

The Total Economic Impact™ Of BMC Helix

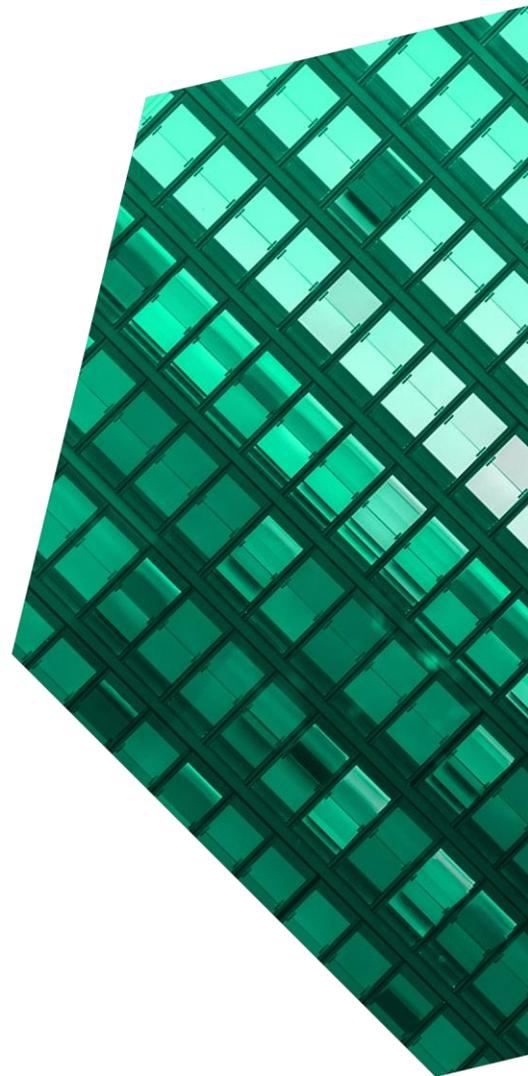
Business Benefits And Cost Savings
Enabled By The BMC Helix Solution Set

JANUARY 2021

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ABOUT FORRESTER CONSULTING

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Executive Summary

BMC Helix empowers service desks, IT operations, DevOps, and end users to be more agile, efficient, and effective — allowing organizations to refocus on innovation and business growth. Forrester’s financial analysis found a three-year risk-adjusted net present value (NPV) of \$10.6 million and an ROI of 361% for IT and enterprise service desks, while adoption of the full BMC Helix solution set returns an NPV of \$15.3 million and an ROI of 189% including service desk, IT operations, and DevOps use cases.

In today’s disruptive world, successful organizations must be fast, agile, and cloud-native. They must deploy enterprise solutions backed by robust, AI-enabled services to build business models focused on employee speed, efficiency, and excellence.

Solution overview. [BMC Helix](#) offers core IT service management (ITSM), IT operations management (ITOM), and enterprise service management (ESM) with intelligent automation and orchestration. BMC Helix capabilities prioritize user experience (UX) with self-service portals, AI chatbots, and intelligent and predictive automation. BMC Helix integrates with multicloud environments for powerful business automations while enabling IT and DevOps to work seamlessly instead of in silos — or worse: in opposition. With a seemingly endless range of possibilities, customers find that BMC Helix’s core value proposition is its ability to empower employee speed, efficiency, innovation, and excellence on the path to becoming what BMC refers to as the [Autonomous Digital Enterprise](#).

“BMC Helix is so important because it’s in the middle of everything: ticketing, service requests, orchestration, automation, self-service, portals, integrations, and even self-healing that we deployed during the pandemic. The costs of BMC Helix are easily offset by the savings.”

Sr. director of IT infrastructure and operations, telco

Study overview. BMC commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study examining the potential return on investment (ROI) of deploying BMC Helix [ITSM](#), BMC Helix [Business Workflows](#), BMC Helix [Digital Workplace](#), BMC Helix [Chatbot](#), BMC Helix [Discovery](#), BMC Helix Configuration Management Database ([CMDB](#)), BMC Helix [Multi-Cloud Service Management](#), and [BMC Helix Integration Platform](#). The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of BMC Helix on their organizations.

Data and financial analysis. To better understand the benefits, costs, risks, and flexibility associated with this investment, Forrester interviewed 14 decision-makers from 11 organizations that are customers of BMC Helix. Forrester aggregated these experiences into a single [composite organization](#) with a representative financial analysis on the impact of deploying a complete service management and IT operations solution for 41,000 supported end users.

Customer journey. Interviewed decision-makers invested in BMC Helix in order to:

- Enhance user experience with a consolidated, easy-to-use IT and enterprise service desk.
- Reduce cost of service delivery.
- Shift-left service resources for added business value and improved employee experience (EX).
- Accelerate the business and enable flexibility, scale, and modernization.

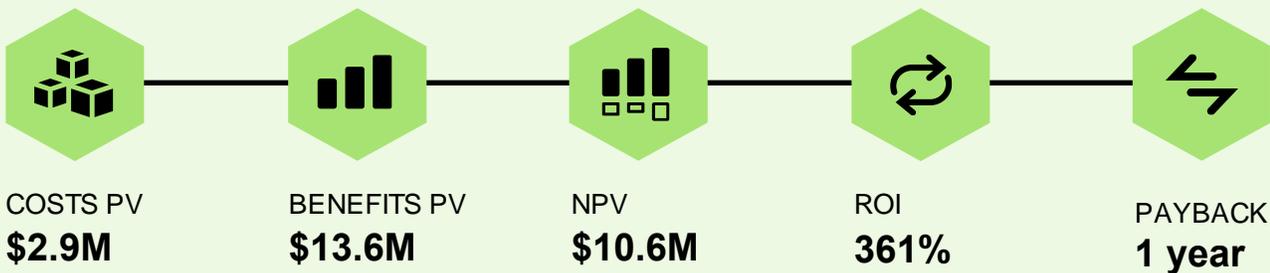
KEY FINDINGS

Quantified benefits. The composite recognizes the following three-year risk-adjusted present value (PV) benefits with the complete BMC Helix solution set:

- Deflects 33.5% of service desk tickets through self-service and prevents incidents, saving \$5.9 million.** BMC Helix enables consolidated, easy-to-navigate catalogs of IT and enterprise services and resources that are accessible via self-service portals and chatbots. BMC Helix also improves accuracy and quality while helping to prevent and quickly resolve incidents. This frees up 58 out of 173 service desk FTEs for the composite organization while improving EX and productivity for end users.
- Automates 25% of nondeflected tickets, saving \$2.6 million.** Automations triggered from the user portal and chatbot handle myriad tasks with BMC Helix and integrated multicloud and third-party solutions for issue resolution, infrastructure, DevOps, HR, and beyond. This frees another 23 out of 173 service desk FTEs.
- Boosts agent productivity by 20%, saving \$1.7 million.** Better data capture, streamlined UX, cognitive routing and analysis, and multicloud integrations reduce swivel-chair data entry, management, and streamlined remediation. This frees another 15 out of 173 service desk FTEs.

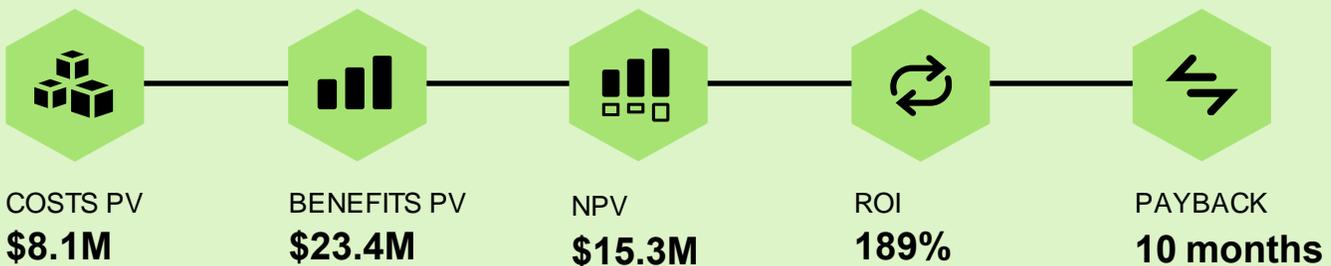
THE TOTAL ECONOMIC IMPACT OF BMC HELIX FOR THE SERVICE DESK

Focused business case for deployment of IT and enterprise service desk workflows and user experiences with BMC Helix ITSM, Helix Business Workflows, Helix Digital Workplace, Helix Chatbot, and Helix Multi-Cloud Service Management.



THE TOTAL ECONOMIC IMPACT OF THE FULL BMC HELIX SOLUTION SET

Holistic business case for IT and enterprise service desks, IT operations, and DevOps including intelligent automation and orchestration with BMC Helix ITSM, Helix Business Workflows, Helix Digital Workplace, Helix Chatbot, Helix Multi-Cloud Service Management, Helix Discovery, Helix CMDB, Helix Integration Platform, and third-party integrations with enterprise software.



- **Saves 8 hours per new hire and 112 annual hours per automated user task, saving \$2.4 million.** By fully automating onboarding and by implementing 40 new automations each year, the composite recaptures up to 39,500 hours per year in end-user labor. End users thereby enjoy better EX, productivity, and time-to-value.
- **Improves end-user productivity for support, recapturing \$4.8 million.** Automation, avoided incidents, and improved UX streamlines ticket submission, management, and resolution for end users. This saves 20 minutes per need across an average of 12 service needs per user per year. End users enjoy better EX, productivity, and time-to-value, which helps deliver better business outcomes and customer experience (CX).
- **Shifts-left 33% of IT operations resources, recapturing \$2.1 million.** BMC Helix frees six FTEs from legacy technology administration and saves time equivalent to an additional four FTEs by automating 12% of IT operations workloads and boosting IT operations productivity by 20%. Time saved is recaptured to drive innovation, capability enhancement, and automation.
- **Prevents up to 90% of incidents caused by DevOps changes, recapturing \$1.1 million.** BMC Helix helps teams prevent issues from occurring, quickly assess impact, and accelerate remediation. End users avoid issue disruptions and enjoy greater productivity, speed, and EX.
- **Reduces DevOps and IT labor by 90 minutes per DevOps change, recapturing \$860,000.** Integrated service desk and DevOps tooling reduces friction between teams, while change discovery, automation, and AI risk analysis accelerates pipelines while ensuring governance.
- **Eliminates costs of the legacy service desk solution, saving \$2 million.** Migrating to BMC Helix eliminates licensing, cloud, infrastructure, and support costs for legacy solutions.

Qualitative benefits. Interviewees said BMC Helix is priced competitively and they are pleased with the value and speed versus costs and labor. Beyond the above quantified benefits, BMC Helix also helped their organizations to:

- Enhance UX and EX for the service desk, IT admins, and DevOps teams.
- Improve end-user productivity, UX, and EX.
- Ensure business continuity and enable remote work during the COVID-19 pandemic.
- Empower skilled IT resources to shift-left and focus on higher-value-add tasks.
- Enrich decision-making with analytics and predictive intelligence.
- Improve service level agreement (SLA) monitoring and compliance.
- Increase field responsiveness and productivity.

KEY BENEFITS WITH THE FULL BMC HELIX SOLUTION SET



33.5% tickets deflected



25% tickets fully automated



57% reduction in agents



50% increase in agent capacity



33% increase in IT operations output

Costs. Three-year risk-adjusted PV costs for the full BMC Helix solution set include:

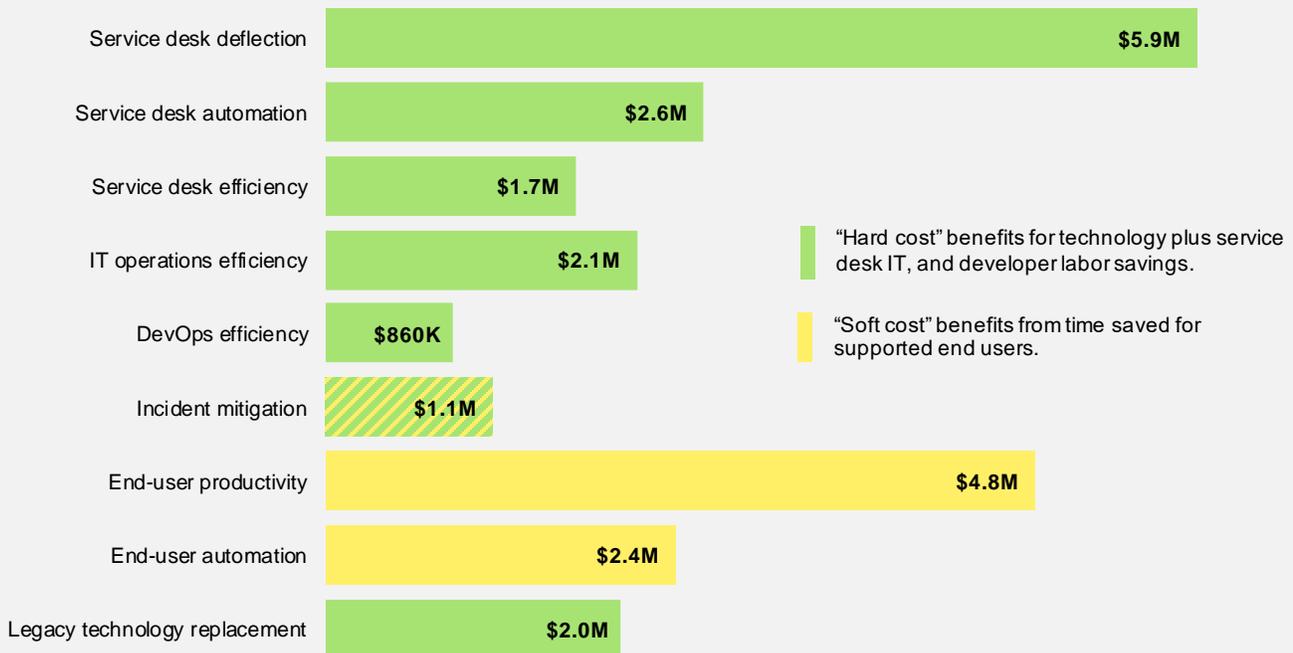
- **Technology subscription, usage, and support costs.** The composite organization incurs \$3.6 million for BMC Helix ITSM, Business Workflows, Digital Workplace, Chatbot, Discovery, CMDB, Multi-Cloud Manager, and Integration Platform plus integrated third-party services.
- **Professional services for migration, deployment, and ongoing support.** The composite organization incurs \$1.5 million in professional services costs to plan, build, test, deploy, and support the BMC Helix environment.
- **Implementation labor to plan, deploy, and train the workforce on BMC Helix.** The composite organization dedicates 15 FTEs worth \$2 million over two years to implementation.
- **Ongoing labor for administration and capability enhancement.** BMC Helix systems administration requires less labor than legacy

systems do. Time freed allows IT teams to instead build and update the self-help knowledge base; deploy new capabilities, integrations, and automations; and train AI. The composite organization dedicates two to five FTEs per year to this effort, incurring \$1 million in labor.

