Update on the CERN IT Linux Strategy

Arne Wiebalck

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A (very brief) Recap

➔ **Red Hat announced↗ to stop publishing RHEL sources (June 21, 2023)**

➤ **RHEL 8 & RHEL 9 affected, no changes for RHEL7 / CentOS7**

➤ **De-branded RHEL SRPMs were published on git.centos.org↗**

➤ **Basis for RHEL clone rebuilds such as AlmaLinux and Rocky Linux**

➤ **Sources now only available to RHEL subscribers**

➔ **This move directly targets the clone rebuilds↗**

➔ **Rebuilders' reaction range from provocative/confrontational to conciliatory**

➔ **More details: Linux Future Committee Meeting #8**

What's new … AlmaLinux Reaction

➔ **AlmaLinux dropping 1:1 in favor of ABI compatibility**

"1:1 bug compatible"

- Red Hat source RPMs are rebuilt as is

- Same versions of everything, no deviations

- Applications built on RHEL work

"ABI compatible"

- Packages are "recreated" from "legal" sources

- Versions *may* differ, deviations are minimized

- Applications built on RHEL *should* work
  - If they don't, it's a bug which will be fixed

What's new … AlmaLinux Status

➔ **Multiple sources of packages/patches**

- ➢ UBI, CentOS Stream, Oracle Linux, upstream projects

➔ **~99% of packages are 1:1 rebuilds**

- ➢ ~75% straight from UBI or CentOS Stream
- ➢ ~24% require some manual patching
  - ■ Sourcing patches from Stream's git or upstream projects

➔ **<1% differ from RHEL**

- ➢ Kernels only include security patches
- ➢ Updated microcode for recent CPU vulnerabilities

➔ **Watching closely the evolution with the next point release**

What's new … AlmaLinux Security

➔ **CVE-2023-32233: use-after-free in nf_tables [Important]**
  - ➢ RHEL 9 update published on 21st of June, just as access to sources was cut off
  - ➢ AlmaLinux had a patch ready, but wasn't sure if they could legally release it
  - ➢ AlmaLinux 9 patch released 3 weeks later

➔ **CVE-2022-40982 and CVE-2023-20569: Downfall and Inception [Moderate]**
  - ➢ CVE announced 8th of August
  - ➢ AlmaLinux 8/9 patches released 1 week later
  - ➢ Red Hat 8/9 patches for Downfall released 4 weeks later
  - ➢ No Red Hat patches available yet for Inception

What's new … OpenELA Announcement

➔ **"Trade Association" to "distribute RHEL compatible source code"**

    ➢   Oracle, SUSE, and CIQ (and Rocky Linux, but not Rocky Enterprise Software Foundation)

➔ **… to be followed**

https://www.suse.com/news/OpenELA-for-a-Collaborative-and-Open-Future/

Recommendation

- **Continue relying on RHEL and AlmaLinux**

- **We will continue to monitor the situation and adapt as necessary**

- **Maintain frequent contact with our upstream providers and partners**

AlmaLinux

Red Hat
Enterprise Linux

2023   2024
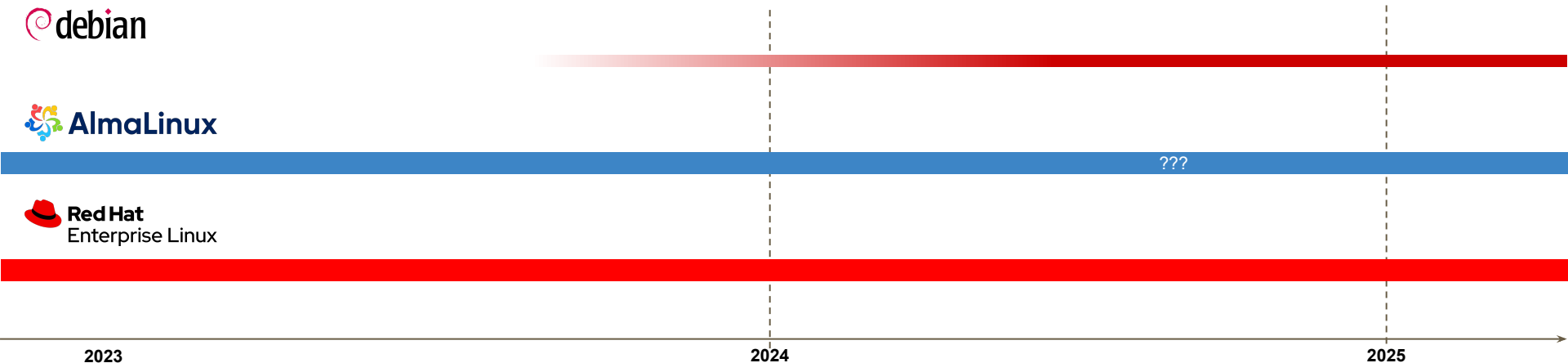
Limited Debian Support (for ATS FECs)

