



CentOS - RHEL 9

What's new from Red Hat

Mattias Paulsson
Sales Manager

Johnny Westerlund
Sales Manager

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CentOS discussion

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Imagining a new model for RHEL creation

The Industry has Changed



- ▶ A healthy, sustainable ecosystem requires continuous value creation **from all participants**.
- ▶ Traditional hardware roadmaps are accelerating, making them more difficult to align.
- ▶ New methods like DevOps encourage constant change.
- ▶ Containers disrupt historic operating system deployment patterns.
- ▶ Markets like Telco and Edge require new partners, and these partners will be innovating in new areas and require a fast cycle of changes and stronger, more efficient collaboration with Red Hat/RHEL creation cycle.

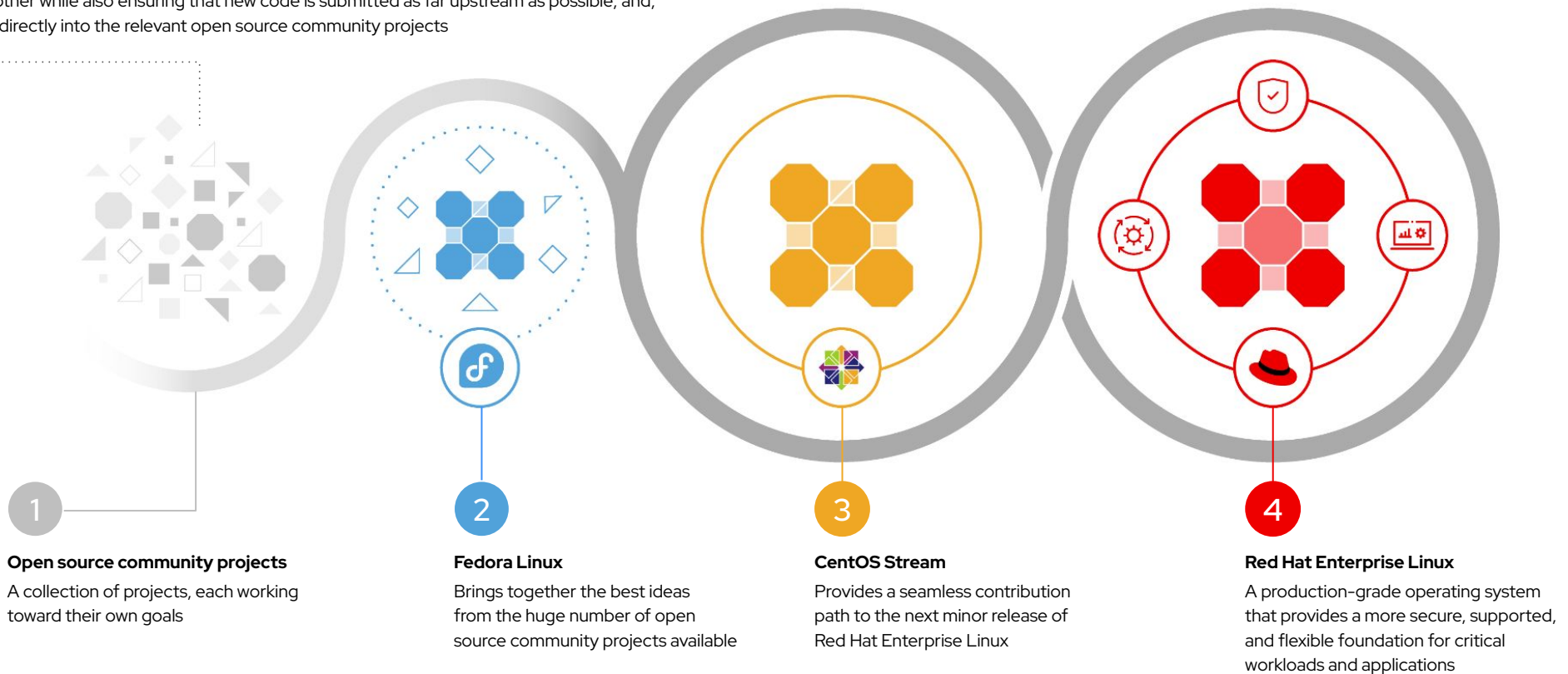


Existing engagement through the downstream CentOS Linux model cannot serve these challenges.

