PeerPaper™ Report 2024

7 Key Advantages

of Red Hat Enterprise Linux for Workload Administration Across Diverse IT Environments

Red Hat Enterprise Linux (RHEL) Reviews

Vendor: Red Hat

★★★★☆ 4.4 out of 5 | 211 reviews | 96% willing to recommend

PeerSpot No.1 Ranked ★★★

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Overview Reviews Pros & Cons Pricing Alternatives

Abdul Wahid Khan
System admin at a tech services company with 51-200 employees

✓ REAL USER 🏆 TOP 20

★★★★☆

Sep 16, 2024

Stable package manager, good security, and cost-efficient

⋮

Pros and Cons

✓ "The package manager of Red Hat is very convenient and efficient to use. With other Linux versions, such as Arch Linux and Ubuntu, package managers might not always be stable. When installing any software, the dependencies can vary, and there can be conflicts, whereas Red Hat has efficiently managed all of that so that users can install packages without any conflicts. "

✗ "After installation, the initial setup can be simplified or improved a little bit for new users coming from a distribution like Ubuntu or Windows. "

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Introduction

Red Hat has been at the forefront of Linux innovation since the launch of Red Hat Enterprise Linux in 2002, and continues to revolutionize operating systems. Now, more than two decades on, Red Hat Enterprise Linux provides a flexible and reliable platform with extensive features and robust security.

One of the features available with Red Hat Enterprise Linux is the ability to support workloads across different software, hardware, and location. It is able to provide integration for all supported workloads, facilitating simple, seamless processes and aiding in increasing automation and innovation.

This high level of interoperability offers many benefits to the user, and in this paper, we will be focusing on the top seven benefits:

1. Workload Tailored User Experience - having always been workload agnostic, Red Hat Enterprise Linux offers a further level of integration for the most widely used server types, and the platform is tailored to support those workloads in particular, as well as enabling smooth deployment and mobility of most other workload types.

2. Ease of Use and Hosting Flexibility – third-party vendor integrated support offered when installing Red Hat Enterprise Linux and for ongoing use.

Yogesh M.
DevOps Engineer at Hitachi
Vanatra Corporation

★★★★⯪

"We are a Managed Service Provider. Red Hat Enterprise Linux enables us not to be worried about vulnerabilities, security, and patching."
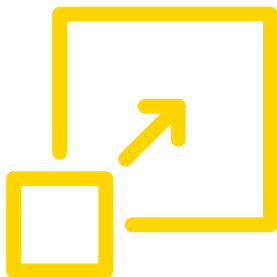
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Ankit G.
Senior Solution Architect at
Nuventure Connect

★ ★ ★ ★ ★

"Red Hat Enterprise Linux has built–in OSCAP profiles that we can select during implementation based on our industry and compliance needs. Using the OSCAP profile, we can minimize the effort needed to keep the software up to date."

Read review »

Easy to Scale

3. Reliability and Stability – reduced downtime and increased efficiency, through workload awareness in Red Hat Insights and other third party integrations (Pacemaker, HA-Addon, etc.)

4. Scalability – ease of scaling both vertically and horizontally.

5. Security – how security tools (SELinux, fapolicyd, etc.) are integrated into the platform, and how they can be used for workloads.

6. Performance Improvements – how the Red Hat Enterprise Linux features come together to bring about notable performance improvements.

7. Time and Cost Savings – the ways in which Red Hat Enterprise Linux saves time and costs for users, and provides a marked ROI.

Red Hat Linux Use Cases for Workloads

Red Hat Enterprise Linux delivers consistent performance across all server types, including Edge computing, hybrid cloud, and on-site storage. By providing a common foundation, it reduces IT complexity enabling simpler management and more seamless integration of multiple IT environments.

Yogesh Maloo, DevOps Engineer at Hitachi Vanatra Corporation, uses Red Hat Enterprise Linux for hybrid cloud applications, in particular for migrating data to the cloud: "We use Red Hat Enterprise Linux with AWS... We use the product in a hybrid environment, mostly when shifting the containers or existing workloads from legacy systems."

Senior Systems Engineer, Sherwin Lee, has been implementing Red Hat Enterprise Linux across several different systems: "I use Red Hat to run applications like Apache, MySQL databases, etc. It is suitable for data storage and firewall. I can also measure performance with the SAR tools and do all I need with the Linux stack."

