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PARTICIPATING IN THE FEDORA / RED HAT / FOSS MODEL

Paul W. Frields
Fedora Project Leader, Red Hat
June 24, 2010

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About the Presenter

- Accountable to Red Hat for all things Fedora
- Ensure smooth interface and communication between internal and external parts of the Fedora community
- Background:
 - FPL since February 2008
 - Technical specialist in the US DOJ
 - <http://pfrields.fedorapeople.org/>

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What you'll know when you leave here

- Why Red Hat cares about the community process
- How that process has helped Red Hat get the right technologies into RHEL
- Time for questions after the slides, but feel free to ask them at any time!

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Code starts in the community

- 1000s of individual projects
- Community is *upstream*; consumers are *downstream*
- Red Hat presence in “core” communities
- Mechanics of community development:
<http://producingoss.com/>

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Open source collaboration

- *Small “pet project”*

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Open source collaboration

- *Larger distributed project*

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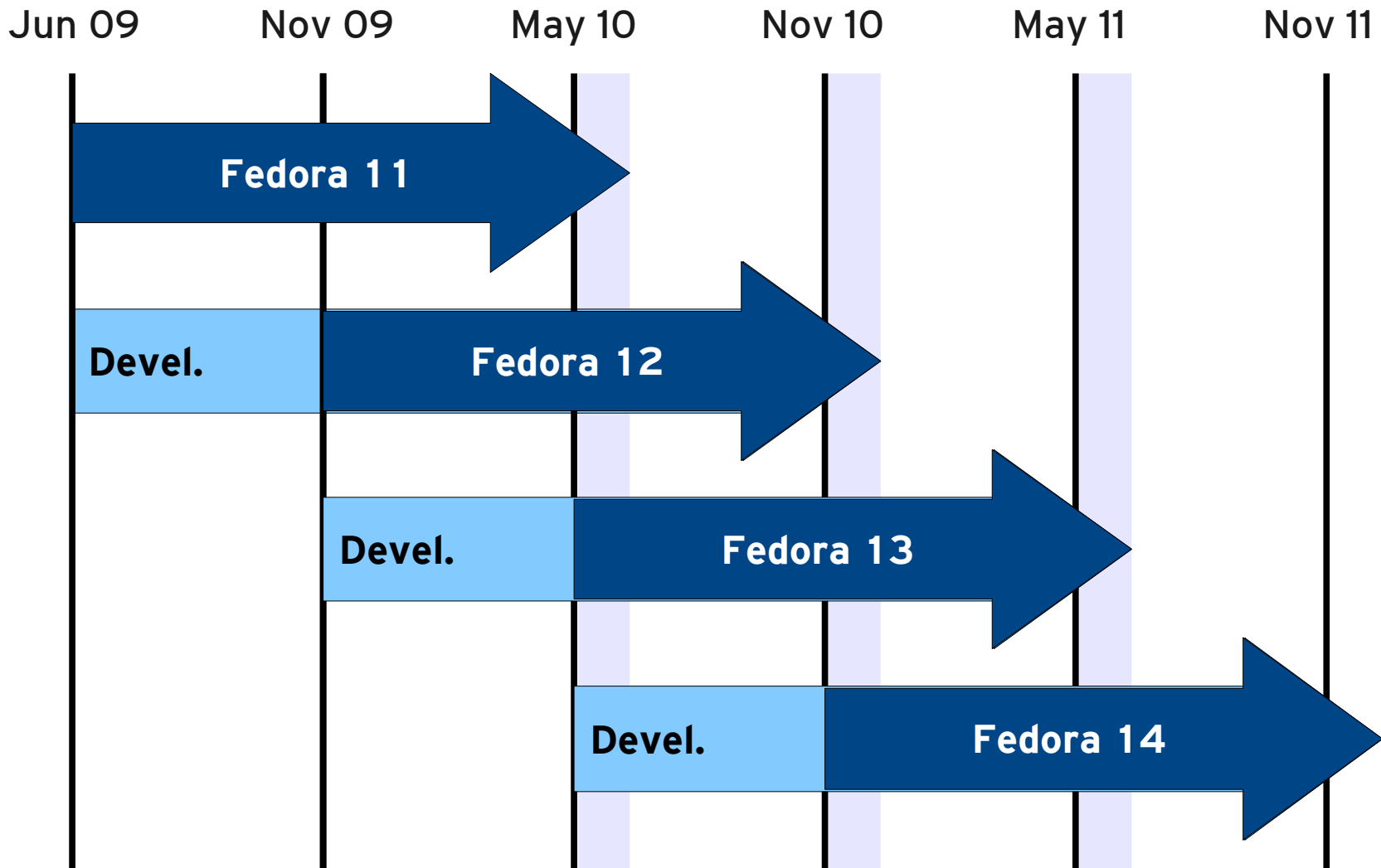


