RHEL

14.11.2023

Andreas Stolzenberger
Principal Solutions Architect
ast@redhat.com

Originally created by:
Patrick Pinto
Solutions Architect

Red Hat

SOME FACTS

- **CENTOS Linux is not a Red Hat PRODUCT**

  Red Hat Products are Enterprise products, with all Red Hat guarantees (lifecycle, support, maintenance, security = Value of subscription)

  CENTOS Linux is a COMMUNITY PROJECT sponsored by Red Hat

- **CENTOS Linux has no guarantee of lifecycle or support from Red Hat** in any form

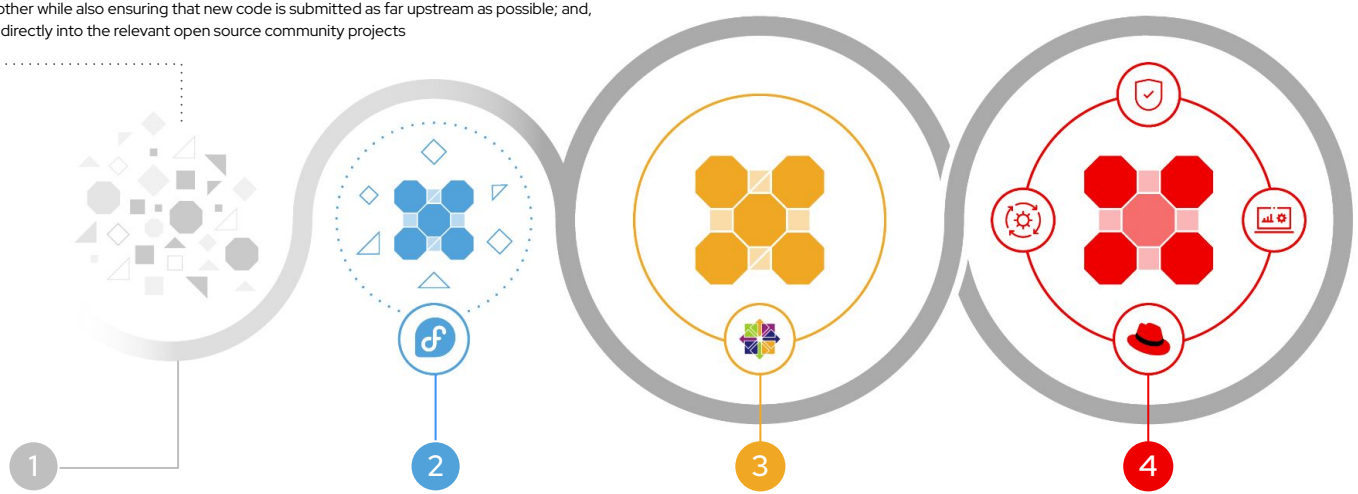
  It is only a “fact” that CentOs releases were following more or less closely the release of RHEL but no one (especially not Red Hat) committed anything about it.

- Red Hat has never encouraged or hinted customers to use CentOS Linux for any kind of workload within their IT.

- IBM has nothing to do with our decision - they heard about it 1 day in advance (and GTS doesn’t liked it either) - it was in the work for years !

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



1

Open source community projects

A collection of projects, each working toward their own goals

2

Fedora Linux

Brings together the best ideas from the huge number of open source community projects available

3

CentOS Stream

Provides a seamless contribution path to the next minor release of Red Hat Enterprise Linux

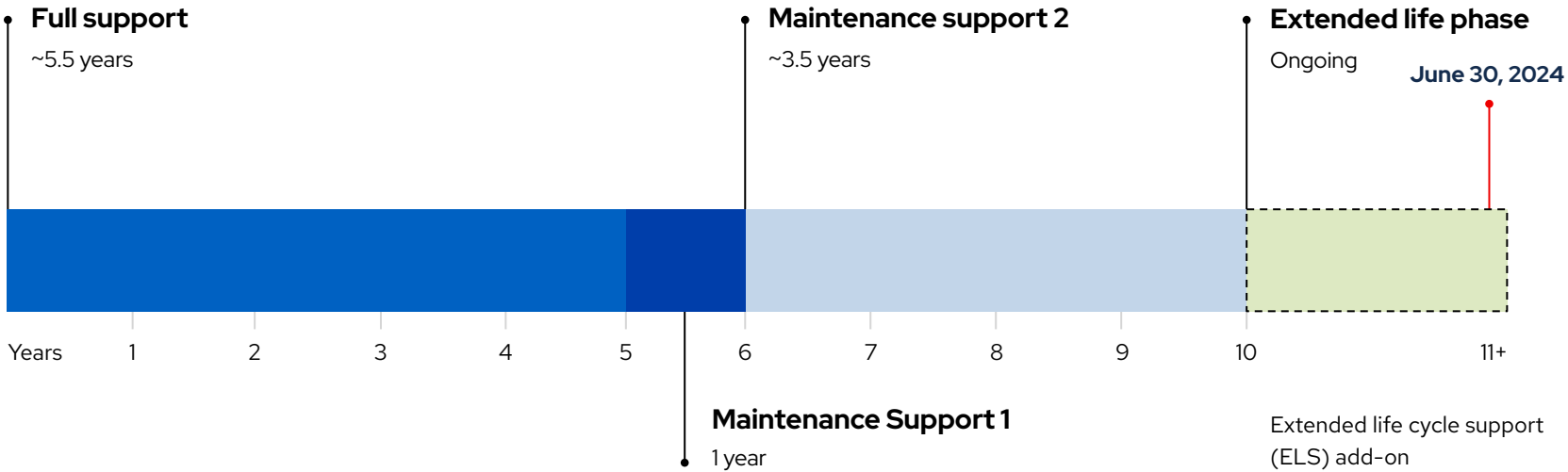
4

Red Hat Enterprise Linux

A production-grade operating system that provides a more secure, supported, and flexible foundation for critical workloads and applications

Red Hat

Red Hat Enterprise Linux 6

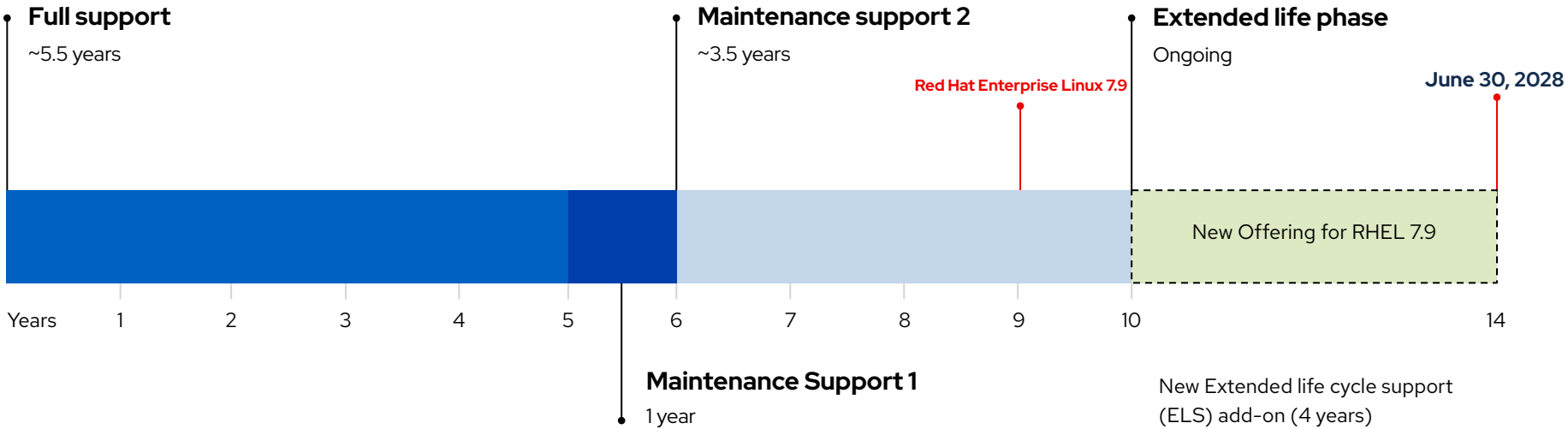


Published May 2023

FOR THE LATEST VISIT: Red Hat Enterprise Linux Life Cycle

Red Hat

Red Hat Enterprise Linux 7

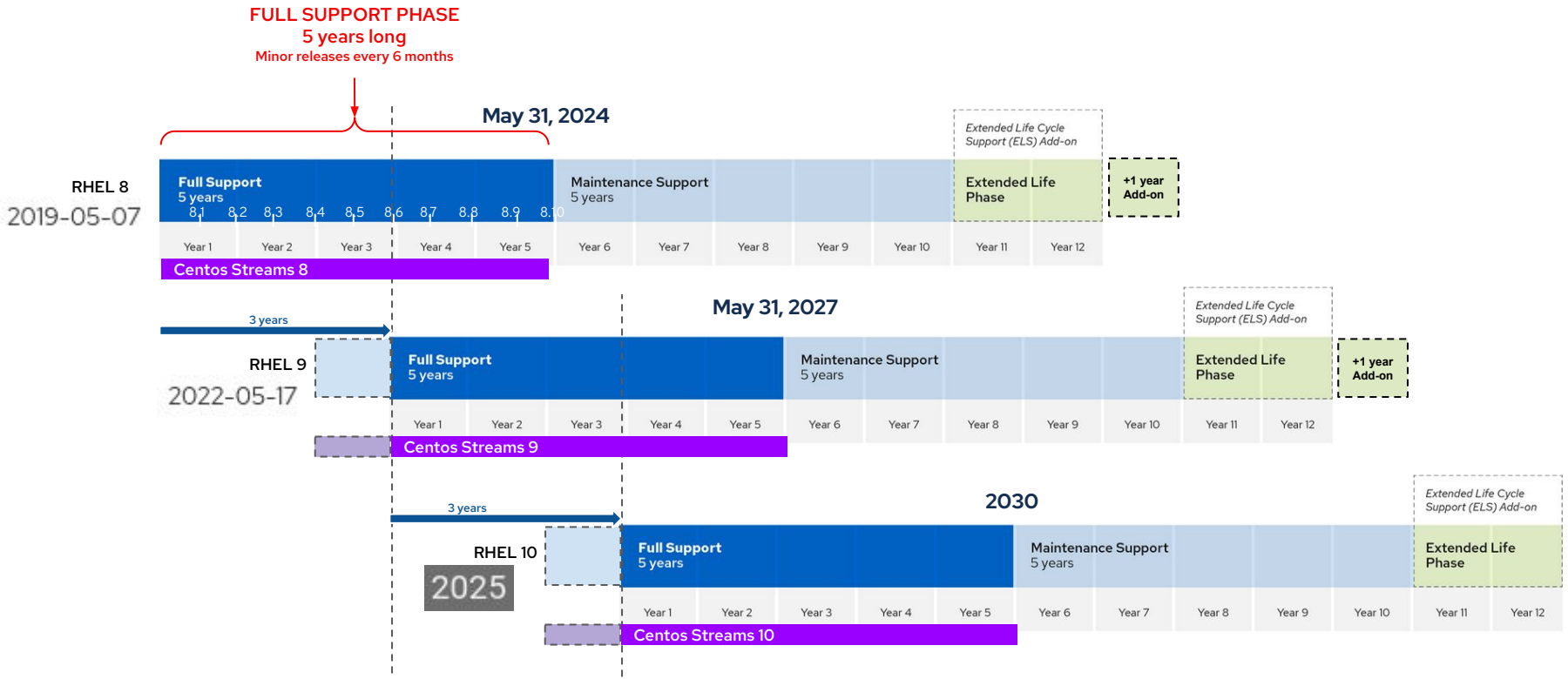


Published May 2023

FOR THE LATEST VISIT: Red Hat Enterprise Linux Life Cycle

Red Hat

Compared view of lifecycles



No commitment on dates, lifecycle principles are depicted here, based on info available on June 2021

Red Hat

Enterprise Linux Ecosystem (circa 2021)

Linux Kernel

Fedora

3y

CentOS Stream

continuous

Red Hat Enterprise Linux

Community space

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

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

Shared space

- 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

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

Private space

- 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

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

What’s available from Red Hat

Red Hat Enterprise Linux is for Production & Deployments

Red Hat Enterprise Linux

- Stable, secure, and high-performing operating system
- Identify and remediate compliance and configuration risks with included Red Hat Insights
- 10+ years supported life cycle
- The hub of a large hardware and software ecosystem
- Available through developer, embedded, public clouds, and a variety of partner programs

RHEL customers and partners

Stability, security, performance

Predictable release cadence

- On datacenter servers : RHEL Server and RHEL VDC (unlimited VMs)
- Variants
  - RHEL for SAP
  - RHEL Realtime
  - RHEL Workstation
  - RHEL HPC (head / compute nodes)
  - RHEL Hyperscale
  - **RHEL for Distributed Environments (Edge Servers, Edge Gateways, End Points) - use cases**
  - **RHEL for Edge - product**

No-Cost Developer/Production Alternatives

CentOS Stream

SHARED SPACE

- 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

Ecosystem developers

Develop, test, contribute to the next RHEL

Continuous stream of new content

Red Hat Enterprise Linux

UNIVERSAL BASE IMAGE

- Safe, secure, and free-of-charge redistributable **container base image**
- Production deployment on Red Hat Enterprise Linux and across Red Hat’s open hybrid cloud portfolio
- Enables compatible container images with other operating systems

