



RED HAT SYMPOSIUM **OPEN SOURCE DAY**

HP vision for Open Source

Marcello D'Agnano
ESSN Presales Manager, Hewlett Packard
June 14th

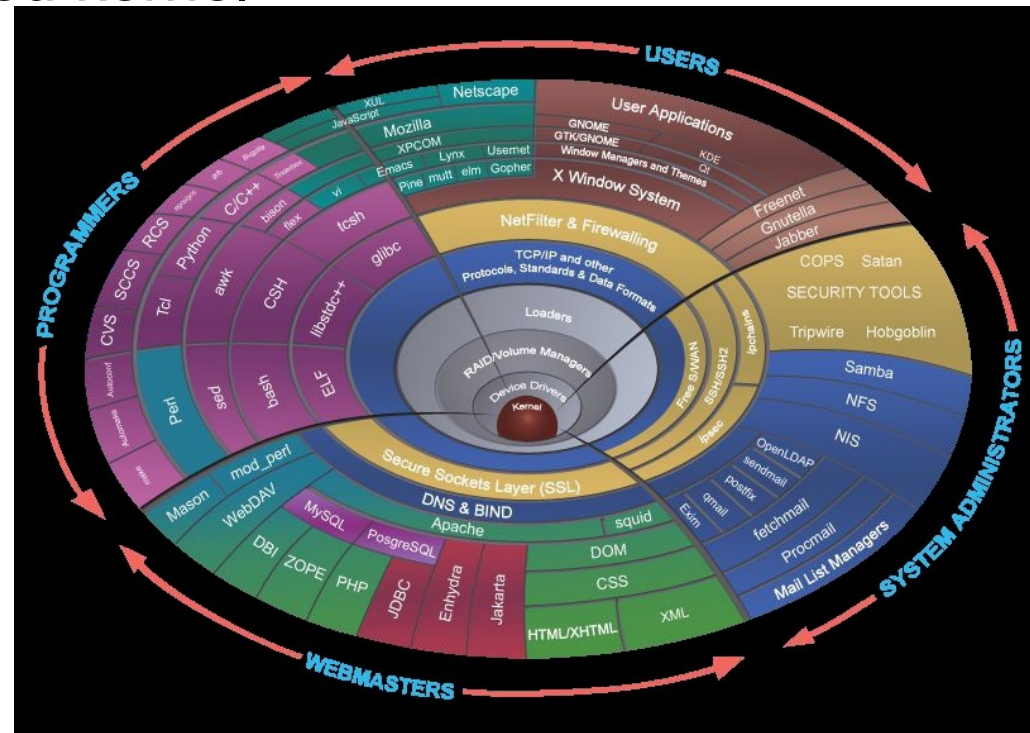
MEET. ENGAGE. BUILD.





What is a Linux distribution ?

