Red Hat Insights 2023

Release Notes

Release Notes for Red Hat Insights
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.
Table of Contents

CHAPTER 1. ABOUT RED HAT INSIGHTS ................................................. 4

CHAPTER 2. JUNE 2023 .................................................................. 5
  2.1. RED HAT HYBRID CLOUD CONSOLE .................................. 5
     2.1.1. Published Blogs & Resources ........................................ 5
     2.1.2. General .................................................................. 5
  2.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX ......... 5
     2.2.1. Advisor .................................................................. 5
     2.2.2. Compliance ............................................................... 6
  2.3. RED HAT INSIGHTS FOR OPENSHIFT .................................. 6
     2.3.1. Cost Management ...................................................... 6
     2.3.2. Vulnerability ............................................................. 6

CHAPTER 3. MAY 2023 .................................................................. 7
  3.1. RED HAT HYBRID CLOUD CONSOLE ................................. 7
     3.1.1. Published Blogs & Resources ........................................ 7
     3.1.2. Integrations ............................................................... 7
  3.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX ......... 7
     3.2.1. General .................................................................. 7
     3.2.2. Advisor .................................................................. 9
     3.2.3. Patch .................................................................... 9
     3.2.4. Subscriptions ........................................................... 9
     3.2.5. Image builder ........................................................... 10
  3.3. RED HAT INSIGHTS FOR OPENSHIFT .................................. 10
     3.3.1. Advisor .................................................................. 10
     3.3.2. Cost Management ...................................................... 11

CHAPTER 4. APRIL 2023 ................................................................. 13
  4.1. RED HAT HYBRID CLOUD CONSOLE ................................ 13
     4.1.1. Published Blogs & Resources ........................................ 13
     4.1.2. Integrations & Notifications ........................................ 13
  4.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX ......... 13
     4.2.1. Advisor .................................................................. 13
     4.2.2. Remediations ........................................................... 14
  4.3. RED HAT INSIGHTS FOR OPENSHIFT .................................. 14
     4.3.1. Advisor .................................................................. 15
     4.3.2. Cost Management ...................................................... 15

CHAPTER 5. MARCH 2023 ............................................................... 17
  5.1. RED HAT HYBRID CLOUD CONSOLE ................................ 17
     5.1.1. Published blogs and resources ...................................... 17
     5.1.2. Integrations and notifications ...................................... 17
  5.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX ......... 17
     5.2.1. Remediations ........................................................... 17
     5.2.2. Advisor .................................................................. 17
     5.2.3. Patch .................................................................... 18
     5.2.4. Subscriptions ........................................................... 18
     5.2.5. Malware detection .................................................... 19
     5.2.6. Resource Optimization ............................................. 20
  5.3. RED HAT INSIGHTS FOR OPENSHIFT .................................. 20
     5.3.1. Advisor .................................................................. 20
     5.3.2. Cost Management ...................................................... 20


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.
CHAPTER 2. JUNE 2023

2.1. RED HAT HYBRID CLOUD CONSOLE

2.1.1. Published Blogs & Resources

- Blog - Get the most out of Red Hat Enterprise Linux in the cloud by Nate Lager (June 26, 2023)

2.1.2. General

Certified collection for Event-Driven Ansible is now available

Red Hat Insights collection for Event-Driven Ansible is now certified and available (v1.0.0) on Automation Hub. The collection provides a consistent way to ingest and handle incoming events from Red Hat Insights as an event-source plugin for Event-Driven Ansible. It also provides examples for creating ServiceNow incident tickets in response to events from the Insights advisor, vulnerability, and compliance services. Contributions are welcome on the associated upstream Ansible Galaxy project.

Additional resources

- Red Hat Automation Hub: Red Hat Insights collection for Event-Driven Ansible
- Product documentation: Configuring Event-Driven Ansible integration with the Red Hat Hybrid Cloud Console
- List of Ansible Automation Platform Certified Content

2.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

2.2.1. Advisor

Insights widget now available on KB articles

In addition to its availability for KCS solutions, the Insights can detect this issue widget for KB articles serves as a basis for Insights Advisor recommendations. Clicking on the widget leads you to the advisor service recommendation in the Red Hat Hybrid Cloud Console. See an example by using the following link: https://access.redhat.com/articles/3671571.

New Recommendations

- System hangs with soft lockup warnings when using an incompatible built version of third-party drbd module with the running kernel
- Audit events were dropped frequently because the audit event dispatcher queue limit has been reached
- The integration of Red Hat Virtualization (RHV) with Satellite is deprecated and will be removed in a future release
- The kdump kernel panic occurs when it captures the contents of the crashed kernel due to a bug in kernel
The system will hang with soft lockup warnings because the version of the third-party module mlx5_core is incompatible with the running kernel

I/O operations on SMB shares will not work as expected after reboot when the SMB share path has a trailing slash due to a known regression bug in the default kernel

Kernel panic occurs when the NFSv4 server service is shutting down and the exports cache is flushed at the same time due to a bug in kernel

Initramfs and grub entries cannot be generated after installing kernel packages when /etc/machine-id is missing or empty

System hang or high system load occurred because of running kernel-4.18.0-477.10.1.el8_8

The system will hang with soft lockup warnings because the version of the third-party module mfe_aac is incompatible with the running kernel

2.2.2. Compliance

New functionality allows users to triage their compliance service reports so that they can more easily identify systems in a given policy that have high/medium severity rules that are failing. Before the release of this feature, users needed to dig deeper into each system’s report to determine the severity of each rule and pass/fail rate. This feature allows users to perform this analysis in bulk.

