# Red Hat Ansible Automation Platform 2

The key to automating at scale is collaboration across the entire IT organization. That's why Red Hat® Ansible® Automation Platform 2 is built to deliver a consistent, connected experience.

This is an interactive guide of what you'll find in Ansible Automation Platform 2. To get started, choose the automation role that best matches your day-to-day experience.
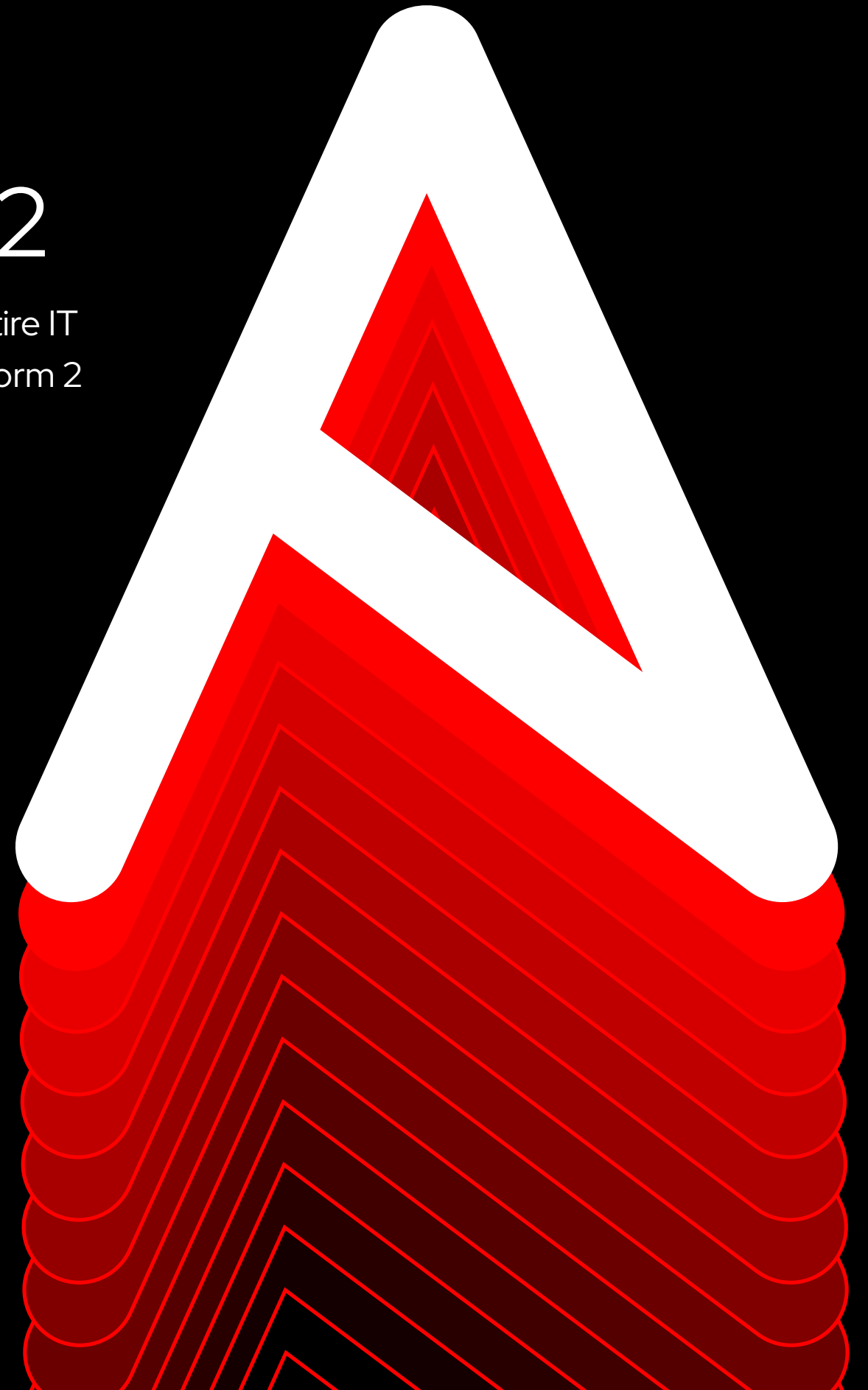
You're an automation architect

As an automation architect, you are responsible for designing, developing, and implementing your company's automation strategy. Your goal is to bring automation to the organization for all repeatable tasks, and you want to do it as efficiently as possible.

