



The Business Impact of Global Systems Integrators on Red Hat OpenShift Implementation

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BUSINESS VALUE HIGHLIGHTS



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523%

three-year ROI

10 months

to payback

47%

quicker application
migration projects

41%

more efficient project
management team

43%

more applications developed

30%

more productive application
developer teams

38%

more productive DevOps teams

41%

more efficient IT infrastructure
staff

\$19.4

million additional new
revenue gained

87%

reduced unplanned
downtime

5 hours

of end-user productivity
gained per user

Executive Summary

In today's enterprises, CIOs are accelerating digital transformation initiatives to achieve strategic competitive advantage, adopt innovative business models, and transform the customer experience. At the same time, demanding internal and external customers expect information technology (IT) service delivery at a very high level to enable business-critical processes and achieve desired business outcomes. IDC believes CIOs and IT managers will increasingly rely on external services providers, or global systems integrators, that offer a comprehensive approach to IT services across the product life cycle to help manage these complex IT landscapes and optimize ongoing IT operations.

Red Hat Global Systems Integrator (GSI) partners help customers more effectively design their IT infrastructure, applications, and processes using Red Hat open source software, cloud, containers, microservices, and other technologies with less risk and better outcomes. Combined with OpenShift, GSIs can help customers identify the best IT deployment and management strategies for emerging technologies such as automation, artificial intelligence, and cloud optimization and help optimize digital transformation efforts at scale.

IDC conducted research that explored the value and benefits for organizations using global systems integration resources, including Red Hat–accredited GSI partners. Red Hat–accredited GSI partners are third-party professional services firms that have invested technical and operational resources to deliver expert Red Hat OpenShift implementations as well as the ability to deploy, manage, and optimize Red Hat OpenShift environments and container environments.

Through a series of in-depth customer interviews and a methodology for determining business value, IDC's analysis found that these companies realized significant value from engaging with a Red Hat GSI by:

- ▶ **Improving productivity of IT teams**, leading to improved project management and application migration in Red Hat OpenShift environments.
- ▶ **Boosting the overall productivity** of application development and DevOps teams, thereby paving the way for the release of more applications and features to line-of-business users.
- ▶ **Reducing the incidence** of unplanned downtime events and increasing overall end-user productivity through more robust application performance.
- ▶ **Improving support for business operations**, leading to the recognition of substantial incremental annual revenue.

Situation Overview

The combination of IT proliferation and surging business ecosystem complexity has pressed enterprises to tightly couple IT and business requirements. A business case — even if just an informal one — must be presented in a way that demonstrates how an IT investment or initiative supports specific business goals that align to business priorities such as operational efficiency, business continuity, development of new digital business models, compliance, and security.

Hybrid and multicloud operating models are quickly becoming a cornerstone for digital transformation. Applications are the crown jewels for most enterprises, and the speed at which an IT organization can modernize and migrate its applications to the appropriate cloud environment with the right supporting IT infrastructure will be table stakes for business innovation and competitive advantage.

At the same time, COVID-19 exposed essential gaps in skills and processes that may have previously been overlooked or underprioritized. Gaps in talent and resources and limitations on time have made these fissures more expansive. IT organizations and business stakeholders will need to ensure that IT investments are resilient, agile, and transformational as well as strongly positioned for innovation when the market and opportunities present themselves.

Innovative technologies such as open source software, containers, and platforms are enabling enterprises to innovate faster, with greater flexibility and more cost effectively. While open source and container benefits are clear, bringing these resources together for many enterprises is a challenge. Faced with a scarcity of in-house skilled developer and IT resources coupled with a growing talent gap, and the desire to move faster, enterprises will increasingly turn to their vendors and their skilled partners to help them accelerate and de-risk their digital transformation goals.

The Business Value of Red Hat OpenShift Leveraging Accredited Global Systems Integrators

Study Demographics

IDC conducted research that explored the value and benefits of using Red Hat OpenShift in combination with Red Hat–accredited GSI partners to optimize IT deployment and management. The project included 9 interviews with organizations that were using a GSI to help them deploy and manage their Red Hat OpenShift deployments. Interviewed managers all had experience with and knowledge about the benefits of engaging with these partners to deploy their Red Hat OpenShift environment and were asked a variety of quantitative and qualitative questions about the impacts of both on their IT operations, core businesses, and costs.