2.3. RED HAT INSIGHTS FOR OPENSIFT

2.3.1. Cost Management

ROSA on AWS GovCloud supported

Cost Management now supports ROSA running on AWS GovCloud. The setup and experience are similar to vanilla AWS.

2.3.2. Vulnerability

The name of the service has changed

The vulnerability service for Insights for OpenShift has been renamed to Vulnerability Dashboard and a link has been added to point users to Red Hat Advanced Cluster Security for Kubernetes (ACS) to promote ACS as the comprehensive solution for managing vulnerabilities on OpenShift.
CHAPTER 3. MAY 2023

3.1. RED HAT HYBRID CLOUD CONSOLE

3.1.1. Published Blogs & Resources

- Blog - Red Hat Insights brings Resource Optimization to Red Hat OpenShift  (May 11, 2023)
- Press release - Red Hat Simplifies Management for Red Hat Enterprise Linux Across the Hybrid Cloud  (May 23, 2023)
- Public blog announcement - Modernizing RHEL management by Matthew Yee (May 23, 2023)
- Public recording - Red Hat Summit Day 2 Keynote - Optimize to innovate at scale (information about Red Hat Insights expansion starts at 25:30) by Stefanie Chiras (May 24, 2023) (Note: You must be registered and logged in to view the session.)

3.1.2. Integrations

Microsoft Teams and Google Chat integrations now available in Preview

Microsoft Teams and Google Chat are new integration types available for your notifications in the Red Hat Hybrid Cloud Console preview environment. This comes in addition to existing GA integrations with generic webhook, Splunk, ServiceNow, and Slack.

Red Hat Insights Event-Driven Ansible collection is now available in Ansible Galaxy

The Insights team announced the upcoming availability of the Red Hat Insights Event-Driven Ansible collection was announced at Red Hat Summit (see press release) and demonstrated the feature as part of the Ansible keynote demo.

More information about Event-Driven Ansible is available in the blog post: Event-Driven Ansible is Here. To try it out before its certification and release, the collection is available on:

- RedHatInsights / ansible-collections-eda (a public GitHub repository)
- Ansible Galaxy.

Feedback and contributions are welcome!

3.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

3.2.1. General

New “Update method” field available in system details & Inventory filters

To view the Update method for Systems in the inventory service, click on a system to see General information about the system. You will see the Update method in the Operating system details card. The possible values for this field are yum, dnf, or rpm-ostree. Note: The rpm-ostree value indicates the system is running Red Hat Edge.
The list of systems on the Inventory > Systems page is filterable by using the System Update Method primary filter and checking the appropriate secondary filter: yum, dnf, or rpm-ostree.

---

**Improved registration feedback with Remote Host Configuration (RHC)**

When registering a system using the rhc client, the feedback provided in your terminal contains more information about the current steps.

**Remediations for all!**

Your Red Hat subscription now includes the ability to remediate remote systems from the Hybrid Cloud Console for systems connected to Red Hat Insights through using the rhc client or Red Hat Satellite Cloud Connector.

Remediating issues identified by Insights is not new; but until recently, executing Insights playbooks directly from the Red Hat Hybrid Cloud Console required a Red Hat Satellite subscription (formerly Red Hat Smart Management.) A Red Hat Satellite subscription is now included with all RHEL subscriptions—a Satellite subscription is not required.

**Enhanced Zero States**

In an effort to ease onboarding to Insights, our team has redesigned the zero-states for Insights services from the ground up.

These new zero states are unique to the individual service and evaluate whether all of the requirements for use are complete.

If steps remain, the user sees a zero-state page that provides a new user with the following information:

- A high-level overview of what the service is
- Key use cases
- Instructions on getting started
- Product documentation
• Information about other areas on the console that might also be of interest

3.2.2. Advisor

New recommendations

• Red Hat discontinues technical support for unmaintained Red Hat JBoss Enterprise Application Platform version 6. This is our first recommendation for Red Hat Runtimes. It alerts customers of unmaintained versions of EAP and can detect both rpm and zip installations of EAP.

• A newer version of kernel is installed, but not used. Bug fixes issued by this new kernel version are not applied. It is a common problem for customers to install a newer version of the kernel, but still be susceptible to risks because the newer kernel version is not in use.

