



Red Hat & Fedora: A Strategy for Open Source Success

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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 July 12th
 - Background in Systems Administration, Training, VoIP and Community Relations
 - More about me at <http://www.jaredsmith.net/about/>



What you'll know when you leave this talk

- Why Red Hat cares about the community process
- How Fedora works
- How that process has helped Red Hat get the right technologies into RHEL
- Time for questions after the slides, but feel free to email me as well (jsmith@fedoraproject.org)



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://www.theopensourceway.org/>
 - <http://www.producingoss.org/>



Open source collaboration

- *Small “pet project”*



Open source collaboration

- *Larger distributed project*



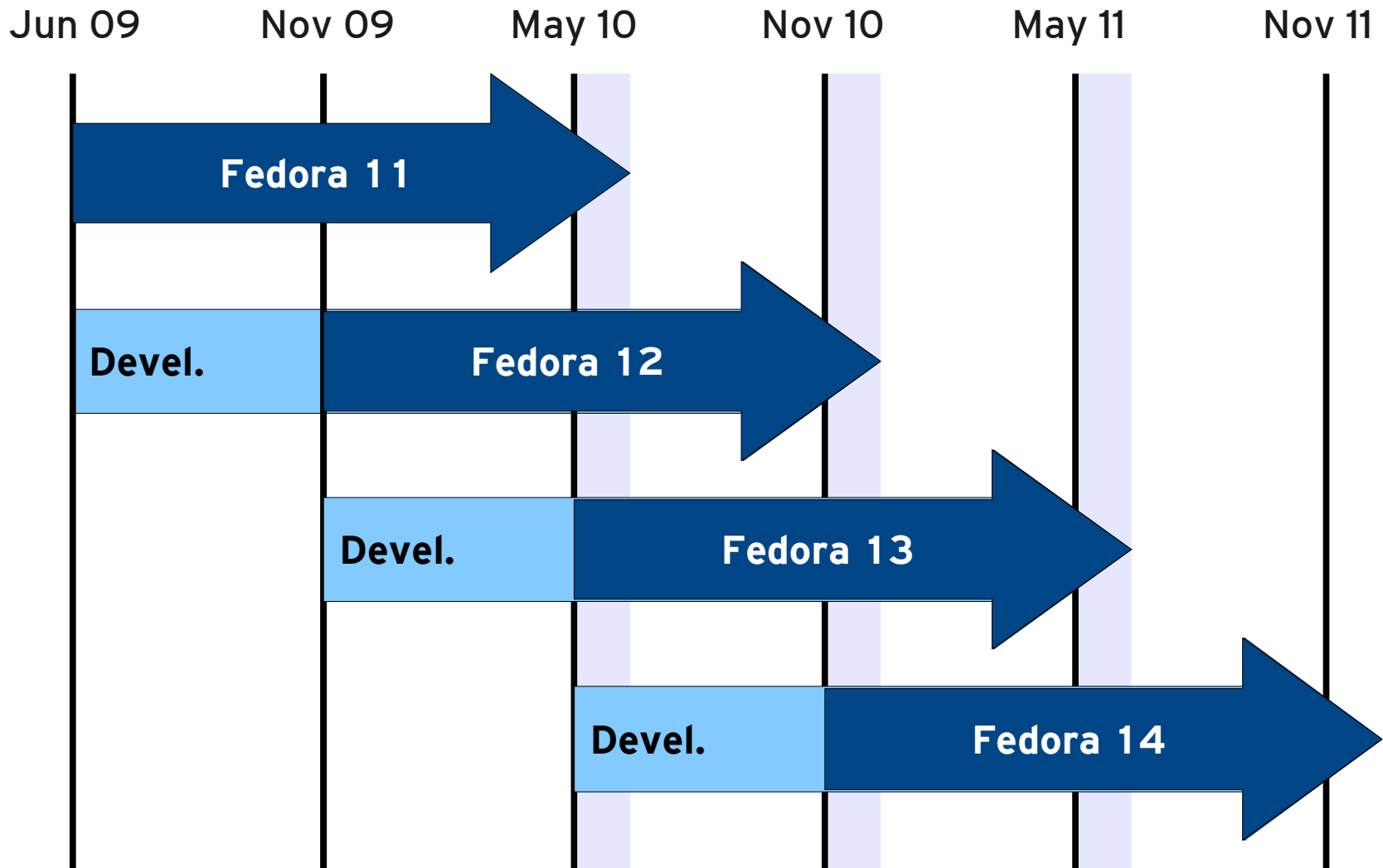


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Six-month release cycle



Feedback loop from community

- “Release early and often” reduces work during RHEL release cycle
- Functional and integration testing, bug inflow
- Technology preview of RHEL features
- Grows open source mind share
- Opens door to participation and collaboration

