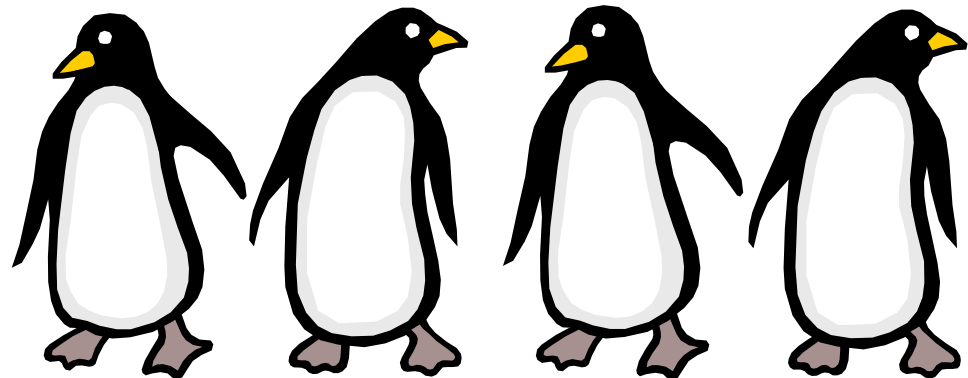
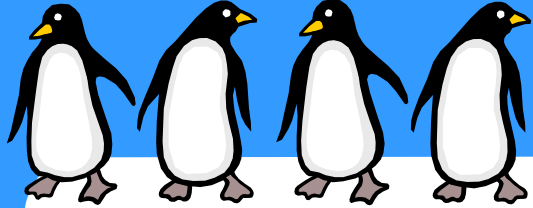


Breaking Barriers to the Acceptance of the Linux Desktop

Amy D. Wohl

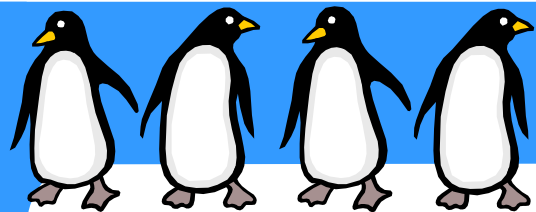
Amy Wohl's Opinions





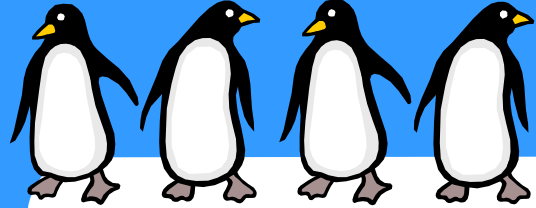
Agenda

- Linux Market Status
- Where We Are Now
- Barriers to the Linux Desktop Market
- Status Revisited
- Timelines



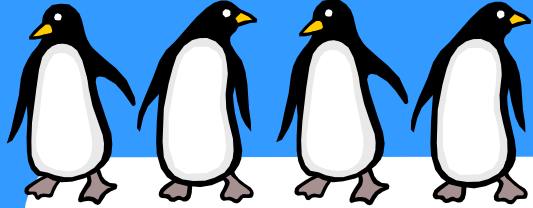
Linux Market Status

- US vs. International
- Enterprise vs. SMB
- Business vs. Consumer vs. Education
- Server vs. Desktop
- Fear, Uncertainty and Doubt



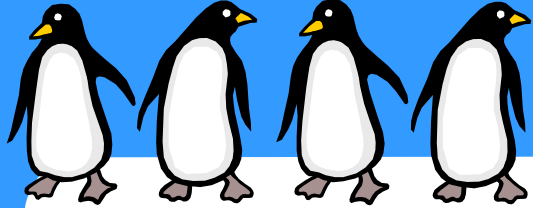
US vs. International

- U.S. in a different situation than the rest of the world
 - More PC's at the desktop
 - More Microsoft Office on the PC's
- More Interest in Linux Desktops
 - In Europe, especially in Germany, Scandinavia
 - In Third World Countries (Africa, Eastern Europe, China)
 - In Countries that want to grow their own Software Industry (India, Singapore)



