



## Red Hat Insights 2020-10

# Troubleshooting Operational Issues Using System Comparison

How to identify operational issues in systems and generate reports



# Red Hat Insights 2020-10 Troubleshooting Operational Issues Using System Comparison

---

How to identify operational issues in systems and generate reports

Red Hat Customer Content Services

## Legal Notice

Copyright © 2020 Red Hat, Inc.

The text of and illustrations in this document are licensed by Red Hat under a Creative Commons Attribution–Share Alike 3.0 Unported license ("CC-BY-SA"). An explanation of CC-BY-SA is available at

<http://creativecommons.org/licenses/by-sa/3.0/>

. In accordance with CC-BY-SA, if you distribute this document or an adaptation of it, you must provide the URL for the original version.

Red Hat, as the licensor of this document, waives the right to enforce, and agrees not to assert, Section 4d of CC-BY-SA to the fullest extent permitted by applicable law.

Red Hat, Red Hat Enterprise Linux, the Shadowman logo, the Red Hat logo, JBoss, OpenShift, Fedora, the Infinity logo, and RHCE are trademarks of Red Hat, Inc., registered in the United States and other countries.

Linux<sup>®</sup> is the registered trademark of Linus Torvalds in the United States and other countries.

Java<sup>®</sup> is a registered trademark of Oracle and/or its affiliates.

XFS<sup>®</sup> is a trademark of Silicon Graphics International Corp. or its subsidiaries in the United States and/or other countries.

MySQL<sup>®</sup> is a registered trademark of MySQL AB in the United States, the European Union and other countries.

Node.js<sup>®</sup> is an official trademark of Joyent. Red Hat is not formally related to or endorsed by the official Joyent Node.js open source or commercial project.

The OpenStack<sup>®</sup> Word Mark and OpenStack logo are either registered trademarks/service marks or trademarks/service marks of the OpenStack Foundation, in the United States and other countries and are used with the OpenStack Foundation's permission. We are not affiliated with, endorsed or sponsored by the OpenStack Foundation, or the OpenStack community.

All other trademarks are the property of their respective owners.

## Abstract

This workflow example demonstrates how to identify configuration differences between systems and generate CSV reports for analyses. Providing Feedback: If you have a suggestion to improve this document or find an error, submit a Bugzilla report at <http://bugzilla.redhat.com> against Cloud Software Services (cloud.redhat.com) for the System Comparison component.

---

## Table of Contents

CHAPTER 1. OVERVIEW .....	3
CHAPTER 2. ACCESSING THE SYSTEM AND BASELINES COMPARISON SERVICE .....	4
CHAPTER 3. ADDING SYSTEMS MANUALLY WITHIN SYSTEM COMPARISON .....	6
CHAPTER 4. FILTERING SYSTEM FACTS .....	7
CHAPTER 5. EXPORTING SYSTEM COMPARISON OUTPUT .....	8



## CHAPTER 1. OVERVIEW

In an IT environment, two systems can behave differently even when they have been configured using the same template. The System Comparison 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:

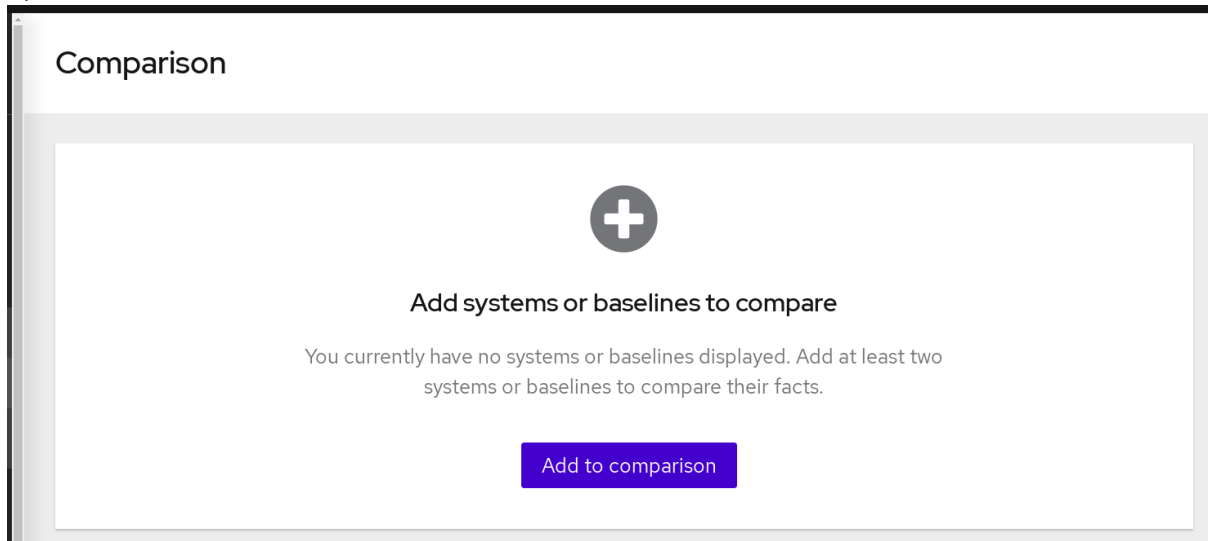
1. Access the System Comparison service.
2. Add systems manually within System Comparison and view profiles.
3. Filter the system facts by state to highlight differences and incomplete data.
4. Export the filtered output to a CSV file for further analysis.

