

# AssetMetrix RESEARCH LABS



## Corporate Acceptance of Windows<sup>®</sup> XP Service Pack 2

### Executive Summary:

On April 12<sup>th</sup>, 2005 Windows XP Service Pack 2 will be automatically delivered to Windows XP users who are using Microsoft's *Windows Update* or *Automatic Update* tool. Service Pack 2 is a significant modification to previous editions of Windows XP and may require a download of up to 266Mb per PC.

On August 16<sup>th</sup>, 2004 Microsoft offered a blocking mechanism within the update tool to allow organizations and/or end-users to delay the installation of Windows XP Service Pack 2 for a period of 240 days (i.e. April 12<sup>th</sup>, 2005) to allow for testing and validation of Windows XP Service Pack 2 within their corporate infrastructure.

As of April 12<sup>th</sup>, 2005 any Windows XP PC with the update tool enabled will automatically initiate the upgrade to Service Pack 2.

**CONCLUSION: Companies with Windows XP currently deployed should quickly make a decision to accept Service Pack 2 - or not - and put measures in place (both policy and technology) to ensure that the decision is enforced.**

**Companies should inventory their PCs to determine the location and quantity of all Windows XP PCs in order to determine the effort to enforce their decision.**

**In general, AssetMetrix Research Labs recommends the deployment of Service Pack 2 amongst Windows XP PCs, and recommends proper testing and verification before April 12<sup>th</sup>, 2005.**

### Statistical Synopsis

AssetMetrix Research Labs conducted an analysis of over 130,000 Windows XP PCs from 251 corporations ranging in size from 20 to 9,000 employees. **On average, Windows XP Service Pack 2 is deployed on less than 25% of all Windows XP PCs.**

**Smaller companies are more likely to have more PCs using Windows XP, and to have accepted Windows XP Service Pack 2.**

**Larger companies are less apt to accept Windows XP Service Pack 2 into their Windows XP sub-population compared to smaller companies, *regardless of the number of Windows XP found within the company.***

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## ACRONYM TABLE

ACRONYM	DEFINITION
PC	Personal Computer
Win XP	Windows XP Operating System
SP1 (SP2)	Service Pack 1 (or 2)
SME	Small to Medium Enterprise (up to 500 PCs)
OEM	Original Equipment Manufacturer
SMS	Systems Management Server
AD	Active Directory

## Dataset Parameters

AssetMetrix Research Labs conducted a statistical analysis of the 136,120 PCs using various versions of Microsoft Windows from 251 corporations - ranging in size from 20 to 9,000 employees - where a PC inventory was obtained between January 05<sup>th</sup> and March 10<sup>th</sup>, 2005.

These 251 corporations - predominantly from the US and Canada - represent a variety of market sectors including:

- Financial
- Communications
- Government
- Healthcare
- Services
- Transportation
- Utilities

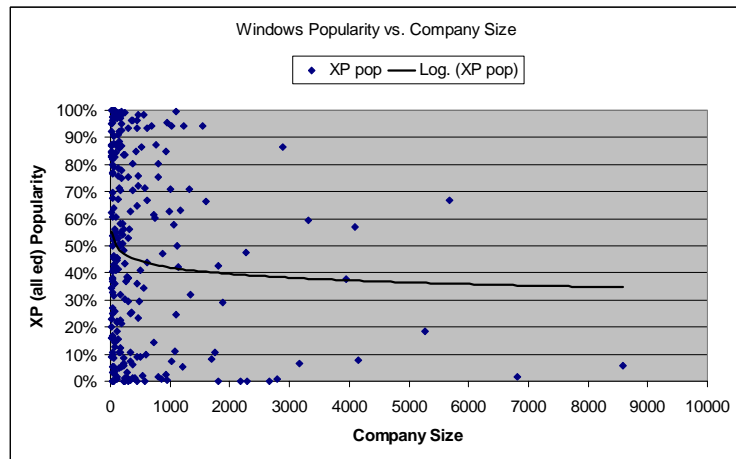
96% (240 of 250) of the companies had at least one instance of Windows XP, with the average of 27% of PCs using Windows XP within a company.

## Data Analysis:

### Overall Windows XP popularity

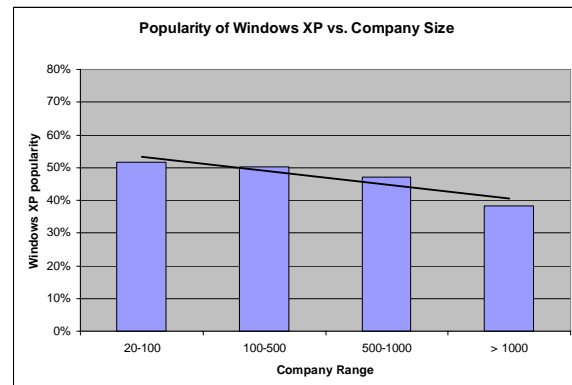
From the entire dataset of 136,120 PCs, Windows XP was found on over one third (37.6%) of the PCs. Overall, the average popularity of Windows XP was 47.6%, with a standard deviation of +/- 35% (indicating a great variation between near complete acceptance and near complete avoidance).

