

RED HAT :: CHICAGO :: 2009

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

Presenter

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Fedora Project Leader, Red Hat

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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/>

# 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!



# 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/>

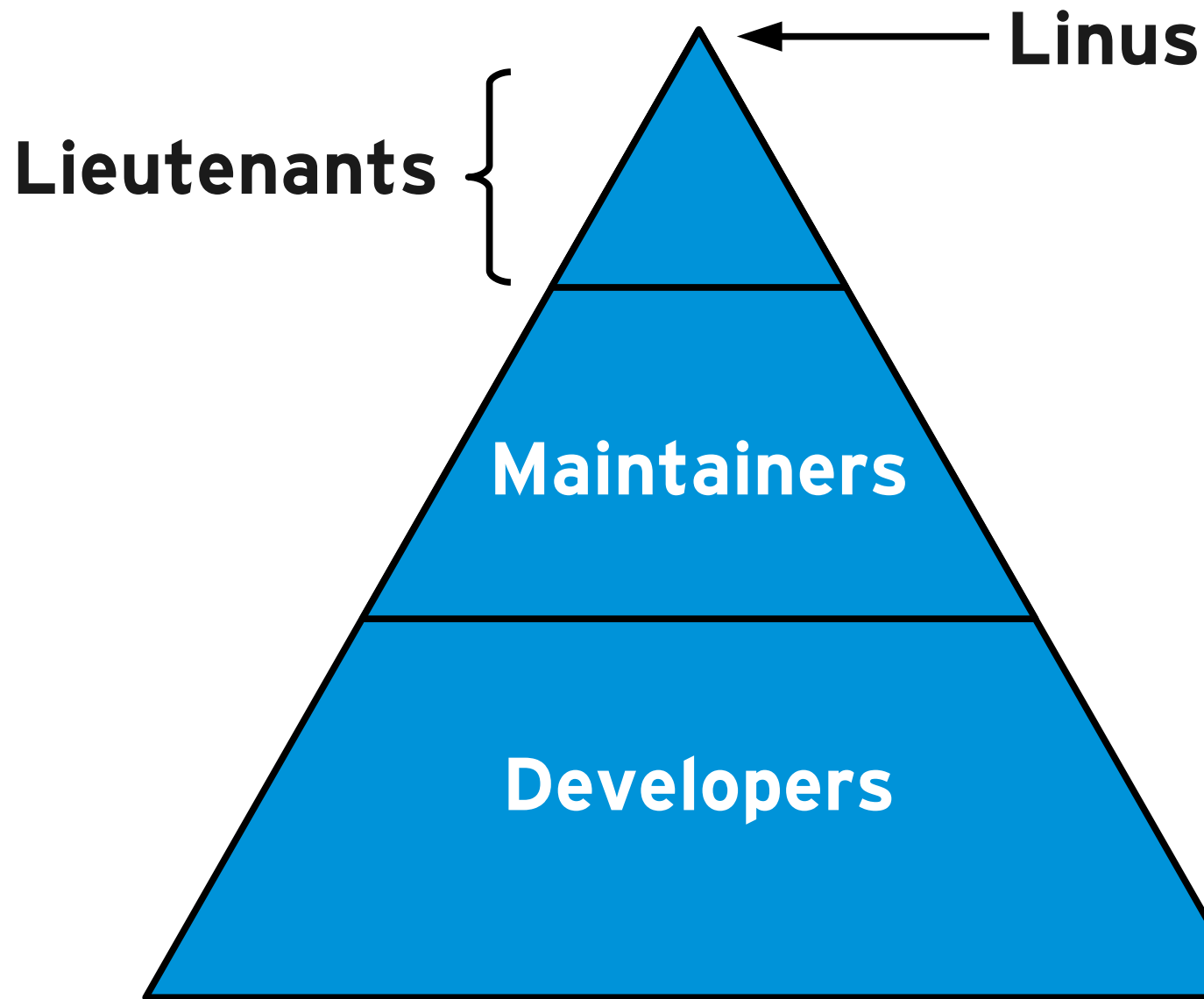
# Community can provide...

