



**Connect**

# Ansible Development Tools

Speed Up Ansible Content Creation

Jacek Skórzyński

Principal Solutions Architect

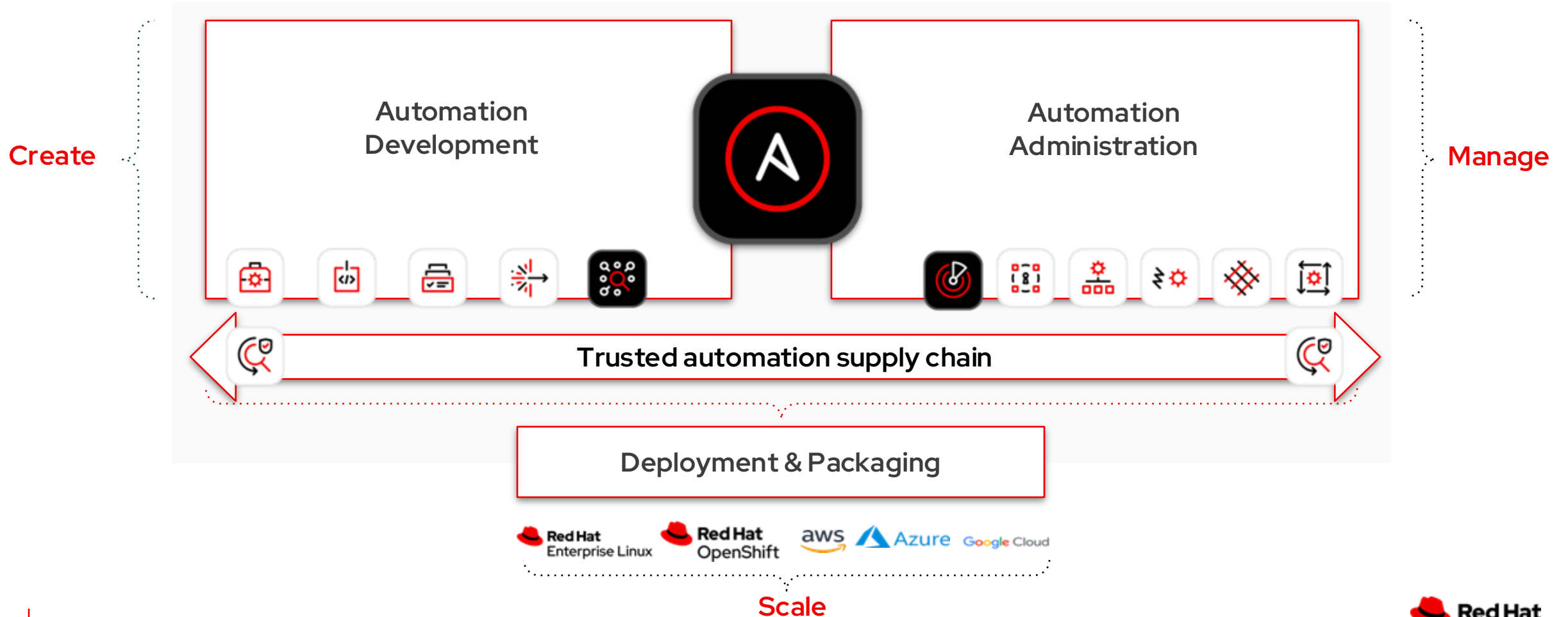
Red Hat CEE

[jacek@redhat.com](mailto:jacek@redhat.com)



# Red Hat Ansible Automation Platform

A unified solution for strategic automation



# Automation development challenges are adoption challenges

Enterprises face challenges to quickly **create, adopt, and maintain** scalable automation content.



**Learning new skills** and behaviors takes time.



**Varied level** of Ansible expertise



**Fragmented resources** such as documentation and tooling.



No **standards or best practices** in place to align teams.



