A Forrester Total Economic Impact™
Study Commissioned By ServiceNow
April 2017

The Total Economic Impact™ Of ServiceNow

Modernize IT Service Management, Eliminate Service Outages, And Optimize Performance With Real-Time Analytics

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ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit forrester.com/consulting.

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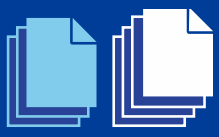
Benefits

IT productivity improvements:
$9.7 million



Automation efficiencies:
$3 million

"Common processes across the company and one common portal to access service management reduces costs, eliminates redundant services, and enables a company to design services that are fit for purpose. We're very pleased with ServiceNow because it's modern, cloud-based, and enables us to support the business efficiently."

— Sigbjørn Morken, change manager and advisor, service management, Statoil

Executive Summary

ServiceNow commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by modernizing IT service management (ITSM); improving IT operations management (ITOM) and eliminating service outages; and optimizing performance with real-time analytics. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the platform on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed seven customers with years of experience using ITSM, ITOM, and Performance Analytics. They selected the ServiceNow platform because it enabled them to improve the efficiency and rigor of their ITIL processes, improve employee productivity, increase service visibility, reduce technology costs related to service management, and leverage the cloud-based platform with out-of-the-box functionality.

Prior to using ServiceNow, the customers used alternative ITSM and ITOM solutions (on-premises). They felt these solutions were too cumbersome because they required significant customization, maintenance, and upgrades that were time consuming and expensive. The organizations had also made acquisitions and accumulated overlapping systems and licenses for service desk solutions. After implementing ServiceNow, customers increased IT productivity and responsiveness while lowering costs. They also became strategic partners with the business, which also saved time receiving service.

Key Findings

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

- **Improved IT productivity, resulting in $9.7 million in savings through greater efficiency of service desk and IT back-office operations.** ServiceNow automates, centralizes, and provides integration between processes, reducing the number of "touches" for requests and incidents. The interviewed organizations reduced IT work by 66% for their monthly volume of service and incident requests. ServiceNow ITSM and ITOM also increased the operational efficiency of the IT employees using ServiceNow in their day-to-day jobs across ITIL process areas. They are able to access information easily on the web and through mobile. They can access centralized data, status, and assignments to more easily track and respond to daily tasks. They spent less time in meetings and could access a knowledge management database that enabled them to handle a wider array of incidents than they could prior to ServiceNow. This increased the overall capacity for the team by 20%.
- **Infrastructure cost savings of over $4.1 million over three years compared with legacy systems.** By implementing ServiceNow, the interviewed organizations reduced their use of multiple on-premises point solutions and avoided associated maintenance and upgrade costs. They were also able to reduce outsourcing costs for help desk staff because of the improved service catalog, routing, and workflow capabilities the platform enabled. They saved over $4 million over three years by reducing license, hardware, technology, upgrade, and outsourcing costs.

ROI
195%

Benefits PV
$17.3 million

NPV
$11.4 million

Payback
9 months

- **Automation savings of $3 million through increased efficiency by fully automating services which eliminated human touches from thousands of common requests and interactions.** Soon after implementation, the interviewed organizations could automate and orchestrate common service, incident, and operations processes, completely removing human touches from the equation. This provided an additional cost savings for the organizations. While incident and service request volumes grow, the number of tickets requiring human touches diminishes every year. Over three years, the efficiency savings was worth over $3 million to these organizations.
- **Increased uptime driven by elimination of service outages, saving $3 million over three years through reduced P1 incident impact and management effort.** The interviewed organizations experienced fewer unplanned interruptions to service after implementing ServiceNow. High and critical incidents, estimated at 1% of the monthly ticket volume, were reduced by 25%. In addition to the volume of high-priority incidents decreasing, the mean response time decreased from 4 hours to 2 hours — a 2x improvement. Along with the work effort hours reduced, this improvement enabled these organizations to avoid critical application downtime costs. Over three years, this equals about $3 million.
- **Improved end user productivity and satisfaction, saving $1.3 million by reducing 45,000 hours of waste annually from the service and incident request process.** With ServiceNow, employees saved about 15 minutes every time they made a service request. Over the year, that equals 3 hours of productivity lost. More importantly, ServiceNow increases their satisfaction with the IT organization. This results in $1.3 million in productivity savings over three years.

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

- **Improved internal customer satisfaction scores, including up to a 6% increase in the score.** Although not included in the financial model for this study, customers reported an increase in end user satisfaction and experience with the IT organization after the ServiceNow implementation. They were able to move beyond a transactional relationship to a strategic business partnership, with IT as the first stop to solving business process challenges with one common platform.
- **Decreased audit and compliance issues.** The decrease in audit and compliance violations was a result of having a single source of truth for IT operations data. Before ServiceNow, the IT organizations' inefficiencies disrupted the company's audit efforts. After ServiceNow, the companies experienced clean audits.
- **Increased business velocity.** Because the interviewed organizations could fulfill requests more quickly and easily, including standing up new environments and getting business users the applications and services they need for product creation and innovation, the ServiceNow implementation led to increased business velocity.

Costs. Cost estimates are based on ServiceNow list pricing and are applied to the composite organization (see page 8 for more detail). The following risk-adjusted costs represent those experienced by the composite:

- **Annual licensing costs.** These licensing costs include the fulfiller (user) licenses for the ITSM platform and the ITOM nodes (real or virtualized servers under management) for discovery and orchestration.

- **Implementation costs.** These costs included professional development fees paid to ServiceNow in Year 1 for assisting in the rollout of ITSM, ITOM, configuration management database (CMDB), and the discovery capabilities.
- **Ongoing costs.** The ongoing costs include two IT resources required to manage and run ServiceNow and the service provider or remote administration fees paid for special projects.

Forrester's interviews and subsequent financial analysis found that an organization based on the interviewed organizations experienced total benefits of $17.3 million (PV) over three years versus costs of $5.9 million PV, adding up to a net present value (NPV) of $11.4 million, an ROI of 195% and a payback period of 9 months.

