Red Hat Enterprise Linux for edge computing
The operating system for enterprise workloads at the edge

Enterprises are shifting towards edge computing as part of their digital transformation journey to the hybrid cloud. Part of this shift allows enterprises to run and maintain their business and innovate rapidly because of the influx of data creation and consumption at the source.

Red Hat® Enterprise Linux® provides a consistent, flexible, and security-focused foundation that maximizes system stability with workload independence at the edge.

Features and benefits

Red Hat Enterprise Linux is the leading Linux platform and is built with edge capabilities to address enterprise edge deployments on small footprints—ranging from high performance systems, such as carrier grade servers with latency sensitive workloads, to scaling across many remote sites on lightweight hardware with limited or unreliable connectivity. Red Hat Enterprise Linux handles workloads requiring long-term stability, supportability, and enhanced security across a broad hardware ecosystem—ensuring delivery of services faster and more consistently across the datacenter to the edge. Organizations using Red Hat Enterprise Linux reduce operational costs while maintaining stability and interoperability with core systems. This allows you to maximize the value of in-house skills and focus on the business impact of your data and workloads.

Built-in edge capabilities

Rapid operating system image generation

Red Hat Enterprise Linux provides IT teams with the ability to create purpose-built operating system images through Image Builder. Image Builder empowers IT teams to build, deploy, and maintain these images over the life cycle of the system. These image-based deployments are optimized for various edge architectures and customizable for specific edge deployments.

Remote device update mirroring

Red Hat Enterprise Linux allows image updates to be easily mirrored and transparently staged in the background, minimizing workload interruptions. IT teams can push code to production and rely on individual edge devices to stage and apply them during the best time or maintenance window. This ensures that updates are applied on your terms to maximize uptime.

Efficient over-the-air (OTA) updates

With edge environments that have low bandwidth or limited or intermittent connectivity, Red Hat Enterprise Linux with rpm-ostree helps edge systems receive updates from difficult-to-reach systems more efficiently. Efficiency is achieved by transferring less data while pushing necessary code when available rather than the entire image.
Intelligent rollbacks

Red Hat Enterprise Linux allows you to run health-checks to verify the system, critical services, and applications, and detect any conflicts or code issues. If a problem is detected, the image will automatically revert to the last good update—preventing unnecessary downtime.

Learn more

Find out more about Red Hat Enterprise Linux at the edge.

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.

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