

ECONOMIC VALIDATION

Analyzing the Economic Impact of Red Hat Training

Improve Employee Efficiency, Increase IT Performance and Agility, and Improve Governance With Red Hat Training

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Introduction

This Economic Validation from TechTarget's Enterprise Strategy Group (ESG) is focused on the quantitative and qualitative benefits organizations can expect by utilizing Red Hat Training to enhance the skills of their technical workforce.

Challenges

Many organizations are faced with the challenge of how to adapt to changing IT landscapes while being limited in budgets and IT skills. Most find themselves forced to make short-sighted decisions that create technical debt and limit the ability to maximize revenue potential. ESG studied the impact of limited IT budgets and skill sets and found the top challenges to include:

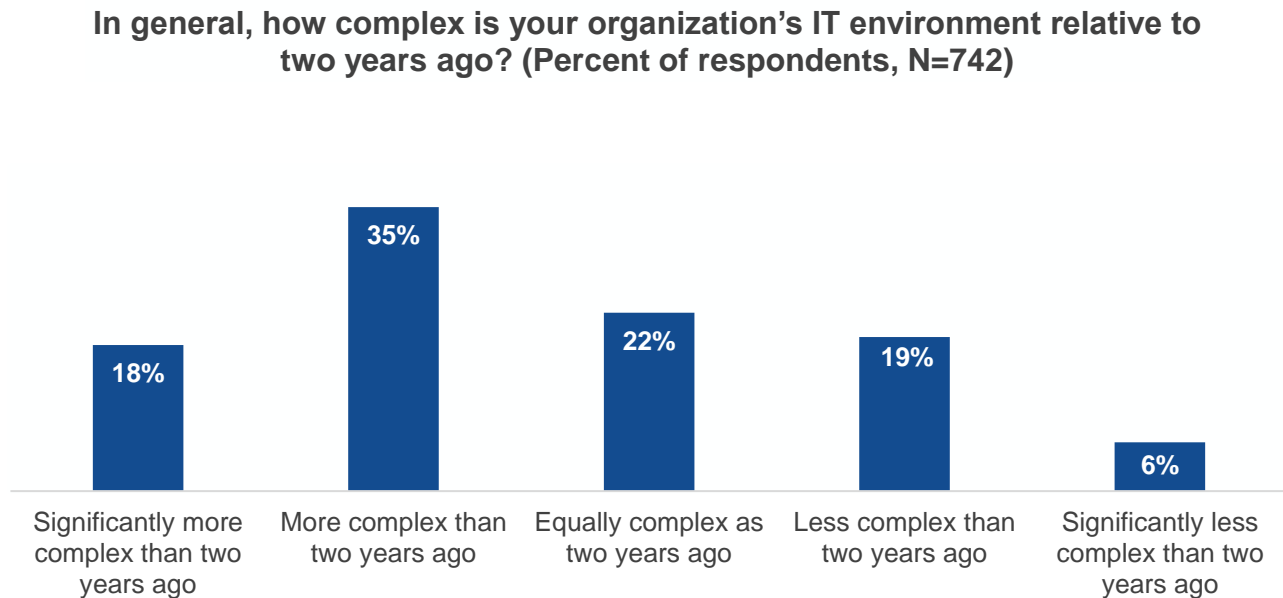
- **Lack of best practices and governance.** When IT processes are done without utilizing industry best practices, they are often completed with a low level of governance. This leads to a lack of predictability, a higher likelihood of human error, and squandered IT resources.
- **Rapidly changing IT landscape.** While the benefits of digital transformation are attractive, most organizations lack the expertise to plan and implement these new technologies. When decisions are made by employees with outdated skill sets, the results are IT systems that are less impactful and more expensive than optimum.
- **Increase in IT complexity.** With the shift in workforces to hybrid models, increasing risks from cyber-attacks, and exponentially increasing value in mining data for opportunities, most business ecosystems are rapidly increasing in complexity. This complexity demands a higher level of IT skills to plan and maintain, which can inject risk and technical debt into organizations that lack the required expertise.
- **Skill set shortages.** Lack of access to skilled employees leads to a talent gap between desired levels of IT capabilities and the expertise of current staff.
- **Lengthy time to value for new employees.** With an IT staff turnover rate of between 13 and 20%,¹ almost 1 in 5 IT employees are in their first year of working at their current organization. The *ramp time*, i.e., the time it takes for that employee to produce positive value, is a costly period for an organization and brings additional risk of human error.
- **Less than optimum return on resources.** Companies that don't invest in training their employees find that their return on resources, including both human capital and IT assets, are lower when compared with organizations that make IT training a budgeted priority.
- **Technical debt.** Organizations that don't invest in their employees create higher levels of technical debt than those that prioritize employee training and enablement. Research has shown that up to 40% of annual IT budgets are squandered trying to remedy short-sighted decisions and the lack of best practices of the past.²
- **Longer time to deploy.** Organizations that do not prioritize employee training often find themselves with a longer period between ideation and deployment when compared with those who invest in their employee knowledge levels.

