Modernize your IT with managed cloud services

Accelerate application development
while reducing cost and complexity

Red Hat

Intro

Make the move to managed cloud services

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

To improve agility, speed, and flexibility, organizations are transitioning to the cloud and adopting cloud-native development.

IDC research shows that worldwide, 97% of enterprises expect to take advantage of connected hybrid and multicloud infrastructure, spanning both on-premise resources and one or more public cloud platforms to support these cloud-native applications.[1]

Cloud-native development provides flexibility and agility to build and run applications more securely on any cloud and supports well-known development best practices of continuous testing, integration, delivery, and monitoring.

But the move to the cloud also brings new challenges.

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

IT teams are under constant pressure to run in multiple environments and to provide all aspects of critical operations 24x7. Teams need flexibility, convenience, and options to simplify management and continue to deliver solutions that advance business outcomes.

71%

of organizations recognize the need for consistent cross-cloud management and automation to ensure effective application performance and business operations.[1]

Managed cloud services help organizations gain speed and efficiency

Many organizations are considering a move to managed cloud services to:

- Gain faster time to market.
- Focus on core competencies.
- Reduce dependency on and use of IT resources.

- Modernize their approach to cloud-native development.
- Cut overall costs.

Managed cloud services eliminate 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.

The right cloud management strategy can help you create and run innovative, differentiated applications on any public, private, or hybrid cloud with a cloud-native development platform.

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[1] IDC Technology Spotlight, sponsored by Red Hat. "Digital Business Success Depends on Effective Multicluster Kubernetes Management." IDC, #US47479221, Feb. 2021.

01

Establish your cloud management strategy

Use this checklist to answer six key questions when starting your hybrid cloud journey.

Download the checklist

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 cloud 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 managed cloud services are a better option.

Cloud adoption is now status quo in the marketplace, with Kubernetes headed in a similar direction as organizations embrace modern container-based applications. Qualtrics research shows that 76% of organizations have or are planning to adopt Kubernetes as part of their cloud strategy to respond to changing customer needs.[2]

Despite a rapid adoption of container technology, many organizations struggle to manage and secure them effectively. Only 15% of organizations surveyed by IDC have developed optimized or fully mature strategies for managing and taking full advantage of containers across the application life cycle.[1]

Figure 1 highlights the challenges organizations are facing as a result of container and Kubernetes adoption, and why organizations are seeking a managed cloud service solution.
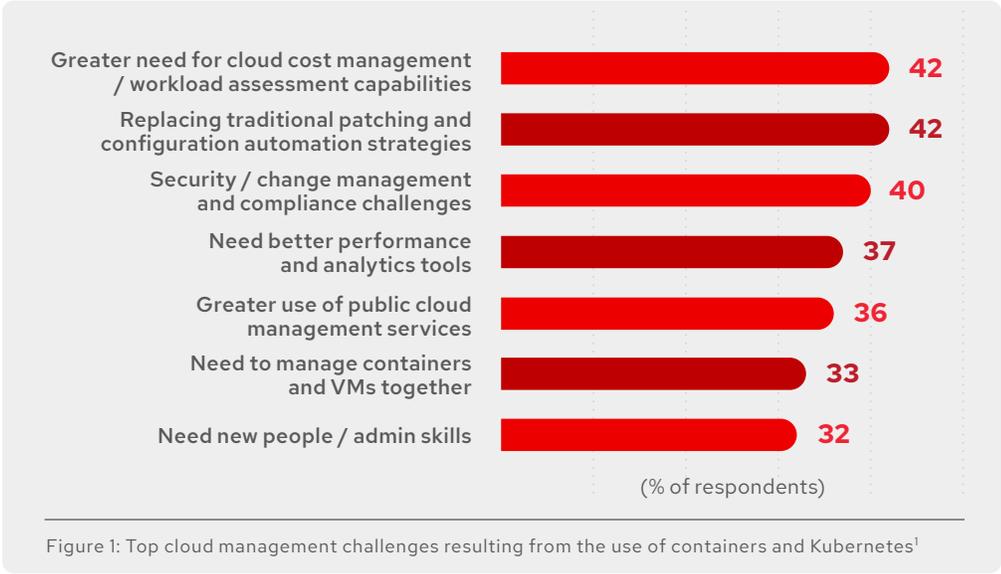
Challenge	%
Greater need for cloud cost management / workload assessment capabilities	42
Replacing traditional patching and configuration automation strategies	42
Security / change management and compliance challenges	40
Need better performance and analytics tools	37
Greater use of public cloud management services	36
Need to manage containers and VMs together	33
Need new people / admin skills	32

(% of respondents)

Figure 1: Top cloud management challenges resulting from the use of containers and Kubernetes[1]

Wanting full support, increased observability, and access to talent, many organizations are turning to managed cloud services, including managed Kubernetes.[3]

The right cloud management strategy can simplify what can be a complicated move to the cloud.

