



The State of the Linux Desktop An OSDL Perspective

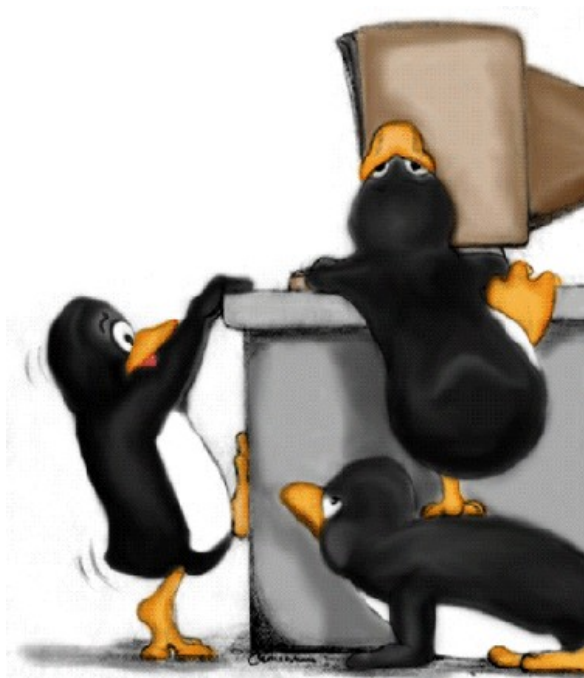
John Cherry
OSDL Desktop Linux (DTL)
September 23, 2006







