

Maintain business operations at sites with limited connectivity

Placing compute resources at the edge of the network allows organizations to improve operational efficiency for new or existing workloads and act on new opportunities to generate revenue.

However, intermittent network connectivity can make managing locations at the edge difficult. When operating at large scale, the physical network is more complex, more distributed, and has more devices to manage and secure, all outside the main datacenter and often in remote locations with unreliable connectivity.

Built-in edge solutions from Red Hat can provide you with the flexibility, availability, and performance you need to maintain critical business operations despite limited connectivity. In this checklist, discover 4 ways Red Hat's edge capabilities can help your organization maintain business continuity at the edge of the network.

1 Build on a solid foundation to maximize performance

At remote sites with limited connectivity, every bit of data used or transferred matters, which makes building a solid foundation a critical part of successfully continuing and maximizing business operations.

With Red Hat® solutions, you can:

- ▶ Build an operating environment suited to optimizing connectivity at the edge with [Red Hat Enterprise Linux®](#).
- ▶ Store and process data at edge locations with [Red Hat OpenShift® Data Foundation](#), supporting real-time decision-making.
- ▶ Process data in remote locations without the need to transfer back and forth to a datacenter.
- ▶ Install efficient over-the-air updates that use less bandwidth, which is ideal for remote sites with limited or intermittent connectivity.

2 Sustain operational consistency for edge devices

Unstable connections mean devices at the edge are vulnerable to unplanned downtime, which can interrupt operations and result in a loss of essential data, revenue, customer trust, and reliability.

Red Hat Edge solutions allow you to:

- ▶ Maintain uptime with [delta updates](#) via [Red Hat Device Edge](#) and Red Hat Enterprise Linux.
- ▶ [Implement health checks](#) to help detect conflicts and automatically revert operating system (OS) updates to reduce downtime.
- ▶ Overcome low bandwidth, high latency, and intermittent connectivity with [Red Hat Package Manager-OSTree](#).

3 Reduce complexity with automation

Connectivity issues at edge locations can make it extremely difficult to solve any problems that arise and maintain control via manual processes alone.

By automating key processes, IT staff can remotely manage and control devices, monitor important data, and manage network limitations without the need for constant manual adjustment.

Red Hat Edge solutions allow you to:

- ▶ Use Red Hat [Ansible® Automation Platform](#) to extend an enterprise framework for building and operating a modern IT infrastructure to edge computing locations.
- ▶ Use [Event-Driven Ansible](#) to respond automatically to environmental changes and mitigate performance issues.
- ▶ Increase resilience to high latency and reduce connection disruptions by running automation closer to edge locations.
- ▶ Scale capacity for local and remote automation workloads to meet automation volume demands with [automation mesh](#).

4 Enhance agility with self-service capabilities

Locations at the edge of the network are often remote and difficult to access, making it challenging for IT professionals to intervene on site.

Red Hat Edge solutions come with self-service capabilities that help you accelerate resource delivery and maintain manual control even in remote locations with reduced connectivity—without relying on intervention from your IT teams.

Red Hat Edge solutions can help you:

- ▶ Deploy [automated provisioning](#) with Ansible Automation Platform to reduce complexity of infrastructure setup and scaling at remote locations.
- ▶ Create and manage [containerized microservices at edge locations](#) with self-service tools such as Advanced Cluster Management for Kubernetes, provided by Red Hat OpenShift.
- ▶ Collect and process data on site at edge locations and control applications with [self-service tools and solutions](#) provided by Red Hat Application Foundations for the edge.

Learn more

Discover how a [portfolio of edge solutions](#) from Red Hat can bring the familiarity of our enterprise open source platforms out of your datacenter and to the devices at the edges of your network.



About Red Hat

Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with [award-winning](#) support, training, and consulting services.

f facebook.com/redhatinc
 @RedHat
 in linkedin.com/company/red-hat

North America
 1 888 REDHAT1
 www.redhat.com

Europe, Middle East, and Africa
 00800 7334 2835
 europe@redhat.com

Asia Pacific
 +65 6490 4200
 apac@redhat.com

Latin America
 +54 11 4329 7300
 info-latam@redhat.com

redhat.com
 #670500_0124

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