Enterprise vs. SMB

- About equally interested in Linux for servers
- SMB less likely to know it's using Linux
 - Many systems installed and supported as black boxes for function
- Linux for desktops in U.S. mainly at pilot or planning stages **except**
 - *Among technical staff (IT and engineering)*
 - *In State and Federal Government*
 - *In some University settings*

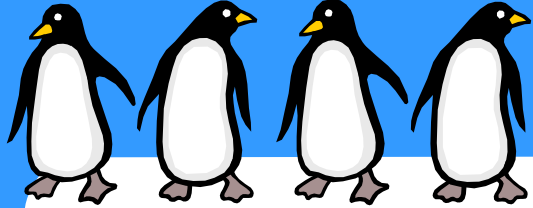


Business vs. Consumer vs. Education

- Education is way ahead
 - Value counts
 - Lots of “free” technical staff
 - Higher ed likes to try things first
- Business is second
 - Some resources
 - Experiences with Linux servers and UNIX
- Consumers are last, but starting to buy
 - Windows in Wal-Mart
 - Linux at Dell and HP
 - Matching the Office System
 - Better Value Proposition
 - Still considered “too hard”

**Appliances
(AllenPort)**

**Complete,
Preloaded
Systems
(Windows)**

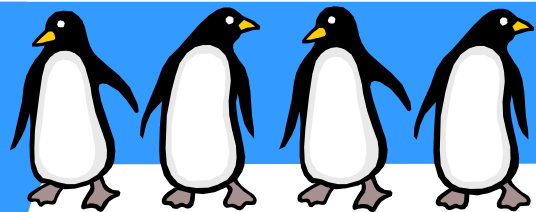


Server vs. Desktop

- Server is much easier
 - Hidden from users
 - Only a small number of technical staff need skills
 - Server software is readily available for Linux
 - Robustness is a strong argument
- Desktop is harder
 - Missing choice in software
 - Missing some driver and peripheral support
 - Requires much broader training and support

Lsong

Lphoto



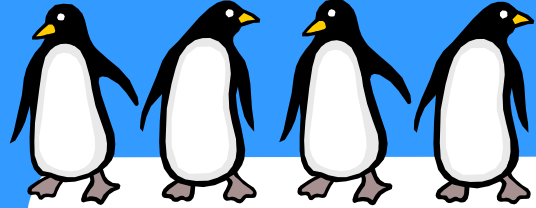
Fear, Uncertainty and Doubt

- Microsoft keeps telling customers Linux is a bad idea
 - Taints intellectual property
 - Insecure!!!
 - Hard to use (and therefore expensive)
- SCO says Linux is illegal and making it legal will make it as expensive as UNIX or Windows

You may not want to believe them

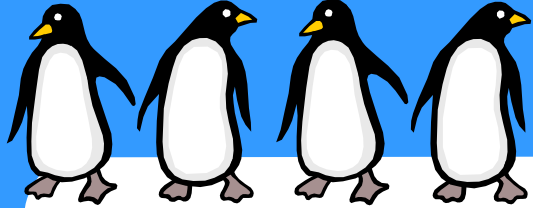
Think about your exposure

New Indemnification Offers



Where We Are Now

- Desktop Users
- Desktop Usage
- Desktop Solutions
- In the Context of the IT Organization



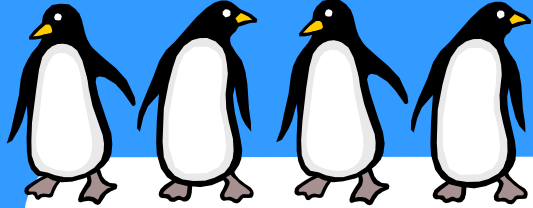
Desktop Users

Who are They?

