Selling Open Source with Business Metrics

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Objectives

- The Solvable Misunderstanding
- A Few Open Source Wins
- Influencing Management with Metrics
- Selling Open Source

The Solvable Misunderstanding

Business vs. IT

Business Confusion

- Hard time understanding IT
- And the value it delivers

IT Confusion

- IT feel business doesn't understand them
- And the true value we deliver

IT Needs to Improve

- We can be better at communicating the value we bring
- Communicating in the same terms at the business understands
- We can learn to understand more of the business needs

Business Needs to Improve

- Understanding of IT
- Business improvement opportunities of IT
- Competitive advantages

When we are no longer able to change a situation, we are challenged to change ourselves.

-Victor Frankl

Anyone remember:
Microsoft Get the Facts Campaign?

Get the “Facts”

- 2004 Microsoft Ad Campaign
- Biased TCO Study of Windows vs. Linux
- Based on work with Accenture on migrating London Stock Exchange to .NET based trading platform.
- 99.999% uptime claim

Facts are..

Facts

- 2009 LSE dropped MS for Linux
- Better reliability & security
- Lower TCO
- Linux win

Open Source OWNS!

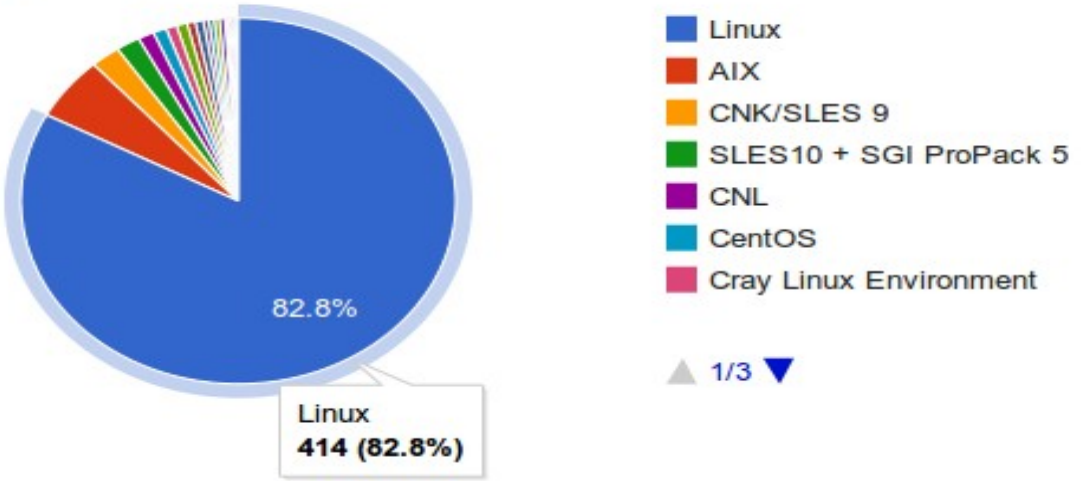
Super Computing

TOP500 Statistics

TOP500 Release:	November 2011
Stats type:	Operating System

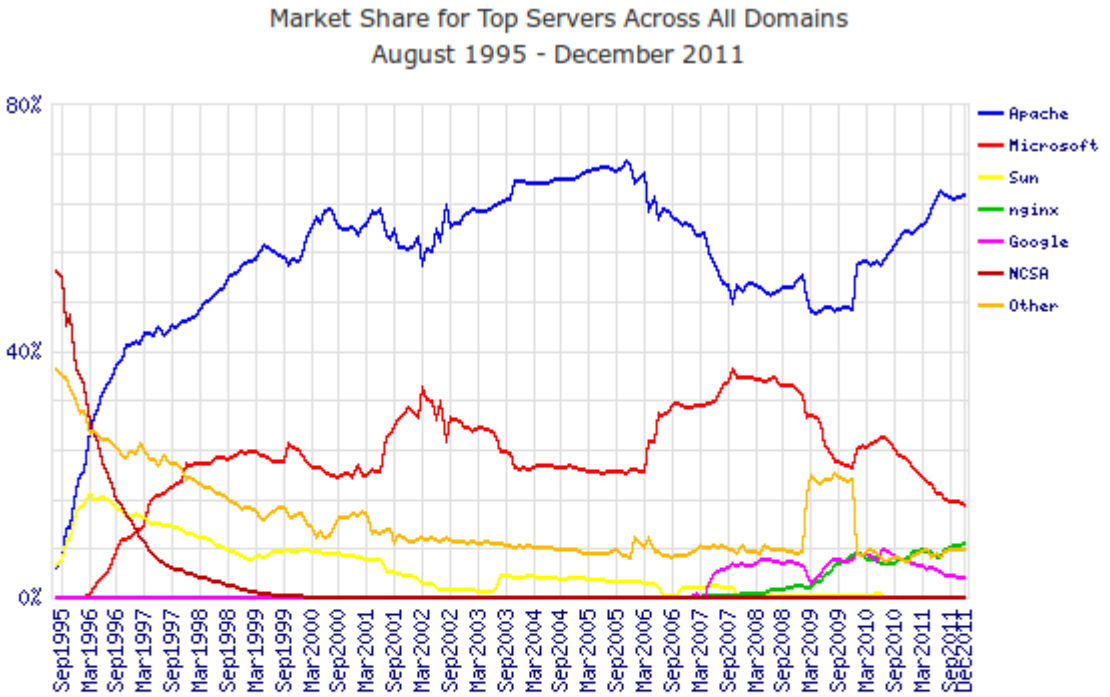
R_{max} and **R_{peak}** values are in GFlops. For more details about other fields, check the TOP500 description.

Operating System System Share



Top 500 Super Computers (11/2011) http://www.top500.org/

Webservers



Developer	November 2011	Percent	December 2011	Percent	Change
Apache	341,880,662	65.00%	362,267,922	65.22%	0.22
Microsoft	81,261,099	15.45%	82,521,809	14.86%	-0.59
nginx	44,731,780	8.50%	49,143,289	8.85%	0.34
Google	17,749,748	3.37%	18,464,148	3.32%	-0.05

