Executive Summary: The Total Economic Impact™ Of IBM Cloud Pak For Integration

IBM Cloud Pak® for Integration is a hybrid integration platform that supports multiple styles of integration within a single, unified experience. IBM Cloud Pak for Integration unlocks business data and assets as APIs, connects cloud and on-premises applications, delivers messaging and events reliably and in real-time, and transfers data at high speed across any cloud, all with enterprise-grade security, scalability, and reliability.

To better understand the benefits, costs, and risks associated with IBM Cloud Pak for Integration, IBM commissioned Forrester Consulting to interview five decision-makers across financial services, healthcare, technology, and professional services industries and conduct a Total Economic Impact™ (TEI) study.[1]

This is an executive summary of the full Total Economic Impact™ study. Please read the full study for more detailed information.

PRIOR-STATE CHALLENGES

Before IBM Cloud Pak for Integration, interviewed organizations either utilized custom integrations, in-house solutions, and point solutions or leveraged multiple competitor solutions.

- **Lack of efficiency due to siloed integration teams, systems, tools, and processes.** Prior to implementing IBM Cloud Pak for Integration, interviewees used an overly complex combination of integration solutions across different integration types, lines of business, and developer and IT teams. The multiple solutions

Return on investment (ROI)
151%

NPV
$4.1M

created silos between integration developers and subsequently limited cross-functional collaboration due to differences in technology and processes.

- **Inefficient and expensive manual integrations.** Custom integrations built on homegrown environments and open source frameworks were riddled with inefficiencies. Developers created and changed integrations manually and in nonstandardized environments. Doing so was slow, laborious, and sacrificed quality as developers lacked guardrails such as prebuilt templates and frameworks to expedite creation and replication. Integrations were challenging to monitor and maintain. Ultimately, organizations could not scale integrations to keep up with their modernization and transformation goals.

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- **Performance, reliability, and availability suffered using legacy solutions, leading to poor customer experience and revenue impact.** The quality and integrity of integrations in prior states led to poor performance, reliability, and availability. Prior to using IBM Cloud Pak for Integration, unexpected production outages were common for a technology and professional services organization, leading to degraded customer experience, lost revenue, and huge efforts to find, diagnose, and fix issues.

- **Custom and nonstandardized integrations led to security vulnerabilities.** Creating integrations across multiple prior solutions introduced wider attack surfaces and vulnerabilities. Developer and security teams spent more time conducting static and dynamic application security testing for custom-developed integration code. A technology and professional services organization found an average of 2.3 critical vulnerabilities in staging and production environments before implementing IBM Cloud Pak for Integration, exposing them to a higher chance of data breaches.

WHY IBM CLOUD PAK FOR INTEGRATION?

The interviewed organizations searched for a solution that could:

- **Consolidate legacy competitor solutions into one environment.** The healthcare organization had nearly a dozen hospital sites with separate IT teams and environments. It leveraged several different competitor solutions for integrating medical services applications and data. The director of IT told Forrester that their main strategic objective was to standardize integrations across all sites, breaking down barriers between developer teams and reducing total licensing costs.

- **Support digital transformation, modernization, and hybrid cloud initiatives.** Interviewed organizations required a modern, scalable cloud solution that could support their efforts to modernize legacy applications, support hybrid cloud environments, and expand development into microservices and cloud architecture. IBM Cloud Pak for Integration was a natural fit for interviewed organizations facing the significant effort of modernizing applications and developing greenfield, cloud-native integrations.

- **Enable automation, real-time integration, and new features for increased innovation at scale.** Due to its automation features and added benefits of labor efficiencies, IBM Cloud Pak for Integration enabled interviewees to accelerate integration development and spend more time creating new integration features

- **Unlock data from legacy applications.** As organizations move to the cloud, there emerge greater business risks in locking data within legacy environments. With IBM, interviewees can unlock the full extent of their data to provide better insights, services, and applications.

- **Reliable vendor partner services and support.** IBM was the clear choice for customers who required enterprise solutions to provide enhanced reliability, support, and credibility.

