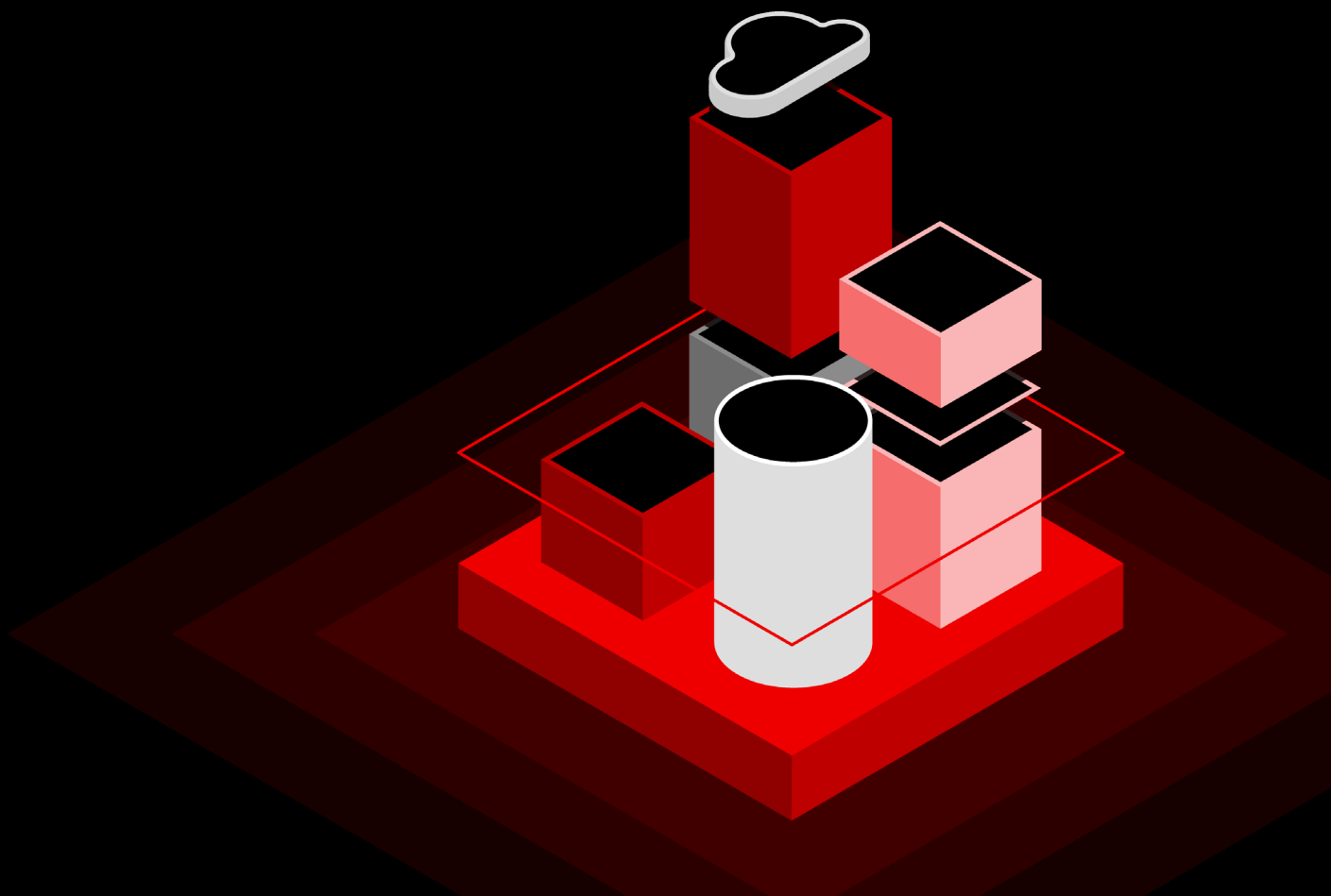## Red Hat
Enterprise Linux

Maximize your Linux operating environment

9 tech tip checklists for Red Hat Enterprise Linux

Introduction

Operate with confidence and trust, using a platform that fosters innovation and increases operational efficiency within your organization—no matter where you choose to run it.