Synopsis. The customer interviews and financial analysis found that a representative composite organization saves \$23.4 million over three years versus costs of \$8.1 million by investing in the full BMC Helix suite for service desks, IT operations, and DevOps, adding up to a NPV of \$15.3 million, a payback period of 10 months, and an ROI of 189%.

Forrester also [segmented the costs and benefits of only the BMC Helix IT and enterprise service desk capabilities](#) to measure the TEI of BMC Helix for the service desk. Isolating the service analysis, the composite organization incurs lower costs of \$2.9 million and recognizes lower benefits of \$13.6 million. This adds up to a lower NPV of \$10.6 million, an ROI of 361%, and a 1 year payback period.

THREE-YEAR BENEFITS WITH THE FULL BMC HELIX SOLUTION SET



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 BMC Helix.

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 BMC Helix can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by BMC 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 BMC Helix.

BMC 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.

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



DUE DILIGENCE

Interviewed BMC stakeholders and Forrester analysts to gather data relative to BMC Helix.



CUSTOMER INTERVIEWS

Interviewed 14 decision-makers at 11 organizations using BMC Helix over a three-year period to obtain data with respect to use cases, costs, benefits, flexibility, 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.

Customer Journey

■ Market trends, decision drivers, and key statistics for investments in BMC Helix

MARKET DRIVERS

The COVID-19 pandemic requires enterprises to react with greater speed and agility than ever before to meet the new and changing demands of customers, employees, and regulators. Organizations must deploy or shore up remote-enabling technologies for the workforce to ensure business continuity and enable speed. Meanwhile, they must take stock of the technology tsunami of legacy and new solutions to ensure access, dependability, compliance, and security, while also finding opportunities to control and cut costs.

Autonomous and digital solutions are key to ensuring business continuity, reducing risk, and driving growth and speed. Enterprise service management (ESM), hybrid multicloud operations and management, CMDB, automation, integration, and IT are all important enablers, but they must be deployed in service of employees. Governance, security, and compliance remain as important as ever but IT organizations must learn to look beyond the information technology infrastructure library (ITIL) to.¹ They can do so in the following ways:

- Break down silos in the interest of customer and employee experiences.
- Hold employee productivity as sacrosanct.
- Be strongly data- and insights-driven.
- Prize speed over perfection.

Organizations must leverage technology to:

- Simplify and accelerate the workforce with a fast, clear, and consolidated service desk for IT and enterprise needs — especially via self-help.
- Automate and streamline wasteful tasks for service desk and IT operations teams to allow shift-left for greater business value.

- Facilitate remote work and collaboration while protecting the enterprise from risk.
- Discover, assess, and resolve risks using AI-enabled tooling across the IT estate before risks threaten the enterprise.
- Reduce friction between IT and DevOps to drive DevOps speed and agility while ensuring governance, compliance, and security.
- Empower, streamline, and ensure success of cloud migrations while embracing portability with containers to avoid cloud lock-in.
- Monitor behavior and control resource usage across increasingly sprawled hybrid and multicloud IT estates.
- Deploy cognitive solutions and automation to accelerate speed, improve experience, reduce risk, and propel business growth.

The future must be fast, agile, and cloud-native — with employee speed and effectiveness at the center.

[Learn more from Forrester's research. >](#)

FORRESTER

Employ The Five P's To Put Employee Experience Front And Center
Service Desk 2020: It's All About Employee Experience



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Interviewed Organizations				
Industry	Region	End users	Interviewed decision-makers	Interview date
Telecommunications	Global	120,000	Strategic project manager	October 2020
Professional services	Global	90,000	<ul style="list-style-type: none"> VP of IT sourcing VP of enterprise applications 	November 2018
IT services	EMEA	66,000	Director of service management	January 2018
Retail	North America	55,000	Director of IT operations and support	September 2020
Education	North America	32,000	<ul style="list-style-type: none"> Director of service management Associate director of IT service delivery Assistant director of service management 	November 2018
IT services	Global	30,000	Customer services director	October 2018
E-commerce	Global	20,000	Director of ESM and IT operations	October 2020
Healthcare	North America	12,000	Systems administrator	January 2018
Insurance	EMEA	10,000	Director of service management	January 2018
Telecommunications	North America	10,000	Senior director of IT infrastructure and operations	September 2020
Education	North America	6,000	Systems administrator	January 2018

INTERVIEWED ORGANIZATIONS

Forrester conducted a multiphase analysis of the capabilities, use cases, and resulting ROI of investing in BMC Helix through a series of three TEI studies published between 2018 and 2021. Each study examined the increasing breadth and depth of capabilities and potential use cases.

Over this three-year period, Forrester interviewed 14 decision-makers from 11 organizations using BMC Helix to obtain data relative to the investments and their outcomes. This included four interviews in fall 2020 with decision-makers from organizations utilizing the newest and broadest set of BMC Helix capabilities.

Each organization’s deployment was different. They were different sizes, and they used different combinations of BMC Helix solutions and use cases for IT service desks, enterprise service desks, and DevOps teams.

BMC products the interviewees’ organizations used:

- BMC Helix ITSM
- BMC Helix Business Workflows
- BMC Helix Digital Workplace
- BMC Helix Chatbot
- BMC Helix CMDB
- BMC Helix Discovery
- BMC Helix Multi-Cloud Service Management
- BMC Helix Integration Platform

Third-party integrations with BMC Helix:

- Customer relationship management (CRM)
- DevOps tooling and management
- Enterprise resource planning (ERP)
- HR, finance, and other enterprise solutions
- Public cloud environments
- Robotic process automation

Forrester measured the following typical service desk statistics for this set of 11 interviewed BMC Helix customers, and they are used to drive the TEI model:

- 41,000 mean supported users, ranging from 6,000 to 120,000 supported users.
- 350,000 mean annual tickets, ranging from 15,000 to 1.5 million tickets per year.
- 75 median service desk agents, ranging from seven to 7,000 agents.

Forrester found that typical service desk metrics ranged significantly at the 11 organizations, depending on their specific functions. The callout graphic on the right illustrates the average per-agent and per-user metrics for service desks using BMC Helix.

Average service desk metrics

-  **500** median supported users per agent with BMC Helix
-  **8.35** mean tickets per supported user with BMC Helix
-  **4,264** mean tickets per agent with BMC Helix

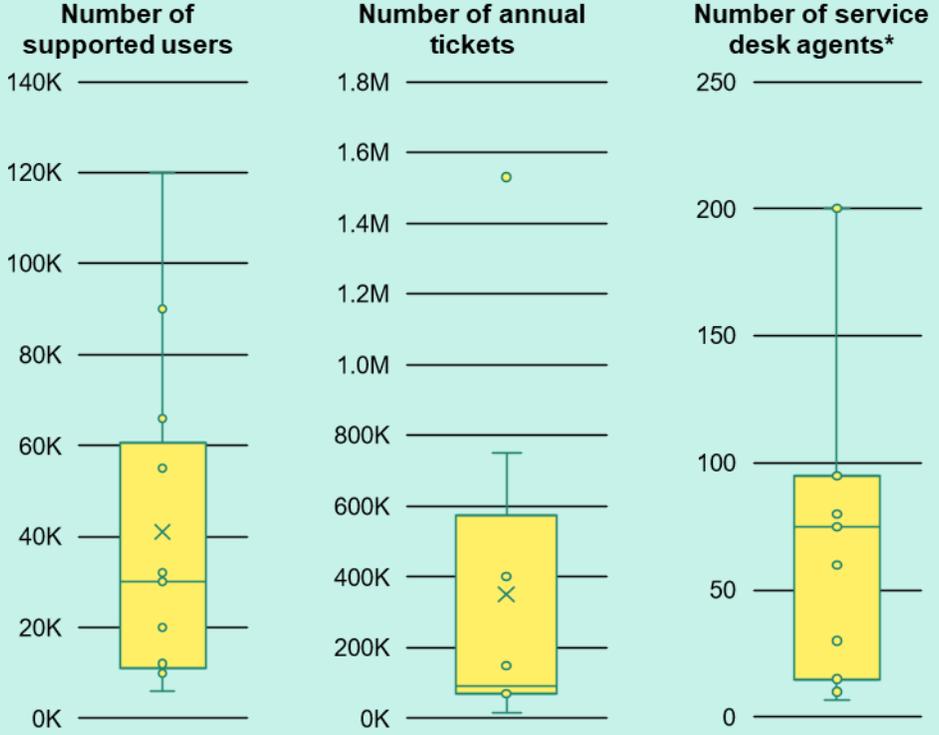
Note that the median is used for service desk agents and supported users per agent to exempt the outsized statistical effect of an outlier from one interviewee’s organization with approximately 100 times as many agents as the other interviewees’ organizations.

Range of service desk scope with BMC Helix at the interviewees’ organizations:

41,000
mean supported users, ranging from 6,000 to 120,000 supported users

350,000
mean annual tickets, ranging from 15,000 to 1.5 million tickets per year

75
median service desk agents, ranging from seven to 7,000 agents



*Outlier with 7,000 agents excluded from graphic.

INVESTMENT GOALS

Interviewed decision-makers shared that their organizations invested in BMC Helix to:

- **Enhance user experience.** Users previously struggled to find information and to request support for IT and enterprise services due to fragmented sources and poor interfaces. Organizations consolidated IT and enterprise services in a central portal, and they developed extensive knowledge-base articles and self-service forms. They launched virtual chatbots and agent live-chats both within the portal and via third-party messaging platforms so a user could access help in their preferred channel. Organizations implemented automation, orchestration, and process improvements to fulfill requests faster and easier than ever before while also reducing issue incidence and impact. This minimized disruption and improved experience.
- **Reduce cost of service delivery.** The interviewees' organizations deployed self-help and agentless service delivery via knowledge-base articles, chatbots, and automation to deflect ticket volume — especially for wasteful basic demands. They implemented discovery, cataloging, and governance of changes while mapping interdependencies, reducing issues, and streamlining remediation. Organizations further improved UX, streamlined processes, and reduced swivel-chair management and data entry with automation and third-party integrations.
- **Shift left IT resources for added business value and improved EX.** Deflection, automation, and efficiency allowed IT agents and operations employees to waste less time on manual entry and redundant work. This allowed them to instead focus on more complex work or innovations. As a result, employees generated greater business value while also enjoying a more interesting and engaging employee experience.

- **Accelerate the business.** Faster, streamlined service delivery allowed both end users and IT personnel to get to what mattered faster instead of wasting time. Meanwhile, orchestration and third-party integrations reduced friction between IT governance and DevOps speed. This avoided wasted time for data entry across systems, streamlined testing, and ultimately allowed DevOps teams to release more quickly, more frequently, and with greater confidence.
- **Enable flexibility, scale, and modernization.** As organizations continue to push to the cloud, hybrid and multicloud fragmentation impedes speed, burdens teams, opens vulnerabilities, and results in excess or unpredictable spending. By deploying BMC Helix, organizations gained cloud benefits such as simplified management and regular updates while gaining capabilities to monitor, manage, streamline, and orchestrate the increasingly complex IT estate.

Interviewees said their organizations adopted a range of BMC Helix offerings to match their unique needs at the time of the interviews. The four most recent interviews (conducted in fall 2020) augment data Forrester previously gathered about BMC Helix ITSM, and they illustrate how the newest BMC Helix capabilities further expand and enhance IT and DevOps teams. These use cases include:

- **BMC Helix ITSM, Business Workflows, Digital Workplace, Chatbot, and Multi-Cloud Management** create a consolidated service desk that drives speed, efficiency, automation, and improved experience for users and agents across IT, DevOps, HR, finance, facilities, and other enterprise needs.
- **BMC Helix Discovery, CMDB, and Integration Platform** work in conjunction with the service desk and integrated third-party platforms, clouds, DevOps tooling, and robotic process automation (RPA) for orchestration, automation, process enhancement, and risk reduction.

Interviewed decision-makers shared the following insights about their organizations' BMC Helix use:

- “In only two years, we **reduced the size of our service desk from 36 agents to 22 agents**. We deflected 52% of service desk calls and reduced volume by 17% as peers increased by 30%. We handle over 10,000 calls per agent between automation and efficiencies. Waiting time for end users went from 40 minutes to 5 minutes because of self-healing automation.” — *Senior director of IT infrastructure and operations, telco*
- “We went through a major organizational change that caused tremendous brain drain and fragmented IT. We had an antiquated help desk with fragmented knowledge management and online chat. We needed to identify vulnerabilities and wasted spending. Meanwhile, we were being pushed to do more with less. We had to figure out what was out there, identify dependencies, and overhaul the experience for employees. **It was paramount that we understood the relationships between infrastructure, application, and owner.**” — *Director of ESM and IT operations, e-commerce*
- “Some users prefer to use the knowledge base, some prefer to use the chatbot, some prefer to use the forms in our portal, some prefer to live chat, some prefer to call, and some prefer to email. What matters is we give them the options they want with a good, centralized user experience. **It doesn't matter how the request comes in because we can efficiently manage the requests as they come in with BMC.**” — *Director of ESM and IT operations, e-commerce*
- “We are resource-constrained, **so automating processes behind the scenes is very appealing**. We need to be able to cut across decentralized environments to integrate systems to speak to each other and pass tickets without the end user seeing any difference.” — *Assistant director of service management, education*
- “Our legacy solution was customized to pieces — it was a nightmare. Our transformation is driven heavily to **improve UX with ease and simplicity.**” — *Strategic project manager, telco*
- “**The key driver [for our investment in BMC Helix] is the customer service experience.** Reducing errors or saving time is a side benefit, we're not using that as the primary prioritization. What we're looking at is finding the best way to improve the experience and connect the user for fulfillment as efficiently as possible.” — *Director of service management, education*
- “Whatever my appetite was, BMC offered plenty of features and functions to throw at the problem. **I haven't come to a problem that BMC didn't have a capability to help us solve** it if we wanted to pursue it.” — *Director of ESM and IT operations, eCommerce*
- “**We wanted artificial intelligence integrated with back-end systems and actual outcomes.** A key decision in choosing [the BMC Helix Chatbot] was our ability to prototype and demonstrate the support on the back end. It makes our support efforts more efficient and feasible, so we can do more complex and varied things while supporting our users.” — *Director of service management, education*
- “**[BMC Helix] provides the first single, shared-services platform across functions and geographies for our organization.** We used to have many teams that didn't even have a way for people to reach out for support, and we had multiple other help desks in different regions. Now, we have global reporting for all our tasks such as IT, HR, payroll, and more. ... With the [BMC Helix Chatbot] built on IBM Watson, BMC offered one platform that could be used across the entire shared services team. The additional capabilities that [BMC Helix] brings with every release has made it a good choice.” — *VP of enterprise applications, professional services*

COMPOSITE ORGANIZATION

Forrester constructed a TEI framework, a composite organization that is representative of the interviewees’ organizations, and an aggregate ROI analysis that illustrates the areas financially affected.