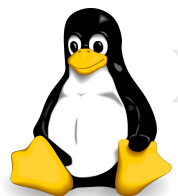
The path to Red Hat Enterprise Linux



Contributions flow among all elements of the ecosystem; however, there is a stronger connection between CentOS Stream and Red Hat® Enterprise Linux®. They each contribute to the other while also ensuring that new code is submitted as far upstream as possible; and, ideally, directly into the relevant open source community projects



Enterprise Linux Ecosystem (since 2021)



Fedora

3y

CentOS Stream

continuous

Red Hat Enterprise Linux

Linux Kernel

Community space

Shared space

Private space

- ▶ Contributions welcomed and encouraged
- ▶ A packaged integration of upstream
- ▶ Take risks, do experiments
- ▶ An Open Source community
- ▶ Focused on more than the Enterprise

- ▶ Contributions welcomed and encouraged
- ▶ Variants are encouraged through Special Interest Groups ("SIGs")
- ▶ Contributions curated by Red Hat
- ▶ Continuously delivers the next minor version of Red Hat Enterprise Linux
- ▶ Focused on the future of the Enterprise

- ▶ Private until after release
- ▶ NDA and CVE work
- ▶ Accessible only via subscription
- ▶ Focused on today's Enterprise
- ▶ Lifecycle management, including ability to pin to a minor release
- ▶ Errata feeds

- 👤 Operating System developers
- 🔍 OS innovation, architecture changes
- 🕒 Fast moving, major release every 6 months

- 👤 Community and partners
- 🔍 Develop, test, contribute to next version of RHEL
- 🕒 Continuous stream of new content

- 👤 RHEL customers and partners
- 🔍 Stability, security, performance
- 🕒 Predictable release cadence

Converting from CentOS Linux to RHEL

Moving away from CentOS Linux to RHEL

Benefits

- ▶ **Standardize** on a single distribution (RHEL)
- ▶ Stay with the **creator** of RHEL
- ▶ **Developers** program (RHEL for free)
 - <https://developers.redhat.com>)
- ▶ **Support** organization, Knowledge Base, Labs
- ▶ RHEL brings **more security**
 - *Security by design*
 - *Proactive analytics & remediation (Insights)*
 - *Security Response team, CVE information*
 - *Security certification and compliance tooling*
- ▶ RHEL brings **less downtimes**
 - *Kernel live patching prevents reboots*
 - *Add options for longer lifecycle (EUS - ELS)*
 - *Comprehensive management*
- ▶ Red Hat provides **more visibility**
 - *Roadmap*
 - *Opensource upstream projects involvement*
 - *Certified Partner ecosystem*

Converting CentOS/Oracle Linux to RHEL

Using *convert2rhel* tool - in-place conversion

STEPS to convert CentOS Linux to RHEL

- ▶ Repository preparation
- ▶ *convert2rhel* installation preparation
- ▶ *convert2rhel* installation
- ▶ Update the system to the latest version
- ▶ Take a snapshot of the machine
- ▶ Run *convert2rhel*
- ▶ Subscribe the system
- ▶ Complete process
- ▶ Reboot

Possible to use Satellite in the process

Documented process in RHEL 8 documentation :

https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/8/html-single/converting_from_an_rpm-based_linux_distribution_to_rhel/index