• The default boot kernel may cause other critical issues detected by Red Hat Insights recommendations after reboot. When Insights detects that a problematic kernel version will be used after the next reboot of a system, customers are alerted.

• Several recommendations to remediate inhibitors produced during the in-place upgrade analysis. All recommendations can be found under the ID leapp_report and under a new advisor service topic, In-place upgrade.

Additional new recommendations

• RPM database is corrupted when /var/lib/rpm/Packages is missing or broken

• Kernel panic occurs when the storage devices accessed by nvme-tcp experience request timeout issues due to a regression bug in kernel

• NFS server experiences low performance when there are too many nfsd connections for current nfsd threads

3.2.3. Patch

Simple lifecycle patching with content templates

In addition to patch remediation for all RHEL customers, Insights now enables control over patches by using patch templates. You can configure a patch template so that specific hosts can only receive particular patches. Patch templates ensure that software versions do not conflict, causing unnecessary outages. For this first release, templates only impact Insights views and remediation - hosts-level yum/dnf operations are not affected.

Learn how to use patch templates here.

Improved daily digest notifications

The daily digest of new advisories now includes the Advisory synopsis to make it easier for you to search your inboxes or 3rd-party apps for advisories affecting particular packages or topics.

3.2.4. Subscriptions

List of stock-keeping units (SKUs) moved from an allow-list to a deny-list

In the past, the subscriptions service maintained a specific list of SKUs that were allowed to be counted towards subscription capacity. As we expand our product coverage, we have changed to maintaining a specific deny-list of SKUs that should not be counted in the service. This will make the list more
maintainable and mean that new SKUs will be available to the Subscriptions service by default. For more information, see the knowledge article, What subscriptions (SKUs) are included in Subscription Usage (Subscriptions)?.

3.2.5. Image builder

Red Hat Insights image builder enables IT teams to more quickly and easily build standardized, optimized operating-system images that adhere to organization-specific security and compliance requirements.

Insights image builder enables IT organizations to add their own software to “gold” images for deployment. Even if a specific version of a tool or component is not shipped with Red Hat Enterprise Linux, it can still be included in images built with image builder for rapid dissemination, making it far easier to build and launch images that match an enterprise’s own unique standards.

These images can now be readily deployed across the breadth of the hybrid cloud, from data center to public clouds to edge, all from the same interface. This is available today for AWS and Microsoft Azure, with Google Cloud coming soon.

Where did image builder go?

Image builder is now accessible from the left navigation pane under Inventory > Images.

Two options for filesystem partitioning

Image builder now provides two options for filesystem partitioning:

- Automatic partitioning, which defines a minimal layout of traditional GPT-msdos style partitions
- Custom defined partitions, which are implemented as Logical Volume Management (LVM) style partitions

Try new image builder features in our Preview environment

You can interact with a new banner that allows you to try out new functionality in the image builder preview environment: Image Builder Preview.

You can preview:

- New quick-start guides for launching instances created by image builder in AWS and Azure, along with a new guide to help you define custom software repositories to include in image-builder images.
- The ability to select popular, predefined community-supported repositories such as EPEL.
- A new option to define a custom or third-party repository configuration for image builder to consume software content packaged as RPMS while building images of RHEL.

3.3. RED HAT INSIGHTS FOR OPENSHEIF

3.3.1. Advisor

New Recommendations

Recommendations are available for core OpenShift components, which are products and components developed and shipped by Red Hat. On managed OpenShift, an additional set of recommendations that focus on best practices for workloads is available.
Recommendations cover various potential issues with operator configurations and match high-severity alerts with additional cluster information to navigate customers to the root cause of a potential problem.

New recommendations include

- Warn users about the use of deprecated APIs and unsupported versions of components
- Check minimum requirements for nodes
- Secure configuration for authentication and autoscaling
- Inform about potential conflicts between configurations
- Check certificates state on the cluster
- Validate configurations of cluster components

With OpenShift 4.13, we have added a new set of recommendations focused on preventing issues reported by our customer support team, engineers, and early adopters:

- Added recommendations to support Red Hat OpenShift Data Foundation (ODF)
- Improved and added recommendations to prevent upgrade issues in components managed by Cluster Version Operator
- Added recommendations to better utilize OpenShift Cluster Autoscaler operator

All Insights recommendations are accessible in the OpenShift advisor service in the Red Hat Hybrid Cloud Console, and also directly in OpenShift WebConsole.

Recently, we also added a message in Red Hat Hybrid Cloud Console under the Cluster History tab where all important events from the cluster are captured.

### 3.3.2. Cost Management

**Resource Optimization (Preview)**

Red Hat is integrating a new resource optimization feature with cost management to enable IT governance with cost reporting, and to provide a better way for developers to maximize resources with recommendations.

Resource optimization for OpenShift provides an optimization perspective at the container level, so Red Hat OpenShift users can get the most out of their subscriptions. Recommendations at a higher level of abstraction will be added over the coming months.

