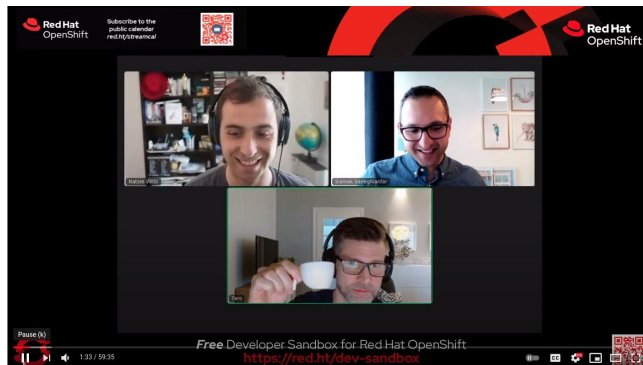
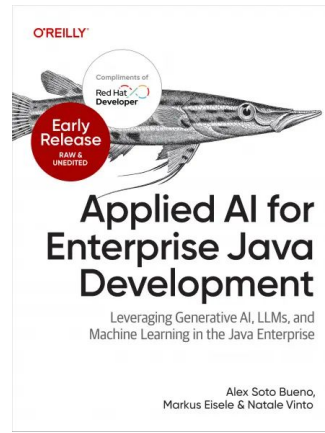
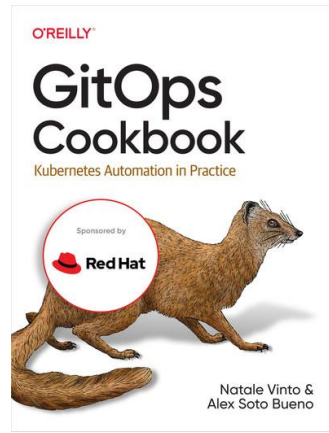
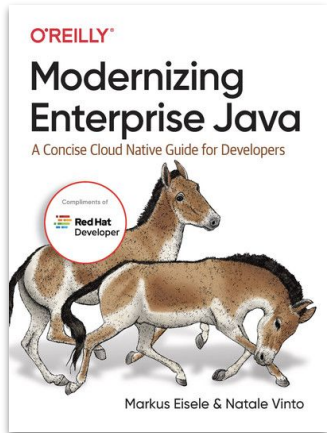




Bring AI-enabled applications to production faster with Red Hat Developer Hub and gen AI templates

Natale Vinto
Evangelism Director







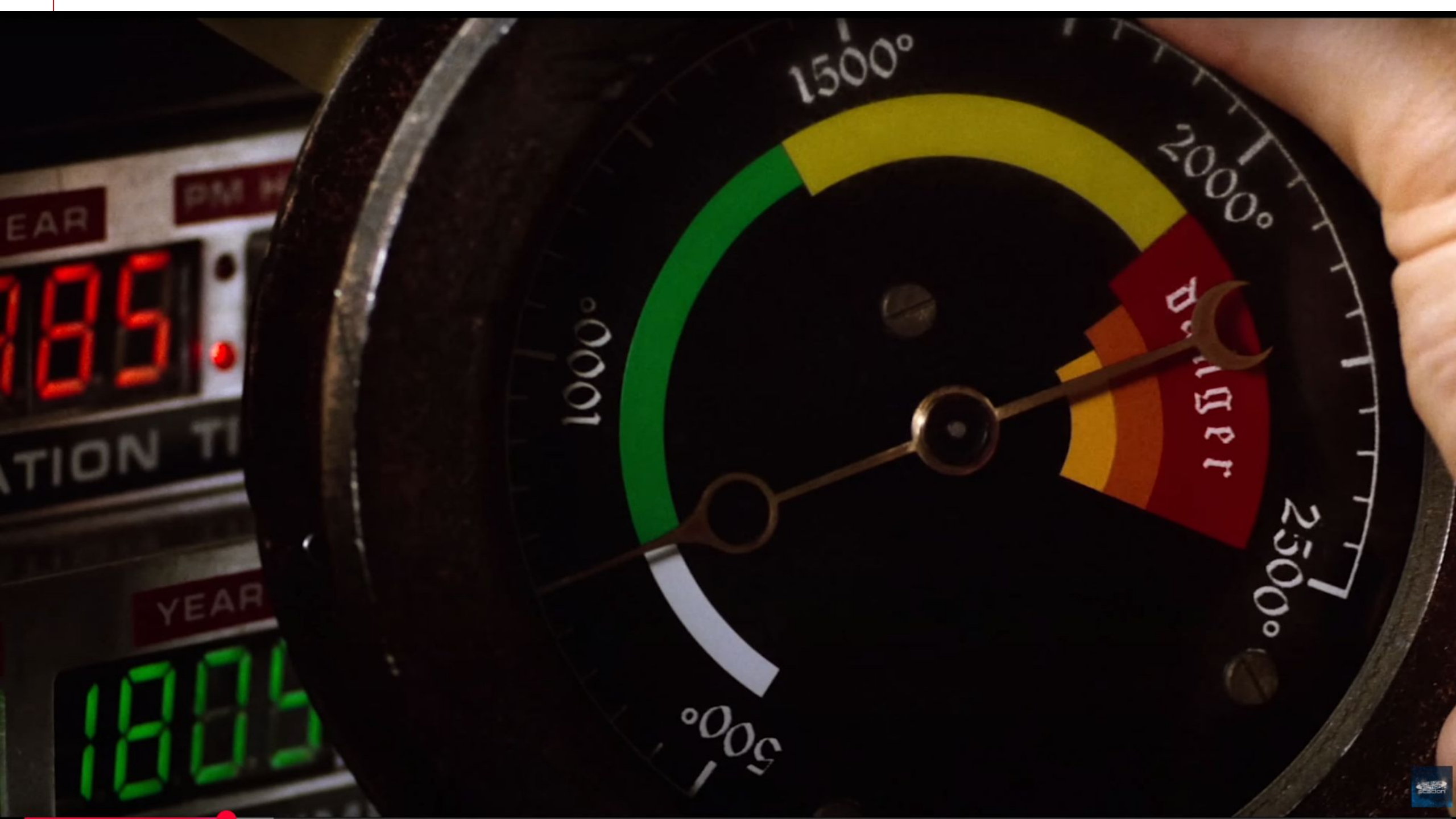
**BACK
TO THE FUTURE**

**WITH GEN AI
SOFTWARE TEMPLATES**









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185

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YEAR

1805

1000

1500

2000

2500

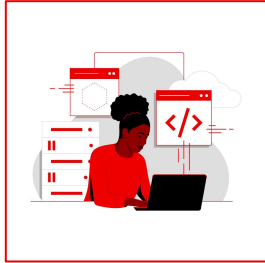
500

PSI

Developer Productivity



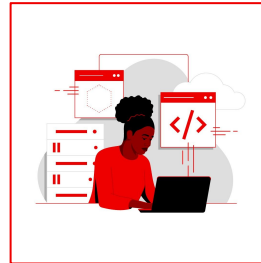
Challenges with Productivity



52 mins

Average time spent by developers coding each day

Source: [Global Code Time Report](#)

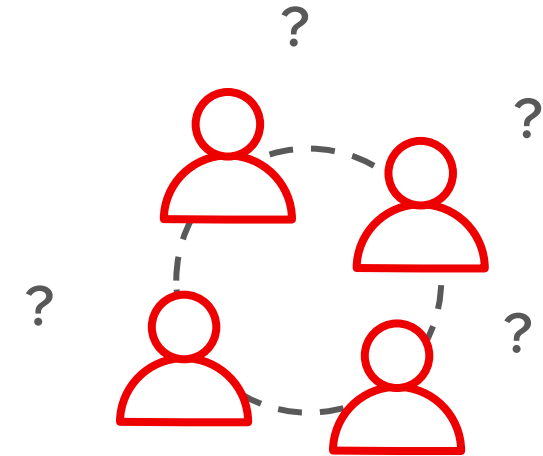


76%

of organizations say the **cognitive load is so high** that it is a **source of low productivity**. **Gartner** predicts **75%** of companies will establish platform teams for application delivery.

Source: [Salesforce](#)

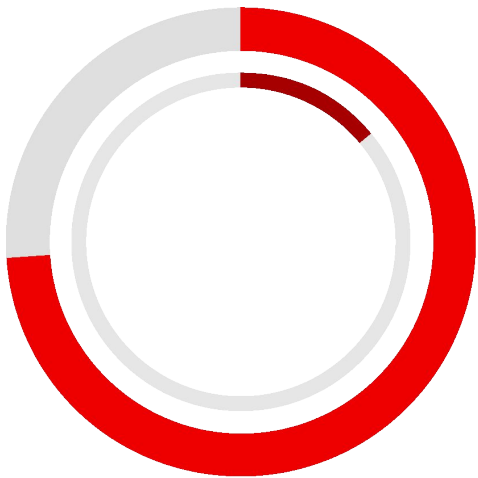
Source: [Gartner](#)



Challenges in Productivity

- Onboarding Chaos
- Lack of Standardization
- Knowledge Fragmentation

Platform engineering



74%

of organizations have a fully dedicated team for platform engineering, including **14%** who have a large cross-functional team.

Insight

With well over half having a relatively mature platform engineering function, *proven solutions will be required to support scale and new use cases.*

Impact and maturity



of all organizations said that platform engineering had produced at least moderately successful outcomes



of Advanced organizations said their platform engineering adoption had been extremely successful

Source: State of Platform Engineering in the Age of AI (Red Hat, Nov. 2024)

Insight

Platform engineering has a significant positive impact at every level of maturity, though the impact gets better with increased proliferation.

Generative AI



Generative AI is
the path to 45%
increase in
productivity

Catch the Gen AI Wave!