Developers creating cloud-native enterprise apps

Containerized development

Flexible based on your organizations’ development cycles

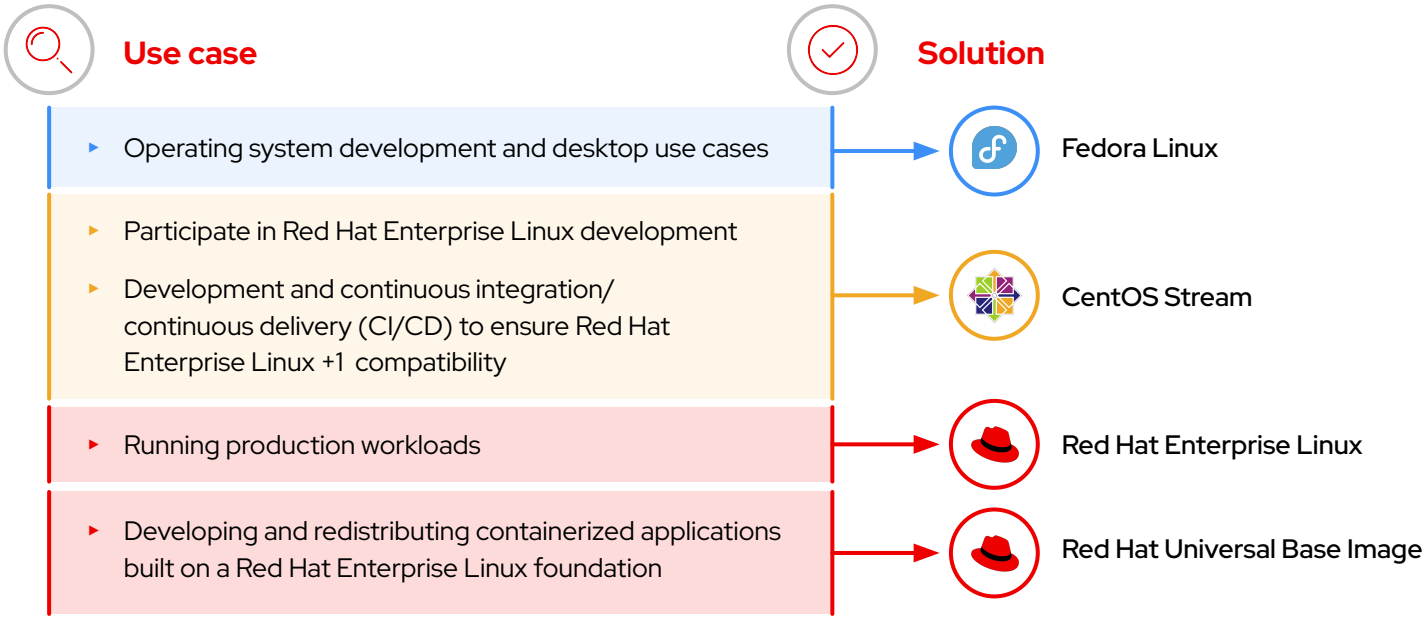
Value proposition moving from CentOS to RHEL

- We are the creator of the origin distro, RHEL, RHEL is the closest to CentOs Linux, we drive this ecosystem
- The ecosystem has become stronger with this decision
- As customer uses both Centos and RHEL, standardizing on a single distro will lead to
  - More efficiency in management (1 single chain of management)
  - More consistency (a single distro)
  - More predictability (control of the lifecycle, guarantee of lifecycle)
  - Use the IDC "the business value of enterprise opensource vs unpaid"
- RHEL brings more security
  - Security by design
  - Proactive analytics
  - Security Response team
  - Security certification and compliance tooling
- RHEL brings less downtimes
  - Kernel live patching prevents reboots
  - Comprehensive management
- Red Hat provides more visibility
  - Roadmap
  - Opensource upstream projects involvement
  - Certified Partner ecosystem

Benefits to migrate to RHEL : here
Top 10 considerations : here

Red Hat

Which platform is right for you?



Moving to RHEL : how STANDARDIZE ON RHEL

Migration and Modernization Solution

Red Hat

Moving away from CentOS Linux to RHEL

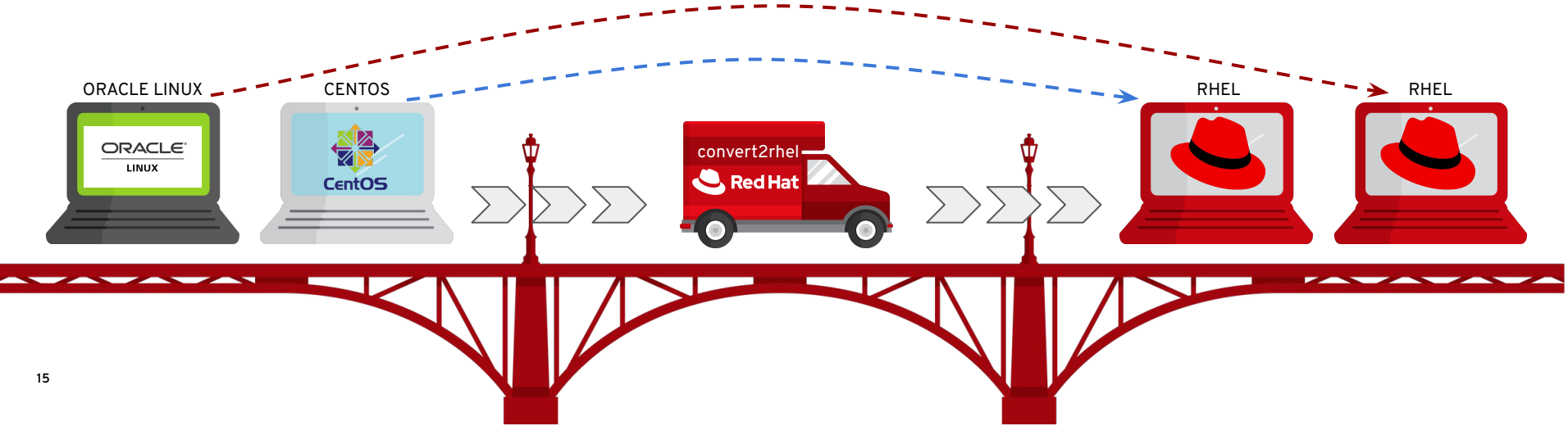
Benefits

- 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 / certified applications (like mssql ou sap)*

14

CONVERT TO RHEL



convert2rhel tool available and supported by Red Hat; use by yourself or with Red Hat GPS
Resulting converted systems are de facto supported by Red Hat

additional resources : blog and how to here

Red Hat

Converting CentOS/Oracle Linux to RHEL

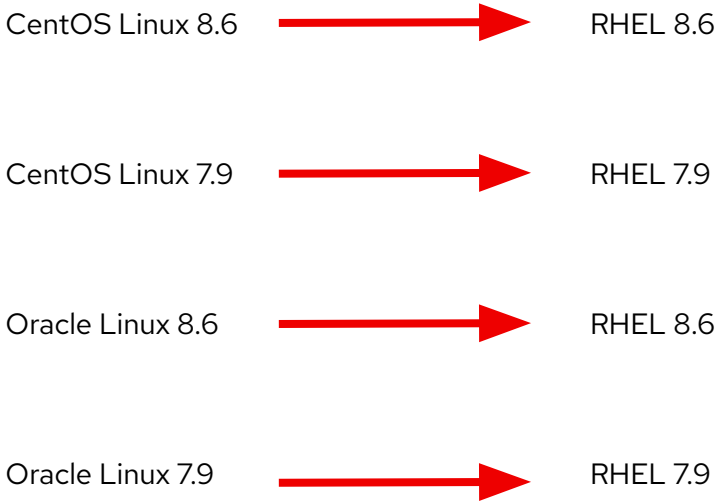
Using `convert2rhel` tool

STEPS to convert CentOS Linux or Oracle 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

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

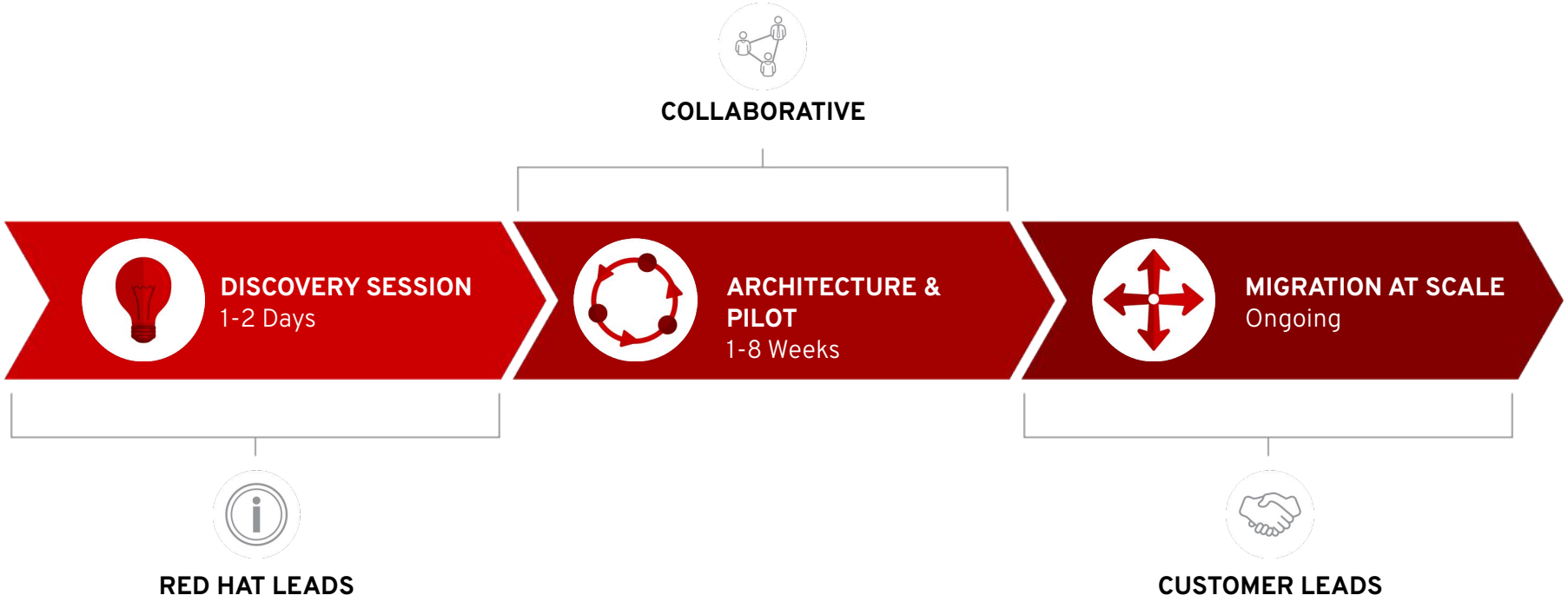
Supported conversion paths



Converting from other RPM based systems could still be possible but it's not supported
See https://access.redhat.com/articles/2360841

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

CONVERT TO RHEL JOURNEY



Red Hat

Red Hat
Enterprise Linux

Red Hat Enterprise Linux 9

Red Hat

Kernel 5.14

The heart of the operating system just got an upgrade.

Wireguard Enabled
this liteweight service provides VPN capabilities with new cryptography and faster response times

Core Scheduling
Enables simultaneous multithreading across CPU cores to improve performance while helping to mitigate vulnerabilities like Spectre and Meltdown

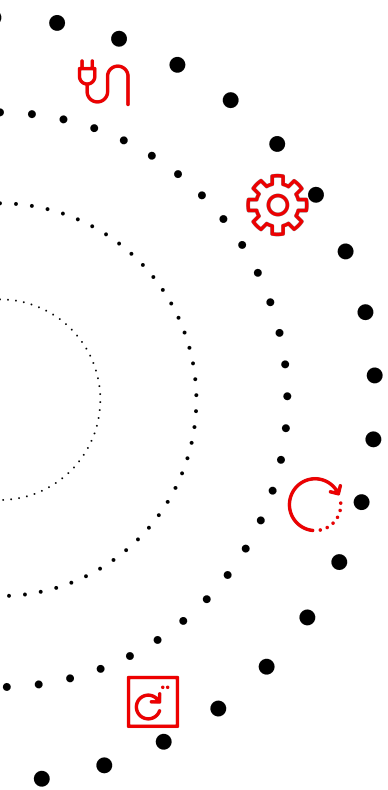
RHEL for ARM

Delivering any application on any footprint at any time

Same great OS, now on more platforms

- RHEL Server for ARM
- RHEL Server for HPC for ARM
- Support for all ARM *SystemReady** platforms
- Available worldwide
- Available with Standard, Premium, Smart Mgmt

Supported Catalog: https://catalog.redhat.com/platform/red-hat-enterprise-linux/hardware/search
* What is System Ready: https://developer.arm.com/architectures/system-architectures/arm-systemready



Red Hat Enterprise Linux for edge

Ensured stability and deployment flexibility

Edge Management
Zero-touch provisioning, health visibility, and security remediation

Automated container updates & rollback
Download, deploy, and update images with built-in auto-rollback

Major release upgrade support
Transparently stage OS upgrades in the background

Simplified install and on-boarding
Deploy images through the network or physical install media

Red Hat Enterprise Linux For Workstations

Red Hat

RHEL for Workstation

Hardware optimization for demanding applications–whatever tools you use

Professional grade hardware

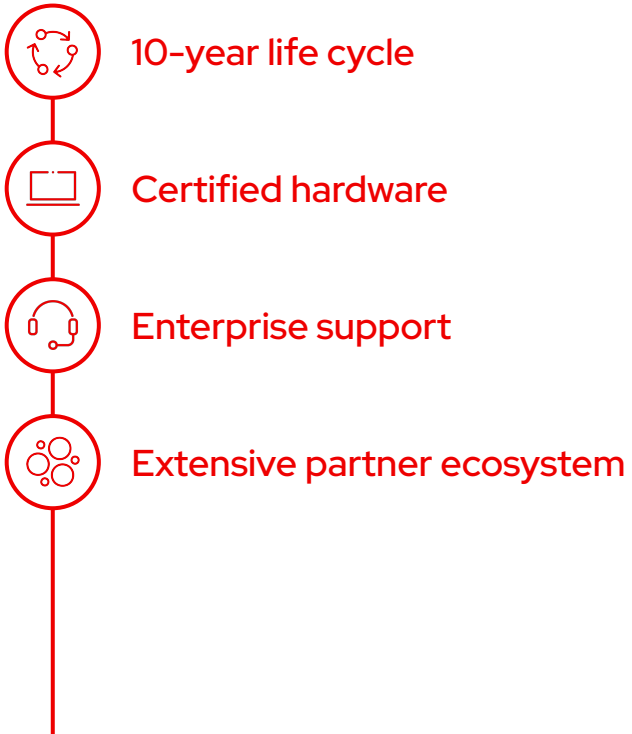
Optimized for high-performance graphics, animation, scientific activities, and other demanding workloads

Flexible deployment

The right workstation deployment options—for bare metal, virtualized, private cloud, or public cloud* environments

A Linux workstation designed for professionals

Designed for animation, research, development, and scientific workloads



GNOME 40 for All

A major evolution of the Desktop Environment

GNOME 40

provides updated interfaces, configuration options, and improvements in accessibility features.

