Excerpts from Gartner Notebook Technology Overview – December 2007

- Mainstream notebooks are suitable for most users.
- The majority of business-class notebooks have wide screens.
- Notebooks should be specified with sufficient technological headroom, so that they do not have to be returned for upgrading during their typical life span.
- Tablet PCs and notebooks with integrated wireless WANs are approaching maturity, but they are not ready for mainstream adoption.

Mainstream Notebooks

The value proposition of mainstream systems is the optimized balance of size, weight, price, performance and battery life. Their weight can range from 4 pounds to 6.5 pounds. They usually have a 14.1-inch or 15.4-inch display, a two-spindle design, and feature the latest mobile processors. These systems can serve the needs of most corporate mobile users. Travel weight (the weight of the notebook, power supply and the external peripherals) can be a concern, but the typical user will rarely need to take along all the peripherals when traveling. Prices for business mainstream notebooks range from $1,100 to $2,500.

Memory

Gartner's minimum memory recommendation for all classes of notebooks is now 1GB, to support the growing complexity and variety of applications used simultaneously by mainstream knowledge workers. Even applications that run with less memory benefit from the performance boost additional memory usually provides for notebooks. High-performance users with data intensive applications should have 2GB RAM. The key is to buy sufficient memory upfront and avoid the additional $100 to $200 cost of an upgrade during the product's life span. We also recommend that users planning to install Windows Vista purchase systems with 2GB of memory.

Processors

Most notebooks aimed at the corporate market are based on Intel processors. Intel's current family of mainstream notebook processors is the Core 2 Duo. Although AMD processors are gaining some limited traction in corporate notebooks, its largest mobile presence is in the consumer, home-office and small-business markets.

Tablet PCs

Tablet PCs originally were only adopted for vertical applications such as healthcare, public safety, insurance and utilities. Throughout the past two years, there has been broader adoption for "semivertical" applications in sales and higher education. Tablet PCs are approaching maturity, but they are not ready for mainstream adoption. Although convertible tablet PCs can certainly be used for mainstream productivity applications, the $250 price premium remains a barrier.

Gartner Research

Publication Date: 20 November 2007 ID Number: G00153367

Sneak Peek: Survey Shows Slow Vista Uptake

Michael A. Silver

Large-scale, mainstream deployments of Windows Vista, formerly expected to begin in fourth-quarter 2007, will not start until the second half of 2008. Office 2007 deployments are being done, often in place of Windows deployments.

Key Findings

- Windows Vista is running on 0.9% of enterprise desktops and 2.8% of notebooks of the organizations surveyed.
- Office 2007 was installed on 10% of the installed base.
- In 2007, twice as many respondents as in 2006 reported that they plan to deploy Office 2007 before Windows Vista.

Recommendations

- Organizations that have not begun migrations should work with vendors now to understand Vista compatibility plans and issues.
- These enterprises should wait for Service Pack 1 (SP1) to be delivered; Microsoft plans this for first-quarter 2008.
- These organizations also should test applications with Windows Vista SP1 and should build images starting in second-quarter 2008.
- These enterprises should plan on a three-month pilot program (perhaps in fourth-quarter 2008), and bring new PCs in running Windows Vista in 2009.

Gartner Research

Publication Date: 29 November 2007 ID Number: G00153308

Don't Skip Windows Vista Entirely

Michael A. Silver

Many organizations will get such a late start deploying Windows Vista that they will be tempted to skip it entirely and wait for the next release, Windows 7, planned by Microsoft for late-2009. Skipping versions of Windows entirely generally increases the risk of having unsupported applications running on selected operating systems (OSs).

Key Findings

- Independent software vendors (ISVs) don't support old versions of Windows long enough.
- ISVs don't support new versions of Windows soon enough.
- Microsoft's release cycles are unpredictable, and the next version of Windows could ship later than Microsoft plans.
- Once Windows 7 is released, organizations will spend at least 12 to 18 months waiting for ISV support, testing applications, building images and implementing pilot programs before deploying Windows 7, meaning that the earliest most organizations will start deployment will be mid-2011, assuming Windows 7 ships on time.