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[1] IDC Technology Spotlight, sponsored by Red Hat. "Digital Business Success Depends on Effective Multicluster Kubernetes Management." IDC, #US47479221, Feb. 2021.

[2] 2021 Cloud Native Development survey. Conducted by Red Hat via Qualtrics, December 23 - January 9, 2021.

[3] 451 Research pathfinder report commissioned by Red Hat, "Cloud-native: Enabler of Mission-Critical Applications in the Cloud." Nov. 2020.

02

Simplify cloud management and empower developers to do more

Given that enterprises are deploying Kubernetes both on-premise and over multiple clouds, managed cloud services make sense to reduce complexity and boost consistency.[2]

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

Organizations are eager to replace the burden of attracting, hiring, training, and retaining people.

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:
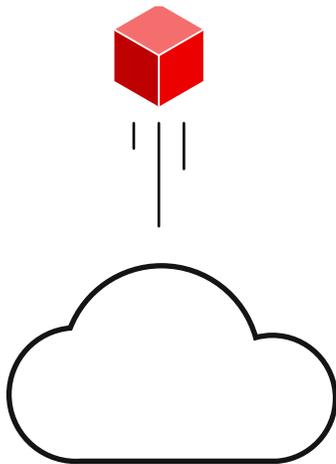
Faster application development.

Fully managed cloud services allow teams to begin developing immediately, continuously evolve microservices-based applications to respond to change, and onboard modern technology quickly and easily.

Reduced dependency on and use of IT resources.

Managed 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.

A modern approach to cloud-native development.

Managed cloud services ideally support an open approach to building container-native applications that helps organizations more easily build new applications and modernize existing systems.

03

Red Hat provides joint, native managed offerings on Amazon Web Services (AWS), Microsoft Azure, and IBM Cloud, plus a managed cloud service on Google Cloud Platform (GCP)–ensuring consistency and simplified operations across public and private clouds.

Choosing the right managed cloud service provider

A managed Kubernetes service provides ongoing operations and support for container deployments.

Managed cloud services help organizations simplify their Kubernetes deployment and reduce operational overhead and complexities. As a result, developers and IT organizations can rapidly adopt enterprise-grade Kubernetes application development and deployment.

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

Accelerate application delivery and DevOps.

The transition to the cloud helps teams deliver more quickly, while managed cloud services eliminate the need to install, configure, and develop the skills required to maintain infrastructure.

Simplify cloud service integration.

The need to integrate assets across hybrid and multicloud environments has increased the complexity of operations. A consistent development and deployment experience across public and private clouds makes it easier to build strategic business applications in a hybrid- and multicloud environment.

Operationalize AI/ML 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.

Build for any cloud.

The right managed cloud services solution provides the expertise to build flexible platforms and applications that can meet evolving business demands while dealing with the reality of existing IT infrastructure and processes.

Run and manage applications anywhere.

Developers and line of business leads want access to the latest technologies, and they want to run them on a variety of cloud and datacenter footprints. Managed cloud services from Red Hat can provide a consistent experience and tooling throughout the stack and on all of the major clouds.

04

Modernize cloud computing with Red Hat managed cloud services

Make building and deploying strategic business applications seamless.

Red Hat offers a unified platform for building cloud-native applications in hybrid-cloud environments. With Red Hat® OpenShift®, you gain a comprehensive container platform built around Kubernetes that provides both infrastructure and operations tools to streamline the developer experience.

Red Hat OpenShift is available in a variety of deployment options as managed cloud services on AWS, including:

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).

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. Access this service on-demand from the AWS console.
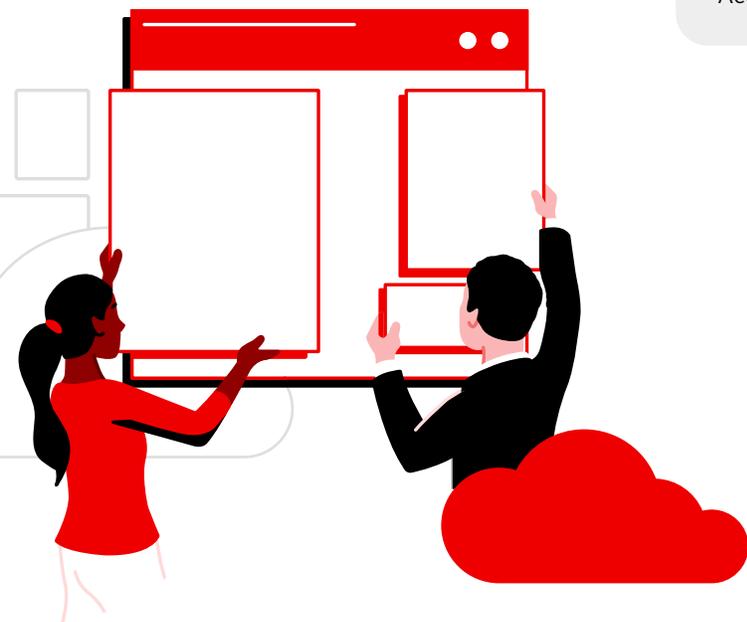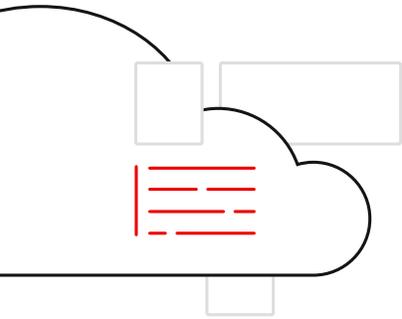
Take advantage of the full potential of the cloud

