

A Forrester Total Economic Impact™  
Study Commissioned By IBM  
January 2019

# The Total Economic Impact™ Of IBM Multivendor Support Services (MVS)

Cost Savings And Business Benefits  
Enabled By IBM MVS

# Table Of Contents

<b>Executive Summary</b>	<b>1</b>
Key Findings	1
TEI Framework And Methodology	3
<b>The IBM MVS Customer Journey</b>	<b>4</b>
Interviewed Organizations	4
Surveyed Organizations	4
Key Challenges	4
Key Results	5
Composite Organization	6
<b>Analysis Of Benefits</b>	<b>7</b>
Reduced Maintenance And Support Spending	7
Reduced Time Spent On Hardware Support	8
Reduced Time Spent On Vendor Management	9
Unquantified Benefits	10
Flexibility	11
<b>Analysis Of Costs</b>	<b>12</b>
IBM MVS Costs	12
Planning And Training	12
<b>IBM MVS: Overview</b>	<b>14</b>
<b>Appendix A: Total Economic Impact</b>	<b>15</b>
<b>Appendix B: Endnotes</b>	<b>16</b>

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# Executive Summary

Forrester predicts that businesses in the US will increase their total tech purchases by 5.5% in 2019, bringing the amount spent on new technology investments to well over \$75 billion.<sup>1</sup> As this spending increases, often so does the number of vendors supplying these various technologies, causing companies to spend more on managing their IT systems. Technology staffing positions will likely increase by 2.3% to help organizations handle the increase in IT spending. These employees will spend a significant amount of time managing a varied heterogeneous environment without support solutions that span across support tools and vendors. CIOs and other IT decision makers must invest their IT budgets effectively to ensure they are winning, retaining, and serving their customers. Optimizing the amount of time and cost spent on support enables these decision makers to pursue strategic investments.

IBM commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Multivendor Support Services (MVS). The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of MVS on their organizations. To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed two IBM MVS customers and surveyed 266 additional users with years of experience using MVS. These customers were looking for creative ways to cut down on the costs associated with maintaining equipment from a variety of technology vendors. They turned to IBM to reduce the complexity of their IT environments, more efficiently utilize their employees, and streamline processes associated with their IT support systems.

## Key Findings

**Quantified benefits.** The following risk-adjusted present value (PV) quantified benefits are representative of those experienced by the organizations interviewed and surveyed:

- › **Reduction in maintenance and support spending, 25%.** In legacy environments, organizations relied on original equipment manufacturers (OEMs) and third parties to provide support for their organizations. This support often proved expensive to use and arduous to maintain. By streamlining hardware and software support contracts from OEMs and third parties to IBM, customers could take advantage of IBM's advanced IT support management technologies that infuse automation into the support process, including predictive maintenance, cognitive capabilities, proactive monitoring, and asset and life-cycle management. Simultaneously, they substantially reduced their IT support spending.
- › **Reduced time spent on hardware support tasks, 20%.** Using IBM MVS as their single strategic partner for IT support management allowed customers to reduce the complexity of their IT environments. This enabled customers to reduce the time spent on these tasks by automating IT support processes with IBM's proprietary asset management and support portal, which provides a real-time view of assets and support actions. Employees can now reallocate their time to more productive tasks.

## Key Benefits



Reduced maintenance spending with IBM MVS:

**25% reduction in maintenance and support spending**



Reduced time spent on hardware support tasks:

**20% reduction in time spent on hardware support-related tasks**



Amount of survey respondents extending capital investments:

**42% of survey respondents save or defer capital expenses with IBM**

- › **Reduced time spent on vendor relationship management, 20%.** By consolidating IT support with one vendor, employees no longer had to spend significant amounts of times maintaining multiple support relationships. This allowed employees to shift their focus to more value-add tasks.

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

- › **Extending useful life of equipment.** By investing in IBM MVS, customers extended the useful life of certain hardware products by an average of two years, and some saw the useful life of their products double. In addition, 42% of survey respondents said they saved or deferred capital expense by utilizing MVS over previous methods.
- › **Improvements in availability.** Consolidating support allowed customers that invested in MVS to improve their availability and overall system reliability. Interviewees reported that they saw a 22% reduction in mean-time-to-repair (MTTR) with IBM. They avoided a significant number of incidents or outages per year and even prevented issues from occurring with predictive maintenance.

