Announcement Overview

Red Hat Summit 2024

Product & technology innovation news

Red Hat
Enterprise Linux AI

Developer Preview

podman

AI Lab project now available

KONVEYOR

GenAI project availability soon

New features **generally available**

for

Red Hat
OpenShift AI

Extending **Red Hat Lightspeed to**

Red Hat
Enterprise Linux

Red Hat
OpenShift

Technology preview in 2H CY24

Policy as Code for

Red Hat
Ansible Automation
Platform

Technology preview soon

Red Hat
Trusted Software
Supply Chain

InstructLab

Image mode for

Red Hat
Enterprise Linux

Technology preview

Red Hat
Connectivity Link

Developer preview

2

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Ecosystem expansion news

Acceleration for OEMs and GPU providers:

Integrated ISV applications:

Software-defined vehicles:

Industry alliances:

Customer news

Adopted Red Hat OpenShift AI to expand AI usage across Uruguayan government agencies

Drove new innovations in maternal–fetal image using Red Hat OpenShift for AI

Used Azure Red Hat OpenShift to get to market faster and more collaboratively

Selected Red Hat Enterprise Linux as the operating system platform for the El Capitan exascale supercomputer

Worked with Red Hat to adopt InnerSource practices for greater collaboration and faster innovation.

Enhanced network uptime, consistency and efficiency with Red Hat Ansible Automation Platform

The cloud is hybrid. So is AI.

AI is not defined by a single footprint

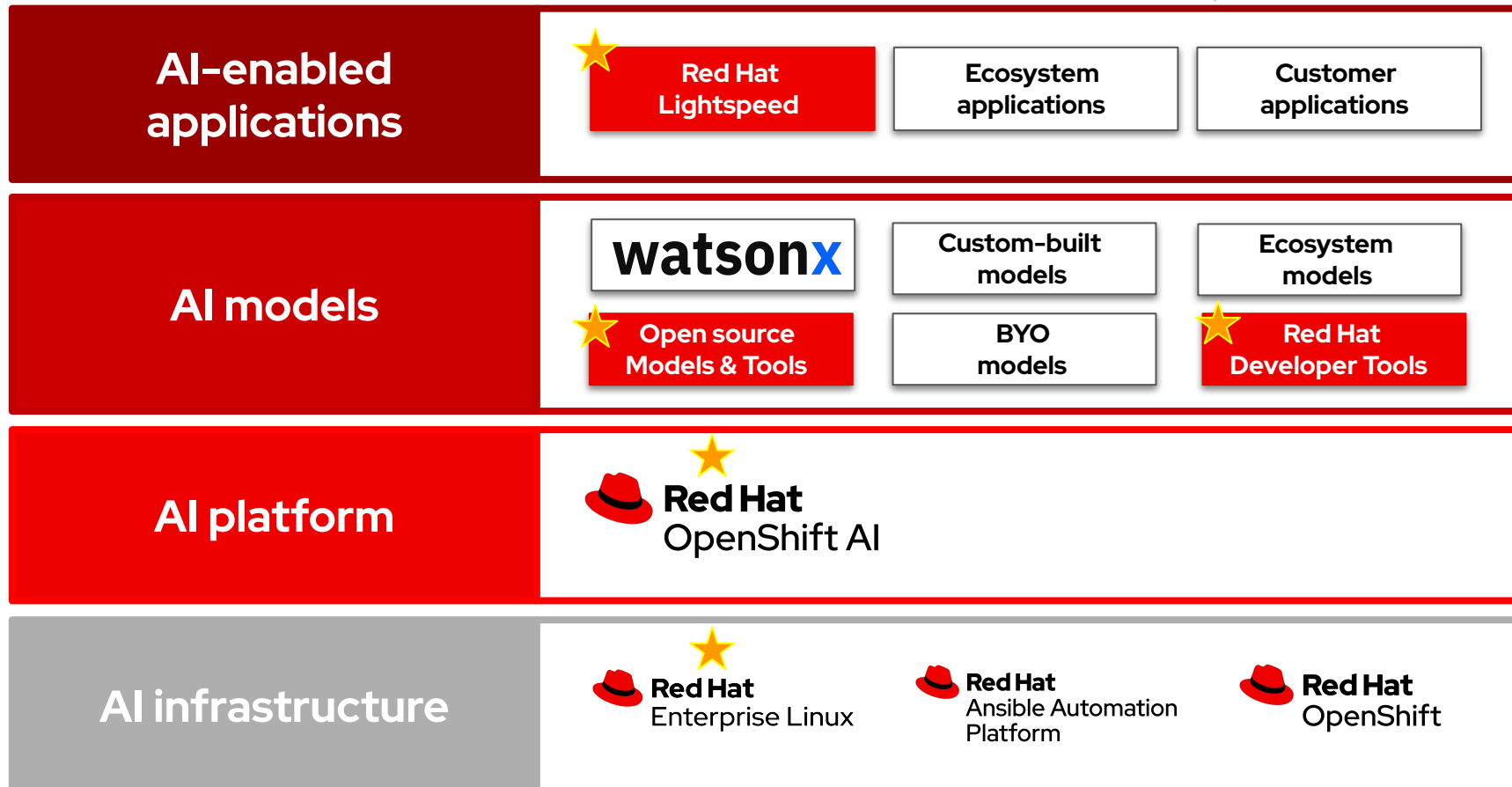AI strategies start with a hybrid cloud strategy