The composite organization supports 41,000 end users with 173 service desk agents, and it employs 30 IT operations engineers and administrators. The organization deploys a rich stack of BMC Helix technology for its IT service desk, enterprise service desks, IT operations team, DevOps teams, and supported end users.

The composite financial analysis measures the impact of deploying the following BMC offerings:

- BMC Helix ITSM.

- BMC Helix Business Workflows.
- BMC Helix Digital Workplace.
- BMC Helix Chatbot.
- BMC Helix Discovery.
- BMC Helix CMDB.
- BMC Helix Multi-Cloud Service Management.
- BMC Helix Integration Platform (for orchestration and automation).

The analysis assumes that the BMC Helix environment is integrated with third-party solutions including chat channels, DevOps tooling, RPA, and enterprise technologies for HR, finance, and productivity for enterprise automation and orchestration.

Composite Organization

Ref.	Metric	Data Source	Before Helix
R1	Number of end users supported by IT and enterprise service desk	Interview data	41,000
R2	Annual IT and enterprise tickets per user before BMC Helix	Interview data	12
R3	Total annual IT and enterprise ticket volume before BMC Helix	R1*R2	492,000
R4	Annual tickets handled per agent before BMC Helix	Interview data	2,843
R5	Number of IT and enterprise service desk agents before BMC Helix	R3/R4	173
R6	Number of IT operations engineers and administrators	Interview data	30
R7	Annual changes and requests from DevOps teams	Interview data	10,000

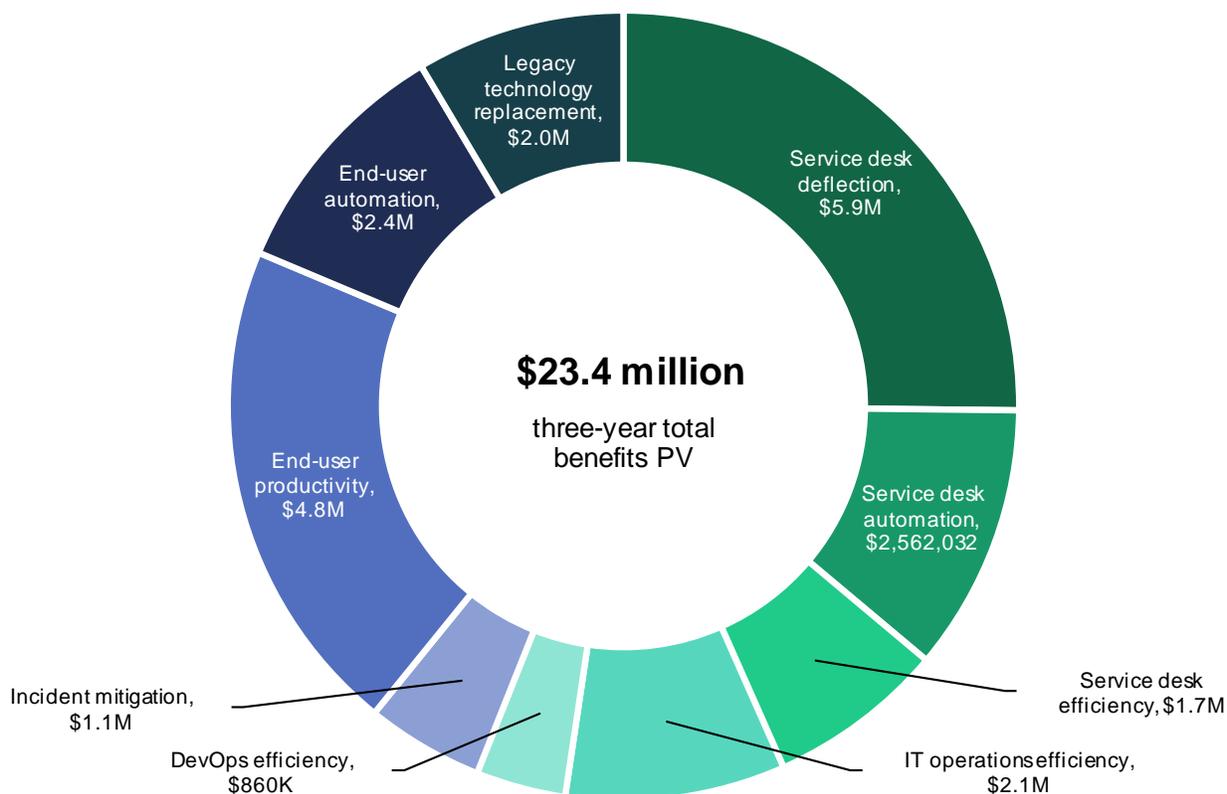
Salary Assumptions

Ref.	Metric	Data Source	Annual Salary	Hourly Salary
R8	Service desk agents	PayScale	\$56,000	\$27
R9	IT operations engineers and administrators	PayScale	\$120,000	\$58
R10	Developers	PayScale	\$135,000	\$65
R11	General office workers	US Bureau of Labor Statistics, 2020	\$75,000	\$36
R12	Forrester assumption for the percent of saved nonagent labor hours recaptured for added business value	Forrester	50%	50%

Analysis Of Benefits

■ Quantified benefit data as applied to the composite organization

Total Benefits						
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	Service desk deflection	\$1,411,200	\$2,923,200	\$2,923,200	\$7,257,600	\$5,895,020
Btr	Service desk automation	\$806,400	\$1,159,200	\$1,159,200	\$3,124,800	\$2,562,032
Ctr	Service desk efficiency	\$554,400	\$756,000	\$756,000	\$2,066,400	\$1,696,787
Dtr	IT operations efficiency	\$540,000	\$972,000	\$1,080,000	\$2,592,000	\$2,105,635
Etr	DevOps efficiency	\$211,500	\$423,000	\$423,000	\$1,057,500	\$859,666
Ftr	Incident mitigation	\$244,035	\$488,070	\$665,550	\$1,397,655	\$1,125,251
Gtr	End-user productivity	\$1,180,800	\$2,361,600	\$2,361,600	\$5,904,000	\$4,799,495
Htr	End-user automation	\$570,384	\$1,140,768	\$1,209,312	\$2,920,464	\$2,369,888
Itr	Legacy technology replacement	\$1,020,000	\$680,000	\$680,000	\$2,380,000	\$2,000,150
Total benefits (risk-adjusted)		\$6,538,719	\$10,903,838	\$11,257,862	\$28,700,419	\$23,413,924



SERVICE DESK DEFLECTION

By empowering users with consolidated, easy-to-navigate, clear, and robust self-service resources using BMC Helix, the interviewees' organizations:

- Reduced service desk costs by deflecting tickets.
- Empowered service desk resources to shift-left from wasteful tasks to higher-value and higher-complexity work.
- Enhanced productivity for end users with less time wasted searching, contacting the help desk, and waiting for support.
- Improved EX with less experience and time wasted on manual tasks for both service desk agents and end users.

Improving IT operations with automated governance and predictive automated identification, analysis, routing, and remediation also deflected tickets caused by incidents by preventing issues, shortening mean-time-to-remediation (MTTR), and mitigating the affected footprint of issues.

Benefit detail. Consolidating disjunct service information from IT to DevOps and HR to facilities and beyond in a single, user-friendly portal built in Digital Workplace was the first key step for the interviewees' organizations. Organizations then invested in writing and maintaining robust collections of knowledge-base articles within these portals to enable end users to find the information they need, fix issues by themselves, or find out the correct actions to take or people to contact on first attempt.

Many of the interviewees' organizations deployed chatbots that operated both within the portal and third-party messaging solutions that enabled users to quickly find the appropriate information and knowledge-base articles while conversing in simple, plain speech rather than searching or browsing through pages. These chatbots were also empowered to automated tasks, as discussed in the next benefit section.

“Our customer base has grown while support requests have decreased by 30% due to launching more self-services and developing solutions that are more intuitive to use by the user.”

Associate director of IT service delivery, education

Using service desk analytics, organizations could surface common requests, challenges, or points of confusion and leverage these findings to build new articles and forms, improve existing ones, or better organize or surface content so users can find what they need as easily as possible. These findings can also feed into full automations.

These steps allowed users to easily find the information or support regardless of domain via their preferred channel (e.g., webpage, mobile, chatbot messaging). Organizations typically deflected 10% to 50% of IT and enterprise tickets via these channels, depending on the breadth, depth, quality, and organization of the self-help resources they created that were further enhanced by chatbots.

The organizations also leveraged the set of BMC Helix solutions to automatically and proactively identify risks arising from changes, to flag issues, to resolve them automatically or route them to the correct teams using AI, and to ultimately either prevent the issue from impacting users or to mitigate its impact with faster resolution and reduced impact footprint. As a result, the organizations deflected tickets specifically related to these incidents. This further drove cost savings and improved experience.

33%

Ticket deflection from self-help, chatbot, and issue mitigation



Evidence and data. Interviewed decision-makers shared how their organizations provided self-help resources and what impacts these efforts delivered:

- A global telco slashed IT ticket volume by 40%, with half of savings generated by its self-help knowledge-base and the other half by automation and a chatbot. This saved millions of dollars per year in its outsourced IT call center. The telco has authored many thousands of articles and created an array of automations, and the chatbot taps into these resources to surface them to users more often and to heighten their impact. While the chatbot today only accounts for approximately 4% of ticket deflection and automation, its usage has tripled every six months in its first 18 months.
- An E-commerce company deflected 30% of its tickets with its self-service knowledge-base and chatbot, which could be accessed from a variety of channels based on the user's preference.
- A retail organization is working toward its goal of deflecting 50% of tickets with self-help in Digital Workplace. This portal enables users to find information, solve issues themselves, request technology and facilities, or open break-fix issues and includes a wealth of videos and articles to aide users. The director of IT operations and support emphasized that the organization's workforce is shifting toward Millennial and Generation Z employees prefer self-help to calls.
- The associate director of IT service delivery for the education organization described the value of data from BMC Helix ITSM in building knowledge-base articles. They said: "We can now automatically classify work requests through the use of templates. This helps improve our metrics and our ability to know what our customers are struggling with, which allows us to prioritize what areas to focus on for self-service documentation and/or automation."
- A VP of IT sourcing for a professional services company described how deploying knowledge-base articles led to immediate ticket deflection. They said, "In every area we've implemented a knowledge-base article, we have reduced tickets within three months by 10% to 15%."
- The performance and positive reception for the BMC Helix Chatbot at an education organization has attracted other enterprise uses. The assistant director of service management shared: "Since launching the [BMC Helix Chatbot], several other departments have requested to add their frequently asked questions to the chatbot to trim down their call volume. In the long run, it ... will serve the organization as a whole."
- A professional services company turned to the BMC Helix Chatbot to deflect tickets. The VP of IT explained: "The primary driver for [BMC Helix Chatbot] was to move our staff away from the rudimentary work they were doing and to improve their productivity." The organization's initial chatbot deployments included 16 standard human resources queries for policy and procedure questions such as insurance, benefits, promotions, and relocation. The organization then deployed transactional capabilities such as checking balances or managing applications, and is now deploying a range of IT-specific functions with a major focus on providing and revoking access to applications and infrastructure.

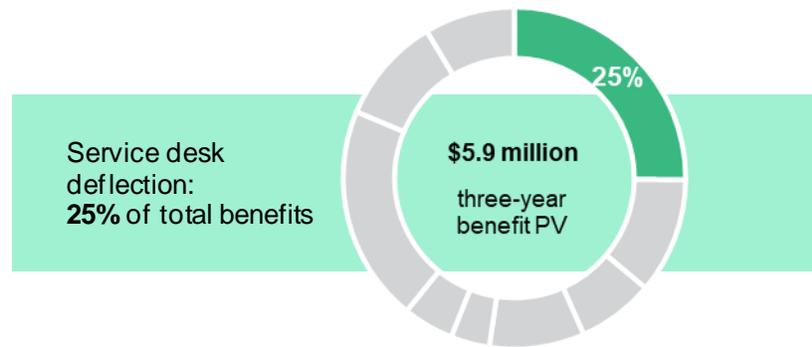
“Since the deployment of our current knowledge base and chatbot, we've reduced service desk contacts by 30% overall. It was so significant that we thought something was broken. But we used analytics and discovered all those users were getting their information from the knowledge base.”

Director of ESM and IT operations, E-commerce

Modeling and assumptions. The composite organization builds a comprehensive IT and enterprise service portal using BMC Helix Digital Workplace, and decision-makers invest significant resources to create and improve knowledge-base content. The composite also deploys BMC Helix Chatbot to streamline and amplify access to these self-help resources. Finally, the composite makes significant investments in orchestrations, integrations, and AI-fueled risk assessment and remediation to reduce the frequency and impact of incidents. These efforts deflect 16.25% of the composite’s 492,000 annual tickets in Year 1, improving to 33.5% deflected by Year 2. The resulting drop in ticket volume frees resources equivalent to 58 service desk agent FTEs.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- Partnership of IT and enterprise divisions to centralize service within the BMC Helix solution, establish effective resources, and drive self-help.
- Breadth, depth, and quality of created resources.



- Baseline volume, level, type, and complexity of IT and enterprise tickets.
- Usage of the BMC Helix Chatbot, its use cases, and level of AI training.
- Usage of operations, orchestration, and CMDB capabilities to prevent, solve, and mitigate issues.
- Typical costs of support.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$5.9 million.

Service Desk Deflection					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Total annual IT and enterprise ticket volume before BMC Helix	R3	492,000	492,000	492,000
A2	Percent of tickets deflected by improved self-help offerings	Interview data	16%	33%	33%
A3	Percent of tickets avoided with automated pipeline governance, discovery, and remediation	Interview data	0.25%	0.5%	0.5%
A4	Total annual deflected tickets	A1*(A2+A3)	79,950	164,820	164,820
A5	Annual tickets handled per agent before BMC Helix	R4	2,843	2,843	2,843
A6	Reallocated service desk agents (showing rounded value)	A4/A5	28	58	58
A7	Fully burdened annual salary for service desk agents	R8	\$56,000	\$56,000	\$56,000
At	Service desk deflection	A6*A7	\$1,568,000	\$3,248,000	\$3,248,000
	Risk adjustment	↓10%			
Atr	Service desk deflection (risk-adjusted)		\$1,411,200	\$2,923,200	\$2,923,200
Three-year total: \$7,257,600			Three-year present value: \$5,895,020		

SERVICE DESK AUTOMATION

BMC Helix impactful automation that can mostly or fully automate service fulfillment using AI, orchestration, and multicloud and third-party vendor integration and brokering capabilities. Like deflection, automation offers time savings and EX benefits to both service desk resources and end users.

Evidence and data. Interviewees shared a myriad of ways in which their organizations leveraged automation to deliver service. Frequent use cases involved provisioning or shutting down environments, accessing accounts, resetting passwords, gaining access to services, ordering equipment, and beyond. BMC Helix brokered and orchestrated actions across BMC Helix and third-party systems to deliver fast, correct, and well-documented service without the need for agent intervention. Digital Workplace, the chatbot, and even third-party systems like an interactive voice response (IVR) could trigger automation that flowed through BMC Helix.