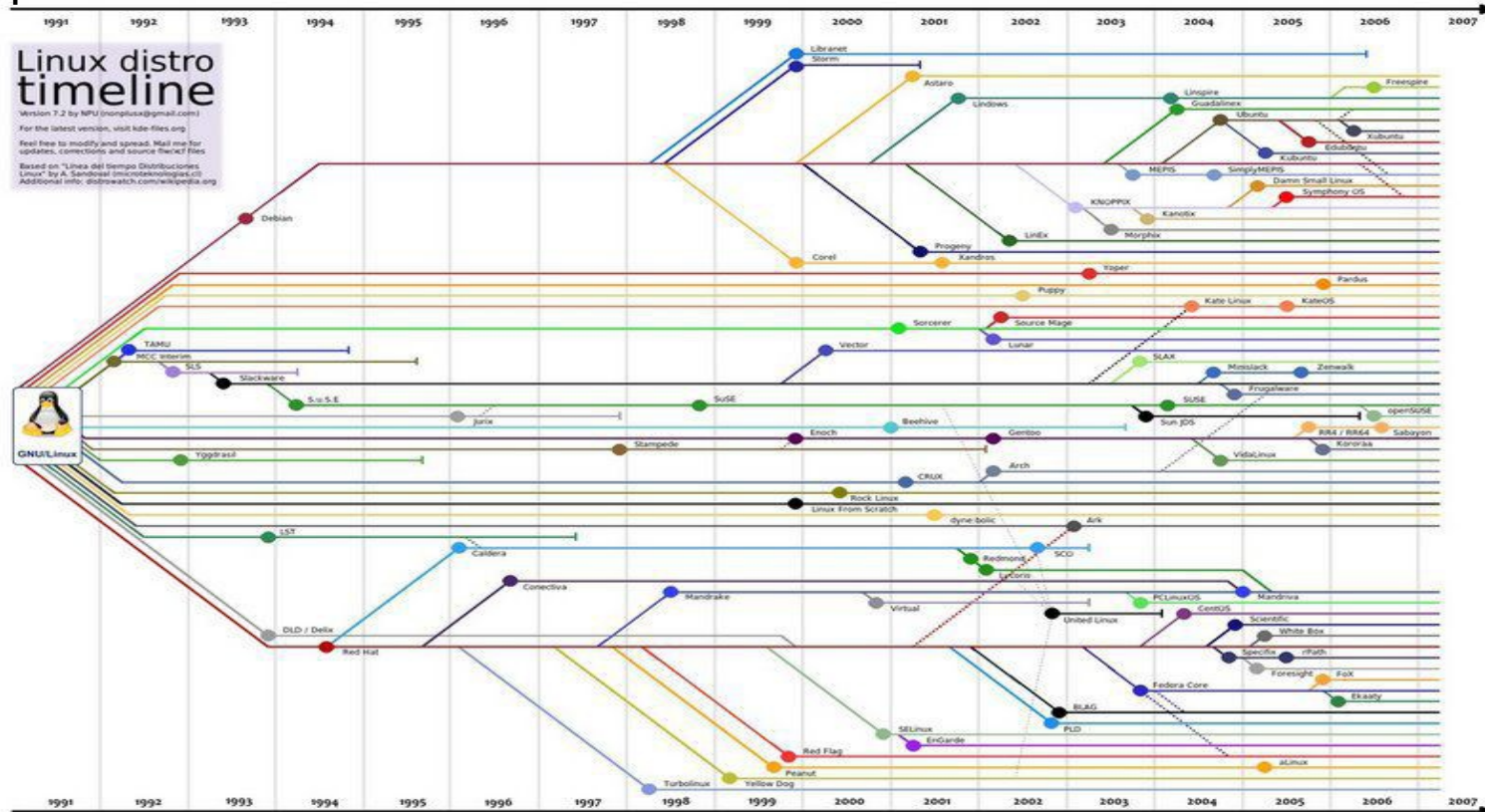
- A set of packages + management tools (thousands of precompiled applications integrated in a coherent manner – time consuming task => project in itself)
- An installation program (di, Yast, anaconda ...)
- A compiled, tested and supported kernel
- A set of startup scripts
- Specific distribution tools





Linux distributions

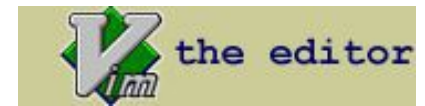
- SLS - Slackware
- Fedora / RedHat Enterprise (CentOS, Whitebox, ...)
- Debian / Ubuntu (DSL, SkoleLinux, Knoppix ...)
- Open SUSE / SuSE Linux Enterprise Server
- Mandriva Cooker / Corporate Server / Live
- TurboLinux
- Caldera
- Gentoo
- Montavista
- SmoothWall
- TomSrtbt
- Demolinux
- 200+ more
- FreeBSD
- NetBSD
- OpenBSD





Strenghts of FLOSS

- Everything come from the source code
- Flexibility / Customization
- Portability / Scalability / Pervasive
- Reliability / Stability
- Performance / Reactivity
- Universality through standards, rfcs, norms
- Interoperability
- Cost is then derived (Industry standards)





HP commitments to FLOSS

HP's Linux Strategy:

- ❑ to provide complete solutions
- ❑ to customers along with our partners

“Integrate and Implement Linux and FLOSS across all HP's deliverables”





HP supports freedom of choice

Freedom of choice means:

Openness in support offerings

Support themselves or pay support providers

Follow or fork if upstream unacceptable

How HP differentiates in a commodity market:

Communities relationships allow influence with respect to their values.
170 years of cumulated experience in Linux kernel.