**Costs.** The organizations experienced the following risk-adjusted present value (PV) costs:

- › **Time spent on planning and training.** Adopters of IBM MVS spent time planning for their migration to support with IBM. Often the implementation would be staggered so a portion of the legacy environment was transitioned to MVS as former support contracts expired. To ensure a seamless transition to IBM, customers invested time in training essential personnel in the nuances of the new support environment.

Forrester's interviews with two existing customers, survey of 266 customers, and subsequent financial analysis found that an organization based on these customers experienced benefits of \$3.1 million over three years.

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

## TEI Framework And Methodology

From the information provided in the interviews and survey, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing IBM MVS.

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 IBM MVS can have on an organization:



### **DUE DILIGENCE**

Interviewed IBM stakeholders and Forrester analysts to gather data relative to MVS.



### **CUSTOMER INTERVIEWS AND SURVEY**

Interviewed two organizations and surveyed 266 organizations using MVS to obtain data with respect to costs, benefits, and risks.



### **COMPOSITE ORGANIZATION**

Designed a composite organization based on characteristics of the interviewed and surveyed organizations.



### **FINANCIAL MODEL FRAMEWORK**

Constructed a financial model representative of the interviews and survey 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 IBM MVS's impact: benefits, costs, flexibility, and risks. Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

## DISCLOSURES

Readers should be aware of the following:

This study is commissioned by IBM 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 IBM MVS.

IBM 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.

IBM provided the customer names for the interviews but did not participate in the interviews. The double-blind survey was fielded by a Forrester partner.

# The IBM MVS Customer Journey

## BEFORE AND AFTER THE IBM MVS INVESTMENT

### Interviewed Organizations

For this study, Forrester conducted two interviews with IBM MVS customers. Interviewed customers include the following:

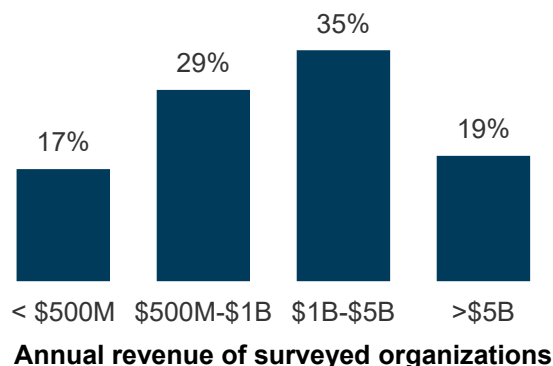
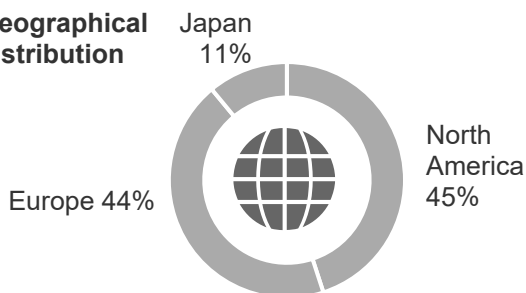
INDUSTRY	REGION	INTERVIEWEE	NUMBER OF EMPLOYEES
Retail	Headquartered in the US	Director of infrastructure engineering and operations	150,000 employees
Utilities	Headquartered in the UK	IT server and storage manager	5,000 employees plus additional contractors

### Surveyed Organizations

For this study, Forrester surveyed 266 IT and finance decision makers located in North America, Europe, and Japan using IBM for support services.

The surveyed organizations have an average of 11,600 employees and an average annual revenue of \$2.7 billion. Each organization has been using IBM MVS for at least three years.

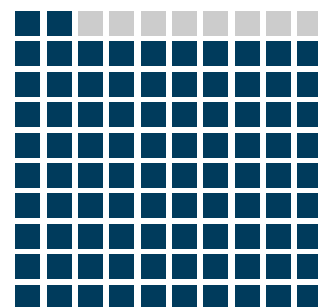
#### Geographical distribution



### Key Challenges

Prior to investing in IBM MVS, the organizations had the following key goals:

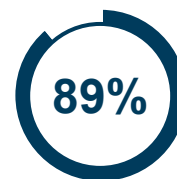
- Mitigate risk associated with extending useful life.** Prior to investing in MVS, organizations had to carefully consider the risks involved in using devices beyond their useful life. The cost of a system failure or security breach could quickly surpass the benefit received from the capital expense avoided by not replacing the device. Companies were looking for a solution that could reduce the risk IT departments faced when deciding to extend device lifetimes.
- Reduce the complexity of data-center-support environments.** Prior to investing in IBM MVS, companies relied on a heterogenous mixture of OEMs and third-party vendors that were all specialized in various parts of the environments. Companies struggled to manage the relationships they had between multiple vendors as there was little



92% said extending the useful life of the equipment is somewhat or very important.

continuity between vendors and no solution that spanned the breath of their data-center environments. When issues arose, pinpointing the cause of the issue was difficult as each vendor only covered a portion of the environment.

