



FORRESTER®

April 2022

The Total Economic Impact[™] Of IBM WebSphere Hybrid Edition

Cost Savings And Business Benefits Enabled By
IBM WebSphere Hybrid Edition

“For us, evergreen is hard. Keeping systems up to date is hard. If you can remove some of the complexity, then that’s got to be an advantage. Our [WebSphere Hybrid Edition deployment] helps us there.”

— Product manager, banking

[IBM WebSphere Hybrid Edition](#) is comprised of multiple IBM solutions that support an organization's application modernization journey all under one license.

WebSphere Liberty is a Java Enterprise Edition (Java EE), Jakarta EE, and a MicroProfile server runtime solution that provides a low-overhead Java runtime environment that is well-suited for hosting cloud applications and microservices. WebSphere Liberty is designed to be highly composable, to start fast, to use less memory than other solutions, and to easily scale.

Developers have access to popular tools and Liberty features that increase their productivity. A more modern administrator console simplifies administration of the Liberty environment. Open Liberty is also an option for developers looking for the flexibility and community of an open-source option. Included in WebSphere Hybrid edition is additional functionality, like IBM Cloud Transformation Advisor and IBM Mono2Micro, which ensures an optimized and efficient path to cloud for an organization's workloads.

Key Metrics



ROI
195%



BENEFITS PV
\$7.10 million



NPV
\$4.69 million



PAYBACK
8 months

Methodology

DECISION-MAKER INTERVIEWS

Forrester interviewed four decision-makers at organizations using IBM WebSphere Hybrid Edition to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATIONS

Designed a composite organization based on characteristics of the interviewees' organizations.

