





Red Hat OpenShift Container Platform

A leading enterprise hybrid cloud Kubernetes application platform

Built by open source leaders, Red Hat[®] OpenShift[®] is a leading enterprise Kubernetes platform: a security-focused, consistent foundation to deliver applications anywhere, with streamlined developer workflows to get to market faster. With Red Hat OpenShift, innovators can focus on what matters most: staying competitive and continually exceeding customer expectations.

Red Hat OpenShift Container Platform

Red Hat OpenShift has everything needed for hybrid cloud, enterprise container, and Kubernetes development and deployments. It includes an enterprise-grade Linux® operating system, container runtime, networking, monitoring, container registry, authentication, and authorization solutions.

Key Benefits:

- Integrated platform including container host, Kubernetes, and application life-cycle management using your choice of infrastructure
- Greater value from operations and development teams throughout the application life cycle
- More secure, validated container content and services from a wide partner ecosystem
- Faster application development cycles and more frequent software deployments with simpler installations and upgrades
- Lower IT operations costs and application portability across hybrid cloud and multicloud footprints.

Enterprise Kubernetes

Red Hat works with customers and partners to develop new features and functionalities not yet included in upstream Kubernetes, integrates them with additional services, and then spends months hardening these features before release.

Managing stateful applications, like databases, caches, and monitoring systems, might need additional effort to properly deploy in a production environment. These systems require application domain knowledge to correctly scale, upgrade, and reconfigure while protecting against data loss or unavailability. A Kubernetes Operator is software that encodes this domain knowledge and extends the Kubernetes API through the third-party resources mechanism, enabling users to create, configure, and manage applications. Red Hat OpenShift supports using Operators as a model to scale applications while reducing the overhead in maintaining operational consistency.

- Operators are built into OpenShift, so Kubernetes and cluster services are always up to date
- Embedded OperatorHub provides a discovery marketplace for independent software vendor (ISV)
- Operators, validated to run on OpenShift.

Built for the Hybrid Cloud

Red Hat OpenShift runs on any cloud, with advanced capabilities for hybrid cloud deployments. OpenShift Container Platform can be used across on-premise and public cloud infrastructures, enabling a hybrid approach to how applications can be deployed as a selfmanaged solution. All OpenShift platform variants are available to help accelerate developer productivity and deliver application portability on a consistent foundation across the hybrid cloud.

Red Hat OpenShift provides:

- Choice of consumption models, self-managed or managed by Red Hat.
- Federation to support improved multicluster management
- Integrated metering and chargeback capabilities.
- Application portability throughout the hybrid cloud.

Full-stack automated operations

Once the cluster and applications are deployed, life-cycle management for these components, consoles for operators and developers, and security throughout the entire life cycle become critical. Red Hat OpenShift offers automated installation, upgrades, and life-cycle management for every part of your container stack—the operating system, Kubernetes, and cluster services and applications. The result is a more secure, always-up-to-date Kubernetes application platform, without the headaches of manual and serial upgrades, or downtime.

Increased developer productivity

Red Hat OpenShift pushes the boundaries of what containers and Kubernetes can do for developers, driving innovation for stateful applications, serverless or event-driven applications, and machine learning. The platform integrates tightly with Jenkins and other standard continuous integration/continuous delivery (CI/CD) tools, or OpenShift's built-in workflows and tools, for security-focused application builds.

Red Hat OpenShift helps you build with speed, agility, confidence, and choice so that developers can get back to doing work that matters. It provides:

- Automated workflows including source-to-image (S2I) process to get source code into ready-torun container images
- Integration with CI/CD pipelines
- A connection to services from public cloud providers such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform through the OpenShift Service Catalog

Advanced Capabilities

The OpenShift Service Mesh is responsible for traffic management, observability, policy enforcement, and service identity and security so the developer is free to focus on business value. The developer no longer has to spend cycles integrating libraries into the application to perform these tasks.

Serverless is a service that simplifies the developer experience and helps developers be more productive when creating flexible, scalable, and robust cloud-native applications. Knative provides fundamental building blocks for serverless workloads in Kubernetes.

