

# Modernize your IT with cloud services

Accelerate cloud-native  
application development while  
reducing cost and complexity

/Keep your options open





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## Introduction

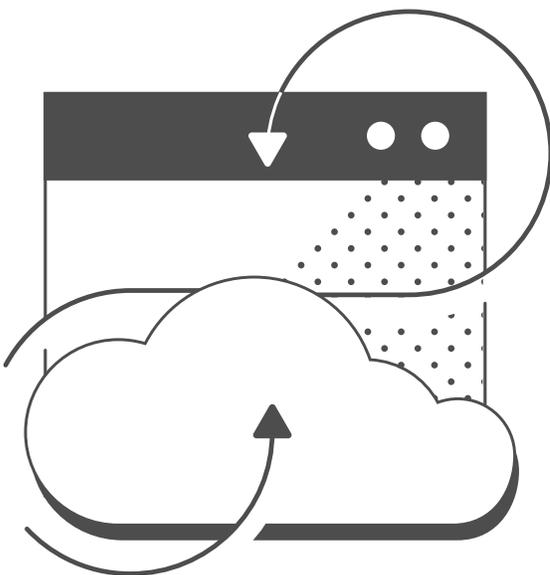
# Make the move to cloud services

Innovative software applications are essential to staying competitive in the modern business landscape.

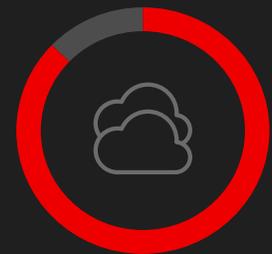
To improve agility, speed, and flexibility, many organizations are transitioning to a hybrid or multicloud environment as they modernize their existing architecture, and adopt [cloud-native development](#) to accelerate application delivery.

Global research from Flexera shows that 87% of businesses currently use a multicloud approach, while 72% currently rely on a hybrid cloud approach; both of which support a cloud-native application development approach.

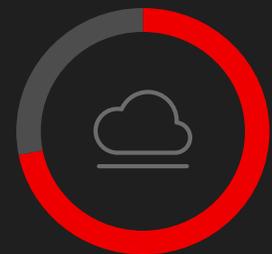
Cloud-native development provides the flexibility and agility to build and run applications on any public or private cloud, with a focus on security, and supports well-known development best practices of continuous testing, integration, delivery, and monitoring.



<sup>1</sup> Flexera. "The Flexera 2023 State of the Cloud Report," April 2023.



**87%**  
of businesses use a  
multicloud approach<sup>1</sup>



**72%**  
of businesses use a  
hybrid cloud approach<sup>1</sup>

## But the move to the cloud also brings new challenges.

New skills, processes, and resources are needed to manage, oversee, and maintain applications in any new cloud environment.

IT teams are under constant pressure to operate in multiple environments, with 24x7 availability for all critical operations. Teams need options to help simplify management and allow them to continue to deliver solutions that advance business outcomes.

# 80%

of enterprises recognize multicloud management as a top cloud challenge, leaving many looking for tools for consistent hybrid and multicloud management.<sup>1</sup>

## Cloud services help organizations gain speed and efficiency

Many organizations are considering a move to cloud services to:

- ▶ Gain faster time to market.
- ▶ Focus on core competencies.
- ▶ Increase operational efficiency.
- ▶ Modernize their approach to cloud-native development.
- ▶ Cut overall costs.

Cloud services reduce the need for organizations to dedicate resources to install, configure, maintain, and manage infrastructure. Instead, those valuable resources can focus on building strategic business applications.

But before deciding if cloud services are right for you, you must first establish your cloud management strategy. The right cloud management strategy can help you create and run innovative, differentiated applications on any public, private, multicloud, or hybrid cloud with a cloud-native development platform.

<sup>1</sup> Flexera. "The Flexera 2023 State of the Cloud Report," April 2023.

## Chapter 1

# Establish your cloud management strategy

To make the most of cloud-native development, IT leaders need to ask key questions about critical aspects of their organization.

As your organization moves toward a hybrid or multicloud strategy, and cloud-native development, it is important to address areas such as security and compliance concerns, operational and IT complexity, and the skills of current staff. These key areas will help determine if you have the expertise and time to focus on managing, maintaining, upgrading, and providing security for cloud infrastructure, or if cloud services are a better option.

Cloud adoption is now the status quo in the marketplace, with containerization heading in a similar direction as organizations embrace modern container-based applications.

