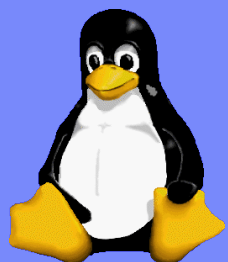


Linux on the desktop...

Why should you care?



Franz Bourlet
IBM Belgium

Agenda

Introduction

Why Linux now?

A closer look at
desktop Linux

References



What is Linux?

- Unix-based operating system
- Full name is GNU Linux
- Development started in 1991 in Helsinki (Linus Torvalds)
- Open source product with GPL license
- As such, free to use, copy, distribute, modify
- Source code available to everyone
- Runs on a dozen processor architectures
- Both client and server
- Linux kernel is very robust but limited in functionality
- Hence, the emergence of distributions



<http://en.wikipedia.org/wiki/Linux>

http://en.wikipedia.org/wiki/Free_software

What is a Linux distribution?

- **A Linux Distribution (aka “Distro”) is comprised of:**
 - Linux Kernel (handles core tasks – job scheduling, memory management, I/O, etc)
 - Compilers, Libraries
 - File Systems
 - Utilities/Scripts
 - Installers
 - Device Drivers
 - Hundreds of Application Packages :
 - Internet tools (browser, email, chat, VOIP, etc)
 - Desktop environments (2D and 3D)
 - System tools (disk partitioning, backup, security, etc)
 - Multimedia tools (audio/video playing and editing, ripping, burning, etc)
 - Office Productivity Tools (Office suites, publishing, accounting, etc)
 - Games

http://en.wikipedia.org/wiki/Linux_distribution



Microsoft Windows facts

- Huge security concerns in MS Windows, not addressed by successive releases :
 - Windows XP (October 2001)
 - XP SP2 (October 2004)
 - Vista (January 2007)
 - Promises (<http://informationweek.com/news/showArticle.jhtml?articleID=180201580>) vs reality (<http://www.itjungle.com/two/two041107-story01.html>)
- Windows Vista issues : (http://en.wikipedia.org/wiki/Criticism_of_Windows_Vista)
 - Price : 200€ upgrade, 300€ new
 - Associated costs :
 - Hardware (full replacement most probably required)
 - Software (same)
 - Compatibility problems (drivers etc)
 - Digital right management (http://www.cs.auckland.ac.nz/~pgut001/pubs/vista_cost.html)
 - Proprietary formats lock
- Value of Vista not perceived by home/business users :
 - Dell and HP evaluating Linux preload
 - April 23 : Dell proposes XP-preload again!
- Even Microsoft admits Vista failure (<http://www.theinquirer.net/default.aspx?article=39087>)



Linux and open source facts

- Quiet but strong market penetration :
 - Techies only
 - Technical workstations
 - Web servers
 - Infrastructure servers
 - Mission-critical servers
 - The desktop is just the next natural step
- Spectacular improvements :
 - Hardware support
 - Ease of installation, ease of use, interoperability
 - Application portfolio
 - Application compatibility
- Emergence of business-oriented desktop distributions
- Open formats becoming strategical for many governments/businesses (http://www.infoworld.com/article/06/10/03/HNfrenchodf_1.html)
- Linux is just better! (<http://www.whylinuxisbetter.net/>)



News around the world!

- PARIS, Solutions Linux 2007, Jan. 30 -- PSA Peugeot Citroen, the second-largest automobile manufacturer in Europe, and Novell sign a multiyear contract allowing the deployment of up to 20,000 Linux* desktops from Novell.
- AP: India: State of Kerala, Tamilnadu – moving to Linux
- Europe: Several Countries adopting Linux desktop
- USA: example...State of Indiana
- IBM Linux Integration Center has done more than 100 pilots
- OLPC (one laptop per child) project