Table 1 presents study demographics. The organizations that IDC interviewed had an average base of 34,933 employees, indicating the involvement of several large organizations. This workforce was supported by an IT staff of 2,085 engaged in managing 1,722 business applications. A variety of vertical markets were represented, namely, financial services (2), healthcare, information technology, manufacturing, insurance, retail, transportation, and travel and hospitality sectors.

TABLE 1
Firmographics of Interviewed Organizations

Firmographics	Average	Median	Range
Number of employees	34,933	13,000	2,400 to 136,000
Number of IT staff	2,085	1,175	45 to 6,000
Number of business applications	1,722	350	80 to 12,500
Industries	Financial services (2), healthcare, information technology, manufacturing, insurance, retail, transportation, travel and hospitality		

n = 9; Source: IDC In-depth Interviews, October 2021

Selection and Use of Red Hat OpenShift with an Accredited GSI

The organizations that IDC interviewed described typical engagement patterns of their Red Hat OpenShift implementation with a GSI. They also discussed the rationale for selecting their GSI as an optimal means of enhancing OpenShift operations and application use by relying on the technical expertise, knowledge base, and cross-industry global expertise offered by Red Hat's systems integrator partners.

Study participants cited a variety of reasons for their choice of partner, such as being better able to accelerate and stabilize application development processes and ensure more frequent releases of code. In some cases, GSIs were used to address gaps in skill categories and levels for IT staff working on deploying or managing various Red Hat technologies. Common themes emerged for selection centering on the need for tapping into specific expertise to deal with existing infrastructure, planning for technology adoption, product evaluation, and project acceleration. Improved technology adoption concerns highlighted containerization as a critical component. Having the ability to meet tight timelines was also cited.

Study participants made detailed comments on these benefits:

▶ Accelerated and stabilized development processes:

"We were looking for opportunities to iterate quicker, build immutability in our technology stack, and ensure artifacts between dev and production were the same. This improved stability tremendously and allowed for more frequent deployments of our code. Our organization was highly legacy with lots of manual processes and configurations, which made for very inconsistent environments that posed a risk to the business from a stability perspective. Building 12-factor containerized applications reduced our risk from a ransomware perspective as well."

▶ Better adoption and knowledge transfer:

"It was because our GSI is certified by Red Hat as experts in that technology and we needed that level of expertise to speed adoption."

▶ Augmented in-house capabilities:

"The main reason was the lack of in-house expertise combined with the priorities of in-house staff. Because they were already handling multiple projects, we couldn't just pull them off to do something else. That's the reason we decided to hire a GSI, so it could be done independently within our current operations."

▶ Improved technology adoption; leveraged technical expertise:

"It was because some projects involved solving existing issues, and others involved technology adoption. We were evaluating Red Hat products and wanted some direction around that because we lacked the technical expertise. We also wanted help with specific projects that had short deadlines. We also needed rapid adoption of Red Hat products because our architecture design called for it to achieve quick time to market for specific applications around the management of products to help customers obtain information."

Table 2 (next page) provides a snapshot of the IT environment that a Red Hat OpenShift with an accredited GSI partner implemented and supported. On average, there were 124 business applications touched by Red Hat OpenShift environments. In addition, there were 32 DevOps users and 482 application development users. Additional metrics are presented.

TABLE 2

Environment Supported by a Red Hat OpenShift Utilizing a GSI

	Average	Median
Number of servers	461	26
Number of VMs	3,139	300
Number of business applications	124	138
Number of DevOps users	32	25
Number of AppDev users	482	50
Number of other IT users	154	100
Number of self-service users	3,183	800

n = 9; Source: IDC In-depth Interviews, October 2021

Table 3 provides additional perspectives on usage related to the types of cloud environments of interviewed companies. 55% were using OpenShift on public clouds and 66% on premises, with additional data also shown.