Wayland by Default

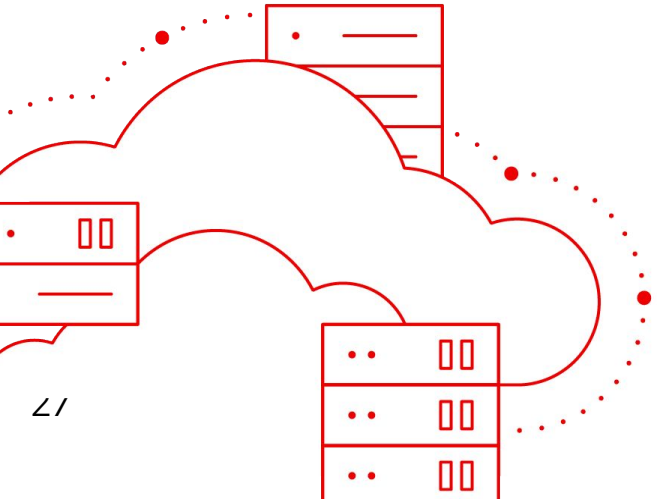
the highly anticipated desktop compositor is now enabled by default with support for even more video cards

Classification banners

provides a configurable medium to display classification or regulatory information applicable to the user or system's data access.

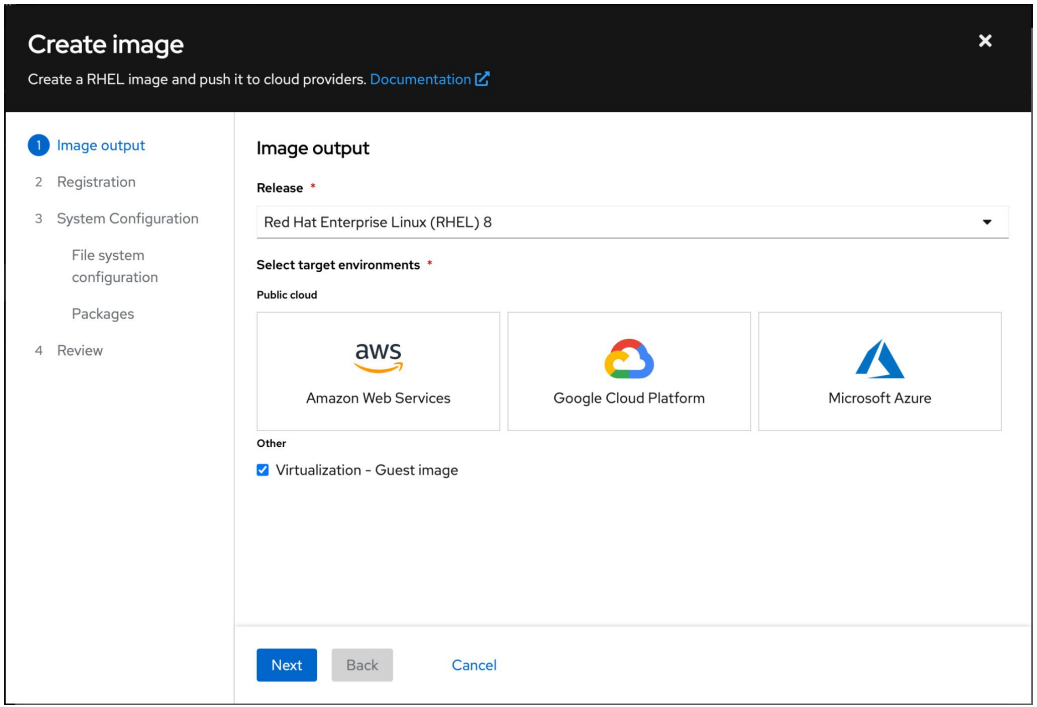
Introducing: Red Hat Enterprise Linux image builder service

- Quickly create consistent, customized gold images
- Suitable for most hybrid-cloud environments
- No build infrastructure required
- Simple integration into deployment workflows
- Used to build Red Hat provided cloud images



Red Hat Enterprise Linux image builder

Save time and ensure consistency when deploying RHEL systems at scale



- **Support for Bare Metal Deployments**
  Install a customized RHEL OS image directly on physical hardware by creating installation media with a built-in kickstart file to automate the process.

- **Customized Filesystem Support**
  Assemble RHEL OS images that have multiple, distinct, non-LVM filesystem mount points rather than a single, large root filesystem.

Steps for using image builder

1. Choose platform

Physical, private cloud, public cloud, or edge

2. Select image builder tool

Image builder service
console.redhat.com

Image builder
On-premises private build

3. Create blueprint

Define and customize the image

4. Build the image

Create a variety of images including Red Hat OpenStack, Amazon Web Services, VMware, and Microsoft Azure, and more

5. Deploy instance

Push image to the cloud provider of your choice or download to your datacenter

Simplified developer experience

Improvements in tooling, access, and application development

Keeping your development tools fresh with support for new versions of

- LLVM, Rust, and Go compilers
- gcc 11
- glibc 2.34

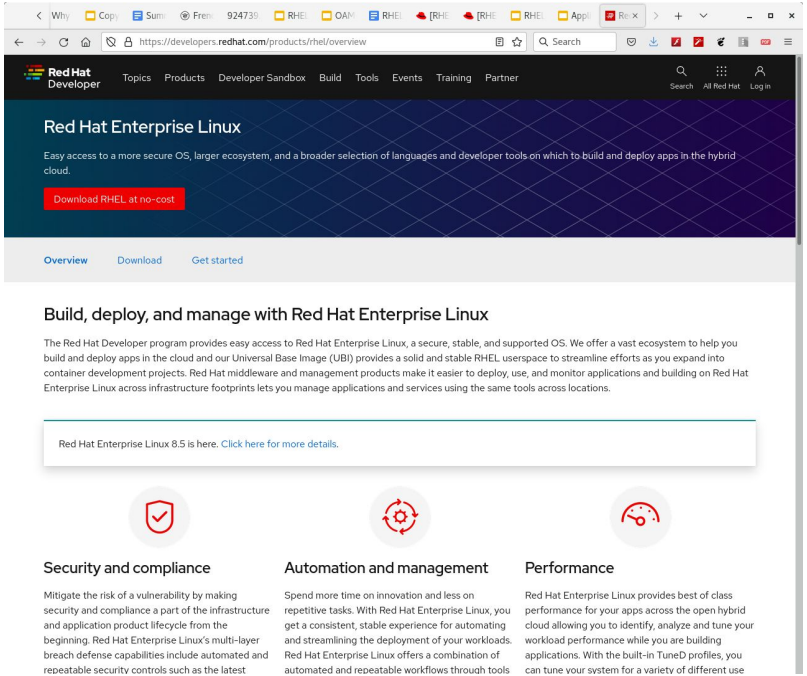
Migration to Python3 completed (3.9)

Redefined Application Streams

Innovate

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



Podman and UBI

Updates for container functionality

Podman 4.0

Podman includes DNS name resolution improved IPv6 support, and dual stack support.

Universal Base Images for RHEL 9

RHEL 9 comes built as UBI images ranging in size from standard to micro, minimal, and init images.

Cgroup2 enabled by default

Containers are now natively integrated into cgroup2 improving resource utilization via process definitions.

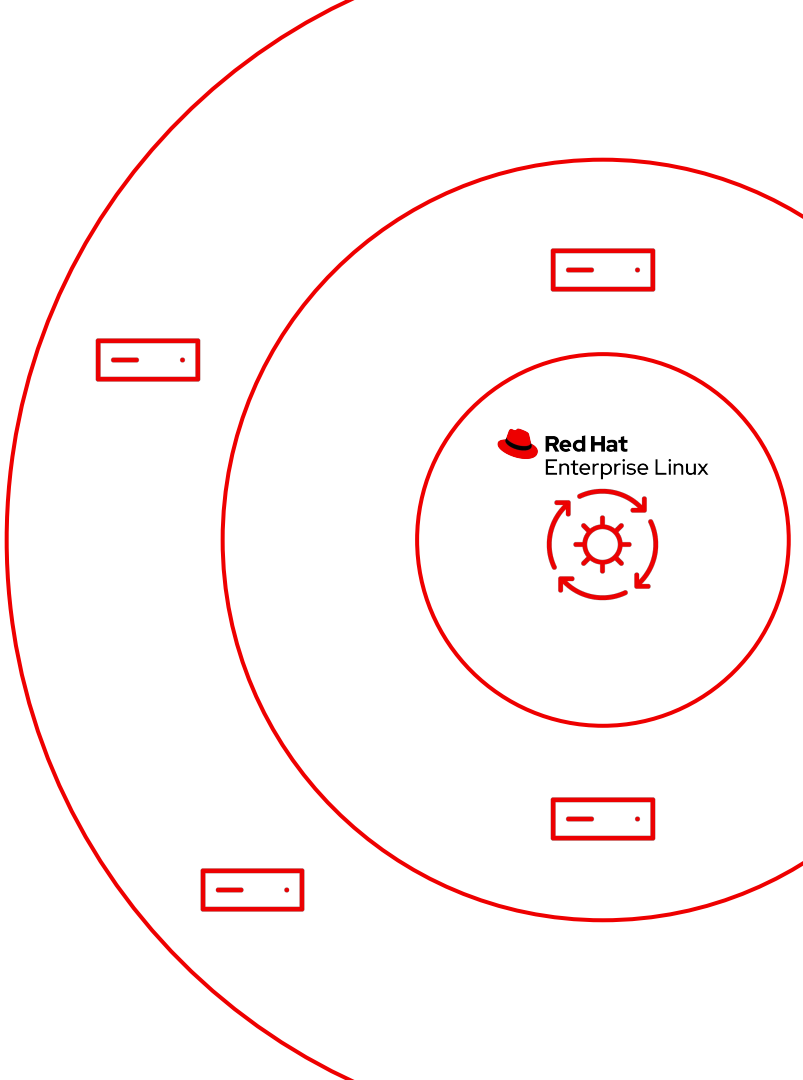
RHEL System Roles

A collection of supported Ansible roles that ensure consistent workflows and streamline the execution of manual tasks at scale.

- Firewall
- HA Cluster
- Microsoft SQL
- SAP (updated with Fencing agent for IBM Power VS)
- Postfix
- Web Console

Also available:

- IPMI Hardware Management Automation



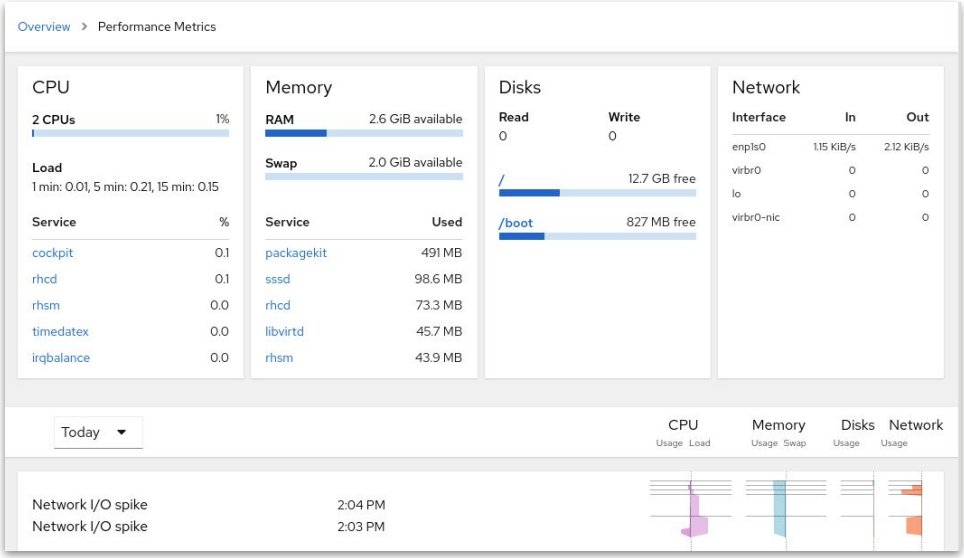
High Availability (HA) Improvements

Keep applications running despite disruptions

- **Fencing agent for IBM Power VS**
- **Fencing agent for IBM VPC**
- **Full Support for ClusterSystem Roles**

Red Hat Enterprise Linux web console

A web-based management interface to simplify deployment, daily administration, and complex tasks

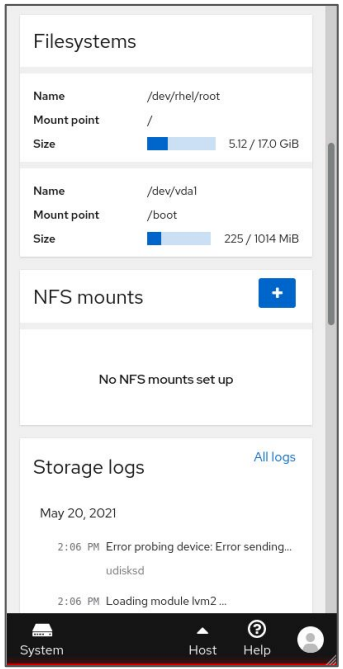


- Enhanced web console performance metrics
- Kernel Live Patching Management
- Support for Smart Card Authentication with Sudo and SSH
- Passthrough host devices to VMs