Do not create new licenses but use existing ones

Improve the FLOSS ecosystem with partners to deliver solutions



HP reduces risks around FLOSS

HP's own Converged Infrastructure

In IT: Apache, Bind (100), DHCP, NTP, Clustered OpenLDAP (15) + perl DirectoryWorks, Postfix (3TB/year), Linux, Sympa, Wordpress, DHCP, LinuxCOE, Pligg, ...

In products: printers, software, servers, ...

HP helps establishing legal comfort

First to provide indemnification back in 2003

OSL Governance since 2000 (OSRB, fossology, FOSSBazaar, assessments, services)

GPLv3 contributions

Fight licenses proliferation



HP's commitment in numbers

6,500+ service professionals worldwide to implement and support Linux and open source

2,500+ developers focused on Linux and open source projects

200+ shipped HP products with embedded open source software

60+ open source software projects initiated

300+ open source printer drivers provided to community

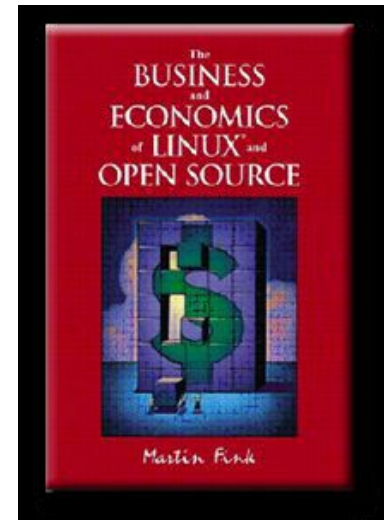


HP's commitment to communities



- Communities are at the heart of the FLOSS ecosystem

- No one company in charge
- Contributors have various interests, motivations



- HP's committed to FLOSS communities

- HP contributed/s to Squid, Samba, Apache, Linux...)
- HP leaded/s some communities (2 Debian Project Leaders, OpenSSI, Lustre, Linux ia64, AdvFS, handhelds.org, LinuxCOE, FOSSology, FOSSBazaar, crashdc, MondoRescue, Project-Builder.org)
- HP supports communities: Kernel summit, OWF, LCA, DebConf, X.org summit, GUADEC, KDE summit – ProLiant runs kernel.org, debian.org - helps LI, FSF, Linux Foundation, OSI, OSDL, ...



