

Red Hat
Summit

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

Matteo Combi

Specialist Solution Architect,
Application Platform
Red Hat

Kevin Dubois

Principal Developer Advocate
Red Hat

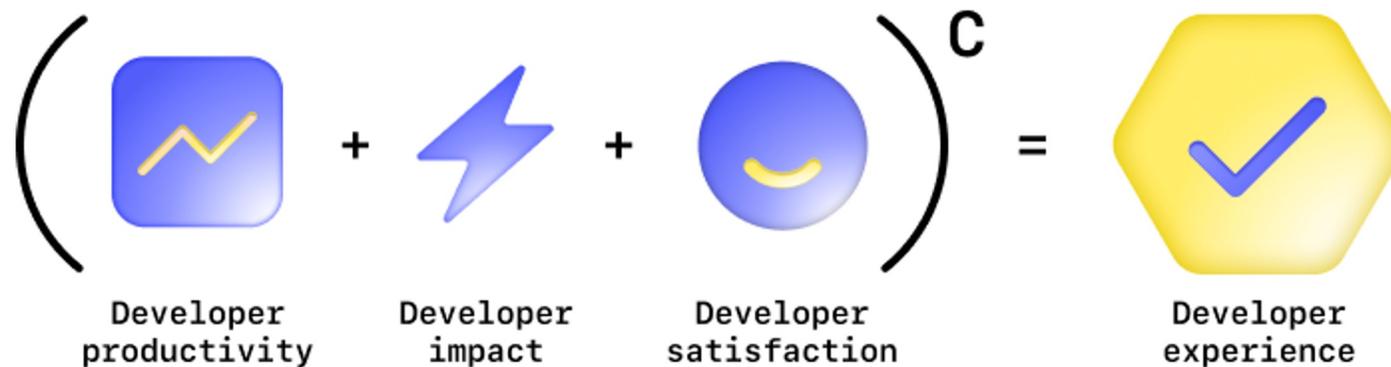
Why the developer experience is so important.

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

@bursutter bit.ly/teachingelephants

An equation for the Developer Experience

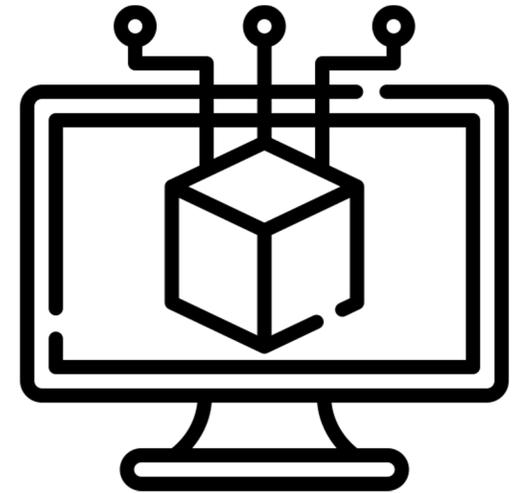
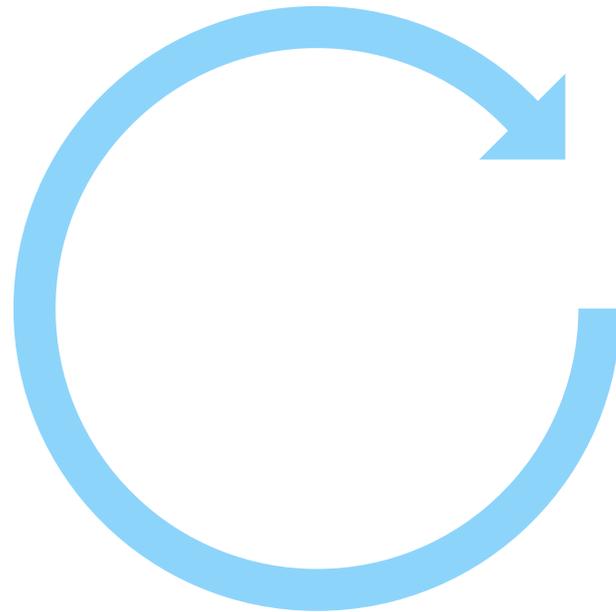
The collaboration effect on developer experience



