



Red Hat
Summit

Ansible project and Ansible Automation Platform evolution

What's new!

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Project Growth side effects

Foundation for future growth

Customers/Users

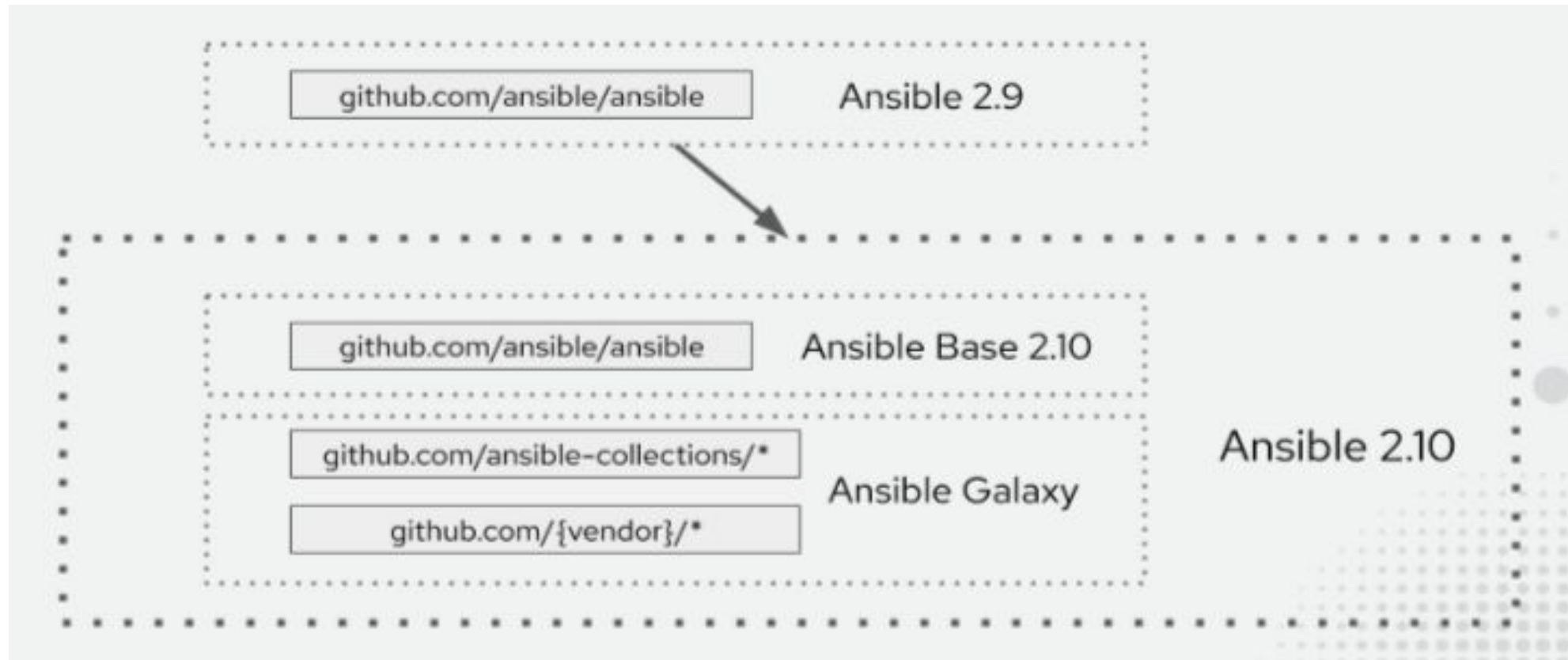
- Support claim confusion, and who does what and where for issues/PRs?
- Need for stability (longer life cycle) for foundation components while...
- Need new module enablement / platform updates (shorter life cycle)

Developers

- 4,300+ open issues,
2,000 open pull requests
- "One size fits all" doesn't work for all content sets
- Some things go in quickly, some things don't