Total Benefits

REF.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
	IT productivity improvements total (Atr+Btr)	$2,345,052	$3,835,598	$3,550,129	$9,730,779	$7,969,046
Atr	No. 1: Improved IT service request and incident processes	$1,524,252	$2,193,998	$1,755,199	$5,473,449	$4,517,612
Btr	No. 2: Improved IT back-office operations	$820,800	$1,641,600	$1,794,930	$4,257,330	$3,451,434
Ctr	No. 3: Cost savings: reduced license and outsource costs	$1,472,500	$1,187,500	$1,472,500	$4,132,500	$3,426,352
Dtr	No. 4: Automation: increased efficiency due to fully automated services	$384,750	$1,462,050	$1,169,640	$3,016,440	$2,436,846
Etr	No. 5: Prevent/eliminate outages: reduced P1 incident mgmt. effort and impact	$43,538	$1,470,150	$1,470,150	$2,983,838	$2,359,125
Ftr	No. 6: User productivity/CSAT: improved end user productivity and satisfaction	$267,188	$534,375	$534,375	$1,335,938	$1,086,014
	Total benefits (risk-adjusted)	$4,513,027	$8,489,673	$8,196,794	$21,199,494	$17,277,383

TEI Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing ServiceNow to modernize ITSM, eliminate service outages, and optimize performance with real-time analytics.

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 ServiceNow can have on an organization:

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

DUE DILIGENCE
Interviewed ServiceNow stakeholders and Forrester analysts to gather data relative to ITSM, ITOM, and Performance Analytics. This includes the Inspire Value team that shared assumptions and experience based on their engagements with a broad array of ServiceNow customers

CUSTOMER INTERVIEWS
Interviewed seven organizations using ITSM, ITOM, and Performance Analytics to obtain data with respect to costs, benefits, and risks.

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

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

CASE STUDY
Employed four fundamental elements of TEI in modeling the ServiceNow platform's impact: benefits, costs, flexibility, and risks. Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by ServiceNow 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 ServiceNow.

ServiceNow 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.

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

The ServiceNow Customer Experience

BEFORE AND AFTER THE ITSM, ITOM, AND PERFORMANCE ANALYTICS INVESTMENT

Interviewed Organizations

For this study, Forrester conducted seven interviews with ServiceNow ITSM, ITOM, and Performance Analytics customers. Interviewed customers include the following:

INDUSTRY	REGION	INTERVIEWEE	USAGE VOLUME
Research and drug development services	Northeastern US	Director, IT service management; director, IT production services	12,000 service requests per month 355 service catalog items
Financial services	Midwestern US	Enterprise portfolio manager	3 million configuration items; 9,000 knowledge management records
Travel and incentives	Midwestern US	VP, internal customer technologies	470,000 configuration items; 1,000 service catalog items
Healthcare	Midwestern US	IT manager	92,000 configuration items; 379 service catalog items
Manufacturing	Midwestern US	Senior IT director; business architect	12,000 service requests per month 10,000 incidents per month
Oil and gas	Western Europe	Service management advisor and change manager	60,000 service requests and incidents per month
Airline	North America	Manager of IT finance applications and solutions	1 million knowledge management records; 11,000 hardware devices

Composite Organization

Based on the companies interviewed, Forrester designed a composite global company that is representative of the company profiles, ITIL process maturity, and usage of ServiceNow of the seven customers interviewed. The composite organization has 15,000 employees located across the world; 600 tier 1, 2, and 3 service desk employees; and an average monthly incident and service request volume of 27,000, with 4,000 nodes (real or virtualized servers under management). The organization had grown organically and through acquisition over the years, resulting in redundant and siloed ticketing, help desk, and CMDB systems. When a new CIO joined the company with a “cloud-first” mentality, the organization became focused on improving IT service and efficiency to improve end user satisfaction with a web-based service and IT operations management. Ultimately, the goal of maturing these processes was to improve the agility and speed of the business. The need for process rigor and an underlying platform to support it became tantamount.

Key assumptions

15,000 employees

600 fulfillers

Average monthly incident and service request volume: 27,000

Nodes: 4,000

Key Challenges

The organization experienced the following challenges:

- **A wide variety of disparate tools to manage IT operations.** The organization had no common set of data, systems, or reporting for IT services or operations. These limitations led to difficulty monitoring IT performance and health and avoiding high-impact business disruption. End customers suffered because of the inefficient incident and service request processes, with some tickets rerouted several times.
- **No global view of IT service management and operations.** At the heart of the challenges the composite organization faced was no global view of IT service management and operations data. This prevented the organization from being able to mature its ITIL processes, complete audits efficiently, anticipate service disruptions that would hurt the business, and measure and see trends of its own performance against SLAs.
- **An on-premises legacy solution that was costly and required too much customization.** The organization's system required expensive upgrades every two years and involved developers with specialized skills to manage and administer the platform. Functionality was not out of the box, which hindered the speed of the IT organization to keep up with changing business requirements.
- **Inefficient service management.** The organization did not have a single system of record across geographies. Frequently the tickets were misrouted, and help desk personnel and employees did not have visibility into who was working on requests and their status. This was because their incident, service, and change management processes did not have sufficient workflow, automation, or self-service capabilities.
- **Difficulty fulfilling audit and compliance requirements.** The IT organization was seen as a hindrance to completing audits quickly and without penalty. The organization was not able to validate conditions of the controls in place for IT and the permissions and security controls around service, change, and incident management processes.

"When we implemented ServiceNow, we had no CMDB, we had no integrations, no governance, and we had separate systems that weren't talking to each other. We were at an ITIL maturity level of 2 to 2.5. Now, most of our processes are at a 4 to 4.5."