Organizations utilizing the full BMC Helix suite were able to see significant savings by automating 10% to 40% of post-deflection ticket volume. For example:

- End-to-end automation halved password reset tickets for a global telco, saving an estimated \$300,000 per year in outsourced IT agent costs.
- An E-commerce company automated many key services including delivery and destruction of test

“During the pandemic, our employees are remote but sometimes they need to visit an office for their work. To protect everyone’s health, we’ve automated visit requests in Helix which passes off to an integrated third-party health declaration solution for clearance, off to the badging system to grant access, and back to Helix for tracking — without any human intervention required.”

Director of ESM and IT operations, E-commerce

25%

Tickets automated with BMC Helix



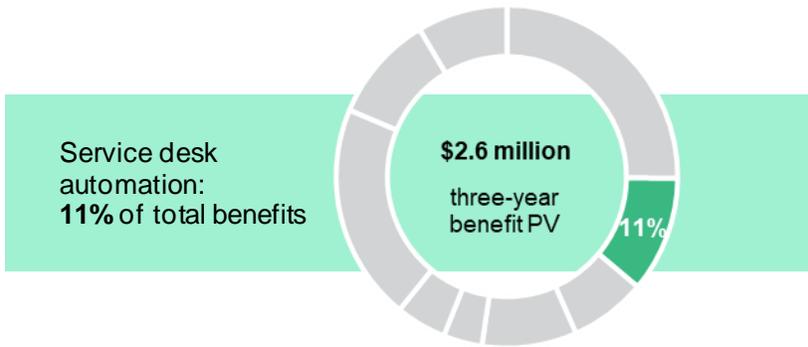
environments for DevOps teams, request and installation of software for the general workforce, and even pandemic-related policies to protect employee health. It also orchestrated approval processes for a range of finance, HR, facilities, and other requests based on factors such as security level, price quotas, and user role.

- For a North American telco, automating top service desk requests regardless of entry channel (e.g., digital workplace, chatbot, and a third-party IVR) reduced ticket volume handled by agents by 10%. The organization utilized BMC Helix’s third-party RPA partner integrations to automate some tasks.
- A professional services company automated more than 16 use cases, eliminating almost 50,000 tickets per year and allowing the reallocation of eight agents to focus on more valuable work. Examples include setting up printers, installing VPNs, establishing or revoking application access, provisioning access to specific buildings when a user is traveling, or changing permissions as a user changes their job role.
- An education organization automated user setup of devices on its wireless network, eliminating frustrating and days-long delays for end users. In a separate initiative, decision-makers automated voice service tasks. The associate director of IT service delivery shared: “End users can now provision their own voice services, manage voice-related passwords, and customize their voice service functionality. ... We’ve eliminated our communication services team [with Multi-Cloud Service Management].”

Modeling and assumptions. The composite organization leverages the suite of BMC Helix offerings to automate and orchestrate a variety of service requests. These automations leverage the user portal and chatbot combined with BMC Helix operations and orchestration solutions plus, via Multi-Cloud Management, other integrated third-party solutions for infrastructure, DevOps, HR, finance, security, and beyond. These efforts automate 12% of the organization’s remaining nondeflected tickets in Year 1, and 25% in Year 2. This frees resources equivalent to 23 service desk agent FTEs.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- Partnership of IT and enterprise divisions to establish and automate processes.
- Existing amount and quality of process documentation that can be leveraged.
- Baseline volume, level, type, and complexity of IT and enterprise tickets.



- Usage of operations, orchestration, CMDB, and Multi-Cloud Management capabilities to broker and integrate with necessary services.
- Usage of the BMC Helix Chatbot, its use cases, and level of AI training.
- Typical costs of support.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$2.6 million.

Service Desk Automation					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Ticket volume after deflection	A1-A4	412,050	327,180	327,180
B2	Annual tickets handled per agent before BMC Helix	R4	2,843	2,843	2,843
B3	Agents who would have been needed to handle remaining tickets	B1/B2	145	115	115
B4	Percent of remaining tickets fully automated	Interview data	12%	25%	25%
B5	Annual tickets handled per agent after automation using BMC Helix	B2*(1+B4)	3,184	3,554	3,554
B6	Agents needed to handle remaining tickets after automation	B1/B5	129	92	92
B7	Reallocated service desk agents	B3-B6	16	23	23
B8	Fully burdened annual salary for service desk agents	R8	\$56,000	\$56,000	\$56,000
Bt	Service desk automation	B7*B8	\$896,000	\$1,288,000	\$1,288,000
	Risk adjustment	↓10%			
Btr	Service desk automation (risk-adjusted)		\$806,400	\$1,159,200	\$1,159,200
Three-year total: \$3,124,800			Three-year present value: \$2,562,032		

SERVICE DESK EFFICIENCY

Interviewees shared that BMC Helix boosts service desk agent productivity by:

- Improving data capture via Digital Workplace and the chatbot combined with AI-assisted data.
- Automatically categorizing and routing tickets to the correct resources or teams with AI.
- Reducing swivel-chair manual rekeying and ticket management with multcloud integrations and brokering such as with DevOps tooling or third-party service desks.
- Identifying interdependencies, impact, and root causes with Discovery, CMDB, and AI.
- Preventing and mitigating incidents with Discovery, CMDB, and orchestration.
- Enabling swarming.
- Enhancing UX and performance.
- Allowing agents to update, monitor, and resolve tickets from mobile devices.
- Powering service desk analytics to improve decision-making for process enhancements.
- Forecasting ticket trends and molding staffing.

20%

Increased service desk agent productivity with BMC Helix



Evidence and data. Interviewees shared how BMC Helix improved service desk productivity:

- A North American telco boosted first-call resolution from 75% to 92% with better routing while boosting agent productivity. In combination with deflection and automation savings, the

organization increased the number of calls handled per agent by 48% and reduced the number of agents by 39%.

- An education organization reallocated agents and boosted productivity. The associate director of IT service delivery shared: “We’ve been able to reallocate 17% of our agents to proactive problem management over the last three years. We also saw a shift in work patterns that allow our help desk agents to spend 20% more of their time working on developing knowledge articles, project work, and other operational duties not directly related to support.”

“It’s a more efficient procedure to resolve the tickets [with BMC Helix ITSM]. We can push more information on how to auto-solve their request. There are portals to manuals for when they don’t know or remember how to access it, that helps us to solve more tickets automatically.”

Director of service management, insurance

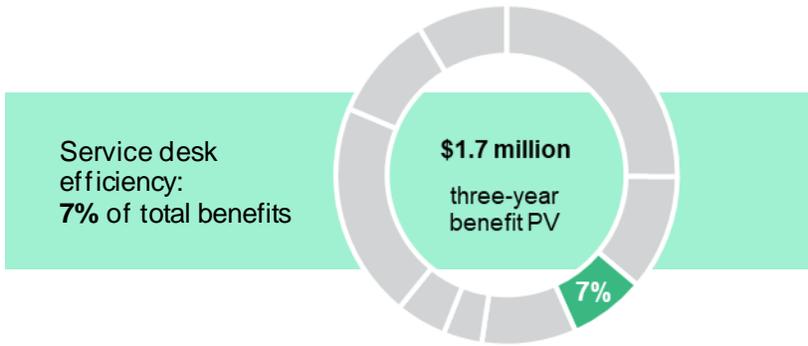
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Associate director of IT service delivery, education

Modeling and assumptions. The composite organization leverages BMC Helix technology to improve ticket data capture; streamline user experience; reduce swivel-chair data entry with third-party solutions and service desks; automate portions of tickets; detect and analyze interdependencies; apply cognitive cause and impact analysis; and detect, prevent, and reduce the impact of issues before they lead to tickets. These efforts boost productivity by 10% in Year 1 and 20% in Year 2 and beyond for the composite’s remaining nondeflected and nonautomated tickets, freeing resources equivalent to 15 service desk agent FTEs.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- Volume, type, and complexity of tickets.
- Selected BMC Helix solutions.
- Impact of deflection and automation.



- Investment in integrations, automations, and process improvements to simplify tasks.
- Internal talent, training, and adoption of Helix.
- Typical costs of support.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$1.7 million.

Service Desk Efficiency					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Ticket volume after deflection	B1	412,050	327,180	327,180
C2	Annual tickets handled per agent after automation using BMC Helix	B5	3,184	3,554	3,554
C3	Agents needed to handle remaining tickets after automation	B6	129	92	92
C4	Percent increase in productivity for remaining tickets	Interview data	10%	20%	20%
C5	Annual tickets handled per agent with automation and improved productivity	C2*(1+C4)	3,502	4,265	4,265
C6	Agents needed to handle remaining tickets with automation and productivity	C1/C5	118	77	77
C7	Reallocated service desk agents	C3-C6	11	15	15
C8	Fully burdened annual salary for service desk agents	R8	\$56,000	\$56,000	\$56,000
Ct	Service desk efficiency	C7*C8	\$616,000	\$840,000	\$840,000
	Risk adjustment	↓10%			
Ctr	Service desk efficiency (risk-adjusted)		\$554,400	\$756,000	\$756,000
Three-year total: \$2,066,400			Three-year present value: \$1,696,787		

IT OPERATIONS EFFICIENCY

BMC Helix eliminates the need to manage and maintain infrastructure and application environments, while cutting labor required for updates and upgrades down to a small fraction of the legacy effort. Most interviewees said their organizations failed to keep up with even one update per year, let alone biannual updates. Operations teams implemented a range of automations, orchestrations, and integrations using BMC Helix that either partially or fully automated manual, time-intensive, and frustrating tasks while automatically monitoring, tracking, and assessing risks caused by changes for compliance, security, or availability.

As a result, BMC Helix drastically increases IT operations bandwidth for innovation, process enhancements, and further orchestration aimed at improving business outcomes. Not only can employees do more with their time, but they can complete and track their work more precisely.

Evidence and data. Interviewees shared how BMC Helix enhanced IT operations efficiency and excellence at their organizations:

- With BMC Helix, an E-commerce company now runs its IT operations team with one-third as many FTEs as decision-makers expected they would have needed to accommodate the organization's current business. Further, decision-makers reallocated 20% of IT support hours to solving business problems, and they tripled the organization's upgrade frequency by migrating to BMC Helix in the cloud. Decision-makers eliminated technical debt and enabled greater feature adoption, which improved business usage and led to faster value realization.

33% of IT operations resources reallocated for added business value



“BMC Helix has enabled the shift-left ITIL strategy to avoid wasting highly paid, highly skilled resources on everyday issues.”

Director of ESM and IT operations, e-commerce

- The North American telco reduced IT operations costs by 23% and IT project costs by 26% over two years while accelerating time-to-market for new orchestrations by 88%. Decision-makers slashed labor for infrastructure administration tasks by at least 50%. Further, the telco automates an average of 30 new tasks each year, saving thousands of hours per year in labor. As a result, employees can now focus on innovation and further orchestration. This drives even greater benefits. Meanwhile, the telco has also enabled natural attrition as multiple IT admins retired without any need for rehiring.

To accomplish these benefits, the North American telco used the BMC Helix Integration Platform, ITSM, Digital Workplace, Discovery, CMDB, and Chatbot for automation of services such as infrastructure including servers, databases, virtualization, security, and management. Additionally, decision-makers automated every aspect of discovery and CMDB management. This slashed manual labor, ensured data is up-to-date and accurate, and mitigated the risk of incidents.

- The global telco deployed automation with BMC Helix, saving at least 15,000 IT labor-hours per year plus hundreds of thousands of end-user labor hours globally. Savings are driven 60% by automated services, 30% by automated integrations, and 10% by automated daily tasks. Time saved and other efficiencies gained with BMC Helix allowed the IT team to meet 83% of its requests from lines of business, up from 60% five years ago. The team now delivers more than 1,000 new business requests per quarter.

“We would spend months with many resources busy on the upgrade cycle. Now, employees can spend 52 weeks per year on enhancing and optimizing the system without the distraction of upgrades and administration.”

Director of IT operations and support, retail

- A retail company upgraded to BMC Helix SaaS and decision-makers found that the cloud migration and upgrade took only half the effort of one of its regular on-premises upgrades with the help of BMC professional services. Now in the cloud, the company’s IT operations team avoids the opportunity cost of having resources tied up. These employees instead work on new features and processes to streamline operations and to facilitate market-facing business growth.
- An insurance company utilized BMC Helix’s asset management functionality to track and manage hardware assets. Workers previously sent spreadsheets back and forth. But with 300 locations, the organization incurred exorbitant administrative effort to share information between site staff and the central office. BMC Helix enabled decision-makers to move asset tracking to a centralized, online-accessible database with more accurate and up-to-date data. This helped decision-makers predict and control hardware costs. This saved 12 hours per year per location plus two hours per week for a central administrator, adding up to more than 3,700 hours of labor saved annually.
- A healthcare company reduced labor by 30% for a three-person team by moving hardware asset management to BMC Helix CMDB. This system replaced a legacy discovery tool that caused redundancy and duplicates. The systems administrator said: “The number of duplicates was outrageous. With more than 100,000

hardware assets, we averaged three duplicates for every item.” BMC Helix CMDB enabled the company to establish a true source of information that cleanly integrated with other systems. It was easier to create and update assets, helping employees achieve significant time savings for entry, normalization, and reconciliation. The company further cut out steps and improved data quality by replacing spreadsheets.

The healthcare organization also freed admin labor. The systems administrator said: “Your cost benefit comes from being on demand. You’re not paying for a Tier 3 or Tier 4 system administrator to keep your systems up and running as if you were on-premises. BMC’s servers are up. They are doing their own upgrades.”

- An education organization leveraged BMC Helix in the cloud to shift-left IT operations teams for more interesting and valuable work. The assistant director of service management shared: “The reality is that we are not data center managers. There are places that do this for a living that are purpose-driven and efficient. We’re looking to reduce our on-premises footprint and cost by taking advantage of the efficiencies that exist in the cloud. ... We were looking to free up staff resources for development and innovation in operations versus the day-to-day of trying to maintain, configure, and upgrade the service. We’re restricted on resources, so we need to help them work at a higher level.”

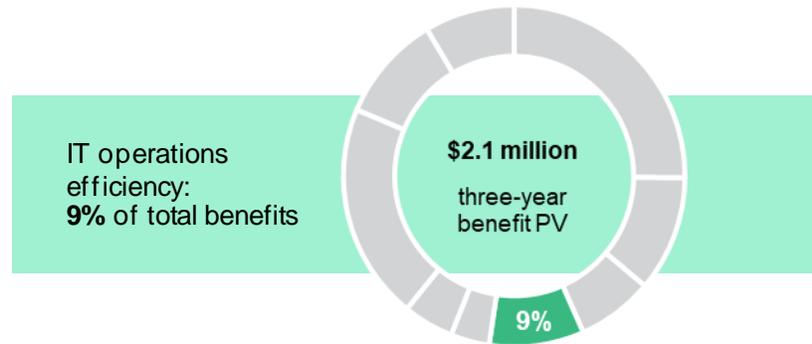
“We would have needed many more IT administrators to do manual tasks, track assets, fix issues, and manage environments. But with orchestration and automation, we can do it with far fewer people and with far better precision of work.”