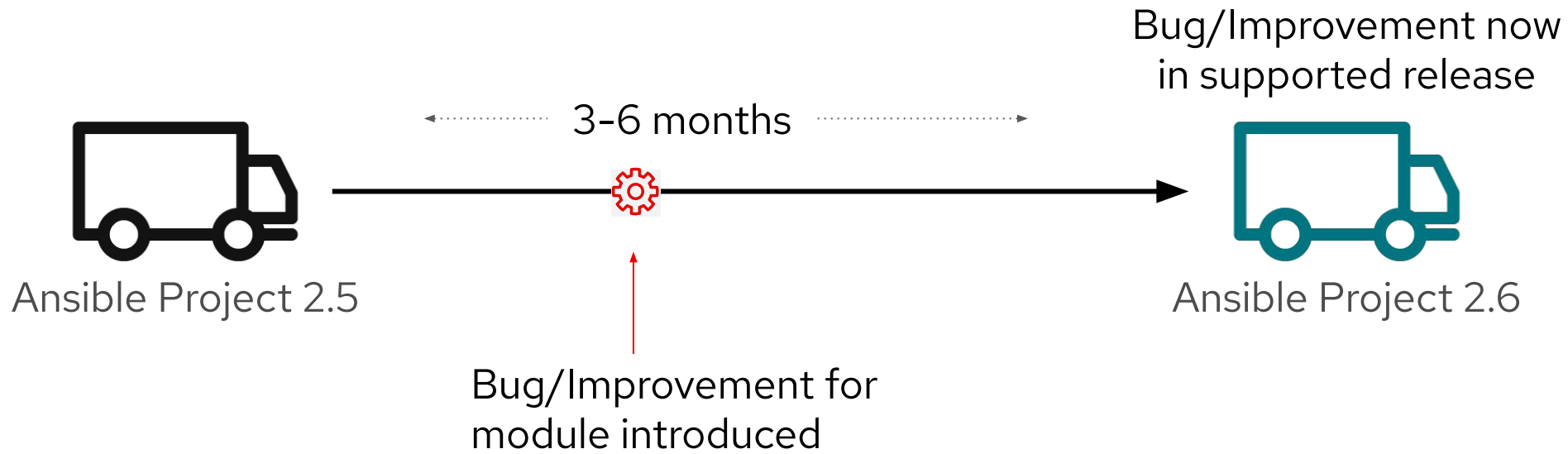
Ansible project split

Ansible content delivery and much more

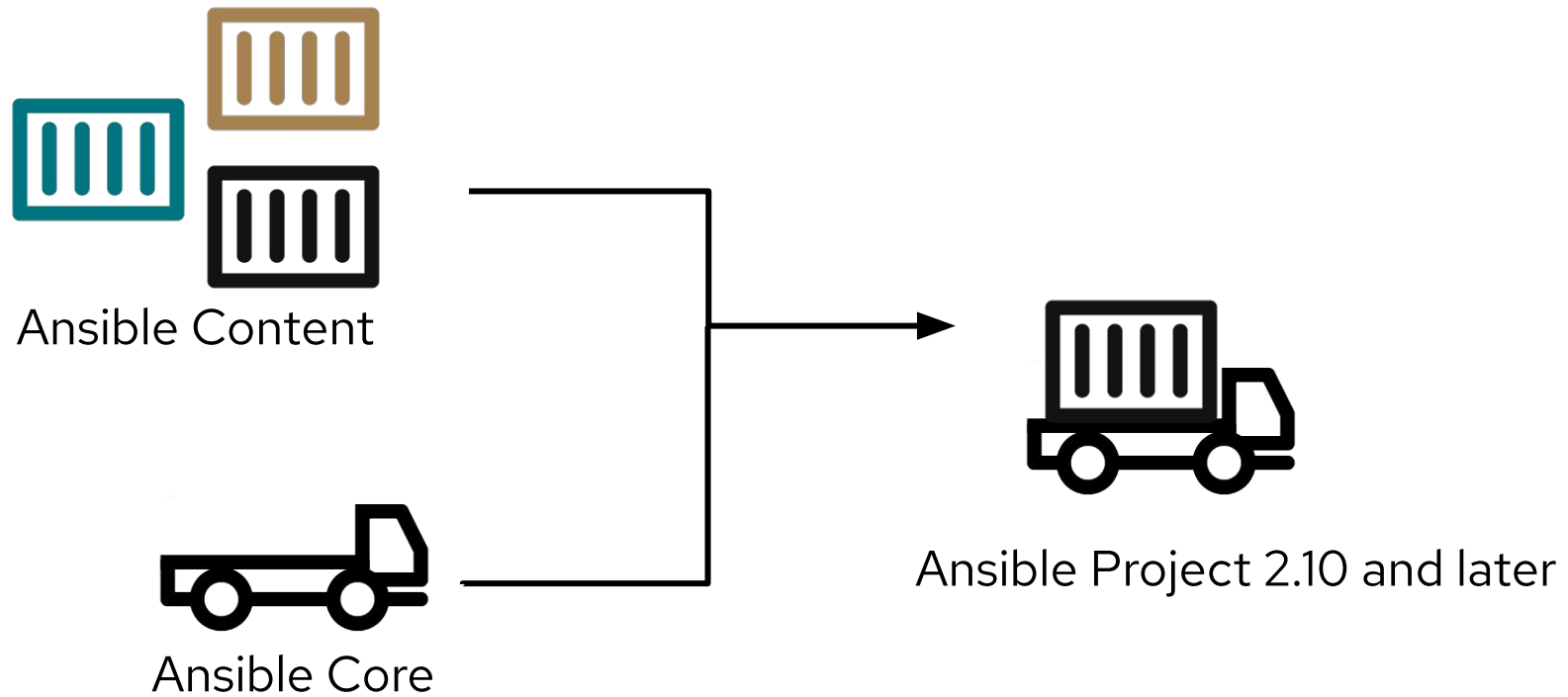


Ansible Collections

Before collections



Content is now modular



Ansible Collections



Ansible 4.4

Community Collections included provide >6000 modules!

