

Fedora Kernel

Presented by Laura Abbott <labbott@redhat.com>

Agenda

- Who we are
- What we did last year
- What we want to do next year

Who makes the kernel happen

- Community contributions
 - Bug fixes
 - “Please turn on config X”
- Your contributions are valued!

Who makes the kernel happen

- Engineers with a specific focus area
 - Graphics
 - Input drivers
 - Architecture specific fixes
 - etc.
- Always working with Fedora team

Who makes the kernel happen

- Full time Fedora Kernel engineers
 - Josh Boyer
 - Justin Forbes
 - Laura Abbott
- Regular releases, anything and everything

What do you all make?

- Kernel is still a Fedora project
 - Very complex one
- Minimal number of kernel packages
 - No kernel-cloud, kernel-server
 - Kernel packages broken down by arches
- Maximal number of kernel options enabled
 - Drivers as modules when possible
 - Who is this option helping?

Numbers!

- July 1 2015 - June 30 2016
 - F21 - released 2014-12-09, EOL 2015-12-01
 - Released well before period, went EOL part way through the period
 - F22 - released 2015-05-26, EOL 2016-07-21
 - Released just before period, went EOL outside the period
 - F23 - released 2015-10-13
 - Released during the middle of the period
 - F24 - released 2016-06-21
 - Released toward the end of the period
 - Rawhide - rolling release

Numbers!

- July 1 2015 - June 30 2016 number of commits to pkg-git
 - F21 - 61
 - F22 - 191
 - F23 - 263
 - F24 - 419
 - Rawhide - 500

Numbers!

- July 1 2015 - June 30 2016 number of bug fixes
 - F21 - 37
 - F22 - 124
 - F23 - 138
 - F24 - 109
 - Rawhide - 96

Numbers!

- July 1 2015 - June 30 2016 number of updates
 - F21 - 12
 - F22 - 30
 - F23 - 57
 - F24 - 150
 - Rawhide - 224

Numbers!

- July 1 2015 - June 30 2016 rebases
 - F21 - 4.0.x -> 4.1.x
 - F22 - 4.0.x, -> 4.4.x
 - F23 - 4.2.x -> 4.5.x
 - F24 - 4.5.x
 - Rawhide - 224

Okay what do those numbers actually mean

- Older releases have a fall off
- Stable releases get more bug fixes than updates
- Rawhide gets ~1 commit a working day on average (kind of)
- Releases get several different kernel versions

What have we learned?

- People don't like bugs
- People don't like surprise bugs
- Most of the bugs are coming from upstream, not Fedora
- We like it when we can fix bugs!
- We want to get more people involved

What was the plan from last year

- Power management
 - Some work, needs focus
- Automation/Testing
 - Great work!
- Upstream
 - Ongoing work

What was the plan from last year

- 32-bit
 - Continuing on downward trend, still low priority
- BTRFS
 - Still not the best choice for Fedora
- Kdbus
 - Developers are re-evaluating

What's the plan for next year

- Good surprises, not bad
 - Will out of tree modules work?
 - Will my hardware work?
- Share our work
 - Writing
 - What do you want to see?
- Tools to solve your problems
- We want more people involved
- https://fedoraproject.org/wiki/Fedora_Engineering/FY17_Plan#Kernel

Questions?