Red Hat® Enterprise Linux® provides a flexible and stable foundation to support hybrid cloud innovation, allowing you to build security and compliance into the infrastructure from the time of development and more easily maintain stability throughout the production life cycle. You can also build, deploy, and manage applications and critical workloads faster and more efficiently with a consistent experience across physical, virtual, private and public cloud, and edge deployments.

In the following sections, we'll examine the essentials of Red Hat Enterprise Linux across nine distinct areas that affect your operations in a hybrid cloud environment. From development and containers, to workloads and performance, to security and life cycle we offer hands-on tips for getting the most out of your Red Hat Enterprise Linux deployments in the datacenter, in a cloud environment, and at the network edge.

Hands-on tips for getting the most out of your Red Hat Enterprise Linux deployments.

Security

8 tech tips to advance security and compliance

Mitigate risk, enforce security configuration and policy, and help your organization stay compliant with Red Hat® Enterprise Linux® security and compliance capabilities.

Manage standards-based compliance settings

System-wide cryptographic policy provides a consistent way to implement and maintain standards-based compliance settings for your infrastructure.

With one simplified command, you can select a built-in cryptographic policy and apply it consistently across the applications on your system. Plus, if you have specialized regulatory compliance requirements, you can create a custom policy to meet your objectives.

Learn more about managing compliance ›

Automate security configuration with system roles

Red Hat Enterprise Linux system roles, powered by Red Hat Ansible® Automation Platform, allow administrators to use automation to install and manage security settings at scale in less time.

System roles are written to work with multiple Red Hat Enterprise Linux releases across various footprints, allowing administrators to use best practices for Red Hat solutions. With a single command or workflow, you can configure new security settings and maintain them on all your systems.

Learn more about security automation ›

Red Hat

Centralize authentication and authorization

Red Hat Enterprise Linux includes centralized identity management (IdM) capabilities that allow you to authenticate users and implement role-based access controls (RBAC) using a single, scalable interface that spans your entire datacenter.

- Identity management in Red Hat Enterprise Linux integrates with Microsoft Active Directory, lightweight directory access protocol (LDAP), and other third-party identity and access management solutions through standard application programming interfaces (APIs).

- You can also centrally manage authentication and authorization for services using certificate-based authentication and authorization techniques.

Find out more about identity management ›

Customize policies

Security-Enhanced Linux (SELinux) is an implementation of mandatory access control (MAC) in the Linux kernel. Red Hat Enterprise Linux containers run with SELinux by default. This includes an additional layer of security in the operating system (OS) and prevents containers from breaking out and overwriting the underlying host OS or other containers on the system. Udica allows system administrators and container developers to analyze a running container and auto-generate a policy with container-specific SELinux rules. This simplifies policy writing and reduces risk by eliminating the need to run containers with superuser privileges.

Experiment and learn more about policy lock down ›

Patch systems with minimal downtime

Red Hat provides kernel live patches for common vulnerabilities and exposures (CVEs) rated critical or important for extended update support (EUS) releases at no extra cost. Kernel live patching (KLP) allows you to patch a running kernel to immediately address vulnerabilities without rebooting your system to minimize downtime without compromising security.

Experiment and learn more about KLP ›

Red Hat

Manage security and compliance at scale

Included in a Red Hat Enterprise Linux subscription, at no added cost,
Red Hat Insights is a Software-as-a-Service (SaaS) offering that provides users
with actionable security data about their deployments. Discover and address
operational and vulnerability risks, scan your systems faster to determine
which patches are missing, and prioritize which critical patches to apply
first. You can create, modify, implement, and maintain security configuration
policies across all your Red Hat Enterprise Linux systems from a single web
interface. Additionally, you can execute, scale, and automate remediation plans
from Red Hat Insights with a Red Hat Smart Management subscription.

Learn more about compliance ›

Record system activity to support compliance goals

Red Hat Enterprise Linux includes session recording, which has auditing and
logging capabilities that let security administrators capture keystrokes and
activities of a select group of users on a system. This data is recorded in the
same system journal or log file as all other activities and can be analyzed and
correlated using replay and pause capabilities included in the playback tool.

