Total Cost of Ownership Linux

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TCO of Linux

- What do people usually think it is?
- What is the definition of TCO
- What parameters are used to define TCO?
- Examples
  - Unix to SUSE Linux
  - SUSE Linux on the Desktop
- Innovations to challenge TCO
- Q&A

Total Cost of Ownership

License + Maintenance = TCO

Subscription maybe Maintenance = TCO

Free + Maintenance = TCO

Direct cost + indirect cost = TCO

CapX + Cap Ops = TCO

Total Cost of Ownership

TCO analysis was popularized for the Gartner Group in 1987[1] but its roots are considerably older, dating at least to the first quarter of the twentieth century.[2] It has since been developed in a number of different methodologies and software tools. TCO tries to offer a statement on the financial impact of deploying information technology during its whole life-cycle.
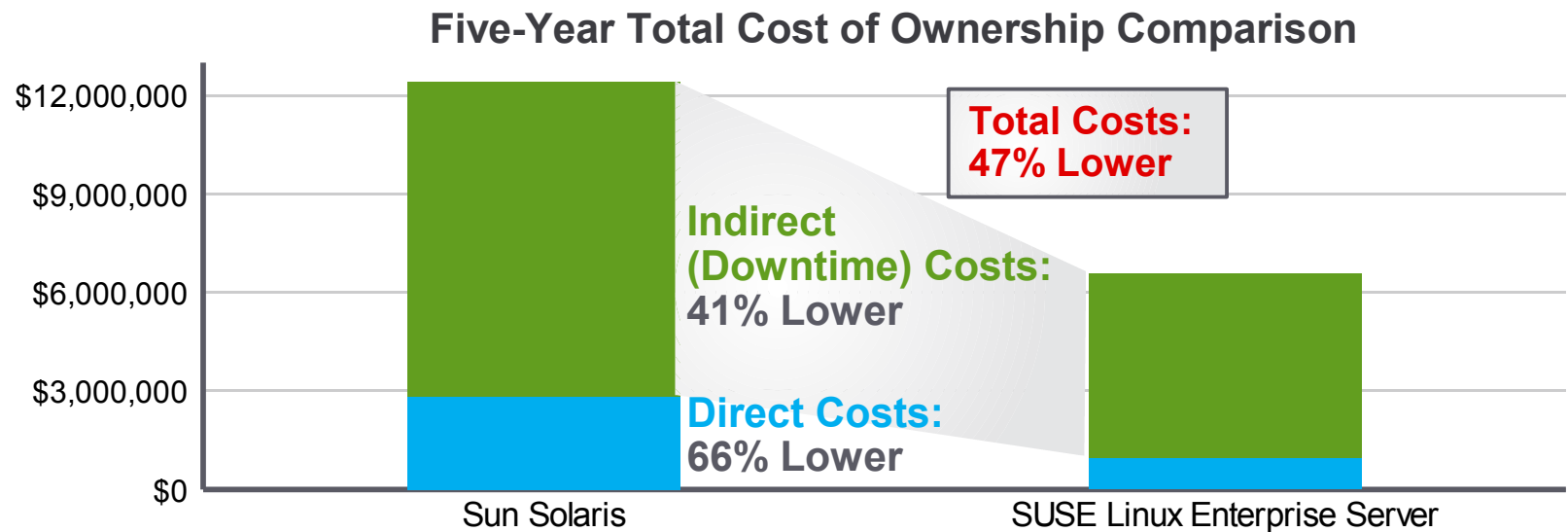
wikipedia

Depending on the IT deployment the following elements can be included in the Total Cost of Ownership TCO:

- End-user computer Hardware purchase costs

- Software license purchase costs

- Hardware and Software Implementation / deployment costs

- Hardware warranties and maintenance costs

- Software license tracking costs

- Operations Infrastructure Costs

- Infrastructure (floor space)

