Red Hat
Enterprise Linux 8

Boost reliability and reduce downtime
Red Hat Enterprise Linux 8 delivers high availability for your datacenter

62%
of CIOs consider delivering consistent and stable IT performance to be a top priority.[1]

Red Hat Enterprise Linux provides a consistent, predictable foundation for reliable, stable operations across your hybrid datacenter and organization. The latest Red Hat Enterprise Linux High Availability Add-On further increases availability and stability with several new features:

• Kronosnet library for network transport availability

• Additional fencing methods

• High-availability service management

• Integrated virtualization

IT reliability is critical to business success

Modern business relies on IT services and applications. If those services and applications are not available, business suffers. In fact, delivering consistent and stable IT performance to the business is a top operational priority for 62% of CIOs.[1]

A more reliable datacenter begins with your operating system. Red Hat® Enterprise Linux® provides a consistent foundation for predictable, stable operations across your hybrid datacenter and organization. Support for high availability across your environment—including Alibaba Cloud, Amazon Web Services (AWS), Google Cloud Platform (GCP), and Microsoft Azure cloud platforms and x86, IBM Power Systems, and IBM Z architectures—lets you use the platforms of your choice without compromising reliability. High availability add-ons for systems and storage improve failover orchestration and access to shared and clustered storage.

The Red Hat Enterprise Linux High Availability Add-On provides continuous availability for your Red Hat environment, including physical and virtual guest deployments. It uses Pacemaker and Corosync to distribute cluster management across all nodes in the cluster. Pacemaker manages cluster resources and makes decisions about where resources run, determines if they have failed, and selects a new location for failed resources. As a result, services can fail over from one node to another with less interruption to enterprise applications.

Pacemaker and Corosync also administer cluster membership and monitor cluster activity to remove and reroute failed nodes. A graphical user interface with basic Pacemaker Cluster Service (PCS) capabilities and flexible configuration options let you create and configure high-availability clusters, prioritize important nodes, and customize failure scenarios.

Red Hat Enterprise Linux 8 adds more reliability features to help you keep your business up and running. The following are some of the key new features in that latest Red Hat Enterprise Linux High Availability Add-On.
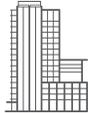
Kronosnet library

Red Hat Enterprise Linux 8 introduces the kronosnet library for network transport availability. Kronosnet allows up to eight individual network connections per host, providing high availability for network communication between cluster nodes. It automatically recovers failed links after communication is restored, speeding disaster recovery and reducing downtime. It also supports multiple network protocols, traverses firewalls, and works across subnets.

1 *Harvey Nash and KPMG, "CIO Survey 2018: The transformational CIO," 2018.*

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New fencing methods

The Red Hat Enterprise Linux High Availability Add-On uses fencing methods to automatically disconnect failed nodes from clusters and shared storage. It supports more than 100 fencing methods, including:

- Power fencing to disable power to an inoperable node.

- Fibre channel switch fencing to disable fibre channel ports connecting inoperable nodes to storage.

- SCSI (Small Computer System Interface) fencing to disable access to shared SCSI devices.

- Poison-pill fencing using a hardware watchdog to self-reboot nodes.

- Integrated fencing methods for supported cloud platforms to turn off and reboot virtual machines while connecting to cloud application programming interfaces (APIs).

You can configure nodes with one or more fencing methods. When multiple fencing methods are selected, methods cascade in a customizable order until one is successful.

High-availability service management

Red Hat Enterprise Linux allows you to configure applications for high-availability operation. You can create high-availability cluster services from applications and other cluster resources. These services fail over between clusters with limited interruption to cluster clients. Failover can occur if a node becomes inoperable, an application crashes, or an administrator moves a service to a different node for planned outages.

Integrated virtualization

The High Availability Add-On works directly with the Red Hat Enterprise Linux kernel to increase reliability within virtualized environments. Virtualization is directly integrated using Kernel-based Virtual Machine (KVM) technology. Virtual machines can serve as a platform for clusters to protect applications. This allows Red Hat Enterprise Linux to support high-availability functions—including virtual machine fencing and failover—within virtualized environments like Red Hat Virtualization and VMware. You can also create clusters within virtual machines to permit application failover across Red Hat Virtualization nodes.

Learn more

IT service and application reliability is critical for modern businesses. The Red Hat Enterprise Linux High Availability Add-on can help you improve availability across your IT environment to better support your business.

Learn more at redhat.com/en/technologies/linux-platforms/enterprise-linux.