



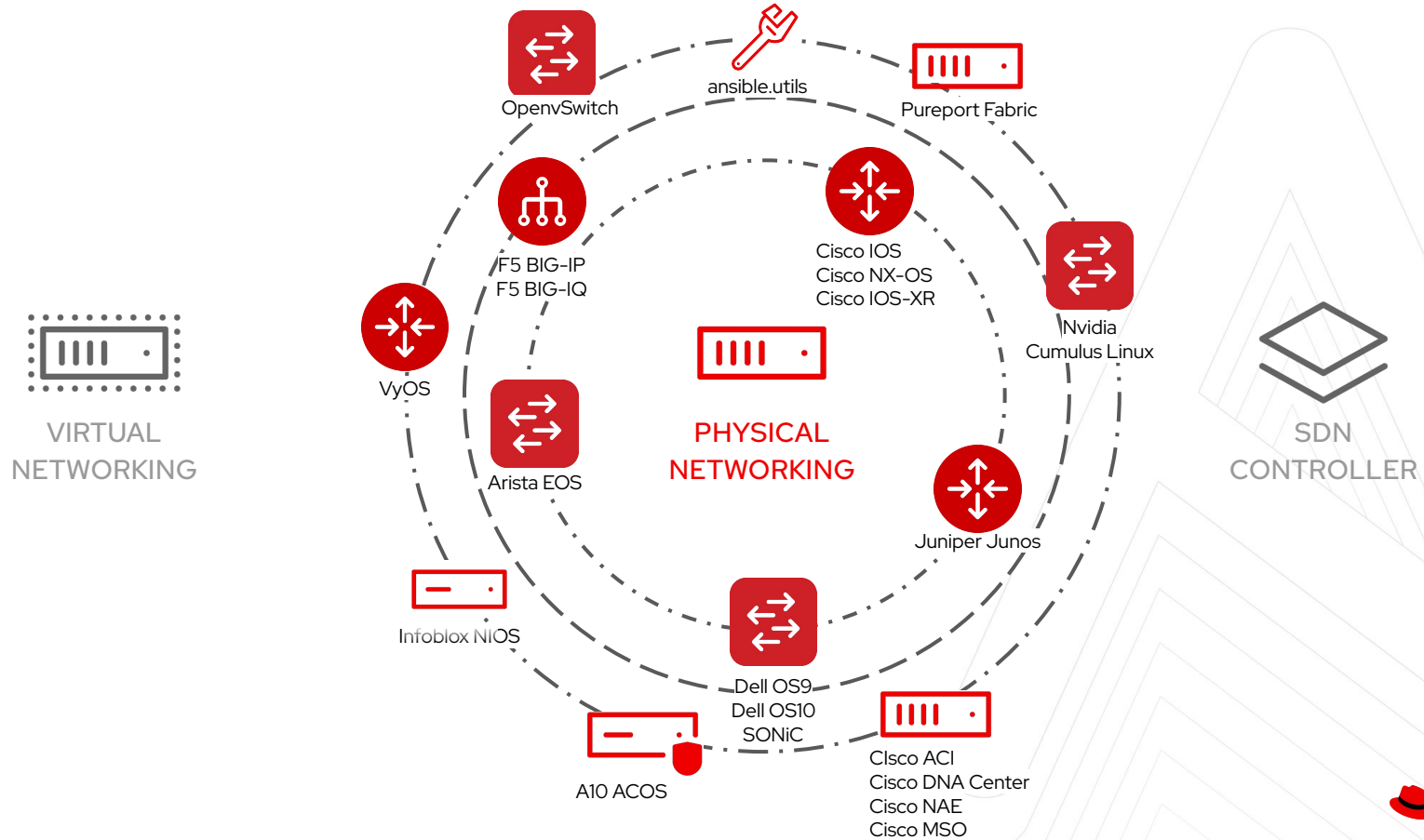
NetOps meets GitOps meets Automation

Cisco Live 2023

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What is it for?



What makes a platform?



