Red Hat

The automated enterprise

Unify your people, processes, and technology through IT automation

Contents

IT automation is critical to business success

The pace and scale of modern business innovation continues to increase. Many industries are experiencing widespread, ongoing disruption. Digitally connected customers demand more at a faster pace. And new competition comes from outside of traditional market segments. These trends place competitive pressures on today's businesses.

IT organizations play key roles in helping their business succeed. However, many IT operations teams manage ever-changing, complex IT architectures built on multiple platforms and complicated technology stacks. Due to the maintenance costs and management complexity of their existing systems, these teams may struggle to adopt the new development methodologies and technologies needed to support innovation. At the same time, they are expected to operate faster to deliver the resources and services users demand. As a result, they are looking for new ways to streamline operations and manage complex infrastructure at scale.

Automation is the way forward

No matter the complexity of your environment or where you are on your IT modernization journey, an IT automation strategy can help you improve existing processes to better support critical business needs. Strategic IT automation can help save time, increase quality and consistency, improve employee satisfaction, and reduce costs throughout your organization.

Due to the wide-reaching value that it can deliver, strategic IT automation has shifted from a "nice-to-have" business option to a mission-critical requirement. In fact, 77% of IT professionals across industries consider IT automation to be critical to their business's success.[1] 77% also say that their organization is highly or fully dependent on automation today.[1] And 9 out of 10 anticipate using more or much more automation in the future.[1]

Benefits of IT automation

IT automation is essential to:

- Speed operations and development.
- Improve agility and responsiveness.
- Boost productivity and efficiency.
- Increase consistency and availability.
- Improve security and compliance.
- Free up staff time to focus on high-value, strategic initiatives and more interesting projects.

1 Red Hat primary research: Ansible mission critical study conducted by The Paragraph Project.

What is automation?

Automation is the use of software to perform tasks to reduce cost, complexity, and errors. It is prevalent in IT systems and business decision software and can also be found in other industries like manufacturing, robotics, and vehicle control.

IT automation uses repeatable instructions to replace high-volume manual work. This could be a single task, groups of tasks, or even a complex orchestration of tasks. Its key purpose is to help overburdened staff regain control and shift their focus from tedious day-to-day matters to strategic initiatives and more interesting and rewarding challenges. IT automation can help staff better perform their roles, advance their knowledge and skills, and increase job satisfaction.

Automation is for everyone

Automation can help you mitigate key issues across roles.

- **CIOs** need to reduce costs and risks across infrastructure, network, and engineering organizations.
- **IT operations leaders** need to ensure IT efficiency and resilience while reducing risk and delivering return on IT investments.
- **IT architects** need team-based solutions that work consistently and rapidly across technologies.
- **Platform engineers** need to control all aspects of the delivery chain while maintaining compliance.
- **DevOps practitioners** need a zero-downtime continuous integration and deployment platform.
- **Systems administrators** need tools that help them keep pace with increasing infrastructure scale.
- **Security analysts** need efficient ways to evaluate events and streamline remediation processes.

What can you automate?

You can automate anything that you can configure or manage yourself.

Automate:

- Applications
- Clouds
- Operating systems
- Containers
- Virtual infrastructure
- Artificial intelligence (AI) infrastructure
- AIOps
- Network devices
- Servers and storage
- IT services
- Edge

Accomplish:

- Security
- Compliance
- Configuration
- Deployment
- Delivery
- Orchestration
- Provisioning
- Scalability
- Ticket resolution

How can automation help?

Automation serves as a force multiplier for your teams, making work less complicated and more repeatable. You can address a variety of common IT challenges with automation:

- Errors, risks, and high costs associated with routine tasks and manual processes
- Consistency and accuracy of actions, regardless of staff skills
- Difficulty performing operations at scale
- Slow time to value for applications and services
- Inefficient workflows and operations
- Trouble keeping pace with increasing changes, demand, and infrastructure size
- Lack of time to focus on high-value initiatives
- Disconnects between teams using multistep processes to solve common issues

Do more with event-driven automation

Event-driven automation is the next step in the journey to end-to-end IT automation. It responds automatically when specific events or conditions occur in your IT environment. Event-driven automation receives information from third-party observability and other tools, decides which actions to take, and initiates predefined actions based on conditional rules.

By automating responses to events like network or system slowdowns, security risks, configuration drift, changing infrastructure conditions, and new service ticket entries, you gain the flexibility to create innovative, complex workflows across your environment. With a more proactive and responsive approach to complex IT challenges, you can achieve greater consistency, accuracy, and resiliency while re-envisioning the IT workday.

Transform your organization through enterprise-wide automation

Many organizations already automate IT operations in discrete areas using inflexible ad hoc scripts, proprietary and device-specific tools, or an array of single-function and vendor-specific management tools. While these approaches may speed specific tasks, they do not scale across diverse, multivendor environments or cross-domain processes and can make it difficult to share automation expertise throughout your organization. Additionally, it's often difficult to update and extend these types of automation as technologies evolve and new requirements emerge.