What you can expect from Ansible Automation Platform 2
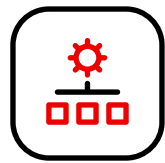
Automation execution environments

+ Ansible Automation Platform 2 adds enhanced automation execution environments (formerly Ansible Engine) to allow teams to package Ansible into a containerized environment for a defined, standardized, and portable set of automation resources to execute automation wherever it is needed.
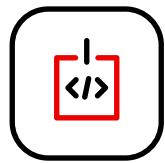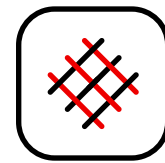
Automation controller

+ Your new control plane is the automation controller, formerly Ansible Tower. It includes a user interface (UI), representational state transfer (REST) application programming interface (API), role-based access control (RBAC), workflows, and continuous integration/continuous delivery (CI/CD) for helping your team scale.

Automation mesh

+ Automation mesh helps connect disparate automation components together, while providing status checks on automation environments across the IT estate.

Ansible Content Collections

+ Ansible Content Collections helps Ansible content creators and developers get automation up and running faster. Certified Ansible Content Collections are backed by both Red Hat and a robust partner ecosystem. They are trusted, flexible automation content building blocks for a variety of use cases.

Automation execution environments

Automation controller

Automation mesh

Ansible content tools

Ansible Content Collections

Automation services catalog

Automation hub

Red Hat Insights for Red Hat Ansible Automation Platform

Click any of the feature icons to learn more

You're an automation administrator

As an automation administrator, you need to be able to reliably configure, deploy, run, and manage automation for multiple teams and apps inside your organization. Ansible Automation Platform 2 features new architecture that simplifies automation management.

What you can expect from Ansible Automation Platform 2

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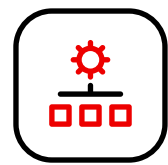
Automation hub

+ The automation hub provides a place for Ansible Automation Platform customers to quickly find and use content that is supported by Red Hat and our technology partners, for additional reassurance for the most demanding environments. Private automation hub is also available, which offers customers a container image repository of their execution environments.

Red Hat Insights for Red Hat Ansible Automation Platform

+ With the integration of Insights for Ansible Automation Platform, you now have rich management and analytics tools to help you identify, troubleshoot, and resolve issues faster.

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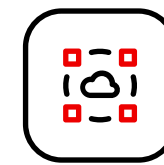
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**Click any of the feature icons to learn more**

Red Hat

You're an automation creator

As an automation creator, you want to build Ansible content, test it locally, and ensure it runs the same in production. Ansible Automation Platform 2 has been rearchitected to make it easier to create automation, share it across your organization, and then deploy it at scale.

What you can expect from Ansible Automation Platform 2

Automation execution environments

+ Automation execution environments, formerly called Ansible Engine, are the key to Ansible Automation Platform's new architecture.
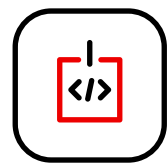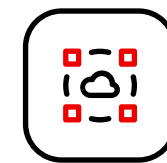
Ansible content tools

+ We're also introducing new Ansible content tools, which are designed to make building and deploying execution environments a better experience.

Ansible Content Collections

+ Get a jumpstart on your automation creation with Ansible Content Collections. Your Ansible Automation Platform 2 subscription includes access to more than 100 certified collections comprising more than 40,000 modules.

Automation hub

+ This is where you'll find automation content to use, get inspiration for what's possible, and store and share custom content you've created.

Automation execution environments

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Automation hub

Red Hat Insights for Red Hat Ansible Automation Platform

Click any of the feature icons to learn more

You're an automation operator

As an automation operator, you need to know what prebuilt, certified content is available so you can automate with more speed and efficiency.

What you can expect from Ansible Automation Platform 2

Automation controller

+ Your new control plane is the automation controller, the Ansible Automation Platform component replacing Ansible Tower. It includes a UI, REST, RBAC, workflows, and CI/CD for helping your team scale.
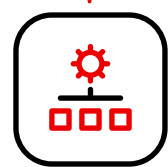
Automation services catalog

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Automation hub

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| Automation execution environments | Automation controller | Automation mesh | Ansible content tools | Ansible Content Collections | Automation services catalog | Automation hub | Red Hat Insights for Red Hat Ansible Automation Platform |

Click any of the feature icons to learn more

Red Hat

Automation execution environments

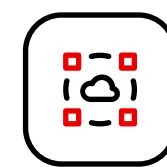Automation controller

Automation mesh

Ansible content tools

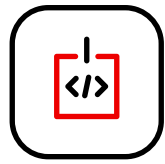Ansible Content Collections

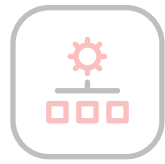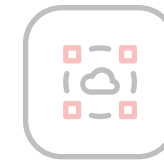Automation services catalog

Automation hub

Red Hat Insights for Red Hat Ansible Automation Platform

Automation execution environments

Packaged as containers, automation execution environments (formerly 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.

