



# The Business Value of Red Hat Training

IDC conducted interviews and analysis of IT staff who have completed Red Hat training courses to understand the impact on their skills, performance, and productivity levels.





# The Business Value of Red Hat Training

RESEARCH BY:



**Cushing Anderson**  
Program Vice President  
IT Education and Certification, IDC



**Matthew Marden**  
Research Director  
Business Value Strategy Practice, IDC





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## BUSINESS VALUE HIGHLIGHTS

Click on highlights below to navigate to related content within this white paper.

**365%**  
three-year  
ROI

**10x increase**  
in staff competent with  
Red Hat OpenShift

**44% higher**  
DevOps team  
productivity

**34% more**  
efficient IT  
infrastructure teams

**59% faster**  
to deploy new IT  
resources

**76% faster**  
to full productivity, new  
hires already trained

## Executive Summary

Red Hat Enterprise Linux has firmly established itself as a preferred delivery vehicle for modern applications and as a platform for cloud infrastructure. The trust Linux has earned has been developed by building ecosystems, rich application portfolios, a reliable environment that offers scale and security, and robust application support that enterprise customers require. These benefits aren't simply built into the application. These capabilities are enabled by well-skilled developers, administrators, and infrastructure management teams. IDC research has found that training impacted IT professionals consistently increases both individual capability and the ultimate business value of the supported technology.

IDC conducted interviews with IT staff who have completed Red Hat training courses through the Red Hat Training and Certification program to understand the impact on their skills, performance, and productivity levels. IDC's research demonstrates that, compared with staff who have not completed training, employees with Red Hat training apply knowledge about new technologies much better, work more efficiently and effectively, onboard faster, and are regarded as higher-performing employees. This is important both for development teams that can deliver new software and features faster and for other IT teams responsible for delivering IT services to support business operations.

**Based on the above distinguishing characteristics of Red Hat-trained staff, interviewed organizations attributed strong value to having staff complete training, which IDC quantifies as worth an average of \$43,800 per year per employee trained, as a result of:**

- **Ensuring knowledge of important new technologies**, including OpenShift, Kubernetes, Ansible, and container-based development practices
- **Empowering DevOps and development teams** to deliver more functional and timely applications and features, which translates to value for their employees and customers

- **Enabling other IT teams** to work more efficiently through best practices and a deeper understanding of the technologies they support
- **Optimizing IT costs** by leveraging new technologies to establish more cost-effective IT infrastructure foundations
- **Improving staff's ability to meet performance expectations** from onboarding through decisions about promotions, thereby increasing the value and satisfaction of staff

## Situation Overview

Digital transformation enabled by hybrid or multicloud strategies is creating a new era of digitally enabled customer-facing products, services, and experiences and an environment of rapid change and uncertainty. These trends put developing and deploying technology at the center of business growth for all companies, new and old.

Trying to meet these needs using traditional tools and approaches is less and less effective for many IT organizations, leading to disjointed and ineffective IT initiatives. Successful transformation often requires new tools, new practices, and IT professionals with the skills and capabilities to effectively leverage those new tools.

People are the make-or-break element of a high-performing IT organization. There is simply no replacement for people with the right skills, attitudes, and traits. CIOs don't have the luxury of hiring a totally new roster of people with "the right stuff," so they will have to be creative in using a mix of hiring, training, and partnering to create the needed capabilities.

IDC research has found that increased training for impacted IT professionals consistently increases both individual capability and the ultimate business value of the supported technology. We have found that increasing the share of a typical digital transformation budget allocated to training from 5% to 6.5% can increase the chance of a project meeting its business objectives from 50% to more than 80%. While costs and results vary, the impact of training is clear.

### **IDC's *Cloud-Based Enterprise Application Performance Survey* of more than 1,000 IT leaders worldwide found that:**

- Well-trained cloud migration teams meet nearly 90% of their business and project milestones compared with less than 50% of milestones met by cloud migration teams with only "average" skill level.
- Four-fifths of the organizations with sufficient skills in automation and orchestration tools are satisfied or very satisfied with the business impact of the move to cloud.
- Nearly all (90%) of the organizations with well-trained teams are satisfied or very satisfied with their ability to monitor, forecast, and optimize server, storage, and network resources. Less than 10% of the organizations with insufficient skills are satisfied with their ability to optimize resources dynamically.

**IDC research has found that increased training for impacted IT professionals consistently increases both individual capability and the ultimate business value of the supported technology.**

# Red Hat Training

Red Hat's Linux curriculum is built on the experience of its own support teams, its field personnel, and Linux professionals from around the world. The course and certification offerings span the breadth of tools offered by Red Hat and the range of roles that leverage Red Hat, from system administrators to developers to security professionals.

Red Hat leverages sophisticated adaptive assessments to help identify the most appropriate curricula or courses to support individual or team development.

## The assessments cover more than 20 skills and tools such as:

- Red Hat Enterprise Linux System Administration
- Advanced Automation: Ansible Best Practices
- Red Hat OpenStack Platform Administration
- Red Hat OpenShift
- Container-Native Application Development

IT professionals and teams that are either masters of Linux or relatively inexperienced find approaches, topics, and courses to help them better leverage Red Hat within their organization.

# The Business Value of Red Hat Training Courses

## Study Demographics

IDC conducted research that explored the value and benefits for organizations of having various IT teams complete Red Hat training courses through the Red Hat Training and Certification program. The project included eight interviews with individuals at organizations with experience and knowledge about the benefits and costs of Red Hat training programs. The interviews covered various quantitative and qualitative questions about the impact of having Red Hat-trained staff on topics such as IT staff capabilities and performance, IT's ability to support business operations, and the impact of training on staff onboarding, success, and tenure.