- 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+**

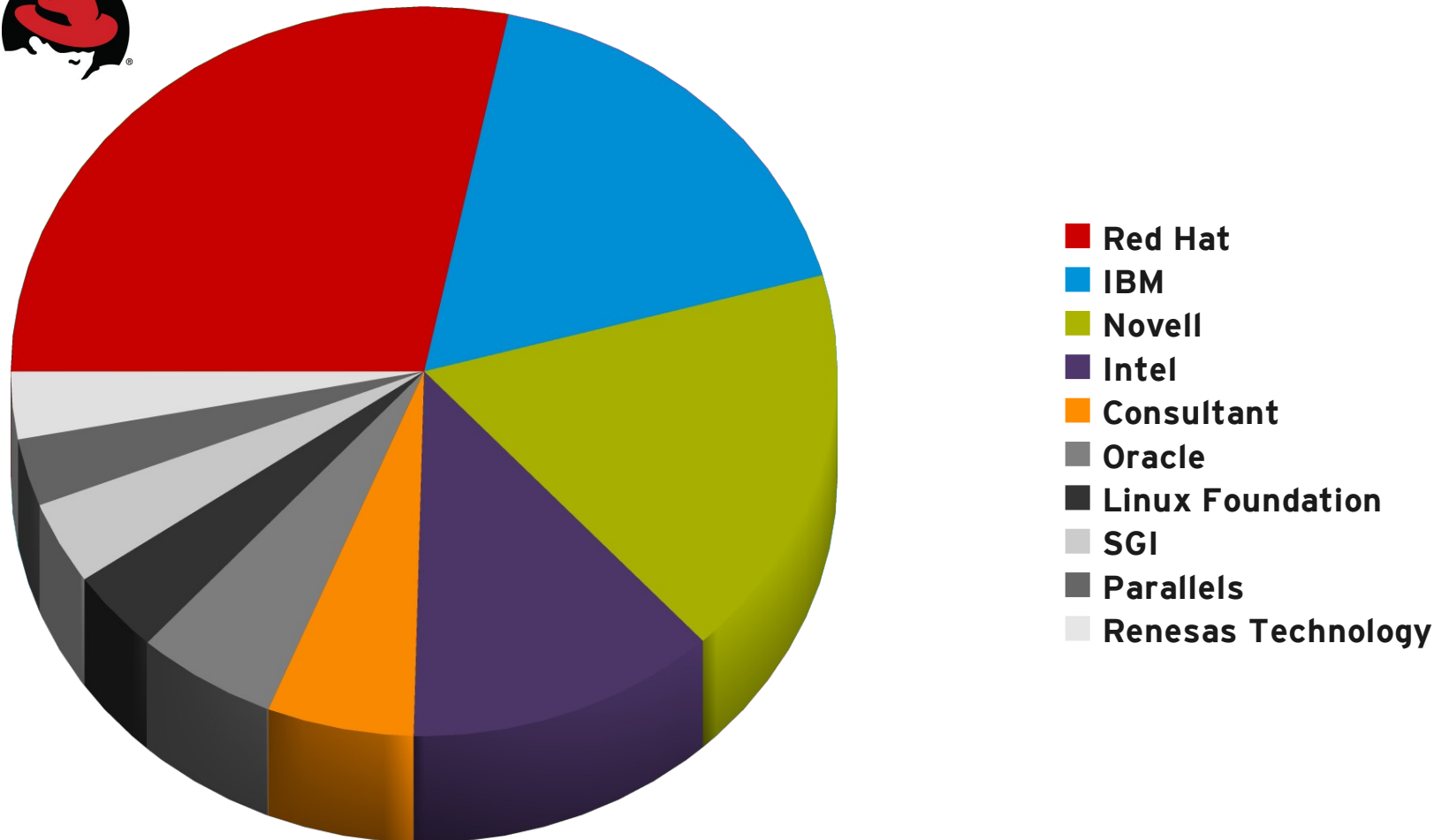
**Includes generalists, specific  
subsystems, hardware foci**

# 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**



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# Upstream releases

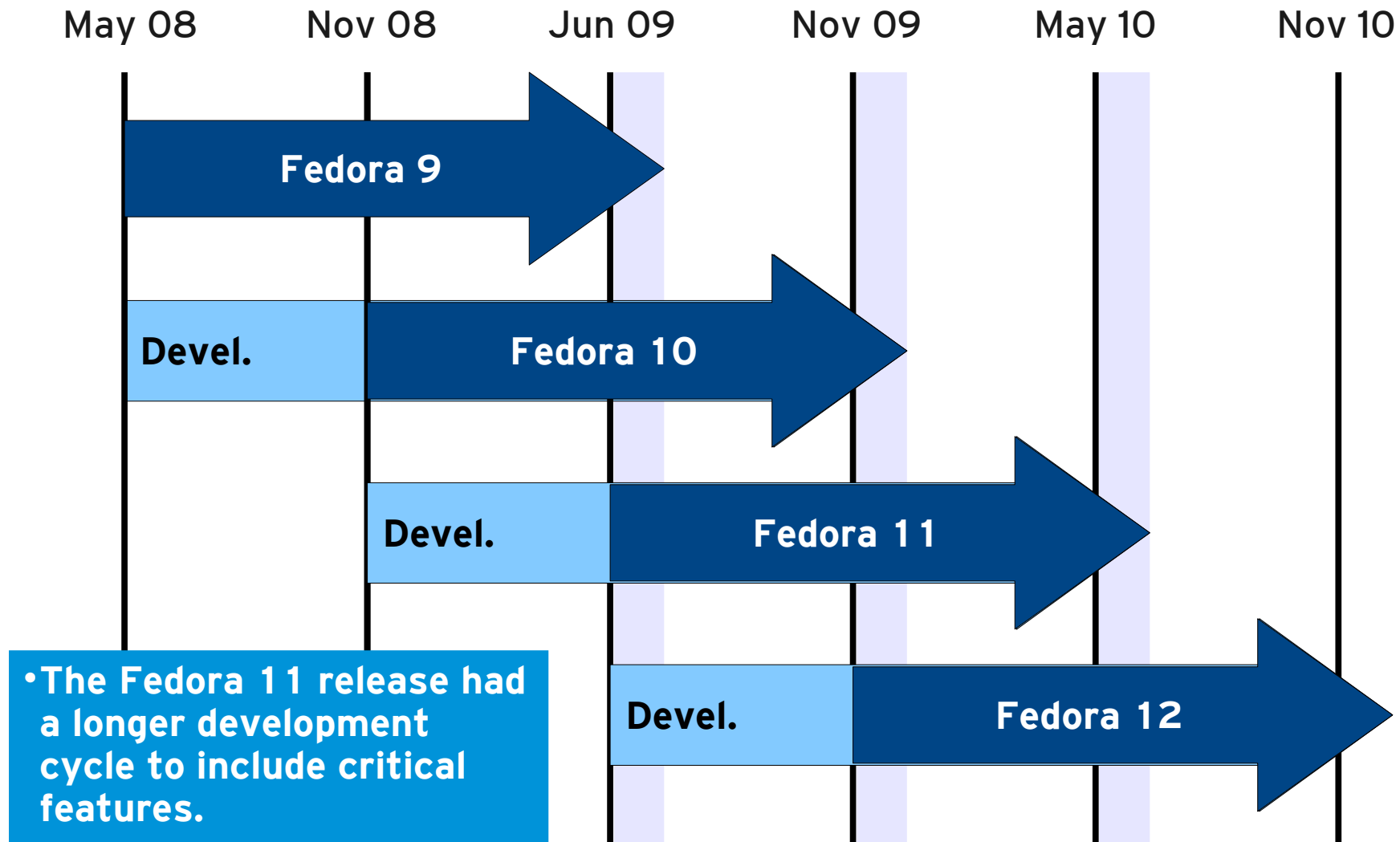
- A collection of source code
- Compile and build yourself? Yikes!
- Software management layer





