Red Hat Enterprise Linux

The State of Enterprise Linux

2023

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Server

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What we'll discuss today

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Introduction

Some Quick Definitions

Agreeing on nomenclature is key to a productive discussion

- **Enterprise Software** is designed to meet the needs of large organizations or enterprises such as businesses, and governments rather than individuals. People don't use things like SAP for fun at their house

- **Ecosystem** has a specific meaning to Red Hat and refers to partners who build software *on* RHEL or hardware vendors that work *with* RHEL

- **Landscape** is the word I will use refer collectively to projects like Red Hat Enterprise Linux, CentOS Stream, Fedora, and rebuilds

- **Enterprise Linux** is a category of Linux operating systems that are specifically designed and optimized to meet the requirements of large-scale organizations and businesses.
  - Colloquially refers to Red Hat Enterprise Linux, rebuilds, and sometimes even the upstreams like CentOS Stream and Fedora
  - will not cover Suse *Linux Enterprise*
  - Example: RHEL Workstation attempts to solve problems for organizations, not individuals per se

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Biases & Methodology

- I believe strongly in open source, and have for 25 years
- I've worked for Red Hat for 12.5 years
- I'm *the* Product Manager for RHEL Server
- I have strong opinions on Open Source and Products
- I think that commercial interests are an important part of open source
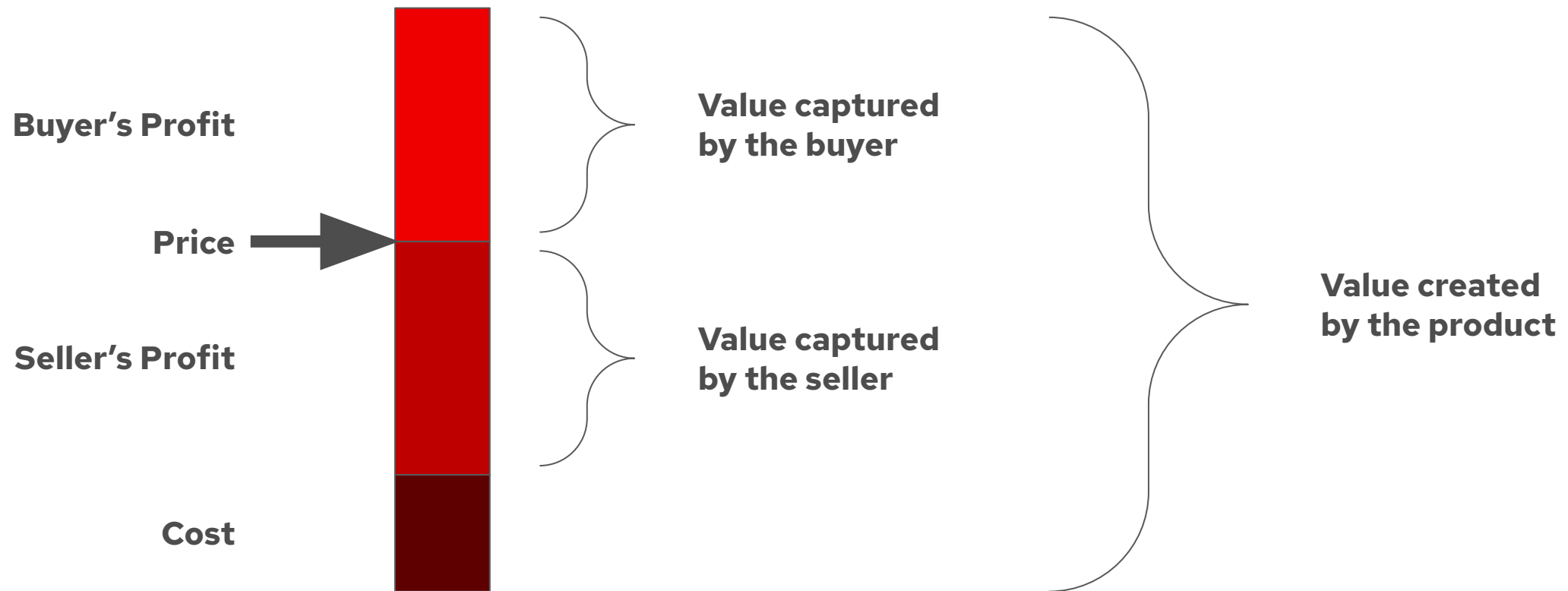- I will try to keep all statements as positive as I can