Recommendations

- Don't skip Windows Vista entirely.
- Bring Windows Vista in on new PCs starting no later than 2009, if your organization plans to move through PC hardware attrition.

ANALYSIS

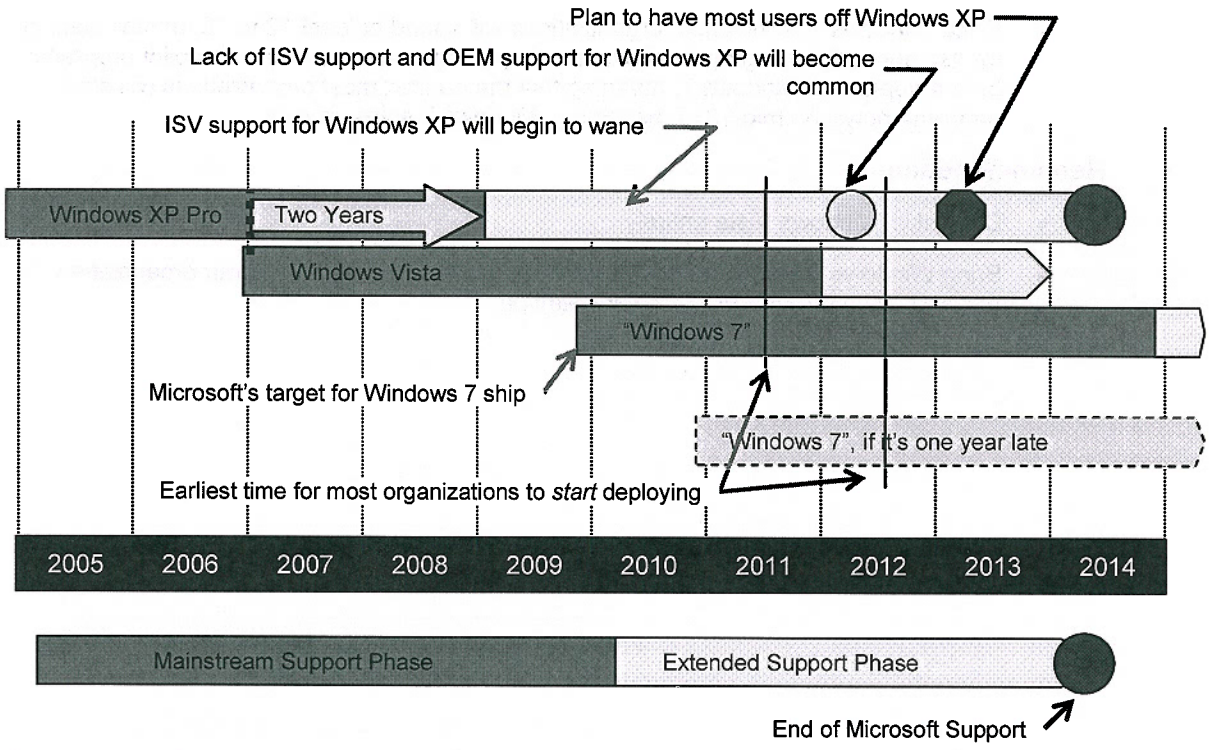
Recent Gartner research shows that organizations have significantly delayed the start of their Windows Vista migrations, with most now planning to begin deployment in late-2008 or even 2009. Whenever Windows deployment plans slip significantly, it causes organizations to question whether they should skip the release and wait for the next one. However, what many enterprises don't realize, in their initial analyses, is that the next version of Windows also may be delivered later than Microsoft says and likely will be just as difficult to adopt as Vista. We have seen the scenario time after time. Organizations that tried to skip Windows 98, Windows 2000 and Windows XP often had ISV support issues, and a difficult and often-rushed or forced migration. Organizations that try to skip Windows Vista are likely to undergo the same perils.