Flexibility and choice are paramount to AI success in the enterprise

Existing investments must work in support of, not against, AI workloads and models

Red Hat delivers the *consistent, trusted and comprehensive* AI platforms for the hybrid cloud.

Red Hat is accelerating AI across the open hybrid cloud

AI-enabled applications	⭐ Red Hat Lightspeed	Ecosystem applications	Customer applications

AI models	**watsonx**	Custom-built models	Ecosystem models
	⭐ Open source Models & Tools	BYO models	⭐ Red Hat Developer Tools

AI platform — ⭐ Red Hat OpenShift AI

AI infrastructure — ⭐ Red Hat Enterprise Linux Red Hat Ansible Automation Platform Red Hat OpenShift

6

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Red Hat's AI certified partner ecosystem

Integrated ISVs

Anaconda
Elastic
IBM
Intel
NVIDIA
Pachyderm
Run:ai
Stability AI
Starburst

AI & general ISVs

C3.ai
Cloudera
Couchbase
Crunchy
Enterprise DB
Guise AI
H2O.ai
Hugging Face
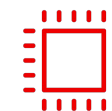Lightbend
Palantir
Redis Labs
SAS

Delivery partners

Accenture
BCG
CapGemini
Deloitte
HCL Technologies
Infosys
Kyndryl
World Wide Technology

Cloud partners

AWS   Google
Azure   IBM Cloud

Hardware/OEMs

AMD
Dell
Cisco
HPE
Intel
Lenovo
NVIDIA
Qualcomm
Supermicro

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Red Hat OpenShift AI

Hybrid MLOps platform

Collaborate within a common platform to bring IT, data science, and app dev teams together

Available as

- **managed cloud service**
- **traditional software product on-site or in the cloud**

Model tuning & alignment

Conduct exploratory experiments in JupyterLab with access to core AI / ML libraries and frameworks including PyTorch and InstructLab using our notebook images or your own.

Model serving & monitoring

Deploy and scale models across any cloud, fully managed, and self-managed OpenShift footprint and centrally monitor their performance.
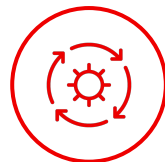
Lifecycle management

Create model pipelines for tuning and alignment (manual and InstructLab), validation and delivery of models across your enterprise.

Resource optimization and management

Optimize resources across users for use in tuning and inference. Share resources, projects, and models across users

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Red Hat's view of AI

Today

**"Open" models
Closed evolution**

- LLMs flourish in the open, **but are limited without being truly open source**

- Users for communities but **can't contribute**

Tomorrow

**Open source models
Open evolution**

- **Bring open source concepts to AI models** and the tools for open evolution

- Enable users to **create and merge contributions to LLMs,** increasing efficiency and performance

Execution

Enterprise products driven by upstream communities

- Red Hat and IBM will release **Apache 2.0-licensed models and tools** as an open source project

- A new Red Hat offering, **RHEL AI,** brings these capabilities to the enterprise

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Red Hat Enterprise Linux AI

Foundation Model Platform

Seamlessly develop, test and run best of breed, open source Granite generative AI models to power your enterprise applications.

The model is the new platform.

Open Granite models

Highly performant, fully open source, collaboratively developed Granite language and code models from the community, fully supported & indemnified by Red Hat and IBM.