Strategic project manager, telco

Modeling and assumptions. The composite organization leverages BMC Helix to implement a range of automations, orchestrations, integrations, and AI-backed monitoring and analysis to allow IT operations employees to shift-left. BMC Helix “keeps the lights on” while employees focus on creating additional business value. Leveraging BMC Helix in the cloud allows the composite to reallocate six IT admins formerly dedicated to the legacy technology and infrastructure. In addition, the composite uses the BMC Helix solutions to automate up to 12% of the operations workload while boosting productivity for the rest of the workload by 20% at a 50% recapture rate. This leads to a 33% reduction in headcount from 30 FTEs to 20 FTEs by Year 3.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- State of the organization’s IT estate and the associated responsibilities for IT operations.



- ITIL rigor and process documentation.
- Internal expertise, region, and salary.
- Deployed BMC Helix solutions and use cases.
- Investment in integrations, automations, orchestrations, and process improvements.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$2.1 million.

IT Operations Efficiency					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
D1	Number of IT operations engineers and administrators	R6	30	30	30
D2	Number of IT admins reallocated with cloud migration to BMC Helix	Interview data	3	6	6
D3	Percent of IT operations workload automated	Interview data	4%	8%	12%
D4	Percent increase in productivity for remaining IT operations tasks	Interview data	10%	20%	20%
D5	Productivity recapture rate	R12	50%	50%	50%
D6	Number of IT operations engineers reallocated with automation	$(D1-D2) \cdot (D3+D4) \cdot D5$	2	3	4
D7	Total reallocated IT operations engineers and admins	D2+D6	5	9	10
D8	Fully burdened annual salary for IT operations engineers and admins	R9	\$120,000	\$120,000	\$120,000
Dt	IT operations efficiency	D7·D8	\$600,000	\$1,080,000	\$1,200,000
	Risk adjustment	↓10%			
Dtr	IT operations efficiency (risk-adjusted)		\$540,000	\$972,000	\$1,080,000
Three-year total: \$2,592,000			Three-year present value: \$2,105,635		

DEVOPS EFFICIENCY

BMC Helix helps IT operations and DevOps teams to reduce the friction caused by the competing roles of IT governance versus DevOps speed and agility. By integrating the BMC Helix service desk with key DevOps management tools, teams can automate creation of change records, service requests, and release tickets based off development stories. BMC Helix Discovery further helps to identify changes, with cognitive tooling and orchestration helping to assess risk and to impose governance throughout the development, testing, and release pipeline. Additionally, BMC Helix enables automated creation and destruction of test environments without wasting labor and without the developer having to wait for an IT agent to set up their environment.

Collectively, integrations, automated analyses, and orchestrations eliminate significant swivel-chair data entry, decrease wasted DevOps labor, and avoid slowed DevOps timelines imposed by IT processes (e.g., change advisory boards), and assess changes for risks to allow faster release where possible with confidence that compliance, security, and dependability has been enforced and catching and addressing risks before they become issues.

Evidence and data. Interviewees shared how BMC Helix reduced friction, accelerated delivery, ensured governance, and improved efficiency for DevOps:

- A North American telco used Digital Workplace for instant, automated self-deployment at the push of a button of developer environments. This replaced a previous average wait time of two days. The telco also orchestrated testing protocols, reducing key release tasks from five days down to only 1 hour. Meanwhile, the telco integrated BMC Helix with its DevOps

90 minutes of IT and developer labor saved per change or service request



“The DevOps ‘horse’ wants to run free, but you need a bridle to prevent issues or vulnerabilities. BMC Helix makes that collaboration easier and as frictionless as possible.”

Director of ESM and IT operations, e-commerce

management software, reducing swivel-chair manual entry and management. Developers and IT engineers saved time and enjoyed better EX while developers could also release more quickly.

- The E-commerce company similarly implemented automated environment deployments and integrated BMC Helix with its DevOps tools. This reduced friction between IT and DevOps while capturing automated change records and ensuring governance. The director of ESM and IT operations explained: “Development stories are automatically linked to BMC Helix to create change records, complete automated audits, and automatically provide the infrastructure that developers need. It all comes together as a ‘release ticket’ in BMC that tracks the various change requests and stories in the two platforms with orchestration, automation, and integration with the Helix modules.”
- A global telco integrated BMC Helix with its DevOps tools and leveraged Discovery and CMDB to discover, track, and assess changes. As a result, this reduced the number of change advisory board meetings, increased developer productivity, and — most importantly — accelerated release frequency and speed.

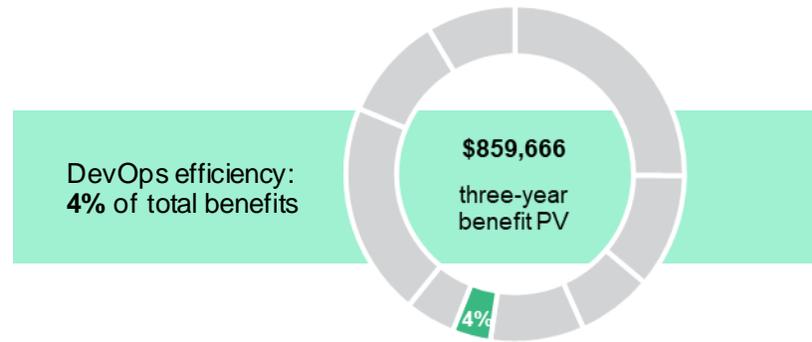
“We were able to increase velocity of deploying and integrating with apps [with BMC Helix].”

Anonymous interviewee

Modeling and assumptions. The composite organization leverages BMC Helix to implement a range of automations, orchestrations, integrations, and AI-backed monitoring and analysis to streamline DevOps and IT collaboration while reducing risk. The composite’s DevOps teams create an estimated 10,000 change requests and service requests per year, and these require manual effort from both developers and IT operations engineers. With BMC Helix, developers save 30 minutes per request and IT engineers save 60 minutes per request with 50% of time saved recaptured for business value.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- DevOps and IT governance maturity.
- Type and risk profile of services being developed.



- Internal expertise, region, and salary.
- Deployed BMC Helix solutions and use cases.
- Investment in integrations, automations, orchestrations, and process improvements.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$860,000.

DevOps Efficiency					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
E1	Annual changes and requests from DevOps teams	R7	10,000	10,000	10,000
E2	Average minutes saved for IT per change or request	Interview data	15	30	30
E3	Productivity recapture rate	R12	50%	50%	50%
E4	Fully burdened hourly salary for IT operations engineers and admins	R9	\$58	\$58	\$58
E5	Service desk labor savings	$E1 * E2 / 60 * E3 * E4$	\$72,500	\$145,000	\$145,000
E6	Average minutes saved for developers per change or request	Interview data	30	60	60
E7	Fully burdened hourly salary for developers	R10	\$65	\$65	\$65
E8	Developer labor savings	$E1 * E6 / 60 * E3 * E7$	\$162,500	\$325,000	\$325,000
Et	DevOps efficiency	$E5 + E8$	\$235,000	\$470,000	\$470,000
	Risk adjustment	↓10%			
Etr	DevOps efficiency (risk-adjusted)		\$211,500	\$423,000	\$423,000
Three-year total: \$1,057,500			Three-year present value: \$859,666		

INCIDENT MITIGATION

BMC Helix helps organizations prevent and mitigate incidents. Organizations use the BMC Helix solutions to automatically identify changes and assets, to determine interdependencies, to evaluate them for

risks based on policies and with AI, to determine their level of impact, and to conduct root cause analysis. This entire process can be automated, with labor only required to address exceptions and flagged issues.

BMC Helix helps uncover the potential for incidents before they happen, catch incidents early, evaluate the real impact of incidents, and reduce MTTR to minimize the business impact of incidents. Better routing and data capture in submitted incidents helps service desks prioritize critical incidents and resolve them faster, minimizing business and user impact.

Evidence and data. Interviewees shared how BMC Helix prevented and mitigated incidents:

- BMC Helix helped an insurance company reduce incidents related to changes by 80%, from 1,000 to less than 200. Further, it pared MTTR from more than 6 hours down to only 2 hours on average. Before using Helix, these changes often went into production without anyone realizing it for weeks. With Helix, the company can pinpoint these users and control releases.
- A North American telco drastically decreased incident minutes by 62% with BMC Helix. The telco automated compliance audit checks, ticket flagging, and execution and eliminated downtime with orchestration for one app that went down six times per day. Not only did the telco save labor and reduce incident impact, but it also captured better data. The senior director of IT infrastructure and operations said, “Using BMC for orchestration and automation generates data that is better than human data entry to feed AI.”
- A global telco uses BMC Helix to immediately pinpoint issues, do root cause analysis, measure real-time SLAs, and evaluate the business impact (i.e., server vs. critical load balancer). This provides visibility and reduces MTTR. The strategic project manager said: “If we don't know our assets, we're vulnerable. We've invested significantly in Discovery to cover the entire environment. We need to understand everything from what's there to what its patch level is.”
- A healthcare company slashed MTTR by three full days with BMC Helix.

VOICE OF THE CUSTOMER:

The director of ESM and IT operations for an e-commerce company shared how BMC Helix helps prevent and mitigate issues:

“BMC Helix Discovery, CMDB, and dependency mapping **stops us from shooting ourselves in the foot. We've cut down the percent of incidents caused by changes from over 90% to under 1%.**”

“We don't just save time when automating data entry and tasks — we protect ourselves from risk. We avoid service disruptions, audits, security vulnerabilities, and more. We don't have to worry about issues and can instead focus on what matters. **Avoiding just one problem or violation saves far more than the reduced labor from automation alone.**”

“**BMC Discovery and CMDB are the foundation, with everything else as concentric rings around them.** We now have a very good handle on 'What is it? What is it a part of? And who owns it?' in change and asset management. When it's an incident or break-fix scenario, we understand what else its impacting. When something looks suspicious, our security team can understand who to talk to about it and what will happen to the business if we shut it down.”

“[BMC Helix Integration Platform] does monitoring and helps map dependencies from infrastructure to application to owner. When there is an alert, this gathers the right data, routes it to the right person, and then stops the alert automatically. **We can now run scripts with automation and orchestration to solve issues without any human intervention.**”

Modeling and assumptions. Five percent of the composite’s 10,000 annual change and service requests previously led to incidents. With BMC Helix governance and automation, 33% increasing to 90% of these incidents are avoided. This saves 16 hours of remediation each for IT staff and developers, and 2 hours of lost productivity per 21 affected end users (0.05% of the total end-user workforce). The composite recaptures 50% of these labor savings.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- DevOps and IT governance maturity.
- Type and risk profile of services being developed.
- Internal expertise, regions, and salaries.
- Deployed BMC Helix solutions and use cases.

Incident mitigation:
5% of total benefits

\$1.1 million
three-year
benefit PV

5%

- Investment in integrations, automations, orchestrations, and process improvements.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of \$1.1 million.

Incident Mitigation

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
F1	Annual changes and requests from DevOps teams	R7	10,000	10,000	10,000
F2	Percent of changes and requests that led to incidents before BMC	Composite	5%	5%	5%
F3	Percent of incidents avoided with governance and automation	Interview data	33%	66%	90%
F4	Avoided incidents with BMC Helix	F1*F2*F3	165	330	450
F5	Average IT labor hours required to address an issue	Composite	16	16	16
F6	Productivity recapture rate	R12	50%	50%	50%
F7	Fully burdened hourly salary for IT operations and admins	R9	\$58	\$58	\$58
F8	Recaptured IT labor	F4*F5*F6*F7	\$76,560	\$153,120	\$208,800
F9	Average developer labor hours required to address an issue	Composite	16	16	16
F10	Fully burdened hourly salary for developers	R10	\$65	\$65	\$65
F11	Recaptured developer labor	F4*F9*F6*F10	\$85,800	\$171,600	\$234,000
F12	Average number of affected users	R1*0.05%	21	21	21
F13	Average duration of disruption (hours)	Composite	8	8	8
F14	Percent of user productivity lost during disruption	Composite	25%	25%	25%
F15	Fully burdened hourly salary for general office workers	R11	\$36	\$36	\$36
F16	Recaptured end-user labor	F4*F12*F13*F14*F6*F15	\$124,740	\$249,480	\$340,200
Ft	Incident mitigation	F8+F11+F16	\$287,100	\$574,200	\$783,000
	Risk adjustment	↓15%			
Ftr	Incident mitigation (risk-adjusted)		\$244,035	\$488,070	\$665,550

Three-year total: \$1,397,655

Three-year present value: \$1,125,251

END-USER PRODUCTIVITY

BMC Helix provides end users with intuitive, consolidated IT and enterprise self-service on the device or channel of their source. Prior to using BMC Helix, users struggled to find the correct information and reach support, navigating multiple confusing sites, forms, phone numbers, and emails.

Organizations replaced these redundant and confusing processes with unified ticketing systems on BMC Helix to allow users to easily find information (such as FAQs or directions), simplify ticket submissions, and save time by pre-populating information, attaching photos, and identifying the necessary information up front. Further, BMC Helix Chatbot provided an easy, conversational way for users to find the information they need or to submit service requests at any time or on any device.

Users can find information, submit tickets, and monitor status on the go, enabling them to submit tickets faster and with more ease. Since tickets have more detail, fewer interactions are required between agents and end users to gather additional information during remediation. Further, agents can engage users more easily through these tools. This reduces the time required for checking on ticket status and providing follow-up information. And with the knowledge base, chatbots, and automation, users can often solve their issues immediately and avoid frustrating downtime while they wait for a response.

Users also benefit from incident prevention, mitigation, and accelerated MTTR as discussed in previous benefit categories. This reduces the

likelihood of being affected by an incident and the average length of the incident and its subsequent impact on the user.

Evidence and data. Interviewees shared how BMC Helix improved end-user productivity:

- The healthcare systems administrator described: “[BMC Helix] saves time for the end user to submit requests and get responses because they are entering specific questions related to their issues. With the legacy submissions, a large majority of tickets we received would say ‘computer broken’ or ‘can’t do my job,’ and the service desk must then call the user back. It might take a week to get back to the user, and then that’s a whole week that the user has had their ticket open and nothing has happened.”
- The director of service management for an insurance company shared: “It’s easier for our users to request something from us now. Before using [BMC Helix Digital Workplace], there were several users who would try to phone in to IT and try to solve incidents with our agents. Now it is easier for them to use the application and much easier to reduce the total request time.”
- An education organization’s associate director of IT service delivery described the benefit of self-service: “We’ve decreased turnaround time and empowered end users to help themselves to the services they want on their schedule — not just during our IT operating hours.”
- The professional services organization’s VP of enterprise applications explained how BMC Helix met ESM needs: “[BMC Helix] provides the first single, shared services platform across functions and [regions] for our organization. We used to have many teams that didn’t even have a way for people to reach out for support, and we had multiple other help desks in different regions. Now we have global reporting for all our tasks such as IT, HR, payroll, and more.”