It must be noted that the acceptance of Windows XP is on a significant rise; [previous analysis from AssetMetrix Research Labs](#) suggested that Windows XP had a popularity of 7% in Q403, compared to about 38% in Q105.



Overall, the Windows XP popularity compared to company size decreases slightly as the company size increases. SMEs had an average Windows XP popularity of over 50%, where companies larger than 1000 PCs had Windows XP popularity at 38%.

Range (PCs)	% Windows XP
20-100	51.6%
100-500	50.3%
500-1000	47.2%
>1000	38.4%

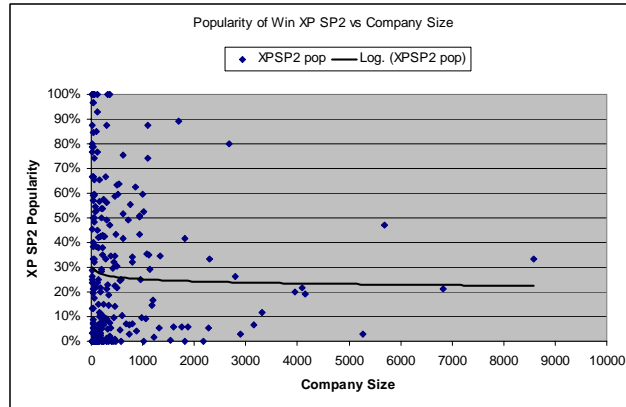


**Conclusion:** *The popularity of Windows XP has risen significantly during 2004, with greater densities in smaller sized organizations (SME).*

### Popularity of Windows XP SP2

The popularity of Windows XP SP2 is calculated by comparing the number of Windows XP SP2 vs. all editions of Windows XP (original, SP1 & SP2) in order to determine how Windows XP populations are accepting SP2.

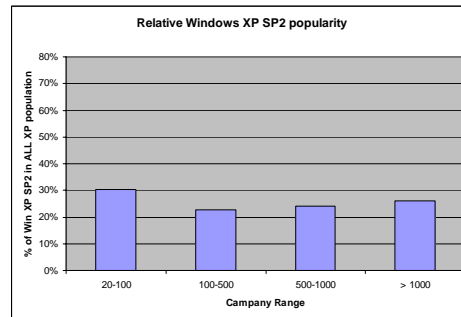
Windows XP SP2 was found on 12,330 of the 50,665 Windows XP PCs, representing an overall 24% popularity. The average company popularity was 27%, with a variation of +/- 28.9 %.



As seen on the X-Y scatter plot, the popularity of Windows XP SP2 tends to decrease slightly as company size increases, but the highest acceptance of Windows XP SP2 is typically seen in SMEs.

Range (PCs)	% Windows XP XSP2
20-100	30.4%
100-500	22.6%
500-1000	24.0%
>1000	26.0%

In general, the *average corporate* Windows XP SP2 popularity (within a Windows XP population) ranged from 23% to 30%.

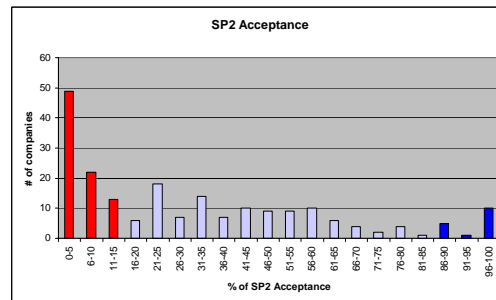


### SP2: Accept or Embargo?

By reviewing the number of SP2 within each company's Windows XP population, one can identify whether SP2 is being accepted (where SP2 popularity is within 85%-100%) or being embargoed (where SP2 popularity is within 0%-15%).

These values act as an indicator to evaluate the *degree* of acceptance of SP2. Values ranging from 16% to 84% may reflect a lack of decision or policy to approach SP2.

44 companies - having less than 10 installs of Windows XP - were excluded from this analysis. 84 of the 207 companies (40.7% - in RED) are tending to exclude Windows XP SP2 within their Windows XP sub-population, whereas 16 companies (7.7% - in BLUE) are tending to accept Windows XP SP2.



