

Connect and secure Red Hat Enterprise Linux

to meet your business and cloud infrastructure needs

Andrew Ludwar

Senior Solutions Architect

aludwar@redhat.com



Your car can tell you all sorts of things...



Vehicle Information



Truck
Model: FORD F-150
VIN:
Odometer: 13,520

[View Full Report](#)

Open Field Service Actions

Notice #	Description
21B10	POWERTRAIN CONTROL MODULE REPROGRAM FOR CAM PHASER RATTLE
21N08	PCM REPROGRAM DUE TO ENGINE SHUDDER

Additional information is available for your vehicle.

[View Full Report](#)

 **Oil Life Remaining: 68%** 

OK

Estimated Date to Next Oil Change: Jul, 2022

Estimated Distance Remaining: 6200 MI

 **Powertrain**

OK

 **Brakes & Suspension**

OK

 **Restraints & Driver Assistance**

OK

 **Checks, Fluids & Filters**

OK



Scheduled Maintenance

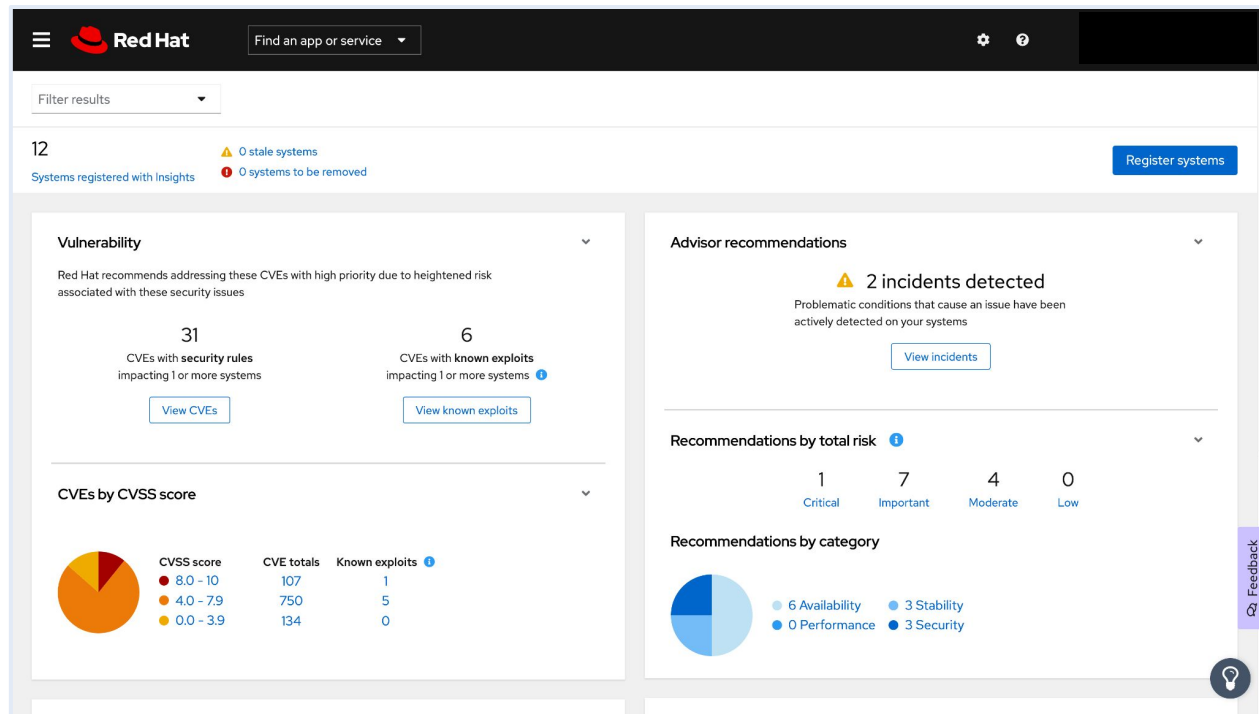
Find your vehicle's maintenance schedule [here](#) anytime.

A connected car can give you more information and can inform you about known issues.

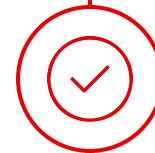
Wouldn't it be great if your Operating System could do the same?

What is Red Hat Insights?

Helping you better manage your hybrid and cloud environments



Predicting risks



Recommending actions



Analyzing costs

What does Red Hat Insights do?

A cloud analytics platform that helps you better manage your hybrid and cloud environments



-
- ▶ **Gathers** configuration and utilization data from your Red Hat® products
 - ▶ **Analyzes** the data based on Red Hat knowledge and expertise
 - ▶ **Generates** and prioritizes insights for you to take action

How does Red Hat Insights help me?

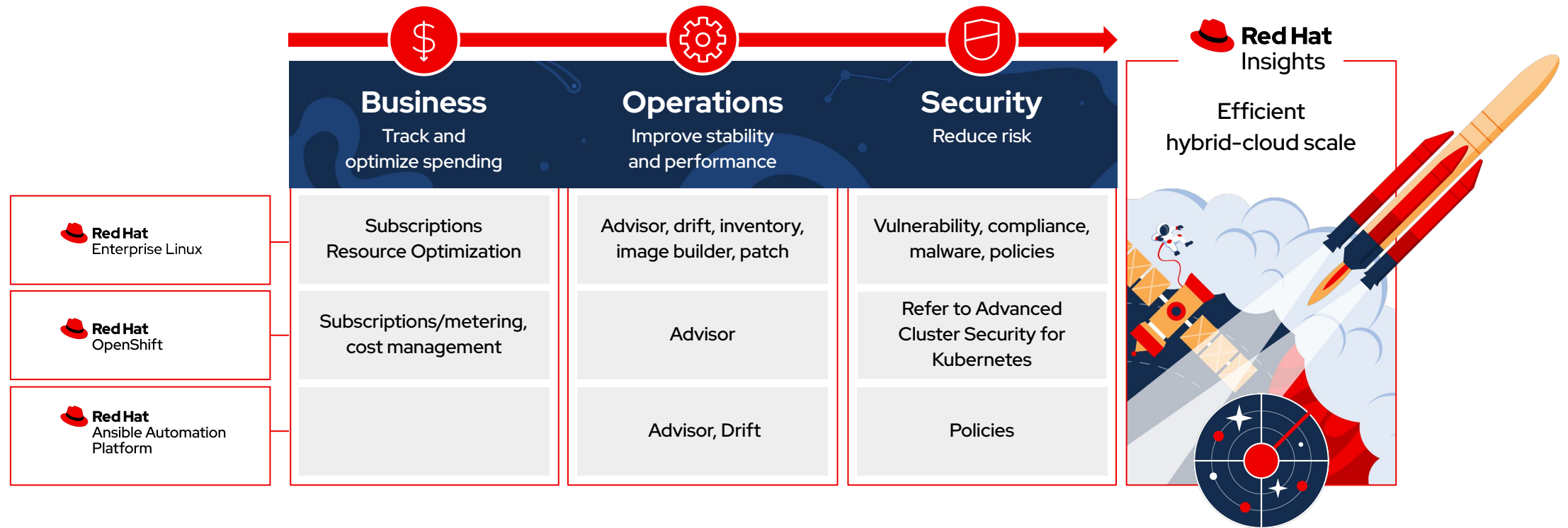
Use Red Hat's expertise and knowledge to evaluate your systems



- ▶ Configuration review to make sure systems are setup correctly
- ▶ Easily identify interoperability issues from the hypervisor or cloud, through the OS, and through the application stack
- ▶ Centralized view of all CVEs, patches, and compliance risks
- ▶ Identify drift to make sure systems are the same
- ▶ Know how many subscriptions you are using in seconds

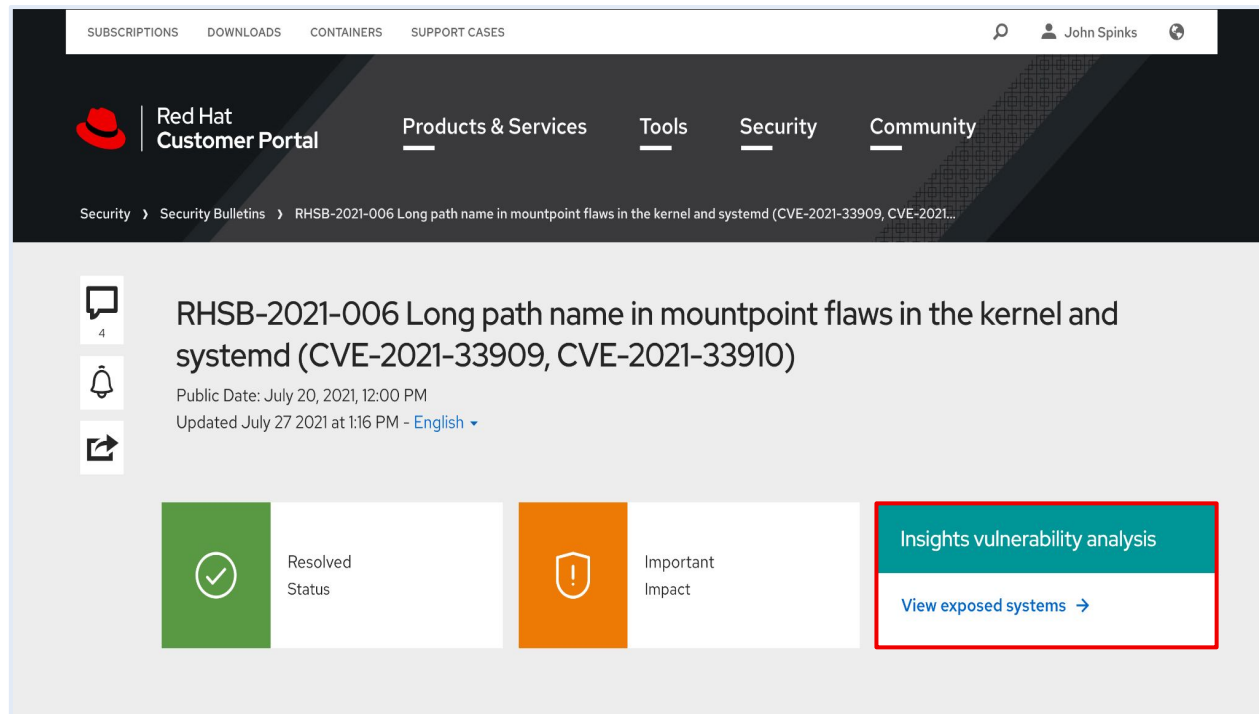
Red Hat Insights

Aligning themes to services across platforms



How does Red Hat Insights help me?

Use Red Hat's expertise and knowledge to evaluate your systems



Red Hat subscriptions include knowledge of:



>1 Million
Customer support cases



>1,000
Red Hat support personnel



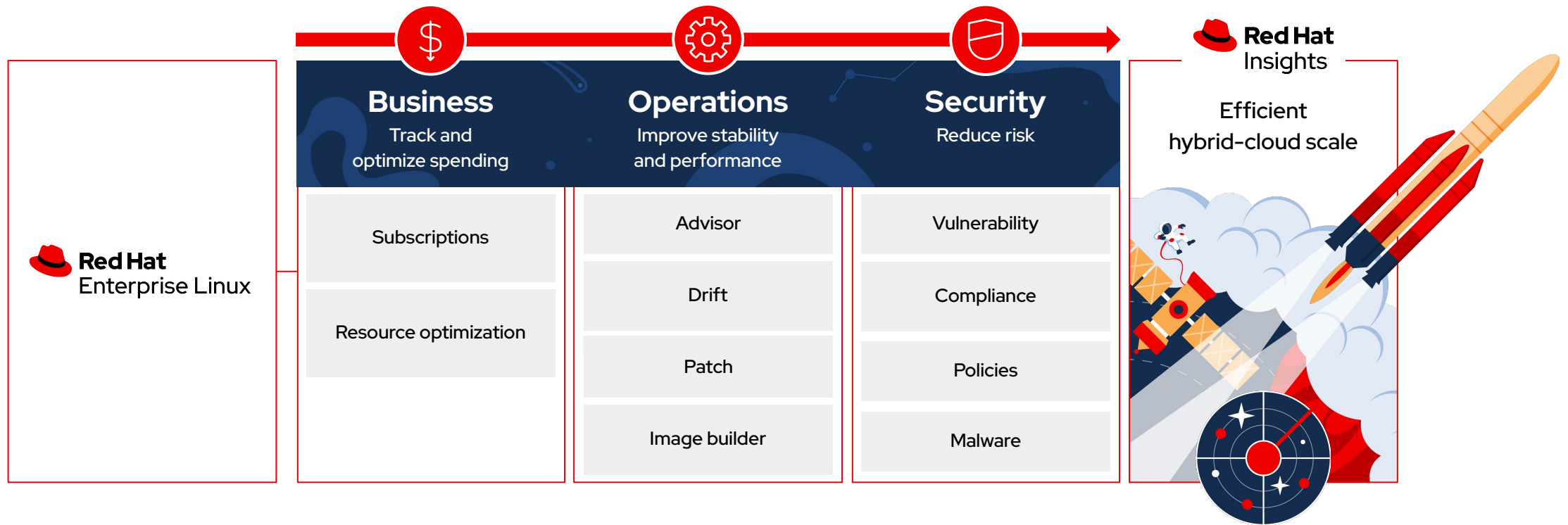
>115,000
Knowledge base and solution articles

Red Hat Insights

for Red Hat
Enterprise Linux

Red Hat Insights for Red Hat Enterprise Linux

For all your hybrid-cloud challenges



Dashboard

Filter results

566

Systems registered with Insights

⚠ 83 stale systems

🔴 43 systems to be removed

Register systems

Vulnerability

Red Hat recommends addressing these CVEs with high priority due to heightened risk associated with these security issues

64

CVEs with **security rules** impacting 1 or more systems

[View CVEs](#)

17

CVEs with **known exploits** impacting 1 or more systems

[View known exploits](#)

CVEs by CVSS score



CVSS score

- 8.0 - 10
- 4.0 - 7.9
- 0.0 - 3.9

CVE totals

Known exploits

Advisor recommendations

⚠ 25 incidents detected

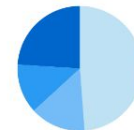
Problematic conditions that cause an issue have been actively detected on your systems

[View incidents](#)

