Red Hat
Ansible Automation
Platform

From patchwork to **platform**

Is your organization ready to graduate to Red Hat Ansible Automation Platform?

Contents

Introduction

As the complexity of modern infrastructure, application, security, and hybrid cloud environments escalates, automation has become even more mission-critical for IT organizations.

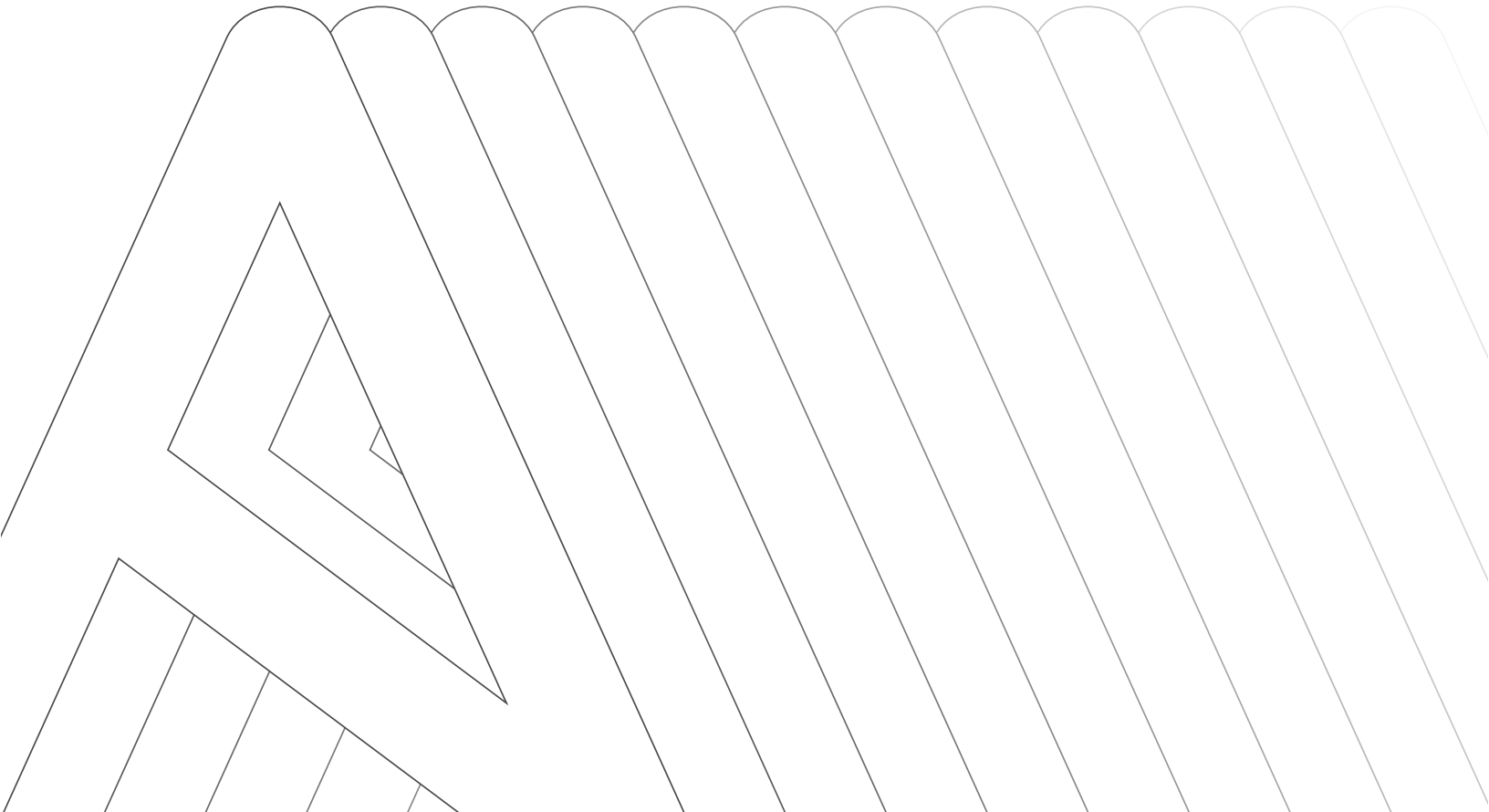
Given the intricate relationships and dependencies that exist among these various complex environments, a unified automation platform supported by a scalable automation strategy is essential.