InstructLab model alignment

Scalable, cost-effective solution for enhancing LLM capabilities efficiently for a wide range of applications, making knowledge & skills contributions accessible to a wide range of users

Optimized bootable model runtime instances

Granite models & InstructLab tooling packaged as a bootable RHEL image, including Pytorch/runtime libraries, hardware optimized inference for Nvidia, Intel and AMD that can run anywhere and provides onramp to OpenShift AI for scale and lifecycle & watsonx for agent integration and governance.
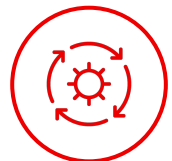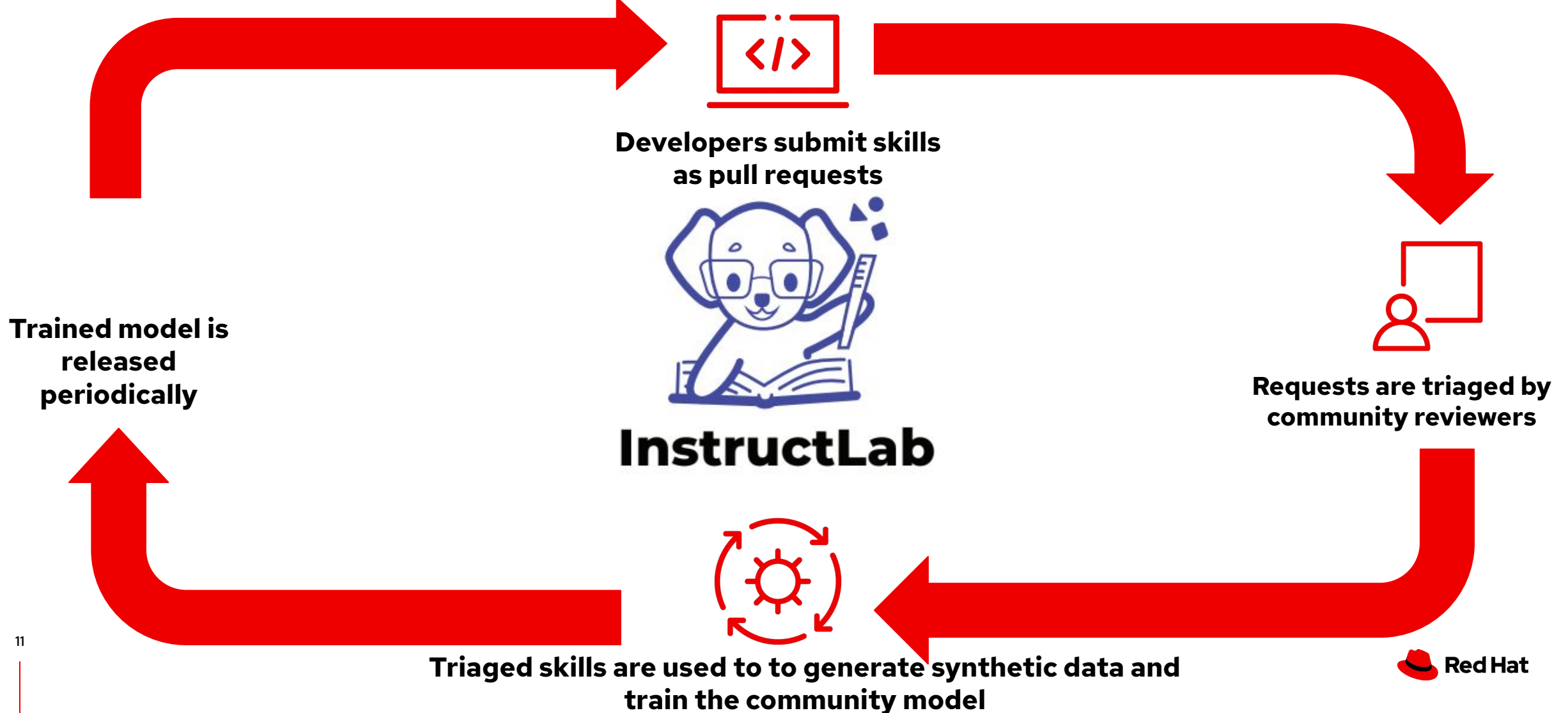
Enterprise support, lifecycle & indemnification

Trusted enterprise platform, 24x7 production support, extended model lifecycle and model IP indemnification

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Introducing: **InstructLab**

Open source community project for GenAI model development

Developers submit skills as pull requests

Trained model is released periodically

Requests are triaged by community reviewers

Triaged skills are used to to generate synthetic data and train the community model

11

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Introducing: **image mode for Red Hat Enterprise Linux**

Making operating systems as simple as containers

```
FROM quay.io/rhel9/rhel-9-bootc:latest

RUN dnf -y install [software]
[dependencies] && dnf clean all

ADD [application]
ADD [configuration files]

RUN [config scripts]
```

Allows teams, infrastructure, and ecosystems to converge on a single container-native workflow to manage everything from their applications to the underlying operating system. build, test and distribute the operating system as if it was any other container.