The State of the Linux Desktop



Riding the Open Software Wave

The Linux Desktop Markets

Linux Desktop Market Data

The Linux Desktop and KDE

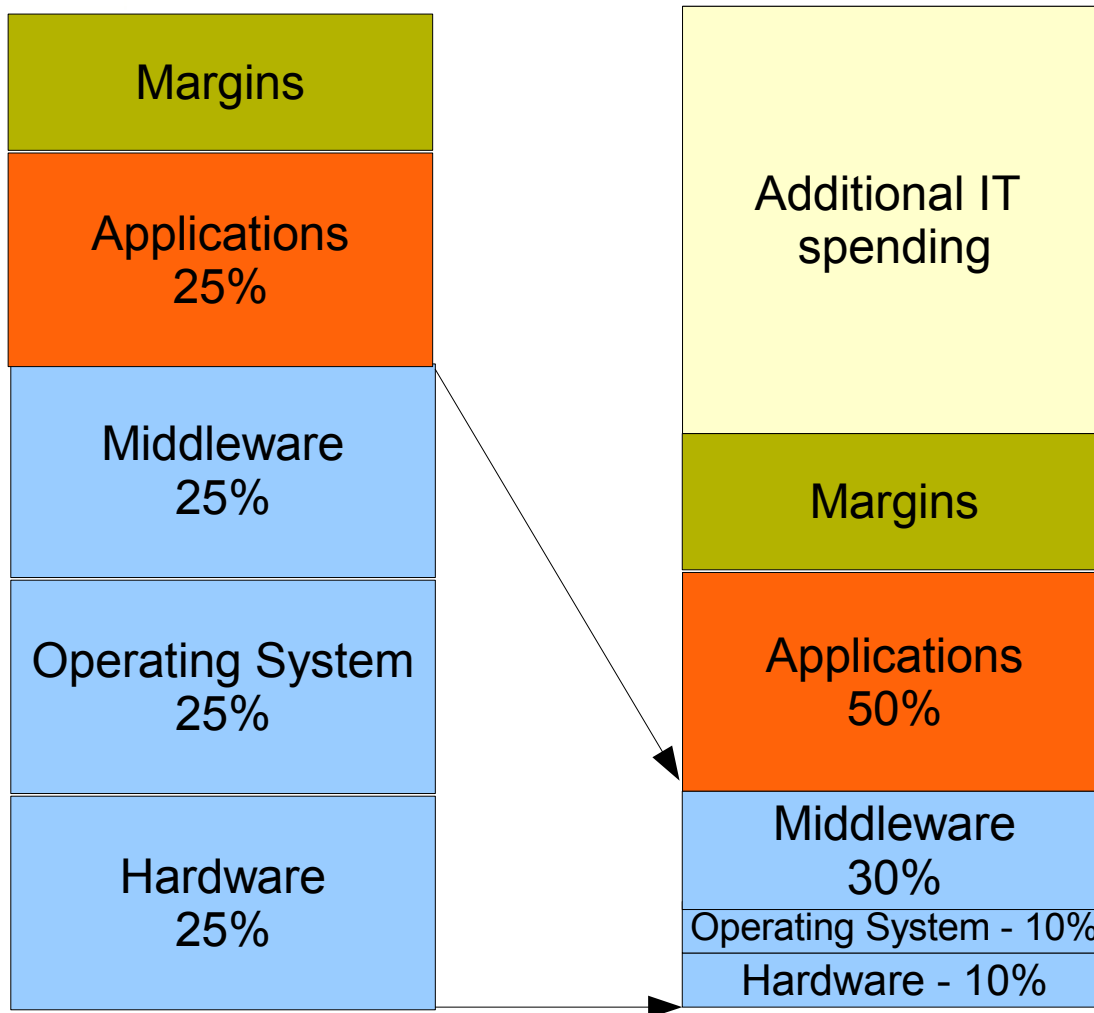


Riding the Open Source Wave





The OSS Wave



Buzz words:

Commodity

Value line





New Co-Dependent Relationships

Corporations / Communities

- Corporations are cooperating with each other
- Corporations are working in the development communities.
- Corporations are creating communities
- Communities are becoming more customer focused

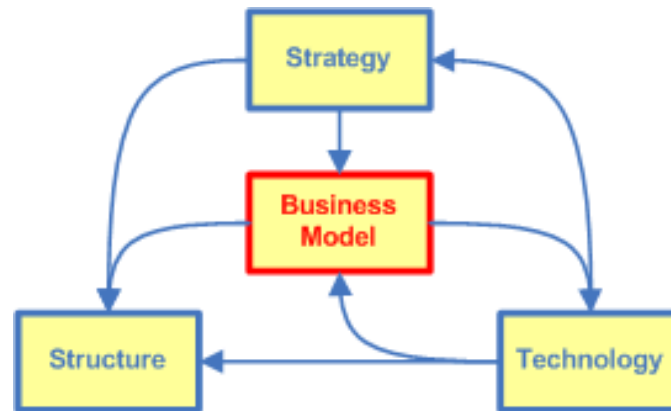
For the first time in history, customers and developers are in control!





The Business Model Works!

Shared risk, shared reward



**FOSS becoming a standard part of infrastructure,
disrupting entire markets**





Not IF, But WHEN

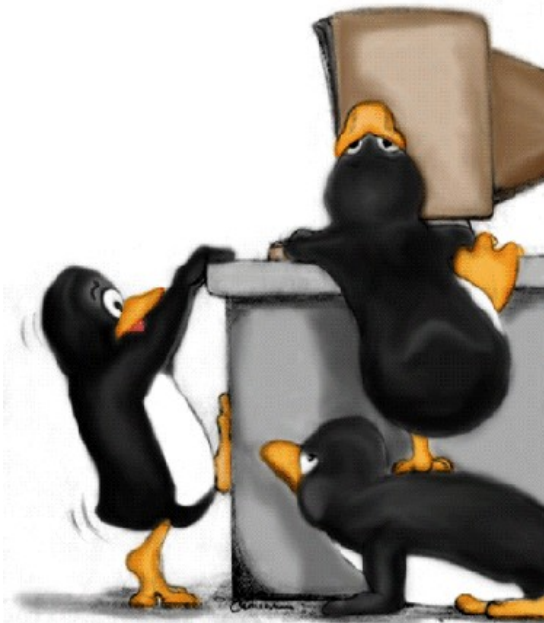
- **No turning back**
- **New co-dependent relationships**
- **More commodity**
- **The value line is moving**
- **Linux has gone mainstream**
- **There will be winners...and losers.**

Can't stop the wave!