An enterprise approach can help you realize the full value of automation for modern, digital operations. Enterprise-wide automation allows your organization to manage complex environments more readily, gain visibility into your operations, rapidly respond to changing conditions in your IT environment, and integrate new technology and processes more effectively. This supports increased business agility, resilience, innovation, and value.

Transformation requires automation

Deploying automation across your organization can help you transform to support modern, fast-changing, digital business. No other IT technology can affect all aspects of transformation:

- Maintenance and change management
- End-to-end automated response
- Self-service solutions
- Skills and talent
- Standardization and scale
- Continuous delivery
- Operational complexity and costs

Explore **Red Hat® Ansible® Automation Platform: A beginner's guide** to help your organization solve enterprise IT challenges across hybrid cloud infrastructure.

Enterprise-wide automation involves your people, processes, and platform

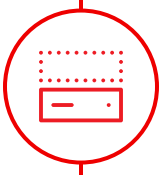
Automating across your organization requires more than just tools—you also need to consider your people, processes, and platform.

People

People are at the core of any enterprise-wide initiative, and automation is no different. To adopt automation across your organization, all teams—including line of business, network, security, operations, development, and infrastructure—must be on board and ready to learn new concepts and skills.

Processes

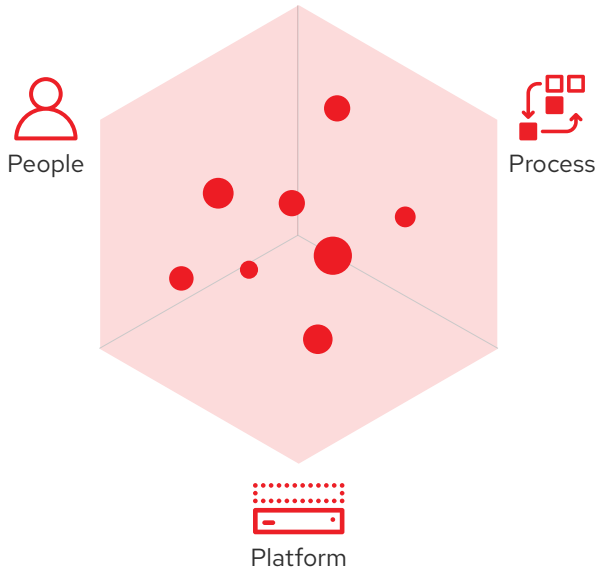
Processes move projects within your organization from start to finish. Clear, documented processes for creating, deploying, managing, and adapting automation and automation content are essential for broad adoption and ongoing use.



Platform

An automation platform provides the capabilities for building, running, and managing your automation. In contrast to simple automation tools, an automation platform gives your organization a unified foundation for creating, deploying, and sharing consistent automation content and knowledge at scale.

Enterprise-wise automation relies on a combination of people, processes, and a platform. Each factor has a significant effect on your automation outcomes. Successful automation requires you to address each element.



Automation tool or automation platform?

Though they may seem like the same thing, automation platforms and tools have contrasting characteristics that can be the difference between efficient enterprise-wide adoption and unorganized, disparate automation efforts.

Tools are effective only for individual and point automation. They do not provide the connection and management capabilities needed for enterprise-wide automation.

Platforms provide a unified foundation for multiple people to automate consistently. They deliver a means for efficiently managing and sharing automation content across an organization.

The value of automation by the numbers

Red Hat Ansible Automation Platform unites people and processes on a flexible foundation to deliver value across your organization:

36%
higher development team productivity[2]

68%
faster deployment of new compute resources[2]

23%
faster time to market for new products and services[2]

61%
reduction in unplanned downtime[2]

668%
3-year return on investment (ROI)[2]

US$8.54 million
higher revenue per organization per year[2]

*2 IDC White Paper, sponsored by Red Hat. "**The business value of Red Hat Ansible Automation Platform.**" Document #US51839824. March 2024.*

Create a strategy for adopting automation across your organization

You need a sustainable automation strategy and roadmap to guide your journey. Building your strategy requires assessment, intentional planning, and adaptation.

Identify your business objectives

Connect automation efforts with business challenges and goals. This helps you identify where to automate and create top-down requirements for success. For example, you could automate patching to boost system security and stability and meet business needs for higher uptime. Automation can also help restart cloud migration initiatives that have stalled.

Align your automation to your top business objectives

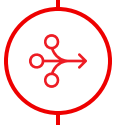
Assess your current automation efforts to make sure they align with your objectives. Automation efforts that do not help you achieve your business goals are inefficient and can actually hinder adoption and effective use throughout your organization. In general, expanding your organization's adoption of automation has less to do with the total number of tasks or systems automated than whether your automation projects are delivering the right results.