- ▸ **All customers** benefit from the simplicity and portability across their traditional and hybrid cloud environments

- ▸ **DevOps teams** finally have a native OS with their favorite CI/CD & GitOps workflows solving last-mile problems

- ▸ **Security teams** will be delighted by the cryptographic validation, transparent provenance, and tool consolidation

- ▸ **Partners** will love how easy it is to build and distribute on a trusted base operating system

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Introducing: **Podman AI Lab**

Simple developer access to local containers and AI
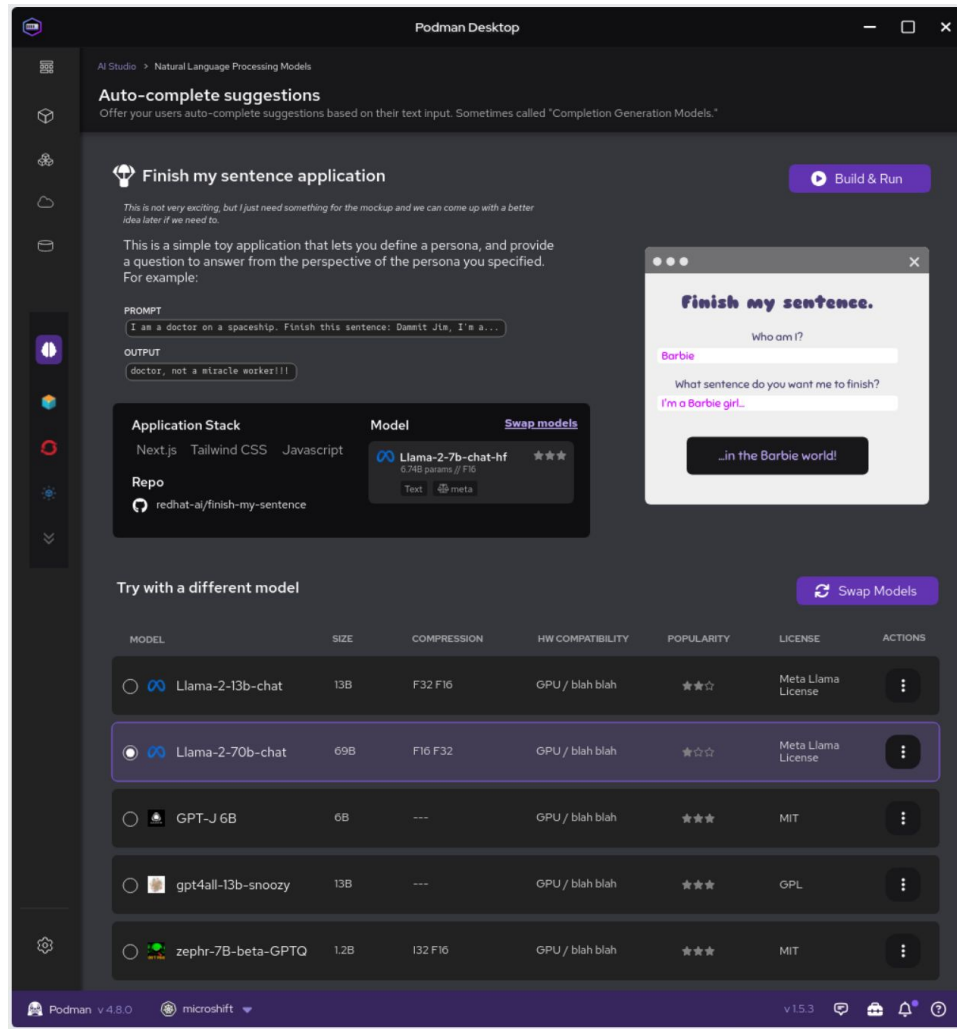
- ▸ Run and code against local models quickly on your laptop (Mac, Windows, & Linux)

- ▸ Accelerate AI adoption, by easing concerns around data access, data privacy, & security

- ▸ Local developer workflow for model fine-tuning

- ▸ Path to production – Easy to package and deploy apps and models direct to OpenShift AI all they way down to bare metal