Ansible Galaxy

Galaxy has support for collections and provides additional Community Collections

Automation hub

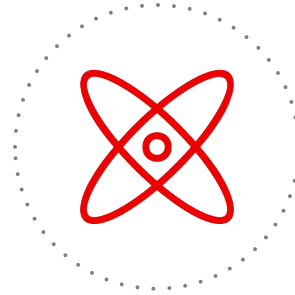
Red Hat customers have access to automation hub for certified, tested and support collections by Red Hat and its Partners

What makes a platform?



Red Hat Ansible Automation Platform

Combining the universal automation language with cloud services and certified content for automating, deploying, and operating applications, infrastructure and services securely at enterprise scale.



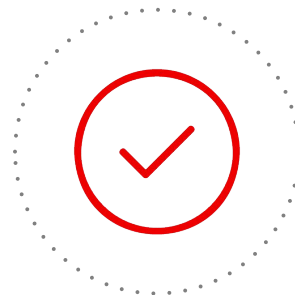
Ansible automation

Providing scalable, secure implementation for describing, building, and managing the deployment of enterprise IT applications across diverse enterprise architectures.



Cloud services

Cloud services that facilitate team collaboration and provide operational analytics for automating heterogeneous, hybrid environments.





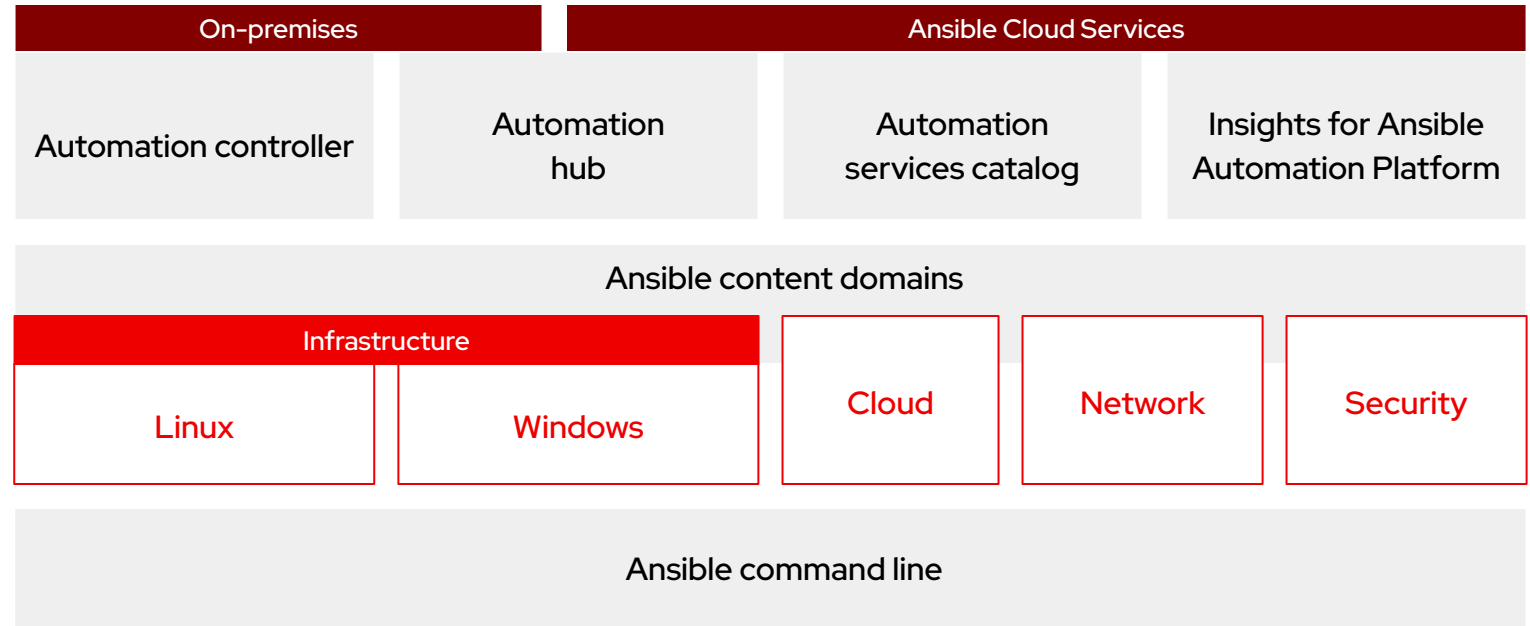
Certified content

Extends native platform capabilities with certified, supported content designed to expand the automation domain and accelerate adoption for enterprise customers.

What makes a platform?