When the leadership of an IT organization looks to adopt an automation solution, it's crucial that it not only addresses the organization's current requirements, but also accommodates future expansion. Furthermore, a rigorous financial analysis is required to discern the true return on investment (ROI), factoring in both tangible expenses and harder to quantify benefits, such as boosted productivity or employee satisfaction.

Maintaining a strong security focus is also a top priority. The new solution must not create additional vulnerabilities, deviate from established industry regulations, or compromise the company's data protection protocols.

When weighing these major choices, Ansible®—the de facto industry standard for IT automation—will likely emerge as your primary option. Your next decision is which solution is best for your business: the community-developed version of Ansible or Red Hat® Ansible Automation Platform?

The levels of support, range of extended capabilities, and intended use cases differ significantly between these 2 solutions, despite the common core that they share. In this e-book, we will examine **how Red Hat Ansible Automation Platform differs from upstream Ansible**, **and how it offers powerful options for organizations that use mission-critical automation to maximize their ROI while maintaining scalability and security.**



CHAPTER 1

What's the difference between upstream Ansible and Red Hat Ansible Automation Platform?

Ansible is at the heart of many organizations' efforts to implement automation at scale. Its agentless nature facilitates streamlined automation, allowing for modern businesses to provision software, deploy applications, support configuration management, and perform numerous other automation tasks.

And at the core of Ansible is an open source project, meaning it's free to use and can be modified by anyone. This version of Ansible receives updates and new features from a broad community of developers, and its source code is publicly accessible. Users are free to contribute and make changes to the project.

However, there is no support, security testing, interoperability or lifecycle guarantees for the software beyond the community.

This means there are no guaranteed response times or service-level agreements (SLAs), and no enterprise features such as security controls and logging or auditing. It also means there is no generative artificial intelligence (gen AI) to help craft efficient and consistent automation code more quickly. This upstream version of Ansible is best used by individuals or small teams with direct security access to machine endpoints they are automating, and who are committed to the toil and time needed to provide their own support and maintenance.

Upstream Ansible is not suitable for mission-critical automation.

The upstream project is often where users start getting familiar with Ansible and grow their own competency with the project and with automation in general. It is often good for learning to automate or experimenting, but isn't suitable for mission-critical automation.

There are additional upstream open source projects within the Ansible ecosystem, such as "AWX," that offer a user interface (UI) and the ability to create role-based access controls (RBAC), audits and logs, advanced workflows, job scheduling, and other features. However, with all upstream Ansible projects, it's important to remember they were not developed as a standalone software project or with the mission-critical needs of businesses in mind.

Upstream projects are not, for example, concerned with secure software supply chains, or orchestrating cross-domain workflows across multiple datacenter and cloud locations, or providing the Ansible developer with support tools needed for long-term sustainability. Upstream Ansible projects are fast-changing software projects meant for rapid experimentation for open source developers.

This is why Red Hat maintains a hardened and productized version of Ansible composed of more than 20 open source Ansible-related projects in a single, supported platform.

Red Hat Ansible Automation Platform is specifically designed for IT organizations to automate at scale while maintaining a focus on risk mitigation, ROI, scale, security, and compliance.

This enterprise platform version of Ansible requires a subscription, and it includes an array of features that serve the needs and goals of IT businesses looking for automation solutions. If upstream Ansible is primarily for individuals, Red Hat Ansible Automation Platform is primarily for organizations.

However, the 2 projects are connected.

Find the benefits of upstream innovation in a platform hardened for security

The community Ansible project is what is known as an "upstream" project, which means that it serves as the hub and source of the core development on Ansible. Ansible Automation Platform is a downstream project, where additional development turns Ansible into a hardened version for business organizations and business-critical environments. Important development in the community version of Ansible makes its way to Ansible Automation Platform, and, occasionally, developments in Ansible Automation Platform are sent back upstream to the community Ansible project.

This collaboration with the open source community has always been Red Hat's business model for customers, and it has resulted in the growth of Red Hat Enterprise Linux® and Red Hat OpenShift® for the most critical environments requiring stability, performance, and security.

Why is it called Ansible?