SEBASTIAN STEUDTNER



Don't ride these waves alone



Open source models explosion

 **Hugging Face**

Models Datasets Spaces Posts Docs Enterprise Pricing

Tasks Libraries Datasets Languages Licenses Other

Filter Tasks by name

Multimodal

- Audio-Text-to-Text
- Image-Text-to-Text
- Visual Question Answering
- Document Question Answering
- Video-Text-to-Text
- Visual Document Retrieval
- Any-to-Any

Computer Vision

- Depth Estimation
- Image Classification
- Object Detection
- Image Segmentation
- Text-to-Image
- Image-to-Text
- Image-to-Image
- Image-to-Video
- Unconditional Image Generation
- Video Classification
- Text-to-Video
- Zero-Shot Image Classification
- Mask Generation
- Zero-Shot Object Detection
- Text-to-3D
- Image-to-3D
- Image Feature Extraction
- Keypoint Detection

Natural Language Processing


- Text Classification
- Token Classification
- Table Question Answering
- Question Answering
- Zero-Shot Classification
- Translation
- Summarization
- Feature Extraction


Models 1,537,199


Filter by name


Full-text search


Sort: Trending


 **deepseek-ai/DeepSeek-V3-0324**
Text Generation • Updated about 5 hours ago • 6.67k • 1.18k


 **manycore-research/SpatialLM-Llama-1B**
Text Generation • Updated 4 days ago • 3.63k • 624


 **sesame/csm-1b**
Text-to-Speech • Updated 9 days ago • 37.7k • 1.61k


 **ByteDance/InfiniteYou**
Text-to-Image • Updated 3 days ago • 334


 **starvector/starvector-8b-im2svg**
Text Generation • Updated 6 days ago • 3.67k • 292


 **nvidia/GR00T-N1-2B**
Robotics • Updated 7 days ago • 1.24k • 218


 **LGAi-EXAONE/EXAONE-Deep-32B**
Text Generation • Updated 6 days ago • 4.54k • 261


 **nvidia/Llama-3_3-Nemotron-Super-49B-v1**
Text Generation • Updated 5 days ago • 16.7k • 188


 **stabilityai/stable-virtual-camera**
Image-to-Video • Updated 6 days ago • 6.4k • 130


 **ds4sd/SmolDocling-256M-preview**
Image-Text-to-Text • Updated 2 days ago • 32.9k • 897


 **mistralai/Mistral-Small-3.1-24B-Instruct-2503**
Image-Text-to-Text • Updated 3 days ago • 66.6k • 953


 **canopylabs/orpheus-3b-0.1-ft**
Text-to-Speech • Updated 6 days ago • 24.7k • 359


 **tencent/Hunyuan3D-2mv**
Image-to-3D • Updated 6 days ago • 5.85k • 320

 **google/gemma-3-27b-it**
Image-Text-to-Text • Updated 4 days ago • 682k • 971

 **deepseek-ai/DeepSeek-R1**
Text Generation • Updated 29 days ago • 1.5M • 11.6k

 **Qwen/QwQ-32B**
Text Generation • Updated 14 days ago • 616k • 2.51k

 **Qwen/Qwen2.5-VL-32B-Instruct**
Image-Text-to-Text • Updated about 21 hours ago • 2.43k • 160

 **nvidia/canary-1b-flash**
Automatic Speech Recognition • Updated 7 days ago • 5.86k • 133



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Build the future of AI with Meta Llama 3

Now available with both 8B and 70B pretrained and instruction-tuned versions to support a wide range of applications

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Frontier AI in your hands

Open and portable generative AI for devs and businesses.

