Red Hat

Adopt a developer mentality

Automate your IT architecture with help from Red Hat Consulting

Automate at enterprise scale

Red Hat Consulting works alongside your organization to help you define, prioritize, and meet your automation business goals—whether you want to standardize, optimize, update, or completely migrate your existing automation infrastructure.

Automation is mission-critical for system administration

As IT architecture becomes increasingly complex, the role of the system administrator (sysadmin) is growing. Thanks to the advent of virtualization, public and hybrid clouds, and containerization, software-defined infrastructure is steadily replacing traditional physical infrastructure. This transformation has blurred the lines between what is programmable and what is not. The number of processes and systems requiring management has significantly increased as well. To effectively manage the ever-growing landscape of IT assets, tasks, and processes, implementing IT automation has become a necessary part of a sysadmin's job.

In order to implement automation effectively, sysadmin teams must learn to adopt a developer mentality and culture. Even though sysadmins are not application developers, the software-defined nature of modern IT means that it is beneficial for these teams to understand basic software development concepts. In addition, modern automation and configuration management have matured to the point where more sophisticated techniques are required to manage their lifecycles.

IT automation is all about increasing efficiency, which in turn helps organizations focus on innovation and achieving business goals rather than the manual processes required to manage and maintain their operating environment. Automation is necessary for IT teams to maintain velocity and uptime, and address vulnerabilities in a timely manner. Purely manual or human-controlled processes and systems have become a bottleneck—and companies without an automation strategy will fall behind.

For sysadmins, automation has become essential for establishing consistency in the operating environment, redeploying applications that have experienced problems, and increasing the pace of updates within the operating environment. Processes must be software-defined for greater efficiency because systems have become so interconnected, and greater collaboration and communication between teams is necessary.

Shifting to a developer mindset and learning development-focused skills will help sysadmins keep pace with IT automation and expand its use across their organization. This shift will not be the same for every organization, however. Bespoke solutions and support tailored to your organization's needs are necessary to help administration teams safely and effectively adopt development concepts.

Enhance your automation strategy with help from Red Hat

Red Hat® Ansible® Automation Platform is a flexible, scalable, and comprehensive solution that allows you to extend automation across your IT environment. Ansible Automation Platform can integrate into your existing IT systems and platforms so you can orchestrate essential workflows, optimize IT operations, and establish a foundation for adopting artificial intelligence (AI).

With Ansible Automation Platform, your organization can:

▶ Apply automation with a single, unified solution.

▶ Create automation more efficiently with developer tools.

▶ Use Event-Driven Ansible to automate IT actions with rule-based constructs.

▶ Enforce consistent security policies and configurations.

▶ Automate security responses to quickly identify and mitigate threats.

▶ Implement role-based access controls to make sure only intended users can run automation.

It is a simple process to get started with Ansible Automation Platform on your own. However, when running mission-critical automation workloads, access to expert guidance is essential for sysadmins to keep infrastructure online, scale across the enterprise while fostering a collaborative environment, and maintain options for rollback.

Red Hat Consulting can help sysadmins adopt a developer mentality

Red Hat Consulting provides tailored guidance and technical expertise to help organizations automate at scale. With knowledge in open source and a deep understanding of the nuances of implementing automation across a variety of environments and industries, Red Hat Consulting can help sysadmins avoid common pitfalls as they learn to develop automation and use Ansible Automation Platform to its fullest potential.

By working with Red Hat Consulting, sysadmins gain access to a number of benefits that can help ease their adoption of developer concepts as they learn to build automation into their operating environment.

Get strategic advice and product expertise

Collaboration between different teams is crucial for implementing modern automation effectively. Red Hat Consulting can bring an outside perspective to help bridge the gaps between traditionally isolated teams, facilitate communication, and break down barriers to teamwork.

Red Hat Ansible Creator Hub helps organizations achieve outcomes such as:

▶ Improved time to value and reduced complexity.

▶ Reduction in costs to adopt and scale automation.

▶ Greater consistency and reliability of automation code.

▶ Improved automation developer experience and governance.

Beyond the technical implications, it can sometimes be difficult to identify how an automation decision affects your business. Red Hat Consulting can help your organization look beyond the fine details to see the broader business outcomes of your automation strategy.

Red Hat Consulting also has deep product knowledge of Ansible Automation Platform, with a direct line to the Red Hat product team, which means that future product development is influenced by best practices developed while working with organizations in the field.

If your organization is new to Ansible Automation Platform, Red Hat Consulting can help you migrate to the platform and get started with automation.