Using historical and current data, resource optimization scores each of the resource parameters and recommends the right size of OpenShift clusters through all the segments of the application’s lifecycle. It provides visibility into how much cloud resources actually cost, what is not being used efficiently, and then recommends ways to optimize usage. This may mean cutting spend, but it may also mean increasing spend to help an application perform better. Guidance is specific and time-oriented, so developers know exactly what actions to take and when, based on data from up to 15 previous days.


**Upload past data**
The Cost Management Metrics Operator (CMMO) gathers Prometheus metrics from the cluster and uploads them to cost management.

Until now, the CMMO only uploaded data from the moment it was installed, and afterwards. Because the Prometheus running on the clusters is configured by default to store two weeks of data, we enhanced the operator so that Red Hat uploads all the data found in Prometheus.

For example, if the user installed the CMMO on a cluster that already ran for some time, cost management will report cost and resource optimization information from two weeks prior.

The ability to upload past data is also useful for cases where the user mistakenly stopped or uninstalled the cost management operator, or had a problem with the upgrade. Those gaps have an impact on the accuracy of the overall cost of an application. A new mechanism uploads missing data and fills gaps, which improves the continuity and accuracy of reports in case a chunk of data is missing.
CHAPTER 4. APRIL 2023

4.1. RED HAT HYBRID CLOUD CONSOLE

Key updates

- "Preview" is the new "Beta" on the Hybrid Cloud Console. Access upcoming features at https://console.redhat.com/preview.
- See Hybrid Cloud Console RBAC enhancements in the individual user view (available in Preview).
- Splunk, Slack, and ServiceNow integrations are released to general availability. For more information, see Configuring integrations and events in the Red Hat Hybrid Cloud Console.

4.1.1. Published Blogs & Resources

- Blog - Understanding your options when connecting RHEL systems to Red Hat (Brian Smith; April 4, 2023)
- Blog - Track your Openshift costs more easily on Azure with new and improved capabilities in Red Hat Cost Management (Chris Hambridge; April 25, 2023)
- Blog - Red Hat Insights upgrade risks for Red Hat Openshift (Tomas Dosek; April 26, 2023)
- Video - RHEL Presents 55: Malware Detections with Red Hat Insights (Brian Smith & Eric Hendricks; April 5, 2023)
- Video - Insights / HCC Cost Optimization (April 7, 2023)
- Video - Hybrid Cloud Console Security (April 26, 2023)

4.1.2. Integrations & Notifications

Splunk, Slack, and ServiceNow integrations release to general availability (GA)

The Console notifications team is pleased to announce the general availability of new integrations through the Console.

Users can now set up notifications from the Console to products they use in their everyday workstreams. Get notified of Hybrid Cloud Console events on Splunk, Slack, and ServiceNow.

Try them today by visiting Red Hat Hybrid Cloud Console > Gear icon > Settings > Integrations.

4.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

4.2.1. Advisor

New recommendations

The Red Hat Insights rule development team has released 17 new recommendations, including a single security hardening rule.
- Kdump fails to generate vmcore on servers installed with legacy BIOS when the server is setup with Matrox MGA G200e (rev 42) VGA controller and mgag200 driver
- System hangs with soft lockup warnings when using an incompatible built version of third-party oracleoks module with the default kernel
- System hangs with soft lockup warnings when using an incompatible built version of third-party oracleoks module with the running kernel
- Kernel panic will occur during the "vxfs" module unload on RHEL 8.6 and 8.7 edge computing systems
- Kernel panic will occur during the "vxfs" module unload on RHEL 8.6 and 8.7
- Write operations to XFS filesystems fail because disk or inode quota limit has been exceeded
- Write operations to XFS filesystems will fail when disk or inode quota limit is reached
- The mounted filesystems do not work as expected after reboot due to a typo in fstab
- The system fails to boot or the mounted filesystems do not work as expected after reboot due to a typo with the root or boot filesystems in fstab
- Data intended to be discarded by redirection to /dev/null will be leaked
- Reboot will fail as the default initramfs file is not generated successfully
- System fails to boot when using noexec and nosuid options for root file system
- Kernel panic occurs with memory corruption when using SR-IOV ice/iavf driver due to a known bug in the kernel
- Kernel panic occurs with memory corruption on edge computing systems when using SR-IOV ice/iavf driver due to a known bug in the kernel
- Tools and programs that rely on reading or writing to /dev/null will fail
- The system will fail to boot when the SELinux policy file is corrupted or empty

4.2.2. Remediations

New remediations guide

The documentation team has published the Red Hat Insights Remediations Guide. This is the first guide focused on Red Hat Insights remediations and describes

- Different supported solutions
- Scenarios for remediating issues identified by Red Hat Insights
- Overall workflow leading to the execution of the playbooks on remote systems.

4.3. RED HAT INSIGHTS FOR OPENSHIFT
4.3.1. Advisor

Upgrade Risk predictions (Preview)

Insights advisor evaluates potential risks to upgrading clusters to a later version of OpenShift Container Platform. Upgrade-risk predictions are a machine learning-driven functionality that is co-developed with the IBM Research group.

