



# Red Hat Insights 1-latest

## Release Notes

Release Notes for Red Hat Insights



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Release Notes for Red Hat Insights

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## Abstract

These release notes highlight the latest features and improvements implemented in the Red Hat Insights application and services. 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

Red Hat Insights is a Software-as-a-Service (SaaS) application included with almost every subscription to Red Hat Enterprise Linux, Red Hat OpenShift, and Red Hat Ansible Automation Platform.

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, located at [Red Hat Hybrid Cloud Console](#), 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.



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## CHAPTER 2. MAY 2024

### 2.1. PRODUCT-WIDE UPDATES

#### 2.1.1. Published blogs and resources

- [Beyond the lingo: What does Red Hat Insights and FedRAMP mean for your workload?](#) by Megan Meza (May 2, 2024)
- [Getting started with Red Hat Insights and FedRAMP](#) by John Spinks (May 13, 2024)
- [Meet the Hybrid Cloud Console's Virtual Assistant](#) by John Spinks (May 14, 2024)
- [Extend Red Hat Insights client to execute custom automation](#) by Jerome Marc (May 20, 2024)
- [Updated Red Hat Insights API Cheat Sheet](#) by Jerome Marc (May 30, 2024)

### 2.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

#### 2.2.1. General

##### Insights for Image Mode for RHEL

This update supports the tech preview of Image Mode for RHEL (Red Hat Enterprise Linux). The following new features are now available:

- Identification and key facts about Image Mode RHEL systems in inventory, including available image updates and rollbacks
- Image Mode-specific remediations for select recommendations
- A task that performs a **bootc upgrade** to update a system to the latest available image
- Views of which images and hashes are deployed for an account
- Package-level remediation blocks to support the immutability of Image Mode RHEL

#### 2.2.2. Remediations

##### Improved user experience when remediating

The Insights remediation service has been updated with a number of user experience improvements, including:

- A tooltip that explains why you can or cannot execute a playbook. The tooltip appears when you hover over the **Execute playbook** button on the Remediations page.
- A compliance scan (**insights-client -compliance**) is added to the remediation playbook when Compliance issues are present in the playbook.
- A **Connection Status** column added under the **Systems** tab. When you review a specific remediation playbook, the **Connection Status** indicates the status of your system(s).

#### 2.2.3. Advisor

## New recommendations released

We have partnered with IBM to deliver a recommendation that optimizes IBM DB2 in SAP environments, in keeping with IBM best practices.

In total, 7 new recommendations were added in May:

- [LVM-activate resource will fail to start on this node because the required volume group is not visible on it](#)
- [Reboot fails with \*\*grub\*\* prompt when missing required GRUB2 modules on systems](#)
- [IBM DB2 will not perform optimally in SAP environment when not configured per IBM best practices](#)
- [The \*\*sudo\*\* access fails for AD users or groups when using FQDN name in \*\*sudoers\*\* file](#)
- [GRUB is no longer maintained and does not receive updates and GRUB2 is recommended to use for RHEL 7](#)
- [Red Hat will not provide technical support services after RHEL 6 ELS ends and recommends upgrading to RHEL 7 or RHEL 8](#)
- [System fails to boot when NICs with \*\*ice\*\* driver are configured as bonding devices](#)

## 2.2.4. Tasks

### Notifications are now available for Task events

[Tasks](#) users can now receive notifications about the following [events](#): task started, task canceled, task job started, task job completed, and task job failed.

You can use these events with Insights native [integrations](#) for Microsoft Teams, Google Chat, Slack, ServiceNow, Splunk, and Event-Driven Ansible.

## 2.2.5. Image builder

### Insights image builder repository recommendations

Insights image builder can now help find packages that are not available in the currently selected repositories. If a package is not found in the currently selected repositories, image builder provides an option to **Search other repositories**. This option searches for the package in repositories you have already configured, as well as other popular repositories.


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

## Additional packages

Blueprints created with Images include all required packages.

Available
Selected (0)
Included repos ?
Other repos ?