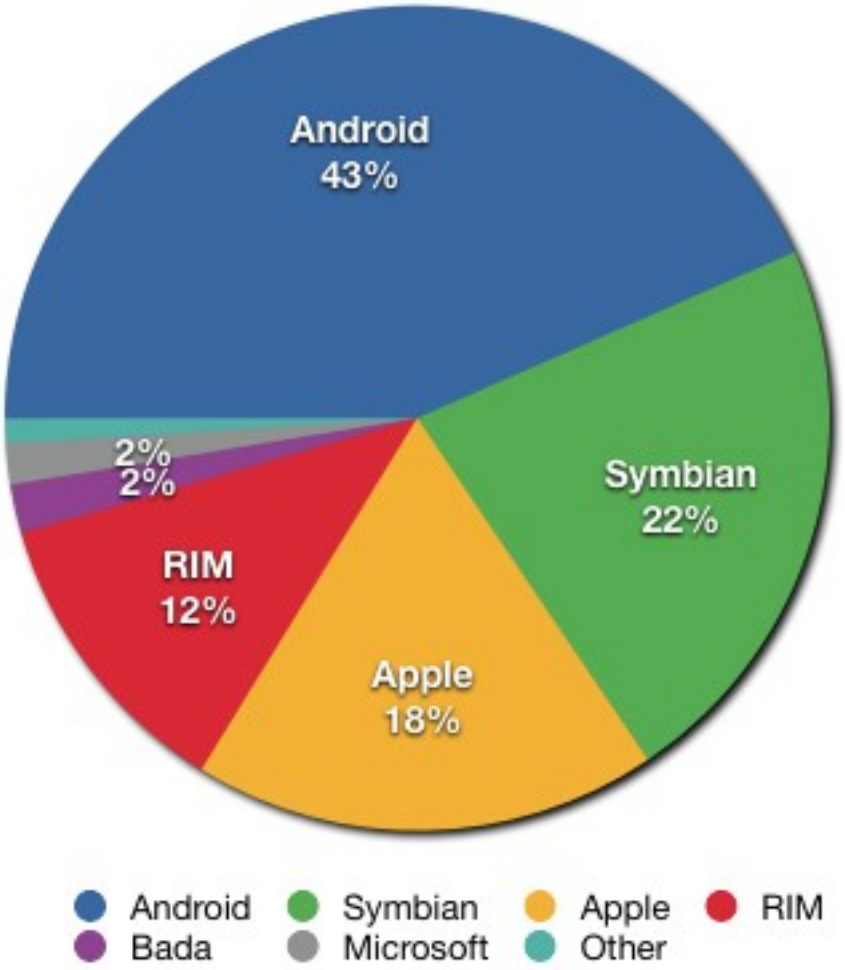
Netcraft.com 12/2011

Open Web

9 of the top 10 websites* are built on Open Source Tech

*According to Alexa.com

Mobile



Gartner 2011 Q2

Mobile Predictions

Predictions for 2015: (Gartner): 1105 million units; **Android 49%** / Windows 20% / iOS 17% / BlackBerry 11% / Other 3%.[36] (IDC): 982 million units; Android 44% / Windows 20% / iOS 17% / BlackBerry 13% / Other 6%

Movies/Animation

- Dreamworks Animation, Pixar, Weta Digital, and Industrial Light & Magic all run Linux
- According to Linux Movies Group - 95% of the servers and desktops at large animation and visual effects companies use Linux

?

Why Don't We Own More Marketshare?

Why?

- Management doesn't understand Open Source
- Sometimes we go zealot
- Sometimes we go too technical
- Sometimes we miss the real value Open Source brings

What can we do to more effectively to elucidate the benefits of open source?

Metrics
Sayin' we are awesome with numbers

Benefits of Metrics

- Highlight key benefits
- Cost vs. Benefits
- Make us persuasive
- Quantitative angle helps

TCO
Total Cost of Ownership

TCO

- All of the costs over useful life of investment
- More expansive than initial purchase price or implementation
- Costs such as initial investment, cost of operation, maintenance, useful life span, training, networking, etc.

TCO Includes (Wikipedia)

Computer Hardware & Applications

- Network hardware and software
- Server hardware and software
- Workstation hardware and software
- Installation and integration of hardware and software
- Purchasing research
- Warranties and licenses
- License tracking - compliance
- Migration expenses
- Risks: susceptibility to vulnerabilities, availability of upgrades, patches and future licensing policies, etc.
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Operation expenses

- Infrastructure (floor space)
- Electricity (for related equipment, cooling, backup power)
- Testing costs
- Downtime, outage and failure expenses
- Diminished performance (i.e. users having to wait, diminished money-making ability)
- Security (including breaches, loss of reputation, recovery and prevention)
- Backup and recovery process
- Technology training
- Audit (internal and external)
- Insurance
- Information technology personnel
- Corporate management time

Long Term Expenses

- Replacement
- Future upgrade or scalability expenses
- Decommissioning

TCO Analyzed

- Single minded focus on cost
- TCO misses benefits or returns
- Need to examine both
- Shouldn't be used alone