A closer look at Desktop linux



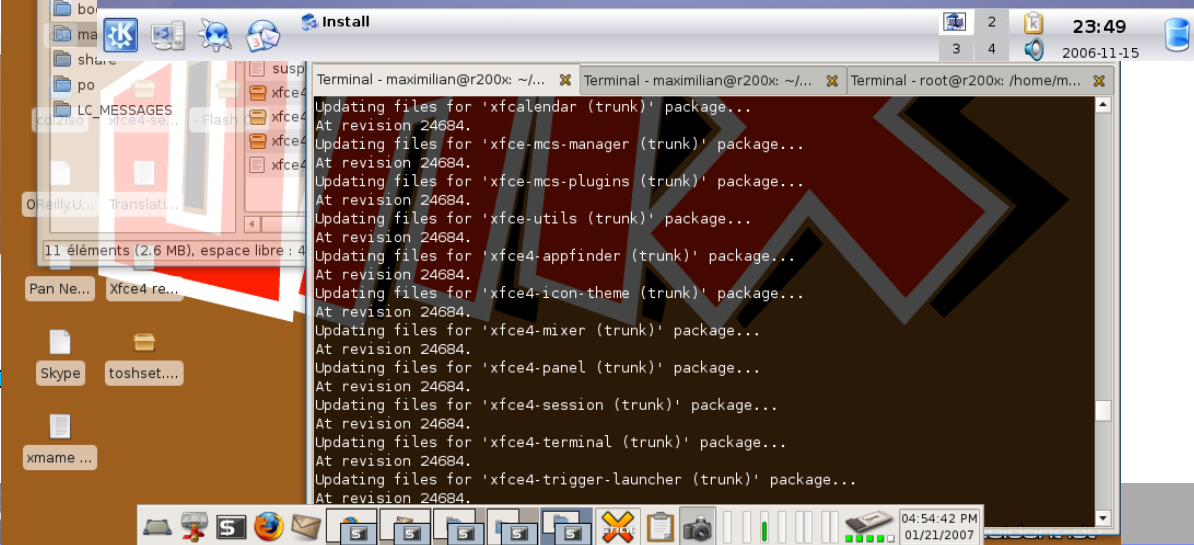
A choice of desktops

KDE



GNOME

XFCE



Main desktop distributions

- Home usage :
 - Ubuntu
 - openSUSE
 - Fedora
 - Mandriva
 - Freespire
- Business usage :
 - Suse Linux Enterprise Desktop
 - Red Hat Enterprise Desktop
 - Ubuntu
- Comparison of distros on :
 - http://en.wikipedia.org/wiki/Comparison_of_Linux_distributions
 - <http://distrowatch.com/>



Suse Novell

- Home usage : openSUSE
 - Currently 10.2 (november 2006)
 - New release every 6 months
 - Free download : 5 CDs or 1 DVD
 - Choice of graphical interface
 - http://en.opensuse.org/Welcome_to_openSUSE.org
- Business usage :
 - Suse Linux Enterprise Desktop :
 - Currently version 10 (september 2006)
 - New release every 18 months
 - Fee (50 euros including support)
 - Choice of graphical interface
 - <http://www.novell.com/products/openworkgroupsuite/sled.html>
 - Suse Linux Enterprise Thin Client :
 - Recent announcement (April 2007)
 - Thin client approach
 - <http://www.novell.com/products/thinclient/>



