



## Connect

# Red Hat Developer Hub e Developer Experience

*Migliorare il Software Development Life Cycle, e la produttività degli sviluppatori, utilizzando una Internal Developer Platform e l'approccio GitOps*

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Red Hat

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Developer Advocacy  
Red Hat



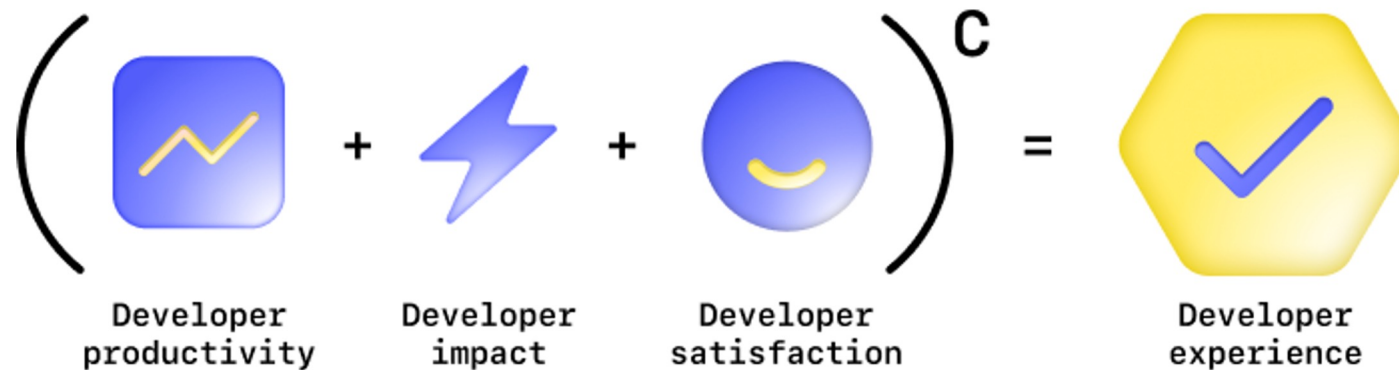
# Why the developer experience is so important.

*"Your code has **no business value** until  
it's deployed."*

@burrsutter [bit.ly/teachingelephants](https://bit.ly/teachingelephants)

# An equation for the Developer Experience

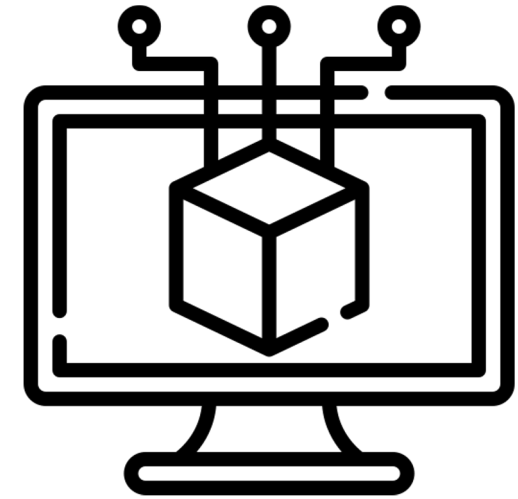
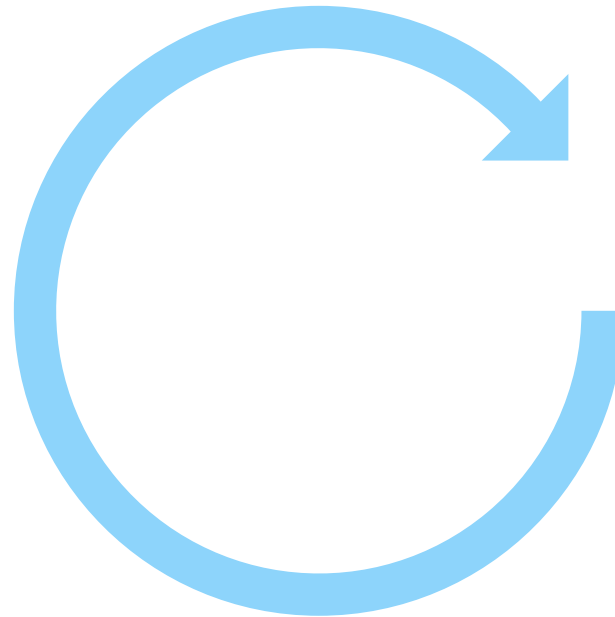
The collaboration effect on developer experience



- Productivity: how quickly or simply a change can be made to a codebase
- Impact: how frictionless it is to move from idea to production
- Satisfaction: how the environment, workflows, and tools affect developer happiness

