

COMMUNITY TO COMMERCE: The Red Hat/Fedora/FOSS Model

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October 9, 2009

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/>



What you'll know when you leave here

- Why Red Hat cares about the community process
- Where Fedora fits into the picture
- 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!



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/>

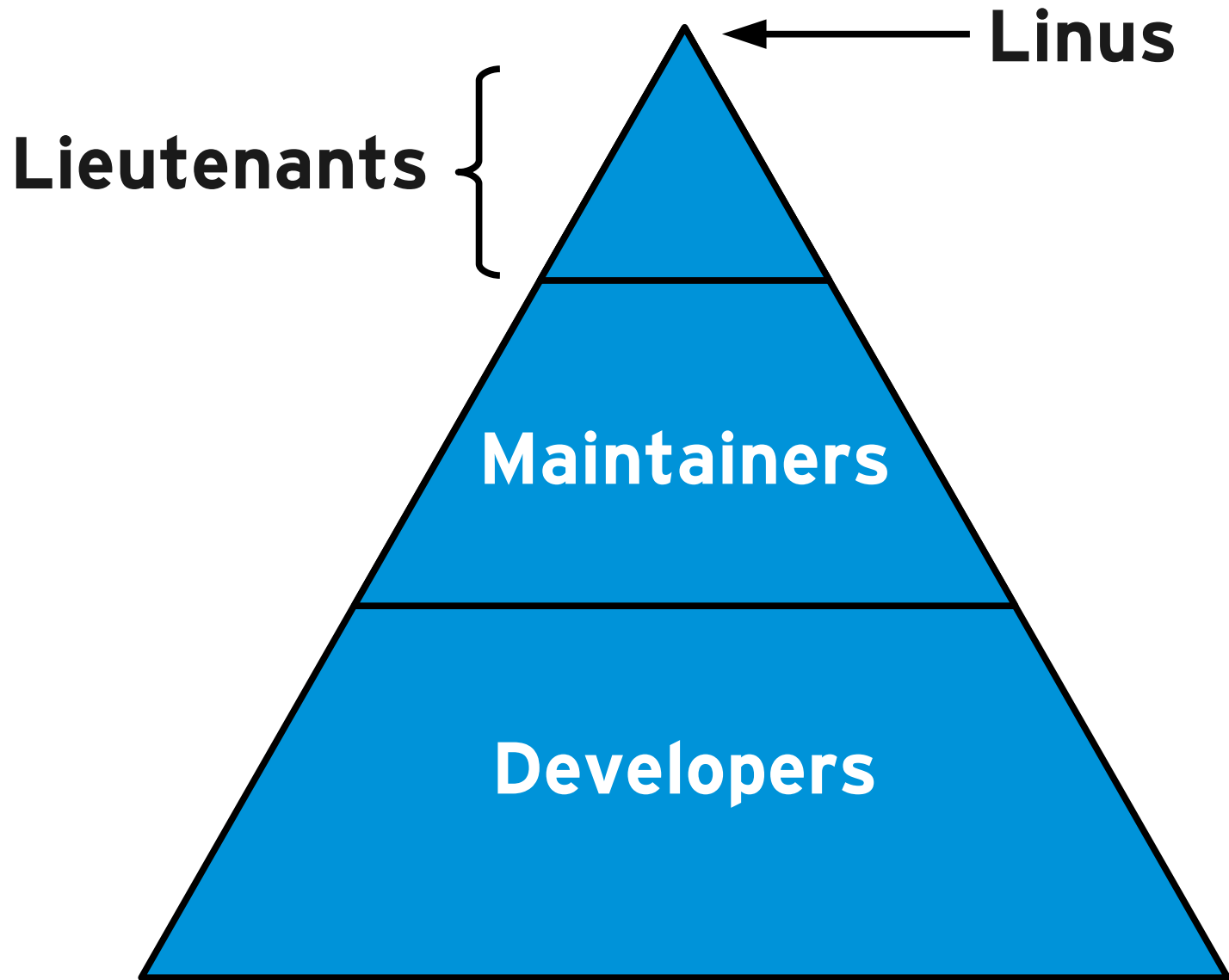
Community can provide...

