Linux Desktop Update
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“Stand at the crossroads and look; ask for the ancient paths, ask where the good way is, and walk in it, and you will find rest for your souls...” - Jeremiah 6:16
Overview

• Hardware
  – getting things working out of the box

• Virtualisation
  – Fun new stuff on it's way

• Interoperability
  – getting your data in & out

• Polish
  – Making it all georgeous

• Applications

• The future ...
Hardware: using it effectively
Drivers; the issue?

• “Linux supports more devices 'out of the box', than any other operating system ever has.” - GregKH
  - http://linuxdriverproject.org/

• But we can do better – when pre-loading with OEMs:
  - Loads of preloads at the moment
  - OEMs beating a path to our door, instead of vv.

Sometimes it's just knowing you need a new driver:
X.org improvements:

- X.org Drivers, the graphics workhorse
  - Intel – doing a great job across the board;
    > sadly no specs. (ie. only they can fix it)
  - Novell / AMD / Ati
    > New RadeonHD driver, with 3D support – working out of the box.
  - VIA – working on open-source drivers
  - Nvidea – where are they? sad: binary-only drivers
Multi-screen & kernel mode code
Laptop improvements #1

• More drivers
  - Wireless connectivity – UMTS support
  - Fingerprint reader support

• Suspend / Resume to disk
  - faster than OSX/Win32 with applications running

• Docking support:
  - Fn-F9 / software un-docking
Laptop improvements #2

- Power Management
  - CPU – ACPI P & C states, race-to-idle, application fixing, powertop, throttling when on battery
    > synchronize those blinking cursors..
  - Let devices get more rest:
    > Wireless, SATA link, Sound cards, misc. USB devices
  - Some machines a 20% win in the last year

- Battery status
  - When all else fails and your battery dies:
  - Knows about some recalled models.
Laptop improvements #3

- **BlueTooth**
  - Certified 2.1 stack
  - Input, printer, sound
- **Network Manager**
  - 3G Cards; ModemManager unified interface Vodaphone, Telefonica & DSL modems
  - Custom routing, cnx. sharing
- **Faster booting ... (WIP)**
  - Intel / Moblin guys touting **five** second boot
  - The rest of the world will have to try to catch up.
Virtualisation: on the desktop?
Nomad

• The traditional problem with X:
  – storing state in the server; dis-connect your server & bang!

• The old world:
  - Compiz runs on the server
  - Or connect from Win32, RDP

• With Nomad:
  - Firefox
  - X lib
  - XDMX
  - Virtual Machine (?)
• Operating System commoditisation?
• Fascinating new web tool:
  – Build a distribution in 2 minutes
  – Test-drive it
  – Desktop Appliances? (perhaps)
  – Server appliances – certainly

• http://studio.suse.com/
Interoperability: getting people productive
**OpenXML import ...**

### Agenda Title
- Date: 
- Time: 
- Location: 

### Topics
- Present...
Moonlight / rich web ...

http://go-mono.com/moonlight - Flash / Flex / JavaFX competitor
OpenJDK 1.6.0 / Mono 2.0

- Incredibly rich & wide cross-platform development experience, keep getting better.
- Java open-source now – and deployed

- .Net developers can be rescued too from lock-in.
- Use 'moma' to analyse tools
- Port to Linux:

.Net WinForms app under Mono.
UI Automation / Accessibility

• Making Mono / Winforms apps Accessible
  - Great integration into the existing Linux a11y stack.
• Possibility of cross-platform screen-reading
  - Orange sections are new:
Conduit - synchronisation

- Backup and share your desktop data across the LAN, and the Cloud.
- Drag-and-drop, python-powered UI.
DICE - integrated collaboration

• Off-line synchronisation & editing for:
  – Sharepoint Server 2007
  – Novell Teaming v1.0 ( or Kablink )

• Cleaner UI flow, integrated with desktop applications
  – Gtk+ file selector => all applications, inc. OpenOffice.org
  – Nautilus integrated locking & versions.
  – No tiresome web barriers / browser up-loads
  – Works dis-connected, no WebDAV performance issues.

• Workspace calendaring integrated with Evolution.
Banshee - interop.

- iPod, generic mp3 players
- Video
- Podcasts
- LastFM
- Artwork
- Play queue
- DAAP
- & lots more.

Demo iPod vs. ALBA
Polish: making things pretty and usable
Login screen (gdm+)

- Using cleaner new infrastructure
  - PolicyKit, ConsoleKit, gconf configuration
  - moving towards better multifactor authentication
  - Accessibility and power-management at login screen

- Password / Fingerprint / Active Directory inc. UPN, Smart cards (for AD too)
  - will unlock gnome-keyring as you log in.

- gnome-session re-work
  - Improved progress feedback
  - Simpler autostart management, using .desktop files
Package Kit: swamp drained ...