Automation execution environments let automation teams have standardized, portable, and maintainable environments for wherever automation is needed, allowing teams to focus on what they automate rather than maintaining the environments where they automate.
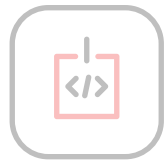
An execution environment contains:

+ UBI 8 as a base operating system.
+ ansible-core (the core automation language).
+ Python 3.8.
+ Any number of Ansible Content Collections, and their dependencies (if applicable).

Frequently asked questions

**What content is in the supported execution environment?**

+ The supported execution environment contains Ansible certified content supported and maintained directly by Red Hat. See **Ansible supported collections, versioning, and release strategy** for details.

If customers are not using container environments, what does that mean to them? Would they still run a virtual machine and an execution environment?

+ The switch to automation execution environments is largely a behind-the-scenes change. Not much will change for a customer just wanting to run playbooks. But execution environments, in combination with the new Ansible content tools, do make it much easier for developers to port content and dependencies easily over to the automation controller.

Automation execution environments
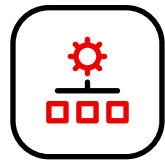
Automation controller
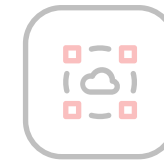
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Automation controller

The control plane for Ansible Automation Platform is called automation controller (formerly Ansible Tower). It includes a UI, RBAC, workflows, and CI/CD for helping your team scale. Manage inventory, launch and schedule workflows, track changes, and integrate into reporting, all from a centralized user interface and REST API.

> The automation controller standardizes how automation is deployed, initiated, delegated, and audited. It allows enterprises to automate with confidence and reduce automation sprawl and variance.
>
> When implementing automation across the enterprise, just having a common automation language isn't enough. IT organizations need a standardized way to define and embed automation workflows into other tools and processes, scale automation execution, and build a centralized system that can pair with their auditing and controls.

Architecture
+ Decentralized, modular application
+ Decoupled control and execution plane
+ Execution environments

WebUI
+ Refactored to PatternFly 4.0
+ Increased performance
+ Job output filters
+ Distinct "edit" and "read" views
+ Stricter content security policy

PostgreSQL 12
+ Installed from Red Hat Enterprise Linux® modules
+ Partitioned access and increased performance

Frequently asked questions

**Where did the name "automation controller" come from and why the change from "Tower?"**

+ As Ansible Automation Platform continues to evolve, certain functionality has been decoupled from what was formerly known as Ansible Tower. It made sense to introduce the naming change to better reflect these enhancements and the overall position within the Ansible Automation Platform product suite.

**Is Red Hat OpenShift required for use with automation controller?**

+ No, the automation controller can still be installed and run in physical and virtual environments on standalone Red Hat Enterprise Linux servers just as before in Ansible Automation Platform 1.x (Ansible Tower 3.x).

**Do you support deploying to Kubernetes instead of Red Hat OpenShift?**

+ The supported container platform for deployments of Red Hat Ansible Automation Platform is Red Hat OpenShift®. We are currently investigating the feasibility of adding support for certain Kuberentes implementations for use as execution platforms for automation via execution environments.
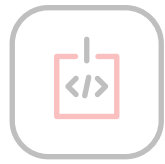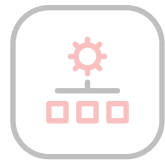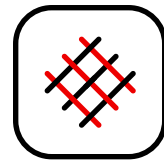
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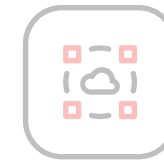
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Automation mesh

Automation mesh is an overlay network that simplifies scaling and distributing execution capacity across a large and dispersed collection of nodes, bringing automation closer to the endpoints that need it. Automation mesh enables independent scaling of control and execution plane capacity, flexible and fault-tolerant design options, with resilience to high latency and connection disruptions.

> Automation mesh provides maximum flexibility in deploying distributed, remote or otherwise complex automation deployments with a security-first approach. Maximize automation investments by scaling your automation across segmented networks, multiple geographies and environments such as data centres, cloud and the edge.

