



Red Hat Insights 1-latest

Release Notes with FedRAMP

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Abstract

These release notes highlight the latest features and improvements implemented in the Red Hat Insights application and services with FedRAMP[®]. Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright's message.

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CHAPTER 1. ABOUT RED HAT INSIGHTS

Powered by predictive analytics, Red Hat Insights gets smarter with every additional piece of intelligence and data. It can automatically discover relevant insights, recommend tailored, proactive, next actions, and even automate tasks. Using Red Hat Insights, customers can benefit from the experience and technical knowledge of Red Hat Certified Engineers, making it easier to identify, prioritize and resolve issues before business operations are affected.

As a SaaS offering, Red Hat Insights is regularly updated. Regular updates expand the Insights knowledge archive in real time to reflect new IT challenges that can impact the stability of mission-critical systems.

CHAPTER 2. FEBRUARY 2024

2.1. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

2.1.1. Advisor

New Recommendations

The following new recommendations were added in February:

- RHEL guest randomly crashes on Azure with accelerated networking device hot-plug/hot-unplug
- Kernel memory leak occurs when using RDMA on NFS mounts due to a known bug in the kernel
- Decreased security when "UsePAM" is disabled in the sshd configuration
- Decreased stability when the feature of automatically adding transient devices back into an existing MD array is not enabled

CHAPTER 3. JANUARY 2024

3.1. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

3.1.1. Advisor

New Recommendations

During January, the team made four releases, introducing 14 brand new recommendations in Advisor, mostly focused on remediating risks in the kernel.

- Kernel crash occurs when NULL pointer dereference occurs in the vmxnet3 NIC driver on VMware ESXi hosts, due to a known bug in the kernel
- The root filesystem is mounted in read-only mode after reboot when there is a mount point name that ends with a space
- Kernel panic occurs when the CIFS file systems are mounted with FQDN, due to a known kernel bug
- Kernel panic occurs with the Transparent Huge Page (THP) enabled, due to a known kernel bug
- The system with a separate **/usr** file system and **systemd-219-78.el7_9.8** package installed cannot boot after the **initramfs** is regenerated
- Memory leak occurs when the number of orphan session scopes is large, due to a bug in **systemd**
- System hang occurs with lockups when using **smartpqi** driver, due to a known kernel bug
- Logs cannot be collected when the symbolic link **/dev/log** is missing
- NFS4 client can become unresponsive when the server side restarts, due to a bug in kernel
- Satellite will become unresponsive after the **noon**, due to long-running and failing **CertificateCleanupJob** in **andlepin**
- NFS4 server runs into infinite loop with **NFS4ERR_DELAY** reply, due to a regression bug in kernel
- Boot failure occurs due to the absence of critical kernel modules
- Samba cannot work with **sssd** as expected when **winbind** service is not running
- The **httpd** service is unable to create a thread when the memory or **nproc** resource is not enough

CHAPTER 4. DECEMBER 2023

4.1. PRODUCT-WIDE

4.1.1. Published Blogs and Resources

- Blog: [Simplifying CentOS Linux to RHEL conversions with Red Hat Insights](#) by Marty Loveless (December 5, 2023)
- Blog: [How to convert CentOS Linux to RHEL with Red Hat Insights](#) by Terry Bowling and Bob Handlin (December 5, 2023)
- Video: [Pre-conversion analysis for converting to Red Hat Enterprise Linux](#) by John Spinks (December 5, 2023)
- Video: [Convert to Red Hat Enterprise Linux from CentOS 7 Linux](#) by John Spinks (December 11, 2023)
- Video: [Red Hat Insights Inventory Groups](#) by John Spinks (December 14, 2023)
- Video: [Red Hat Insights Build & Launch](#) by John Spinks (December 19, 2023)

4.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

4.2.1. Advisor

New Recommendations

Six new recommendations are available in Advisor:

- [The kpatch fails to load on the system with isolated CPUs when the running kernel version earlier than 4.18.0-477.10.1.el8_8](#)
- [The Oracle database is running with an unsupported kernel](#)
- [The system will fail to create new processes anymore when there is no available ID to assign to the new processes](#)
- [Services that communicate through D-Bus return timeout when the D-Bus cookie overruns](#)
- [The squid service ran out of file descriptors and could not handle extra requests](#)
- [Booting a system randomly fails when separating /usr filesystem with "nofail" option](#)

4.2.2. Image Builder

RHEL lifecycle visualization available in Image Builder

You can now see a visualization of the RHEL 8 and RHEL 9 support lifecycle in Image Builder. When you select RHEL 8 for your image build, you will see a visualization that shows you how much time is left to receive full support for RHEL 8 and 9. Full support for RHEL 8 is ending in 2024. You can select RHEL 9 to receive full support through 2027.