0 - 0 of 0 ◀ ▶

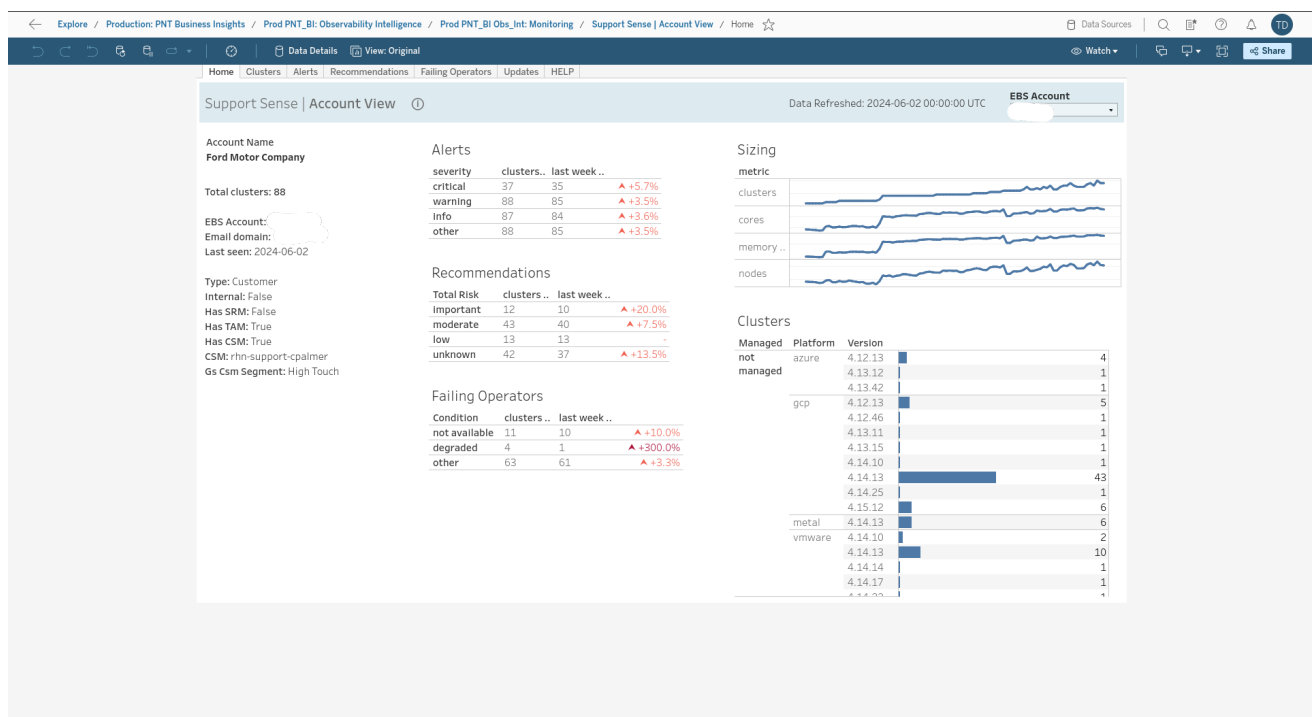
Package name	Description	Package repository	Support
 <p><b>No results found</b></p> <p>Adjust your search and try again, or search in other repositories (your repositories and popular repositories).</p> <p><a href="#">Search other repositories</a></p> <p><a href="#">Manage your repositories and popular repositories</a></p>			

## 2.3. OPENSIFT CONTAINER PLATFORM

### 2.3.1. Advisor

#### Update risks multi-cluster experience

This update to Insights Advisor for OCP includes easy-to-identify **Update risk** labels, which allow you to immediately spot clusters that face update blocking problems.



The screenshot displays the Red Hat Insights Advisor interface for the 'EBS Account'. The account name is 'Ford Motor Company' with 88 total clusters. The interface is divided into several sections:

- Alerts:** A table showing severity levels and their counts over the last week.
 

severity	clusters..	last week..	
critical	37	35	▲ +5.7%
warning	88	85	▲ +3.5%
Info	87	84	▲ +3.6%
other	88	85	▲ +3.5%
- Recommendations:** A table showing total risk levels and their counts over the last week.
 

