

Add speed and agility to application development

How cloud-native application development helps organizations respond to rising demand

Applications are the core of business operations

Kubernetes-based container environments help build, deploy, and operate applications faster and with greater agility.

When evaluating your options, be sure to consider:

- Ability to build and deploy applications quickly.
- On-premise and public cloud capabilities.
- Infrastructure management.
- IT complexity.
- Availability and scalability.
- Support.

Reduce complexity to build better applications faster

Organizations that are able to streamline their application development and delivery process can differentiate their business, engage customers, and find new ways to create value that translate into revenue opportunities.

As a result, organizations are using containers and Kubernetes to enable cloud-native application development and gain the scalability, flexibility, and innovation to meet rising demand.

But for applications to be effective, they must be configured properly. Cloud environments must be connected and optimized to increase scalability and elasticity.

Consistent platforms and processes are needed to manage applications across on-premise and cloud environments. In addition, developers and operations teams need a consistent way to collaborate across all deployment footprints, from edge and air-gapped environments to infrastructure in the datacenter to the hybrid cloud.

Building innovative applications faster means IT teams must manage a new series of challenges, which may include:

- Navigating IT infrastructure complexity.
- Building and configuring container-based applications effectively in more complex environments.
- Maintaining container security including image scanning, patching, and compliance.
- Ensuring applications operate consistently across hybrid environments.
- Providing operations support to continually run Kubernetes clusters.

Red Hat and Amazon Web Services (AWS) deliver an innovative turnkey solution that addresses these challenges, enabling organizations to quickly create, deploy, and manage modern, cloud-based applications in both self-managed and fully managed deployment options.

Streamline your application environment with Red Hat and AWS

Through long-standing cooperation, Red Hat and AWS have collaborated to develop applications faster with Red Hat® OpenShift® and the AWS Cloud platform. The combined offering provides organizations with a flexible, high-performance application environment that supports modern, digital operations.

Built on open source innovation using industry standards, Red Hat OpenShift is a comprehensive platform for building and running container-based applications with enterprise-grade Kubernetes. You can develop, deploy, and manage traditional and container-based applications seamlessly across physical and AWS Cloud environments—without needing to recode or refactor applications. As a result, you can speed iteration cycles and innovation through self-service capabilities and automation.



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On the infrastructure side, AWS is a high-performance, scalable, and comprehensive cloud platform that offers the availability, elasticity, and agility you need to run modern and existing applications. As business needs evolve, you can adapt quickly to meet demands with automatic resource provisioning and retirement.

Together, Red Hat OpenShift and AWS provide a Kubernetes platform that supports existing and cloud-ready applications with streamlined access to AWS services. Benefits include:

Seamless service provisioning - AWS Operators allow native AWS cloud services to be provisioned and exposed directly through Red Hat OpenShift.

Cross-infrastructure consistency - Applications and workloads behave the same across development, test, and production environments.

A unified experience across hybrid clouds - Agile development and DevSecOps methodologies work across on-premise and cloud environments.

Flexible application deployment - Existing applications can be deployed on cloud infrastructure to increase agility, scalability, and elasticity.

Rapid development capabilities - Automation and self-service capabilities let developers focus on building differentiated products instead of managing commodity application components.

Flexible deployment options

Understanding that one size does not fit all, Red Hat and AWS provide three deployment options to meet your organization's needs.

Red Hat OpenShift Container Platform - Install, configure, and administer the solution yourself. This option is best suited for those who want complete control over their environment to customize to suit their needs. Automated, full-stack installation tools help you get up and running in around 15 minutes.

Red Hat OpenShift Dedicated - A fully managed service operated and supported by Red Hat with 24x7 premium site reliability engineering (SRE) support and a 99.95% service-level agreement (SLA). For your convenience, you can purchase the infrastructure you need through Red Hat or AWS.

Red Hat OpenShift Service on AWS - A fully managed Red Hat OpenShift service running natively on AWS gives you the speed and agility to quickly build, deploy, and manage Kubernetes applications in the AWS public cloud.

Harness the combined power of Red Hat OpenShift on AWS

Red Hat OpenShift Service on AWS is ideally suited for customers looking to combine the power of Red Hat OpenShift with the integration of a range of services, including AWS compute, database, analytics, machine learning, networking, and mobile application.

Development teams rely on continuous and timely access to these services to effectively carry out essential functions such as preparation, coding, testing, and deployment.



IDC study participants who used Red Hat OpenShift on AWS reported gains in speed and agility.¹

72% faster to deploy new storage

64% faster to deploy new compute

74% less staff time to deploy new storage

71% less staff time to deploy new compute

IDC study participants reported substantial gains in agility when deploying compute and storage with Red Hat OpenShift on AWS, resulting in faster deployment of new compute and storage, with fewer staff hours required to deploy.¹

Depending on your organization's need for fully-managed or self-managed services, Red Hat and AWS can help. Use the chart below to gain a clear picture of the unique features and benefits for each Red Hat OpenShift solution and determine which option is right for your organization.

Key attributes	Red Hat OpenShift Container Platform	Red Hat OpenShift Dedicated	Red Hat OpenShift Service on AWS
Increases speed and agility of application development	√	1	√
Simplifies path to hybrid cloud deployments	√	4	√
Works with existing tooling and workflows	√	√	√
Enables scale up or scale down as needed	√	√	√
Centralizes management and administration with self-service tools	√	√	√
Integrates with AWS infrastructure and services	√	√	√
Backed by a 99.95% Service Level Agreement		√	√
Jointly operated and supported by Red Hat and AWS			√
Joint billing with AWS streamlines expense management			√

¹ IDC White Paper, sponsored by Red Hat. "The Business Value of an Agile and Flexible Platform for Developing and Running Applications with OpenShift on AWS." Document #US45021319, May 2019.



Fully managed and jointly supported

Fully managed Red Hat OpenShift Service on AWS comes ready out of the box and is jointly supported by both Red Hat and AWS.

Learn more

Key attributes	Red Hat OpenShift Container Platform	Red Hat OpenShift Dedicated	Red Hat OpenShift Service on AWS
Consumption-based pricing			√
Simple procurement through your existing AWS console			√

Learn more

Applications are an essential part of digital business operations. Kubernetes-based container environments speed application development, deployment, and management. Red Hat and AWS can help you navigate IT complexity to adopt Kubernetes more quickly and easily.

Read more about Red Hat OpenShift Service on AWS at openShift.com/products/amazon-openShift.

About Amazon Web Services

For 14 years, Amazon Web Services has been the world's most comprehensive and broadly adopted cloud platform. AWS offers over 200 fully featured services for compute, storage, databases, networking, analytics, robotics, machine learning and artificial intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, virtual and augmented reality (VR and AR), media, and application development, deployment, and management from 77 Availability Zones (AZs) within 24 geographic regions, with announced plans for 18 more Availability Zones and six more AWS Regions in Australia, India, Indonesia, Japan, Spain, and Switzerland. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—trust AWS to power their infrastructure, become more agile, and lower costs. To learn more about AWS, visit aws.amazon.com.





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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 integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.

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