Image courtesy of ogimogi via Flickr, CC BY.



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Six-month release cycle



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Feedback loop from community

- “Release early and often” cuts work during RHEL cycle
- Functional and integration testing, bug inflow
- Technology preview of RHEL features
- Grows open source mindshare
- Open door to participation

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Example: the Linux kernel

- Based on latest [LF publication](#)
- Exemplar for other upstreams
- Representative of how Red Hat contributes to open source communities

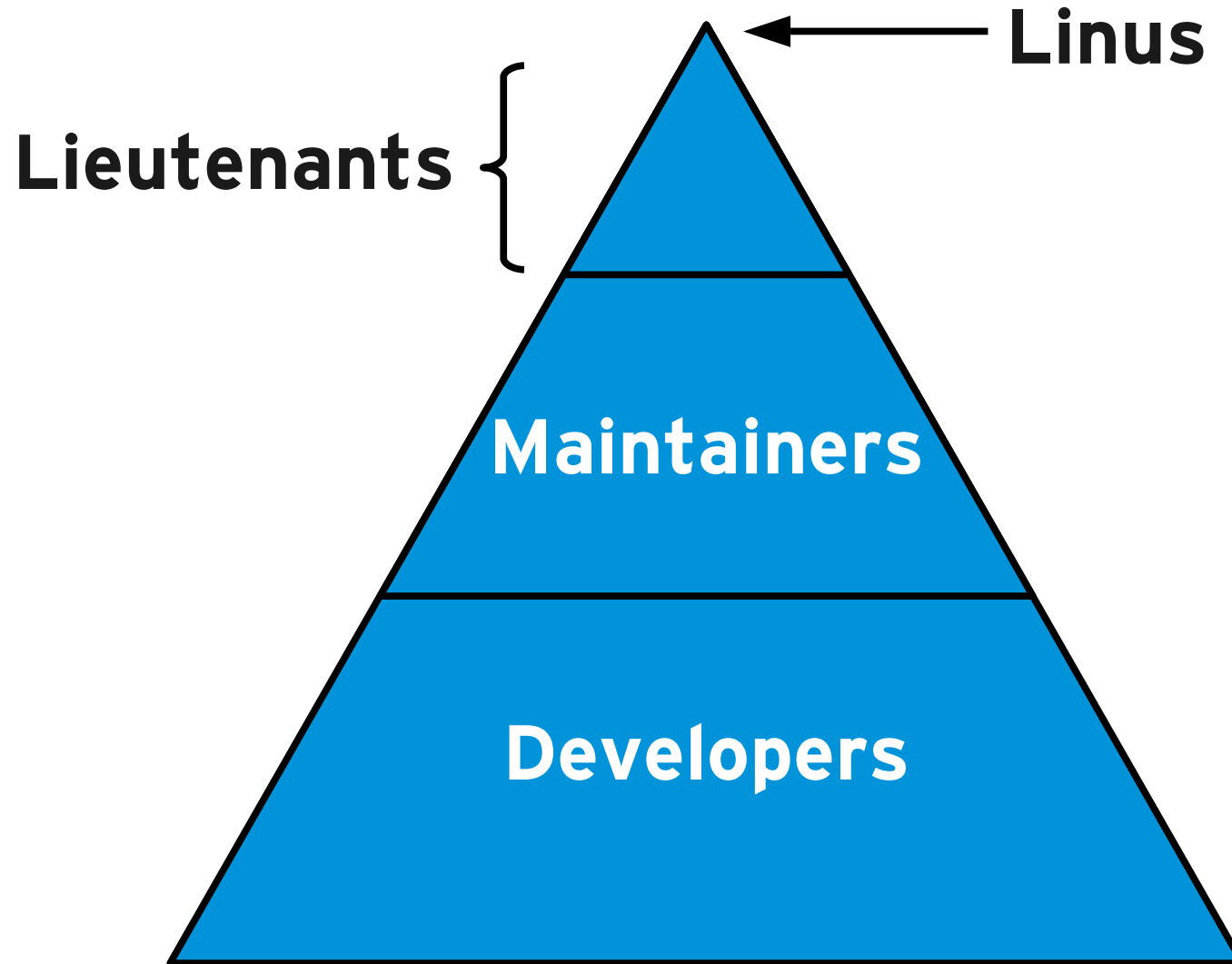
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Kernel organization