**Lack of compatibility** with preferred tooling.



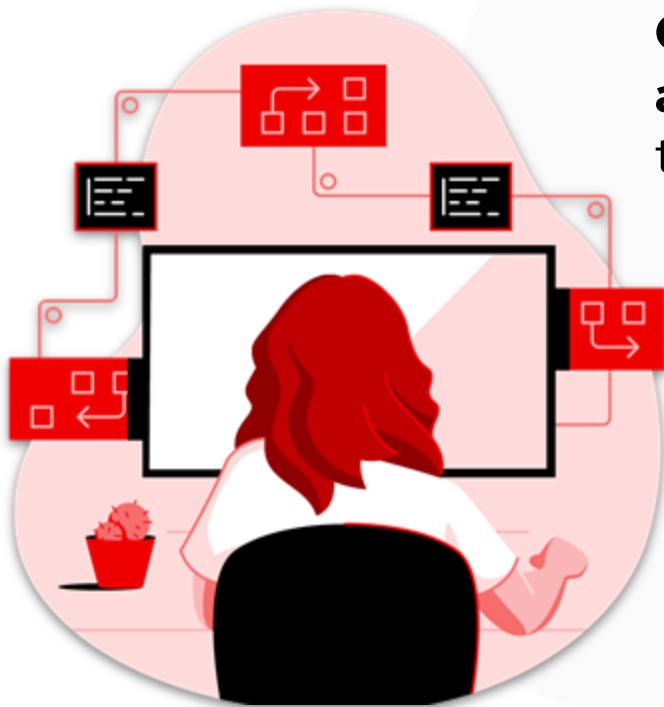
**Varied tool preferences** among users.



