



What's new & What's coming

Ansible Anwendertreffen 2021

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Who am I?

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> 10 years of experience

Consultant

Project Manager

Solution Architect

Technical Marketing Manager



Agenda

- What is Red Hat Ansible Automation Platform?
- Platform Components
- Hosted Services
- Content Creators
- Next Steps

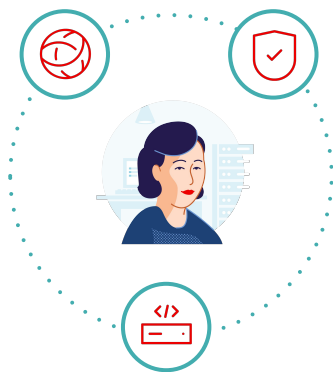
What is the Ansible Automation Platform?



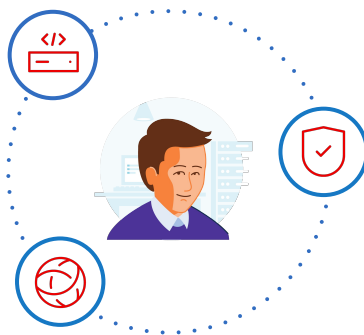
Ansible Automation
Platform

Many organizations share the same challenge

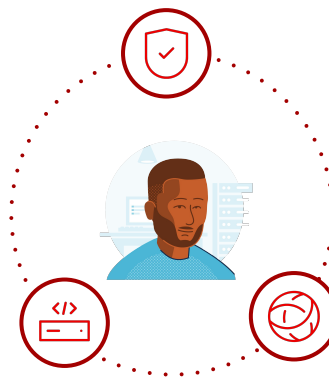
Too many unintegrated, domain-specific tools



