8 tech tips to get reliable workload performance

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

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1 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

2 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

3 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

4 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 historic 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

5 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 historic 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

6 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 to plan and troubleshoot any future performance issues.

Find out more about Red Hat Enterprise Linux Performance Tools

7 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

8 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