



Ansible Automation Platform 2

What's new

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Automate everything.

Develop, operate and consume automation at scale

Automate everywhere.

Flexible, portable automation for the hybrid cloud.

Automate for everyone.

Deliver expansive automation drives results

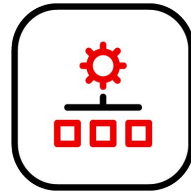
Key Changes

Key Changes in Ansible Automation Platform 2.0



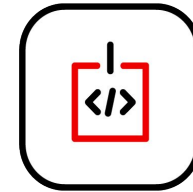
Updated Private Automation Hub

Hosting of private content, container registry.



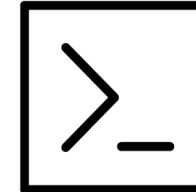
Automation controller

Replaced *Ansible Tower*.



Automation execution environments

Replaced *Ansible Engine*.



ansible-builder and **ansible-navigator**

New tools for enterprise automation developers.

Accessing & Deploying Ansible Automation Platform 2

Red Hat Ansible Automation Platform 2.0 is supported on:

- ▶ Red Hat Enterprise Linux 8 x86_64 (Physical, Virtual)

OR

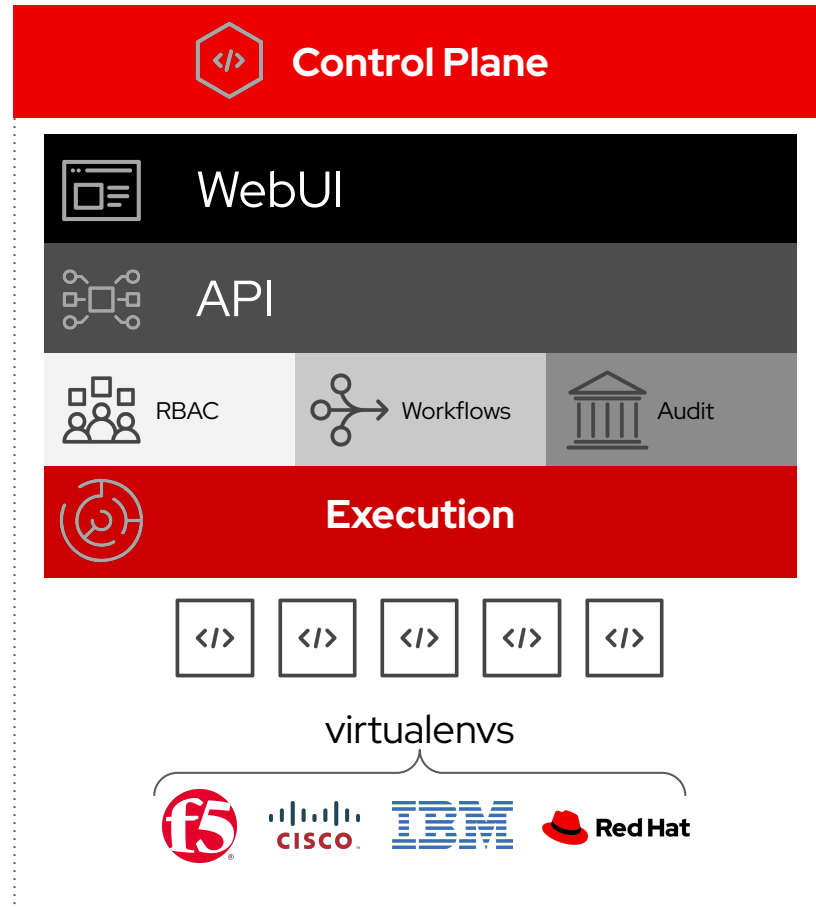
- ▶ OpenShift 4.x (Containerized)

Access Ansible Automation Platform 2.0 via:

- ▶ Download physical/virtual AAP installer from access.redhat.com
- ▶ Install containerized Ansible Automation Platform 2.0 on OpenShift via Operator (Red Hat Marketplace).