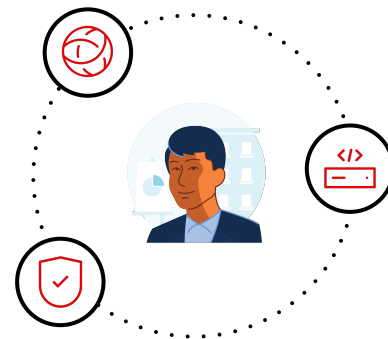
Network ops



SecOps



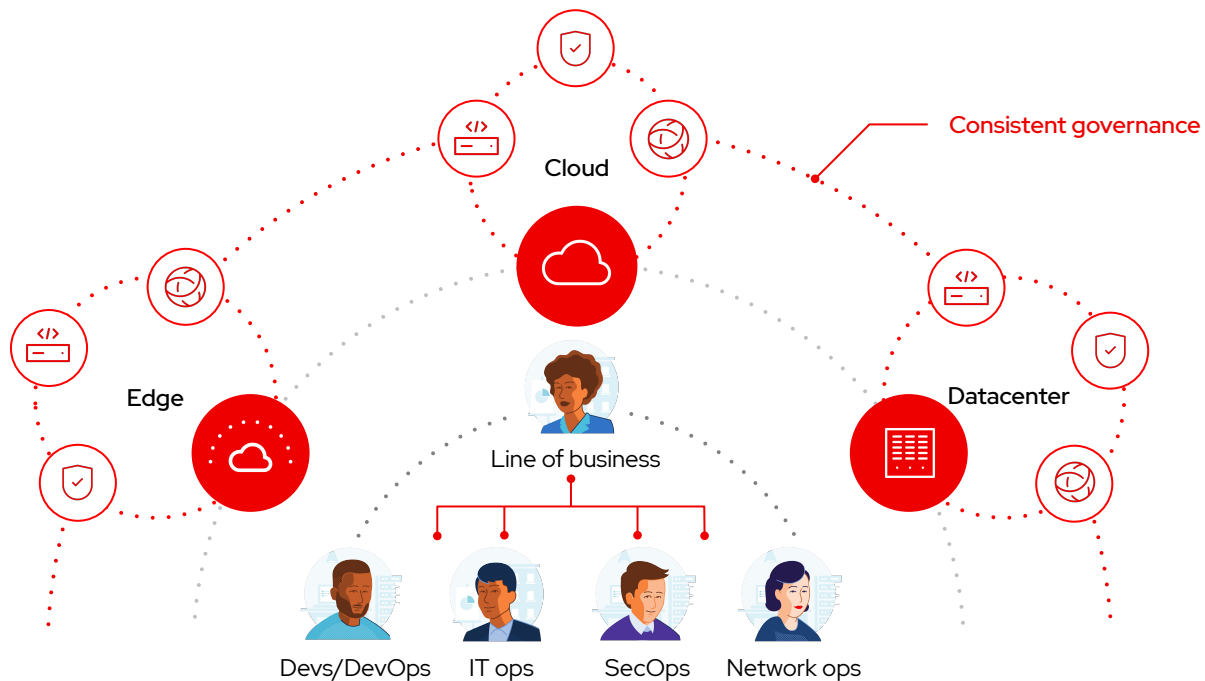
Devs/DevOps



IT ops

Break down silos

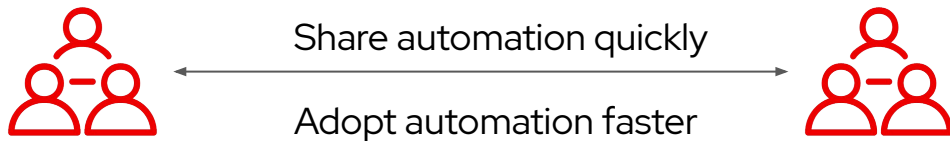
Different teams with a single platform



A photograph of three people sitting around a large wooden conference table in a modern office with large windows. A man in a dark shirt is on the left, a man in a red shirt is in the middle, and a woman in a red shirt is on the right. They are all looking at laptops. A semi-transparent dark grey box is overlaid on the image, containing the title text. The background shows a view of a city through the windows.

2021: Automation Becomes A Business Imperative

Automation is mission critical



- **Develop, operate and consume automation at scale**
Supported automation tooling creates clear path for building and creating automation content in a reusable fashion, and an easy path to production
- **Flexible, portable automation to run anywhere, including cloud-native**
Automation can be shared and adopted quickly between automation teams and sites and across hybrid cloud platforms.
- **Deliver expansive automation drives results**
Usability is increased as automation engineers can focus on what they want to automate and its corresponding benefits, rather than maintaining the automation environments



Red Hat Ansible Automation Platform

Ansible automation

Ansible technologies combined into
a product delivered to customers

Ansible hosted services

Platform services
provided via cloud.redhat.com

Ansible content

Ansible technology use cases delivered via automation hub

Powered by Ansible - The universal automation language fuelled by the open source community

