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# Red Hat OpenShift Service On AWS Enables Innovation And Agility For Modern Business

Applications are essential to the digital operations of modern business. Kubernetes-based container environments enable organizations to build, deploy, and run applications efficiently and at scale. Despite its benefits and popularity, Kubernetes deployment can be complicated. Furthermore, even with a container platform in place, IT complexity can stunt container-based application development and management across hybrid environments.

Red Hat OpenShift Service on AWS (ROSA) integrates Red Hat's turnkey application platform with AWS cloud. With ROSA, organizations can have a jointly managed, enterprise-grade application platform and efficiently build, deploy, and manage containerized applications. This solution simplifies application development and deployment as Red Hat and Amazon Web Services (AWS) manage the underlying platform, empowering business users to adopt Kubernetes faster and focus on creating innovative applications.

To better understand the benefits, costs, and risks associated with Red Hat OpenShift cloud services, Red Hat commissioned Forrester Consulting to interview six decision-makers and conduct a Total Economic Impact™ (TEI) study.[1] This abstract will focus on the use of ROSA and its value to organizations.

## INVESTMENT DRIVERS

Prior to Red Hat OpenShift Service on AWS, the interviewees' organizations struggled with common challenges, including:

Reduction in infrastructure management effort
**50%**

Reduction in development time
**60% to 70%**

- **Stifled innovation.** Interviewees said that having to dedicate developer time to platform and resource management resulted in missed opportunities for higher-value innovation and delivery of new technologies that would drive business forward. In addition, they struggled with building custom applications and sought a partner to help personalize their services.
- **Monolithic nature of systems.** Interviewed decision-makers were plagued with poor quality, prolonged release cycles, and downtime. Furthermore, the operational overhead to maintain and upgrade the architecture was too costly and time-consuming.
- **Lack of flexibility and scalability.** Interviewees found that their incumbent systems were not future-proof. They described looking for a solution that could adapt to their specific business needs and change over time.

READ THE FULL STUDY HERE

## RED HAT OPENSHIFT FEATURES

Interviewees found the following attributes of Red Hat OpenShift Service on AWS to be particularly beneficial for their organizations:

- **Developer innovation empowerment.** ROSA allows developers to build and deploy applications in an on-demand environment without worrying about underlying operations or infrastructure management. The platform also features integrated tooling, including a robust portfolio of over 170 AWS services and build and automation tools, which can be leveraged to accelerate development and improve efficiency.
- **Flexibility and scalability.** Deploying OpenShift on the AWS cloud allows organizations to quickly deploy business-critical applications and scale as the business grows. Furthermore, the solution allows for maximization of data and IT investments. ROSA provides users a cloud-native service that is jointly operated with AWS, and optimized for performance, scalability, and security across the hybrid cloud.
- **Support and operations.** Red Hat and Amazon work together to provide joint production-grade support for ROSA customers with a 99.95% uptime service-level agreement (SLA). Red Hat site reliability engineers (SREs) install, manage, maintain, and upgrade the ROSA deployment. This rich combination of services reduces operational complexity, increasing speed-to-market and allowing organizations to focus on business-critical needs. It also eases the day-to-day operational burden on IT infrastructure and security teams.

> **"With [Red Hat OpenShift Service on AWS], business gets features faster. We are more flexible in setting up a new application [or] new models faster because it's less code to get started."**
>
> *Developer for IT product and sourcing, apparel*

## KEY RESULTS

The following results are based on a composite organization as modeled in the full study.

**Increased development velocity.** Before investing in ROSA, interviewees' organizations used applications that were large, burdensome, and expensive to manage. Interviewed decision-makers shared that implementing ROSA's microservices- and container-based architecture allowed their organizations' application development and testing process to be much faster, which opened time in their developers' day that could be recouped for further productivity.

- **Development time reduced by 70%.** Using Red Hat OpenShift Service on AWS provides access to integrated tools and continuous integration/ continuous delivery (CI/CD) pipelines that help modernize development approaches and streamline application development and deployment. Such features lend themselves to a 60% reduction in development time in Year 1, 65% in Year 2, and 70% in Year 3. The project coordinator in higher education shared, "Our whole process is now 50% faster, which leads to our developers being more productive."

> **"One of our pain points is we don't want to do infrastructure. We just want to focus on building great experiences. We wanted to find somebody who could manage this for us, so we didn't have to."**
>
> *Developer for IT product and sourcing, apparel*

**Offloaded infrastructure management.** Beyond slowing down the development process, legacy environments also required developers to procure new environments manually, which could take weeks and involve multiple stakeholders. With Red Hat OpenShift Service on AWS, developers no longer needed to allocate time for infrastructure maintenance work and repurposed that time for more productive work supporting application development. AWS and Red Hat manage all aspects of the cloud-based container environment.

- **Developers recouped 20% of their time.** In their previous environment, infrastructure maintenance work could consume a significant amount of a developer's time. The director in telecom explained: "Previously, developers had to build the instances themselves. It would probably be a fifth of developer time [dedicated for infrastructure maintenance]". The project coordinator in higher education said: "[With Red Hat OpenShift Service on AWS], developers can now spend more time with customers trying to figure out what they need."

**Improved operational efficiency.** In addition to recouping developer time that was previously spent on infrastructure maintenance work, using ROSA also allowed interviewed decision-makers to repurpose full-time DevOps staff that were responsible for managing the infrastructure. Organizations reduced costly downtime and maintained reliability with managed upgrades, patching, and threat monitoring and remediation.

- **Infrastructure management effort reduced by 50%.** With ROSA, organizations did not have to allocate as many DevOps staff to maintain the environment for application development. The director in telecom said: "Before [Red Hat OpenShift Service on AWS], we had 10 to 12 team members with the right experience managing infrastructure. Of the 10 to 12, three or four stayed doing what they were doing while the other team members took on lead positions within their application owners' teams." The project coordinator in higher education added, "We reassigned 25% of people out of operations and into development."

**TOTAL ECONOMIC IMPACT ANALYSIS**

For more information, download the full study: "The Total Economic Impact™ of Red Hat OpenShift Cloud Services," a commissioned study conducted by Forrester Consulting on behalf of Red Hat, November 2021.

**STUDY FINDINGS**

Forrester interviewed six decision-makers at organizations with experience using Red Hat OpenShift cloud services and combined the results into a three-year composite organization financial analysis. Risk-adjusted present value (PV) quantified benefits include:

- Improved development velocity worth more than $1.5 million.
- Offloaded infrastructure management worth more than $2.1 million.
- Improved operational efficiency worth more than $1.3 million.

**Return on investment (ROI)**

**468%**

**Net present value (NPV)**

**$4.08 million**

## Appendix A: Endnotes

[1] Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.


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