Managing infrastructure performance without the complexity

The modernization of the IT stack can introduce complexity when it comes to managing the performance of large, distributed infrastructures. Most administrators seek an operating system with comprehensive performance tooling because they know that full utilization of existing and future hardware investments requires the ability to tune systems while enabling workload acceleration and offloading scenarios.

Red Hat Enterprise Linux performance tools streamline how you manage hardware and workload performance. No matter what kinds of hardware or workloads you are looking to optimize, our comprehensive performance monitoring, tracing, and analysis tools provide tangible benefits. With Red Hat Enterprise Linux, you gain insight into overall system performance and the ability to tune the kernel for optimum performance.

Identify, analyze, and tune to ensure full optimization

Red Hat Enterprise Linux offers the control, confidence, and freedom to optimize how you manage hardware and workload performance across your entire hybrid cloud infrastructure. Access tested upstream performance improvements while ensuring stability and consistency and get full transparency into system performance metrics for application and kernel tracing.

Identify: Detect performance lag or anomalies causing application performance issues.

- Quickly identify issues behind poor performance
- Maximize the impact of expertise and resources

Analyze: Provide intelligent performance tooling to get a comprehensive view of monitoring, tracing, and analysis.

- Take consistent measurements regardless of deployment footprint
- Evaluate resource utilization as part of performance strategy

Tune: Prescribe industry standard practices for performance tuning through tuning profiles and empower customers to optimize workload performance.

- Gain visibility to implement performance best practices
- Get the most from hardware and software investments

Feature highlights

Performance copilot: Monitor and manage performance data in real time while the tool compares live results with archived data to log and retrieve necessary historical data and comprehensively analyze patterns with issues. This suite of tools, services, and libraries let you monitor, visualize, store, and analyze system-level performance measurements. Its lightweight distributed architecture makes it particularly well-suited for centralized analysis of complex systems.
**TuneD profiles:** Adapt the operating system to perform better under certain workloads by implementing performance profiles with this tuning service. Several industry standard profiles are included for common use cases, but TuneD also lets you define custom profiles, which can be based on one of the predefined profiles or defined from scratch. Select from power-saving profiles or performance-boosting profiles with the ability to switch between different tuning profiles based on requirements.

**BCC tools:** Get immediate insight into system performance to discover anything that is not working as expected. BCC tools are based on extended Berkeley Packet Filter (eBPF) technology and provide administrators with dynamic kernel tracing without requiring kernel modules or rebooting the kernel. You can significantly reduce the time and overhead for each trace point, making these tools an ideal way to meet the demands of modern production workloads.

**Web console:** View performance metrics for CPU, disk, memory, and network, and manage TuneD profiles in a user-friendly web interface. This powerful and extensible console is designed for managing and monitoring your local system as well as servers located in your network environment. The web console ensures that all administrators—even those new to Linux—can accomplish many complex tasks and rapidly view the health and status of their Red Hat Enterprise Linux systems.

**Kernel backports:** Utilize select upstream Kernel performance improvements as new kernel enhancements are released to Red Hat Enterprise Linux customers. This allows for better system performance characteristics without affecting application compatibility and stability.

**Experience Red Hat Enterprise Linux**

As with any technology infrastructure, you want to keep your Red Hat Enterprise Linux environment running as smoothly and effectively as possible and avoid any challenges to critical applications. Our performance tools enable you to manage performance consistently across your physical, virtual, private cloud, public cloud, and edge infrastructure like never before.

Contact your Red Hat sales representative or visit redhat.com to learn more about how Red Hat Enterprise Linux customers are empowered to better understand and optimize workload performance within their environment.

**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 integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.