Operating System Options and the Future
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In transition from 32- to 64-bit kernels in all major OSs

- 32-bit has a physical 4 GB RAM limit, 64-bit theoretically supports 16 exabytes (16 billion GB); motherboards and CPUs currently limited to ~128 GB
- 64-bit OSs tend to improve security through use of hardware-based memory overflow attack prevention

Windows XP

- 32- and 64-bit (64-bit has limited driver support)
- Primarily seen at retail in netbooks

Windows Vista (current)

- 32- and 64-bit (64-bit preferable now with better driver support)
- Much improved driver and application compatibility since Service Pack 1

Windows 7 (Oct 22, 2009)

- 32- and 64-bit
- Release candidate free for download now; don't have to reload when final is released, just enter Ultimate key
- Maintains application and driver compatibility of Vista
- Mostly cosmetic upgrades
- Less intrusive UAC
- Improved taskbar (previews, pin icons, jump lists, ALT+TAB)
- Device stage
- Runs fine on netbooks

Apple Mac OS 10.5 Leopard (current)

- 32-bit kernel (4 GB limit consumer machines, up to 32 GB in Intel-based Pro machines with PAE)

Apple Mac OS 10.6 Snow Leopard (September 2009)

- 64-bit kernel requires Intel-based Mac
- Mostly "under the hood" improvements
- Smaller disk footprint with faster performance
- Better multi-core use via Grand Central
- Built-in Exchange support
- Greatly improved accessibility; touchpad mouse over, screen reader, included Braille support

Ubuntu 9.04 (current)

- Free
- 32- and 64-bit
- Desktop, server, netbook remix (small screen task-oriented support)

Ubuntu 9.10 (October 29, 2009)

- Free
- 32- and 64-bit
- Upgrades to kernel, window manager, power management

Google Chrome 2010

- Not much information, just many rumors
- Linux-based, web-centric
- New window manager (supposedly not Gnome or KDE)
- Presumably will target netbook and smartbook markets; ARM CPU with days of battery life

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