- **Front-end computers: embedded machines currently using CC7**
  - **~65% won't be able to run RHEL 10, can't be replaced**

- **Limited scope, well defined use-case**
  - **Pending final approval**

# Potential Future Scenario: Dual Ecosystem

PROPOSAL

- **Ramp up Debian support to match Red Hat / AlmaLinux**
  - Credible exit strategy for multiple risk scenarios

- **Long-term project, major effort from multiple parties**
  - Requires management approval and commitment

End of current RHEL contract

debian

AlmaLinux

???

Red Hat
Enterprise Linux

???

LS3

2023

2026

RHEL contract renegotiation

2029
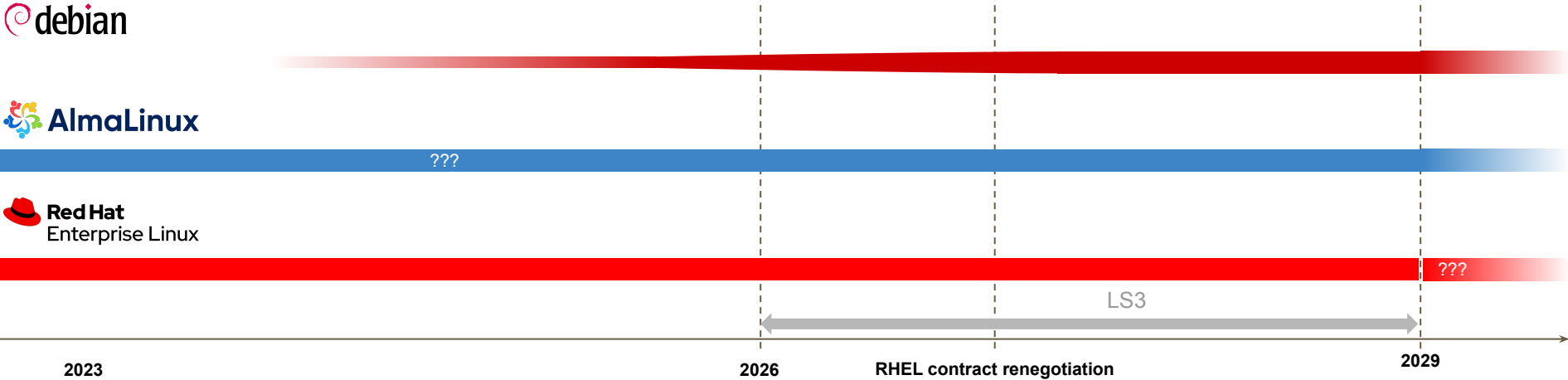
Announcements

- June 21: **Red Hat** announces changes to RHEL 8/9 source availability
  - https://www.redhat.com/en/blog/furthering-evolution-centos-stream
- June 22: **AlmaLinux** studying impact
  - https://almalinux.org/blog/impact-of-rhel-changes/
- June 22: **Rocky Linux** "mitigation" in place
  - https://rockylinux.org/news/2023-06-22-press-release/
- June 24: **Rocky Linux** updates are up-to-date
  - https://rockylinux.org/news/brave-new-world-path-forward/
- June 26: **Red Hat** responds to criticism
  - https://www.redhat.com/en/blog/red-hats-commitment-open-source-response-gitcentosorg-changes
- June 29: **Rocky Linux** pushes back on Red Hat
  - https://rockylinux.org/news/keeping-open-source-open/
- June 30: **AlmaLinux** highlights their contributions
  - https://almalinux.org/blog/our-value-is-our-values/
- July 10: **Oracle** criticises Red Hat
  - https://www.oracle.com/jo/news/announcement/blog/keep-linux-open-and-free-2023-07-10/
- July 11: **SUSE** forks RHEL
  - https://www.suse.com/news/SUSE-Preserves-Choice-in-Enterprise-Linux/
- July 13: **AlmaLinux** drops 1:1 in favor of ABI compatibility
  - https://almalinux.org/blog/future-of-almalinux/
- August 10: **SUSE, Oracle and CIQ** announce OpenELA "trade association"
  - https://www.suse.com/news/OpenELA-for-a-Collaborative-and-Open-Future/
- August 31: **Rocky Linux** supports OpenELA, but not their primary source of packages
  - https://rockylinux.org/news/statement-openela-2023-08-31/

Thanks!