

The evolution of open source

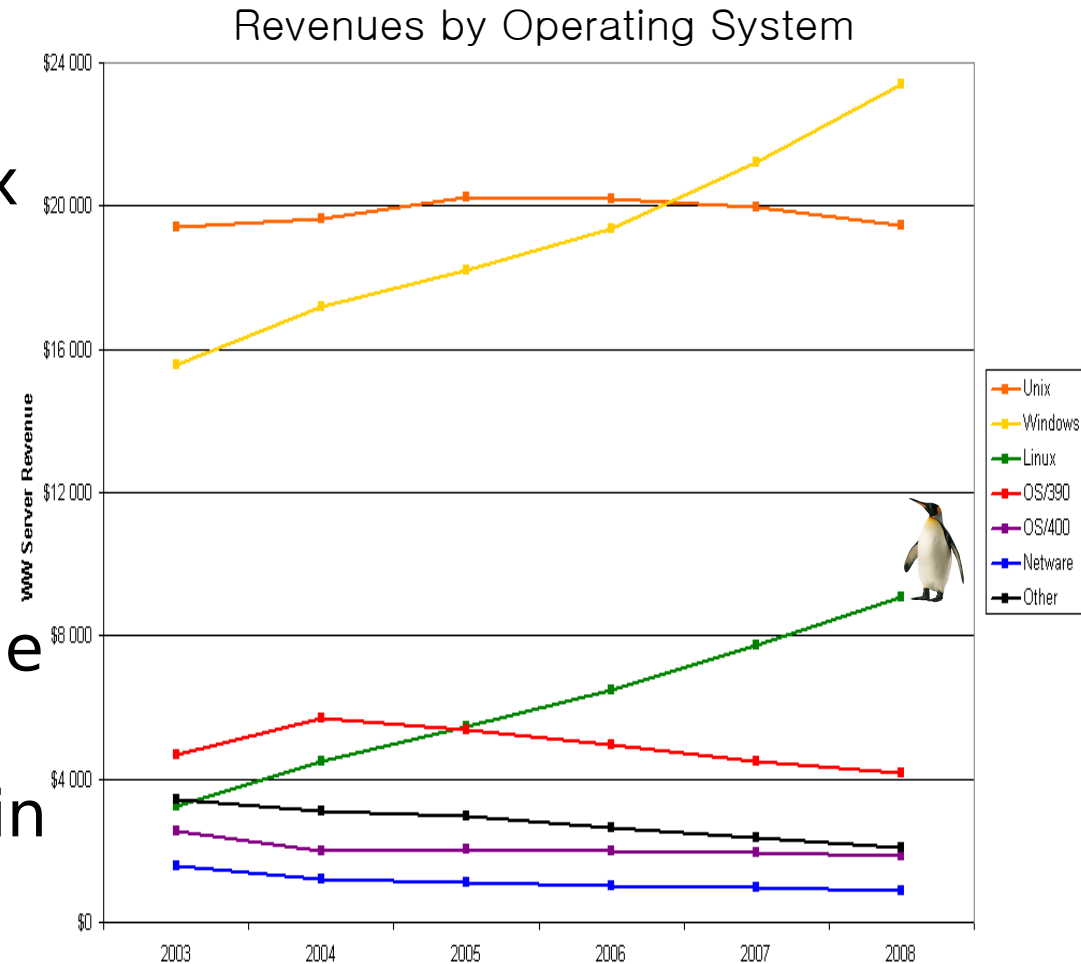
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Oct 5, 2006



Operating System Market Overview



- Only two operating systems (OS) are growing today – Linux and Windows
- Linux is the fastest growing OS in server unit market share
- Linux is the fastest growing OS in revenue
- Linux passed UNIX in server market share in 2003