@Gwen davis

# Bring an idea to production should be frictionless



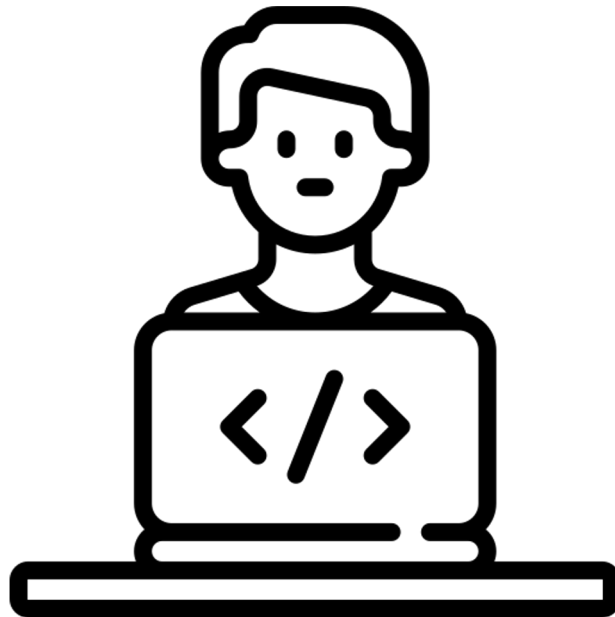


KEEP  
CALM AND

OPEN A  
TICKET!!!!

[imgflip.com](https://imgflip.com)

# Day by day productivity



Where is the documentation?

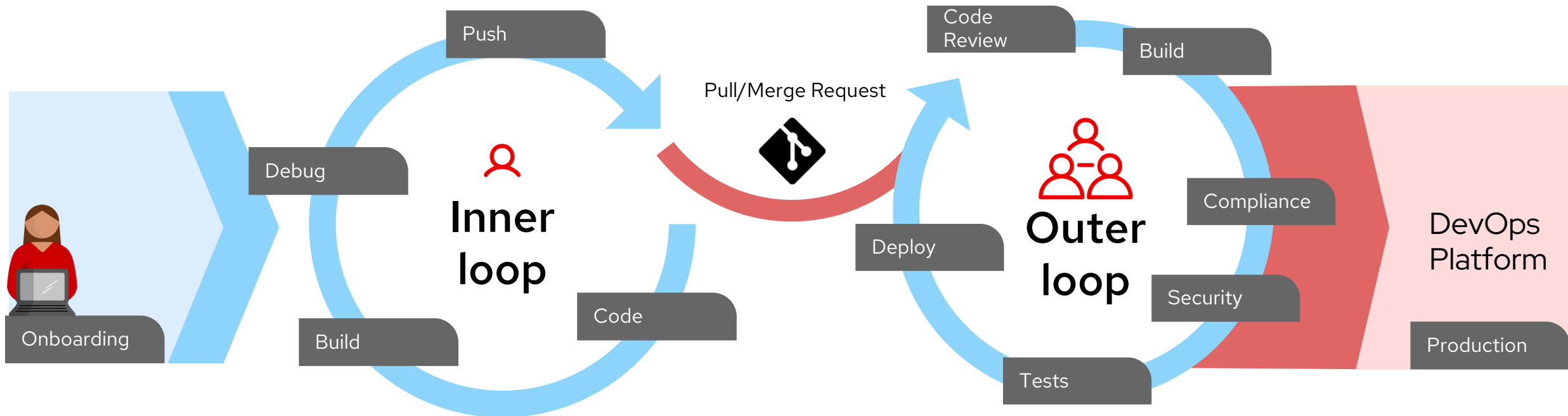
Where is the procedure to setup my environment?

Where are the guidelines for the standard?