Jeremy Gerdes, Lead System Engineer for a large tech vendor, lists the multiple environments for which his team uses Red Hat Enterprise Linux: "We use the solution majorly for JBoss, Apache, Java workload, and Comcast. We also use it for Apache Satellite to do all the patching and database management. We use it for almost everything."

To summarize, Red Hat Enterprise Linux's flexibility across all major systems and server types helps to simplify users' workload migrations and management.

Yogesh M.
DevOps Engineer at Hitachi Vanatra Corporation

★★★★⯪

"We use Red Hat Enterprise Linux with AWS... We use the product in a hybrid environment, mostly when shifting the containers or existing workloads from legacy systems."

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Interoperability of Red Hat Enterprise Linux Workloads

Red Hat Enterprise Linux is compatible with a wide range of hardware and software, which makes it an excellent choice for workloads where interoperability is an important factor. Red Hat makes it simple to migrate workloads from one environment to another, ensuring that deployments are stable and consistent. Users benefit from homogenous monitoring and management tools, and from centralized support, which increases both time and cost savings.

In addition, Red Hat is working with specific software providers to create a tailored workload experience, whereby the Red Hat Enterprise Linux environment doesn't just integrate with apps, it is expressly engineered to work with them. Such a high level of interoperability increases security and functionality, giving users more control, faster implementation and simpler business automation.

1. Deployment Capabilities

Red Hat Enterprise Linux gives you a consistent, stable, and high-performance platform across hybrid-cloud deployments, along with built-in manageability and integration with the broader Red Hat management and automation portfolio.
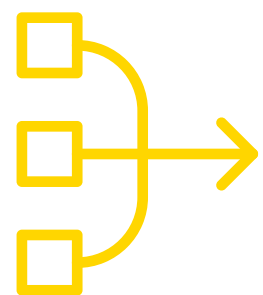
Reduces IT Complexities

Harrison Bulley, Senior Infrastructure Engineer at a tech services company, explains how Red Hat Enterprise Linux is simple to deploy, as well as being scalable: "Red Hat Enterprise Linux is a lightweight operating system that can be deployed on a variety of hardware platforms, from small clusters to large industrial servers. This allows us to easily move applications and containers between different environments, which makes it easier to scale our infrastructure and respond to changing business needs."

This user, Director of a large Biotech Company, is also pleased with Red Hat Enterprise Linux's ability to be deployed across multiple environments: "In Red Hat Enterprise Linux, we use Red Hat Satellite as part of all the patching and deployment, even from on-premises and AWS, and that's been really helpful since it is one product that can be used in a hybrid environment. It's just one place to manage everything. It's good since you don't have two different products or places to manage, especially if you have a multi-datacenter and not a multi-cloud but a multi-location environment."

Red Hat Enterprise Linux makes running applications more stable and faster because it is able to bring disparate systems together into one ecosystem.

2. Flexibility for Supporting a Broad Range of Workload Types

Many organizations find themselves running increasingly complex workloads which depend on several different systems. Red Hat Enterprise Linux is able to provide robust connectivity between the necessary systems so workloads are processed seamlessly.

Senior Infrastructure Engineer, Harrison Bulley, depends on Red Hat Enterprise Linux's ability to be effective across several different environments so that his team can run workloads which depend on more than one type of infrastructure: "Red Hat Enterprise Linux helps us build with confidence and ensures availability across physical, virtual, and cloud infrastructures."