- ▸ Simple access to Red Hat developer subscriptions

Announcing: **Red Hat Lightspeed across Red Hat platforms**

Intelligent, natural language GenAI processing capabilities designed to extend existing IT skills

OpenShift Lightspeed will be available in Technology Preview later in 2024

RHEL Lightspeed is currently in the planning stages and availability will be announced

Improve the productivity and efficiency of ops and developers by integrating AI into cluster administration and the operating system

Simplify enterprise planning and administration, improve performance and enhance security

More easily navigate the complexities of enterprise IT in the hybrid cloud

Announcing: **Konveyor GenAI for the Konveyor Community**

- ▶ GenAI applied to application modernization efforts

- ▶ Workflow-integrated LLMs

- ▶ Generated code directly within IDEs

- ▶ Successful migrations build strong recommendations

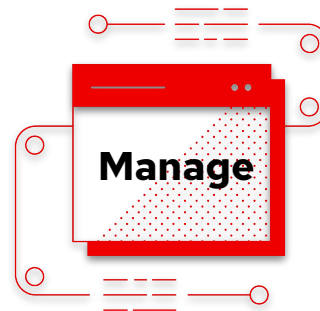- ▶ Roadmap for Red Hat migration toolkit for applications

Introducing: **Policy as Code for Red Hat Ansible Automation Platform**

Solution for Governance, Risk and Compliance (GRC) in complex, AI-infused IT environments

Create
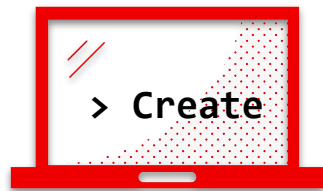
Check policy enforcement during the development cycle

Accelerate policy checking during automation content development

Manage

Integrated mechanism for policy enforcement based on unique needs

Discretionary or mandatory checks before or during automation runs

Scale

Reporting to aid in compliance status and audit tracking

Policy compliance and auditing reporting more time-efficient

16

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Introducing: **Red Hat Connectivity Link**

A streamlined and composable approach to application connectivity

Simplify connecting disparate apps and services

Integrated, unified control plane for managing modern workloads across the hybrid cloud

Seamless application connectivity across Kubernetes clusters

Multi-cluster ingress management unifies ingress management
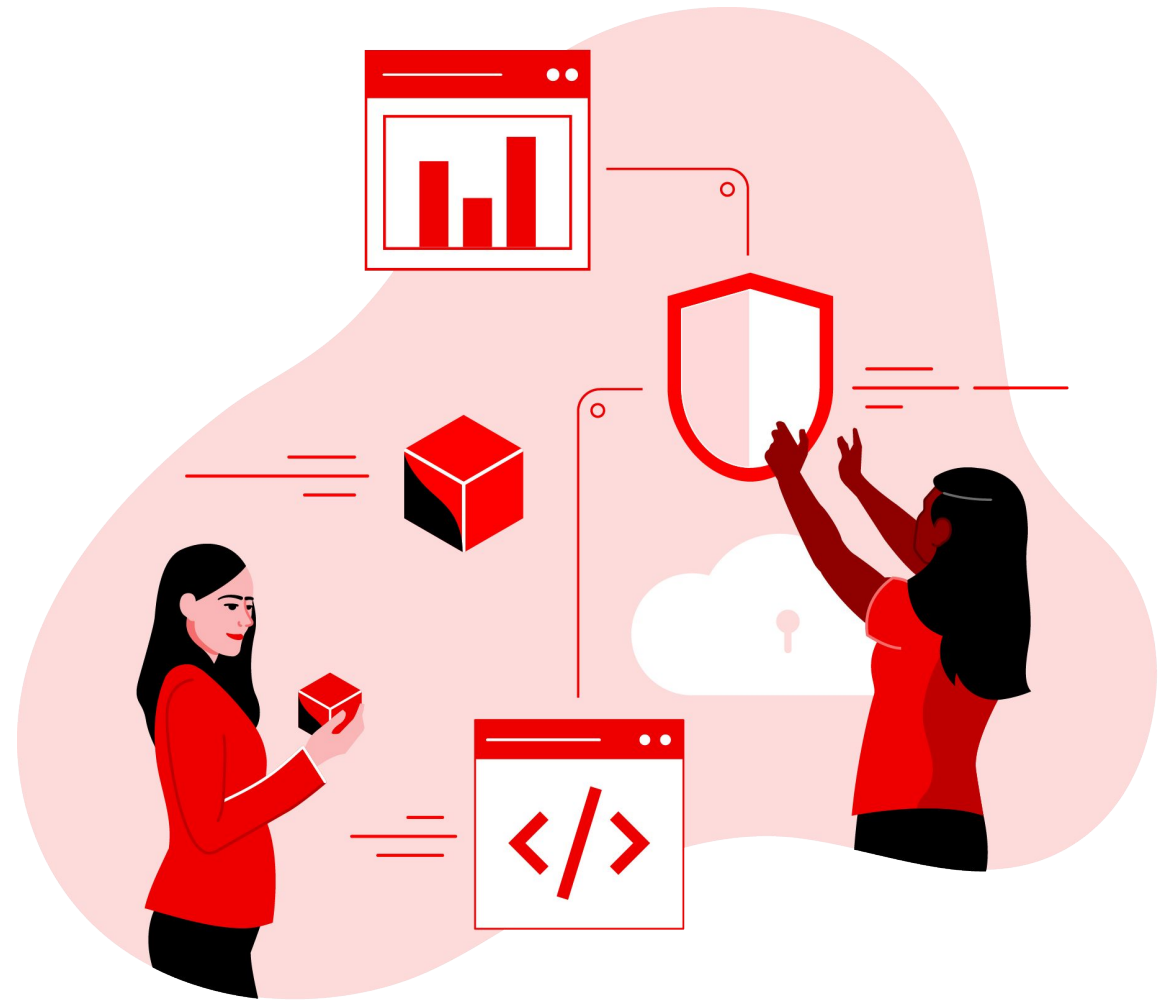
Automate critical connectivity needs