¹ Source: Yara Abboud, "[A look at the Tech Retention Crisis: Causes, Key Trends & Plausible Solutions](#)," July 2022.

² Source: Enterprise Strategy Group, "[Understanding Technical Debt](#)," December 2023.

Challenges such as these are creating a level of complexity that is hard to overcome. When surveyed, more than half of organizations reported that their IT environment has increased in complexity over the previous two years, while only 6% said their level of complexity had lowered (see Figure 1).³

Figure 1. 53% of Organizations Report a Higher Level of IT Complexity Than Two Years Ago



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

To stay competitive, companies need to enable IT employees to better plan and manage assets. IT employees need to be empowered to overcome the challenges organizations face that limit agility, inflate costs, and minimize the impact that IT capabilities can have on their business success.

The Solution: Red Hat Training

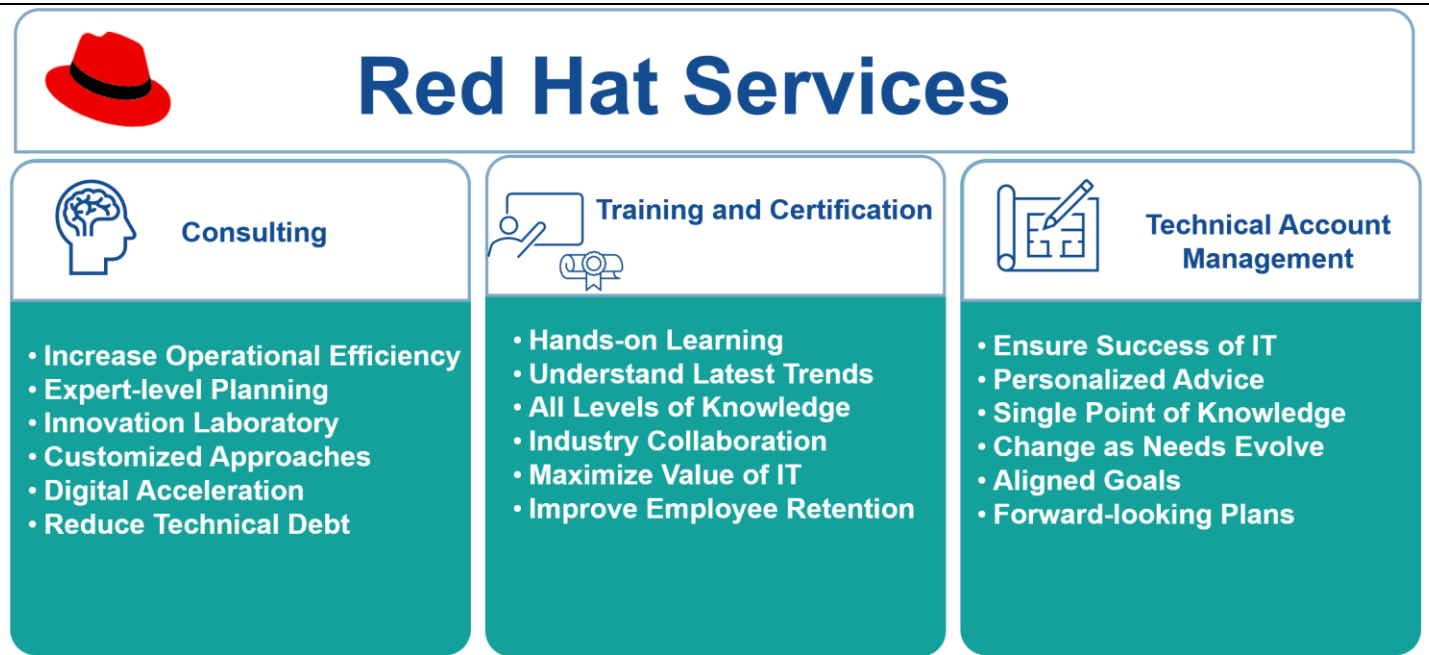
Red Hat Training helps companies build effective, empowered IT teams that understand how to get the highest levels of impact out of Red Hat technology. Companies find that they can increase their success in digital transformation initiatives when they provide access to training and certification on Red Hat products, including:

- **Red Hat Enterprise Linux.** The world's leading enterprise Linux platform, Red Hat Enterprise Linux is certified on hundreds of clouds as well as thousands of hardware and software products.
- **Red Hat OpenShift.** This unified platform builds, modernizes, and deploys applications at scale.
- **Red Hat Ansible Automation Platform.** Red Hat's automation platform accelerates system configuration, software deployment, and the orchestration of advanced workflows.
- **Red Hat OpenStack Platform.** This open-source IaaS platform uses pooled virtual resources to build and manage private and public clouds.

³ Source: Enterprise Strategy Group Research Report, [2023 Technology Spending Intentions Survey](#), November 2022.

As shown in Figure 2, Red Hat Services include Red Hat Consulting, Red Hat Technical Account Management, and Red Hat Training and Certification. While ESG interviews and research uncovered benefits of Red Hat Consulting and Technical Account Management, this analysis is focused on the specific benefits of Red Hat Training.

Figure 2. Red Hat Services Overview



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Red Hat Training is a hands-on program that is known in the industry as being experience-based, where learning is accomplished by doing, in contrast to many programs that are memorization-based. Participants of Red Hat Training courses are surveyed post-training, with 94% reporting they are better prepared to maximize the value of their Red Hat products, 91% agreed their IT projects involving Red Hat technologies are more likely to succeed, and 91% said they are now more likely to explore the adoption of new Red Hat technologies. Expanding on the value of the training, gaining Red Hat Certification enables IT professionals to prove their expertise and assures organizations that the IT professional is highly proficient with Red Hat technologies.

Additionally, ESG found that participants in Red Hat Training were better integrated into a community of professionals who shared best practices and optimization techniques across companies. While this open collaboration was an ancillary benefit of training, participants of this analysis reported that Red Hat helped foster it, with one interviewee sharing, ***“The collaboration alone was worth the cost of Red Hat Training. Our people were exposed to so many new ideas from the other trainees. It made them curious. The power of curiosity is amazing in that it opens minds to how things can be done better, more securely, and more efficiently.”***

Enterprise Strategy Group Economic Validation

Enterprise Strategy Group (ESG) completed a quantitative economic analysis to understand the impact that Red Hat Training and Certification can have on an organization’s ability to meet IT and business goals. ESG’s Economic Validation process is a proven method for understanding, validating, quantifying, and modeling the economic value propositions of a product or solution. The process leverages ESG’s core competencies in market and industry analysis, forward-looking research, and technical/economic validation. ESG conducted in-depth interviews with end

users to better understand their views on certified training and how it has affected their organization. The qualitative and quantitative findings were used as the basis for a simple economic model comparing the costs and benefits of Red Hat Training.

Red Hat Training Economic Benefits

ESG economic analysis revealed that Red Hat Training provides organizations with significant benefits in areas including the following:

- **Improved employee efficiency.** ESG found that IT staff who went through Red Hat Training were more efficient, stayed with their companies longer, and were able to produce value faster than those who were not trained.
- **Increased IT performance and agility.** ESG found that infrastructure deployed and managed by Red Hat-trained staff had a higher rate of utilization and lower support costs, in addition to being better able to meet IT and business service-level agreements (SLAs).
- **Improved governance.** ESG analysis found that organizations that prioritize Red Hat Training had a higher level of governance than those that do not invest in Red Hat Training.