Director of IT production services, pharmaceutical company

Key Results

The interviews revealed that key results from the ServiceNow investment include:

- **More efficient service request, incident, and change processes.** The organization received immediate benefit from codifying and maturing their ITIL processes using the out-of-the-box functionality of the platform. Within three months of designing and establishing their processes, permissions, and workflow, they were able to reduce the regular monthly volume of service requests and incidents through the platform. Immediately, the routing efficiency improved, visibility on the status of the tasks was clearer, and employees could submit requests more easily through one web-based location with a defined service catalog.

"The primary benefits of ServiceNow include efficiency, cost reduction, transparency, and teamwork. It enables collaboration so employees know who is working on what. End users are more productive — they know what's happening with a request. We can measure our customer's experience, see trends, and identify areas to improve."

IT manager, healthcare company

- **Improved IT operations productivity with more capabilities and shared knowledge.** IT staff were able to work more efficiently in their day-to-day jobs. They could access centralized data, status, and assignments to more easily track and respond to daily tasks. They were able to access ServiceNow on their mobile devices, which improved their responsiveness and accessibility. They spent less time in meetings discussing processes, such as change management, because ServiceNow provided better visibility into high-priority changes. Furthermore, they were able to access a knowledge management database that enabled them to work more efficiently and handle a wider array of incidents than they could prior to ServiceNow.
- **Cost savings by eliminating underutilized licenses and technologies.** The organization was able to reduce redundant licensing costs for multiple ticketing systems. In some cases, customers reduced outsource contracts that were in place to manage an ineffective help desk system. The organization reduced costs related to an on-premises system, including ongoing maintenance and upgrade fees. Once the CMDB was fully in place and the organization had used the discovery capability, it was able to further reduce costs by uncovering the full extent of the software and hardware available for use across the network. It could better negotiate vendor contracts and better distribute existing licenses, technologies, and assets.
- **Reduced cost and business impact related to incidents.** The organization experienced fewer priority 1 incidents as a result of ServiceNow in large part because the service mapping it did as part of the implementation increased visibility into technology hardware and software that underpins critical business services. Armed with that knowledge, the change management process was redesigned to focus on high-priority changes that could disrupt business services. This saved the organization thousands of dollars in avoided business disruption that hurts employee productivity. Furthermore, the organization was able to shorten the time to resolve high-priority incidents by half through better knowledge and process management.

"ServiceNow is about efficiency, accuracy, and integration. We have experienced a huge amount of productivity gains because we reflected the change, incident, and service processes into the system. There is no more rework and Q&A required. Our users know where to go to get what they need."

Director of IT service management, pharmaceutical company

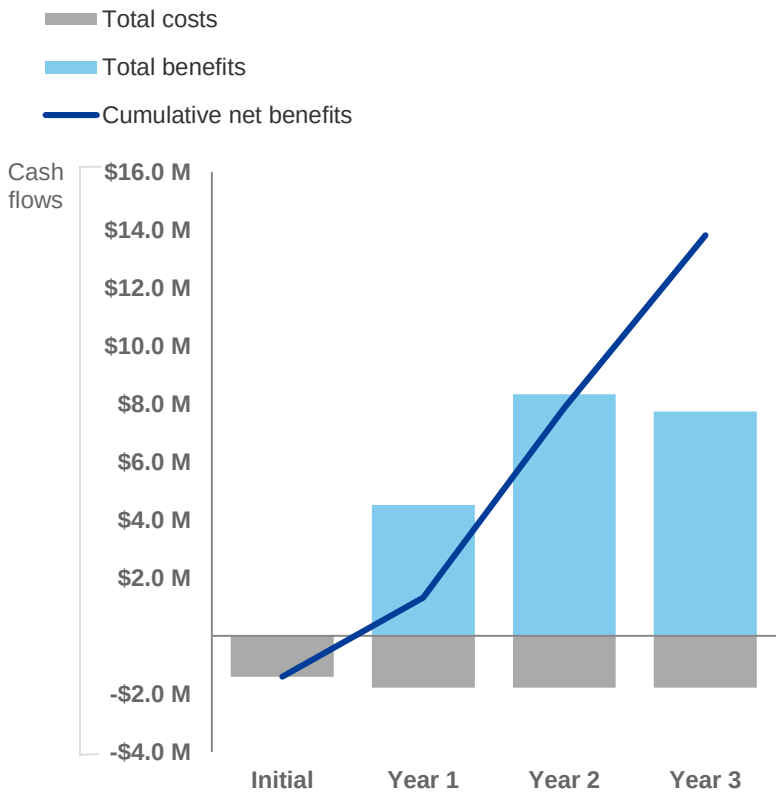
"I have witnessed many go lives--none as defect-free as ServiceNow. The level of quality allowed us to move quickly into enhancements and additional projects, instead of wasting time on support. People see continued value being released regularly and it's great!"

Greg Downer, senior IT director, Oshkosh Corporation

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI and NPV for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, and NPV values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Table (Risk-Adjusted)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	($1,411,368)	($1,785,200)	($1,785,200)	($1,785,200)	($6,766,968)	($5,850,896)
Total benefits	$0	$4,513,027	$8,489,673	$8,196,794	$21,199,494	$17,277,383
Net benefits	($1,411,368)	$2,727,827	$6,704,473	$6,411,594	$14,432,526	$11,426,487
ROI						195%

