

Red Hat OpenShift: 5 pillars of a modern app platform

[Red Hat® OpenShift®](#) is an application platform that extends beyond Kubernetes, giving organizations a comprehensive, scalable application development environment. With Red Hat OpenShift, organizations can build, run, and manage virtual machines (VMs), containers, and AI with security—across any estate. Consider these 5 reasons to modernize with Red Hat OpenShift.

1 Launch AI-powered applications faster

Red Hat OpenShift delivers a production-ready, unified platform where AI-native applications and existing workloads operate side by side. This enterprise foundation positions organizations to adopt future AI platforms without disruption. Benefits include:

- ▶ **AI-powered application platform.** Scale confidently on a unified foundation that simplifies infrastructure management and empowers AI platforms. Use tools such as [Red Hat OpenShift Lightspeed](#) to gain [instant, context-aware guidance](#).
- ▶ **Cost-efficient graphics processing unit (GPU) use.** Allocate the right slice of compute to each task rather than dedicating an entire, expensive GPU to a single workload. Eliminate stranded capacity and reduce waste so teams can support more workloads without buying additional GPUs.
- ▶ **Sovereign AI infrastructure.** Control where your AI-powered applications run and where sensitive data resides, from core to cloud to edge, and protect data security with the ability to run in disconnected environments.

2 Build, deploy, and run applications, anywhere

Accelerate the path to production with standardized, automated workflows and self-service tools, allowing consistent and rapid application development and delivery—from local environments to production. Developers gain:

- ▶ **Agility.** Provide self-service tools like [Red Hat Developer Hub](#) templates and [Red Hat OpenShift Dev Spaces](#) web integrated development environments (IDEs). Use [Red Hat build of Podman Desktop](#) to build and test containers locally in an environment that matches production.
- ▶ **Protected pipelines with on-demand scaling.** Automate application build and delivery with [Red Hat OpenShift Pipelines](#). Scale on-demand with fine-grained security control.
- ▶ **Continuous delivery and GitOps.** Deploy applications to multiple clusters from a single source of truth with [Red Hat OpenShift GitOps](#). Resolve configuration drift to ensure consistency.
- ▶ **Development security.** Streamline workflows with [Red Hat Advanced Developer Suite](#), an extended offering that embeds security and policy guardrails directly into the development lifecycle.

3 Gain deep visibility and operational intelligence

While standard Kubernetes gives IT teams a status check, Red Hat OpenShift provides a comprehensive health check. Catch and fix issues before they start with:

- ▶ **Fleet-wide governance.** Observe and manage the health of every application across all cloud and datacenter environments from a single console with [Red Hat Advanced Cluster Management for Kubernetes](#).

- ▶ **A visual map of your microservices.** Connect, manage, observe, and provide security for microservices-based applications, without changing code, with [Red Hat OpenShift Service Mesh](#).
- ▶ **Full-stack observability.** Gain deep insights and a [single, unified view](#) across the entire hybrid cloud with integrated monitoring, logging, and tracing. Maintain application reliability without manual overhead.

4 Ensure security and sovereignty at scale

Whether running a single cluster or a multicloud fleet, the experience remains identical. The platform's tested and validated stack provides global consistency—ensuring security posture and operational standards are automatically enforced. Experience enterprise security and sovereignty with the following advantages:

- ▶ **Solid Linux® foundation.** Standardize on Red Hat Enterprise Linux, the foundation of Red Hat OpenShift and [trusted and tested for more than 30 years](#) as a transparent and open operating system.
- ▶ **Enforceable control.** Maintain policies and eliminate configuration drift with Advanced Cluster Management. Set a policy once, and it can be enforced and tracked throughout the fleet.
- ▶ **Comprehensive protection.** Deliver real-time threat detection and risk profiling, hardened multitenancy, and policy guardrails to protect workloads—from code to cloud with [Red Hat Advanced Cluster Security](#).
- ▶ **Trusted supply chain and artifacts.** Integrate security guardrails with [Red Hat Trusted Software Supply Chain](#), an extended offering that ensures only trusted, validated artifacts are used and deployed.

5 Manage workloads across the hybrid cloud

With Red Hat OpenShift, organizations gain a comprehensive application platform for virtualized, containerized, and AI applications across any cloud, with a [universal language](#) for every type of workload. Benefits include:

- ▶ **A consistent hybrid bridge.** Get the same operational feel and management tools on-premise, in the cloud, and at the edge, whether using [Red Hat OpenShift cloud services or self-managed clusters](#).
- ▶ **Flexible modernization.** Use [Red Hat OpenShift Virtualization](#) to manage and run VMs, containers, and serverless applications on a single control plane with unified networking and security. [Modernize](#) application tiers incrementally.
- ▶ **Networking and storage.** Benefit from the same high-performance networking and storage as your modern microservices for all workloads, simplifying IT architecture and reducing costs.

Get started

Standardizing on Red Hat OpenShift means your organization is on the right path for the future. Learn how your team can benefit from a united application platform.

- ▶ [Read the e-book](#)



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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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