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The Fundamentals of Value Creation

This is how product managers think about products and services

Buyer's Profit

Price →

Value captured by the buyer

Seller's Profit

Value captured by the seller

Value created by the product

Cost

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Value Creation with Open Source

This is how product managers *ought to* think about products and services

Buyer's Profit

Price →

Vendor's Profit

Vendor's Cost

Community's Profit

Community Cost

Buyer's Problems

Community's Problems

Market Problems

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Who Writes OpenSSL?

"87% of the non-trivial commits to OpenSSL in the last 12 months were from 56 people paid by their employer to work on OpenSSL."
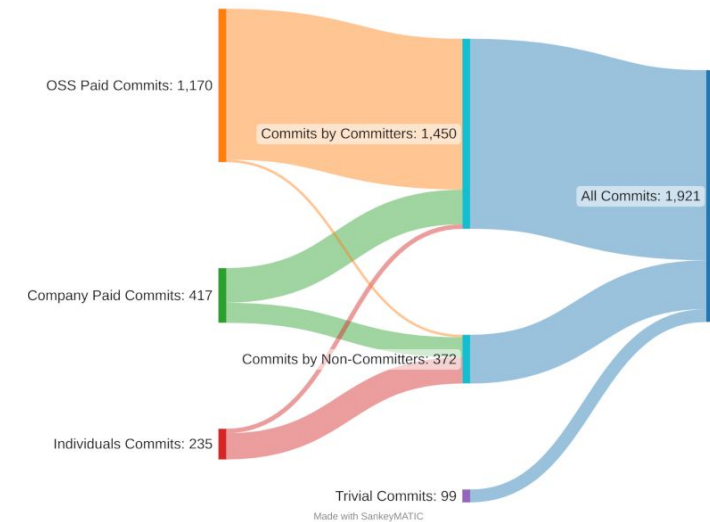
State of Open Source 2023
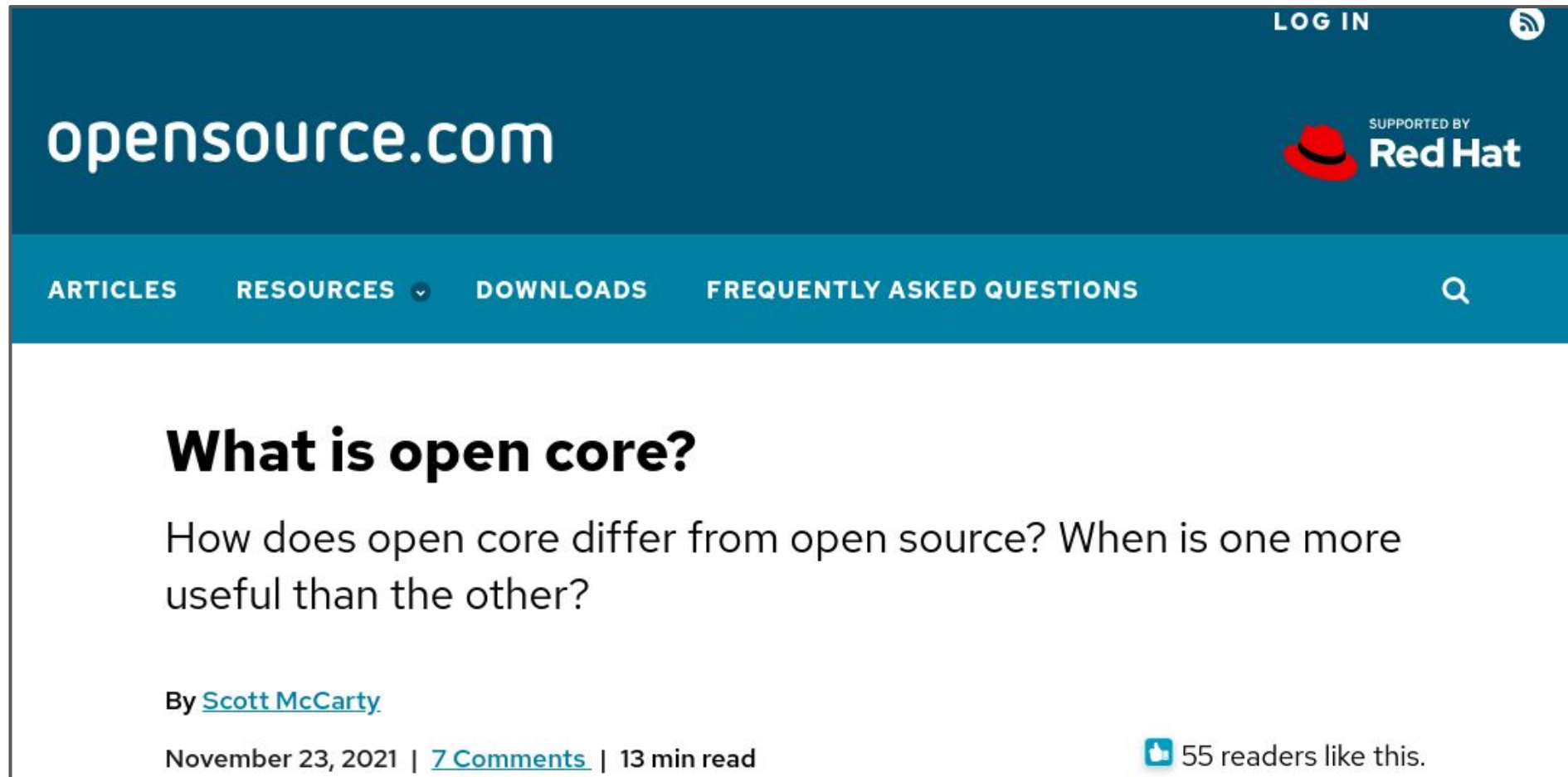
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Problems in The Cloud