TABLE 3

Red Hat OpenShift Deployed by a GSI by Cloud Environment

	Average
Customers using OpenShift on private cloud	11%
Customers using OpenShift on public cloud	55%
Customers using OpenShift on premises	66%
Customers using OpenShift on hybrid cloud	55%

n = 9; Source: IDC In-depth Interviews, October 2021

Red Hat OpenShift Accredited GSIs: Business Value and Quantified Benefits

IDC's Business Value methodology evaluates and quantifies the benefits for companies in adopting Red Hat OpenShift with GSI partners as a core element of their IT deployment and management operations and practices. Organizations reported that their GSI partner helped them by taking on adoption projects they themselves did not have the time nor resources to manage. They noted their Red Hat OpenShift–accredited GSI partner also shared a number of post-adoption best practices for future adoption success and ongoing management. After engagement with their accredited GSI partner, interviewed companies were able to improve IT team productivity — leading to improved project management and application migration in their OpenShift environments. Engagement also boosted the productivity of application development and DevOps teams, which paved the way for the speedy release of more applications to lines of business. In addition, companies found they could reduce the incidence of disruptive downtime events while increasing overall end-user productivity. These end-user benefits, in turn, led to better support for business operations and garnering substantial additional annual revenue.

Study participants commented on these and other benefits:

▶ **Technical expertise and efficiency:**

“From an IT perspective, it gave us fewer interruptions in terms of not having to drop other projects. More importantly, it was about bringing subject matter experts to the table that could get things done efficiently. We could have eventually done it on our own, but the 3.5 months that we had the GSI involved might have been a stretch for our in-house folks because of lack of skills.”

▶ **Coaching for Agile development methodology:**

“We moved our organization to an Agile development methodology, and being able to develop and test workloads much faster via a more mature CI/CD pipeline (including OpenShift) allowed us to develop faster, perform automated QA, and more frequently release artifacts into production. The nature of the automation allowed us to avoid hiring additional head count to support the speed to market (e.g., not having to manually build VMs, wait on a QA testing cycle, and so forth). Kubernetes also provides a level of fault tolerance as we can always maintain a number of active containers at any given time, and easily scale up as needed.”

▶ **Enhanced cash flow and cost savings:**

“It's improving resource utilization that actually results in the monetary savings. We save a lot of money by optimizing that infrastructure through a GSI.”

▶ **Enhanced competitiveness:**

“Because we can get our value-added IoT information management system to market quicker, we can keep customers from looking for competitive products.”

Systems Integration Impacts for OpenShift Deployment and Management

As business applications grow in scope, complexity, and importance, companies need to develop and manage them more effectively using best available technology and resources. Red Hat OpenShift is designed to address these challenges with a flexible platform that automates installations, upgrades, and life-cycle management and provides an agile foundation for developing and running applications based on container technologies. In meeting these challenges, adding systems integration resources to the mix provides an additional value-added layer for a variety of needs, including filling staffing and skill gaps and accelerating projects and deadlines.

Study participants appreciated that accredited OpenShift GSI partners enhanced both product knowledge and project leadership across their various IT teams while accelerating time to value on the business side. They also commented on how the combined offering helped them modernize and streamline various DevOps and applications development processes while significantly increasing the number of application releases to lines of business in their companies.

Study participants commented:

▶ **Product knowledge and project leadership:**

“The GSIs were just able to do it faster than us, and then set up a path and a template for everyone else to follow. Further, their process did not interrupt existing projects.”

▶ **Faster time to value:**

“Using a GSI has certainly helped us support our business strategy. If we were doing this ourselves, it would have taken 1.5 years instead of 6 months. What that additional time would have cost us drove the decision to adopt.”

▶ **Holistic approach to maximizing OpenShift investment:**

“The GSIs handled everything, including network planning, security, or other kinds of integration into the OpenShift environment. They gave us a road map to follow and that was of immense help, and exactly what we wanted from them.”

To evaluate and quantify these benefits, IDC looked at a number of specific operational areas starting with impacts on application migration project management. IDC found that Red Hat OpenShift delivered by Red Hat–accredited GSIs helped organizations improve application migration project efficiency by shaving off 3 months from end-to-end timelines. **Table 4** (next page) quantifies these improvements. As shown, average migration staff efficiency improved 41% after adoption, while the length of migration projects decreased by 47%.