Encourage cross-team collaboration and coordination

Build an automation community of practice to allow teams to share ideas and automation content and promote the creation of cross-functional workflows that deliver more value. Working with others also helps to cultivate shared ownership and accountability for automation.

Centralize your automation content

Build a centralized repository for trusted automation content. Each team should create automation content in their area of expertise and contribute it to the repository for use by other teams. Using a central repository ensures trust and confidence in your automation, and reduces reliance on content from public repositories.



Consolidate disparate tools

Choose an automation platform that provides a unified foundation for collaboration, tools, and content across your organization. Using standardized tools and resources across teams speeds onboarding, increases consistency in your automation, and encourages teamwork.

Start your journey to automation success

Once you have your automation strategy defined, it's time to get started. Start small, show value, expand conservatively, and repeat. Work to accomplish incremental successes over short periods of time. For each win, promote the value of automation and share your experience across your organization. This establishes a base for others to build upon your experiences and deliver even more value.

Identify and celebrate success

Successful automation delivers measurable business value by moving your organization from operational efficiency to organizational effectiveness. Save time and free up staff to focus on strategic work. Increase productivity and employee satisfaction. Improve the quality of infrastructure, applications, and products. Reduce costs and overcome complexity.

The specifics of automation success will look different for each organization, but the common themes are:

- Multiple teams within your organization create and share automation content in a consistent, standardized manner.
- Teams can manage their resources more effectively and focus on key priorities with their existing staffing level.
- Expertise across your organization is codified in your automation library.
- Responses to common events and changing conditions can be handled automatically without manual intervention via advanced techniques like event-driven automation.

How to define automation success

There is no single way to measure automation success—each team has unique characteristics and ambitions. Create realistic goals that align with your organization's current skills while encouraging teams to learn and expand their abilities. Examples of long-term automation success include:

- **Adoption** across your enterprise, from vision to execution, with an emphasis on simplicity and shared knowledge.
- **Accountability** with each staff member taking responsibility for their individual goals.
- **Governance** through prescriptive processes that accomplish goals and produce repeatable results.
- **Security** with a simplified pipeline, repeatable and reusable practices, proactive vulnerability resolution, and automated investigation and response to incidents.
- **Standards** that provide the foundation and extensibility needed to achieve organizational and team goals.

Prerequisites for starting your automation journey

Before you begin automating, prepare your organization for success with the following steps.

1

Understand your inventory

How are your IT assets organized and managed? Identify which assets you have, how they are configured, and how you will keep track of them over time.

2

Define a source control repository

How will you track changes to your automation content? Create consistent, security-focused methods for recording and controlling changes to your assets.

3

Train your staff

Does your staff have the skills they need to automate successfully? Train your staff on concepts like source control, testing protocols, and best practices.

4

Make use of platform features to speed adoption

Does your automation platform include tools to help your teams start automating in less time? Be sure to make use of features and capabilities that help teams adopt automation with less effort. For example, generative AI (gen AI) code creation capabilities can help teams write and maintain automation content more efficiently.

Where can you start automating?

Common places to start your automation journey include:

1. Read-only tasks.
2. Inventory creation.
3. Tedious manual tasks.
4. Frequently requested tasks.

Enterprise-grade automation platforms often include features to help you get started faster. Look for platforms that include features like gen AI code creation and certified predefined automation content to streamline adoption across your organization.

Explore common automation use cases

Automation adoption is a journey, so you can start with a single use case and expand at a pace that works for your organization.

This chapter gives an overview of common automation use cases to help you explore the benefits of automation within your organization.

In this chapter:

Operating system automation

Most IT organizations manage a growing number of Red Hat Enterprise Linux® or Microsoft Windows servers. Teams that manage operating systems face a complex mix of compliance, configuration, and deployment tasks, among others. With limited time and staff, IT teams often struggle to keep pace with this growth, resulting in delayed updates, patching, and deployment. Applying automation to common management tasks across the full operational lifecycle—including provisioning, configuring, deploying, and decommissioning—simplifies operations at scale, so you can gain visibility into and control over your Linux and Windows environments.

Manage Linux and Windows configurations

IT environments contain different operating systems. Consistently managing all of these manually can lead to lost productivity, higher maintenance costs, and less time for innovation and high-value projects.

How can automation help?

Automation gives you predictable and repeatable processes for managing configurations and performing tasks across the operating systems you rely on to improve consistency and reduce unplanned downtime.

Do more with event-driven automation

Using alerts and latency data, event-driven automation can constantly adjust allocated resources and scale storage and processing to meet user and application demand.

> Ansible Automation Platform means the university won't lose time on building, configuring, testing, maintaining, and decommissioning environments manually. Its engineers can code once and run playbooks, which is more efficient and eliminates manual errors.
>
> **Eileen O'Mahony**
> General Manager, WM Promus
>
> Read the **success story**.

