



## Red Hat Insights 2022

# Troubleshooting Operational Issues Using System Comparison

How to identify operational issues in systems and generate reports



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How to identify operational issues in systems and generate reports

Red Hat Customer Content Services

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## Abstract

This workflow example demonstrates how to identify configuration differences between systems and generate CSV reports for analyses.

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## MAKING OPEN SOURCE MORE INCLUSIVE

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](#).

## PROVIDING FEEDBACK ON RED HAT DOCUMENTATION

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- 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

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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.



## CHAPTER 1. OVERVIEW

In an IT environment, two systems can behave differently even when they have been configured using the same template. The Insights for Red Hat Enterprise Linux service enables IT operators to compare the system configuration of one system to that of other systems.

To identify configuration differences between two or more systems:

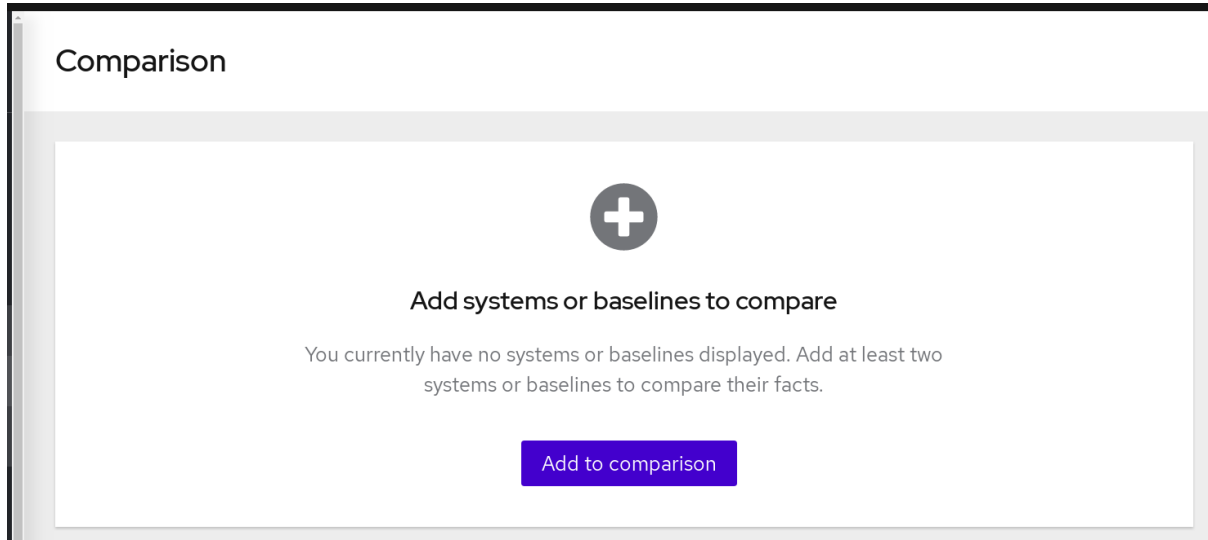
1. Access the Insights for Red Hat Enterprise Linux service.
2. Add systems manually within Insights for Red Hat Enterprise Linux and view profiles.
3. Filter the system facts by state to highlight differences and incomplete data.
4. Export the filtered output to a CSV file for further analysis.

## CHAPTER 2. ACCESSING THE SYSTEM AND BASELINES COMPARISON SERVICE

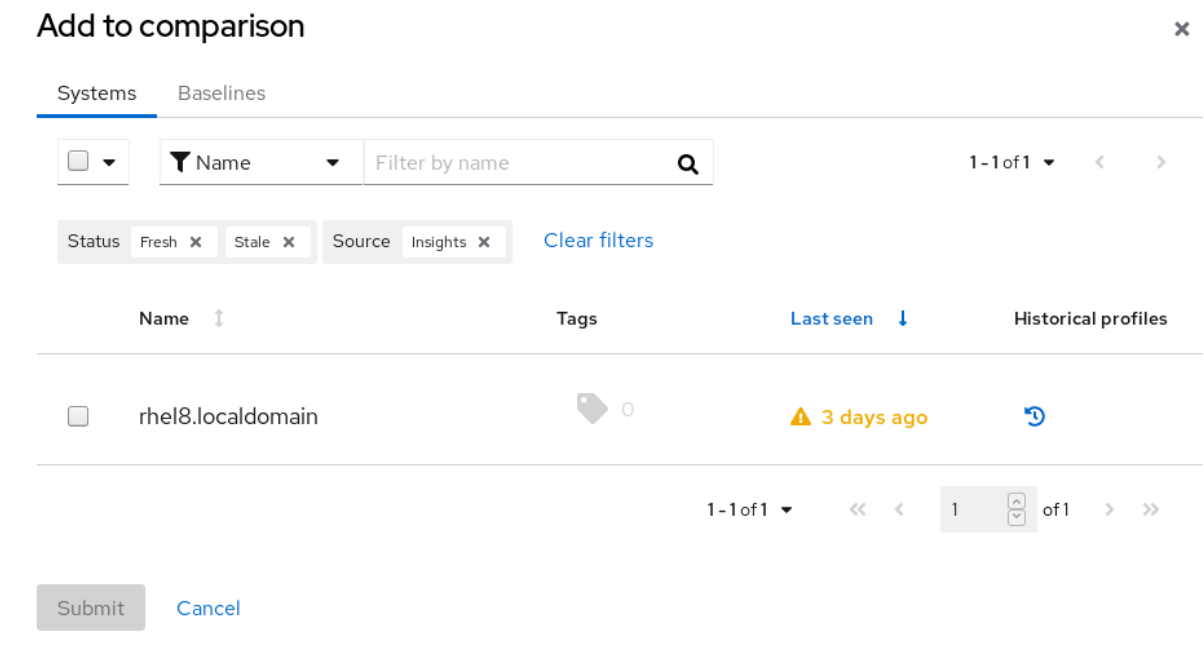
The Insights for Red Hat Enterprise Linux service is part of Insights for Red Hat Enterprise Linux application. Access this service via [Red Hat Hybrid Cloud Console](#).