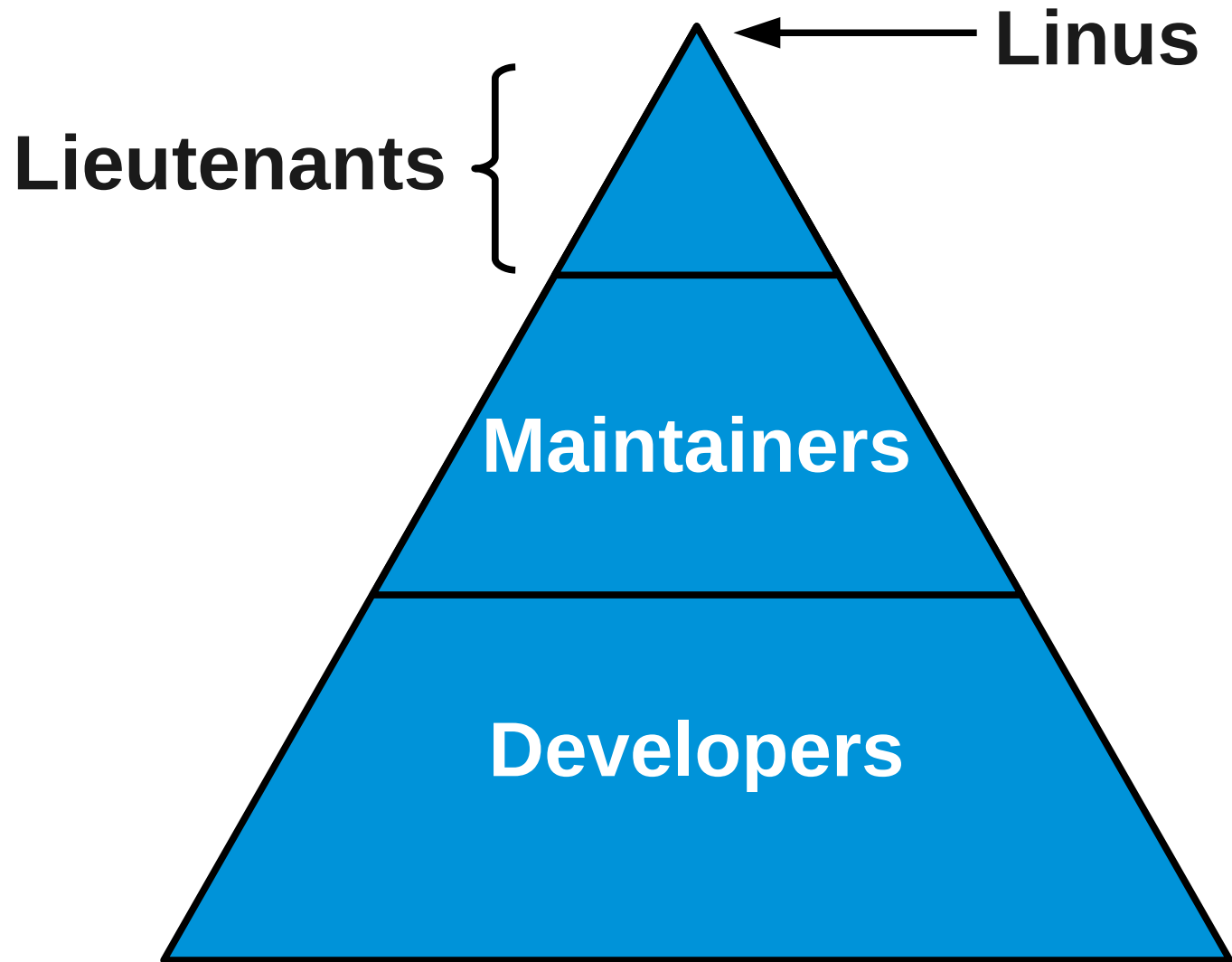


Example: the Linux kernel

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



Kernel organization



Red Hat kernel involvement

100+

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



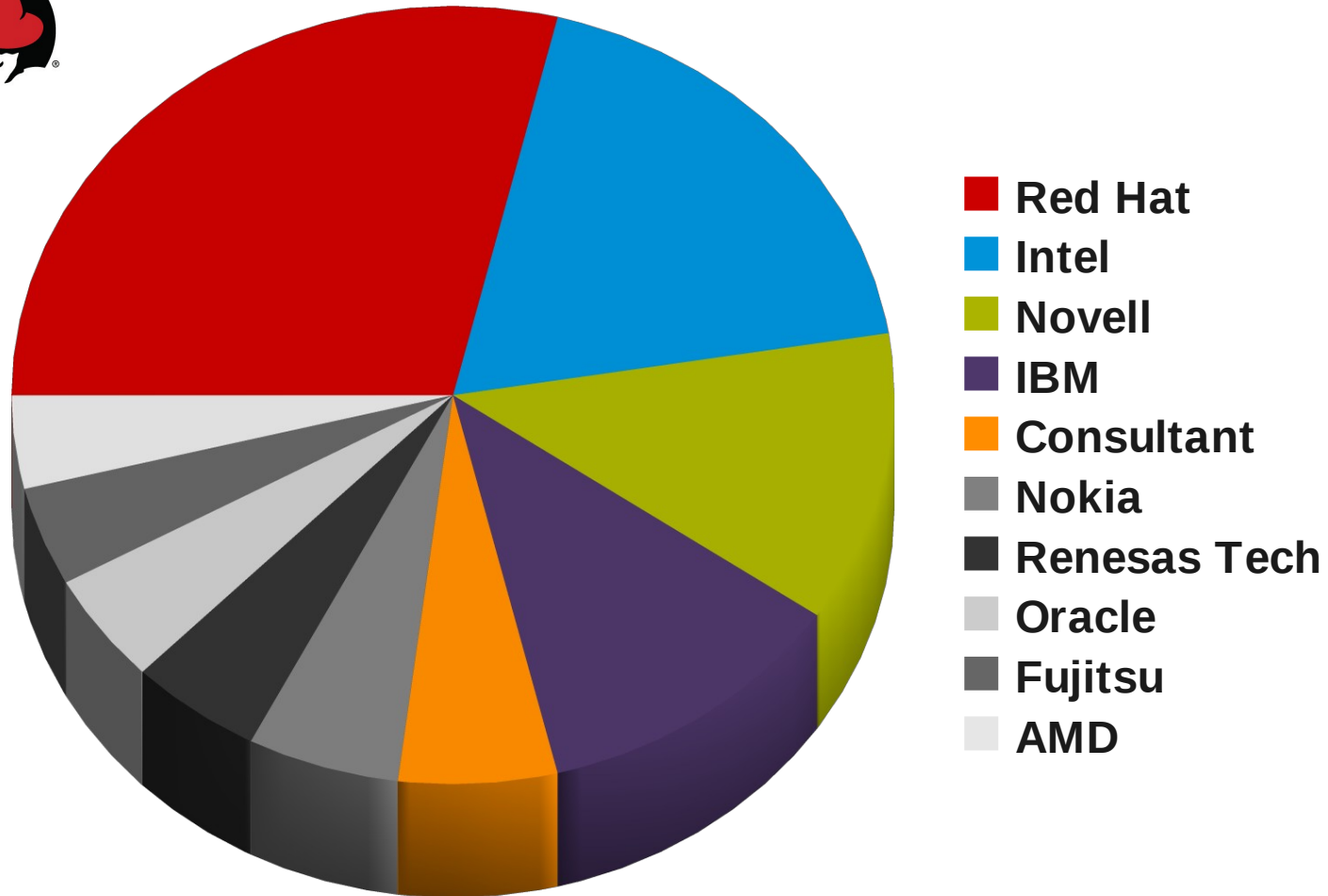
Red Hat kernel contributions

11.9%

**Source: Linux Foundation, June 2010
2.6.30 – 2.6.35rc1**



Top 10 commercial kernel contributors



Maintainer sign-offs on code

36.4%

Source: Linux Foundation, August 2009



Fedora *kernel* package

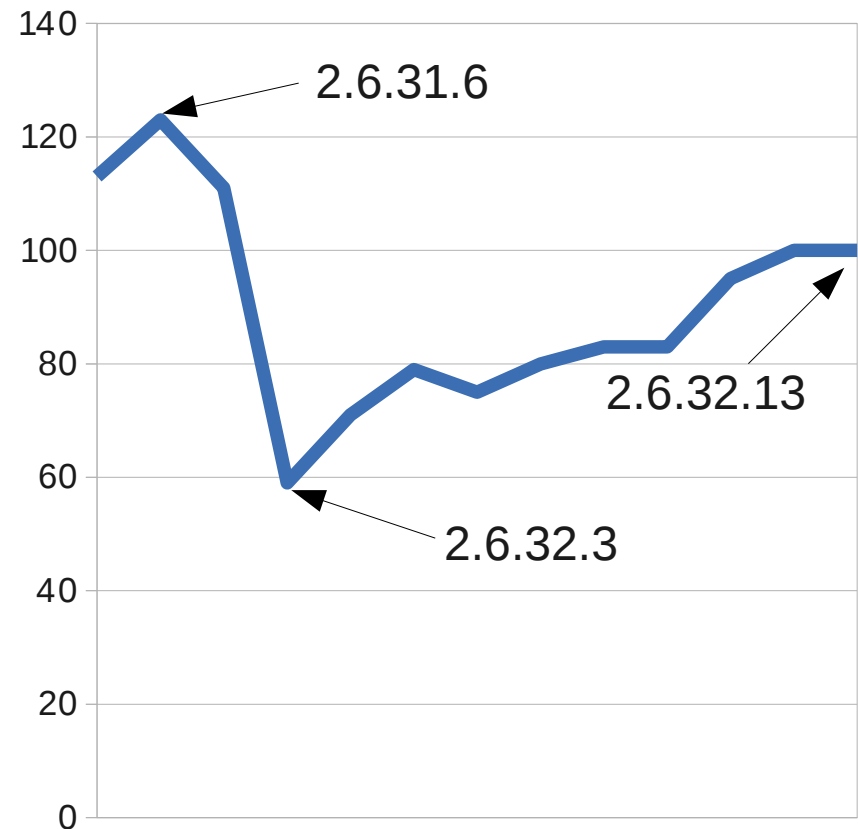
- Slower rate of change than kernel.org