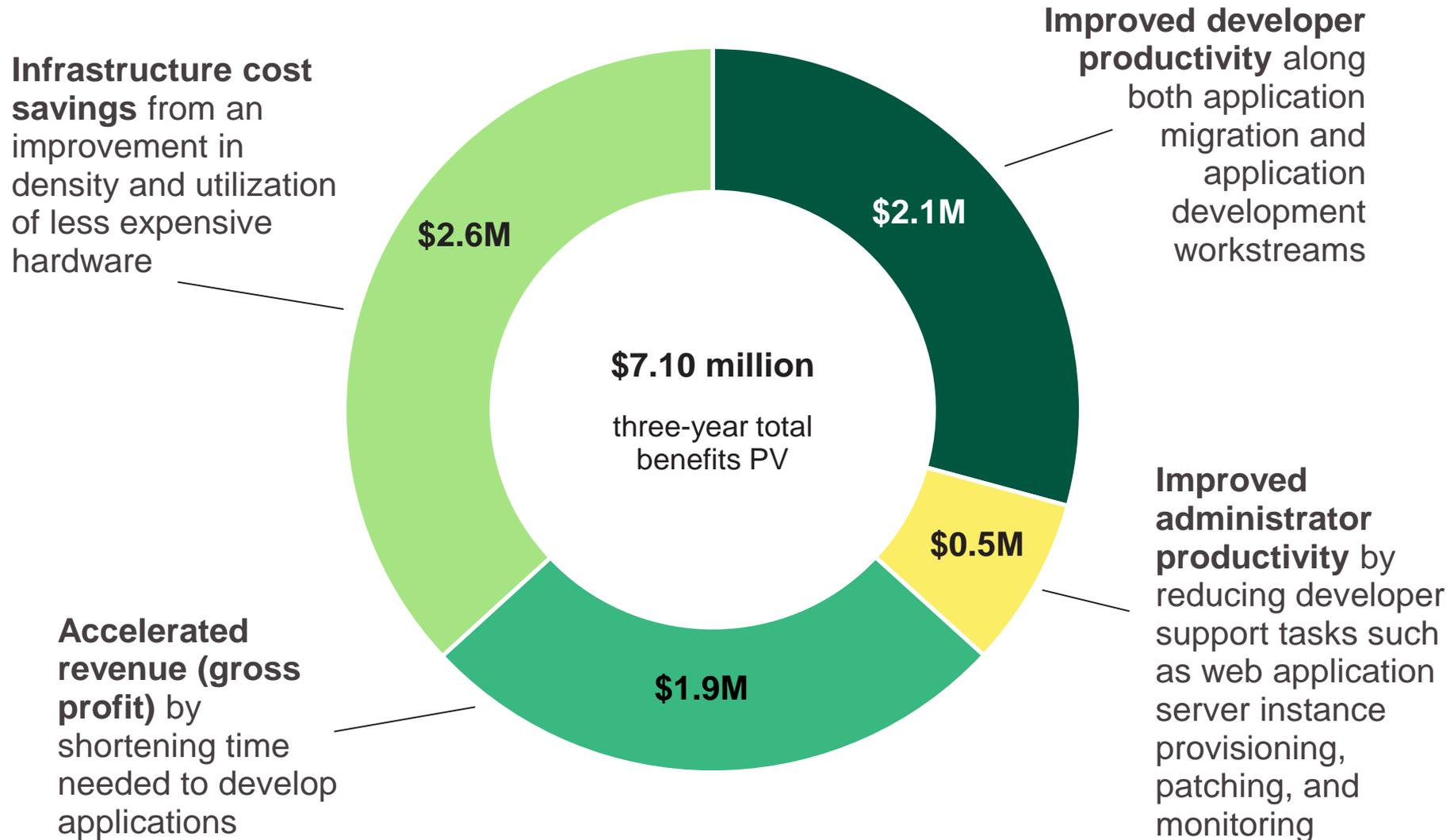
FINANCIAL MODEL FRAMEWORK

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 interviewees.

Forrester interviewed four decision-makers:

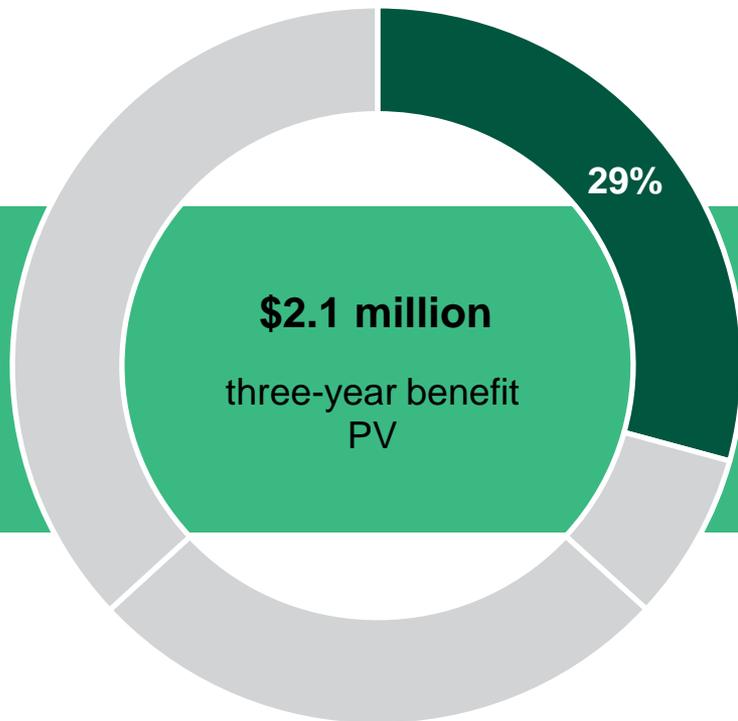
Interviewee title	Industry and region	Revenue
Product manager	United Kingdom bank	\$20B+
AVP and business transformation architect	Middle Eastern bank	\$1.5B+
System administrator, middleware team	United States retail company	\$150B+
Systems analyst	United States healthcare company	\$650M+

IBM returned **\$7.1 million** in quantified benefits over three years for the composite organization.



IBM WebSphere Hybrid Edition improved developer productivity.

Developers reap productivity benefits along both application migration and application development workstreams, allowing each developer to accomplish more while shortening development cycles by up to several months per project. Each of the interviewees noted that enabling their organization's developers to be as productive possible while solving for their respective business demands was a top priority. Interviewees also said developer efficiency increases during both application migration and application development workstreams are some of the most significant benefits of WebSphere Hybrid Edition.



“The start-up times and the ability to refresh our environments quickly and easily [on WebSphere Liberty] is absolutely brilliant. It really moves the needle on productivity.”

— AVP and business transformation architect, banking

“The collective controller dynamic routing and the routing rule feature allow us to simulate Kubernetes capabilities with canary release and blue-green [deployment] models. We can bring in a new application and just feed it traffic. If a team wants to test this, they can test it without sending live traffic. They can send in requests from a test perspective and make sure that it’s ready and available. These are key features that are absolutely invaluable to our application estate.”