Maintain more systems with your existing staff

IT teams do not usually grow in size at the same pace as the infrastructure they manage. Teams often struggle to maintain increasing responsibilities with their existing staffing levels.

How can automation help?

Automation helps teams manage large, complex IT infrastructures with their current staff. It can free your staff from tedious, time-consuming tasks and allow them to focus on more rewarding and strategic projects.

Do more with event-driven automation

Event-driven automation can respond instantly—and in compliance with policies—to events like new service ticket entries, user administration requests, identified security threats, and resources reaching capacity thresholds. It can also proactively automate tasks like creating backups, gathering facts, and provisioning and scaling resources to free staff time. Look for platforms that integrate with your ITSM tools like ServiceNow to make the most of event-driven automation.

> With Red Hat Ansible Automation Platform, my colleagues can focus on strategic initiatives instead of firefighting all the time. They love having more time for exciting tasks.
>
> **Michael Johnson**
> Principal Automation Engineer, Xylem
>
> Read the **success story**.

Virtual infrastructure automation

Virtual machines are a key foundation for a wide range of applications. Even so, each virtual machine is associated with infrastructure like networks and storage that can complicate management processes. Automation can help you manage this complexity across the full virtual machine lifecycle, from provisioning, ongoing patching, and health checks to service tickets and final decommissioning.

Provision virtual machines in less time

Virtual infrastructure management teams often struggle to provision virtual machines quickly enough to meet the needs of development and other teams.

How can automation help?

Automation can help you orchestrate the process of deploying new virtual machines and their related infrastructure, while aligning to compliance processes.

Do more with event-driven automation

Using event-driven automation, you can set up self-service solutions for creation of virtual machines within defined limits. It also helps you automatically adjust processing and storage resources to meet current application demands. You have the flexibility to design both the virtual infrastructure conditions for automated response and the response itself. For example, you can respond to security risks by shutting down virtual resources while you investigate the risk.

Migrate virtual machines at scale

For a variety of reasons, you may want to migrate your virtual infrastructure to a new platform.

How can automation help?

Automation can help you complete these migrations at scale, including the related infrastructure that goes along with each virtual machine.

Cloud automation

Cloud environments add an additional layer of complexity to infrastructure, network, application, and user administration. IT teams need to manage both on-site and cloud-based environments, often using specialized management tools for each. As a result, it can be nearly impossible to effectively maintain, track, scale, and safely manage resources and applications by hand. Automation can unite hybrid and cloud management under a single set of processes and policies to improve consistency, scalability, and speed.

Scale multicloud environments

Each cloud provider offers specific tools for operating and managing their own cloud resources. These tools rarely interoperate directly with each other, requiring IT teams to provision, administer, and maintain each cloud differently.

How can automation help?

Automation can help you manage multicloud environments more consistently. You can create automation that codifies resources across all of your clouds and offers a common process for a given operation, regardless of the cloud involved.

Do more with event-driven automation

Event-driven automation can observe and analyze hybrid and multicloud resource use to help manage public cloud spending and ensure that cloud resource consumption complies with corporate policies.

The **UK Department for Work and Pensions (DWP)** adopted Ansible Automation Platform to deploy development, test, pre-production, and production environments on-site and in the cloud.

Cut deployment times from 50 minutes to

10 minutes

Read the **success story**.

Integrate private cloud environments

Hybrid cloud environments combine both on-site and cloud platforms, resources, and tools. This variety can make it difficult for IT teams to integrate and support both infrastructures consistently.

How can automation help?

A flexible automation platform lets you apply the same automation code to existing on-site systems, current cloud resources, and future assets, ensuring consistency and providing a layer of operational integration.

Do more with event-driven automation

Event-driven automation can manage cloud-native workloads from deployment to retirement and help optimize resource use across hybrid cloud environments.

AIA Group migrated 90% of its workloads to the cloud using Ansible Automation Platform to eliminate manual processes while improving security and compliance.

18 months

to migrate 50% of IT infrastructure to the cloud

Read the **success story**.

AI infrastructure automation

Enterprises face increasing pressure to adopt AI technologies, but implementing and maintaining AI tools brings significant infrastructure challenges. Companies need consistent, highly available computing power, network bandwidth, and storage capacity to ensure the reliability of AI operations and support growing demand for customized model training. Additionally, because the data handled by AI applications is often sensitive, data security, compliance, and privacy are imperatives.

Automation can help you streamline your IT infrastructure to boost AI workload performance, while also using AI to optimize your technology stack. You can set up and configure AI services, install and manage different models, configure graphics processing units (GPUs), and coordinate different parts of your infrastructure.

Standardize AI deployment

To support AI deployments, IT environments require a variety of components like operating systems, servers, storage, models, containers, and data and networking resources. Manually managing deployment can be time consuming and lead to inconsistencies and configuration errors or discrepancies.

