



2006 Desktop Linux Client Survey: Analysis

OSDL DESKTOP LINUX WORKING GROUP

Introduction: 2006 Desktop Linux Client Survey

The OSDL Desktop Linux Working Group (DTL) is focused on accelerating the use of Linux on the enterprise desktop and identifying technical and social barriers to adoption. In October 2005, the DTL launched the first [OSDL Desktop Linux Client](#) survey. This year, the 2006 OSDL Linux Client Survey was launched during the month of November and received over 2500 responses. The goals of the survey were to determine the key factors driving Linux on the desktop, to identify major barriers to Linux desktop adoption, and to identify any trends that may surface since the last survey last year.

Discussion Points

- The application environment for Linux desktops
- Peripheral support that is critical to Linux deployments
- Factors which are driving decisions to deploy Linux on the desktop
- Areas of focus for the Linux desktop community in 2007

The application environment for Linux desktops

The following barriers for deploying Linux desktops are (listed in order):

- Application availability
- Quality of peripheral support
- End user training
- Desktop management issues

We found that the top barrier (application availability) was by far the most critical to Linux desktop adoption. An analysis of the free form responses to factors that were putting the deployment of Linux on hold also showed the lack of applications for the

Linux desktop leading the way. It is not that applications don't exist for the Linux desktop, but users grow accustomed to certain applications that they just can't live without. The application list is pretty similar to the list that was compiled from the survey in 2005. Leading the way were:

- Microsoft Office
- Adobe photoshop
- AutoCAD and other Windows-based CAD/CAM applications
- MS Project
- Visio
- Quickbooks

Other applications or capabilities that surfaced this time around were MS exchange compatibility, VPN (i.e. Activcard support), online meeting client software, smartphone synchronization of calendar and address book, Dreamweaver, and of course, games. Custom applications which are industry specific are almost always written for Windows without Linux ports or equivalent applications.

Applications which appeared on the critical list in 2005, but not in 2006 were email and messaging applications as well as browser and database applications.

Peripheral support that is critical to Linux deployments

The quality of peripheral support was listed right behind application availability in the list of barriers to Linux desktop deployments. The following peripheral device support was required to meet business needs (listed in order):

- Printers
- Personal storage devices (i.e. USB memory)
- Scanners
- Digital cameras
- Mail and messaging devices
- Web cam / video
- Smartphones

It is interesting to note that if we combined the devices that are considered to be mobile communication devices (PDA devices, smart phones, tablets, and GPS), then mobile communication devices would have easily topped the list of business devices.

Survey responders indicated that printing has gotten significantly better in 2006. However, it is still difficult to buy a printer at your local electronics store and expect it to work out of the box on a Linux machine. While most printers are supported on Linux, there is still a lag from the time when a printer hits the market to when the driver driver is available and automatically installed on your computer by a commercial distro update.

Factors which are driving decisions to deploy Linux on the desktop

Applications, applications, applications.

Areas of focus for the Linux desktop community in 2007

Survey respondents were asked to send a message to the Linux desktop community. The focus areas that they requested were (in order of priority):

- Open source drivers
- Wireless
- Linux desktop standards
- Printing
- Audio/multimedia

Open source drivers have been an issue for Linux desktops for a long time. The hard technical problems have been solved. The main factors holding back open source drivers are related to the size of the Linux market and protection of intellectual property.

The wireless community has made huge strides in 2006 in supporting more wireless chip sets and more capabilities in the wireless software stack. Wireless support will always be in demand and will enable portable desktops (laptops) and mobile devices (smart phones).

When respondents say that Linux desktop standards are important, they are really saying that applications must be able to run across distributions and must be compatible with older releases of these distributions. Application vendors cannot afford to develop, distribute, and support applications across a fragmented Linux market.

Printing on a Linux desktop has made significant advancements in the number and types of printers that are supported. The desktop printing summits organized by the OSDL drew 40 people representing everybody from major hardware vendors and Linux distributors to consultants and standards organizations. This printing community is continuing to develop support for more printers and in standardizing methods for installing printers.

Desktop architects at the third Desktop Architects Meeting (DAM) in December identified audio on Linux to be a critical focus area and the community is organizing to help application vendors understand which audio interfaces to use. While audio can be made to work on a Linux desktop, problems with proprietary CODECs, audio configuration, and problems with multiple applications accessing a single audio device are being addressed by the desktop community. Look for some significant announcements early in 2007 which will address the use of proprietary CODECs.






















