




Migrate from CentOS Linux to Red Hat on Google Cloud



The business value of Red Hat Enterprise Linux

Compared to unpaid alternatives like CentOS Linux, Red Hat Enterprise Linux helps your teams get more done, rapidly, no matter where they work:²

- ▶ **32%** more efficient IT infrastructure teams
- ▶ **42%** faster identification of security risks
- ▶ **23%** faster development life cycles for new applications
- ▶ **72%** less unplanned downtime
- ▶ **24%** lower 3-year cost of operations
- ▶ **\$17.31 million** average higher net revenue per year per organization

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Choose an operating system and cloud provider that support your business initiatives

Across industries, organizations are moving to the cloud to streamline costs, gain efficiency, and innovate faster. In fact, enterprises run 50% of their workloads and host 48% of their data in the cloud, and migrating more workloads to the cloud is a top initiative for 44% of organizations.¹

Even so, moving to the cloud can create additional IT complexity. Cloud strategies require careful planning to get the most from cloud investments while avoiding potential security risks, operational inefficiencies, and budget overruns.

Standardizing on a consistent operating system across your datacenter and cloud environments can help you overcome this complexity and simplify your cloud journey. With an open source development model that delivers flexibility and innovation, [Linux®](#) is an ideal choice for cloud environments. However, not all Linux distributions are the same, and your choice of distribution can have a significant impact on the efficiency, performance, security, and cost of your cloud and datacenter environments.

Organizations that use CentOS Linux—a freely available, community-supported Linux distribution—currently face a choice. The CentOS Project stopped providing CentOS Linux 8 releases and updates in December 2021 and will discontinue all updates and releases of CentOS Linux 7 in June 2024. As a result, CentOS Linux users must migrate to a new operating system to continue receiving updates, patches, and new features. While implementing a new operating system may seem tedious, it also presents an opportunity to reassess your organization's needs and choose a platform that will better support your cloud strategy now and in the future.

[Red Hat® Enterprise Linux](#) is a consistent, intelligent operating foundation for modern IT and enterprise hybrid cloud deployments. Running Red Hat Enterprise Linux on [Google Cloud](#) delivers optimal benefits for your organization. Because CentOS Linux is derived from sources published by Red Hat, you can continue to use many of the same skills, techniques, and elements while gaining the features, tools, support, and value you need to be successful in the cloud.

Standardize on a production-grade multicloud foundation

Consistency is a key factor in successful cloud journeys. Standardizing on a single operating foundation across your datacenter and cloud environments can greatly simplify your path to the cloud. Rather than splitting operations and management into multiple domains, your teams can use a single set of tools and platforms to deploy, run, and move applications and workloads between your datacenter and your cloud.

1 Flexera. "[Flexera 2023 State of the Cloud Report](#)," March 2023.

2 IDC White Paper, sponsored by Red Hat. "[The Business Value of Red Hat Solutions Versus Non-Paid Open Source Alternatives](#)," Document #US50423523, March 2023.

Running Red Hat Enterprise Linux on Google Cloud brings together your datacenter and cloud infrastructure to streamline operations, increase flexibility, and help you make the most of your cloud investments. This cloud-ready, security-focused operating system provides a consistent, tailored experience across footprints, while innovative, high-performance cloud infrastructure gives you global capacity, intelligent security, and advanced machine learning (ML) capabilities. Red Hat Enterprise Linux is tested and certified for use on Google Cloud. Red Hat and Google work together to ensure that our collaborative solutions deliver exceptional experiences across hybrid and multicloud environments.

While CentOS Linux is derived from sources published publicly by Red Hat, it is not the same operating system and does not offer the same enterprise features, tools, or support. Moving to Red Hat Enterprise Linux on Google Cloud gives you direct access to the latest enterprise-ready Linux innovation certified for use with Red Hat's portfolio of software, automation, and management technologies. Cross-product integration, certification with a large ecosystem of partner products, and a choice of architectures and versions improve interoperability across hybrid and multicloud environments. Intense testing and hardening and a controlled, trusted software supply chain allow you to foster innovation without compromising reliability. Red Hat and Google Cloud also partner with leading hardware and software vendors to give you more choice, innovation, and stability. In fact, you can likely continue to use the third-party products and tools you already have with Red Hat Enterprise Linux on Google Cloud.