“Our end users don’t care that different requests are handled by different groups. We looked at AI to blur the lines between these divisions by interacting with users and helping them submit the ticket in the correct way.”

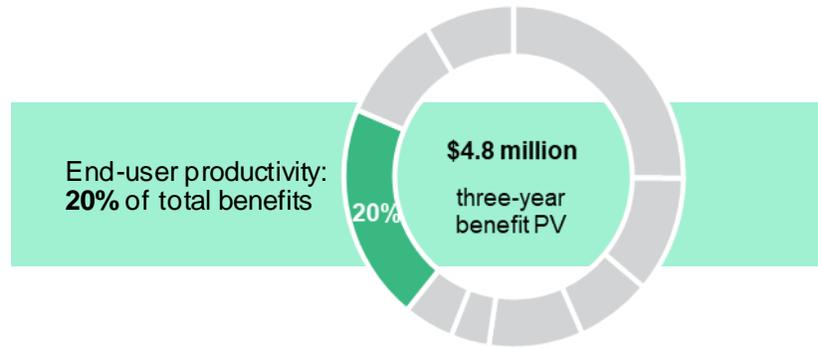
Assistant director of service management, education

Modeling and assumptions. The composite’s 41,000 supported end users require IT or enterprise service once per month on average. With BMC Helix, end users save 10 minutes per instance in Year 1, and this increases to 20 minutes in Year 2 and beyond. The composite recaptures 50% of time saved for added business value.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- Level of wasted time with legacy environment.
- Volume, type, and complexity of tickets.
- Deployed BMC Helix solutions and use cases.
- Internal talent, training, and adoption of Helix.
- End-user roles, regions, and salaries.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of \$4.8 million.



End-User Productivity					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
G1	Number of end users supported by IT and enterprise service desk	R1	41,000	41,000	41,000
G2	Number of times user needs IT or enterprise support annually	R2	12	12	12
G3	Minutes of labor saved per instance with BMC Helix	Interview data	10	20	20
G4	Productivity recapture rate	R12	50%	50%	50%
G5	Recaptured end-user labor hours from improved support	$G1 * G2 * G3 / 60 * G4$	41,000	82,000	82,000
G6	Fully burdened hourly salary for general office workers	R11	\$36	\$36	\$36
Gt	End-user productivity	$G5 * G6$	\$1,476,000	\$2,952,000	\$2,952,000
	Risk adjustment	↓20%			
Gtr	End-user productivity (risk-adjusted)		\$1,180,800	\$2,361,600	\$2,361,600
Three-year total: \$5,904,000			Three-year present value: \$4,799,495		

END-USER AUTOMATION

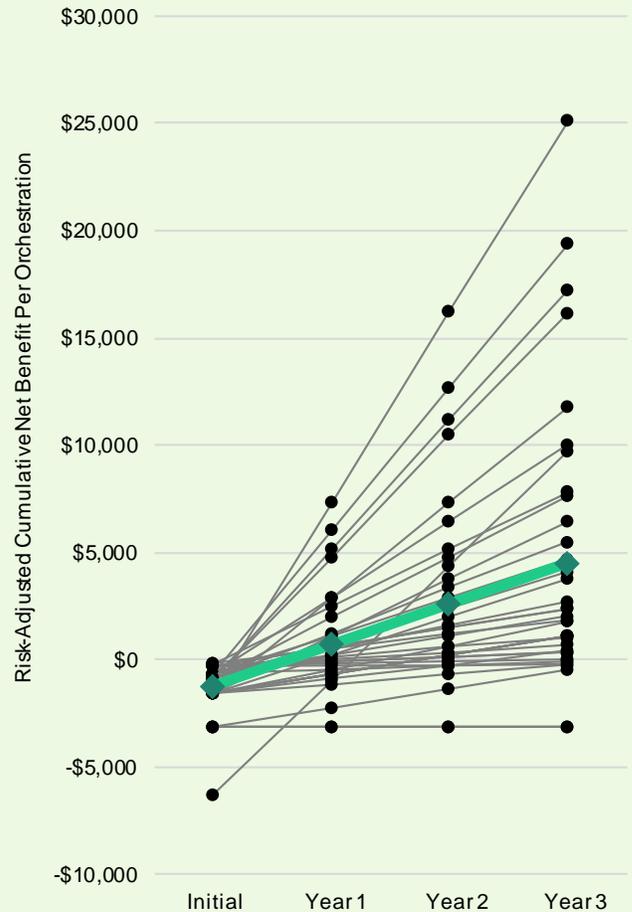
BMC Helix enabled automation of common tasks for business and end users beyond those tasks normally completed by IT agents or developers.

Evidence and data. Specific automations deployed for end users and business users varied significantly. In a review of 35 implemented automations, Forrester found that the typical automation returned 112 hours in savings per year versus a development cost of 29 hours. Including conservative financial analysis elements used elsewhere in this TEI (including a 50% productivity recapture, a moderate risk adjustment of 10%, and adjusting for present value), the typical automation therefore returns just shy of \$5,000 in recaptured labor over a three-year period.

Interviewees shared how BMC Helix enabled end-user automation:

- A global telco completely automated new hire onboarding. This drove massive labor savings and ensured that new hires were immediately provided all the equipment, services, and access they required. Previously, onboarding required that seven different services be manually requested and managed along with a series of other manual processes. This wasted days to weeks of labor for each hire between the new hire, their manager, IT, security, and HR.
- One interviewee said their organization previously used a spreadsheet for tracking food service equipment. Decision-makers had no idea how much the organization spent on equipment or repairs, or even which items might be under warranty. They found the process to track and manage repairs to be very time-consuming, so they turned to BMC Helix to reduce administration and ultimately reduce the cost of food service equipment and maintenance.

Three-Year Risk-Adjusted Recaptured Cash Flow Per Automated Task For IT Operations
based on 35 implemented automations



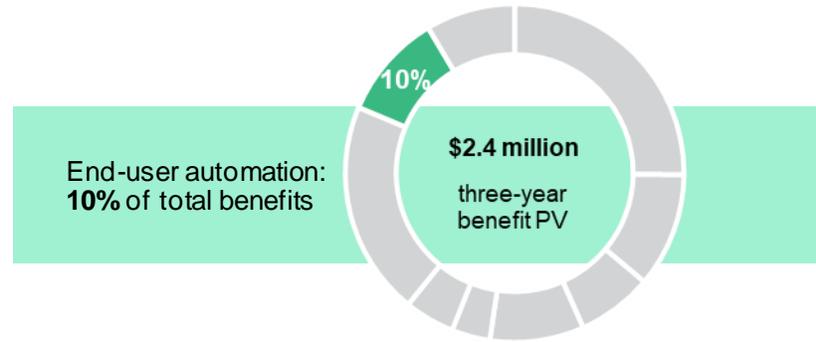
29 hours
 Mean labor-hours to automate one task

112 hours per year
 Mean annual labor-hours saved per automated task

Modeling and assumptions. The composite organization deploys 40 new automations for business end users annually, each saving an average of 112 labor hours per year. The organization also implements new hire onboarding automation. This saves at least 8 labor hours between the new hire, their manager, HR, and related departments, and it is multiplied by a 20% employee churn rate for the composite’s 41,000 end users. The composite recaptures 50% of time saved for added business value.

Risks. The expected financial impact is subject to risks and variation based on several factors:

- Partnership of IT and lines of business to establish and automate processes.
- Task frequency, complexity, and length.



- Deployment of BMC Helix capabilities, especially for automation and integration.
- Regional users and salaries.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of \$2.4 million.

End-User Automation					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
H1	Number of end users supported by IT and enterprise service desk	R1	41,000	41,000	41,000
H2	Employee chum rate	Composite	20%	20%	20%
H3	Annual new hires	H1*H2	8,200	8,200	8,200
H4	Labor hours saved during employee onboarding process with automation	Interview data	4	8	8
H5	Productivity recapture rate	R12	50%	50%	50%
H6	Recaptured hours from automated onboarding processes	H3*H4*H5	16,400	32,800	32,800
H7	Cumulative number of automated general office worker tasks	Interview data	40	80	120
H8	Average annual hours saved per automated task	Interview data	112	112	112
H9	Recaptured hours from automations for general office workers	H7*H8*H5	2,240	4,480	6,720
H10	Total recaptured hours	H6+H9	18,640	37,280	39,520
H11	Fully burdened hourly salary for general office workers	R11	\$36	\$36	\$36
Ht	End-user automation	H10*H11	\$671,040	\$1,342,080	\$1,422,720
	Risk adjustment	↓15%			
Htr	End-user automation (risk-adjusted)		\$570,384	\$1,140,768	\$1,209,312
Three-year total: \$2,920,464			Three-year present value: \$2,369,888		

LEGACY TECHNOLOGY REPLACEMENT

Deploying a cloud-based, SaaS version of BMC Helix ITSM, Business Workflows, and Digital Workplace in replacement of on-premises ITSM offerings provides significant technology and systems administration savings. BMC Helix is available on an organization's preferred cloud provider — either BMC's cloud services, an alternative public provider, or on private cloud or on-premises. As BMC Helix is containerized, it offers portability to change providers or to run it across a hybrid or multicloud environment.

Customers migrating to the cloud can avoid hardware refreshes, hardware expansion to meet demand, server licensing, maintenance, and other on-premises costs like floor space, power, and HVAC. Systems administrators save significant labor for maintaining, patching, and upgrading the on-premises infrastructure and the legacy software itself.

A global telco reduced annual IT run rate costs for its service management platform by 49% with BMC Helix, saving millions of dollars per year.



Evidence and data. Switching to BMC Helix service desk offerings from alternate cloud solutions either broke even or lowered service desk technology spending for interviewees. These cost savings and efficiencies allowed organizations to more quickly deploy BMC Helix ITSM and Business Workflows than prior ITSM solutions, keep it up-to-date with minimal cost, deploy new modules as desired, and scale flexibly as needed by the organization.

- Consuming service desk resources in the cloud allowed organizations to scale with demand, avoiding excess costs for unused services. A healthcare systems administrator shared: "Your cost benefit comes from being on-demand."

- Deploying BMC Helix in the cloud reduced costs for an eCommerce company while significantly improving speed, agility, and flexibility. The director of ESM and IT operations shared: "Migrating to Helix in BMC Cloud pushed our service desk and operations ROI from break-even to highly positive. It was a game-changer."
- A retailer migrated from BMC Remedy 9 on-premises to BMC Helix in the cloud, allowing the company to eliminate 60 servers. It avoided refresh and expansion costs for servers and storage, and eliminated maintenance, power heating, ventilation, and air conditioning (HVAC), floor space, and networking costs.

Orchestration, automation, CMDB, AI, and multicloud capabilities were often greenfield deployments and subsequently incurred additional costs. However, these technologies generated significant labor efficiencies, risk reductions, and resource demands for the IT and development departments at large.

- A global telecommunications company consolidated nine applications into one platform with a consolidated IT and enterprise service desk and integrated IT operations platform. This eliminated mainframes and legacy technology and reduced its IT run rate by 49%.

Further, with the consistent BMC Helix cloud environment, deploying these expanded and advanced capabilities was faster, easier, and more affordable than assembling point solutions or creating homegrown applications for similar functionality.

Deploying a comprehensive suite of BMC Helix offerings across the IT estate for a North American telecommunications company helped reduce IT costs across different apps and functions by between 50% and 310%. The senior director of IT infrastructure and operations said, "BMC has helped me lower the cost of IT for our company."

Modeling and assumptions. By adopting BMC Helix, the interviewees' organizations could eliminate and avoid future legacy software, support, and infrastructure costs.

Forrester's model for the composite organization is a conservative representation of the technology infrastructure, maintenance, licensing, and support costs that the interviewees' organizations typically incurred for legacy service desk solutions, adjusted relative to organization size and adopted products.

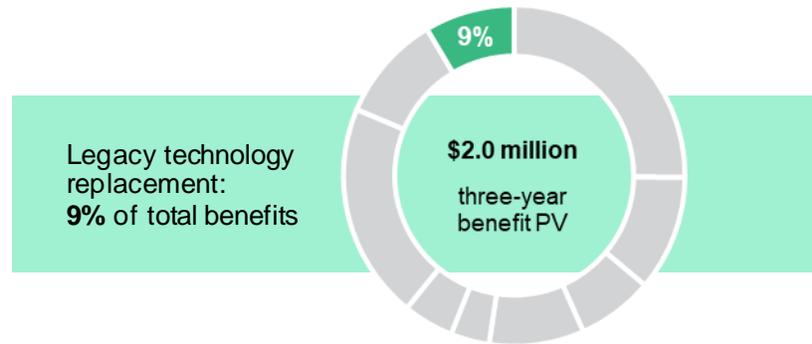
The composite ultimately increases its technology cost basis due to the significant expansion of capabilities and use cases decision-makers

“All the normal drivers for cloud migration apply to Helix. We are very used to hosting systems on-premises, so we are not normally cloud enthusiasts. But the math was favorable for BMC Helix in the cloud, and we saw an opportunity.”

Director of IT operations and support, retail

“Migrating to Helix in BMC Cloud pushed our service desk and operations ROI from break-even to highly positive. It was a game-changer.”

Director of ESM and IT operations, E-commerce



implement, but costs are partially offset by the savings shown in this benefit.

Risks. The expected financial impact is subject to risk of delayed or only partial decommissioning due to unexpected dependencies, complexities, or course changes. Savings will also vary considerably by organization depending on:

- Specific legacy technology being replaced (e.g., homegrown, third-party, or prior BMC solution).
- Type of deployment (i.e., cloud or on-premises).
- Size and complexity of legacy solution.
- Scope of new BMC Helix deployment.
- Associated legacy software, support, maintenance, and infrastructure costs.
- Speed of migration and replacement.

Synopsis. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of \$2 million.