Red Hat
Ansible Automation
Platform



Content creators



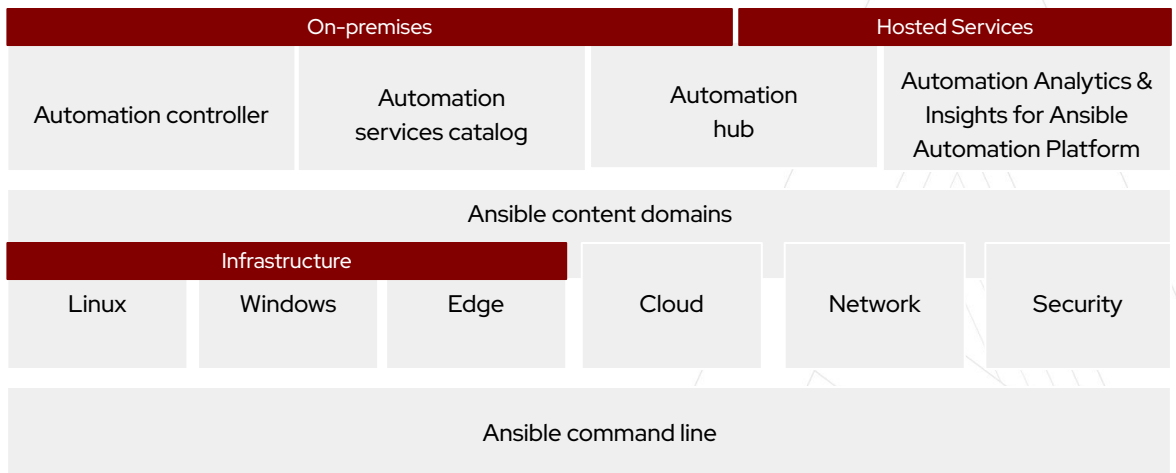
Operators



Domain experts



Users

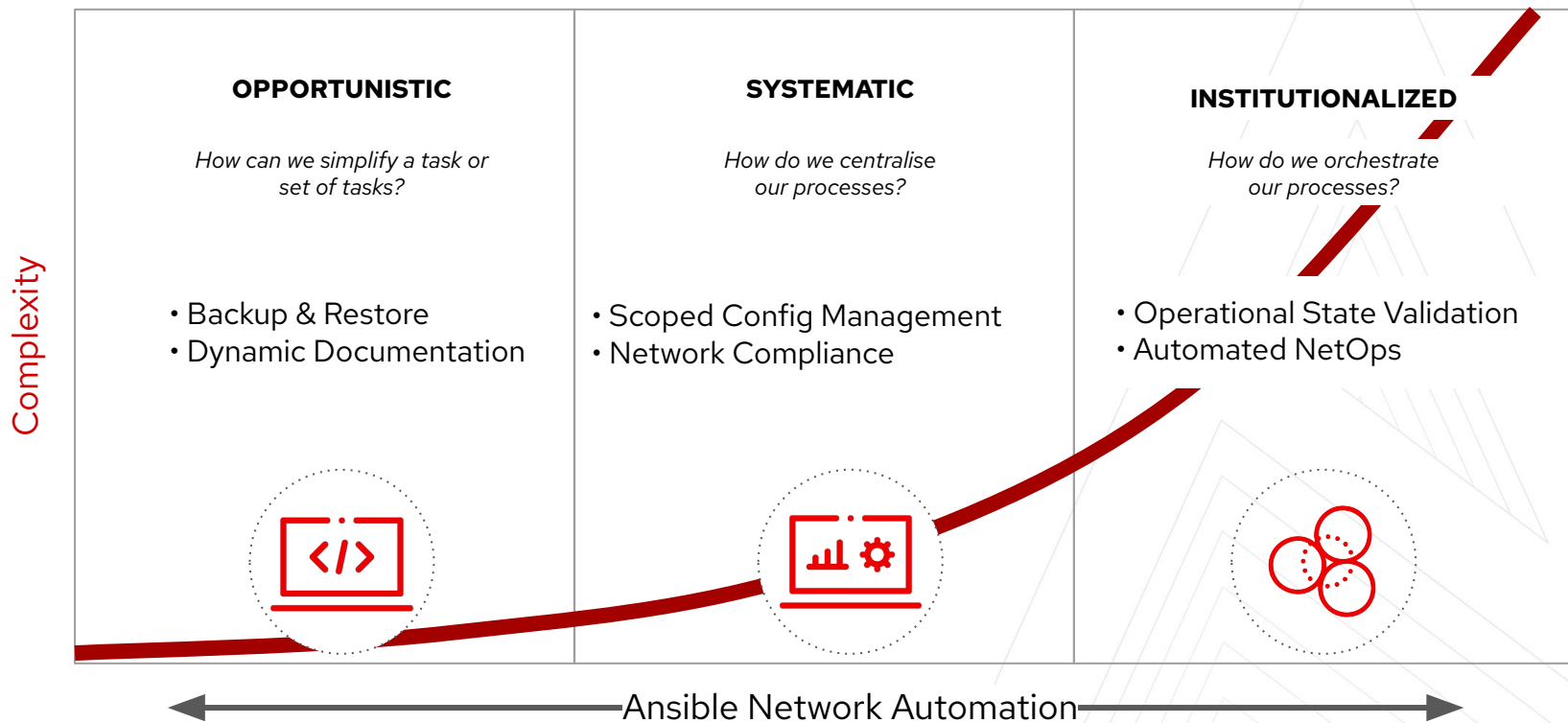


Fueled by an
open source community



Red Hat

Network Automation Journey



Next generation networking

Scope, scale and complexity



Edge / IoT Devices

New device types entering networks at scale, with distributed computing.



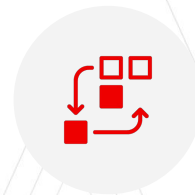
Hybrid cloud

Numerous deployment forms across the globe



Digital transformation

Responding with new applications is only as fast as the slowest process



Data-intensive computing

Artificial intelligence, digital applications and growing data driving connectivity

What are resource modules?

Interact with device configuration based on states



Normalized input

Uniform argument input structure



Structured common output

Returned data/facts reusable in modules without changes



Resource module states

Gathered - read only

Merged - add/increment

Replaced - template/diff

Overridden - force/policy

Deleted - destroy/remediate

Why use resource modules?