Experiment with session recording ›

Stop unauthorized applications from executing

Application allowlisting can reduce potential attack vectors and prevent rogue
applications from executing on your system. The file access policy daemon
(fapolicyd) offers built-in application allowlisting, which permits only approved
executables to run on a system by a user. System administrators can configure
fapolicyd with default policies or build their own to prevent modified or
unauthorized applications from running.

Find out more about application allowlisting ›

Development

8 tech tips to build and deploy apps across a hybrid cloud

Experience a platform with built-in security, options for container-based development, and the tools to develop applications and services across all infrastructure locations.

Access to extensive developer toolsets

Benefit from an extensive library of applications, tools, help, and guidance that let developers be selective, yet nimble. From a selection of compilers for C/C++, Rust, and Go to a wide range of runtime languages such as Python, Ruby, PHP, Perl and Node.js, Red Hat Enterprise Linux includes the tooling that developers need and provides a choice of long-term support versions or the latest new versions of developer tools so the right tools are available no matter what the application.

Read more about developer tools ›

Cloud access

Conquer complexity no matter where or how you choose to deploy—on-premise, in a cloud environment, containerized, and all the way out to the edge of your network. The Red Hat Cloud Access program lets you use your subscription on Red Hat-certified public clouds.

Learn more about Red Hat Cloud Access ›

Red Hat

Container development tools

Red Hat Enterprise Linux delivers a suite of container development and runtime tools. Red Hat offers several Red Hat Enterprise Linux–based secure base images to provide the consistent, yet flexible foundation that developers need to build containers for adoption anywhere you choose to deploy.

Find out more about container tools ›

Image builder

Create a custom image for your development environment with Red Hat Enterprise Linux image builder. The image builder service, which can be found in the left navigation of the Red Hat Hybrid Cloud Console, simplifies and streamlines the process of assembling your own customized operating system (OS) images with the latest content and security updates for all of your hybrid cloud environments.

Find out more about image builder ›

Focus on security and compliance

Mitigate the risk of a vulnerability by making security and compliance a part of the infrastructure and application product life cycle from the beginning. Red Hat Enterprise Linux multilayer breach defense capabilities include automated and repeatable security controls such as the latest cryptographic standards and libraries, SELinux, and application listing. Live patches and remediation are included, allowing you to focus on developing and deploying new software efficiently on a platform you can trust.

Learn more about a security-focused approach ›

Performance

Red Hat Enterprise Linux provides high performance for your apps across the open hybrid cloud, allowing you to identify, analyze, and tune your workload performance while you are building applications. With the built-in TuneD profiles, you can tune your system for a variety of different use cases.
Red Hat Enterprise Linux also provides kernel backports of select upstream kernel performance improvements while allowing the same level of application compatibility and stability of the Red Hat Enterprise Linux kernel.

Read more about performance improvement ›

Automation and management

Spend more time on innovation and less on repetitive tasks. With Red Hat Enterprise Linux, you get a consistent, stable experience for building and deploying your workloads. Red Hat Enterprise Linux offers a combination of automated and repeatable workflows through tools such as image builder, system roles, and the Red Hat Enterprise Linux web console.

Read more about automated workflows ›

Red Hat Developer program

Gain access to a full portfolio of app development products and tools for creating enterprise software built on microservices, containers, and the cloud environments. The Red Hat Developer program provides the tools, technologies, and community you need to help you solve problems, connect with colleagues, discover what's next, and lead your project forward.

Join Red Hat Developer ›

Containers

7 tech tips that simplify container adoption

Experience standardized container development tooling and base images that improve how development and operations teams work together.

Improve container security with rootless containers

Red Hat Enterprise Linux container tools can run containers natively as nonroot, or as rootless containers.

By running without root privileges and authority, containerized applications are further limited in the activities they can perform or data they can access, thus creating less attack surface for the host system. Red Hat uses namespaces so that applications inside the containerized environment believe they are running as root, but outside the container, those processes are running with a normal user context.

Learn more about rootless containers ›

Adopt containers in less time with Red Hat Universal Base Images

Successful projects start with a solid foundation and successful container development begins with a reliable and standardized base image.

If your application is already packaged as an RPM, containerizing it may be as simple as installing that software into a Red Hat Universal Base Image (UBI) and running it.