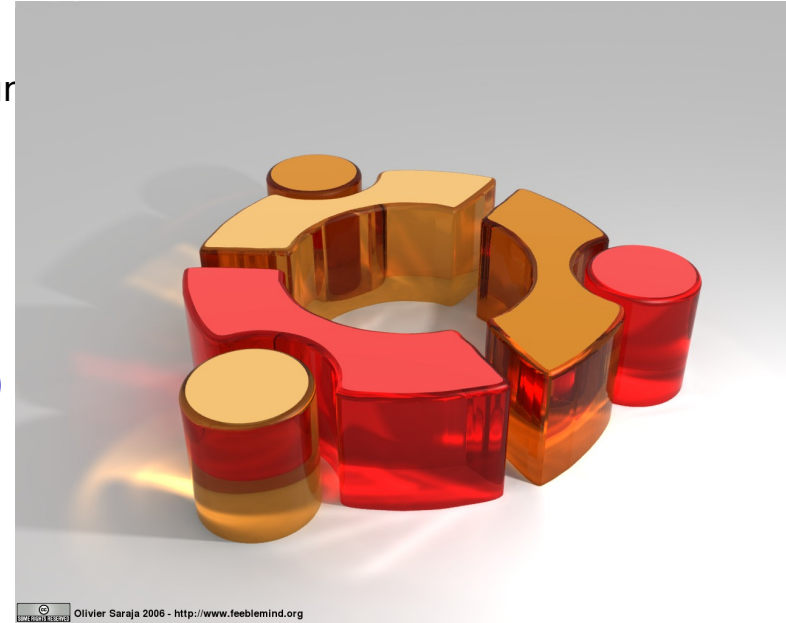
Red Hat

- **Home usage : Fedora**
 - Currently Fedora Core 6 (october 2006)
 - New release every 6 months
 - Free download : 5 CDs
 - Choice of graphical interface
 - <http://fedoraproject.org/wiki/>
- **Business usage : Red Hat Enterprise Linux Desktop :**
 - Currently version 5 (march 2007)
 - New release every 18 months
 - Fee (73 euros including support)
 - Choice of graphical interface
 - <http://www.redhat.com/rhel/desktop/>



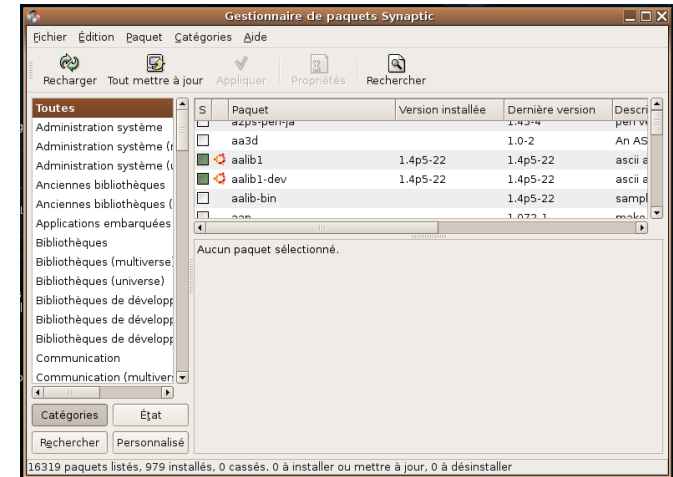
Ubuntu : “Humanity to others”

- Home AND business usage : choice of 4 flavours :
 - Ubuntu : Gnome-based -> <http://www.ubuntu.com/>
 - Kubuntu : KDE-based -> <http://www.kubuntu.org/>
 - Xubuntu : XFCE-based -> <http://www.xubuntu.org/>
 - Edubuntu : for education purposes -> <http://www.edubuntu.org/>
- Recent start (2004) but very strong growth
 - Has emerged as the distribution of choice for desktop
- New release every 6 months (18 months support)
 - LTS (long-term support) version every 2 to 3 years
 - Current version is 7.04 (Feisty Fawn, april 2007)
 - Current LTS version is 6.04 (Dapper Drake, april 2006)
- Founded by billionaire Mark Shuttleworth (South Africa)



Perceived Linux issues addressed

- **Ease of installation :**
 - Live CD/DVD
 - Dual boot
 - 6 steps to full install!
 - Trivially easy installation of proprietary drivers, codecs, etc
- **Ease of use :**
 - Advanced GUI
 - Very easy installation of software packages (open source and proprietary)
 - <http://www.cnr.com/>
- **Hardware support :**
 - Tremendously improved
 - Most of the time, 100% of the hardware recognized out of the box
 - Open source and proprietary drivers
 - GUI interface
- **Applications :**
 - Open source applications maturing
 - Web applications emerging
 - Proprietary applications multiplying (eg Lotus Notes and Lotus Sametime in August 2006)