Total Risk	clusters..	last week..	
Important	12	10	▲ +20.0%
moderate	43	40	▲ +7.5%
low	13	13	-
unknown	42	37	▲ +13.5%
- Failing Operators:** A table showing conditions and their counts over the last week.
 

Condition	clusters..	last week..	
not available	11	10	▲ +10.0%
degraded	4	1	▲ +300.0%
other	63	61	▲ +3.3%
- Sizing:** A line chart showing metrics for clusters, cores, memory, and nodes over time.
- Clusters:** A table showing managed clusters across different platforms and versions.
 

Managed	Platform	Version	Count		
not managed	azure	4.12.13	4		
		4.13.12	1		
		4.13.42	1		
		4.13.42	1		
managed	gcp	4.12.13	5		
		4.12.46	1		
		4.13.11	1		
		4.13.15	1		
		4.14.10	1		
		4.14.13	43		
		4.14.25	1		
		4.15.12	6		
		metal	vmware	4.14.13	6
				4.14.10	2
4.14.13	10				
4.14.14	1				
		4.14.17	1		
		4.14.22	1		

### 2.3.2. Vulnerability dashboard

## **Image details now added to the Vulnerability Dashboard**

Before this update, you could only view affected clusters in your environment for the CVEs affecting your infrastructure. The dashboard did not show affected images. With this release, you can now view container images affected by the vulnerabilities in your OCP environment.

## CHAPTER 3. APRIL 2024

### 3.1. PRODUCT-WIDE UPDATES

#### 3.1.1. Published blogs and resources

- Blog post: [Synchronize instance tags from Amazon EC2 and Microsoft Azure with Red Hat Insights](#) by Jerome Marc (April 17, 2024)
- Blog post: [Red Hat Insights cost management now available for ARM, IBM Z and POWER](#) by Pau Garcia Quiles (April 25, 2024)
- Blog post: [Boost your cluster operations with Deployment Validation and Insights Advisor for Workloads](#) by Tomas Dosek (April 30, 2024)

### 3.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

#### 3.2.1. Remote host configuration (rhc) and the Insights client

##### Upcoming End of Life for Basic Authentication mechanism for Insights client

Effective December 30th, 2024, the Insights client will no longer support Basic Authentication as an option for connecting a host with Red Hat Insights.

Basic Authentication is not the default authentication mechanism, but it has been available as a manually configured option for a select set of workflows. Red Hat recommends that you modify host systems using Basic Authentication to instead use certificate authentication. Otherwise, the systems will not be able to connect to Insights after the end of December 2024.

For more information, see the following KCS article: [How to switch from Basic Auth to Certificate Authentication for Red Hat Insights](#) and the [Red Hat Insights Life Cycle](#) page.

#### 3.2.2. Inventory

##### Hosted RHSM accounts in SCA mode are now pointed to Inventory

Accounts using Simple Content Access (SCA) mode and hosted RHSM for inventory management have now been migrated from [access.redhat.com](https://access.redhat.com) to <https://console.redhat.com/insights/inventory>.

For more information, see the following article: [Transitioning Red Hat Subscription Management to the Hybrid Cloud Console](#).

#### 3.2.3. Remediations

##### Validation of duplicate or blank remediation names

Insights now validates new playbooks created using the **Remediate with Ansible** option. The validation process prevents the creation of any playbooks that contain blank values, or that contain values that already exist in playbooks in the same account.

#### 3.2.4. Advisor

##### CrowdStrike recommendations

Red Hat has partnered with CrowdStrike to co-develop a new set of Insights Advisor recommendations. The first recommendation, [The Falcon sensor is in Reduced Functionality Mode \(RFM\) when it is set to kernel mode and does not support the current kernel](#) was released in late April.