Recommendations by total risk

4 Critical 43 Important 71 Moderate 7 Low

Recommendations by category



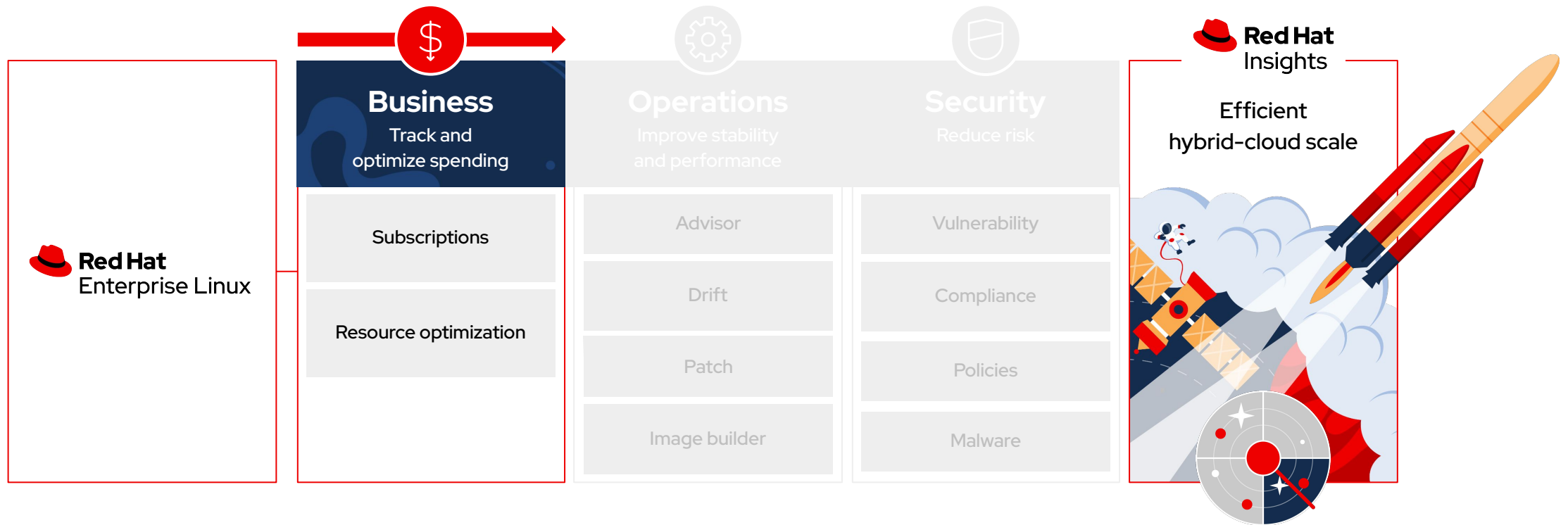
61 Availability 18 Stability
16 Performance 30 Security

Feedback



Red Hat Insights for Red Hat Enterprise Linux

For all your hybrid-cloud challenges



Subscriptions

Simple, immediate understanding of your account wide hybrid-cloud Red Hat Enterprise Linux subscription profile

- ▶ Account level view of subscription utilization
- ▶ Aggregated host level reporting
- ▶ Where subscriptions are being consumed
 - physical, virtual, or in the public cloud (and which public cloud)

What's New - Q2 2022:

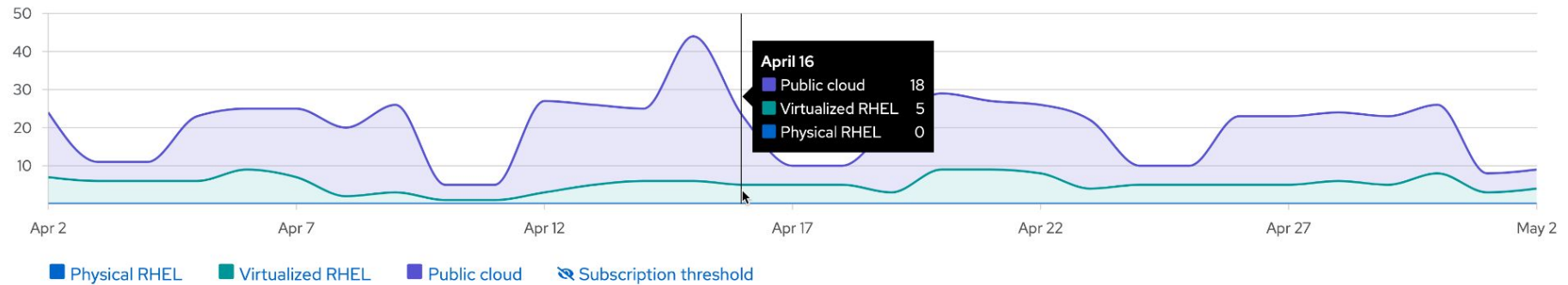
- Current subscriptions tab
- Activation keys visible from [Red Hat connector dashboard](#)
- Data export via CSV or JSON
- Auto-registration for GCP



Subscriptions: Awareness of subscription utilization across your entire Red Hat Enterprise Linux estate

CPU socket usage

Daily



Current systems Current subscriptions

Filter by name

1 - 88 of 88

Name	Type	Subscribed sockets	Last seen
[blurred]	Public cloud AWS	1	19 hours ago
[blurred]	Public cloud AWS	1	19 hours ago
[blurred]	Virtual	1	19 hours ago
[blurred]	Public cloud AWS	1	19 hours ago
[blurred]	Public cloud AWS	1	19 hours ago
[blurred]	Virtual	1	19 hours ago

Feedback



Resource Optimization

Helping you to rightsize your public cloud environments

- ▶ Uses RHEL Performance CoPilot (PCP) to monitor system CPU, Memory, and I/O.
- ▶ Over a 24 hour period aggregates and scores each metric
- ▶ Presents a score for each metric and defines if the system is considered
 - Optimized
 - Undersized
 - Oversized
 - Under pressure
 - Idling

What's New - Q2 2022:

- Historical data (45 days)
- Reports
- UI enhancements



Resource optimization: Rightsize your public cloud environments

Filter by status

Resource Optimization

Name Filter by name

1 - 32 of 32

Name	OS	CPU utilization	Memory utilization	I/O utilization	Suggestions	State	Last reported
iqe-ros-26f2c6d6-eded-4d9d-b76a-a3019edf5fe6	RHEL 8.4	0%	0%	0.314	1	Idling	5 days ago
iqe-ros-253b14ac-cfda-4d2a-b850-5022946ada38	RHEL 8.4	N/A	N/A	N/A	N/A	Waiting for data	5 days ago
iqe-ros-e9958b34-bd4e-47e8-8893-b1c8d4807153	RHEL 8.4	N/A	N/A	N/A	N/A	Waiting for data	5 days ago
iqe-ros-6bb6fffc-2e32-40e7-9cde-3585e75df049	RHEL 8.4	N/A	N/A	N/A	N/A	Waiting for data	5 days ago
iqe-ros-39efff20-ecaa-4b0d-ac2a-4958ce41a37a	RHEL 8.4	N/A	N/A	N/A	N/A	Waiting for data	5 days ago
iqe-ros-963ec1df-ad7b-4aa4-a577-2bc6bccd343f	RHEL 8.4	0%	0%	0.314	1	Idling	6 days ago
Provider aws Instance type t2.micro Idling time 199.70%							
iqe-ros-da20b56f-0dc2-4b36-ad34-6398fa7afacd	RHEL 8.4	10%	12%	0.314	0	Optimized	6 days ago
iqe-ros-08428c9e-006d-4e4b-9daf-b710fa0be48b	RHEL 8.4	10%	12%	0.314	0	Optimized	6 days ago
iqe-ros-623e5191-d736-461c-8ba9-997835921310	RHEL 8.4	10%	12%	0.314	0	Optimized	6 days ago
Provider aws Instance type t2.micro Idling time 179.70%							
iqe-ros-098698f7-c6f9-49b0-bb29-2183d469ef35	RHEL 8.4	10%	12%	0.314	0	Optimized	6 days ago
iqe-ros-6b87593f-1667-4b9f-a3ed-ad08801b82bc	RHEL 8.4	10%	12%	0.314	0	Optimized	6 days ago
iqe-ros-fa622b69-7dc7-4722-b8b7-fe0995c53a6e	RHEL 8.4	10%	12%	0.314	1	Under pressure	6 days ago
Provider aws Instance type t2.micro Idling time 179.70%							
iqe-ros-0b1c0ad5-cf79-477a-bd93-af8ceb5206c	RHEL 8.4	0%	0%	0.314	1	Idling	6 days ago
iqe-ros-8f47518c-f9f7-4073-a150-c053f891cd26	RHEL 8.4	10%	12%	0.314	0	Optimized	6 days ago
iqe-ros-1f3be0ca-9caf-4f66-8694-9448dc2395b6	RHEL 8.4	0%	0%	0.314	1	Idling	9 days ago
iqe-ros-ba22fcaa-05d8-42cd-a4d7-bfbc7a4d6d85	RHEL 8.4	0%	0%	0.314	1	Idling	9 days ago

Feedback



Resource optimization: Rightsize your public cloud environments



Business

Filter by status

Resource Optimization > iqe-ros-fa622b69-7dc7-4722-b8b7-fe0995c53a6e

iqe-ros-fa622b69-7dc7-4722-b8b7-fe0995c53a6e

Actions

UUID: 10fe207c-247d-495f-92e9-d2fcc33b9e19

Last seen: ▲ 13 Apr 2022 10:41 UTC

State: Under pressure

Provider: aws

Instance type: t2.micro

Idling time: 179.70%

Is this suggestion helpful?

Suggestions

Filter by name

1-1 of 1

Name

▼ This instance is sized properly but it is suffering from pressure.

🕒 Detected issues

Based on the host metrics set, we have detected that this t2.micro instance on AWS region us-east-1 is correctly sized according to its utilization but it is experiencing bottlenecks, probably due to peaks.

Identified issues by ROS

System is suffering from CPU pressure

System is suffering from IO pressure

System is suffering from memory pressure

🔧 Suggestion

Please pay attention to the specific pressure conditions (CPU, memory and/or disk I/O) and try to identify the hours where peaks are happening and why. You may use logs, your PCP tools or third party application specific tools (an APM, for instance).

Instance

t2.micro (0.0116 USD/hour)

Suggested instances that fit the load better

t2.small (0.023 USD/hour)

m1.small (0.044 USD/hour)

t2.medium (0.0464 USD/hour)

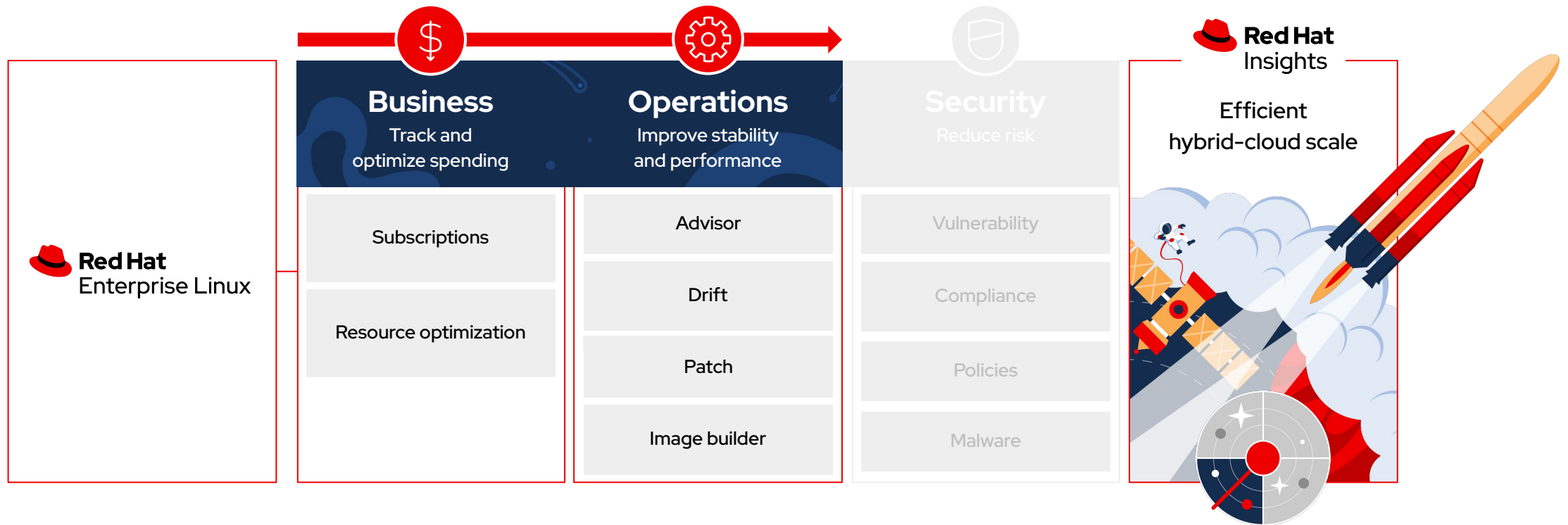
1-1 of 1

Feedback



Red Hat Insights for Red Hat Enterprise Linux

For all your hybrid-cloud challenges



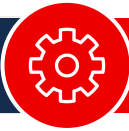
Advisor

Identifies availability, performance, stability, and security risks

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

What's New - Q2 2022:

- New topic for DB2
- Recommendation impact date
- Updated recommendation events
- Update recommendations for RHEL 9
- Export list of systems impacted by a recommendation



Advisor: Availability, performance, stability, and security risk analysis

Filter results

Advisor recommendations

[Download executive report](#)

Name Filter by name

1 - 20 of 124

Systems impacted 1 or more Status Enabled Reset filters

Name	Added	Total risk	Risk of change	Systems	Ansible
> System is not able to get the latest recommendations and may miss bug fixes when the Insights Client Core egg file is outdated	4 months ago	Moderate	Low	124	Yes
> Decreased security when unencrypted protocols used	8 months ago	Important	Very Low	57	No

Legacy network services are used to transmit unencrypted data. This data can be intercepted by a malicious actor.
[View 57 affected systems](#)

Total risk

Important

The total risk of this remediation is **important**, based on the combination of likelihood and impact to remediate.



Risk of change

Very Low

The risk of change is **very low**, because the change takes very little time to implement and there is minimal impact to system operations.

System reboot is **not** required.

Feedback



Advisor Pathways: Aggregate multiple advisor recommendations into common high-value steps



Operations

Filter by tags

Advisor recommendations

[Download executive report](#)

Recommended Pathways

Update kernel boot options

[Availability](#) [2 more](#) 65 systems affected

Stay on top of system boot failures, kernel panics, kdump failures and other issues by updating your kernel boot options.

Incident System reboot is required.

[View pathway](#) →

Update httpd service configuration

[Availability](#) [2 more](#) 24 systems affected

Improve security posture and prevent availability issues by updating the service configuration of httpd.

Incident System reboot is **not** required.

[View pathway](#) →

Upgrade kernel

[Availability](#) [1 more](#) 48 systems affected

Upgrade your kernel to avoid problems with boot failures, kernel panic situations, or system performance degradations.

System reboot is required.