# Environment, workflows, and tools

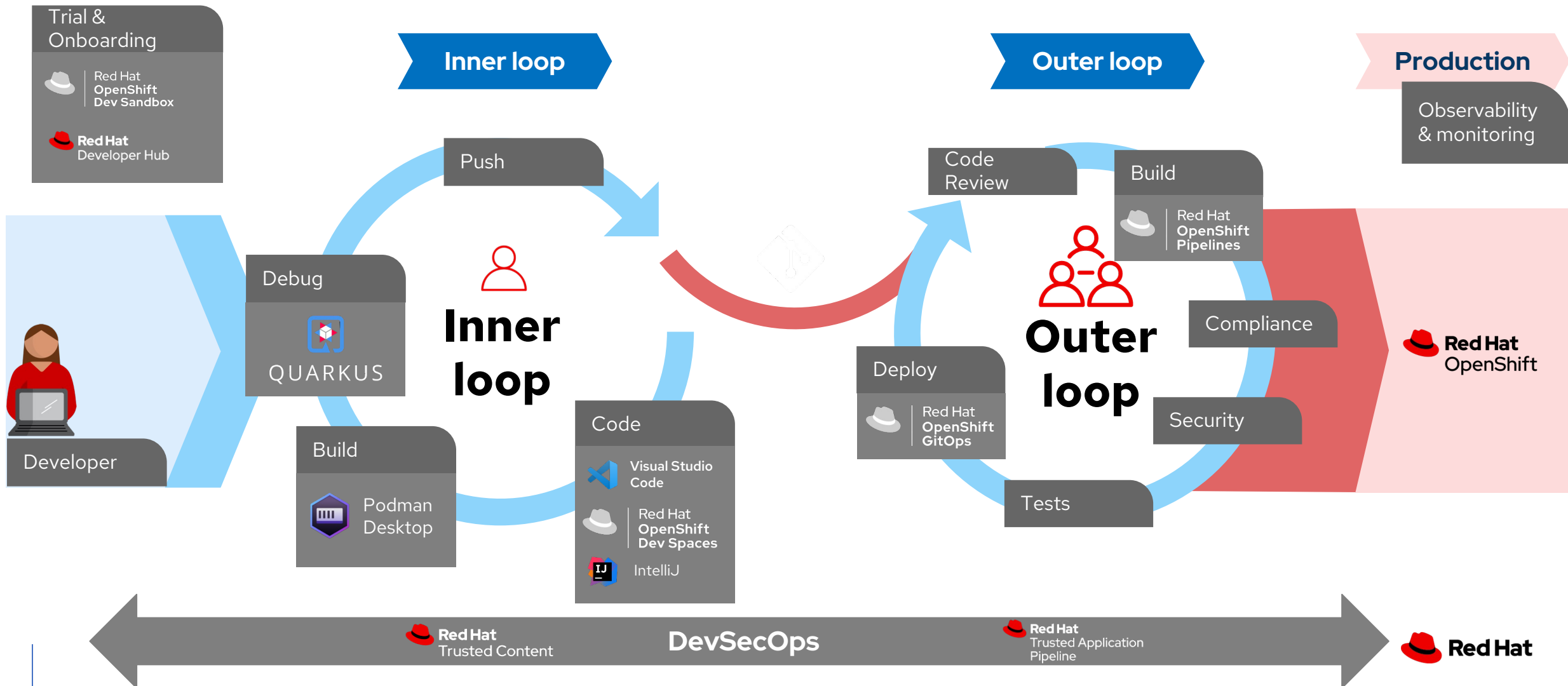
Software Development Life Cycle and Stages





# Developer Strategy follows the Developer Flow

How Developer **Tools** bring customers from code to production



# Developer Strategy Follows the Developer Flow

How to build a developer strategy that works

Trial &  
Onboarding



Red Hat  
OpenShift  
Dev Sandbox



Red Hat  
Developer Hub



Developer





# Red Hat Developer Hub

Enterprise Developer Platform built on Backstage.io





“60% of organizations looking to **scale DevOps** will adopt an internal developer platform to provide infrastructure, deployment pipelines, and other internal services to enable **developer self-service** by 2025.”

IDC, Future Scape

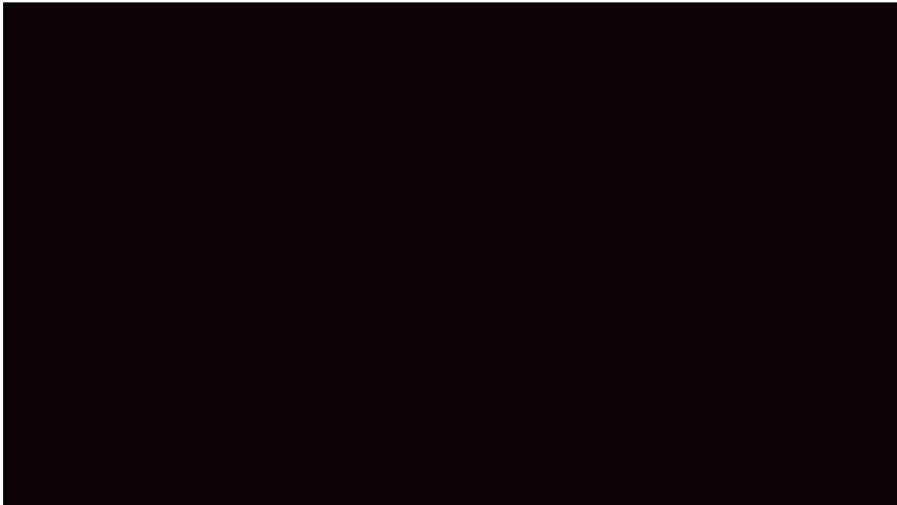
# Internal Developer Platform (IDP)

An Internal Developer Platform (IDP) is built by a **platform team** to build golden paths and enable **developer self-service**.

An IDP consists of many different techs and tools, glued together in a way that **lowers cognitive load** on developers without abstracting away context and underlying technologies.

Following **best practices**, platform teams treat their **platform as a product** and build it based on user research, maintain and continuously improve it.

# Backstage: An open platform for building developer portals



[Backstage.io](https://backstage.io)



**CLOUD NATIVE**  
COMPUTING FOUNDATION






**Allowing developers to focus on what they want to ... coding**, rather than navigating to all the different tools

Resulting in lowering the cognitive load and **unlocking developer productivity**

Developer portals function as access points to the IDP and provide a user interface for developers to discover the platform's capabilities.

Happy developers makes happy code!