- (Tech Preview) Stratis Storage Support

Did you know? Web console works on Mobile

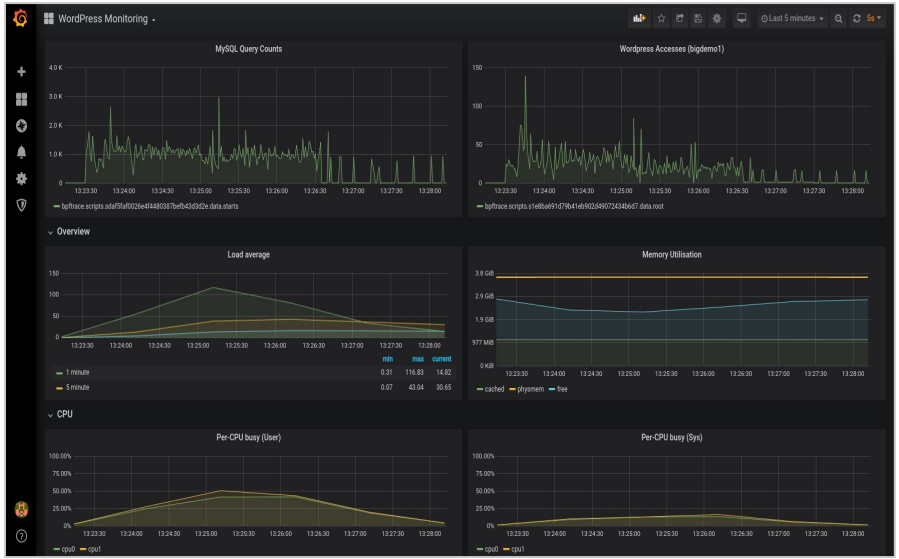
Easily accessible for after hours and on-call situations



- Use a mobile device web browser
- View system logs
- Monitor system health
- Troubleshoot and resolve issues

Performance co-pilot

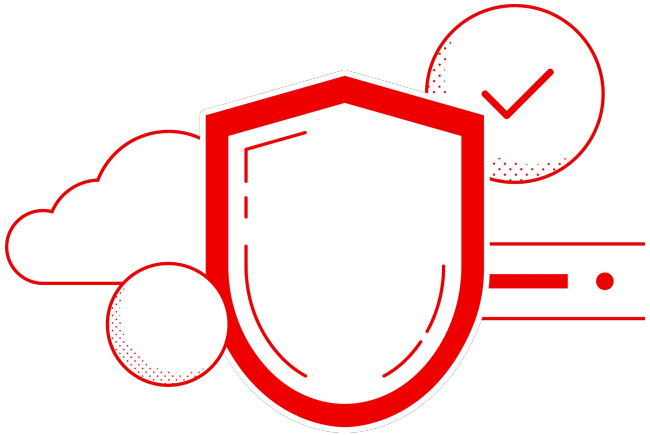
Toolkit for in-depth performance analysis



- Improved scalability of PCP
- Enhanced web console performance metrics
- Link Time Optimization (LTO) now available
- Efficient memory allocation for aarch64

RHEL 9 is more hardened by *default*

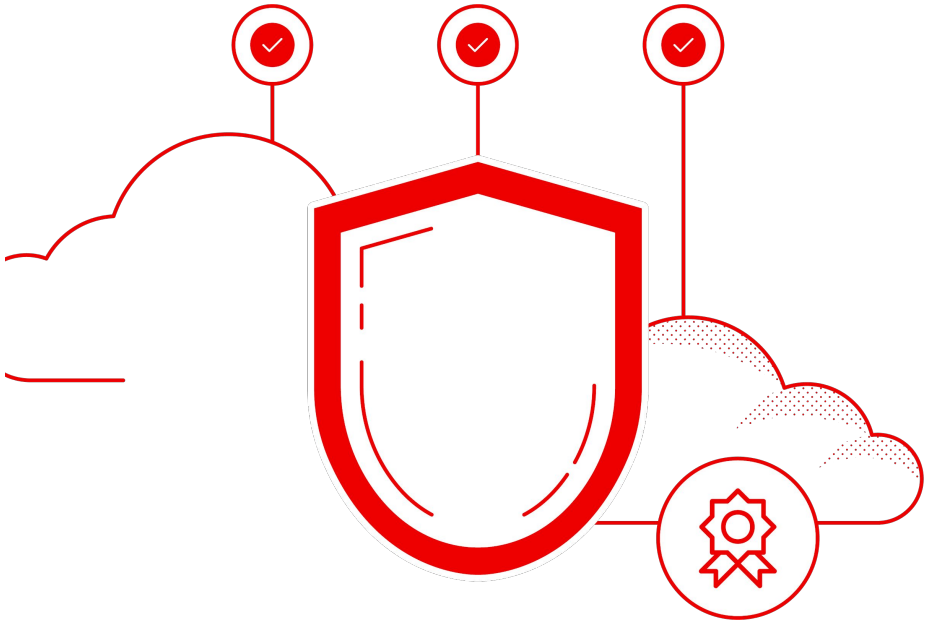
Better Secure Your Existing Systems



- 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

Red Hat Enterprise Linux 9

Ready to comply



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

What is Kernel Live Patching?

Kernel Live Patching

- is a way to apply critical and important security patches to a running Linux kernel, without the need to reboot or interrupt runtime.
- is a patch (partial snippet of code) that fixes a vulnerability in the existing version.
- can be applied outside of maintenance windows.
- is not an update of package versions and no regular way of updating!

How it is installed / used? (1)

1) Installation of kpatch:

```
# yum install -y kpatch
```

2) Check for available patches:

```
# yum list available kpatch-patch*305*
[...]
Available Packages
kpatch-patch-4_18_0-305.x86_64 1-6.el8 rhel-8-for-x86_64-baseos-rpms
kpatch-patch-4_18_0-305_10_2.x86_64 1-3.el8_4 rhel-8-for-x86_64-baseos-rpms
kpatch-patch-4_18_0-305_12_1.x86_64 1-2.el8_4 rhel-8-for-x86_64-baseos-rpms
kpatch-patch-4_18_0-305_17_1.x86_64 1-1.el8_4
[...]
```

How it is installed / used? (2)

3) Install the latest available patch for actual running kernel:

```
# yum install -y "kpatch-patch = $(uname -r)"
[...]
Installing:
 kpatch-patch-4_18_0-305 x86_64 1-6.el8 rhel-8-for-x86_64-baseos-rpms 49 k
[...]
```

4) Check with kpatch which modules are installed / loaded:

```
# kpatch list
Loaded patch modules:
kpatch_4_18_0_305_1_6 [enabled]

Installed patch modules:
kpatch_4_18_0_305_1_6 (4.18.0-305.el8.x86_64)
```

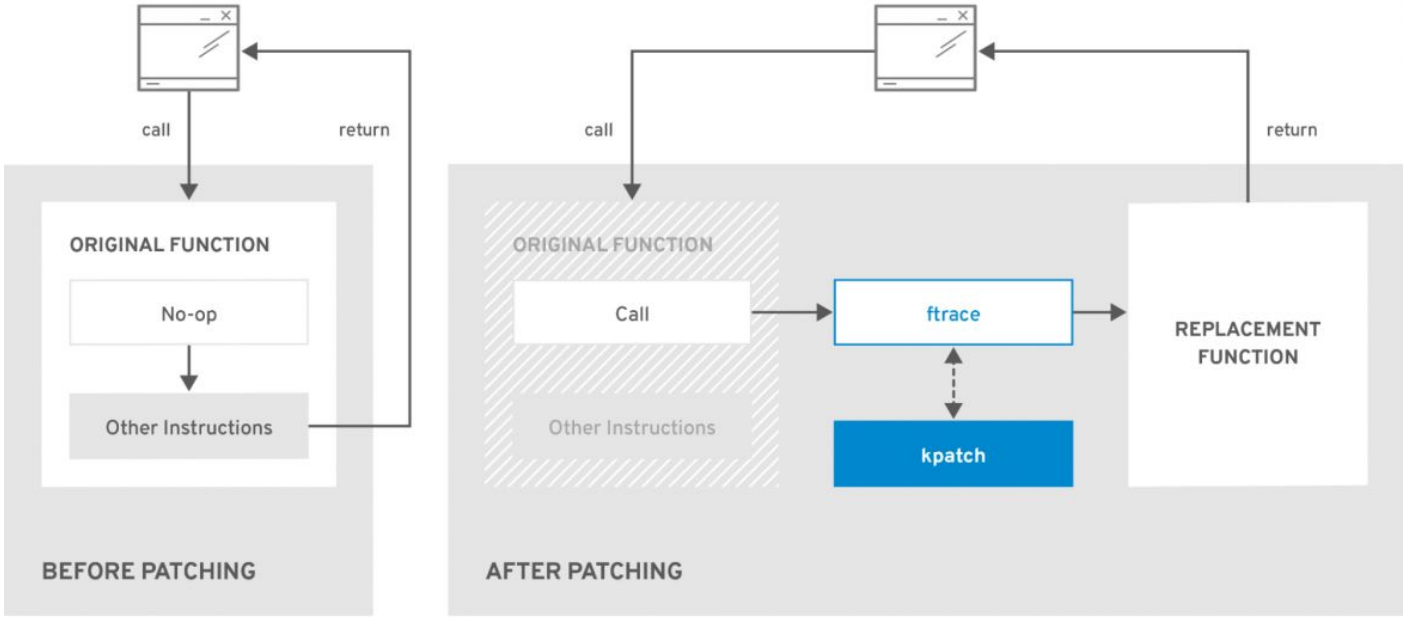
How it works under the hood? (1)

1. The kernel patch module is copied to the `/var/lib/kpatch/` directory and registered for re-application to the kernel by `systemd` on next boot.

2. The kpatch module is loaded into the running kernel and the new functions are registered to the `ftrace` mechanism with a pointer to the location in memory of the new code.

3. When the kernel accesses the patched function, it is redirected by the `ftrace` mechanism which bypasses the original functions and redirects the kernel to patched version of the function.

How it works under the hood? (2)



RHEL_424549_0119

Automatically subscribing any future kernel to the live patching

You can use the kpatch-dnf DNF plugin to subscribe your system to fixes delivered by the kernel patch module, also known as kernel live patches. The plugin enables automatic subscription for any kernel the system currently uses, and also for kernels to-be-installed in the future.

```
# dnf install -y kpatch-dnf

# dnf kpatch auto

Updating Subscription Management repositories.
Last metadata expiration check: 1:38:21 ago on Fri 17 Sep 2021 07:29:53 AM EDT.
Dependencies resolved.
================================================
 Package                          Architecture
================================================
Installing:
 kpatch-patch-5_14_0-1            x86_64
 kpatch-patch-5_14_0-2            x86_64

Transaction Summary
================================================
Install  2 Packages
```

References

Blog: What is kernel live patching?

Documentation: Applying patches with kernel live patching

Documentation: Automatically subscribing any future kernel to the live patching stream

Blog: How to enable live kernel patching on Linux

See Our New Lab Experience

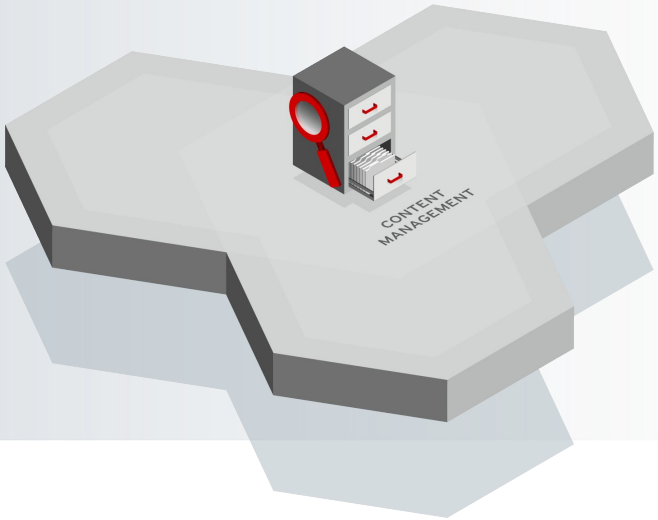
lab.redhat.com

Red Hat

Red Hat Satellite

Red Hat

Content Management

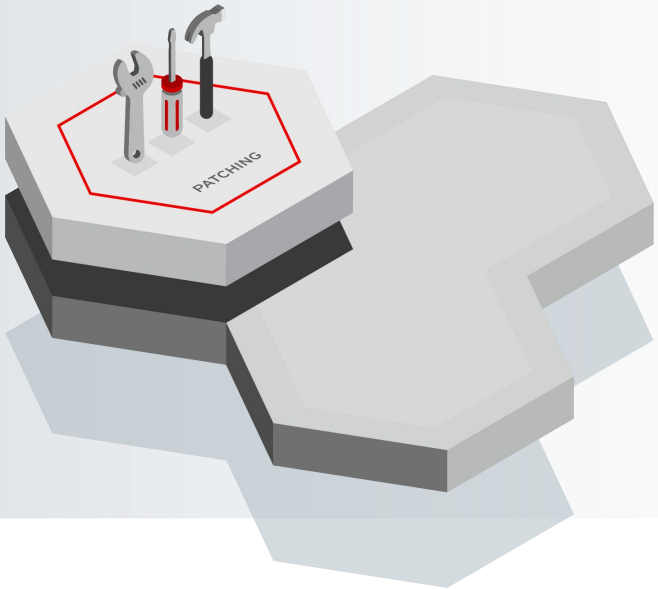


Content Repository any type of content made available to any host

Curation of content prior to distribution

Distribution of content as close as possible to the end point.