- › **Lower equipment maintenance costs.** One of the biggest challenges companies faced was expensive annual maintenance contracts paid to legacy support providers. These costs increased after the initial manufacturer warranty expired, causing support and maintenance expenses to further increase. In addition to reducing these expenses, companies wanted more reliable service across their environments. Costs accrued through system downtime escalated quickly and added to the cost of maintaining the system.

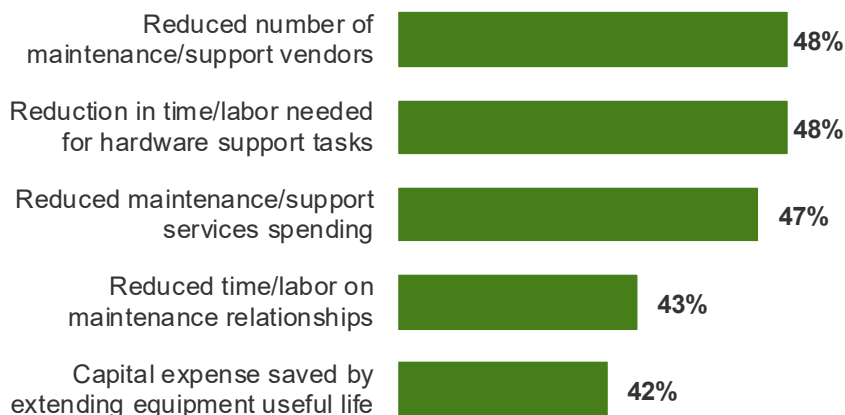


**89% said lowering equipment maintenance expense is somewhat or very important.**

## Key Results

The interviews and survey data revealed several key results from the MVS investment:

**“Which of the following economic benefits have you realized since you deployed IBM as your third-party maintenance solution?”**



Base: 266 IT and finance decision makers using IBM for support

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, January 2019

- › **Simplifying through consolidating support reduces time spent on hardware support and vendor relationships.** IBM MVS gave interviewees a consolidated and streamlined data-center-support system, which allowed companies to reduce costs and cut down on vendor management. Forty-three percent of the surveyed organizations reported that they could reduce the amount of time and labor needed to maintain vendor relationships after investing in IBM MVS.

- › **IBM MVS extends the useful life of equipment, allowing organizations to defer capital expenditure.** With IBM MVS, interviewees and surveyed organizations could extend the use of various equipment. The lifespan for servers was extended by an average of 1.6 years, tier 1 storage by 1.8 years, tier 2 storage by 1.9 years, and network devices by 1.9 years.
- › **IBM help customers avoid incidents or outages, leading to less system downtime.** On average, customers reported avoiding up to seven incidents or outages per year with IBM MVS. This allowed for less system downtime and enabled these customers to avoid the costly expenses of having their businesses shut down for system repairs.
- › **Collaboration increases across teams.** Prior solutions created siloed work environments where teams covering different areas of data-center support did not interact or collaborate frequently. With IBM MVS, 60% of surveyed organizations reported that the collaboration among the teams throughout their organizations had increased.

## Composite Organization

Based on the interviews and survey, Forrester constructed a TEI framework, a composite company, and an associated ROI analysis that illustrates the areas financially affected. The composite organization is representative of the two companies that Forrester interviewed and the 266 organizations Forrester surveyed, and it is used to present the aggregate financial analysis in the next section. The composite organization that Forrester synthesized from the customer data has the following characteristics:

**Description of composite.** The composite is a global organization with over 10,000 employees and over \$2.5 billion in annual revenue. The organization has a heterogenous data-center environment, with multiple vendors in multiple data centers around the world. Managing support through OEMs, third-party support contracts, and internal headcount proved to be time-consuming and costly. The composite wanted to optimize costs through reducing support costs where possible, consolidating and simplifying support operations, and extending the useful life of equipment in a low-risk way.