Try the Chat

Build on the Platform

🌐 DeepSeek-V3 模型更新，各项能力全面进阶，在网页端、APP 和 API 全面上线，点击查看详情。

deepseek

探索未至之境

开始对话

与 DeepSeek-V3 和 R1 免费对话
体验全新旗舰模型

获取手机 App

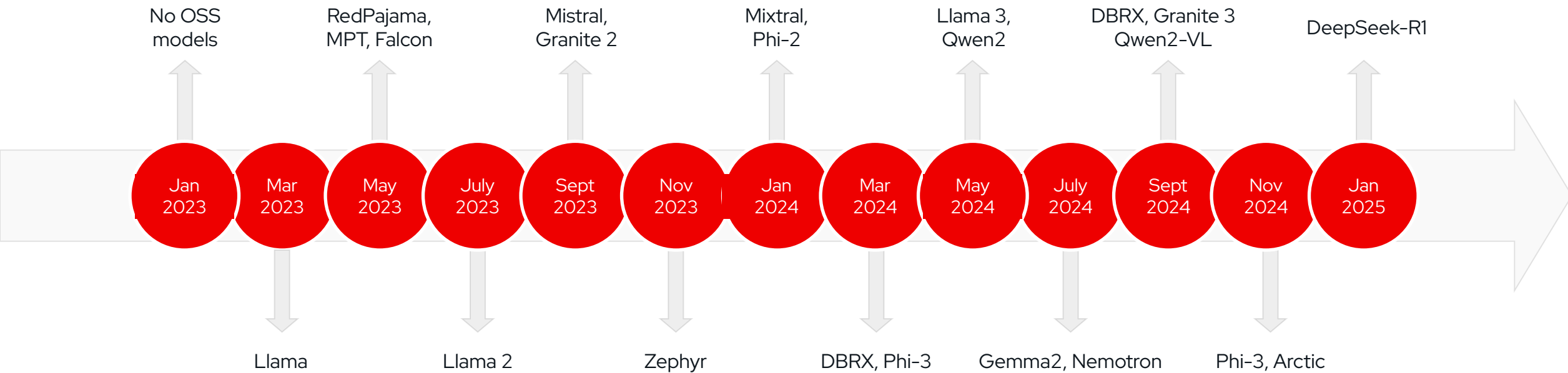
DeepSeek 官方推出的免费 AI 助手
搜索写作阅读解题翻译工具

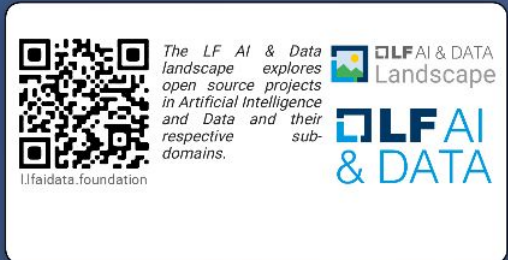
Open sourcing IBM's Granite code models

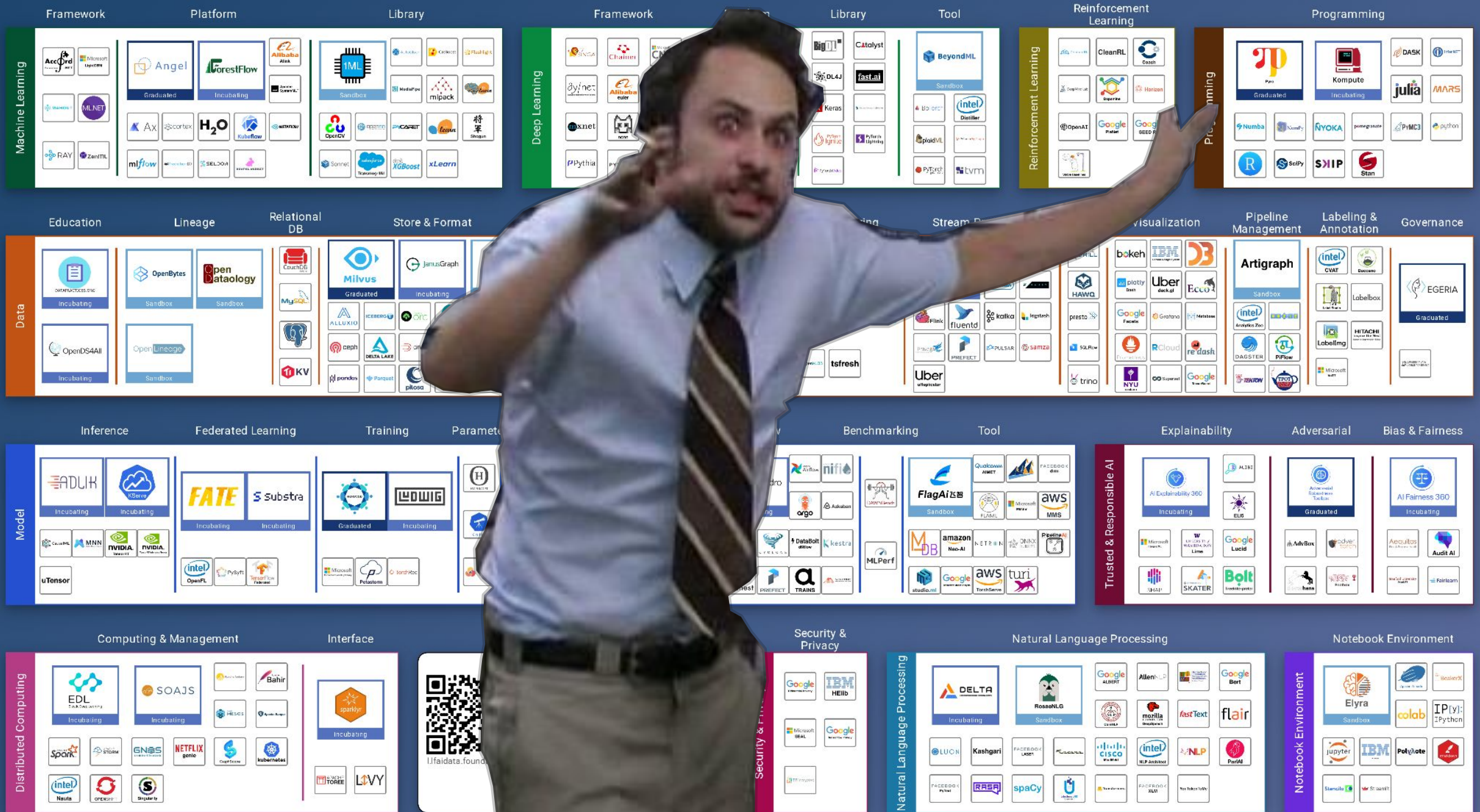


The Power of Open

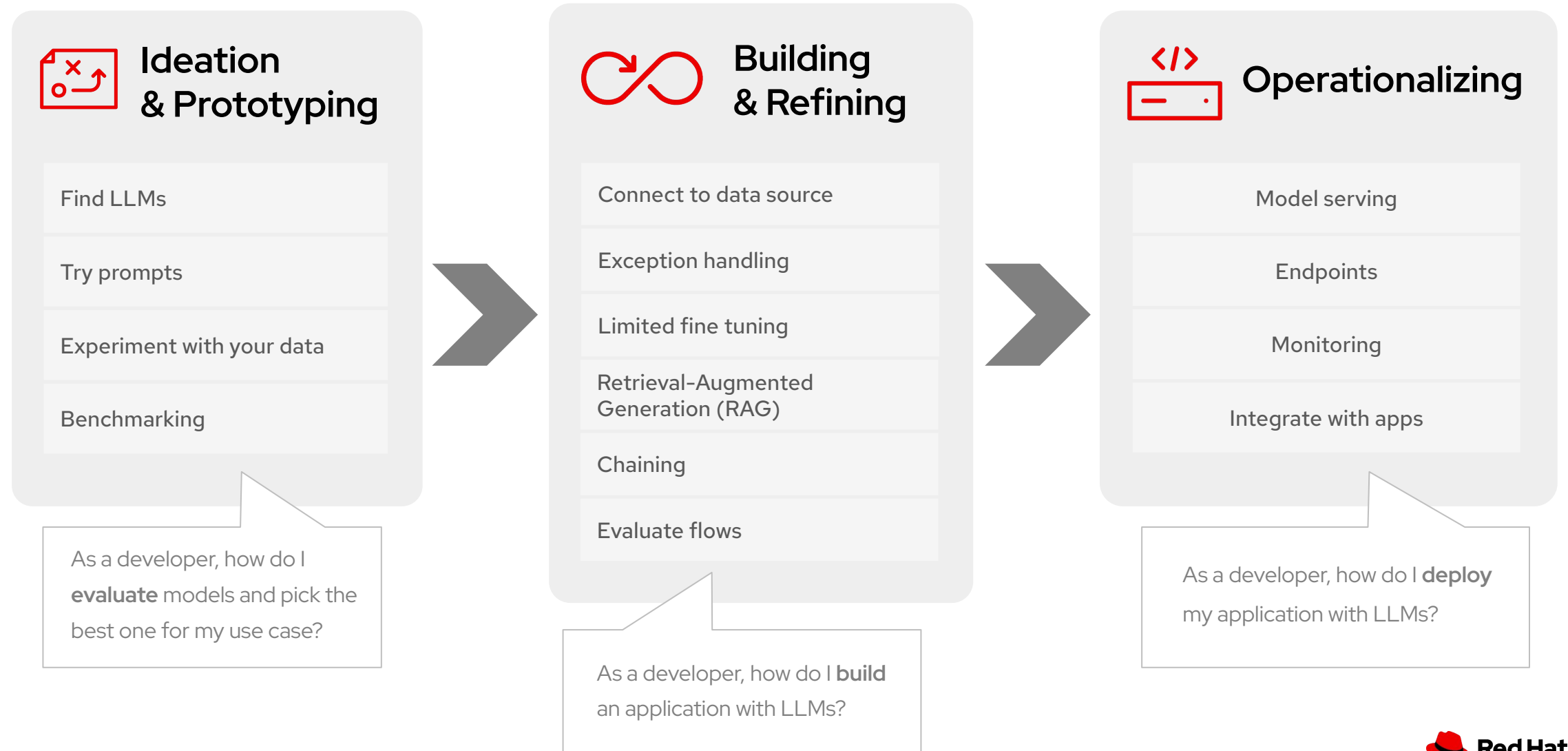
There has been an explosion of capability from open-source over the last 2 years.







The Journey of Adopting **Generative AI**



Generative AI is strategically important



of all organizations are currently using Gen AI in their software stack



of organizations consider Gen AI as central component of their platform engineering strategy

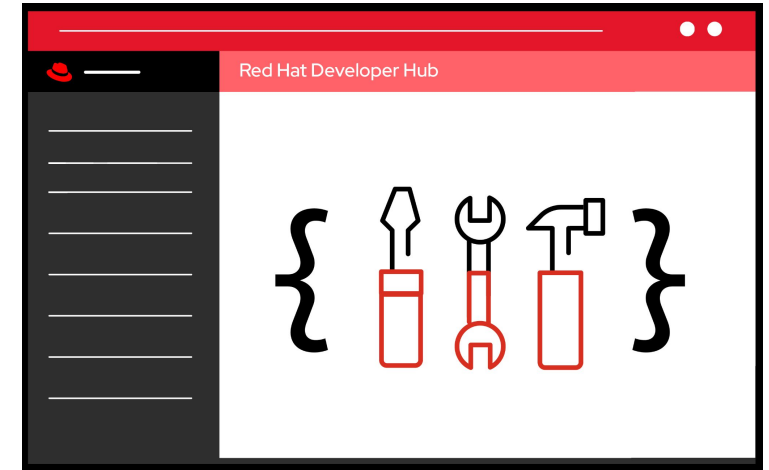
Source: State of Platform Engineering in the Age of AI (Red Hat, Nov. 2024)

Insight

AI capabilities are essential for propelling innovation, enhancing efficiency, and unlocking the full potential of platform engineering.