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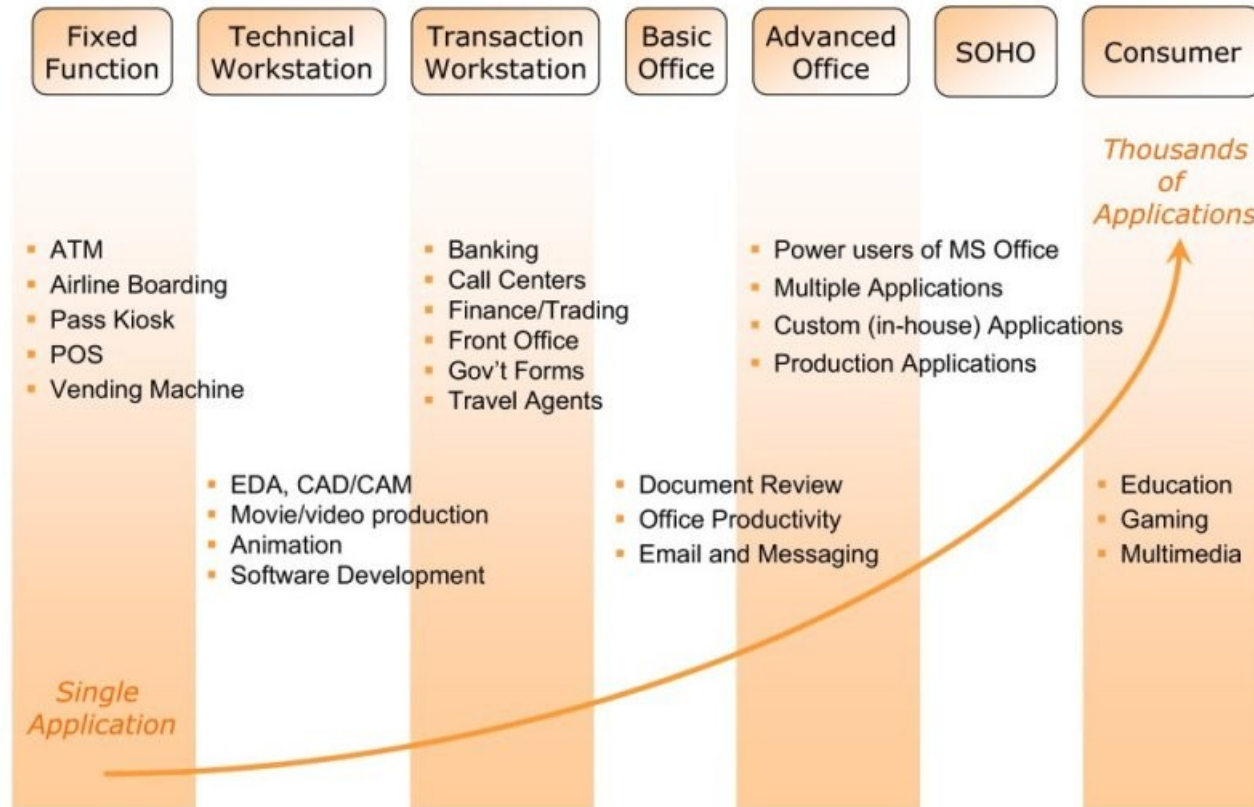


Desktop Linux





Desktop Markets





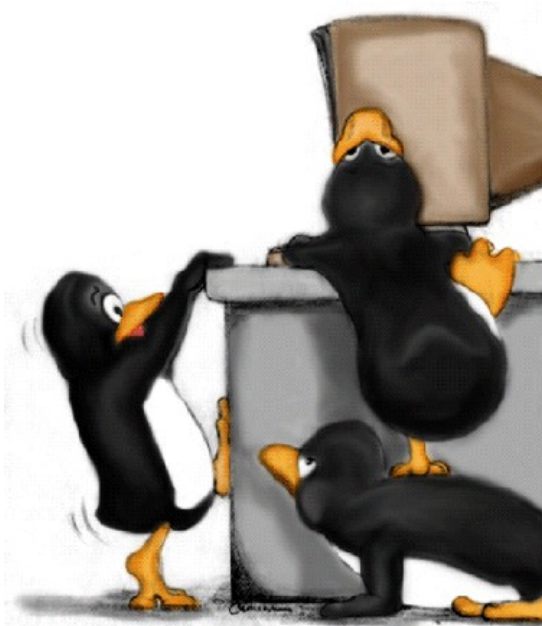
The State of the Linux Desktop?