# The five parts of Backstage

	<b>Centralized Software Catalog</b>	Centralized system that keeps track of ownership and metadata of all the software in your organization (services, websites, libraries, data pipelines etc)
	<b>Plugins</b>	Extend functionality and customization
	<b>Software Templates (Golden Path Templates)</b>	Allows quickly spinning up new projects and standardizing your tooling with your organization's best practices (fully customizable)
	<b>Tech Docs</b>	Enable easy to create, maintain, find, and use technical documentation, using a "docs like code" approach
	<b>Search</b>	Ability to find the right informat across all Backstage ecosystem

The Software Catalog enables two main use-cases:

- Helping teams **manage and maintain the software they own**. Teams get a uniform view of all their software; services, libraries, websites, ML models – you name it, Backstage knows all about it.
- Makes **all the software in your company**, and who owns it, **discoverable**. No more orphan software hiding in the dark corners of your software ecosystem.

The catalog is built around the concept of metadata **YAML files stored together with the code**, which are then harvested and visualized in Backstage.



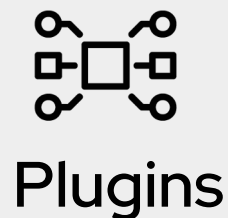
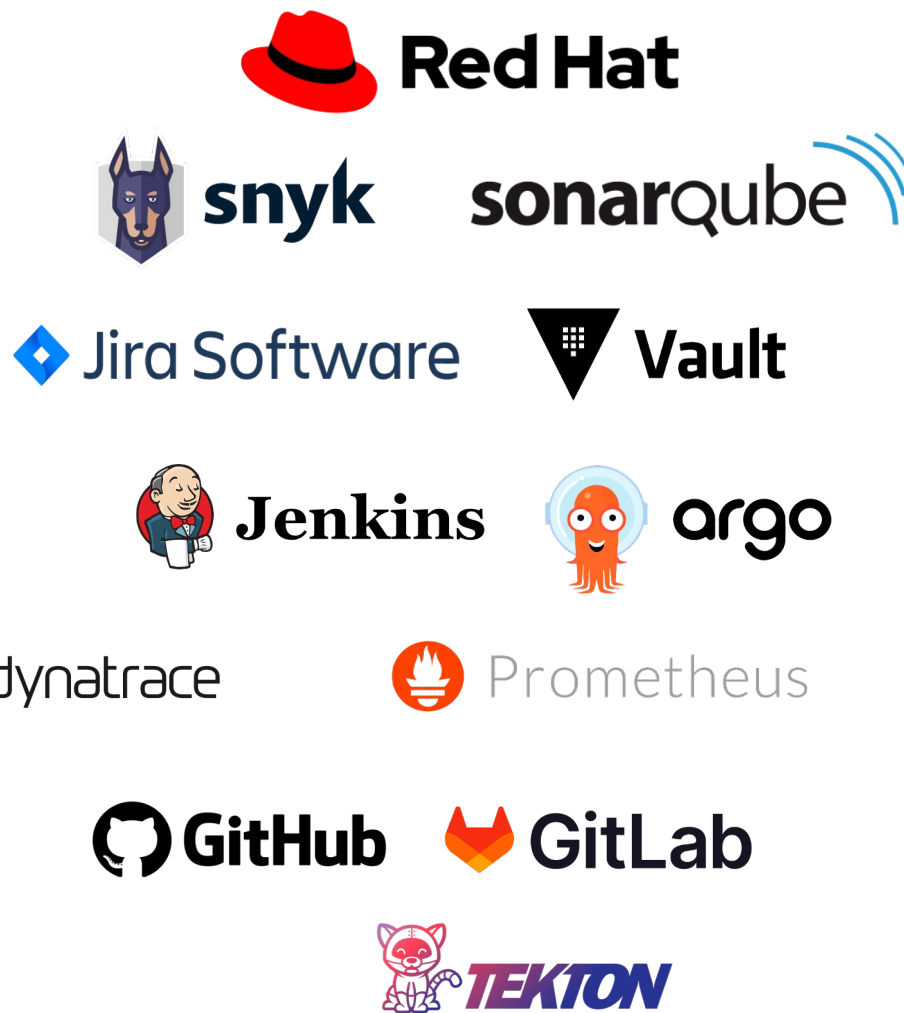
Software  
Catalog



Plugins **add additional functionality** to make your Backstage useful for your company. Plugins can be **specific to a company or open sourced** and reusable.

## 150+ community plugins:

- ▶ SCM
- ▶ CI/CD
- ▶ Monitoring
- ▶ Issue tracking
- ▶ Code quality



Creating new resources, such as websites and applications, can be made easier with the help of Software Templates. This tool comes with the ability to load code skeletons, insert variables, and publish the template to a repository like GitHub or GitLab. Additionally, it can be used to create other resource by **using existing automation technology** that your company has invested in.

Using Software Templates means your **developers can focus more on creating new solutions for your organization, instead of spending time on filing tickets** or searching for the right information to configure new applications.



## Software Templates

Backstage Search lets you **find the right information you are looking** for in your Backstage deployment.