Try it and learn more about Red Hat UBIs ›

Build containers to suit your application needs

Need software not included with Red Hat UBI?

Building your own container environment from scratch might be the best route to containerizing your workload. The Buildah container tool can add content to existing container images or build fresh container environments.

Try it and learn more about container environments ›

Red Hat

Manage compliance for source containers

If you are distributing your container images with open source software, you may need to provide the source code for those applications.

A single command makes getting source code for your Red Hat UBI simple, easing the burden of tracking and managing legal compliance for containerized applications.

Watch and learn more about source containers ›

Maintain compatibility with containers on Red Hat Enterprise Linux

Red Hat tests containers built with Red Hat Enterprise Linux to verify that they are interoperable across Red Hat Enterprise Linux versions.

That means that containers with Red Hat Enterprise Linux 7 content can run on Red Hat Enterprise Linux 8 host systems, or containers with Red Hat Enterprise Linux 6 content can run on Red Hat Enterprise Linux 8 hosts. This allows you to choose to update your container host OS independent of the application container content.

Learn more about container portability ›

Automate container updates with Podman automatic updates

You can configure your container workloads to automatically check their repository, download, and redeploy if a newer container image is available.

Combining the auto-update capability with systemd to manage container-based services is a powerful way to automate the management of containerized workloads running on a system and reduce the amount of manual interaction needed to maintain and manage application updates.

Watch and learn more about container automation ›

Deploy containers with container tools

New to container development and deployment?

Red Hat Enterprise Linux container tools, provided as part of a Red Hat Enterprise Linux subscription, include utilities to download and run existing containers, build your own containers, or share containers from one system to another or to a registry.

Try it and learn more about container tools ›

SQL

7 tech tips to help manage Microsoft SQL Server workloads

Jump start the management of your company's Microsoft SQL Server workloads with these practical labs to get you on your way to better performance and more efficient work practices. Microsoft SQL Server on Red Hat Enterprise Linux labs provide users with easy tutorials for the most popular processes.

Install and configure with system roles

IT teams require a uniform and streamlined way to install Microsoft SQL Server across multiple Red Hat Enterprise Linux servers. The critical part of the process requires the SQL Server instances to be set up using a uniform configuration, and the installation process must be repeatable when more servers come online.

This lab shows how users will be able to use Ansible Playbook to install and configure Microsoft SQL Server on Red Hat Enterprise Linux.

Visit this lab for more information ›

Customize system-wide crypto policy

Security teams now require using stronger cryptography algorithms with applications and require encryption of sensitive data at rest.

This lab shows how users will be able to use and modify Red Hat Enterprise Linux system-wide cryptographic policy applied to Microsoft SQL Server, and encrypt a database in SQL Server using Microsoft SQL Server Transparent Data Encryption feature.

Watch this lab demonstration for more details ›

Red Hat

Turbo-charge Microsoft SQL Server performance

The columnstore feature in Microsoft SQL Server improves the performance of certain analytical queries—ten fold.[1]

This lab shows the benefits that Red Hat's tuneD profile, for Microsoft SQL Server, brings to these workloads.

See how the Columnstore feature works ›

Monitor activity for compliance

Compliance officers need to have session recording across all OS and database activity for high privileged users.

This lab shows how to review recorded sessions in Red Hat Enterprise Linux and track activity inside Microsoft SQL Server using SQL Server auditing feature.

View this lab demonstration ›

Run and build applications with container tools

Infrastructure teams use containerized applications and containerized databases. This lab shows the speed and flexibility of using Microsoft SQL Server container image for Red Hat Enterprise Linux to build applications.

Watch this lab demonstration for more details ›

[1] Imershein, Louis and Karl Abbott. "These Microsoft SQL Server on RHEL8 benchmark results might surprise you." Red Hat Blog, 13 Apr. 2021, redhat.com/en/blog/these-microsoft-sql-server-benchmark-results-might-surprise-you

Perform, scale, and deploy best practices with insight

System administrators need actionable intelligence to provide proactive insights about their deployments.

This lab shows the use of Red Hat Insights, where users can discover and address operational and vulnerability risks to quickly scan and prioritize actions in their system's footprint.