Red Hat Ansible Automation Platform

-  Content creators
-  Operators
-  Domain experts
-  Users



Fueled by an open source community

Ansible Automation Hub

Automation Hub

Trusted source

Customer controlled

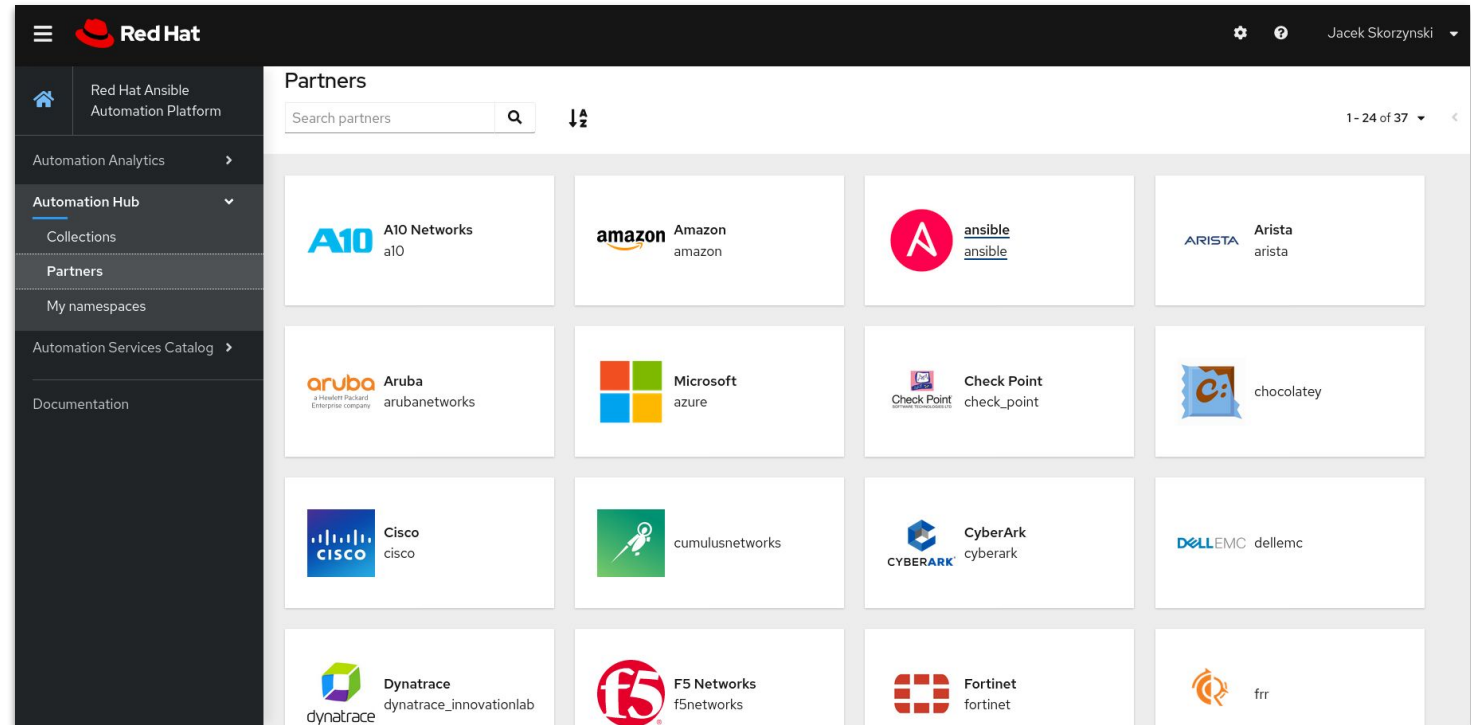
Deploying either on-prem or to a cloud, customers can run their own private instances of Automation Hub integrated into Red Hat Ansible Automation Platform.

Private content

Manage the lifecycle and internal distribution of in-house Ansible content within Private Automation hub.

Customizable Content Catalog

Via synch from community (Galaxy) and supported (Automation Hub) sources, customers can supply internal users with approved content in one controlled location in Private Automation hub.

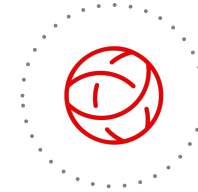




Infrastructure



Cloud



Network



Security

90+
certified platforms



Check Point®
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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.