Lotus Notes/Domino: Messaging and collaborative software

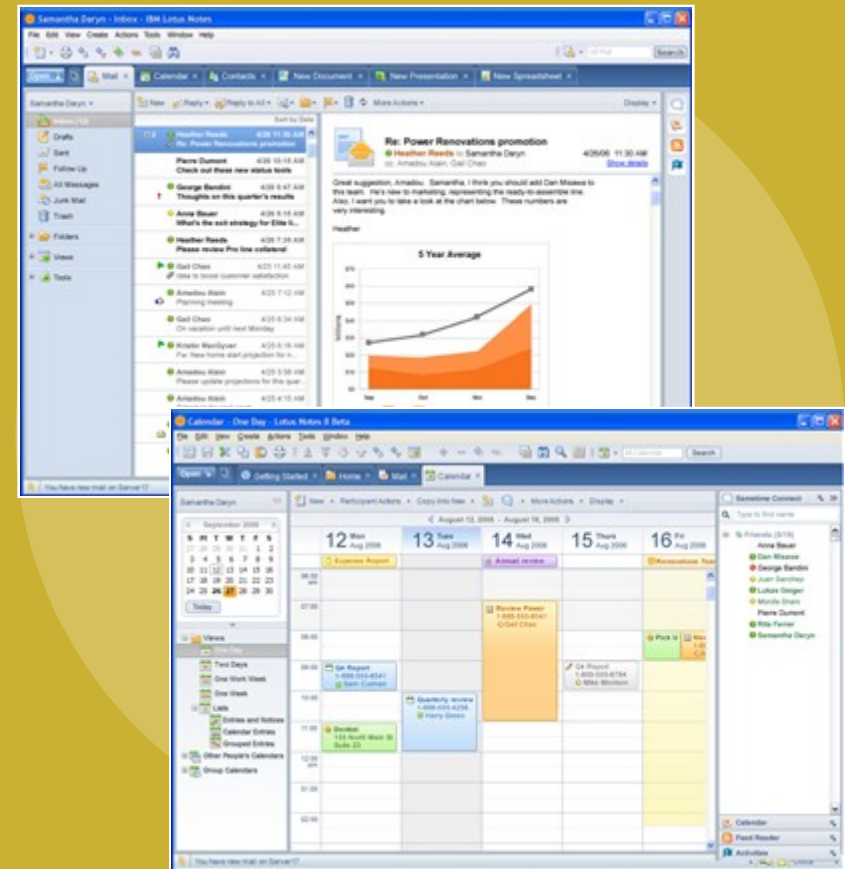
Key Benefits:

- Secure access to e-mail, calendar and collaborative applications
- Remain productive even when disconnected
- Seamless integration with collaborative applications and business
- ODF compliant document authoring tools

Sparklers:

- 67 of the Fortune 100 use IBM Lotus Notes and Lotus Domino
- Notes/Domino - sold more than 130 million licenses

Lotus Notes / Domino



Choice of Productivity Editors: IBM editors, Open Office, Microsoft Office, etc.