- A search that lets you bring your own search engine.
- A search that lets you extend it by creating collators for easily indexing content from plugins and other sources.
- A search that lets you create composable search page experiences.
- A search that lets you customize the look and feel of each search result.



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# Red Hat and Backstage

Enterprise-Grade Fully Customizable Developer Portal

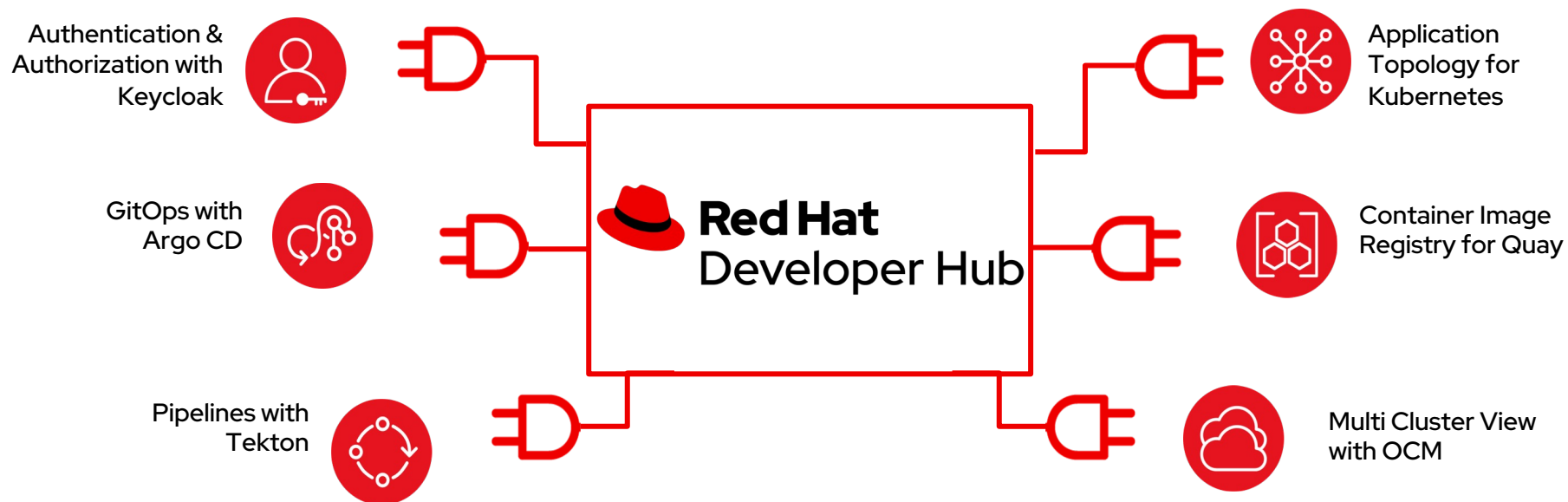
# Empowering engineering to deliver business value faster.

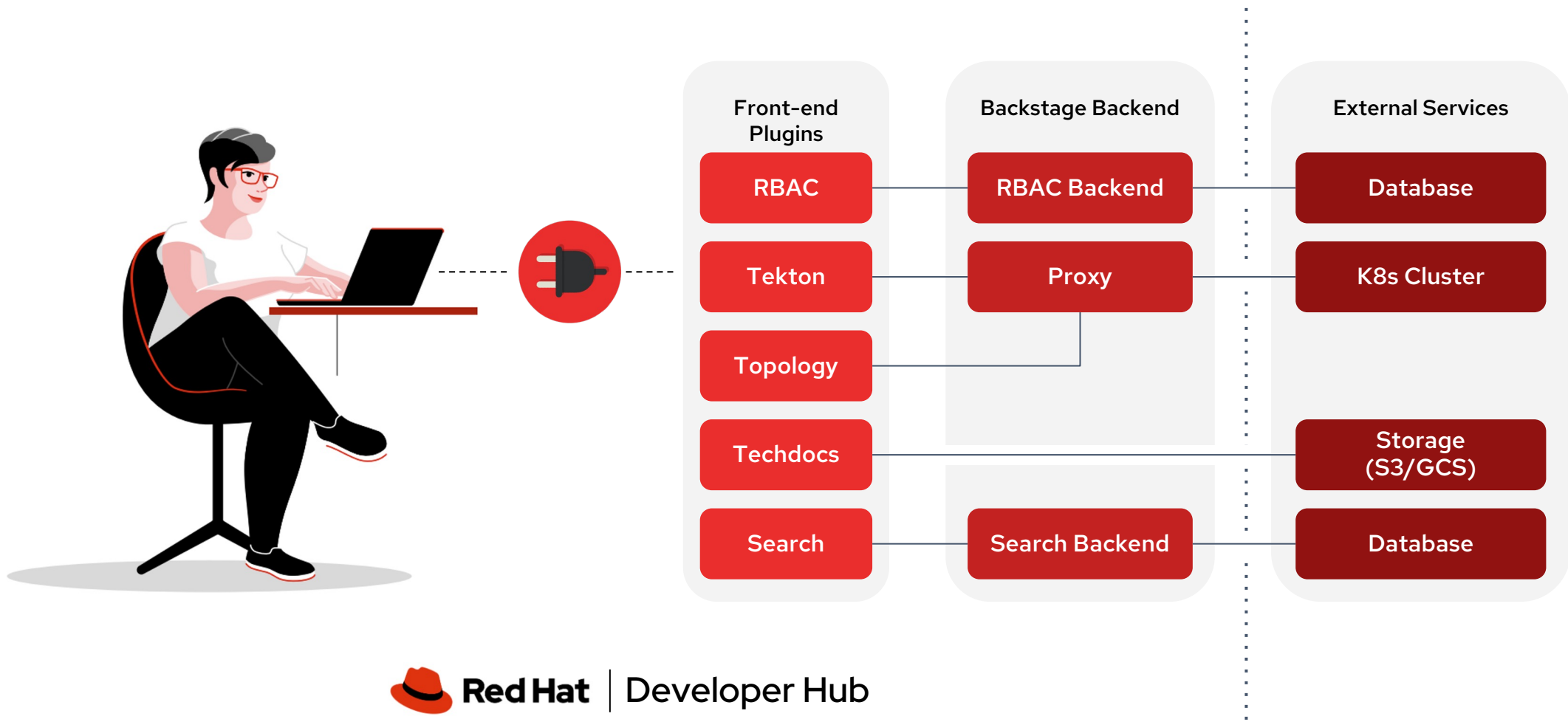
**Single pane** of glass to increase engineering productivity.