Build, deploy, and manage Kubernetes applications with Red Hat OpenShift running natively on AWS.

[Learn more]

If your organization is looking to build, deploy, manage, and scale cloud-native applications across hybrid environments without sacrificing developer productivity, managed cloud services may be the right choice for you.

Red Hat managed cloud services provide managed application, data, and platform cloud services with full stack management, and a streamlined user experience across hybrid cloud environments on the leading Kubernetes platform.[4]

Working with major cloud providers, including AWS, Red Hat offers a complete platform that delivers a streamlined, developer-first experience through a consistent, curated, and productive development environment across the hybrid cloud.

The Red Hat and AWS partnership helps to simplify what can be a complicated move to building a hybrid cloud environment. With two fully managed deployment options, customers have a choice of how to run Red Hat OpenShift on AWS.

The latest joint offering, Red Hat OpenShift Service on AWS, is a fully managed Red Hat OpenShift service deployed and operated on AWS.

This solution helps you more quickly and easily build, deploy, and manage Kubernetes applications on a comprehensive Kubernetes platform in the AWS public cloud.

Red Hat OpenShift Service on AWS provides an AWS-native experience with access from the AWS console, which includes:

- On-demand, hourly billing.
- A single invoice for AWS deployments.
- Seamless integration with other AWS cloud-native services.
- Joint support from Red Hat and AWS.

Your IT team gains the capabilities they need to make it easier to adopt containerization and deploy applications. In addition to services already available on AWS, Red Hat OpenShift provides build and automation tooling, including container image repositories, monitoring solutions, and prescriptive security, to accelerate application development and deployment.

[4] Forrester. "Multicloud Container Development Platforms, Q3 2020," 15 Sept. 2020.
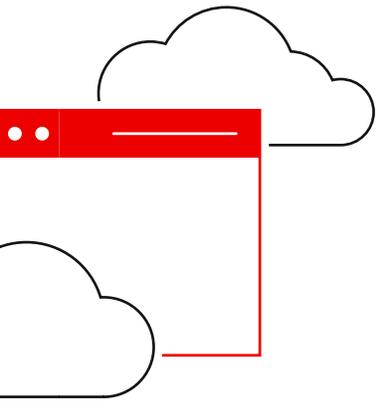
Focus on building applications that differentiate—instead of infrastructure management

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

Red Hat managed cloud services help IT teams using Red Hat OpenShift by providing:

Hosted and managed cloud services 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 gain the choice of languages and tools, and user features are separated from administrative tasks to provide access to the entire Kubernetes stack to support building, testing, and deploying business applications.