Access tools and resources through Red Hat Developer

The [Red Hat Developer program](#) provides tools, technologies, and a community of builders to help you solve problems, connect with colleagues, stay current, and lead your projects forward.

[Red Hat Developer Subscription for Teams](#) is available at no cost for organizations already using Red Hat products and includes access to Red Hat Developer e-books, cheatsheets, and other useful content.

Support your developers wherever they work

Developing and testing applications in a different environment than you use for production deployment can lead to issues in production, and developers may not receive the tools, resources, and support they need to be most productive. Adopting a common foundation—like Red Hat Enterprise Linux on Google Cloud—for development, test, and production environments streamlines time to launch for new applications and reduces the risk of incompatibilities and issues at launch. Red Hat Enterprise Linux delivers access to reliable operating system images on Google Cloud in addition to the toolchains, libraries, container tools, and runtimes needed to streamline the path from development to production. Updates are delivered via [application streams](#), allowing developers and IT architects to experiment with the latest tools, runtime languages, and databases while still maintaining earlier versions of production applications.

Red Hat also offers developer-specific resources, programs, and subscriptions to help organizations develop on Red Hat Enterprise Linux more easily and cost-effectively. The [Red Hat Developer program](#), [Red Hat Developer Subscription for Individuals](#), and [Red Hat Developer Subscription for Teams](#) can be used both in your datacenter and in your Google Cloud environment.

Access expert support in the cloud

80% of enterprises cite a lack of resources or expertise as a top cloud challenge.¹ The CentOS Project does not offer commercial support for CentOS Linux users, so you have likely been handling all platform support issues in-house, requiring more time and staff to operate.

Regardless of how you purchase Red Hat Enterprise Linux, you are backed by Red Hat's [award-winning support organization](#) in coordination with Google Cloud's support teams. Red Hat Enterprise Linux is the only Linux distribution supported by Red Hat. Red Hat works with Google Cloud to provide expertise, knowledge, and joint support models to ensure you can successfully accomplish your goals with Red Hat and Google Cloud solutions. You receive the same high-value experience whether you obtain Red Hat Enterprise Linux directly from Red Hat or through Google Cloud.

Red Hat's enterprise-grade support resources and tools help keep your business running. Technical expertise, guidance, and knowledge are available 24x7. Red Hat also offers personalized guidance and

planning services to help you achieve business outcomes faster. As a result, you can spend less time solving support issues and refocus staff on more strategic tasks. Accordingly, Red Hat Enterprise Linux users experience 72% less unplanned downtime than organizations that use unpaid Linux distributions.²

Streamline management across clouds with integrated tools

52% of surveyed organizations use a single operating system as part of their cloud management strategy.³ CentOS Linux does not include advanced management or remediation tools, so you probably manage these systems manually or with other in-house administration tools. Standardizing on Red Hat Enterprise Linux and Google Cloud streamlines your operations and management. You can use the same set of management tools—like [Red Hat Insights](#), [Red Hat Satellite](#), and [Red Hat Ansible® Automation Platform](#)—to administer and automate all of your environments, saving time and effort.

Red Hat Enterprise Linux includes access to Red Hat Insights, a unique suite of hosted services that continuously analyzes platforms and applications to help you better manage and optimize your hybrid cloud environment. Red Hat Insights uses predictive analytics and deep domain expertise to speed complex operational tasks from hours to minutes. With a focus on operations, security, and business outcomes, it proactively alerts administrators and stakeholders before an outage or security event occurs.

Red Hat Insights works across on-site and cloud environments—including Google Cloud—allowing you to manage and optimize everything from a single interface. You can also create, manage, and deploy Red Hat Enterprise Linux operating system images across your datacenter and Google Cloud environments more quickly and easily using the included image builder service. Build customized Red Hat Enterprise Linux images, save them as templates, and push them to your Google Cloud inventory. Finally, to further simplify operations, you can link your Red Hat account to your Google Cloud account and choose to automatically connect your cloud-based systems and workloads to Red Hat Insights and other Red Hat services upon provisioning.