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

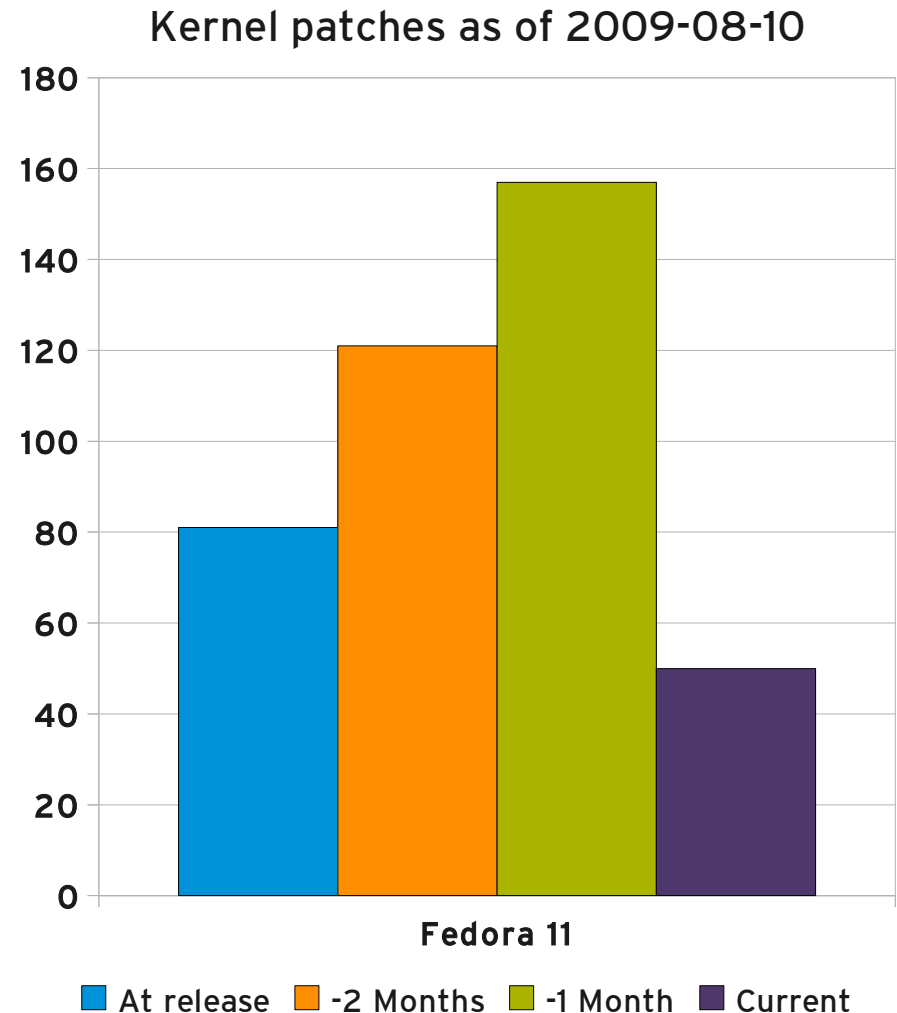
## Example: Fedora *kernel* package

- 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 at re-base or with updates



# 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?**

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