See how Red Hat Insights works ›

Collect and analyze data for performance monitoring

Monitor performance and identify bottlenecks with Performance Co-Pilot (PCP) on Red Hat Enterprise Linux. PCP gives you a 360-degree view into Microsoft SQL Server performance metrics across the environment.

This lab shows how to get started collecting and analyzing data to solve performance concerns.

Visit this lab for more information ›

SAP

8 tech tips for managing SAP workloads

Red Hat offers a complete software infrastructure stack for your SAP workloads, including a reliable OS, high-performance virtualization hypervisor, open source cloud platform, Kubernetes-based container technologies, and management and automation tools. The following labs will help you learn more to meet your organization's needs.

Get started with service administration basics

Moving SAP, running on another platform, to Red Hat Enterprise Linux? Service management on Red Hat Enterprise Linux is handled through systemd, a daemon that starts system services at boot and offers administrators the ability to stop, start, or restart services on a running system. Systemd can also be configured to monitor the state of a service and restart it if needed.
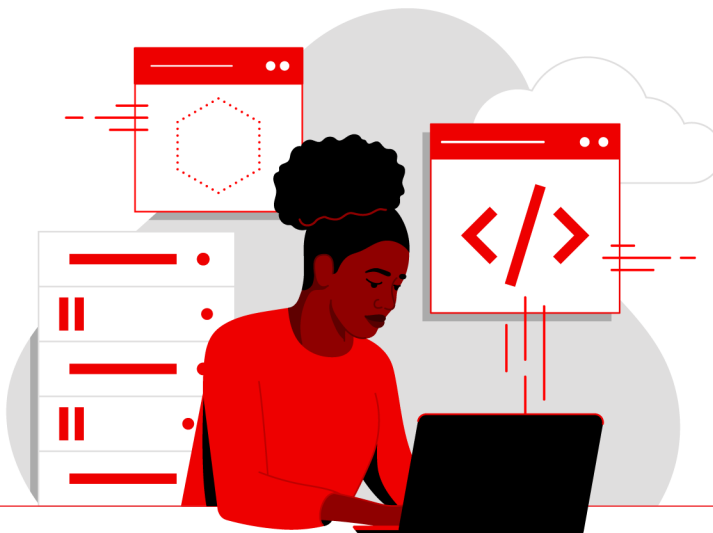
View the service administration basic lab ›

Install software using package managers

Moving to Red Hat Enterprise Linux from another OS? Installing, upgrading, and managing software is a critical skill for Red Hat Enterprise Linux administrators.

Take a look at the package managers lab ›

Red Hat

Reduce downtime with automation

System administrators need capabilities for scale. With Red Hat Enterprise Linux for SAP Solutions, you can fully automate your SAP deployment and management of SAP HANA® landscapes as well as the Red Hat infrastructure. Help your practitioners automate critical transitions like system and software upgrades with near-zero downtime, and support high availability and disaster recovery for scale-up and scale-out SAP HANA deployments with fully supported Red Hat High Availability Clustering technologies.

Read more about high availability and disaster recovery solutions for SAP ›

Reduce maintenance with kernel live patching

Red Hat Enterprise Linux for SAP Solutions provides live kernel patches for common vulnerabilities and exposures rated critical or important, at no extra cost. Kernel live patching allows you to patch a running kernel to address vulnerabilities in less time without rebooting your system—minimizing downtime without compromising your focus on security.

Find out more about applying kernel live patches to running systems ›

Provide automatic health, discovery, and security assessments

System administrators benefit from proactive monitoring and remediation services for their SAP infrastructure. Learn more about Red Hat's application-focused view for SAP HANA deployments, making it easier to manage SAP systems.

Read more about Red Hat Insights ›

View reported issues and remediate with ease

Red Hat simplifies SAP system administrator tasks by analyzing systems with suggested remediation guidance using Red Hat Insights. Besides SAP-specific content, Red Hat Insights can find different issues that may not be obvious to administrators, but can affect the viability of systems. Things like a mistake in a critical configuration file that would render a machine inoperable on the next reboot, misconfiguration of service settings that could add attack risk to your infrastructure, or even complex issues with interactions between different service configurations.