TABLE 4

Application Migration Project Management Impact

	Before Red Hat OpenShift with an Accredited GSI	With Red Hat OpenShift with an Accredited GSI	Benefit Value	Benefit
Productivity impact (equivalent FTEs)	54.1	31.7	22.4	41%
Application migration project length	6.4	3.4	3.0	47%
One-time project management productivity costs	\$5.4M	\$3.2M	\$2.2M	41%

n = 9; Source: IDC In-depth Interviews, October 2021

Application management was identified as another key area where Red Hat OpenShift with an accredited GSI partner had positive impacts. Interviewed organizations told IDC that using an accredited partner helped them build up their expertise for managing new applications, thereby improving team efficiency as well as bolstering existing skills and filling skill gaps.

As shown in **Table 5**, after adoption, average IT team efficiency increased by 41%. From the perspective of management costs annually, these improvements translated into an average business value of \$2.0 million for each organization studied.

TABLE 5

Application Management Impact

	Before Red Hat OpenShift with an Accredited GSI	With Red Hat OpenShift with an Accredited GSI	Benefit Value	Benefit
Productivity impact (equivalent FTEs)	50.5	29.9	20.6	41%
Application management cost per year per organization	\$5.1M	\$3.0M	\$2.1M	41%

n = 9; Source: IDC In-depth Interviews, October 2021

IDC then looked at impacts on core application development efforts. Study participants reported that the accredited GSI helped their development teams establish the Red Hat OpenShift tools they needed while also streamlining end-to-end workflows. The GSI value-add helped further these goals with respect to new technology adoption efforts or filling gaps in technical expertise.

As shown in **Table 6**, after adoption, average team productivity increased 30%, which means these teams of 375 FTEs could now do the work of 488.9 FTEs without having to add the 113.9 additional resources. These improvements translated into an average annual business value of \$11.4 million in additional productivity gains for each organization.

TABLE 6
Application Development Impact

	Before Red Hat OpenShift with an Accredited GSI	With Red Hat OpenShift with an Accredited GSI	Benefit Value	Benefit
Productivity impact (equivalent FTEs)	375.0	488.9	113.9	30%
AppDev cost per year per organization	\$37.5M	\$48.9M	\$11.4M	30%

n = 9; Source: IDC In-depth Interviews, October 2021

IDC drilled down on application development impacts by looking at deliverable outputs. Because GSIs helped streamline the development process and optimize Red Hat OpenShift by using automated toolsets, development teams have been able to increase the number of new applications and features they could deliver to line-of-business end users. Commenting on this benefit, one study participant noted: *“The biggest benefit is certainly knowledge, and what that means from a business perspective. From the DevOps side, in terms of automating the software deployment pipeline, our GSI was invaluable in getting the OpenShift environment established. They’ve really helped us automate that entire pipeline, which basically allowed us to go from 4 releases a year to 26.”*

As shown in **Table 7** (next page), after adoption, interviewed companies experienced a 43% increase in the number of new features developed annually while new application development life cycles improved 42%. Especially noteworthy is that the number of new application features increased dramatically (168%).

TABLE 7

Application Development Impact

	Before Red Hat OpenShift with an Accredited GSI	With Red Hat OpenShift with an Accredited GSI	Benefit Value	Benefit
Number of new applications developed per year	5.7	8.2	2.5	43%
Development life cycle for new applications (weeks)	25.0	14.5	10.6	42%
Number of new features developed per year	41.4	137.5	86.1	168%
Development life cycle or new features (weeks)	11.3	6.0	5.4	47%

n = 9; Source: IDC In-depth Interviews, October 2021

Similar improvements were seen with DevOps team productivity. Study participants told IDC that their GSI partners helped them improve and streamline their entire DevOps stack through automation and the benefits of systems integration expertise. Commenting on DevOps process optimization, one study participant commented: *“Our DevOps approach was a slow general pipeline with a lot of redundant steps. Using a GSI helped modernize and streamline our DevOps processes more efficiently.”*

Table 8 quantifies these improvements. After adoption, productivity improved 38% and the number of new application updates produced annually were increased dramatically (187%). Additional metrics are presented.