Source : IDC WW & US Server 2004–2008 Forecast update

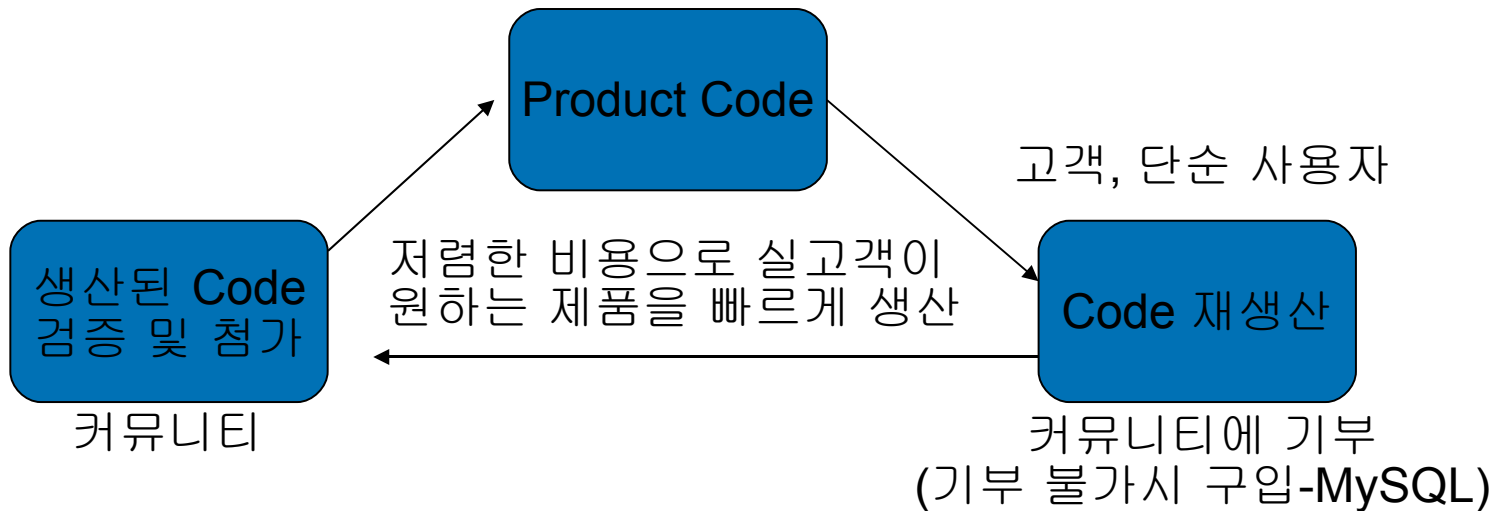
HP – Simplifying the
Integration of Open
Source and the Linux
Platform
HP delivers Linux
for the Real World

Expanding our leadership with over 1 M
Linux servers shipped



Open Source Development

- Open Source 의 정의 - 소스를 공개 한다가 아닌 오픈소스 커뮤니티를 통하여 순환 개발 구조 형태를 갖는다. (개발과정/방법이 중요)



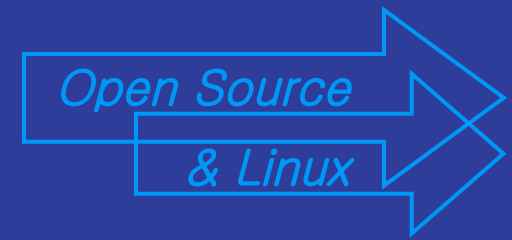
UNIX = 10 년 걸릴 구조를 Open Source 는 3년이 걸릴 수도 있다