- Knowledge Workers
- Clericals
 - Retail Clerks
 - Call Center and Service Center Reps
 - Bank Tellers
- Meanderers
 - Nurses
 - Service Reps
 - Salesmen

Many Linux DT
Vendors want to
avoid this market

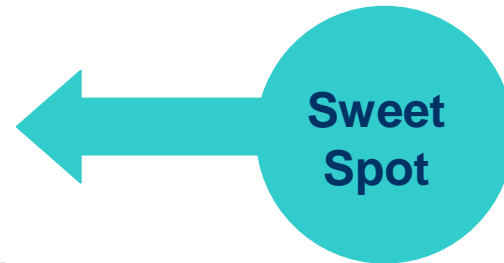


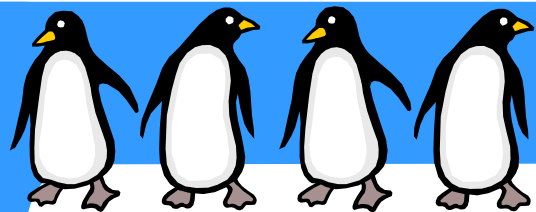


Desktop Usage

What do they do?

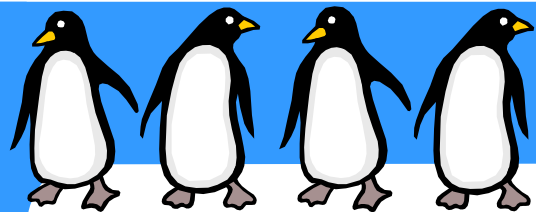
- Email
- Line of Business Applications
- Browse
- More Line of Business Applications
- Personal Productivity Applications
 - WP
 - Spreadsheets
 - Presentations





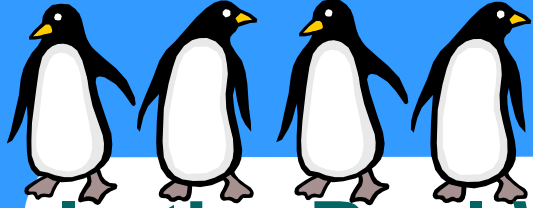
Available Desktop Solutions

- Windows
 - PC with Office Suite (Microsoft or Other)
- Linux Desktop Centric
 - Intel Desktop with Linux OS and Linux Office Suite (StarOffice or OpenOffice.Org; EverMore)
 - Browser, GUI, Email, etc., etc.
 - Interface to Windows Applications (Optional)
- Linux Server Centric
 - Browser-Based or Rich Client GUI Interface
 - Access to Office Applications on the Server
 - Interface to Windows Applications (Optional)



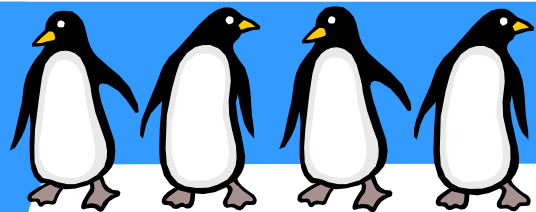
User (IT Organization) Reaction

- Keep right on buying and implementing Linux servers
- Keep right on planning for Linux Desktops
- Healthy skepticism about the problem of moving and supporting users away from Microsoft Office



In the Real World (Customer Examples)

- IBM as a Linux Desktop User
- IBM Linux Desktop Customers
- Customers, more broadly

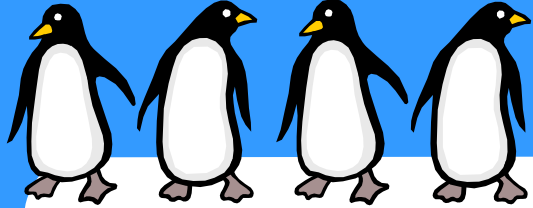


IBM as a Desktop Linux User

- Today – 15,000 IBM DT Linux Users
- Year-End 2004 – 40,000 Planned
- So Far – 28,000 Internal Downloads of