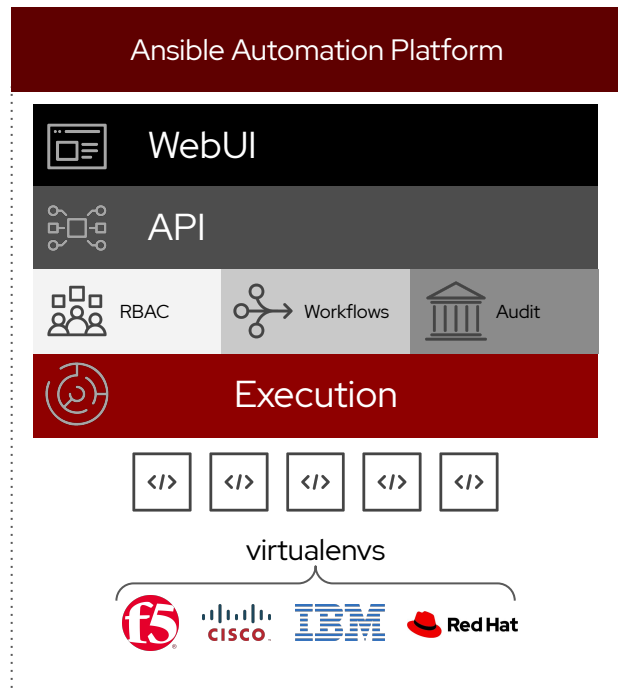


Red Hat

Platform Components

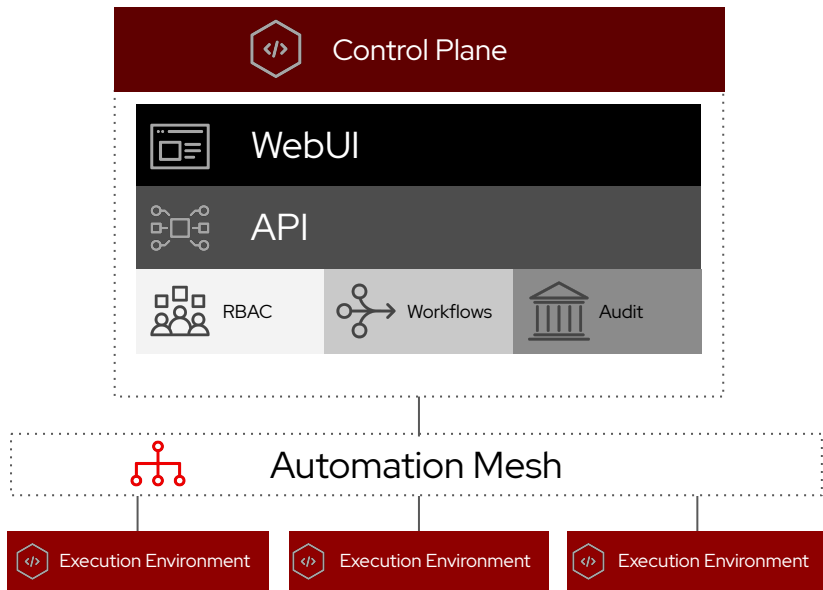


Current Architecture



- Centralized, monolithic application
- Control node contains control plane and execution plane
- Poor scalability, rigid architecture

Future Architecture



- Decentralized, modular application
- Decouple control plane and execution plane
- Containerized execution environments



Red Hat Ansible Automation Platform

Developer Tools



Ansible Builder



Ansible-test



Molecule & Ansible-lint*



Ansible
Navigator

Automation Execution



Automation Controller**



Ansible Core



Execution Environments

Content Distribution & Container Registry



Private Automation Hub

Ansible on OpenShift



Platform Operator

* Functionality missing from platform story

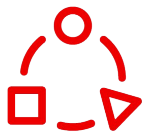
** formerly known as Ansible Tower

What is Ansible Core?

Ansible Core



cli



framework



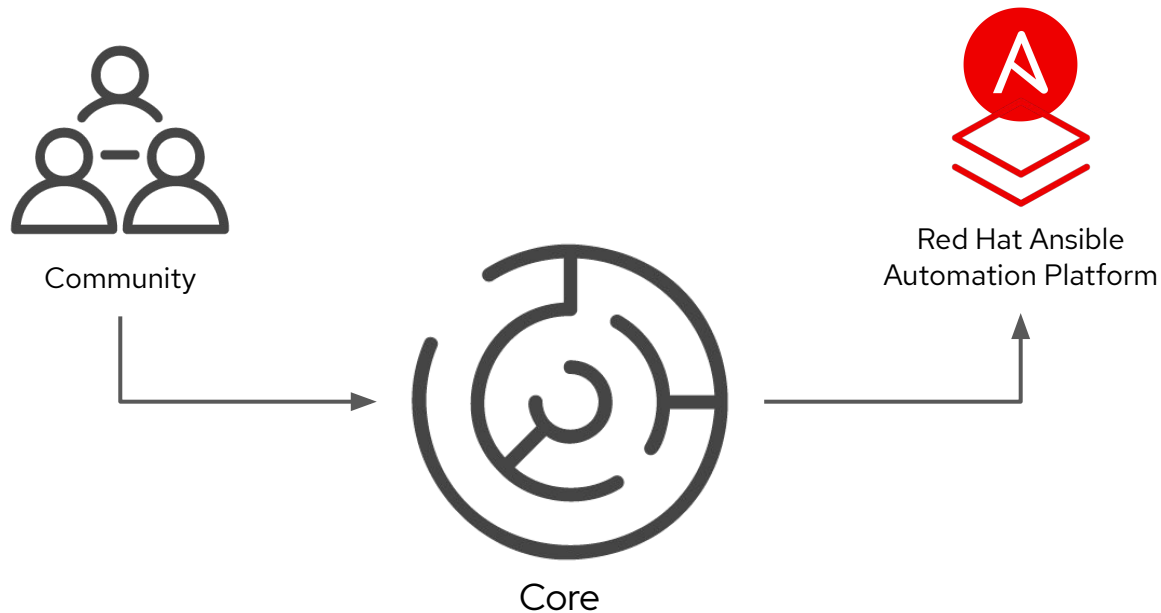
language



functions

- **cli** - this includes `ansible`, `ansible-playbook`, `ansible-doc` and numerous other command line utilities for driving and interacting with automation
- **language** - Ansible uses YAML to create a very succinct but powerful set of rules for developing Ansible Playbooks.
- **framework** - this architecture allows pluggability by using collections to be installed and operated from Automation Hub and Ansible Galaxy
- **functions** - this includes conditionals, blocks, includes, loops and other Ansible imperatives

Why is Ansible Core important?