Table 1 (next page) presents demographics for interviewed Red Hat customers. The scale of their business operations is reflected in an average employee base of 111,250 and average annual revenue of \$14.05 billion. In terms of geographical diversity, three companies were based in the United States, two were based in Italy, and the others were based in Canada, Colombia, and India. These companies spanned the following vertical markets: construction, financial services (2), government, professional services (2), software, and telecommunications.

**TABLE 1**  
**Demographics of Interviewed Organizations**

	Average	Median
Number of employees	111,250	57,500
Number of IT staff	10,530	1,500
Number of business applications	1,353	1,000
Annual revenue	\$14.05 billion	\$6.18 billion
Countries	United States (3), Italy (2), Canada, Colombia, and India	
Industries	Construction, financial services (2), government, professional services (2), software, and telecommunications	

Source: IDC, 2020 | n = 8

## Reasons for Choosing to Have Staff Complete Red Hat Training Courses

Interviewed organizations discussed the rationale behind their decision to have staff complete Red Hat Training courses. They described facing similar challenges in terms of needing to ensure that key IT teams—including DevOps, development, IT infrastructure, and IT security teams—are fully trained and up to date on current Red Hat systems and technologies, as well as emerging technologies such as OpenShift, Ansible, and Kubernetes, including developing capabilities to leverage container application development approaches. They needed to upskill staff in key technologies to maximize IT's contribution to their businesses, ensure the ability to leverage open source technologies core to their IT operations, and bolster the quality of applications and services delivered to employees and customers.

### Interviewed organizations described key considerations in having staff complete Red Hat training courses:

#### → Providing foundation for implementing containers:

*"We have a partnership with Red Hat to deploy our new platform, which is being done with containers. For this reason, we need to train our internal staff..."*

#### → Leveraging to take advantage of open source technologies:

*"We consider open source technologies and standard architectures important for our customers. We chose Red Hat as a critical technology ... It was important for us to have our employees trained, and some certified, recognizing the key role of the skill sets in the open source world."*

**"We have a partnership with Red Hat to deploy our new platform, which is being done with containers. For this reason, we need to train our internal staff..."**

→ **Delivering strong technology platform to customers:**

*“We want to be up to date on current technology and be aware of emerging technologies. Red Hat training supports our efforts to present our skills and knowledge to customers and prospects. We use Red Hat OpenShift and Linux to provide an efficient, flexible technology platform for our customers.”*

→ **Standardizing training, leverage Ansible functionality:**

*“We are trying to standardize our toolset, particularly with Red Hat Ansible. We saw standardizing on Red Hat training as a uniform way of ramping up people’s knowledge.”*

## Red Hat Training Courses Completed at Interviewed Organizations

Interviewed organizations have staff complete Red Hat training courses for a variety of technology subject areas. They described this mix of training as integral to their ability to maximize the ability of IT teams to leverage important technologies, especially OpenShift and Ansible. The Red Hat training courses focused on three key areas: application development, management and systems administration, and security. Table 2 provides data on courses completed by staff at interviewed organizations. On average, they have 302 employees who take Red Hat training courses annually for a total average of 363 Red Hat training courses. Study participants’ interest in deepening employees’ skills and capabilities across Red Hat technologies is reflected in the training course mix, including Red Hat Enterprise Linux (229), OpenShift (53), Ansible (33), and DevOps (31).

**TABLE 2**  
**Red Hat Training in Interviewed Organizations**

	Average	Median
Number of employees trained per year	302	55
Total number of training courses per year	363	85
<b>Red Hat Training Courses Completed by Topic</b>		
OpenShift	53	13
OpenStack	3	0
DevOps	31	5
Ansible	33	10
Red Hat Enterprise Linux	229	10
Cloud computing, virtualization, and storage	26	5

Source: IDC, 2020 | n = 8



## The Business Value of Red Hat Training and Certification

Interviewed organizations described achieving important value by having their staff complete Red Hat training courses in terms of their capabilities, productivity levels, and ability to meet performance expectations. They reported that, compared with staff who have not completed training courses, Red Hat-trained staff generate more value and better support business strategies and activities by deploying applications more quickly in support of business activities and running IT environments more efficiently.

### Interviewed organizations spoke about these advantages of Red Hat training courses for their staffs:

#### → Higher productivity of staff is related to greater technology knowledge:

*“Just knowing the Red Hat systems, our employees feel more comfortable and confident [after] Red Hat training. They are less intimidated and thus do more. They get into the system more because they’re more confident. This boosts their productivity because they feel they can fix problems ... This gives us a boost in productivity.”*

#### → Training enables overall business activities and objectives based on open source technologies:

*“We tend to look at big picture improvement with the goal being a migration to open systems and the end goal of keeping ourselves competitive. Having more and more people trained with Red Hat will benefit our customers.”*

Based on interviews with organizations with staff who have completed Red Hat training courses, IDC quantified the value that they will achieve at an annual average of \$43,800 per employee trained (\$5.71 million per organization) in the following areas (see Figure 1 next page):

#### → IT staff productivity benefits:

The value of Red Hat training courses is reflected most directly in increasing the capabilities of trained staff. With Red Hat training, DevOps, application development, IT infrastructure, IT security, and help desk teams better understand Red Hat technologies and apply this knowledge to work more efficiently and effectively. IDC estimates that study participants will realize IT staff-related efficiencies and productivity gains worth an annual average of \$33,600 per employee trained (\$4.38 million per interviewed organization).

#### → Risk mitigation benefits:

IT teams with training better understand the technologies they use, which allows delivery of more available and resilient IT services, thereby minimizing productivity losses associated with unexpected outages. IDC calculates that study participants will realize average annual productivity gains worth \$3,600 per employee trained (\$475,100 per interviewed organization).