- Cost to upgrade or scalability
- IT Personnel costs
- "C" Level Management Time costs
- Backup and Recovery Process costs
- Costs associated with failure or outage
- Diminished performance incidents (i.e. users having to wait)
- Costs of security breaches (in loss of reputation and recovery costs)
- Technology training costs of users and IT staff.
- Audit costs
- Insurance costs
- Replacement costs
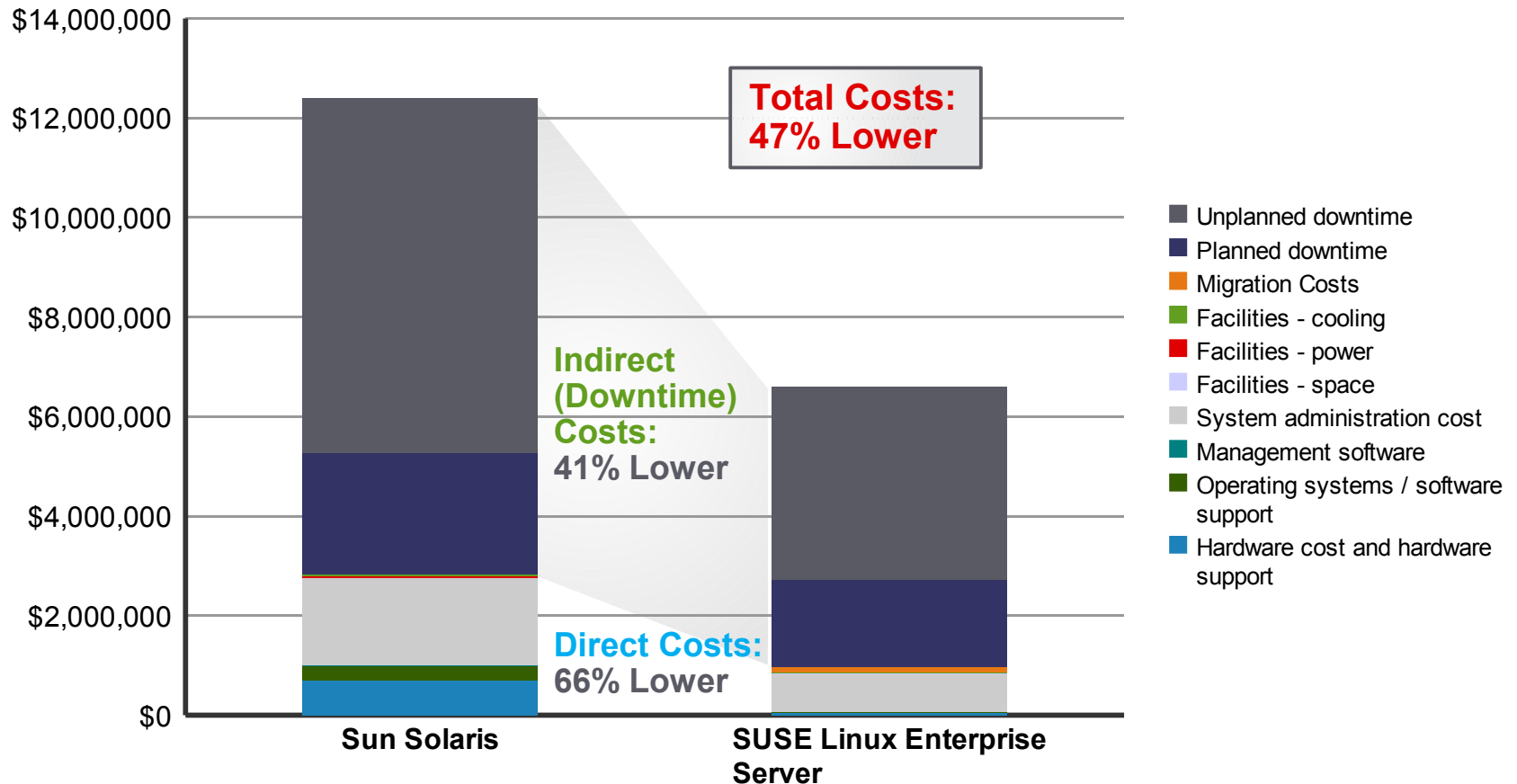- Migration costs
- Decommissioning costs

UNIX to Linux Migration

- Lower total cost of ownership by 25 to 50 percent
- Achieve outstanding performance and reliability
- Gain flexibility and choice
- Benefit from proven migration services

Five-Year Total Cost of Ownership Comparison

**Total Costs:
47% Lower**

**Indirect
(Downtime) Costs:
41% Lower**

**Direct Costs:
66% Lower**

Sun Solaris

SUSE Linux Enterprise Server

Source: Alinean Research TCO Calculator, 2008

Lower Costs: SUSE Linux Enterprise Server vs. Solaris

Total Cost of Ownership over 5 Years (Typical Scenario)

Total Costs: 47% Lower

Indirect (Downtime) Costs: 41% Lower

Direct Costs: 66% Lower

Legend:
- Unplanned downtime
- Planned downtime
- Migration Costs
- Facilities - cooling
- Facilities - power
- Facilities - space
- System administration cost
- Management software
- Operating systems / software support
- Hardware cost and hardware support