Improved Employee Efficiency

Every organization is looking for ways to get the most employee effectiveness out of every dollar spent. Red Hat Training imparts knowledge as well as best practices that help IT employees work in a more efficient and complete way. ESG studied the impact of Red Hat Training and found that it positively affected employee efficiency in the following ways:

- **Fewer hours spent per IT task.** Customers interviewed for this analysis reported that their employees who have undergone Red Hat Training were between 25% and 50% more efficient in completing day-to-day IT tasks. The higher rates of improvement were generally for less-experienced employees, however; employees with more experience gained different types of benefits, returning from training with an evolved mindset that enabled them to better overcome challenges than in the past. In ESG's financial model, our sample organization found that the increased employee efficiency from Red Hat Training resulted in 960K recovered hours, with an annual potential bottom-line impact of \$22.4M. Using a realization factor of 25% of those saved hours being driven into activities that benefit the business, this equates to a recognized benefit of \$5.6M annually. Taking a different view and looking at the impact that these hours have on profitability results in \$13.9M in new profit. This calculation uses an average annual revenue impact per employee of \$333,500 and a gross margin of 30%.

“Our more experienced engineers came back from training curious. They approached problems differently; they found ways to configure our systems to pull levels of performance out of them that we have never seen. Yes, they were more efficient in what they did; however, an even bigger benefit was the way they approached challenges and turned them into opportunities.”
- **Improved time to value for new hires.** ESG used a turnover rate of 15% to model the impact of new IT employees. Interviewed customers shared that their time to value for new hires was between 4 and 6 months, depending on the level of the employee. During that time, the new employee was only 50% as effective as they would be at their one-year mark. When incorporating Red Hat Training as part of their new hire experience, their rate of effectiveness raised up to 77% during their new-hire period. ESG's financial model showed this to be the equivalent of 15.5 full-time equivalent (FTE) employees, with costs recovered totaling \$2.2M annually.
- **Increased IT employee retention rates.** Interviewed customers believe that their employee retention rates went up when they made Red Hat Training part of their employee culture, and the investment in training has a direct correlation to improved employee satisfaction. While each interviewee had a different estimate,

depending on the tenure of each employee list, ESG's analysis and financial model showed a reduction in IT turnover from 15% down to 13% when organizations adopted a structured program to invest in Red Hat Training—a reduction that results in annual savings of \$1.5M. One interview summarized the impact of training: ***“Red Hat Training is a perfect personal growth path to encourage our employees to expand their knowledge. We have found that employees who go through this training are more productive, get more out of our hardware, and stay with our company longer. They see our investment in their training as an investment in our commitment to their future with our company.”***

Increased IT Performance and Agility

Maximizing the impact of IT infrastructure spend is always beneficial for organizations but often hard to accomplish. Many companies find themselves over provisioning capacity, making short-sighted decisions that create technical debt, and being slow to respond to the needs of business units. ESG found that companies that incorporate Red Hat Training were able to squeeze more capabilities out of their infrastructure than those who don't send their people through training. Benefits uncovered during this analysis include:

- **Increased infrastructure output.** Customers reported that their Red Hat-trained employees were able to get more out of their Red Hat infrastructure. Deployments were not only twice as fast; they were also better configured, which enabled organizations to raise their hardware utilization rates as well as have a higher level of assurance of their security posture. ESG's financial model showed a benefit of 15% in better server utilization after Red Hat Training, eliminating the need for 318 new servers, with annual savings of \$1.2M.
- **Shift to predictive support.** Interviewed customers shared that their support costs are lower when they have more Red Hat-trained employees on their teams. They attribute this to better-configured hardware, a shift to proactive maintenance, a more logical structure to their workflows, and faster troubleshooting when issues do happen. One shared ***“We have seen our support numbers go down. We have fewer issues because our systems run better, and when we do have tickets, they are solved faster because our people are better educated and take a more creative approach to finding solutions.”*** ESG's model quantified that, after Red Hat Training, there was a 20% reduction in tickets generated, as well as a 32% reduction in time to remediate tickets, resulting in a \$133K annual decrease in support costs, as well as a \$358K alleviated benefit from end users no longer incurring delays during support issues.
- **Improved ability to meet business and IT milestones.** When IT staff are able to consistently meet the expectations of their business units, revenue goals are easier to meet. Interviewed customers shared stories of how having Red Hat-trained staff helped shift the view of IT toward one that is a closer partnership between business and IT. ESG heard multiple stories of reduced time to market, better customer experiences, and supportive IT environments that helped them pursue new opportunities instead of being stuck behind a roadblock. One shared, ***“We are a financial company. When problems exist, customers don't have access to their money. Every issue is magnified when it involves someone else's money. Since we have made Red Hat Training part of our IT career path, we have seen a much better customer experience because of the improved quality and predictability of our systems. This has specifically helped us raise our satisfaction rates and reduce our customer churn.”***

“Red Hat Training exposes our people to best practices that allow our hardware to run better. Because of our commitment to Red Hat Training, we have lowered our technical debt and have shifted to being a much more forward-looking organization.”