[View pathway](#) →

- Pathways group recommendations into actions centered around common themes and steps
- Helps you quickly identify high-value areas to focus on remediating
- Save time & effort not having to inspect multiple recommendations individually

Drift

Compares baselines and systems to help identify configuration changes

- ▶ Create a baseline of how you expect systems to look
- ▶ Identify configuration drift by comparing systems to:
 - Baselines
 - Other systems
 - Historical system profiles
- ▶ Assign systems to a baseline and get notified if they drift from that baseline

What's New - Q2 2022:

- General user experience improvements
- Minor fixes and enhancements



Drift: Create baselines and compare systems to monitor for differences as systems drift

Filter results

Comparison

Filter by fact | View: Same, Different, Incomplete data | Add to comparison | 1 - 29 of 29

State Same x Different x Incomplete data x Clear all filters

Fact ↑	State ↓	RHEL8 ★ 18 May 2021, 19:32 UTC	rhc801.demoredhat.com ☆ 05 Jul 2021, 10:02 UTC	rhc803.demoredhat.com ☆ 05 Jul 2021, 10:02 UTC
arch	!	aarch64	x86_64	x86_64
bios_release_date	!	11/1/2018	08/24/2006	08/24/2006
bios_vendor	!	Amazon EC2	Xen	Xen
bios_version	!	1.0	4.2.amazon	4.2.amazon
cores_per_socket	!	2	1	1
cpu_flags	!			
cpu_model	!		Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz	Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
enabled_services	!			
fqdn	!	rhl802.demoredhat.com	rhc801.demoredhat.com	rhc803.demoredhat.com
infrastructure_vendor	!	aws	xen	xen
installed_packages	!			

Feedback

Patch

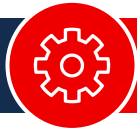
Analyze for Red Hat product advisory applicability to stay up to date

- ▶ See list of advisories and a list of systems where they need to be applied
- ▶ Look at a specific system and see what advisories are applicable
- ▶ See packages and which systems they are on as well as if an upgrade is needed
- ▶ Remediation playbooks are available to patch systems

What's New - Q2 2022:

- Patch sets (apply same patches across multiple systems)
- Reporting against patch sets
- Updates for some 3rd party repos (RHUI, Azure, EPEL)

Patch: Analyze for Red Hat product advisory applicability to stay up to date



Filter results

Patch advisories

▼
Advisory ▼
Filter by name or syn... 🔍
Remediate
1 - 20 of 1213

Name	Synopsis	Type	Applicable systems	Publish date
<input type="checkbox"/> RHBA-2021:2590	cloud-init bug fix and enhancement update	🛠️ Bugfix	10	29 June 2021
<input type="checkbox"/> RHBA-2021:2586	rsyslog bug fix and enhancement update	🛠️ Bugfix	10	29 June 2021
<input checked="" type="checkbox"/> RHBA-2021:2581	openldap bug fix and enhancement update	🛠️ Bugfix	10	29 June 2021
<p>Description</p> <p>OpenLDAP is an open-source suite of Lightweight Directory Access Protocol(LDAP) applications and development tools. LDAP is a set of protocols used to access and maintain distributed directory information services over an IP network. The openldap packages contain configuration files, libraries, and documentation for OpenLDAP.</p> <p>Bug Fix(es) and Enhancement(s):</p> <p>* got undefined symbol: EVP_md2, version OPENSSL_1_1_0 after upgrading from openldap-2.4.46-11 to openldap-2.4.46-15 (BZ#1972742)</p> <p>View packages and errata at access.redhat.com</p>				
<input type="checkbox"/> RHBA-2021:2577	subscription-manager bug fix and enhancement update	🛠️ Bugfix	10	29 June 2021
<input type="checkbox"/> RHBA-2021:2576	NetworkManager bug fix and enhancement update	🛠️ Bugfix	10	29 June 2021
<input type="checkbox"/> RHSA-2021:2575	Moderate: lz4 security update	🛡️ Security	10	29 June 2021
<input type="checkbox"/> RHSA-2021:2574	Moderate: rpm security update	🛡️ Security	10	29 June 2021

Feedback



Image Builder

Create custom public cloud images to suit your unique business needs

- ▶ Create images on AWS, Azure, or Google.
- ▶ Include in the image exactly what you need.
- ▶ Copy the image from Red Hat's account over to your cloud provider account.

Image builder: Create custom public cloud images to suit your unique business needs



Operations

Filter results ▾

Image Builder ⓘ

Create image

1 - 1 of 1 ▾ < >

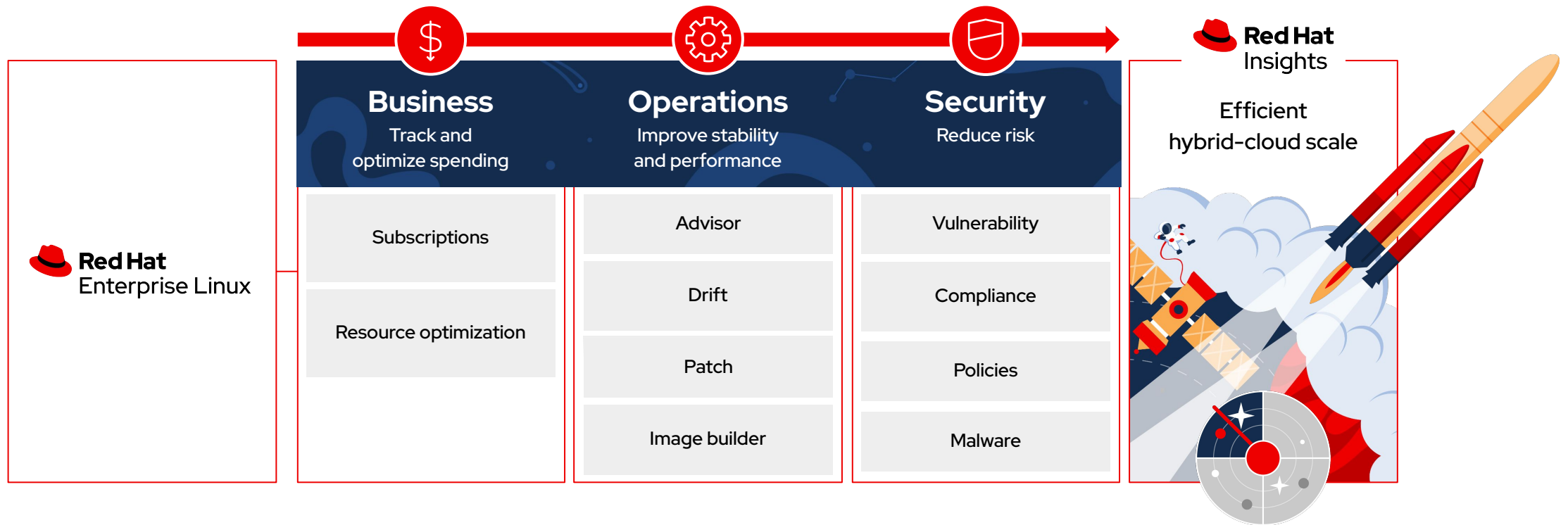
Image	Created	Release	Target	Status
255a917c-e772-4183-a333-f30aa9c4e474	Jun 3, 2021	rhel-8	Amazon Web Services	✓ Ready Launch instance

Feedback



Red Hat Insights for Red Hat Enterprise Linux

For all your hybrid-cloud challenges



Vulnerability

Remediate common vulnerabilities and exposures (CVEs)

- ▶ Triage, prioritize, and remediate CVEs that impact your registered systems
- ▶ Threat intelligence
 - CVEs with known public exploits
 - Deep threat intelligence on specific high-profile branded CVEs
- ▶ Customize and triage CVEs based on your company's definitions of risk
- ▶ Customized reporting with the right dataset based on stakeholder profile
- ▶ Automate remediation via Ansible Automation playbooks for vulnerabilities

What's New - Q2 2022:

- RBAC improvements



Vulnerability: Remediate all common vulnerabilities and exposures (CVEs)

Filter results ▼

CVEs

▼
Known exploit ▼
Filter by Known exploit ▼
1 - 17 of 17 ◀ ▶

Systems exposed 1 or more ×
Known exploit Has a known exploit ×
[Clear filters](#)

	CVE ID ↑	Publish date ↓	Severity ↑	CVSS base score ↑	Systems exposed ↑	Business risk ↑	Status ↑	
▶ <input type="checkbox"/>	CVE-2021-3156 Known exploit Security rule	26 Jan 2021	Important	7.8	87	Not defined	Not reviewed	⋮
▼ <input type="checkbox"/>	CVE-2020-9850 Known exploit	09 July 2020	Moderate	9.8	20	Not defined	Not reviewed	⋮
<p>CVE description</p> <p>A logic issue was found in webkitgtk that affected WebKitGTK versions before 2.28.3 and WPE WebKit versions before 2.28.3. This flaw allows a remote attacker to cause arbitrary code execution. The highest threat from this vulnerability is to confidentiality, integrity, as well as system availability.</p> <p>View more information about this CVE</p>								
▶ <input type="checkbox"/>	CVE-2019-13272 Known exploit Security rule	15 July 2019	Important	7.8	3	Not defined	Not reviewed	⋮
▶ <input type="checkbox"/>	CVE-2019-9213 Known exploit	26 Feb 2019	Important	5.5	3	Not defined	Not reviewed	1 💡

Feedback

Compliance

Assess and monitor regulatory “compliance at scale”

- ▶ Easy to use policy creation and custom tailoring across many systems
- ▶ Compliance reports quickly highlight overall compliance level
- ▶ Highlight unsupported configs with OpenSCAP and RHEL so that you can address and get accurate reporting
- ▶ Includes remediation playbooks for many common compliance issues

What's New - Q2 2022:

- Show systems not uploading in policy reports

Compliance: Assess and monitor regulatory compliance, built on OpenSCAP



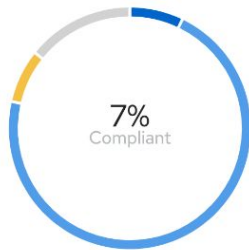
Filter by status ▾

Compliance > Reports > Report: PCI-DSS v3.2.1 Control Baseline for Red Hat Enterprise Linux 8

Report: PCI-DSS v3.2.1 Control Baseline for Red Hat Enterprise Linux 8

[Download PDF](#) [Delete report](#)

PCI-DSS v3.2.1 Control Baseline for Red Hat Enterprise Linux 8



- 1 system compliant
- 10 systems non-compliant
- 1 system not supported ?
- 2 systems never reported ?

Policy details

Operating system RHEL 8
Compliance threshold 90.0%
Business objective To be in compliance with all the things
[View policy](#)

⚠ 1 systems not supported ?

0 selected ▾		Name ▾	Filter by name 🔍	Remediate	1 - 14 of 14
Name	Tags	SSG version	Failed rules	Compliance score	Last scanned
<input type="checkbox"/> dur-rhc00.hcc-lab.com RHEL 8.1	0	⚠ 0.157	65	Unsupported	46 minutes ago
<input type="checkbox"/> dur-rhc03.hcc-lab.com RHEL 8.4	0	0.154	6	92%	45 minutes ago

Feedback



Policies

Define and monitor against your own policies to identify misalignment

- ▶ Create custom policies that suit your needs using conditional statements from gathered metadata
- ▶ Define what happens when a policy is triggered through the notification service
- ▶ See history of when the policy was triggered and by what system

What's New - Q2 2022:

- Minor fixes and enhancements

Policies: Define and monitor against your own policies to identify misalignment



Security

Is JDK installed

✔ Enabled

Description

JDK is not permitted on a certain class of hosts - this policy monitors for the presence of JDK.

Last updated 05 Jul 2021 | Created 16 Jun 2021

Conditions

facts.installed_packages contains ['java']

Trigger actions

🔔 Send a notification

Recent trigger history

Filter by System



1 - 2 of 2



Date ↓

System ↑

05 Jul 2021 10:02:06 UTC

rhl802.demoredhat.com

03 Jul 2021 00:48:14 UTC

rhl802.demoredhat.com

Feedback



BETA Service: Malware

Pattern matching malware scanner

- ▶ Leverages YARA, a popular malware detection tool
- ▶ Developed along with IBM's X-Force Incident Response and Threat Intelligence Services



Malware: Pattern matching malware scanner

Malware detected on your system. Contact your corporate information security team for more information.

Malware signatures ?



Active malware matches found!

Your systems may be at risk.

Last check: 08 Dec 2021

3

Matched signatures

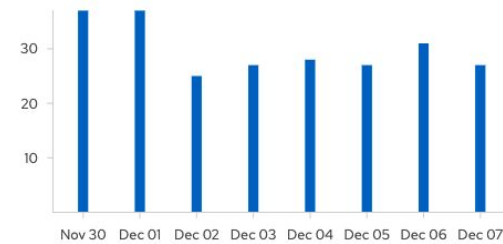
114

Enabled signatures

1

Disabled signatures

458 analyses run across 440 systems with 3 matches



Signature Filter by signature

1 - 10 of 115

Signature name	Last status	Malware systems	Matched
> XFTI_FritzFrog	Matched	393	08 Dec 2021
> XFTI_brootkit	Matched	395	08 Dec 2021
> XFTI_FinSpy	Matched	2	02 Dec 2021
> XFTI_GuardianInstaller	Not matched	0	Never

Feedback



Malware: Pattern matching malware scanner



Filter by status ▾

Malware detection



No active malware matches found

Last check: 07 Oct 2021

0

Matched signatures

114

Enabled signatures

0

Disabled signatures

3 analyses run across 3 systems with 0 matches



Signature ▾ Filter by signature 🔍

1 - 10 of 114 < >

Signature name ↑

Last status ↑

Systems ↑

Matched ↓

> XFTI_Defray911_Linux_Ransomware

Not matched

0

Never

> XFTI_Defray911_Loader

Not matched

0

Never

Feedback



Red Hat Insights

for Red Hat Enterprise Linux

Advanced capabilities

Remote Host Configuration (RHC)

A tool for making connecting to Red Hat quick and easy

- ▶ Optional tool - rhc connect
 - Connects a system to Red Hat and to Insights in one command
- ▶ Enables a direct connection between a host and Insights for remediation

What's New - Q2 2022:


- Name change from Red Hat Connector to Remote Host Configuration
- rhc single command works with RHEL 8.6 / 9.0+
- Activation keys visible from [Remote Host Configuration dashboard](#)

Remediation

Built in playbooks for remediation provided by several Insights services

- ▶ Any Insights user can download playbooks
- ▶ Smart Management customers can execute the playbooks via Satellite or Remote Host Configuration (RHC)
- ▶ Ansible Automation Platform can sync playbooks from Insights


Remediations: Create Red Hat Ansible remediation playbooks to resolve the issues that Red Hat Insights finds

Filter results 

Remediations





Search playbooks 

Download playbook 



1 - 8 of 8  

SUDO Fix

Last modified: 20 days ago  

Systems Complete actions
4  1 of 1

CVE-2021-3543

Last modified: 1 month ago  


Systems Complete actions
6  1 of 1

glib2 patch

Last modified: 1 month ago  



Systems Complete actions
1  1 of 1

glib2 - 206

Last modified: 1 month ago  


Systems Complete actions
1  1 of 1

AWS-kdump

Last modified: 2 months ago  



Systems Complete actions
1  1 of 1

RHEL7 - RHSA-2021:1469

Last modified: 2 months ago  

Systems Complete actions
2  1 of 1

rhctest

Last modified: 2 months ago  

Systems Complete actions
0  0 of 0

SUDO_Fix

Last modified: 3 months ago  

Systems Complete actions
2  1 of 1

 Feedback



Execute playbook: Use cloud connector to fix the things that Red Hat Insights finds, directly from Red Hat Insights

The screenshot displays the Red Hat Insights interface for remediations. The main page is titled 'Q3 Patches' and shows a progress indicator of 0/3 issues resolved. A modal dialog titled 'Execute playbook' is open, providing details about the actions and systems affected. The dialog includes a table for the connection status of systems and buttons to execute or download the playbook.