Security features
+ Access Control Lists (ACL)
+ TLS authentication and encryption
+ Centralized management in automation controller
+ FIPS compliant encryption

Frequently asked questions

Is automation mesh the same thing as isolated nodes?

+ No. It replaces and enhances that functionality. It effectively replaces the need for SSH jump hosts and provides an additional relaying facility for greater distributional global reach.

How do deploy and deprovision automation mesh nodes?

+ Mesh nodes are installed and deprovisioned using the automation controller installer and inventory file. New sections were added to the inventory file for automation mesh configuration.

How can I verify and check my automation mesh configuration before installing it?

+ The installer performs sanity checks on the automation mesh configuration and, if there are errors, will warn you before you deploy. Also, the installer can generate a GraphViz file providing a visual representation of your automation mesh topology. You can then review your mesh layout before continuing your installation.
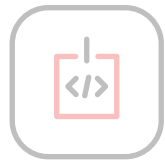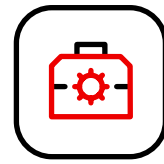
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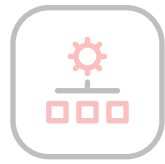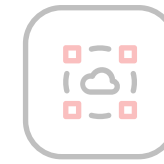
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Ansible content tools

Ansible Automation Platform 2 includes two new tools to make building and deploying execution environments a better experience. Additional Ansible content tools will be included in future platform releases.

Execution environment builder
`(ansible-builder)`

The execution environment builder (ansible-builder) is a command-line tool using podman that builds Ansible environments inside a container. It lets automation creators and operators more easily build custom execution environments with the exact Ansible content needed for their automation so those environments can be used in a repeatable and reliable way throughout their automation.

Automation content navigator
`(ansible-navigator)`

The automation content navigator (ansible-navigator) is a top-level platform interface for automation creators. It is a discrete Python application bundled with Ansible Automation Platform and provides a more cohesive, consistent, and predictable automation content creation experience. As content is being created, the user can validate their content with easy to use subcommands that will interact directly with their execution environments. This method of execution will provide direct feedback to the user in a clear, text-based user interface. The user will also be able to copy objects from within the user interface to use in other content that they could create.

Frequently asked questions

**Will custom user-built execution environments be supported when published to a container registry?**

+ Only supplied execution environments on the Red Hat Container Registry are supported by Red Hat support. The use of custom built execution environments is supported, and the process of building a custom execution environment from ansible-builder is supported, but the actual custom execution environments themselves are not supported. This policy is the same approach we took with playbooks—we support the execution and development of them, but Red Hat support does not perform break-fix support on the customer's playbook.

Will automation navigator be available as a separate download? How can customers deploy on their developer machine?

+ Yes, `ansible-navigator` is now available for download as a separate RPM Package Manager in the Customer Portal in the Packages section.

Is the change to use ansible-navigator something the upstream open source community can access and use too—i.e., is there a similarly packaged solution for the community?

+ Yes, the community can use **https://github.com/ansible/ansible-navigator/**. However, the community is not likely to go this route because a `pip install ansible` is still for physical or virtual execution on workstations.
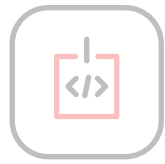
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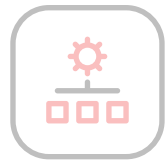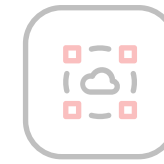
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Ansible Content Collections

An Ansible Content Collection, or "collection," is a format for organizing content independent of the main github.com/ansible/ansible development branch. In simple terms: it's a directory structure and the complementary tooling within Ansible Automation Platform to use content from that structure. This new structure accommodates multiple types of content, such as modules, plugins, roles, and others, in a singular portable format.

Ansible Content Collections helps Ansible content creators and developers get automation up and running faster. Certified Ansible Content Collections are backed by both Red Hat and a robust partner ecosystem. They are trusted, flexible automation content building blocks for a variety of use cases.

A collection is designed to have a consistent format that allows content creators to ship bundles of modules, plugins, roles, and documentation together. The collections are validated to work against certain versions of Ansible and be shipped separately from the Ansible Project executable.

100+

An Ansible Automation Platform subscription provides access to more than 100 certified content collections comprised of over 40,000 modules curated for consistent, compliant delivery. These collections are available through the automation hub.

# Frequently asked questions

What do we mean by Ansible content?