The feature is released to Red Hat Hybrid Cloud Console https://console.redhat.com/preview/openshift/insights/advisor/clusters and can be tested by our customers on the cluster information page, Upgrade risks tab. The tab is only visible when an upgrade is available. The information page for a cluster presents alerts and operator conditions ordered by the most impactful ones. We recommend that all customers review this pre-upgrade assessment and resolve the most critical conditions before upgrading.

4.3.2. Cost Management

Cost Management Metrics Operator v2.0

As part of the work of resource optimization for OpenShift, we have released Cost Management Metrics Operator, version 2. This new version gathers and uploads the usage and performance metrics that will then be passed over to Kruize, the resource optimization recommendation engine.

Just 24 hours after the release of the new version, one-third of the Cost Management clusters had already been upgraded to the latest version.

This is the certified version of the Koku Operator, which was released in March to the open source community.

Cost model enhancement: distribute the cost of running OpenShift
User workloads running on OpenShift do not run on thin air but on clusters with a control plane and a worker plane. The worker plane always has some spare capacity (typically 20-50%), and the control plane is required to manage the worker plane.

Both the control plane and the spare (unallocated) capacity of the worker cost money, which someone has to pay. Some organizations decide IT will swallow those costs, while most others decide to distribute them to the user workloads. This sounds easy, but it is not, and few FinOps tools implement this capability.

A few months ago, Red Hat Cost Management started explicitly reporting the cost of the unallocated capacity and the control plane. Now we have moved the needle a bit more by allowing users to directly distribute these overhead costs to the user workloads, helping to report a more complete fully-loaded per application cost.
5.1. RED HAT HYBRID CLOUD CONSOLE

5.1.1. Published blogs and resources

- Video: Red Hat Insights Overview
- Video: Detecting malware on Red Hat Enterprise Linux by John Spinks

5.1.2. Integrations and notifications

Splunk application v0.18 released
This version contains minor updates, including the removal of beta urls. It is certified for the latest Splunk Cloud and Enterprise versions.

Daily digest email for the advisor service is now available
You can now subscribe to the daily digest email notifications from the advisor service.

Red Hat Edge Management events now available
The Red Hat Edge Management service now has events enabled. Notifications are available for image creation and update devices.

5.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

5.2.1. Remediations

New Red Hat Insights Remediations Guide
Insights has new documentation covering scenarios and solutions for issue remediation. It also details the workflow for playbook implementation: Red Hat Remediations Guide

5.2.2. Advisor

Auto-subscription to the weekly advisor report
You will be auto-subscribed to the weekly advisor report on your first visit to the Insights advisor service. This transactional report is sent every Monday and provides information about key recommendations identified in the registered environment. It also provides the status of the system's connection to Insights by highlighting stale systems or systems in the queue for automatic removal. You can change these settings at any time by navigating to your account, and editing User Preferences.

New recommendations
The Insights rule development team has released 12 new rules, resulting in 22 brand new recommendations based on the following conditions:

- The vmcore generation fails in RHEL 8.6 when cgroup_disable=memory is configured due to a known bug in the kernel.
- Kernel panic occurs in the sctp module due to a known bug in the kernel.
- Virtual machines are unresponsive when being migrated on RHEL 8.6 KVM host, due to a known bug in the kernel.

- The **oracleasm kernel** module causes the RHEL 8.7 system to crash.

- The **/bin/bash permission denial** occurs when the execute bit for others is not set.

- Read/Write file IO performance regression occurs when the **STABLE_WRITES** flag is enabled by default, due to a known bug in kernel.

- Kernel crash occurs when the **ethtool** command or **sosreport** is executed against the **be2net NIC** due to a known bug in the kernel.

- **AMD EPYC Zen3 (Milan) Processors** are not supported on RHEL 7 and RHEL 8 versions prior to RHEL 8.3.

- The host may not get accurate recommendation results when there are multiple systems using the same Machine ID for Red Hat Insights.

- Kernel panic occurs in the netfs module when using CephFS client.

- Kernel memory corruption occurs when **ethtool** or **sosreport** command is executed against the **qed/qede NIC** due to a known bug in the kernel.

- Decreased security is possible when **vsftpd anonymous** is write enabled.

### 5.2.3. Patch

#### Updates to patching templates in preview

Insights published a number of beneficial updates for patching templates in preview:

- You can now view the details of a template, including the list of systems with the template applied.

- Systems with a template applied will display two sets of advisories:
  - Applicable (any published Red Hat advisory that affects packages on the system)
  - Installable (a subset of applicable advisories based on the criteria of the template)

- Links to the Satellite trial are now available for users who are not currently Satellite subscribers.

- Role-based Access Control (RBAC) updates allow administrators to control who has access to view and manage the templates.