**Self-service** with guardrails for cloud-native development.

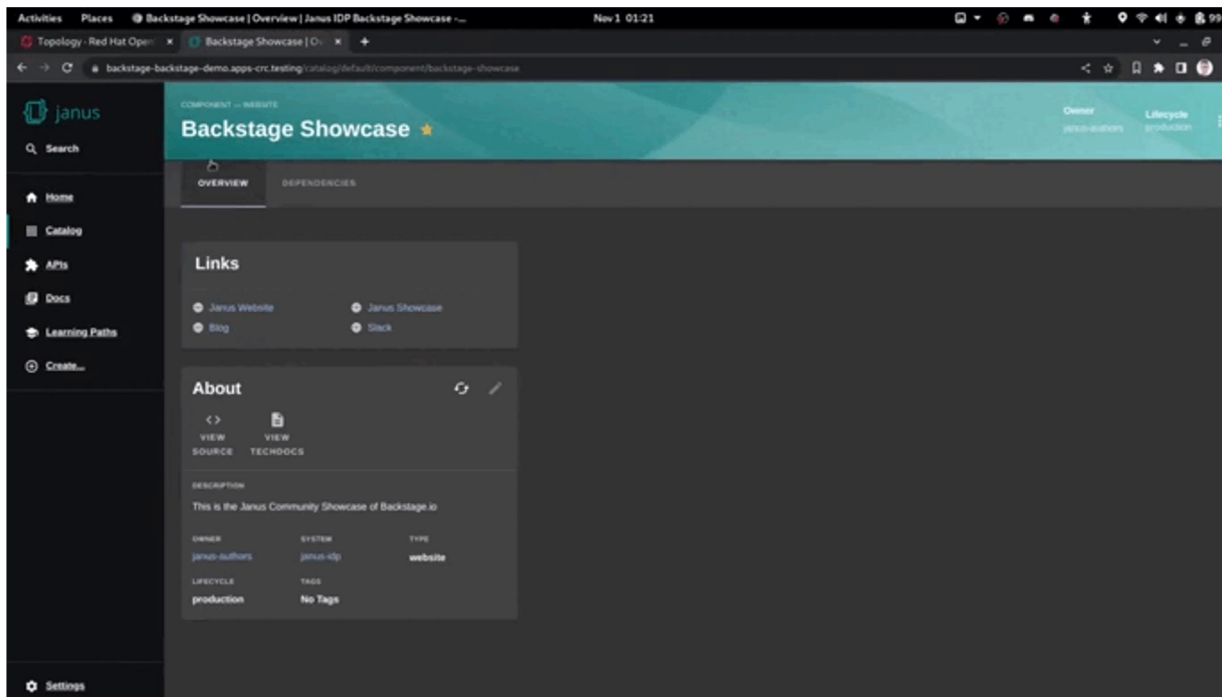
**Best practices** with GitOps and automation.

**Real-time view of** application and infrastructure.





Instantaneously add plugins – no need to modify source code/rebuild/repackage



Update helm chart with new plugin location and restart

Dynamic  
Plugins

# Red Hat Developer Hub

## Supported plugin bundle



Authentication and  
Authorization with Keycloak



GitOps with  
Argo CD



Pipelines with  
Tekton



Application Topology  
for Kubernetes



Container Image  
Registry for Quay



Multi Cluster View with  
Open Cluster Manager (OCM)

Integrates with industry standards and technologies  
through a broad ecosystem of **community plugins**.



GitLab



git



Jenkins

sonarqube



argo

Based on Backstage, an open source  
platform for building developer portals.