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Flexibility

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

- **The ability to manage cloud sprawl.** Building on ServiceNow's CMDB, discovery, and service mapping functionality, organizations can implement cloud management and orchestration, which will enable them to more effectively manage cloud sprawl, or the proliferation of cloud applications used by the business. As referenced in benefit No. 3, reduced license and outsource costs, organizations that use these capabilities effectively will get better visibility, control, usage, and pricing from their existing cloud licenses. This is beneficial to the organization in terms of security and cost savings. Said Sigbjørn Morken, change manager and advisor of service management at Statoil: "Statoil has a strategy that we want to use the cloud more — we have 3,500 applications listed in our CMDB that we are using for different functions. More and more of them are cloud-based. We can reduce redundant applications doing the same thing."
- **Vendor and contract management cost savings.** Customers described how they are able to negotiate better vendor contracts because of the centralization and discovery of all of their software, hardware, and devices located across the organization. One customer attributes saving $4.5 million over two years of better contract negotiations to ServiceNow.
- **An increase in the velocity of business.** Because customers could fulfill requests more quickly and easily, including standing up new environments and getting business users the applications and services they need for product creation and innovation, the ServiceNow implementation led to increased business velocity.
- **Performance Analytics.** The composite organization uses Performance Analytics to gain insight into its operations, monitor the health of its operations, see its performance against SLAs, predict the volume of service requests and incidents, and correlate incidents with changes underway. The customers using Performance Analytics identified several ways that they used the dashboards and reporting provided by the platform.
  - Identify and compare trends weekly or monthly.
  - Build and monitor KPIs.
  - Prioritize workloads for the team.
  - Determine hiring and outsource plans.
  - Measure performance against SLAs and see ticket backlogs.

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

"Performance Analytics makes it easy to be able to see week by week the number of tickets open at a given time versus a year ago. Once you determine what your KPIs are you can build them, monitor them, and have visibility to let you know if things are getting worse or better. It definitely has a lot of power and value for us to monitor the overall health of our operations."

IT manager, healthcare company

Summary

This analysis shows that the customers interviewed for this study experienced significant financial benefits, particularly around improvements in IT productivity and cost savings. The IT organizations drove higher service levels for their customers through maturing their ITIL processes, automating common IT request processes, and eliminating service outages. They emphasized how ServiceNow provided a better end user service experience to their employees and enabled employee productivity across the organization through an easy-to-navigate self-service portal, knowledge management, and integrated mobility. This prompted an increase in customer survey results by as much as 6%, as well as a change in the perception of IT from task doer to business partner.

Appendix: Financial Analysis

QUANTIFIED BENEFIT AND COST DATA AS APPLIED TO THE COMPOSITE

Total Benefits

REF.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
	IT productivity improvements total (Atr+Btr)	$2,345,052	$3,835,598	$3,550,129	$9,730,779	$7,969,046
Atr	No. 1: Improved IT service request and incident processes	$1,524,252	$2,193,998	$1,755,199	$5,473,449	$4,517,612
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Ftr	No. 6: User productivity/CSAT: improved end user productivity and satisfaction	$267,188	$534,375	$534,375	$1,335,938	$1,086,014
	Total benefits (risk-adjusted)	$4,513,027	$8,489,673	$8,196,794	$21,199,494	$17,277,383

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to be a PV of more than $17.3 million.

Benefit No. 1: IT Productivity: Improved Efficiency Of Customer-Facing IT Service Request And Incident Processes

Prior to ServiceNow, interviewed customers had disparate systems for service requests and incident management, with no central way to collect, route, and analyze service and incident processes. They described their systems as “random, cumbersome, and inconsistent.” As a result, there were frequent misroutings and multiple "touches" for one ticket. Some customers described frequent excessive approvals in the typical processes. Said Greg Downer, senior IT director of Oshkosh Corporation: “When the team reengineered all of the request workflows, we realized that we’d become approval-ridden. We took a very lean approach to new workflows, and we ended up eliminating 36,000 non-value-add approvals.” After implementing ServiceNow, the organization was able to systematically analyze the volume and type of tickets, create a service catalog of the most common requests, and improve the workflow, approvals, and routing process for each catalog item. Typically, this process took about three months post-purchase but enabled the organization to reap significant process efficiency benefits once released to employees.

> “Typically, IT spends 80% of the time on platform management and 20% on business process development. We were able to flip that ratio and improve it.”
>
> *Greg Downer, senior IT director, Oshkosh Corporation*

The model assumes that prior to ServiceNow, the typical volume of monthly incident and service requests would have been touched an average of three times. With ServiceNow, requests are routed immediately to the proper location, reducing work spent on them by 66%. Because not all requests are captured in a service catalog and that first-contact resolution may have occurred in the previous environment despite the technology, the model assumes that 80% of all requests can benefit from the streamlined process and efficient routing provided by ServiceNow. Furthermore, the composite organization has a strong ITIL team in place and had already mapped out ITIL processes prior to implementing ServiceNow. Therefore, the model assumes that only 60% of the efficiency benefit is due to the platform, while the other 40% is due to the process rigor of the ITIL professionals defining the processes. The organization also required three months to implement the solution and roll it out to employees. The benefit is assumed to begin four months into the first year of implementation.

There are potential risks that can have an impact on the process efficiency benefit, including the following:

- The composite organization may not have a strong ITIL process focus and cannot immediately benefit from the platform because of the expertise of the individuals on the team. This may be the case in less mature organizations.
- The model assumes that the service catalog, workflow, approvals, and routing are well-defined and focus on the most high-impact, repeatable requests and incidents in the implementation of ServiceNow. Some organizations may mirror poor process design or excessive approvals in the platform's implementation, lessening this benefit.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total of $5,473,449.

IT productivity and capacity

$5.5M

4x time on process improvement

Eliminated 36,000 approvals, +1 day per week for each IT employee

ServiceNow automated 2,000 software installations that would have required human touch for a manufacturing company.