The term "ansible" refers to a device that can allow near-instant, faster-than-light communication across long distances. Originally used by Ursula K. LeGuin in her novel ***Rocannon's World***, it has since become a standardized term in fiction. The Ansible project took the name from that term.[1]

DISCOVER®

Read the full case study

Discover's automation strategy saves 800k hours of effort annually

Discover is a leading digital bank and payments company and operates in a highly regulated environment. Critical to its success is a significant level of operational rigor, given the vast number of processes across its operations. The company realized that the ability to create predictable and consistent processes is key to unlocking innovation and continued growth.

Ansible Automation Platform provided the ideal platform with a composable, collaborative, and trusted execution environment, facilitating the process of evaluating manual work and nonengineering tasks, and identifying automation solutions for each.

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"When we use repeatable solutions, we can develop and deploy these in other areas of our business much faster and more frequently. It's a critical enabler for us and increases our ROI."
– Joe Mills Director, Discover Financial Services[2]

[1] "Ansible." Random House Unabridged Dictionary at Dictionary.com, accessed 12 June 2023.

[2] Red Hat case study. "Discover saves 800k hours with Red Hat Ansible Automation Platform," March 2022.

CHAPTER 2

Why upstream Ansible is powerful, but isn't "no cost"

Since there is no up-front software cost for the upstream version of Ansible, it may seem as if it's more cost effective than Ansible Automation Platform. However, the reality is more complex. When moving beyond the level of individual users to full IT organizations, the price of maintaining upstream Ansible for business environments can far exceed Ansible Automation Platform subscriptions.

This goes back to how each project is built, and who each project is designed for.

Upstream Ansible is not so much 1 project as it is a patchwork of more than 20 discrete associated projects with dozens of different tools for different purposes. While these projects can be powerful for an individual—for example, allowing a user to replace their bash and Python scripts with reusable and human understandable playbooks—they are not designed holistically for the mission-critical needs of an IT organization.

Ansible Automation Platform, on the other hand, tests, integrates, and bundles, in a single installer, multiple open source projects into a ready-to-use solution. And it certifies collections of open source projects so that you know exactly how they are going to work and in what context they should be used. This solution is then packaged to install in multiple different environments, including bare metal, virtual machines, containers, or on many popular cloud platforms including AWS, Google Cloud, and Microsoft Azure.

It's not that upstream Ansible is bad at doing what's needed for enterprise automation; it's that those capabilities often aren't even there to begin with. They're usually not even a consideration for individual patchwork projects.

It's up to the end user piecing the parts together to come up with a solution that meets their needs, if they even have the capacity to do so in a time-efficient manner.

To use an analogy, imagine building a car from a kit. While there are dedicated hobbyists who would relish the opportunity and have considerable time and means at their disposal to do so, this isn't the typical choice for someone who needs reliable transportation to commute to work, go to the doctor, spend time with family, or pick up their kids from school. Whether or not someone has the expertise, it becomes a question of whether the time and resources are worth it.

The kit car may end up being less expensive upfront than buying a prebuilt car through a trusted manufacturer, but the time and resources required to get it to function initially, and to maintain it afterwards, relegate it more to a fun project than a practical choice for commuting.

Deciding between upstream Ansible or Red Hat Ansible Automation Platform for strategic, enterprise-wide automation presents a similar choice.

If an organization uses upstream Ansible, it will need to manage and maintain the disparate patchwork elements of the different Ansible projects without the support of Red Hat, which is not only costly and time consuming, but creates significant future security risks. Ultimately, it means that a large portion of total organizational bandwidth is spent managing your automation solution, rather than progressing toward your core goals of innovation and meeting customer demand.

Learn more about the specific differences between Ansible Automation Platform and the various versions of upstream Ansible.

702%
5-year ROI

Analysis from an Enterprise Strategy Group Economic Validation study showed that Red Hat Ansible Automation Platform delivers a 702% 5-year ROI.[3]

US$20M
in savings
over DIY automation

Red Hat Ansible Automation Platform provides US$20M in additional savings and benefits that would not be realized with DIY automation.[3]

[3] Kaufmann, Aviv. "The Economic Benefits of the Red Hat Ansible Automation Platform versus DIY Automation."Enterprise Strategy Group, June 2023.