Example TCO Studies

Cybersource Pty. 2004 TCO Study

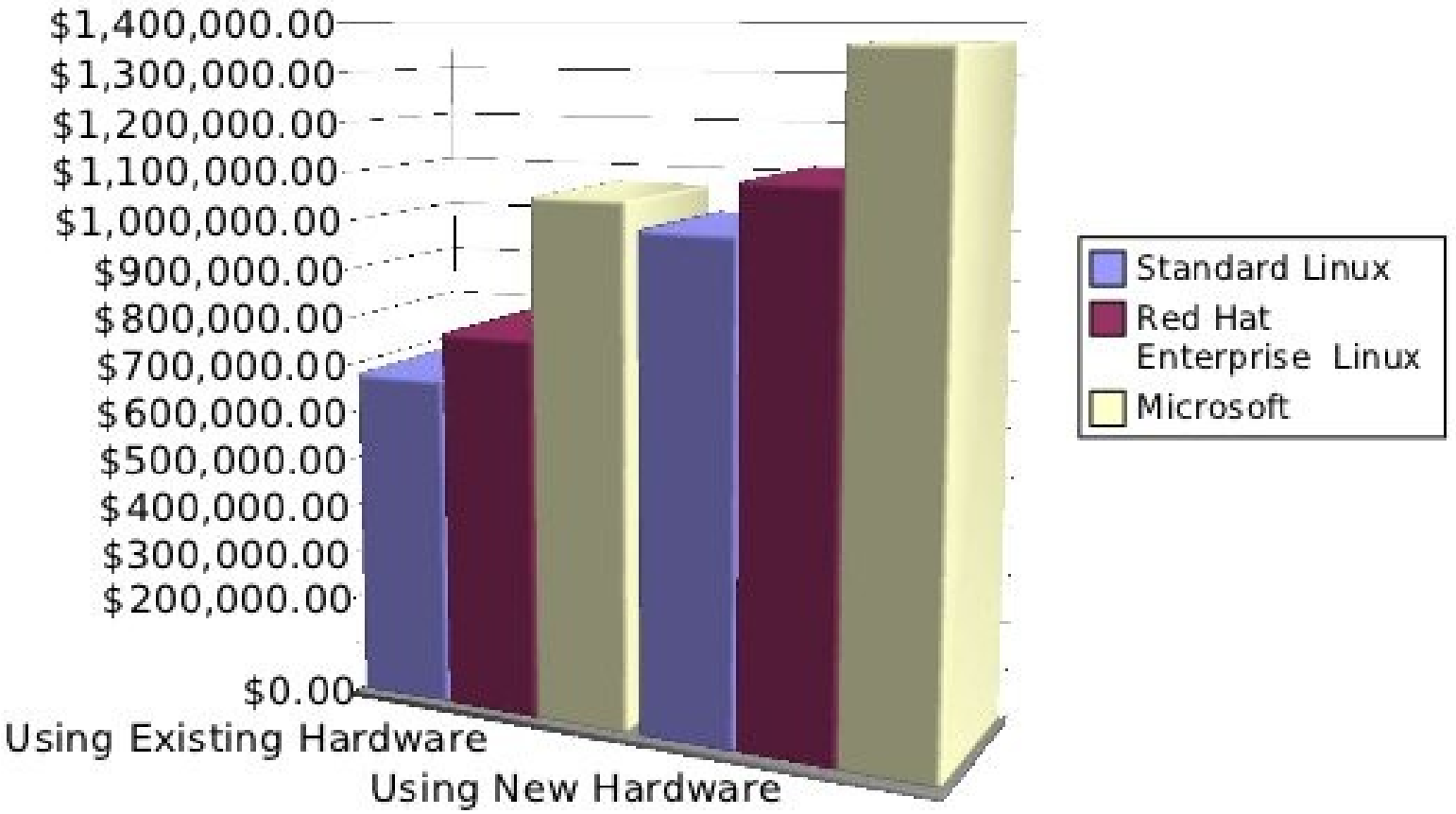
- Modeled an organization with 250 users over 3 years
- Workstations, servers, Internet connectivity, an e-business system, networking, desktop software, and salaries for IT professionals
- Compared new infrastructure vs. migration

Linux TCO

Red Hat Enterprise Linux Solution vs Microsoft Solution

	Microsoft Solution	*Red Hat Enterprise Linux Solution*	*Savings Achieved by Using Open Source*	*Percentage Saved*
Existing hardware & infrastructure is used	$1,066,712	$781,279	$285,433	27%
New hardware & infrastructure is purchased	$1,366,883	$1,111,450	$255,433	19%

Nice!



Soreon/Research & Markets TCO Study

- Soreon/Research & Markets TCO Comparison
- Data was collected from interviews conducted with 50 different enterprises
- Real-world not just another model
- Linux was shown to have a lower TCO by up to 30%

Calculating TCO

- Office Template
- http://goo.gl/hIQuH
- Libre Office Help
- http://goo.gl/UUjiL

ROI
Return on Investment

ROI

- Return on Investment - Calculates the financial performance of an investment
- Evaluates efficiency of an investment
- Includes cost elements but also the value of resulting benefits to enterprise arising from investment

ROI Analyzed

- Shows value not simply the cost (think TCO)
- No factoring of likelihood returns and costs will match predictions
- Should not be used alone

Redhat ROI Calculator

redhat

CORE BUILD SERVICE ROI CALCULATOR

Moving to Linux? Make the most of your technology investment.