IT Productivity: Improved Efficiency Of Customer-Facing IT Service Request And Incident Processes					
REF.	**METRIC**	**CALC.**	**YEAR 1**	**YEAR 2**	**YEAR 3**
A1	Monthly volume of service request and incidents requiring service desk handling	Based on the composite profile: Years 2 and 3 account for automations (benefit No. 3)	27,000	25,650	20,520
A2	Percentage of volume that can be resolved more easily due to streamlined process, data, and resolution system		80%	80%	80%
A3	Estimated time spent resolving service or incident item (in hours)		1	1	1
A4	Percentage reduction in effort due to ServiceNow		66%	66%	66%
A5	Estimated hourly salary of a tier 1 IT service desk employee, fully loaded		$25	$25	$25
A6	Percentage attributed to ServiceNow beyond the ITIL process rigor		60%	60%	60%
At	Improved efficiency of IT service request and incident processes	A1*12*A2*A3*A4*A5*A6* 0.66 (Year 1 calc. at 2/3 to account for ramp up)	$1,693,613	$2,437,776	$1,950,220
	Risk adjustment	↓10%			
Atr	Improved efficiency of IT service request and incident processes (risk-adjusted)		$1,524,252	$2,193,998	$1,755,199

Benefit No. 2: IT Productivity: Improved IT Back-Office Operational Efficiency And Planning For Infrastructure, Self-Service, And Mobile

ServiceNow, in the words of its customers, reduces the “tribal knowledge” of IT operations and provides visibility and efficiency to the function. Employees are able to do their jobs more efficiently by clearly seeing how their work is connected to that of others across the organization. They are able to access knowledge management, change management, and incident management systems through mobile and the web and can react more quickly. Customers describe more efficient change management meetings and can quickly prioritize which changes pose the threat of business disruption. Managers reported an improved ability to forecast and manage hiring needs based on the reports ServiceNow provides about IT operations. The customers built up their CMDB so that they are able to reflect their entire organization and the interrelationships of the people, processes, and technologies that keep the business running. Said one interviewed customer, a director of IT production services: “A lot of the value of ServiceNow has to do with the productivity for those who use the technology — they are able to handle things more quickly and eliminate things from ever becoming a problem. Because of ServiceNow and the knowledge management, we need fewer resolving team members, and we don’t have to bring in contractors to do projects.” Another customer cited the mobile experience as a contributor to increased productivity for its customers and employees.

IT productivity and capacity

$4.3M

20% efficiency gain for tier 1 service desk employees

Avoided hiring outsource service management resources

The composite organization has 600 fulfillers across tier 1, tier 2, and tier 3

service desk employees (e.g., licensed users of ServiceNow) and about 12 tier 3 employees dedicated to improving service management and ITIL processes. In the case of the tier 1 and tier 2 employees, 45% of their work can benefit from the use of the platform and excludes other activities such as meetings, career development, and administrative activities. The centralized nature of the ServiceNow solution enables the team members to be 20% more efficient. Tier 3 employees are able to spend 80% of their time on process improvement instead of administrative activities. Furthermore, the organization estimates that it can avoid hiring 0.5% additional headcount across all employees using ServiceNow because fewer team members can support the growth of the company. The model assumes that not all labor saved from IT operational efficiency will be used productively. Therefore, a 50% productivity captured calculation was applied to the total. Also, as the typical organization required three months to implement and roll out the solution to its employees, the benefit is assumed to begin six months into the first year of implementation. Organizations that are able to roll out the solution more quickly would likely receive benefits sooner.

The potential risks that could affect this benefit include:

- The effective rollout of the ServiceNow platform and the training of fulfillers to use the system effectively.
- The assumed process design that precedes the technology rollout and how that may influence how effectively the technology can be used.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total of $4,257,330.

Improved IT Productivity: Improved IT Back-Office Operational Efficiency And Planning — Infrastructure, Self-Service, And Mobile					
REF.	**METRIC**	**CALC.**	**YEAR 1**	**YEAR 2**	**YEAR 3**
B1	Percentage of IT resource hires avoided due to operational efficiencies				0.005
B2	Average annual salary of tier 1 and tier 2 service desk employees	Fully burdened	$52,000	$52,000	$52,000
B3	Number of ServiceNow fulfillers		600	600	600
B4	Percentage of fulfiller workload that can benefit from ServiceNow	Based on composite and HDI data	45%	45%	45%
B5	Efficiency gains for work of fulfillers		20%	20%	20%
B6	Average annual salary of tier 3 service desk employee	Fully burdened	$90,000	$90,000	$90,000
B7	Number of IT resources dedicated to service management and ITIL		12	12	12
B8	Percentage of time dedicated to administrative activities for service management prior to ServiceNow		80%	80%	80%
B9	Number of IT resources dedicated to administrative activities		10	10	10
B10	Reduction in capacity requirements for service management		75%	75%	75%
B11	Productivity captured		50%	50%	50%
Bt	Improved IT operational efficiency and planning	((B2*B3*B4*B5)+(B6*B9*B10))*B11*0.5 (Year 1); Year 2 = *1.0; Year 3 = Y1 + (B1*B2*B3)+(B1*B6*B7)	$864,000	$1,728,000	$1,889,400
	Risk adjustment	↓5%			
Btr	Improved IT operational efficiency and planning (risk-adjusted)		$820,800	$1,641,600	$1,794,930

Benefit No. 3: Cost Savings: Reduced Legacy System Costs

A primary benefit experienced by interviewed customers was a consolidation of multiple systems, licenses, or outsource contracts into one platform license with ServiceNow. Some customers had gone through a series of acquisitions that left them with redundant and siloed ticketing systems. Others had a legacy on-premises service management solution that was costly to maintain and upgrade and required too much customization. Still other customers relied on outsourced providers to manage their tickets, but they found that those tickets were rarely resolved on first contact and were frequently routed multiple times to different teams (along with recontacts to the end user submitting the request). By implementing ServiceNow, the organization was able to consolidate on a single platform, service catalog, and system of record, saving it several million dollars in costs. According to Greg Downer, senior IT director of Oshkosh Corporation: "We did a full business case across the enterprise and determined that if we were able to truly shut off all of the systems and get everybody on a common global IT system across all of these service management areas, we would save $3 million over four years. That was

Cost savings

$4.1M

$1.2M annual license and maintenance savings

$300,000 cost avoidance per upgrade

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nothing other than licensing, maintenance, and services directly related to maintaining and running the software platform in-house."

For the composite organization, Forrester assumes that:

- The organization's previous environment included on-premises service management technology, along with multiple other systems, such as SharePoint, Excel, and Lotus Notes.
- The organization could consolidate licenses and contracts because ServiceNow offered a comprehensive platform.
- The organization could avoid hardware and upgrade costs by moving to a cloud-based platform.

