10.64M

NPV
$8.46M

PAYBACK
<6 months

Benefits (Three-Year)



TEI FRAMEWORK AND METHODOLOGY

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

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that the Workforce Management Solution can have on an organization.

DUE DILIGENCE

Interviewed NICE stakeholders and Forrester analysts to gather data relative to the Workforce Management Solution.

CUSTOMER INTERVIEWS

Interviewed four decision-makers at organizations using the Workforce Management Solution 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 the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

DISCLOSURES

Readers should be aware of the following:

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

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in the Workforce Management Solution.

NICE 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.

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

The NICE Workforce Management Solution Customer Journey

Drivers leading to the Workforce Management Solution investment

Interviewed Organizations			
Industry	**Region**	**Interviewee**	**Number Of Agents**
Financial services	US	Head of workforce management operations	500
Utilities	US	Senior business analyst on the resource management team	420
Insurance	US	Manager of workforce management team	7,000
Automotive services/insurance	Global	Workforce manager	,1000

KEY CHALLENGES

Prior to adopting the NICE WFM solution, the interviewed organizations relied on legacy systems and had no real end-to-end workforce management systems in place. The interviewees' organizations struggled with common challenges, including:

- **Limited WFM functionalities and capabilities.** Outdated internal systems struggled with limited WFM functionalities, which led to discrepancies in timekeeping. The gaps in scheduling and the lack of forecasting capabilities for phone and claims volume had a direct, negative impact on the contact center's performance.

- **No real-time reporting.** Predictive analysis was formerly accomplished on spreadsheets; this led to discrepancies in reporting as well as limited coordination between WFM teams. Agents' schedules were formerly static rather than varying, which resulted in low agent performance and efficiency. There was no historical data functionality to identify trends and calculate staffing needs based on scheduling metrics.

- **Manual WFM processes.** The interviewee's organizations struggled with manual planning, hiring, and scheduling capabilities to the point where they felt and were aware of the gap in the quality of forecasting that a holistic WFM package could close. There was limited integration with other systems such as BI dashboards, forecasting, and scheduling algorithms.

> **"The biggest driver for us was the forecasting module, as we were formerly doing this manually in spreadsheets."**
>
> *Senior business analyst on resource management team, utilities*

> **"What the NICE solution was able to do is assist us with showing the current gaps in our current states, as far as an opportunity where we can cross-train and what the benefits of that would be as far as a multiskilled efficiency factor."**
>
> *Manager of workforce management team, insurance*

SOLUTION REQUIREMENTS/INVESTMENT OBJECTIVES

The interviewed organizations searched for a solution that could:

- Give them the ability to forecast both daily and interval levels for expected call volumes and chat volumes.
- Increase visibility into the business and accommodate business growth around increased number of clients and agents to better position them for success and to create a better roadmap.
- Automate the manual WFM processes to keep up with increasing call volumes, perform better forecasting, and integrate real-time adherence and monitoring and effective intraday management.
- Build in historical data functionality to identify trends and calculate staffing needs based on scheduling metrics.
- Provide a smart sync interface between workforce management tools and payroll systems.
- Improve satisfaction for agents and customers, which is directly related to better forecasting and scheduling.

COMPOSITE ORGANIZATION

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

Description of composite. The global, multimillion-dollar insurance organization provides customers with personal and commercial insurance products in countries across the globe. The composite organization has a strong brand, a large customer base of about 20 million customers, and a strong online and offline presence.

Deployment characteristics. The composite organization has global operations across 15 contact centers and 2,000 agents. The WFM team comprises of 25 members, and they have implemented the cloud version of NICE WFM solution.

Key assumptions

- **20 million customers**
- **2,000 agents**
- **15 contact centers**
- **25 WFM team members**

Analysis Of Benefits

Quantified benefit data as applied to the composite.

Total Benefits

Ref.	Benefit	Initial	Year 1	Year 2	Year 3	Total	Present Value
Atr	Agent productivity gains	$0	$2,160,000	$2,160,000	$4,320,000	$8,640,000	$6,994,440
Btr	Legacy cost savings	$0	$1,310,400	$1,276,800	$1,209,600	$3,796,800	$3,155,270
Ctr	Workforce management team productivity gains	$0	$68,000	$204,000	$340,000	$612,000	$485,860
	Total benefits (risk-adjusted)	$0	$3,538,400	$3,640,800	$5,869,600	$13,048,800	$10,635,570

AGENT PRODUCTIVITY GAINS

Evidence and data. Each of the interviewees said their organization had realized agent productivity gains due to the deployment of the NICE WFM solution.