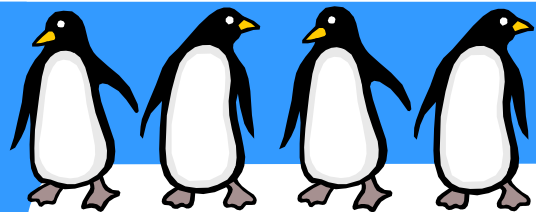
IBM Client for eBusiness

- **Windows or Linux**
- **Firewall**
- **Tivoli Agent**
- **Mozilla Browser**
- **Portal-Based Applications**
- **Domino Web Access for Email and Collaboration**
- **NO Office Suite (OpenOffice.Org can be Downloaded)**



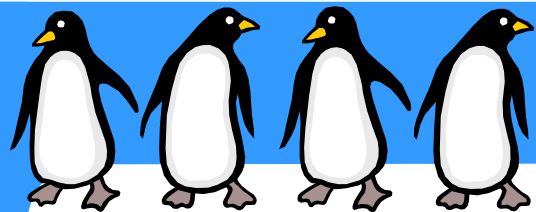
IBM Linux Desktop Customers

- 40 Customer Assessments, worldwide
- Emphasis on Server-centric Linux Client, portal-based, improved processes, management to reduce TCO
- Improve SW with template and macro conversion (beta testing Sun tool, 70% function)



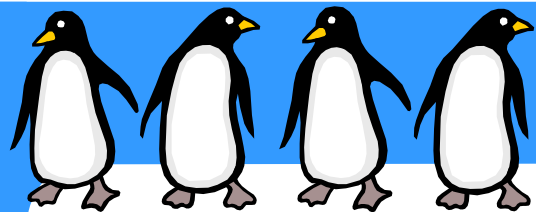
The IBM DT Linux Process

- *Lead with Assessment (short Services engagements by IGS)*
- *Focus first on:*
 - UNIX workstation replacements - (preload Linux on IntelliStation)
 - Engineering Design Automation (EDA) – preload Linux or IntelliStation or ThinkPad
 - Retail Platform for Linux (POS Terminal) – SuSE-based, 1,000's of stores (Pep Boys first)
 - A prepackaged Banking Solution is next
- *Generally, focus on the 14% of PC's that are used for fixed functionality*



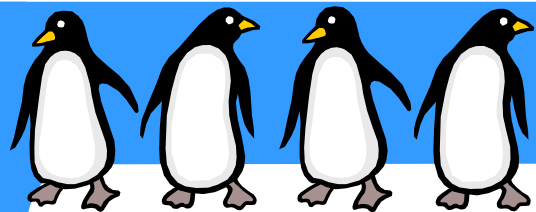
Customers, more broadly

- Novell (SuSE) is moving internally to Linux; expects to be there by October
- Large Implementations in
 - Spain
 - Germany
 - U.S. Higher Ed
- Many pilots
- Data from Sun



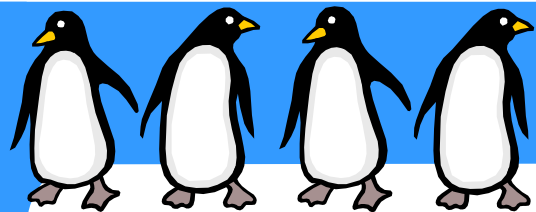
DESKTOP SOLUTIONS: SUN CUSTOMER/PARTNER ANNOUNCEMENTS

<i>Country</i>	<i>Customer</i>	<i>Comments</i>
US	Walmart.Com	Microtel PC's with JDS
US	AT&T	WirelessDeal
US	Tadpole	JDS Available on Talin Laptops
Germany	Markement	1 Million copies of StarOffice sold to date
Japan	SourceNext	Retail Stores 15,000 copies of StarOffice
India	United India Insurance	10,000 Copies of Star.Office