- 1 **Image output**
- 2 Register
- 3 File system configuration
- 4 Content
 - Additional Red Hat packages
 - Custom repositories
- 5 Details
- 6 Review

Image output

Image builder allows you to create a custom image and push it to target environments.

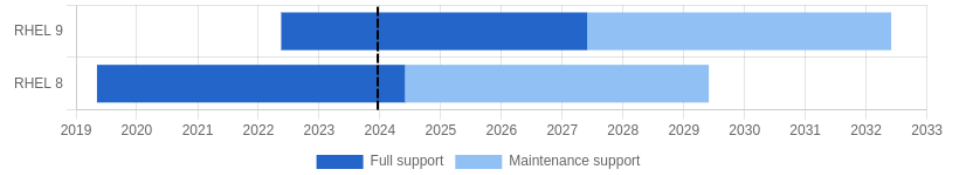
[Documentation](#)

Release *

Red Hat Enterprise Linux (RHEL) 8

Hide information about release lifecycle

Release lifecycle



[View Red Hat Enterprise Linux Life Cycle dates](#)

CHAPTER 5. NOVEMBER 2023

5.1. RED HAT HYBRID CLOUD CONSOLE

5.1.1. Published blogs and resources

Red Hat Insights offers timely blogs and other resources to supplement our official documentation.

- [Blog - Red Hat Insights turns smart statistics into machine learning by Katya Gordeeva and Tomas Dosek](#)

5.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

5.2.1. Insights Client/RHC

End of Life for Basic Authentication for Insights client

Effective February 29th, 2024, the **insights-client** will no longer support Basic Authentication (**authmethod=basic**) as an option for connecting a host with Red Hat Insights. For more information, and guidance about how to switch to alternative options, see the [Red Hat Insights lifecycle and update page](#).

5.2.2. Conversions

CentOS 7 pre-conversion analysis and conversion experience launched

On June 30, 2024, CentOS Linux 7 will reach End of Life (EOL), requiring users to migrate to a new operating system to continue receiving updates, security patches and new features. As this date rapidly approaches, determining a path for migration and scope will be key as you work to assign resources and meet completion dates. With a recent update to Red Hat Insights, CentOS 7 users can now:

- Register CentOS Linux 7 systems to display in the Insights inventory list.
- Start a new pre-conversion task at [Automation Toolkit > Tasks > Pre-conversion analysis for converting to RHEL](#) to analyze selected CentOS Linux 7 systems, and receive remediation advice so you can proactively handle issues that could complicate or prevent conversion to RHEL.
- Run a new conversion task at [Automation Toolkit > Tasks > Convert to RHEL from CentOS Linux 7](#) after you resolve issues identified by the pre-conversion analysis to complete the conversion to RHEL.

Example of output from running a conversion task in Insights

System name	States	Message
centos7-webinar	Success	Alert The conversion cannot proceed. You must resolve existing issues to perform the conversion.
>	Invalid kernel version detected	
>	Unsupported kernel modules	
>	Skipped action	
>	Outdated packages detected	
>	Excluded packages removed	
>	Skipping the custom repos are valid check	
>	Skipping the dbus is running check	
>	Repository file packages removed	

Feedback

You can find all Insights tasks at [Automation Toolkit > Tasks](#).

You can learn more about these new features and get started with:

- [Simplifying CentOS Linux to RHEL conversions with Red Hat Insights](#)
- [How to convert CentOS Linux to RHEL with Red Hat Insights](#)
- [Converting from an RPM-based Linux distribution to RHEL using Red Hat Insights](#)

5.2.3. Advisor

New recommendations released

Fourteen new recommendations are available:

- [Separate the journal directories for better performance and recoverability of InterSystems IRIS](#)
- [Enable FreezeOnError for the integrity and recoverability of InterSystems IRIS database](#)
- [The system is unable to boot when missing systemd related components](#)
- [The insights-client BASIC authmethod will reach End-Of-Life on Feb 28th, 2024](#)
- [The /var/log/messages or /var/log/secure are not writable due to incorrect syslog configuration, file permissions or SELinux context](#)
- [The InterSystems product version is older than ideal for top-quality support](#)
- [Recommend running SystemPerformance 24-hour daily for InterSystems IRIS](#)
- [Kernel panic occurs when cifs filesystems are mounted on the RHEL 8 system due to a bug in the kernel](#)
- [Set arbiter to prevent a possible split-brain situation for InterSystems IRIS](#)
- [Map the Write Image Journaling \(WIJ\) disk for better performance of InterSystems IRIS](#)
- [Use G1 garbage collector to get better performance for JBoss server](#)
- [The system will boot into emergency mode when the os-release file is lost](#)
- [Applications failed to create sessions when the maximum session limit is reached](#)

- It takes an unexpected long time for the system to boot due to a known bug in systemd

New InterSystems topic

Red Hat Insights currently has ten Advisor recommendations available for the InterSystems workload. You can find the InterSystems recommendations in a new Advisor topic at [Advisor > topics > Intersystems](#) on the Red Hat Hybrid Console. Insights will continue to add InterSystems-focused recommendations to this new topic. To see all Advisor topics, go to [Advisor > topics](#).

5.2.4. Patch

Improved patch reporting for Satellite-managed hosts

You can now check in Satellite-managed hosts with a new **–build-packagecache** flag for better reporting of installable updates. With the flag set, the host will self-report the list of updates that should be installed based on the content available in the Satellite content view to which that system is subscribed. You can find more information in:

- Knowledge-Centered Service (KCS) article: [Red Hat Insights shows incorrect patch reporting for Satellite-managed systems](#).

5.2.5. Image Builder

Known issue: Insights image builder fails to build RHEL for Edge images when npm is included

When building RHEL 8 images within Insights image builder, you cannot customize your RHEL for Edge image with the **npm** package. The NPM package manager expects its configuration to be in the **{prefix}/etc/npmrc** directory but the **npm** RPM packages a symlink in the **/usr/etc/npmrc** directory that links to **/etc/npmrc**. To work around this problem, include the **npm** package inside of the **OSTree** system.

Insights image builder now supports building images for the aarch64 architecture

This enhancement to image builder extends support to the **aarch64** architecture, which allows you to select the architecture that you want to build. The compatible target images that you can build for the **aarch64** architecture are Amazon Web Service (AWS), Bare Metal, and Guest Images.

Support to build images suitable for Windows Subsystem Linux (WSL)

You can use the Red Hat Insights image builder to create an image suitable for Windows Subsystem Linux (WSL). You can use that image to run a Linux environment directly on your Windows machine. You can use most of the command-line tools, utilities, and applications. The kernel is supplied by Microsoft, and developed on WSL2-Linux-Kernel. This is supported only for the Red Hat Enterprise Linux (RHEL) 8 release. For more information, see [Create customized RHEL images for the WSL environment](#).

CHAPTER 6. OCTOBER 2023

6.1. RED HAT HYBRID CLOUD CONSOLE

6.1.1. General

Notifications UI Refresh

Previously, notifications were grouped by product family. The notifications service now offers an Overview landing page as a single place to configure all events, as well as a separate page to view events.

6.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

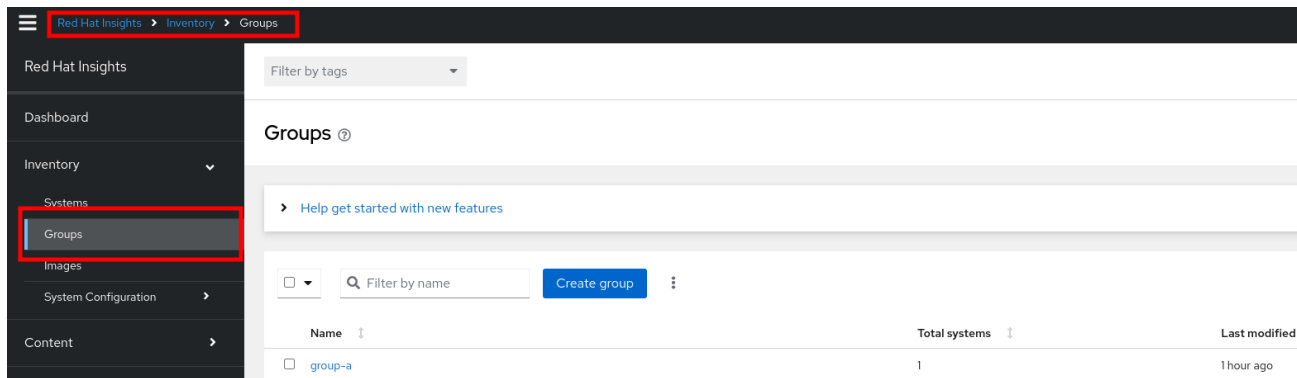
6.2.1. Published Blogs & Resources

- [Blog - How Red Hat Insights tackles malware head-on by Alessandro Rossi \(October 13, 2023\)](#)
- [Blog - A complete view of systems vulnerabilities using Red Hat Insights by Mohit Goyal \(October 24, 2023\)](#)