Build a Red Hat Ansible Creator Hub

Red Hat Ansible Creator Hub is a shared development environment as a service, provided by Red Hat Consulting and delivered via Red Hat OpenShift® DevSpaces. It comes preloaded with tools to help accelerate onboarding and improve code quality.

▶ Expert help building a cohesive automation strategy and growing in automation maturity.

▶ Hands-on, immersive mentorship in proven open source practices.

▶ Recommendations for training courses to build skills and put your sysadmin teams on a practical learning path.

Ansible Creator Hub and other Red Hat content hub offerings can help your organization's sysadmins accelerate and improve their implementation of automation with:

▶ Single-click provisioning of standardized, security-focused development environments based on established best practices.

▶ Everything automation developers might need in a browser, including VS Code, development tools, Ansible Lightspeed, documentation, and more.

▶ Support for Ansible Automation Platform content development on Windows and Mac OS workstations.

▶ Centralized management and policy enforcement.

Develop technical skills and procedures

While working with your organization to establish good automation development processes, Red Hat Consulting can also help your sysadmin teams build the skill sets and practices needed to internalize a developer mentality.

Learn to use Git

Git is the modern standard for source and version control in IT, and being proficient in its use is essential for sysadmins seeking to adopt a forward-looking mindset and implement automation with Ansible Automation Platform.

If your sysadmin team is not already experienced with Git, Red Hat Consulting can provide mentorship and expert guidance so they can focus on creation and innovation.

Establish peer review practices

Making sure that new code has been carefully vetted is a key value of open source software development, and a critical component of adopting a developer mindset. Peer review is an important initial step for both creating effective automation content and deepening your team's capabilities.

By operating in "draft" mode, a developer can continue to make changes and improvements as peers make comments and suggestions. This process introduces trust into your automation strategy by ensuring that code is not developed in a vacuum. It also supports onboarding and training of new team members. Making sure code changes are recorded helps to promote an understanding of standard operating procedures for your organization's automation.

By helping sysadmins set up best practices for ongoing peer review, Red Hat Consulting can increase cooperation between team members and raise the overall quality of code by producing examples of heavily vetted software to use as templates.

Implement testing and CI/CD pipelines

Cloud-native and software-defined infrastructure is the new normal in the IT industry, and testing automation has become a critical part of that infrastructure. Unlike traditional physical infrastructure, software-defined automation can be implemented on a massive scale. While this is a significant benefit, it also means that if things go wrong, they can go wrong on that same large scale.

This makes testing new software and maintaining clear continuous integration and continuous delivery (CI/CD) pipelines essential for successfully implementing automation. That way, if a problem does occur, rolling back to an earlier build is a simplified process. Red Hat Consulting can help sysadmins establish comprehensive processes to review and test new code, and implement pipelines to make sure the automation they create is reliable.

Enforce shorter feedback loops

Red Hat Consulting can help sysadmins increase efficiency and avoid accidentally overwriting code while implementing automation by installing a precommit hook system.

Precommit hooks are Git hooks that run a set of tools to analyze new code in an automated manner and make sure no checks have been violated. In addition to providing quality control, establishing standardized precommit hooks helps to shorten feedback loops by catching errors earlier in development, increasing the efficiency and reliability of the code creation process, and promoting compliance with security policy standards.

Increase efficiency with AI

Red Hat Ansible Lightspeed helps teams learn, create, and maintain Ansible content more efficiently. This generative AI service accepts natural-language prompts entered by a user and then interacts with IBM watsonx foundation models to produce code recommendations, complete with sources and code explanations, built on established Ansible best practices.

Ansible Lightspeed can set sysadmins up for success by acting as a virtual consultant to facilitate adoption of automation and accelerate business outcomes. This allows experienced members of the automation team to focus on more innovative components as opposed to overseeing new automation developers as they ramp up. As you get started with Ansible Lightspeed, Red Hat Consulting can help onboard your automation teams, operationalize developer environments, and provide best practices so you can start automating quickly.

Build automation skills with Red Hat Training

While your sysadmin teams are receiving hands-on guidance on new developer concepts from Red Hat Consulting, they can also uplevel their skills simultaneously with Red Hat Training.

Through immersive training on Ansible Automation Platform, sysadmin teams can increase their consistency and efficiency, developing the skills required to confidently advance and scale their automation use.

Start your automation journey with Red Hat Consulting

Make the most of Ansible Automation Platform and provide sysadmin teams with the guidance they need to start automating your operating environment at scale. Speak to a Red Hatter to learn how to get started.

Employees who take Red Hat Training are **25-50% more efficient** in completing day-to-day-tasks.[1]

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1   Enterprise Strategy Group Economic Validation, Analyzing the Economic Impact of Red Hat Training, January 2024.

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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