**“Just knowing the Red Hat systems, our employees feel more comfortable and confident [after] Red Hat training. They are less intimidated and thus do more.”**

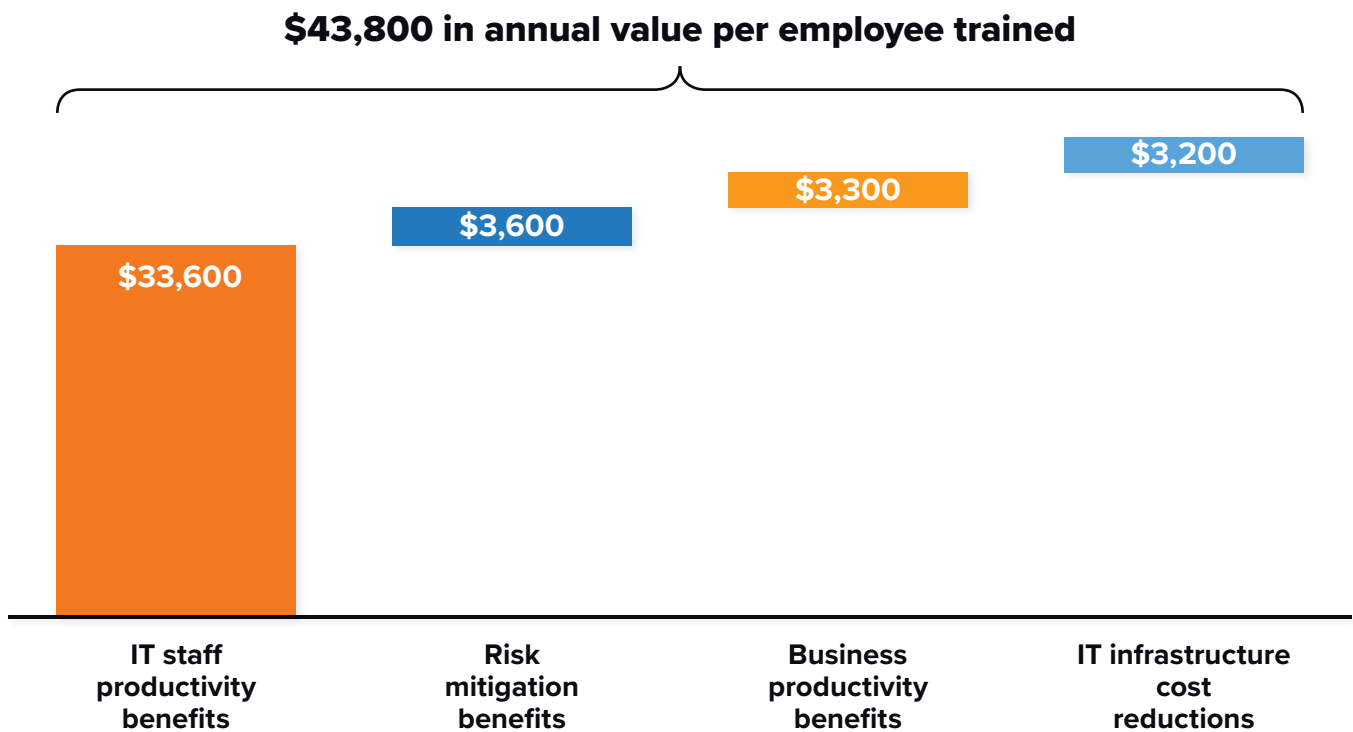
→ **Business productivity benefits:**

The ability to bring new staff who have completed Red Hat training up to full productivity faster means that study participants benefit from higher productivity for new hires. IDC quantifies this onboarding-related productivity value at an annual average of \$3,300 per employee trained (\$431,900 per interviewed organization).

→ **IT infrastructure cost reductions:**

Staff who have completed Red Hat training better leverage technologies and approaches that enable more cost-effective and optimized IT environments. IDC estimates that study participants will realize IT-related cost savings worth an annual average of \$3,200 per employee trained (\$420,400 per interviewed organization).

**FIGURE 1**  
**Average Annual Benefits per Employee Trained**



Note: Per employee trained numbers are based on an average of 130 staff members trained per year, discussed during IDC interviews.  
Source: IDC, 2020 | n = 8

## Improved Staff Technological Knowledge and Capabilities

Red Hat training programs are designed to help customers optimize their investment in Red Hat products and technologies by drawing on industry experts to provide up-to-date and relevant instruction and best practices. By taking Red Hat training courses, DevOps, application development, IT infrastructure, and IT security teams better understand Red Hat systems and technologies and apply this knowledge to support business activities efficiently and effectively.

Digital transformation and new technologies are creating rapid change for nearly all IT organizations. This makes ongoing and continuous skill development for IT teams essential. IT teams that complete relevant training are more effective because they can apply new skills and knowledge to their work. Study participants confirmed that Red Hat training fostered a critical understanding for many of their IT staff of OpenShift, Ansible, Kubernetes, and other key Red Hat technologies, including taking container-based approaches to application development. Furthermore, completing training has improved their ability to stay up to date on newer technology advances and to work with other team members more cooperatively.