**Technical debt** hinders innovation.



## Better code is the key to unlocking automation acceleration

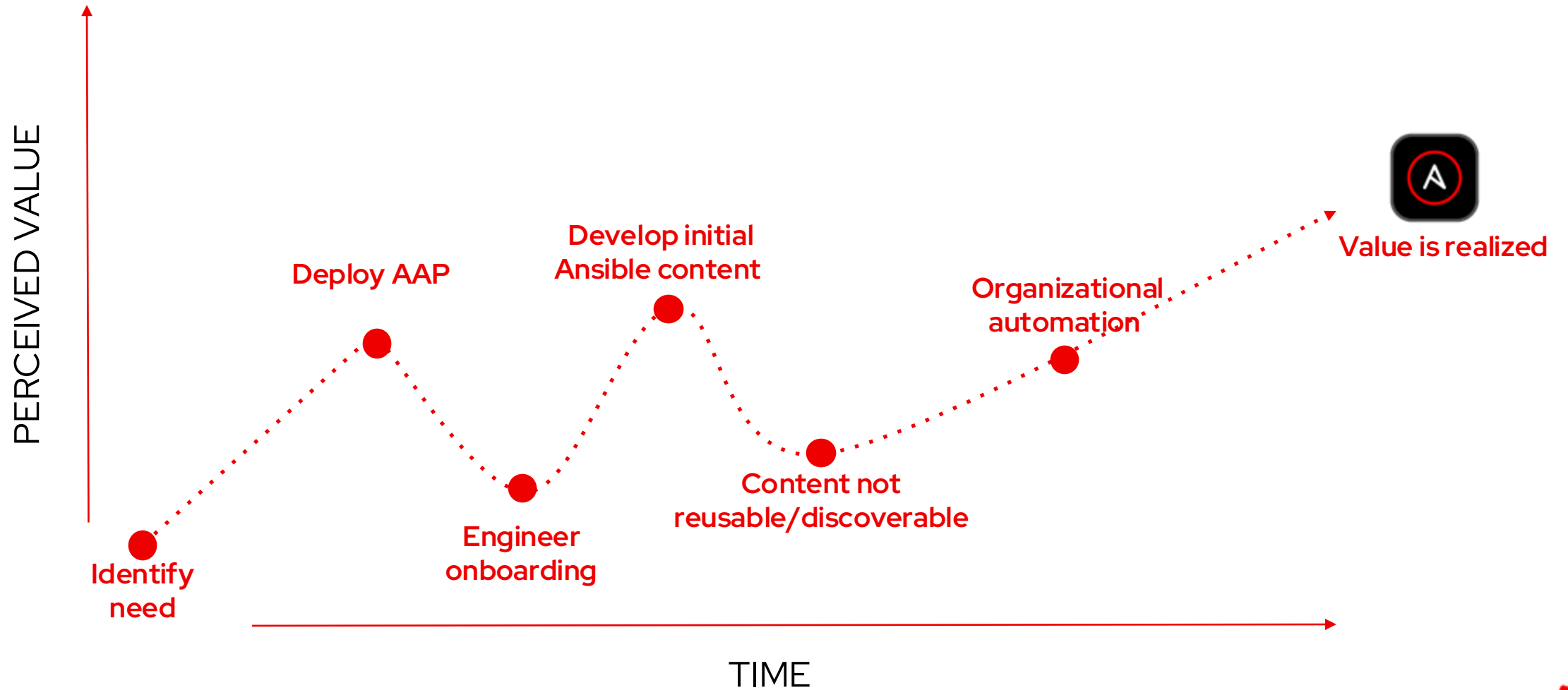


**Getting the most out of automation requires driving it from an enterprise level.