- Better planning and forecasting were some of the key benefits that were realized. Interviewees found themselves performing within 2.5% to 5% accuracy of their daily forecast. These statistics are valid even with the uncertainty brought on by the COVID-19 pandemic.
- The productivity gains led to improvements in schedule adherence and agent utilization. These enhancements resulted in a reduction in call abandonment rates, which have a direct impact on customer experience. Forecasting for interval level chat enabled organizations to staff according to their SLA demands. From an opex perspective, this keeps the costs down, and it minimizes the need to seek potential overtime from agents. The NICE WFM solution has been useful during the COVID-19 pandemic as it has enabled organizations to pivot to a remote working model that relies entirely on a phased approach to agent login.
- Interviewees' organizations also benefited from the automation of previously manual processes, which resulted in additional bandwidth for agents to do incremental remit. Time savings were also realized as agents no longer lost time to manual work such as completing timesheets.
- Moreover, with the decreasing number of complaints around schedules and requests for time off, there were improvements in agents satisfaction rate.

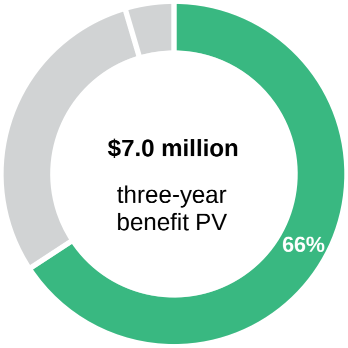
Modeling and assumptions. For the composite organization, Forrester assumes that:

- Originally, the number of agents is estimated at 2,000.
- Within three years of the introduction of the NICE WFM solution — as the composite organization realized benefits related to better forecasting, scheduling, and agent utilization — the number of agents was reduced by 10% as agents became more productive in their work.
- The number of agents at the end of Year 3 is 1,800.
- The average fully loaded salary for an agent at the composite organization is $54,000.

Risks. The interviewees said their organizations had different numbers of call volumes and agents, and subsequently, they reached different levels of automation and agent efficiencies.

- The amount of time needed to achieve these improvements depended on the interviewees' organizations and their specific call volumes, number of agents, number of contact center locations, and forecasting abilities and cultural differences.
- This had an impact on the number of agents freed up and the change in their efficiency.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of $6,994,440.



Agent Productivity Gains

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
A1	Number of agents	From the composite organization	2000.00	1950.00	1900.00	1800.00
A2	Reduction in number of agents due to better forecast accuracy and agent adherence	From customer interviews	0.00	50.00	50.00	100.00
A3	Average fully loaded annual rate of an agent		$54,000.00	$54,000.00	$54,000.00	$54,000.00
A4	Agent productivity gains	A2*A3	$0	$2,700,000	$2,700,000	$5,400,000
	Risk adjustment	↓20%				
Atr	Agent productivity gains (risk-adjusted)		$0	$2,160,000	$2,160,000	$4,320,000
	Three-year total: $8,640,000			**Three-year present value: $6,994,440**		

LEGACY COST SAVINGS

Evidence and data. Each of the interviewees said their organization experienced cost savings due to the implementation of the NICE WFM solution:

- Most were able to decommission legacy solutions they previously used, which nullified the associated licensing costs.

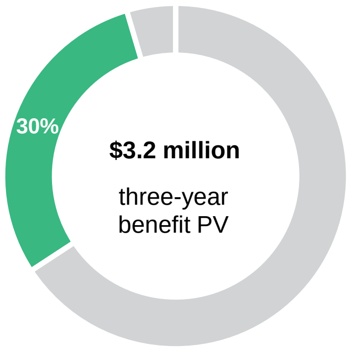
Modeling and assumptions. For the composite organization, Forrester assumes:

- It pays an average of $70 per month for each agent as licensing cost of the legacy WFM.
- The number of agents in Year 1 is 1,950. In Years 2 and 3, this number decreases to 1,900 and 1,800, respectively.
- It saves $840 per year per agent.

Risks. The interviewees said their organizations had different types of legacy solutions, and subsequently, they were able to save varied amount of money.

- Licensing cost can vary due to differences in legacy systems.
- The number of agents can differ depending on the firm size, agents' productivity, and contact center locations.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of $3,155,270.