Conclusion











Linux on the desktop grew and matured in 2006. While some analysts reported a stall in Linux penetration on the desktop in 2006, a number of significant milestones were reached that promise to continue to move the Linux desktop ahead in 2007. The most important changes to desktop Linux were all of the “under the hood” incremental improvements that took place around printing, plug-and-play support, laptop enablement and the arrival of the compositing manager that allows for modern graphics.

1. How many end user desktop/clients does your organization have?			
None		116	4%
1 - 100		1692	63%
101 - 500		348	13%
501 - 1,000		107	4%
1,001 - 5,000		175	7%
5,001 - 20,000		97	4%
More than 20,000		139	5%
Total		2674	100%

2. What type of computers does your organization use as desktops/clients?					
Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	None	1-24%	25-49%	50-74%	75-100%
Laptops	206 9%	1184 51%	444 19%	309 13%	158 7%
Desktop / workstations	97 4%	339 14%	413 17%	799 32%	854 34%
Thin Clients / Terminals	841 61%	403 29%	66 5%	24 2%	34 2%
Kiosks / Fixed function	967 76%	272 21%	19 1%	7 1%	6 0%
Handheld devices	644 43%	729 49%	73 5%	28 2%	12 1%

3. What is your job within your company or organization?			
Engineering Manager		113	4%
Software Developer		537	20%
Systems Integrator		165	6%
Consultant		186	7%
Service Manager		36	1%
IT Managers / IS Manager / MIS Manager / Data Center Manager		370	14%
IT / IS / MIS Director		96	4%
IT Executive (VP, Executive VP, CTO / CIO / Chief Architect)		150	6%
Managing Director / General Manager		140	5%
Industry Analyst		10	0%
Marketing / Strategy / Accounting / Financial		68	3%
Program Manager / Project Manager / System Manager		147	5%
Manufacturing / Assembly		15	1%
Student		314	12%
Other		327	12%
Total		2674	100%

4. What is the principle business activity at your company or location? (select one only)			
Agriculture, Forestry, and Fishing		16	1%
Architecture / Construction / Real Estate		29	3%
Computer Networking and Telecommunications Industry		167	16%
Consulting (Independent)		93	9%
Education		143	13%
Entertainment / Recreation / Tourism		20	2%
Finance / Banking / Accounting		37	3%
Government (Federal, military)		24	2%
Government (State, local, regional)		29	3%
Healthcare services / Medical / Pharmaceutical / Biotech		43	4%
Hotel / Food service / Hospitality		4	0%
Insurance / Legal		21	2%
Manufacturing (computer / OEM / communications / software)		73	7%
Manufacturing (other than computer / communications)		47	4%
Media / TV / Cable / Print / Radio / Advertising / Communications		74	7%
Mining / Materials / Construction		9	1%
Non-profit / Religious		40	4%
Reseller / VAR / VAD / Integrator / Distributor (computer)		27	3%
Retail / Wholesale / Distribution / Trade		46	4%
Transportation		8	1%
Utilities / Energy		18	2%
Other, Please Specify View Responses		108	10%
Total		1076	100%

5. In which region of the world do you reside?			
North America		1048	40%
South America		76	3%
Central America / Caribbean		35	1%
Asia		212	8%
Africa		30	1%
Middle East		20	1%
India		42	2%
Australia / New Zealand		125	5%
Europe		1003	38%
Other, Please Specify View Responses		15	1%
Total		2606	100%

6. Which Linux Distributions is your organization running on the desktop?			
Novell/SUSE Enterprise Desktop Linux (SLED)		416	16%
OpenSUSE / SUSE Pro		624	24%
Red Hat Enterprise Linux (RHEL)		428	16%
Fedora		606	23%
Mandriva		153	6%
Xandros		44	2%
Ubuntu		1280	49%
Debian		445	17%
Gentoo		246	9%
Asianux (Red Flag, Haansoft, Miracle Linux)		42	2%
Turbolinux		14	1%
Co-Create		18	1%
Linspire		28	1%
Freespire		25	1%
Knoppix		130	5%
Stackware		96	4%
Internally Developed Linux Distribution		49	2%
Other, Please Specify View Responses		390	15%