- **Growing in ALL markets**
- **Hottest in markets with low application thresholds**
- **Somewhere between 1% and 6% of the consumer desktop market**
- **Several HOT desktop products have just hit the market**
- **Forecast: Consistent, steady growth, until ...**





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Unreliable Market Data

- Freely download'able and distributable content.
- Market data is expensive
- Poor survey tools for some geographies
- Market biases and enterprise focus



United States: Market Share of Beverages Sold, 2002

Category	Aluminum Cans	Steel Cans	Plastic	One-Way	Subtotal	Traditional Materials	Other	Asp
Total	33%	0%	13%	0%	46%	0%	0%	0%
Weighted average	49%	0%	13%	0%	15%	77%	0%	0%
Non-alcoholic	0%	0%	1%	8%	0%	0%	0%	0%
Alcoholic	0%	0%	1%	3%	1%	0%	1%	4%
Other	0%	0%	0%	0%	1%	0%	1%	2%





Market Research

Hype Cycle for Linux, 2006

Gartner Research, 19 June 2006

Why Linux Isn't used More Widely on the Desktop

Gartner Research, 3 March 2006

Desktop Linux Awareness, Usage, and Adoption

Internal OSDL member research, January 2006

Desktop Linux Client Survey

OSDL DTL Survey, December 2005

Desktop Linux Technology & Market Overview

Open Source Applications Foundation, 10 July 2003





Hype Cycle for Linux, 2006

Hype Cycle

Technology trigger

Inflated expectations

Trough of disillusionment

Slope of enlightenment

Plateau of productivity



Desktop Users

Data-entry workers

Climbing the slope of enlightenment

Consumers in mature markets

On the rise

Consumers in emerging markets

On the rise



Interesting Conclusions

“Virtually no technology is out of bounds for Linux.”

“For Linux to become popular, it needs to move more toward OS-agnostic applications.”

“Commoditization/standardization/modularization”

“Linux should be viewed as an enabling technology for new sets of business solutions.”

“Lack of compatibility with iPod and iTunes is an obstacle to providing the complete consumer experience.”

“Piracy of Windows is also a major barrier to adoption.”





Why Linux Isn't Used More Widely on the Desktop – 2006 data

- **Compatibility between Linux distributions**
- **Compatibility between Linux and Windows applications**
- **Dueling desktop graphical user environments**

**All are application issues
that ISVs face today!**

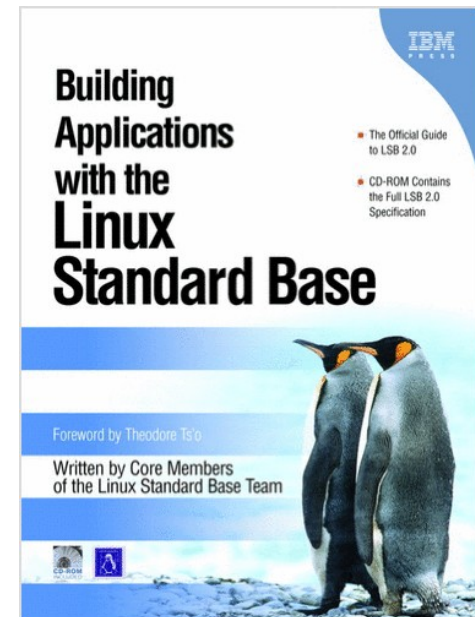


Distro Compatibility

Same kernels

Differences

- file formats
- file locations
- runtime libraries
- packaging
- fonts and text layout





Application Compatibility

Users stick with applications they like!