- Fedora mantra: “Upstream!”
 - Collaborative by definition
 - Lower maintenance burden
 - Smooths out user experience with open source



Kernel patches in Fedora

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

F-12 kernel patches
25 Nov 2009 – 25 May 2010



Driving innovation

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



Continuation to RHEL

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



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...

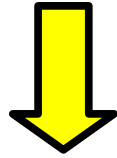


Why should I care?

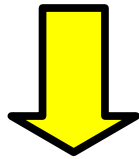
- “Subsidizing development”
- Analogy: Diversified, robust financial portfolio
 - Mutual fund \approx RHEL
 - Picking individual stocks \approx Fedora



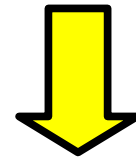
UPSTREAM



Fedora Project



Red Hat Enterprise Linux



CentOS/Derivatives

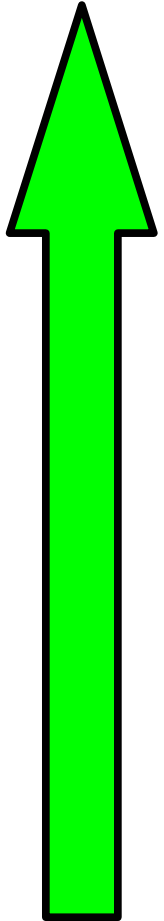
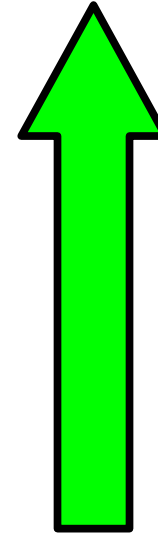
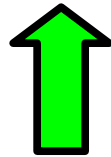
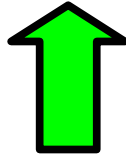


UPSTREAM

Fedora Project

Red Hat Enterprise Linux

CentOS/Derivatives



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”



Questions?

Thank you!

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