Legacy Technology Replacement					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
I1	Avoided legacy ITSM technology costs (licensing and infrastructure)	Interview data	\$1,200,000	\$800,000	\$800,000
It	Legacy technology replacement	I1	\$1,200,000	\$800,000	\$800,000
	Risk adjustment	↓15%			
Itr	Legacy technology replacement (risk-adjusted)		\$1,020,000	\$680,000	\$680,000
Three-year total: \$2,380,000			Three-year present value: \$2,000,150		

QUALITATIVE BENEFITS

In addition to the financially quantified benefits listed above, BMC Helix also helped the organizations:

- **Enhance end-user experience.** UX was often the top driver for deploying BMC Helix; not direct cost savings. As discussed throughout the benefits in this study, BMC Helix streamlined and improved a myriad of processes for end users, service desk agents, IT operations teams, and DevOps teams. All types of employees subsequently benefited from the improved user experience driven by these many service desk and operations enhancements.
 - Many interviewees noted enhanced performance. One retailer had invested heavily in boosting performance of its legacy environment, but it still lagged. Now, clicks that took 8 seconds are effectively instant, and reports that took 20 seconds now take only 1 second.
 - BMC Helix was a huge gain for users at a North American telco. Users previously waited 15 to 30 minutes for an answer. But with Helix, they can get what they need in 30 seconds with the portal, chatbot, or live chat. Between automation, speed, self-service, new services, and better documentation, the service desk Net Promoter Score (NPS) increased from 42% to 70% over a two-year period.²
- **Ensure business continuity and enable remote work during the COVID-19 pandemic.** BMC Helix helped teams pivot to remote work, offering new services and changing the way they were delivered quickly. The director of ESM and IT operations at an E-commerce company shared: “With BMC Helix, we had put everything in place already that allowed us to keep working remote and to return to the office when needed during the pandemic.”
- **Empower skilled IT resources to shift-left and focus on higher-value-add tasks.** Time saved from redundant, basic, and wasteful tasks enabled employees to turn to more complex, interesting, or innovative work. This improved the business and the employees’ job satisfaction.
- **Enrich decision-making with analytics and predictive intelligence.** BMC Helix helped organizations gather and report on service desk, IT, DevOps, and enterprise metrics while using AI to provide greater insight. Decision-makers could subsequently make better data-backed decisions, such as for predicting budgeting and staffing.
 - The senior director of IT infrastructure and operations for a telco shared: “We used to track IT KPIs with manual data entry, calculations, and creation of slide decks. It took about three days to make a report of KPIs. With BMC Smart Reporting, it only takes 5 minutes, and the data is live.”
 - The director of ESM and IT operations for an E-commerce company said: “We can now forecast technology refreshes up to 18 months in advance with a holistic view of the enterprise. Before, we couldn’t even predict costs six months out because data was scattered across endless spreadsheets.”
- **Improve SLA monitoring and compliance.** BMC Helix helped teams analyze service desk effectiveness and speed, even across multicloud environments and service providers. Automation and productivity improvements improved SLA performance, while leaders could more quickly identify and resolve SLA breaches.
 - A professional services company’s VP of IT sourcing said: “We improved the monitoring and tracking of deliverables and SLAs. We’ve improved SLA consistency. We had pockets of

inconsistent delivery where we only met SLAs 75% to 80% of the time. In the six months since deploying [BMC Helix], our SLAs have crossed 90% due to better tracking and monitoring as our teams can nail down what caused an SLA breach.”

- **Increase field technician responsiveness and productivity.** Technicians could go from job to job and access ticket data directly on mobile devices with BMC Helix. They could add photos and update tickets on the go, improving data records and downstream productivity. Since tickets contained more complete data up-front, techs were more likely to arrive at the job site with all the correct equipment, avoiding wasted trips back and forth. As a result, technicians reached job sites faster and completed work with reduced labor, resulting in heightened user productivity and customer satisfaction.

FLEXIBILITY

The value of flexibility is unique to each customer. Investing in BMC Helix opened the door to future possible investments and use cases that could offer future business value, including:

- **Deploy and move BMC Helix across hybrid or multicloud environments.** BMC Helix’s containerized architecture allowed organizations to use it on BMC’s cloud, other public clouds, private cloud, and on-premises environments. It could also be run across multiple environments or shift its location as needed in the future.
- **Implement future functionality with relative ease.** BMC Helix’s regular updates require minimal labor to deploy, ensuring today’s buyers get tomorrow’s features and remain competitive.
 - The professional services VP of IT shared: “We are very excited with the new functionalities [BMC Helix] provides with each upgrade. We look forward to these updates to each new part of [BMC Helix]

because it helps us transform our business and continually improve.”

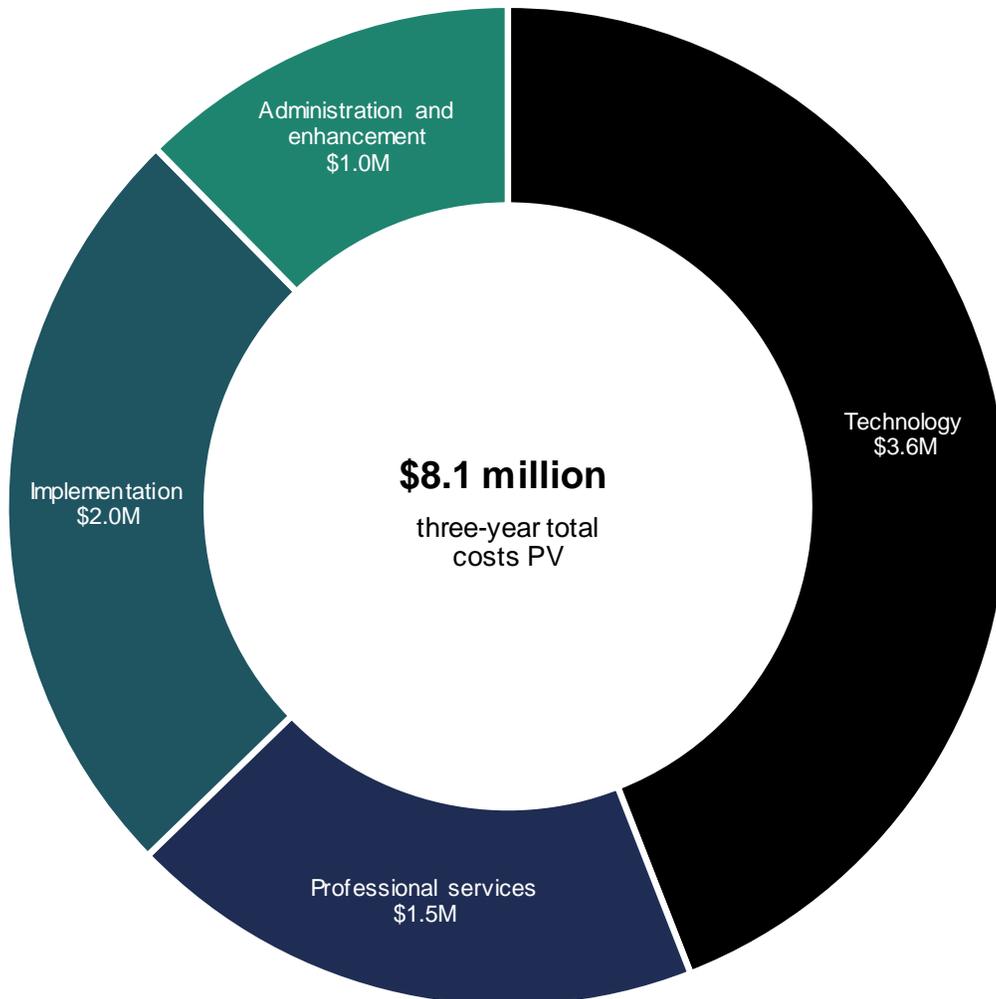
- An education organization’s systems administrator shared: “If you can dream it, you can build it on [BMC Helix]. When you buy the product, there is so much more in that box than what you think. And people don’t take the opportunity to use what they have.”
- **Utilize BMC Helix to provide and manage direct customer support.** Customers could submit requests and issues via Digital Workplace and Chatbot solution, while agents used BMC Helix ITSM and Business Workflows to manage and resolve these externally facing issues. This has the potential to improve CX and satisfaction by responding and resolving customer requests more quickly.
- **Launch new or joint service offerings powered by multicloud service management.** The customer services director for an IT services company shared, “We’re looking at using [BMC Helix ITSM’s] multicloud service management capabilities for different types of service offerings or partnerships.” Decision-makers hope to increase sales through joint bids that would not have been possible without these integration capabilities.
- **Deploy BMC Helix Monitor, Optimize, and Remediate.** Organizations may choose to deploy the newest BMC Helix products, including: 1) BMC Helix Monitor for proactive problem identification, event management, and performance maximation, 2) BMC Helix Optimize to control and predict resource cost and capacity, and 3) BMC Helix Remediate to manage and remediate security vulnerabilities.

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 organization

Total Costs							
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Jtr	Technology	\$605,000	\$1,155,000	\$1,210,000	\$1,210,000	\$4,180,000	\$3,564,091
Ktr	Professional services	\$1,100,000	\$165,000	\$165,000	\$165,000	\$1,595,000	\$1,510,331
Ltr	Implementation	\$1,449,000	\$621,000	\$0	\$0	\$2,070,000	\$2,013,545
Mtr	Administration and enhancement	\$0	\$621,000	\$276,000	\$276,000	\$1,173,000	\$1,000,008
Total costs (risk-adjusted)		\$3,154,000	\$2,562,000	\$1,651,000	\$1,651,000	\$9,018,000	\$8,087,975



TECHNOLOGY

Evidence and data. Organizations incurred technology subscription, usage, and support costs for their array of BMC Helix offerings deployed in the cloud and technology license, infrastructure, and support costs for BMC Helix offerings deployed on-premises. Integration, automation, orchestration, and chat also typically incurred costs from the relevant third parties.

Interviewees said their organizations typically used a mix of cloud and on-premises deployments of BMC Helix products at the time of the interviews, with most decision-makers actively engaged in or considering further cloud migration for the BMC Helix offerings. They considered the cloud in part for frequent updates, lower labor, and greater features, and they sought to avoid significant customization (which led to excess costs with past systems).

Forrester found that ITSM, Business Workflows, Digital Workplace, and Chatbot were typically the first that organizations deployed in the cloud. Meanwhile, organizations generally hosted Discovery, CMDB, and orchestration on-premises due to internal organizational preferences for greater control given their level of access and power over the environment, though some decision-makers considered migration for to gain new capabilities in the cloud. Both cloud and on-premises environments were typically

integrated with each other and with other third-party SaaS solutions and multicloud environments.

Modeling and assumptions. Forrester’s model for the composite organization is a conservative representation of the total technology costs incurred by the interviewees’ organizations, adjusted relative to organization size and adopted products.

The model assumes the composite organization deploys BMC Helix ITSM, Business Workflows, Digital Workplace, Chatbot, Discovery, CMDB, Multi-Cloud Management, and Integration Platform. The composite also incurs costs for integrations with third-party solutions including chat channels, DevOps tooling, RPA, and enterprise technologies for HR, finance, and productivity.

Risks. Costs will vary significantly per organization depending on a range of factors, including:

- Region and company size.
- Type of infrastructure deployment.
- Deployed products and use cases.
- Number of IT users, end users, and tickets.
- Consumption of cognitive service, orchestration, and integrations and their complexity.

Synopsis. To account for these unknowns, Forrester levied a moderate risk adjustment of 10%, yielding a three-year, risk-adjusted total PV of \$3.6 million.

Technology						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
J1	BMC Helix technology costs	Interview data	\$500,000	\$1,000,000	\$1,000,000	\$1,000,000
J2	Third-party integration, chat, network, and resource costs	Interview data	\$50,000	\$50,000	\$100,000	\$100,000
Jt	Technology	J1+J2	\$550,000	\$1,050,000	\$1,100,000	\$1,100,000
	Risk adjustment	↑10%				
Jtr	Technology (risk-adjusted)		\$605,000	\$1,155,000	\$1,210,000	\$1,210,000
Three-year total: \$4,180,000			Three-year present value: \$3,564,091			

PROFESSIONAL SERVICES

Evidence and data. Organizations typically partnered with BMC professional services to execute migrations and deployments. BMC services helped organizations complete the migrations and deployments successfully, more quickly, and with significantly lower internal labor processes. BMC services helped ensure teams at interviewed organizations utilized best practices and got the most out of their technology and processes. Organizations also incurred costs for support, enhancement, and update of deployed products.

Interviewees shared that modernizing and migrating a legacy on-premises BMC deployment to BMC Helix ITSM, BMC Helix Business Workflows, and BMC Helix Digital Workplace in the cloud typically required less than one FTE of internal labor during between four and nine months. Organizations adopting these BMC Helix offerings that came from other vendor or homegrown solutions typically required six months to one year for the deployment.

Meanwhile, organizations that implemented the broader suite of offerings and advanced use cases with BMC Helix Chatbot, BMC Helix Discovery, BMC Helix CMDB, BMC Helix Multi-Cloud Management, and the BMC Helix Integration Platform typically required nine months to two years for full deployment of the set of products and the many automation, integration, orchestration, and AI use cases.

“BMC has been a really good partner and offers competitive pricing with access to all the capabilities we could want.”

Director of ESM and IT operations, e-commerce

Modeling and assumptions. Forrester’s model for the composite organization is a conservative representation of the total professional services costs incurred by interviewees’ organizations, adjusted relative to organization size and the slate of adopted products as discussed in the previous cost section.

Risks. Costs will vary significantly per organization depending on a range of factors, including:

- Region and company size.
- Type of infrastructure deployment.
- Deployed products and use cases.
- Deployed cognitive service, orchestration, and integrations and their complexity.

Synopsis. To account for these unknowns, Forrester levied a moderate risk adjustment of 10%, yielding a three-year, risk-adjusted total PV of \$1.5 million.

Professional Services						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
K1	BMC professional services	Interview data	\$1,000,000	\$150,000	\$150,000	\$150,000
Kt	Professional services	K1	\$1,000,000	\$150,000	\$150,000	\$150,000
	Risk adjustment	↑10%				
Ktr	Professional services (risk-adjusted)		\$1,100,000	\$165,000	\$165,000	\$165,000
Three-year total: \$1,595,000			Three-year present value: \$1,510,331			

IMPLEMENTATION

Evidence and data. Organizations typically replaced a variety of third-party, homegrown, or prior BMC ITSM systems with BMC Helix ITSM and Digital Workplace. Most of the organizations did not have equivalent legacy capabilities (e.g., enterprise workflows, chatbots, live chat, orchestrations, CMDB, or third-party enterprise and cloud integrations) to the other use cases deployed with BMC Helix. These use cases were typically greenfield.

Implementation timelines and labor requirements typically varied significantly by organization depending on the legacy state, the product being deployed, and the degree to which the organization leveraged professional services. ITSM deployments averaged approximately six months and required several FTEs of labor to support the process. Implementation of other technologies, creation of knowledge-base materials, design of automation, and training of AI was typically staggered over a two-year period by teams of five to 12 FTEs with capability enhancement continuing long-term.

Modeling and assumptions. Forrester’s model for the composite organization is a conservative representation of the total internal labor effort incurred by interviewees’ organizations, adjusted relative to organization size and shown at its

maximum to reflect the full deployment of BMC Helix capabilities. Initial implementation occurs during a one-year initial period and continues into Year 2. In addition to recognizing costs over two years, Forrester also projects only 50% of expected benefits in Year 1 of the analysis to reflect the multiphase approach to deployment and the risk of delays or complexity that organizations may face.

Risks. These investments affect a huge variety of mission-critical IT tasks, and undergo immense scrutiny given their impact and budget. Risk of overruns, delays, and unexpected complexity are high. Costs will therefore vary significantly per organization depending on a range of factors:

- Company size, region, internal expertise, and typical salary costs.
- Level of professional services involvement.
- Type of infrastructure deployment.
- Deployed products and use cases.
- Deployed cognitive service, orchestration, and integrations and their complexity.
- Legacy architecture situation and complexity.