**Deployment characteristics.** The composite organization transitions devices to IBM as they come off support contracts, transitioning 950 devices in Year 1 up to 1,250 devices by Year 3.

“There are several machines and certain devices that reached end of support life with the OEMs like five or six years ago or even longer. And then IBM still supports them. And then we have some hardware that is like 17 to 18 years old. Without IBM, we would have had to replace them a long time ago.”

*Director of infrastructure engineering and operations, retail*



### Key assumptions

10,000 employees  
\$2.5B annual revenue  
1,250 devices transitioned by Year 3



# Analysis Of Benefits

## QUANTIFIED BENEFIT DATA AS APPLIED TO THE COMPOSITE

### Total Benefits

REF.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Atr	Reduced maintenance and support spending	\$1,083,000	\$1,254,000	\$1,425,000	\$3,762,000	\$3,091,533
Btr	Reduced time spent on hardware support	\$4,670	\$5,494	\$6,464	\$16,628	\$13,643
Ctr	Reduced time spent on vendor management	\$4,151	\$4,884	\$5,746	\$14,781	\$12,127
	Total benefits (risk-adjusted)	\$1,091,821	\$1,264,378	\$1,437,209	\$3,793,409	\$3,117,303

## Reduced Maintenance And Support Spending

With many organizations looking for solutions that offer creative ways to reduce data-center-support spending, it is not surprising that the first benefit realized by IBM MVS interviewees and survey respondents was a reduction in their maintenance and support spending. IBM MVS can provide this benefit by consolidating support with one vendor, offering a centralized and global support network, and employing its vast array of support-management technology solutions.

- › IBM MVS can provide significant cost reductions when compared to traditional OEM or third-party solutions. One customer reported a 30% cost reduction in maintenance and support spending after transitioning support to MVS.
- › IBM MVS enabled customers to reduce the number of vendors supporting their data-center environments. On average, MVS users replaced four OEMs and five third-party support vendors with IBM.

Forrester assumes that the composite organization:

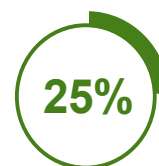
- › Reduces support costs with IBM MVS by 25% compared with prior support solutions.
- › Supports 950 devices with MVS in Year 1, increasing to 1,250 devices by Year 3.

Risks that could impact this benefit estimate include:

- › The rate at which an organization's support environment is transitioned to IBM.
- › The size and complexity of the data-center-support environment.
- › The total spent on maintenance and support prior to transitioning to MVS.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of \$3.1 million.

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 \$3.1 million.



**Reduction in support spending with IBM MVS**

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

## Reduced Maintenance And Support Spending: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
A1	Maintenance and support spending, pre IBM	Interview/survey	\$4,560,000	\$5,280,000	\$6,000,000
A2	Maintenance and support spending, with IBM	25% reduction	\$3,420,000	\$3,960,000	\$4,500,000
At	Reduced maintenance and support spending	A1-A2	\$1,140,000	\$1,320,000	\$1,500,000
	Risk adjustment	↓5%			
Atr	Reduced maintenance and support spending (risk-adjusted)		\$1,083,000	\$1,254,000	\$1,425,000

## Reduced Time Spent On Hardware Support

The surveyed and interviewed organizations reported a reduction in the labor effort needed to perform hardware support tasks after transitioning support to IBM MVS.

- › Previous support solutions made even routine hardware maintenance cumbersome and time-consuming. Forty-eight percent of survey respondents identified these time savings as a significant benefit of transitioning to IBM MVS.
- › On average, interviewees and survey respondents reported that IT personnel spent 42 hours per month attending to hardware support-related issues prior to transitioning their support environments to IBM. Investing in MVS allowed these organizations to reduce the time spent on these tasks by an average of 19%.

Forrester assumes that the composite organization:

- › Spent 540 hours per year on hardware support prior to MVS.
- › Reduces the time spent on hardware support by up to 20% with IBM over the three-year analysis.
- › Pays an average fully loaded hourly compensation of \$63 per hour for a hardware support staff member.

Risks that could impact this benefit estimate include:

- › Variance in the amount of time spent on hardware support in legacy environments depending on the size and complexity of data-center environments.
- › The rate at which the legacy environment is transitioned to IBM MVS for support.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of \$13,643.