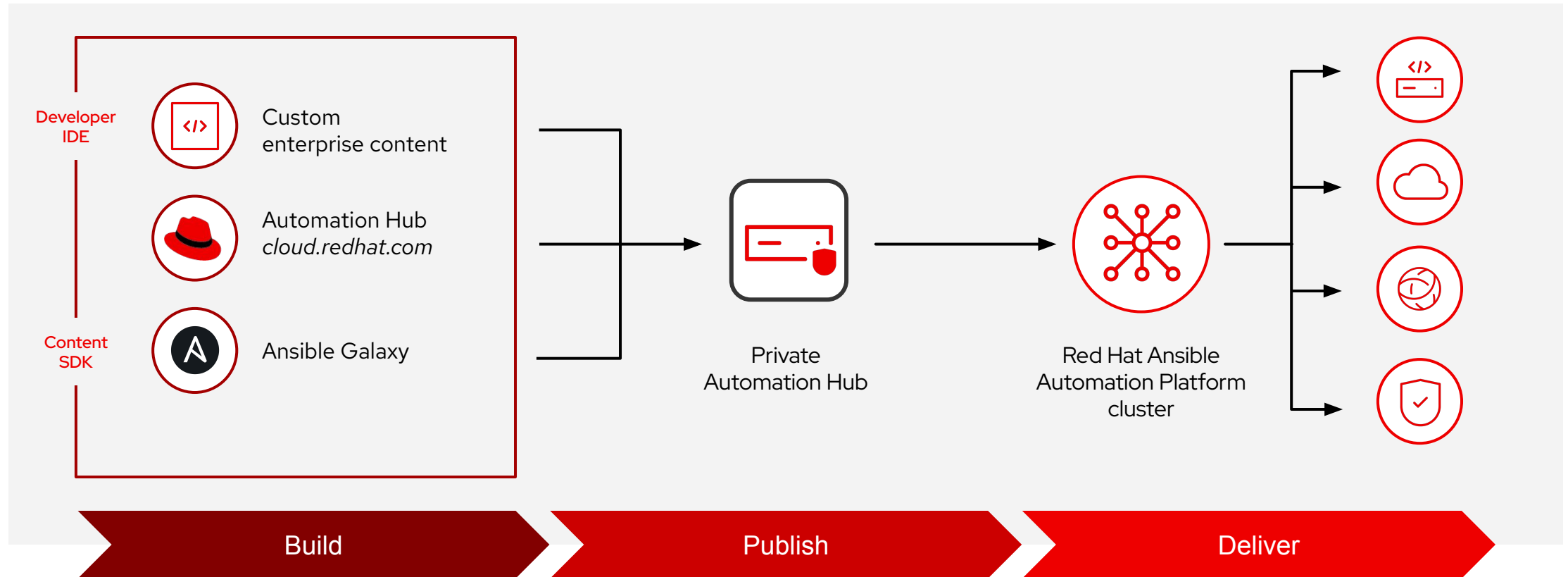
Technical Implementation



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.

Private Automation Hub architecture

Value of private Automation Hub



Ansible Execution Environments

Automation 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.

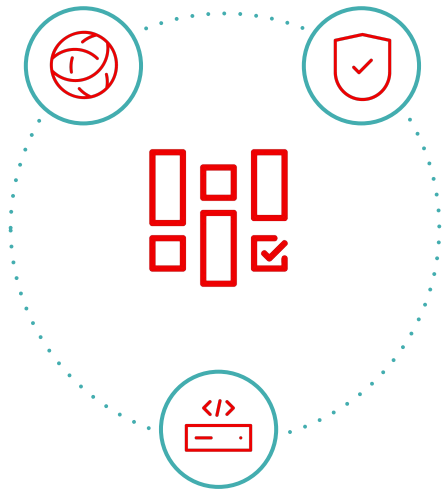
Technical Implementation



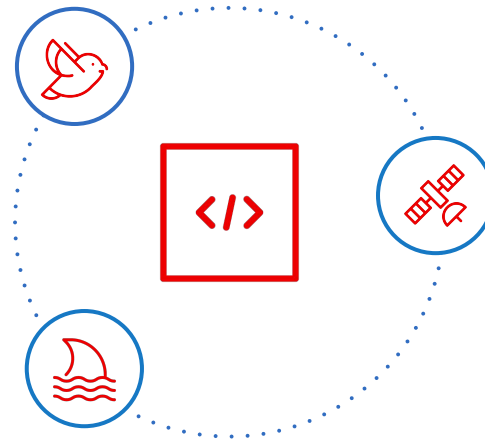
Bundle together all required Collections, corresponding RPM or PIP3 dependencies, and a minimal Ansible version in a single container.

Many technologies, different life cycles

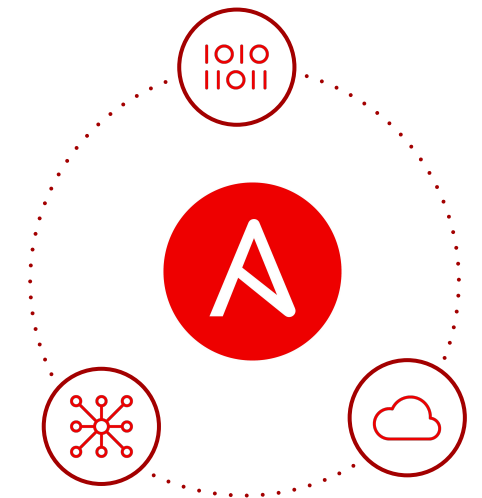
How to keep runtime environment, collections and dependencies aligned?