** That involves multiple teams working together to create automation code.

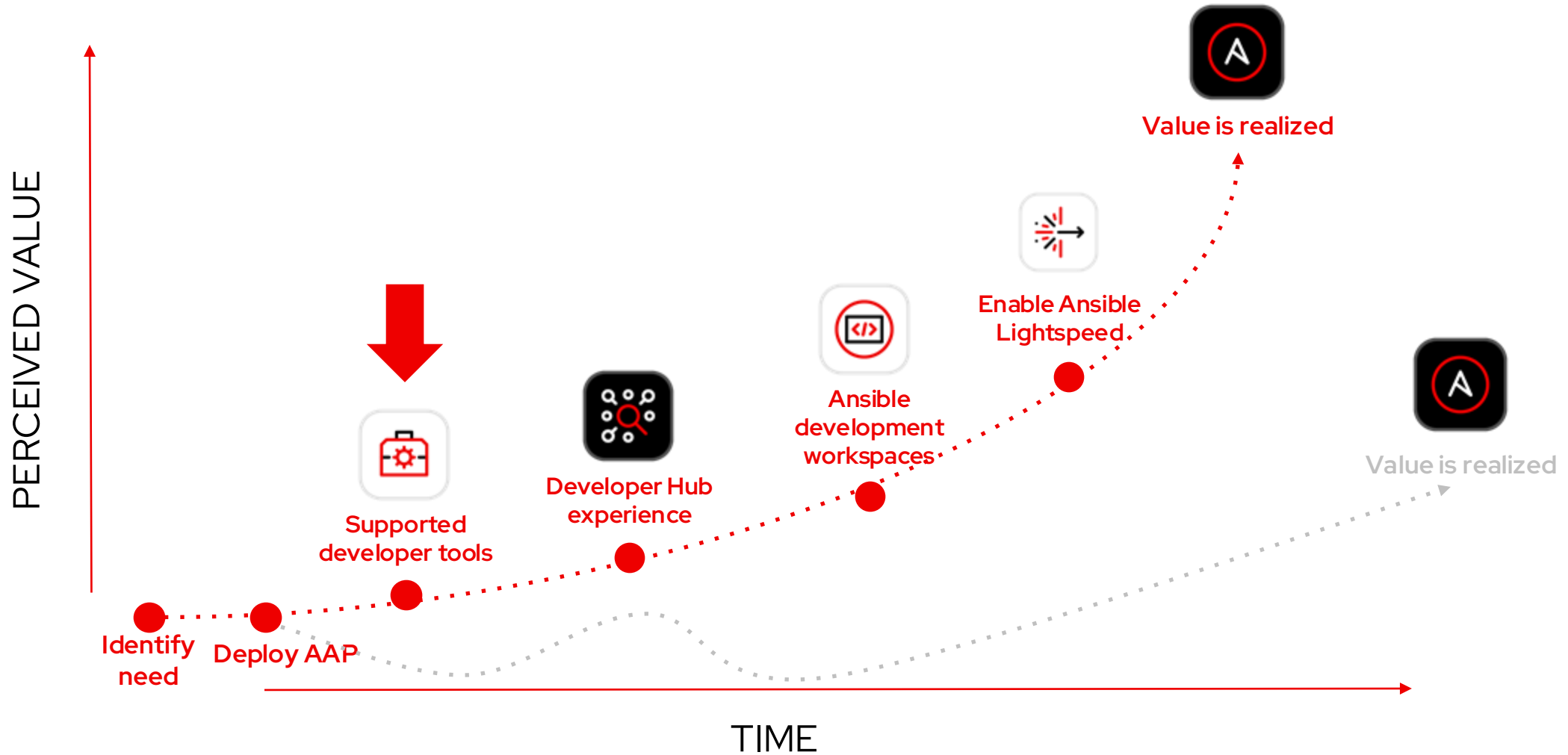
- > Code that **scales across domains.**
- > Code that **meets the varied needs of the teams using it.**
- > Code that is **trusted** and **well-maintained**