Documents, spreadsheets, presentations

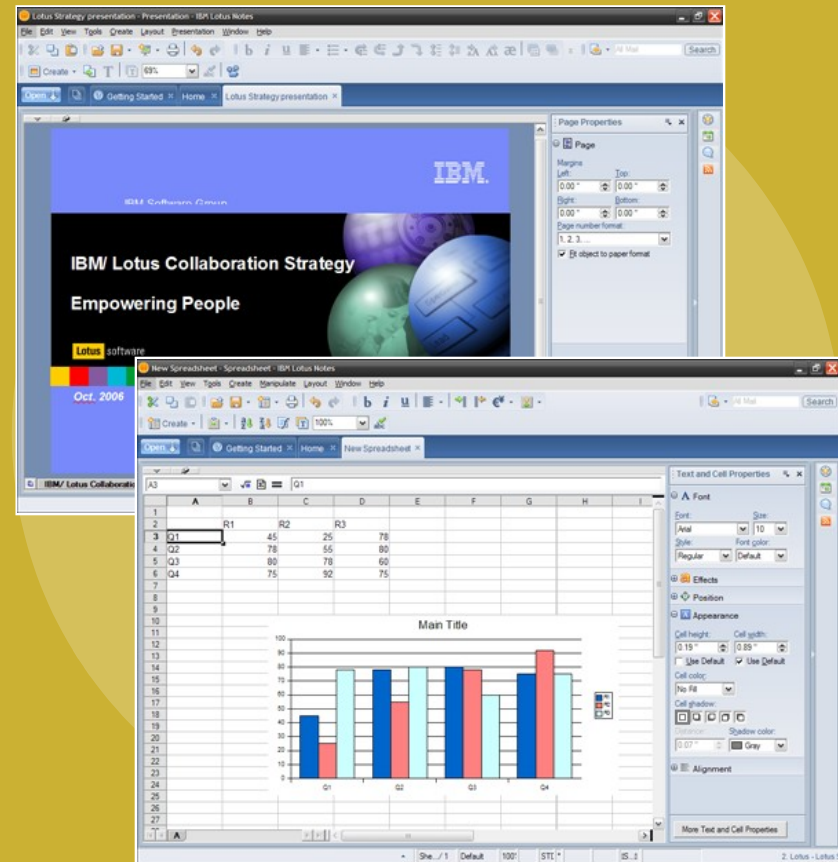
Benefits:

- Leverage full-function word processing, presentation and spreadsheet capabilities
- Open attachments in context within the IBM Notes 8 client
- Export content directly to Adobe Acrobat
- Centrally provision, manage and update

Sparklers:

- 12 countries, 6 regional governments in the process of adopting ODF based policy
- 50 federal agencies and state/local bodies across the globe are using office applications that support ODF (<http://opendocumentfellowship.org/government/precedent>)

Lotus Notes: Productivity editors



Sametime -- Unified Communications & Collaboration Platform

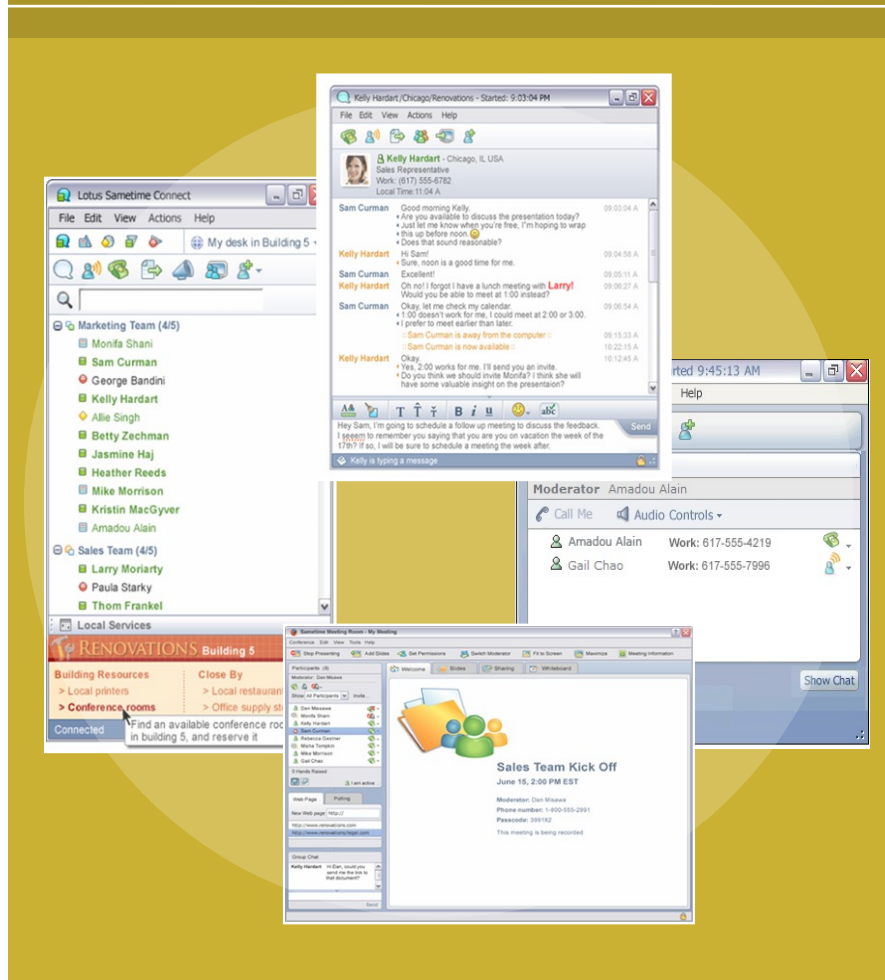
Key Benefits:

- Bring together geographically dispersed individuals
- Enable faster, more informed decision making with Web conferences
- Flexible communications with VoIP
- Reduce travel time and costs
- Leverage embed presence awareness and instant messaging into other apps

Sparklers:

- **Proven, scalable, market-leading solution** - most deployed enterprise IM solution.
- Over 24 companies deploying more than 100,000 seats,
- as well as 27 of the Global Fortune 50,
- 8 out of the top 10 worldwide banks,
- 8 out of the top 10 U.S. pharmaceutical firms

Lotus Sametime



WebSphere Portal : Roles-based portal – winner against Sharepoint

Benefits:

- Improved operational efficiency by enabling self-management, disconnected use
- Increased organizational productivity with improved user experience
- Accelerated deployment of content, applications and processes through SOA
- Reduced costs of IT administration and management

Sparklers:

- IBM WebSphere Portal is number one in enterprise portal software market share
- More than 4000 customers have purchased WebSphere Portal

WebSphere Portal



Lotus Expeditor

Universal Client Platform for Portal, Forms, Sametime, Notes 8, WebSphere

Sphere Portal

Portlets integrated to composite desktop
 Rich U/I for responsiveness
 Rich Portlet for use offline / mobile
 Central Administered Client
Enabling innovative / efficient businesses

Workplace Forms

Forms integrated into composite desktop
 Offline forms access
 Integrates forms with business processes
Electronic forms solution for people on the go

Lotus Sametime

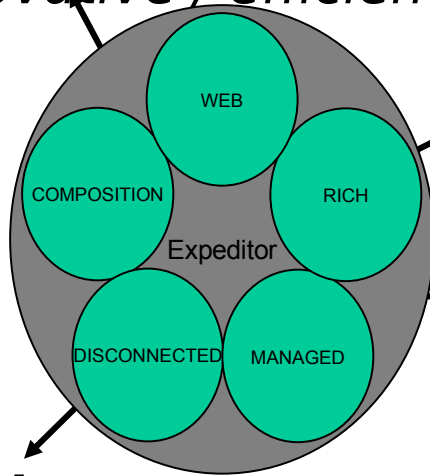
- Extending LOB apps with RT C
- Sametime / Offline

Information: real time / right now

Notes 8

- Composite Desktop Application
- In context information
- Links people to process

Extends SOA to Notes



In Sametime and Notes
 Expeditor works under the covers

WebSphere

- SOA client platform
- Symmetric programming model
- Extending applications beyond the Data Center

An open alternative to .NET



Pioneer Petroleums – *Uses IBM Managed Client* Reduced TCO



▶ **Challenge:** Needed an efficient and cost effective way to provide retailers (under-served users) with access to information while



Solution:

- IBM Messaging solution running on Red Hat Linux platform providing intuitive document sharing and easy to use graphical user interface. 95% users or more run Linux on the desktop along with Lotus Notes Domino



Result:

- Realized savings on Microsoft licensing costs.
- Increased productivity: Collaborate instead of faxing
- Affordable, stable and resilient operating system

100+ known pilots active and in pipe

PSA PEUGEOT CITROËN

■ Background

- ▶ Total Number of Desktops is Approximately 75K (all Windows 2000 Professional)
- ▶ Linux Desktop Proof of Concept Conducted in 2005, PSA issued RFP in 1Q'06

■ PSA Decision

- ▶ Selected Novell SLED 10 over competitive offerings
- ▶ Target Deployment of 20K over next 3 years, began in Sept, Version 4 of PSA Desktop to be first available on Linux