- Energy potential
- “Farm team”
- Environment for laying technology bets and judging their success

Example: the Linux kernel

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

Kernel organization



Red Hat kernel involvement

100+

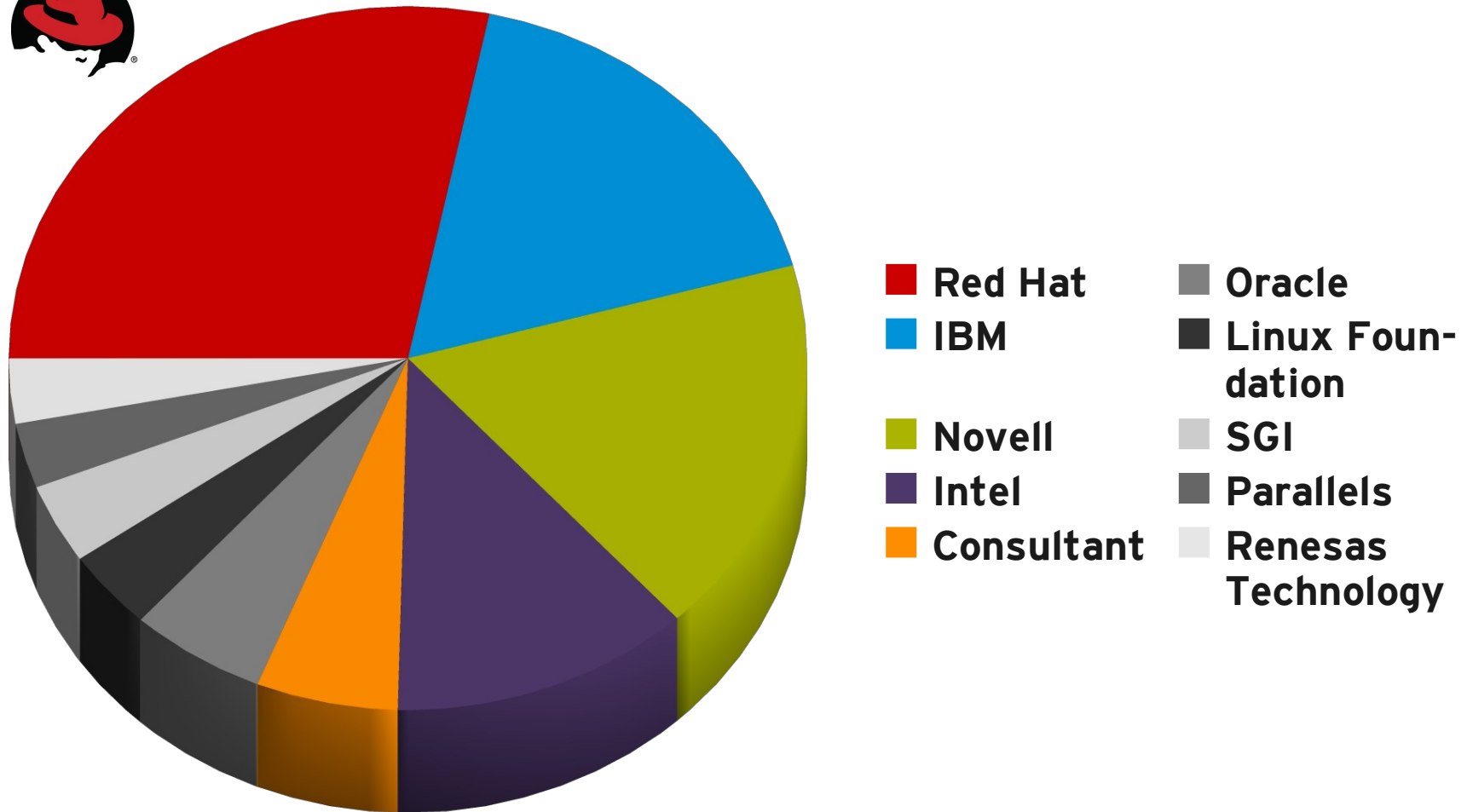
**Includes generalists, specific
subsystems, hardware foci**

Red Hat contributions to kernel,
2.6.12 – 2.6.30:

12.3%

Source: Linux Foundation, August 2009

Top 10 commercial kernel contributors:



Maintainer sign-offs on code:

36.4%

Source: Linux Foundation, August 2009



Image courtesy of ogimogi via Flickr, CC BY.