Security Updates Available
The following important updates are available for your computer:

- kernel - The Linux kernel (the core of the Linux operating system)
- gtkhtml2 - An HTML widget for GTK+ 2.0

Update system now  Don't warn me again

Update System
The following updates are available:

- 6 security updates
- 4 important updates

Last refresh: A few days ago
Last update: Over a week ago

Update System

Request to hibernate
Software Update Applet has stopped the hibernate from taking place: A transaction that cannot be interrupted is running.
Policy Kit

- Reducing authentication pain ...
- Isolating privilege escalation
- Granular access control
- Cross desktop integration
GVFS & FUSE - legacy support

```
michael@linux:~> cd ~/.gvfs/
michael@linux:~/.gvfs> ls
sftp on localhost
michael@linux:~/.gvfs> cd sftp\ on\ localhost/demo/
michael@linux:~/.gvfs/sftp on localhost/demo> ls
a.au  incoming
a.c  jirka-marketa.jpeg
a.dia  keynote.txt
a.jpeg  keynote.txt-
  list 1.gnumeric
a.midi  list 1.matrix.jpeg
an2.gif  media
an.gif  stock
```

Search & Gnome-Do

- Beagle 0.3.8
- Speed, memory and disk use improvements
  - Text caching
- Improved and new backends
  - Firefox, Thunderbird, Epiphany, Opera, Nautilus
- Improved configuration
  - Enhanced white/black list
  - Backend enable/disable
  - System config and crawl /etc/beagle/
- Better stemming and text analysis
Applications: key features
Firefox - 3.0

- Security
  - anti-phishing, anti-malware
- Native widgets
  - print, vfs
- Accessibility
  - zooming, screen readers

“Awesome Bar”

Spell-checking ...
Evolution - key new features

- Interop
  - Exchange 2007 / MAPI
  - Google Calendar / Contact
- Smaller / Faster
  - Shared calendar model
  - Sqlite msg summary
  - Faster composer
  - shrunken iCal
- Mail
  - Message templates and custom headers
  - Quota for IMAP/POP
  - faster/better spam filtering
  - Message tagging etc ...
Yast2 - gtk & cleanup ...

Boot Loader Type
To select whether to install a boot loader and which bootloader to install, use Boot Loader.

Boot Loader Options
To adjust options of the boot loader, such as the time-out, click Boot Loader Options.

Boot Loader Location
Boot from Boot Partition is one of the recommended options, the other is Boot from Root Partition.

Boot from Master Boot Record is not recommended if you have another operating system installed on your computer.

Boot from Root Partition
Yast2 – gtk & cleanup ...

Boot Loader Settings
To select whether to install a boot loader and which bootl... more

Section Management  Boot Loader Installation

Type

Boot Loader:
GRUB

Boot Loader Options

Boot Loader Location

- Boot from Boot Partition
- Boot from Extended Partition
- Boot from Master Boot Record
- Boot from Root Partition
- Custom Boot Partition /dev/sda1

Boot Loader Installation Details

Other

Help  Cancel  Back  OK
General OpenOffice improvements

SVG import
<table>
<thead>
<tr>
<th><strong>PART A: ARRIVAL DETAILS</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name of ship</strong></td>
<td><strong>Port of arrival</strong></td>
</tr>
<tr>
<td><strong>Date of arrival</strong></td>
<td><strong>Time of arrival</strong></td>
</tr>
<tr>
<td><strong>Name of person in charge</strong></td>
<td><strong>Port arrived from</strong></td>
</tr>
<tr>
<td><strong>IMO number</strong></td>
<td><strong>Name and address of ship’s agent in New Zealand</strong></td>
</tr>
<tr>
<td><strong>Gross register tonnes</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Period of stay in New Zealand</strong></td>
<td></td>
</tr>
</tbody>
</table>

**IF CARRYING CARGO, BRIEF DESCRIPTION**

**LIST SUBSEQUENT PORTS OF CALL WITHIN NEW ZEALAND** (Please record on a separate sheet and attach if additional space is required.)

<table>
<thead>
<tr>
<th><strong>Next New Zealand ports</strong></th>
<th><strong>Estimated date and time of arrival</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
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<tr>
<td>2.</td>
<td></td>
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<td>3.</td>
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Where are we going?
Conclusion / Q&A

• The Linux desktop is 'here' now
  • And it just keeps getting better
  • Almost everything I showed has arrived in the last year or so.
  • The applications are extremely functional
• The swamps are getting drained, the drivers are arriving, and the OEMs are knocking
• Get involved
  • there's fun to be had, and money to be made
• Thanks – to all the people that did the work.

Oh, that my words were recorded, that they were written on a scroll, that they were inscribed with an iron tool on lead, or engraved in rock for ever! I know that my Redeemer lives, and that in the end he will stand upon the earth. And though this body has been destroyed yet in my flesh I will see God, I myself will see him, with my own eyes - I and not another. How my heart yearns within me. - Job 19: 23-27