Patch Management

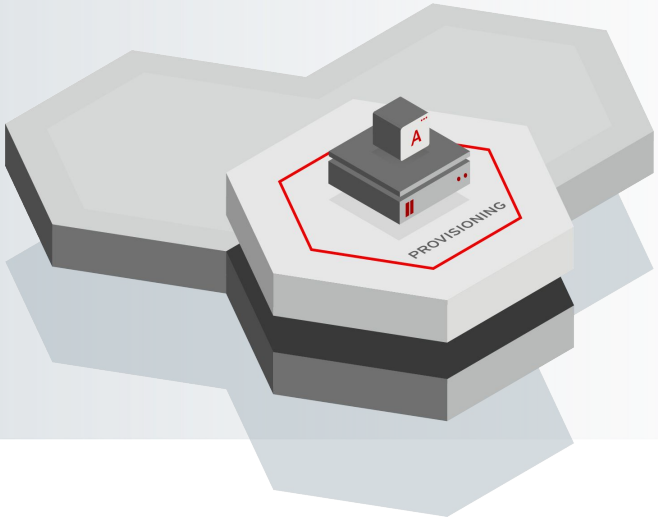


Report on hosts that need updates, fixes, or enhancements

Group homogeneous systems so that you can easily work with them

Respond quickly to patching requirements using scalable automation

Provisioning Management

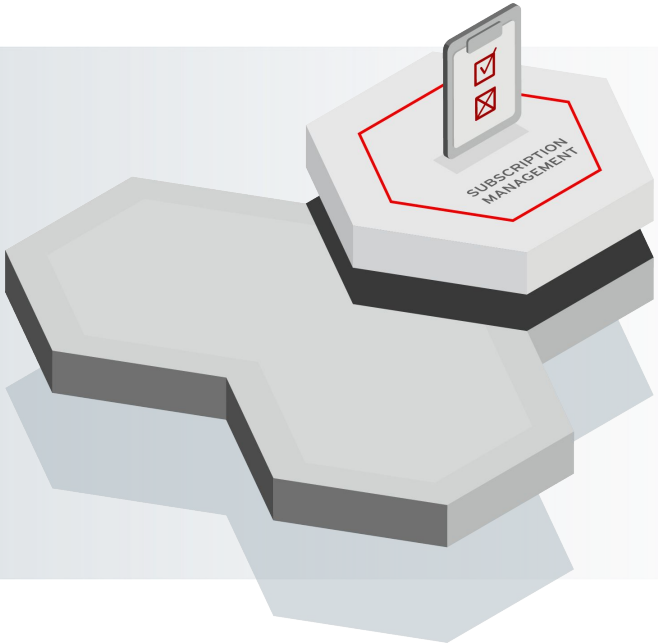


Provision to bare metal, virtual, private, and public clouds

Import non-provisioned hosts

Automate using Ansible roles to perform post-provisioning steps

Subscription Management

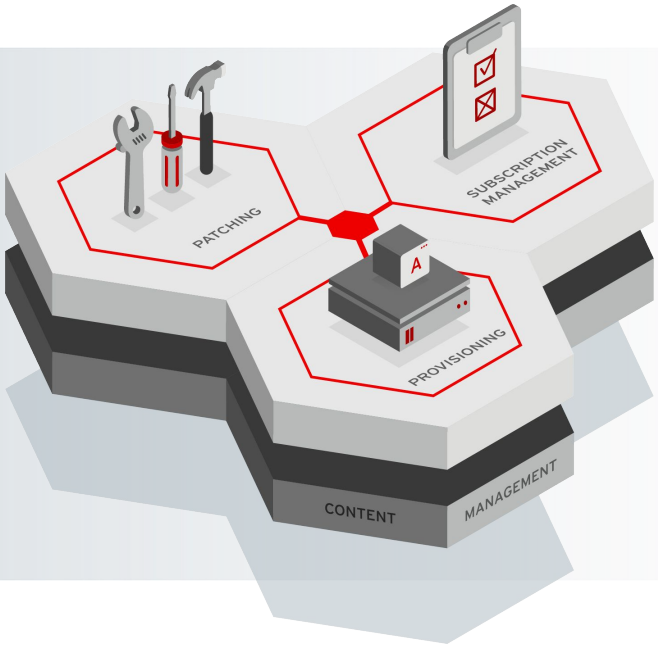


Centrally manage subscription usage

Maintain accurate inventory and utilization information

Report on subscription consumption

Additional Satellite Capabilities

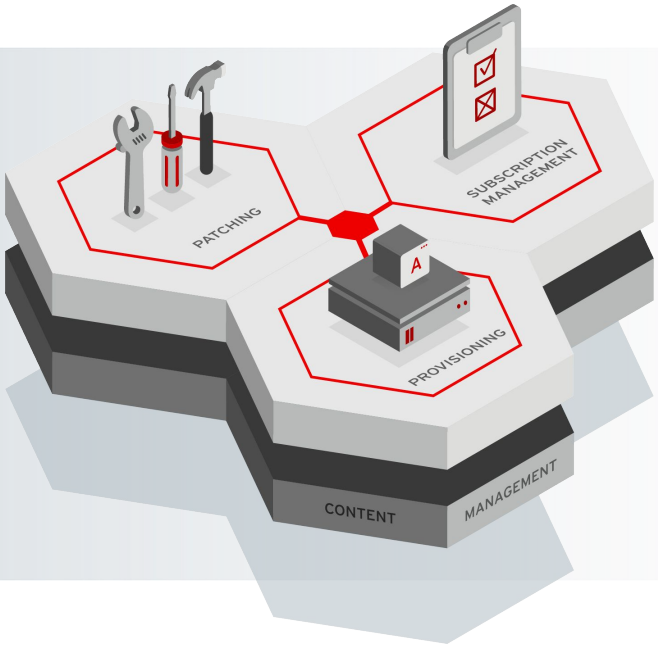


Configuration Management using Ansible

Automation through integration with Ansible Tower

Compliance using OpenSCAP policies

Red Hat
Satellite



Standard Operating Environment hosts are the same across your environment

Reliable and Resilient Using Red Hat Insights

Secure your systems are patched, up to date, and compliant with security policies

Confidence in your subscription utilization

Red Hat

IDC ROI Study of Red Hat Satellite

A single system administrator using Red Hat Satellite can manage more Red Hat Enterprise Linux servers and cut administration costs.

KEY RESULTS:

416% 5 year ROI	**28%** Reduction in total cost of operations	**6 MONTH** Payback period
56% More efficient patching	**78%** Faster deployment of new VMs	**56%** More efficient IT infrastructure management

*Source: Satellite IDC Business Value Whitepaper

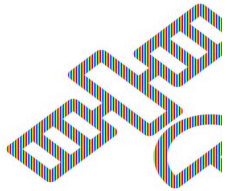
Red Hat

How Satellite Works

Deployment Models

Red Hat

Red Hat Satellite components



Red Hat Satellite Server

Facilitates multi tenant services

Offers on-premise repository management

Gives user and group role-based access control (RBAC)

Delivers powerful user interfaces (GUI, API, and CLI)*

Exports content to other Satellite servers

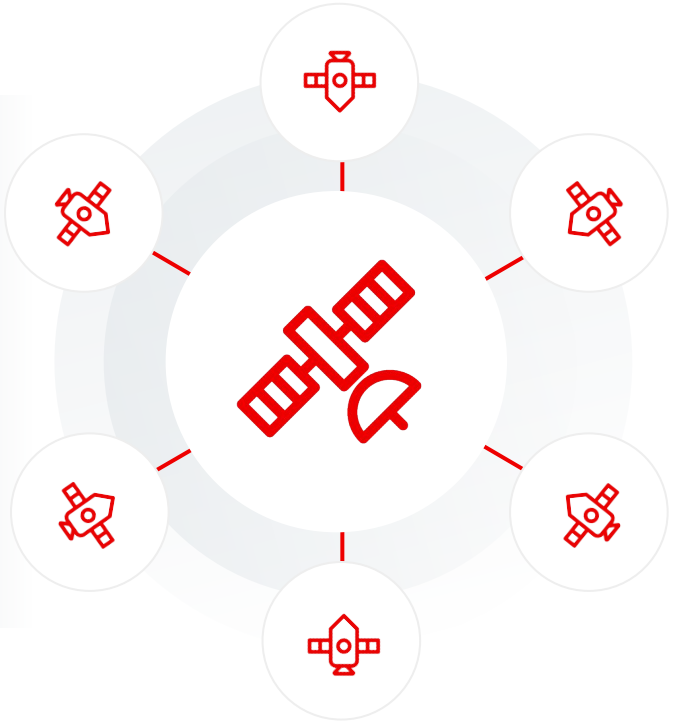
Red Hat Capsule Server

Allows scaling of your Satellite environment

Provides local content, provisioning, and integration services

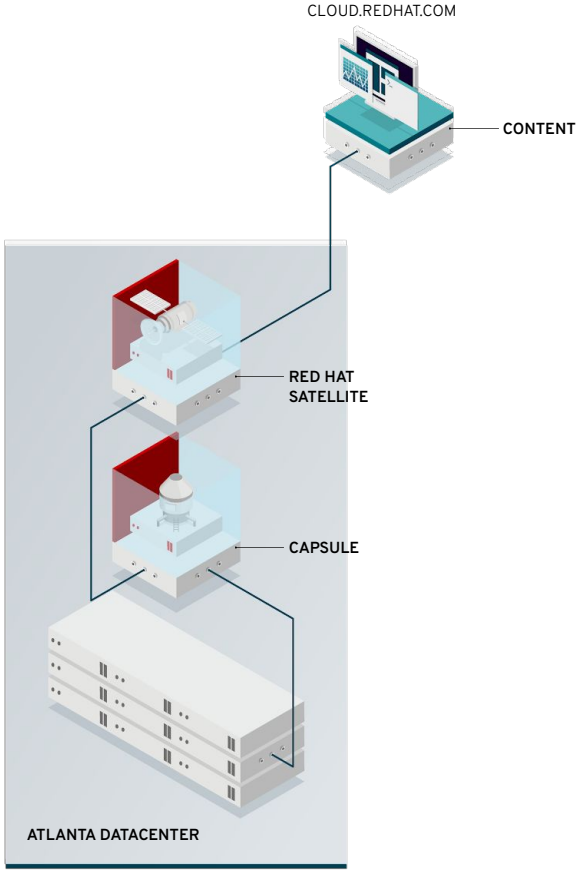
Discovers new physical and virtual machines

*Graphical user interface (GUI), application program interface (API), and command line interface (CLI)



Improve scalability and automation with capsule servers.

