



CentOS Automotive SIG

October 8, 2021
CentOS Dojo

Acting Chair: Jeffrey “Jefro” Osier-Mixon
QA Lead from Red Hat: Rachel Sibley
Hardware Lead from Red Hat: Al Stone



Agenda

- Introduction to the Automotive SIG
- General goals for this SIG
- Specific goals through EOY 2021
- Decision-Making Process
- Community Standards
- Technical Status
- Open discussion

Introduction to the Automotive SIG



Why an Automotive SIG in CentOS?

- Advancement of distro-based Linux in an automotive context
- Focal point for working with other upstreams, hardware options, and related projects
- Public development for POCs, including the ***automotive CentOS*** variant
- Upstream resource & primary test bed for the Red Hat In-Vehicle Operating System



General Goals

- Create, collect, curate, and collaborate on open source automotive software
- Work directly with upstream projects related to automotive as an Edge use case
- Build and curate a CentOS variant for automotive use cases
 - based on CentOS Stream
 - on a regular release schedule
 - manifest determined by SIG participants

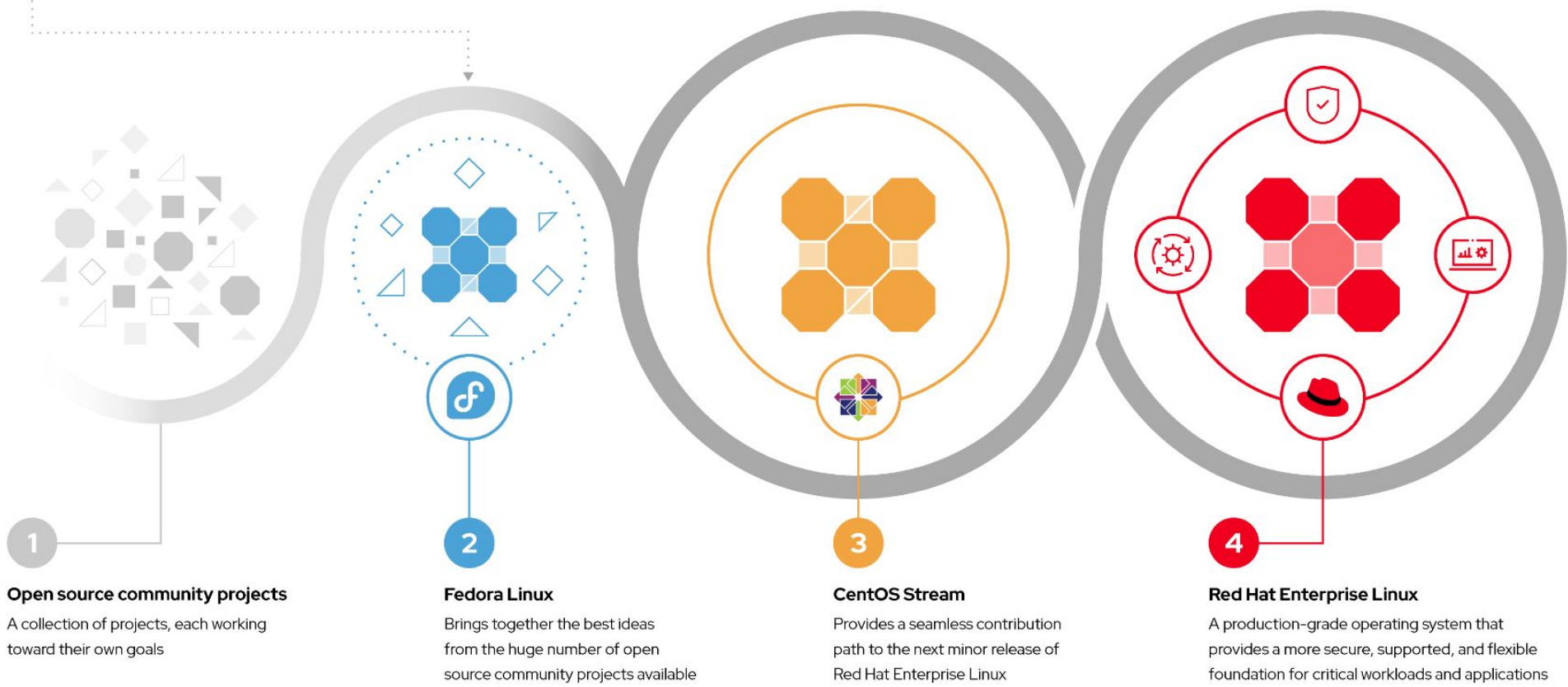


Introduction to the Automotive SIG



Contributions flow among all elements of the ecosystem; however, there is a stronger connection between CentOS Stream and Red Hat® Enterprise Linux®. They each contribute to the other while also ensuring that new code is submitted as far upstream as possible; and, ideally, directly into the relevant open source community projects.