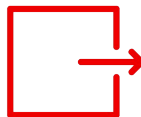
Limitations of Python Virtual Environments

They don't work for the enterprise



Tooling

Python Virtual Environments are not part of the Red Hat Ansible Automation Platform solution. These are Python constructs meant for Python developers.



Portability

Python Virtual Environments are unique to a single system and hard to replicate on another system. Its difficult for one person to share their virtual environment with another person to replicate their automation.



Maintenance

Python Virtual Environments may have dozens of Python dependencies per Ansible Automation Project and become increasingly hard to manage and maintain overtime.

Ansible Execution Environments

Streamlined development and maintenance of your automation

Challenge



Management of Ansible dependencies, multiple python virtualenvs increases the cost and complexity of automation

Solution & Business Value



Only the packaging of components needed for automation in a cloud-native way. Future ability to directly execute higher-order content such as Ansible Roles with low-code/no-code methods. Scale out capacity on demand with OpenShift.

Technical Implementation



Bundle together all required Collections, corresponding RPM or PIP3 dependencies, and a minimal Ansible version in a single container.

What's in an Execution Environment?



Example Packaging with Execution Environments



amazon.aws Collection



ansible.utils Collection



arista.cvp Collection



azure.azcollection Collection



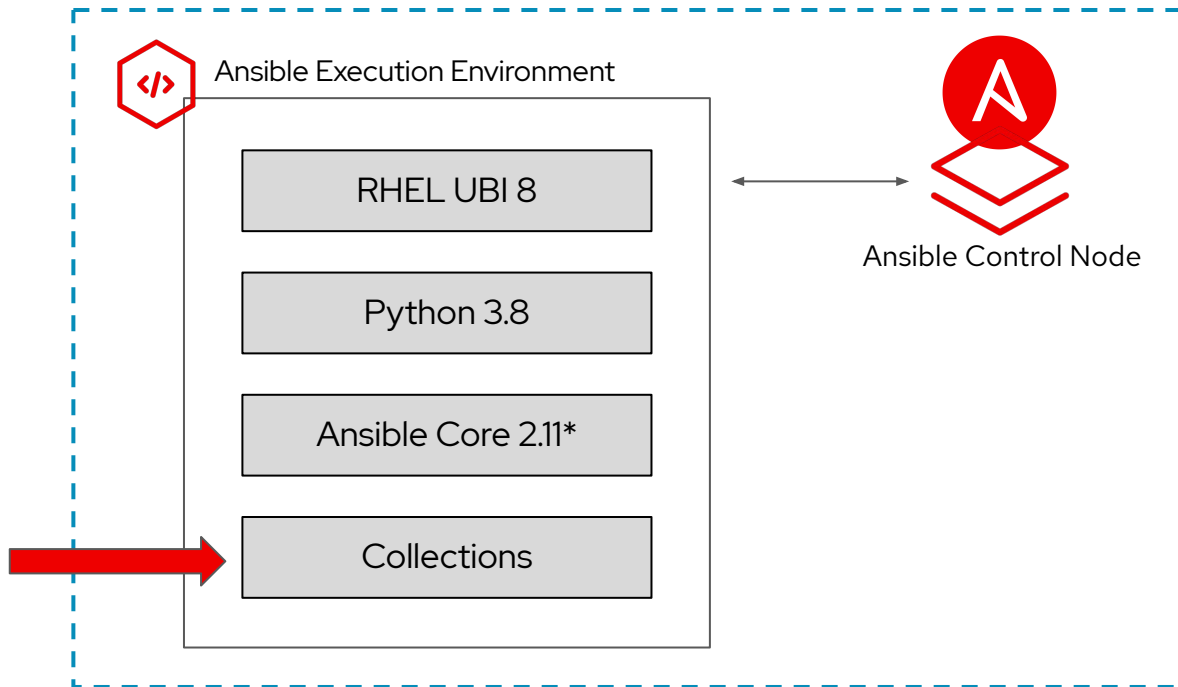
ibm.qradar Collection



redhat.satellite Collection



splunk.es Collection



*includes other Ansible dependencies/packages

New platform components

Ansible Builder*



Command line tool leveraging podman that builds Ansible environments inside a container.