# Ansible adoption journey



# Ansible developer experience: Accelerated time-to-value



# Ansible development tools



**ansible-dev-tools**

**Supported, and curated** collection of enterprise-grade capabilities to enable automation developers in the **creating, testing, and deployment** of Ansible content.



# Ansible development tools

**Supported**, enterprise-grade components to enable creating, testing, and deployment of Ansible

## Create

### **ansible-creator**

Scaffold projects and content

### **ansible-navigator**

Develop and troubleshoot with execution environments

### **Enhanced VS Code integration\*\***

Native graphical user interface to Ansible  
Lightspeed and command line tools

### **Ansible development environment**

Build and manage virtual environments  
for content development

## Test

### **Ansible Molecule**

Functional test runner for collections,  
playbooks and roles

### **ansible-lint**

Identify and correct stylistic errors and  
anti-patterns

### **pytest-ansible**

Added functions for module and plugin  
Python code unit testing

### **tox-ansible**

Test collections under different Python  
interpreters and Ansible core versions

## Deploy

### **ansible-builder**

Build Ansible execution environments

### **ansible-sign**

Sign and verify Ansible content





# Ansible development tools (ansible-dev-tools)

All the tools in one install

## What is it?

A curated package of tools that enable automation developers to create, test and deploy Ansible automation quickly, consistently and effectively

- ▶ Easy way to install and discover the best tools
- ▶ Will be available as RPM and container distributions

```
$ sudo dnf install ansible-dev-tools
```



# Create with Ansible Automation Platform

Enable your automation community of practice



## Ansible content collections

Set automation projects into motion  
Ready-made roles, modules, plug-ins,  
and templates



## Ansible development tools

Suite of supported components  
Build, text, and deploy Ansible content



## Ansible plug-ins for Red Hat Developer Hub

Curated learning paths, push-button content  
creation, integrated development tools, and more  
Educate new users and boost experienced users



## Ansible development workspaces

Opinionated, integrated dev environment  
Includes Ansible development tools,  
VS code integration, and Ansible  
Lightspeed



## Ansible Lightspeed

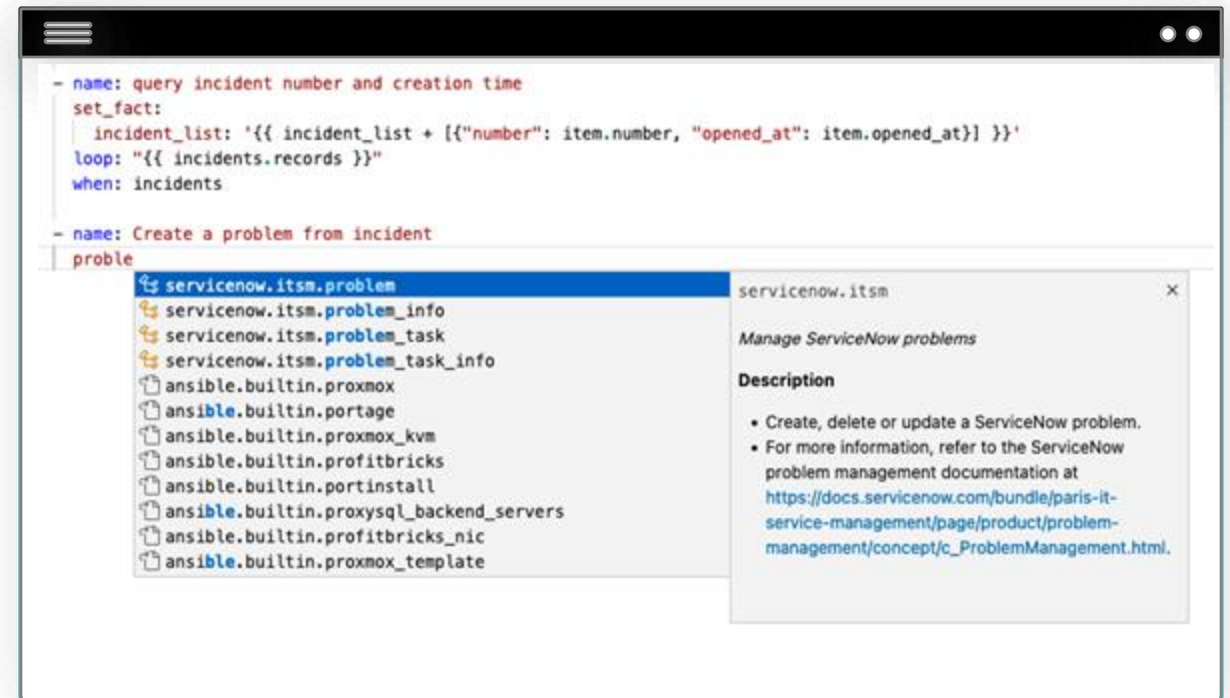
Collaboration with IBM to bring generative  
AI to Ansible  
Faster and easier Ansible content creation