**A consistent experience across all clouds and services.**

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

The right managed 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 complexity.
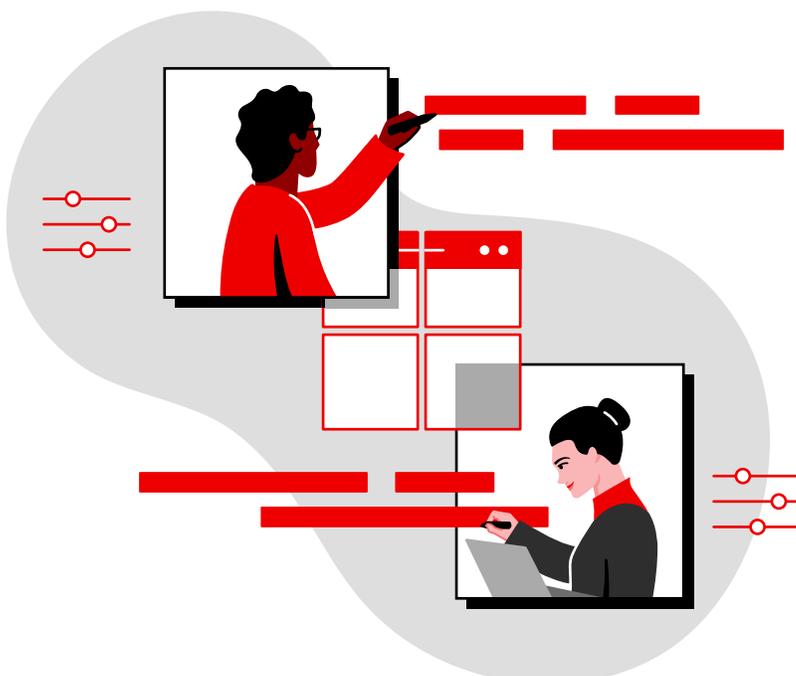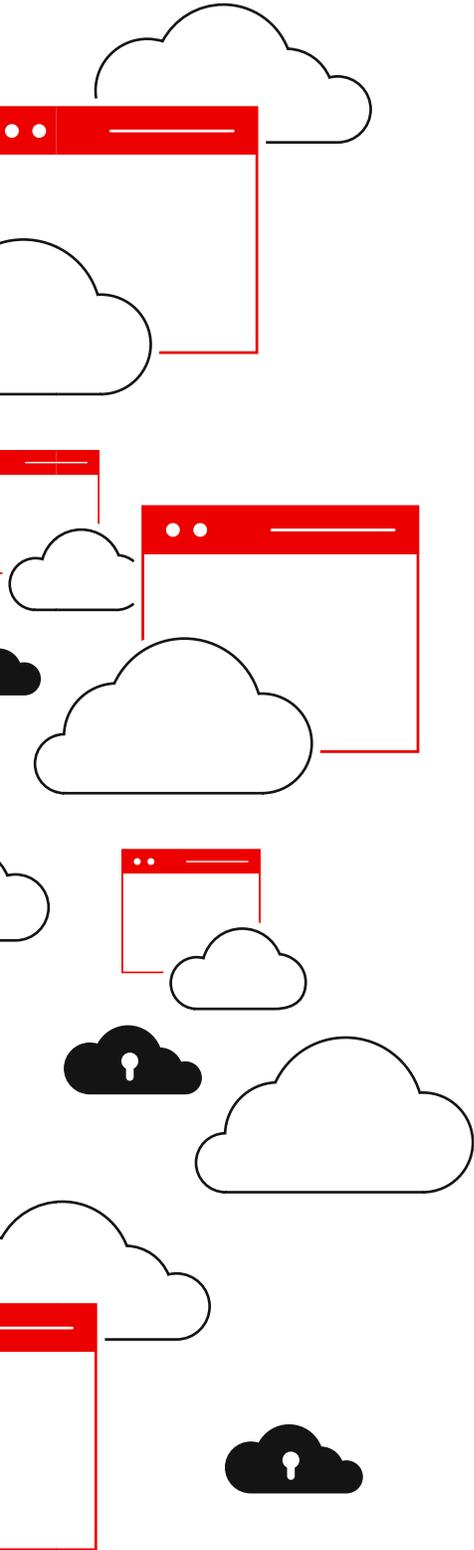
Teams benefit from having an array of application and data services available to serve as cloud-native application development building blocks. As hosted and managed cloud services, these components complete the platform and are available on demand to support development teams. Red Hat application and data services work natively with Red Hat OpenShift and each other for a consistent, streamlined experience across the software development life cycle.

Red Hat offers many application and data services including:

Red Hat OpenShift API Management

Provide security for, share, and control access to services, applications, and enterprise systems–across public and private clouds. As a key component in an open, modern approach to building microservices-based applications, Red Hat OpenShift API Management allows you to efficiently update and reuse assets, remain agile, and stay ahead of the competition.

Red Hat OpenShift Streams for Apache Kafka

Create, discover, and connect applications to real-time data streams no matter where they are deployed. Red Hat OpenShift Streams for Apache Kafka gives you greater control over streams–a key component for delivering real-time experiences, event-driven architectures, and data analytics applications.

Red Hat OpenShift Data Science

Data scientists and developers need powerful AI/ML tools for building intelligent applications. Red Hat OpenShift Data Science is a cloud service that gives teams the ability to quickly move from experimental ideas to production in a collaborative, consistent environment.
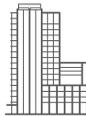
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Discover how
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give you the tools to
innovate faster and
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demand.

Read more

Build and scale applications with confidence. Let Red Hat manage the rest.

Find out how Red Hat managed cloud services provide full stack management and a streamlined user experience across hybrid cloud environments.

Learn more at **redhat.com/cloud-native-development**

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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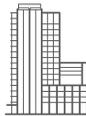| **North America**	**Europe, Middle East, and Africa**	**Asia Pacific**	**Latin America**
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Discover how Red Hat and AWS give you the tools to innovate faster and scale with changing demand. Visit, **http://red.ht/aws**

About Red Hat

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