Synopsis. To account for these risks, Forrester levied a high risk adjustment of 15%, yielding a three-year, risk-adjusted total PV of \$2 million.

Implementation						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
L1	Planning and coordination FTEs	Interview data	2	0.5		
L2	Implementation FTEs	Interview data	8	4		
L3	Agent training FTEs	Interview data	0.5	0		
L4	Total FTEs for implementation	L1+L2+L3	10.5	4.5		
L5	Fully burdened IT salary	Composite	\$120,000	\$120,000		
Lt	Implementation	L4*L5	\$1,260,000	\$540,000	\$0	\$0
	Risk adjustment	↑15%				
Ltr	Implementation (risk-adjusted)		\$1,449,000	\$621,000	\$0	\$0
Three-year total: \$2,070,000			Three-year present value: \$2,013,545			

ADMINISTRATION AND ENHANCEMENT

Evidence and data. Administration of the BMC Helix environment, especially those in the cloud, was much less intensive than with previous legacy solutions. However, it still required limited administration to manage, report on, and update the environment to leverage the newest capabilities from BMC Helix.

The main sources of ongoing labor demands were the orchestration, automation, integration, and the updating and maintenance of knowledge bases, processes, and procedures. Each must be planned, built, tested, deployed, and regularly updated. This leads to savings in the long run, but it also incurs ongoing labor costs. For the interviewees' organizations, successful self-help and AI required particular attention from internal teams, as the outcome was only as good as what was set up and tested by the IT teams.

Modeling and assumptions. Forrester's model for the composite organization is a conservative representation of the total ongoing internal labor effort incurred by interviewees' organizations, adjusted relative to the size of the composite and

breadth and complexity of its implemented products and use cases. Half of one systems administrator is devoted to ongoing management of the environment, and additional FTEs devote labor (recaptured from time savings) to building knowledge-base articles, automation and orchestrations; setting up integrations; and training AI.

Risks. Costs will vary significantly per organization depending on a range of factors, including:

- Company size, region, internal expertise, and typical salary costs.
- Level of professional services involvement.
- Type of infrastructure deployment.
- Deployed products and use cases.
- Types of provided IT and enterprise services.
- Deployed cognitive service, orchestration, and integrations and their complexity.

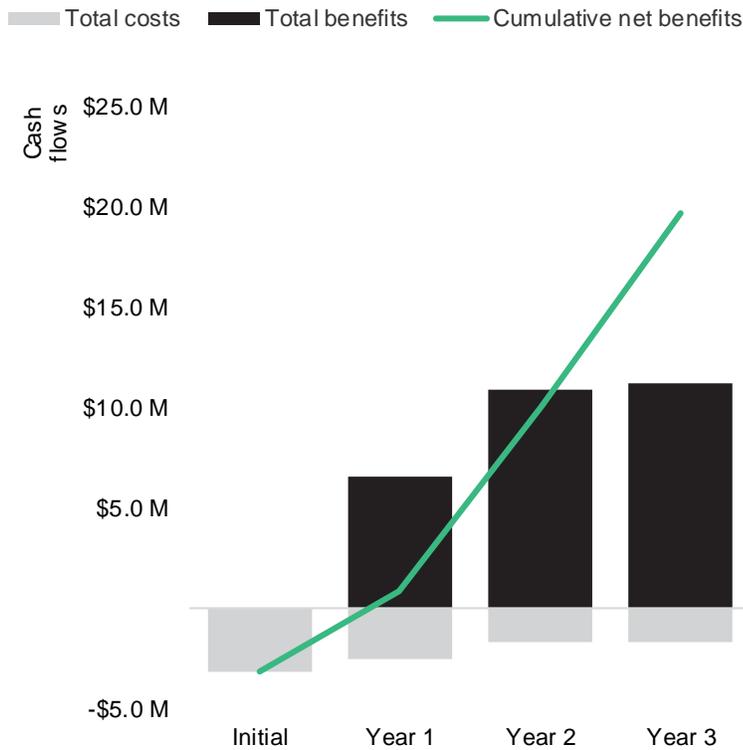
Synopsis. To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year, risk-adjusted total PV of \$1 million.

Administration And Enhancement						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
M1	Systems administration FTEs	Interview data		0.5	0.5	0.5
M2	Knowledge base updates FTEs	Interview data		2.0	1.0	1.0
M3	Capability enhancement, AI training, and integration FTEs	Interview data		2.0	0.5	0.5
M4	Total FTEs for administration and enhancement	M1+M2+M3		4.5	2.0	2.0
M5	Fully burdened IT salary	Composite		\$120,000	\$120,000	\$120,000
Mt	Administration and enhancement	M4*M5	\$0	\$540,000	\$240,000	\$240,000
	Risk adjustment	↑15%				
Mtr	Administration and enhancement (risk-adjusted)		\$0	\$621,000	\$276,000	\$276,000
Three-year total: \$1,173,000			Three-year present value: \$1,000,008			

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS FOR THE FULL BMC HELIX SOLUTION SET

Cash Flow Chart For The Full BMC Helix Solution Set (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 For The Full BMC Helix Solution Set (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	(\$3,154,000)	(\$2,562,000)	(\$1,651,000)	(\$1,651,000)	(\$9,018,000)	(\$8,087,975)
Total benefits	\$0	\$6,538,719	\$10,903,838	\$11,257,862	\$28,700,419	\$23,413,924
Net benefits	(\$3,154,000)	\$3,976,719	\$9,252,838	\$9,606,862	\$19,682,419	\$15,325,949
ROI						189%
Payback period						10 months

Segmented Service Desk Financial Analysis

How This 2021 TEI Analysis Compares Versus Prior TEI Studies

This Total Economic Impact study is the third in a series of studies evaluating the BMC Helix investment, and it measures a broader scope of solutions and subsequent financial impacts. These include:

- The prior TEI studies measured only the ROI of adopting the IT service desk capabilities in BMC Helix, including Helix ITSM, Helix Digital Workplace, Helix Chatbot, and Helix Multi-Cloud Service Management.
- This TEI study increases the scope to also include enterprise service desk, IT operations, and DevOps use cases utilizing Helix Business Workflows, Helix Discovery, Helix CMDB, and Helix Integration Suite. It also reflects additional capabilities and enhancements in the BMC Helix suite, along with the broader and more advanced use cases evidenced by customers today.

Since this study does not measure the same use cases as past studies, comparing them side-by-side will show a distorted view. The broader use cases measured in this version require more technology, professional services, and labor costs to accomplish, but they also return greater financial benefits.

Segmented Service Desk Analysis: The Total Economic Impact Of BMC Helix For The Service Desk

Since some decision-makers may only wish to evaluate the business case of investing in service desk technologies for their organizations, Forrester has also segmented this analysis to illustrate only the financial investment and subsequent outcomes of the BMC Helix IT and enterprise service desk capabilities using BMC Helix ITSM, Helix Business Workflows, Helix Digital Workplace, Helix Chatbot, and Helix Multi-Cloud Service Management.

The service desk segmentation yields the following financial impact for the composite organization:

- Total service desk costs of \$2.9 million for technology, professional services, and labor. The service desk costs are \$5.2 million less than the costs of the full suite investment for the composite.
- Total service desk benefits of \$13.6 million including agent labor, end-user labor, and IT cost avoidance. The service desk benefits are \$9.9 million less than the benefits of the full suite investment for the composite.
- Net benefits of \$10.6 million, a payback period of less than one year, and a 361% ROI. The service desk NPV is \$4.7 million less than the NPV for the full suite investment for the composite.

Comparing ROI And NPV For The Service Desk Versus The Full BMC Helix Suite

When considering any investment, decision-makers must consider ROI and NPV together. While ROI shows the percent return over break-even for a specific investment, NPV shows the magnitude of the financial impact to the business after recouping costs. Readers are strongly advised that the ROI analyses for the full Helix suite and the service desk investment *must not be compared*, as they represent different investments of different scales.

In this case, the service desk investment unsurprisingly requires lower investment costs than deploying the entire BMC Helix suite with broader use cases. Both investments break even, but the full suite delivers higher net benefits. This is a greater value to the composite organization's bottom line. However, because the magnitude of the service desk investment is smaller, the composite recoups this smaller investment more easily, which leads to a higher ROI.

Costs Segmented For The Service Desk

Key differences between the service desk and full suite costs analysis include:

- Technology costs incurred for BMC Helix and third-party usage are reduced by 62% with fewer modules, capabilities, and use cases.
- Professional services costs are reduced by 64% with a simpler and faster deployment.
- Internal labor costs for implementation are reduced by 74% with a significantly simpler, less wide-reaching, and faster deployment.
- Internal labor costs for administration and enhancement are reduced by 49% with a simpler and more confined environment.

Benefits Segmented For The Service Desk

Key differences between the service desk and full suite benefits analysis include:

- The number of tickets deflected by DevOps integrations, orchestration, and governance is reduced from 0.5% to 0% (A3).
- The percent of tickets that are automated is reduced from 25% to 18% (B4).
- The percent increase in agent productivity is reduced from 20% to 15% (C4).
- The number of minutes saved by end users per ticket is reduced from 20 to 15 minutes (G3).
- Benefit tables D, E, F, and H are excluded as they rely on IT operations, change management, DevOps functionality, and orchestration.
- Avoided legacy costs are reduced by 80% as the most costs saved were from non-service desk systems, infrastructure, and orchestrations.

Total Benefits For The Service Desk

Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr*	Service desk deflection	\$1,411,200	\$2,872,800	\$2,872,800	\$7,156,800	\$5,815,501
Btr*	Service desk automation	\$604,800	\$907,200	\$907,200	\$2,419,200	\$1,981,163
Ctr*	Service desk efficiency	\$504,000	\$655,200	\$655,200	\$1,814,400	\$1,491,931
Gtr*	End-user productivity	\$1,180,800	\$1,771,200	\$1,771,200	\$4,723,200	\$3,867,985
Itr*	Legacy technology replacement	\$212,500	\$127,500	\$127,500	\$467,500	\$394,346
	Total benefits (risk-adjusted)	\$3,913,300	\$6,333,900	\$6,333,900	\$16,581,100	\$13,550,926

Total Costs For The Service Desk

Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Jtr*	Technology	\$225,500	\$451,000	\$451,000	\$451,000	\$1,578,500	\$1,347,070
Ktr*	Professional services	\$330,000	\$88,000	\$88,000	\$88,000	\$594,000	\$548,843
Ltr*	Implementation	\$528,000	\$0	\$0	\$0	\$528,000	\$528,000
Mtr*	Administration and enhancement	\$0	\$330,000	\$198,000	\$66,000	\$594,000	\$513,223
	Total costs (risk-adjusted)	\$1,083,500	\$869,000	\$737,000	\$605,000	\$3,294,500	\$2,937,136

*Please see text above for guidance on how the values in these references differ from the values earlier in this study.

Appendix A: Total Economic Impact

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

TOTAL ECONOMIC IMPACT APPROACH

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

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

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

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

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



PRESENT VALUE (PV)

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



NET PRESENT VALUE (NPV)

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



RETURN ON INVESTMENT (ROI)

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



DISCOUNT RATE

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



PAYBACK PERIOD

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

Appendix B: Supplemental Material

Past studies BMC commissioned about Helix

“The Total Economic Impact™ Of BMC Helix With BMC Helix ITSM, BMC Helix Digital Workplace, And BMC Helix Chatbot,” a commissioned study conducted by Forrester Consulting on behalf of BMC, January 2019

“The Total Economic Impact™ Of BMC Remedy-As-A-Service,” a commissioned study conducted by Forrester Consulting on behalf of BMC, April 2018

Related Forrester Research

“Apply Enterprise Service Management To Your Industry Processes,” Forrester Research, Inc., June 30, 2020

Charles Betz, “Accelerate With Enterprise Service Management,” Forrester Blogs (<https://go.forrester.com/blogs/accelerate-with-enterprise-service-management/>), April 16, 2020.

“Cloud Powers The Adaptive Enterprise,” Forrester Research, Inc., November 30, 2020

“ESM: The Software Platform For Knowledge Workers,” Forrester Research, Inc., March 24, 2020

“Forrester’s Enterprise Service Management (ESM) Buying Guide, 2020,” Forrester Research, Inc., February 10, 2020

“How To Choose Your Digital Worker Automation Platform,” Forrester Research, Inc., November 19, 2020

“In Times Of Crisis, Get Your IT Portfolios In Order With Service, Asset, And Technology Lifecycle Management,” Forrester Research, Inc., August 18, 2020

“It’s Go Time For Application And Infrastructure Dependency Mapping (AIDM),” Forrester Research, Inc., February 7, 2020

“Now Tech: Artificial Intelligence For IT Operations, Q4 2020,” Forrester Research, Inc., November 2, 2020

“Now Tech: Enterprise Service Management, Q3 2019,” Forrester Research, Inc., August 19, 2019

“Now Tech: Hybrid Cloud Management, Q4 2020,” Forrester Research, Inc., November 12, 2020

“Research Overview: Modern Technology Operations,” Forrester Research, Inc., August 3, 2020

“Rethink Your CMDB,” Forrester Research, Inc., September 11, 2020

“RPA Inquiry Spotlight, 2020,” Forrester Research, Inc., May 11, 2020

“Service Desk 2020: It’s All About Employee Experience,” Forrester Research, Inc., October 6, 2020

“Software Application Release Frequency Is Getting Faster Worldwide,” Forrester Research, Inc., June 21, 2020

“The Forrester Guide To Configuration Management,” Forrester Research, Inc., September 11, 2020

“The Forrester New Wave™: Chatbots For IT Operations, Q4 2020,” Forrester Research, Inc., November 5, 2020

“The Forrester Tech Tide™: Modern Technology Operations, Q3 2020,” Forrester Research, Inc., September 9, 2020

“The Forrester Wave™: Enterprise Service Management, Q4 2019,” Forrester Research, Inc., October 10, 2019

“The Forrester Wave™: Hybrid Cloud Management, Q4 2020,” Forrester Research, Inc., November 30, 2020

“The Forrester Wave™: Infrastructure Automation Platforms, Q3 2020,” Forrester Research, Inc., August 10, 2020

“The Forrester Wave™: Intelligent Application And Service Monitoring, Q2 2019,” Forrester Research, Inc., April 18, 2019

“The Future Of Technology Operations,” Forrester Research, Inc., August 28, 2020

“The State Of Modern Technology Operations, Q4 2020,” Forrester Research, Inc., November 5, 2020

“Unify Application Portfolio Management And Cloud Tagging,” Forrester Research, Inc., June 23, 2020

“Your Operating Model Must Enable Innovation,” Forrester Research, Inc., November 5, 2020

Appendix C: Endnotes

¹ Source: “Service Desk 2020: It’s All About Employee Experience,” Forrester Research, Inc., October 6, 2020.

² Net Promoter and NPS are registered service marks, and Net Promoter Score is a service mark, of Bain & Company, Inc., Satmetrix Systems, Inc., and Fred Reichheld.

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