Flight



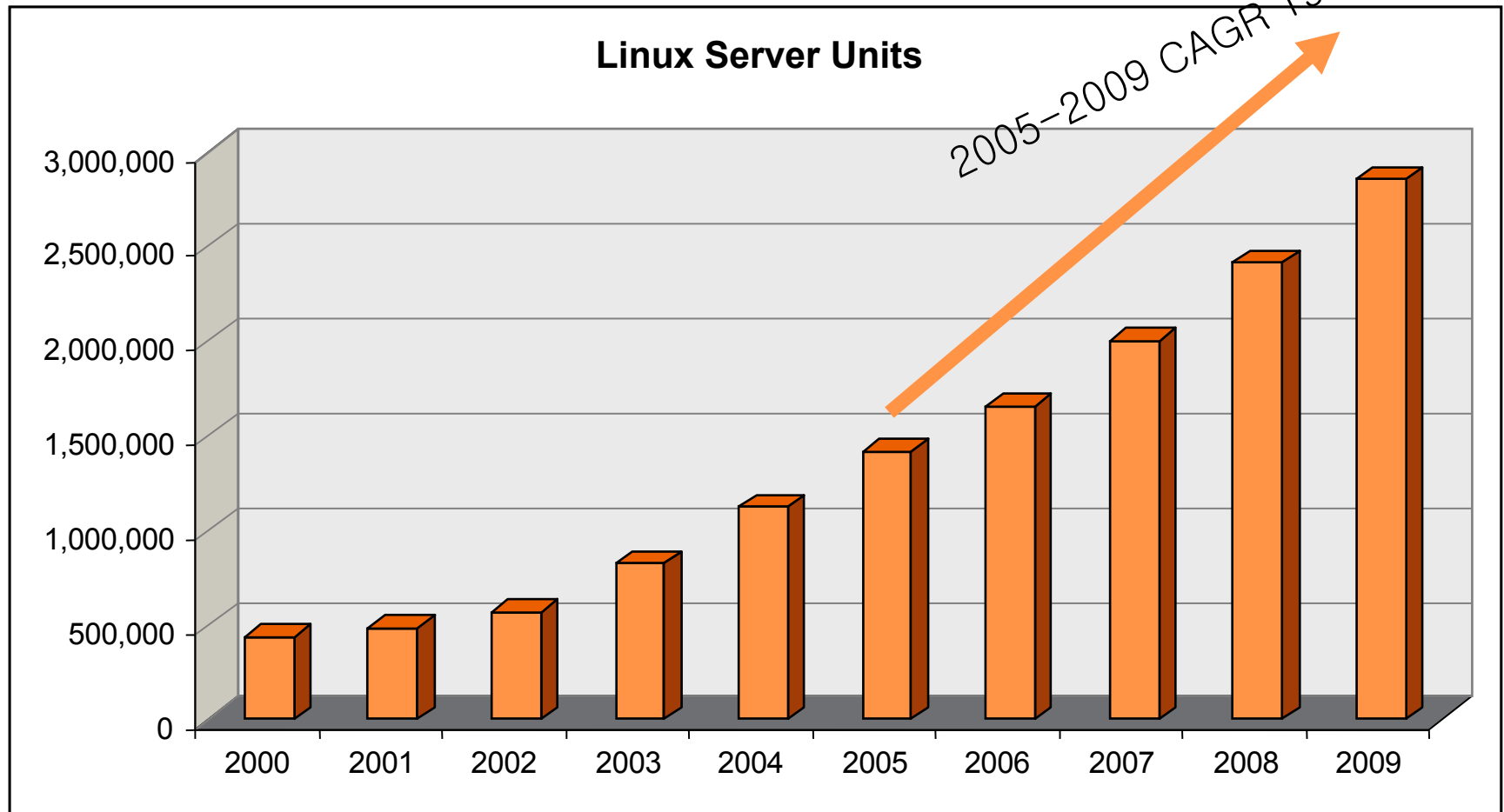
Agenda



- A Brief History of Open Source Software
- Why do people use/contribute to OSS?



Linux server adoption very strong



Driving Future Investments

Source: IDC Worldwide Quarterly Server Forecast, December 2005

“Open source” is three things

Licenses

- Almost 600 licenses today
- Some require that code changes be returned to the community at large
 - These are called copyleft or reciprocal
 - They are not viral
 - This requirement is what makes the methodology work
- Other licenses are similar to the public domain and have few requirements
- Copyrights are still a core foundational element of all open source licenses