Let Red Hat Consulting develop your custom Core Build and watch your return on investment multiply.

→ Download the pdf.

Calculate your increased ROI using Red Hat Core Build Service, compared to doing the same Red Hat Enterprise Linux installations in-house.

Here's how: Adjust the highlighted information fields below so they're accurate for your organization. Then compare the outputs in the bottom blue portion of the calculator. The left side indicates your costs doing the installation work in-house, while the right indicates costs using Red Hat Core Build Service. Take note of your savings per server, three-year savings, and three-year ROI (using Red Hat Core Build Service) denoted in red below.

Red Hat Enterprise Linux Core Build Return On Investment (ROI) Calculator

Presumptions

Hardware purchase price	$5,000	Number of months of QA per build	3
System Administrator salary + benefits	$ 100000	Number of builds per year	12
Annual hosting cost per server	$12,000	Cost of Red Hat Enterprise Linux annual subscription	$2,499
Number of servers supported per Systems Administrator	40	Number of servers	1000
Number of Quality Assurance engineers working per build	2	Percent increase in System Administrator support ratio	50%

Calculations

Base cost without Red Hat Consulting	
Hardware purchase price	$5,000,000
Annual subscription cost	$2,499,000
Annual system administration cost	$2,500,000
Annual cost of QA engineering	$600,000
Annual hosting cost for all servers	$12,000,000
Per server cost year 1	**$22,599**
Per server cost year 2+	**$17,599**
Per server cost 3 year total	**$57,797**
Three-year operating cost for all servers	**$57,797,000**

ROI of the Red Hat Consulting Core Build Offering	
Hardware purchase price	$5,000,000
Annual subscription cost	$2,499,000
Annual system administration cost	$1,700,000
Annual cost of Red Hat GPS Core Build	$240,000
Annual hosting cost for all servers	$12,000,000
Per server cost year 1	**$21,439**
Per server cost year 2+	**$16,439**
Per server cost 3 year total	**$54,317**
Three-year operating cost for all servers	**$54,317,000**
Savings per Server	**$3,480**
Three-year savings	**$3,480,000**
Three-year ROI	**1450.00%**

http://www.redhat.com/promo/corebuild/

Example ROI Study

RFG ROI Survey

- Robert Frances Group Survey 2004
- All of the enterprises surveyed reported positive ROI within one year
- Financial services firms with more aggressive implementations that included application servers and high-performance computing (HPC) applications - reported the highest returns
- Several projects returning over 500 percent of the initial implementation investment

Calculating ROI

- http://goo.gl/C3HJp
- http://goo.gl/dDYGL
- Libre Office Help
- http://goo.gl/UUjiL

NPV
Net Present Value

NPV

- Net Present Value – Help to decide which projects to invest in
- Helps **determine economic viability (profitability) of an IT investment by looking at projected inflows and outflows**
- Difference of present value of cash inflows vs the present value of cash outflows
  - >0 is good
  - <0 not so good

NPV Analyzed

- Top choice in analyzing capital expenditures
- Can take more time to explain or present to others
- Should not be used alone

Calculating NPV

- Open Office/Libre Office Template
  - http://goo.gl/grtnc
  - http://goo.gl/vVIXi
- Libre Office Help
- http://goo.gl/UUjiL

IRR
Internal Rate of Return

IRR

- Internal Rate of Return
- AKA - Rate of Return (ROR) or Discounted cash flow rate of return (DCFROR)
- In capital budgeting is used to **measure** or **compare profitability of an investment**
- Higher the IRR the more valuable the project

IRR Analyzed

- Singular hurdle rate(rate of return required) for investment decision
- Not as easy to understand as other metrics
- Some debate in Finance community as to its validity
- Shouldn't be used alone

Calculating IRR

- Open Office IRR
  - http://goo.gl/OUCOE
  - http://goo.gl/ylkWQ
- Libre Office Help
- http://goo.gl/UUjiL

Payback Period

Payback Period

- How long it will take for investment to pay for itself
- Easy to calculate
- Rough measure
- Initial investment/cash flow per year

PP Analyzed

- Doesn't consider time value of money*, risk, financing
- Generally we don't want to break even, we want to have a return
- Rough measure
- NPV and IRR are more relevant

*Time value of money is the value of money figuring in a given amount of interest earned over a given amount of time

Caveats & Other Issues With Metrics

Caveats

- These metrics are only one of many factors.
- Metrics are filled with assumptions, estimates and judgment calls, behind the numbers
- Not to be used alone
- Qualitative measures are important too

"Different investment have different outcome and require different kinds of justification."

