Red Hat

Build an efficient IT foundation for modern business success

A guide to creating value through IT modernization

See what's inside

What is IT modernization?

IT modernization is an incremental and methodical set of changes that moves your organization toward a standard infrastructure. Modernizing your IT helps you get more from your current IT investments while freeing budget and time to prepare for the future.

Success in a digital world requires IT modernization.

Every IT decision maker balances two major demands: maintaining existing IT systems and laying a foundation for future innovation. Rigid, proprietary infrastructure can shift that balance too far towards legacy operations, preventing your organization from working on strategic, forward-looking initiatives. To shift your focus to the future, you need to modernize your IT infrastructure and migrate to more flexible, stable, open platforms and tools.

IT modernization doesn't happen all at once — it is an incremental, continuous process. Through strategic modernization, you can gradually increase agility while improving overall productivity and business performance. With modern software, platforms, and processes, you can achieve faster delivery of software and services to both internal and external customers.

IT modernization is the foundation for long-term success in a digital world.

**Three ways IT modernization boosts your ability to innovate**

Standardization

- Deploy a common, consistent IT framework across your organization.

- Streamline security and improve compliance with policies and regulations.

- Simplify operations and improve accuracy through automation.

Digital transformation

- Incrementally free budget and resources for innovation.

- Gain proven return on investment and lower total cost of ownership.

- Build a foundation for innovation to compete more effectively.
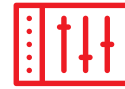
Simplified management

- Optimize and scale infrastructure across hybrid and multicloud environments without compromising security.

- Systematically manage all modern and traditional infrastructure elements.

This e-book reviews key steps in your IT modernization journey and recommendations for getting started. Read on to learn how you can modernize to support digital business.
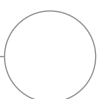
Step 1

Realign your IT environment for consistency

Complex, disparate IT environments based on proprietary solutions often require more time, energy, and budget to manage. Inconsistent platforms and processes hinder growth and demand reactive maintenance. Additionally, supporting multiple platforms increases training, support, and operational budget requirements.

Deploying a standardized operating environment (SOE) will help you create consistency across your organization. With a consistent platform, you can achieve the efficiencies needed to reduce costs and accelerate IT while effectively supporting innovation. Standardize on a modern solution that supports new technologies and approaches, including hybrid and private cloud connectivity, cloud-native development, and containers.

Benefits of standardizing

Deploying a standard IT platform across your organization delivers many benefits.

Automate error-prone manual tasks.

Centralize and streamline system life-cycle management.

Manage license use and subscription agreement compliance.

Speed software installation, upgrades, and patching.

Improve security.

Decrease shadow IT.

Gain more value with enterprise-grade open source technologies

While standardizing on free, community-supported open source technologies may seem like a good way to reduce expenses, commercial offerings provide more value and can actually cost less over time.

Organizations that standardize on Red Hat's enterprise-grade open source solutions experience:

Greater IT staff productivity

$10,365

savings through staff time efficiencies[1]

Lower risks

$4,200

saved in reduced downtime[1]

Reduced IT infrastructure costs

$874

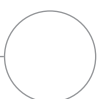saved through optimized licensing and training costs[1]

Increased business productivity

$1,756

saved through better business operations support[1]

* All savings per 100 users

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1 IDC White Paper, sponsored by Red Hat. "The Business Value of Red Hat Solutions and Cost Relationship to Unpaid Alternatives," July 2019. Document #US45045719.

Step 2

Modernize your software

Once you have standardized your operating environment, it's time to consider your software. Modern software can improve IT efficiency and innovation potential. It also prepares you to adopt cloud-native and container-based development practices for even greater agility. And it lays a foundation for hardware upgrades and cloud migration. In fact, software modernization can provide a 368% three-year return on investment.[2]

Key opportunities for software modernization

Operating system

Select an operating system that provides a cost-effective foundation for cloud agility and scalability while supporting your existing development projects.

$7 billion

saved annually by IT organizations that use an enterprise-grade open source operating system.[3]

Management tools

Deploy a single, centralized platform to increase control and proactively manage assets across your entire infrastructure.

38%
more efficient IT infrastructure teams.[2]

32%
lower three-year server infrastructure costs.[2]

Development platform

Build a virtualized environment that supports your current efforts while preparing for cloud-native and container-based development approaches.

34%
less time required to deliver new applications.[2]

21%
more productive development teams.[2]

Legacy solutions

Replace expensive proprietary platforms with enterprise-grade open source technologies that deliver increased elasticity, scalability, and cost efficiencies.