Advantages for customers



Multi-vendor

- Convert device configuration to structured data
- Consistent operations



SecOps

- Full configuration management lifecycle
- No need to manually parse / manipulate returned data



Outcome-based automation

- Mature automation from appliance-centric to process-centric

Why use resource modules?

Advantages for vendors



Adoption

- Standardized input and structured output
- Technical onboarding reduced



Use-cases

- Broader, solution-based use-cases
- Integration opportunities
- Programmatic access / configuration

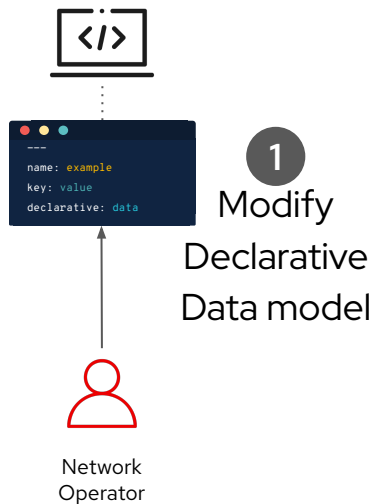


Unique features/technologies

- Resource modules built from vendor API
- Retain unique features and competitive advantage

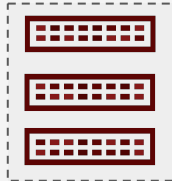
Automated NetOps

Tying everything together

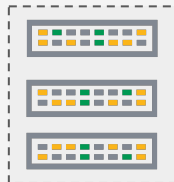


Ansible Automation
Platform

Development

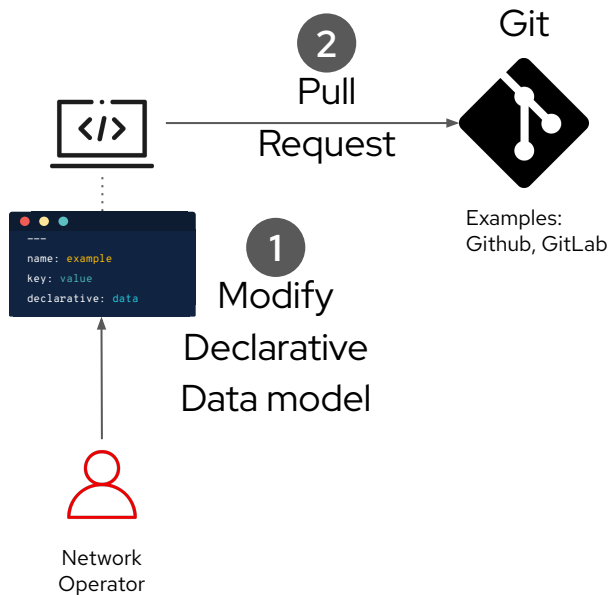


Production



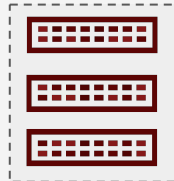
Automated NetOps

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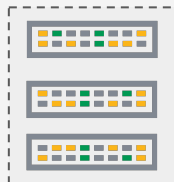