Approaches:

Linux-system alternatives

Translation Layers

Virtual machine emulation

Vendors port Windows applications to Linux





Dueling Desktops

Choice, a good thing!

Competition: innovation areas

Cooperation: enabling applications

KDE applications should run on GNOME

GNOME applications should run on KDE

ISVs should not have to port their application(s) to several desktop environments

Do you feel the love?



freedesktop.org





Next Study - Awareness/Usage

Linux Awareness

	Business	Consumer
U.S.	94%	85%
Brazil	94%	63%
Argentina	90%	72%
Mexico	72%	52%
Germany	99%	58%
Spain	96%	66%
Russia	67%	47%
South Africa	69%	57%
India	48%	81%
China	93%	29%

Consumer awareness
low in Germany

India and China

- Government direction
- Perceptions of Linux



Linux Usage

Linux Usage

	Business	Consumer	
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U.S.	25%	6%	6% of 85% = 5.1%
Brazil	9%	6%	
Argentina	7%	2%	
Mexico	5%	6%	
Germany	12%	10%	
Spain	11%	11%	
Russia	14%	10%	
South Africa	7%	13%	
India	10%	23%	
China	2%	2%	2% of 29% = .58%





Opportunities (Awareness)

Low awareness

High usage

Low awareness (business)

India - 48%

Russia – 67%

S Africa – 69%

Mexico – 72%

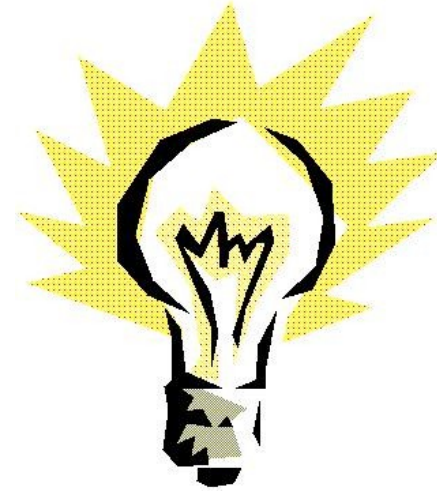
High Usage

US - 25%

Russia – 14%

Germany – 12%

Spain – 11%



Is Russia the best opportunity?





Reasons to Use Linux

Reasons for Using Linux - Business

	Stability	Low Cost	Security	Code Modification
U.S.	62%	65%	56%	70%
Brazil	2%	88%	2%	84%
Argentina	50%	73%	36%	23%
Mexico	15%	35%	38%	27%
Germany	51%	51%	58%	32%
Spain	35%	27%	48%	35%
Russia	64%	29%	41%	38%
South Africa	27%	22%	20%	24%
India	60%	68%	54%	44%
China	46%	73%	37%	27%

Economic? Political? Cultural?
Cost/stability in emerging markets
Security/code mods in mature markets



Linux Satisfaction



	Linux Satisfaction - Business								
	Abundance of Features	Robustness of Features	Stability	Security	Ease of Use	Ease of Admin	Fixes/Patches/Updates	HW/SW Upgrading	TCO
U.S.									
Brazil	84%	90%	94%	93%	74%	85%	75%	78%	95%
Argentina	89%	88%	96%	92%	77%	65%	78%	84%	92%
Mexico	95%	96%	100%	97%	93%	95%	95%	90%	95%
Germany	44%	66%	72%	73%	57%	59%	76%	66%	72%
Spain	91%	96%	89%	92%	64%	73%	78%	77%	91%
Russia	90%	90%	93%	93%	67%	79%	85%	77%	83%
South Africa	90%	90%	95%	95%	83%	88%	88%	78%	90%
India	93%	98%	95%	98%	79%	86%	74%	77%	93%
China	45%	64%	55%	72%	27%	27%	82%	45%	100%

Abundance of features – 80%
Robustness of features – 86%
Stability – 88%
Security – 89%
Ease of use – 69%
Ease of administration – 73%
Fixes/patches/updates – 81%
HW/SW upgrading – 75%
TCO - 90%





Rest of the Study

- **Plans for Linux Expansion**
- **Source of Linux awareness**
- **Linux distribution awareness**
- **Reasons for NOT using Linux**
 - Not familiar with use
 - Lack of software
 - Lack of hardware



Conclusions / Guesses

We can make the data say anything!