The Issues

ISVs Don't Support Old Operating Systems Long Enough

Although Microsoft supports business-oriented versions of Windows for at least 10 years (or longer, if successor versions ship late) and Windows XP will be supported with security fixes into 2014 (see Figure 1), many ISVs won't support their products on Windows XP that long, and Microsoft and ISVs often will not support new versions of their software on older OSs.

Figure 1. Skipping a Windows Version Compresses Available Migration Time



Source: Gartner (December 2007)

For example, Office 2007 is supported on Windows XP and Windows Vista only. Organizations running Windows 2000 that were trying to skip Windows XP and move straight to Windows Vista began having issues with new applications not supporting Windows 2000 even as early as late-2005. By late-2007, the issue became relatively common for new applications (or new versions of applications) being delivered. For Windows XP, ISVs likely will begin dropping support in early 2010 (especially if Microsoft ships the next release of Windows in 2009 as planned). By 2012, it will be common for software vendors not to support Windows XP for their new versions or applications.

ISVs Don't Support New OSs Soon Enough

The most common obstacle preventing organizations from moving to Windows Vista is that vendors of critical applications are not yet supporting the applications on Windows Vista. This is nothing new. Historically, some vendors support new versions of Windows on delivery or soon after, but most vendors (especially smaller vendors of vertical applications) take longer, with some needing a year or more before they support the new OS. When Windows 2000 shipped, some vendors took nearly three years before they supported it.

Another possible problem is that a version of the product supports Windows but not the version that is owned or deployed. For example, Office XP may not officially be supported on Windows Vista, even though Office 2007 is. In these cases, a new version of Windows forces the upgrading of many other applications, which increases the cost, complexity and time frame of the project.

Microsoft's OS Delivery Schedule Is Unpredictable

Although Microsoft said that it would deliver Windows 7 (the next release after Vista) about three years after Vista shipped (fourth-quarter 2006), Microsoft's track record for shipping new versions of Windows is not good. Both Windows 2000 and Vista were extremely late, although Windows XP was on time, although Windows XP was a minor release, and Windows 2000 and Vista were major releases. Microsoft has not yet disclosed enough information about Windows 7 for users to discern whether it will be major or minor release (although the name suggests that it will be a major version, 7.0, of Windows).

Furthermore, Microsoft must significantly increase the modularity of Windows to make it easier for Microsoft to create the system and for end users to deploy it. Therefore, it is likely to be a fairly major release. If it ships late, then organizations trying to skip Vista will end up running large numbers of Windows XP PCs longer than they would like, and organizations are likely to be forced to adopt Windows 7 before their vendors all support it (or these enterprises will have to bring in Windows Vista for some users anyway).

Bring in New OSs Leisurely

Skipping versions of Windows usually means that the organization feels compelled to bring in the next version of Windows relatively early in its life. For example, enterprises that are trying to skip Windows XP may have felt compelled to bring in Windows Vista in 2007, before the enterprises had full support from their ISVs, so that the enterprises would be off Windows 2000 entirely before Microsoft ends support in 2009. Generally, organizations on Windows XP had more latitude to delay Vista migrations from 2007 to 2008, or even to 2009, if they find that their vendors are not providing the required support.

Reduce Migration Costs by Using Hardware Replacement Cycles and Attrition

Many organizations have problems building a business case to spend money on a Windows migration because the migration costs are too high, or because the perceived benefits are insufficient to provide payback. In such cases, we recommend migrating via attrition, as new PCs are being deployed anyway. This means that it will take a three- or four-year hardware replacement cycle to eliminate an old OS and bring in a new one.

Organizations that try to skip a version of Windows generally don't have three or four years of support left on their old OSs once they begin moving to new ones. For example, an organization that skips Windows XP may need until 2012 to eliminate Windows 2000 by attrition if it cannot start Vista migration until 2008, and the migration would not be complete by the end of Microsoft support in mid-2009. Therefore, the organization couldn't migrate using its scheduled hardware update cycle but would be forced to spend extra money on a more expensive forklift upgrade.