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HP's products and solutions

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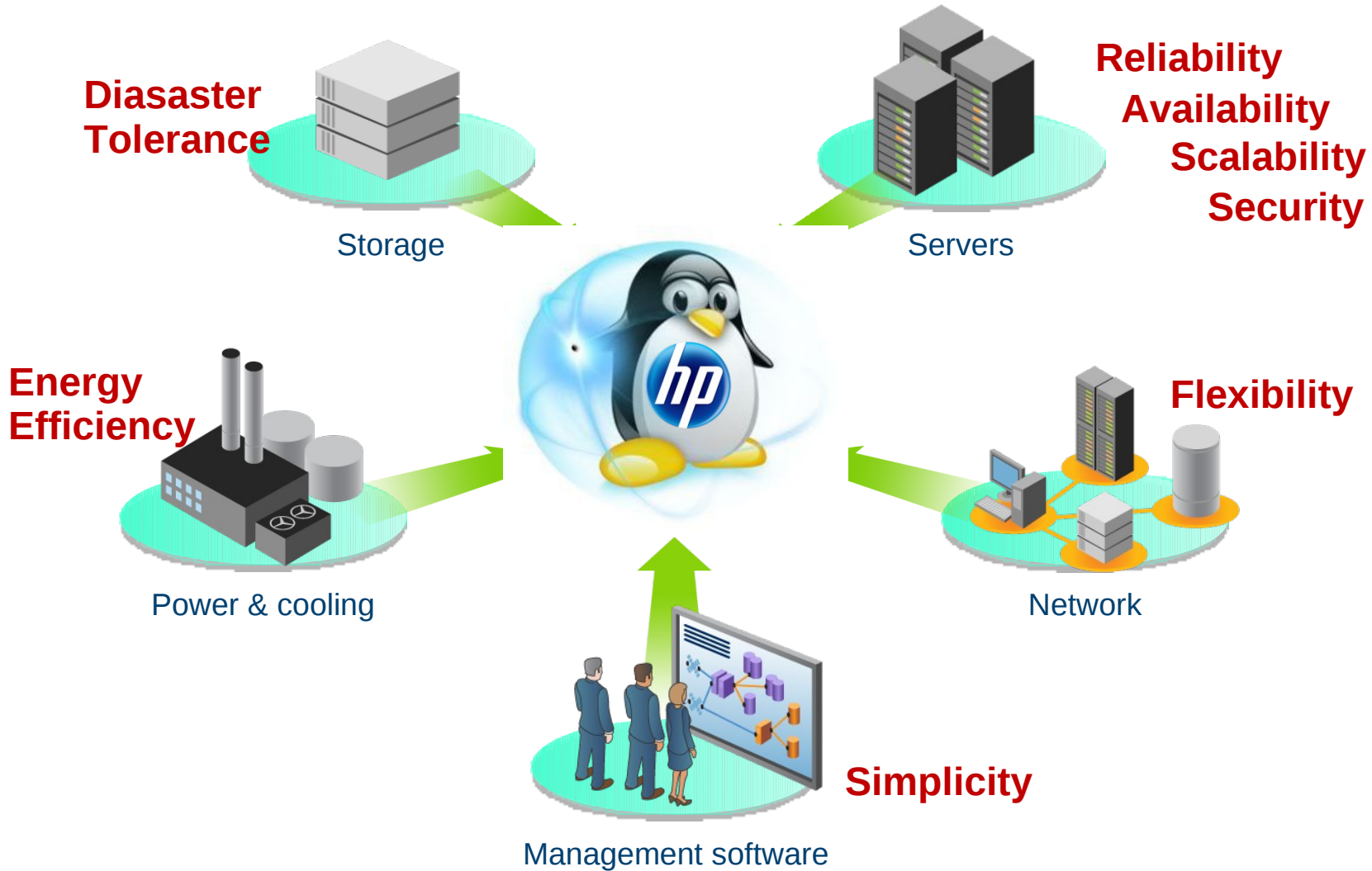
HP has led Linux server market for a decade

- 40% share of the Linux x86 server market*
- Scalable platforms for enterprise Linux
- Linux expertise shared openly
- Unwavering commitment to open source





Linux from HP is vectored into the converged infrastructure



Linux simply runs better on HP servers

Better Technology. Better Services. Better Value.



- Linux optimized, tested, and benchmarked early and often with BladeSystem, ProLiant, and Integrity servers to get representative HW certification
- **Insight Foundation management software** to simplify integration of HP servers into your managed infrastructure
- **Insight Control for Linux** to enable discovery, provisioning, control, update, and monitoring of physical and virtual Linux servers
- **Solaris to Linux Porting Kit** to simplify and accelerate the migration of applications from SPARC to ProLiant servers
- Decades of security expertise contributed to **Linux** community; work with partners to ensure Linux on HP servers achieves key security certifications (Common Criteria, FIPS, IPv6)



Linux from HP is enterprise driven

Infrastructure

- Proxy
- DNS
- VPN
- Firewall
- Telecom
- Management
- Security
- Provisioning



Application

- LAMP
- LDAP
- Collaboration
- App Dev



Business

- ERP
- CRM
- OLTP



Data

- Mission- Critical
- Consolidation
- BI/DW



Latency Sensitive

FSI, Telco



High Performance Computing

Financial Services, Computational Sciences, Animation & Rendering, EDA Simulations, Oil & Gas, Web 2.0, Hosting & Service Providers