Familiarity is a key issue in all geographies

Reasons to use Linux/OSS have not changed (cost, stability, security, maintainability)

Application availability is still the top inhibitor to the adoption of Linux.





OSDL Survey

- **Top reasons for deploying Linux**
 - Employees requesting Linux (user demand)
 - Competitors successfully deploying Linux
 - TCO
 - Security
 - Source code availability (for maintenance)
 - Corporate direction
 - Unhappy with existing desktop OS





Critical Applications (in order)

- **email / messaging**
- **office productivity**
- **browser**
- **database applications**
- **developer tools**
- **apps specific to your business**
- **internally developed apps**





Top Inhibitors

- **Application support**
- **Peripheral support**
- **End user training**



Desktop Linux Technology and Market Overview, 2003

Perspective

Forecast: 10% of consumer market by 2007.

Leverage points:

- desktop interoperability
- XML-based file formats
- education of public sector decision makers
- improved organizational infrastructure
- more commercial end-user applications
- the WINE project
- absence of a standard Linux
- user friendly documentation

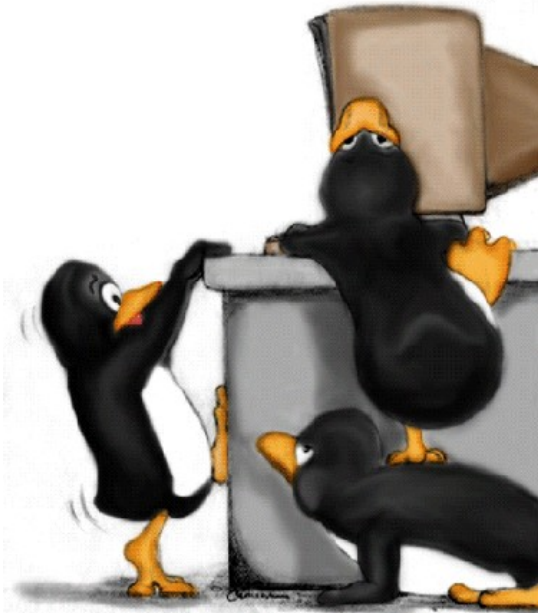


Other “Desktops”





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“Windows-like” or “Something New”?

Feature compatibility with Windows will always disappoint.

The leapfrog approach

Look and feel

Cool capabilities

Form factor

Basics have to “just work”

Power management, wireless, printing, installation, plug and play, consistent fonts and text layout, fast boot, and support for the iPod generation

Must use standard building blocks





Portland Project

Common APIs to enable ISVs to more easily integrate their applications

- A uniform programming interface regardless of the user's choice of desktop (Gnome, KDE, XFCE)
- Useful for both FOSS and commercial apps

What is coming?

- Portland 1.0 (next week)
- Distro adoption (Q4)
- LSB adoption (Q1'07) with LSB 3.2





OSDL DTL

Calendar

Oct 6-7: Text Layout Workshop in Boston, MA

Oct 23-25: Printing Summit in Lexington, KY

Dec 7-8: Desktop Architects Meeting – 3 in Portland, OR

2007 Events

ISV Events (Asia, Europe, NA)

Desktop Architects

Technical Summits

GUADEC / aKademy

Desktop conferences





Desktop Architects

ISV and developer support

Portland, Packaging, Developer portal

Cross project collaboration

freedesktop.org specs, fonts and document fidelity,
Gnome/KDE

Other

sound/multimedia, open source drivers, desktop standards,
Linux desktop community, international developer
cooperation





Summary

Listen to application vendors

Runtime integration with desktop (Portland)

Installation for “Linux” (Portland, package formats)

Don't “lock in” applications to KDE (libs, interfaces, tools, etc.)

Use standard building blocks, interfaces/protocols, and file formats (ODF)

Applications for “Linux”!