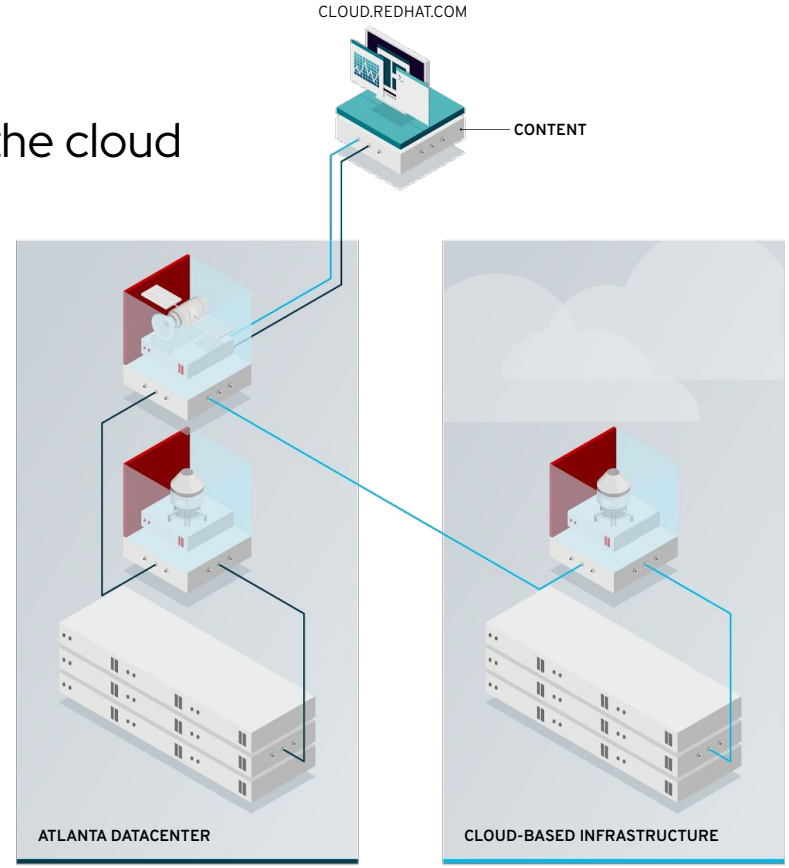
Red Hat® Satellite
Simple Scenario



Red Hat

Red Hat Satellite

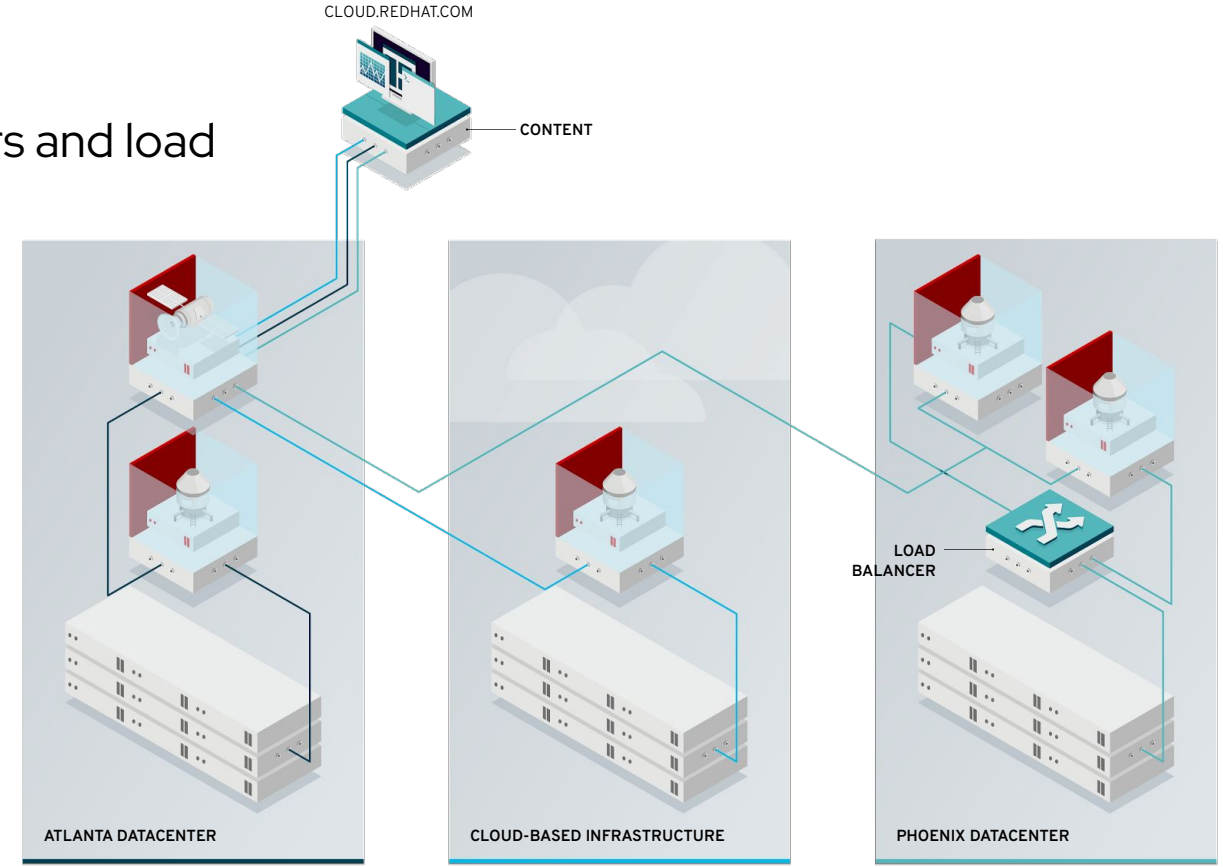
On-premise and in the cloud



Red Hat

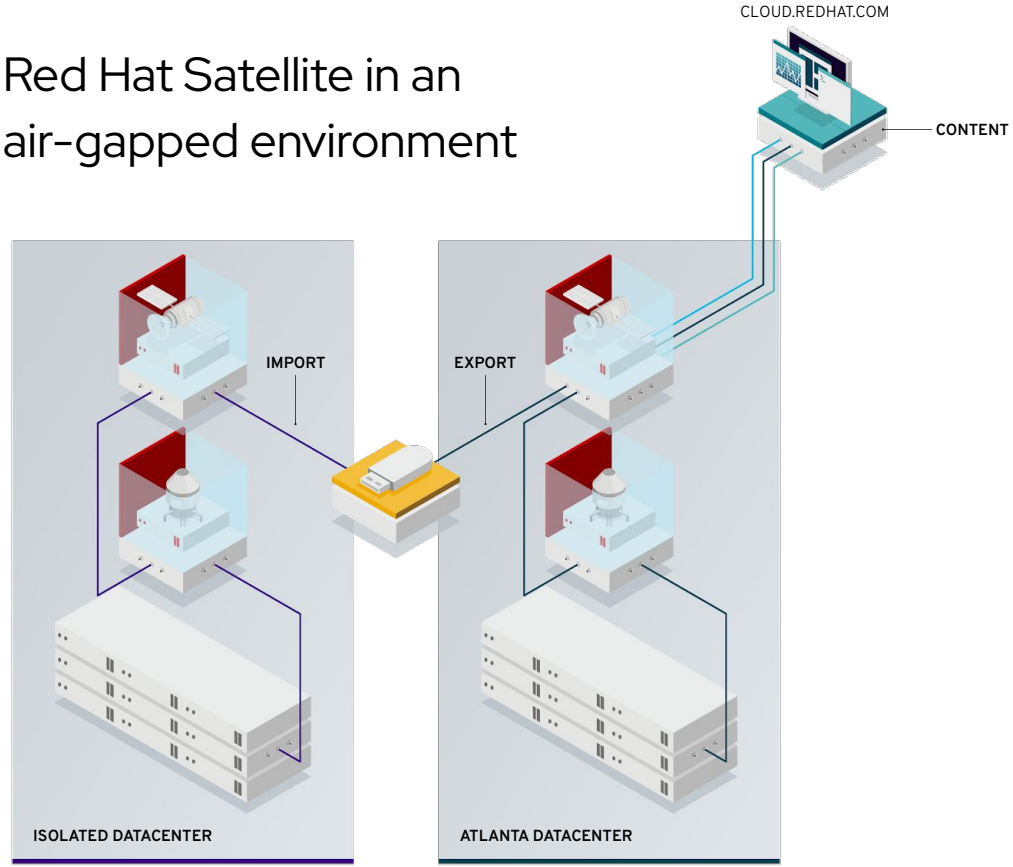
Red Hat Satellite

Multiple Datacenters and load balanced capsules

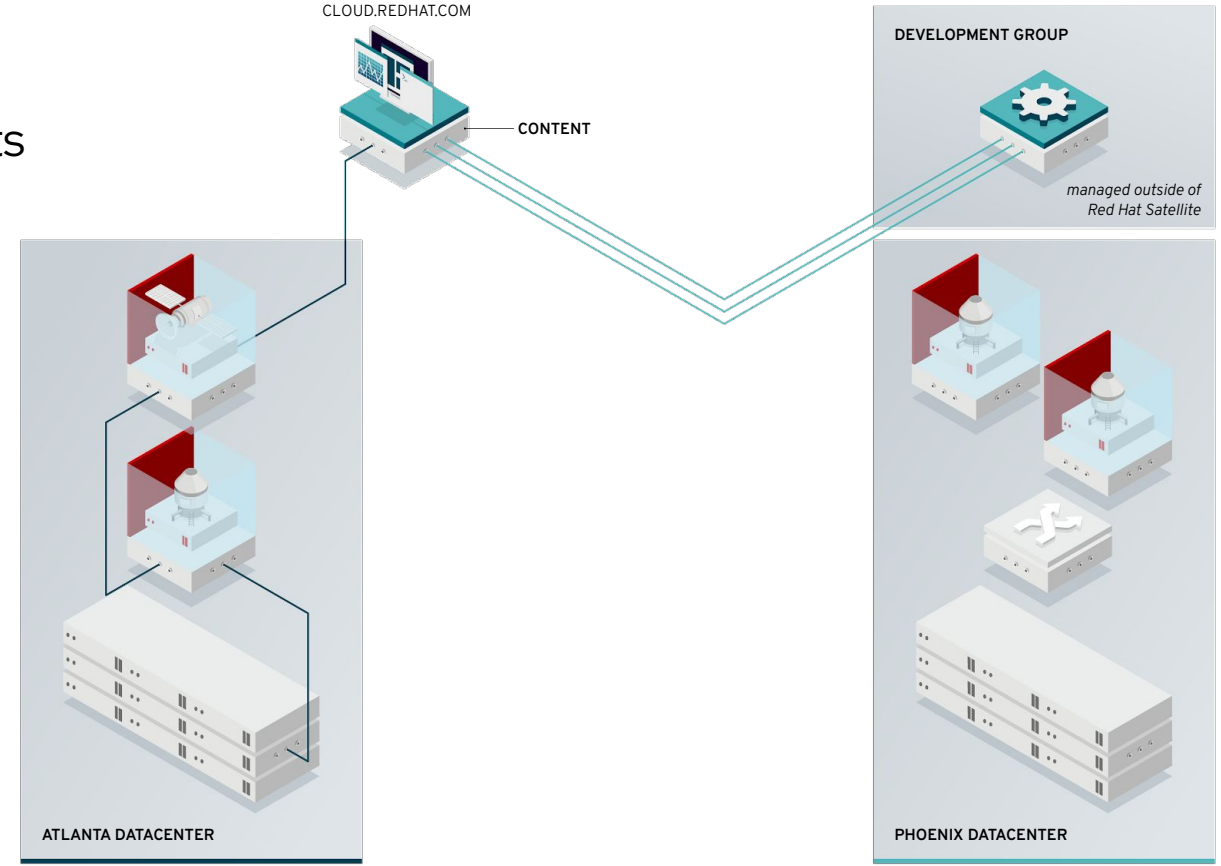


Red Hat

Red Hat Satellite in an air-gapped environment

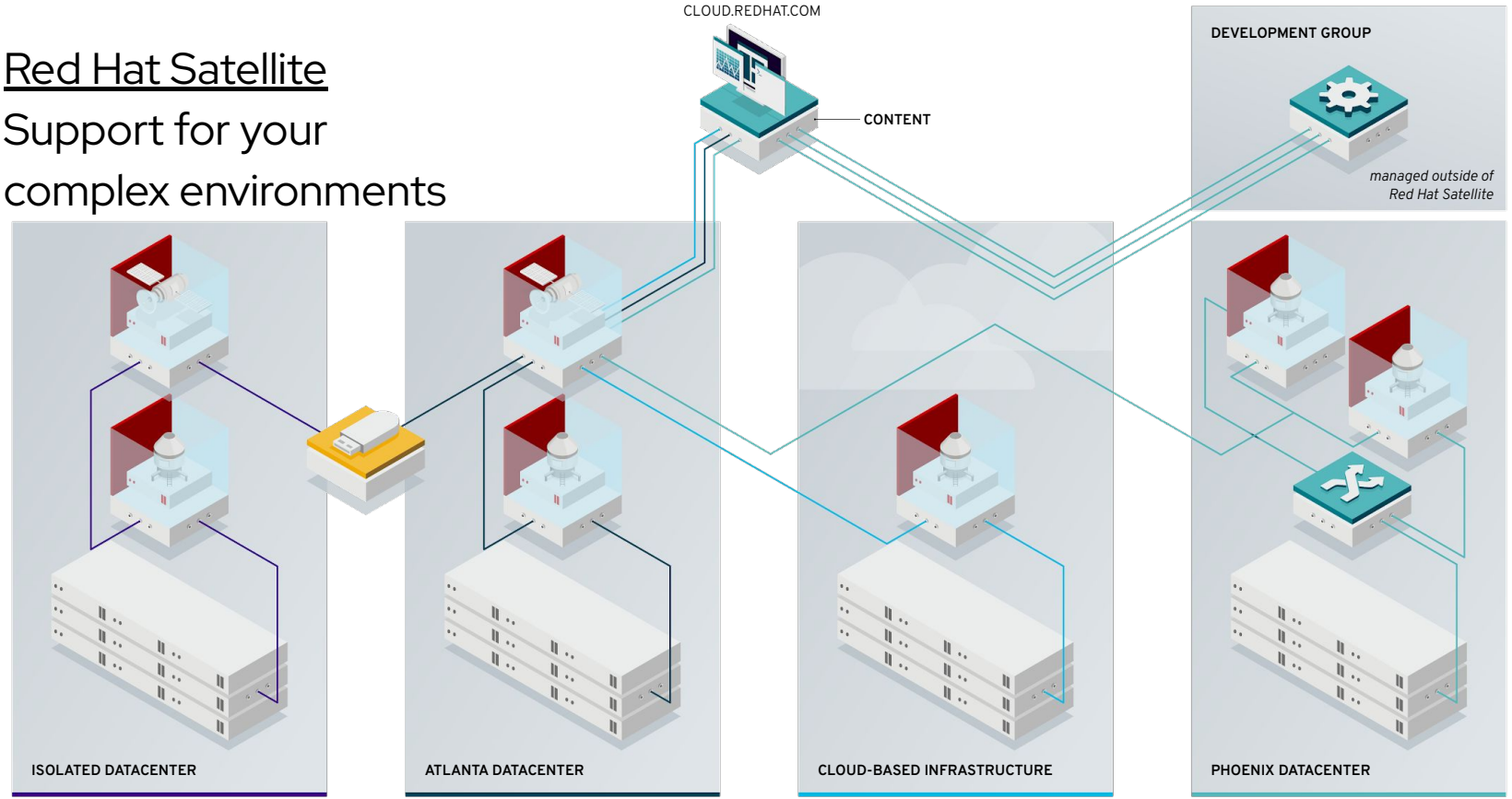


Red Hat Satellite with Red Hat Insights



Red Hat Satellite

Support for your complex environments

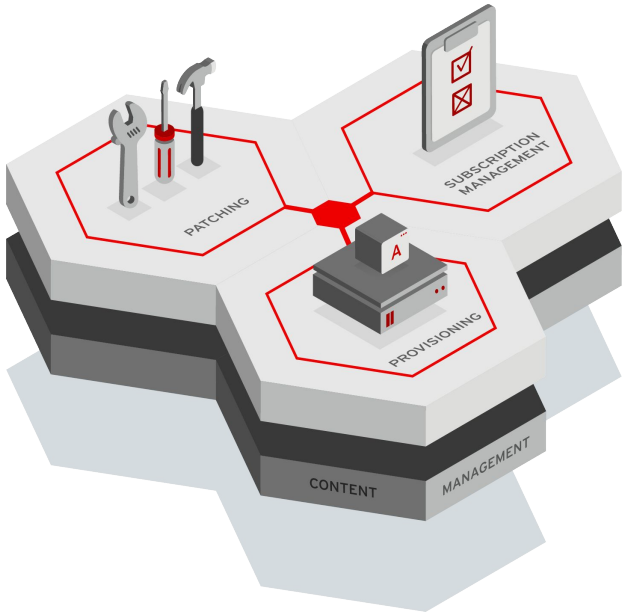


Red Hat

Red Hat Satellite

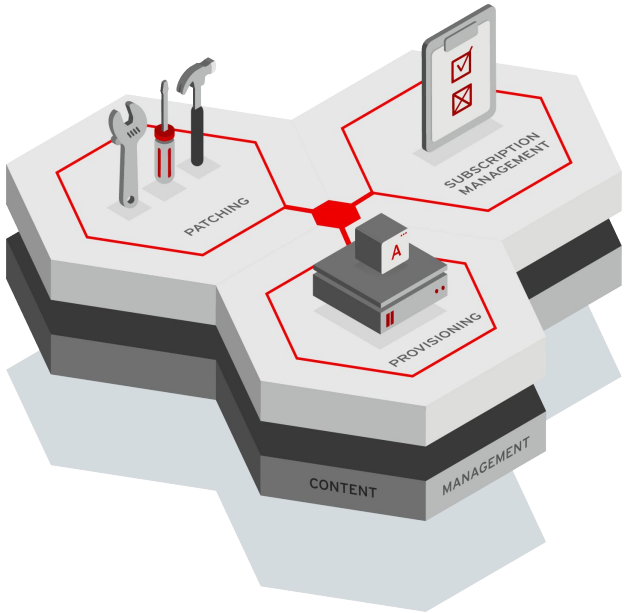
Support for RHEL 9

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



Red Hat Satellite 6.12 GA

- Satellite 6.12 supports RHEL 8 only as the server Operating System
- New Host Details Page introduced in Satellite 6.11 as Tech Preview is now fully supported
- Infrastructureless remediation from Insights is now integrated into the 6.12 WebUI
- Apache Web Server Performance Optimization
- Repository Synchronization performance is improved
- Hosts can pull remote execution jobs from the Satellite Server or Capsule (i.e. Remote Execution Pull Mode)
- Ability to Import Playbooks from Collections Installed on the Capsule
- Active Directory support for Web UI and Hammer CLI
- Inter-Satellite Sync - Syncable Exports are a new format that can be Imported into older versions of Satellite
- Alternate Content Sources Tech Preview to Enable FAST Capsule Synchronizations

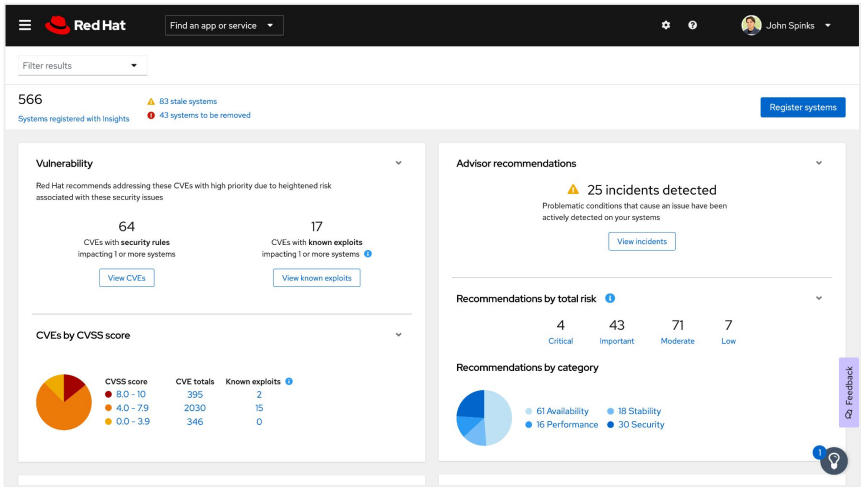


Red Hat Insights

Red Hat

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

Red Hat Insights

Grant access to your TAM

Red Hat Insights and the TAM service are a perfect fit.