### 5.2.4. Subscriptions

#### Refactored navigation

The Subscriptions service has reorganized the left navigation in the User Interface (UI) and shifted several subscription elements into usage filters. This organizes the left navigation into platform-level selectors for subscription monitoring. These changes align with our initiative to provide three core platforms with one, unified dashboard view.

**Support added for RHEL for Virtual Datacenters**
Enhanced hypervisor reporting for RHEL is now available. Many subscriptions, such as RHEL’s Virtual Data Center (VDC) subscription, require some knowledge of Virtual Machine (VM) topology and density. The Subscription service now has a direct view of this mapping and the subscriptions that require that data. Simply select Type=Hypervisor to view this data.

Data pipeline stabilized

On February 27, 2023, a race condition was identified that affects the interaction between daily account tallies and host information processing by the Cloud Services platform inventory. This issue resulted in the occasional omission of some or all inventory present within the Cloud Service platform. Affected accounts would see inconsistent usage in their OpenShift Container Platform and RHEL (specifically RHSM-registered RHEL) pages. An example of this can be seen here:

The race condition was mitigated by adjusting the timing of the Subscription service tally runs. Accounts should no longer see usage variances similar to the in the image above. If you do have any ongoing, usage fluctuations in stable environments, please reach out to support.

5.2.5. Malware detection

Signature added for detecting the European Institute for Computer Antivirus Research (EICAR) test file
The malware detection service now includes over 230 malware signatures, a result of the latest release of signatures from IBM X-Force. Included in this set, is a signature to detect the presence of the EICAR test file. This file is a popular way for customers to test the functionality of their anti-malware or antivirus software.

5.2.6. Resource Optimization

Historical chart shows dates

The resource optimization displays a chart with utilization data over the past 45 days. This is designed to help you understand the basis for the recommendations. This visual has been enhanced so that you can view the data when you hover over a specific date.

![Resource Optimization](image)

5.3. RED HAT INSIGHTS FOR OPENSIGHT

5.3.1. Advisor

New configuration option to disable Insights recommendations

Previously, the Insights advisor service data upload could only be turned off in conjunction with the whole telemetry stack. Turning off Insights also disabled the Cost management service. This issue has been resolved with a new configuration option that only disables Insights recommendations.

Deployment validation recommendations gaining traction

A new type of recommendation is now available for managed OpenShift. The recommendation is based upon the Deployment Validation operator (DVO). The DVO leverages the upstream project KubeLinter (from Stackrox/ACS). KubeLinter analyzes Kubernetes YAML files and Helm charts. Then, it checks them against a variety of best practices in an effort to confirm production readiness and security. A selected number of KubeLinter checks have been harnessed to inform you of managed OpenShift best practices and potential performance decreases.

5.3.2. Cost Management

resource optimization metrics in the community operator

The Koku Metrics Operator, which is upstream to the Cost Management Metrics Operator, is now gathering metrics to provide resource optimization advice. This feature will be released in the Cost
Management Metrics Operator in 6-8 weeks, with ample time for community feedback before the commercial version goes live.

**Filtering billing data**

Customer filtering of billing data has been enabled to assist you if you decide to group varied data under the same account. Sharing this varied data with Red Hat can sometimes be problematic. This feature allows you to share only a subset of the billing data generated from your cloud account.
CHAPTER 6. FEBRUARY 2023

6.1. RED HAT HYBRID CLOUD CONSOLE

6.1.1. Published blogs and resources

- Blog post: Insights recommendations as Prometheus alerts by Tomas Remes and Tomas Dosek (February 9, 2023)
- Blog post: Using Red Hat Insights as a source of events for Event-Driven Ansible automation by Jerome Marc (February 22, 2023)
- External video: Red Hat Insights Security
- External video: Red Hat Insights Business
- External video: Red Hat Insights Operations
- External video: Red Hat Insights Openshift

6.1.2. Integrations and notifications

Supported government customer requirements

Email-only notifications are an option to assist you and your Information Technology team. These notifications simplify fetching user data for Notifications and removing system names from emails.

Improved user experience with email

The following actions are now available:

- Updating email templates for compliance with new User Experience Design guidelines
- Sorting recommendations based on total risk (critical to low)
- Filtering the recommendations to show only the most critical

Insights enables Event-Driven Ansible automation

- Blog post: Using Red Hat Insights as a source of events for Event-Driven Ansible automation

6.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

6.2.1. Advisor

New updates released:

- Diver initialization Issue
- Nginx service configurations issue
- Unexpected swapping
- Missing /bin booting issue
• Microsoft SQL best practices issue
• RHV 4.4 SP1 system upgrade issue
• Master Boot Record partition table and disk space

6.2.2. Insights Tasks

Announcing Red Hat Insights Tasks with preupgrade analysis

You can perform simple analyses on your Insights connected hosts through Red Hat Hybrid Cloud Console. Use Insights Tasks to run a preupgrade analysis on your RHEL 7 or RHEL 8 hosts to identify and remediate known issues. Quickly assess your connected hosts and get clean reporting on next steps.