How can automation help?

Automation promotes uniformity and reliability across AI environments. You can also use a standardized deployment as a blueprint for your business continuity and disaster recovery plans and operations.

Manage data for AI model training

One of the most difficult tasks in training AI models is getting data from where it's created to a location where it can be used for training, without compromising security or privacy.

How can automation help?

Automation helps move data from servers to storage within a region to improve data security and ensure the data is accessible to only the appropriate users for training AI models.

Integrate monitoring and alerts

As part of ongoing operations, you must ensure that AI solutions remain performant and operational. You must also maintain security as you train models and deliver AI-based applications to end users. Organizations often have monitoring tools in place, but teams typically analyze and remediate issues manually.

How can automation help?

Using automation, you can set up monitoring on AI infrastructure components and establish threshold levels and alert rules to identify and remediate specific issues without manual intervention.

Do more with event-driven automation

By integrating performance metrics, logging, and system health observability tools, event-driven automation can help proactively identify and address potential issues, preventing disruptions.

Network automation

Even as underlying technologies have evolved, network management has remained largely the same. Networks are typically built, operated, and maintained by hand. However, traditional, manual approaches to network configuration and updates are too slow and error-prone to effectively support the needs of rapidly shifting workload requirements. Automating network resource and service management allows network operations teams to become more agile and flexible and effectively support modern business demands.

Ensure network configuration consistency

Manual network configuration can result in inconsistencies, misconfigurations, and network instabilities, making it difficult to deliver the high level of service needed for digital business operations.

How can automation help?

Automation helps you standardize network management processes to enforce best practices. Network operations teams can promptly and efficiently deliver services at scale and reduce mean time to recovery (MTTR) for service interruptions.

Do more with event-driven automation

Event-driven automation can combat configuration drift by aligning network resources to the latest released configurations and policies. By proactively fixing potential issues, you can prevent many of the outages that result in after-hours calls.

Southwest Airlines automated management of around 5,000 network devices, switches, and load balancers to save time while reducing risk and accelerating innovation.

>5 months

saved in building and testing network access control (NAC) configurations

Read the **success story**.

Streamline application load balancing and failover

Application loads must be balanced across infrastructure to optimize performance and costs. Manually balancing loads can lead to poor application performance and delay failover when system problems arise.

How can automation help?

Automating your load balancers eliminates the need for manual intervention, permitting faster ongoing adjustments and failover for improved application performance and reliability.

Do more with event-driven automation

By observing metrics like bandwidth, throughput, latency, and packet loss, event-driven automation can optimize network and workload resource performance to help applications deliver the best possible user experience. You can also ensure that revenue-generating applications are aligned with needs and demand.

Automated application delivery

To innovate at speed, development and operations teams must collaborate to move ideas and projects from development to production in less time and more efficiently. This involves more frequent changes to code and more dynamic infrastructure use. Automation helps you accelerate processes by orchestrating tasks for cross-functional teams and across multiple application delivery stages like development, test, and production. Your teams can work together to codify complex processes into orchestrated, automated workflows, then reuse that automation to streamline overall application delivery operations.

As a result, you can more easily scale environments and build continuous integration/continuous deployment (CI/CD) workflows to support rapid, agile application and service development and launch. And automation platforms that include gen AI code creation capabilities can help your teams write, adopt, and maintain automation content even more efficiently. Gen AI models trained on large, automation-specific data sets can help staff become more productive with trusted, accurate automation code suggestions.

Provision environments

Applications require a variety of supporting technologies that are often deployed in hybrid cloud environments. Provisioning and deploying changes to these complex environments can be time-consuming and requires expert knowledge for each component.

How can automation help?

Applying infrastructure as code (IaC) approaches with automation allows your IT team to provide self-service capabilities and rapidly deliver preapproved resources and configurations in cloud environments or in on-site datacenters, all without manual intervention.

Do more with event-driven automation

To expedite application delivery even further, event-driven automation can take immediate action—for example, gathering and storing inventory information as new resources are provisioned, ensuring that certificates are available for those resources, and scaling processing resources to meet application demand and reduce bottlenecks—as specified milestones or conditions are met.

The City and County of Denver, Colorado, automated provisioning, application deployment, and configuration management for its Microsoft Teams deployment to support more than 15,000 employees working from home.

514% increase

in Microsoft Teams use supported

Read the success story.

Accelerate development

Developers need IT resources to create, test, and deploy new applications and services. Manual IT operations can delay resource and service delivery and impede proof-of-concept performance, resulting in slower development.

How can automation help?

Combining application programming interface (API)-centric design with automation reduces the time it takes your IT team to deliver foundational technologies, supporting rapid proofs of concept, development, testing, and deployment into production.