The amount by which costs can be reduced varies by.

- The number of different redundant systems in place.
- The size of the outsource contracts in place.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total of $4,132,500.

Cost Savings: Reduced License And Outsource Costs

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
C1	License consolidation or reduced outsource contracts		$750,000	$750,000	$750,000
C2	Maintenance cost avoidance		$500,000	$500,000	$500,000
C3	Upgrade cost avoidance — hardware and resource time		$300,000		$300,000
Ct	Reduced license and outsource costs	C1+C2+C3	$1,550,000	$1,250,000	$1,550,000
	Risk adjustment	↓5%			
Ctr	Reduced license and outsource costs (risk-adjusted)		$1,472,500	$1,187,500	$1,472,500

Benefit No. 4: Automation: Increased Efficiency Due To Fully Automated Services

The interviewed customers focused their initial deployment on developing the service catalog and CMDB and improving the incident and service request processes. They were able to further reap financial benefits through automation and orchestration, beginning in the last three months of Year 1. They identified common requests, such as a password reset or a request for a virtual server, and fully automated those requests using orchestration. As a result, they were able to eliminate the human touch for those requests or incidents and further save money and time for the organization around common activities. One customer commented that 30% of its service requests were password resets and that by automating that process, it eliminated 0.3 of a full-time equivalent (FTE). Another customer used automation in the incident process to automatically generate a ticket, log into the server, collect CPU and memory utilization data, and capture other relationship and identifying information for services when an event occurs. Through automation, the server restarts and tests itself, and then only notifies a technician if that process doesn't work. The customer prioritizes processes to automate and addresses them one by one.

Automation

$3M

20% zero-touch requests

4,000 hours saved per month from automated processes

Given an estimated monthly volume of 27,000 incident and service requests,

we assume that in the first year, 5% of the monthly call volume can bypass human handling. Beginning in the second year of implementation and continuing in Year 3, the IT organization can automate about 20% of the most common service and incident tickets. That totals about 4,000 to 5,000 automations executed monthly, which reduces about an hour, on average, of IT touch from the resolution process. At a conservative estimate of $25 per hour for a service desk technician, the organization saves over $3 million over three years on automation efficiencies.

Potential risks that could affect this benefit include:

- The organization does not have the expertise and skillset to execute the automations.
- The organization has not implemented a CMDB effectively and completed the requisite service mapping and configurations required for orchestration.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk adjusted total of $3,016,440.

> "We pick the processes to automate that are most impactful to customer experience. We automated those first and we haven't stopped since. We're constantly working through orchestration. We do about 75 per year."
>
> *Brad Paubel, VP of internal customer technologies, Maritz*

Automation: Increased Efficiency Due To Fully Automated Services

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
D1	Monthly volume of service requests	Composite	27,000	25,650	20,520
D2	Percentage of service requests avoided by automations	Composite	5%	20%	20%
D3	Service requests avoided monthly		1,350	5,130	4,104
D4	Average number of hours to fulfill service request		1	1	1
D5	Estimated hourly savings from eliminating IT touch		$25	$25	$25
Dt	Increased efficiency due to automation	D3*D4*D5*12	$405,000	$1,539,000	$1,231,200
	Risk adjustment	↓5%			
Dtr	Increased efficiency due to automation (risk-adjusted)		$384,750	$1,462,050	$1,169,640

Benefit No. 5: Eliminate Outages: Reduced P1 Incident Management Effort And Impact

A primary benefit reported by customers was reduced incident management effort and a lowered risk of business services interruption as a result of ServiceNow. They attributed this benefit, in part, to the integration between processes, especially the change management and incident management functionality within ServiceNow. Said one director of IT service management of a pharmaceutical company: "Every single change ticket that gets opened links to the configuration items (CIs); the relationships are invaluable for impact analysis, risk, and incident analysis. If an application goes down, it's very helpful to know if there was a server change or a database change that may have been a part of the root cause. We use ServiceNow for troubleshooting in the incident process." Improving insights from change management has been a great contributor to this lowered risk because changes that are linked to business-critical technologies can be prioritized and handled more carefully. Furthermore, the treatment of priority 1 incidents was more streamlined, involved less elapsed time to resolve the incident, and could, at times, be performed with less-skilled resources because of the robust knowledge management

Eliminating service outages

$3M

25% fewer P1 incidents

P1s handled 2x faster

and change management systems that were working in concert with incident management.

The composite organization experiences priority 1 incidents for about 1% of its annual incident ticket volume of 180,000. The organization was able to reduce the number of high-priority and critical incidents by 25% with an improved change management process and better visibility. For those remaining priority 1 incidents, the IT team members were able to resolve the incidents in half the time. This is due to access to knowledge management and the ability to identify the root cause more quickly. The organization avoided about 5,400 hours of incident management work annually due to ServiceNow. Assuming that four times per year the priority 1 incident causes critical application downtime and significantly reduces end user productivity, the organization avoids over $720,000 in lost productivity of end users at about $180,000 per hour. This does not take into account indirect costs such as lost revenue from customers, as would be the case if an airline's ticketing and reservations system experienced unplanned downtime. The model also assumes that the organization would be able to avoid incident management work in Q4 of Year 1 but would not avoid downtime costs until Year 2, once improved change management processes and meetings are fully implemented.

The potential risks that could affect this benefit include:

- The organization does not integrate its change management and incident processes to look for the interrelation between the two to avoid future incidents.
- The implementation of the CMDB is not effectively executed to map business services to technology and identify how changes may affect the business.
- Knowledge management is not built up and effectively used to aid in the incident resolution process.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk adjusted total of $2,983,838.