View the Red Hat Insights lab ›

Build a standard operating environment with system roles

Efficiently manage systems across different Red Hat Enterprise Linux versions with system roles that provide consistent workflows and streamline the execution of manual tasks, requiring less time. For SAP system administrators, Red Hat offers roles tailored to prepare systems with SAP recommended configuration, prior to installing software, and to report how systems are configured.

Find out how system roles are configured ›

Try Red Hat Enterprise Linux for SAP Solutions at no cost

Start your no-cost, 60-day trial of Red Hat Enterprise Linux for SAP Solutions and get access to the technology, documentation, videos, discussions with peers, the customer portal, and more.

Start your trial ›

Edge

7 tech tips to take your enterprise to the edge

Hybrid cloud applications are being deployed, not just within datacenters, but increasingly on remote devices close to where data is created and consumed; this is a domain known as the edge. Red Hat Enterprise Linux provides a consistent, flexible, and security-focused foundation that delivers customizable image generation, remote device mirroring, and intelligent rollbacks to maximize the stability of application deployments at the edge.

Edge management

Red Hat Enterprise Linux edge management helps organizations manage their needs and scale deployments at the edge with added security.

The benefits of zero-touch provisioning, system health visibility, and quick security remediations are available from a single interface. These capabilities provide control and certainty at every life stage of an edge system.

Watch a demonstration ›   **Try it now ›**

Customizable operating system image generation

Create purpose-built system images using image builder. Build and deploy in less time and more efficiently maintain system images for your machines outside the datacenter.

Red Hat Enterprise Linux image-based deployments are optimized for edge architectures, but customizable for your specific requirements. Take advantage of the software and life cycle from Red Hat and supplement with your own content and software.

Get hands-on with image builder ›

Remote device update mirroring

Red Hat Enterprise Linux allows for image updates to be mirrored and staged transparently in the background, minimizing service interruption.

IT teams can push OS updates or application code to production and rely on individual edge devices to stage and apply them at the best time or scheduled maintenance window. This flexibility ensures that updates are applied on your terms to help maximize uptime and reduce administrative effort.

Find out more about automatic updates ›

Edge simplified installer and onboarding

Deploy your images through the network or local install media. Besides having a choice of how to install your edge systems, Red Hat Enterprise Linux supports FIDO Device Onboarding (FDO) as a security standard for devices. This allows you to automate post provisioning steps and remotely onboard to management platforms.

Find out more about onboarding ›

Efficient over-the-air updates

Support edge environments that have either low bandwidth, limited, or intermittent connectivity.

Red Hat Enterprise Linux helps administrators with edge systems in difficult to reach places to update more efficiently. When updates are deployed, only those blocks that have changed in the image are transferred. This uses less bandwidth and transfers updates in less time.

Learn about updating an image ›

Intelligent OS rollbacks

Run health checks to verify the system, critical services, and applications.

You are able to define a series of health checks to execute at boot to validate the state of your systems. During an update procedure, if the new system fails during an update procedure, you can automatically revert to the last known good system state.

Watch and learn more about automating rollbacks ›

Automatic container updates and rollbacks

Podman's auto update capability can detect if an updated container fails and automatically rollback to the last working version.

Edge images include Red Hat Enterprise Linux container tools. Combining features of the container tools, like automatic container updates and deployments, with existing system capabilities allows you to not only pull and deploy updated containerized workloads as they become available, but also recognize when that update fails to start correctly and redeploy the last version of the application.

Read more about auto-updates ›

Management and automation

10 tech tips to simplify management and automation

Experience consistent and repeatable management by automating manual tasks, standardizing deployment at scale, and simplifying daily administration.

Streamline manual tasks with Red Hat Enterprise Linux system roles

Red Hat Enterprise Linux system roles are a collection of supported roles that provide consistent workflows to streamline the execution of manual tasks. You no longer need to be an expert to manage and configure systems across different Red Hat Enterprise Linux versions. For example, the network system role simplifies configuration across multiple servers with automation.

Learn more about automating manual tasks ›

Automate configurations

You can automate configurations across a population of servers by combining multiple roles, such as timesync, kernel setting, and tlog. Using these roles together lets you set the network time protocol (NTP) server settings, kernel tunables for your system workload, and provide terminal session recording across your system population while maintaining common operating environment configurations.