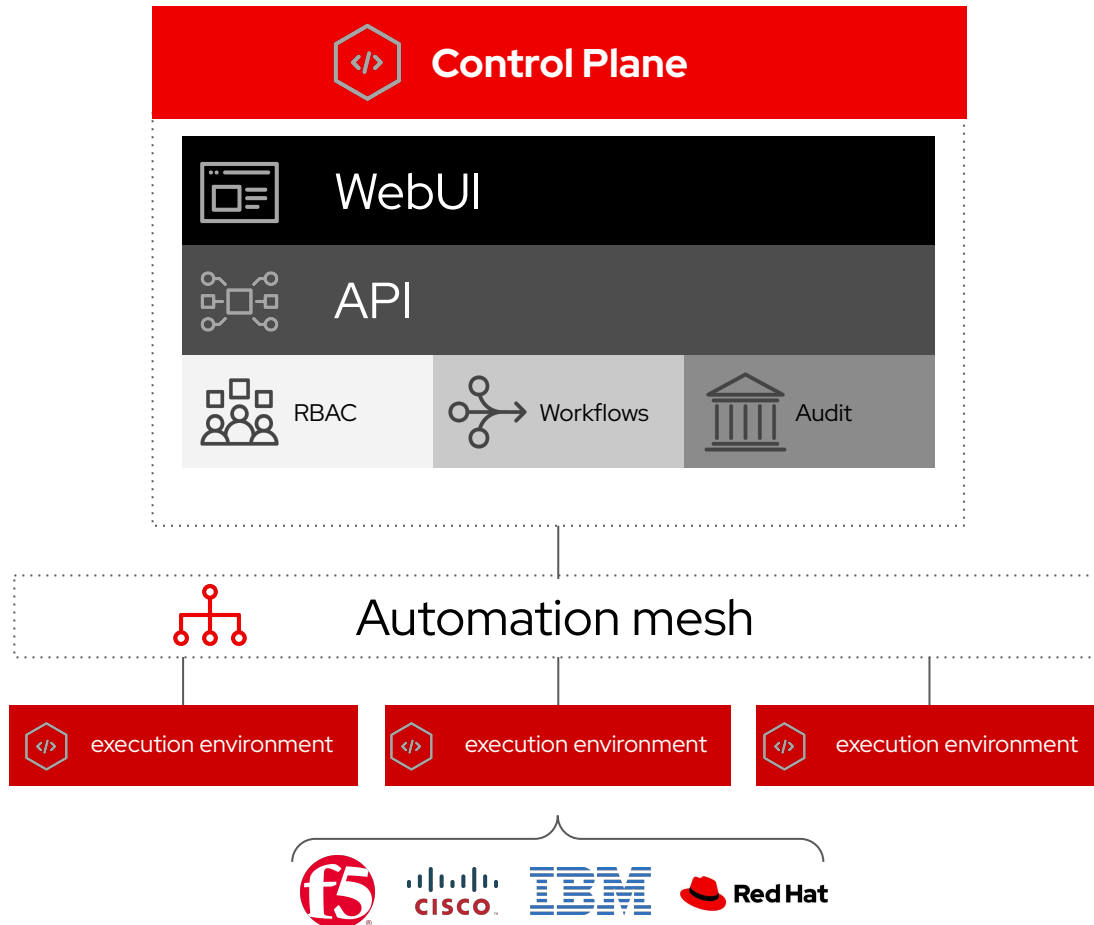
Architecture

Previous Architecture - Ansible Tower



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

New architecture – Automation Controller



Architecture

- ▶ Decoupled control and execution plane

WebUI

- ▶ Refactored to PatternFly 4.0
- ▶ Increased performance

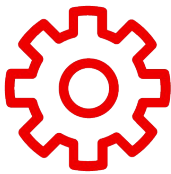
PostgreSQL 12

- ▶ Installed from RHEL modules

Automation execution environments

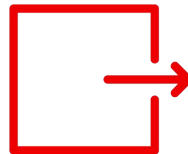
Limitations of Python Virtual Environments

They don't work for the enterprise



Tooling

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



Portability

Python Virtual Environments are unique to a single system and hard to replicate on another system.