# Ansible VS Code extension

## Simplify content creation

### What is it?

- ▶ Syntax highlighting of keywords
- ▶ Live validation of your code while you type
- ▶ Ansible Lightspeed generative AI suggestions
- ▶ Hover and goto functionality
- ▶ Auto-completion on play, block, or task contents, hosts, etc
- ▶ Supports Ansible content development on Windows and Mac OS workstation

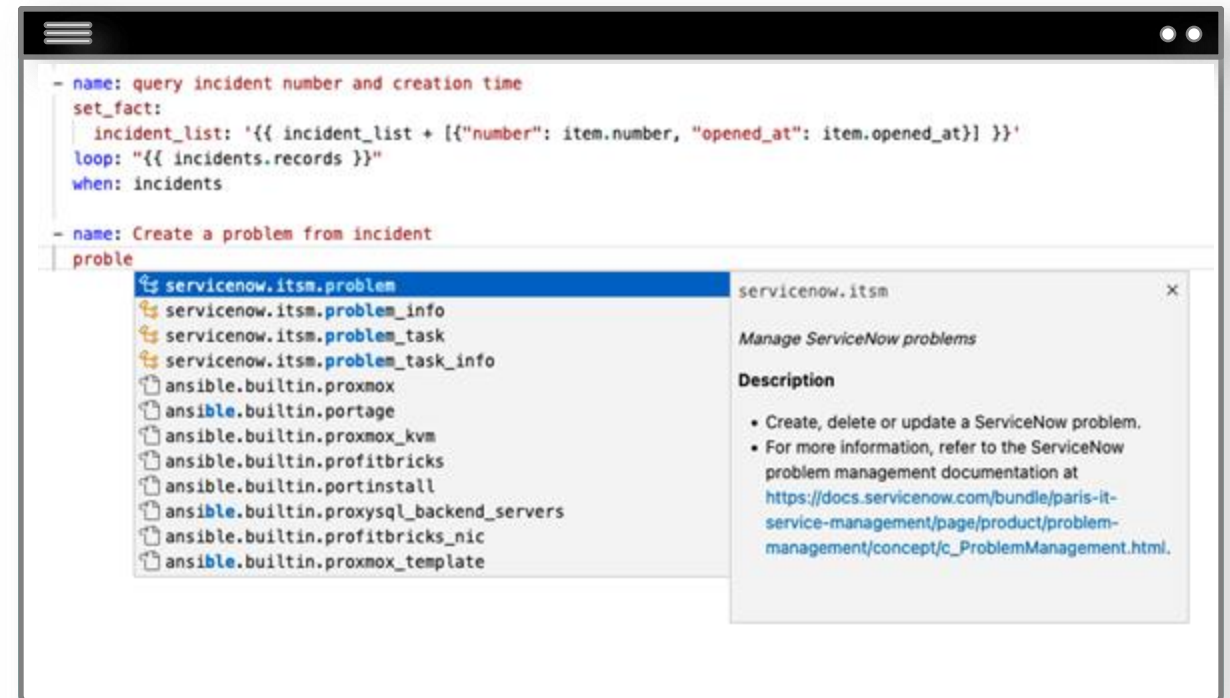


# Ansible VS Code extension

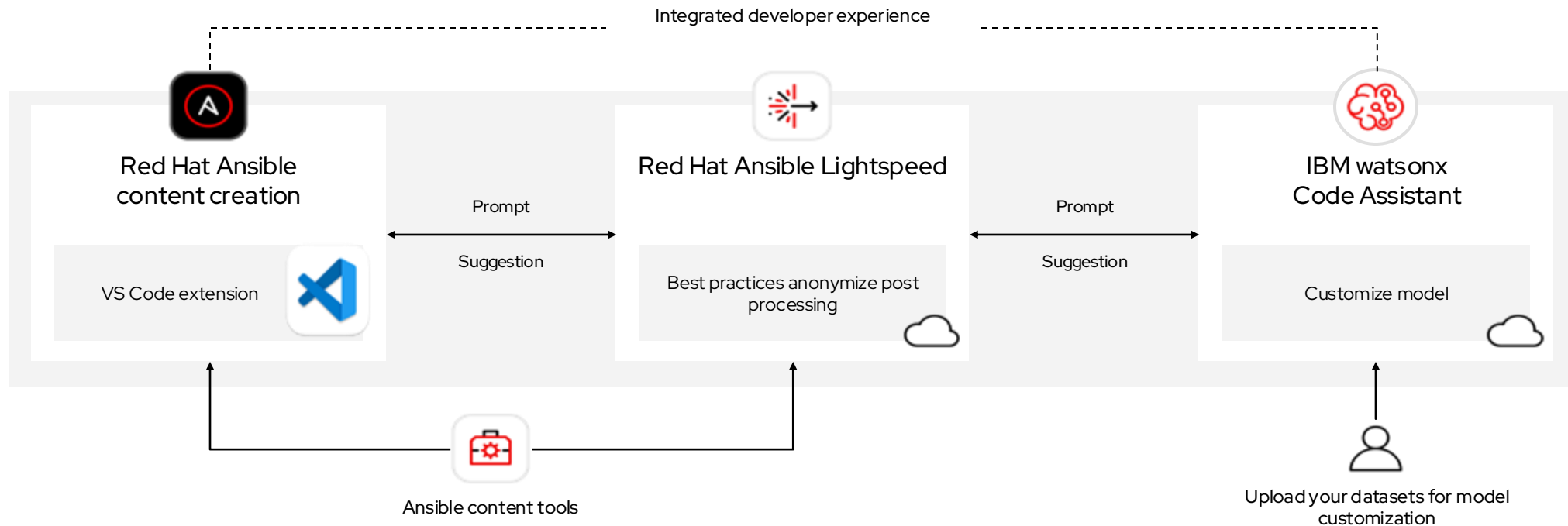
## Simplify content creation

### What is it?

- ▶ Supports writing and running Ansible content with execution environments
- ▶ Integration with ansible-playbook, ansible-lint, ansible-navigator, and the rest of Ansible development tools
- ▶ tox-ansible and pytest-ansible integration with the test explorer view
- ▶ Documentation references as you code



# Ansible Lightspeed. Generative AI the Ansible way.



## Data security

- + Prompt/Suggestion data is encrypted in transit and at rest and is ephemeral
- + Customer metadata and customized models are stored in customer-owned IBM cloud object storage and are not shared with IBM, Red Hat, or any other customers



≡ deploy\_monitoring.yml ×

local\_dev &gt; lightspeed\_tp &gt; ≡ deploy\_monitoring.yml

```
1  ---
2  - name: Deploy monitoring
3    hosts: monitoring
4    become: true
5
6    # module_defaults:
7    #   ansible.posix.firewalld:
8    #     permanent: true
9
10   tasks:
11     # - name: Include redhat.rhel_system_roles.cockpit
12
13     # - name: Copy files/cockpit.conf to /etc/cockpit/
14
15     # - name: Restart cockpit service
16
17     # - name: Allow cockpit through firewall
```



## Adopt

### Post-processing capabilities

- + Augments model suggestions with Ansible best practices, subject matter expertise, and more
- + This processing and strong contextual awareness stems from Red Hat's unique expertise and insight into the Ansible code base to help accelerate automation at scale.