Try an interactive lab to learn more ›

Control settings for entire populations

Red Hat Enterprise Linux system roles use Red Hat Ansible Automation Platform inventory files that break systems into subgroups and allow you to apply roles to certain groups of hosts or apply unique settings to each group of hosts. This gives you more control over what settings are applied where. For example, with the kernel settings role, you could apply one set of kernel settings for your database servers and a different set of kernel settings for your file servers.

Learn more about applying kernel settings ›

Red Hat

Simplify and accelerate deployments

Included in your Red Hat Enterprise Linux subscription, image builder saves time by giving you a single tool to create consistent, gold template images that can be deployed into many runtime environments.

Image builder takes care of the details needed for cloud, virtual, and physical platforms so you can deploy on different platforms in less time according to your business needs.

Try an interactive lab to learn more ›

Add third-party packages to optimize workloads

When creating your gold images using image builder, you are not limited to only Red Hat Enterprise Linux content. Image builder lets you install custom or third-party packages at build time with RPM Package Manager (RPM), allowing your images to be optimized for your workload and use case while saving provisioning time.

Learn more about third-party packages ›

Customize images with libguestfs

Customize your gold system images using libguestfs, a set of tools that provides additional modification capabilities to the OS images created by image builder. With libguestfs, you can inspect system images, drop in or adjust configuration files, place application content, and more.

Read more about libguestfs tools ›
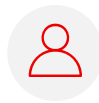
Simplify IT administration

Red Hat Enterprise Linux web console simplifies administration and helps you accomplish complex tasks, making administration painless and attainable to new users and advanced experts. Web console lets you view and configure devices across your complex infrastructure, from applying system updates to managing network and storage devices.

Visit this interactive lab about using web console ›

Understand firewall rules

Firewall rules can be challenging to view and understand. Web console graphical interface simplifies firewall rule reviewing and editing so you can understand security effects and manage network access to systems. You can better manage tasks, including opening the port to a database application so that services are accessible through the firewall.

Learn more about firewall security effects ›

Gain performance insights without complicated commands

Using the command-line interface to gain performance insights can be challenging. Red Hat Enterprise Linux web console saves time and simplifies how administrators view performance data with new visual insights into network, central processing unit (CPU), memory, and disk performance—all without writing complicated, time-consuming commands.

Visit this interactive lab for more information ›

Extend the web console

Web console in Red Hat Enterprise Linux is modular and extensible, allowing you to choose what functions should be available on your system. You can extend the web console by adding applications, including image builder, virtual machine management, container management, session recording, storage, and subscription manager.

Try this interactive lab to learn more ›

Red Hat

Performance

8 tech tips to get reliable workload performance

Experience performance tooling that helps you identify performance issues, analyze data, and tune your system to improve the way hardware and workloads function together.

Optimize workload performance with TuneD

TuneD is a Linux service that uses profiles to optimize your systems for different workloads and use cases. Built-in TuneD performance profiles can tune a broad range of workloads in a single command. TuneD profiles allow you to apply performance settings and get the best performance from your system—without getting overwhelmed with the technical details of the system.

Experiment and learn about TuneD ›

Get a real-time snapshot with web console

To understand complex system metrics, you need a single, simple-to-use dashboard. A web-based graphical interface helps you visualize central processing unit (CPU), memory, storage, and network performance metrics and deploy configured performance profiles. Whether you're managing systems in a datacenter, public cloud, or on edge devices, you can see live statistics and historical data, making it easy to put all the pieces together and get a complete picture of your environment.

Find out more about web console ›

Red Hat

Analyze performance with lightweight bcc-tools

Do you want to observe performance metrics without adding system overhead? BPF Compiler Collection (bcc) tools help you gather kernel information and analyze the performance of your Linux operating system. Based on extended Berkeley Packet Filter (eBPF) technology, the bcc-tools package delivers a variety of lightweight and high-performance, Python-based programs to profile specific, programmable performance metrics.