Additional Resources

Hybrid Cloud Console Tasks

Take the unknowns out of RHEL upgrades with Red Hat Insights

6.3. RED HAT INSIGHTS FOR OPENSHIFT

6.3.1. Advisor

View Insights Recommendations as in-cluster alerts and in Cluster history

Advisor recommendations for OpenShift are now visible in multiple places. Reviewing these recommendations is a suggested first step when troubleshooting cluster issues. It is also wise to monitor them for potential issues. Here are several methods for monitoring:

• Use the existing monitoring stack
• Integrate Insights advisor alerts into your dashboards
• Use the cluster history tab

Risk of change

Advisor recommendations for OpenShift Container Platform now include the risk of change field. This provides you with information on the impact of changes included in particular recommendations, ranging from low (no impact to cluster and/or workload) to high (cluster outage required).

6.3.2. Cost Management

Oracle cloud infrastructure

Oracle Cloud has been added where accounts and services are aggregated. Distribution of OCI costs to OpenShift entities such as clusters, nodes and projects have not been completed.

AWS customer filtered data

If you use Cost Management functionality and have a large number of systems, clusters, and third-party services this feature will be impactful for you. You can restrict how much data you share with Red Hat by filtering out specific systems, services, and other resources.

Upload existing data on operator installation
The Cost Management Metrics Operator (CMMO) gathers Prometheus metrics from the cluster and uploads them to Cost Management. Since Prometheus is configured by default to store two weeks of data, we have enhanced the operator so all data in Prometheus will be uploaded. This means if you install the CMMO on an existing cluster we will be able to provide cost information for two weeks from day 1.

This is useful for cases where you mistakenly stopped/uninstalled the Cost Management operator, or had a problem with the upgrade. This functionality eliminates all gaps.

**Upgrade risk predictions**

Upgrade Risk Prediction is a machine learning feature that estimates the failure rate of cluster upgrades. It also highlights potential upgrade issues.
7.1. RED HAT HYBRID CLOUD CONSOLE

7.1.1. Published blogs and resources

- Blog - Red Hat Insights malware detection service is now generally available by Shane McDowell (January 10, 2023)

- Blog - New deep threat intelligence in Red Hat Insights: Helping to prioritize what matters the most with system vulnerabilities by Mohit Goyal (January 16, 2023)

- Blog - How to use Red Hat Insights malware detection service by Andre Rocha (January 23, 2023)

7.1.2. Integrations and notifications

Bug fixes and user interface enhancements

The following user interface features are now available in Notifications:

- Email templates are updated for consistency between services (on-going).

- View event log button is accessible from the Integrations landing page.

- The User Preferences page is improved and regroups instant/daily notifications and weekly report (currently available in Beta).

- Configure Integrations button is accessible on the Red Hat Insights landing page.

- Additional information about Splunk and Service Now integration is presented on the Integrations landing page.

- Deleting a behavior group now prompts a confirmation message.

- Behavior groups with long names now display correctly on the Notifications page.

7.2. RED HAT INSIGHTS FOR RED HAT ENTERPRISE LINUX

7.2.1. Advisor

New recommendations (not just) for Edge and containers

- Over the past two months, the team has released five rules in December and seven new rules in January, along with three edge- and container-specific recommendations under existing rules.

- Applicability of a rule candidate to an Edge host or a container is now part of the rule development process.

- We are now detecting end-of-life (EOL) products within running containers through the recommendation: Red Hat will discontinue technical support services and software maintenance services when a product running in a container reaches End-Of-Life (EOL)
7.2.2. Drift

**Bug Fixes & UI Enhancements**

A couple of minor bug fixes & enhancements are now available in Drift, including:

- Baselines sorting is now fixed after changing size per page
- Baseline delete fact/category modal text is updated
- The compare button on *Historical System Profiles* is now disabled if the list is empty
- Toast alert notifications are added when editing and exporting baselines

7.2.3. Malware detection

**General Availability blog posted**

We announced the general availability of the Malware Detection with a post to the Red Hat public blog: [Red Hat Insights malware detection service is now generally available](#)

7.2.4. Resource optimization

- Resource Optimization now supports RHEL 9 and the latest minor releases of RHEL 8.

- Executive report v2. This new release of the resource optimization executive report is based on the past 45 days of data and includes the most-used instance types and the most-frequent suggestions based on the past 24 hours.
Resource optimization service report

This executive summary highlights the performance for your registered systems included in the resource optimization service.

Registered systems

There are 766 registered systems in the resource optimization service.

14 of 766 systems are identified as optimized, 751 of 766 systems as having a non-optimal state.

508 of 766 systems are stale

Suggestions for stale systems might no longer apply due to systems not being refreshed in 7 days.

Breakdown of registered systems

18 systems out of a total of 766 systems have Kernel Pressure Stall Information enabled. You could get better suggestions for 307 systems if you enabled Pressure Stall Information. Check the documentation on how to enable PSI on versions RHEL 8 and newer.