Research from the Cloud Native Computing Foundation showed that 96% of organizations are either using or evaluating Kubernetes, which represents a stark rise from 83% in 2020 and 78% in 2019.<sup>2</sup>

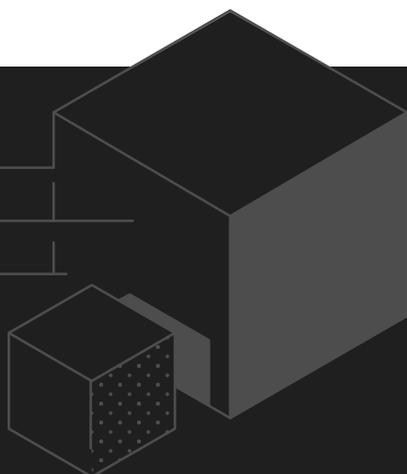
Some of the top reasons for adopting containerization include cost savings, as well as improved deployability, scalability, reliability, stability, and simplicity.

Despite the rapid adoption of container technology, many organizations struggle to manage and secure them effectively. Research from Red Hat shows that 2 out of 3 businesses using containerized technology reported delaying or slowing down deployment due to security concerns.<sup>3</sup>

Wanting 24x7 support, increased observability, and access to talent,

organizations are beginning to look towards outsourcing the creation and management of an application platform through cloud services, as they continue their complicated move to the cloud.

This allows developers to focus on developing and deploying new, innovative applications that build business value, rather than spending their time maintaining the platform.



<sup>2</sup> Cloud Native Computing Foundation. "CNCF Annual Report 2022," February 2022.

<sup>3</sup> Red Hat e-book. "State of Kubernetes security report 2023," April 2023.

## Chapter 2

# Simplify cloud management and **empower developers** to do more

For enterprises deploying applications both on-premise and over multiple clouds, cloud services can reduce complexity and promote consistency.

Developers are under constant pressure to be responsive in a rapidly changing and increasingly complex development environment. Cloud services are a hosted and managed solution that reduces the need to redirect your talented people away from development to manage and maintain infrastructure.

The right cloud service solution can help your development teams get started quickly and develop applications faster, while your organization benefits from increased operational efficiency and decreased IT complexity.

Learn how Red Hat OpenShift Service on AWS is ideally suited to allow your teams to focus on application development.

[Download the brief](#) →



## End-to-end support for software development helps teams do more

When the burden of infrastructure management is removed, the entire IT organization benefits in several ways, including:



### Faster application development.

Cloud services allow teams to begin developing immediately, continuously evolve applications to respond to change, and onboard modern technology with minimal disruption.



### A modern approach to cloud-native development.

Cloud services support an open approach to building cloud-native applications that helps organizations build new applications and modernize existing systems.



### Increase operational efficiency.

Cloud services that are hosted, managed, and maintained, free development teams from having to invest in infrastructure expertise, allowing them to focus on core competencies.

## Chapter 3

# Choosing **the right** cloud service provider

A managed application platform provides ongoing operations and support for application deployments.

**Cloud services** help organizations simplify their application deployment and reduce operational overhead and complexities. This allows developers and IT organizations to rapidly adopt cloud-native application development and deployment and more easily adapt to evolving business demands.

Important capabilities to look for when choosing the right cloud service provider include the ability to:



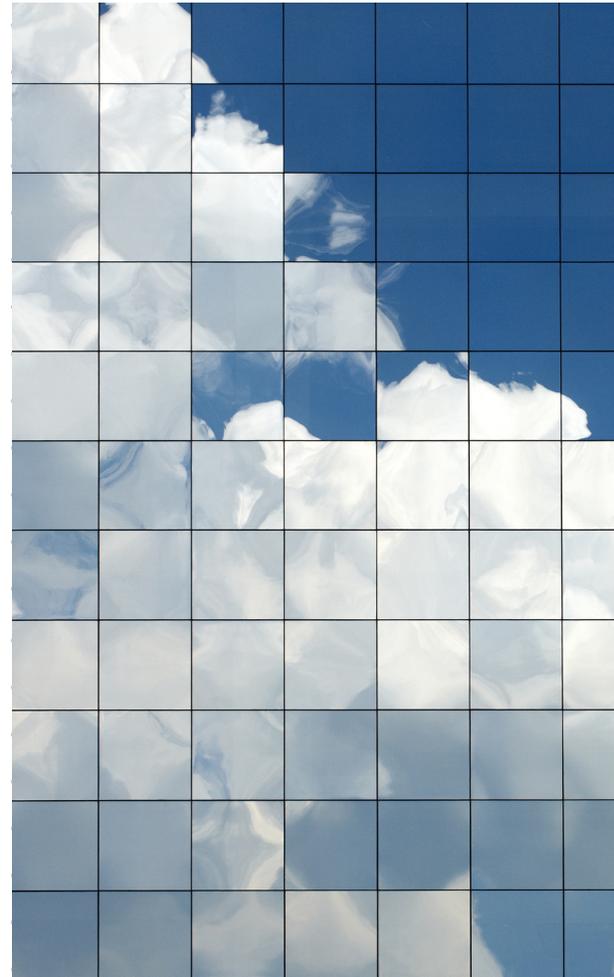
### Accelerate application delivery and DevOps.