### New recommendations released

Nine new recommendations were added in April:

- Kernel panic occurs when accessing data on a gfs2 filesystem when it is mounted with **quota=on** option
- **cron** jobs failed due to a known bug in **libselinux**
- The system is unable to boot in GUI due to incorrect ownership on GNOME files or directories
- AD users fail to log in due to a known issue in SSSD
- Virtual Machines fail to be created or started when using **spice** or **qxl** in VM XML after upgrading to RHEL 9
- System crash occurs when executing **kpartx** command on dm-multipath device due to a known bug
- The **leapp** upgrade fails when a third party **node.js** package is installed on RHEL 7
- D-Bus service fails to run when the machine-id file does not exist or does not have the correct permissions
- Package installation and update with **yum** or **rpm** fails due to a mismatch of the **rpm** and **rpm-plugin-selinux**

### 3.2.5. Tasks

#### Quick Starts now available to help with getting started

The Red Hat Insights UI now contains a Quick start for each of the available Tasks. Quick starts offer in-app guidance to help you prepare for and run a Task. To launch a Quick start, click the **Help me get started** link within a Task section.

The screenshot displays the Red Hat Hybrid Cloud Console interface. At the top, there's a search bar and a user profile for 'Rob Williams'. The main content area is titled 'Tasks' and has tabs for 'Available' and 'Activity'. Three task cards are visible: 'Pre-upgrade analysis for in-place upgrade from RHEL 8', 'Pre-conversion analysis for converting to RHEL', and 'Convert to RHEL from CentOS Linux 7'. Each card has a 'Select systems' button and a 'Help me get started' link. On the right, a blue sidebar titled 'Analyzing systems for an in-place upgrade from RHEL 8' provides a 'Quick start' guide with 5 steps. Step 1 is highlighted: 'Run a pre-upgrade analysis using Insights 1 of 5'. A 'NOTE' box indicates that the pre-upgrade analysis can take up to an hour to complete. A final step 'Review the pre-upgrade analysis report' is also shown.

### 3.2.6. Image Builder

#### Insights Images now creates ISO images with **osbuild.ks**

Previously, users manually added the **fleet.ks** kickstart to the ISO to enable a non-interactive installation. With this update, the **osbuild.ks** file is now automatically injected into the ISO images that are created from Insights images during image building. Consequently, users no longer need to customize the image to enable non-interactive installation

## 3.3. OPENSIFT CONTAINER PLATFORM

### 3.3.1. Cost Management

#### Tag reconciliation

Insights cost management reads labels from OpenShift and tags from AWS, Azure, Google Cloud, and Oracle Cloud, and makes all of them available as a unified list.

Since an arbitrary number of OpenShift clusters and cloud accounts can be added to one Cost Management account (Red Hat organization), and because tag/label naming conventions can be inconsistent or can change over time, situations can arise where multiple tags represent one concept requiring users to perform complex manual post-processing.

The Cost Management Settings page now allows you to define tag maps to combine multiple imported tags into one, simplifying cost aggregation and reports and removing the need for manual post-processing.

Tag reconciliation also enables Insights to perform cost distribution based on tags, in addition to the existing features that cost models currently support.

## Cluster information page

Sometimes cloud and/or OpenShift costs reported by Insights cost management do not match the user view in the cloud provider console. This discrepancy is not due to a bug in cost management but can occur for the following reasons:

- a lack of OpenShift or cloud billing data
- a missing integration between the Hybrid Cloud Console and either the OpenShift cluster(s), or the AWS, Azure, Google Cloud and/or Oracle Cloud customer accounts

Both conditions can cause missing billing and/or cluster data in Insights cost management, which in turn leads to the cost discrepancy.

To make this condition easier for users to diagnose, two new views have been added in the cluster breakdown section of the [limit=10&filter\[offset\]=0&group\\_by\[cluster\]=\\*\[OpenShift details page\]](#):

- The Cluster information view offers essential cluster information, such as the cluster UUID, Cost Management Metrics Operator version, and links to integrations. This view also provides additional information about when to update the Cost Management Metrics Operator version.
- The Data details view offers insights into data processing, helping users track data flows through Cost Management. This view provides visibility into which OpenShift and cloud data was processed, and when it was processed.