When Skipping Windows Vista Might Be the Right Decision

Smaller organizations (with fewer than 500 users, and many with less than 1,000 users) generally don't have the economies of scale needed to support multiple OSs on an ongoing basis. These organizations should consider forklift migration projects, which may mean that skipping versions of Windows is the right thing to do, depending on PC update time frames and other risk factors.

Larger organizations with a very significant percentage of applications that are written in-house also should consider forklift deployments, because their developers would be responsible for supporting all homegrown applications on multiple OSs. This would greatly increase application development costs. However, for most typical midsize to large organizations, we suggest a strategy of bringing in new client OSs with new hardware only and not trying to skip a version of Windows entirely.

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Gartner

ND Mainstream Laptop

Item / description	Part no.	Unit price	Qty	Ext.price
Configurable - HP Compaq 8510p Notebook PC	Base	$1,275.00	1	$1,275.00
Product HP Compaq 8510p Notebook PC	RQ557AV			

Operating system

Genuine Windows® XP Professional [GA276AV#ABA]

Processor
Intel® Core™2 Duo Processor T7300 (2.0-GHz, 800-MHz, 4-MB L2 cache)
Display
15.4-inch diagonal WSXGA+ WVA, anti-glare (1680 x 1050 resolution and 16M colors)
Video/graphics
ATI Mobility RadeonTM HD 2600 with 256MB of GDDR III video memory and 512 MB HyperMemory
Memory
2048MB 667MHZ DDR2 2D
Hard drive
120GB 7200 rpm SATA hard drive
Optical drive
DVD+/-RW SuperMulti DL Drive
Keyboard
Dual Point Keyboard (touchpad and pointstick)
Wireless LAN
Intel 802.11 a/b/g Wi-Fi Adapter
Bluetooth
HP Integrated Module with Bluetooth® Wireless Technology
Modem
MDC V92 modem
Security
Fingerprint Reader
Battery
8-cell (73 WHr) Lithium-Ion battery
Warranty
3/3/0 Warranty

Warranty and service upgrades

GOOD: 9x5 Next-Business-Day On-Site Coverage, 3 Years [U4414E] [Add $59.00]

Docking Stations and Options (not factory installed)

- ☐ HP Advanced Docking Station with 135W Smart Adapter [EN489AA#ABA] [Add $199.00]
- ☐ HP Docking Station with 120W Smart Adapter [EN488AA#ABA] [Add $130.00]

Power Accessories and Batteries (not factory installed)

- ☐ Li-Ion 8-Cell Primary Battery- [PB992A] [Add $100.00]

Cases and Covers

HP Value Nylon Case [RR314AA] [Add $32.00]

ND Power User Laptop

Item / description	Part no.	Unit price	Qty	Ext.price
Configurable - HP Compaq 8510p Notebook PC	Base	$1,419.00	1	$1,419.00
Product HP Compaq 8510p Notebook PC	RQ557AV			

Operating system

Genuine Window s® XP Professional [GA276AV#ABA]

Processor
Intel® Core™2 Duo Processor T7500 (2.2-GHz, 800-MHz, 4-MB L2 cache)
Display
15.4-inch diagonal WSXGA+ WVA, anti-glare (1680 x 1050 resolution and 16M colors)
Video/graphics
ATI Mobility RadeonTM HD 2600 with 256MB of GDDR III video memory and 512 MB HyperMemory
Memory

2048MB 667MHZ DDR2 1D [RQ602AV]

Hard drive
120GB 7200 rpm SATA hard drive
Optical drive
DVD+/-RW SuperMulti DL Drive
Keyboard
Dual Point Keyboard (touchpad and pointstick)
Wireless LAN
Intel 802.11 a/b/g Wi-Fi Adapter
Bluetooth
HP Integrated Module with Bluetooth® Wireless Technology
Modem
MDC V92 modem
Security
Fingerprint Reader
Battery
8-cell (73 WHr) Lithium-Ion battery
Warranty
3/3/0 Warranty

Warranty and service upgrades

GOOD: 9x5 Next-Business-Day On-Site Coverage, 3 Years [U4414E] [Add $59.00]

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