TJ, a Cloud and Infrastructure Architecture for a communications service provider, has noted that the connectivity which Red Hat Enterprise Linux offers is highly reliable: "In terms of running and using applications, Red Hat is consistent regardless of the underlying infrastructure. It's implemented on VMware, Proxmox, KVM, and Hyper-V. Whatever underlying infrastructure you put it on, it's still Red Hat, which is great."
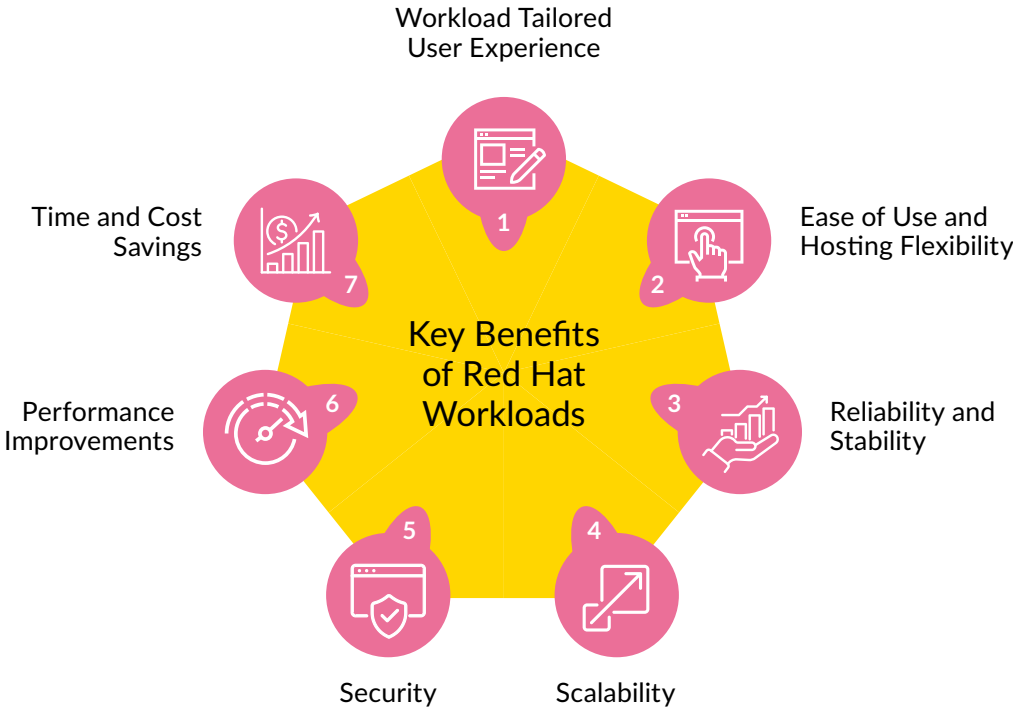
Built-In Manageability
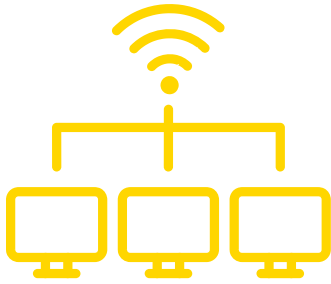
Robust Connectivity Between Systems

This comprehensive review from a government IT manager explains how Red Hat Enterprise Linux makes it possible to migrate workloads from one environment to another, helping to speed up deployment and increase efficiency: "We use Red Hat Enterprise Linux with Microsoft Azure. We did not have concerns about using Red Hat Enterprise Linux in the cloud because we had spoken to other customers of Azure that had been running Red Hat Enterprise Linux. We can install Red Hat Enterprise Linux on our own, or we can use the custom-built Red Hat Enterprise Linux images available through Azure. It makes the deployment of a server much quicker and more efficient. We have been migrating some workloads and applications from on-premise to Azure."

The development team at Red Hat Enterprise Linux understands just how diverse business needs can be, which is why the platform is designed to support almost all types of workloads.

The Advantage of Using Red Hat Enterprise Linux for Workloads

Workload Tailored
User Experience

Time and Cost
Savings

Performance
Improvements

Key Benefits
of Red Hat
Workloads

Ease of Use and
Hosting Flexibility

Reliability and
Stability

Security

Scalability

1. Workload Tailored Experience

Red Hat Enterprise Linux is compatible with most popular business software and hardware, and enables easy migration of workloads across different environments. This makes Red Hat Enterprise Linux workload agnostic, offering a versatile and flexible platform to users who depend on multiple systems for streamlined processes. For the most popular workloads, including SQL, SAP and HPC, Red Hat Enterprise Linux includes tailored integration, so the experience is not simply streamlined, but specifically designed to manage these workload types.

Sebastiaan Vreeswijk, Cloud Engineer for a computer software company, chose Red Hat Enterprise Linux because of its ability to bring all their IT systems together into one platform: "It is a complete ecosystem. That is its main feature. If you take all the latest products, it just works together."

Cloud and Infrastructure Architect TJ values the interoperability made possible by Red Hat Enterprise Linux: "RHEL allows us to run multiple versions of the same application with no problem. We have specific databases and specific versions of them running for the support team, even though some of them are not in support. It has lots of features for things like containerization."

A tech company architect user has found that the interoperability makes it easier to migrate workloads: "It isn't difficult for our customers to move workloads between the cloud and the data center using Red Hat Enterprise Linux. The integration from on-prem to the cloud is quite easy because the operating system is the same. The operating system works the same in both places, so it's easy."