– Marianne Broadbent – Author

Metrics Value

- Help us sell decision makers on great software
- Show real value
- Articulate benefits

Use to Build Business Case

- Use to to augment your case
- Build your financial case
- Be open to the fact that Open Source may not be a good fit for the solution
- No one solution fits all problems

Do Your Own Study

- You need to do your own study
- Get your own numbers valid for your organization/situation
- Use these others studies/metrics/success stories for reference is fine
- OSS isn't always the answer

Some Real World Studies of Where OSS is Headed

Forrester Study (2009)

- 87 percent realized cost saving by open source
- 92 percent had their quality expectations met or exceeded by open-source software.
- 72 percent knew that much of the proprietary software they license includes open-source components
- 39 percent regularly combine open source and proprietary software to solve business problems

Open is the Future

IDC now expects worldwide open-source revenue to grow at a 22.4 percent compound annual growth rate to top $8.1 billion by 2013.

We Cost Less

- 2004 SAP Study
- In 2004, open source software saved large companies (with annual revenue of over $1 billion) an average of $3.3 million.
- Medium-sized companies (between $50 million and $1 billion in annual revenue) saved an average $1.1 million.
- Firms with revenues under $50 million saved an average $520,000.

Cost isn't the only benefit of Open

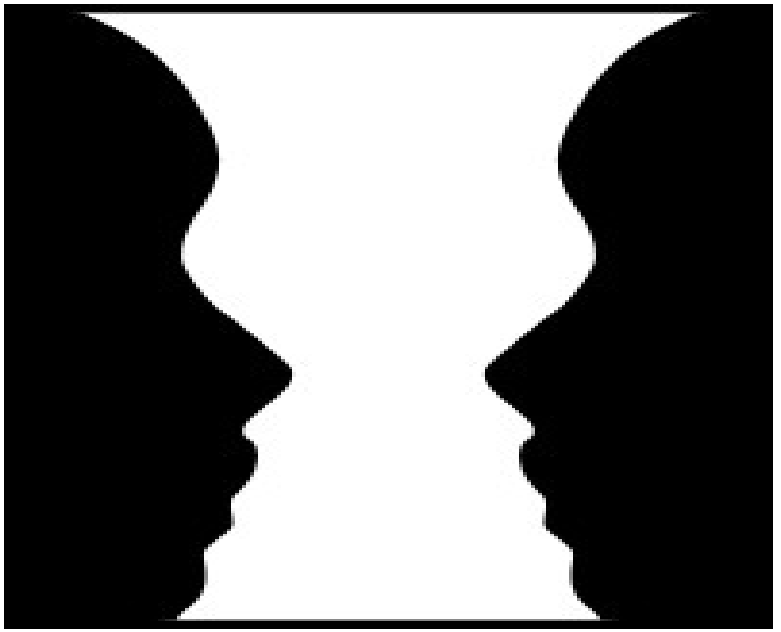
Benefits of OS

- Access to Source
- Auditability
- Freedom
- Support
- No License Fee
- No License Compliance Headache
- No Forced Upgrades
- No Vendor Lock-in
- Open-ness
- Reliability
- Flexibility
- Stability
- Security
- Innovation
- Cost
- It ROCKS!

How NOT to Sell

- Freedom
- Zealotry
- Bigotry
- Unidimensional

What is this?



Open Source

- Based on quality alone sells itself
- We can help by using quantitative and or qualitative measures
- It is all about how we communicate the value it yields

Thank You

- BLU
- MIT (For the space & support)
- All of you!

Let's Connect

Find me on all social networks
http://network.evolutionaryit.com

Let's Connect

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http://www.evolutionaryit.com
Or email us at:
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