> **"We were on seven different technology stacks with seven customized integration teams. Now, everything's on one technology stack, one integration framework, one integration platform, and one development language. There's only one way of doing things."**
>
> *CTO, professional services*

KEY RESULTS

Based on the customer interviews and TEI analysis, Forrester found the following risk-adjusted present value (PV) benefits from using IBM Cloud Pak for Integration.

Up to 60% reduction in production outages. IBM Cloud Pak for Integration improved the quality and resiliency of integrations across application, API, enterprise messaging, event streaming, and high-speed data transfers. Interviewed customers said that they reduced production application downtime by 40% to 60%, equating to improved reliability cost savings of **$1.9 million** over three years.

- The CISO at a technology and professional services firm told Forrester that major or large upgrades resulted in production outages 40% to 50% of the time. Depending on client impact, these outages could cost tens to hundreds of thousands of dollars per minute, not including rollback and break-fix labor across cross-functional teams to troubleshoot and resolve. With IBM, the organization eliminated these types of outages.

- A professional services organization improved uptime across all systems for one of its managed services clients by 90% to 95%, with 33% attribution to IBM Cloud Pak for Integration. Maintenance windows were reduced from 45 minutes every couple of days to 45 minutes a year across 4,000 applications and hundreds of interfaces.

Incremental income increase of $1.1 million. By leveraging IBM Cloud Pak for Integration, organizations improved efficiency and developed more revenue-generating applications and services than they could in their previous environment. This drove greater innovation and improved employee and customer experience. Innovation improvements drove **$1.1 million** of additional incremental income over three years.

- A financial services organization created eight to nine new applications, five of which were customer-facing, after investing in IBM Cloud Pak for Integration. The infrastructure tech lead told Forrester that they modernized a mortgage service application that had siloed teams to collect and review customer data. With IBM, they integrated all customer data across simple software as a service (SaaS) to complex applications to accelerate loan processing, increase customer conversation, and generate greater revenues.

> **"Using IBM provides our customers with better data insights because we can enrich the data that we have in our modern apps with some of the data that we have locked away with the legacy apps."**
>
> *CISO, technology and professional services*

Reduction in integration development time of 35% and faster developer onboarding time of 66%. IBM Cloud Pak for Integration accelerated integration development speed because of its low-code, drag-and-drop developer interfaces, prebuilt and reusable integrations, shared asset repository, and automation features. Training was easier because of its simplified tooling and framework. Integration developer labor efficiency and decreased onboarding costs resulted in **$1.2 million** in savings over three years. Interviewees cited the following results in improving integration developer efficiency and onboarding:

- **Higher developer utilization.** In legacy environments, integration developers were limited by their specific knowledge and integration solutions. With IBM Cloud Pak for

Integration, developer skill sets were standardized, allowing organizations to transfer developers across teams and use cases without sacrificing quality and efficiency.

- **Faster time-to-value.** Better developer efficiency and productivity ultimately drove shorter integration times, increased time-to-value, and greater business results.

- **Reduced total labor required for building integrations.** Interviewed organizations reduced the labor requirements for creating integrations. The CTO of a professional services organization told Forrester that rationalizing and consolidating into the IBM ecosystem, including IBM Cloud Pak for Integration, dramatically reduced the complexity of their managed IT estate and allowed a workforce reduction from 600 to 350 developers.

- **Faster developer onboarding.** Customers explained that training and onboarding new developers was faster and easier. A professional services firm reduced the time to onboard new developers from three months to three weeks — a 75% improvement. The CTO said, "It's a lot easier to onboard people because getting them up to speed is a lot faster since they don't have to learn multiple different tools or frameworks."

Up to 60% time savings in managing integrations. IBM Cloud Pak for Integration improved integration management by minimizing maintenance and troubleshooting, bettered visibility and administration, and automated monitoring and alerting. IT operations spent less time managing integrations and drastically reduced time spent investigating issues with application and API services. Dashboards provided valuable insights into integration performance, and automated alerts accelerated remediation and increased uptime. IT operations labor savings equate to a cost savings of **$1.7 million** over three years. Interviewed customers cited the following results in improving IT operations labor efficiency:

- **Better monitoring, administration, and visibility.** Integrations built in IBM Cloud Pak for Integration required less maintenance than previous states of custom integration or multiple-competitor solutions. An infrastructure tech lead at a financial services organization reduced their IT operations workforce from 100 FTEs to 50 FTEs during the course of their digital transformation efforts of adopting IBM, largely driven by IBM Cloud Pak for Integration.