System performance issues

There are 79 system performance issues.

Breakdown of occurrences

Disk I/O

Under pressure 9

RAM

Under pressure 9

Undersized 17

Oversized 9

CPU

Under pressure 9

Undersized 17

Oversized 9

7.3. RED HAT INSIGHTS FOR OPENSIFT

7.3.1. Advisor

Integration of Insights recommendations with cluster history
Service Log (shown under the Cluster history tab after clicking on a single cluster) is a main communication channel between Red Hat SRE and our managed-services customers.

Insights now integrates with it to raise awareness of actionable recommendations available for the cluster. Each recommendation has an event going directly to the cluster history tab and links to the advisor service for further details.

Insight Advisor recommendations as in-cluster alerts

With the release of OpenShift Container Platform 4.12, the advisor service exposes recommendations in the form of information alerts, leading users to steps required to remediate cluster problems.

This allows customers to see advisor recommendations within their monitoring stack, and the channels to monitor alerts that they have already configured for their cluster.

Health checks based on deployment validation operator and kube-linter project

A new type of recommendation has been introduced for customers of managed clusters. Cluster issues caused by improper configuration of workloads cause the majority of TOIL for the Red Hat SRE team.

The deployment validation operator utilizes StackRox opensource project kube-linter to check these configurations and report mistakes to the advisor service. Based on SRE experience, the advisor service will recommend fixes directly to customers of managed OpenShift.

This functionality is limited to managed clusters only and is brought to customers with great help from the SRE team. In the future, the functionality will be expanded to other types of customers.

7.3.2. Cost management

Bucketing “Platform costs” for OpenShift

OpenShift runs a number of kube-<something> and openshift-<something> projects as part of the control plane to run the cluster. This is a cost that someone, either IT or the end customers, has to pay for.

We are now providing a simplified way (a toggle button) to group all those costs together and filter them in/out. In the near future, we will allow users to include additional projects (e.g. monitoring, security, etc.) as part of the platform costs to be attributed to the workloads.
Cost of unallocated capacity

When running an OpenShift cluster, you need to be prepared for peaks, new workloads, etc, so you cannot run it at 100% of its capacity. This means the cluster will always have some unallocated capacity (typically, from 33% to 50% of the total capacity!), which has a cost that someone has to pay for.

In addition to the cost of the workload, the cost-management service now reports the cost of the unallocated capacity, so that users get a complete picture of the costs of running workloads in OpenShift and can charge that to their own customers.

Savings plan for OCP on AWS

AWS has three ways of reporting costs: blended, unblended, and amortized. In a nutshell: use amortized if you have savings plans; unblended otherwise. Blended is deprecated.
The cost-management service already supported these three modes in the AWS (per-cloud-service) view, and we have now enabled it in the OpenShift view so that project costs report the actuals when a customer is using savings plans.

This enhancement was the result of a user case.

**Change distribution to resource usage for project**

The cost-management service used to distribute costs in a slightly different manner depending on the grouping mode selected by the user. As a consequence, users saw one set of costs and total costs when grouping by project, and an entirely different set and total when they grouped by tag, even when that tag was in use by all of the projects of interest. While this made sense, it was confusing and hard to explain.

We have now switched to resource usage to allocate all costs, so you would see the same costs when grouping by tag or by the project.

Node and cluster costs are now also just the sum of project costs, and with the inclusion of the cost of the unallocated capacity (see above), we are now showing the same totals however the user wants to see costs.

This enhancement was the result of a user case.

**Amortized monthly cost model costs**

We used to show monthly costs as an upfront fee. When a cost model has a cost per cluster/node/PVC count, we used to calculate the count and attribute that cost to the first day of the month, causing a significant spike on that day.

We have now changed that to distribute those costs evenly throughout the month so that each day has an equal portion of the total cost for the month.

This enhancement was the result of a user case.

**Cost Management Metrics Operator 1.2.0**

This version adds the "node_role" metric to the reports, which was critical to a large defense-industry customer that uses the cost management service in disconnected mode.

The team did a fantastic job at implementing, testing, and releasing this within one month of the customer’s request.

This enhancement was requested by a user.
PROVIDING FEEDBACK ON RED HAT DOCUMENTATION

We appreciate your feedback on our documentation. To provide feedback, highlight text in a document and add comments.

Prerequisites

- You are logged in to the Red Hat Customer Portal.
- In the Red Hat Customer Portal, the document is in the Multi-page HTML viewing format.

Procedure

To provide your feedback, perform the following steps:

1. Click the Feedback button in the top-right corner of the document to see existing feedback.

   **NOTE**

   The feedback feature is enabled only in the Multi-page HTML format.

2. Highlight the section of the document where you want to provide feedback.

3. Click the Add Feedback pop-up that appears near the highlighted text.
   A text box appears in the feedback section on the right side of the page.

4. Enter your feedback in the text box and click **Submit**.
   A documentation issue is created.

5. To view the issue, click the issue link in the feedback view.