### Study participants commented on these benefits, especially related to the use of OpenShift and Ansible:

#### → Significant impacts for OpenShift services:

*“Red Hat training has given us the understanding of OpenShift we need to take full advantage of the Red Hat partnership. Because we will be managing the deployment of our solutions through Red Hat, the impact of the training is high.”*

#### → Stronger technology foundation:

*“Red Hat training increases our overall knowledge and improves our ability to stay up to date on newer technology advances. It also enhances the ability to work with other team members more cooperatively and serves as a resource for others in terms of development activities.”*

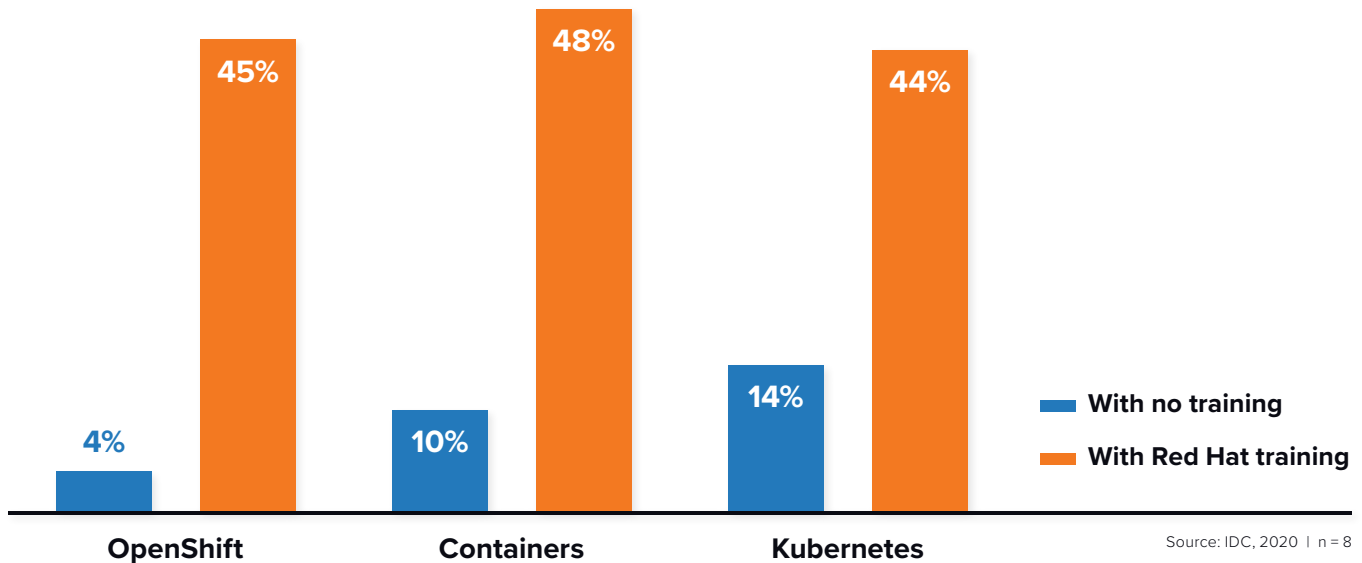
#### → Interchangeability enabled by Ansible expertise:

*“With Red Hat training, it doesn’t matter which engineer is engaged on a project. They are all using Ansible for automating tasks, allowing them collectively to be five times as productive ... This was not possible previously. As a result, they’ve definitely picked up the pace of productivity.”*

IDC evaluated the impact of Red Hat training on the competency levels of staff with regard to three key technology areas: OpenShift, containers, and Kubernetes. Figure 2 (next page) illustrates how, through Red Hat training, the share of team members with competency in these technologies grew significantly. The percentage of staff with competency in OpenShift increased more than tenfold through Red Hat training. Interviewed organizations reported similar levels of upskilling with regard to containers (>4x higher competency) and Kubernetes (>3x higher competency). With significant percentages of their staff competent in using these technologies after completing Red Hat training (45% for OpenShift, 48% for Containers, and 44% for Kubernetes), study participants have gone a long way toward ensuring that their development and IT organizations can leverage these technologies to optimize the impact, performance, agility, and cost of their Red Hat–based development and IT environments.

**“Red Hat training increases our overall knowledge and improves our ability to stay up to date on newer technology advances. It also enhances the ability to work with other team members more cooperatively and serves as a resource for others in terms of development activities.”**

**FIGURE 2**  
**Impact on Staff Competency with Technologies**  
 (% of relevant staff skilled with technology)



## Delivering More Value by Deploying Applications More Quickly and Robustly

IDC projects that organizations will create more than 500 million new applications globally by 2023. This means that IT organizations have no choice but to enable their development teams to deliver highly functional and differentiated business-critical applications and new features on accelerated development cycles through technological innovation. Advanced training takes on increased importance given the demands placed upon development teams as they learn to use and then apply new technologies and approaches.

Development activities depend to a significant extent on the ability of IT teams to provide compute, storage, and other IT resources—including containers—in a timely and robust manner. Study participants linked being able to deploy IT resources faster and with more agility to having staff who have completed Red Hat training courses. One interviewed organization noted: *“Red Hat Training shows our DevOps team how to automate a repeatable task. They can write one playbook to execute a set of tasks that would have taken hours or days of time.”* Study participants reported that staff with Red Hat training can deploy IT resources—including physical servers, virtual machines, containers, and storage—an average of 59% faster, which virtual a substantial improvement in their ability to ensure that their IT organizations can support development and business operations in a timely manner.

Study participants confirmed that Red Hat training courses have enabled their DevOps and development teams to create additional value by leveraging and using Red Hat technologies to deliver more timely, robust, and differentiated applications and features.

With Red Hat training, DevOps and development teams deliver more value to their businesses by deploying applications and new functionality faster in support of employees and customers. Study participants linked improved developer performance to improved ability to use the Red Hat OpenShift platform, apply DevOps principles, and automate development-related processes with Red Hat Ansible.