Ansible Navigator*



Command line tool for Execution Environments. Provides enhanced and familiar experience for Ansible creators.

Ansible Platform
Operator



Package, deploy and manage Red Hat Ansible Automation Platform on Openshift Container Platform (OCP)



Ansible Builder

Ansible Builder is a tool that aids in the creation of Ansible Execution Environments.

Challenge



No existing tooling for Ansible Execution Environments or IDE (Integrated Developer Environments) for Ansible Creators.

Solution & Business Value



Ansible Builder allows organizations to customize and build their own Execution Environments with the collections and dependencies they need.

Technical Implementation



Ansible Builder is a python application that will produce a directory that acts as the build context for the container image build, which will contain the Containerfile, along with any other files that need to be added to the image.



Automation content navigator

Top-level interface for Platform enterprise developers

Challenge



Containerized execution introduces new challenges for developing, testing, and deploying Ansible content destined for Automation Controller*.

Solution & Business Value



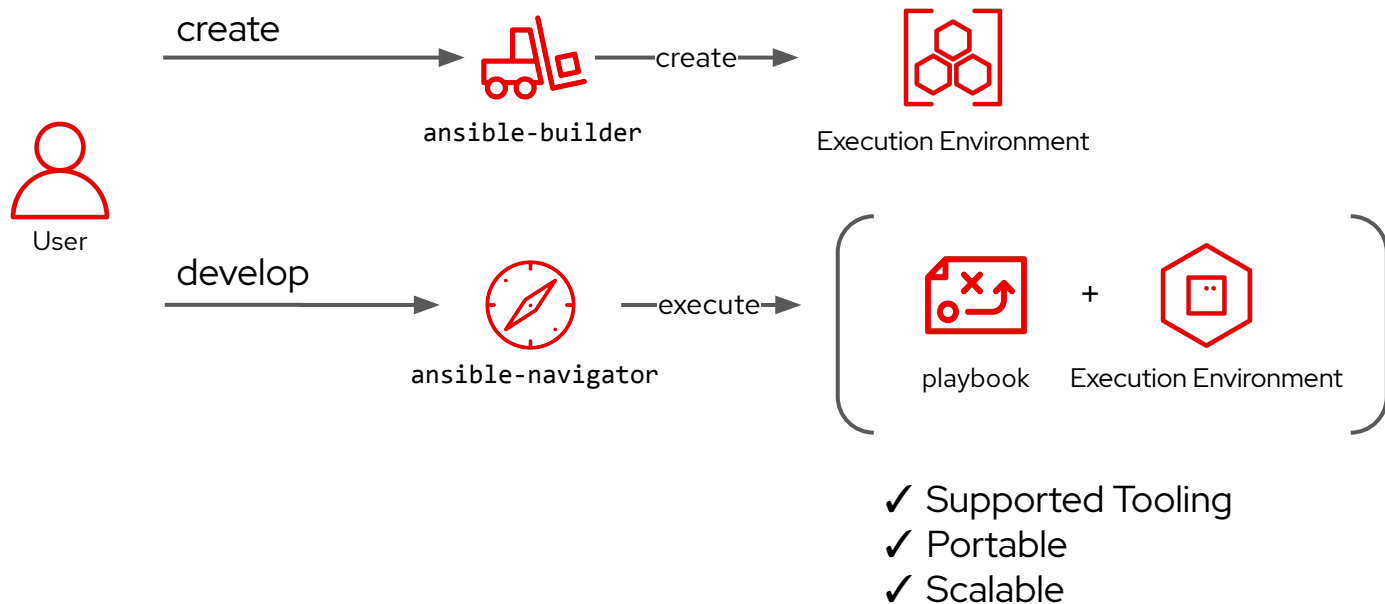
Provides a more cohesive, more consistent, predictable, top-level developer experience for content destined to be run on the Platform. Leverages existing CLI knowledge while introducing enhancements due to containerized execution.

