



Red Hat Enterprise Linux and CentOS Stream Bootstrapping with Fedora ELN

Troy Dawson, Red Hat
Stephen Gallagher, Red Hat

Differing Needs



Fedora

- Run everywhere
- Try out new features
- Innovation is the primary driver

Red Hat Enterprise Linux

- Curated list of supported hardware
- Ship only tried and true functionality
- Stability is the primary driver



Bootstrapping Red Hat Enterprise Linux



- Remove unwanted dependencies
- Modify builds to exclude experimental features
- Adjust configuration defaults
- Split built packages into BaseOS, AppStream and CRB repositories
- Occurred after RHEL development branched from Fedora.
- Required around nine months of work by a dedicated bootstrapping team.
- Wasn't going to work with the new three-year release plan for RHEL.

Fedora ELN

ELN is a buildroot and compose process for Fedora that takes Fedora Rawhide sources and emulates the Red Hat Enterprise Linux build and compose.

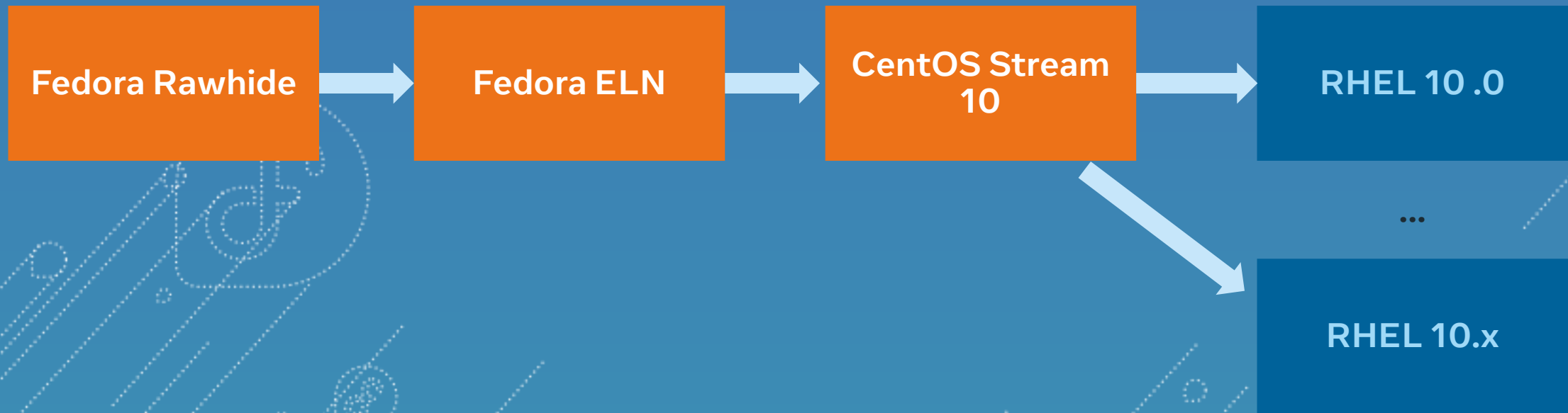
ELN allows us to explore new ideas like a higher baseline for CPU architectures in a way that will not disrupt the rest of Fedora.



Continuous Bootstrap of CentOS Stream 10



- Packages are automatically synchronized from Fedora ELN to CentOS Stream build and compose infrastructure.
- Goal is to be able to branch and cut over to CentOS Stream development at any time.



Bootstrap time after branching from Fedora



Red Hat Enterprise Linux 8

- July 2017: Branched from Fedora
- May 2018: Internal RHEL Development Phase begun

Red Hat Enterprise Linux 10

- February 2024: Branched from Fedora
- March 2024: Internal RHEL Development Phase begun

Where is CentOS Stream 10 now?



Packages

Rebuilds

- Done with the first mass rebuild
- Other smaller mass rebuilds happening
 - Java
 - Perl
 - Others?

Package Removal / Additions

- Still happening
- Majority are done

Where is CentOS Stream 10 now?

Availability

What is available

- Development Compose
- Production Compose
 - (It's just a name, not really for production)

Where is it available

- Compose URL
 - <https://composes.stream.centos.org/stream-10/>
- Available on Mirrors
 - <https://mirror.stream.centos.org/10-stream/>
- Available to CentOS SIG's on CRB



Where is CentOS Stream 10 now?

Misc

Installable

- Usually

Stabilization

- Ongoing

Cloud / AWS Images

- Created (hopefully soon)
- Not pushed out to official places
- Will be found in the Compose URL area



Where is EPEL 10 now?



Crank It Up To Eleven!!

- What do we know needs improvement?
- What ways do we want to participate?
- What blocks us from participating?





Fedora ELN Extras or EPEL 11?



Get involved



- Docs: <https://docs.fedoraproject.org/en-US/el/>
- Composes: <https://odcs.fedoraproject.org/composes/production/>
- Matrix: [#el:fedoraproject.org](https://matrix.org/join/#el:fedoraproject.org)