Do more with event-driven automation

Event-driven automation lets you incorporate more tasks like automatic, self-service resource provisioning and workload deployment in your CI/CD pipeline to further speed application development and deployment workflows.

> Ansible Automation Platform means our end users—the development and test teams—are getting new functionality and defect fixes rolled out much more frequently.

Robert Brooks
Lead DevOps Engineer at Business Payment Systems, Department for Work and Pensions

Read the success story.

Automated AIOps

AIOps integrates observability, AI, and automation to improve or partially replace a range of IT operations tasks, helping your teams boost reliability, scalability, and agility in increasingly complex environments. Many of the tools in your technology stack may have built-in predictive AI features. To get the most value from this intelligence—using it to reduce risk or prevent IT service interruptions, for example—you need to be able to act on it immediately.

Automation can help you integrate AI capabilities with systems and tools across your entire infrastructure. Event-driven automation in particular can help you implement effective AIOps. By embedding your current AI solutions into larger IT workflows, you can use event-driven automation to turn observability data into automated action.

Build self-healing infrastructure

Automatically identify and remediate potential issues like performance degradation, configuration drift, or security vulnerabilities before they impact operations and users. You can use event-driven automation to look for specified alerts or events from defined observability tools and sources, then automatically start the appropriate workflows in response. For example, you might monitor the processor or memory use on a server and set up an alert that prompts you to add more resources when the server approaches a predefined use threshold of 80%.

Enrich support and incident tickets

Automatically add context and information, and optionally take initial actions, when support and incident tickets are created. You can use event-driven automation to collect incident and state data from IT observability solutions, enter this information into the service ticket, and begin to remediate or mitigate the situation as desired. It can even create additional tickets based on predefined conditions. This saves time and effort for IT infrastructure engineers, who can start troubleshooting issues immediately, and reduces overall mean time to resolution (MTTR) for tickets and incidents.

Mutua Madrileña implemented Dynatrace for intelligent observability, which uses AI to proactively identify unusual patterns. The company uses the Event-Driven Ansible feature of Ansible Automation Platform to resolve incidents and recover applications.

50% reduction

in the number of service tickets received across approximately 60 managed applications

Read the **press release**.

Automation at the edge

Organizations are doing more at the edge of the network, closer to where data is generated, services are used, and end users interact with systems and devices. Managing remote and dispersed edge locations can be challenging without automation. With automation, you can ensure more consistent positive customer experiences and minimize downtime during critical operations, ultimately saving time and money.

Automation at the edge helps organizations respond to business needs by automating processes to discover, decide, and take action. Ansible Automation Platform uses containerization to distribute and run automation across environments. This design makes running automation in environments with limited resources possible—letting you automate better at the edge.

Automation at the edge can help your organization:

Increase scalability.

Apply configurations consistently across your infrastructure and scale edge devices more quickly.

Reduce downtime.

Simplify network management, reduce network failure, and boost your bottom line.

Boost agility.

Adapt to changing customer demands using edge resources only as needed.

Improve efficiency.

Increase performance and reduce human error with automated analysis, monitoring, and alerting.

Focus on security and safety.

Run updates, patches, and required maintenance automatically without sending a technician to the site.

Respond faster.

Deliver optimized user experiences with automated workflows based on real-time data and events.

Discover more about how automation at the edge can help different industries.

Read the e-book.

Ensure success with Red Hat

Red Hat Consulting can help you automate your enterprise more efficiently and in less time. Our experts provide you with a framework for managing an organization-wide automation adoption journey. Red Hat Consulting works with you in all stages of automation adoption, from introducing techniques and technology, to aligning teams on standard practices, to orchestrating powerful workflows aligned to your evolving business objectives.

Steps for automation success

1. **Discover your quick-win opportunities**

   Define a strategy to identify organizational objectives and address process, tool, and skills gaps with measurable outcomes. Select a single process or area to start with.

2. **Build a pilot that gets noticed**

   Automate and deploy into production an initial set of workflows, managed by a select team using Ansible Automation Platform. Use your pilot to demonstrate meaningful results on your business and IT.

3. **Integrate your initial success**

   Based on your initial experience, integrate standardized workflows with other operational or business support systems for increased oversight, orchestration, or benefits.

4. **Accelerate your automation adoption**

   Create a CoE or CoP, based on your adoption core team, to guide other teams in applying standardized automation approaches across projects and processes.

5. **Optimize and move toward an automation-first culture**

   Continually evaluate your practices and launch, combine, and enhance workflows and orchestrations to meet changing requirements as your organization introduces new technologies and solutions.