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Problems with AI/ML

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Does Open Source Still Work?

Much of the world is questioning it

Problems in The Cloud

- ▸ Redis: AGPL -> Apache2 with clauses -> RSAL
- ▸ Mongo: AGPL -> SSPL
- ▸ Confluent: Apache2 -> CCCL
- ▸ Gitlab: just do open core from the beginning AFAIK
- ▸ Hashi: MPL -> BUSL/BSL
- ▸ Most projects: Contributor License Agreement (CLA)
- ▸ Some projects: Copyright Transfer Agreement (CTA)

Problems with AI/ML

- ▸ Llama and ChatGPT are not open source
- ▸ Many people are using the words "open source" to describe code, data, and weights which are not
- ▸ The Open Source Initiative (OSI) is working on a project to define "Open Source AI"
- ▸ As a society, we're reevaluating Regulation, Licensing, Contracts, and Technical Controls

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The Big Question

What is Open Source Good for?

Value Creation?

- Exchange of ideas
- Contribution of code/docs/QE
- <u>Upstream First</u>
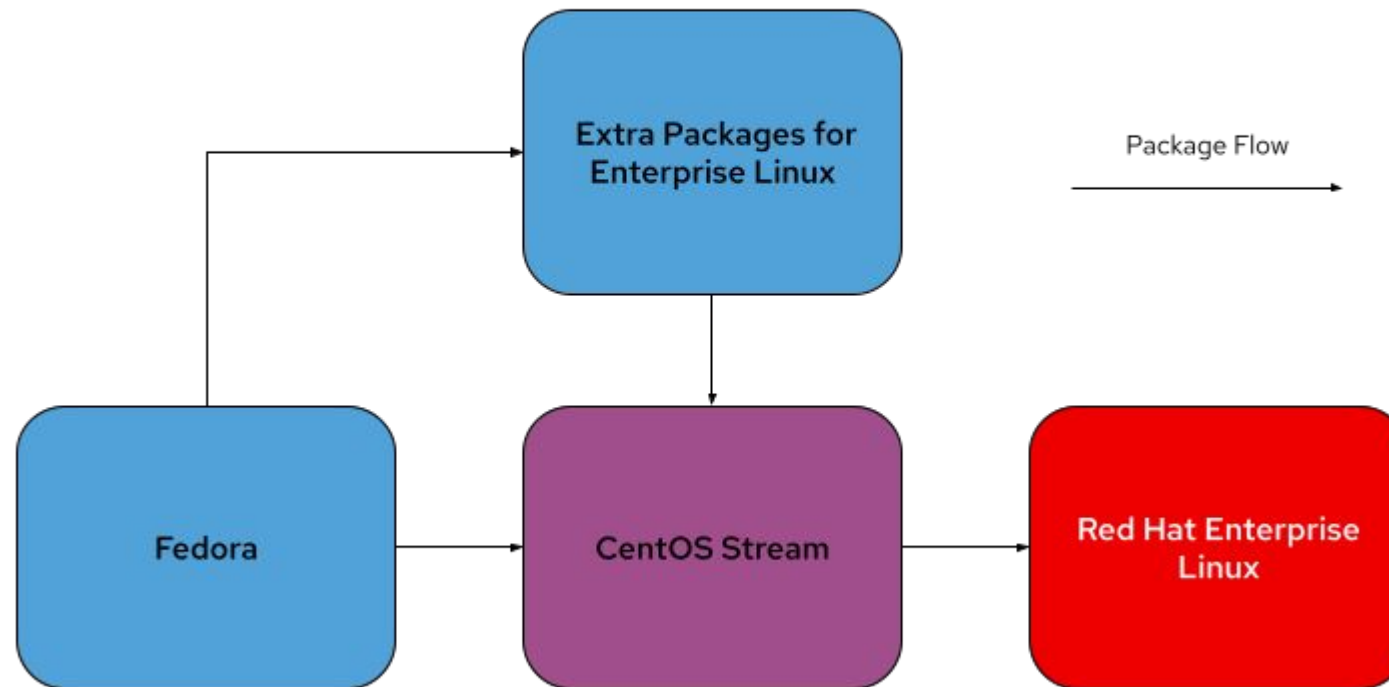- Contribute $1 but get back $2, $5 or $10 in value

Free Marketing?

- Just help me sell my ideas
- Use the community of free users as sales leads
- Use the leverage of popularity to strong arm partners

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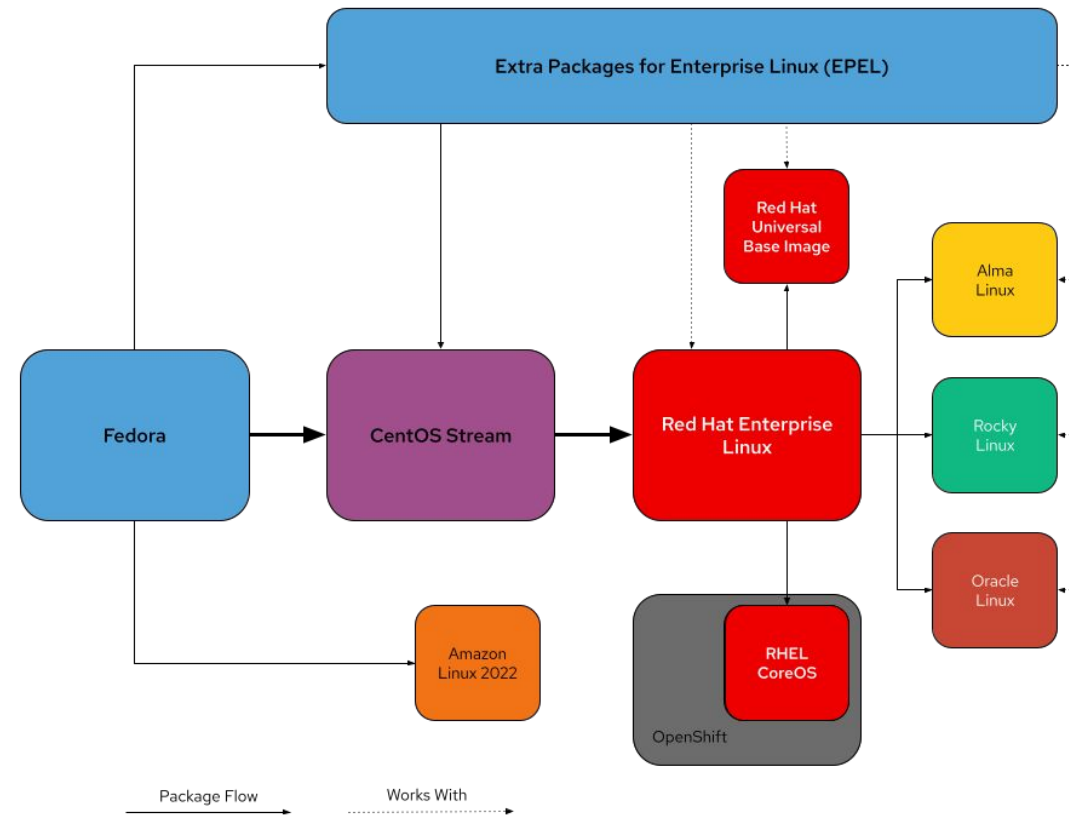
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Overview of the Enterprise Linux Landscape