The transition to the cloud helps teams develop and deliver applications more quickly, while cloud services reduce the need to develop the skills required to maintain infrastructure.



### Create a unified cloud experience.

The need to integrate assets across hybrid and multicloud environments has increased operational complexity. The right cloud service should provide consistent development and deployment experiences and tooling throughout the stack and on all of the major cloud services, to make it more efficient to build strategic business applications in a hybrid or multicloud environment.





### Provide a complete application platform.

The right cloud service will help businesses modernize existing applications and develop cloud-native applications with a range of integrated developer and operational tools, including programming languages and runtimes, build tools, continuous integration and deployment (CI/CD), and telemetry (including application logging).



### Operationalize data into intelligent applications.

Turn your valuable business data into a competitive advantage with services that help you build artificial intelligence and machine learning (AI/ML) into your applications and create automated data pipelines.



### Joint cloud solutions.

As the only company to have joint cloud services offerings on Amazon Web Services (AWS), Microsoft Azure, and IBM Cloud, Red Hat is creating more flexibility for our customers and a consistent experience across any major public cloud, including Google Cloud, Oracle Cloud, and others.

Red Hat provides joint, cloud-native, managed offerings on major public clouds, including AWS, to ensure consistency and simplified operations across the hybrid cloud.

[Learn more](#) →

## Chapter 4

# Modernize cloud computing with OpenShift cloud services

Reduce complexity and accelerate your application development and deployment.

Red Hat offers a ready-to-use application platform for building cloud-native applications in hybrid and multicloud environments, delivered as jointly operated and supported offerings with public cloud providers, including AWS. With OpenShift® cloud services, you gain a comprehensive application platform built around cloud-native development that provides both infrastructure and operations tools to streamline the developer experience.

As a ready-to-use application platform, OpenShift cloud services simplify the development, deployment, and management of cloud-native applications, with all of the components needed to use cloud-native development tools, including runtimes, build tools, CI/CD, and more. With Red Hat OpenShift abstracting the technical details of cloud-native application development, operators can turn their focus to productivity and innovation.

Red Hat OpenShift is available as a cloud service with multiple [fully managed deployment options on AWS](#), including:

### [Red Hat OpenShift Service on AWS](#)

A fully managed, ready-to-use application platform delivered as a cloud service running natively on AWS, that can be accessed on-demand directly from the AWS console. With joint management and support from Red Hat and AWS, this cloud service allows you to quickly build, deploy, and manage cloud-native applications in the AWS public cloud on a unified application platform.

### [Red Hat OpenShift Dedicated](#)

A fully managed ready-to-use application platform delivered as a cloud service operated and supported by Red Hat, with the option to host on AWS or Google Cloud.

## Joint support to help manage cloud-native complexity

Red Hat OpenShift Service on AWS comes with 24x7 joint support, via an integrated support experience from both Red Hat and AWS, to make sure that businesses always have access to the technical expertise they need to optimize their cloud-native application development.

Additionally, each of these offerings are supported around the clock by [Red Hat's global team of site reliability engineers \(SREs\)](#)—who bring a significant breadth and depth of Red Hat OpenShift knowledge as well as pre-existing relationships with cloud providers—and a 99.95% service-level agreement (SLA).

Among their many capabilities, Red Hat's global team of SREs are available to automate the deployment, management, and proactive maintenance of Red Hat OpenShift clusters—and complementary Red Hat applications and data services—so that organizations can focus their efforts on application development.

Discover how Red Hat's global team of SREs can support your business by managing, scaling, and automating your cloud-native applications, and much more.

[Read the checklist](#) →



## Take full advantage of cloud computing on AWS

By working directly with [AWS](#), Red Hat is able to offer Red Hat OpenShift Service on AWS as a fully integrated application platform with a streamlined, developer-first experience and a consistent, curated, and productive development environment, as an AWS-native offering.