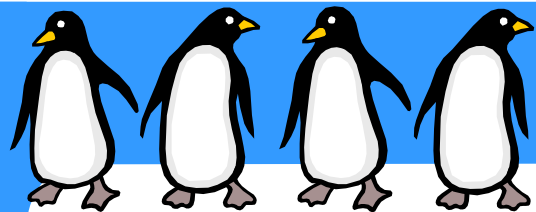
SUN GOVERNMENT DEALS

<i>Country</i>	<i>Agency</i>	<i>Comments</i>
UK	Office of Government Commerce	Evaluating Linux Desktops; Certified Sun JDS
UK	National Health Service	1 Million Employees Evaluating Linux Desktops; Certified Sun JDS
Dublin Ireland	Beaumont Hospital	StarOffice, JDS Pilot
China	CSSC (a consortium of Chinese technology companies supported by the Chinese government)	Sun JDS selected as preferred technology. Potential for up to 200 million desktops



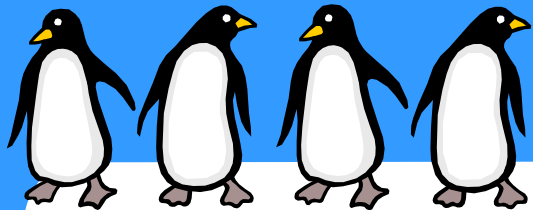
More Government Deals

<i>Country</i>	<i>Agency</i>	<i>Comments</i>
Brazil	Government initiative designed to spur the entire government to change desktops to open-source Linux.	78% of 238 companies in Brazil using Linux 12/03.
Israel	Government	Dropped Microsoft Office as its productivity suite vendor announced a deal with Sun to develop a Hebrew version of OpenOffice.org.
Germany	City of Munich	Dropped Microsoft last year on desktops and laptops. Open Source alternatives, including StarOffice, being considered for 14,000 users



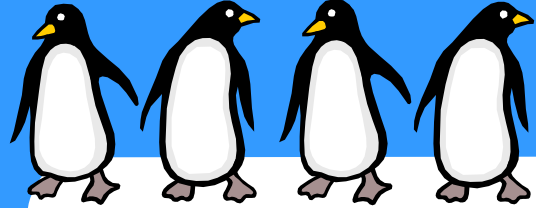
More Government Deals

Country	Agency	Comments
Germany from MS	State of Lower Saxony Police	Computers switching Windows to Linux 11,000
North Korea, China Japan	Joint plan to co-develop an open source operating system	Replace the Microsoft operating system for large-scale use
Haryana, India	State Government	StarOffice for up to 31,000 government workers
Austin, Texas	City Government	Completed Pilot Study. Considering moving desktops from MS Office to OpenOffice.org



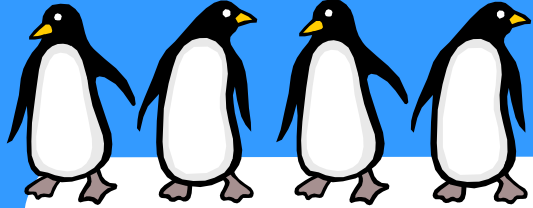
More (US) Government Deals

<i>Country</i>	<i>Agency</i>	<i>Comments</i>
Massachusetts	State Government	Policy in favor of Open Standards for SW.
Toronto, Canada	City of Toronto Children's Services Div.	Decided to migrate 450 PCs to Linux client workstations. Trying to reduce costs on a small budget.



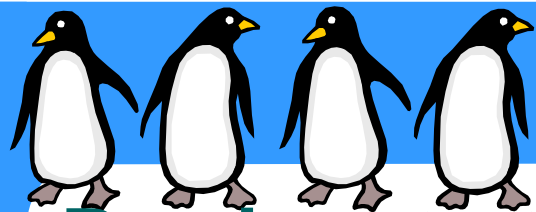
Barriers to the Linux Desktop Market

- Missing Pieces
- Perceptions
- Hype



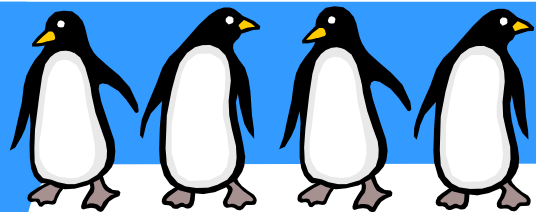
Barriers to the Linux Desktop: *Missing Pieces*