These are the suppliers

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Overview of the Enterprise Linux Landscape (Early 2023)

This includes the consumers

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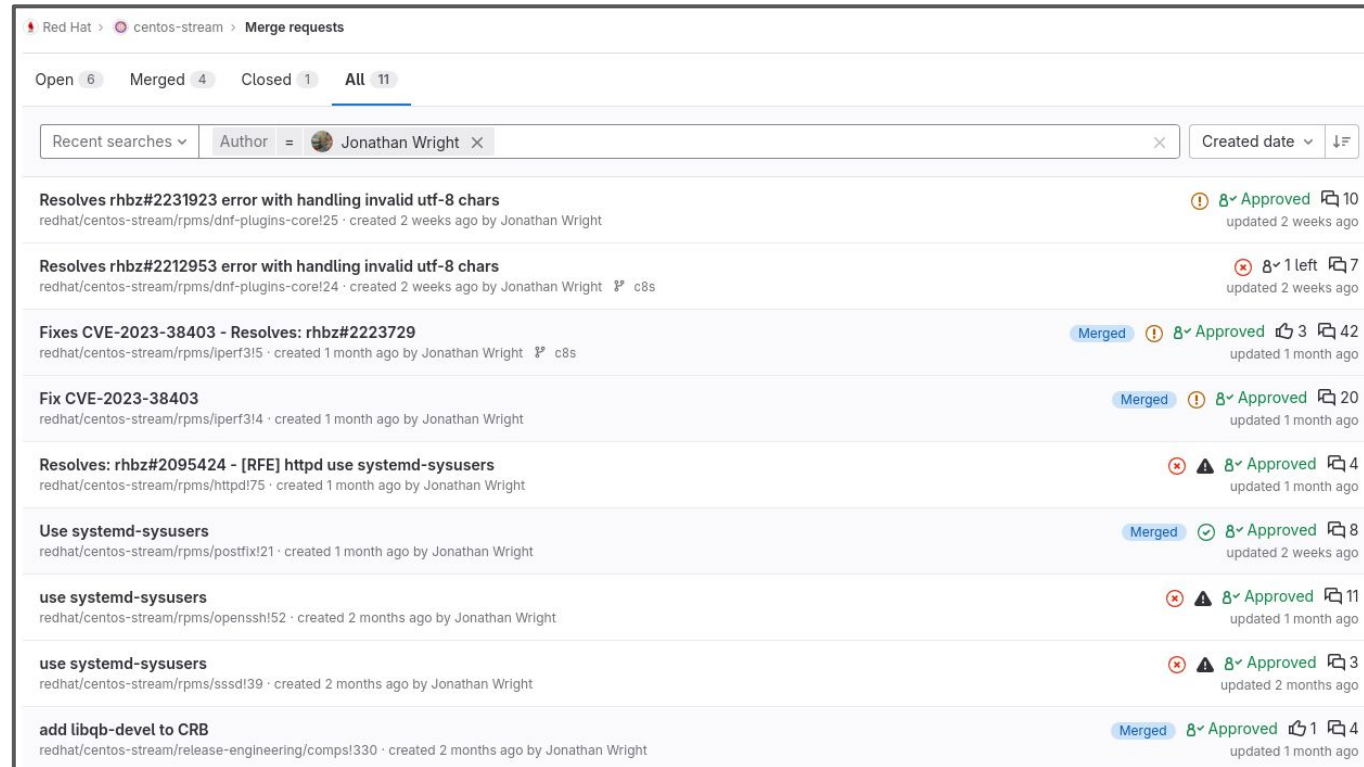
Overview of the Enterprise Linux Landscape (Late 2023)