CHAPTER 3

How Ansible Automation Platform supports efficient scaling for growing organizations

With lifecycle support as a full platform experience—including technical support, certified and supported content, hosted management services, and risk mitigation—Ansible Automation Platform supports enterprises as they create, manage, and scale their automation endeavors.

This support makes the platform suitable whether an organization is just getting started with automation or wants to expand across new use cases. For those just getting started, Red Hat Training offers a free Ansible Basics: Automation Technical Overview course that introduces teams to the platform in an easy way.

And if you don't want to self manage Ansible Automation Platform, there is an application service managed by Red Hat available on Microsoft Azure.

Ansible Automation Platform includes features such as:

- **Red Hat Ansible Lightspeed**, a gen AI service that helps automation teams create, adopt, and maintain trusted automation content with speed and efficiency.
- **Event-Driven Ansible**, which helps organizations automate IT actions with user-defined, rule-based constructs and create end-to-end automated scenarios for use cases across the IT landscape.
- **Automation mesh**, which allows organizations to scale control and execution capacity independently, delivering automation closer to the endpoints that need it, with little or no downtime.

Additionally, security incidents can have large impacts for organizations who have regulatory compliance requirements. Ansible Automation Platform is built to allow for the automation of security practices in ways that can be difficult with the community version of Ansible.

US$34.75M

According to research from the IDC, the average ROI over the course of 3 years for Ansible Automation Platform customers is US$34.75 million.[4]

CEPSA

Read the full case study

Cepsa boosts efficiency with Red Hat Ansible Automation Platform

Global energy and chemical company Cepsa wanted to increase efficiency and stay compliant while reducing costs, risk, and downtime. To achieve this goal, the company turned to automation to find efficiencies in work hours, improve service response times, enhance IT security, and transform organizational culture. After adopting the community version of Ansible, Cepsa decided to move to Ansible Automation Platform when rolling out automation company-wide.

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"In the beginning, we were using the Ansible community version to automate small services. Then we had a complex SAP migration, from our on-premise SAP platform to SAP S/4HANA® in the AWS cloud. We saw automation could help, but we needed an automation platform to achieve our goals."
– Francisco José Martín, Automation Manager, Department of Exploitation and Operation, Cepsa[5]

[4] IDC White Paper, sponsored by Red Hat. "The Business Value of Red Hat Ansible Automation Platform." Document #US51839824, March 2024.

[5] Red Hat case study. "Cepsa boosts efficiency with Red Hat Ansible Automation Platform," May 2022.

CHAPTER 4

The benefits of enterprise-grade automation for your organization

In order to keep up with the rapidly increasing expectations of modern IT organizations, leaders are focusing their teams on increasing operational efficiency.

This is an area where a comprehensive automation strategy supported by enterprise-grade platform automation can add tremendous value. While it's possible to implement many of these initiatives on a smaller scale with upstream automation, it becomes increasingly challenging to scale solutions across an organization and realize the full potential of automation for a business.

For example, there are several common desired outcomes from automation initiatives. Modern, strategic IT organizations want to use automation to:

- **Increase operational efficiency.**
  Automation can increase operational efficiency by performing routine tasks more quickly and accurately than humans. Without automation, organizations may find it difficult to keep up with the pace of work in modern IT environments, and will struggle to minimize downtime when an issue occurs.
- **Enhance scalability.**
  Automation allows IT organizations to scale their operations effectively. Without automation, scaling up to handle increased workload or business growth can be labor intensive and costly.
- **Mitigate risk.**
  By following precise instructions, automation can help reduce the risk of errors in critical IT processes.
- **Move resources to innovation.**
  Automation can free up human resources to focus on more strategic, innovative tasks.
- **Gain competitive advantage.**
  Many modern businesses use automation to gain a competitive edge by offering faster, more reliable services.
- **Improve customer satisfaction.**
  Automation can improve customer satisfaction by making response times faster and services more reliable.
- **Analyze data.**
  Automated systems can collect and analyze large amounts of data more efficiently than humans, providing valuable insights for decision making.
- **Find cost savings.**
  By streamlining operations, reducing errors, and increasing efficiency, automation can lead to significant cost savings.
- **Create a foundation for the adoption of AI.**
  Automation allows companies to standardize and codify their operations to build a foundation for AI initiatives.
- **Attract and retain talent.**
  Increase the chances of attracting and retaining talent by investing in advanced technologies, such as automation, and skill-building training.