> If we were going to invest in a new approach, we needed to ensure our teams were given the right knowledge and skills to support it. Red Hat Consulting was a great partner in our learning.[3]
>
> **Pierre-François Liozon**
> Unix Team Head,
> Crédit Agricole Group Infrastructure Platform (CA-GIP)

Read the e-book

3 *Red Hat case study. "Crédit Agricole Group Infrastructure Platform (CA-GIP) scales automation with Red Hat," May 2022.*

A platform for the entire automation team

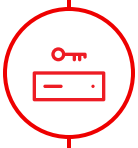
Automating at scale requires a top-down strategy that includes investments in time, technology, and people. Make the most of that investment and stay ahead of the competition with Ansible Automation Platform. It will help your organization operate more efficiently, reduce costs, and free up more time for innovation.

Ansible Automation Platform helps organizations adopt a culture of collaborative automation by delivering a consistent experience everywhere, based on features tailored to the needs of the entire IT team.

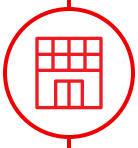
With Ansible Automation Platform:

IT managers and architects can more readily expand automation across their enterprise, while managing policies and governance. They can also plan, measure, and track automation performance with automation analytics and Red Hat Insights.

Automation developers retain the freedom to build, without the operational overhead of maintaining many tools and frameworks. **Red Hat Ansible Lightspeed with IBM watsonx Code Assistant** and **Ansible development tools** and features help teams create, test, and deploy automation content accurately and in less time.



Administrators and operators can manage, deploy, and share automation more efficiently using powerful tools in automation controller and automation hub. Users can get started with automation in less time, while ensuring governance and control.



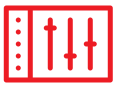
Your organization can tackle automation challenges, including network and security automation, cloud infrastructure provisioning, configuration management, CI/CD, containers, and beyond.

Move your business forward with Ansible Automation Platform

As a foundation for building and operating automation services at scale, Ansible Automation Platform delivers the tools and features you need to implement enterprise-wide automation. It's engineered to help you **create**, **manage**, and **scale** your automation workloads. It offers a flexible, stable, and security-focused foundation for deploying end-to-end automation solutions, from IT processes, to hybrid cloud, to edge locations.

Create

Get started in less time by accessing Ansible's prebuilt, certified, and trusted roles, plug-ins, and modules. Codify your infrastructure and share automation assets across teams and individuals to deploy and manage infrastructure on site or in a cloud environment.



Manage

Standardize how automation is deployed, initiated, delegated, and audited. With automation controller, users from multiple teams can reliably and consistently scale automation on demand, taking a systematic approach to standardizing automation practices while helping to reduce automation irregularities across your enterprise.

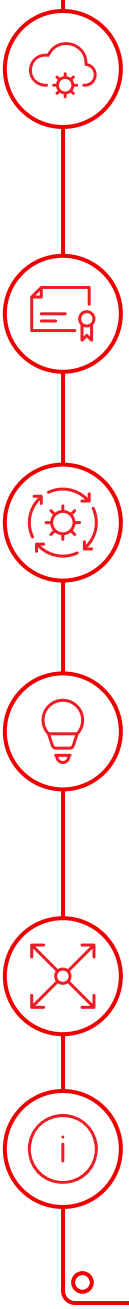
Scale

Extend your automation to multiple domains and across different use cases. Stakeholders on developer, operator, and line-of-business teams can engage with automation in ways that work best for them and make sense for their individual roles without slowing development time.

No matter where you are in your automation journey, Ansible Automation Platform can help you increase agility, improve productivity, and get to market faster.

Everything you need to deploy enterprise-wide automation

Ansible Automation Platform makes it possible for users across an organization to share, vet, and manage automation content by means of a simple, powerful, and agentless technical implementation. IT managers can provide guidelines on how automation is applied to individual teams. Meanwhile, automation creators retain the freedom to write tasks that use existing knowledge, without the operational overhead of conforming to complex tools and frameworks. It's a more reliable and stable foundation for deploying end-to-end automation solutions, from a hybrid cloud to the edge of your infrastructure.



Cloud-native

A containerized architecture and ecosystem integrations that support hybrid cloud deployments by offering consistent, reliable performance and true interoperability across vendors, clouds, and environments

Trusted

A more reliable, enterprise-wide solution fully supported by Red Hat that gives IT teams more time to focus on business needs with innovation and agility

Holistic

An efficient, comprehensive platform for true end-to-end automation that helps organizations accelerate business outcomes and ROI

Intelligent

Real-time, actionable visibility into the security and overall health of an organization's network with proactive monitoring, optimization, and compliance through Red Hat Insights and automation analytics

Scalable

A foundation to build and operate automation at scale, with visibility, control, and adaptability

Event-driven

Capabilities to respond to observed events in a predetermined way to support a proactive approach to Day 2 operational management

Expand your automation workflows

Ansible Content Collections offer more than 170 prebuilt modules, roles, and more from industry-leading partners. Red Hat Ansible Certified Content Collections help jump-start integration with these partner platforms and Ansible validated content provides an opinionated path for performing operational tasks.