Linux from HP is user focused



HP provides support



Partner provides support



Partner provides support

Commercial Linux

- Tests commercial Linux distribution early and often (with beta OS, new hardware)
- Enables commercial distribution near launch date of new ProLiant hardware
- Obtains Linux vendor certification for representative ProLiant servers
- Provides support for ProLiant Support Pack

Community Linux

- Performs sanity tests of community Linux distributions with several ProLiant servers
- Supports ProLiant server hardware
- Offers the ProLiant Support Pack “as is”
- Directs software issues to community resources and supports the community

Validates reference configurations, publishes best practices, supports industry events, and contributes to open source projects

HP shares open source best practices

Promoting open source governance in enterprises



fossology

- Forum to facilitate study of FOSS via free data analysis tools
- Original FOSSology tool-set developed and contributed by HP

<http://www.fossology.org>



fossbazaar

- Community for free and open source software governance
- Conduit for developing and share information and best practices
- Founded by HP and partners

<http://www.fossbazaar.org>



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HP and Red Hat

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HP + RH Alliance

Over 10 years of partnership

Strong executive commitment

Joint marketing and sales enablement

Strategic engineering collaboration

Industry-leading results

#1 Linux x86 platform : RHEL + HP ProLiant

#1 Linux blade platform : RHEL + HP BladeSystem

Strong growth and momentum

More than 3.3M HP servers sold for Linux since 1998

Nearly 40% share of Linux x86 server market



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No Secrets Allowed

Military-grade security. Open source transparency

For defense and intelligence agencies and financial institutions deploying a highly secure infrastructure using industry standard technology, HP works closely with RH to enhance, build, and verify secure configurations of RHEL on HP ProLiant servers.

HP brings decades of security expertise to Linux:

- Builds on security expertise with HP-UX, Tru64, OpenVMS
- Maintains the labeled networking subsystem
- Contributes to the auditing subsystem
- Provides scripts and services to help “harden” RHEL
- Provides consulting services for multi-level security

Shares security best practices with clients and partners
HP and RH worked together to achieve the **Common Criteria Certification of RHEL 5 on all HP servers and workstations.** HP was awarded the certificate for RHEL 5 at Evaluation Assurance Level 4+ (signifying highest degree of trust) for the Labeled Security Protection Profile (representing broadest set of security functions) on the widest range of platforms. See NIAP web site for details. Among competitors, only IBM has this certification.