- 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



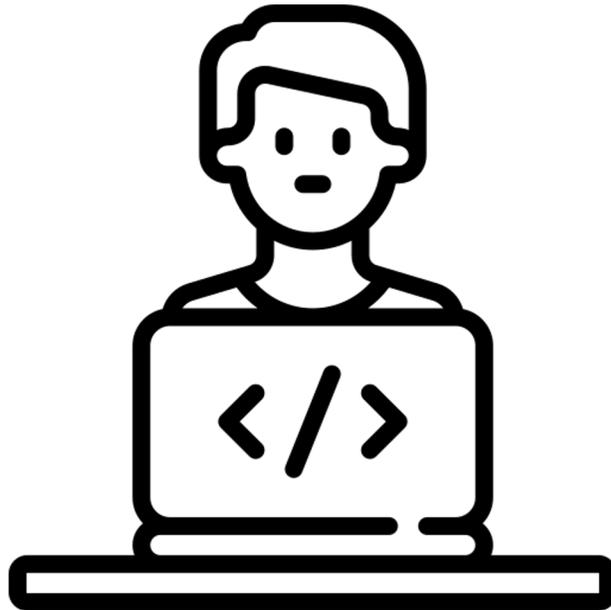


KEEP
CALM AND

OPEN A
TICKET!!!!

imgflip.com

Day by day productivity



Where is the documentation?

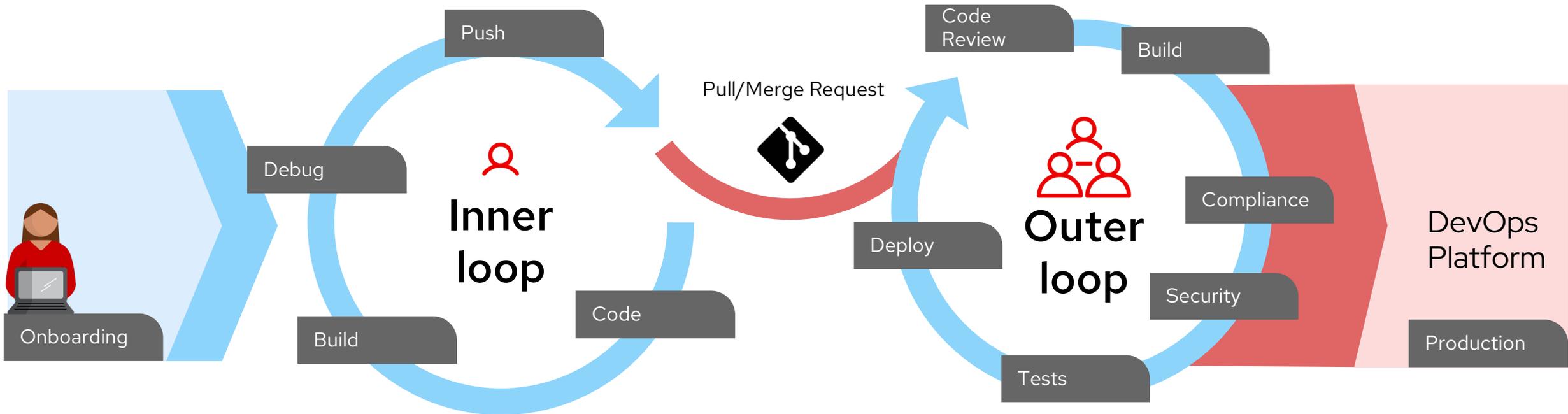
Where is the procedure to setup my environment?

Where are the guidelines for the standard?