Collections



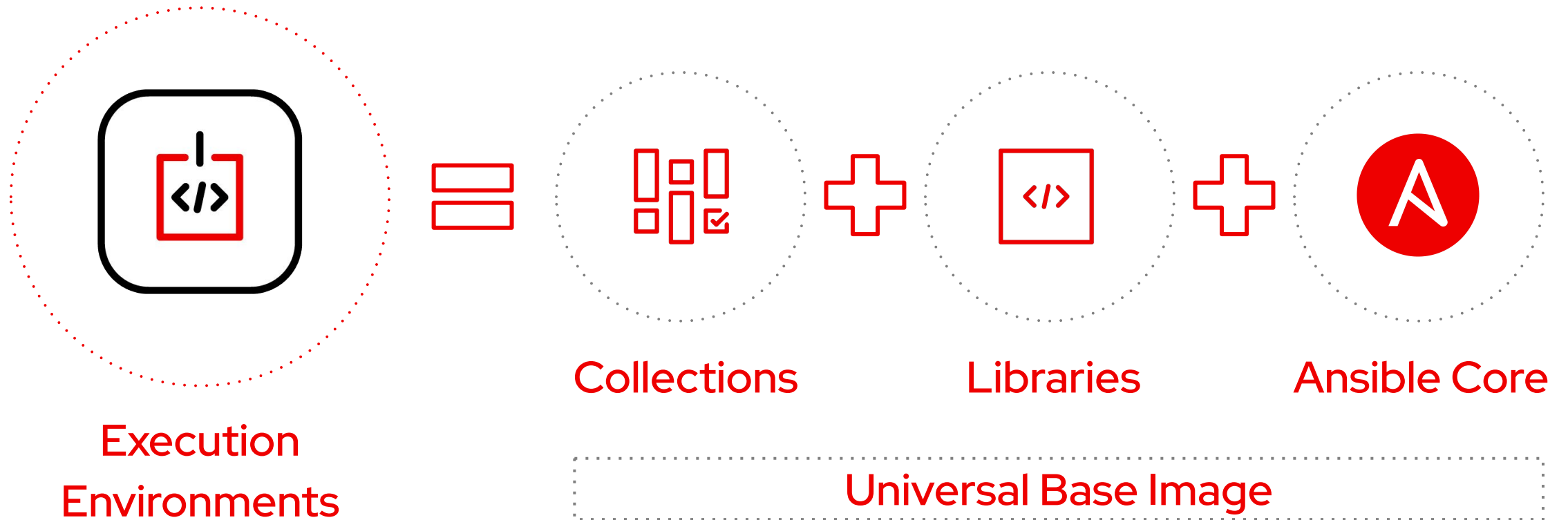
Dependencies









Runtime

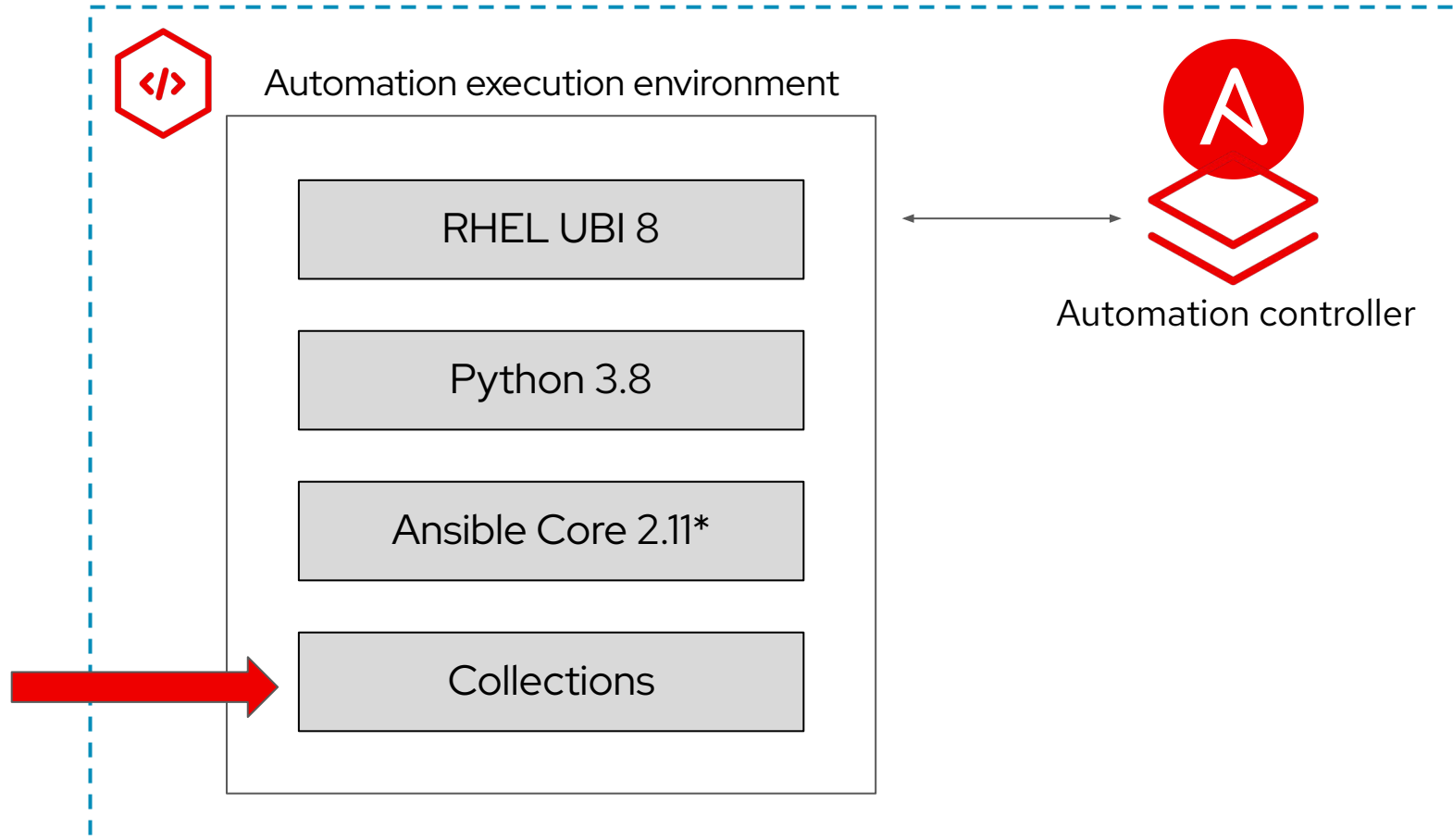
Automation Execution Environments

Components needed for automation, packaged in a cloud-native way



Example Packaging with automation execution environments

-  amazon.aws Collection
-  ansible.utils Collection
-  arista.cvp Collection
-  azure.azcollection Collection
-  ibm.qradar Collection
-  redhat.satellite Collection



*includes other Ansible dependencies/packages

Ansible builder

Source:

<https://github.com/ansible/ansible-builder>



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.