ESG heard from multiple interviewees that a shift in IT methodology from below-the-line tactical work to one that is focused above-the-line enables businesses as well as revenue and growth. While ESG was unable to make a

direct correlation between Red Hat Training and improved revenue, each customer interviewed was asked, “Do you believe that your commitment to Red Hat Training has impacted your revenue, and if so, by how much?” Every person interviewed said, “Yes,” and provided a range between .25% and 2%. ESG used the low number of .25% in our financial model, which created a revenue benefit of \$8.1M annually and a profitability benefit of \$2.4M.

Improved Governance

Companies seek ways to improve their IT governance to better manage and control their IT assets. Companies with high standards for governance find they are better able to produce predictable results and achieve a higher level of return on investment.

In exploring the impact of Red Hat Training on IT governance, ESG asked customers to explain how training affects their workflows. These interviewees shared examples of how their workflows are more efficient, repeatable, monitorable, and effective. Each also shared the opinion that they are more secure and less likely to incur a breach when their employees are Red Hat trained.

“We have a much tighter structure because we rely on Red Hat-trained staff. Our environment is better planned, implemented, and managed because of the level of expertise that comes from being professionally trained. We are more secure, more predictable, and get more bang for our buck because we invest in training.”

ESG’s calculation for improved governance is based on the IBM research, which shows the average cost of a data breach is \$4.45M per occurrence. The average organization incurs an 11% annual risk of a breach event,⁴ giving them an annual exposure risk of \$466K. While multiple attack vectors exist, interviewees believe that they can reduce their risk exposure by up to 3% when their environment is run by Red Hat-trained employees, with that benefit extending beyond their Red Hat ecosystem. As shared by one customer, **“Employees that go through structured training think, and act, differently. They are more structured and are better able to identify risk areas and opportunities for improvement, even outside our Red Hat environment.”**

Reducing the potential risk of breach from 11% down to 8% results in an alleviated risk-benefit of \$116K per year, as well as protecting customer confidence levels.

Enterprise Strategy Group Analysis

ESG created a sample company that is a composite of the organizations interviewed for this analysis. This sample company is high-tech, generates \$3.24B in revenue each year, and employs 18,000 people, 462 of whom are engineers with roles involving Red Hat technologies.

They have a 15% IT employee turnover rate and have a ramped new-hire time to value average of 6 months. They support 2,124 servers.

In the past, they did not have a structured training program, but they have since shifted to a plan that sends each new employee through structured Red Hat Training, as well as updated training after every two years of employment.

Why This Matters

While ESG based the sample comparative company on an enterprise-level, high-tech organization, the benefits detailed in this paper are relevant to companies of most sizes and types. All benefits detailed in this analysis are considered realistic, achievable, and conservative for most organizations.

⁴ Source: IBM Corporation, [Cost of Data Breach Report 2023](#), July 2023.

Conclusion

Providing IT services is a challenge that is growing in complexity as organizations expand to support hybrid workforces and as the importance of data becomes a driving force for growth. Companies struggle to keep up with the ability to provide IT services while protecting assets from attacks. Effective IT staff are fundamental to maximizing the impact of technology. Their level of competence dictates the configuration and deployment of assets, and their level of expertise determines the performance and security that these systems deliver.

Enterprise Strategy Group (ESG) analyzed the impact Red Hat Training can have on an IT organization's ability to meet technical and business goals. ESG found that companies that prioritize investments in employee training were better able to control costs, maximize system performance, align IT capabilities with business initiatives, and provide a more secure IT environment.

While each studied organization was different, ESG found substantial and consistent benefits across companies that had structured Red Hat Training for their IT employees. The benefits ranged from the easily quantifiable, such as fewer IT hours and lower infrastructure costs, to qualitative ones including improved customer and employee satisfaction. ESG also found that every organization interviewed felt the culture of their IT departments improved when they adopted a Red Hat Training program and shared that their IT and business teams are in better alignment, specifically because of the improved level of expertise in their Red Hat trained employees.

ESG believes that any organization that depends on Red Hat technologies for success should consider a structured Red Hat Training program and prioritize employees who earn Red Hat Certifications.

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