Any of these benefits can be realized by individuals or teams with upstream Ansible projects. However, there are costs and risks involved in building these projects this way; it's not only an operational drain to build them, but there's a chance they may not work in a way that can be repeated or scaled. In addition, there's a likelihood that a handmade automation solution created for 1 project might clash with a solution made for another project, as there is no standardization or overarching governance between the efforts. And projects built manually may have wildly different lifecycle maintenance that is difficult to predict and support for mission-critical applications.

US$18.6M in avoided IT operations work

30% more automation managed by **44%** fewer resources

81% faster time to initial automation capabilities

Red Hat Ansible Automation Platform can provide US$18.6 million in avoided IT operations over 5 years, more than twice as much as DIY automation.[3]

Red Hat Ansible Automation Platform can provide 30% more automation managed by 44% fewer resources than DIY automation.[3]

Red Hat Ansible Automation Platform delivers 81% faster time to initial automation capabilities than DIY automation.[3]

With enterprise automation capabilities built into Ansible Automation Platform, there are already tools and services to facilitate your goals, and they are all designed to work with each other in a similar fashion. This means that even if you're only planning on automating 1 or 2 projects now, all of your future projects can grow out of the automation you'll already be using.

Additionally, for organizations daunted by the prospect of course correcting patchy implementation of Ansible Automation Platform in different teams across an organization, Red Hat Consulting helps overcome the complexity. For organizations using AWX and upstream Ansible, Red Hat Consulting provides expert guidance and assistance while migrating you to Red Hat Ansible Automation Platform, helping you overcome challenges and achieve your automation goals.

Red Hat's broad ecosystem of partners can also help you in your automation journey. Certified partners can help assess your IT landscape, develop initial use cases, and help you acquire a Red Hat subscription. Beyond the initial implementation of Ansible Automation Platform, partners can assist with additional automation projects and managed services across your enterprise and domains.

Calculate how much you could save using enterprise automation with Ansible Automation Platform

US$8.54M revenue increase

According to research from the IDC, Ansible Automation Platform increases annual revenue by an average of US$8.54 million.[4]

[3] Kaufmann, Aviv. "The Economic Benefits of the Red Hat Ansible Automation Platform versus DIY Automation." Enterprise Strategy Group, June 2023.

[4] IDC White Paper, sponsored by Red Hat. "The Business Value of Red Hat Ansible Automation Platform." Document #US51839824, March 2024.

CHAPTER 5

Enhance your security using an automation platform

In the modern digital landscape, most organizations are equipped with a security team that has a clear understanding of necessary measures to safeguard the organization's systems and data.

However, the process of configuring systems and applications manually, particularly when dealing with thousands of them, presents a significant challenge. It requires a substantial amount of time and a high level of skill, often demanding more resources than are practically available.

This integration challenge is critical as the digital landscape becomes more complex and threats more sophisticated. Making sure that robust security measures are in place is increasingly important, particularly as organizations rely heavily on their digital infrastructures for core business functions.

Automation has emerged as a potent solution to bridge this skills and resource gap. By applying and enforcing security standards automatically, automation can provide consistent protection across all systems and applications, regardless of their number. The result of employing automation in security management is twofold: drastically reduced response times and decreased vulnerability.

With Ansible Automation Platform, a trusted chain-of-custody for certified and private content is built into the platform, giving you the tools to help build a **security-focused automation system**. With the upstream version of Ansible, there is no specific mechanism to help you build more secure tools beyond the straightforward auditing built into Ansible at a basic level.

Additionally, Red Hat offers Technical Account Managers, 1-on-1 technical advisors and advocates, to provide proactive planning and guide your teams toward best practices for security. They are there for you before, during, and after deployments so you can be confident your customers are getting what they need.

Learn more about enhancing security using automation.

SCHWARZ

Read the full case study

Schwarz Group automates IT with Red Hat Ansible Automation Platform

German retail company The Schwarz Group operates more than 12,500 stores in 33 countries. To expand its international presence the group must balance consistent store management with the flexibility to adapt to local demands and the agility to open new stores quickly, particularly in new markets. Schwarz IT sought to adopt an open source IT automation solution to replace Puppet for use by its in-house teams. The company decided to switch to a supported, enterprise solution: Red Hat Ansible Tower (now part of Ansible Automation Platform).