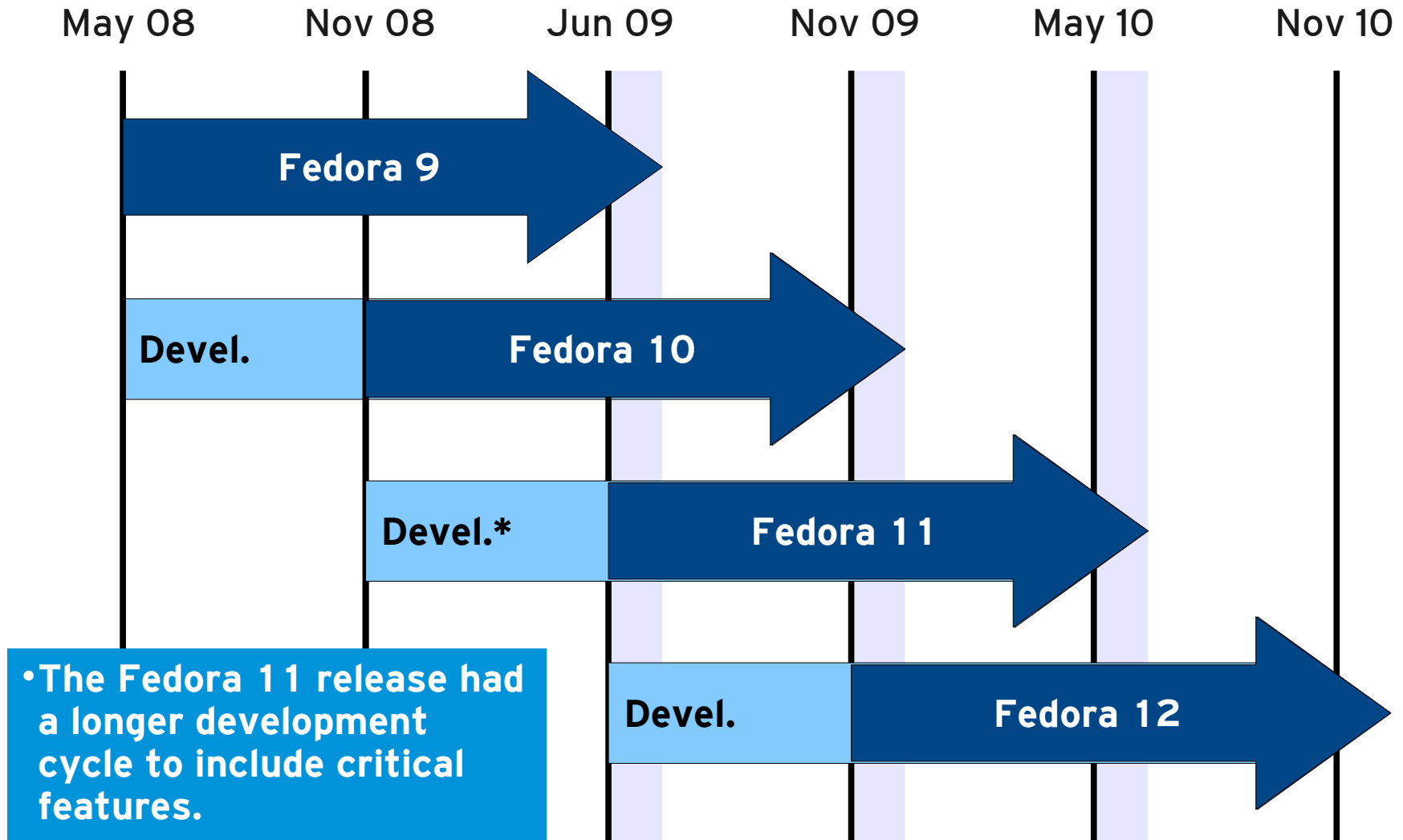
Upstream releases

- A collection of source code
- Compile and build yourself? Yikes!
- Software management layer



Image courtesy of 416style via Flickr, CC BY.