Technical Implementation



Ansible navigator is discrete Python application bundled with Ansible Automation Platform.

Adapting Certified Execution Environments



Private Automation Hub

Private content repository for sharing automation

Challenge



Customers have inconsistent way to share trusted content across an increasingly diverse set of technologies and domains

Solution & Business Value



Private Automation Hub allows organizational administrators to curate which content is available to creators, and reshare internal content across the enterprise.

Technical Implementation



Private Automation Hub is provided as part of the Automation Platform universal installer. This self hosted option can be deployed in a variety of scenarios to host private automation content.



Ansible Automation Platform Operator

Package, deploy and manage Red Hat Ansible Automation Platform on Openshift



Ansible Automation Platform Resource Operator

Allow Communication between Container Native applications running on OpenShift to Red Hat Ansible Automation Platform



Ansible Automation Integration with Red Hat Advanced Cluster Management for Kubernetes

Extend container management and lifecycle through automation

Hosted Services



Ansible Hosted Services



cloud.redhat.com



*Red Hat Insights for
Red Hat Ansible Automation Platform



Automation Hub



Automation Services
Catalog

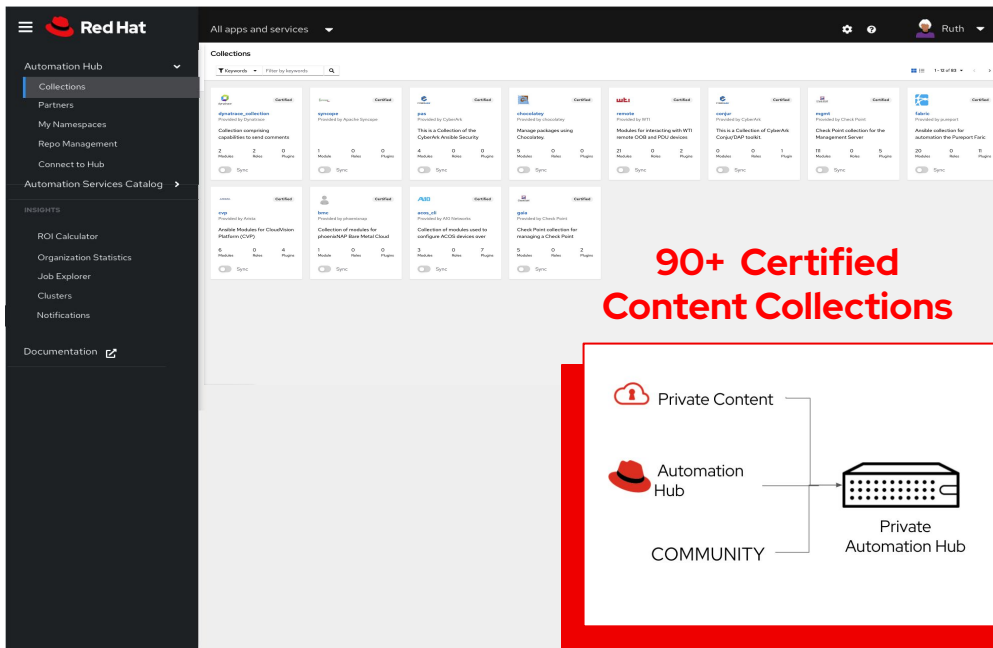


Ansible Automation
Platform

*Formerly Automation Analytics

Automation hub

Certified content to automate your business



**90+ Certified
Content Collections**

Need

- ▶ Curate and roll out automation content
- ▶ Expedite delivery of successful automation projects