■ Workplace Pilot

- ▶ WMC and Notes Plug-in for Linux
- ▶ Begin with design pattern and beta code available in May timeframe, with strong support from LIC and Novell SLED 10 team
- ▶ Linux day at Boston exec briefing center during PSA US study tour (ODF, IBM internal Open Client)
- ▶ Beta code sent to PSA on June 2

■ Other Opportunities

- ▶ PSA is a key influencer – leading ‘non-gov’t’ company with an objective to build a Linux desktop user group involving at least 6 other major French companies
- ▶ Use work with PSA (and a few ‘design partner customers’) to work towards official SLED 10 support
- ▶ Novell is bringing us opportunities even though SLED 10 is not yet supported
 - e.g. PSA; NY Court System; Standard Life; Societe Generale
- ▶ PSA agreed to be reference customer late 2006, once more than 1000 end points deployed

DaimlerChrysler Services FleetBoard – *Uses Lotus Expeditor*

FLEETBOARD®

Challenge: Provide high availability and quality telematic services that permit



Solution:

- Provides access to truck data, allowing for service planning and other logistics along with clear and reliable voice communications.



Result:

- With the new system's availability and scalability, FleetBoard can offer service level agreements (SLAs) which successfully meet the needs of its clients.
- The system permits constant communication between trucks and office, allowing greater efficiency and time savings, as data no longer has to be recorded manually.
- Customers have complete overview of transport operations, contributing to flexibility, reliability and adherence to delivery dates.

Nissay Insurance mobilizes Claims Management Process *Using Lotus Expeditor*

▶ **Challenge:** Agents would transcribe information obtained on a customer call at the office,



incurring extra time and transcription errors.

▶ **Solution:**

Basic Information
Total Premium
Amount Covered and Option Selection

Everyplace Deployment used to extend enterprise SOA. At the beginning of the day, customer prospects are synchronized onto a tablet PC.

- The Web application is used in front of the customer to create an insurance policy.
- At end of day, the policy forms are mechanically posted

▶ **Result:**

- Deployed for 85,000 insurance agents
- Execution within months
- Eliminated time needed to transcribe forms
- Fewer errors
- Improved customer experience

The screenshot shows a web browser window displaying a Nissay Insurance policy form. The form is titled '提案書作成/仕組回設計【終身系】' (Proposal Form Creation/Policy Design [Life System]). It contains several sections with input fields and dropdown menus, including '個人基本情報' (Personal Basic Information), '保険料' (Premium), and '保障内容' (Coverage Details). A red dashed circle highlights a '提出書作成' (Create Proposal) button at the bottom left. A black dashed circle highlights a 'ゴールト' (Goal) button at the top right. The form also displays a total premium of 12,500円 and a final premium of 10万円.

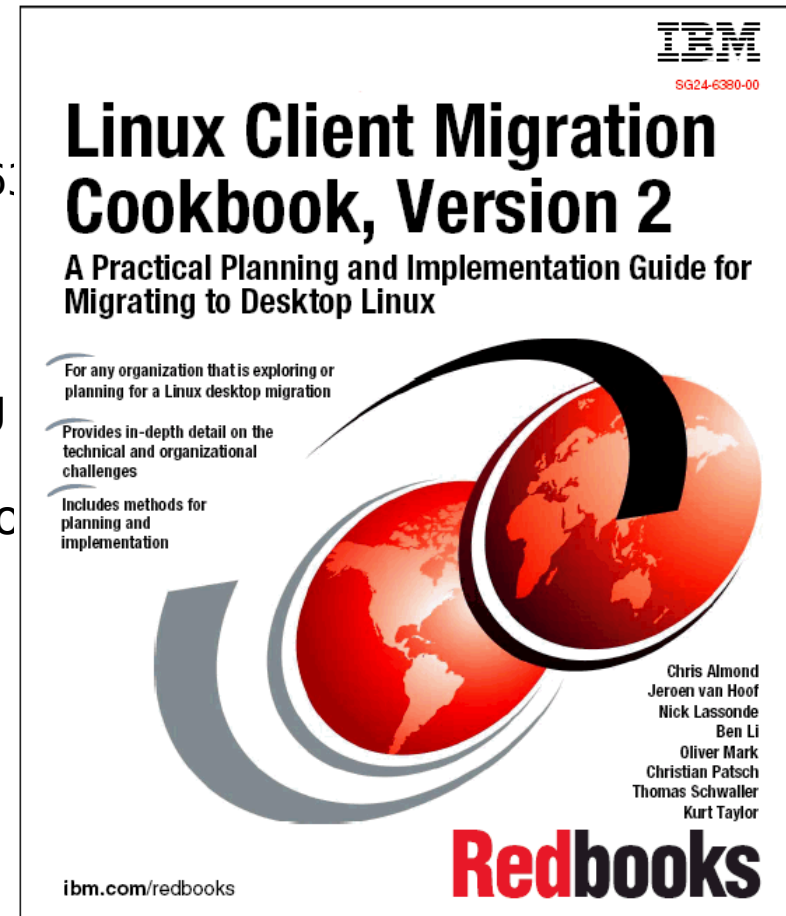
Linux Client Migration Cookbook, Version 2