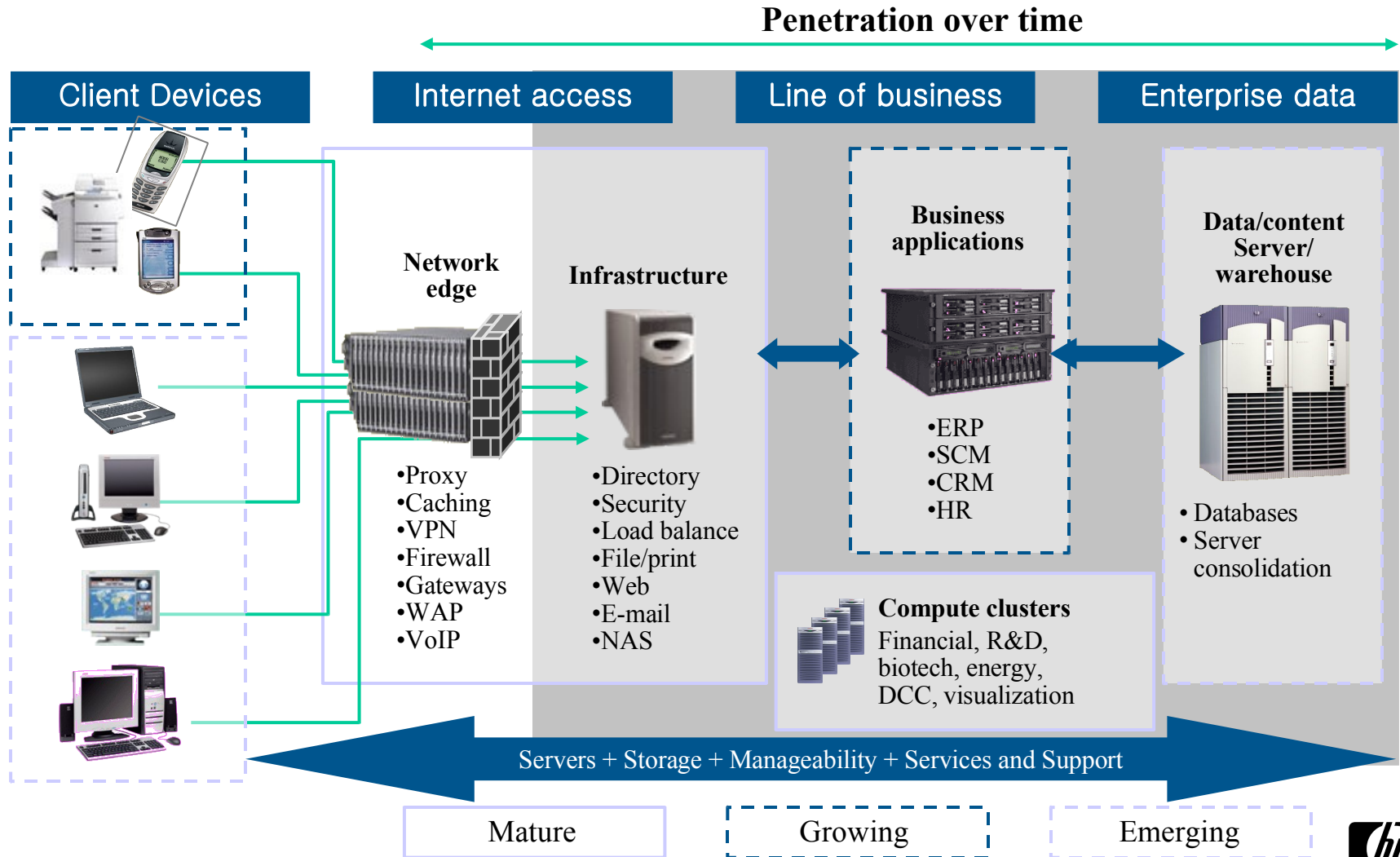
Community

- Any collection of developers with a common interest
- Historically made up of free agents
- Increasingly funded by large companies sharing development costs
- Governments and academia also contributing at an increasing pace