Ansible Automation
Platform

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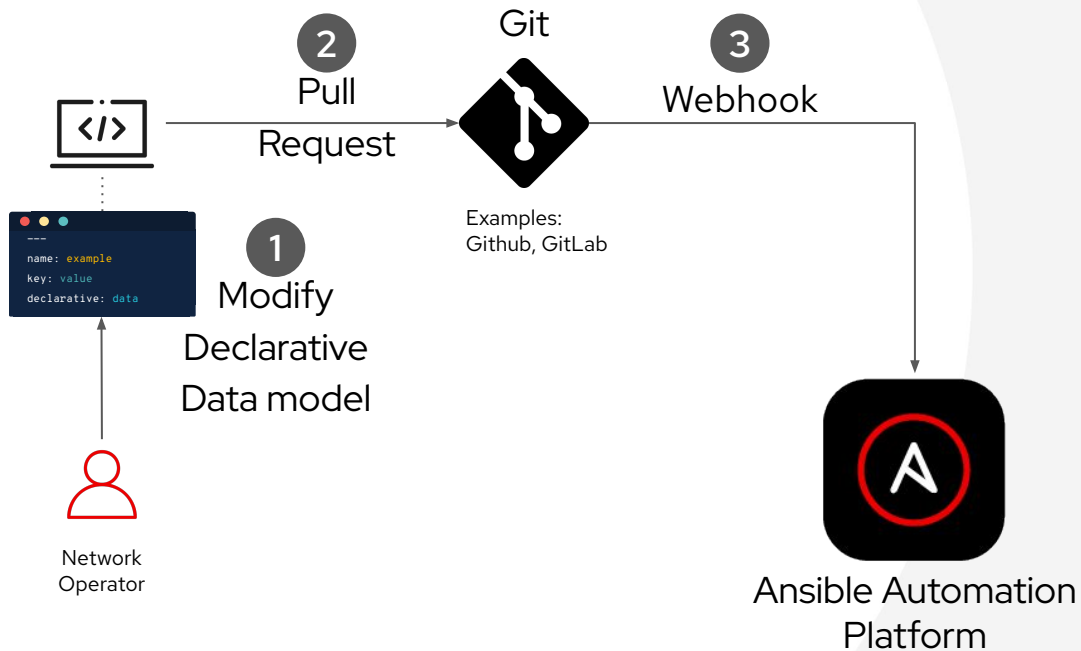