**Reduction in time spent on hardware support by Year 3**

## Reduced Time Spent On Hardware Support: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
B1	Time spent before MVS (total hours)	Survey	540	540	540
B2	Time saved with MVS	Survey	14.45%	17.00%	20.00%
B3	Average fully loaded hourly compensation, hardware staff member	Assumption	\$63	\$63	\$63
Bt	Reduced time spent on hardware support	$B1*B2*B3$	\$4,916	\$5,783	\$6,804
	Risk adjustment	↓5%			
Btr	Reduced time spent on hardware support (risk-adjusted)		\$4,670	\$5,494	\$6,464

## Reduced Time Spent On Vendor Management

In addition to the hardware-support time savings, organizations saw a reduction in the time spent managing the relationships between various vendors. This reduction is a direct result of the reduced number of support vendors that interviewed and surveyed organizations used in their data centers. Reducing the number of support vendors allows employees to spend less time on contract renewal and relationship management, thus allowing them to focus on more value-add work for their organizations.

- › The director of infrastructure engineering and operations for a large retail store stated: “Every year, I will go through the spreadsheet of 1,500 machines — what is still in use, what is not in use — so that [at the] end of the year, we just clean up that spreadsheet and send it back to IBM. ‘Hey, please validate that these are the only machines that need support and then take the rest of them out of support.’ That is all the exercise we do, maybe about a week or two weeks per year that that goes on.”
- › With MVS, the surveyed organizations reported that they could reduce the time spent on relationship management by an average of 21%. Formerly employees spent a cumulative 39 hours per month engaging in these tasks. IBM MVS reduced this to approximately 31 hours per month.
- › Another interviewee added: “It frees up time, certainly for myself as I no longer have to wade through contracts and renewals and things of that nature. That obviously lets me do other things. And the fact everything is all in one place — that saves time as well. Trying to organize support contracts for thousands of different things at once is extremely difficult. So, having everything in one place, it just frees up time.”

Forrester assumes that the composite organization:

- › Spent 480 hours managing the relationship between various OEMs and third-party support vendors prior to MVS.
- › Sees a 20% reduction in the time its employees spent on vendor management by using MVS.

“It frees up time, certainly for myself as I no longer have to wade through contracts and renewals and things of that nature. That obviously lets me do other things. And the fact everything is all in one place — that saves time as well. Trying to organize support contracts for thousands of different things at once is extremely difficult. So, having everything in one place, it just frees up time.”

*IT server and storage manager, utilities*



- › Pays an average fully loaded hourly compensation of \$63 per hour for an employee dedicated to vendor management.

Risks that could impact this benefit estimate include:

- › Variance in the amount of time spent on vendor management in legacy environments depending on the size and complexity of data-center environments.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of \$12,127.

**Reduced Time Spent On Vendor Management: Calculation Table**

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
C1	Time spent before MVS (total hours)	Survey	480	480	480
C2	Time saved with MVS	Survey	14.45%	17.00%	20.00%
C3	Average fully loaded compensation, vendor management	Assumption	\$63	\$63	\$63
Ct	Reduced time spent on vendor management	$C1 \cdot C2 \cdot C3$	\$4,370	\$5,141	\$6,048
	Risk adjustment	↓5%			
Ctr	Reduced time spent on vendor management (risk-adjusted)		\$4,151	\$4,884	\$5,746

## Unquantified Benefits

Interviewees realized additional benefits that, while not quantified for this analysis, had a meaningful current and projected impact:

- › **IBM MVS extended existing data-center investments, freeing up capital for strategic priorities.** With IBM MVS, interviewees and surveyed organizations could extend existing investments in their data centers. They could reinvest resulting savings into other internal business initiatives. Forty-two percent of survey respondents noted that MVS helped them defer or save on their capital expenses by extending the useful lifetime of their various hardware solutions. These respondents noted that their investment in MVS saved them approximately 14% of their capital budgets by deferring these expenses.
- › **IBM helped customers avoid critical incidents while also reducing the time it took to resolve remaining incidents.** Several survey respondents saw a reduction in their mean-time-to-repair after transitioning their support to IBM MVS. Survey respondents reported a 22% reduction in their MTTR after their transitioning to IBM. In addition to reducing the time it took to resolve incidents, 22% of the surveyed organizations reported that they saw a reduction in the total number of incidents they faced on an annual basis.
- › **Customers reported that IBM MVS helped them improve the quality of service they could provide their customers.** Fifty-three percent of the surveyed organizations stated that MVS increased the quality of the service their organizations provided. Part of this was due to increases in internal quality controls. Half of respondents noted that IBM MVS helped them increase the accuracy of their internal inventory.