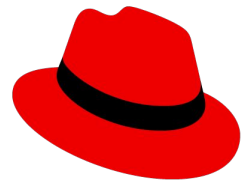
Red Hat Developer Hub



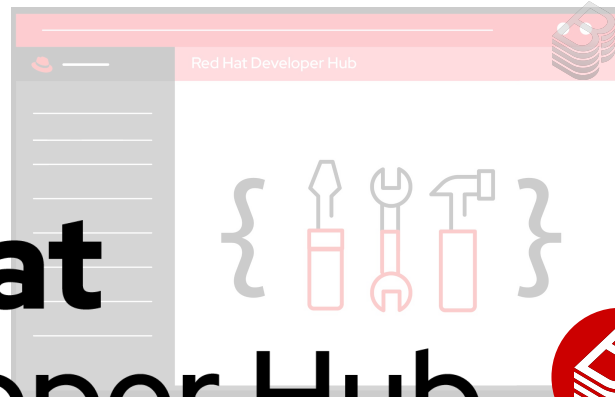


A fully customizable Developer Portal

Compatible with community resources



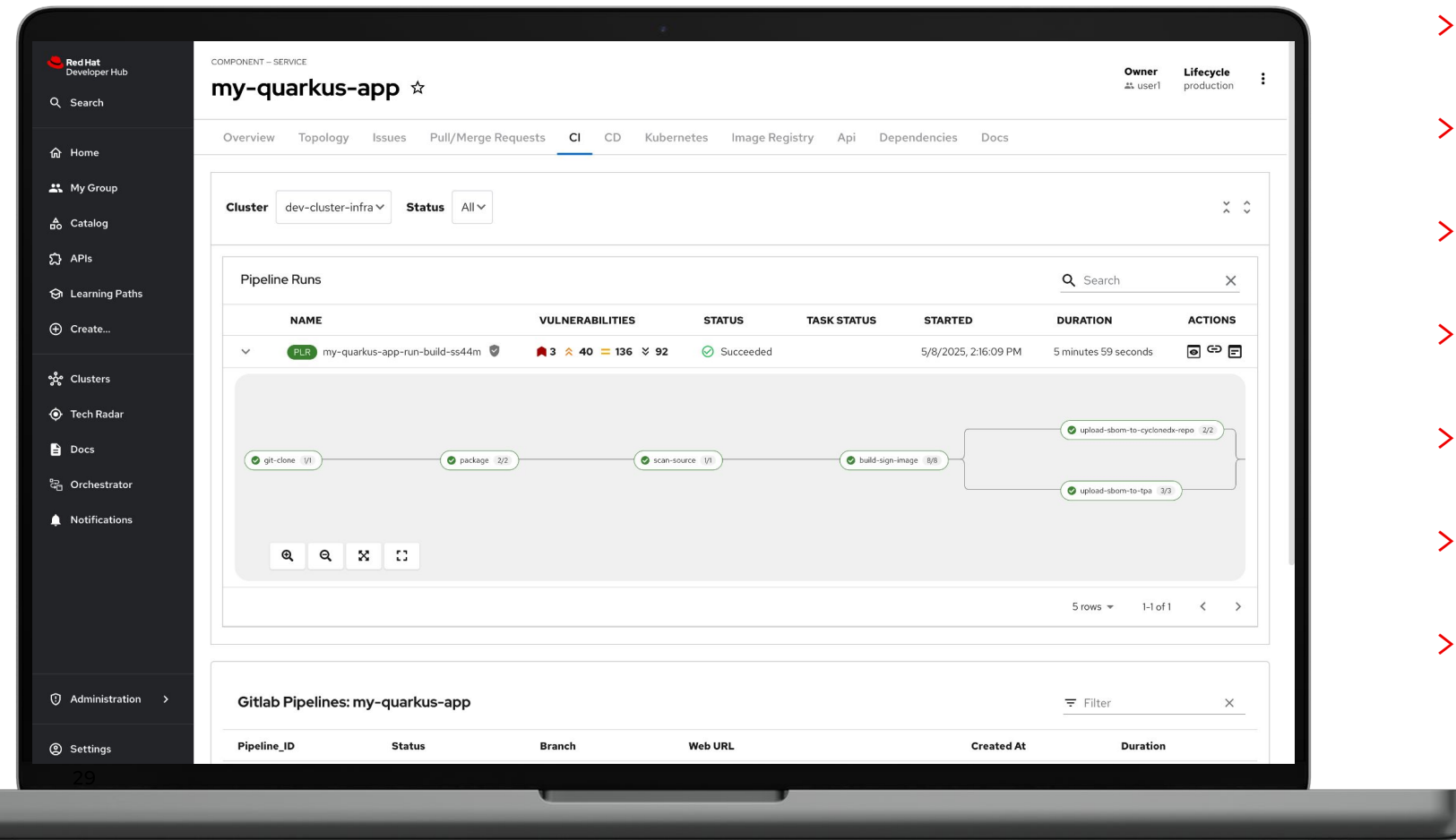
Red Hat Developer Hub



Single Pane of Glass

Increases engineering productivity

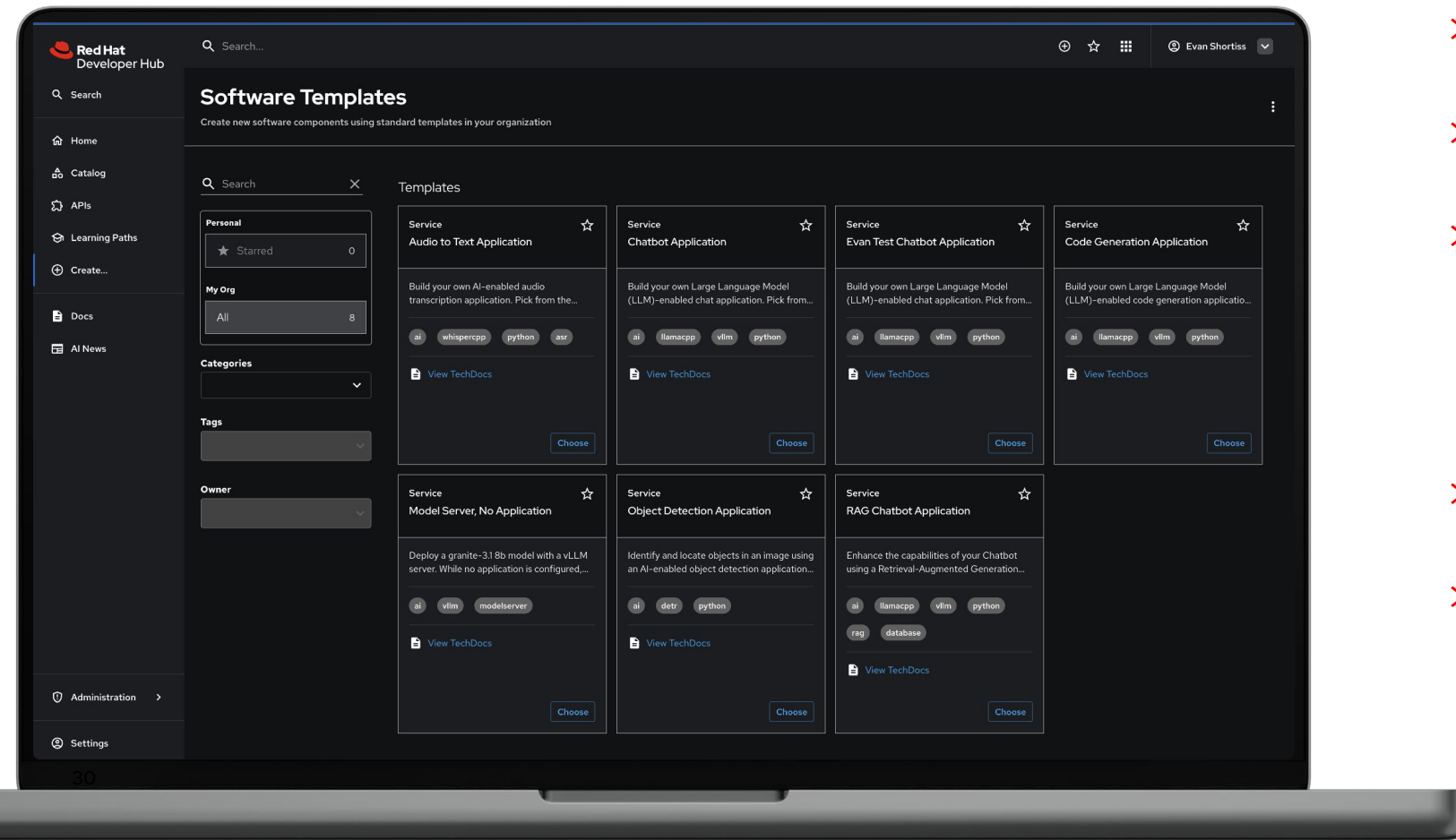
- > GitOps with ArgoCD
- > Pipelines with Tekton
- > Quay
- > Ansible
- > Migration Toolkits for Applications
- > Advanced Cluster Security
- > Developer Lightspeed



Self-service

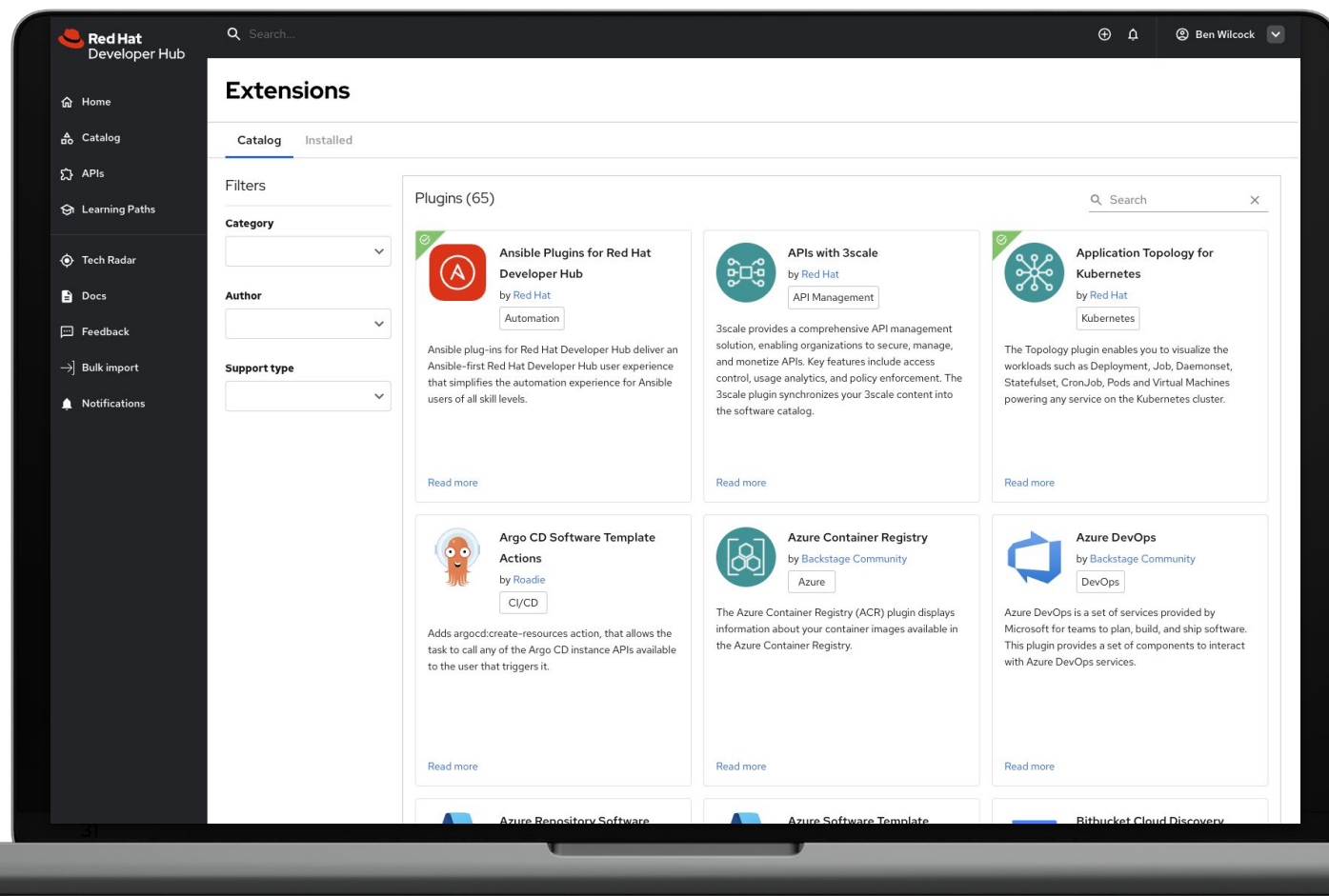
Increases engineering productivity

- > Create new application
- > Modernize application
- > Provision infrastructure
 - > Namespace
 - > Database
 - > Kafka topic
- > Onboard team members
- > Templates built by your SMEs
 - > Repeatable
 - > With guard rails



Extensible Portal

The Extensions plugin offers Platform Engineers information on the plugins available on RHDH



> **Long list of plugins:** Over 50 plugins are listed in the initial rollout with the potential for more to be added.

> **Verified plugins:** A green badge allows Admins to see plugins included in their RHDH support subscription.

> **Certified plugins:** A purple badge allows Admins to see plugins supported by Red Hat's partners.

> **Community plugins:** A broad selection of community plugins – popular with other users and the Backstage community.

Enterprise RBAC

The RBAC plugin now supports conditional policies for greater access control

RBAC / Create role

Create role

Create Role

- ✓ Enter name and description of role
- ✓ Add users and groups
- 1 Add permission policies

Permission policies can be selected for each plugin. You can add multiple permission policies using +Add.

What can users/groups access?

Plugin *
catalog

What actions they can do? *

☒ Read ☒ Delete ☒ Update

+ Add

Back Next

Configure access for the catalog-entity

By default, the selected resource type will be visible to the chosen users in step two. If you want to restrict or grant permission to specific plugin resource type rule, select it and add the required parameters.