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

The System Comparison service is part of Red Hat Insights. Access this service via <https://cloud.redhat.com>.

### Procedure

1. On <https://cloud.redhat.com>, in the Red Hat Insights panel, click **Drift**. The Comparison screen opens.



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

### Add to comparison

Systems Baselines

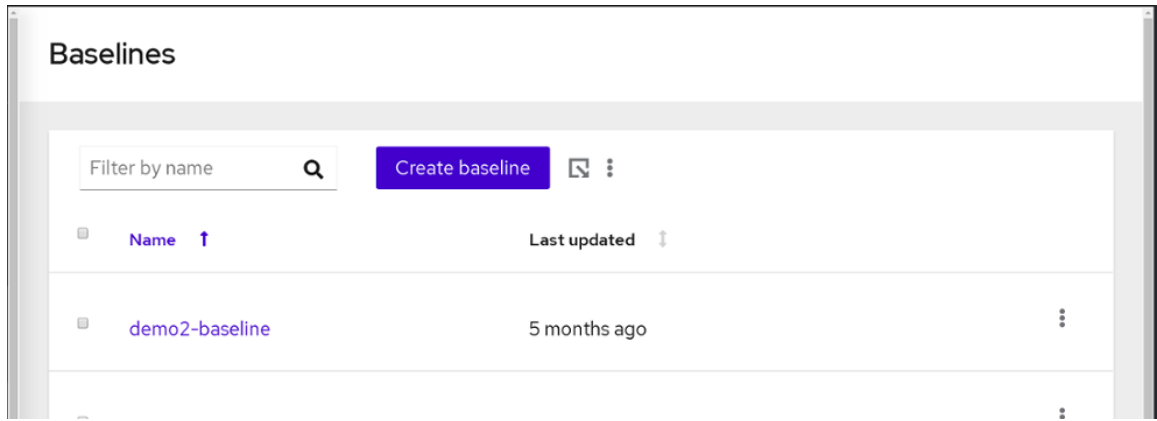
▼ Name Filter by name 🔍

Status Fresh × Stale × Source Insights × Clear filters

Submit

- 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 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 inventory.

## CHAPTER 3. ADDING SYSTEMS MANUALLY WITHIN SYSTEM COMPARISON

Within the System Comparison service, you can add systems registered in your Insights inventory.


Add systems registered in your Insights inventory within the {ServiceName} service.

### Procedure

1. On the Insights user interface, click **Drift** → **Comparison** in the left-side navigation menu. The Comparison service opens to the Comparison screen.
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 **Different** to show facts that are different.
2. 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**.

Comparison

Filter by fact View: Same, Different, Incomplete data Add to comparison 1 - 24 of 24

State Same Different Incomplete data

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.

Export the system profiles you filtered above by state to highlight the differences and incomplete data to a comma-separated values (CSV) file.



### NOTE

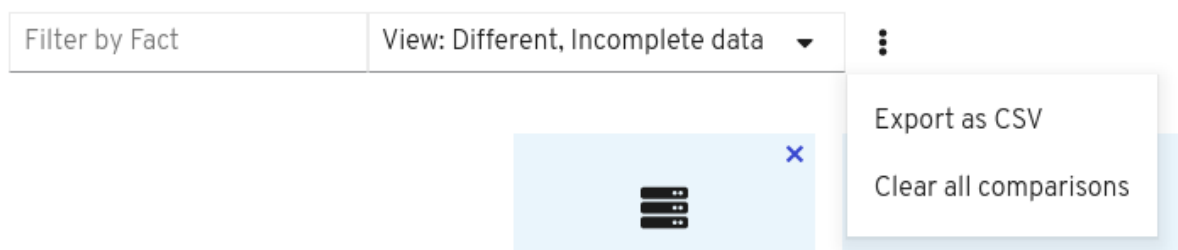
The exported CSV report preserves all your current selections on the system comparison output, including any filters applied. That is, it follows the WYSIWYG (What You See Is What You Get) paradigm. Therefore, you will need to expand any nested fact categories (**installed\_packages**, for example) to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

### Procedure

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



), and then select either **Export as CSV**, or **Clear all comparisons**.



2. Open the CSV file with the tool of your choice so that you can easily compare exported facts and analyze discrepancies in systems.