Russell Burgos, Compute and Storage Associate Engineer at a large retailer, explains that Red Hat Enterprise Linux being workload agnostic enables him to use a multitude of different cloud providers: "Red Hat helps our organization avoid cloud vendor lock-in because <u>we can run Kubernetes and a few different workloads directly on Red Hat across different cloud providers</u>. Since Red Hat is an operating system, we can migrate our workloads to any cloud provider that supports Red Hat."

Another user, a Solutions Architect at a large consultancy firm, states that the interoperability of Red Hat Enterprise Linux leads to direct savings, as well as improving efficiency and visibility: "<u>The solution's key element is its cohesive ecosystem between hybrid and cloud environments</u>. It helps clients such as giant banks create a single space for managing workloads in different hyper scalers. This way, it helps in cost management and visibility."

In summary, users benefit from the flexibility of Red Hat Enterprise Linux's workload-tailored capabilities, and find that it simplifies processes and improves performance.
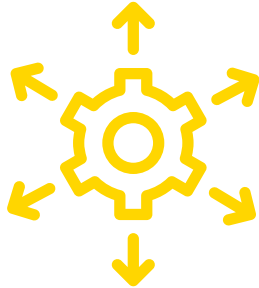

Russell B.
Compute And Storage
Associate Engineer at a Retailer
with10,001+ Employees

"Red Hat helps our organization avoid cloud vendor lock-in because we can run Kubernetes and a few different workloads directly on Red Hat across different cloud providers."

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Easy to Deploy

2. Ease of Use and Hosting Flexibility

There are several factors which make Red Hat Enterprise Linux easy to install and use:

- Comprehensive suite of migration tools

- Ongoing support from Red Hat experts

- Supportive community

- Straightforward console

This review from a tech company architect explains how ease of deployment depends on the client's needs, but even complex cases tend to be simple to set up: "It's pretty easy to deploy Red Hat Enterprise Linux. It can be difficult based on the workflow of the client, but overall, it's pretty straightforward to deploy on the cloud environment because all cloud providers support the deployment of Red Hat Enterprise Linux. The golden image of Red Hat Enterprise Linux is compatible with every cloud provider."

Another user, a Senior Manager of a large financial services firm who uses Red Hat Enterprise Linux to host website content, finds that the platform itself is designed for ease of use: "The Red Hat Enterprise Linux web console was helpful and offered visibility through dashboards. It helped us see what was going on with our system."

When things don't go as smoothly as expected, Red Hat provides extensive support to help overcome any hiccoughs, as Ankit Gupta, Senior Solution Architect at Nuventure Connect, states: "Red Hat's support license is robust. You get three levels of professional support plus community support. Our banking, finance, and telecom clients rely on Red Hat Enterprise Linux entirely for their production workloads, so they need to minimize downtime."

Users report that Red Hat Enterprise Linux is simple to work with, and offers the functionality and interoperability they need.

3. Reliability and Stability

For businesses, any downtime means lost revenue, therefore a reliable and stable IT infrastructure is essential. Smooth integration across all network systems means that Red Hat Enterprise Linux is robust and reliable, and the on-board performance tools enable fine-tuning of processes for optimal performance.

Highly Resilient

Felipe F Dos Reis, Principal IT Cloud Infrastructure Engineer for a large financial services firm, has experienced Red Hat Enterprise Linux to be very stable and problem-free: "Red Hat Enterprise Linux is a highly resilient operating system. It has a strong XFS file system, kernel, and package build. Migrating workloads between the cloud and our data center is easy. There are no problems."

This review from a Consultant at a large financial services firm highlights the stability of Red Hat Enterprise Linux with regards to workloads: "End-to-end, we always find that Red Hat is best suited for Linux, especially for Oracle and other NoSQL databases. It's reliable, first and foremost, and it offers stability and performance."

Georgios Atsigkioz, Senior Consultant at Atea AS, explains how the robustness of Red Hat Enterprise Linux for supporting workloads enables his company to offer a complete solution to their clients: "Internally, we use Red Hat Enterprise Linux for services and for applications that we run, especially Linux based-applications. We also have SAP solutions, which we sell to the customers as a total solution with Red Hat, SAP HANA, and also for our own cloud-based SAP HANA, which is under Red Hat's operating system."

Red Hat Enterprise Linux lives up to its reputation for being reliable and stable with regards to workloads and processes according to users, ensuring that downtime is minimal to zero, and processes can be carried out smoothly and efficiently.