Sun Solaris

SUSE Linux Enterprise Server

National Bank
Mainframe Linux, UNIX to Linux Migration

Workloads	· Mission-critical Web applications for online customer banking, call centers and branch automation services
Business Issues	· Handle increasing volumes of electronic data · Reduce costs of managing 600 servers, including 40 Sun servers · Manage costs by eliminating the need to add servers at the rate of 30 percent each year
Novell® Solution	· SUSE® Linux Enterprise Server for System z · IBM System z
Results	· Consolidated 40 Sun Solaris servers to five virtual Linux servers on an IBM mainframe · Reduced administrative costs by nearly 70 percent and software licensing costs by more than 90 percent · Realized $1.8 million in savings in first year · Estimates savings of $9.6 million through 2011

Lower Your Costs

Hardware Purchase

- UNIX loads typically run on Linux using industry standard servers that cost up to 75% LESS than comparable RISC systems for UNIX

Hardware Maintenance

- The move to commodity hardware drives a reduction in annual hardware maintenance costs of up to 90%

Software License Costs

- Commercial Linux subscription fees are typically up to 60% LESS than the license costs for the UNIX systems they replace

TCO

TCO calculator comparing SLES and Solaris, available at

https://roianalyst.alinean.com/calculators/novell/ROI_Calculator.html

SUSE Linux Enterprise Desktop
Value Proposition

Lower Costs in Your Current Environment

Interoperability with Existing Systems

Ease of Use

Strengthened Desktop Security

Ease of Management and Flexibility

TCO impact areas

SUSE Linux Enterprise Desktop
65%Less than Windows and Office <u>With</u> Support

Windows Vista + Office 2007

Price difference would be even greater if based on Novell street prices

SUSE Linux Enterprise Deskto
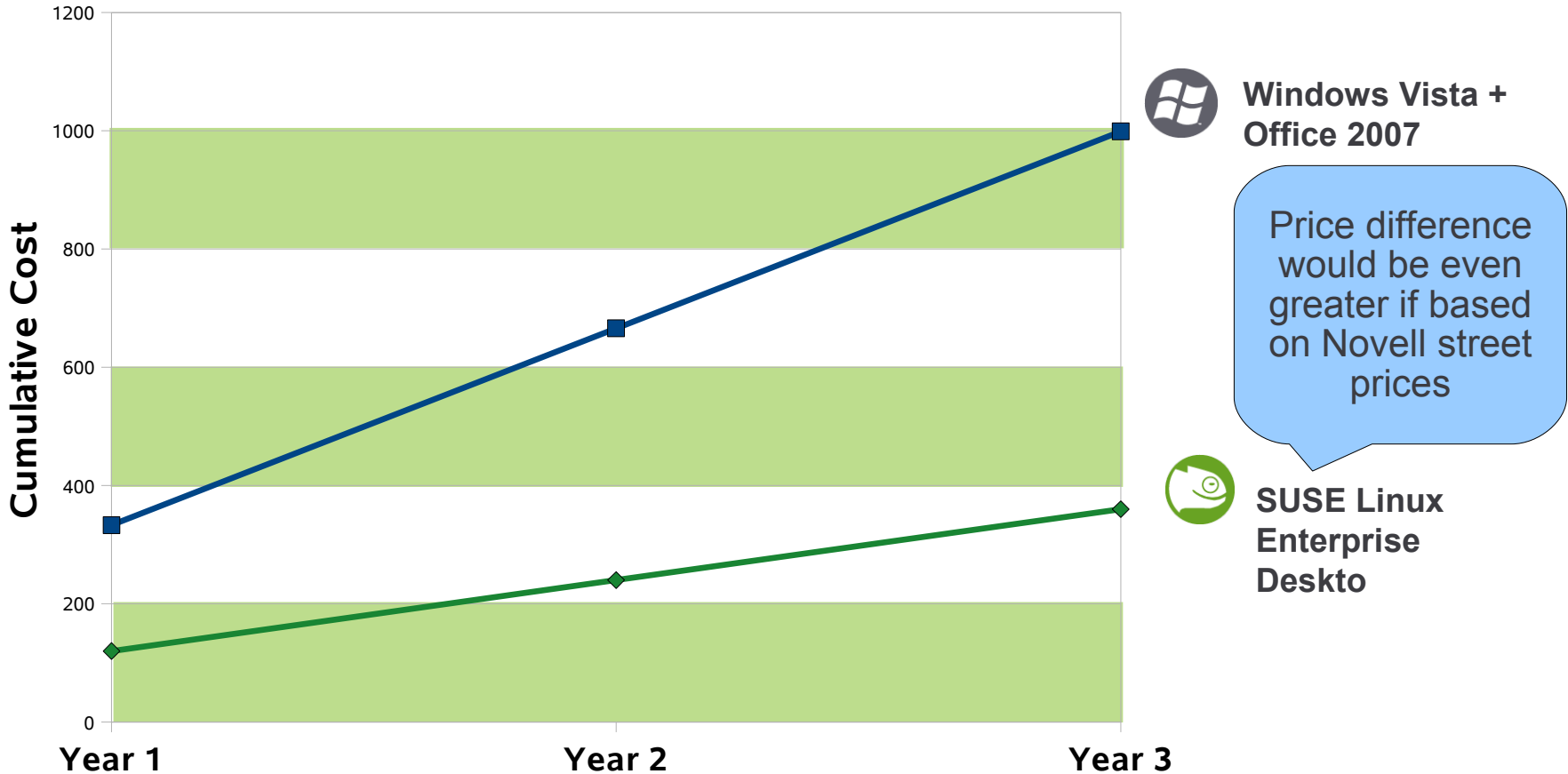
- Windows = Street price (Enterprise Agreement for license and software assurance, no technical support)
- SUSE Linux Enterprise Desktop = List price (Maintenance and 12x5 technical support)