Condition AllOf AnyOf Not

Rule *
IS_ENTITY_KIND

kinds *
user, group

List of kinds to match at least one of

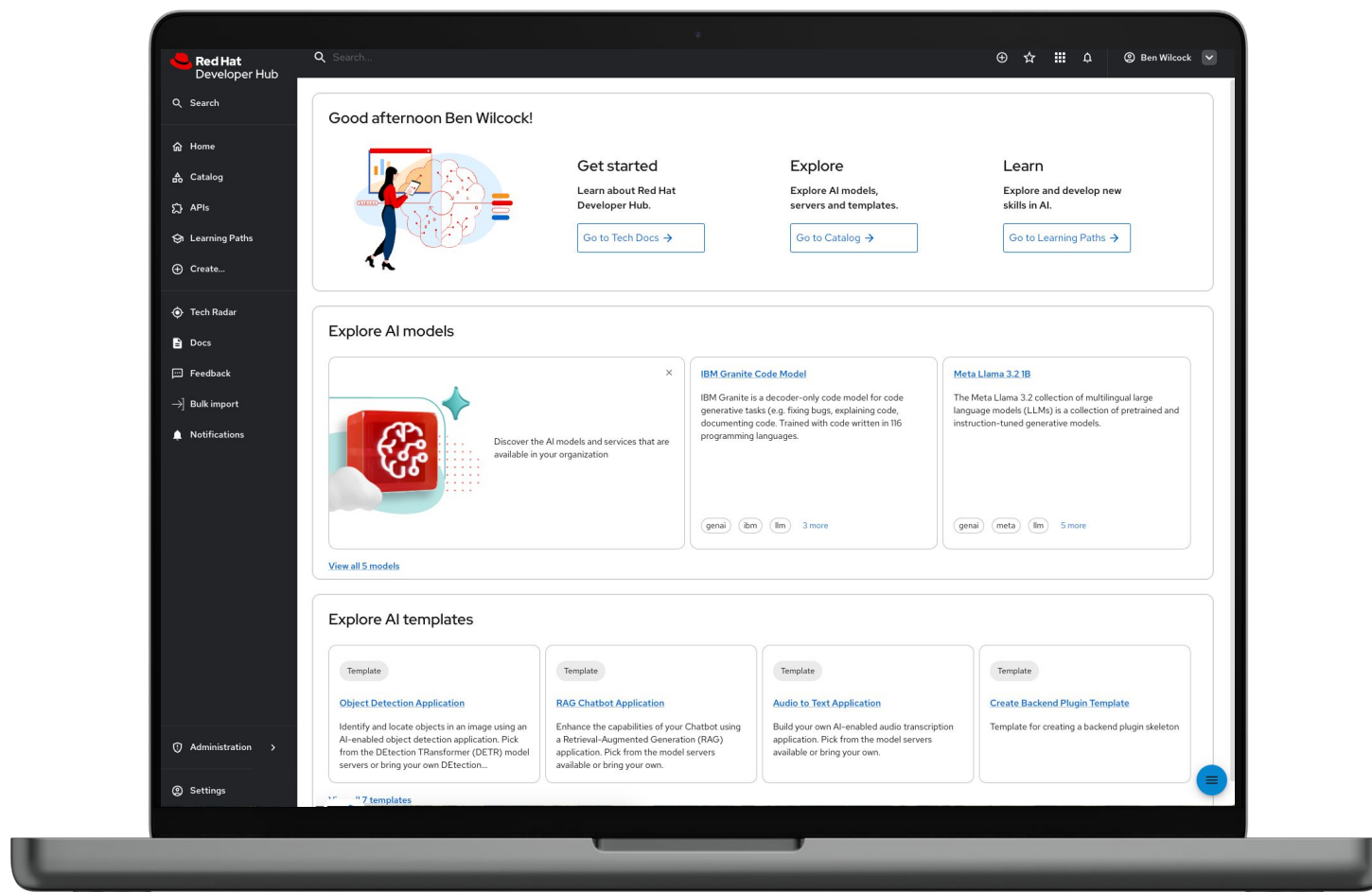
> Brings more sophisticated access controls to RHDH

> You can now use conditional policies in the Red Hat Developer Hub RBAC Plugin - enabling access control based on dynamic conditions.

> These conditions act as content filters, restricting access to the many resources gated by the [RBAC plugin](#).

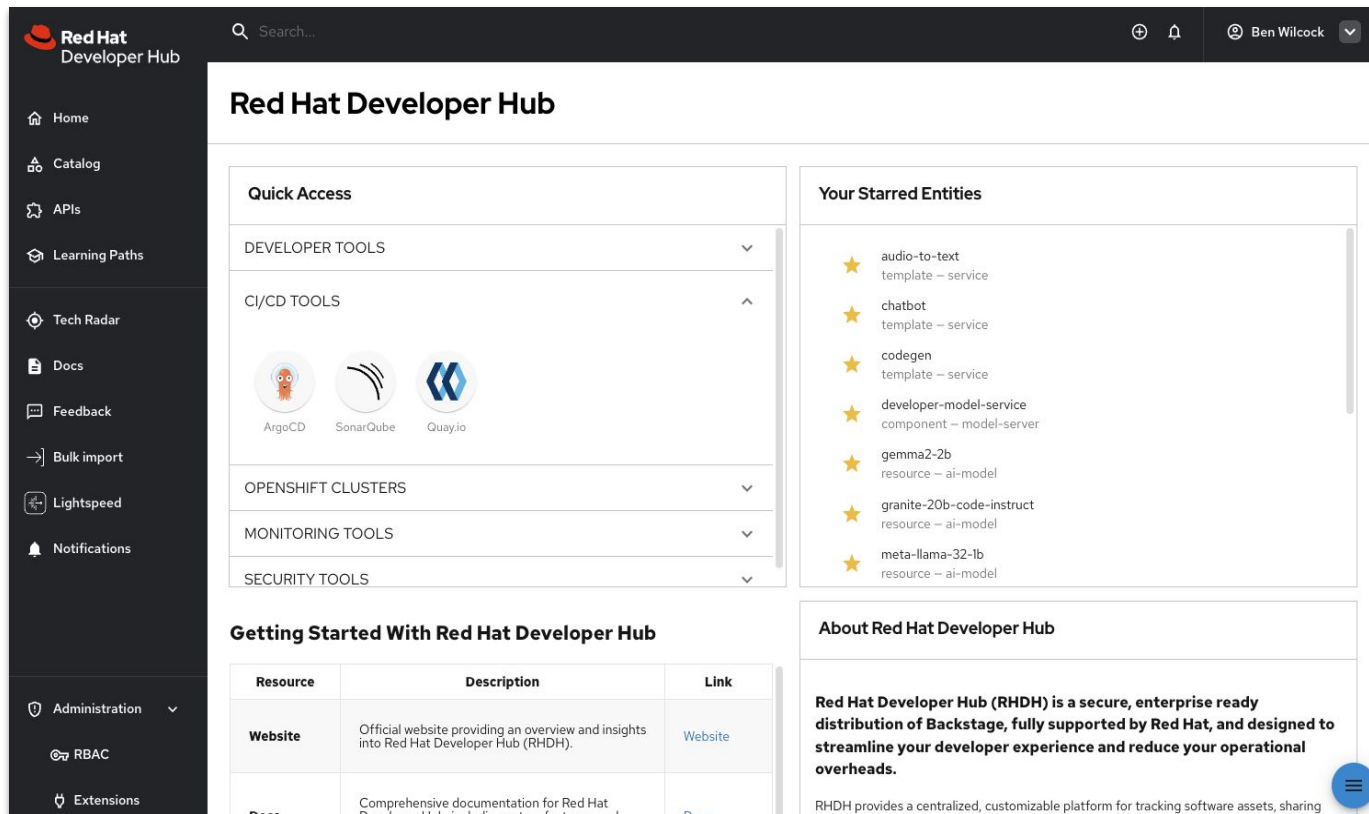
^ In this example, a role is being modified to allow the users in that role to edit users and groups in the catalog (and nothing more)

RHDDH AI Flavor



- > OpenShift AI integration
- > AI Models available in the Catalog
- > AI Software Templates
 - > RAG Chatbot Application
 - > Audio to Text Application
 - > Model Server
 - > Code Generation Application
- > Custom Homepage
- > Developer Lightspeed*

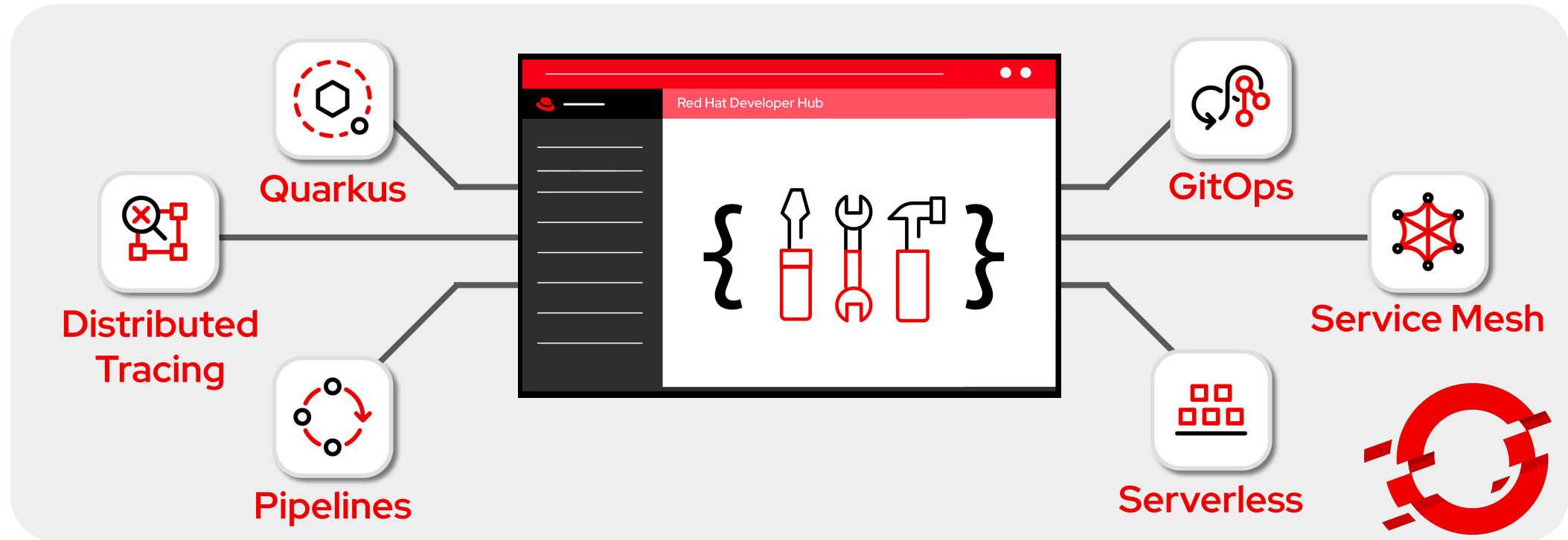
RHDH Local (Developer Preview)