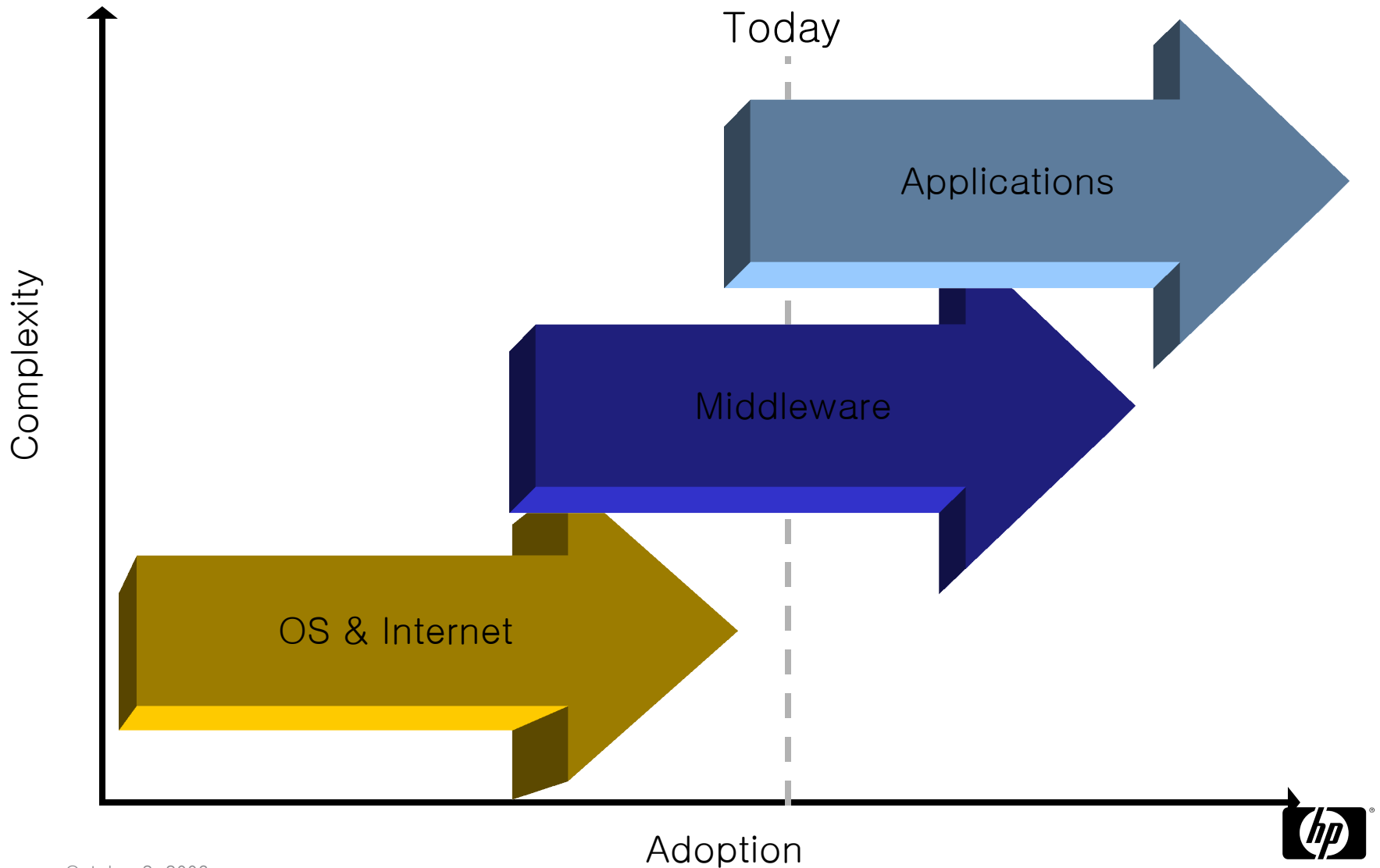
Methodology

- Communal, shared development
- Various projects each with their own subculture
- Governance models vary widely, some autocratic, others consensus based
- Very few roadmaps, but some projects are starting to publish them
- Influence and control is achieved by being integrated & involved
- Individuals are largely in control, not companies

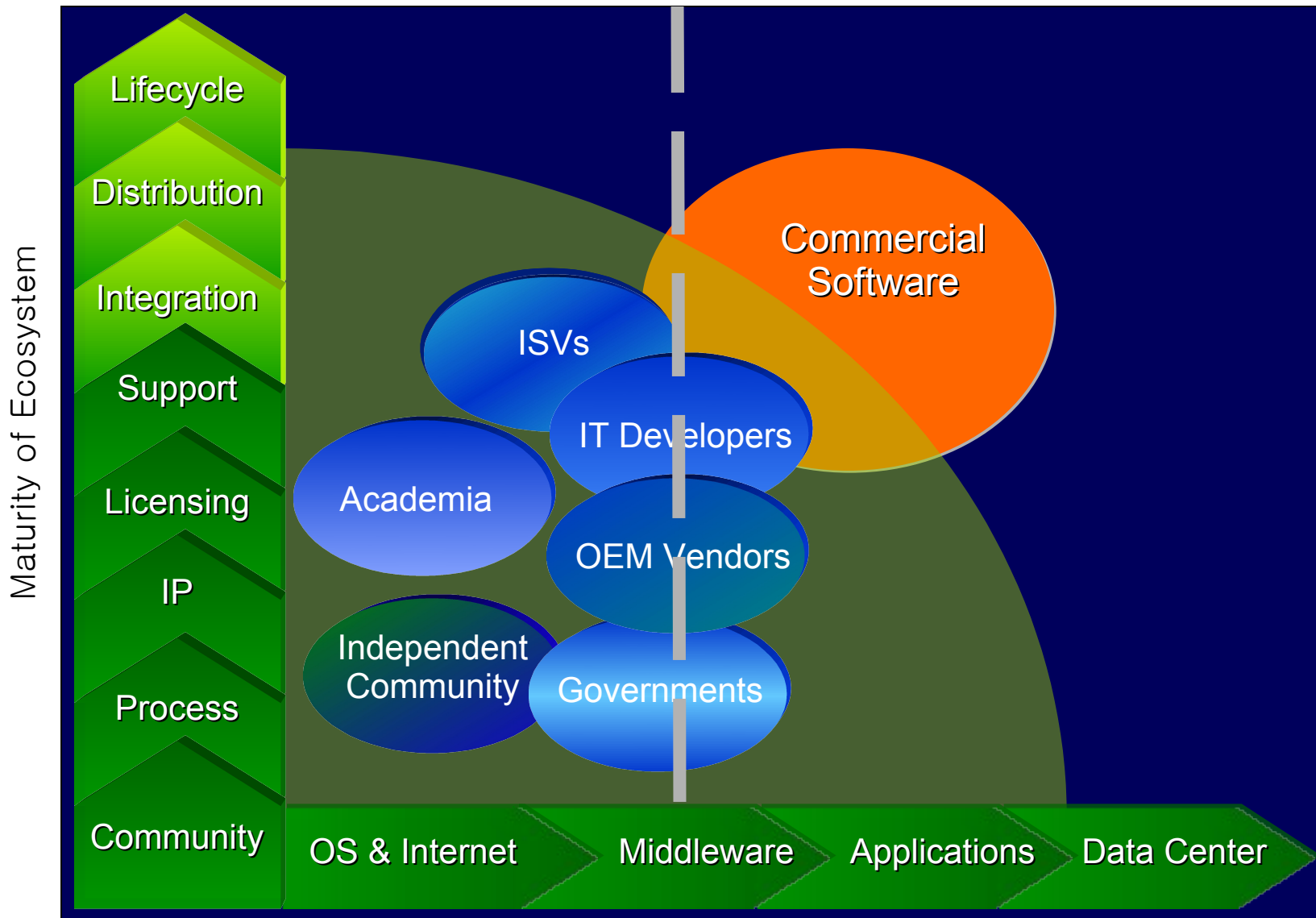
Open Source & Linux spanning the enterprise over time