SUSE Linux Enterprise Desktop
Bundled Applications at No Extra Charge

Office Productivity Suite	OpenOffice.org Novell® Edition	OpenOffice.org®
Email & Calendaring	Novell Evolution™	
Integrated Desktop Search	Beagle™	Beagle
Application Security	AppArmor	
Multimedia Player	Banshee	banshee
Photo Management	F-Spot	f-spot
Note-taking Application	Tomboy	Tomboy Simple note-taking. Powerful ideas.
Web Browser	Mozilla Firefox	Firefox

SUSE Linux Enterprise Desktop
Green IT Capabilities

- **Lower system requirements versus Windows**
  - As little as 512 MB RAM and 2.5GB HDD (vs. 1 GB RAM and 15 GB HDD for Vista)
  - Easily leverage / repurpose existing machines with SUSE Linux Enterprise Desktop
- **Encourages cost-effective, server-based deployments**
  - Easily leverage into thin client Linux deployments

SUSE Linux Enterprise Desktop
Minimizes Retraining by Interoperating With Your IT

- **Multimedia (audio / video)**
  - Adobe Acrobat
  - Macromedia Flash
  - Several multimedia formats

- **OpenOffice.org Novell Edition**
  - MS Office compatibility, incl. OfficeOpen XML
  - OpenDocument Format support

- **Collaboration / networking support**
  - Microsoft Exchange, Novell GroupWise
  - Microsoft Active Directory, Novell eDirectory™
  - Wired and wireless networking

- **Plug & play for thousands of devices**

SUSE Linux Enterprise Desktop
Cut Desktop TCO By Strengthening Security

- Modular architecture (vs. monolithic for Windows)

- Built-in application security via AppArmor

- Integrated VPN, firewall and anti-virus protection

- Certificate management

- Easiest security configuration and management

Fact:
SUSE® Linux Enterprise offers the most comprehensive security capabilities for Linux

Result:
Ensure data integrity while reducing emergency patching across Linux systems

2004 Gartner report cities Windows security vulnerabilities increasing desktop TCO by $200 / user / year*

Source: http://www.symantec.com/business/resources/articles/article.jsp?aid=automating_patch_management

TCO with new innovation

Cloud Computing

Appliances

JeOS

Virtualization
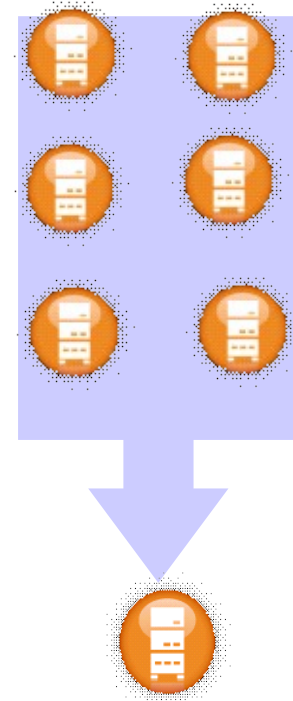
TCO Summary

- Understand what method you want to use to review and validate your TCO

- With new innovation TCO will be a challenge

- Look to innovate to reduce your TCO

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