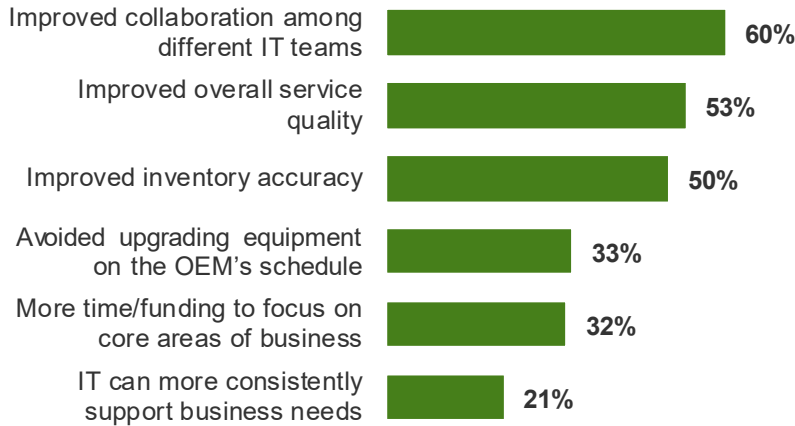


“What percent of your capital budget was saved by reducing or deferring capital expenses with IBM MVS?”



“What is the percent reduction in MTTR with IBM support services?”

**“Which of the following qualitative benefits have you realized since you deployed IBM as your third-party maintenance solution?”**



Base: 266 IT and finance decision makers using IBM for support

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, January 2019

## 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 MVS and later realize additional uses and business opportunities:

- › **Savings accrued through IBM MVS can be used by decision makers to focus on other business priorities.** Interviewees and survey respondents highlighted that they can use savings generated by IBM MVS on other strategic priorities. These organizations can reallocate the resources that were previously being used to run the company to projects that could transform the company.

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

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

# Analysis Of Costs

## QUANTIFIED COST DATA AS APPLIED TO THE COMPOSITE

### IBM MVS Costs

The fees paid to IBM vary with the number and type of devices that were under the support agreement. In addition to these factors, the total cost to use IBM MVS can vary based on the age and rarity of the device as finding spare parts is more challenging for some devices, which tends to raise the cost organizations will pay per device.

- › To best represent the cost of using IBM MVS in the model, the costs for IBM MVS support are highlighted in the first benefit calculation. Per the customer interviews and the survey responses, the cost of MVS is 25% lower than previous support costs.
- › To account for a staggered transition from existing partnerships with OEMs and third-party vendors, the composite has an incremental increase in the number of devices covered under the support agreement each year. As IBM MVS costs are dependent on the number of devices covered, the cost of using MVS ranges from \$3.4 million in Year 1 for almost 1,000 devices to up to \$4.5 million in Year 4 for over 1,200 devices.

### Planning And Training

In addition to the cost of using IBM MVS for data-center support, organizations incurred costs associated with planning the migrations to MVS and training essential personnel on the data provided through MVS. MVS users reported that their planning process began with an assessment of their IT environments, so they could come up with a baseline on the number of devices that needed to be transitioned. Once the assessments were done, organizations transitioned the environments in a phased approach.

- › Employees could navigate IBM support easily with limited training. One customer stated: “We have teams in the US (east coast, west coast), India, and the Philippines. Having a single account management team, single quality process, and single escalation process creates a unified process. It’s easy for us to train our teams to have the support request creation, escalation, and deletion process to follow.”
- › The director of infrastructure engineering and operations at a US-based retail store added: “To be honest, training consisted of maybe a couple of sessions over the year, maybe 2 hours for MVS. I have about 40 people on the team. We have one session every quarter conducted by one of the senior engineers. Or we’ll have the partners provide an hour-long training session.”

Forrester assumes that the composite organization:

- › Spends 100 total internal hours upfront to plan the transition of hardware and software to IBM support. The organization spends 20 hours each year identifying and communicating to IBM which items should go on or come off support.
- › Has 4 hours of ongoing training each year on how to use data provided by IBM as part of support escalation processes.