Production

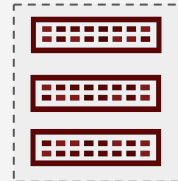


Automated NetOps

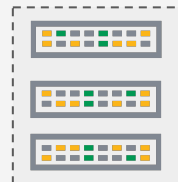
Tying everything together



Development

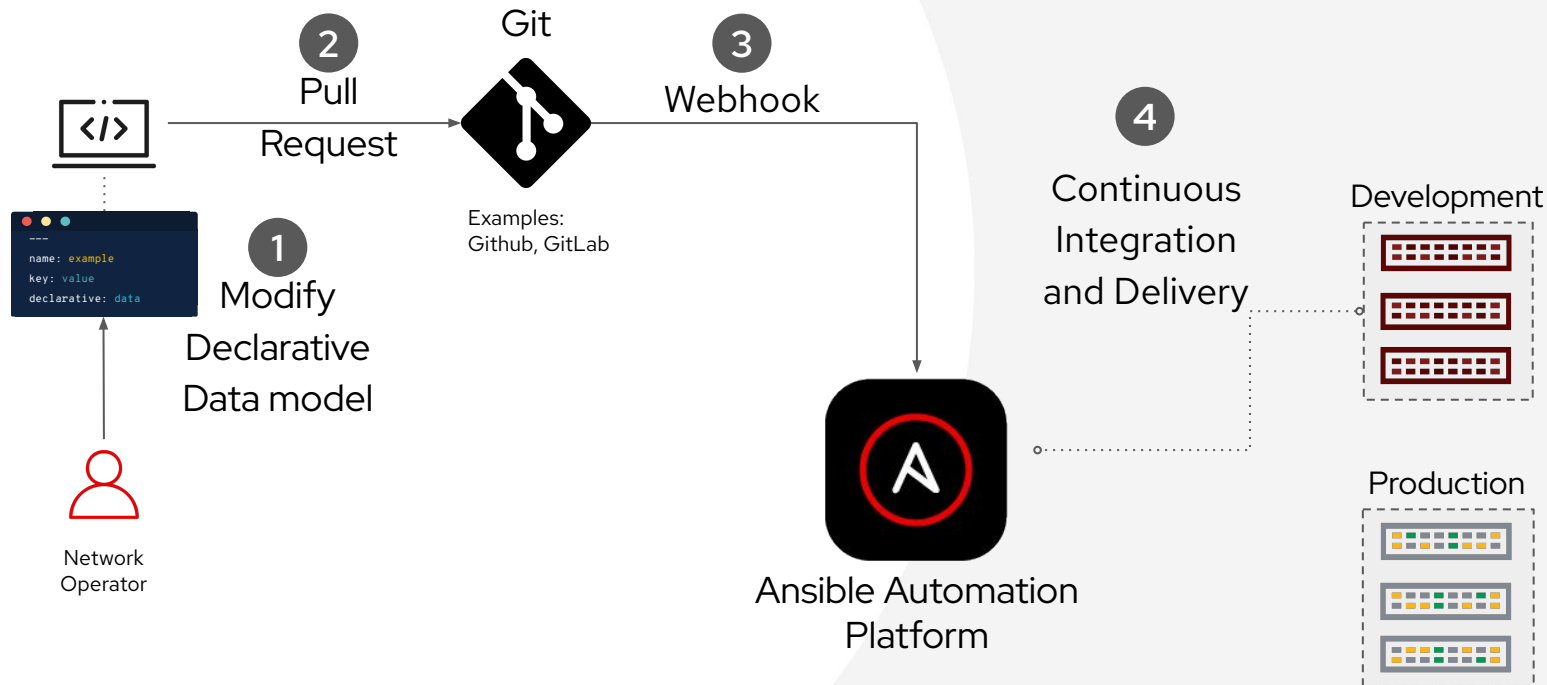


Production



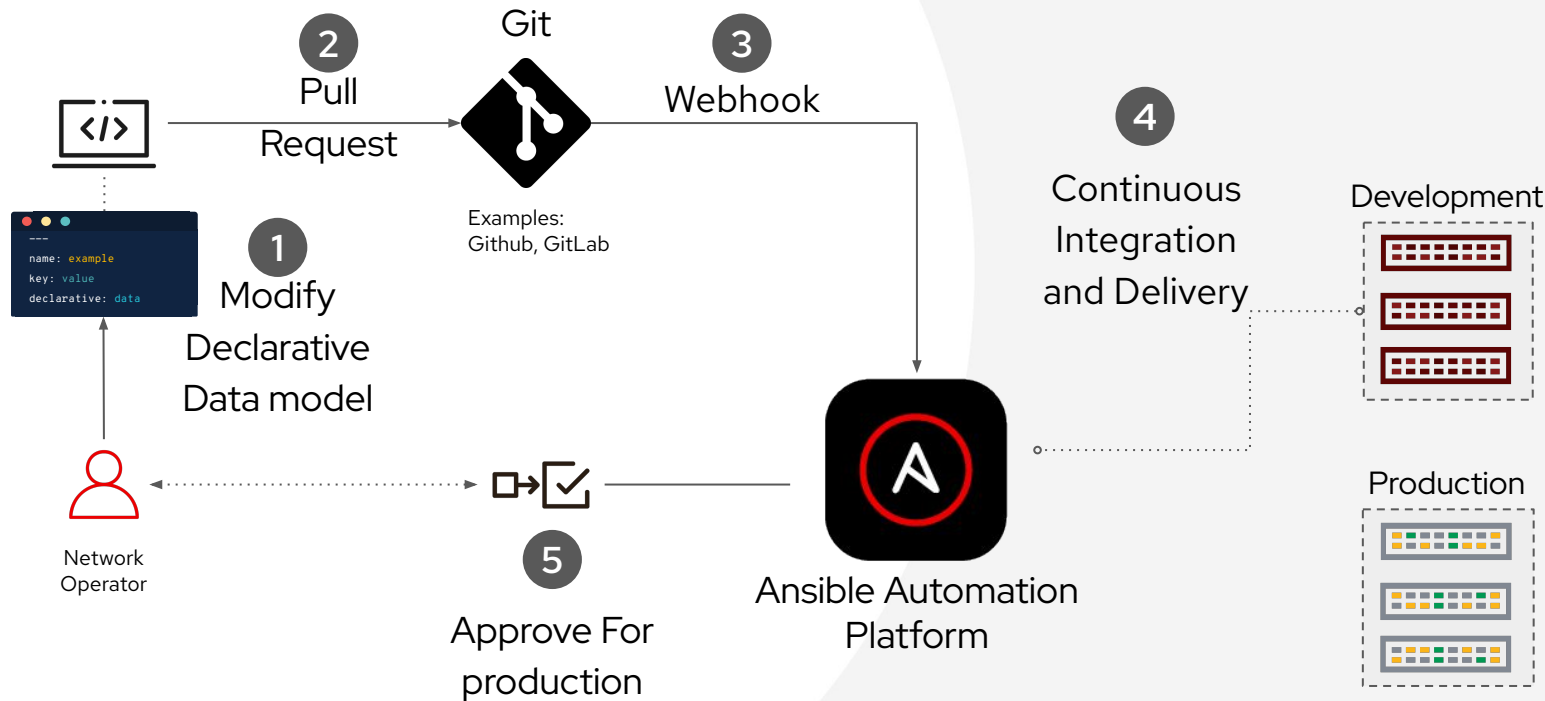
Automated NetOps

Tying everything together



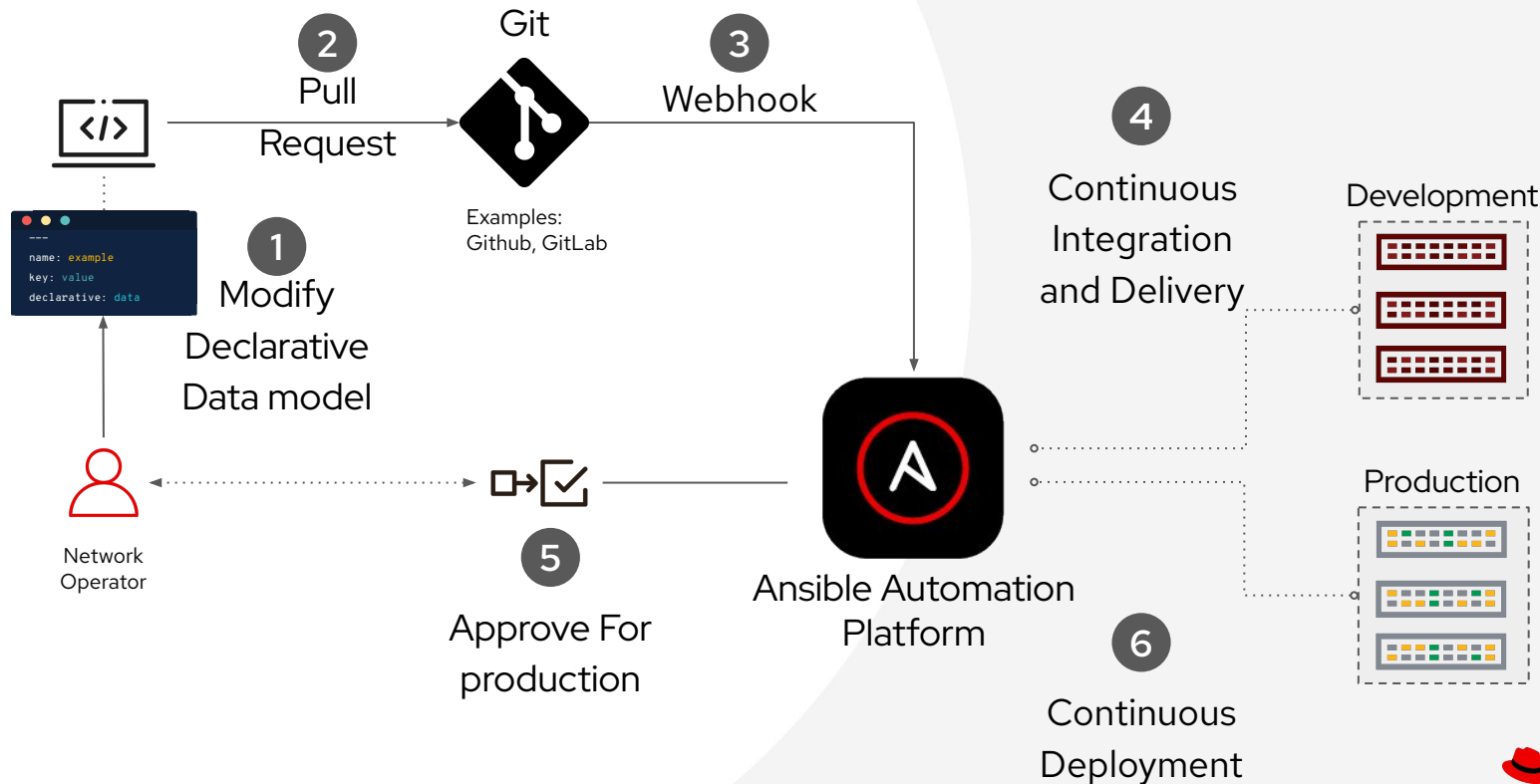
Automated NetOps

Tying everything together



Automated NetOps

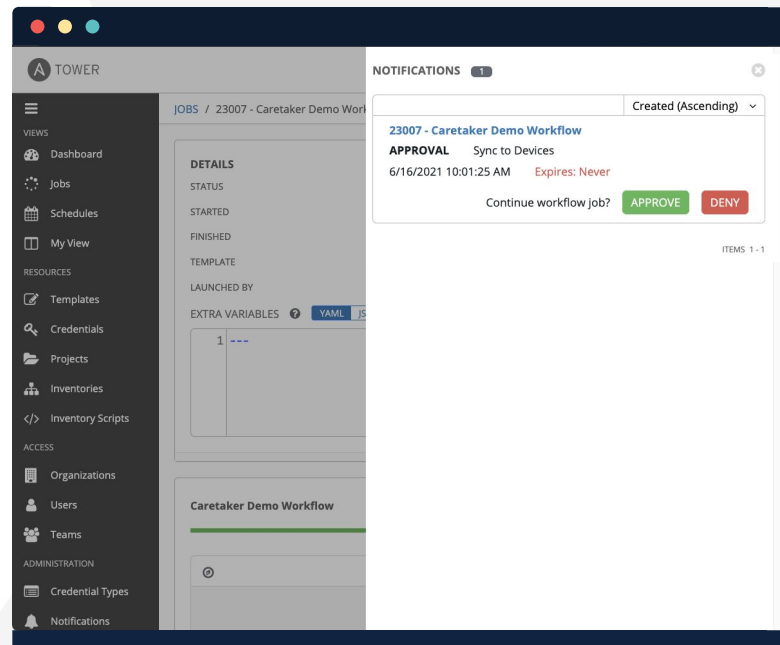
Tying everything together