With Insights you have a full view of risks identified within your Red Hat environment. And with the TAM service, you have a Red Hat expert with knowledge of your unique environment.

Your TAM can help you understand the output from Insights and assist with prioritizing findings or digging deeper into issues.

Red Hat

Advisor

Identifies availability, performance, stability, and security risks

- Analyzes Insights data to provide recommendations
- These recommendations cover everything from the physical layer up to the application layer.
- Provides predictive findings and prescriptive information on how to resolve.
- Automate remediations via Ansible Automation playbooks

What's New - Q4 2022:

- Compatible with RHEL at the edge
- Include recommendations tailored to edge computing hosts

Red Hat

The postgresql database performance decreases when the tuned best practices are not applied on this edge computing system | 3 days ago | Moderate | Manual

Edge-specific

Detected issues

This host is running **RHEL 8.5** with `postgresql` service running. The `postgresql` database performance is not optimal because the following configurations do not follow the best practice of tuned **postgresql** profile:

- **vm.swappiness**: 30
- **vm.dirty_ratio**: 30
- **vm.dirty_background_ratio**: 10
- **kernel.sched_migration_cost_ns**: 500000

Steps to resolve

Red Hat recommends that you perform either of the options below:
Option #1: update image in the Edge Management Application

- Access manage-images, find the image, then click the tricolon (":") icon on the most right, select the **Update Image**.
- Input description for the image version in the step of **Details**.
- Select the newest release from the step **Options**.
- Click the **Update image** button. Then you can see the status of "Image build in process".
- When the new image is ready, click the tricolon (":") icon on the most right and click the **Download**.
- Redeploy the image.

NOTE: about redeploying the new image, refer to this doc for details.

Option #2: if you are not able to use the Edge Management Application or the current image was built locally, you can update the image locally in the Web Console on the RHEL

~~BETA~~ Service:
Malware

Pattern matching malware scanner

- Leverages YARA, a popular malware detection tool
- Developed along with IBM's X-Force Incident Response and Threat Intelligence Services :
  - Over 175 signatures of known Linux malwares implemented

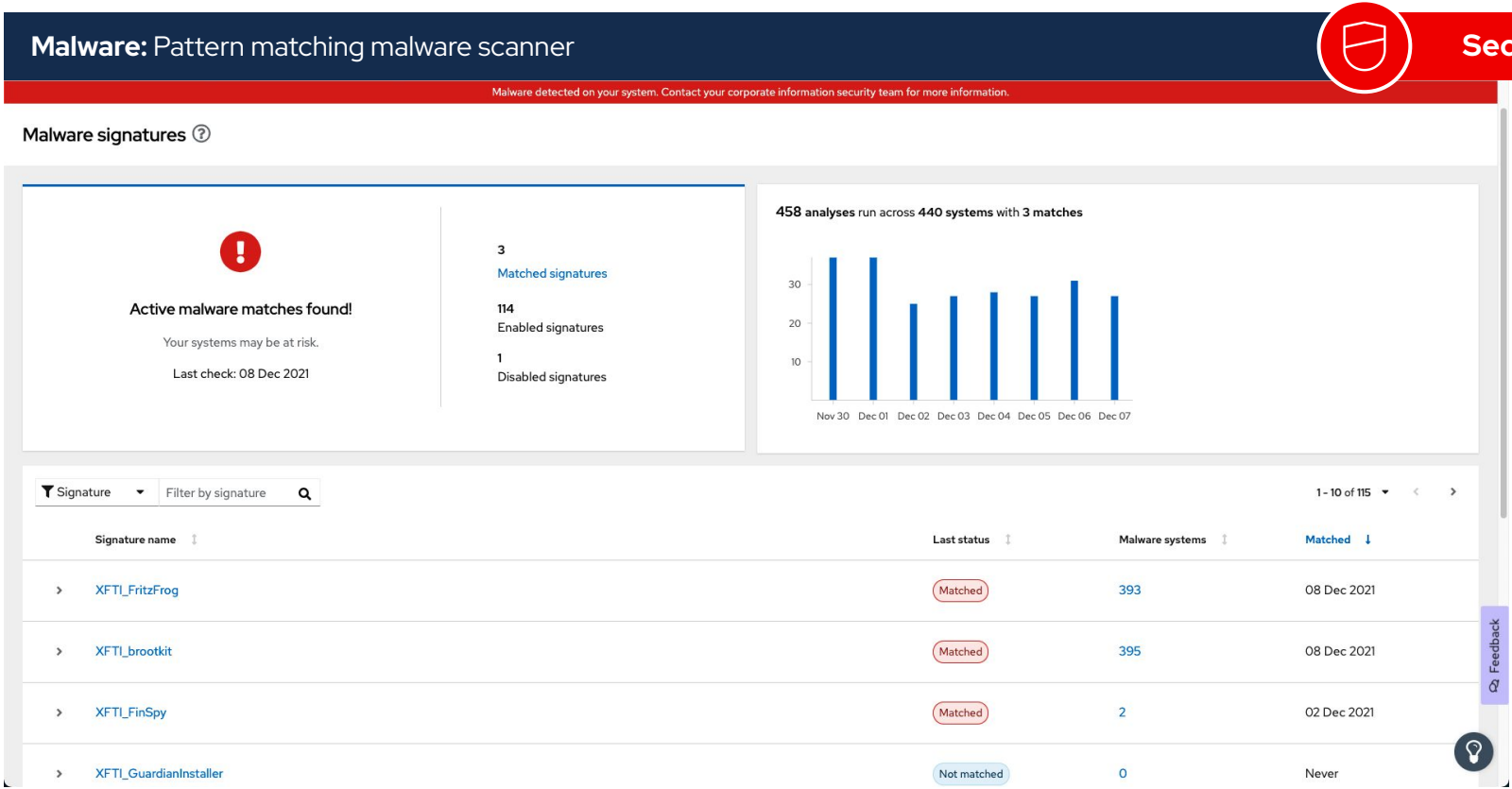
★ *The malware-detection service does not recommend resolutions to resolve or remediate malware incidents.*

★ *YARA is available for RHEL 8 and RHEL 9*

What's New - Q4 2022:

- Malware Detection is now GA !

Red Hat


Malware: Pattern matching malware scanner
Security
Malware detected on your system. Contact your corporate information security team for more information.
Malware signatures
Active malware matches found!
Your systems may be at risk.
Last check: 08 Dec 2021
3
Matched signatures
114
Enabled signatures
1
Disabled signatures
458 analyses run across 440 systems with 3 matches
30
20
10
Nov 30
Dec 01
Dec 02
Dec 03
Dec 04
Dec 05
Dec 06
Dec 07
Signature
Filter by signature
1 - 10 of 115
Signature name
Last status
Malware systems
Matched
XFTI_FritzFrog
Matched
393
08 Dec 2021
XFTI_brootkit
Matched
395
08 Dec 2021
XFTI_FinSpy
Matched
2
02 Dec 2021
XFTI_GuardianInstaller
Not matched
0
Never
Feedback

Ansible Automation Platform

Major announcements

AAP in the Cloud

AAP via the AWS Marketplace

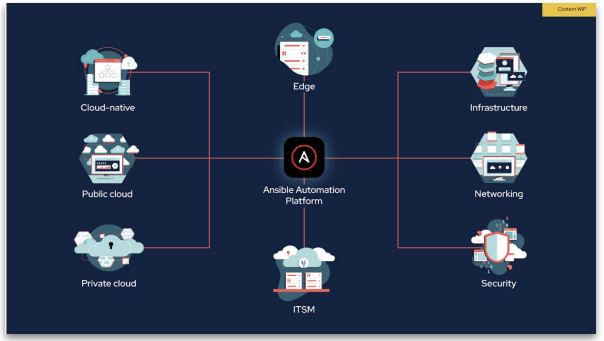
Launching a new Ansible deployment offering on the AWS Marketplace. This is a self-managed offering available through the AWS Marketplace in NA & EMEA, and globally soon.

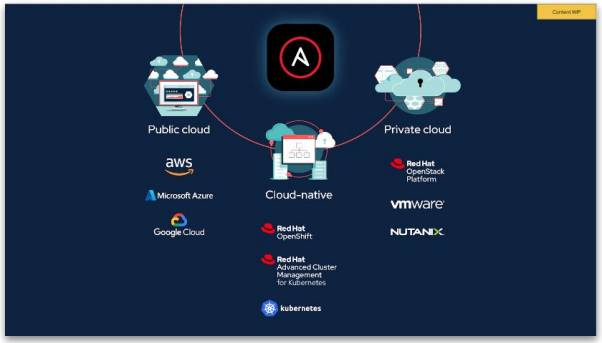
Links: Internal FAQ | Product Page
Press release | Brief | Infographic

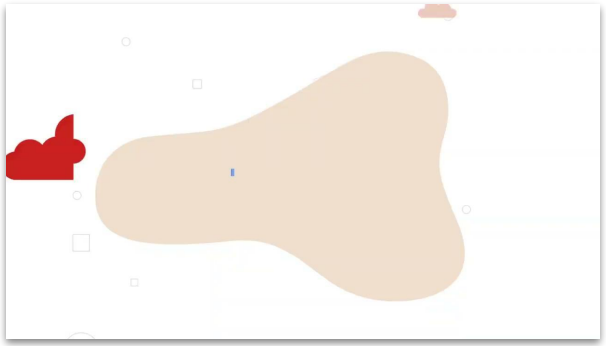
AAP on Azure Public Marketplace

Managed Red Hat Ansible Automation Platform on Microsoft Azure will be available directly to the public through the Azure Marketplace in North America and Europe, with global availability coming soon. With this offering, partners will now be able to transact.

Links: Product Page



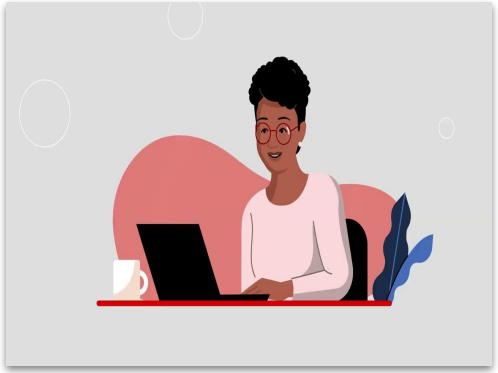




Major announcements

Event-Driven Ansible

Developer preview of Event-Driven Ansible: Highly scalable, flexible Event-Driven Automation built within your existing platform to deliver automation that can process events for discrete, actionable intelligence, execute automated actions to respond to events and provide observation and auditability across your automation landscape. (GA in 2023; AAP 2.4 + 2.5)



Major announcements

Project Wisdom

Project Wisdom is a Red Hat initiative, developed in collaboration with IBM Research, to infuse Ansible with artificial intelligence (AI) and gain a set of unique capabilities. These capabilities revolve around the generation, discovery, optimization and explanation of automation content, primarily in the form of Ansible Playbooks.

Project Wisdom will be announced on the mainstage on Day 2 of AnsibleFest, and supported by short demo.

Live next week:
www.ansible.com/wisdom

Ansible Validated Content

Red Hat Ansible Certified Content

What do I want to automate?

Establishes **integration** with Red Hat and 3rd-party platforms

From Red Hat and trusted industry partners

Tested and supported for security, quality, and reliability

Available through **console.redhat.com**

New!

Ansible Validated Content

How should I automate my systems?

Provides an **expert-led path for performing operations** in Red Hat and 3rd-party platforms

From Red Hat and trusted industry partners

Customizable for customer's unique requirements

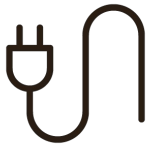
Curated and tested for security, quality, and reliability

Now preloaded in **private automation hub**

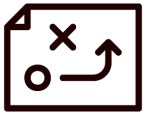
What is content?