Legacy Cost Savings						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
B1	Cost savings per year per agent due to retirement of legacy WFM system	From customer interviews		$840.00	$840.00	$840.00
B2	Number of agents	From the composite organization		1,950	1,900	1,800
Bt	Legacy cost savings	B1*B2	$0	$1,638,000	$1,596,000	$1,512,000
	Risk adjustment	↓20%				
Btr	Legacy cost savings (risk-adjusted)		$0	$1,310,400	$1,276,800	$1,209,600
	Three-year total: $3,796,800		**Three-year present value: $3,155,270**			

WORKFORCE MANAGEMENT TEAM PRODUCTIVITY GAINS

Evidence and data. Productivity gains, brought on by having an integrated WFM solution, directly benefitted both agent's staff and the WFM team.

- The WFM team directly benefited from improved productivity due the automation of previously manual processes. This resulted in the team having additional bandwidth to do incremental remit. Moreover, additional bandwidth also gave the team the ability to enable new features and functionalities without external hiring.
- Instead of spending time on administrative duties, managers could reinvest the saved time on more value-added tasks, which led to their own professional growth and job satisfaction.
- Cost/time savings were also realized for WFM managers through having better agent experiences, i.e., they no longer had to spend time resolving complaints.
- Hence, decision-makers were able to reallocate WFM team resources to other tasks and optimize their resource allocation.

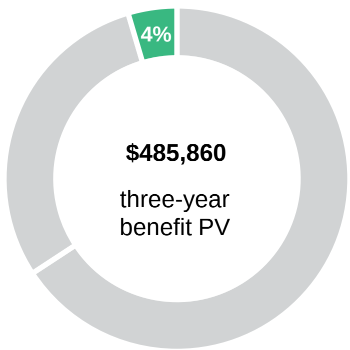
Modeling and assumptions. For the composite organization, Forrester assumes:

- Originally, there were 25 employees on the WFM team who managed agents' forecasting and scheduling.
- Within three years of implementing the NICE WFM solution, the number of staff in the WFM team decreased to 20 in Year 3.
- The average fully loaded annual rate of a WFM team member is estimated as $85,000.

Risks. Interviewees' organizations had different levels of workforce management methods and processes, and they reached different levels of automation after implementing the NICE WFM solution.

- They took varying amounts of time to achieve these improvements, depending on the organization's specific variables such as complexity, number of agents, policies, and compliance.
- This had an impact on the number of WFM resources freed up and when they could be reassigned to other tasks.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of $485,860.



Workforce Management Team Productivity Gains						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
C1	Size of WFM team	From the composite organization	25	24	22	20
C2	Reassignment of WFM resources	From customer interviews	0	1	3	5
C3	Average fully loaded annual rate of a WFM team member		$85,000.00	$85,000.00	$85,000.00	$85,000.00
Ct	Workforce management team productivity gains	C2*C3	$0.00	$85,000.00	$255,000.00	$425,000.00
	Risk adjustment	↓20%				
Ctr	Workforce management team productivity gains (risk-adjusted)		$0	$68,000	$204,000	$340,000
	Three-year total: $612,000			**Three-year present value: $485,860**		

UNQUANTIFIED BENEFITS

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

- **Increased employee and customer satisfaction.** The NICE WFM solution enabled interviewee's organizations to establish more effective scheduling through the use of the EEM module; and this led to better work-life balance and increased employee satisfaction. Additionally, customer satisfaction was increased for both external and internal customers due to: 1) agents being able to meet their SLA improvements and 2) organizations being well-staffed. The NICE WFM system empowers employees to feel that the business trusts them.
- **Indirect cost savings due to better management of unplanned volumes.** The interviewee's organizations attain cost savings with better planning around the number of agents required during seasonal business fluctuations. They are able to save costs by offering voluntary time off to agents during quieter times such as spring and autumn.
- **Indirect cost savings due to lower maintenance costs.** The organizations achieved further cost savings due to the avoidance of costs related to the hardware maintenance of both legacy systems and database and operating systems. Most were able to decommission legacy WFM solutions, which nullified the costs around system upgrades, backups, and disaster recovery.
- **HR benefits.** Visibility of historical data leads to a better understanding of employee retention trends. Managers can also view agent schedule history, in the event of any grievance made against the company. Moreover, higher confidence levels on forecasting helps to reach an agreement between WFM team and their HR colleagues on hiring plans.
- **Cross-training and multiskilling.** The NICE WFM solution shows gaps in the current state of agents' skills and indicates opportunities for cross-training. Also, licensed agents were able to focus on more value-add activities related to sales and services, as opposed to being tied to their desks making calls.