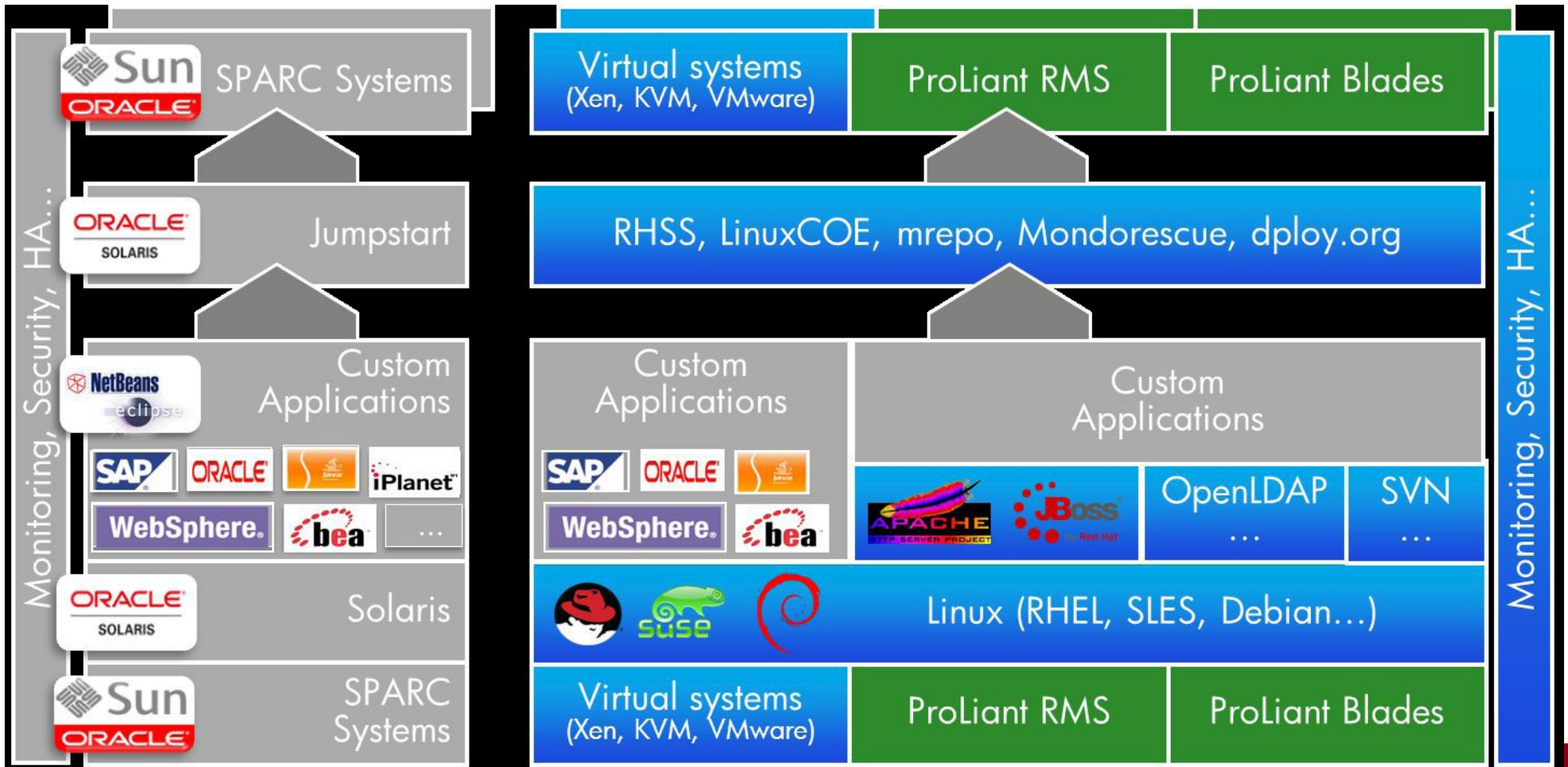
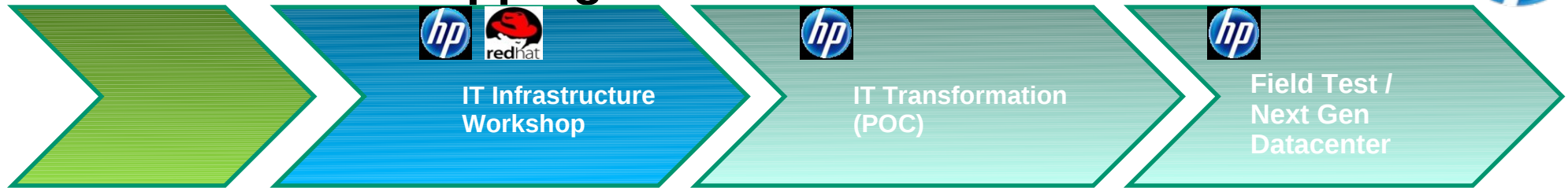
SELinux

- Contributed by the NSA
- Accepted by community
- Supported/Developed by RH
- Flexible security architecture
- Separates policy from enforcement
- Loaded into the Linux kernel
- Enforces Mandatory Access Control
- Turned on by default in RHEL 5
- Does not disrupt applications
- Does not deviate standard sys mgmt.
- Used by the NYSE