- > Simple, Fast, and Disposable
- > Test In RHDH Without Kubernetes:
- > Test your configuration locally
- > Iterate Fast On Your plugins and software templates
- > Write and test your TechDocs

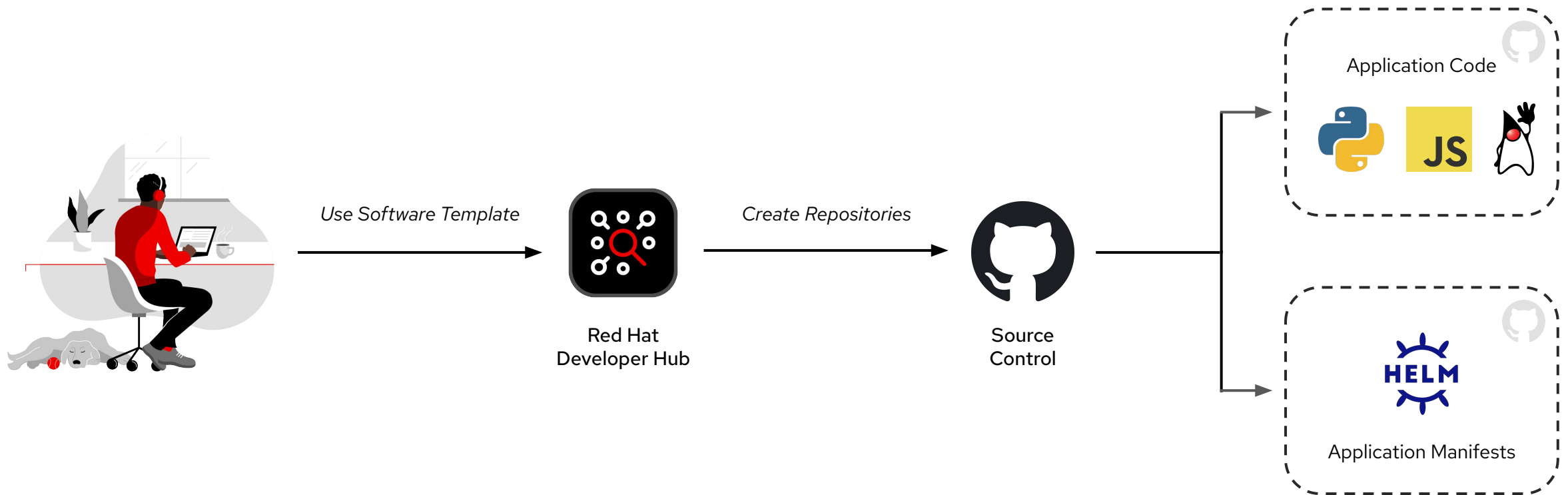
Fully integrated with Red Hat OpenShift

Leverages several technologies that come with OpenShift