Demo



# VS Code Extension – Dev Containers

## Dev Containers tuning for Podman

Dev › Containers: Docker Compose Path *(Applies to all profiles)*

Docker Compose executable name or path.

podman-compose

Dev › Containers: Docker Path *(Applies to all profiles)*

Docker (or Podman) executable name or path.

podman

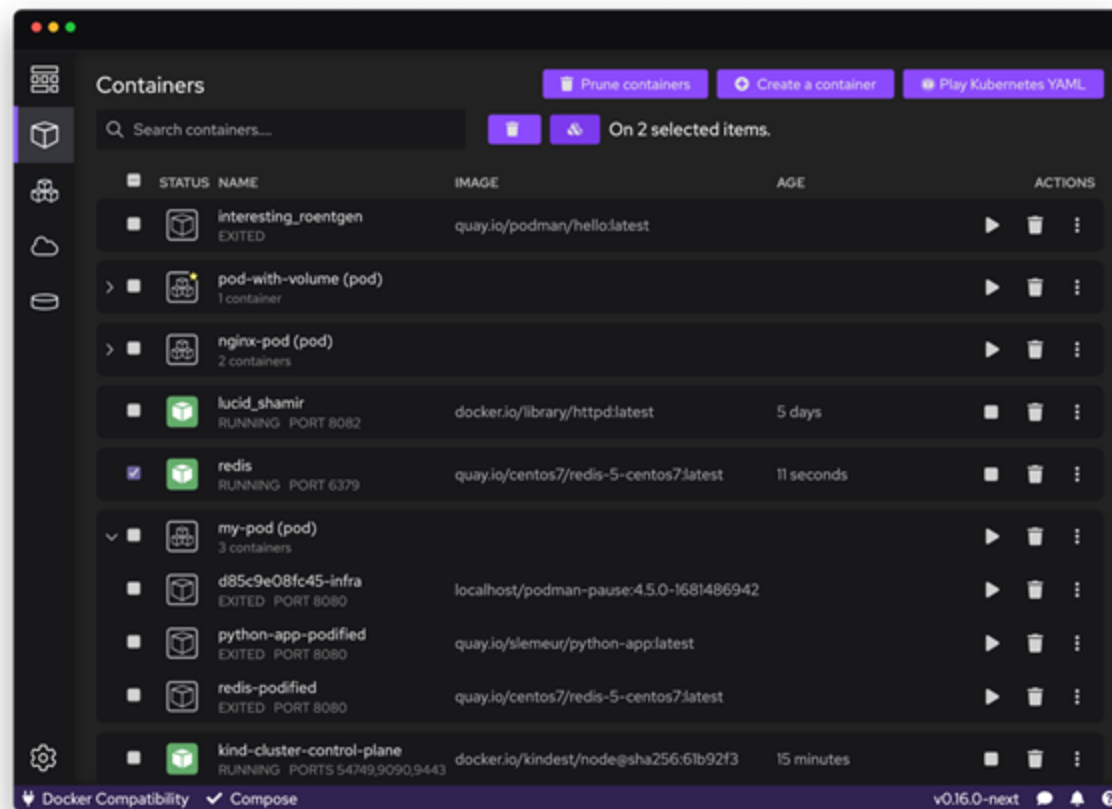




# Podman Desktop

## Containers for Application Developers

- ▶ Build, run, manage and debug Containers and Pods
- ▶ Run Pods with or without Kubernetes
- ▶ Manage multiple container Engines
- ▶ Install and run anywhere: Windows, Mac and Linux





Connect

# Thank you



[linkedin.com/company/red-hat](https://linkedin.com/company/red-hat)



[facebook.com/redhatinc](https://facebook.com/redhatinc)



[youtube.com/user/RedHatVideos](https://youtube.com/user/RedHatVideos)



[twitter.com/RedHat](https://twitter.com/RedHat)

