

### Open Source and the IT Industry: Managing External R&D

Jim Zemlin, June 4 2014

# Software R&D is More Important than Ever

### Software Abstraction

- Hardware functions are increasingly being abstracted into software
- Examples include: Server Virtualization, SDN, NFV, etc.

### Dominance of Open Source

- Shared development is enabling faster time to market, higher quality, and lower cost.
- Linux, Hadoop, OpenStack, OpenDaylight, Xen, KVM, etc.

Software Talent War

- Top software talent is at an all time premium.
- Linux developers demanding premium over other programers
- Recent anti-trust case shows desperation in Silicon Valley.

### The top ten tech companies spend over \$63.4 billion on research and development

- Microsoft, \$9B
   Samsung, \$9B
   Intel, \$8.4B
   Nokia, \$7.8B
   Panasonic, \$6.6B
- 6) IBM, \$6.3B
- 7) Cisco, \$5.8B
- 8) Google, \$5.2B
- 9) Amazon, \$2.9B
- 10) Apple, \$2.4B

# How are you managing your external R&D?

### **External R&D Managers**



### These Companies Have Large Dedicated Open Source Teams



### Moving to Strategic Use of Open Source





\* Source: Gartner Group

### The results?

- Billions of dollars of free software harnessed to power core products and services.
- Business aligned with upstream projects enabling faster time to market.
- Interoperability with IT ecosystem.
- Leading edge on attracting top software talent.

### "Over 80% of the software in our handsets is open source"

Carl-Eric Mols, Head of OSS, Sony Mobile Communications

### "Today you can't build a product without using open source software."

- Samsung Electronics, May 5, 2014 Wall Street Journal

### Even Apple...



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### Open Source Collaboration Requires New Skills

Strategic Analysis	<ul> <li>Choosing best open source projects to meet goals</li> <li>License review boards</li> <li>What code to share and what code to keep</li> </ul>
Intellectual Property	<ul> <li>Open Source License Management</li> <li>Contribution Agreements</li> <li>Trademark Licensing</li> </ul>
Development Process	<ul> <li>Social coding style: GIT, email, IRC, etc.</li> <li>Project governance: contribution, maintainers, etc.</li> </ul>
Business Process	<ul> <li>Downstream product integration</li> <li>Upstream code contributions</li> <li>License compliance</li> </ul>

# Mastering external R&D is essential

- Your industry peers are already doing this.
- By aligning external open source with your internal goals through direct investment you will shorten time to market and reduce cost.
- Visibility within the open source community is one of the best ways to recruit high level software talent which will be essential for competition.

## Thank you.