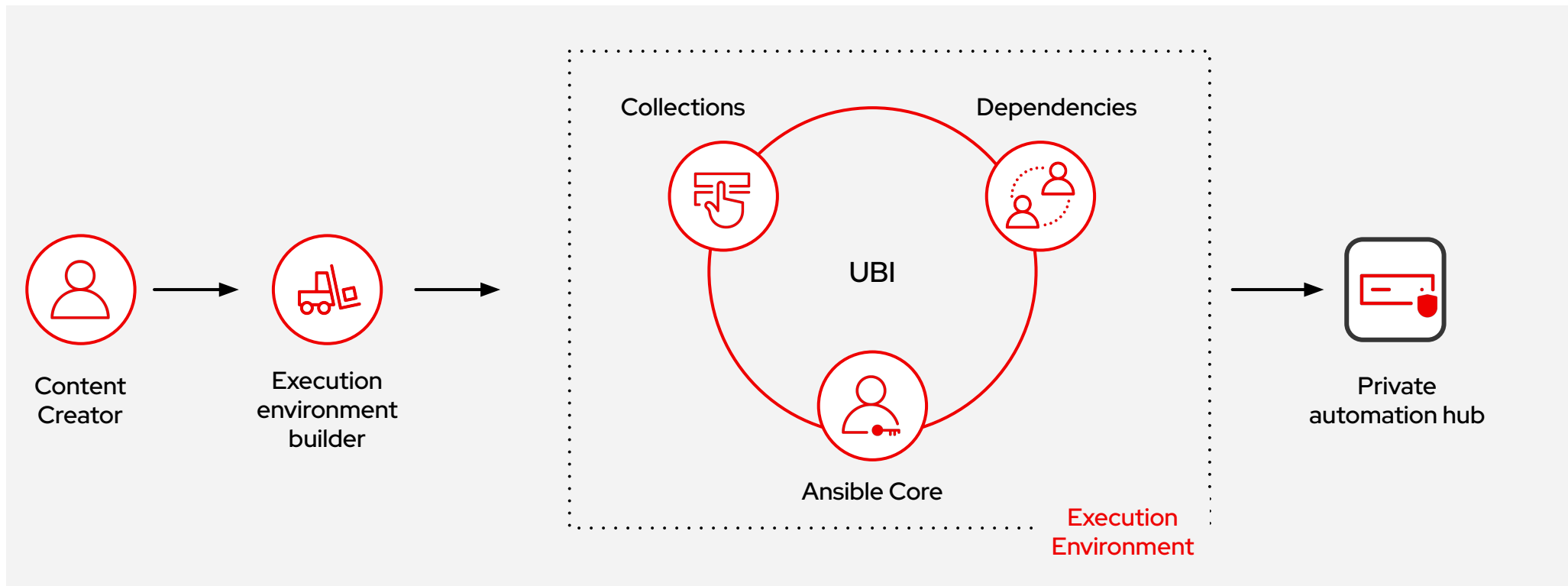
Technical Implementation



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.

Build, create, publish

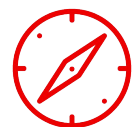
Development cycle of an automation execution environment



Ansible navigator

Source:

<https://github.com/ansible/ansible-navigator>



Ansible Navigator

Top-level interface for Platform enterprise developers

Challenge



Containerized execution introduces new challenges for developing, testing, and deploying Ansible content destined for Ansible Tower.

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.