Q3 Patches

Total systems: 12 systems
Autoreboot: Enabled [Turn off](#)

0/3 Issues resolved

Execute playbook

Playbook contains 3 actions affecting 12 systems.

[About remote execution with Cloud connector](#)

Executed Ansible Playbooks run on eligible systems with Cloud Connector. The playbook will be pushed immediately after selecting "Execute playbook". If the playbook has "Auto reboot" on, systems requiring reboot to complete an action will reboot.

[Learn more about Cloud Connector](#)

Connection status of systems

Connection type	Systems	Connection stat...
satellite.demoredhat.com	7	Ready
Direct connection	5	Ready

[Execute playbook on 7 systems](#) [Download playbook](#)

Actions | Systems | Activity

Search Remove action

Actions	Reboot required
<input type="checkbox"/> RHBA-2021:2590 Apply RHBA-2021:2590	Yes
<input type="checkbox"/> RHBA-2021:2810 Apply RHBA-2021:2810	Yes 2 Patch 0/2 remediated
<input type="checkbox"/> RHBA-2021:2811 Apply RHBA-2021:2811	Yes 2 Patch 0/2 remediated

1 - 3 of 3 of 1 7

Register Systems

Guided steps to get Insights setup on Red Hat Enterprise Linux hosts

- ▶ Select your RHEL version, how the systems are managed, and how you want to configure Insights (manual or automated)
- ▶ Follow the on-screen directions to configure Insights

What's New!

- RHC is GA
 - Use `rhc connect`

Register systems: Guided steps to get Red Hat Insights setup on all your Red Hat Enterprise Linux hosts

Filter results 

Register your systems with Red Hat Insights

The Insights registration assistant will guide you through the setup process for the Red Hat Insights Client. You will be prompted with a series of questions about your environment to provide you with setup instructions tailored for your environment.

Step 1: Tell us about your systems

Operating System

- RHEL 8.4+ RHEL 8.3-8.0 RHEL 7 & 6

How are the systems managed?

- Red Hat Subscription Manager Red Hat Satellite Public cloud/RHUI

Step 2: Register your system to Red Hat Insights

```
> [root@server ~]# insights-client --register
```

Connect systems with new Red Hat connector Tech preview

Red Hat connector allows you to connect your systems to Red Hat with one command. Connect, register, and manage.

Red Hat connector is for RHEL 8.4 systems and newer.

Register with an activation key

```
> rhc connect -a <activation-key> -o <organization-id>
```

 Data collection & controls [Learn more](#)

Setup and Configure

Assess and monitor the compliance of your RHEL systems using Policies [Learn more](#)

Detect and be notified of system configuration changes using Custom Policies [Learn more](#)

Red Hat® Smart Management

Combines the flexible and powerful infrastructure management capabilities of Red Hat Satellite with the ability to execute remediation plans from Red Hat Insights [Learn more](#)

Feedback 



Let's see it in action...



Remediate with Ansible

Add actions to an Ansible Playbook

✓ Playbook created

You have successfully created CVE-2021-3156 - sudo.



Items added to playbook

Completed

100% ✓



1 action affecting 1 system was added to the playbook CVE-2021-3156 - sudo.

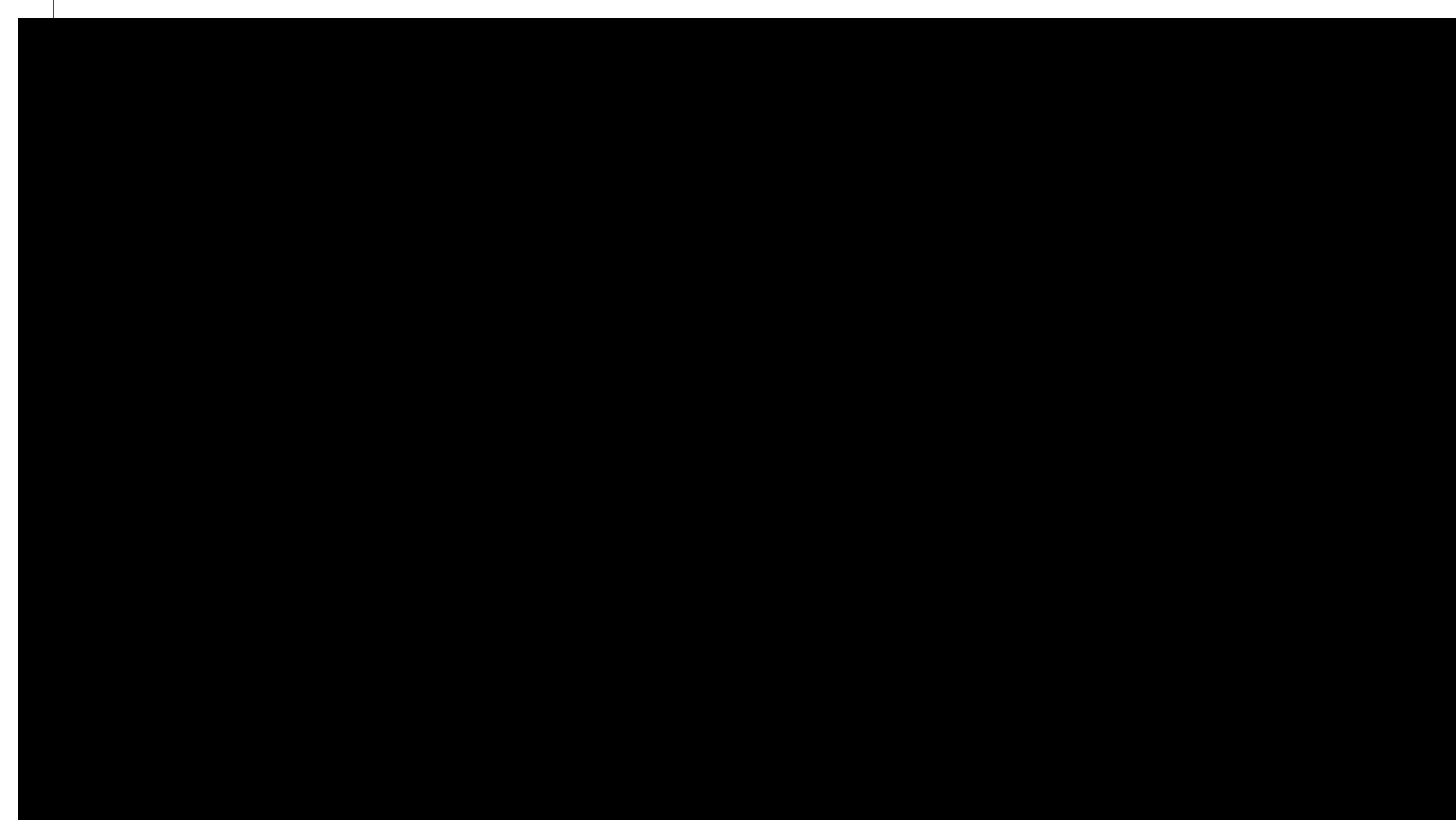
You can remediate these systems directly from Insights by enabling [Cloud Connector](#) on eligible systems.

[Return to application](#)

[Open playbook CVE-2021-3156 - sudo](#)

Red Hat recommends that you update the sudo package:





Customer Stories

- Insights was able to immediately identify 10 issues on an Oracle RAC system that has been **plaguing a customer for 6 months**.
 - Oracle RAC systems are EXPENSIVE. Why not keep them running at **optimal** capacity?
- Insights identified a misconfigured network bond, but the customer didn't use bonding. It was **accidentally enabled on a production server**. Insights was able to easily fix a problem then customer didn't even know they had!
 - Is your environment is **correctly** configured? Has it drifted?

What do Insights users say?



“It’s like having another person working on the team.”

John Lemay
Systems Engineer
Greenway Health



Watch the video



Modernized management with analytics and automation



Red Hat Insights

- 96% reduction in time to **detect** known risks to availability, performance, stability, and security
- 26% reduction in administrator steps to **detect** these known risks
- 88% less time to track **patch** status for all systems in environment, versus manual scripted workflow
- 1m 24s to **discover** vulnerabilities in a 100-VM environment, versus over 15m when performed manually
- 91% less task completion time to **address** a vulnerability
- 69% reduction in time to detect a **policy** violation



Boost your IT operations

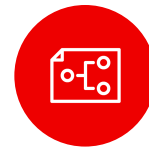
Go to cloud.redhat.com today



Get access to our product page:
<http://redhat.com/insights> »



Read our blog:
<https://www.redhat.com/en/blog/channel/red-hat-insights> »



Go to Red Hat Insights:
cloud.redhat.com »

Thank you

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



[linkedin.com/company/red-hat](https://www.linkedin.com/company/red-hat)



[youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)



[facebook.com/redhatinc](https://www.facebook.com/redhatinc)



twitter.com/RedHat



Red Hat Insights

Gain a clear view across your Red Hat deployments

Presenter's Name
Title

Presenter's Name
Title

Updated May 2022

HOW TO USE THIS SLIDE DECK

This slide deck is the central repository for Insights slides.

Updates are made on this deck and propagated to other slide decks. It is recommended to link FROM this slide deck to others so you can inherit updates.

This slide deck is NOT meant to be presented as is. There are several versions of this slide deck linked on the next slide.

If you have feedback or slides to contribute, please make a comment in the deck or email insights@redhat.com

Related Slide Decks

These slide decks are linked to the Insights main deck (Refresh for latest):

- [Insights Main Deck \(all platforms and services\)](#)
- [Insights for Red Hat Enterprise Linux](#)
- [Insights for Red Hat Ansible Automation Platform](#)
- [Insights for Red Hat OpenShift](#)
- [Insights for Business](#)
- [Insights for Operations](#)
- [Insights for Security](#)

Related Slide Decks

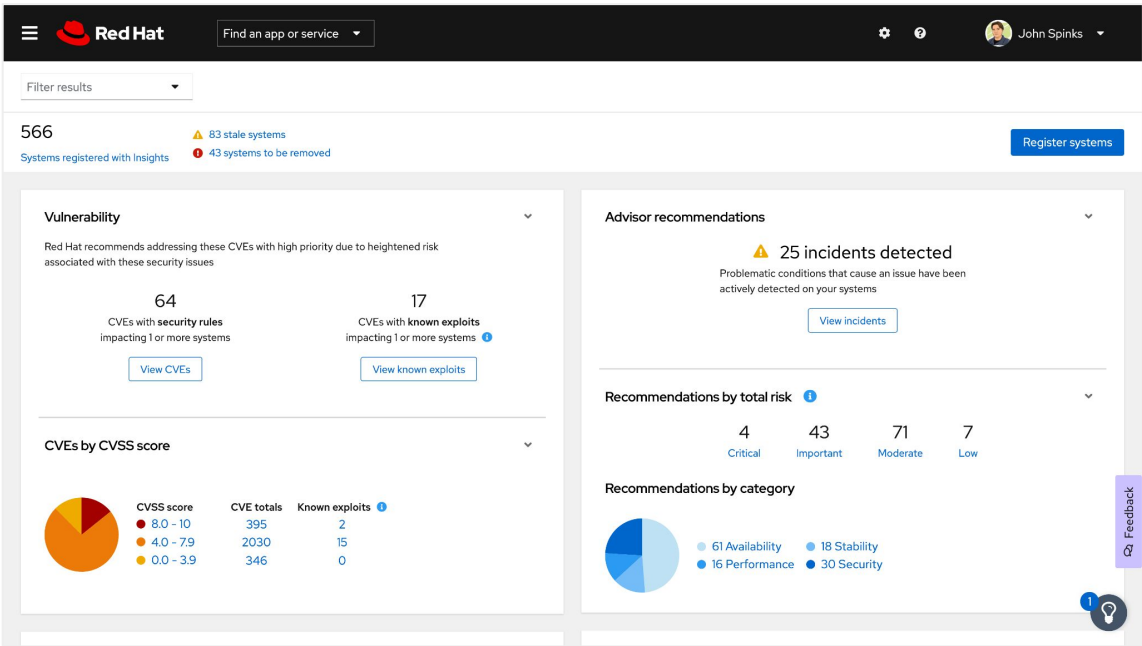
These slide decks may not be linked, but may be of interest:

- [Red Hat Insights Overview](#)
- [Insights Q2 2022 What's New](#)
- [Connect and secure Red Hat Enterprise Linux on AWS to meet your business and cloud infrastructure needs](#)
- [Insights - Malware identification](#) (by Chris Jenkins)
- [Techniques for Red Hat Insights in Real-World Environments](#) (by Mike Pagan) - Overcoming Objections.

Red Hat Insights

What's New

What's New Highlights - Q2 2022



New services:

- ▶ Resource Optimization
- ▶ Malware

New Features:

- ▶ Advisor - new topic for DB2
- ▶ Compliance - show systems not uploading reports
- ▶ Patch - patch sets
- ▶ Vulnerability - "View exposed system link" on CVE pages - links to Vulnerability service
- ▶ ...and more!

What's New Highlights - January 2022 (Available NOW)

Red Hat CVE Pages

Red Hat Customer Portal | Products & Services | Tools | Security | Community

CVE-2021-4034 | Edit notification preferences | FOLLOW

Public on January 25, 2022 | English

Important Impact | What does this mean?

