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# Linux: New Opportunities for Enterprise IT

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Joyce Tompsett Becknell

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# Agenda

- A bit about Sageza Group
- The (short) History of Linux
- The Players
- Popular Linux Myths
- Linux GPL Issues
- Strengths and Weaknesses
- Opportunities and Threats
- Things to think about

# The Sageza Group

- Independent market watch firm
  - Fact-based forward-looking analysis
  - Focused on enterprise behavior and business productivity
  - Provides services to Vendors and Enterprises
- Founded in 2001 - management start-up with key personnel from Zona Research
  - Headquartered in Silicon Valley, CA
  - European offices, London England; Munich, Germany; Amsterdam, The Netherlands

Sageza – the inside story

“Sageza” from Italian word “saggezza” meaning “wisdom”

# History of Linux

- Version 0.01 launched by University of Helsinki student, Linux Torvalds in September 1991, posted to Internet
- Based on MINIX, OS designed by Dutch Professor Andrew Tanenbaum to demonstrate how OS code works – Tanenbaum didn't like Linux, thought it was flawed
- What did they run on it? GNU project programs –Richard Stallman's project in the AI lab at MIT – free and quality software
- Licensed under GNU GPL – so anyone could copy or change the source code
- March 1994 – first stable kernel release

# History of Linux continued...

- Vendors bundled various software together for distribution
- Linux ported to:
  - Alpha
  - Mac
  - Power
- 1992 Turbolinux,
- 1994 Red Hat and Caldera,
- 1998 SuSE and MandrakeSoft
- May 2002, UnitedLinux: Caldera (SCO), Conectiva, SuSE, and Turbolinux (SRA)

# The Players

## Hardware Players (IHVs)

- HP/Compaq – ProLiant, IPF, porting kit for HP/UX, AlphaServer, HP storage
- IBM – x,p,i,zSeries, FASTT,ESS
- Siemens – Primergy servers, Celsius workstations
- Sun – LX50, Cobalt, porting to Solaris, SunLinux
- EMC – PowerPath, CLARiiON, SRDF (remote data), Symmetrix
- HDS – Lightning 9900 series, Thunder 9200 series

## Software Players (ISVs)

- BEA – strategic commitment
- CA – tier one OS
- IBM – WebSphere, DB2, Lotus, Tivoli
- Oracle – Linux products since 1999
- SAP – mySAP

# Popular Linux Myths

- Linux is free – or at least really cheap
- Linux on the desktop is not an option
  - Linux as an enterprise application server is not an option
- Linux will destroy Unix
  - Linux will destroy Microsoft
- Enterprise apps should not be run on “free software.”
- Linux is difficult to install and use
- Linux is not secure
- Linux not “owned” by any real company
- Linux has no roadmap

# Linux GPL Issues

- Linux success driven by gradually accumulated functionality and maturity through combined user contributions.
- GPL allows user to modify, copy, and distribute software licensed under it, provided also license the derived work under the GPL and make source code available.
- GPL does NOT require a customer to give away source code to custom applications. What you do for internal use is yours only. ONLY when you distribute do you have to share.
- Apps or drivers running in user space making normal calls to the OS are NOT required to be licensed under the GPL.

# Linux GPL Issues continued...

- What is derived work?
  - One that is a direct modification of or linked with the original work
  - Does not matter whether linking is static or dynamic
- Embedded Apps much the same
  - Core technology usually either in hw or app-level sw, both of which are proprietary
- Special cases – focus of GPL Version 3 (Free Software Foundation)
  - ASP with an app that runs over the network?
  - App controlled through interprocess communication schemes like CORBA?

# Linux Strengths

- Open Source – code always accessible and kernel shared by all distributions
- Large companies support it and invest in Linux companies
- Highly flexible and configurable
- Offers choice to desktop users
- Highly interoperable

# Linux Weaknesses

- Server SMP scalability
- High-end capabilities
- Desktop environment not equal to Microsoft
- Skills base compared to other OS's
- Few packaged solutions – plethora of options
- Confusion over GPL

# Linux Opportunities

- Microsoft new licensing policies – is this a time to consider a change?
- Infrastructure server plays
- High availability and scientific computing
- Server consolidation
- Application development and test
- Heterogeneous environments

# Linux Threats

- When all you have is a hammer, everything looks like a nail – why are we looking at Linux anyhow?
- Company business models and product commitments
- Fragmentation in the Linux market
- Desktop leadership

# Things to Think About

- Project planning
- Support
- Long-term IT strategy
- In-house skill sets
- Vendor partner solutions

# Enterprise Linux Possibilities

<b>Enterprise</b>	<ul style="list-style-type: none"> <li>• HPC</li> <li>• Server consolidation</li> <li>• App dev and testing</li> </ul>	<ul style="list-style-type: none"> <li>• Database</li> <li>• Large-scale server consolidation</li> <li>• Enterprise Apps</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>• File and Print</li> <li>• Firewall</li> <li>• Caching</li> <li>• Web servers</li> </ul>	<ul style="list-style-type: none"> <li>• Blade servers</li> <li>• Email</li> </ul>

Present

Future

Questions, opinions, discussions  
to: [joyce@sageza.com](mailto:joyce@sageza.com)