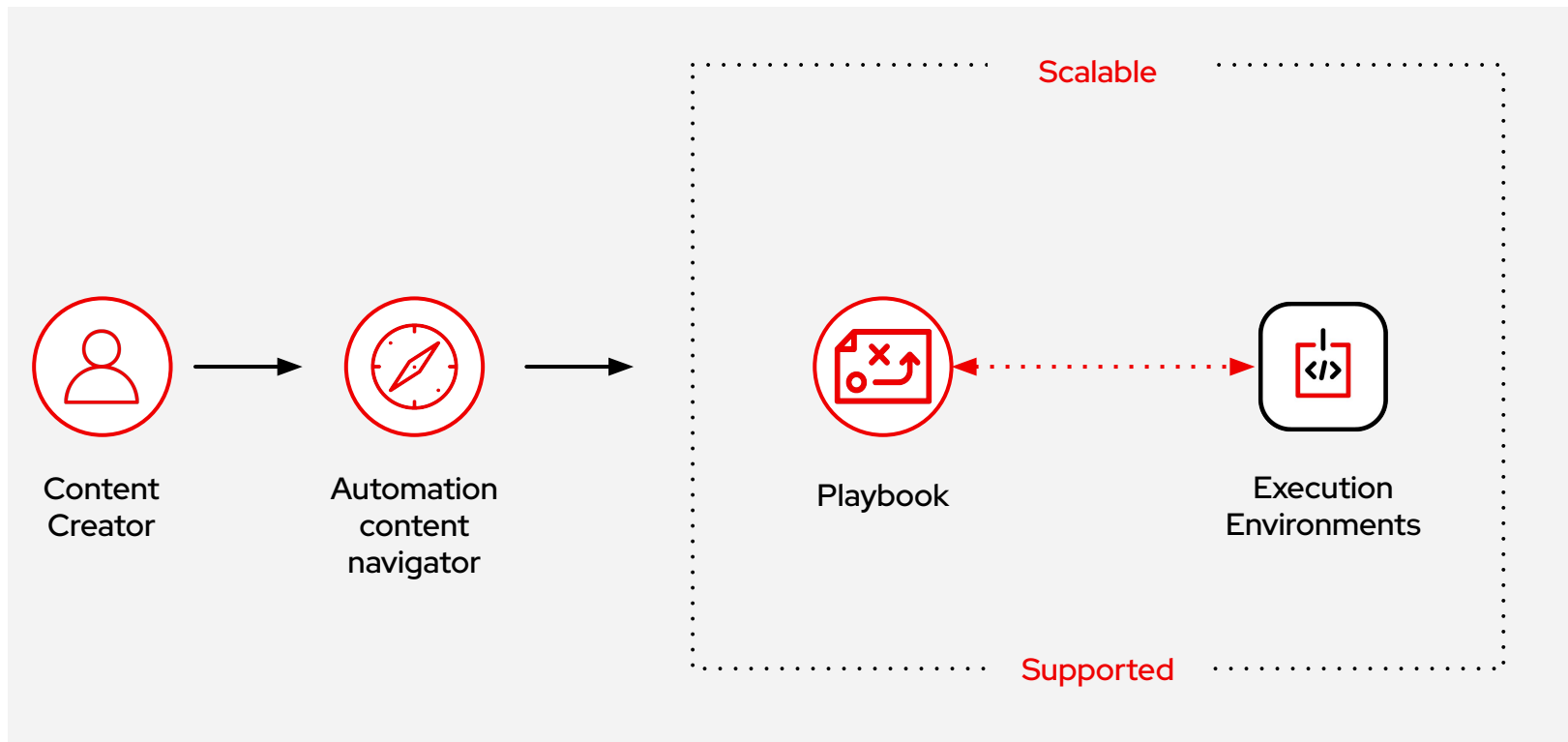
Technical Implementation



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

Develop, test, run

How to develop, test and run containerized Ansible content



ANSIBLE AUTOMATION PLATFORM 2.0

Red Hat Ansible Automation Platform 2.0



Automation controller

The control plane for automation: includes a UI, RestFul API, RBAC, workflows, and CI/CD integrations, helping teams scale.



Execution environments

The execution plane for automation: includes Ansible Core 2.11, Python 3.8, UBI8, and selected Collections, all packaged and used as a container.



Ansible Platform operator

Package, deploy and manage Red Hat Ansible Automation Platform on OpenShift.



Ansible Content Collections

100+ certified, content collections comprised of over 40k modules curated for consistent, compliant delivery.



Automation services catalog

A venue for developers and business users to manage, provision, and retire automation resources. Modeling and delivery made easy.



Automation Hub

Sync certified Ansible content repositories to on-premises private automation hub, or download directly from automation hub. Available as both a hosted service and privately on-prem.



ansible-builder

The execution environment builder is command line tool leveraging podman that builds Ansible environments inside a container.



ansible-navigator

The automation content navigator is command line tool for Execution Environments. Provides enhanced and familiar experience for Ansible creators.



Red Hat Insights for Ansible

Control, predictive analytics, auditing and reporting for multiple personas across the IT organization. Continuous actionable insights based on holistic view into entire automation stack.



Red Hat
Ansible Automation
Platform

Where to go next

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