Key partner integrations include:

- Amazon Web Services (AWS)
- Cisco
- CyberArk
- Dell Technologies
- Dynatrace
- F5 Networks
- Google
- IBM
- Microsoft
- Palo Alto Networks
- SAP

Ansible Automation Platform brings together people, processes, and a platform for enterprise-wide automation.

People

- Line of business teams
- Network teams
- Security teams
- Operations teams
- Development teams
- Infrastructure teams

Process

- Standards
- Collaboration
- Sharing
- Reuse

Platform

Red Hat Ansible Lightspeed

Create, adopt, and maintain automation content with a generative AI service.

Ansible Content Collections

Deploy automation rapidly with ready-to-use content from more than 50 partners.

Ansible automation hub

Access certified automation content via a centralized repository.

Automation analytics and Red Hat Insights

Plan, track, and measure your automation performance.

Automation controller

Manage and scale your automation through a centralized control plane and user interface.

Automation execution environments

Automate cloud provisioning, configuration management, application deployment, intraservice orchestration, and other IT needs using a straightforward automation engine.

Event-driven automation

Respond in a predetermined way to events from sources throughout your IT environment, based on a comprehensive, flexible ruleset.

Learn more

Succeed with automation

Advance innovation

Learn how automation helps organizations adapt to change and advance innovation across industries.

Read the **Innovate with automation e-book** to discover how 4 organizations moved their business forward.

> A more productive business is a more competitive business. We have been able to dedicate the equivalent of 18 months of 1 employee's work to more rewarding, strategic projects within the IT department.[4]
>
> **Francisco José Martín**
> Automation Manager, Department of Exploitation and Operation, Cepsa

Lead automation across your organization

Learn about the emerging role of the automation architect in adopting an automation-first mindset and achieving a range of business, financial, and transformation goals.

Read **The automation architect's handbook** to understand the steps required to lead an organization toward an enterprise-wide automation strategy.

Accelerate AI, automation, and innovation

Discover how automation and gen AI can help you improve processes and support innovation initiatives while helping to combat common IT challenges.

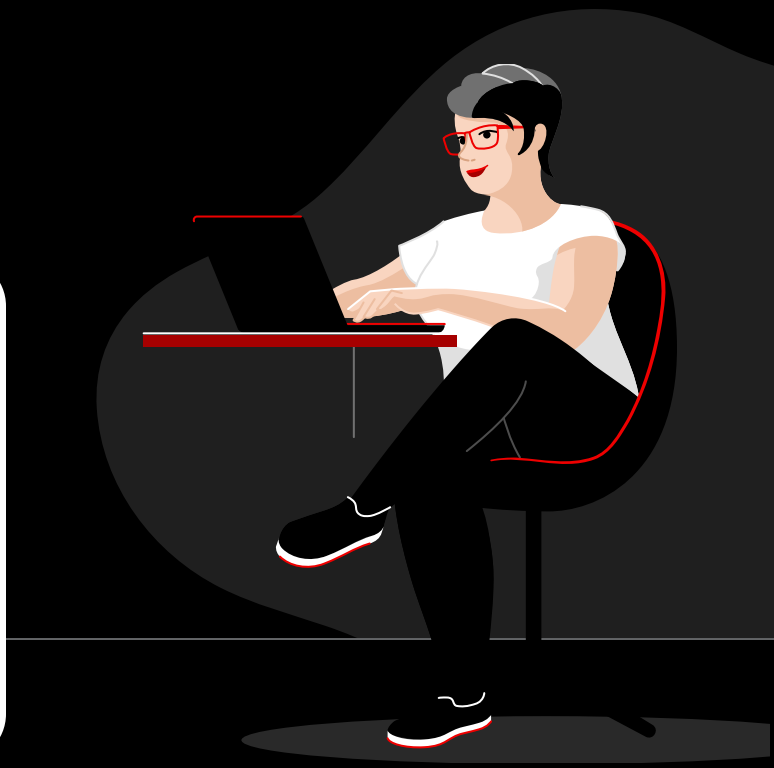
Read the **Accelerating AI, automation, and innovation in modern enterprises analyst report** to see how you can address modern IT challenges through strategic automation.

*4 Red Hat case study. "**Cepsa boosts efficiency with Red Hat Ansible Automation Platform**," May 2022.*

Ready to start your automation journey?

Digital business requires automation. An enterprise-wide automation approach can help you save time, increase quality, and reduce costs. Red Hat provides an automation platform and expertise that empower your organization to boost business agility, innovation, and value.

- **Get started with Ansible:** redhat.com/ansible
- **Learn more about IT automation:** redhat.com/it-automation



Find your starting point

Knowing where to start is key for adopting any new technology. If you're ready to begin your automation journey, check out our resource repository to learn how to build new automation skills, strategically extend your automation to new use cases, and share best practices across your organization.

Access resources

0325_KVM

Red Hat