## Excel and Power BI sample reports

Red Hat Insights cost management provides powerful dashboards and reports, with export capabilities both in the web UI (to CSV) and through the API (JSON and CSV).

You can use an external business intelligence (BI) tool to combine data and insights with your business information. This approach can help you to answer questions such as the following:

- Does the nightly batch job that processes POS transactions cost more because more transactions are being processed (because business is growing), or is it because the last release of the application consumes more resources?
- Is my total spending trend following/predicting my business?
- Is my total cluster capacity growing according to the same trend as my business?
- Are my development teams getting better in terms of resource utilization (that is, are recommendation values converting to current values)?
- Is capacity converting to recommendations?

Microsoft Excel and Microsoft Power BI are the most popular BI tools. Both tools read data from the Cost Management API. Sample reports in Microsoft Excel and Microsoft Power BI formats are now available for free from the following repository: <https://github.com/project-koku/cost-mgmt-powerbi-sample>

These sample reports achieve the following goals:

- Show good practices (for example, not requesting all of the desired data at the same time).
- Show familiar data. The Insights web UI is embedded within the Excel and Power BI sample reports, so that you see which API endpoints to use and how to use them in your custom reports.



- Produce self-contained reporting, even at the cost of suboptimal decisions (which are clearly documented in the sample reports). For example, the Excel sample stores the credentials in a CSV file (whereas the recommended procedure uses a vault), and the Power BI sample uses Excel as storage (whereas Power BI normally uses a database, such as Microsoft SQL Server or Azure SQL).

Download the latest release from: <https://github.com/project-koku/cost-mgmt-powerbi-sample/releases>

## CHAPTER 4. MARCH 2024

### 4.1. PRODUCT-WIDE UPDATES

#### 4.1.1. Published blogs and resources

- Blog post: [Exploring a custom collection for pulling data from Red Hat Insights APIs to Event-Driven Ansible](#) by Jerome Marc (March 4, 2024)
- Blog post: [Exploring Red Hat Insights integration with Jira Software](#) by Jerome Marc (March 11, 2024)
- Blog post: [Configuring Hybrid Cloud Console to forward notifications events to a Jira webhook trigger](#) by Jerome Marc (March 12, 2024)
- Blog post: [Red Hat OpenShift Service on AWS obtains FedRAMP "Ready" designation](#) by Josh Blaher (March 15, 2024)
- Blog post: [Insights Advisor for OpenShift - How to react to Advisor recommendations](#) by Alessandro Rossi (March 22, 2024)

#### 4.1.2. Integrations

##### Integration blogs and demos now centralized in a Knowledgebase article

A new Red Hat Knowledgebase article, [Red Hat Insights Integrations](#), provides a centralized location where you can find all blogs and demos about the integrations that Insights provides examples for or supports.

### 4.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

#### 4.2.1. Advisor

##### New Advisor Recommendations

Nine new recommendations are available:

- [The Hyper-V guest running with "hv\\_storvsc" driver partially hangs or the system crashes when memory exhaustion occurs on the Hyper-V host](#)
- [Kernel panic occurs when accessing data on a gfs2 filesystem when it is mounted with "quota=on" option](#)
- [Cron jobs failed due to a known bug in libselinux](#)
- [The x86-64-v1 and x86-64-v2 microarchitecture level of CPU will be marked deprecated in RHEL 8 and RHEL 9](#)
- [The autofs process crashes when multiple processes access the same autofs path at the same time](#)
- [Authentication failure occurs with AD user when unwanted files are included](#)
- [Leapp crashes when there are too many filesystems running on LVM devices](#)

- Conversion to RHEL will fail with running `convert2rhel` when the `plymouth` package is not installed
- IO operations on MD RAID 5 array stuck during heavy IO load due to a regression kernel bug

## 4.2.2. Inventory

### Custom Staleness and Deletion

System administrators can use Custom Staleness and Deletion settings to configure the number of days systems need to be inactive, before Red Hat Insights considers the systems to be stale and flags them for removal from your inventory.