One platform. Unlimited potential

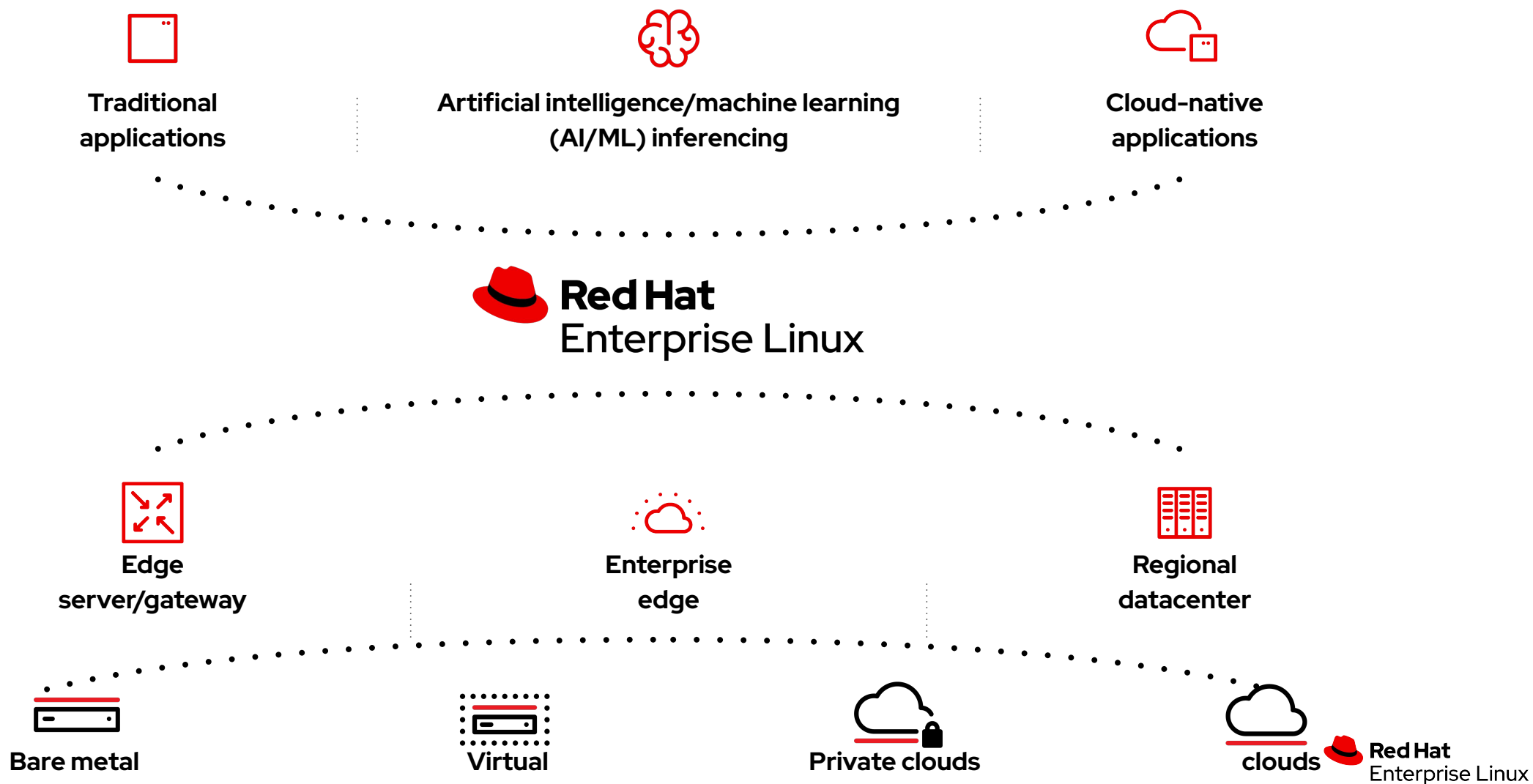
The platform for
grand ambition



Red Hat
Enterprise Linux 9



Epicenter of innovation





Innovate

Accelerate innovation

Further innovation and modernization on a platform built for hybrid cloud development and operations team.

More easily build, deploy, scale and manage cloud-native apps across the open hybrid cloud with reduced friction.

Key new technologies

- Fully built from CentOS Stream
 - Kernel 5.14, wireguard, core scheduling
 - gnome40 / wayland
 - RHEL for ARM SystemReady
 - RHEL for Edge
- New versions of developers toolchain
 - (rust, go, llvm, gcc 11, glibc)
 - LTO enabled by default
 - fully Python 3 only (3.9)
 - redefined Application Stream
- New image Builder Service
 - podman 4 (dual stack ip, ipv6, dns resolution)
 - UBI 9 and cgroup2



Optimize

Streamline IT infrastructure

Increase efficiency and streamline management at scale with a consistent and repeatable platform for all deployments, whether on-premise, virtualized, in the cloud, or at the edge.

Key new technologies

- SystemRoles expansion (firewall, cluster, MSSQL, SAP, Postfix, IPMI Mngt...)
- HA improvements (fencing agents)
- Webconsole enhancements (passthrough to VMs, Kernel live patch mngt, SCA support for ssh/sudo, Stratis storage support...)
- Webconsole on mobile
- Performance copilot (PCP) enhancement



Protect

Establish a consistent security foundation

Build a stable, consistent, and trustworthy platform that sets the foundation for a strong security posture on which to scale apps and roll out emerging technologies across the hybrid cloud.

RHEL more hardened by default Key new technologies

- Enhanced SSSD logging
- Improved SELinux performance
- Integrated OpenSSL 3
- Root login for ssh disabled by default
- SHA-1 disabled by default
- CGroup 2
- subuid support for containers



Trust

Operate with complete confidence

Use a reliable, cloud-ready platform with a long life cycle, an extensive software and hardware partner ecosystem, and integrated tools for dev, management and security.