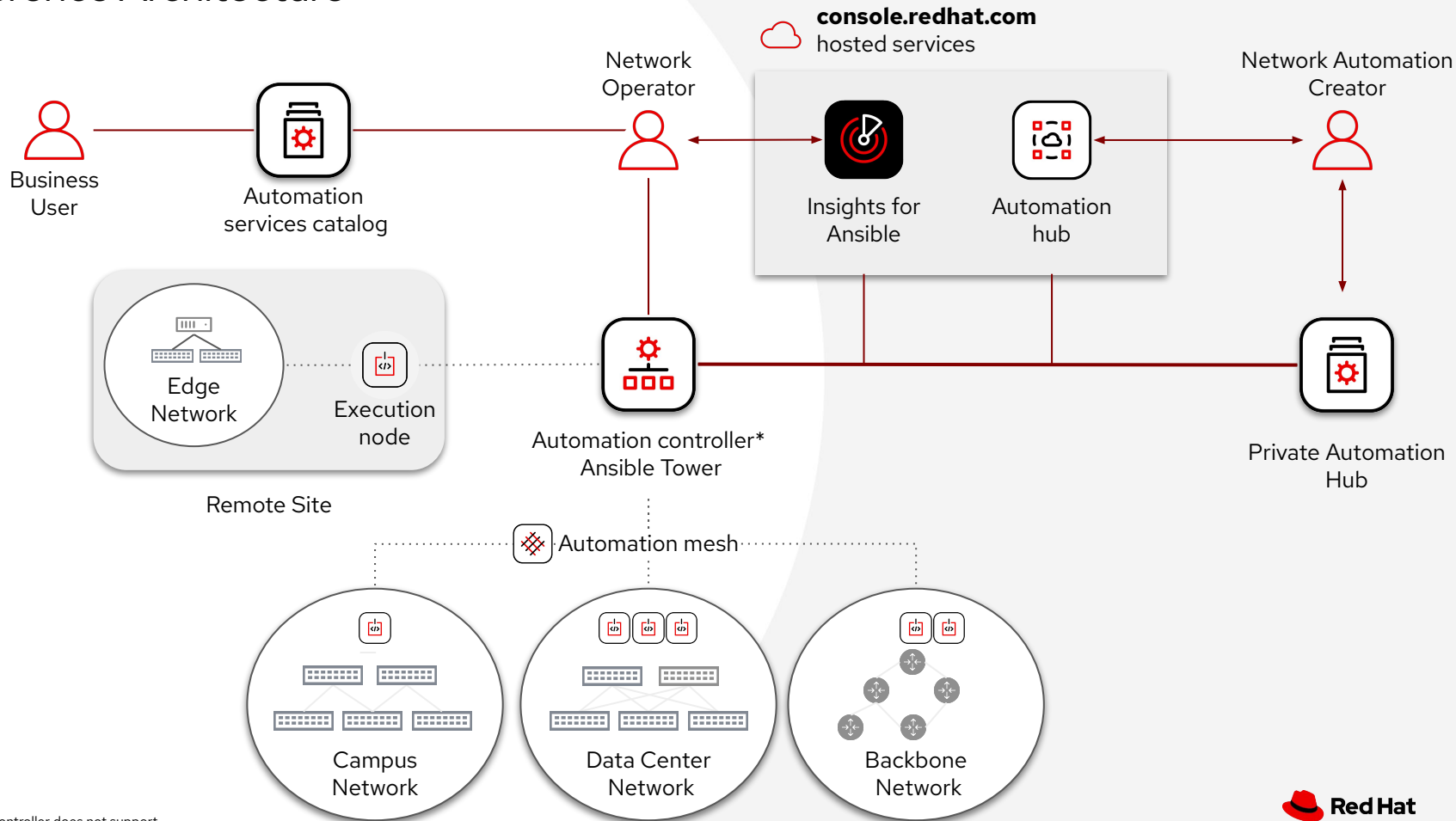
Approvals

Require user intervention in order to advance the workflow

- ▶ Can be configured to timeout and stop workflows in no human intervention within specified time limit
- ▶ Users can be assigned Approve permissions explicitly via RBAC
- ▶ Gives time to users to review automation status and testing before applying to production



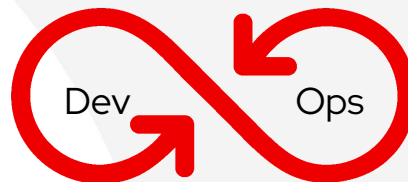
Reference Architecture



*Automation controller does not support isolated nodes until AAP 2.1