Backstage

## Supported deployment

### Customer-managed Red Hat OpenShift



Red Hat  
OpenShift  
Platform Plus



Red Hat  
OpenShift  
Container Platform



Red Hat  
OpenShift  
Kubernetes Engine

### Managed Red Hat OpenShift services



IBM Cloud

aws



Azure



Google Cloud

### Managed Kubernetes Services



EKS  
Amazon  
Elastic Kubernetes Service



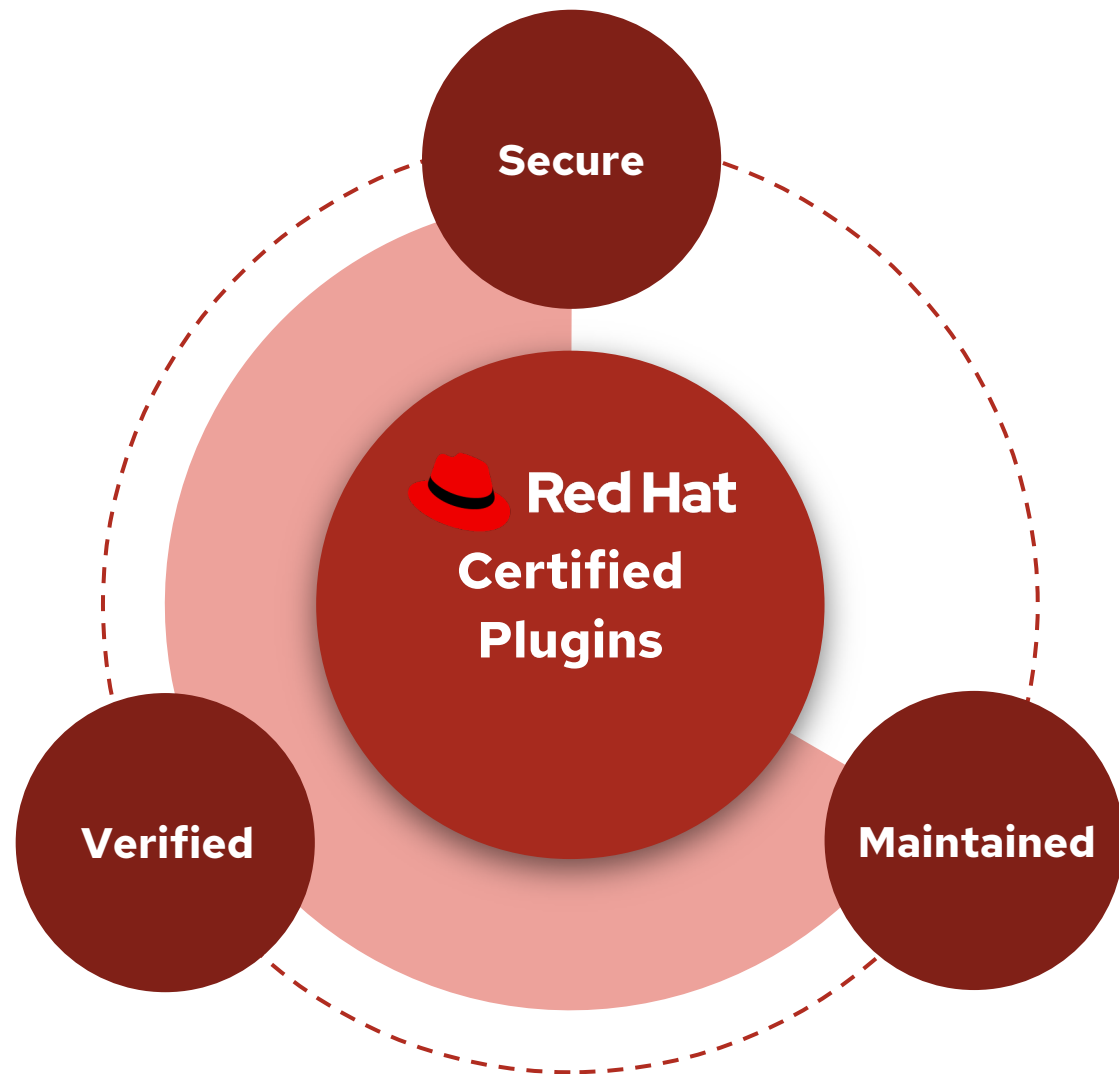
AKS  
Azure  
Kubernetes Service



GKE  
Google  
Kubernetes Engine



## Expand RHDH with Certified Community Plugins



# Our commitment to OpenSource

Keeping it simple



**Red Hat  
Developer Hub**



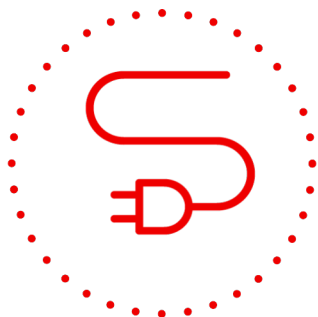
**Backstage**



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# Product Roadmap

# What's Next on the Roadmap - Subject to change



## DORA Metrics

Scorecard, including  
DORA metrics  
Learning Management  
Generative AI  
Many more certified  
partner plugins



**Reduce time & complexity**

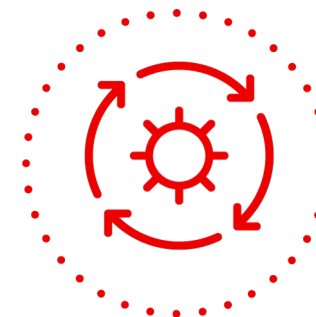


## Improved authorization & Admin UI experience

Provide a permission  
framework by default, with  
an Admin UI supporting  
RBAC flows and **Audit**.