Functions

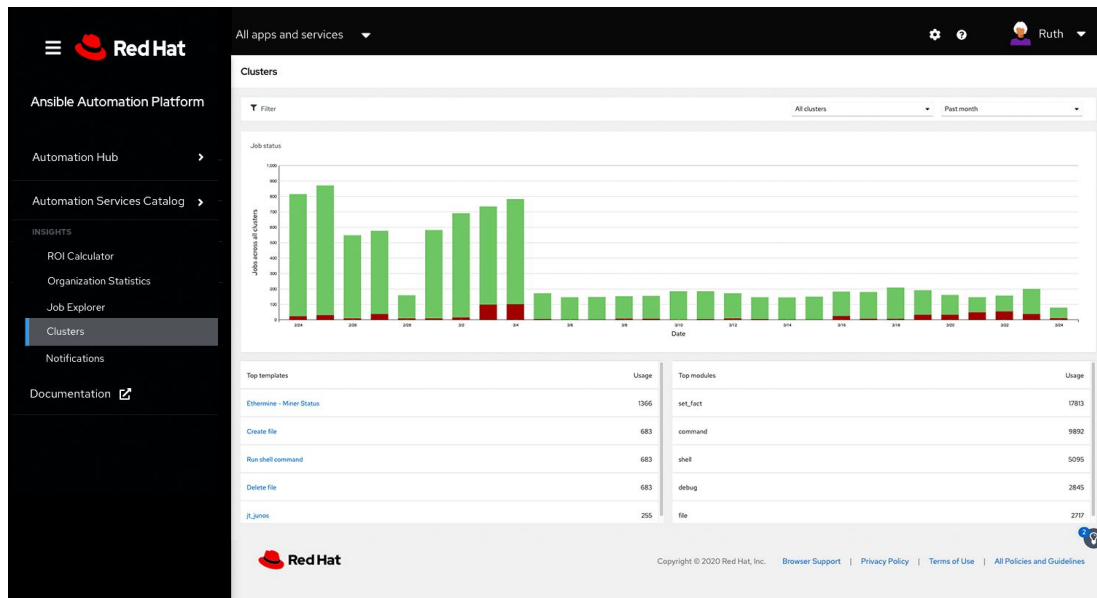
- ▶ Easily access Red Hat and partner certified content
- ▶ Create your own curated repository using multiple content sources

What's new

- ▶ Red Hat Ansible Certified Content Collection for ServiceNow
- ▶ Red Hat Enterprise Linux System Roles

Red Hat Insights for Red Hat Ansible Automation Platform

Understand and manage automation jobs



Need

- ▶ Understand what is running and its success
- ▶ Evaluate gains from automation in their organization.

Functions

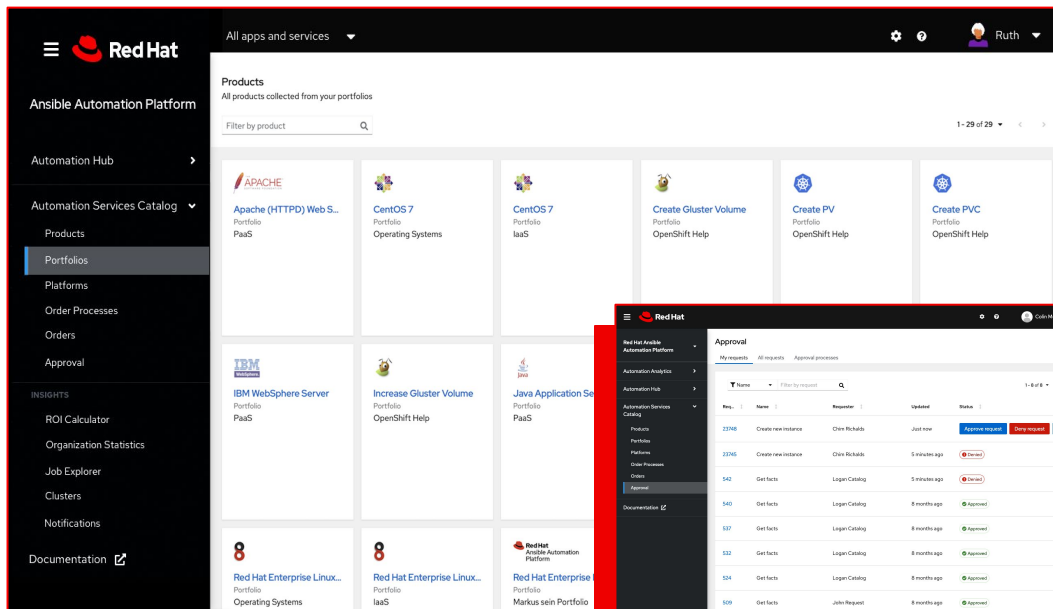
- ▶ See status visually and drill down to understand jobs
- ▶ Create customized notifications
- ▶ Understand your ROI