4. Scalability

The flexibility available with Red Hat Enterprise Linux doesn't stop at its interoperability and integration capabilities, it also extends to scalability. This is a key concern for many organizations, not just for vertical growth, but for many IT managers, increased automation necessitates ease of replicability and scalability.

Cloud and Infrastructure Architect TJ explains how Red Hat Enterprise Linux's integration makes scaling so much simpler because it enables a high level of automation: "Having this integrated solution approach provides us with greater operational excellence because we can see what somebody is building. We have the environment captured and have visibility about what went into it for repeatability, reproducibility, scalability, and lots of other benefits. When it comes to the deployment of cloud-based workloads, this solution helps to automate activities. We are just starting our cloud journey and as such, we currently don't have any cloud-based workloads. However, we plan to, and my understanding is that it will be much easier using Red Hat Gold images for Azure, AWS, etc."

Solution Architect
at a Consultancy with
10,001+ Employees

★ ★ ★ ★ ☆

"The solution's key element is its cohesive ecosystem between hybrid and cloud environments. It helps clients such as giant banks create a single space for managing workloads in different hyper scalers. This way, it helps in cost management and visibility."

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Simplifies Risk Reduction

This user, a Senior Service Specialist at a large financial services firm, particularly appreciates the scalability of Red Hat Enterprise Linux: "Some of the solution's features include scalability, lower footprints, and the fact that licenses don't really cost us much. Also, the upgradeability is fantastic… Working at a bank, I can say that lack of scalability is a big no-no for us since we deal with people's money."

Richard Geherty, Associate Director SAP Infrastructure Solution at a large manufacturing company, uses Red Hat Enterprise Linux for SAP workloads, and finds that Ansible automation makes scalability much simpler: "We also use Ansible. Ansible is a wonderful tool for automation… We use Ansible to get playbooks to take care of anything that's manual."

In summary, users report that scaling their Red Hat Enterprise Linux workloads is straightforward and problem-free.
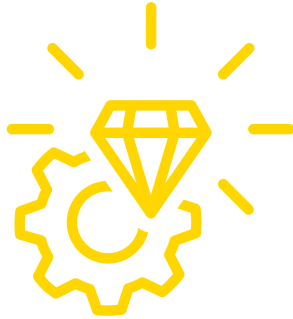
5. Security

As the cyber threat landscape grows year-on-year, so the importance of security and compliance has become a top priority for organizations. Red Hat Enterprise Linux has security tools built-in, to ensure maximum protection. The 3-point approach to addressing security challenges is simple and effective:

● **Mitigate** – including vulnerability coverage, strengthening supply chain security, and minimizing reboots when patching. Mitigating workloads includes using integrated rpm repositories, and minimizing install patterns to limit the attack surface.

Yogesh Maloo, DevOps Engineer at Hitachi Vanatra Corporation, values the high-level security of Red Hat Enterprise Linux since he not only depends on it for his own workloads, but for clients' workloads too: "We are a Managed Service Provider. Red Hat Enterprise Linux enables us not to be worried about vulnerabilities, security, and patching."

Improves Security Posture

**Provides
Operational
Excellence**

● **Secure** – including centralized access control, system-wide cryptography policies, and built-in layers of security and authentication. Securing workloads includes assigning security roles, ensuring apps are SELinux confined or similar, and adhering to best practices to secure data in rest.

Sachin Patil, Director of Datamato Technologies, appreciates that Red Hat not only offers his IT team the interoperability and scalability they need, but does so whilst maintaining the highest level of security: "Red Hat Enterprise Linux's strong security posture and its ability to scale applications on emerging technologies across the hybrid cloud is next-generation."

This user, a Platform Engineer for a large tech services firm, goes on to discuss how he is reassured by the workload-specific security tools made available on Red Hat Enterprise Linux: "For our company, Red Hat Enterprise Linux is a very secure operating system… It's great for us. SELinux is a great tool to protect us from attackers. SELinux is the most important for us."

- **Comply** – including automating security configuration, compliance tools as part of the OS, and recording user activity.

Senior Infrastructure Engineer, Harrison Bulley, is impressed with the security on Red Hat Enterprise Linux: "<u>Red Hat Enterprise Linux's built-in security features simplify risk management</u>. The operating system is very secure, and we used tools like Puppet to further limit and lock down access with configuration files from a central location. This made Red Hat Enterprise Linux both more secure and easier to configure."