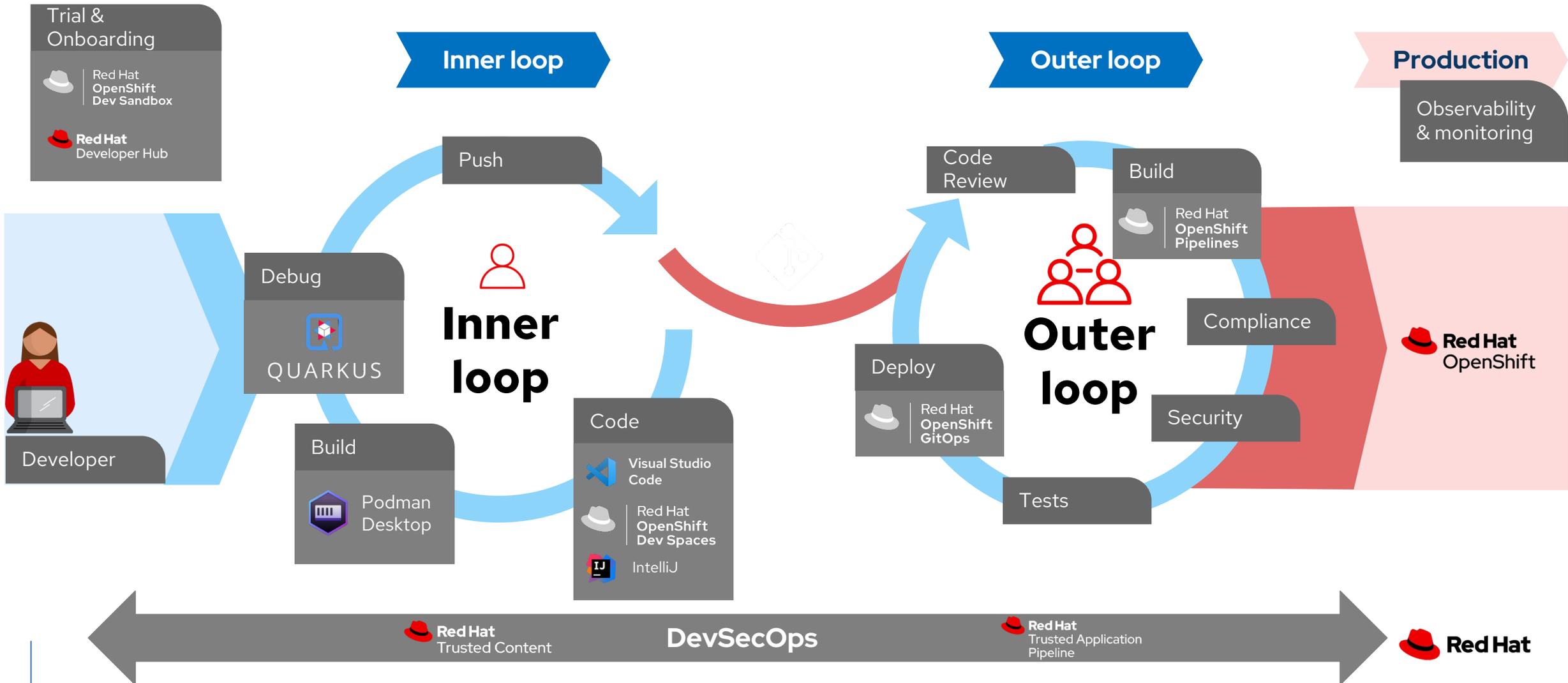
Environment, workflows, and tools

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

From Onboarding to Production

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 Scope

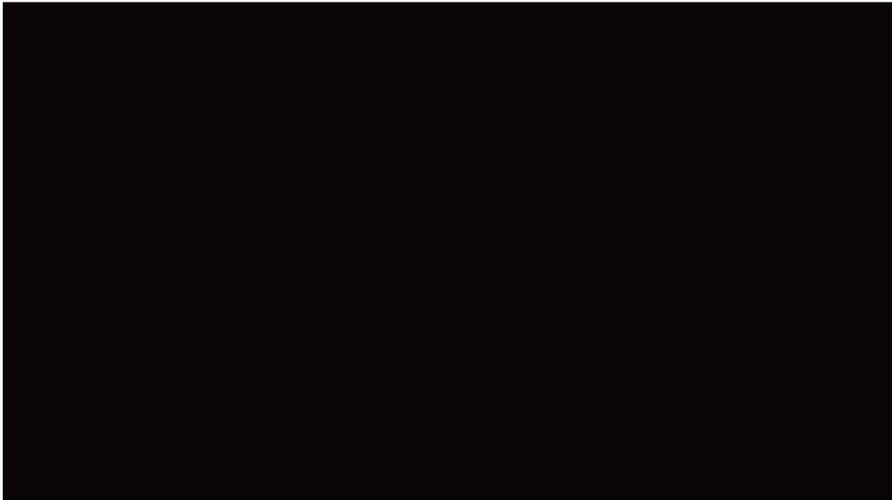
Internal Developer Platform (IDP)