Ready to comply

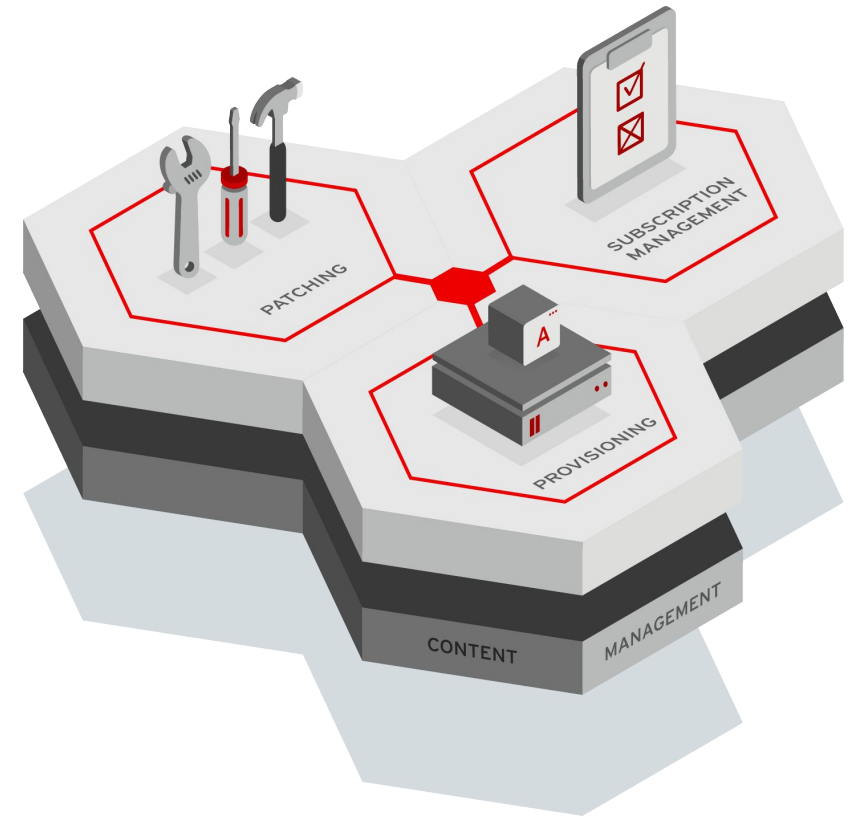
Key new technologies

- Support for PCI-DSS, HIPAA, and more
- Australian Government Information Security Manual (ISM) OpenSCAP profile
- Integrity Measurement Architecture (IMA) digital hashes and signatures

Red Hat Satellite

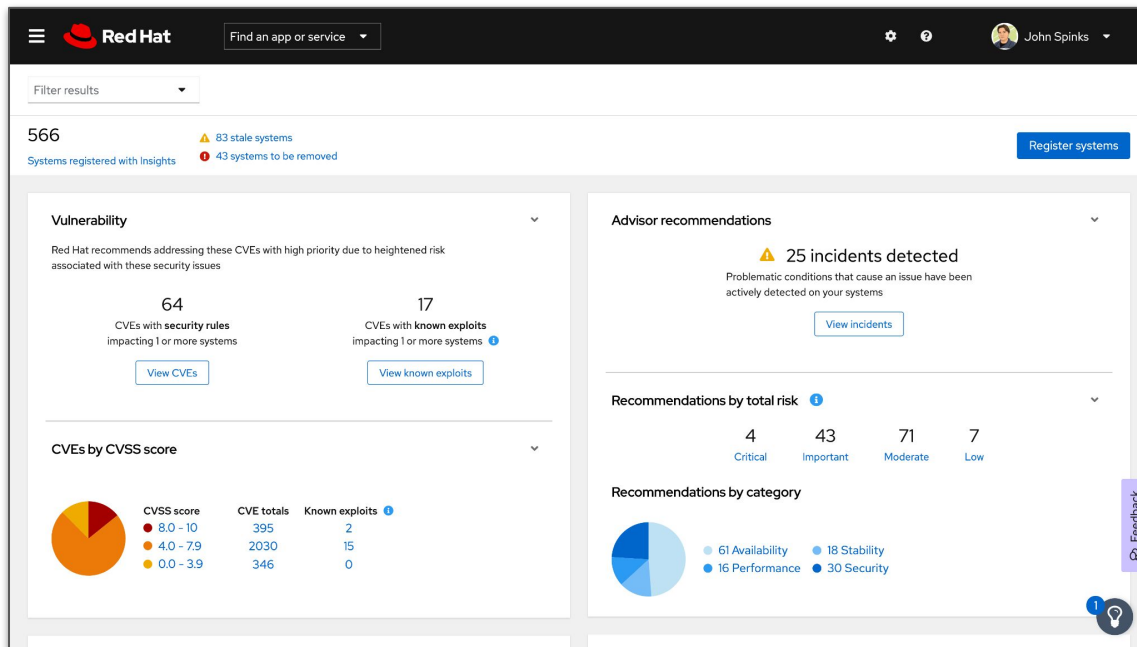
Support for RHEL 9

- ▶ **Satellite 6.11** will manage RHEL 9 hosts.
(Available in Summer 2022)
- ▶ Nothing to be done. Just register them.