Experiment and learn about bcc-tools ›

View historical metrics with Performance Co-Pilot

Performance Co-Pilot (PCP) is a lightweight tool that gives you a complete view of performance metrics across your environment. With historical data capture, you can see usage, saturation, and error metrics for CPU, memory, storage, and network, all graphed in a historical table in the web console. You can see what your usage and saturation metrics look like at any point across the different resources, without waiting for them to happen again. To shorten your time-to-issue resolution, access the historical metrics data and share it directly with the Red Hat support team.

Learn more about PCP ›

Deliver rich data visualizations by integrating with Grafana

Grafana is an open source analytics application that can be integrated with PCP to build rich visualizations on top of your performance data. By combining the preloaded Grafana dashboards with the remote logging capabilities of PCP, you can aggregate real-time and historical data from a variety of hosts into a single view for analysis and troubleshooting. To monitor your ecosystem applications, such as SQL Server, you can choose from a variety of plug-ins.

Learn more about data visualization ›

Red Hat

Apply up-to-date, timely security improvements

Throughout the 10-year life cycle of Red Hat Enterprise Linux, you have access to performance-related patches to help you benefit from security improvements and get the most out of your investment. If downtime is not an option while applying these patches, use the live patching tool. If you are unsure what patches have been applied, the patch services in Red Hat Insights (included in your subscription) can help you stay up to date with the latest product advisories.

Try an interactive security improvement lab ›

Benchmark workload performance prior to production

Creating a baseline is one of the first steps to measuring system performance. If you do not understand your baseline performance or face inconsistencies in data collection, you won't know what to improve, such as processing speeds or data storage. This level of understanding helps you plan and troubleshoot any future performance issues.

Find out more about Red Hat Enterprise Linux Performance Tools ›

Optimize performance with hardware capacity planning

Many complex performance issues often turn out to be related to hardware capacity. If you're not getting the performance you need, evaluate whether your applications are saturating or overworking your existing hardware resources. In most cases, adding more resources may help you get the performance you need.

Learn more about hardware capacity ›

Life cyle

4 tech tips to simplify IT life cycle planning

Your Red Hat Enterprise Linux subscription offers flexible, stable, and security-focused life cycle options to help you create an informed infrastructure strategy while planning for change on your own schedule. Besides visibility into roadmaps, support cycles, and migration tools, you can choose from multiple supported versions to help you improve IT agility and manageability while also focusing on security as your business needs evolve.

Improve your IT life cycle planning

Make informed Red Hat Enterprise Linux system upgrade decisions with a long life cycle, including:

- A long major release life cycle that lets you standardize for up to 10 years without worrying about breaking your applications.

- A Red Hat Enterprise Linux Extended Update Support (EUS) Add-On that gives you the option to extend support—including bug fixes and security patches—so you can upgrade between minor releases less frequently.

- An Extended Life Cycle Support (ELS) Add-On subscription that allows you to extend Red Hat Enterprise Linux support beyond 10 years so you can strategically plan OS life cycle transitions with predictable schedules and clear Red Hat guidance.

Read more about Red Hat Enterprise Linux life cycle ›

Keep pace with the latest supported version of Red Hat Enterprise Linux

Leapp is a utility that gives you the control, confidence, and freedom you need to streamline your upgrade to the latest version. A preupgrade analysis provides application compatibility and remediation guidance. Moreover, it can perform the upgrade in minutes when you are ready while maintaining your customizations, configurations, and preferences.

See how it works ›

Simplify your migration to Red Hat Enterprise Linux

Convert2RHEL gives you the control, confidence, and freedom to migrate from CentOS Linux or Oracle Linux to fully supported Red Hat Enterprise Linux in less time. Avoid costly redeployment projects with a single automated path that maintains your customizations, configurations, and preferences during the migration.

See how Convert2RHEL works ›

Streamline deployment across a hybrid cloud environment

Image builder for Red Hat Enterprise Linux helps you reduce provisioning time, optimize infrastructure, and accelerate future workload deployments by creating customizable OS images that are compatible with most major cloud providers and virtualization technologies available on the market today.

Image builder automatically handles the details of how to deploy to a cloud environment, virtual machine, or image so that you can implement Red Hat Enterprise Linux on different platforms, according to your business needs.

Try image builder for Red Hat Enterprise Linux ›

Red Hat