Maintain security and compliance across cloud environments

Security remains a top cloud challenge for 78% of enterprises.¹ Effectively maintaining security and compliance in the cloud requires consistency. CentOS Linux does not include advanced security management tools and carries no governmental or public security certifications.

Red Hat Enterprise Linux on Google Cloud provides a compliance-focused foundation with secure-by-design infrastructure and intelligent security features that help defend data and applications against threats and fraudulent activity. Built-in operating security features like [live kernel patching](#), security profiles, [security standards certification](#), and a [trusted software supply chain](#) help you meet today's high security and compliance expectations. Extensive testing of security profiles for all new versions of Red Hat Enterprise Linux on Google Cloud ensures that they run as expected in hybrid and multicloud environments. Automated tools, regular updates and patch releases, and accessible expertise safeguard your environment. The Red Hat Insights compliance service helps you track your organization's adherence to compliance requirements across your environments and provides remediation guidance.

Google Cloud publishes security best practices, including deployable blueprints and landing zones, guidelines for increasing cloud security, and recommended configurations and architectures. Google Cloud uses a zero trust model, providing single sign-on, access control policies, access proxies, and



Save time and effort with Red Hat Insights

Red Hat Insights helps you reduce the time spent on common management tasks.⁴

- ▶ **91%** less time to detect security vulnerabilities
- ▶ **96%** less time to detect known operational risks
- ▶ **89%** less time to detect configuration drift



Certify for security

Certification to stringent security standards lets you use Red Hat Enterprise Linux and Google Cloud across industries and situations without compromising security.

³ Red Hat. [“Annual Linux market report for 2021.”](#) January 2023.

⁴ Principled Technologies, sponsored by Red Hat. [“Save administrator time and effort by activating Red Hat Insights to automate monitoring.”](#) September 2020.



Streamline your migration




The [Convert2RHEL tool](#) lets you simply and quickly convert your CentOS Linux systems directly into Red Hat Enterprise Linux systems so you can get started without delay and with less cost and hassle.



Build your skills path

[Red Hat Learning Subscription](#) helps your teams fill skills gaps and get the most from your Red Hat products with unlimited access to training content, labs, and videos.



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user- and device-based authentication and authorization to help you meet regulatory and policy objectives. Google Cloud also encrypts data in transit between datacenters and at rest, ensuring that it can only be accessed by authorized roles and services.

Gain more control over your cloud spend

Managing cloud spend is a top cloud challenge for 82% of enterprises.¹ Red Hat and Google Cloud offer multiple purchasing options to align with your organization's budget and requirements:

- ▶ Purchase subscriptions from Red Hat for use on site or on Google Cloud via [Red Hat Cloud Access](#).
- ▶ Obtain Red Hat Enterprise Linux instances from the [Google Cloud Marketplace](#).
- ▶ Use your [Google Cloud committed use discounts \(CUDs\)](#) for Red Hat Enterprise Linux instances on Google Cloud.
- ▶ Use the Red Hat Hybrid Committed Spend program for discounted pricing and flexible payment options on site and on Google Cloud.

[Read the brief](#) to learn more about these options.

Migrate to a platform for the future

Red Hat offers several migration paths and programs to ease your transition to Red Hat Enterprise Linux. Red Hat's [Convert2RHEL tool](#) lets you simply and quickly convert your CentOS Linux systems directly into Red Hat Enterprise Linux systems. Convert2RHEL minimizes the need for costly redeployment projects and reduces administrative burden by maintaining existing operating system customizations, configurations, and preferences during the conversion. You can also engage [Red Hat Consulting](#) to speed your migration.

Move forward with confidence

The discontinuation of CentOS Linux provides an opportunity to move to an operating system that better supports your cloud initiatives. Red Hat Enterprise Linux delivers an intelligent, production-grade operating foundation for hybrid and multicloud environments.

Choose your path forward at red.ht/centos.

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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