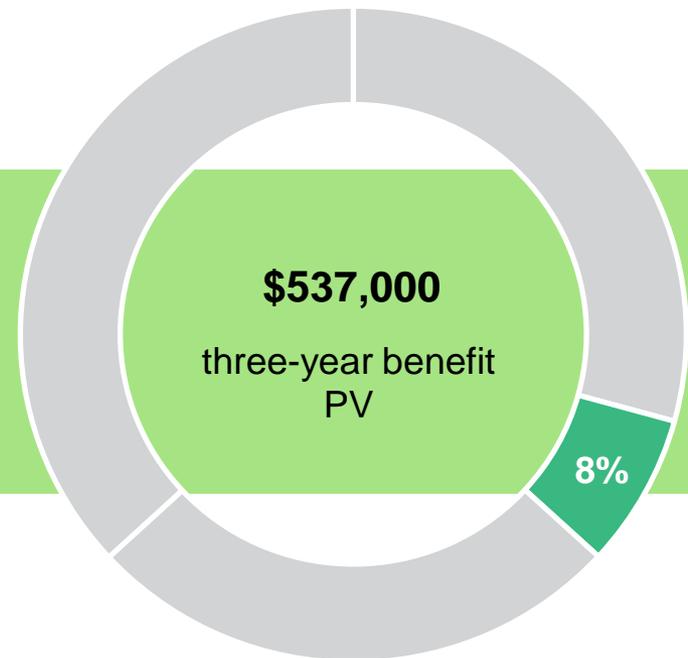
— Product manager, banking

IBM WebSphere Hybrid Edition reduced complexity among application estates, yielding productivity savings for IT administrators through reduced configuration requirements.

IT administrators saved time from tasks supporting their developers such as web application server instance provisioning, patching, and monitoring. One interviewee told Forrester that WebSphere Hybrid edition nearly cut their organization's IT administrator effort in half (just less than 55%).

“[The developers] do their updates, and we don't get involved in it after initial deployment. We templated all the XMLs behind their services so that one looks the same everywhere. The only difference is that they have to supply an application XML that is specific to that specific application. We the admins are not involved. We build it, deploy it, and say, 'If we build it, they will come.'”

— System administrator, retail

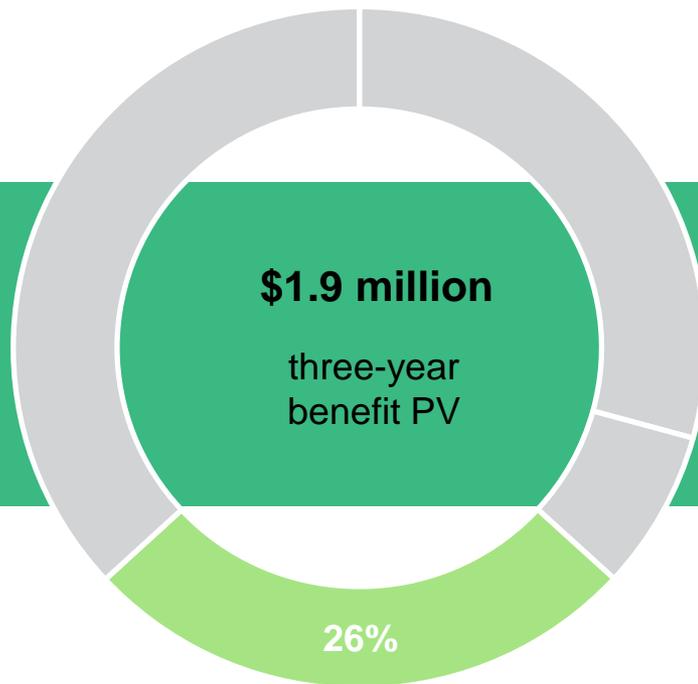


“[Our IT administrators have] become self-sustaining despite attrition. We don’t worry so much about it because our developers have become so much more efficient that we don’t need as many hands to support them. WebSphere has made us all more efficient and a little more knowledgeable.”

— System administrator, retail

IBM accelerates profit from faster development of customer-facing applications.