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"Staying competitive means we need to offer new, digital features and stable, timely services to all of our stores. The only way to achieve this goal is with a centralized automation platform like Red Hat Ansible Automation Platform."
– Felix Kuehner, Head of Storeserver, Core Infrastrastructure Services, Schwarz IT[6]

[6] Red Hat case study. "Retailer Schwarz Group automates IT with Red Hat Ansible Automation Platform," May 2022.

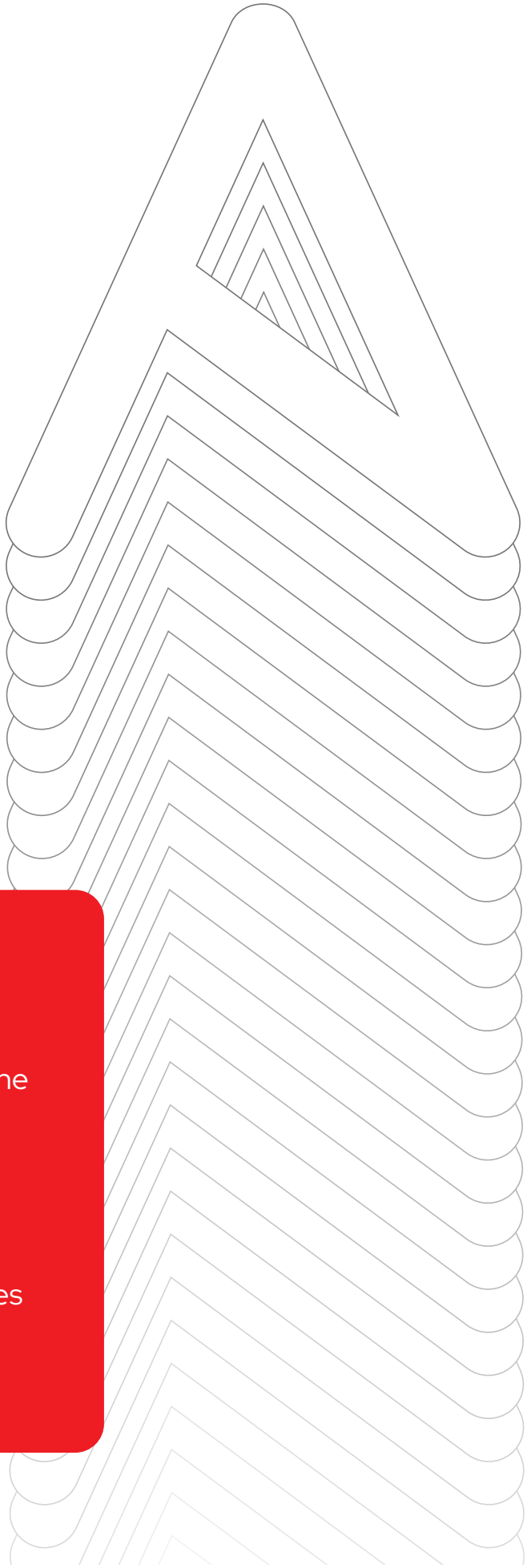
In summary

Automation is an essential, strategic pillar of any modern IT stack.

Red Hat Ansible Automation Platform is an enterprise-grade solution designed to help you unify teams, unlock the full value of your technology investments, and build a solid foundation for AI adoption. And it gives you a full platform experience including technical support, certified and supported content, hosted management services, and risk mitigation.

Move beyond relying on a patchwork of projects, and adopt a platform suited for your business with Red Hat Ansible Automation Platform.

Learn more about how companies have succeeded using Ansible Automation Platform.



Successful companies use Red Hat

- **67%** of commercial banks in the Fortune 500 rely on Red Hat.[7]
- **83%** of airlines in the Fortune 500 rely on Red Hat.[7]
- **64%** of telecommunications companies in the Fortune 500 rely on Red Hat.[7]

[7] Red Hat client data and Fortune 500 list for 2023.

Red Hat Ansible Automation Platform fact sheet

Compare Ansible Automation Platform with various community versions of Ansible.