+ If Ansible Automation Platform and its components are what you need to run and control your automation, Ansible content is what you do with automation. In its broader definition, Ansible content includes integration and plumbing, like modules and plugins, and reusable business logic built with the Ansible language, such as roles and playbooks. Ansible content is packaged into collections and, in its supported version, delivered through automation hub.

What's the difference between Ansible Galaxy and Ansible automation hub?

+ Collections published to Ansible Galaxy are the latest content published by the Ansible community and have no joint support claims associated. Ansible Galaxy is the recommended front-end "directory" for the Ansible community accessing all content. Collections published to the automation hub are targeted for joint customers of Red Hat and selected partners. Customers need an Ansible Automation Platform subscription to access and download certified collections present on automation hub.
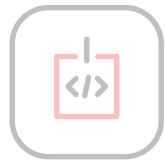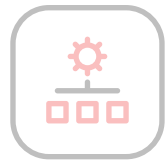
< Back to start

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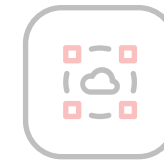
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Automation services catalog

The automation services catalog is a venue for users to manage, provision, and retire automation resources, simplifying modeling and delivery. Offered as a hosted service (console.redhat.com), it now has security-focused private connection capabilities to customers' platform deployments.

> Automation services catalog expands the availability and utility of the automation platform to a broader swath of the IT team. It gives automation creators and business users self-service access across physical, virtual, cloud, and container environments, making it easier to get automation projects running. It simultaneously gives enterprise and line of business automation users the governance they need to meet compliance and procurement requirements.

Features:
+ IT service management (ITSM) integration
+ Product returns
+ Product leasing
+ Dynamic surveys
+ Cloud connector catalog

Frequently asked questions

I was using the automation services catalog before and now my platforms have disappeared. What happened?

+ Automation services catalog was testing a cloud connection technology (Receptor) that we marked as "tech preview" with the Ansible Automation Platform 2 release. We have completed that trial and are committed to supporting a new cloud connection technology (MQTT). This change resulted in products created with the technical preview connector disappearing, and anything created with the old connector requires a rebuild. Documentation is available in the Customer Portal.
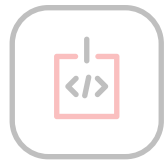
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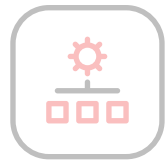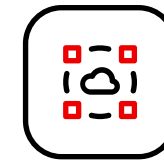
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Automation hub provides a place for Ansible Automation Platform subscribers to quickly find and use content that is supported by Red Hat and our technology partners, delivering additional reassurance for the most demanding environments. Automation hub is available as both a hosted service and privately on-premise—customers can sync certified Ansible content repositories to an on-premise private automation hub or download directly from console.redhat.com.

Private automation hub:

+ Execution environments are container images, so to use them in production, you'll need a container registry. We've enhanced the private automation hub to host container images so it can host execution environments for customers who have not yet moved to container-native development and are not currently using a platform, such as Red Hat OpenShift.

Frequently asked questions

**Why isn't partner content on automation hub aligned with Ansible Galaxy?**

+ Automation hub and Ansible Galaxy represent the downstream and upstream model for Ansible content. Partners use Ansible Galaxy to release their latest content and have it tested and eventually contributed by the community. When content is considered stable and supportable, it is then published on automation hub.

How does the joint support agreement on certified collections work?

+ If a customer raises an issue with the Red Hat support team on a certified collection, Red Hat support will triage the issue and check if the problem exists within Ansible or Ansible usage, and they will also check if the issue is with a certified collection. If there is a problem with the certified collection, support teams will transfer the issue to the vendor owner of the certified collection through an agreed upon tool such as Technical Support Alliance Network (TSANet).