### Study participants provided specific examples of how their DevOps and broader development teams have benefited from completing Red Hat training courses:

#### → Enabling software deployment, better communicating value to customers:

*“Red Hat training helps us [demonstrate] the value of using Red Hat to deploy our software. It also helps our staff to express proposals in terms that the customer can relate to. From a technical perspective, we can deploy proof of concept quicker thanks to what has been learned during Red Hat training courses. This allows us to more quickly prove out ... the proof-of-concept phase of selling.”*

#### → Optimizing development with Ansible training:

*“We’ve erased 10 years of bad development debt with the deployment of Red Hat Ansible and the staff training that enabled it ... Previously, our release process took six hours. Now it’s down to two hours, all while producing higher quality.”*

#### → Understanding and applying automation:

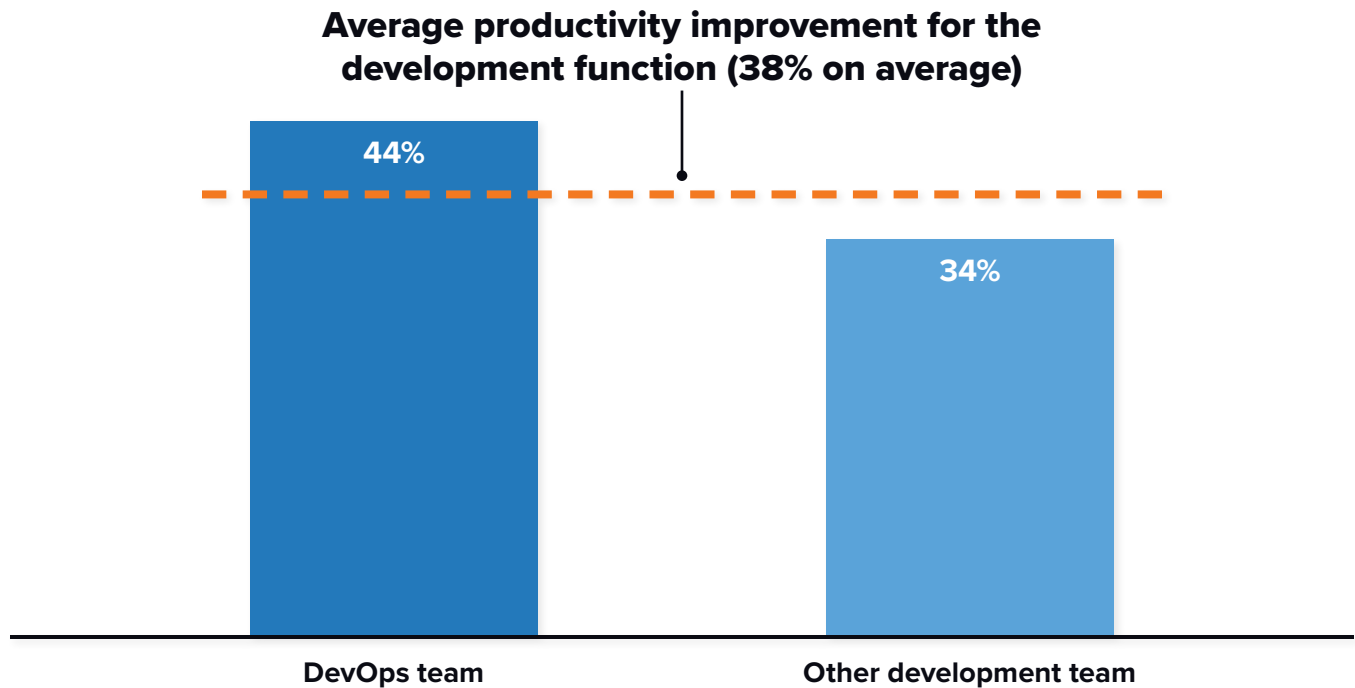
*“Red Hat training [showed] our DevOps team how to automate a repeatable task. They can write one playbook to execute a set of tasks that would have taken hours or days.”*

**“We’ve erased 10 years of bad development debt with the deployment of Red Hat Ansible and the staff training that enabled it ... Previously, our release process took six hours. Now it’s down to two hours, all while producing higher quality.”**

Figure 3 (next page) shows development-related benefits for study participants of Red Hat training courses. Substantial gains in productivity for DevOps and development teams reflect the higher value that trained team members provide to their organizations. On average, interviewed Red Hat customers reported that trained DevOps teams are 44% more productive than those without training, with other developers that have completed Red Hat training courses achieving 34% higher productivity than their untrained counterparts. Overall, these levels of productivity gains mean that development teams with Red Hat training are an average of 38% more productive, greatly enabling their ability to drive business success through development of new applications, features, and services.

FIGURE 3

## Impact on DevOps and Development Team Productivity



Source: IDC, 2020 | n = 8

## IT Management and Security Efficiencies

Study participants explained that their IT infrastructure and IT security teams better understand Red Hat technologies after completing Red Hat training courses and can apply this knowledge to work more efficiently and effectively. These benefits link to better understanding of both well-established technologies such as virtualization and more recently implemented Red Hat solutions such as Ansible. Overall, completing Red Hat training courses has helped study participants leverage technologies such as Ansible and OpenShift to reach much higher levels of automation and virtualization in their IT environments, which in turn drives significant efficiencies for IT infrastructure and security teams. Red Hat customers also appreciated that the training provided better integration of their systems with customer platforms.

## Study participants described these benefits in more detail as follows:

## → Ability to leverage Red Hat Ansible:

*“We now use Ansible for just about everything: all of our installs, updates, and configuration management. It has completely changed our environment to be able to automate in this manner. The Red Hat training we’ve done for Ansible has really helped us and, as a consequence, we’re embracing use of Ansible more.”*

→ **Better integration of technology with customer platforms:**

*“Through Red Hat training courses, we’re able to better integrate our platform with our customers’ systems. We have system administrators working on a regular basis to deploy and administer our software within our customers’ Red Hat environments. Red Hat training helps them to do this more efficiently.”*

→ **Lower costs, higher efficiency through knowledge of Ansible and virtualization:**

*“Ansible has had a huge impact from an IT operational perspective. It has cut our system admin costs, as has greater use of virtualization managed through Ansible ... As part of Red Hat training, our staff learns how to use virtualization and, as a consequence, they are more comfortable using it when the need arises. This is especially the case for our centralized administrative group. It’s improved both costs and efficiency.”*

**“Through Red Hat training courses, we’re able to better integrate our platform with our customers’ systems.”**

Table 3 quantifies these benefits for IT infrastructure, security, and help desk teams at interviewed organizations. They linked significant efficiencies to completing Red Hat training courses for IT infrastructure teams (34% more efficient), IT security teams (50% more efficient), and IT support teams (21% more efficient). Overall, these efficiencies tie to the ability of these teams to leverage Red Hat technologies to automate manual tasks, provide better performing and more secure infrastructures, and better deliver technology in support of business strategies and activities. For these IT teams, efficiencies of this level achieved with Red Hat training courses demonstrate their ability to manage, secure, and support their core IT infrastructure with fewer resources, opening up opportunities to apply newly acquired skills through Red Hat training courses in support of other business and strategic initiatives.