Six-month release cycle



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

Community software maintenance:

> 75%

Source: Fedora packager database, summer '09

Example: Fedora *kernel* package

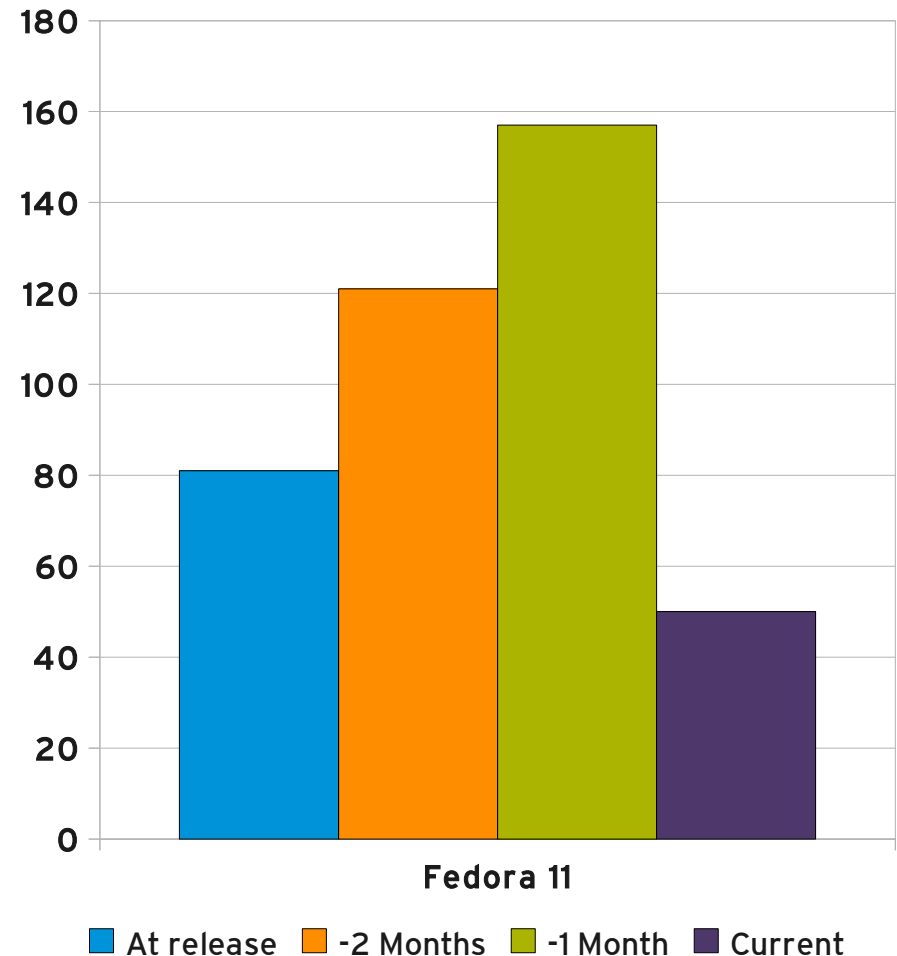
- Slower rate of change than the upstream tree
- Fedora mantra: “Upstream!”
 - Collaborative by definition
 - Lower maintenance burden
 - Smooths out user experience with open source



Kernel patches in Fedora

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

Kernel patches as of 2009-08-10





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
 - yum
 - Xen, libvirt, virt-manager, KVM
 - Desktop *Kit features
 - ...and on into the future...



Why should I care?

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



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?

Thanks for your time,
and for your interest in
free and open source software!