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)



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

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

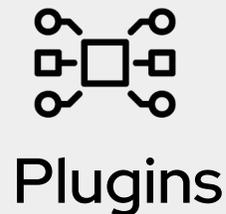
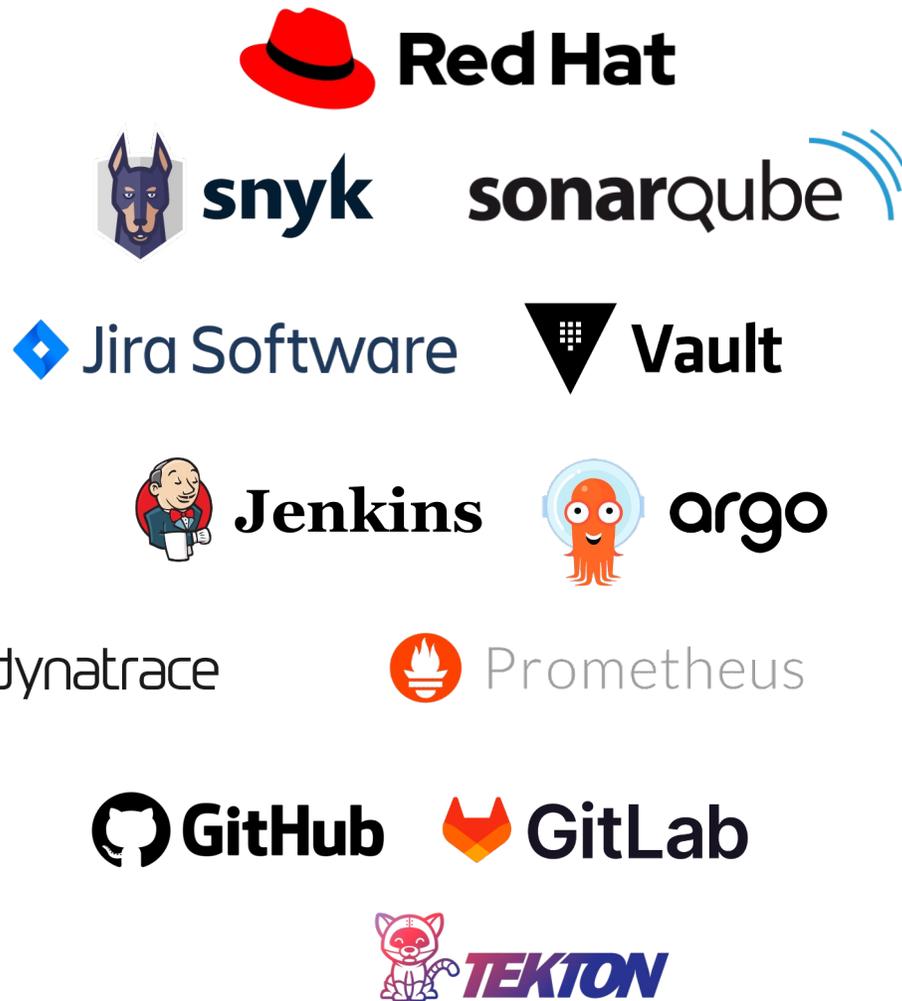


Software Catalog

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.