6.2.2. Inventory

Inventory Groups now available

The [Inventory Groups](#) feature enables you to set permissions on specific inventory objects, such as inventory groups and systems. You can organize systems inventory into different groups, as well as restrict access to specific users for each group. Once you configure user access, those system permissions take effect across all Insights services.



For more information about configuring inventory groups, refer to [Viewing and managing system inventory](#).

6.2.3. Advisor

New recommendations added

- The performance of InterSystems IRIS server may be impacted when Transparent Huge Pages is enabled.
- Apply **hugepages** recommendation for better performance of InterSystems IRIS.

- Apply **shmmx** recommendation for better performance of InterSystems IRIS.
- Degraded DNS performance on RHEL 8.5 when Ethernet Controller X710 for 10GbE SFP+ with i40e driver is used.
- The **tuned** does not start automatically when the OS boots with graphical target mode.
- System hangs due to a known kernel bug in the e1000e driver.
- Application failure occurs when the consumption of file descriptors reaches limit.
- The **chrony** service cannot resolve NTP server's hostnames when it does not have the read permission to the **/etc/resolv.conf** file.
- The **sendmail** service rejects or queues emails when the system load is high.

6.2.4. Vulnerability

Users can now view CVEs without Errata/Advisories that affect their environment

You can now view and assess CVEs that do not have associated Errata/Advisories, but which could still affect your environment. This capability allows your organization to understand its full exposure to CVEs, and to take the necessary steps to mitigate any risks.

For more information about CVEs without Errata/Advisories, refer to [this blog article](#).

6.2.5. Malware Detection

Ability to disable/enable malware signatures

The Malware service now allows you to disable signatures that are not relevant to your environment, in order to reduce noise and to enable you to focus on important and relevant signatures.

This feature enables your organization to make better-informed decisions about where to focus efforts, as the computing footprint grows and the resources managing the infrastructure shrink.

CHAPTER 7. SEPTEMBER 2023

7.1. RED HAT HYBRID CLOUD CONSOLE

7.1.1. Published Blogs & Resources

- Blog: [Deploy containerized applications with Red Hat Insights Edge Management and Podman](#) by Matthew Yee (September 12, 2023)
- Blog: [Managing SAP servers with Red Hat Insights](#) by Ricardo Garcia Caverro (September 15, 2023)
- Blog: [Build and launch Red Hat Enterprise Linux images in Oracle Cloud Infrastructure](#) by Terry Bowling (September 21, 2023)

7.1.2. Notifications

Daily email notification time can now be configured per account

The time at which daily email notifications are sent out every day is now configurable under [Hybrid Cloud Console > the Settings icon \(⚙️\) > Settings > Notifications](#) for OpenShift, Red Hat Enterprise Linux, and Console. A new Settings tab allows each account to override the default 00:00 UTC time with the time of their choice. This enhancement was implemented based on feedback received from EMEA customers wishing to receive their daily notifications every morning before they start work.

User Preferences are consolidated for centralized configuration

All settings related to email notifications are now consolidated under [Hybrid Cloud Console > User Preferences > Email Preferences](#). Weekly report configuration and event notifications (e.g. instant and daily digest) can all be configured in the same location. This enhancement was implemented based on feedback received from customers for ease of use.