Red Hat Ansible Automation Platform offers the following features, among others:

- **Red Hat Ansible Lightspeed.**
  Ansible Lightspeed uses IBM's watsonx Code Assistant to turn natural language prompts into Ansible Playbooks. Using Ansible Lightspeed, teams can increase the number of users who can create automation content. Subject matter experts don't need to be developers in order to turn their expertise into automation code.

- **Automation Content Collections.**
  An Ansible Content Collection, or a "collection" for short, is a format for organizing content independent of the main github.com/ansible/ansible development branch. The advantage of the collections is that they are curated and certified to provide consistent and compliant delivery.

- **Event-Driven Ansible.**
  Event-Driven Ansible is the newest capability of Ansible Automation Platform that helps teams automate IT actions with user-defined, rule-based constructs. It works by receiving events from third-party tools, deciding on the actions to take, and responding automatically.

- **Automation execution environments.**
  An automation execution environment—integral to Red Hat Ansible Automation Platform—is a container image that houses Ansible automation, its content, and any associated dependencies. It provides a consistent, portable, and defined environment for running Ansible Playbooks.

- **Automation controller.**
  The automation controller—a central element of Ansible Automation Platform—serves as the control plane for automation. Formerly known as "Ansible Tower," this updated version maintains its standardizing, operating, and delegating capabilities for automation across your organization, but now also features enhanced functionality on a more refined architecture.

- **Automation mesh.**
  The automation mesh component of Ansible Automation Platform provides a simple and reliable framework forscaling automation.

- **Automation hub.**
  Automation hub is the place to find and use supported Ansible Content Collections, which are included as part of your subscription. This means that unlike searching through numerous different upstream projects to find the tool you need, you can get everything in 1 place (and have confidence that it will work like you expect).

- **Automation analytics.**
  Automation analytics give you full visibility into the performance of your automation, helping you make informed, data-driven decisions.

- **Red Hat Insights.**
  Using Red Hat Insights for Red Hat Ansible Automation Platform, you can monitor and proactively resolve infrastructure performance issues, system availability, and security vulnerabilities.

- **Ansible development tools.**
  Ansible Automation Platform includes many tools to develop playbooks, including execution environment builder and automation content navigator.

  Additionally, Red Hat offers several services related to automation with Ansible Automation Platform, including:

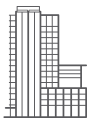
- **Training and certification.**
  Red Hat Training and Certification helps IT professionals assess and learn the skills needed to successfully automate, configure, and manage Red Hat Ansible Automation Platform.

- **Consulting.**
  Red Hat Consulting helps customers successfully adopt and integrate Red Hat Ansible Automation Platform to create and standardize centralized automation practices that add business value and build a strong foundation for DevOps practices.

- **Technical account management.**
  Red Hat Technical Account Managers (TAMs) are technical advisors for customers and partners seeking help with planning and deploying their Red Hat software more successfully and with a focus on security.

Technical comparisons between Ansible Automation Platform and upstream Ansible projects:

	Red Hat Ansible Automation Platform	Upstream Ansible
Installation	Packaging via RPMs and bundled installer from Red Hat Customer Portal. Kubernetes knowledge not required.	Minikube only.
Gen AI support for automation creation	Available using Ansible Lightspeed.	n/a
Developer and creator support	Fully supported tools for building, running, and developing Ansible content.	n/a
Stability and consistency	Components maintain stable branches for the entirety of the support lifecycle.	No support lifecycle.
Supported upgrade and migration paths	Supported migration to major releases as well as upgrades to minor releases.	n/a
Flexible multi-DC/DMZ architecture designs	Extend automation control and compliance beyond a single team for a more holistic automation strategy.	Not available—options are built out by individual users.
Scale-out execution and failover built-in	Automation mesh included, enabling decentralized execution while having a centralized separate control plane with resiliency.	n/a
Security tools	Adheres to Secure Development Lifecycle practices. Enhanced quality assurance and performance testing.	20+ untested and unintegrated upstream open source projects.
Available as a managed version	Available as a managed service on Microsoft Azure, with more hyperscaler clouds coming soon.	n/a
Robust training	Expert resources to help you build and run a successful automation practice, all backed by world-class support and a stable lifecycle.	Community wikis.



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.