With Knative supported in Red Hat OpenShift, developers can more easily deploy applications and functions that can scale to zero within the Kubernetes ecosystem without the overhead of server management.

Power your Journey with Red Hat OpenShift

Red Hat supports our customers' journeys to the cloud, with Red Hat OpenShift serving as a consistent hybrid cloud foundation for building and running containerized applications for long-term innovation. Power business transformation and unite your teams on a cost-effective, single platform to quickly deliver the exceptional experiences your customers expect, anywhere they are.



BENEFIT

Scalability	Applications running on OpenShift Container Platform can easily scale to thousands of instances across hundreds of nodes in a matter of seconds.
Container portability	Container images built on the Open Container Initiative (OCI) industry standard ensure portability between developer workstations and production OpenShift Container Platform environments.
Persistent storage	By providing support for persistent storage, OpenShift Container Platform allows users to run stateful applications and cloudnative stateless applications.
Open source standards	OpenShift Container Platform incorporates OCI/Dockerformatted containers and Cloud Native Computing Foundation (CNCF)-certified Kubernetes for container orchestration, in addition to other open source technologies.

FEATURE (Developer productivity)	BENEFIT
Self-service provisioning	Developers can quickly and easily create applications on demand from the tools they use most, while Operations retains full control over the entire environment.
Integrated CI/CD pipelines	OpenShift Container Platform lets developers reduce manual deployment work and deploy higher quality software for continuous integration and automated tests.
User interfaces	Developers have direct access to a rich set of command-line tools, a multidevice web console, and Eclipse-based integrated development environments (IDEs), such as Red Hat CodeReady Studio.
Source-to-image deployment	OpenShift Container Platform provides a toolkit and workflow for producing ready-to-run images by injecting source code into a container and letting the container prepare that source code for execution.

FEATURE (Enterprise operations)	BENEFIT
Automated installation and upgrades	Services consumed from the OperatorHub can be deployed.
Installation and upgrades	Fully configured and upgradeable with a single operation.
Automation	Streamlined and automated container and application builds, deployments, scaling, health management, and more are standard with OpenShift Container Platform.
Robust ecosystem	An ever-expanding ecosystem of partners provides a wide variety of integrations. These third parties deliver additional storage and network providers, IDE and CI ntegrations, ISV solutions, and more for use with OpenShift Container Platform.

SCC and IBM

SCC has partnered with IBM for almost 40 years; SCC bridges the gap between business needs and technology to deliver world-class solutions.

We know IBM inside out, from its technology to its people and vision, and whatever we do together delivers the strongest, most agile solution. Maturity in the market means SCC is regularly building complex offerings and programs.

With a specialist dedicated IBM team, we are able to offer that extra support needed when helping our customers plan, integrate and manage their projects.

IBM and RedHat: The worlds leading hybrid cloud provider

Together with Red Hat, IBM Business Partners are uniquely positioned to help clients unlock full business value of cloud by creating cloudnative business apps faster, drive greater portability and security of data and apps across multiple public and private clouds, all with consistent cloud management. In doing so, they will draw on their shared leadership and expertise in key technologies including containers and Kubernetes, automation, middleware, IBM Public Cloud Capabilities, multi-cloud management, IBM Systems, Watson and Security solutions.

IBM and Red Hat's partnership has spanned 20 years, with IBM serving as an early supporter of Linux, collaborating with Red Hat to help develop and grow enterprise-grade Linux and more recently to bring enterprise Kubernetes and hybrid cloud solutions to customers.



Why SCC?

Successful implementation of a containerisation strategy requires a degree of professional services skills and best practices. SCC is strongly placed to help you on every step of that journey. From best advice, to the migration of specific workloads; the building of new cloud ready applications and the management of your whole IT environment. We can bring the best skills to your business as required.

SCC

How to get started:

Specifically we are able to offer a one day Discovery Workshop to identify appropriate workloads that we could build a containerisation Proof of Concept (PoC) project around.

We have a Red Hat OpenShift demonstration and PoC environment within our own secure datacentre facility, and we would be very happy to host your project and help you identify the real value of containerisation to your organisation.



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