7.8 | CVSS v3 Base Score | CVSS Score Breakdown

Insights vulnerability analysis | View exposed systems →

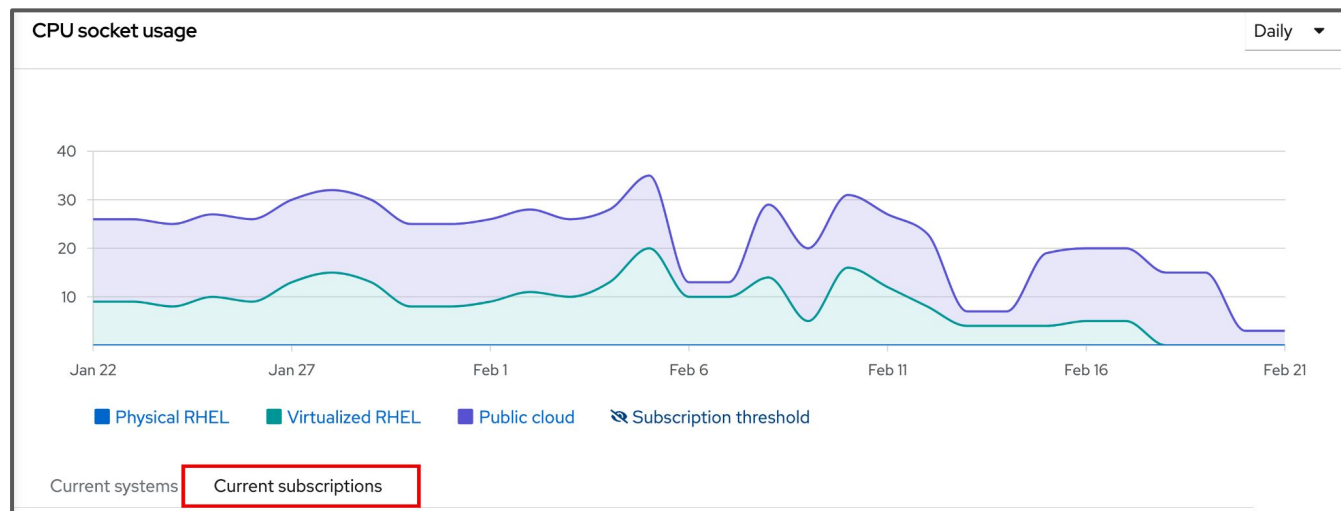
New services:

- ▶ Resource Optimization (GA Jan 17)
- ▶ Malware (Public Beta)

New Features:

- ▶ Inventory - Sorting by RHEL version
- ▶ Advisor - Disabled recommendations listed in weekly email
- ▶ Drift - Dashboard widget, UI enhancements
- ▶ Vulnerability - "View exposed system link" on CVE pages - links to Vulnerability service
- ▶ Subscriptions - Current subscriptions tab

Subscriptions



What's New Highlights - February 2022 (Available NOW)

Drift for RHEL

The screenshot shows the 'Comparison' interface. At the top, there is a 'Fact type' dropdown menu with a 'Show' button. Below the dropdown, there are two options: 'All facts' (unchecked) and 'Baseline facts only' (checked). To the right of the dropdown is a blue 'Add to comparison' button. Below the dropdown, there is a 'State' filter with 'Same' selected and 'Different' as an alternative. To the right of the state filter, there is a 'Fact type' filter set to 'Baseline facts only'.

Advisor for OpenShift

The screenshot shows the 'Advisor clusters' page in the Red Hat Hybrid Cloud Console. The page has a sidebar with navigation options: OpenShift, Clusters, Overview, Releases, Downloads, Insights, and Advisor. The main content area shows a table of clusters with the following data:

Name	Recommen...	Criti...	Imp...	Mod...	Low	Last seen
acmhbtmm01	2	0	0	2	0	15 days ago
mngdtmm01	1	0	0	1	0	1 month ago
mngdtmm02	1	0	0	1	0	1 month ago
hcc-cluster01	0	0	0	0	0	N/A
jspinks-cluster01	0	0	0	0	0	N/A

New Features for RHEL:

- ▶ Compliance - Only able to add supported OS versions to a policy
- ▶ Drift - Filter by baseline facts
- ▶ Drift - New troubleshooting icons
- ▶ Malware - Satellite as a proxy supported
- ▶ Vulnerability - granular RBAC permissions

New Features for OpenShift:

- ▶ Workload fingerprinting
- ▶ Advisor - updated UI
- ▶ Cost Management - OCP on GCP

What's New Highlights - March 2022 (Available NOW)

Advisor - DB2 Topics

Name	Modifi...	Category	Total risk	Risk of cha...	Syste...	Remediation
IBM DB2 performance decreases when the kernel parameters are not compliant with the recommended settings	26 days ago	Performance	Moderate	Low	0	Playbook
Decreased security: Virtual memory not randomized	5 years ago	Security	Moderate	Low	0	Playbook
DB2 will fail to work when using issued systemd	2 years ago	Availability	Moderate	Very Low	0	Playbook
Out-of-Memory occurs when vm.swappiness is 0 in specific RHEL6 versions where database is running	5 years ago	Performance	Moderate	Moderate	0	Playbook

Compliance - Report view

Compliance > Reports > Report: PCI-DSS v3.2.1 Control Baseline for Red Hat Enterprise Linux 8

Report: PCI-DSS v3.2.1 Control Baseline for Red Hat Enterprise Linux 8 Download PDF Delete report

PCI-DSS v3.2.1 Control Baseline for Red Hat Enterprise Linux 8

9% Compliant

- 1 system compliant
- 10 systems non-compliant
- 1 system not supported
- 2 systems never reported

Policy details

Operating system RHEL 8

Compliance threshold 90.0%

Business objective To be in compliance with all the things

[View policy](#)

* Overall compliance score includes only supported, reporting systems

1 systems not supported

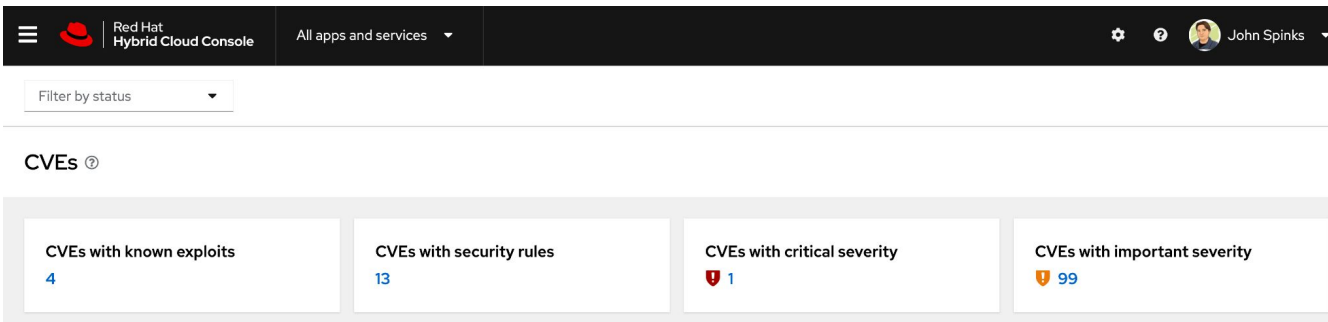
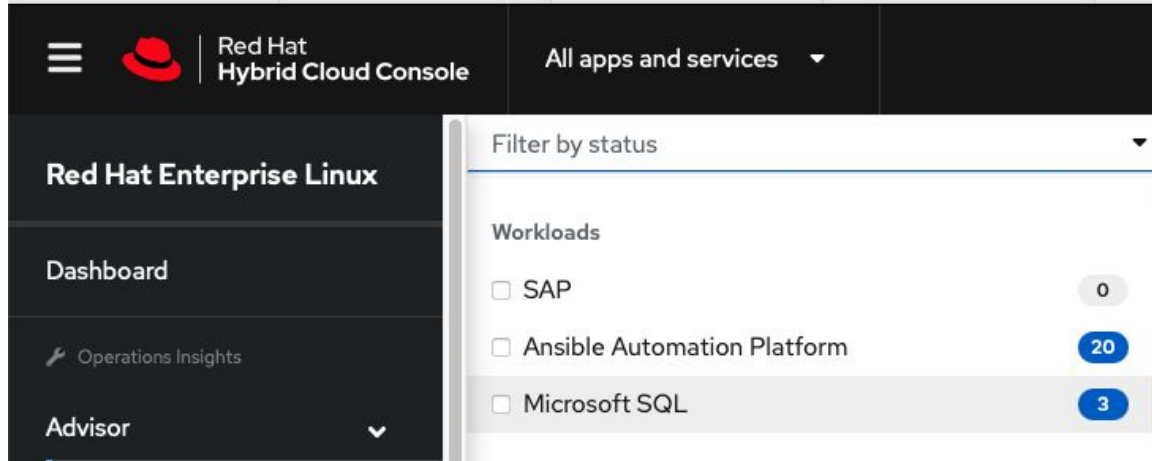
New Features for RHEL:

- ▶ Advisor - IBM DB2 and Power recommendations
- ▶ Vulnerability - support for tag filtering
- ▶ Compliance - Show systems assigned to a policy, but not reporting
- ▶ Policies - AAP facts are not listed
- ▶ Patch - Support for Azure Hybrid Benefit and other Azure marketplace systems

New Features for Ansible:

- ▶ Reports - New preview functionality

What's New Highlights - April 2022 (Available NOW)



New Features for RHEL:

- ▶ Integration with Splunk in private beta
- ▶ Global filtration for SAP, SQL, and Ansible Automation Platform
- ▶ Vulnerability - CVE List dashboard
- ▶ Patch **BETA** - Patch Sets now available for beta testing
- ▶ Notifications - RBAC groups can now be set as recipients of notifications.

New Features for Ansible:

- ▶ Ansible Analytics and Insights services are split

What's New Highlights - May 2022 (Available NOW)

Data collectors

Name	Status	Last upload
> insights-client	Active	02 Jun 2022 15:15 UTC
> subscription-manager	Active	02 Jun 2022 00:53 UTC
Satellite/Discovery	N/A	N/A

Your insights-client is not reporting
With Insights you can easily:

- Optimize your IT Operations
- Manage your security and compliance
- Resolve operational issues quickly

[How does Red Hat keep data secure?](#)

Client setup
Make sure the client is properly installed and registered

> `yum -install insights insights-client regi...`

Configure troubleshooting
Proceed with verification on the client to ensure insights-client is properly running and collecting data

[Host not reporting data to Red Hat Insights](#)

New Features for RHEL:

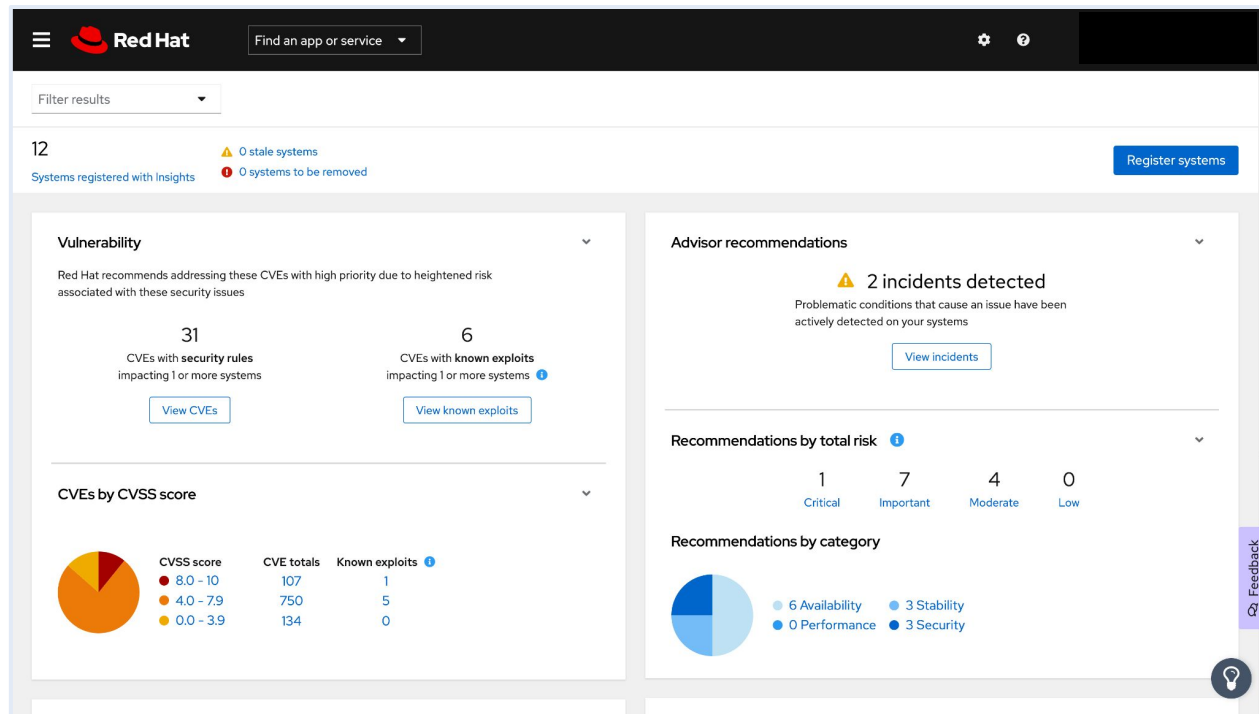
- ▶ Added Inventory detail for "data collector"
- ▶ Added call to action banner for hosts not registered with insights-client
- ▶ Advisor - Appstream EOL alerts
- ▶ Resource Optimization - added historical data - 45 days
- ▶ Resource Optimization - System list report

New Features for OpenShift:

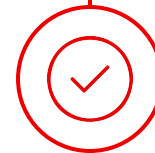
- ▶ More health checks added - now 202 internal checks, 76 external ones, and 28 on container storage

What is Red Hat Insights?

Helping you better manage your hybrid and cloud environments



Predicting risks



Recommending actions



Analyzing costs

What does Red Hat Insights do?

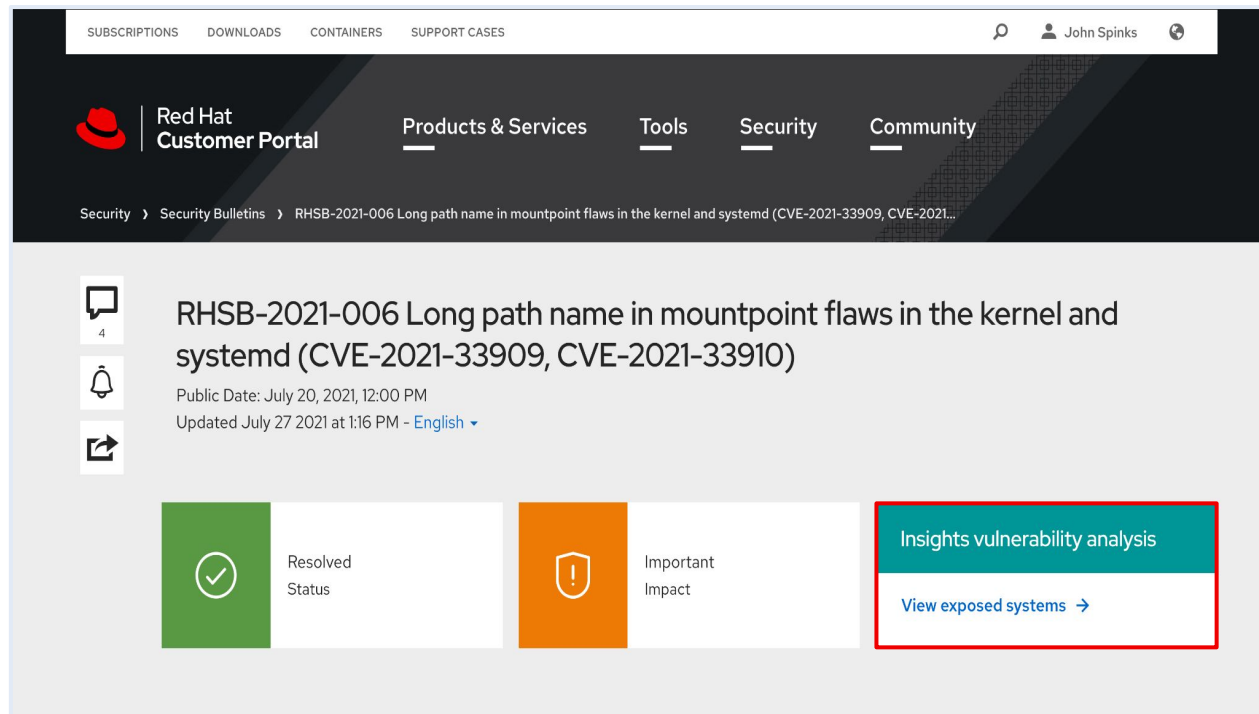
A cloud analytics platform that helps you better manage your hybrid and cloud environments



-
- ▶ **Gathers** configuration and utilization data from your Red Hat® products
 - ▶ **Analyzes** the data based on Red Hat knowledge and expertise
 - ▶ **Generates** and prioritizes insights for you to take action

How does Red Hat Insights help me?