Load balancing, resource utilization, disaster recovery and more

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Build a **trusted** software supply chain with Red Hat

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Software supply chain attacks: a matter of when, not if

Ransom paid but a mere fraction to the overall downtime and recovery costs of a data breach

742%

average annual increase in software supply chain attacks over the past 3 years[1]

45%

of organizations worldwide will experience supply chain attacks by 2025[2]

1 in 5

data breaches are due to a software supply chain compromise[3]

71%

YoY increase in cost of average ransom payment[4]

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[1] State of the Software Supply Chain | [2] 7 Top Trends in Cybersecurity for 2022 | [3] Cost of a Data Breach 2022 – IBM Report | [4] Average Ransom Payment Up 71% This Year, Approaches $1 Million |

Accelerate Innovation that Safeguards User Trust

Delivered with integrated security guardrails at every phase of the software development lifecycle

Code
| Software Composition Analysis | Store/Query SBOMs and VEXs |
| Dependency Management | OSS Risk Profiles |

Build
| Vulnerability Analysis | Verified Pipelines |

Deploy
| Security Policies | Release Gates |

Run & Monitor
Compliance Management	Images
	Containers
Threat Detection	Clusters
	Network

Tamper Proof Code: Digitally Sign & Verify | Immutable Certificate Authority | Keyless Signing | Transparent, Auditable Logs

Curate trusted content at code-time, with an automated chain of trust that verifies pipeline compliance at build-time

Standardize on security-focused golden paths for code that stays compliant with corporate security practices

Build and deploy platform, pipeline and applications as-code to an auditable, declarative state that's continuously monitored

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Red Hat® Summit: Connect 2024

Join us as we explore the future of AI, hybrid cloud, open source technology, and IT.

WEST

- ▸ Bellevue, WA – Sept. 19
- ▸ Sacramento, CA – Sept. 26
- ▸ Scottsdale, AZ – Oct. 3
- ▸ Los Angeles, CA – Oct. 16
- ▸ San Jose, CA – Oct. 23

EAST

- ▸ Arlington, VA – Sept. TBD
- ▸ Waltham, MA – Sept. 10
- ▸ New York City, NY – Sept. 12
- ▸ Philadelphia, PA – Oct. 3
- ▸ Detroit, MI – Oct. 9
- ▸ Jacksonville, FL – Nov. 6
- ▸ Alpharetta, GA – Nov. 19

CENTRAL

- ▸ Chicago, IL – Oct. 1
- ▸ Austin, TX – Oct. 3
- ▸ Minneapolis, MN – Oct. 10
- ▸ Dallas, TX – Oct. 15
- ▸ St. Louis, MO – Oct. 30

CANADA

- ▸ Ottawa, ON – Sept. 17
- ▸ Montreal, QC – Oct. 9
- ▸ Vancouver, BC – Oct. 24
- ▸ Toronto – Nov. 5

Learn more:

red.ht/SummitConnect24

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