> "If you didn't believe that incident and change management have a correlation then we certainly can prove it at Oshkosh. You can watch our incident volume go up and down with our change volume. It's insights like this from Performance Analytics that help us make sure that we're focusing on the right priorities and SLAs.."
>
> *Greg Downer, Senior IT director, Oshkosh Corporation*

Prevent/Eliminate Outages: Reduced P1 Incident Management Effort And Impact					
REF.	**METRIC**	**CALC.**	**YEAR 1**	**YEAR 2**	**YEAR 3**
E1	Annual volume of critical priority incidents — before ServiceNow	Estimated at 1% of monthly ticket volume	1,800	1,800	1,800
E2	Percentage reduction of critical priority incidents — after ServiceNow	25%	1,350	1,350	1,350
E3	Number of hours to resolve incident — before ServiceNow		4	4	4
E4	Number of hours to resolve incident — after ServiceNow		2	2	2
	IT work effort impact driver				
E5	Hours per month avoided of work to resolve critical and high-priority incidents		4,500	4,500	4,500
E6	Estimated hourly salary — tier 3 IT team member	Based on annual salary of $90,000 fully burdened	$43	$43	$43
	End user employee productivity impact driver				
E7	Lost end user employee productivity due to 1 hour of critical application downtime	$3,000 per min Based on composite		$180,000	$180,000
E8	Number of priority 1 incidents that cause critical application downtime for 1 hour companywide annually	Assumes one incident avoided quarterly		4	4
Et	Reduced P1 incident management effort and impact	E6*E7*0.25 (Year 1) (E6*E7) + (E9*E10*2)	$48,375	$1,633,500	$1,633,500
	Risk adjustment	↓10%			
Etr	Reduced P1 incident management effort and impact (risk-adjusted)		$43,538	$1,470,150	$1,470,150

Benefit No. 6: User Productivity/CSAT: Improved End User Productivity And Customer Satisfaction

The interviewed customers shared a goal of increasing the customer satisfaction of their end users. Said Greg Downer, senior IT director of Oshkosh Corporation, “Our overall customer experience score before and after ServiceNow went up 6%.” Customers cited the easy navigation and intuitive interface of the platform, along with the ability to self-service and access knowledge management, as the top contributors to the improved end user productivity and satisfaction. Said Brad Paubel, VP of internal customer technologies at Maritz: “Before ServiceNow, we were task doers — an organization that sat back and waited for someone to ask us to do something. By contrast, ServiceNow combines all the data in a single source of truth with proper workflow and automations. It’s easy for [internal] customers to partner with us. It’s completely night and day from task-based to forward-thinking consultative partnership with the business.”

End user productivity/CSAT

$1.3M

11,250 hours saved by end users per qtr.

Changed the perception of IT to business partner, +6% experience survey

The composite organization has 15,000 employees, and the model assumes that they save three-quarters of 1 hour per quarter with the efficiency provided by ServiceNow. At an hourly salary of $25, the organization is able to save about 3 hours of productive work time per employee over the course

of the year. The model assumes that not all labor saved from end user productivity will be used productively. Therefore, a 50% productivity captured calculation was applied to the total. Furthermore, the organization required three months to implement the solution and roll it out to employees. There is an adoption period after which employees are trained to use the system. The benefit is assumed to begin six months into the first year of implementation. If companies can accelerate employee training, they will likely receive benefits sooner.

The following potential risk could affect this benefit:

- The organization has not fully rolled out the platform and trained its employees on the self-service capabilities.

The amount by which costs can be reduced varies by:

- The number of different redundant systems in place.
- The size of the outsource contracts in place.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total of $1,335,938.

User Productivity/CSAT: Improved End User Productivity And Satisfaction

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
F1	Number of employees		15,000	15,000	15,000
F2	Time saved per quarter due to improved service request process		0.75	0.75	0.75
F3	Average hourly salary of employee (based on annual salary assumption of $50,000)		$25	$25	$25
F4	Productivity captured		50%	50%	50%
Ft	Improved end user productivity and satisfaction	(F1*(F2*4)*F3*F4)* 0.5 (Year 1 only)	$281,250	$562,500	$562,500
	Risk adjustment	↓5%			
Ftr	Improved end user productivity and satisfaction (risk-adjusted)		$267,188	$534,375	$534,375

Total Costs

REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
	Total costs for licensing, implementation, and ongoing mgmt. (risk-adjusted)	$1,411,368	$1,785,200	$1,785,200	$1,785,200	$6,766,968	$5,850,896

Cost No. 1: License Fees

Customers who use the ServiceNow platform pay monthly recurring license fees for the use of the ITSM and ITOM functionality. They pay for every user with access to ServiceNow, also called "fulfillers," and the ratio of employees to fufillers can vary widely. Fulfillers have full rights to create, update, or view any record that their security allows. Organizations that are designed with a technology-first mindset frequently may have a 10 to 1 ratio of employees to fulfillers. Organizations that are more traditional or have a smaller portion of their employee base with technology infused in their day-to-day lives — for example, in the medical or airline industries — may have a higher ratio of employees to fulfillers. As an organization rolls out more capabilities through ServiceNow, it may expand the number of fulfiller licenses. Customers also pay a price per month for "nodes" or servers/virtual machines as part of the ITOM licenses. Customers' monthly rates will vary depending on how many physical servers and virtual machines they have. Customers also use Performance Analytics and pay an annual fee for it.

The composite organization has 600 fulfillers using ServiceNow on a regular basis. The organization has 4,000 nodes.

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to be a PV of $5.85 million.

Cost No. 2: Implementation Costs

Customers typically engage ServiceNow or a services partner for professional services when implementing the product. These services can include implementation services, optimization and upgrade services, and training and certification services. Some examples of how customers have used assistance from outside providers include the setup and management of the CMDB and training on the platform. Customers also invested internal time and resources to planning activities for the ServiceNow implementation prior to its launch across the organization. Timeframes for the planning ranged from a month to a year and depended on the complexity of the rollout and how many capabilities were released initially.

The composite organization paid a partner for implementation services. The organization also spent time and resources on internal planning and rollout activities.