Red Hat Insights

What's new for 2022 Q2



New services:

- ▶ Resource Optimization
- ▶ Malware

New Features:

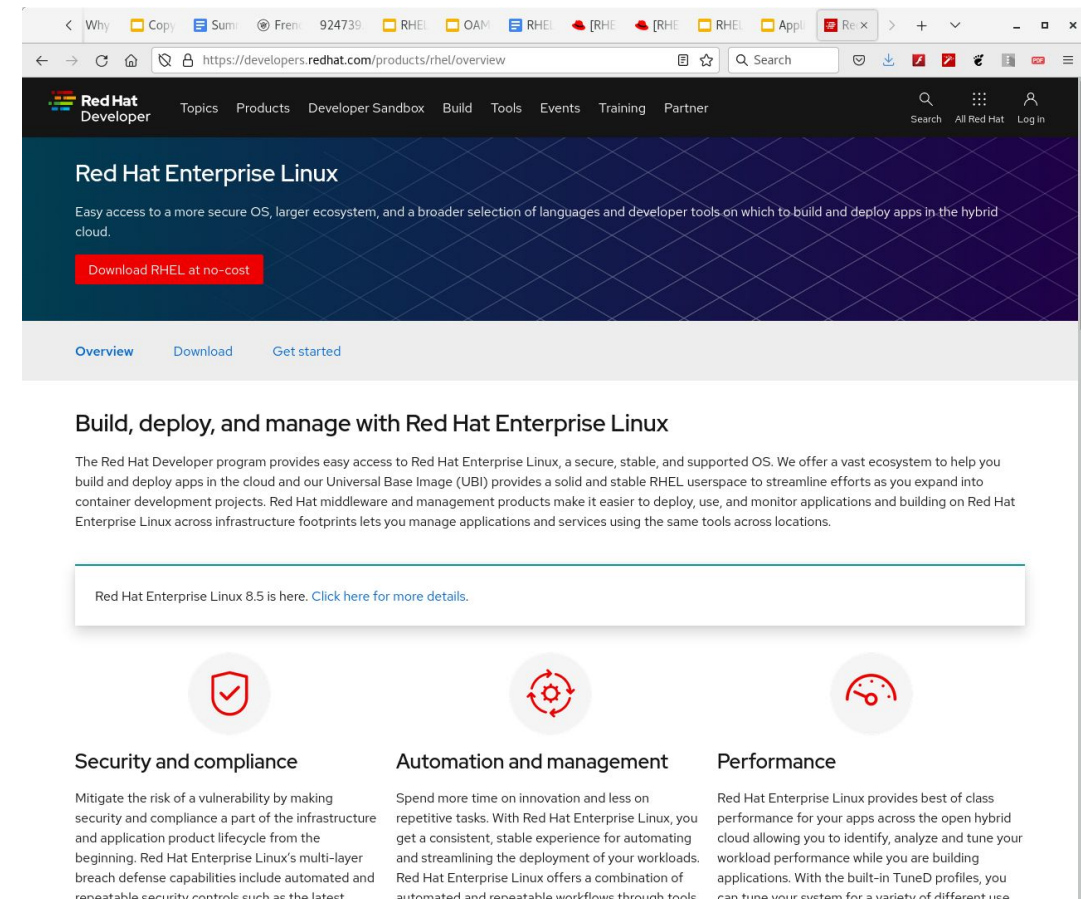
- ▶ Advisor - new topic for DB2
- ▶ Compliance - show systems not uploading reports
- ▶ Patch - baselines & sets
- ▶ Vulnerability - "View exposed system link" on CVE pages - links to Vulnerability service

Remind : Insights service is provided with your RHEL subscriptions

New, re-designed RHEL Content for Developers

developers.redhat.com

- ▶ Learn about Red Hat Enterprise Linux
- ▶ Join the Red Hat Developer Program
- ▶ Download RHEL
- ▶ Read the latest blogs, articles, and how-tos



Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

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