

# Red Hat Enterprise Linux for 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 them 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 and security-focused foundation that delivers customizable images with reliable updates and intelligent rollbacks to meet your workload demands 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—fostering delivery of services in less time 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.

## Edge capabilities

### Customizable operating system image generation

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

### Edge management

Red Hat Enterprise Linux's edge management helps organizations securely manage and scale deployments at the edge. The benefits of zero-touch provisioning, system health visibility, and quick security remediations are available from a single interface. These capabilities provide control and peace of mind at every stage of an edge system's life.

### Remote device update mirroring

Red Hat Enterprise Linux allows image updates to be 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 [edge computing using Red Hat Enterprise Linux](#).



### 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.

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