- 100% Compatible Office Suite
 - Function
 - Interoperability
 - Interface
- Full Selection of Software, including Vertical Market, Consumer
- Training
 - Users
 - Administrators
- Ecosystem
 - Trainers and Training Materials
 - Systems Integrators
 - Custom Software Developers (Business Experience)



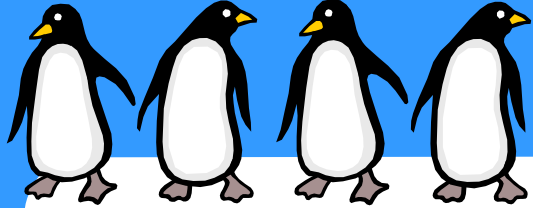
Barriers to the Linux Desktop: *Perceptions*

- We think we know what our users do (*we don't*)
- All the users have to use the same sw (*why?*)
- Going from Windows to Linux would be taking something away (*what?*)
- We don't know how to count
 - *How many of your users really use the Microsoft Office Suite? What percentage?*



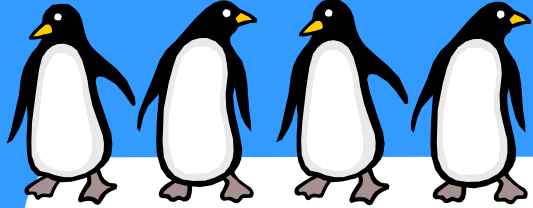
Barriers to the Linux Desktop: Hype

- Windows TCO is lower than Linux (*depends on how you count*)
- SCO might win the law suit (*Oh?*)
- Linux isn't secure (*the U.S. government doesn't think so*)
- Linux is hard to use (*that's mainly an interface and integration issue, not an operating system issue*)



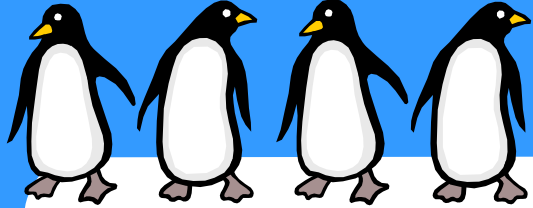
Status Revisited

- Market Size
- Geography
- Market Type
- Over Time



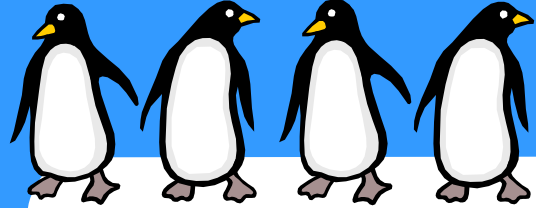
Market Size

- 95% of the U.S. corporate market uses Microsoft Office
- But there are 293,000,000 people in the US and 6 Billion worldwide
- Most of them have never used a computer, much less Windows or MS Office



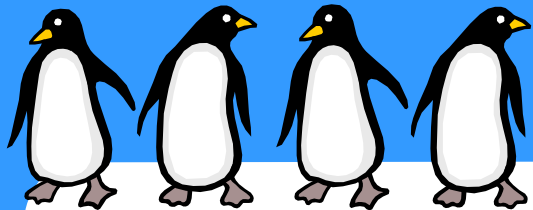
Geography

- First
 - China
 - Eastern Europe
 - Africa
 - Brazil
 - India
- Then
 - Western Europe
- Expect North America to be the last place to ramp for Linux desktops



Market Type

- Enterprise
 - Already piloting Desktop Linux, but only for non-knowledge workers (non-MS Office users, if you will)
- SMB
 - Will consider Desktop Linux as it becomes available in integrated, easy to use ways
- Public Sector (education, government)
 - Already considering Linux
- Consumer
 - Waiting for Appliance-grade products and more consumer software



Timelines