Use Red Hat's expertise and knowledge to evaluate your systems



Red Hat subscriptions include knowledge of:



>1 Million
Customer support cases



>1,000
Red Hat support personnel



>115,000
Knowledge base and solution articles

How does Red Hat Insights help me?

Use Red Hat's expertise and knowledge to evaluate your systems



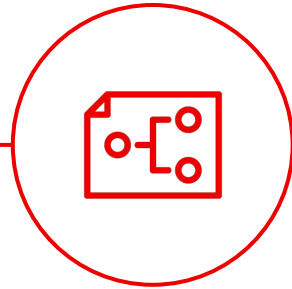
- ▶ Configuration review to make sure systems are setup correctly
- ▶ Easily identify interoperability issues from the hypervisor or cloud, through the OS, and through the application stack
- ▶ Centralized view of all CVEs, patches, and compliance risks
- ▶ Identify drift to make sure systems are the same
- ▶ Know how many subscriptions you are using in seconds

How does it benefit my business?



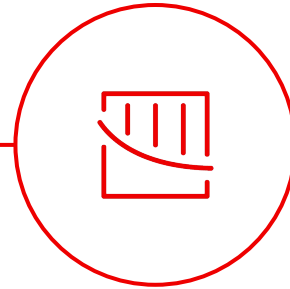
Understand

Clearly understand your security risk profile



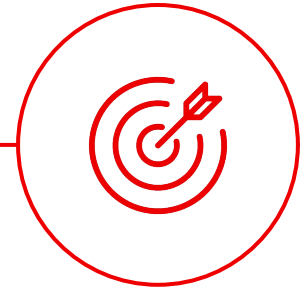
Plan

Stay ahead of critical operational issues



Reduce

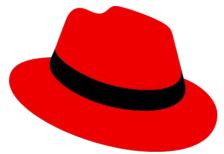
Time to find and resolve issues from hours to minutes



Innovate

Free up resources to focus on innovation and new capabilities

Modernized management with analytics and automation



Red Hat Insights

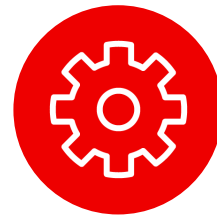
- 96% reduction in time to **detect** known risks to availability, performance, stability, and security
- 26% reduction in administrator steps to **detect** these known risks
- 88% less time to track **patch** status for all systems in environment, versus manual scripted workflow
- 1m 24s to **discover** vulnerabilities in a 100-VM environment, versus over 15m when performed manually
- 91% less task completion time to **address** a vulnerability
- 69% reduction in time to detect a **policy** violation

Red Hat Insights focuses on 3 themes



Business

Track and optimize spending



Operations

Improve stability and performance

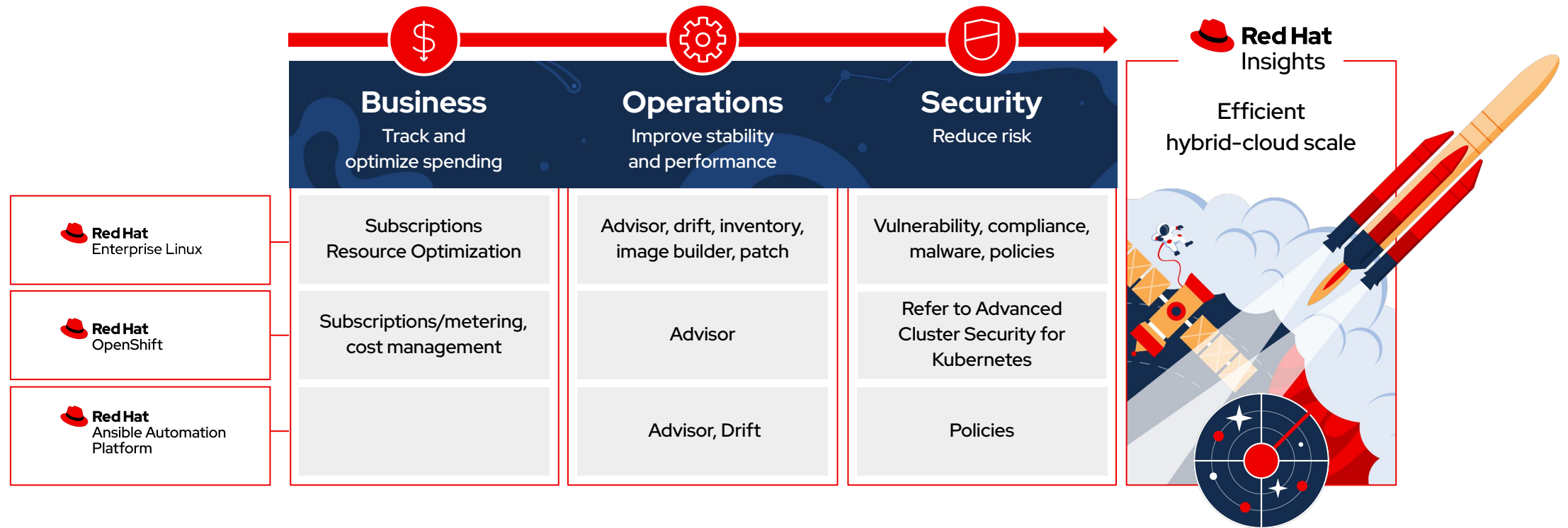


Security

Reduce risk

Red Hat Insights

Aligning themes to services across platforms



Hybrid cloud console Access at cloud.redhat.com

The dashboard features a dark sidebar with navigation options: Home, Application Services, OpenShift, Red Hat Enterprise Linux, and Ansible Automation Platform. The main content area is divided into several sections:

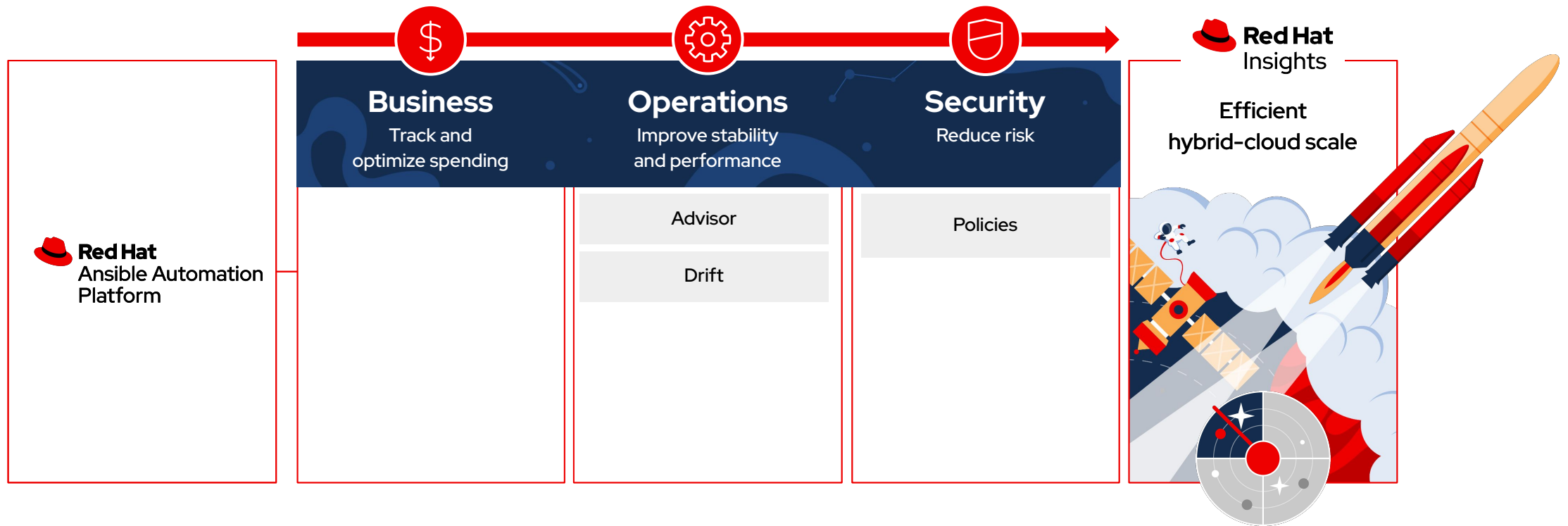
- Summary Cards:** A row of six cards displaying metrics: 0 Kafka Instances (App services), 39 Connected systems (RHEL), 17 Stale systems (RHEL), 1 Ansible Platform C... (Ansible Automation Platform), 110 Collections (Ansible Automation Platform), and 55 Partners (Ansible Automation Platform).
- Red Hat Insights:** A section titled "Red Hat Insights" with the text: "Gain increased visibility into your hybrid cloud deployments so you can improve performance and increase security. [Learn more.](#)" Below this is a card for "RHEL" with a "2" badge, containing:
 - View 2 incidents:** Insights has identified 2 incidents affecting your systems.
 - Create a remediation playbook:** Fix issues identified by Insights on your systems.
- Recommendations:** A list of five items:
 - Get started with RHOSAK:** Learn how to create and use a Kafka instance.
 - Download and install the Application Services CLI:** Get started using your managed Kafka instances.
 - Get started with Quarkus apps and Streams for Apache Kafka:** Learn how to connect to your Kafka instance from a Quarkus application.
 - Try Red Hat OpenShift API Management:** Deploy, monitor, and control APIs throughout their entire life cycle.
 - Get started with Red Hat OpenShift API Management:** Deploy, monitor, and control APIs throughout their entire life cycle.
- Automation Services Catalog orders:** View Automation Services Catalog orders. You have (0) recent orders.

Red Hat Insights

for Red Hat Ansible Automation Platform

Red Hat Insights for Red Hat Ansible Automation Platform

For all your hybrid-cloud challenges

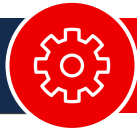


Advisor

Analyzes your automation controller deployments for issues with:

- ▶ Availability
- ▶ Performance
- ▶ Stability
- ▶ Security
- ▶ Automate remediation via Ansible Automation playbooks

Advisor: Availability, performance, stability, and security risk analysis



Filter results ▾

Advisor recommendations

[Download executive report](#)

>

▼ Name

🔍

🔗

1 - 10 of 12 ▾ < >

Systems impacted 1 or more ✕

Status Enabled ✕

Reset filters

Name ▾	Added ▾	Category ▾	Total risk ▾	Risk of change ▾	Systems ▾	Ansible ▾	
> New Ansible Engine packages are inaccessible when dedicated Ansible repo is not enabled	3 years ago	Availability	Moderate	Very Low	1	✔	⋮
> Ansible Tower is out-of-scope for Ansible support due to running with an unsupported version of PostgreSQL database Incident	2 months ago	Availability	Moderate	Moderate	2	No	⋮
▼ Filesystems get filled up when keeping runtime directories in Ansible Tower node	2 months ago	Availability	Moderate	Moderate	1	No	⋮

Filesystems get filled up because the temporary runtime directories keep consuming disk space when "AWX_CLEANUP_PATHS=False" is configured.

[Knowledgebase article](#)

Total risk

Moderate

The total risk of this remediation is **moderate**, based on the combination of likelihood and impact to remediate.

Medium likelihood
|
|
|

Medium impact
|
|
|

Risk of change

Feedback

8

Drift

Lets you compare systems and created baselines to identify:

- ▶ Differences from a baseline
- ▶ Differences from other systems
- ▶ Differences from historical system profiles

Drift: Create baselines and compare systems to monitor for differences as systems drift



Filter results ▾

Comparison

Filter by fact View: Same, Different, Incomplete data ▾ [Add to comparison](#) 1 - 28 of 28 ▾

State Same × Different × Incomplete data × [Reset filters](#)

Fact ↑	State ↓	AutomationController × ★ 17 Aug 2021, 19:52 UTC	twr363.demoredhat.com × ☆ 17 Aug 2021, 16:45 UTC	twr383.demoredhat.com × ☆ 17 Aug 2021, 15:59 UTC	twr400.demoredhat.com × ☆ 17 Aug 2021, 19:36 UTC
bios_release_date		10/16/2017	10/16/2017	08/24/2006	10/16/2017
bios_vendor		Amazon EC2	Amazon EC2	Xen	Amazon EC2
bios_version		1.0	1.0	4.2.amazon	1.0
> cpu_flags					
cpu_model		Intel(R) Xeon(R) Platinum 8259CL CPU @ 2.50GHz	Intel(R) Xeon(R) Platinum 8175M CPU @ 2.50GHz	Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz	Intel(R) Xeon(R) Platinum 8259CL CPU @ 2.50GHz
▼ enabled_services					
ansible-tower				enabled	
automation-controller		enabled			enabled
brandbot			enabled		
choose_repo		enabled		enabled	enabled

Feedback

8

Policies

Define and monitor against your own policies to identify misalignment

- ▶ Create custom policies that suit your needs using conditional statements from gathered metadata
- ▶ Define what happens when a policy is triggered through the notification service
- ▶ See history of when the policy was triggered and by what system

Policies: Define and monitor against your own policies to identify misalignment



Policies > Tower Upgrade

Tower Upgrade

✔ Enabled

Description

Notify is a system is running the ansible-tower service. If so, this system should be targeted for upgrade to automation controller

Last updated 18 Aug 2021 | Created 18 Aug 2021

Conditions

facts.enabled_services contains ['ansible-tower']