This includes the consumers

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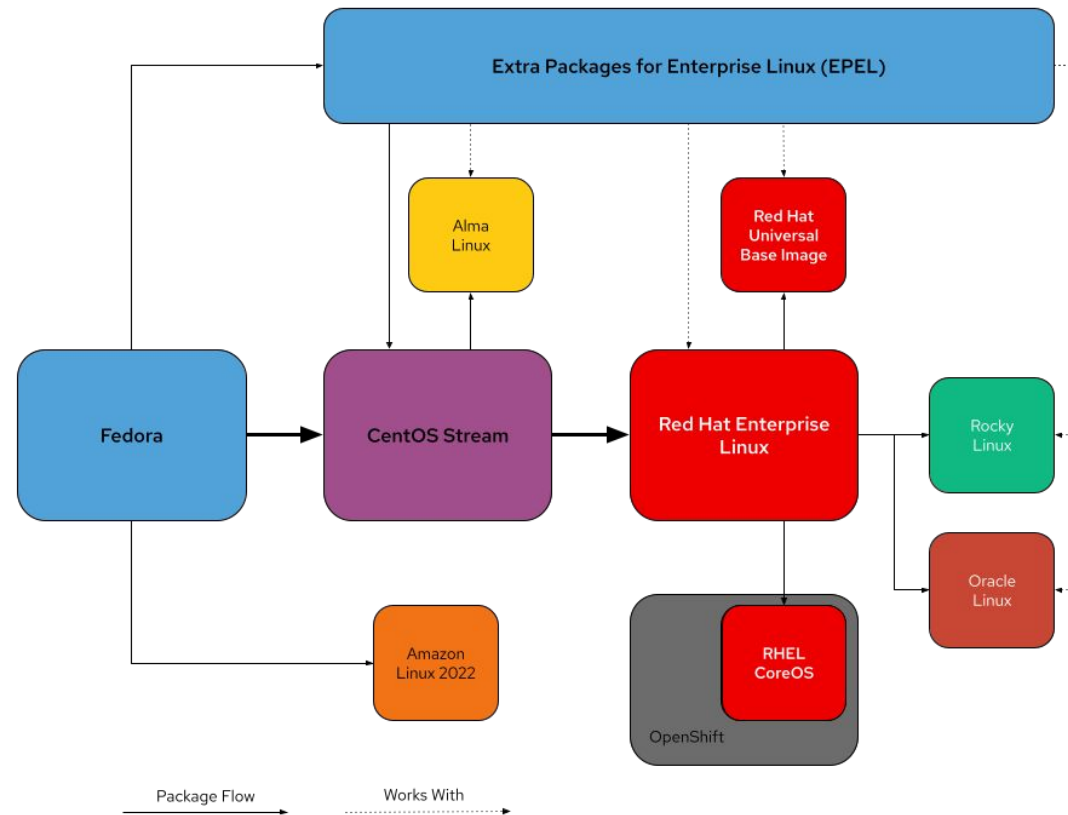
Let's Celebrate a Little

Focus on the positive

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Let's Talk About The Code Change

There's a lot of passion, let's try to be kind and humble

Before

1. All code for RHEL released, even non-GPL (36-38%)
2. Code to RHEL available in three ways
3. Easy for rebuilds to claim path-for-patch compatibility
4. Red Hat has upstream first methodology
5. Not a lot of contribution to CentOS Stream
6. Most idea come from customers and upstream Fedora

After

1. All code for RHEL released, even non-GPL (36-38%)
2. Code available in two ways
3. Less easy to claim path-for-patch compatibility
4. Red Hat upstream first methodology
5. Successful contribution already happening
6. New ideas and code challenging RHEL's assumptions

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Technology Landscape

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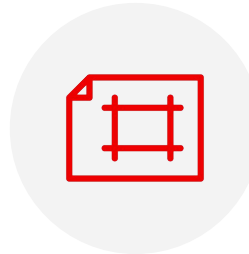
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We've talked a lot about the politics and philosophy

But, let's not forget why we do this.