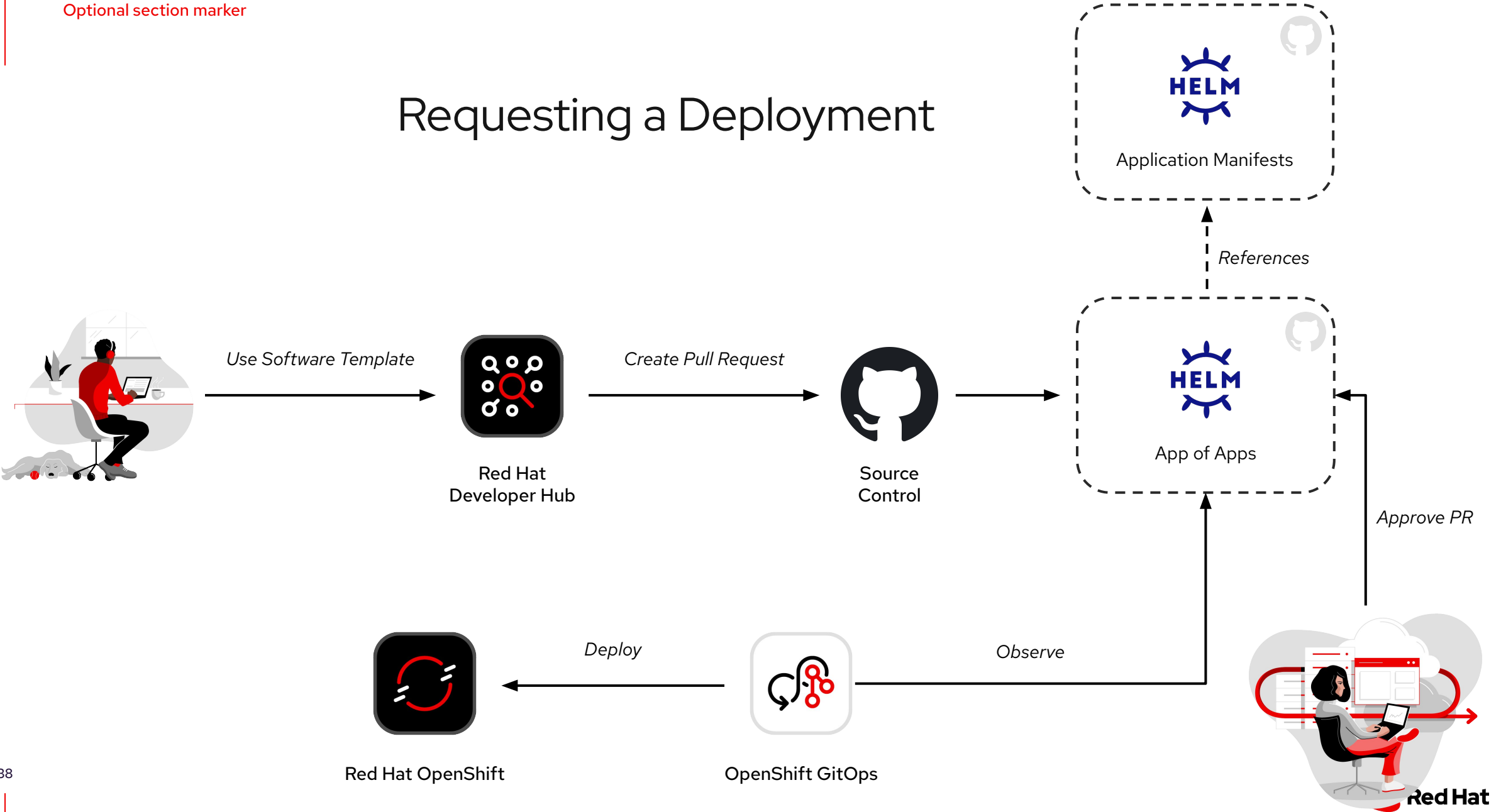




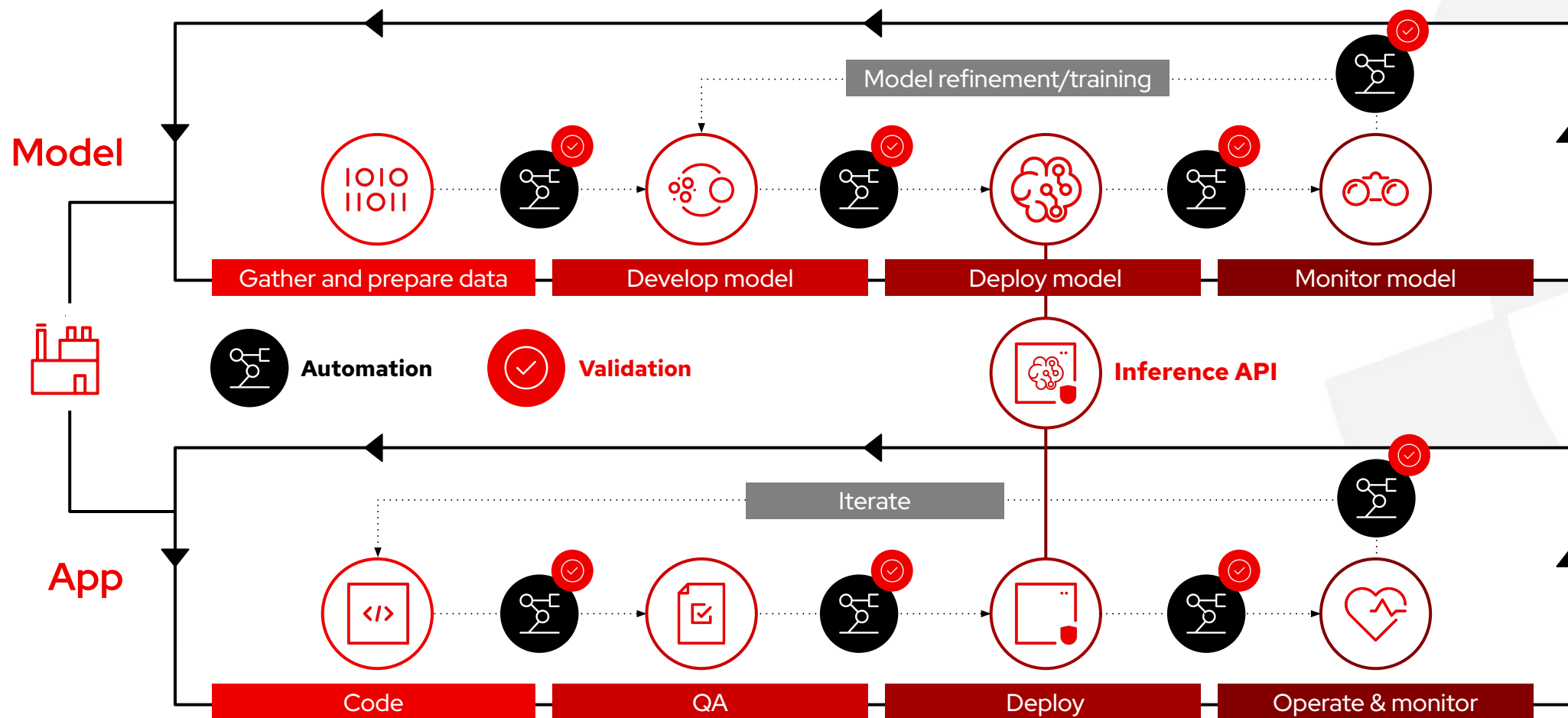
Creating a new Software Component



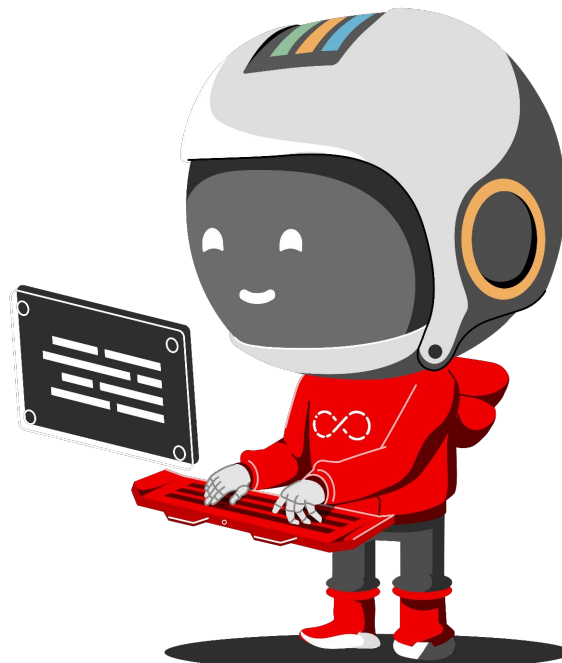
Requesting a Deployment



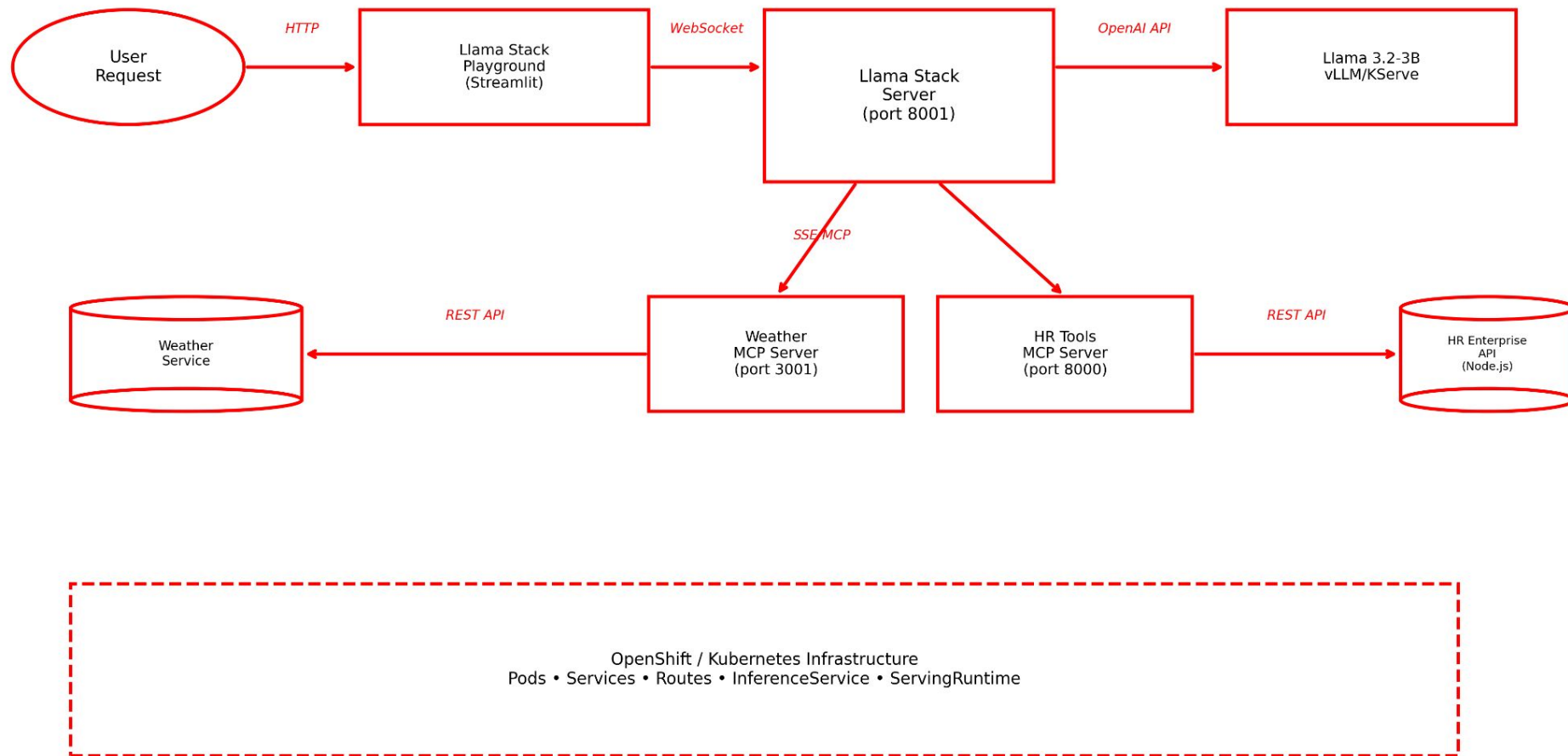
CI/CD for Apps and Models



DEMO



Llama Stack with MCP Servers Architecture

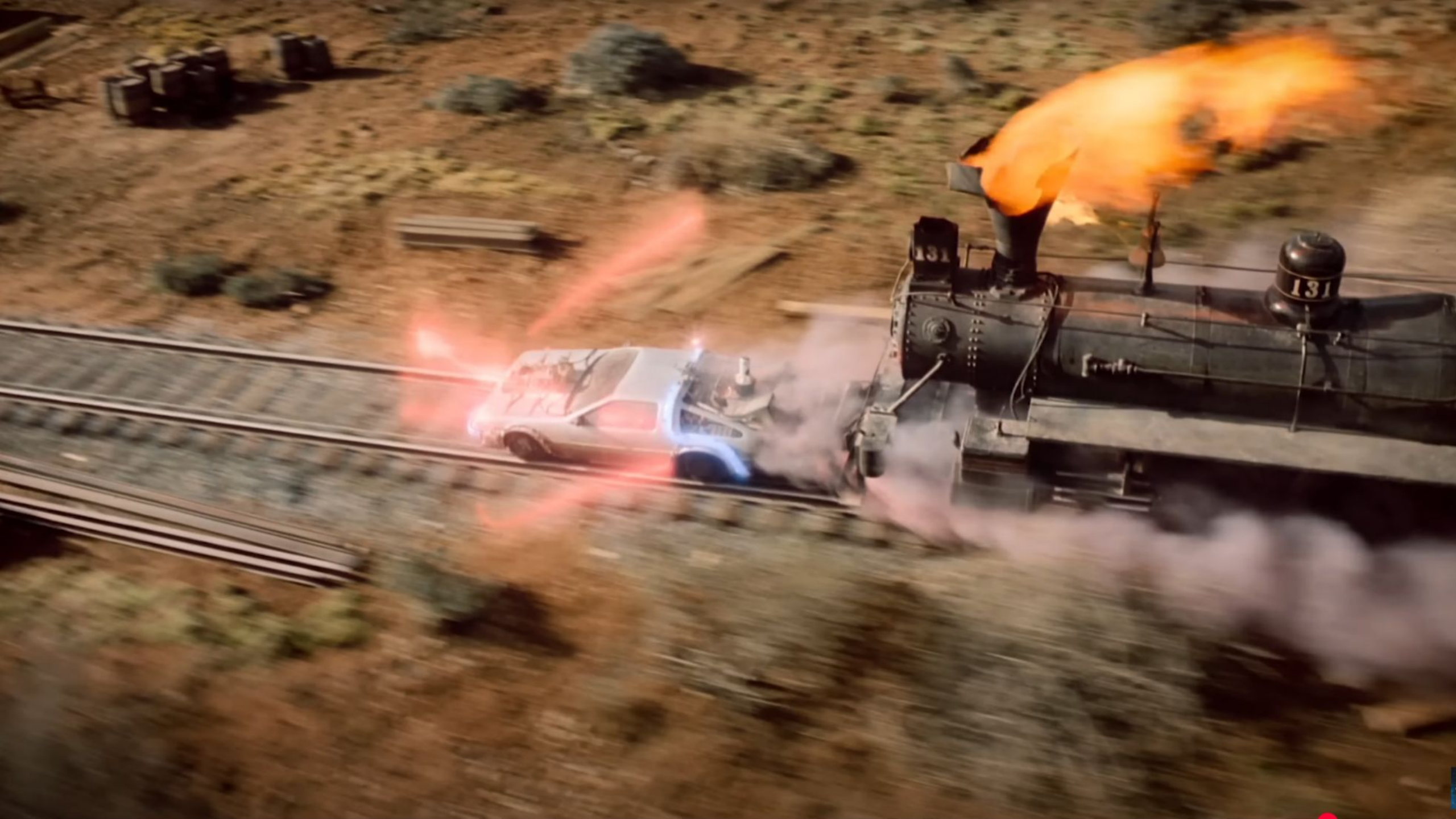


Key Technologies:

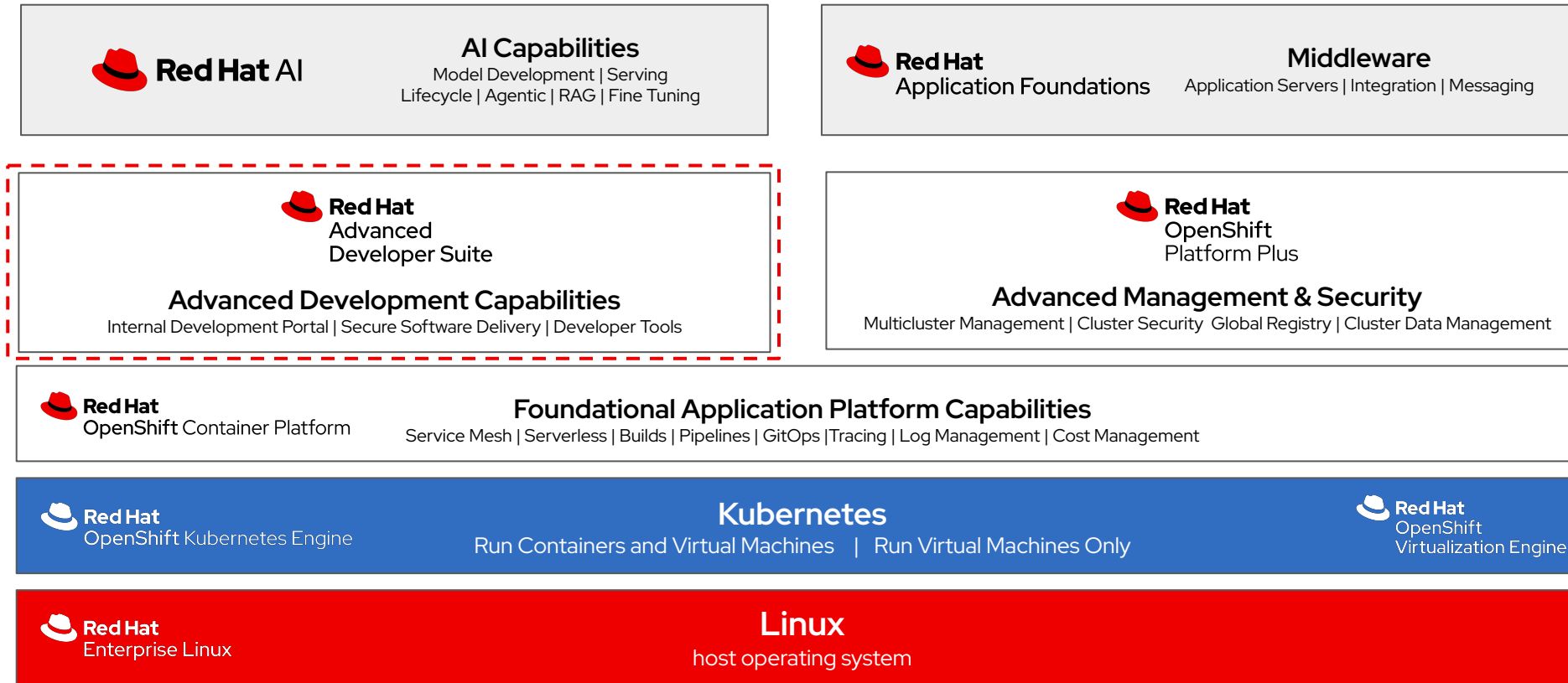
- Model Context Protocol (MCP): Tool integration framework
- Server-Sent Events (SSE): Real-time communication
- vLLM: High-performance LLM inference engine
- Helm Charts: Kubernetes deployment automation

Available Tools:

- Weather forecasts and alerts
- Employee vacation balance queries
- Vacation request creation
- HR data access and management



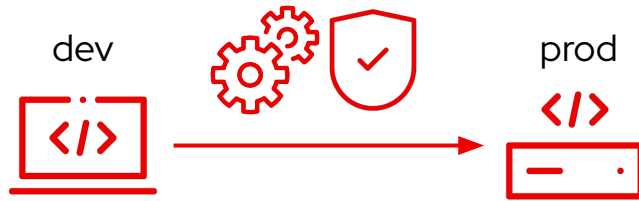
Red Hat's Hybrid Application Platform



Red Hat OpenShift Cloud Services

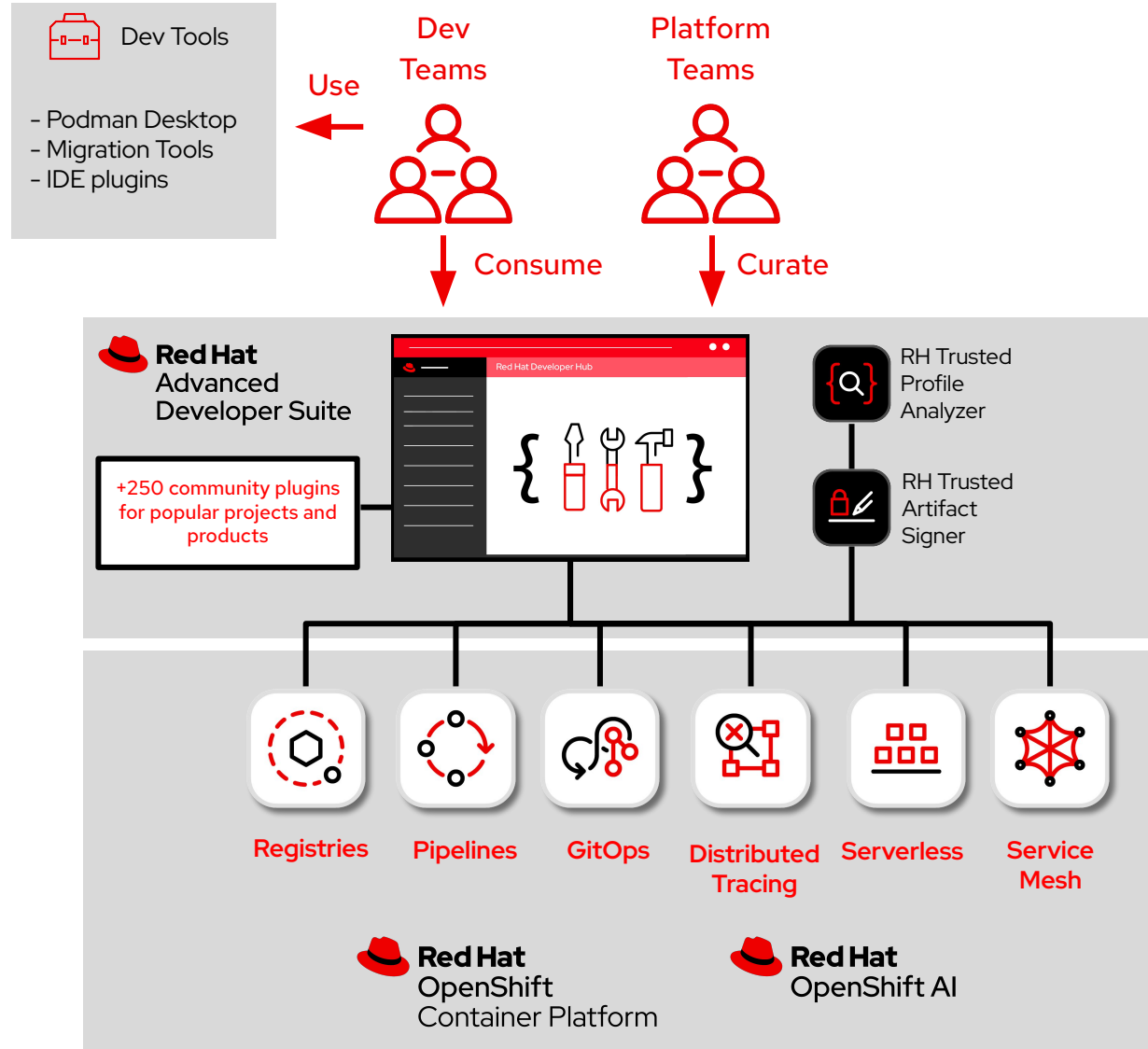


Red Hat Advanced Developer Suite



RHADS combines platform engineering tools with enhanced security capabilities to help accelerate and simplify application development with new enhancements to speed the adoption of AI

- Modular design allows it to be integrated with existing platforms and systems including Red Hat's platforms
- Integrates with existing security capabilities found in Red Hat Advanced Cluster Security
- Complements existing developer tools from Red Hat including OpenShift DevSpaces
- Built on leading open source projects like Backstage and Sigstore







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

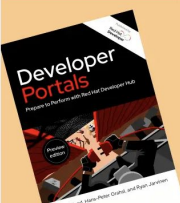
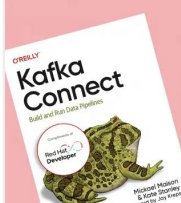
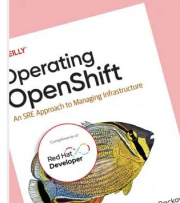




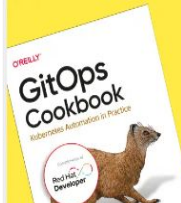






Get started

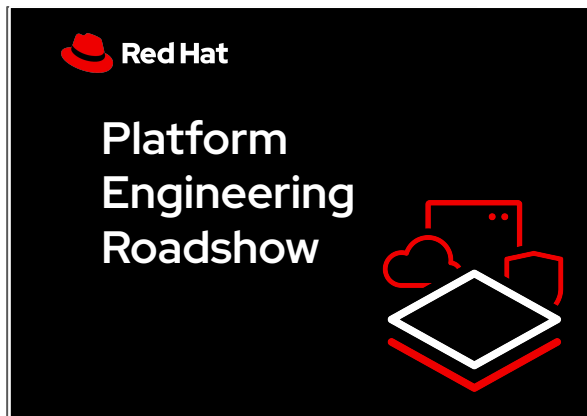


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Learn More



Platform Engineering Roadshow

This one day workshop provides hands-on instruction for many of our technologies discussed today.

<https://www.redhat.com/en/events/red-hat-openshift-roadshows>



OpenShift Security Roadshow

This technical, hands-on workshop empowers users with security controls spanning the full application lifecycle.

<https://www.redhat.com/en/events/openshift-roadshows/security>



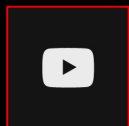
Red Hat Services for Application Platform

Scan the QR code to learn more about how Red Hat Services can help with your application platform success, including concepts like Secure Software Supply Chain success

red.ht/services-app-platform



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