### Procedure

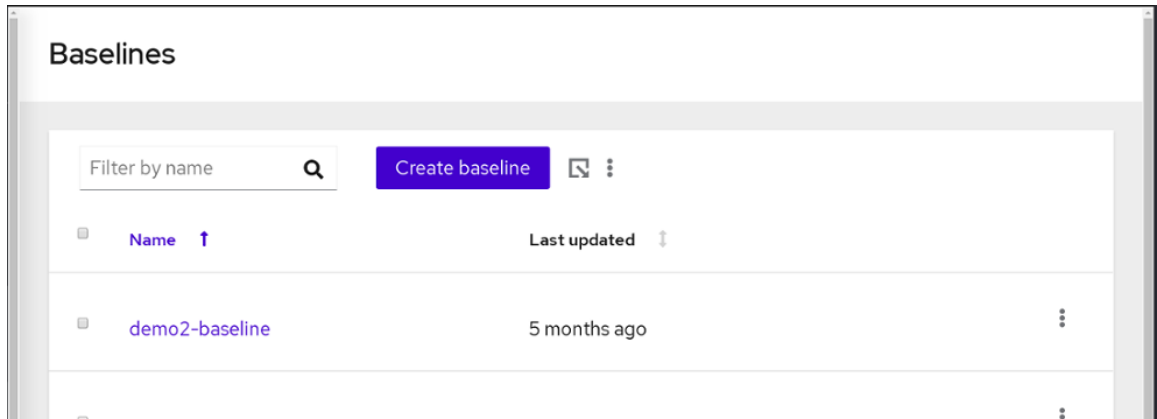
1. Navigate to [Red Hat Enterprise Linux > Drift > Comparison](#). The Comparison screen opens.



2. Click **Add to comparison**. The Add to comparison screen opens, where you can add systems or baselines to compare.



- On the **Systems** tab, you can add any systems you want to compare. This screen also lists any baselines that already exist in your Insights for RHEL application inventory.
- On the **Baselines** tab, you can create baselines. This screen also lists any baselines that already exist in your inventory.



3. Click **Submit** to add your systems or baselines for comparison.

Once you add them, you can start comparing the facts of systems and baselines in your Insights for RHEL application inventory.

## CHAPTER 3. ADDING SYSTEMS MANUALLY WITHIN SYSTEM COMPARISON


Within the Insights for Red Hat Enterprise Linux service, you can add systems registered in your Insights for RHEL application inventory.

### Procedure

1. Navigate to [Red Hat Enterprise Linux > Drift > Comparison](#) . The Comparison screen opens.
2. Click **Add to comparison**.
3. Select the systems to compare from the list. Alternatively, enter the system name in the search box to find by name, and then select the system.
4. Click **Submit**.



### NOTE

- At any time, you can add more systems by clicking the **Add to comparison** button near the top of the Comparison screen.
- Similarly, you can remove a particular system under comparison by clicking the **X** symbol on the upper-right corner of the individual system name, or you can remove all systems under comparison by clicking the options menu  located at the top, then clicking **Clear all comparisons** to start again.

## CHAPTER 4. FILTERING SYSTEM FACTS

Filter the system profiles by state to highlight any differences between the systems, and incomplete data.

1. Click the **View** drop-down list and select **Same** to show facts that are identical.
2. Click the **View** drop-down list and select **Different** to show facts that are different.
3. Click the **View** drop-down list and select **Incomplete Data** to show facts where information is incomplete.

In the example screen capture below, you can see the system comparison data filtered by facts that show a difference across systems. Some facts, such as the **fqdn**, are expected to be different for each system, but the installed packages are expected to be the same. Over time, some packages have been upgraded on system 1, but not on system 2 and system 3, as shown by expanding the fact category **installed\_packages**.

The screenshot shows a 'Comparison' interface with a table of facts. The table is filtered to show 'Different' facts. The 'State' column shows 'Different' for all three systems for the facts bios\_release\_date, bios\_vendor, and bios\_version. The 'Fact' column lists these three facts. The table headers include system names and timestamps.

Fact ↑	State ↓	rhel6-chicago.example.com ☆ 20 Apr 2020, 13:37 UTC	rhel6-tokyo.example.com ☆ 20 Apr 2020, 13:19 UTC	soundwave.infra.pnhc ☆ 20 Apr 2020, 14:34 UTC
bios_release_date	!	04/01/2014	01/01/2011	12/12/2018
bios_vendor	!	SeaBIOS	Seabios	Phoenix Technologies LT
bios_version	!	1.11.0-2.el7	0.5.1	6.00

## CHAPTER 5. EXPORTING SYSTEM COMPARISON OUTPUT

The Comparison service allows you to export system comparison output, along with any current selections such as filters, to a comma-separated values (CSV) file.



### NOTE

The exported CSV report preserves all your current selections on the system comparison output, including any filters applied. That is, it follows the WYSIWYG (What You See Is What You Get) paradigm. Therefore, you will need to expand any nested fact categories (**installed\_packages**, for example) to be exported in the report.

### Procedure

1. On the Comparison output screen for two or more systems, click the **Export to CSV** icon (



), and then select **Export to CSV**.

2. Save the CSV file to the location of your choice so that you can easily compare exported facts and analyze discrepancies in systems.