Open Source Momentum

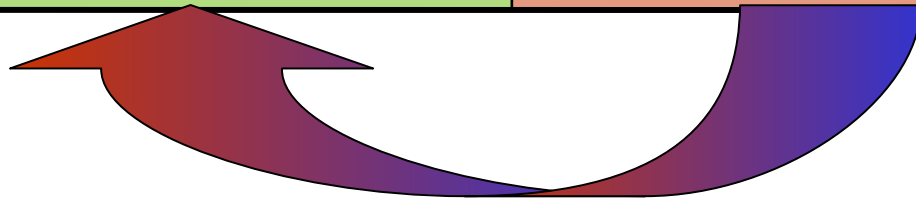


Open source adoption is accelerating across the enterprise



Open Source Business Impacts

Business Objective	Use Open Source	Proprietary
Value & Innovation	<ul style="list-style-type: none"> • Re-focus higher in the value stack • Use resources to innovate 	<ul style="list-style-type: none"> • Force commoditization • Lose revenue and Pricing power
Costs	<ul style="list-style-type: none"> • Down – Using community development model 	<ul style="list-style-type: none"> • Up – Using expensive resource to develop commodity
Leadership	<ul style="list-style-type: none"> • Influence the ecosystem • Developers • Thought Leadership 	<ul style="list-style-type: none"> • Viewed as proprietary • Viewed as a laggard



Result: Customer Acquisition & Loyalty

Why do people use and contribute to open source?

Some common reasons

- Individuals

- to scratch an itch
- philosophical reasons
- true altruism
- competitive nature of humans
(<http://www.wikimatrix.org/>)

- Companies

- all of the above
- cost (savings, spreading)
- vendor/platform independence (HP + OpenLDAP)
- don't reinvent the wheel (e.g. xml parsers)

FOSS usage models

- As legos/building blocks
 - Unix pipe
 - Decentralized nature of the internet's infrastructure
 - HP's IMAP Proxy example
 - Focus shifting towards gluing pieces together
- To provide varied levels of service
 - Read-only, high-volume, low value transactions

HP's widespread contributions to open source & Linux

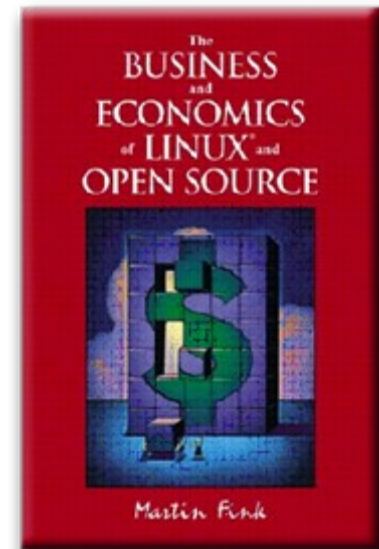
- Organizational leadership
 - Sponsorships
 - Linux International (since 1995), Free Software Foundation, Free Standards Group, Open Source Software Institute, Open Source Development Labs
 - Event sponsor
 - Kernel summit, OLS, LCA, Debconf, FISL, GUADEC, KDE summit, X.org dev summit, etc.
 - Instrumental in defining carrier grade Linux



opensource.hp.com

HP's widespread contributions to open source & Linux (cont.)

- Project development
 - Dedicated HP open source & Linux R&D lab
 - Leader in Eclipse development environment
 - Drove OpenSSI cluster project
 - Founder and sponsor of handhelds.org
 - Intel® Itanium® (IA-64) kernel maintenance
- Individual community activism
 - Extensive support of SAMBA & Apache projects
 - Debian project leadership and maintenance



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HP Open Source Contribution: LinuxCOE Enterprise Provisioning and Management Solution

SourceForge: <http://linuxcoe.sourceforge.net>

Features

- automated provisioning
- global waystation infrastructure
- automated updates
- event detection
- package management
- configuration management
- backup and restoration
- security management
- virtual private networking
- license management
- telemetry



Supports Multiple Server and Client
Environments:

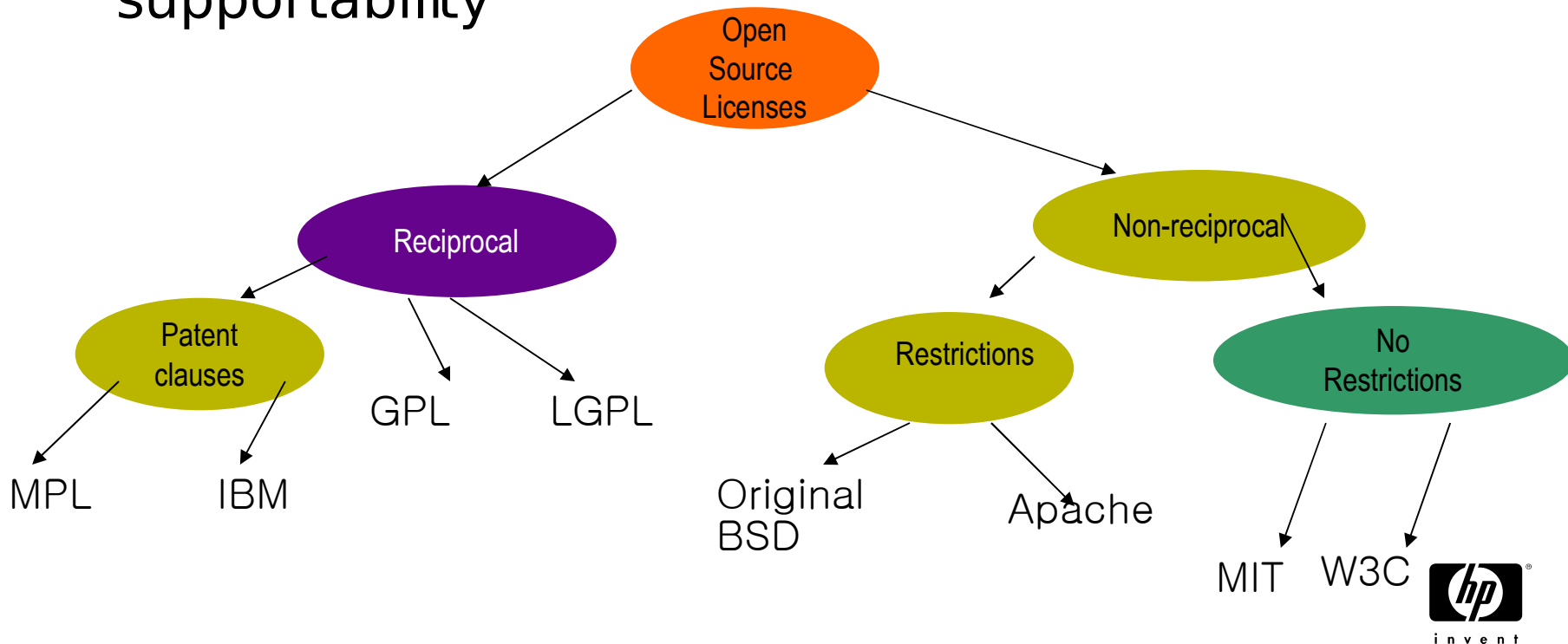
- Red Hat, Debian, SuSE, Ubuntu, NLD
- VMware, Fedora
- x86, IA64, x86_64, hppa
- “systems” – server/desktop/laptop

Why companies need to manage open source

Some common challenges

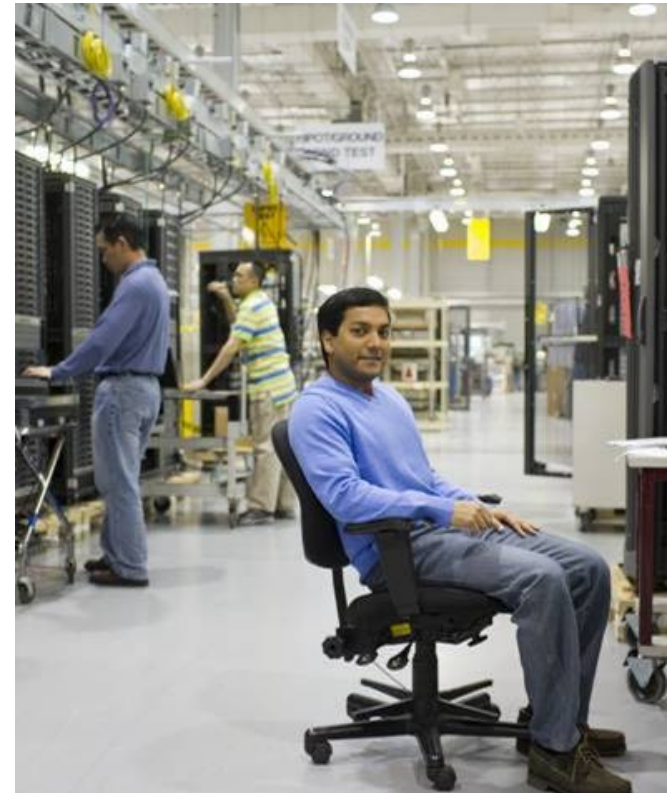
- **Open source governance**

- licenses
- maturity
- too many options
- supportability



Why Companies Need to Manage Open Source

- Use of open source is pervasive and not always visible how and where used, who contributes to community, etc.
- Open source licenses need to be understood and managed
- HP tracks 180 unique licenses today
- Open source has compelling value proposition – lower TCO, more choice, vendor neutral, engineering productivity boost
- There is risk in not being aware of and managing open source use in your company