TABLE 8

Application Development Impact

	Before Red Hat OpenShift with an Accredited GSI	With Red Hat OpenShift with an Accredited GSI	Benefit Value	Benefit
Productivity impact (equivalent FTEs)	22.2	30.5	8.4	38%
DevOps cost per year per organization	\$2.2M	\$3.1M	\$837,800	38%
Number of new applications updates per year	81.6	234.6	152.9	187%
Total calendar weeks per update	13.7	7.8	5.9	43%

n = 9; Source: IDC In-depth Interviews, October 2021

By identifying a range of commonly applied DevOps tasks and operations, IDC drilled down further on impacts for DevOps teams (see **Figure 1**). As shown, the greatest improvements were seen in development/coding (21%), deployment (17%), and integration (17%).

FIGURE 1
DevOps Staff Time Efficiency Gains by Activity

(% of improvement)



n = 9; Source: IDC In-depth Interviews, October 2021

IDC then looked at how Red Hat OpenShift implemented with an accredited GSI partner provided ancillary benefits for help desk operations. As shown in **Table 9**, after adoption, the number of application-related support calls to help desk staff decreased 37% while the time to resolve tickets was reduced 44%. This second metric was the direct result of a 65% increase in help desk staff productivity and resulted in an annual business value of \$199,300.

TABLE 9
Application-Related Help Desk Impact

	Before Red Hat OpenShift with an Accredited GSI	With Red Hat OpenShift with an Accredited GSI	Benefit Value	Benefit
Number of application-related support calls or tickets per week	5,597	3,504	2,093	37%
Average time to resolve in total (hours)	1.0	0.6	0.5	44%
Help desk productivity impact (equivalent FTEs)	3.1	1.1	2.0	65%
Salary cost per year per organization	\$307,300	\$107,900	\$199,300	65%

n = 9; Source: IDC In-depth Interviews, October 2021

Improved Business Operations Resulting from Engagement with Red Hat OpenShift Utilizing an Accredited GSI Partner

Improvements in Red Hat infrastructure and application performance from the adoption of Red Hat OpenShift utilizing an accredited GSI partner had measurable impacts on the business operations of interviewed companies. Study participants reported improving key aspects of their business plans and operations. More specifically, they appreciated that lines of business received feature enhancements and bug fixes much faster than previously, thereby boosting productivity levels. They also commented on the ability to take on more projects without experiencing degradations in business activity and results. Others spoke of improved application velocity and customer experiences through the increased availability and responsiveness of core applications.

Study participants commented on these benefits:

▶ Improved business performance and agility:

“It became much faster to promote and deploy artifacts into production using button clicks as opposed to manual server configurations. The business side of the house was able to get feature enhancements and bug fixes much faster than would have otherwise been possible with previous technology stacks. OpenShift gave us the ability to treat our infrastructure like cattle, not pets. So if a process was failing, we’d simply kill it and redeploy.”

▶ Ability to take on more work without degrading business results:

“From a business point of view, the benefit is that our internal team was able to sustain normal business operations while the GSI was bringing this capability in-house for us. There was no disruption to the business or need to put ongoing projects on hold.”

▶ Improved customer experience:

“We can now create a better customer experience for digital banking purposes with increased availability and responsiveness.”

▶ Increased application deployment velocity:

“The best example I can give relates to PPP Loans. Because of the pandemic, they passed the Paycheck Protection Program Act, which gave loans to small businesses to keep operating. Using this process, we were essentially able to build a PPP Loan application app and deploy it in 14 days. We just had to get that project out as soon as humanly possible, and we were the first company in capital management to do so.”

▶ Improved productivity:

“Our end users are more productive because they are getting their features faster and have better performance from those features. Users are 20% more productive as a result.”

The reliable use of core applications is a critical dependency in today's business environments. Interviewed organizations reported that they were able to minimize the frequency and impact of unplanned downtime by utilizing Red Hat OpenShift with an accredited GSI partner. For end users and customers, better reliability translated into improved IT experiences and less business risk stemming from service interruptions that could affect core applications.

Table 10 quantifies these benefits. After adopting Red Hat OpenShift with an accredited GSI partner, the number of outages experienced annually was reduced substantially (64%). Moreover, when outages did occur, they were remediated 63% faster. Cumulatively, these improvements resulted in an annual productivity-based value of \$973,700 for each organization.