7.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

7.2.1. Advisor

New Recommendations

- [Kernel panic will occur when the qxl driver is being used on the RHEL 8 system after reboot due to a bug in the default kernel](#)
- [Apply swappiness recommendation for better performance of InterSystems IRIS](#)
- [Squid service listening on IPv6 gives slow access to its client even when ipv6 is disabled in sysctl](#)
- [The system is unable to boot when missing glibc related components](#)
- [Kernel panic occurs when AMD processors with IOMMU enabled are used due to a known kernel bug](#)
- [Kdump fails to dump over NFS or SSH on a virtual machine when FIPS is enabled due to a known bug in kexec-tools](#)

- VMware guest performance decreases and shows as vulnerable to RETBleed due to a known kernel bug
- The CUPS print requests are rejected when the "MaxJobs" limits have been reached
- Some applications will show errors or fail when they are not able to write to /tmp with the appropriate permissions
- Kernel panic will occur on heavy memory fragmentation system when ib_port module is loaded due to a known kernel bug
- LVM commands that change the Volume Group configuration will fail to run when the LVM metadata area is not big enough

CHAPTER 8. AUGUST 2023

8.1. RED HAT HYBRID CLOUD CONSOLE

8.1.1. Published Blogs and Resources

- Blog - [Red Hat Insights Compliance: Introducing new customization options for policies](#) Mohit Goyal and Marley Stipich (August 2, 2023)
- Blog - [Stay on top of systemd state with Red Hat Insights](#) by Stefan Bunciak (August 2, 2023)
- Blog - [New Red Hat Insights capabilities available for managing Red Hat Enterprise Linux](#) by Keri Sprinkle (August 28, 2023)
- Blog - Livestream Recordings - Modernizing RHEL Management Mini-series
 - [Episode 2: Build and Launch](#) by Eric Hendricks and John Spinks (August 1, 2023)
 - [Episode 3: Simplifying Patch Management](#) by Eric Hendricks and John Spinks (August 8, 2023)
 - [Episode 4: Three Services to Operationalize RHEL](#) by Eric Hendricks and John Spinks (August 15, 2023)
 - [Episode 5: Protecting your systems](#) by Eric Hendricks and John Spinks (August 22, 2023)
 - [Episode 6: Regulatory Compliance](#) by Nate Lager and John Spinks (August 29, 2023)

8.1.2. General

New RHEL management capabilities are GA

At Red Hat Summit, you heard the announcement about the expansion of Insights beyond analytics. Red Hat designed the new and enhanced management capabilities to help reduce enterprise Linux complexity across the hybrid cloud without slowing innovation. With this release, all the Insights features and enhancements announced at Red Hat Summit are generally available (GA).

Additional resources

- Blog - [New Red Hat Insights capabilities available for managing Red Hat Enterprise Linux](#)
Describes how Red Hat Insights capabilities work with the ongoing journey to enable better end-to-end RHEL management.

8.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

8.2.1. Advisor

Export recommendations for a single system

You can now export a list of recommendations for a single system to either CSV or JSON. This provides an easy way to create a to-do list if you have not adopted a more automated means of addressing found issues.

Several new recommendations are available

- XFS writes are limited by quota when warn counter exceeds the upper limit
- Performance issue occurs when the "num_cgroups" for blkio in cgroups keeps increasing due to a known bug in the kernel on RHEL 8.6 and 8.8
- System hang occurs when audit backlog limit is exceeded on RHEL 8
- The yum command fails when the release version cannot be detected
- The sshd sessions will be very slow when the available entropy is low on virtual machines *The setroubleshootd process is consuming high memory due to a known bug in setroubleshoot-server
- The system is unable to boot when lvm2 package is missing
- The change of team interface MACADDR makes network packages with old MACADDR sent to it dropped due to a bug in NetworkManager

8.2.2. Drift and Policies

New systemd facts available for Drift and Policies

When setting up baselines and comparisons for system drift, or creating internal system policies, now you can access a set of **systemd** facts. These facts include **systemd.failed**, **systemd.jobs_queued**, and **systemd.state**.

8.2.3. Image Builder

Now Generally Available (GA)!

With the latest Insights Image Builder, you can add third-party Red Hat Package Manager (RPM) repositories to include third-party software and deploy hosts to the cloud easily by launching custom image builds directly to AWS, Azure, and Google Cloud.

PROVIDING FEEDBACK ON RED HAT DOCUMENTATION

We appreciate and prioritize your feedback regarding our documentation. Provide as much detail as possible, so that your request can be quickly addressed.

Prerequisites

- You are logged in to the Red Hat Customer Portal.

Procedure

To provide feedback, perform the following steps:

1. Click the following link: [Create Issue](#)
2. Describe the issue or enhancement in the **Summary** text box.
3. Provide details about the issue or requested enhancement in the **Description** text box.
4. Type your name in the **Reporter** text box.
5. Click the **Create** button.

This action creates a documentation ticket and routes it to the appropriate documentation team. Thank you for taking the time to provide feedback.