Open Source Review Board

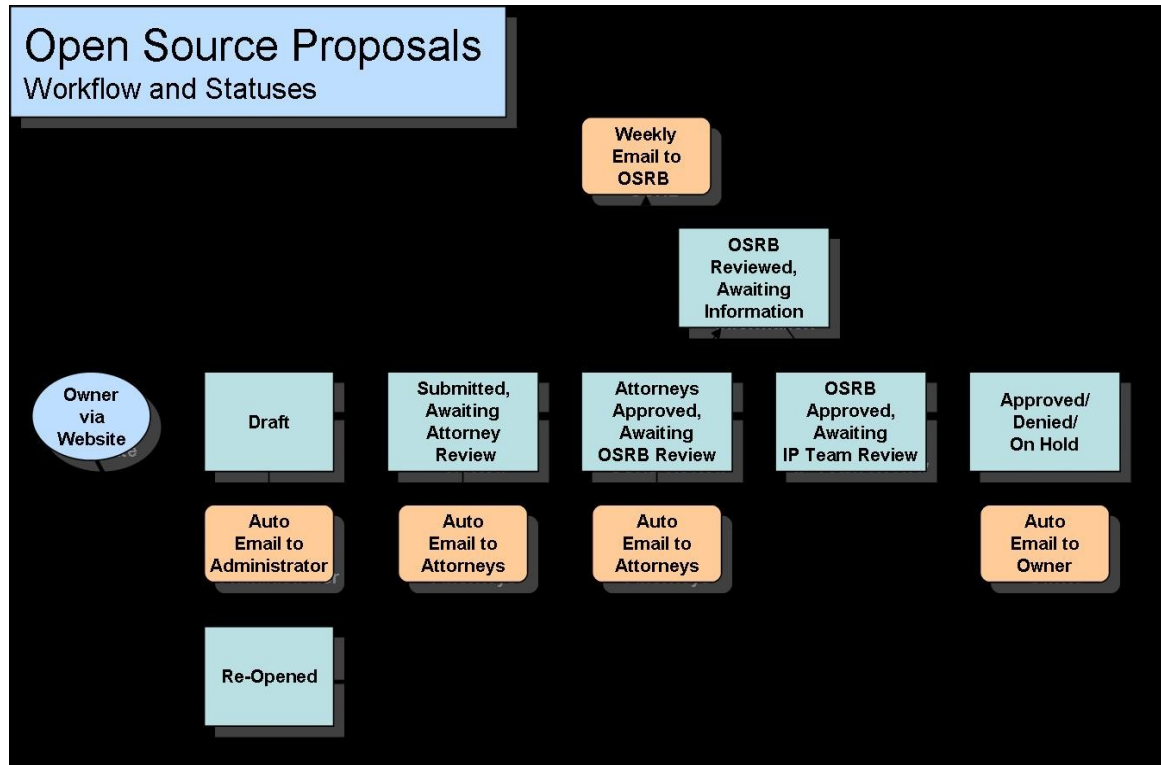
•OSRB Membership

Corporate Legal
Mergers & Acquisitions
HP Labs
R&D

Community Liaison
IT
Services

Open Source Tools

- OSRB Database
- Automated tools for:
 - License discovery/identification
 - Code reuse
 - Linux kernel taints
- Open source repository
- HP evaluates industry and opensource tools and uses the best available technology
- Today all tools are inhouse developed
- Open source maturity assessments



HP's Open Source Policy – Objectives

- *Ensure legal compliance: honor open source licenses and prevent unintentional “copylefting”*
- Establish proper business controls based on a clear understanding of open source
- Have a central place where all open source activities are understood for consistent communication inside and outside of HP
- Open source policy manual provides general policies on how/when to use open source software
- Open source review process leverages group of open source experts to provide business/legal review

HP Learnings in Open Source Management

- Define and communicate corporate-wide open source policies and guidelines
- Develop open source peaked legal experts
- Develop corporate-wide open source training and awareness
- Inventory and track all open source projects – use, code re-use, community contributions, shipments of products w/ open source, etc.
- Establish open source governance process – e.g. Open Source Review Board
- Establish internal open source community





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