TABLE 10
Unplanned Downtime — User Productivity Impact

	Before Red Hat OpenShift with an Accredited GSI	With Red Hat OpenShift with an Accredited GSI	Difference	Benefit
Number of outages per year	9.7	3.5	6.2	64%
MTTR (hours)	2.9	1.1	1.8	63%
Lost productive time per organization per year (FTEs)	16.1	2.2	13.9	87%
Lost productive time per user per year (hours)	9.5	1.3	8.2	87%
Value of lost productive time per organization per year (based on FTEs)	\$1.1M	\$150,500	\$973,700	87%

n = 9; Source: IDC In-depth Interviews, October 2021

Positive business impacts extended beyond service reliability and also were tied to business results. Interviewed organizations gave examples of how a Red Hat OpenShift GSI is helping them move faster to market with new applications and services, which meant that they could capture more revenue.

Table 11 (next page) quantifies revenue impacts from the ability to better address business opportunities. As shown, the total average annual revenue accruing to interviewed companies after adoption was calculated at \$1.6 million per 10 business applications.

TABLE 11

Business Operations and User Impact — Revenue from Better Addressing Business Opportunities

	Per Organization	Per 10 Business Applications
Total additional revenue per year	\$19.4M	\$1.6M
Assumed operating margin	15%	15%
Total recognized revenue per year — IDC Business Value model	\$2.9M	\$236,000

n = 9; Source: IDC In-depth Interviews, October 2021

The end users of interviewed organizations benefited from having access to better performing and more functional applications and features. **Table 12** quantifies end-user revenue impacts showing an annual average productivity gain of approximately 4%. This resulted in an annual business value of \$594,800 for each organization.

TABLE 12

End-User Impact — Enhanced User Productivity

	Per Organization
Number of users impacted	226.6
Average productivity gains	4%
Productive hours gained per user	5.0
End-user impact per organization per year (equivalent FTEs)	8.5
Value of end-user time	\$594,800

n = 9; Source: IDC In-depth Interviews, October 2021

ROI Summary

Table 13 presents IDC's return on investment analysis for study participants' use of Red Hat OpenShift with an accredited GSI. IDC projects that interviewed companies will achieve three-year discounted benefits worth an average of \$40.1 million per organization (\$3.3 million per 10 applications) through improved IT operations, application performance, and better IT team/end-user productivity gains as described. These benefits compare with total three-year discounted costs of \$6.5 million per organization (\$521,500 per 10 applications). These levels of benefits and investment costs are projected to result in an average three-year ROI of 523%, with a break-even point occurring in 10 months.

TABLE 13
Three-Year ROI Analysis

	Per Organization	Per 10 Applications
Benefit (discounted)	\$40.1M	\$3.3M
Investment (discounted)	\$6.4M	\$521,500
Net present value	\$33.7M	\$2.7M
ROI (NPV/investment)	523%	523%
Payback	10 months	10 months
Discount factor	12%	12%

n = 9; Source: IDC In-depth Interviews, October 2021

Challenges/Opportunities

Challenges

Although utilizing a Red Hat–accredited GSI services partner for Red Hat solutions can unlock significant business value, realizing return on those services can be complicated if organizations fail to address key challenges such as:

► **Changing management/risk management.**

Organizations can get caught up in assuming that using GSI services alone can directly lead to business value generation. Establishing escalation paths for issue management, performance metrics, governance structures, and clearly defined roles and responsibilities are keys to successful utilization of GSI services. Without effective change management, governance, and risk management to steer services performance, organizations potentially face increased hazards of business failure and undermine the very objectives they were hoping to achieve through third-party services utilization.

▶ **Corralling costs.**

If not planned and managed properly, costs to execute application and infrastructure development and management can rise when utilizing GSI services together with internal IT resources. Organizations need to clearly divide roles and responsibilities among internal IT and services teams as well as establish effective workflow communication standards to avoid duplication of effort, and wasteful uses of cash.

▶ **Creating a new culture and operating model.**

Altering the operational model for how application development and management is completed requires changing the mindsets of the organization's resources, and not changing mindsets can often be the key stumbling block for harnessing and achieving the benefits of managed services. Trust, reliability, and transparency are major foundations for enabling culture adjustment. Without them, organizations will struggle to achieve success through the use of application and infrastructure services.