Biotech firm Organon Senior Engineer, Jose Gonzales, is excited by the innovation offered by Red Hat Enterprise Linux, together with security and reliability: "It's been great since we have it. It's been reliable and fast. <u>We keep all the security agents</u>, and we've been taken care of right away, and that's the improvement in our company. It's with the new RHEL. There's always something new, something good that works for us."

Cyber security is likely to remain a top concern for businesses, and this is equally true for workload security. Users feel reassured that Red Hat Enterprise Linux supports them in addressing this, with multiple tools to ensure a high level of network security.

Increases Employee Productivity

6. Performance Improvements

Red Hat Enterprise Linux facilitates improved performance through its ability to integrate multiple systems, together with an innovative set of performance monitoring, tracing, and analysis tools.

Rich Owens, Service Engineer for a large retail company, uses Red Hat insights to help streamline and improve their applications: "We use Red Hat Insights quite a bit... We use it to look for events our monitoring hasn't picked up. It also helps us with tips and hints for fine-tuning applications like SAP and Oracle. We go by these recommendations and follow them to put the applications in place."

Ankit Gupta, Senior Solution Architect at Nuventure Connect, values the improvement his team has experienced from the workload security features, in particular the box-ready profiles: "The built-in security features simplify risk reduction. For example, Red Hat Enterprise Linux has built-in OSCAP profiles that we can select during implementation based on our industry and compliance needs. Using the OSCAP profile, we can minimize the effort needed to keep the software up to date."

Flexibility is key to Red Hat Enterprise Linux's ability to improve performance, as each user reports a variety of ways in which the features have made a difference to their processes and performance.

7. Time and Cost Savings

Red Hat enterprise Linux is a complete ecosystem, offering smooth migration of workloads and simplifying automations. By doing so, it provides multiple opportunities for savings of both time and costs, offering a solid ROI to users.

The International Data Corporation (IDC) has conducted comprehensive research which demonstrates the enormous potential of Red Hat Enterprise Linux to increase productivity whilst saving time and costs: "By opting for RHEL, businesses can deploy the applications they need to win and retain customers, maximize employee productivity, and save on IT costs... RHEL customers can expect a direct impact of roughly $1.7 trillion this year compared to $900 billion in expected IT costs. That's nearly a two-for-one payoff." - Cushing Anderson, Stephen Belanger, John F. Gantz. "The Economic Impact of Red Hat Enterprise Linux"

When digging down into the details, IDC found that automation is an important element in realizing a high level of ROI: "Business Value Highlights: 498% five-year ROI; 5 months to payback... research found that these organizations were realizing significant productivity, agility and operational benefits by using Ansible Automation's programmatic software driven approach to IT automation." - Turner, Mary Johnston and Harsh Singh. "Red Hat Ansible Automation Improves IT Agility and Time to Market"

Decreases TCO

Jeffrey Donovan, Senior Infrastructure Architect at Ensono, has noted lowered costs and increased functionality from Red Hat Enterprise Linux: "We have seen a drop in TCO because we ended up buying more than building... We were able to simplify our complex nature. That is what Red Hat has allowed us to do. The biggest ROI that we have seen by using Red Hat Enterprise Linux is accessibility to information for frontline support people, midline support people, and developers."

This review from a government IT manager illustrates the way in which Red Hat Enterprise Linux enables significant savings: "The solution has helped us streamline and optimize our infrastructure for any applications or databases we run on a Linux operating system. They help us save on our physical resources because they're less demanding. Therefore, we don't have to spend as much money on a server that has a lot of CPUs and a lot of memory. We can fit many more VMs on a single physical virtualization host because it's optimized."

There is no ambiguity from this user, a Platform Engineer for a large hospitality company, who has noted massive time savings from using Red Hat Enterprise Linux: "Time savings is the biggest return on investment. I can do more in less or a shorter amount of time. The time savings depend on what you are working on, but you can potentially have about 75% time savings."

In summary, users are pleased with the ROI, and report significant time and cost savings.

Conclusion

Red Hat Enterprise Linux stands out for its versatility, reliability, and ease of use across various IT environments. It offers seamless integration, being designed to support diverse workloads, which simplifies and speeds up migration and automation. Robust security features provide peace-of-mind, and high-level performance tools ensure that users are able to optimize processes and increase efficiency. Users consistently report significant time and cost savings, improved performance, and straightforward scalability, highlighting the platform's effectiveness in meeting the demands of modern IT operations.

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About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. A trusted adviser to the Fortune 500, Red Hat provides award-winning support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.