**TABLE 3**  
**IT Team Efficiencies**

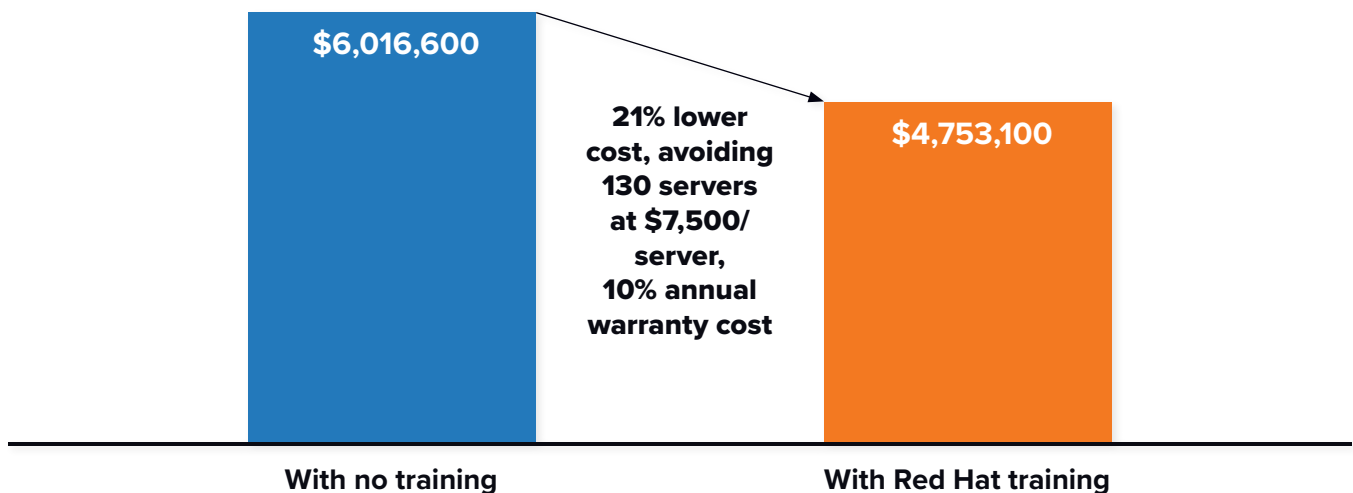
	With No Training	With Red Hat Training	Difference	Benefit
<b>IT infrastructure teams</b>				
Equivalent staffing requirements (FTEs)	45.9	30.3	15.6	34%
Equivalent value of team time	\$4.59 million	\$3.03 million	\$1.56 million	34%
<b>IT security teams</b>				
Equivalent staffing requirements (FTEs)	3.3	1.7	1.6	50%
Equivalent value of team time	\$333,300	\$166,700	\$166,700	50%
<b>IT support teams</b>				
Equivalent staffing requirements (FTEs)	2.1	1.7	0.4	21%
Equivalent value of team time	\$211,600	\$166,700	\$45,000	21%

Source: IDC, 2020 | n = 8

## Optimizing the Cost of IT Infrastructure

Interviewed companies reported that IT teams completing Red Hat training can better leverage technologies and approaches to create more cost-effective IT environments. Technologies such as containers and Kubernetes offer approaches for consolidating and optimizing IT infrastructures, and Red Hat training courses ensure that staff have the knowledge needed in these technologies to architect and build their infrastructures in a more optimal fashion. For study participants, having more skilled and knowledgeable staff has a clear connection to optimizing IT infrastructure costs. Figure 4 quantifies these benefits, with IDC calculating three-year total costs per organization to be 21% lower through infrastructure optimization and rationalization, saving interviewed organizations an average of \$1.25 million over three years.

**FIGURE 4**  
**IT Infrastructure Costs**  
 (Three-year total cost, average per interviewed organization)



Source: IDC, 2020 | n = 8

## Staff Performance Benefits: Onboarding, Performance, and Tenure

Study participants also reported benefits from Red Hat training related to their employee hiring life cycle, including employee onboarding, performance, success, and tenure. They linked completion of Red Hat training courses to improvements in each of these areas. More importantly, several interviewed organizations linked completion of Red Hat training courses to having staff who better understand, support, and drive broader corporate strategies and initiatives. The deeper integration and linkage of staff to these types of objectives make sense given that trained staff not only are regarded more highly by their colleagues and managers but also likely appreciate training as an investment in success and career prospects with their organizations.



## Study participants spoke about the value of having staff complete Red Hat training courses in these areas:

### → Enables more proactive thinking:

Study participants tied completion of Red Hat training courses to staff's ability to work more proactively and flexibly. For organizations, having creative and flexible employees is very important. As technologies and business opportunities change quickly, staff must have the ability to adapt to new technologies and understand how to identify and drive new business activities. One study participant commented: *"Staff who have had Red Hat training can adapt to do things on the fly more quickly. It gives them a new perspective and gets them out of the 'this is how I've always done it' way of thinking."*

### → Increases employee satisfaction and tenure:

Study participants generally linked higher employee satisfaction to completion of Red Hat training courses, and several participants noted that trained staff tended to have longer average tenures. They attributed higher satisfaction to the fact that employees view training as an investment in their skills and prospects, thereby improving morale and satisfaction. In terms of tenure, one organization spoke to the perceived impact of offering training through Red Hat: *"We expect a good retention rate for employees who have completed Red Hat training. We project it to be significant, about 25–30% higher ... We believe that more confident employees will be more in line with the corporate direction to rely on Red Hat technology."* Study participants broadly confirmed this sentiment, noting that Red Hat-trained employees have 8% longer tenure on average than untrained staff members.