By default, when a system does not communicate with Red Hat within one day, the system is labeled as stale. If the system does not communicate within 7 days, it is labeled as stale warning. If the system does not communicate within 14 days, Insights removes it from the inventory. With this feature update, your system administrators can change settings for:

- system staleness up to 7 days
- system stale warning up to 180 days
- system deletion up to 2 years

### Staleness and Deletion

**Organization level system staleness and deletion** ?

Keep or customize your organization's default settings using the options below.

**System configuration** Edit

Conventional (RPM-DNF) ? Immutable (OSTree) ?

---

<p><b>System staleness</b> <span>?</span></p> <div style="border: 1px solid #ccc; padding: 2px; display: flex; align-items: center;"> <span style="margin-right: 5px;">1 day</span> <span>▼</span> </div> <p style="font-size: 0.8em; margin-top: 2px;">Maximum: 7 days</p>	<p><b>System stale warning</b> <span>?</span></p> <div style="border: 1px solid #ccc; padding: 2px; display: flex; align-items: center;"> <span style="margin-right: 5px;">7 days</span> <span>▼</span> </div> <p style="font-size: 0.8em; margin-top: 2px;">Maximum: 180 days</p>	<p><b>System deletion</b> <span>?</span></p> <div style="border: 1px solid #ccc; padding: 2px; display: flex; align-items: center;"> <span style="margin-right: 5px;">14 days</span> <span>▼</span> </div> <p style="font-size: 0.8em; margin-top: 2px;">Maximum: 2 years</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

[Reset to default setting](#) ?

Save Cancel

The feature is now available in [Inventory > System Configuration > Staleness and Deletion](#).

For more information about roles and permissions needed to manage system staleness and deletion, see [Managing system staleness and deletion with Red Hat Insights for Red Hat Enterprise Linux](#) in *Viewing and managing system inventory*.

### Identifying CentOS hosts that are compatible for pre-conversion and conversions

When viewing hosts within the Insights inventory, if a CentOS 7 host is registered to Insights and compatible to run a Pre-Conversion analysis or Conversion task, you will see a visual indicator that reads "Convert system to RHEL" below the system name when looking at your systems.

Name	Group	Tags	OS	Last seen
diag-prod-cent79-0419-001 (Convert system to RHEL)	No group	0	CentOS Linux 7.9	Just now
vm-1	No group	0	RHEL 9.4	1 minute ago
rhqe-ybdvuka.test	No group	0	RHEL 8.0	2 minutes ago
rhqeyuathkqml.test	No group	0	RHEL 8.0	2 minutes ago
rhqe-emdywubi.test	No group	0	RHEL 8.0	2 minutes ago
rhqe-hccgmpch.test	No group	0	RHEL 8.0	2 minutes ago
ibvirt-rhel-9-4	No group	0	RHEL 9.4	3 minutes ago
iqe-vm-tasks-30d8e39f-ade6-4353-b0cc-e8d1d93cf6e6 (Convert system to RHEL)	No group	0	CentOS Linux 7.9	5 minutes ago
vm-1	No group	0	RHEL 9.4	6 minutes ago

## 4.3. OPENSIFT CONTAINER PLATFORM

### 4.3.1. Advisor

#### Insights Advisor for Workloads available in preview

A preview version of Insights Advisor for Workloads application is available. Insights Advisor for Workloads uses Deployment Validation Operator (DVO) to provide recommendations on best practices and security policies around deployments of workloads. The application helps avoid issues such as misconfigured workloads, which can cause the platform to suffer from memory or CPU overcommitment, resulting in critical cluster issues.

To test the preview version of the new application, see [Red Hat Hybrid Cloud Console > RHEL > Insights > Advisor > Workloads](#)

#### Deployment Validation Operator (DVO) available to on-premise clusters

DVO, formerly available only to Red Hat Managed offerings, is now generally available. The operator serves as an in-cluster workload configuration evaluation tool. Using Red Hat Insights, the tool reports misconfigurations of workloads to Red Hat.