Trigger actions

🔔 Send a notification

Recent trigger history

Filter by System 🔍

1-1 of 1 < >

Date ↓

System ↑

18 Aug 2021 19:16:07 UTC

twr383.demoredhat.com

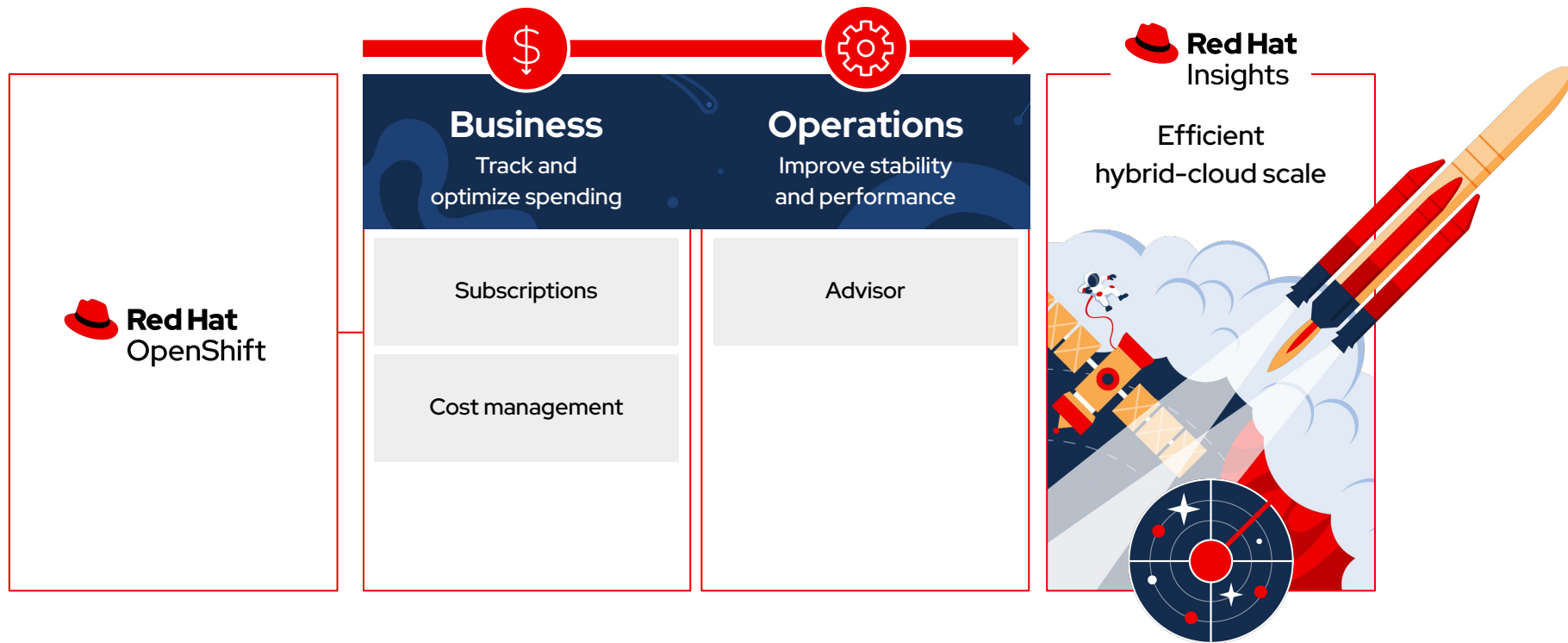
Feedback



Red Hat Insights

for Red Hat OpenShift

Overview of Red Hat Insights services for Red Hat OpenShift



Subscriptions

Frictionless cluster scaling & account-level visibility of multi-cluster usage

- ▶ Account level view of subscription utilization
- ▶ Automatic utilization reporting for connected clusters.
- ▶ Simple cluster and multi-cluster scaling

What's New - Q2 2022:

- Improved reporting for OpenShift Container Platform



Subscriptions: Awareness of subscription utilization across your entire estate

OpenShift Container Platform

Take a tour

Monitor your OpenShift Container Platform usage for both Annual and On-Demand subscriptions. [Learn more about Subscriptions reporting](#)

Filter by SLA

Annual subscriptions

Cores Daily



■ Cores ■ Subscription threshold

Current systems

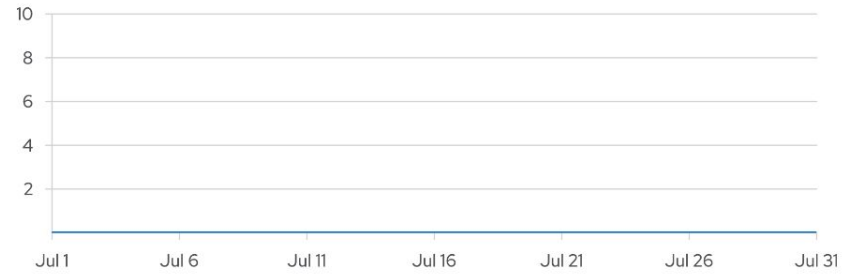
Filter by name

1 - 100 of 473

Name	Cores	Last seen
f5078cce-0fb6-4afe-bfbf-05b349edbee4	16	15 hours ago

On-Demand subscriptions

0 core hours used This month



Core hours

Current systems

Filter by name



Cost Management

Helps you visualize and distribute Red Hat OpenShift costs into meaningful items.

- ▶ Cost visibility
- ▶ Cost allocation
- ▶ Change developers and operator behaviours

On premise, on clouds, on demand, or multicluster..

Cost management: Show how resources contribute to costs



Business

Cost Management Overview ?

OpenShift Infrastructure

Perspective All ▼

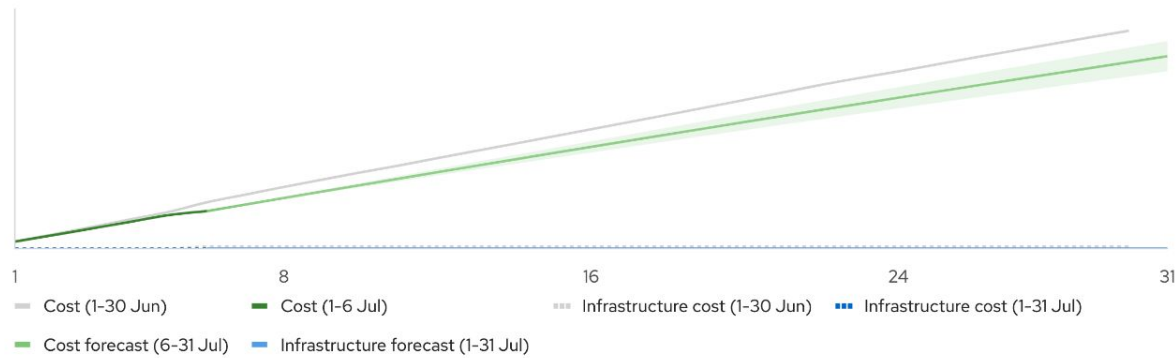
All OpenShift cost

1-6 July

\$6,677.65

Cost

All OpenShift cumulative cost comparison (\$USD) ▼



Top projects

Top clusters

openshift-kube-apiserver	\$1,480.28 (22.17%)
openshift-monitoring	\$1,242.51 (18.61%)
openshift-etcd	\$510.39 (7.64%)
72 Others	\$3,444.48 (51.58%)

All Projects



Advisor

Identifies availability, performance, stability, and security risk analysis

- ▶ Analyzes Remote Health data (Insights + Telemetry) data to provide recommendations
- ▶ These recommendations cover the infrastructure and service layers of OpenShift.
- ▶ Provides predictive findings and prescriptive information on how to resolve.
- ▶ Integrates with Notifications, OpenShift Web Console and Advanced Cluster Manager

What's New - Q2 2022:

- New Advisor user interface
- Integrations with OpenShift Web Console and Advanced Cluster Management (ACM)

Advisor: Availability, performance, stability, and security risk analysis



Advisor clusters

Advisor clusters interface showing a table of clusters with columns for Name, Recommendations, Critical, Important, Moderate, Low, and Last seen. Includes search filters and pagination controls.

Filter by name:

1 - 5 of 5

Total risk: All clusters

Name	Recommendations	Critical	Important	Moderate	Low	Last seen
hcc-cluster01	0	0	0	0	0	3 hours ago
acmhbtmm01	2	0	0	2	0	2 months ago
mngdtmm01	1	0	0	1	0	3 months ago
mngdtmm02	1	0	0	1	0	3 months ago
jspinks-cluster01	0	0	0	0	0	9 months ago

1 - 5 of 5 | 1 of 1

Advisor: Availability, performance, stability, and security risk analysis



Advisor recommendations

>

▼ Name

🔍

1 - 2 of 2

Clusters impacted 1 or more ✕
Status Enabled ✕
[Reset filters](#)

Name	Modified	Category	Total risk	Clusters
▼ Workloads are using the deprecated PodSecurityPolicy API	8 months ago	Performance	= Moderate	1
<p>The PodSecurityPolicy API is deprecated since OCP 4.8 (Kubernetes v1.21) and will be removed in a future OCP version (Kubernetes v1.25). The OpenShift cluster load also increases disproportionately when PodSecurityPolicies are used.</p> <p>View the affected cluster</p>				
<div style="display: flex; justify-content: space-between;"> <div> <p>Total risk</p> <p>= Moderate</p> </div> <div> <p>The total risk of this remediation is moderate, based on the combination of likelihood and impact to remediate.</p> <p>High likelihood </p> <p>Medium impact </p> </div> </div>				
▼ Prometheus metrics data will be lost when the Prometheus pod is restarted or recreated	1 year ago	Service Availability	= Moderate	3
<p>Prometheus metrics data will be lost when the Prometheus pod is restarted or recreated. The PVC for Prometheus is set to EmptyDir which is a temporary directory.</p> <p>View 3 affected clusters</p>				
<div style="display: flex; justify-content: space-between;"> <div> <p>Total risk</p> <p>= Moderate</p> </div> <div> <p>The total risk of this remediation is moderate, based on the combination of likelihood and impact to remediate.</p> <p>Critical likelihood </p> <p>Low impact </p> </div> </div>				

1 - 2 of 2
1 of 1

Feedback



Hybrid Cloud Console Settings

Insights is hosted on the
Hybrid Cloud Console

My User Access

Simple View of your permissions to Hybrid Cloud Console services

- ▶ Shows your roles and permissions to all services

What's New - Q2 2022:



My User Access

Select applications to view your personal permissions.

OpenShift

Clusters

Subscriptions

Cost Management

Red Hat Enterprise Linux

Advisor

Compliance

Drift

Image Builder

Patch

Vulnerability

Policies

Subscriptions

Not subscribed

Ansible Automation Platform

Automation Hub

Automation Services Catalog

Insights

Your Red Hat Enterprise Linux permissions

Filter by application

1 - 24 of 24

Application	Resource type	Operation
drift	*	*
inventory	*	read
compliance	*	*
inventory	*	read
patch	*	*
inventory	*	read
policies	*	*

User Access

Role Based Access Control (RBAC) for the Hybrid Cloud Console

- ▶ Visibility into users on your account (Read only)
- ▶ View and create roles
- ▶ View and create groups.
- ▶ Assign users to groups

What's New - Q2 2022:

- Default admin access group
- Notifications integration



Groups



Filter by name



Create group



1 - 5 of 5



Name



Roles

Members

Last modified



[Default access](#)

16

All

19 May 2021

[Default admin access](#)

0

0

11 days ago



[Limited Access Group](#)

2

1

52 minutes ago



[TMM_Admin_Group](#)

38

17

23 Feb 2022



[Viewer Group](#)

13

1

23 Feb 2022



1 - 5 of 5



1

of 1



Feedback



Sources

Sources are how we connect with public cloud providers and other services or tools to collect information.

- ▶ Connect to a cloud provider to enable
 - OpenShift Cost Management
 - RHEL Management
- ▶ Depending on the cloud provider this may also
 - Unlock gold images
 - Enable auto registration
 - Allow for more granular tracking of subscription utilization

What's New - Q2 2022:

- Notifications integration
- Satellite 6.11 Cloud Connector improvements
- RHEL Management for GCP (already supported for Azure and AWS)



Sources

Cloud sources

Red Hat sources

I connected to cloud. Now what?

Use gold images

Connecting to Amazon Web Services or Microsoft Azure unlocks automatic access to Red Hat gold images. View gold images in your provider console.

[Use Red Hat gold images on AWS](#)

[Use Red Hat gold images on Microsoft Azure](#)

[Learn more about Red Hat gold images](#)

Explore Red Hat Insights

Use RHEL instances in the cloud and gain other value-add services, such as predictive analytics.

[Learn more about Red Hat Insights](#)

[Enable additional Insights services](#)

Track usage with Subscriptions

Use the Subscriptions service to monitor account-level summaries of your Red Hat subscription profile.

[Learn more about Subscriptions](#)

[Go to Subscriptions](#)

Name Filter by Name

Add source

1 - 4 of 4

Name	Type	Connected applications	Date added	Status
RH_AWS	Amazon Web Services	Cost Management RHEL management	3 months ago	Available
Azure_TMM	Microsoft Azure	RHEL management	11 months ago	Unknown
TMM-MBU-cost	Amazon Web Services	Cost Management	1 year ago	Available
AWS_TMM	Amazon Web Services	RHEL management	1 year ago	Available

Integrations

Integrate third party services with Hybrid Cloud Console

- ▶ Integrations can be used to create a variety of communication flows between Hybrid Cloud Console and the product(s) you use in your day-to-day operational flow
- ▶ Used in conjunction with Notifications service and Insights events
- ▶ Create, view, and edit endpoints in Integrations
 - Generic: Webhook
 - Bespoke: Splunk
- ▶ Monitor and troubleshoot from Events Log in Notifications

What's New - Q2 2022:

- New integration with Splunk
- Red Hat Insights Cheat Sheet



Integrations

Add integration



1 - 2 of 2 ▾



Name	Type	Last connection attempt	Enabled	
> Splunk - HCC Lab	Splunk	✓ Succeeded	<input checked="" type="checkbox"/>	⋮
> Zapier	Webhook	✓ Succeeded	<input checked="" type="checkbox"/>	⋮

1 - 2 of 2 ▾



1

of 1



Red Hat Insights integration with Splunk

Certified for Splunk Cloud Platform and Splunk Enterprise

- Quickly and simply configure the forwarding of Insights events to Splunk
- Visualize and explore Insights findings with customizable dashboard and table
- Correlate Insights findings and data from other sources in Splunk
- Navigate back to Red Hat Insights from Splunk to get more details and remediations
- Embed Red Hat Insights into existing corporate tooling and processes

Access certified [Red Hat Insights app on Splunkbase Marketplace](#)

Dashboard Represents data received from Red Hat Insights

Operations

	New today Last 24 hours	Total Last 30 days
Critical recommendations	4 ↓-6	4 ↑2
Recommendations with incidents	6 ↑3	6 ↑6

Advisor events received Last 24 hours	Policy events received Last 24 hours	Drift events received Last 24 hours
205 ↑126	27 ↑2	41 ↑25

All events received
Last 24 hours **943**

Security

Malware Detection events received Last 24 hours	88 ↑5	Vulnerability events received Last 24 hours	14 ↑10
Compliance events received Last 24 hours	222 ↑16	Patch events received Last 24 hours	346 ↑282

Vulnerability

	New Today Last 24 hours	Total Last 30 days
CVEs with security rules	7 ↑6	28 ↑28
CVEs with known exploits	8 ↑4	36 ↑36

[All CVEs in Red Hat Insights](#)

Compliance reports below threshold

Last 30 days

Policy name	RHEL version	Events	Threshold
Red Hat Corporate Profile for Certified Cloud Providers (RH CCP)	RHEL 7	2	100 %



Edit

Export ▾

...