Opportunities

This study highlights how utilizing a Red Hat–accredited GSI to implement and manage Red Hat solutions have aided enterprises with creating significant value.

Along these lines, organizations seeking to create higher levels of productivity via leveraging such services can:

▶ **Repurpose IT resources to address strategic digital transformation initiatives.**

Using Red Hat–accredited GSIs for application development, management, and infrastructure tasks enables organizations to focus their development and maintenance employees on strategic application initiatives linked to digital and business transformation objectives. It reduces carrying costs to maintain assets and resources internally and also aids organizations with transitioning work to service providers that specialize in application development and migration, which, in turn, can enhance application performance, reliability, and quality.

▶ **Create sources of cash to support application modernization and digital transformation objectives.**

Using accredited Red Hat GSIs can help organizations drive down their application development, management, and infrastructure maintenance costs, which can help enterprises build sources of cash they can, in turn, direct toward strategic IT modernization and transformation initiatives.

▶ **Build and extend levels of IT automation.**

By utilizing accredited Red Hat GSIs for application development, management, and infrastructure, organizations can enhance levels of speed and automation for application and infrastructure servicing. Through higher levels of automation, line-of-business personnel can enhance speed of responsiveness to customer needs as well as enhance competitive positioning against rival organizations.

Conclusion

2020 and 2021 exposed the fact that many enterprises needed to refocus their attention on their digital transformation priorities or risk becoming laggards and less competitive, agile, and innovative. CIOs and IT managers continued to adopt new technologies to drive the business forward, while at the same time the requirement to extract maximum value from existing investments increased. For many organizations, with limited skills, time, and resources, these initiatives are becoming untenable. As a result, enterprise IT organizations will turn to accredited GSIs with the right expertise, resources, and skills to help them accelerate and de-risk implementation and adoption of new technologies that can allow IT organizations to realize greater value of their IT investments more quickly.

This IDC Business Value study highlighted the following benefits for working with an accredited global systems integration partner for more successful adoption of Red Hat OpenShift:

- ▶ Faster time to investment payback
- ▶ Improved application migration time and efficiency
- ▶ Increased number of applications developed
- ▶ Increased productivity in DevOps and developer teams
- ▶ Improved efficiencies across IT team operations
- ▶ Reduction in unplanned downtime and associated cost

Appendix

Methodology

IDC's standard Business Value/ROI methodology was utilized for this project. This methodology is based on gathering data from organizations currently using Red Hat OpenShift with a Red Hat-accredited GSI as the foundation for the model.

Based on interviews with these organizations, IDC performed a three-step process to calculate the ROI and payback period:

- 1. Gathered quantitative benefit information during the interviews using a before-and-after assessment of the impact of using Red Hat OpenShift with an accredited GSI.** In this study, the benefits included security staff time efficiencies, development productivity gains, reduced costs associated with risk, and higher revenue.

- 2. Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using Red Hat OpenShift with an accredited GSI and can include additional costs related to migrations, planning, consulting, and staff or user training.
- 3. Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments for the organizations' use of Red Hat OpenShift with an accredited GSI over a three-year period. ROI is the ratio of the net present value (NPV) and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- ▶ Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For purposes of this analysis, based on the geographic locations of the interviewed organizations, IDC has used assumptions of an average fully loaded salary of \$100,000 per year for IT staff members and an average fully loaded salary of \$70,000 per year for non-IT staff members. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).
- ▶ The net present value of the three-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.
- ▶ Because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may be inexact due to rounding.

About the Analysts



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Leslie Rosenberg is Research Vice President for IDC's Network Life Cycle and Infrastructure Services programs examining professional services trends and market dynamics for the enterprise. Leslie's research coverage spans life cycle services portfolio development across network, server and storage infrastructure technologies encompassing the dynamics of software defined infrastructure, automation, service delivery platforms, new consumption models and the evolution of services impacting people, process, tools and methodologies around the globe. Leslie's research evaluates services delivered by technology manufacturers, global systems integrators and telcos as they look to compete more effectively in the enterprise market.

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