You can access and install the tool from the [Red Hat ecosystem catalog](#).

## CHAPTER 5. FEBRUARY 2024

### 5.1. PRODUCT-WIDE

#### 5.1.1. Published Blogs and Resources

- Blog post: [How to convert CentOS Linux to RHEL with Red Hat Satellite conversion toolkit](#) by Tihomir Hadzhiev (February 7, 2024)
- Blog post: [Delivering a better view of system vulnerabilities with Red Hat Insights](#) by John Spinks (February 22, 2024)
- Analyst Paper: [The Business Value of Red Hat Insights by IDC](#) (February 26, 2024)
- Blog post: [Configuring Red Hat Insights integration with Microsoft Teams](#) by John Spinks (February 27, 2024)
- Video post: [Microsoft Teams Integration](#) by John Spinks (February 27, 2024)
- Blog post: [Insights helps to provide Threat Intelligence](#) by John Spinks (February 29, 2024)

### 5.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

#### 5.2.1. 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

### 5.3. OPENSIFT CONTAINER PLATFORM

#### 5.3.1. Advisor

##### Deployment Validation Operator (DVO) certified and available to on-premise customers

DVO, previously released only to Red Hat managed clusters, is now certified and available for on-premise usage. Deployment validation helps platform operators understand how workloads have been misconfigured and provides guidance around best practices, security, and other workload settings.

## CHAPTER 6. JANUARY 2024

### 6.1. PRODUCT-WIDE

#### 6.1.1. Published Blogs and Resources

- Press Release: [Red Hat OpenShift Service on AWS GovCloud and Red Hat Insights Achieve FedRAMP® High Authorization](#) (January 18, 2024)
- Blog post: [Managing system access in Red Hat Insights with Inventory Groups](#) by Christian Marineau (January 26, 2024)

### 6.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

#### 6.2.1. 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 **candlepin**
- 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

## 6.3. OPENSIFT CONTAINER PLATFORM

### 6.3.1. Cost Management for ARM, POWER and IBM Z

The Cost Management Metrics Operator is now available for ARM, POWER and IBM Z, in addition to the existing x86-64 support. This makes Red Hat Insights cost management the first FinOps tool to be available for POWER, and the second for IBM Z.

### 6.3.2. Custom platform costs

Customers can now add custom OpenShift projects to the Platform cost group, which will add to the default OpenShift and Kubernetes control plane projects. This is useful for cross-platform services, such as login microservices, PDF generation services, and so on, that are used by many tenants in the cluster.

## CHAPTER 7. DECEMBER 2023

### 7.1. PRODUCT-WIDE

#### 7.1.1. 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)
- Blog: [Reacting to Red Hat Insights CVE advisories and enhanced malware detection with Event-Driven Ansible and ServiceNow](#) by Amaya Rosa Gil Pippino (December 7, 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)

### 7.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

#### 7.2.1. 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](#)
- [Bootting a system randomly fails when separating /usr filesystem with "nofail" option](#)

#### 7.2.2. 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.

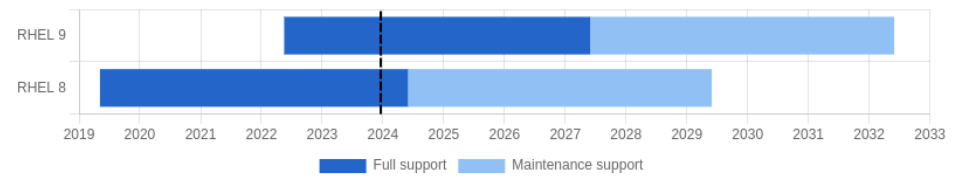
[Documentation](#)

### Release \*

Red Hat Enterprise Linux (RHEL) 8

Hide information about release lifecycle

#### Release lifecycle



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

## 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.