FLEXIBILITY

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

- **Increased operational confidence.** As organizations continue to use the NICE WFM solution, they get more confident in ensuring their capacity utilization, which reduces the need to over-hire and overspend on employee efficiency enhancements. In the long run, the interviewee's organizations are able to develop increased trust in their workforce.
- **Seamless integration with other functions.** The NICE WFM solution can be customized according to the evolving needs an organization, and it can also provide a high level of security and reliability. Additionally, it can integrate with organizations' systems and reports (e.g., power BI dashboards) to add more value to the business through effective decision-making.
- **Continuous improvements.** The solution also provides additional value-add services for customers to enhance their employee experience. Through the NICE customer forums, they can help each other out and earn points towards the Value Realization Services (VRS) module.

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

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**
Dtr	WFM solution fee	$126,500	$772,200	$752,400	$712,800	$2,363,900	$1,985,855
Etr	Internal labor costs	$55,862	$10,930	$10,930	$10,930	$88,651	$83,043
Ftr	Change management costs	$97,680	$4,858	$4,453	$4,048	$111,038	$108,817
	Total costs (risk-adjusted)	$280,042	$787,987	$767,782	$727,778	$2,563,590	$2,177,715

WFM SOLUTION FEE

Evidence and data. The WFM solution fee is an important cost component for customers, as it makes up nearly 91% of the overall costs for the composite organization.

The costs described in this section comprise of the one-time setup fee for the WFM cloud solution and the licensing cost per agent charged in a monthly manner.

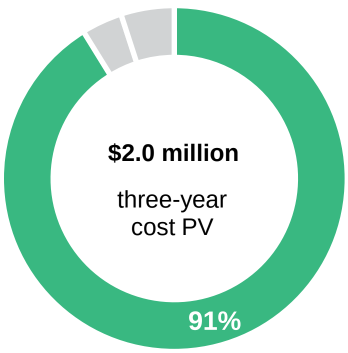
Modeling and assumptions. For the composite organization, Forrester assumes that:

- It deploys the NICE WFM cloud solution for forecasting, scheduling, and planning.
- It employs 2,000 agents before the implementation of the NICE WFM solution. At the end of Year 3 of the implementation, the agent workforce stands at 1,800 agents due to efficiency gains.
- The initial setup fee is estimated as $115,000.
- The monthly licensing fee is estimated at $30 per agent.

Risks.

- The one-time setup cost is estimated according to the high-level characteristics of the composite organization, and it could likely vary for different organizations.
- The number of agents can also vary depending on call volumes, hiring, attrition statistics, and agent performance.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $1,985,855.



WFM Solution Fee						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
D1	One time setup fee		$115,000.00			
D2	Agent fee per year per agent	$30 per month	$0.00	$360.00	$360.00	$360.00
D3	Number of agents		2,000	1,950	1,900	1,800
Dt	WFM solution fee	D1+(D2*D3)	$115,000	$702,000	$684,000	$648,000
	Risk adjustment	↑10%				
Dtr	WFM solution fee (risk-adjusted)		$126,500	$772,200	$752,400	$712,800
	Three-year total: $2,363,900			**Three-year present value: $1,985,855**		

INTERNAL LABOR COSTS

Evidence and data. The costs described in this section specifically relate to internal employees, and they involve:

- The incremental efforts related to the initial setup of the NICE WFM solution.
- Efforts for ongoing support, which include agent enablement and tech support.
- The overall governance of the WFM solution.
- The total implementation and deployment time, as said by interviewees, falls in the range of four to six months.

Modeling and assumptions. For the composite organization, Forrester assumes that:

- Six staff members dedicate 20% of their time during six months for the initial implementation and rollout.
- On average, the six staff of the composite organization spend three person-days a month in ongoing support and general governance of the WFM solution.
- The average fully loaded rate per hour for an employee is estimated to be $46.

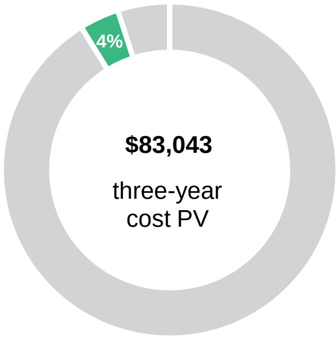
"NICE's ability to forecast and be accurate at the interval level is really strong in the industry from my perspective, and [it] has given us the ability to minimize the need to go out there and seek potential overtime and keep costs down from opex perspective and be more tactical with regard to our scheduling."

Head of workforce management operations, financial services

Risks.

- The initial efforts for the NICE WFM implementation, ongoing support, and governance requirements vary by organization. They are estimated for the composite organization.
- The average fully loaded hourly rate may vary from market to market, and it also depends on the experience level of resources.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $83,043.