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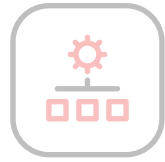
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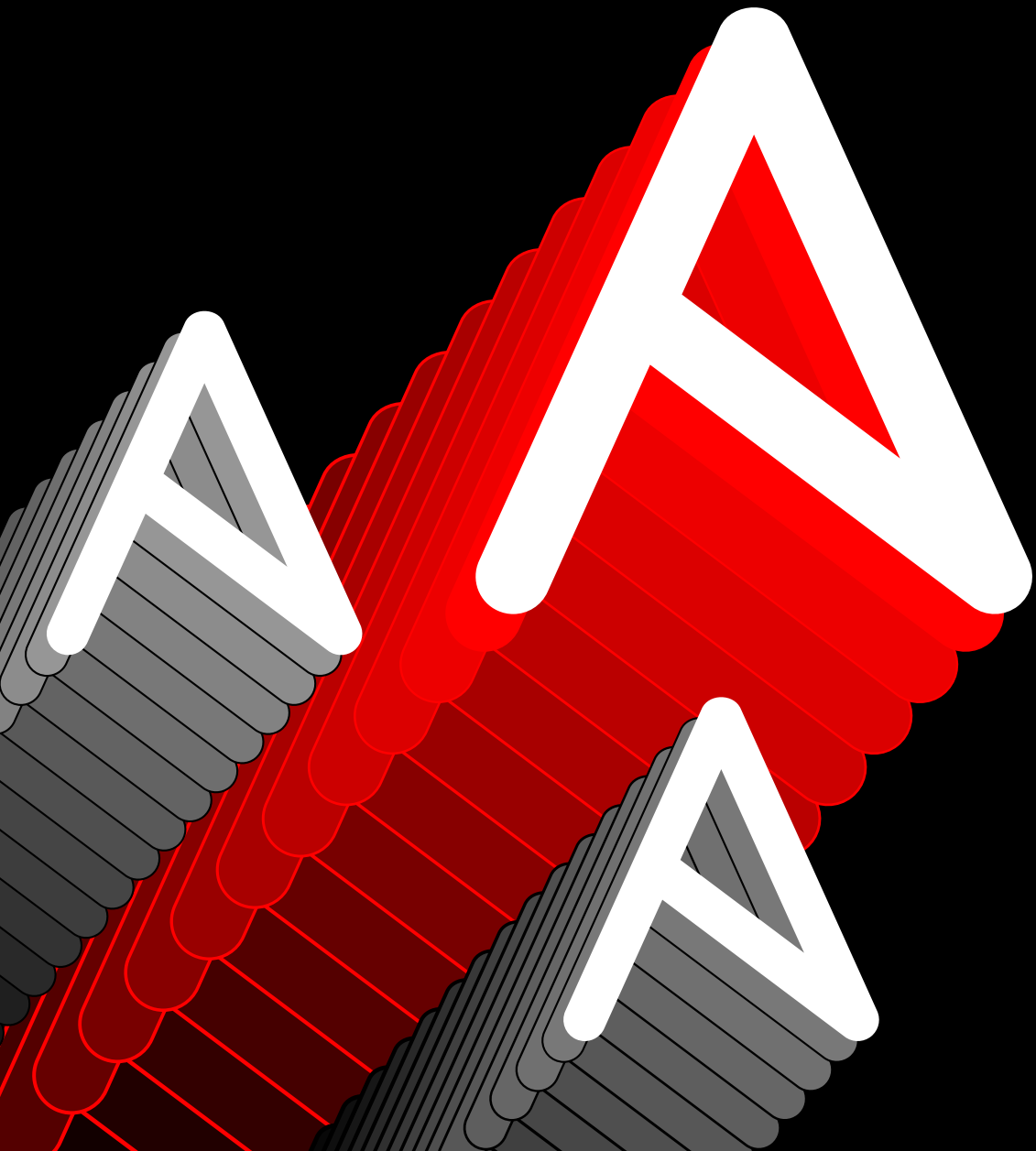**Red Hat Insights for Red Hat Ansible Automation Platform**

Red Hat Insights for Red Hat Ansible Automation Platform

Red Hat Insights for Red Hat Ansible Automation Platform is a suite of reporting and analytics tools to identify, troubleshoot, and resolve operational, business, and security issues across your entire ecosystem. Gain full visibility into the ROI of your automation efforts, and set the stage for faster, more informed decisions.

With Red Hat Insights for Ansible Automation Platform, you control your IT infrastructure through an intuitive visual dashboard, receive timely and actionable system health notifications, and respond to vulnerabilities before they impact your environment. Optimize your automation through usage statistics and troubleshoot issues in just minutes instead of days. Our predictive planning and measurement tools help you track performance and prioritize future projects so you can scale automation with confidence.

Features:

+ Job status and module usage
+ Remediation guidance
+ Automation planner and calculator
+ Proactive alerts and notifications
+ Drift management

Red Hat Ansible Automation Platform brings you a new way to automate

Visit **redhat.com/ansible** to learn more,
start a free trial, or connect with a Red Hatter

Explore how Ansible Automation Platform 2 can support
a holistic automation practice across your organization.

Architect | Administrator | Creator | Operator