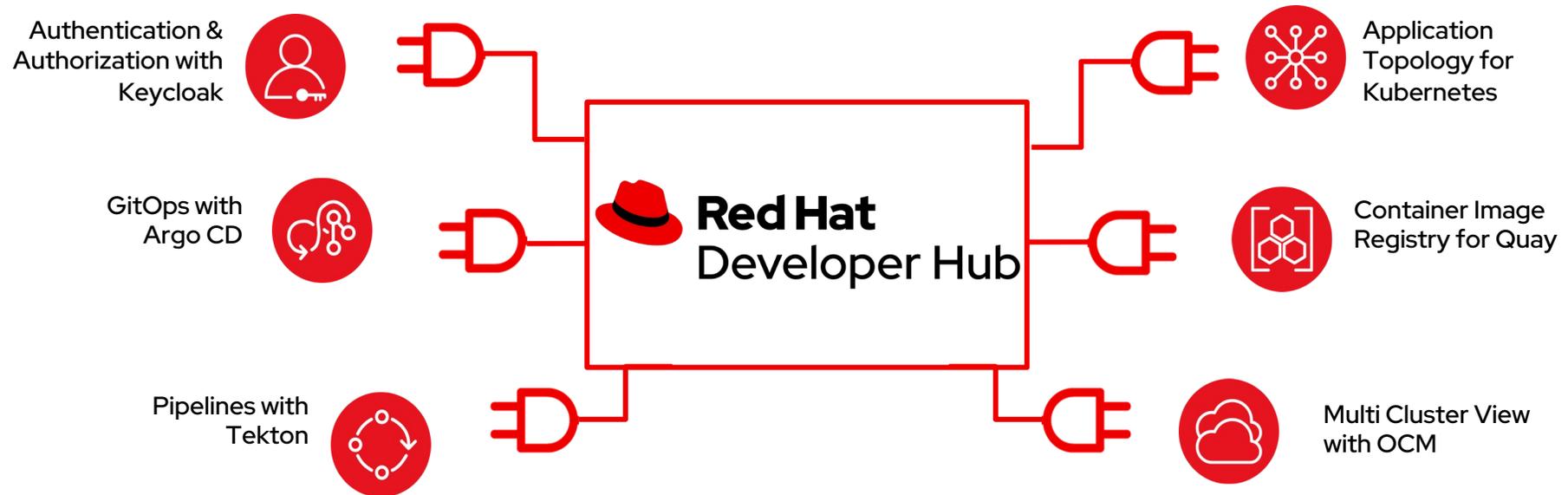


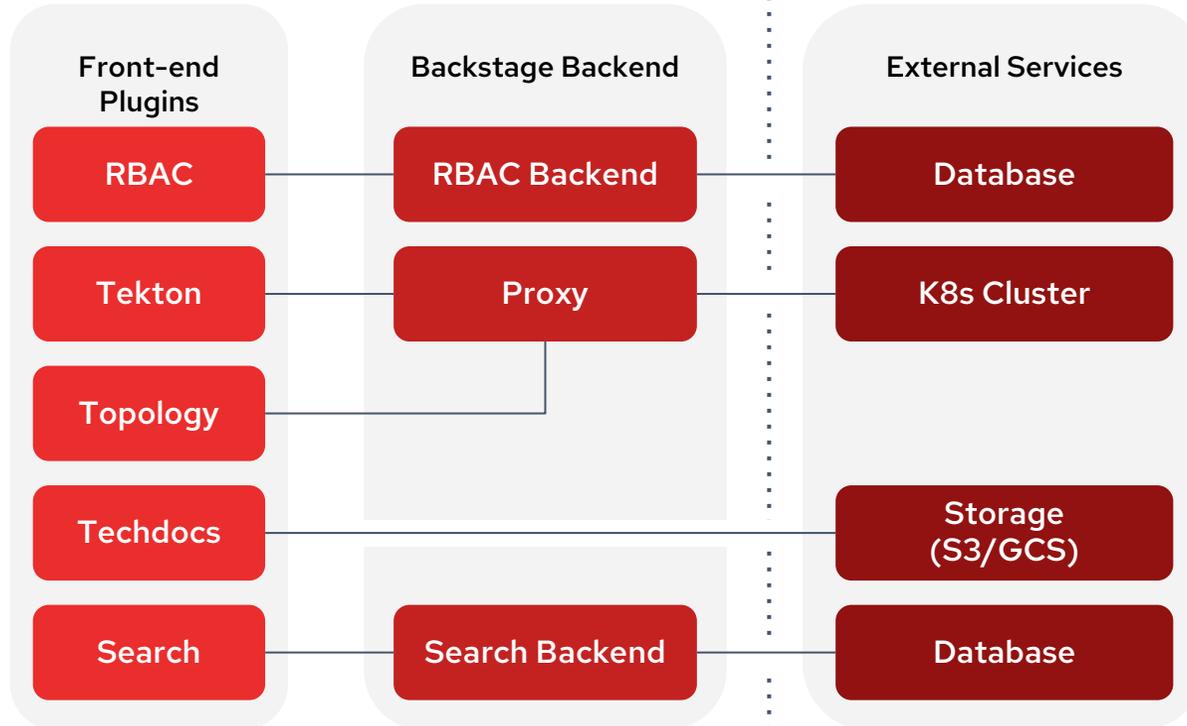
Search

Red Hat and Backstage

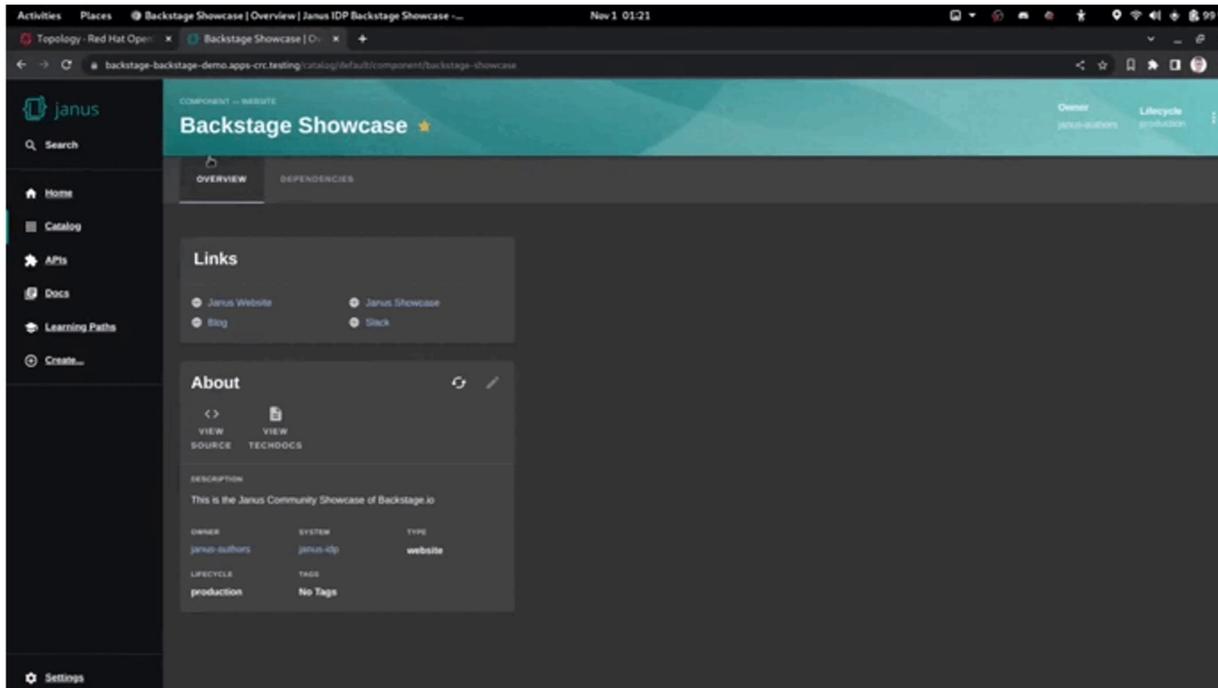
Enterprise-Grade Fully Customizable Developer Portal

Empowering engineering to deliver business value faster.





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**.