A data structure containing automation assets

MODULES



PLUGINS



ROLES & PLAYBOOKS

TESTS

DOCUMENTATION

ANSIBLE CONTENT COLLECTIONS

Ansible validated content

HYBRID CLOUD

- AWS
  - Operations
    - Setup credentials
    - Detach and delete internet gateways
    - Configure multi-region CloudTrail
    - Creating custom AMIs
    - Terminate EC2 instances by tag
  - Troubleshooting
    - RDS connectivity
- Azure
  - Lifecycle management
    - Load balancers
    - Postgres SQL instance
    - Network interfaces and stacks
    - Resource and security groups
    - Virtual machine

SECURITY

- Firewall Policy Automation 0.1

NETWORKING

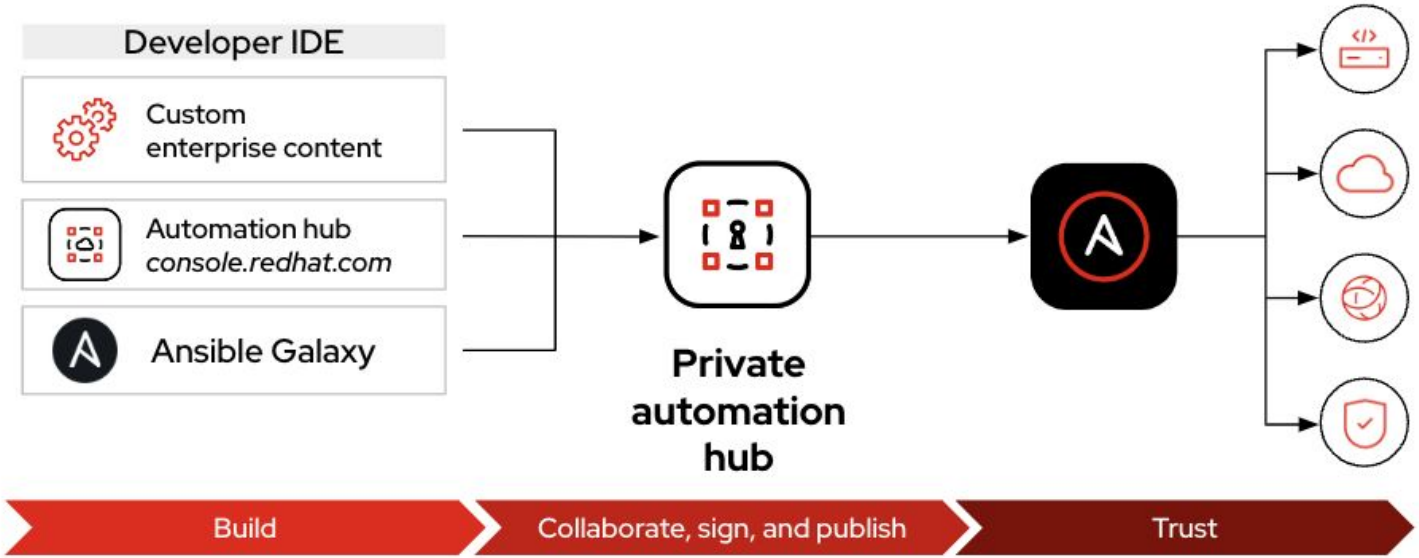
- DNS management
- ACLs management
- Interfaces management

NETWORK AT THE EDGE

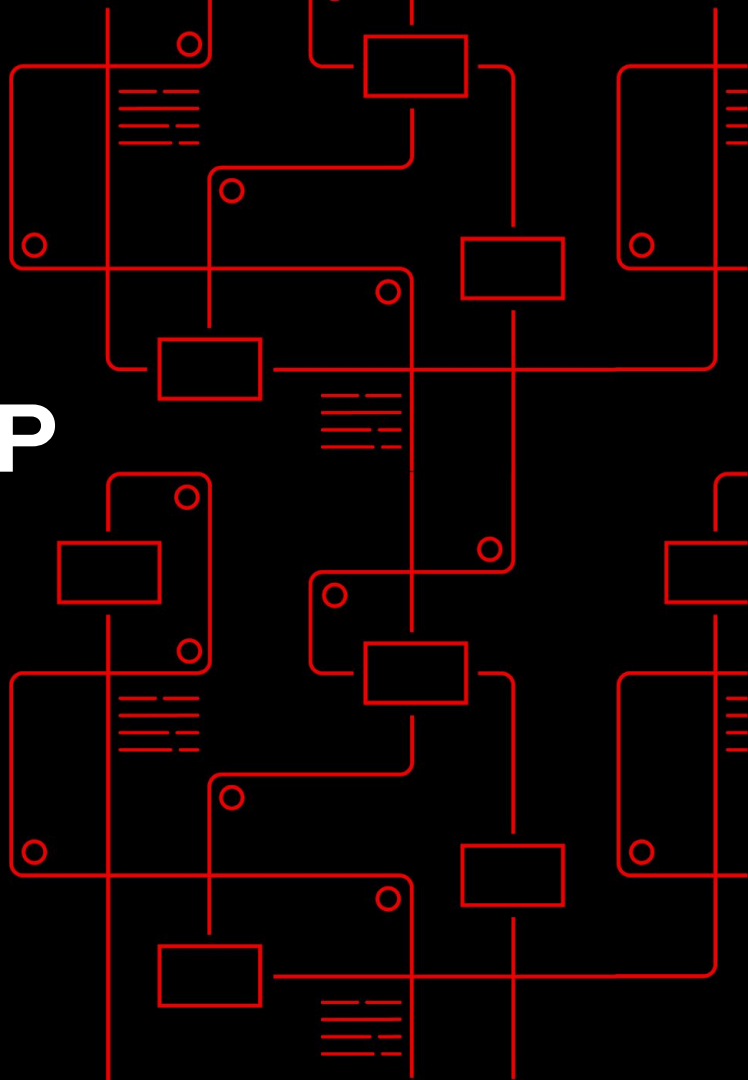
- Cloud connectivity implementation
- Autonomous System Number (ASN) configuration
- OSPF management
- BGP management
- Common network health checks: reachability tests, interface verification, routing protocols neighbors' state validation, mac-addresses, VLANs, ARP-tables and bootflash health check, and more.

Pre-loaded in private automation hub w/ Ansible Automation Platform 2.3 release

Ansible validated content



Ecosystème Red Hat AAP



Red Hat
Ansible Automation
Platform

Red Hat Ansible Automation Platform has a robust ecosystem

130+


Infrastructure


Cloud


Network

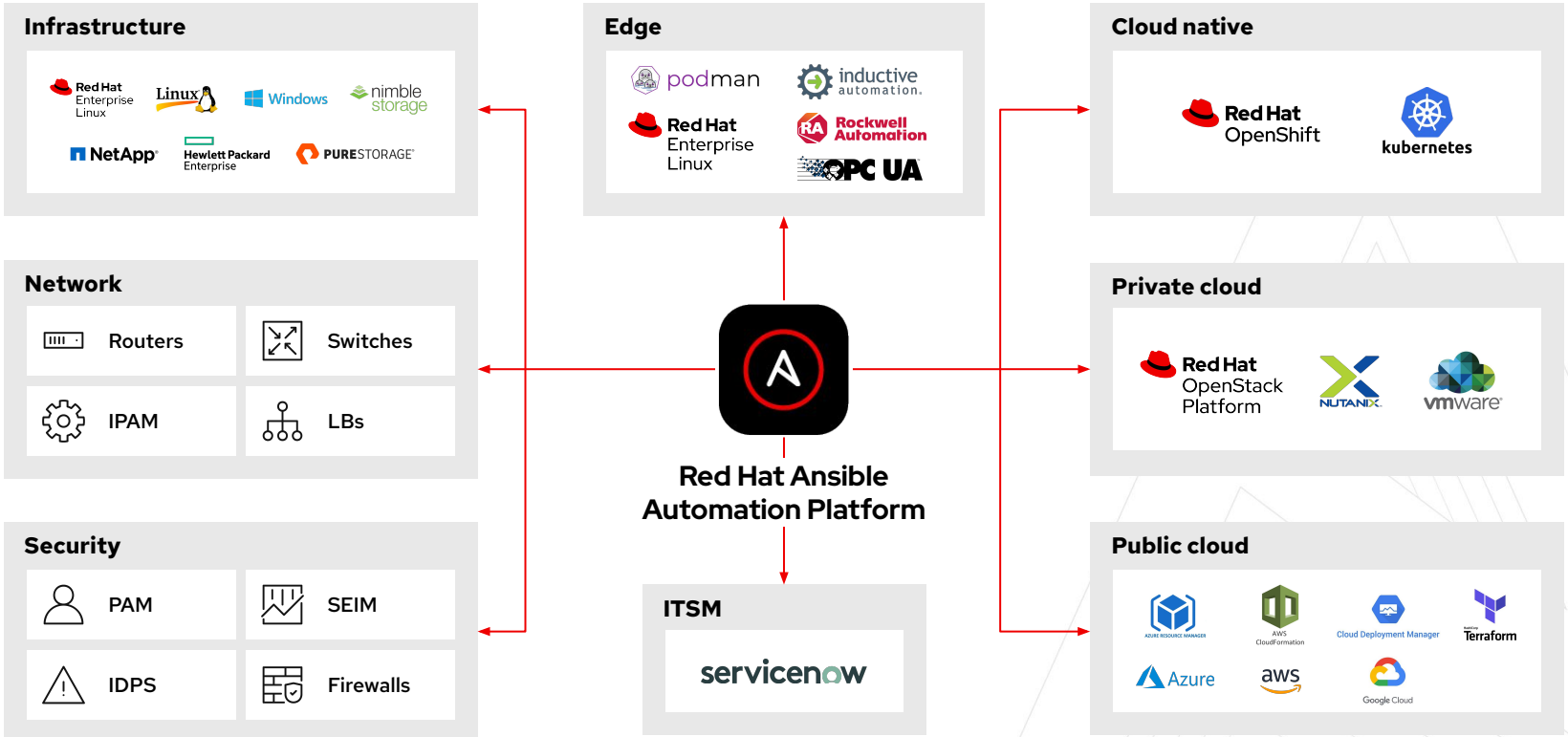

Security

Certified Collections

aws
Hewlett Packard Enterprise
Infoblox NEXT LEVEL NETWORKING
JUNIPER NETWORKS
Check Point SOFTWARE TECHNOLOGIES LTD
DELL EMC
ARISTA
Open Switch
NVIDIA
SAP
splunk>
vmware
IBM
f5
Pureport
wti
TRASA. {open source excellence}
FORTINET
Sensu
New Relic
PURESTORAGE
VyOS
dynatrace
FRRouting
CYBERARK
Microsoft
Google
rubrik
Chocolatey
aruba NETWORKS
CISCO
A10
NetApp

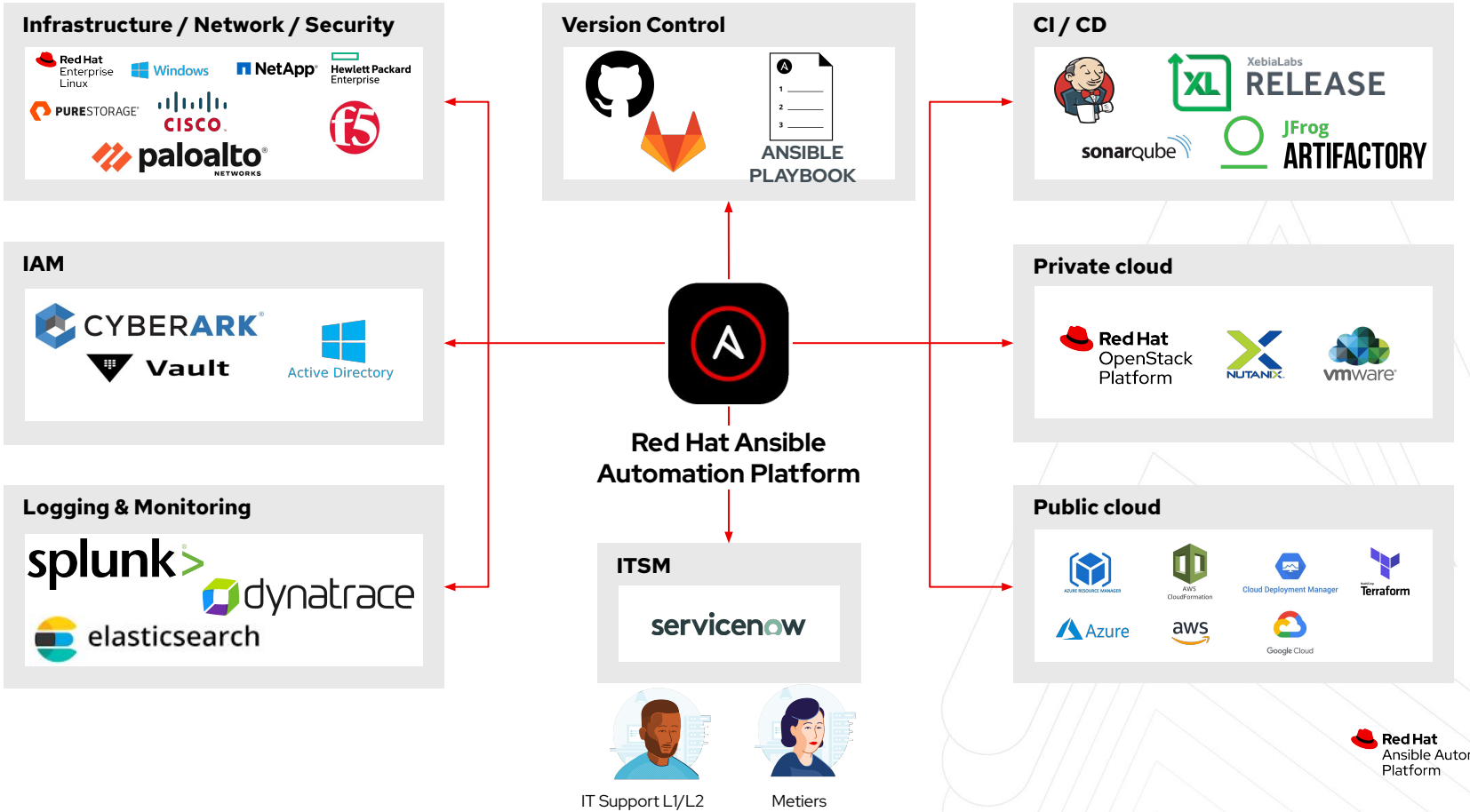
Red Hat Ansible Automation Platform

Ansible Automation Platform : Common infrastructure integrations



Red Hat Ansible Automation Platform

Ansible Automation Platform : 360° API



Red Hat Ansible Automation Platform

Modes de déploiement AAP

Ansible Automation Platform hosting options

Red Hat Enterprise Linux

Red Hat Enterprise Linux 8.3+ x86_64 (physical, virtual)

Red Hat OpenShift

Red Hat OpenShift via dedicated Ansible Automation Platform operator (physical, virtual)

Azure

On Microsoft **Azure marketplace**

aws

On Amazon **AWS marketplace**

Google Cloud

On Google **GCP marketplace**

Self Managed (on-premises or cloud)

Customer deployed
Managed by Red Hat

Customer deployed,
Self-Managed

Customer deployed,
Self-Managed