Productivity boons for both developers and IT administrators led to a reduction in development cycles for business-critical applications, updates, microservices, and functionalities. Delivering key services faster yields additional revenue on an ongoing basis. One of the banking interviewees estimated that revision cycles are cut by up to 70% on WebSphere Liberty and Open Liberty, which increases developer productivity while decreasing time-to-market for key applications, microservices, and functionalities.

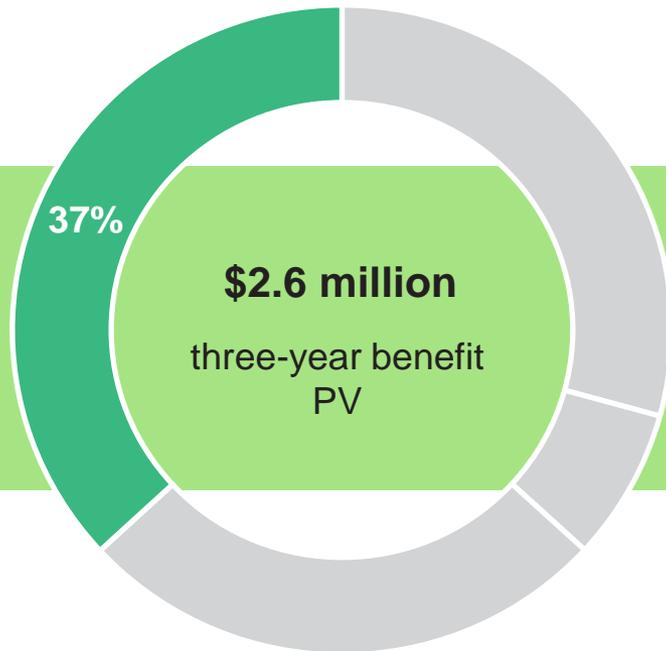


“Having the level of support we have is a massive benefit. It really is critical to the bank to have this support during critical incidents. The faster you can deliver, the bigger the impact of even a small delay ... WebSphere [Hybrid Edition], drives our ability to deliver on our business commitments.”

— Product manager, banking

IBM WebSphere Hybrid Edition delivers significant infrastructure cost savings.

WebSphere Hybrid Edition and WebSphere Liberty improve infrastructure utilization and generate savings from the data center, infrastructure purchases, power, cooling, and other related costs. Compared to prior application server environments, WebSphere Liberty runs at a higher throughput with less memory, and it needs fewer resources to run workloads. Refactoring applications as microservices with Mono2Micro drives additional infrastructure (in addition to developer productivity) savings. Migration to containers also allows for additional savings.



“We can scale on the same host or multiple hosts as we need to. We can scale up or scale down.”

— System administrator, retail

Unquantified Benefits

IBM enabled additional unquantified benefits for customers:

IBM improved security posture. Interviewees said their organizations gained the ability to be more flexible with security on WebSphere Liberty, which improved their security postures. Another security benefit includes security compliance with critical applications, updates, and common vulnerability scoring system (CVSS) targets.



IBM increased end-user productivity. While not quantified for this analysis, end users benefit from iterative application performance and uptime improvements resulting from migration to WebSphere Liberty and Open Liberty.



IBM improved quality of life for developers. Developers are now free to do their jobs and flexibly create and deploy applications, microservices, or functionalities to the most appropriate runtime environments. Open Liberty also provides a support community for developers.



“WebSphere has allowed us to mitigate issues related to staff shortages, staff skills, and time pressure to deliver applications and changes as quickly as possible to production.”

— AVP and business transformation architect, banking

Improved developer productivity by 50% in both application migration and development workstreams.



Interviewees reported infrastructure savings (and savings related to power, cooling, and maintenance) from an improvement in density of 40%,



IBM WebSphere improved administrator productivity by 40%



“From my point of view, WebSphere [Hybrid Edition] has helped us make the bank cloud-ready.”

— Product manager, banking

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.



Return on investment (ROI)

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

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.

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.

Explore More

Download PDF Study: The Total Economic Impact Of IBM WebSphere Hybrid Edition

[Read Now](#)

[Contact IBM](#)

FOLLOW
FORRESTER



FORRESTER

The Total Economic Impact™ Of IBM WebSphere Hybrid Edition

Cost Savings And Business Benefits
Enabled By IBM WebSphere Hybrid Edition

AUGUST 2021

A FORRESTER TOTAL ECONOMIC IMPACT™ STUDY COMMISSIONED BY IBM