- **Less time troubleshooting problems.** Integrations created on IBM were more reliable and stable, especially when leveraging prebuilt templates. As such, IT operations spent less time investigating various problems. A technology organization saved 60% of time spent on troubleshooting and investigations, increasing productivity for those resources.

> "IBM increases improved our IT operations efficiency by 40% to 50% compared to our previous tools. IBM has better documentation, requires less testing, and is enterprise-ready, allowing our IT operations to spend less time on certain activities and to utilize tools faster."
>
> *CISO, technology*

Reduction in application security labor of 10%. IBM Cloud Pak for Integration offers robust security frameworks and capabilities, such as end-to-end encryption, identity and access management, and consistent security policies to comply with security and privacy regulations. With IBM, organizations reduced security incidents and vulnerabilities, maintained stronger compliance controls, streamlined audit reviews, reduced the chance of breaches, improved brand reputation and the quality of business services, and reduced security labor

workloads. The reduction in need for application security labor is worth **$336,000** over three years. Interviewed customers cited the following results in improving application security engineer productivity:

- **Reduced false positives.** Integrating data across on-premises and cloud environments widens attack surfaces and may introduce false positives during incident response. By using IBM Cloud Pak for Integration, interviewed organizations reduced false positives, which increased security engineer productivity.

- **Reduced vulnerabilities.** Customers reduced the number of vulnerabilities spanning both east-west and north-south traffic across multiple data stores and hybrid environments, which threatened organizations' security posture and required expensive remediation efforts.

- **Better compliance controls, audits, and reviews.** Organizations that used IBM Cloud Pak for Integration found they were able to reduce labor and time spent setting compliance controls and completing compliance reviews.

- **Better identity and access management.** Built-in and easily integrated security features like identity and access management saved time and effort for security engineers.

Technology cost savings of nearly $568,000.
Consolidating application integration, API management, message queue (MQ), and event streaming into one platform minimized technology sprawl, allowing organizations to decommission legacy integration and security technologies. This saves **$568,000** in legacy licensing, infrastructure, and support over three years.

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not quantified include:

- Enhanced user and customer experience.

- Reduced chance of breach.

- Improved compliance.

- Improved scalability and agility in cloud-native environments.

- Seamless integration across hybrid cloud infrastructure.

- Improved allocation of higher-skilled labor to value-added tasks.

- Enhanced developer experience.

- Consolidated IBM ecosystem efficiencies.

- Increased contact center efficiency.

COSTS

Based on the customer interviews and TEI analysis, Forrester found the following three-year, risk-adjusted PV costs from using IBM Cloud Pak for Integration.

Subscription cost of $2 million over three years.
The IBM Cloud Pak for Integration subscription is modular, with fees based on a flexible deployment basis. Organizations can choose from a list of required capabilities, including API management, application integration, and enterprise messaging. The composite organizations use all core functionalities included in this model.

Implementation and ongoing costs of $626,000 over three years. Most interviewed organizations leveraged a mix of internal labor and professional services (from either IBM or other consultancies) for the implementation of IBM Cloud Pak for Integration. Implementation length ranged from 2.5 to 5 months. Training varied depending on organizational requirements and internal skill levels, from multiday courses to center-of-excellence (COE) and train-the-trainer approaches.

TOTAL ECONOMIC IMPACT ANALYSIS

For more information, download the full study: "The Total Economic Impact™ Of IBM Cloud Pak For Integration," a commissioned study conducted by Forrester Consulting on behalf of IBM, September 2021.

STUDY FINDINGS

Forrester interviewed five decision-makers at organizations with experience using IBM Cloud Pak for Integration and combined the results into a three-year composite organization financial analysis.

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Net present value (NPV)

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Appendix A: Endnotes

[1] 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.

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