We love technology and where it's going.

console.redhat.com (connected experience)

Red Hat Insights and Image Builder are exciting, especially as we expand to day 0 use cases, and everyone with a Red Hat subscription (aka Management for All)

Software Bill of Materials (SBOM)

Red Hat is also starting to publish SBOM files for core Red Hat offerings. This is a machine-readable, comprehensive inventory of software components and dependencies (manifest), with license and provenance information.
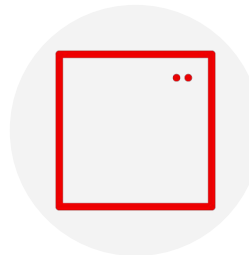
Web Assembly (WASM)

Red Hat is still forming an opinion on WASM, but it's an exciting technology as it relates to cross-platform capabilities across the cloud and edge devices.

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Conclusions

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Pulling it all together

Technology and politics are changing quickly

We're all still learning

For a long time, we kinda thought open source was "done" but it's not.

Try to Be Kind & Humble

It's easy to armchair quarterback, to tiptoe into conspiracy theories. If you feel angry and confident, that's a warning sign.

Open Source is Under Threat

Large swaths of the world are reevaluating if open source still works. Commercial interests pay for a significant portion of the development, so this is a threat.
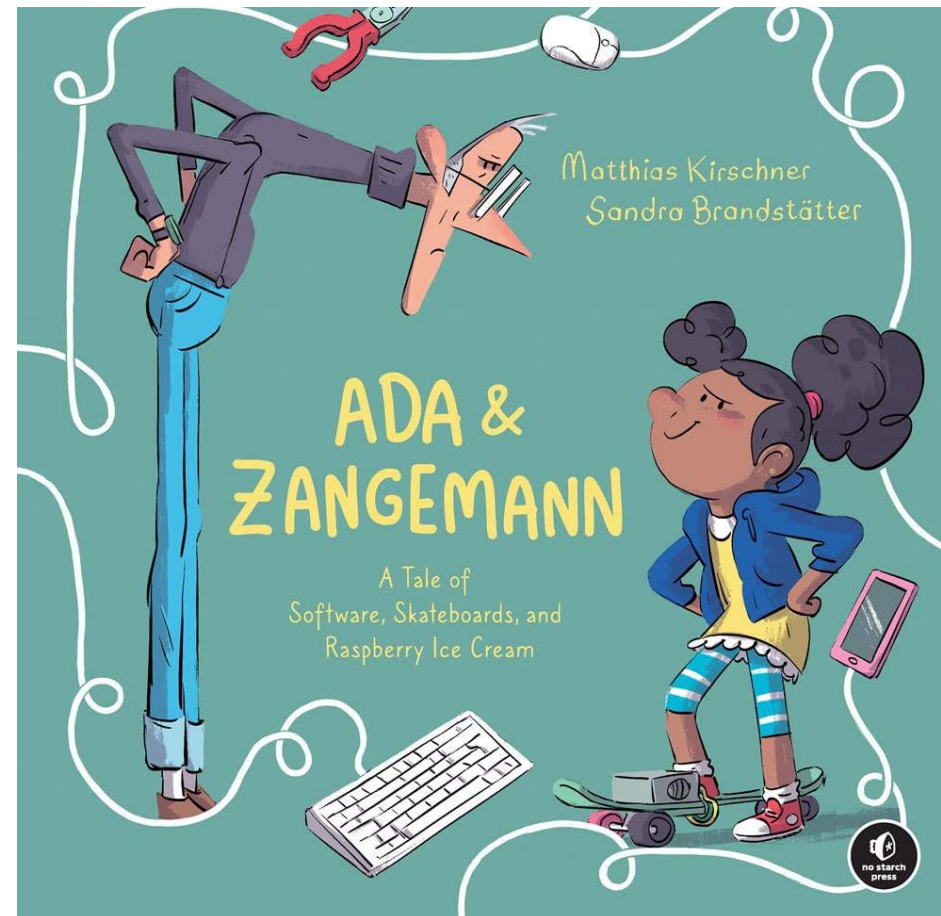
It's Exciting Again

There are periods where things seem to become boring, and other times when they're quite interesting again. We're in a phase where things are interesting again.

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Software Freedom is Important

Check out Ada & Zangemann

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Thank you

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open source software solutions. Award-winning

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