Upcoming Features

- ▶ RBAC improvements
- ▶ Automation planner
- ▶ Email notifications and report export

Automation services catalog

Create and manage self-service automation

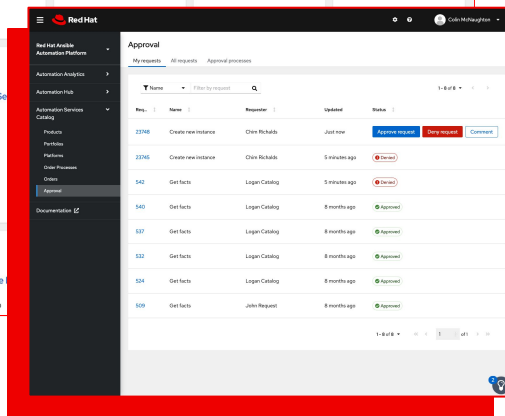


Need

- ▶ Simplify processes for consuming IT resources

Functions

- ▶ Foster self-service to make infrastructure resources easily consumable
- ▶ Implement approvals and governance to control what automation executes

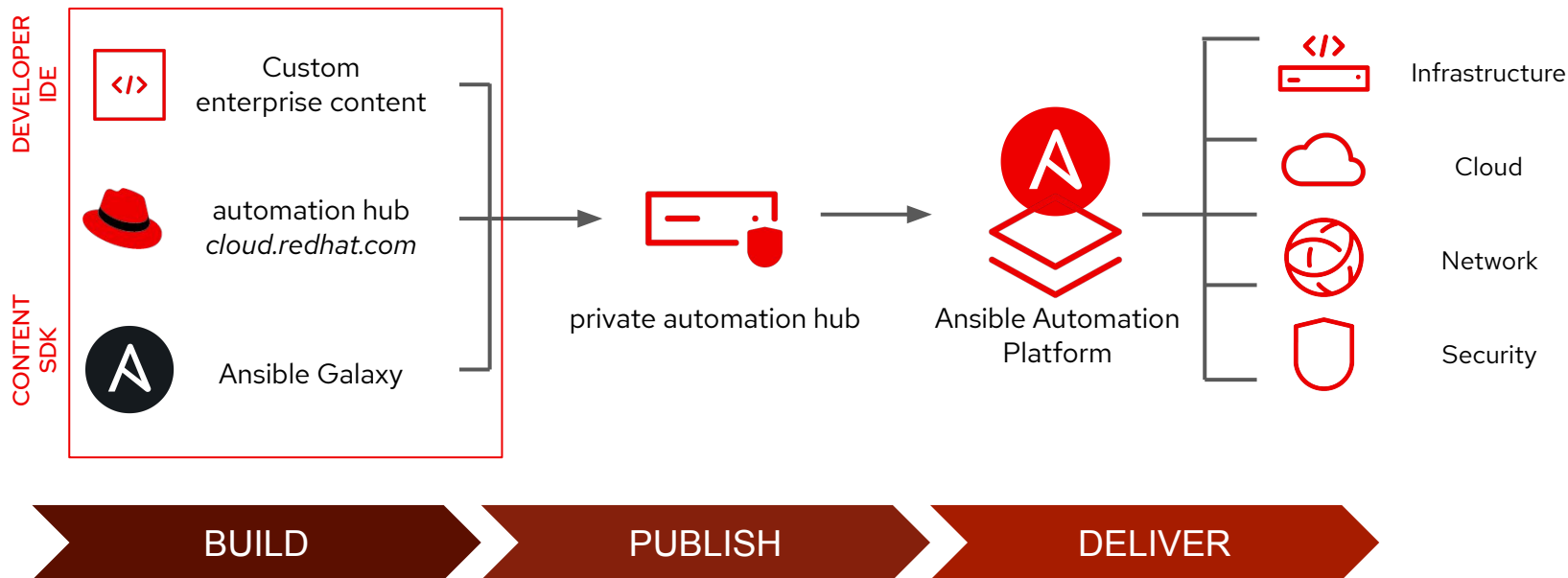


Admin approval view

Content Creators

Creator experience

Persona view: how content creators work with Ansible Automation Platform



September 29 & 30



Thank you

 linkedin.com/company/red-hat

 youtube.com/AnsibleAutomation

 facebook.com/redhatinc

 twitter.com/Ansible