



Migrate VMs to Red Hat OpenShift Virtualization on Google Cloud



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Changes in the virtualization space have left many organizations looking for a new platform and a strategy to streamline their migration at scale. [Red Hat OpenShift Virtualization](#) is available on [Red Hat OpenShift Dedicated on Google Cloud](#)—as well as self-managed Red Hat OpenShift on Google Cloud—to help you efficiently migrate and manage your virtual machines (VMs) on a modern virtualization platform on Google Cloud infrastructure. Read this checklist to explore the benefits.

1 Accelerate VM migration and deployment

OpenShift Dedicated on Google Cloud offers a consistent, security-focused foundation for both VM and container workloads, delivered as a fully managed service. While the OpenShift Virtualization operator is self-managed, it can be simply deployed from the OpenShift OperatorHub in the OpenShift console.

This solution streamlines VM migration and deployment while maintaining operational continuity by providing:

- ▶ Access to the Migration Toolkit for Virtualization (MTV) to help simplify VM migration and minimize errors with step-by-step guidance.
- ▶ Integrated automation through Red Hat Ansible® Automation Platform to streamline migration at scale by orchestrating large numbers of VMs, performing pre- and post-migration checks, and connecting to existing infrastructure and services, including Google Cloud services.
- ▶ Live migration capabilities that help reduce downtime by allowing you to keep VMs running in case of node failure or maintenance needs.
- ▶ Consistency, portability, and efficiency across any IT environment, to allow you to deploy workloads where it makes most sense.

2 Modernize at your own pace

OpenShift Virtualization provides a cloud-native platform that lets you modernize when you are ready by offering:

- ▶ The option to integrate with Google Cloud services—including Cloud SQL, Vertex AI, Identity and Access Management, and Cloud Storage—as well as certified Red Hat partner solutions.
- ▶ Support for VMs and containers that allows all applications to be managed with the same tools, and modern practices to be adopted as you see fit.
- ▶ A flexible and security-focused environment to manage Infrastructure as Code (IaC) and scale into AI/ML workloads.

3 Optimize performance with Google Cloud C3 bare metal

Google Cloud's C3 bare-metal instances offer a solid foundation for OpenShift Virtualization, as they provide low-latency, high-throughput virtualization for today's hybrid and cloud-native demands and are designed for enterprise-scale VM workloads. They allow you to:

- ▶ Optimize resource utilization while maintaining consistent throughput across environments.
- ▶ Support data-intensive and real-time applications with faster input/output (I/O) and reduced latency using the Google Cloud Tier 1 Network.
- ▶ Enhance responsiveness of modern workloads with integration into Google Cloud's native data plane.
- ▶ Support workload-specific advantages and improved performance for large applications using Google Cloud native services.

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Checklist: Migrate VMs to Red Hat OpenShift Virtualization on Google Cloud

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4 Reduce operational complexity with managed support

OpenShift Dedicated on Google Cloud helps you reduce the complexity of day-to-day operations with:

- ▶ A fully managed platform with Red Hat site reliability engineers (SREs) handling configuration, cluster lifecycle management, patching, scaling, and incident response.
- ▶ Access to 24x7 support and a defined service level agreement (SLA) so you can scale with confidence.
- ▶ Integrated support for automation and lifecycle management tools, such as Google Cloud Operators and Helm Charts, to simplify how you deploy and manage certified partner applications with built-in vendor intelligence.

5 Streamline cloud costs with flexible purchasing options

When your organization chooses Red Hat OpenShift on Google Cloud, you have flexible purchasing options that can help you lower costs and simplify procurement. It is up to your organization to determine the committed spend program for your needs.

You have access to 2 flexible purchasing options:

- ▶ On-demand, flexible usage billed through the Google Cloud Marketplace.
- ▶ Annual fixed-capacity subscriptions purchased from Red Hat.

You can also benefit from 2 committed spend programs:

- ▶ Google Cloud Commit offers discounts on eligible products and lets you count Google Cloud Marketplace and Console purchases, including many Red Hat solutions, towards committed spend.
- ▶ Red Hat Hybrid Committed Spend gives you the option to acquire Red Hat products from the Google Cloud Marketplace or Console, or directly from Red Hat, while benefiting from volume discounts on the Red Hat spend. This allows you to count Red Hat solutions purchases towards your committed spend with both Google Cloud and Red Hat, while receiving discounts from both.

Learn more

[Explore this webpage](#) to discover more about how OpenShift Virtualization on OpenShift Dedicated on Google Cloud can meet your virtualization needs.

Get started

[Visit the Google Cloud Marketplace](#) to explore your options for purchasing OpenShift Dedicated on Google Cloud.



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.

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