Maintenance

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



Automation execution environments

Challenge



Management of Ansible dependencies, multiple Python virtualenvs increases complexity of automation.

Solution & Business Value



Standardized package format to build, deploy and run Ansible content, provides reliable, reproducible and scalable execution layer.

Technical Implementation









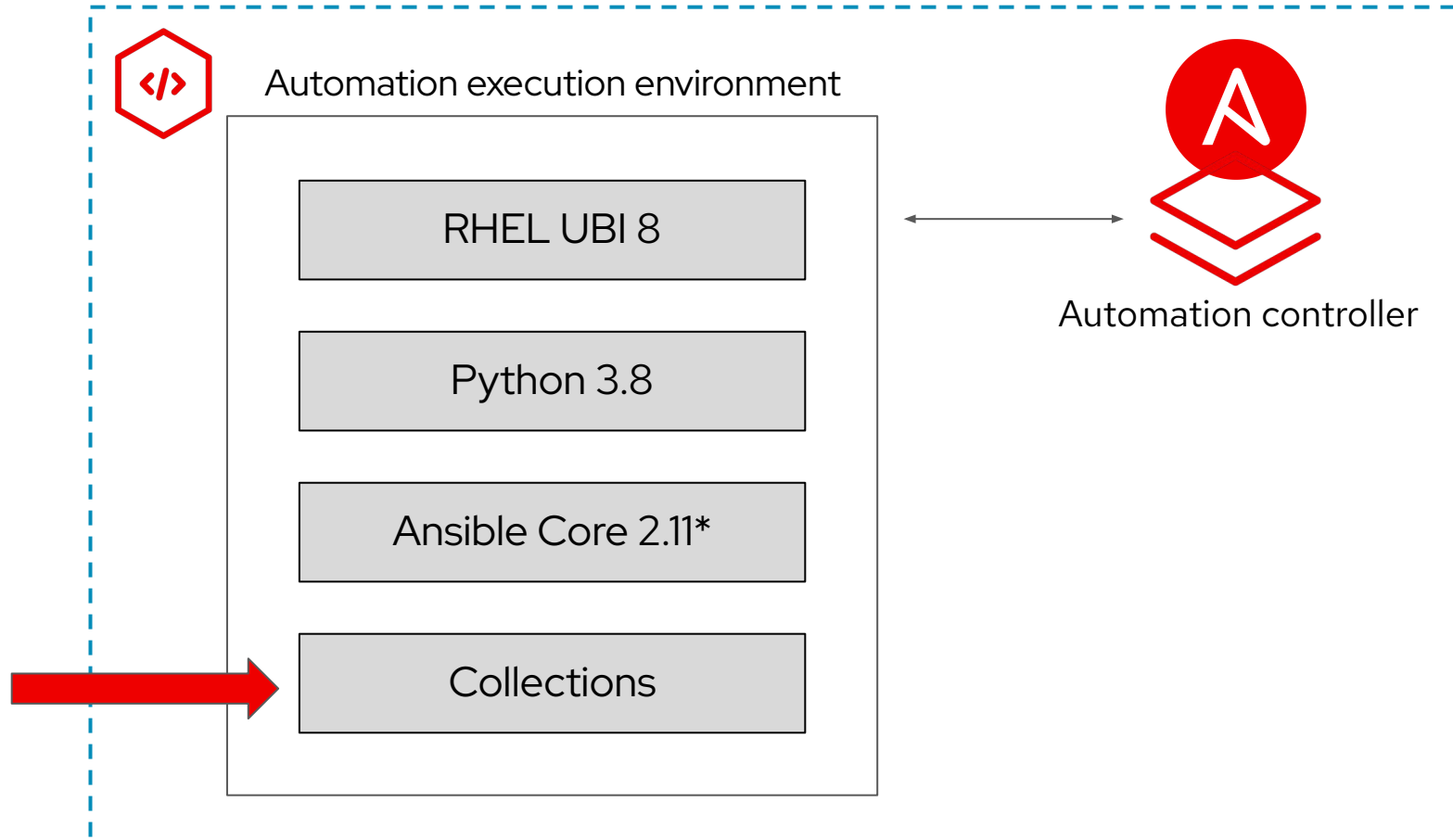
Bundle together all required Collections, corresponding RPM or PIP3 dependencies, and a minimal Ansible version in a single container.