### → Bolsters employee performance:

Interviewed organizations spoke very positively about the impact of staff completing Red Hat training courses on their performance. On average, they estimated that they would be three times more likely to hire an employee trained during onboarding again compared with employees who do not complete training and almost four times as likely to hire a staff member again who already had completed Red Hat training before being hired. Several organizations described how this superior performance translates to more opportunities for staff, including promotions, with one explaining: *"We expect that for employees having Red Hat training, there was an obvious impact on decisions about promotions. An employee's commitment to training reflects commitment to the organization, so over time, it should impact promotions."*

### → Achieves full productivity in less time:

IDC also evaluated the time required to bring a new team member up to full productivity after being hired. Figure 5 (next page) addresses the benefits associated with staff onboarding. Red Hat training accelerated job readiness by 55% in cases where new team members were being trained as part of the onboarding process and by a full three-quarters (76%) when a new hire had already completed Red Hat training prior to onboarding. One study participant commented: *"Anyone who has taken Red Hat training courses is going to have a much better ramp-up into the role because 60% of their job is doing administration of Red Hat systems. If they don't have training, it takes longer to get them up to speed in the role."*

**"Staff who have had Red Hat training can adapt to do things on the fly more quickly. It gives them a new perspective and gets them out of the 'this is how I've always done it' way of thinking."**

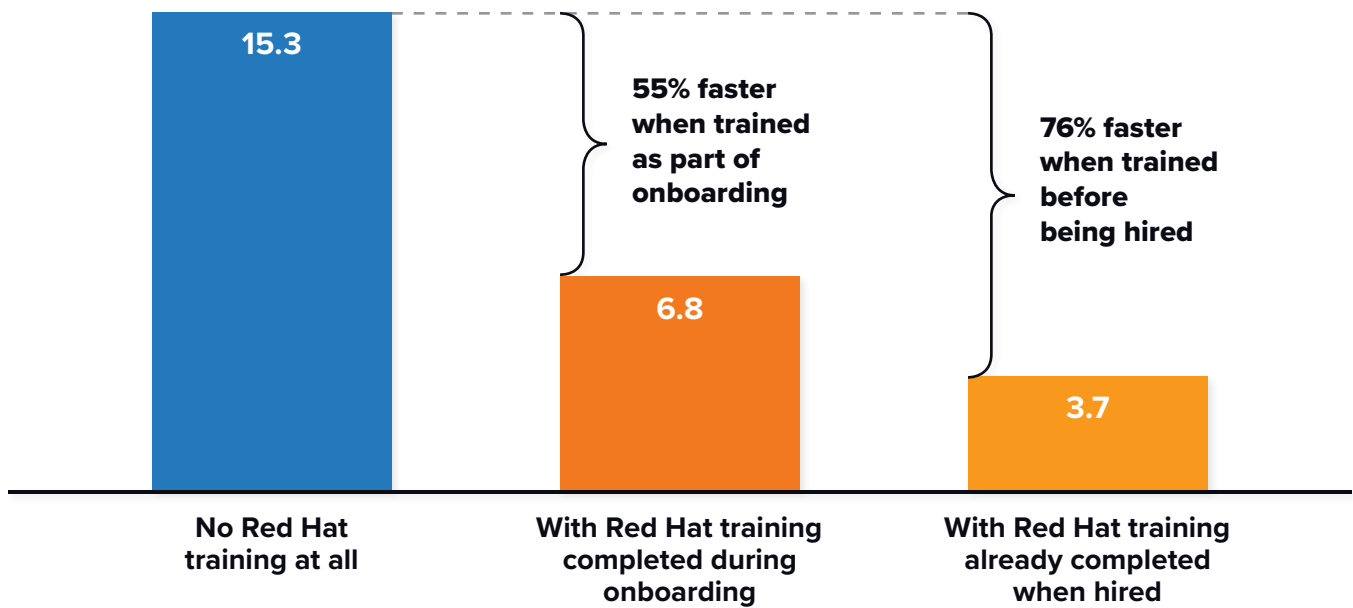
→ **Impacts organizational culture positively:**

Several study participants also commented on how Red Hat training positively affects their overall cultures by upskilling and empowering their staffs. One study participant commented: *“It is better for the business to have more capable employees and creates a better environment for the workers. People are able to assist others, and that creates a culture where people are willing to ask and willing to help.”*

**FIGURE 5**

**Impact on Staff Onboarding**

(Time to full productivity in weeks)



Source: IDC, 2020 | n = 8

## ROI Summary

Table 4 (next page) presents IDC’s analysis of the financial benefits and investment costs for study participants in having staff complete Red Hat training courses. IDC calculates that study participants will achieve total three-year discounted benefits of \$13.71 million per organization (\$105,200 per employee trained) in terms of development and IT staff productivity gains and efficiencies and optimized IT infrastructure costs. These benefits compare with projected total discounted investment costs over three years of \$2.95 million per organization (\$22,600 per employee trained). IDC calculates that at these levels of benefits and investment costs, the interviewed Red Hat customers will achieve a three-year return on investment (ROI) of 365%.