“We have teams in the US (east coast, west coast), India, and the Philippines. Having a single account management team, single quality process, and single escalation process creates a unified process. It’s easy for us to train our teams to have the support request creation, escalation, and deletion process to follow.”

*Director of infrastructure engineering and operations, retail*



100 hours spent upfront to plan the transition of hardware and software support to IBM MVS

- › Puts 40 staff members through these trainings each year, with an average hourly compensation of \$63 per hour.

Risks that could impact the estimate of this cost include:

- › The number of staff members who participate in the annual training sessions as well as the number of training sessions conducted each year.
- › Significant variance in the time spent planning and migrating to IBM MVS depending on the size and complexity of the previous IT environment.

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.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of \$37,951.

### Planning And Training: Calculation Table

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
D1	Planning/migration hours	Assumption	100	20	20	20
D2	Number of staff participating in training	Interviews		40	40	40
D3	Training hours per year	Interviews		4	4	4
D4	Average fully loaded hourly compensation	Assumption	\$63	\$63	\$63	\$63
Dt	Planning and training	$(D1+(D2*D3))*$ D4	\$6,300	\$11,340	\$11,340	\$11,340
	Risk adjustment	↑10%				
Dtr	Planning and training (risk-adjusted)		\$6,930	\$12,474	\$12,474	\$12,474

# IBM MVS: Overview

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

IBM Technology Support Services helps clients simplify IT support management by streamlining multiple OEM and vendor contracts to a single vendor with the expertise to care for virtually all of their technology support needs. IBM provides a range of IT support capabilities that are enhanced through the use of leading support management technology — including IBM Watson, augmented reality, blockchain, predictive analytics, and proprietary databases of technical information to address particular maintenance and support concerns such as aggregated event analysis, reporting, and proactive monitoring.

IBM's collaborative approach to multivendor IT support is designed to provide a cost-effective and flexible solution, and clients see measurable improvements in availability with IBM's proactive, reactive, onsite, and remote support for their data centers and across the IT environment.

## Services offered include:

### Data Center Support Services

- › Simplify your data-center support with a single point of contact; coordinate and manage multiple vendor contractual commitments and activities, within and outside the warranty period; extend the longevity of your equipment; optimize your system availability; and avoid technical support gaps by helping ensure that end-of-warranty devices are supported
- › Servers supported include but are not limited to: IBM, Cisco, Dell/ EMC, Fujitsu, HPE, Lenovo, and Sun/Oracle.
- › Storage supported include but are not limited to: IBM, Dell/EMC, Hitachi, HPE, NetApp, and Sun/Oracle.

### Network and Security Support

- › Partnerships with leading network and security OEMs, including Cisco, Juniper, F5, Fortinet, Palo Alto, Checkpoint, Riverbed, Brocade, and others, enable IBM to act as the maintenance provider for your entire network, offering single-point access for key patches, updates, and equipment.

### Third-Party Software Support Services

- › Comprehensive support solutions for multivendor software that can reduce complexity and consolidate support for any IT infrastructure. IBM provides around-the-clock support for software products from vendors such as Cisco, Microsoft, VMware, Docker, and Nutanix.
- › IBM offers Subscription & Support for Red Hat, SUSE, and Ubuntu products, including Virtualization, Containers, OpenStack, SAP HANA, and software-defined storage.
- › IBM also offers enterprise class support for more than 100 community versions of open source software.

### Product Support for Manufacturers and System Integrators

- › Work closely with IBM to deliver IT support to your customers. With IBM's robust services, infrastructure, and skills, you can improve service delivery and enhance your customer experience.

### Lifecycle Maintenance Support

- › Enables client's maintenance services and IT infrastructure refresh through flexible financing, optimized by proactively following specific device-type life cycles. Extends the life of existing investments and prolongs product life by extending maintenance care; reduces total cost of device ownership.

### Inventory and asset management

- › Implement the process of continuous proactive management of IT inventory and related contracts with the intent to reduce overall IT spending. Gain asset visibility, help reduce asset costs, virtually eliminate support exposure, and ease financial and capital planning.



# 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: Endnotes

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<sup>1</sup> Source: “US Tech Market Outlook For 2018 And 2019,” Forrester Research, Inc., July 2, 2018.