IT Infrastructure Workshops illustrated



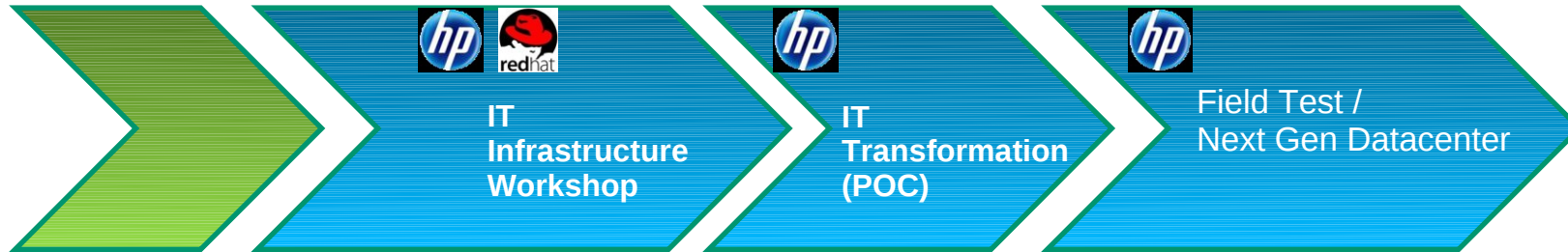
Infrastructure mapping





IT Infrastructure Workshops

Going one step further in the transformation process



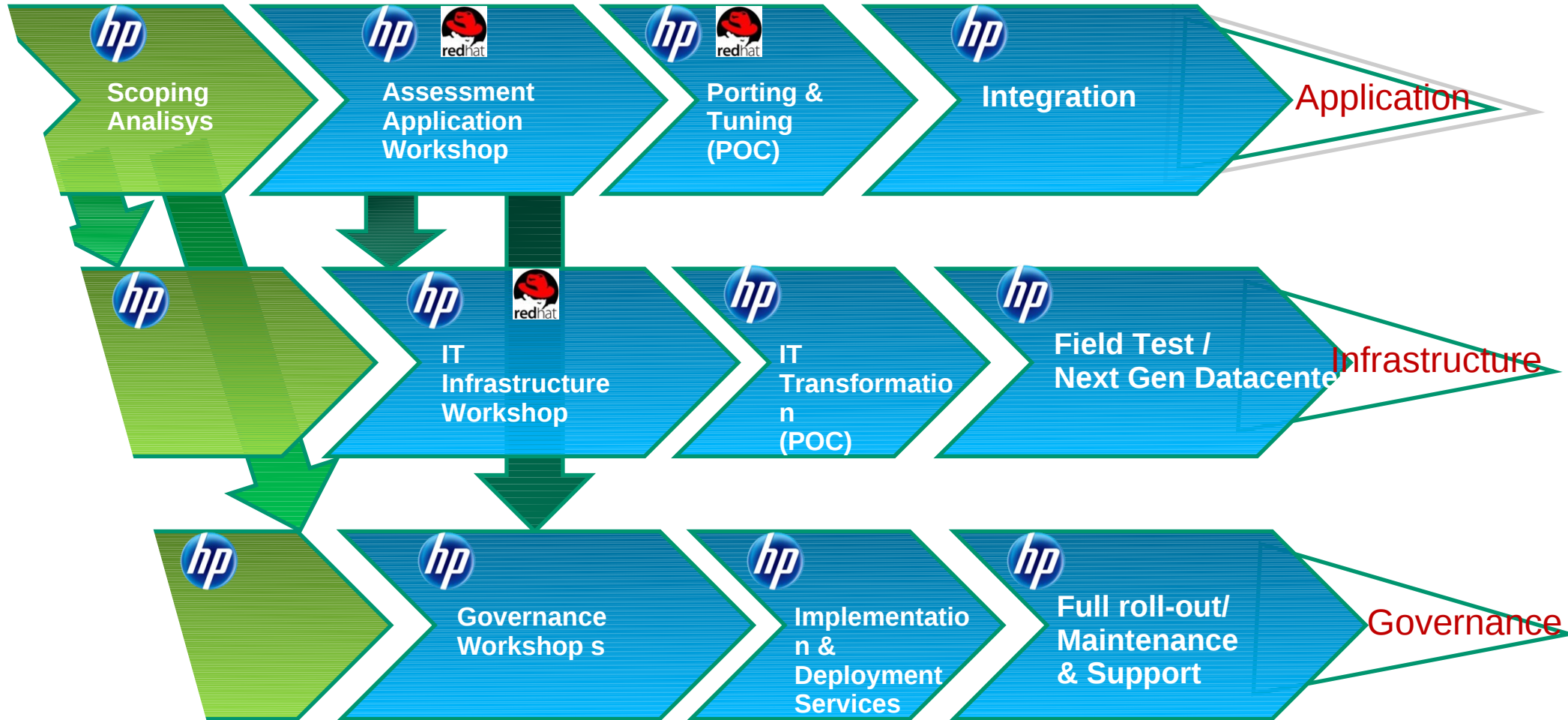
– HP and Red Hat share more information on the required IT infrastructure transformation to integrate Open Source and Linux into a Next Generation Datacenter:

- Consolidation,
- Virtualization,
- High Availability,
- Security,

- Backup and Restore,
- Management and Monitoring,
- Provisioning,
- Automation.

Applying a proven migration methodology

Risc/Unix to IA/Linux migration stages





SPARC to IA Migration

Global Telecom Equipment Provider

Location based Service Core Application

Customer Business Challenge	Application Details	Results And way forward
<ul style="list-style-type: none">•Migrate application components and push to market 6m.•Shorten the time to go from SPARC/Solaris to x86/linux.•Build migration experience•Need to identify and resolve HW/3PP	<ul style="list-style-type: none">•Over 1.6 million lines of C/C++ and java code, 8 main components•Migration of testing framework and package & install scripts•From Solaris 10 to RH•Telecom hardware specific	<ul style="list-style-type: none">•HP SPLK evaluated during trial helped overall assessment•Porting completed in 15 weeks proved the technical feasibility and business relevance of the migration to Linux•Strategic decision to go for GA on Linux

The HP difference

- The trial migration of one component and the setup of an in-depth technology and innovation workshop allowed precise assessment of the necessary effort for the complete migration.
- The CME Solution Center has ensured global coordination of a worldwide-spread team across Europe and China.



IT Consolidation

Global Outsourcer

150 applications hosted on 3000 servers

Customer Business Challenge	Transformation details	Results
<ul style="list-style-type: none">• Lower TCO (CAPEX & OPEX).• Confirm that applications run and perform on the target platform (KVM on DL380G7), a first step to a cloud infra.• Ability to use solutions based on standard	<ul style="list-style-type: none">• Consolidated 3 DC into 2.• Consolidated 3000 physical servers into 180 physical servers hosting 1000 virtual machines.• Migrated 150 SPARC or PA applications to HP ProLiant / Xeon running RHEL / KVM.	<ul style="list-style-type: none">• New environment provides 50k SPEC2006 nt_rate (+10%) with space, power and cooling greatly reduced.• Consolidation on HP ProLiant reduces operational expenses.• Disaster Recovery is benefiting from KVM capabilities.• Project pay-off after 8 months.

The HP difference

- Accelerated migration towards Linux/x86 with joint expertise on KVM virtualization to drive best practices adoption.
- The CME Solution Center has setup a RHEL 5.5 x86-64 + KVM environment to allow tests before transfer to customer.
- Accelerated migration towards Linux/x86 with joint expertise on KVM virtualization to drive best practices adoption.



HP provides comprehensive support services Flexible options. Uniform coverage.

HP is the single point of accountability and sourcing for Linux solutions in heterogeneous multi-technology, multi-vendor environment with support for many ISVs including Red Hat



Software Updates

- Rights to new versions
- Product & document updates

Software Support

- Incident and unlimited
- Software tech assistance
- 2 hr response

Support Plus

- HW 4 hr response
- Software tech assistance
- 2 hr response
- 13x5 or 24x7 coverage

Proactive 24

- HW 4 hr response
- Software tech assistance
- 2 hr response
- Service account manager
- Support planning
- System Health Check
- Remote diagnosis
- 24x7 coverage

Mission Critical Named tech

- account team
- Support planning
- Proactive services
- Change management
- 6 hr CTR HW
- Software tech assistance
- Immediate response for critical problems
- Remote diagnosis
- 24x7 coverage



Proven solution support & accountability

2008 Linux Support Calls to HP



Another year of 99%+ independent support call resolution by HP





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Thank you

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