- **Available**

<http://www.redbooks.ibm.com/abstracts/sg246:80.html?Open>

- **Version 2 highlights:**

- Focus is a top-to-bottom understanding of Linux client SW stack as the key to designing flexible and innovative thin to thick client deployment models
- Updated and expanded coverage of migration best practices, deployment strategies, and integration tips
- Version 1 had 88,000 downloads

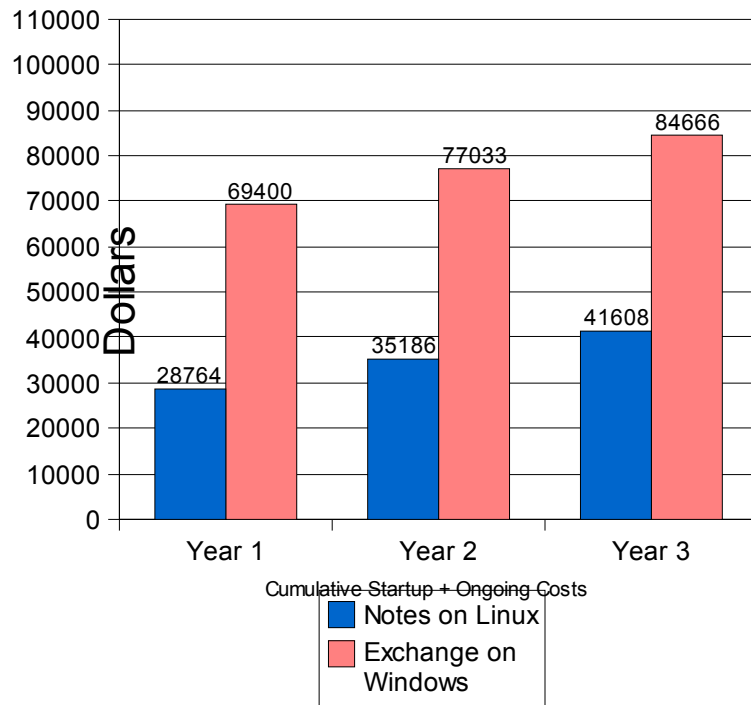


Total Cost of Ownership (TCO) for

100 users Exchange on Windows vs. Notes for Linux

Comparison Includes One-time + Ongoing Costs

TCO Comparison (Lower is Better)



- **Both Solutions Support:**
 - 100 End Users
 - Microsoft® Outlook and / or Lotus Notes Clients
- **Costs Compared Include:**
 - Hardware
 - Operating System
 - Software (Email, Calendaring, IM)
 - 7 x 24 Support
 - Hardware Warranty and Software Maintenance for 3 Years

Open Client Value Assessment

These numbers represent a hypothetical situation. IBM can work with you to develop the comparison for your environment



LINUX
Always On Target