**TABLE 4**  
**Three-Year ROI Analysis**

	Per Organization	Per Employee Trained
Three-year benefit (discounted)	\$13.71 million	\$105,200
Three-year investment (discounted)	\$2.95 million	\$22,600
Three-year net present value (NPV)	\$10.76 million	\$82,500
Three-year return on investment (ROI)	365%	365%
Discount rate	12%	12%

Note: Per employee trained numbers are based on an average of 130 staff members trained per year, discussed during IDC interviews.  
Source: IDC, 2020 | n = 8

## Challenges/Opportunities

Attending the World Economic Forum in Davos in February 2018, Justin Trudeau was quoted as saying:

*You are rightly anxious about how quickly our existing business models are being disrupted. Still, if you're anxious, imagine how the folks who aren't in this room are feeling.*

Cloud and IT transformation generally are driving disruption and fundamentally changing business operations and sometimes changing the culture within the IT organization. Without the right skills, employees will be unable identify and execute the changes that are essential to business success.

To ensure the effective development of new skills in this environment, companies need to create comprehensive skill development programs that help employees achieve the skills that will drive their IT organizations forward.

**“You are rightly anxious about how quickly our existing business models are being disrupted.”**

Justin Trudeau  
Prime Minister,  
Canada

### These programs will need to help:

- IT managers prepare IT professionals for critical projects
- IT supervisors ramp up new hires to reach full productivity as fast as possible
- Hiring managers identify employees with skills to make them more successful in their current and future roles

While creating a comprehensive skill development program can seem daunting, training vendors are leveraging the tools and content that can help make these programs predictably successful. Comprehensive skill development is the essence of employee transformation: an employee improvement initiative, requiring continuous skill and performance improvement at every level of an organization.

A comprehensive skill development program will help employees at all stages of their professional life cycle, including onboarding new employees to rapidly reach effective productivity, upskilling to prepare for enhanced responsibilities, “deepskilling” to gain expert knowledge in an area, and even reskilling to support internal mobility and organizational flexibility. An effective skill development program can help create a culture that embraces change, growth, and innovation. Organizations that can leverage the dynamic and expansive capabilities of their employees are in the best position to transform and succeed in a rapidly changing world.

## Conclusion

Because technology advancement continues at a frantic pace, IT professionals must grow their skills. IT managers should leverage the training offered by companies such as Red Hat to ensure their staff can effectively leverage new technologies and drive real business change. Effective training programs can help improve an IT professional’s productivity as well as enterprise security. In addition, training can help new hires become contributing members of the team more quickly and help ensure more engaged and satisfied employees.

IDC’s research demonstrates the substantial value for organizations of ensuring that their IT teams have completed high-quality, relevant, and professional training with Red Hat. To maximize their ability to work competently and efficiently with both well-established and new technologies, staff need access to expertise and best practices, which Red Hat training courses provide. As a result, staff who have completed Red Hat training courses are more capable of using new technologies, work more productively, and better meet performance expectations than their untrained colleagues. According to IDC’s study, this means DevOps and development teams create more value through timely and efficient delivery of high-quality applications and features; IT infrastructure, security, and help desk teams support their businesses more efficiently; and Red Hat-trained staff generally perform better across their employee life cycles, from onboarding through promotions. These benefits generate strong value for study participants compared with the costs of having staff complete Red Hat training courses, with IDC calculating that study participants will realize an average 365% three-year ROI.

## Appendix: Methodology

IDC used the following three-step method for conducting the ROI and Business Value analysis informing this study's results and conclusions:

- **Gathered quantitative benefit information during the interviews using a before-and-after assessment for interviewed organizations of having IT staff complete Red Hat training courses.** In this study, the benefits of having staff complete Red Hat training courses include staff time savings and efficiencies, productivity gains for other employees, and IT infrastructure-related cost savings.
- **Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investment costs include the actual cost of Red Hat training courses as well as staff time required to take and complete the courses.
- **Calculated the ROI.** IDC conducted a depreciated cash flow analysis of the benefits and investments for completing Red Hat training courses over three years. ROI is the ratio of the net present value (NPV) and the discounted investment.

IDC's standard ROI methodology was utilized for this project. This methodology is based on gathering data from organizations that have staff complete Red Hat training courses. Based on interviews with 10 organizations, IDC performed a three-step process to calculate the ROI:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and productivity savings. IDC assumes a fully burdened salary of \$100,000 per year for IT staff, including developers, and \$70,000 for other employees, with an assumption of 1,880 hours worked per year.
- Downtime values are a product of the number of hours of downtime multiplied by the number of users affected.
- The impact of unplanned downtime is quantified in terms of impaired end-user productivity and lost revenue.
- Lost productivity is a product of downtime multiplied by burdened salary.
- The net present value of the three-year benefits 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 every hour of downtime does not equate to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. As part of our assessment, we asked each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. IDC then taxes the revenue at that rate.
- Further, 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 not be exact due to rounding.*

## About the Analysts



### **Cushing Anderson**

**Program Vice President, IT Education and Certification, IDC**

Mr. Anderson is responsible for managing the research agenda, field research, and custom research projects for IDC's IT Education and Certification research program. Mr. Anderson research coverage ranges from the value certification provides to IT professionals to the selection criteria used when selecting transformation training for the IT organization. He conducts regular research on the views and experiences of IT professionals and IT education buyers. And he frequently evaluates the impact of various types of training and certification on IT organizational performance.

[More about Cushing Anderson](#)



### **Matthew Marden**

**Research Vice President, Infrastructure Systems, Platforms and Technologies Group, IDC**

Matthew is responsible for carrying out custom business value research engagements and consulting projects for clients in a number of technology areas with a focus on determining the return on investment (ROI) of their use of enterprise technologies. Matthew's research often analyzes how organizations are leveraging investment in digital technology solutions and initiatives to create value through efficiencies and business enablement.

[More about Matthew Marden](#)

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### **IDC Research, Inc.**

5 Speen Street  
Framingham, MA 01701  
USA  
508.872.8200

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