Red Hat Ansible Automation Platform



Coding

Automation Controller syncs with Git / Subversion for automation projects

Building

WebHooks allow Automation Controller to sync with Github and GitLab

Testing

For testing network state Ansible.Utils, for testing automation ansible-test and molecule

Packaging

Predefined textfsm templates packages supporting a variety of platforms and commands

Releasing

Workflow Approvals are part of both Automation Controller and Automation services catalog

Configuring

Ansible Automation Platform is the core for DevOps deployments and configuration management

Monitoring

Insights for Ansible Automation Platform allows measuring of success across multiple Automation initiatives

And
much
more

...



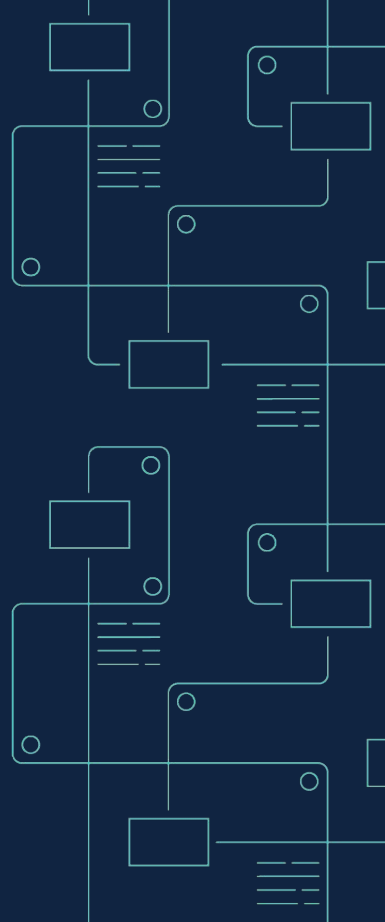
Red Hat



Ansible Fest 2022

October 18-19th

For more information visit ansible.com/ansiblefest



Q+A

Learn more:

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