Red Hat Ansible Automation Platform

Product overview

Red Hat® Ansible® Automation Platform is Red Hat’s enterprise IT automation solution that includes everything needed to build, deploy, and manage end-to-end automation at scale. Built on a powerful, agentless framework, Ansible Automation Platform is engineered to help organizations create, manage, and scale their 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.

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 time for innovation.

Features and benefits

Red Hat 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 easily expand automation across the enterprise, while managing automation policy and governance with the automation services catalog and getting real-time reporting across the entire stack with Red Hat Insights for Ansible Automation Platform.
- Developers retain the freedom to build, without the operational overhead of maintaining many tools and frameworks. Execution environments deliver a consistent container-like experience for building and scaling automation, with new tooling included to help build and manage them. Ansible Content Collections offer prebuilt automation content from more than 100 certified partners, with solutions available for nearly every use case.
- Administrators and operators have powerful tools in the automation controller and automation hub to manage and share automation projects more efficiently, with a common language and broadly accessible mix of command line interfaces (CLIs), graphical user interfaces (GUIs), and text-based user interfaces (TUI) across endpoints.
- Your organization can tackle automation challenges from network and security automation, to cloud infrastructure provisioning, to configuration management, to continuous integration and continuous delivery (CI/CD), containers, and beyond.
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<th>Platform component</th>
<th>Uses and benefits</th>
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<td><strong>Ansible Core</strong></td>
<td>Ansible Automation Platform is aligned with the global community behind the Ansible project, with added foundational capabilities and assurance from Red Hat that help your business comfortably adopt organization-wide automation at any scale.</td>
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<td><strong>Automation controller</strong></td>
<td>The control plane for Ansible Automation Platform is called automation controller (formerly Ansible Tower). It includes a user interface (UI), role-based access control (RBAC), workflows, and CI/CD for helping your team scale. Automation controller helps standardize how automation is deployed, initiated, delegated, and audited. Manage inventory, launch and schedule workflows, track changes, and integrate into reporting, all from a centralized user interface and RESTful application programming interface (API).</td>
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<td><strong>Automation execution environments</strong></td>
<td>Packaged as containers, automation execution environments (which replace Ansible Engine) are defined, consistent, and portable environments for executing Ansible playbooks and roles. Execution environments offer a simple, flexible way to build, reuse, and scale automation content.</td>
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<td><strong>Automation mesh</strong></td>
<td>Automation mesh provides a simple, flexible, and reliable way to scale automation of large inventories across diverse network topologies, platforms, and teams. Automation mesh facilitates resilience and fault tolerance, while providing enhanced security to standardize and normalize automation across your entire IT estate. The topology viewer feature allows users to graphically visualize even the most complex automation topologies, including hop, execution, hybrid, and control nodes, all across multiple sites.</td>
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<td><strong>Ansible Content Collections</strong></td>
<td>Ansible Content Collections helps Ansible content creators and developers to get automation up and running faster. Certified Ansible Content Collections are backed by Red Hat and a robust partner ecosystem. They are trusted, flexible automation content building blocks for a variety of use cases.</td>
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<td><strong>Automation hub</strong></td>
<td>Automation hub provides a place for Ansible Automation Platform customers to quickly find, use, and extend content that is supported by Red Hat and its technology partners, for additional reassurance for the most demanding environments. Private automation hub is also available, and offers customers a container image repository of their execution environments as an on-premise instance of automation hub.</td>
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| **Ansible content tools** | Ansible Automation Platform includes tools to help make building and deploying execution environments a more seamless creation experience.  
- Execution environment builder (ansible-builder) is a command line tool that helps build Ansible environments into containers using podman. It lets automation creators and operators build custom execution environments with the exact Ansible content needed for their automation.  
- Automation content navigator (ansible-navigator) provides a top-level platform interface (via CLI or TUI) for Ansible automation creators. It provides a more cohesive, consistent, and predictable top-level automation content creation experience designed to help the enterprise Ansible developer.  
- Ansible-lint is a command-line tool that further enhances the content creation experience by promoting proven practices, patterns, and behaviors, while avoiding common pitfalls that could lead to bugs or creating code that is harder to maintain. |
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| Automation analytics and Red Hat Insights for Ansible Automation Platform | Automation analytics is a suite of dashboards to help IT leaders and automation architects observe how teams are adopting automation and track the success of those efforts. It measures automation return on investment (ROI) and can predict the time and cost savings of future projects, helping teams to plan and scale more efficiently. Operations teams can track the status of automation deployments across multiple clusters, making it easier to manage job templates, tasks, and modules.  

Red Hat Insights for Red Hat Ansible Automation Platform allows users to visualize and assess the status of Ansible-managed infrastructure, whether that is a single cluster or multiple clusters. IT teams can monitor and proactively respond to IT infrastructure performance, system availability, and security vulnerabilities, helping to minimize compliance risks, security threats, and potential downtime. |
| Automation services catalog                | Automation services catalog extends self-service automation to business users and developers. IT teams are freed from managing manual, repetitive requests and approvals for system access or other resources. It allows automation content to be distributed across teams, applying appropriate policy and governance to meet compliance and procurement requirements. |

Ansible Automation Platform brings together the best of on-premise automation innovation, while including hosted services that can be accessed alongside other Red Hat cloud services on the hybrid cloud console. Ansible Automation Platform is also now available as a managed application from Microsoft Azure, a self-managed offering available from the AWS Marketplace, and a self-managed application available from the Google Cloud Marketplace—all supported by Red Hat. Other managed and self-managed offerings from major public cloud marketplaces are coming soon.
No matter where you are on your enterprise automation journey, Ansible Automation Platform is designed to help you:

- **Accelerate.** Get started faster by combining the power of Ansible’s massive open source community and prebuilt content collections of the most-used Ansible roles and modules. Codify your infrastructure and share across teams and individuals where you are already running deployments, whether on-premise or in the cloud.

- **Orchestrate.** Easily transfer your automation into multiple domains and across different use cases. Stakeholders across developer, operator, and line-of-business teams can now engage with Ansible Automation Platform in ways that work best for them and make sense for their individual roles without slowing development time.

- **Innovate.** Take your automation even further with analytics, policy and governance, and content management. Ansible Automation Platform tools make day-to-day life more efficient, allowing you to solve problems once and share the results with everyone.

**Robust IT ecosystem support**

Red Hat Ansible Automation Platform supports a variety of platforms across servers, clouds, networks, containers, and more to meet where you are in your automation journey.

- Operating systems and virtualization: Red Hat Enterprise Linux®, Windows and Windows Server, VMware
- Networks: Arista, Cisco, F5, Infoblox, Juniper, Dell/EMC, Aruba, A10 and more
- Cloud: Amazon Web Services, Google Cloud Platform, Microsoft Azure, Red Hat OpenStack® Platform
- DevOps tools: Atlassian, Check Point, CyberArk, Datadog, IBM, Splunk
- Security: Cisco ASA, Check Point, CyberArk, Fortinet, Splunk, IBM Resilient and Qradar
- IT Service Management: ServiceNow

**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 integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.