The Red Hat and AWS partnership also helps to simplify what can be a complicated process of building a hybrid or multicloud environment, with joint engineering, joint support, fully integrated DevOps tools and services, unified invoicing, the ability to use existing cloud committed spend, and more.



**Security:** A focus on security has been built into OpenShift Cloud Services by both Red Hat and AWS. Both teams are continually monitoring for common vulnerabilities and exposures (CVEs), with an aim to identify updates and fixes before they become an issue.



**Joint support and engineering:** Red Hat and AWS work in tandem to provide the support and engineering businesses need to build and maintain a cloud-native application platform in a hybrid or multicloud environment. As an integrated support experience, customers can contact either company for support and it will be routed appropriately, which greatly speeds up resolution times.

Red Hat OpenShift Service on AWS has helped organizations achieve:<sup>4</sup>

# 50%

reduction in infrastructure management effort.

# 60-70%

reduction in development time.

# 468%

return on investment (ROI).

<sup>4</sup> Forrester Consulting, commissioned by Red Hat. ["Red Hat OpenShift Service on AWS enables innovation and agility for modern business,"](#) March 2022.

Because Red Hat OpenShift Service on AWS is delivered as a ready-to-use solution, organizations don't need to build their own application platform or integrate their own tools and services, all of which helps them:

- ▶ Get started quickly.
- ▶ Accelerate time to value.
- ▶ Enhance operational efficiency.
- ▶ Increase focus on innovation.

As a joint offering with a major cloud provider, Red Hat OpenShift Service on AWS creates more flexibility and consistency within the public cloud, and provides:

- ▶ An AWS-native experience.
- ▶ The ability to purchase, procure, and access from the AWS console.
- ▶ Seamless integration with other AWS cloud-native services.
- ▶ Fully integrated cloud-native development tools.
- ▶ Joint support and engineering from Red Hat and AWS.
- ▶ A single, unified invoice with on-demand, hourly, or annual billing.
- ▶ The option to purchase with AWS committed spend.

In addition to the many valuable tools and services already available natively on AWS, Red Hat OpenShift Service on AWS also provides a range of build and automation tooling, including container image repositories, monitoring solutions, and prescriptive security, to help you accelerate your cloud-native application development and deployment.

Build, deploy, and manage cloud-native applications with Red Hat OpenShift running natively on AWS.

[Learn more](#) →



## Focus on building differentiated applications instead of infrastructure management

Get the tools you need to accelerate innovation, deliver high-quality customer experiences, and scale in line with changing demand.

Red Hat OpenShift Service on AWS helps organizations adopt and accelerate cloud-native application development with:

### A consistent experience across all clouds.

Increase productivity with a unified application platform and consistent development tools across hybrid and multicloud environments, so teams don't need to learn new tools, processes, or environments.

### A hosted and managed application platform by Red Hat.

Teams can begin developing right away and be assured that their platform is always available, always up to date, and backed by [24x7 SRE support](#).

### A developer-first platform.

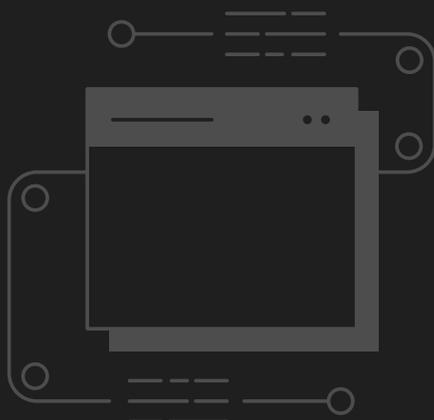
Developers can use their choice of languages and tools, and user features are separated from administrative tasks to provide access to the entire cloud-native development stack to support building, testing, and deploying cloud-native applications.

Teams benefit from an array of application and data services available on demand that work natively with Red Hat OpenShift to serve as cloud-native application development building blocks as part of a consistent, streamlined experience across the software development life cycle.

For organizations looking to build and deploy AI-powered applications, Red Hat offers [Red Hat OpenShift AI](#). This cloud service provides powerful AI/ML

capabilities and allows teams to quickly move from experimental ideas to production in a collaborative, consistent environment.

OpenShift AI is a flexible, scalable MLOps platform that provides teams the tools they need to build, deploy, and manage AI-powered applications anywhere that Red Hat OpenShift runs, with improved reliability and efficiency, and an increased focus on innovation and security.



Learn more today

# Build cloud-native applications with confidence. Let Red Hat manage the rest.

[Discover how Red Hat OpenShift Service on AWS can help your business](#) build, deploy, manage, and scale applications on a ready-to-use application platform in AWS Cloud.

## 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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