**Reduce exposure and risk**



## Expanding Ecosystem

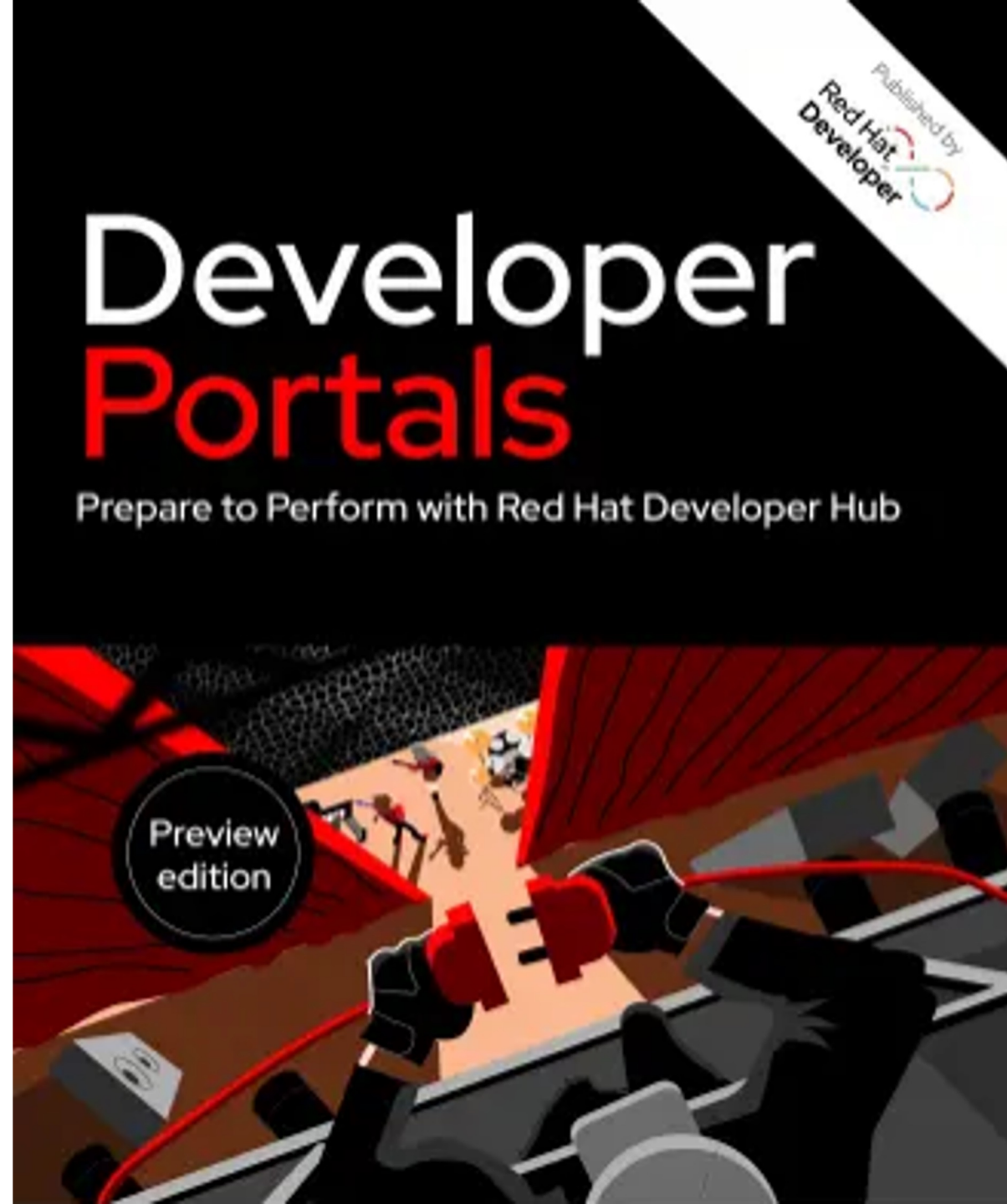
**Red Hat Value-added  
Plugins** (along with  
certified partner plugins)  
and **GPTs** enable cohesive  
integration with Red Hat  
Portfolio of products and  
ecosystem tools



**Increase developer productivity**



Download the free e-book  
from  
[developers.redhat.com](https://developers.redhat.com)





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# Thank you



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