Events

Timestamp

Account

Application

System

All time ▾

All ▾

All ▾

All ▾

Hide Filters

Timestamp ↕	Account ↕	Application ↕	Event Type ↕	System ↕	Description ↕
2022-04-25 14:01:23	██████	Policies	Policy triggered	████████████████████	RHEL 8.3 or older policy triggered
2022-04-25 11:03:21	██████	Policies	Policy triggered	████████████████████	Identify existing Tower hosts policy triggered
2022-04-25 11:03:21	██████	Policies	Policy triggered	████████████████████	MyTest policy triggered
2022-04-25 11:02:49	██████	Policies	Policy triggered	████████████████████	RHEL 8.3 or older policy triggered
2022-04-25 11:02:48	██████	Drift	Drift from baseline detected	████████████████████	Drift detected from Durham Baseline baseline
2022-04-25 11:02:48	██████	Drift	Drift from baseline detected	████████████████████	Drift detected from Durham Baseline baseline
2022-04-25 11:02:33	██████	Policies	Policy triggered	████████████████████	RHEL 8.3 or older policy triggered
2022-04-25 11:02:32	██████	Drift	Drift from baseline detected	████████████████████	Drift detected from Raleigh Baseline baseline
2022-04-25 11:02:29	██████	Drift	Drift from baseline detected	████████████████████	Drift detected from Raleigh Baseline baseline
2022-04-25 11:02:23	██████	Drift	Drift from baseline detected	████████████████████	Drift detected from Raleigh Baseline baseline
2022-04-25 11:02:23	██████	Policies	Policy triggered	████████████████████	RHEL 8.3 or older policy triggered
2022-04-25	██████	Drift	Drift from baseline	████████████████████	Drift detected from Raleigh Baseline baseline



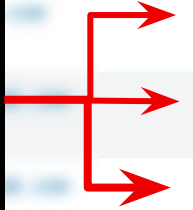
Events

Edit Export ...

Timestamp: All time | Account: All | Application: All | System: All | Hide Filters

Timestamp	Account	Application	Event Type	System	Description
2022-04-25 14:01:23		Policies	Policy triggered		RHEL 8.3 or older policy triggered
2022-04-25 11:03:21		Policies	Policy triggered		Identify existing Tower hosts policy triggered
2022-04-25 11:03:21		Policies	Policy triggered		MyTest policy triggered
2022-04-25 11:02:49		Policies	Policy triggered		RHEL 8.3 or older policy triggered
2022-04-25 11:02:48		Drift	Drift detected		Drift detected from Durham Baseline baseline
2022-04-25 11:02:48		Drift	Drift from baseline detected		Drift detected from Durham Baseline baseline
2022-04-25 11:02:33		Policies	Policy triggered		RHEL 8.3 or older policy triggered
2022-04-25 11:02:32		Drift	Drift from baseline detected		Drift detected from Raleigh Baseline baseline
2022-04-25 11:02:29		Drift	Drift from baseline detected		Drift detected from Raleigh Baseline baseline
2022-04-25 11:02:23		Drift	Drift from baseline detected		Drift detected from Raleigh Baseline baseline
2022-04-25 11:02:23		Policies	Policy triggered		RHEL 8.3 or older policy triggered
2022-04-25		Drift	Drift from baseline		Drift detected from Raleigh Baseline baseline

The descriptions are hyperlinks which will take you to Insights



Red Hat Insights API Cheat Sheet

Query data or perform operations from any client



- Samples of common queries across applications
 - Authenticate with Insights API
 - Interact with the inventory
 - Obtain findings identified by Insights
 - Work with various Insights applications
 - Generate and execute remediations for existing issues
 - Get notifications and integrate with third party applications
- Code examples in Python and Ansible playbooks

Download: <https://developers.redhat.com/cheat-sheets/red-hat-insights-api-cheat-sheet>

Notifications

Configure how notifications are sent from Hybrid Cloud Console

- ▶ Create behavior groups that determines actions and recipients
 - Actions: send to an email or to an integration
- ▶ One or more behavior groups can be triggered when an event occurs

What's New - Q2 2022:





Notifications | Red Hat Enterprise Linux

[View event log](#)

This service allows you to configure which notifications different users within your organization will be entitled to receiving. To do this, create behavior groups and apply them to different events. Users will be able to opt-in or out of receiving authorized event notifications in their [User Preferences](#).

Behavior groups 3 ?

Search by name

Create new group

Splunk Group



Action

Recipient

Integration: Splunk

Splunk - HCC Lab

Behavior group 2



Action

Recipient

Send an email

Users: Admins

Behavior group 1



Action

Recipient

Send an email

Users: All

Filter by application

1 - 4 of 4

Event	Application	Behavior
Policy triggered	Policies	Behavior group 1, Splunk Group
Drift from baseline detected	Drift	Behavior group 1, Splunk Group
New recommendation	Advisor	Behavior group 1, Splunk Group
Resolved recommendation	Advisor	Behavior group 2, Splunk Group





Notifications | Red Hat Enterprise Linux

This service allows you to configure which notifications different users within your organization will be entitled to receiving. To do this, create behavior groups and apply them to different events. Users will be able to opt-in or out of receiving authorized event notifications in their [User Preferences](#).

[View event log](#)

You should also know about the event log!

Behavior groups 3 ?

Search by name

Create new group

Splunk Group

Action	Recipient
Integration: Splunk	Splunk - HCC Lab

Behavior group 2

Action	Recipient
Send an email	Users: Admins

Behavior group 1

Action	Recipient
Send an email	Users: All

Filter by application

1 - 4 of 4

Event	Application	Behavior
Policy triggered	Policies	Behavior group 1, Splunk Group
Drift from baseline detected	Drift	Behavior group 1, Splunk Group
New recommendation	Advisor	Behavior group 1, Splunk Group
Resolved recommendation	Advisor	Behavior group 2, Splunk Group

Feedback





Event Log

[View notification settings](#)

View all the events affecting your organization

Event
Filter by event
Last 14 days

1 - 20 of 252

Red Hat Enterprise Linux
Policies
Drift
Advisor
1 more
Clear filters

Event	Application	Actions	Date and time
Drift from baseline detected	Drift - Red Hat Enterprise Linux	Integration: Splunk	26 Apr 2022 15:20:24 UTC
New recommendation	Advisor - Red Hat Enterprise Linux	Integration: Splunk	26 Apr 2022 15:20:23 UTC
Policy triggered	Policies - Red Hat Enterprise Linux	Integration: Splunk	26 Apr 2022 15:03:26 UTC
Drift from baseline detected	Drift - Red Hat Enterprise Linux	Integration: Splunk	26 Apr 2022 15:03:25 UTC
New recommendation	Advisor - Red Hat Enterprise Linux	Integration: Splunk	26 Apr 2022 14:51:33 UTC
Policy triggered	Policies - Red Hat Enterprise Linux	Integration: Splunk	26 Apr 2022 14:51:32 UTC

Feedback



Insights Feedback

Filter by status

20 Systems registered with Insights

Register systems

UI Feedback gets captured in Jira and creates a trackable artifact

Vulnerability

Red Hat recommends addressing these CVEs with high priority due to heightened risk associated with these security issues

13

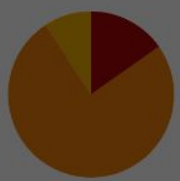
CVEs with security rules impacting 1 or more systems

View CVEs

Advisor recommendations

1 incident detected

CVEs by CVSS score



CVSS score	CVE totals	Known exploits
8.0 - 10	104	1
4.0 - 7.9	516	3
0.0 - 3.9	63	0

Recommendations by category



- 4 Availability
- 3 Performance
- 2 Stability
- 2 Security

We would love your feedback!

Please leave us your feedback below.

Submit feedback Cancel

Feedback

10

Compliance

Remediations

Insights Security Page

Common security questions, answered.

- ▶ <https://cloud.redhat.com/security/insights>



[Products](#) > [Red Hat Insights](#) > [Red Hat Insights data and application security](#)

Red Hat Insights data and application security

Published July 2, 2021 • 5-minute read

[Copy URL](#)

JUMP TO SECTION

- Overview
- Data privacy features
- Data protection
- Data collection

Overview

[Red Hat® Insights](#) is a Software-as-a-Service offering that gives users intelligence into their operating environments, helping to identify and address operational and vulnerability risks before an issue results in downtime. To provide this service, small pieces of system metadata are sent to the Red Hat Insights service for processing and analysis, during which time measures are taken to help reduce risk.

Red Hat Insights

Hear from Insights users

How to use - Customer Stories

- Only pick a couple of these stories that best suits the focus of your presentation (try and use quotes from different customers).
- These are based off of a webinar we did with 3 customers, and from the webinar we created several 1-2 minute videos covering what the customers felt were key values of Insights.
- The QR code or the speaker's notes will take you to the page with the video if desired.
- Consider moving these earlier in the slide deck - I often place after the "How does it benefit my business?" slide



“It’s like having another person working on the team.”

John Lemay
Systems Engineer
Greenway Health





Red Hat Insights



“It’s more like a force multiplier... with massive knowledge of the Red Hat ecosystem”

John T Mills
Infrastructure Architect
Graybar Electric Company





Red Hat Insights



“A bridge between
Red Hat’s expertise and
my systems”

Will Darton
Support Lead III
Navy Federal Credit Union





“[Red Hat] Insights makes things that were the ‘same’ actually the same”

John T Mills
Infrastructure Architect
Graybar Electric Company





“I would have never seen that without [Red Hat] Insights.”

John Lemay
Systems Engineer
Greenway Health





“It’s looking at my system through Red Hat’s glasses.”

Will Darton
Support Lead III
Navy Federal Credit Union





Red Hat Insights



“I relied on the application team... Now I just look at [Red Hat] Insights.”

John T Mills
Infrastructure Architect
Graybar Electric Company





“[Insights]...has turned out to be a pretty valuable tool”

Will Darton
Support Lead III
Navy Federal Credit Union



Red Hat Insights customers

DIRECTV

HCA 
HealthcareSM

Graybar 

 **EMORY**
UNIVERSITY

ally

ctos


Tomago
Aluminium

 **BCDevExchange**

EMPLOYERS[®]

 **SAPPHIRE HEALTH**
TECHNOLOGY SERVICES



“Red Hat Insights helps us identify opportunities to enhance security and manage risks more quickly, leading to time savings for our teams and more security for our systems.”

Timothy Runion
Security Architect,
DIRECTV

Opportunity

Multichannel video programming distributor DIRECTV is an existing user of Red Hat Enterprise Linux (RHEL). The company began using Red Hat Insights, part of the RHEL subscription, to pinpoint issues within their operating environment.

Solution

DIRECTV has deployed Red Hat Insights to thousands of systems, which provides IT teams with a faster, automated way to identify and prioritize risks within their infrastructure.

Results

- Detects vulnerabilities and monitors regulatory compliance
- Remediates risks with very little effort on an employee’s behalf
- Successfully resolved a cloud performance degradation by using Red Hat Insights to identify, locate, and remediate a known configuration issue related to network interface cards

Red Hat Insights

Next steps and resources

New Resources

Videos:

Overview Videos:

- [Red Hat Insights Overview](#)

Webinars & Livestreams

- March 30, 2022 - [Comprehensive awareness and proactive solutions for government agencies and departments](#)
- October 20, 2021 - [RHEL Presents Livestream E23 - Insights Vulnerability Service](#)
- November 3, 2021 - [Level Up Hour - Insights](#)
- November 4, 2021 - [Insights for Ansible Convergence webinar](#)

Customer Success Stories

- [YouTube Playlist for Red Hat Insights](#)

Blogs/ Analyst Reports / Press Releases:

Red Hat Blogs:

- [Finding and using disabled recommendations in Red Hat Insights Advisor](#)
- [Self-healing infrastructure with Red Hat Insights and Ansible Automation Platform](#)
- [Red Hat Insights and the delivery of a new security recommendation](#)

Infographic:

- [Boost your operations with Red Hat Insights](#)

Analyst Reports:

- [Graybar Boosts IT Infrastructure Automation and Management with Red Hat Enterprise Linux](#)
- [Save administrator time and effort by activating Red Hat Insights](#)
- [Achieving Intelligent DevOps How Open Source Software and Linux Fit into Today's DevOps and Digital Business Initiatives](#)
- [Red Hat Insights predictive analytics for Red Hat Enterprise Linux](#)





Insights at Summit:

May 10 & 11, 2022

Sessions:

- [Solving cluster problems the most effective way](#)
- [Effective Red Hat Enterprise Linux management in the Cloud](#)
- [Securing and optimizing your Red Hat Enterprise Linux environments with Red Hat Insights and Ansible](#)
- The Future of Red Hat Subscription Management, and how it empowers your Hybrid Cloud Experience [Bonus session - listed in the catalog on May 13]



Boost your IT operations

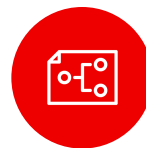
Go to cloud.redhat.com today



Get access to our product page:
<http://redhat.com/insights> »



Read our blog:
<https://www.redhat.com/en/blog/channel/red-hat-insights> »



Go to Red Hat Insights:
cloud.redhat.com »

Insights and Satellite

Make Red Hat content work for you

Content management matters.

Example: Interconnecting blocks

Imagine each block is a piece of content



Getting the content you need is difficult and time consuming.

Insights and RHEL have access to ALL the content you are subscribed to.

You have to find what you need.

Example: Interconnecting blocks

Imagine each block is a piece of content

Organized content is easier to use.

Satellite lets you organize content into content views - you see only what you need to see within that view.

Once content is organized, it is easier to build what you need - patching, provisioning, etc.



How do these products work with content?

RHEL / Insights

- Host has access to all content in the account.
- Dnf / yum update command will update to the latest version.

Smart Management / Satellite

- Host has access to specific content as part of a content view
- Only certain packages may be in the content view
- Content may be restricted to a date range, version, or other factor
(latest content approved for production use)
- Dnf / yum update command will update to the latest version available as part of the content view.

Example: You need an update to python

Insights:

Scenario: The Patch service of Insights reports you need an update to python on a production system.

Result: Host gets the latest version of python when the patch is applied.

This version may or have not have been tested prior to this update.

Satellite

Scenario: Satellite reports you need an update to python on a production system.

Hosts have a content view that provides content that has been tested for use in production. This is not the latest version, but one that has been confirmed working with all enterprise applications.

Result: Host gets the tested version of python from the content view.

Both are valid options, but one may be more aligned with your organization's procedures.