32%
lower IT infrastructure costs.[2]

63%
less unplanned downtime.[2]

2 IDC White Paper, sponsored by Red Hat. "The Business Value of Red Hat Solutions and Cost Relationship to Unpaid Alternatives," July 2019. Document #US45045719.

3 IDC White Paper, sponsored by Red Hat. "The Economic Impact of Red Hat Enterprise Linux: Trillions, Yes Trillions, of Dollars," May 2019. Document #US45007819.
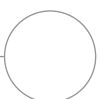
Step 3

Lay a foundation for cloud

Cloud computing offers a dynamic, powerful alternative to monolithic server purchases and disruptive datacenter refreshes. As a result, 82% of enterprises have a hybrid cloud strategy, and 92% have a multicloud strategy in place.[4]

By combining on-site, private, and public cloud resources, hybrid and multicloud environments deliver the agility, speed, and efficiency required for digital transformation. Add compute, storage, networking, and services as needed. Quickly access turnkey modern development environments. Eliminate complicated server and application management operations while maintaining security and control.

An optimized hybrid cloud environment can help you incrementally replace aging infrastructure — without downtime — to increase flexibility, stability, and efficiency. Automation — through built-in capabilities or a unified platform — is essential. Using automation, you can deliver self-service capabilities to IT users and lay a foundation for modern development techniques and approaches like DevOps and continuous integration/continuous delivery (CI/CD) pipelines.

91% of surveyed organizations reported that their move to public cloud is part of a larger digital transformation initiative.[5]

Cloud adoption is growing

Organizations of all sizes are moving workloads to cloud environments to gain agility, speed, and efficiency.

36% of organizations are expanding cloud initiatives to optimize IT operations.[5]

82% of enterprises have a hybrid cloud strategy in place.[4]

92% of enterprises have a multicloud strategy in place.[4]

**>50%** of global organizations use more than one cloud for development and deployment purposes.[6]

By 2022,
35% of production applications will be cloud-native, incorporating microservices, containers, and dynamic orchestration.[6]

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4 Flexera. "**Flexera 2021 State of the Cloud Report**," April 2020.

5 IDC White Paper, sponsored by Red Hat. "**Moving to the Public Cloud: The Strategic Role of Server Operating System Environments**," May 2020. Document #US46304220.

6 IDC InfoBrief, sponsored by Red Hat. "**An Open Approach to Digital Transformation**," July 2020. Document # US46635820.
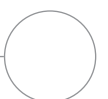
Step 4

Migrate where it makes sense

IT teams often continue to use familiar tools even as the value and innovation of those tools decreases. In many cases, current IT decision makers previously used those same tools. Modernization is an ongoing process that challenges decision makers to continuously assess and migrate to new solutions that offer greater IT and business value.

Common migration opportunities

Modernize your operating system.

Your operating system is the foundation of your IT environment and operations. It can have a significant impact on your IT efficiency and performance, as well as your ability to adapt and innovate.

Migrate to production-grade, subscription-based open source platforms like **Red Hat® Enterprise Linux®** to reduce costs, boost productivity, and gain more value.
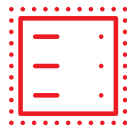
Migrate your virtual machines.

Legacy virtualization hypervisors can increase both cost and risk. They also lock you into a single vendor and platform and hinder migration of applications to cloud-native and container-based environments.

Choose a modern application platform—like **Red Hat OpenShift®**— that lets you run virtual machines in containers and integrates easily into hybrid cloud environments.

Upgrade to containers.

Container environments can help you build, deploy, and operate applications faster and with higher security. Even so, container adoption is often less than straightforward.

Look for production-grade, container-ready platforms that let you easily get started with containers and give you path forward to Kubernetes and advanced container development and deployment.

Read the **Experience Red Hat Enterprise Linux e-book** to learn more about the benefits of deploying a consistent operating foundation for your IT environment.
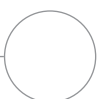
Ready to start your IT modernization journey?

IT modernization is about balancing change and budget.

Take the first step toward IT modernization by deploying a consistent, enterprise-grade foundation for hybrid cloud environments. A modern, cloud-ready platform will give you everything you need to optimize your virtualization environment, adopt cloud-native development approaches, and improve security and compliance. You can also free up budget for innovation to support your business in a digital world.

Learn how Red Hat can help you modernize your IT with hybrid cloud technologies: **redhat.com/hybrid-cloud**

Modernize faster with Red Hat experts.

Red Hat Consulting can help you deploy a modern IT environment faster. All Red Hat Consulting engagements begin with a half-day complimentary on-site discovery session. During these sessions, Red Hat experts work with you to identify your most pressing business challenges, viable approaches for overcoming them, and desired outcomes for your implementation.

Schedule a complimentary discovery session: redhat.com/consulting