7. What peripheral device support is required to meet your business needs? (Select all that apply)			
Digital Camera		1474	57%
Web cam / video		1055	40%
Mail and Messaging enabled Personal Digital Assistant (PDA)		1223	47%
Portable Music Player (e.g. iPod)		761	29%
Smart Phone		793	30%
Personal Storage Device / USB memory		2043	78%
Finger print reader		388	15%
Scanner		1629	63%
Printer		2242	86%
GPS (Global Positioning System)		351	13%
Tablets		457	18%
Other, Please Specify View Responses		247	9%

8. Describe the phase of your Linux desktop / Linux client deployment? (Select all that apply)			
Not planning to deploy Linux desktop/clients.		444	17%
A pilot Linux deployment is planned.		274	11%
Plan to initially deploy to a limited set of technical users.		292	11%
A pilot deployment is underway.		232	9%
Have already deployed Linux desktop/clients.		1378	53%
Deployment on hold until needed applications or capabilities are available		255	10%
Other, Please Specify View Responses		85	3%







10. How important are the following factors in your company's decision to deploy (or not deploy) Linux on the desktop?				
Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Significant	Consideration	Not a factor	
TCO (Total Cost of Ownership)	1441 55%	814 31%	351 13%	
Reduce License Costs	1612 62%	689 26%	305 12%	
Vendor Independence	1206 46%	887 34%	513 20%	
Manageability	1529 59%	819 31%	258 10%	
Security	1851 71%	582 22%	173 7%	
Source code availability (ability to customize)	771 30%	968 37%	867 33%	
Corporate Direction	738 28%	853 33%	1014 39%	
My competitors have successfully deployed Linux	225 9%	465 18%	1915 74%	
Unhappy with existing desktop operating system	1030 40%	960 37%	616 24%	
Employees requesting Linux (user demand)	726 28%	944 36%	936 36%	

11. How important are the following potential barriers to your organization's decision to migrate to Linux on the Desktop?				
Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Major obstacle	An issue for some users	Not a concern	
Application support	1451 56%	921 35%	231 9%	
Browser support	444 17%	750 29%	1412 54%	
Cost to migrate	488 19%	799 31%	1319 51%	
Desktop management issues	624 24%	1081 41%	901 35%	
End User training	850 33%	1174 45%	582 22%	
Technical Staff training	558 21%	1051 40%	997 38%	
Availability of pre-installed Linux desktops	405 16%	722 28%	1479 57%	
Availability and quality of technical support from Linux vendors	478 18%	972 37%	1156 44%	
Licensing issues	316 12%	630 24%	1660 64%	
Quality of peripheral support	1278 49%	1027 39%	301 12%	
Other (can supply details in later questions)	220 8%	566 22%	1819 70%	

12. Where should the Linux desktop community focus their efforts in 2007?

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Top priority	Important	Good to have	Lower priority
Audio / Multimedia	969 36%	937 35%	611 23%	157 6%
Printing	982 37%	1079 40%	489 18%	124 5%
Wireless	1232 46%	920 34%	381 14%	141 5%
Power management	553 21%	874 33%	897 34%	350 13%
Open source drivers	1504 56%	719 27%	354 13%	97 4%
Linux desktop standards (cross-distro)	1373 51%	764 29%	430 16%	107 4%
Fonts and document fidelity	826 31%	991 37%	676 25%	181 7%
Application packaging	952 36%	923 35%	593 22%	206 8%
Cross-desktop environment tools, services, and interfaces	959 36%	938 35%	626 23%	151 6%
Developer documentation	409 15%	906 34%	1053 39%	306 11%
Development tools	589 22%	929 35%	860 32%	295 11%
Accelerated graphics	1002 37%	841 31%	643 24%	188 7%

13. What are your plans for running Windows applications on a Linux desktop? (Select all that apply)

Use virtualization and run native Windows applications		1174	44%
Use a compatibility layer (e.g. Wine) to run Windows applications on Linux		1178	44%
Use equivalent Linux applications and avoid Windows applications		1770	66%
Use browser-based applications which are platform independent		1112	42%
No plans to run Windows applications		387	14%
Other, please specify View Responses		192	7%