The following risk may affect the cost:

- An organization's implementation costs may vary depending on whether or not they decide to roll out the CMDB at the beginning of the implementation or if they prefer to roll out core functionality first (incident and service management) and stage the rollout of additional capabilities. To account for this risk, Forrester adjusted this cost upward by 5%.

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

Cost No. 3: Ongoing Costs

Customers dedicate resources — either internal, external, or a combination of the two — to the ongoing management of ServiceNow. Because it is a cloud-based platform, these management tasks can be handled by a few dedicated resources. Customers interviewed employed between two and five IT resources to the ongoing management of ServiceNow, including required administrative changes and upgrades and regular upkeep and servicing of the platform. Furthermore, they relied on outside assistance for projects or remote administration.

Composite Organization

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

- **Description of composite.** The organization is a global multibillion-dollar company with 15,000 employees located across the world. The organization has an IT staff of around 600 with a core ITIL team of 12 people. The organization has about 500 service catalog items and a service request and incident volume of 27,000 per month. The organization has over a million configuration items in the CMDB and about 32,000 change requests annually. It has 4,000 nodes (real or virtualized servers under management).
- **Deployment characteristics.** The organization has deployed the ITSM and ITOM capabilities, including Service Catalog, Incident Management, Change Management, Discovery, Configuration Management Asset Management, Knowledge Management, Service Management, and Performance Analytics, The primary stakeholders for this organization responsible for the ServiceNow implementation include the senior IT leaders who have responsibility for IT service management and IT operations, along with a director of IT services who is driving the business decision and platform requirements.

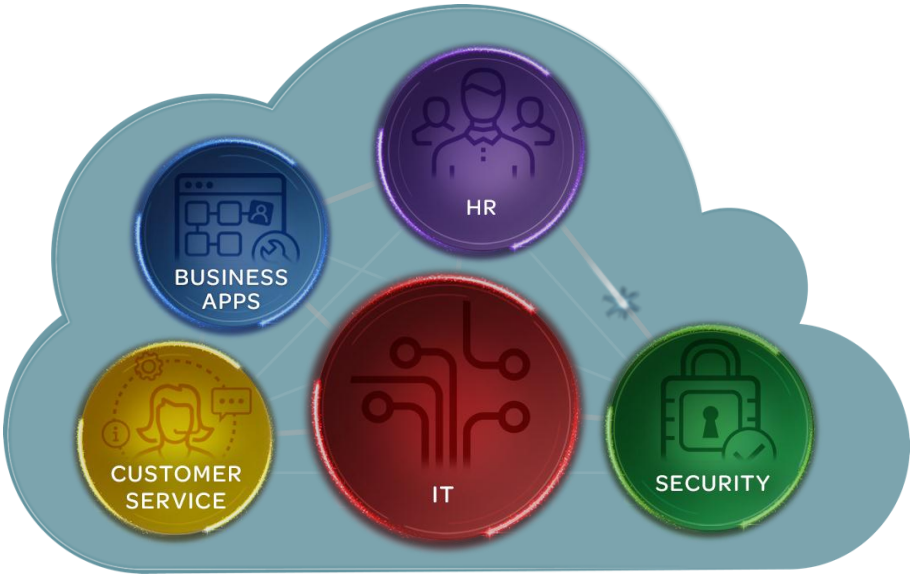
Solution Requirements

The interviewed organizations searched for a solution that could help them:

- Modernize and consolidate an outdated service management infrastructure and transform it into one that could provide a single source of truth and data repository for IT operations.
- Become increasingly mature in its ITIL implementation.
- Improve IT operations analysis and planning to optimize spend and prioritize efforts and eliminate service outages.
- Move to a cloud-based solution as part of a cloud-first strategy within the organization.
- Improve employee productivity, internal customer experience, self-service, and ease of use.
- Reduce outsourcing costs and inefficiencies by bringing service management in-house.
- Gain a high-level understanding of IT resources and operations with better reporting and analysis features to inform business strategy.

ServiceNow ITSM, ITOM, And Performance Analytics: Overview

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



The Lightspeed Enterprise™

Now, with the ServiceNow System of Action, every employee, customer, and machine can make requests on a single cloud platform. Every department working on tasks can assign and prioritize, collaborate, get down to root cause issues, gain real-time insights, and drive to action. You can energize your employees, improve your service levels, and realize game-changing economics. Work at lightspeed.

Modernize IT Service Management

Consolidate on-premises IT tools into a modern, easy-to-use service management solution in the cloud. No infrastructure is required.

Deliver a single cloud-based IT service management platform. Take control of difficult legacy processes and tools. A new service desk is up and running fast with built-in ITIL best practices and guided setup. An easy-to-use service portal makes it painless for end users to submit and track requests without making a call. Prioritize and assign work with drag-and-drop Visual Task Boards. Gain control with complete IT service visibility, no infrastructure required.

Eliminate Service Outages

Proactively identify issues on a service health dashboard, pinpoint disruptions with service maps, and automatically orchestrate remediation.

Business service outages hurt customers, partners, and employees, resulting in financial losses and damage to company reputation. With ServiceNow, eliminate outages with a service-aware approach, ingest operational information, and enable IT to proactively address issues and quickly respond to incidents.

Optimize Performance With Real-Time Analytics

Transform your business with actionable insights to increase efficiency and reduce costs.

Data is becoming increasingly attainable, yet most organizations still do not understand how to derive value from it. Analytics, when it does exist, is often unable to deliver meaningful insights when they are needed and where they belong. Work smarter with ServiceNow Performance Analytics by easily pinpointing areas of improvement and quickly remediating issues at the source — before they turn into problems.

Inspire Executive Advisory Program

The Inspire Executive Advisory Program at ServiceNow is dedicated to advising companies around the world regarding business value, offering an in-house specialist team known as Inspire Value. Working in collaborative partnership, Inspire Value creates tailored analyses for customers who are looking to change the way work is done within their organizations, so that they can qualify their unique successes against well-defined metrics.