Internal Labor Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
E1	Internal setup efforts (in person-hours)	Assume six people at 20% for six months	1,104			
E2	Ongoing support and governance efforts (in person-hours)	Three days a month		216	216	216
E3	Average fully loaded rate per hour and annual hours	Assume $85K/1,840 hours per year	$46	$46	$46	$46
Et	Internal labor costs	(E1+E2)*E3	$50,784	$9,936	$9,936	$9,936
	Risk adjustment	↑10%				
Etr	Internal labor costs (risk-adjusted)		$55,862	$10,930	$10,930	$10,930
	Three-year total: $88,651		**Three-year present value: $83,043**			

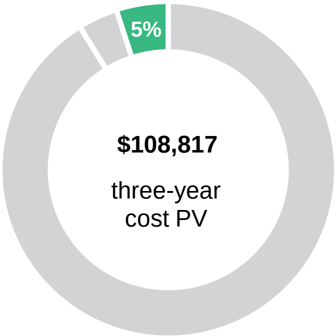
CHANGE MANAGEMENT COSTS

Evidence and data. The costs described in this section account for change management costs, these include materials, resources, communications, travel, and training time for the customers' WFM teams.

Modeling and assumptions. For the composite organization, Forrester assumes that:

- The change management requirements vary by company. They are estimated for the composite organization.
- The average number of hours spent on training is estimated as 12 hours initially.
- Afterwards, for subsequent years, it has been estimated that an average WFM team member spends 4 hours a year on training related to upgrades and refreshes.
- In addition, there can be several secondary costs such as general expenses, consultant costs, and event costs that may vary from organization to organization.

Risks. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $108,817.

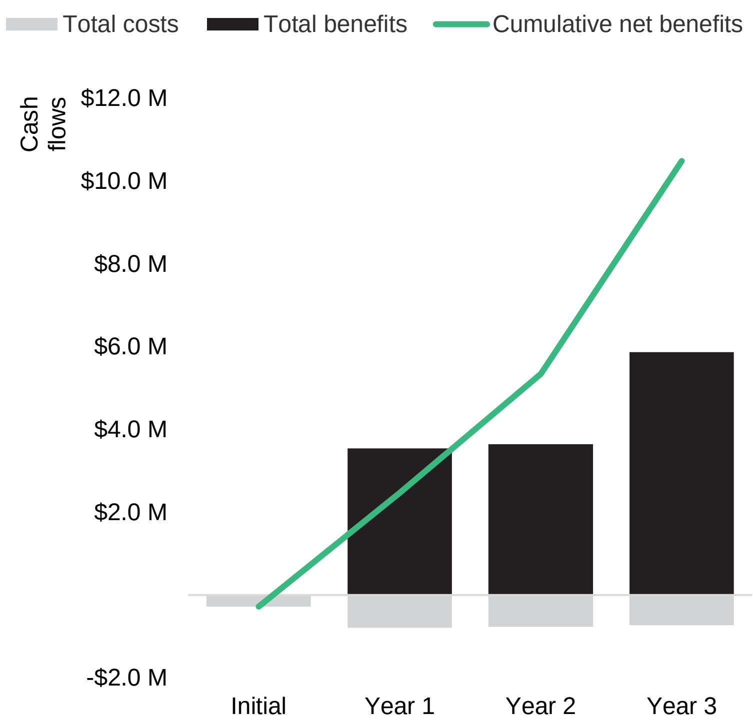


Change Management Costs						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
F1	Change management costs		75,000			
F2	Number of WFM end users	From the composite organization	25	24	22	20
F3	Average number of hours spent on training per WFM end user	From customer interviews	12	4	4	4
F4	Average fully loaded hourly rate	Assume $85K/1,840 hours per year	$46	$46	$46	$46
Ft	Change management costs	F1+(F2*F3*F4)	$88,800	$4,416	$4,048	$3,680
	Risk adjustment	↑10%				
Ftr	Change management costs (risk-adjusted)		$97,680	$4,858	$4,453	$4,048
	Three-year total: $111,038		**Three-year present value: $108,817**			

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	($280,042)	($787,987)	($767,782)	($727,778)	($2,563,590)	($2,177,715)
Total benefits	$0	$3,538,400	$3,640,800	$5,869,600	$13,048,800	$10,635,570
Net benefits	($280,042)	$2,750,413	$2,873,018	$5,141,822	$10,485,210	$8,457,855
ROI						388%
Payback period						<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.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