RHEL Development Process & CentOS Stream





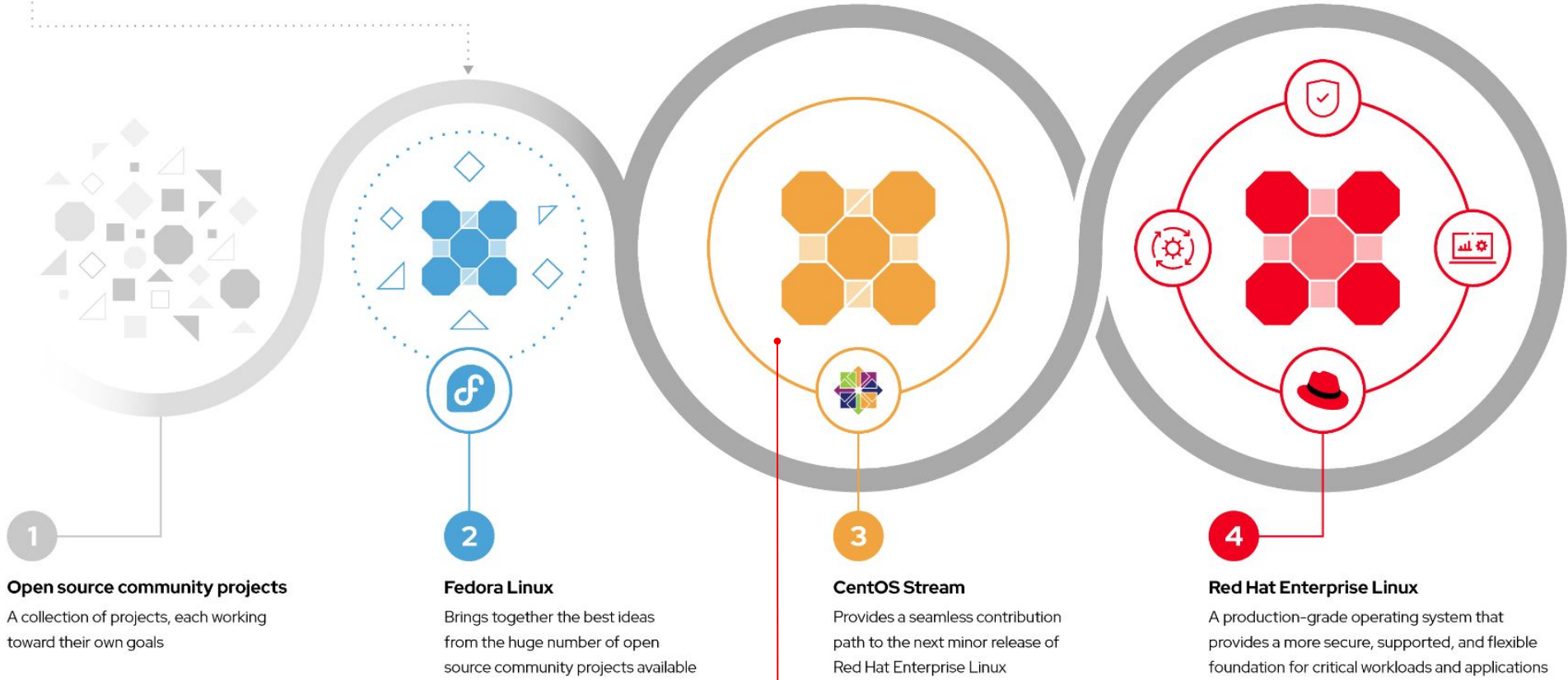
Introduction to the Automotive SIG



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Automotive upstream content comes from a number of sources. Automotive upstream content, as well as embedded artifacts from Fedora IoT relevant to automotive, coalesce in the CentOS Automotive SIG. Work from the SIG that is relevant to RHEL is contributed to CentOS Stream, upstream to RHEL and thus to RHAO. Automotive specific content from the SIG is directly upstream to RHAO.



1
Open source community projects
A collection of projects, each working toward their own goals

2
Fedora Linux
Brings together the best ideas from the huge number of open source community projects available

3
CentOS Stream
Provides a seamless contribution path to the next minor release of Red Hat Enterprise Linux

4
Red Hat Enterprise Linux
A production-grade operating system that provides a more secure, supported, and flexible foundation for critical workloads and applications

Automotive upstream & standards orgs
Standards | Middleware & Apps | Hardware

CentOS Automotive SIG
Build | Test | Experiment



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- Be a shining example of the Stream process
- Develop stickers for NASCAR vehicles << Rich

Specific Goals Through EOY 2021



- Build a foundational community
 - Establish working relationships among all participants, and encourage others to join
 - Create robust community guidelines, including **contribution guidelines** and CoC
 - Vote administrative roles
- Document plans for the CentOS Automotive variant and build & test infrastructure
- Presentation at Automotive Linux Summit

Decision-Making Process



- Let's decide this together
- Find a real chair in early 2022
- Contribution guidelines require process and hands on deck



Community Standards

- Communications
 - async: Auto SIG and Centos mailing lists
 - synch: IRC channel on [Libera.chat](#)
#centos-automotive
 - periodic: monthly formal meeting
monthly office hours informal mtg
- Code of Conduct
 - abide by the CentOS Code of Conduct
 - discuss additional guidelines
- All policies determined by community



Technical Status

- Red Hat setting up initial infrastructure via GitLab, initial CI/CD, initial code contribution as a CentOS variant
- Red Hat also contributing QA resources (Rachel)
- Some thoughts on hardware support (AI)



Test Coverage

- New test coverage based on discussions related to Certification and PoC
- Actively reviewing existing test coverage and processes and making improvements
- Test coverage related to Freedom from Interference and Measuring boot time
- Test Coverage related to an end to end smoke test for verifying the pipeline stages in GitLab
- More to come..

Hardware Support



Open Discussion