What's in an automation execution environment?



Example Packaging with automation execution environments

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

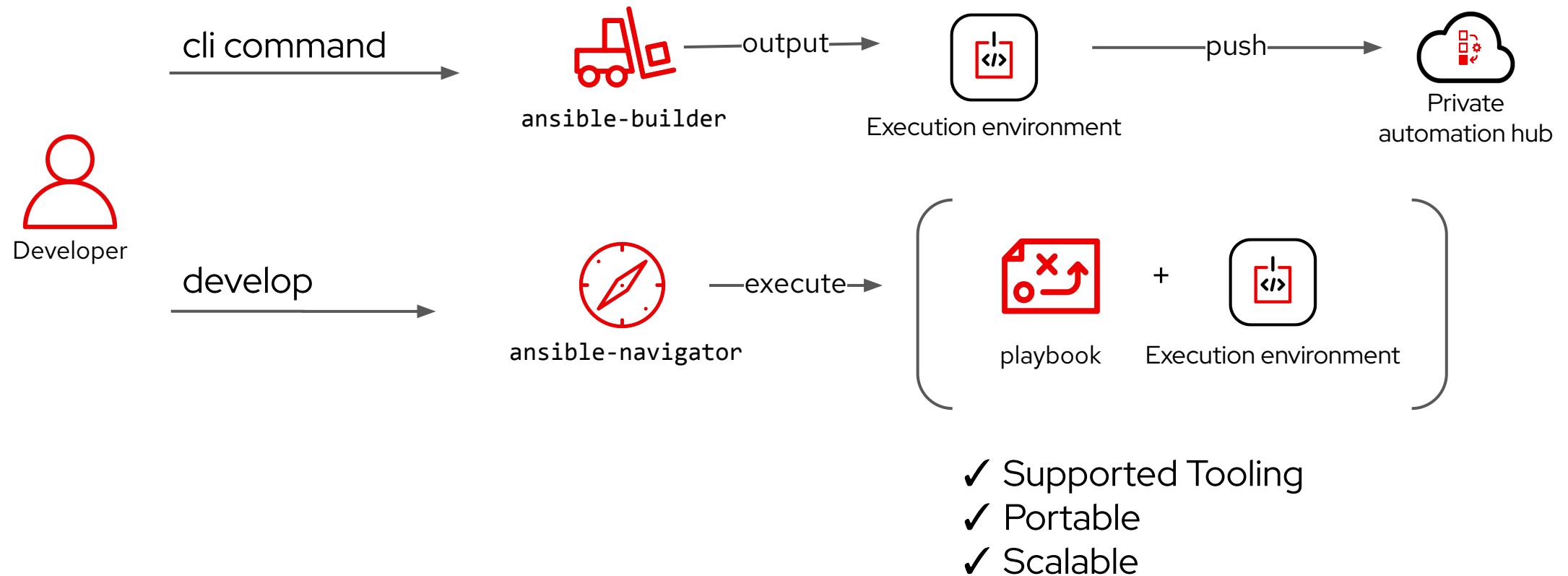


*includes other Ansible dependencies/packages

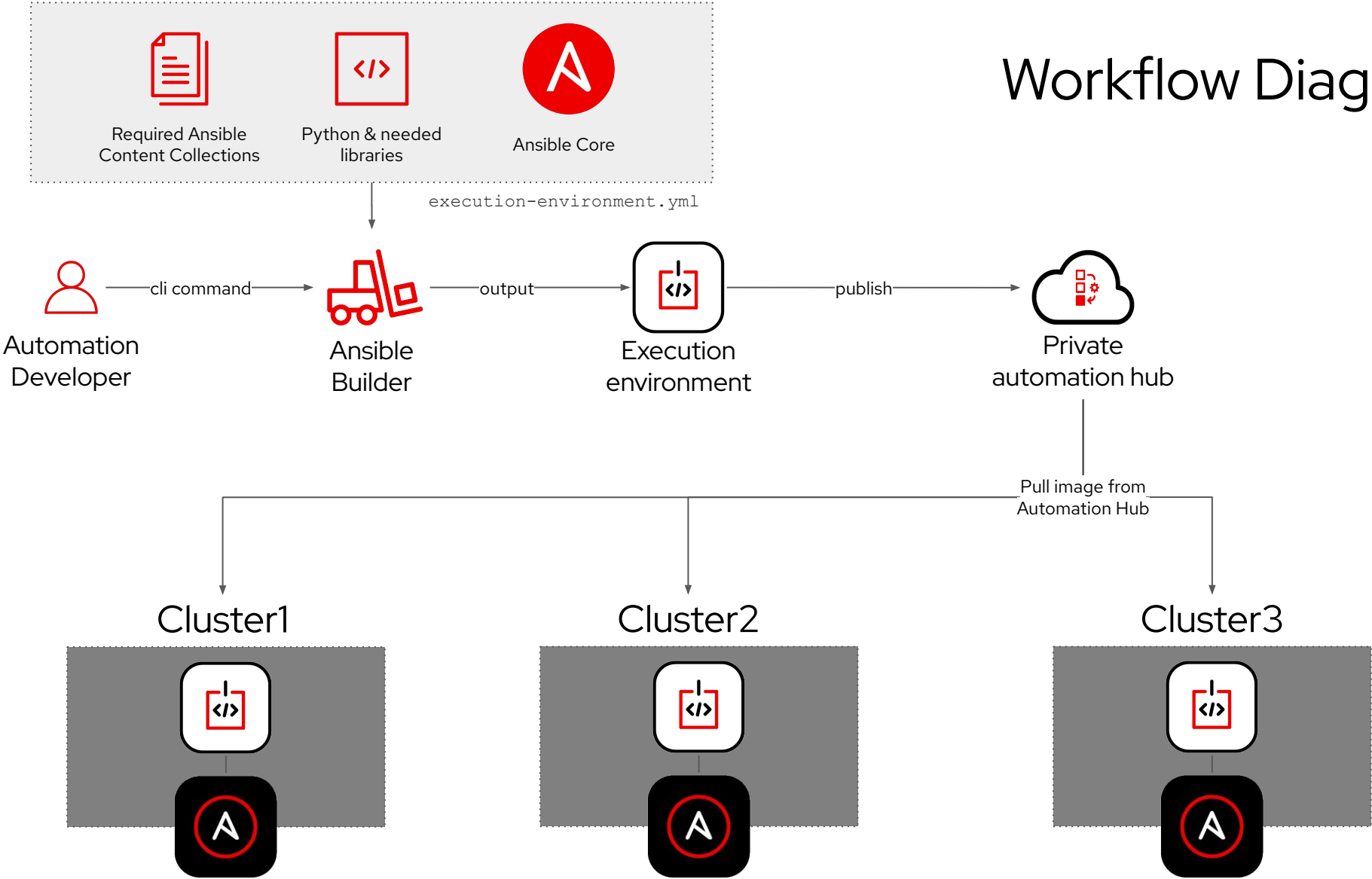
Available automation execution environments with AAP 2.0

- ▶ **Minimal** (ee-minimal-rhel8) - Contains Ansible Core 2.11 and doesn't contain any Collections.
- ▶ **Supported** (ee-supported-rhel8) - This is the default image. It is built on top of the minimal image and contains content supported by Red Hat.
- ▶ **Compatibility** (ee-29-rhel8) - Contains Ansible 2.9 "batteries included" and is best for customers migrating from Ansible Automation Platform 1.2.

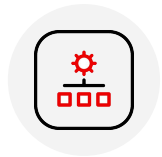
Adapting execution environments



Workflow Diagram



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

90+ 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.

Thank you

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