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Red Hat kernel involvement

100+

**Includes generalists, specific
subsystems, hardware foci**

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Red Hat contributions to kernel, 2.6.12 – 2.6.30:

12.3%

Source: Linux Foundation, August 2009

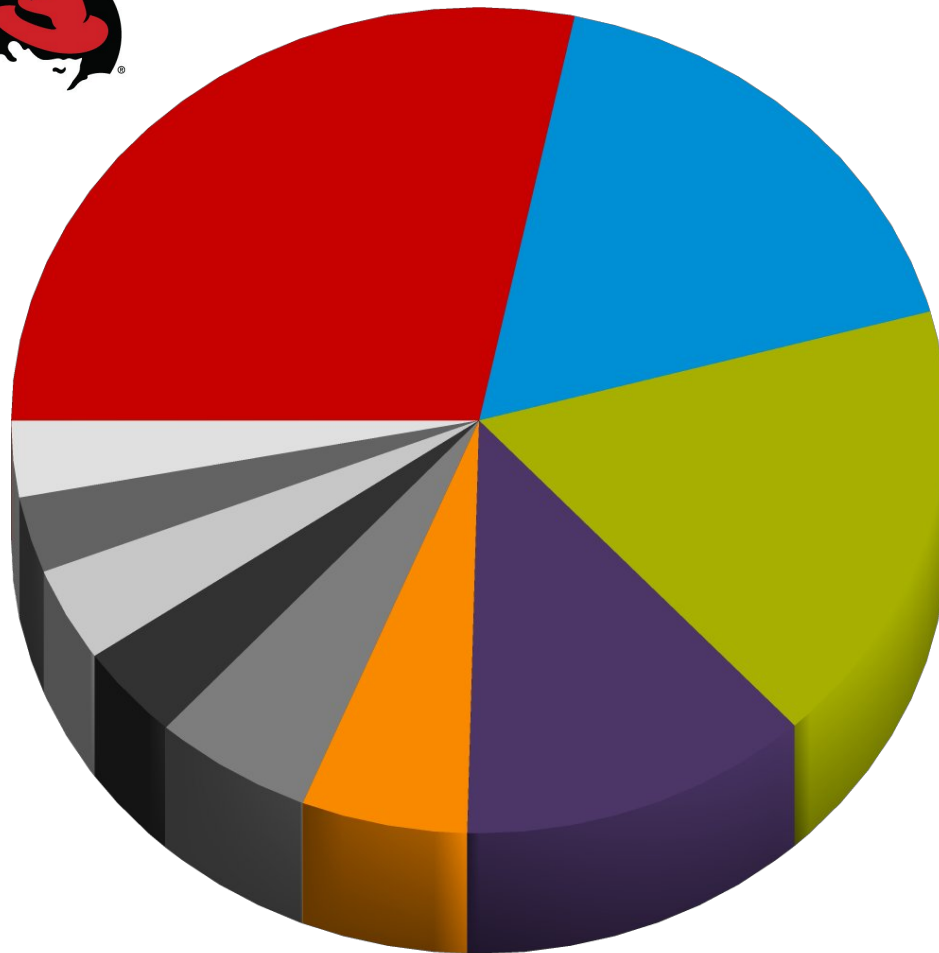
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Top 10 commercial kernel contributors:



- Red Hat
- IBM
- Novell
- Intel
- Consultant
- Oracle
- Linux Foundation
- SGI
- Parallels
- Renesas Technology

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Maintainer sign-offs on code:

36.4%

Source: Linux Foundation, August 2009

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Fedora *kernel* package

- Slower rate of change than kernel.org
- Fedora mantra: “Upstream!”
 - Collaborative by definition
 - Lower maintenance burden
 - Smooths out user experience with open source

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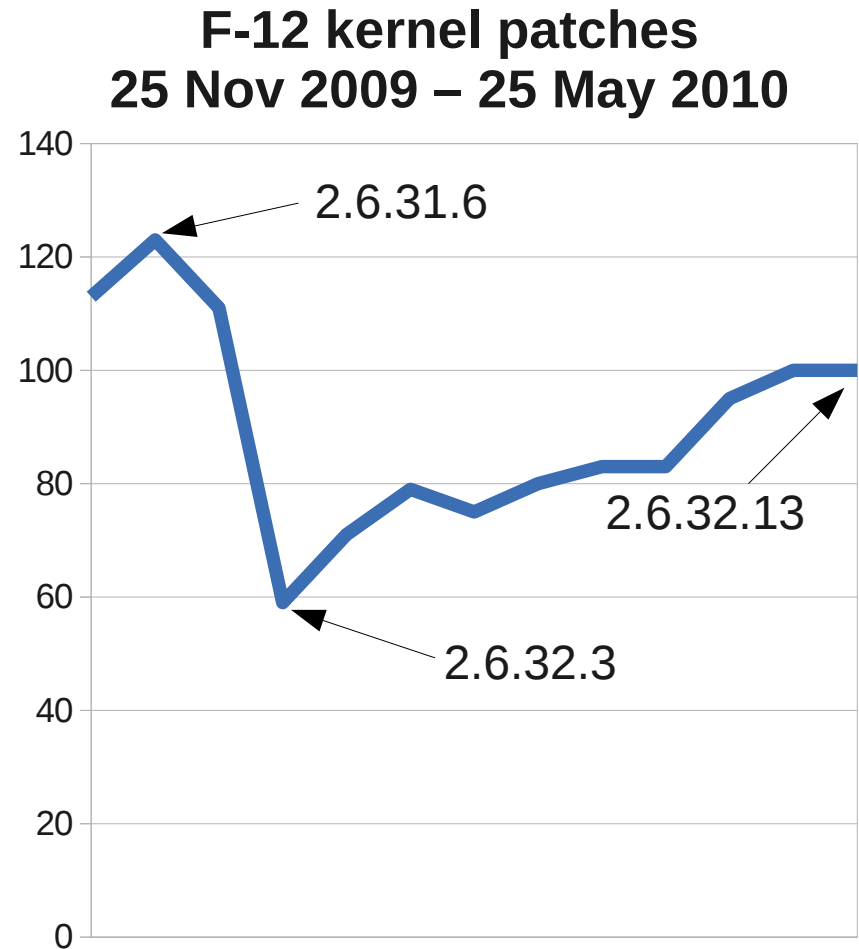
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Kernel patches in Fedora

- Typically increase over release lifetime, with backports
- Maintainers work with upstream to include changes
- “Current” numbers fall dramatically with updates



Driving innovation

- Platform bits
 - Virtualization and cloud
 - Fundamental engineering or “plumbing”
 - GNOME and FreeDesktop.org
- Middleware – Jboss.org

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Continuation to RHEL

- Snapshot of package subset
- Refinement through intensive QA/QE, enablements, certifications...
- Commitment to stability, performance, and security through subscriptions

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Laying technology bets

- Robust but quickly evolving
- A failed experiment is only painful for about six months
- Crowdsourcing feature hardening
 - SELinux
 - KVM, libvirt, virt-manager
 - Free video drivers
 - Desktop *Kit, GTK3, GNOME Shell
 - ...and on into the future...

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Why should I care?

- “Subsidizing development”
- Analogy: Diversified, robust financial portfolio
 - Mutual fund \approx RHEL
 - Picking individual stocks \approx Fedora

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Summary

- Fedora/RHEL synergy is the key to Red Hat's ability to bet wisely on technology
- Fedora offers rapid integration and easy consumption, participation, and contribution – “the best of what works today”
- Red Hat Enterprise Linux offers a steady state optimized for stability and performance – “the best of what will work for seven years”

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