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



Supported deployment

Customer-managed Red Hat OpenShift



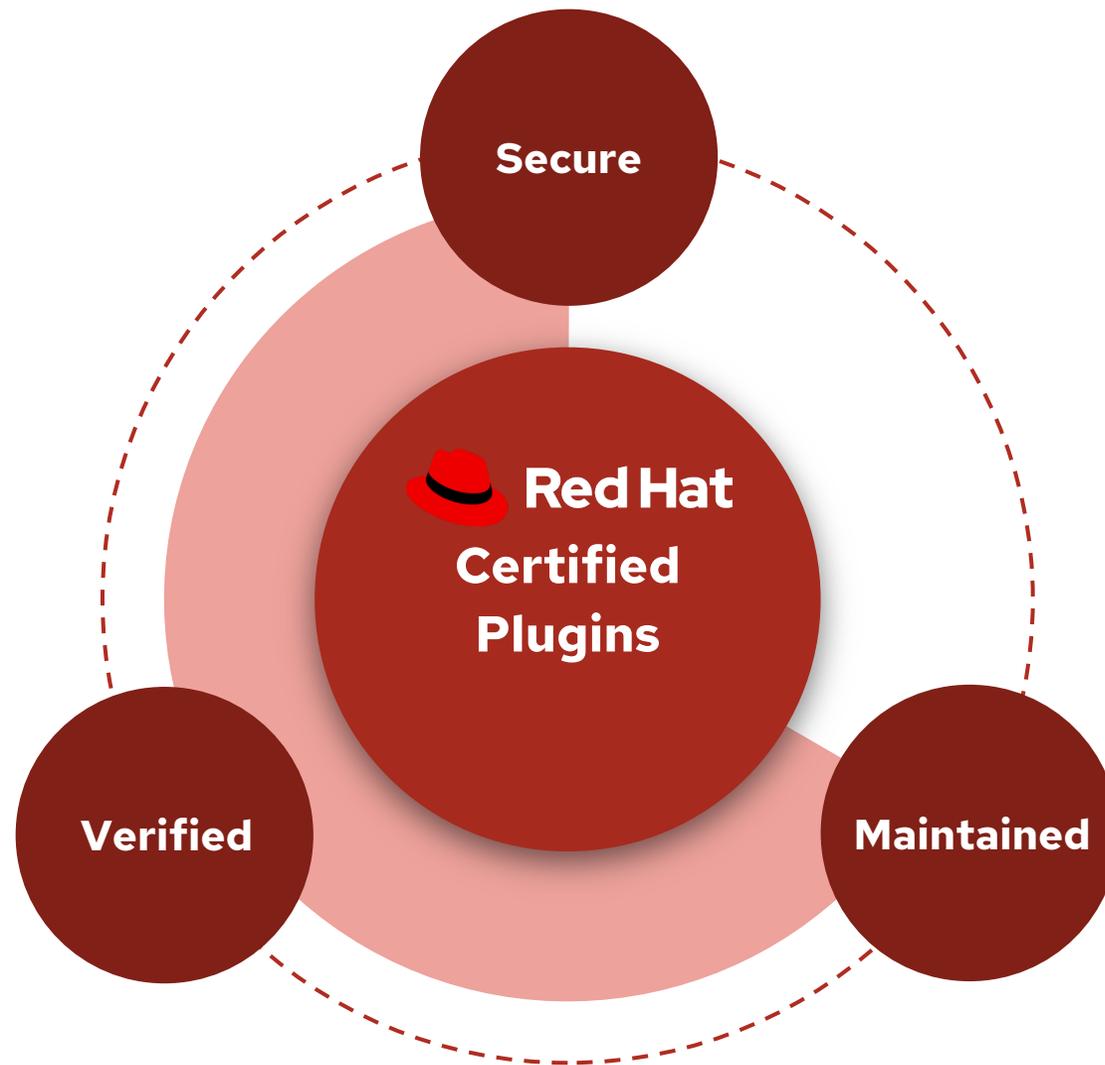
Managed Red Hat OpenShift services



Managed Kubernetes Services



Expand RHDH with Certified Community Plugins



Our commitment to OpenSource

Keeping it simple



**Red Hat
Developer Hub**



Backstage



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

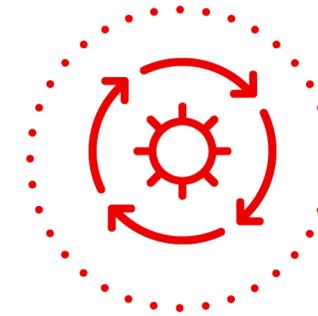


Improved authorization & Admin UI experience

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



Reduce exposure and risk



Expanding Ecosystem

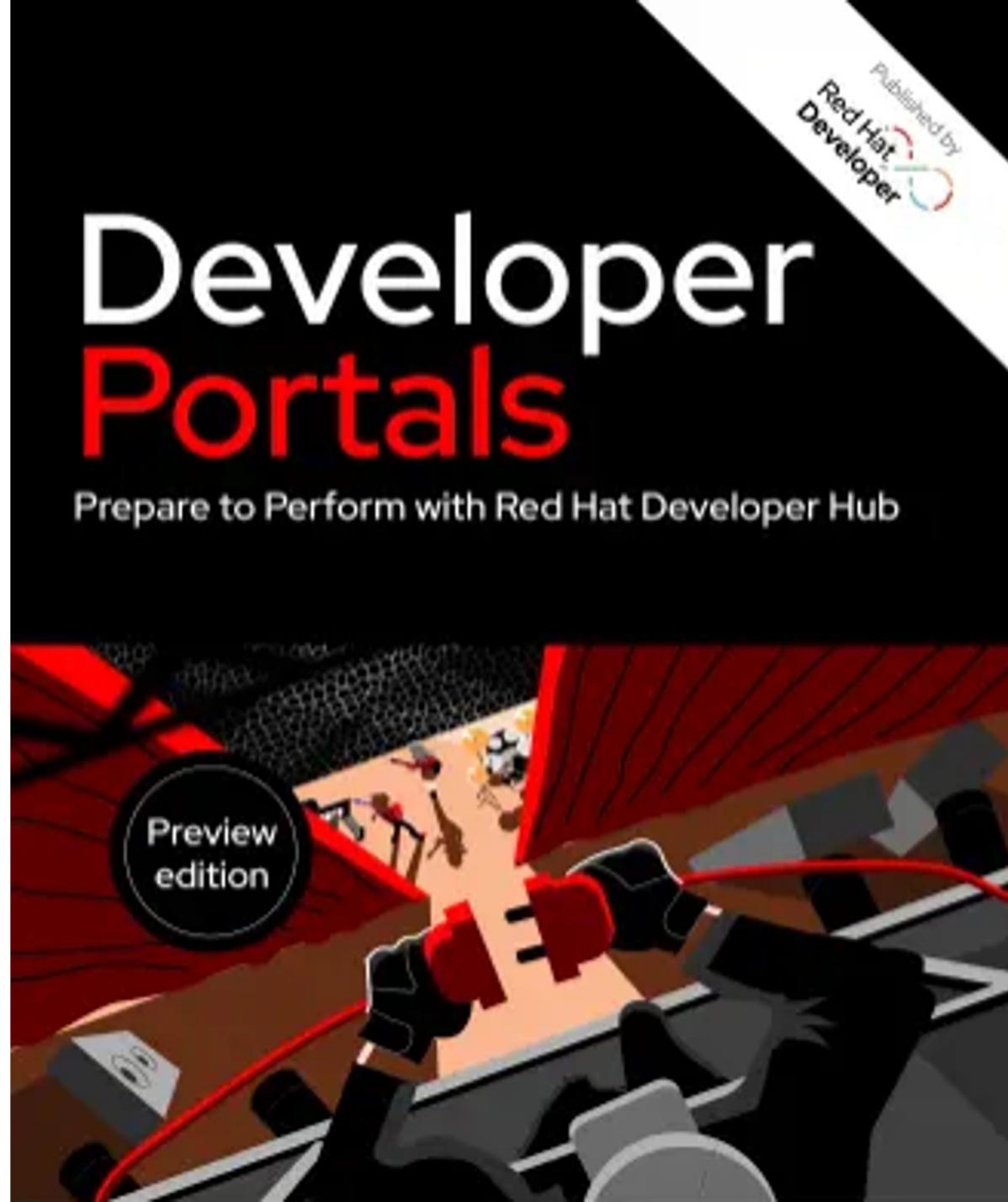
**Red Hat Value-added
Plugins** (along with
certified partner plugins)
and **GPTs** enable cohesive
integration with Red Hat
Portfolio of products and
ecosystem tools



Increase developer productivity



Download the free e-book
from
developers.redhat.com





Join Red Hat Developer.
Build here. Go anywhere.



youtube.com/RedHatDevelopers



linkedin.com/showcase/red-hat-developer



facebook.com/RedHatDeveloper



twitter.com/rhdevelopers

Red Hat
Summit

Connect

Thank you



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



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



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



twitter.com/RedHat