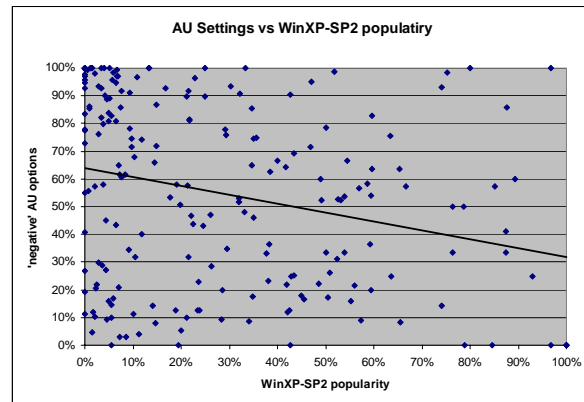
**Conclusion: SMEs have a greater tendency to fully deploy Windows XP SP2 within their Windows XP sub-population, but the average deployment of SP2 stays within 26% to 30%, regardless of the company size. To date, more companies are tending to hold back on SP 2 than accept it as a standard.**

### User Settings to accept or embargo SP2

Microsoft's Automatic Update service allows end-users of Windows 2000 and Windows XP to receive updates and/or notifications of various updates.

By default, this Automatic Update (AU) automatically downloads and installs updates as they are offered from Microsoft. End-users can modify the behavior of the AU to 'off', 'notify only', or 'automatic download.'

'Off', and 'notify only' settings were classified as 'negative' AU settings as they allow the end-user to avoid or ignore update alerts.



The percentage of negative AU settings was compared against the popularity of SP2 within each company's XP sub-population of PCs. The trend line and data clustering in the upper left indicates a loose correlation between a low popularity of SP2 and high use of negative settings.

This correlation may be weakened by the fact that AU settings may be overwritten by network functions (or group policies), and thus may not properly represent the actual settings used. Typically, the larger companies are more likely to have invested in technologies to deploy group policies compared to smaller companies.

## Commentary

### Understanding the benefits and risks associated with Windows XP Service Pack 2

#### Benefits:

Overall, Windows XP-SP2 is a significant re-write of the Dec-2001 edition of Windows XP; some consider Windows XP SP2 to be a new operating system rather than simply an update. The focus of the SP2 is that of increased corporate and end-user security, minimizing the success of malicious attacks that could compromise the PC's security. SP2 also includes the following improvements:

- *Windows Security Center*, for managing the PC's security settings in one place
- *Improved Firewall*, offering a permission interface to block or accept external connection requests.
- *Improved Security for Microsoft Internet Explorer* (download monitoring, pop-up blocking, etc.)

Details of SP2 features and benefits can be found on the Microsoft Website: (<http://www.microsoft.com/windowsxp/sp2/default.mspx>).

#### Risks:

Due to the introduction of re-structured code and/or the Microsoft Firewall applications, there are several applications that may encounter a lack of functionality or have an issue with Windows XP-SP2.

The risks for each company is based upon the business dependency for the applications in question, and the ability to address the functionality issue with an upgrade or replacement applications.

Microsoft list of apps that have an issue with SP2 Firewall:

<http://support.microsoft.com/default.aspx?kbid=842242>

Microsoft list of apps with loss of functionality after SP2 is deployed:

<http://support.microsoft.com/default.aspx?kbid=884130&product=windowsxpsp2>

AssetMetric Research Lab's Analysis of [XP SP2 impact vs. company size](#) (444Kb, PDF)

## Factors leading to Windows XP SP2 avoidance

### End-user avoidance

Previous to October 2004, Microsoft's policy was to reply to a recent security issue by releasing a new update *immediately* through the AU services. This response tactic – though wellintended – appeared to cause issues for corporations attempting to test these updates against their business infrastructure.

In October 2004, Microsoft modified its update release policy such that updates were released once a month, giving customers an opportunity to plan for testing. Nonetheless, end-users who control their AU services have the opportunity to avoid updates that may appear to hinder their use of their PC or otherwise interfere with their activities.

### Group Policy Mechanisms

The initial release of SP2 (August 2004) via the AU services created an unexpected management scenario for corporations who had yet to deploy Microsoft's *Update Services* (a free application for Microsoft customers - with licensed Windows Server CALs - to allow corporations to control which updates are deployed).

The August 2004 release of SP2 also caused the necessity for corporations to review a list of applications that lose functionality on SP2, ranging from word processing to anti-virus software (see addendum 2).

This functionality loss at the end-user level has inspired many corporations to deploy Microsoft Update Services as a method to supersede the end-user's AU settings and create a SP2 halting mechanism until the loss of functionality issues have been addressed and remedied.

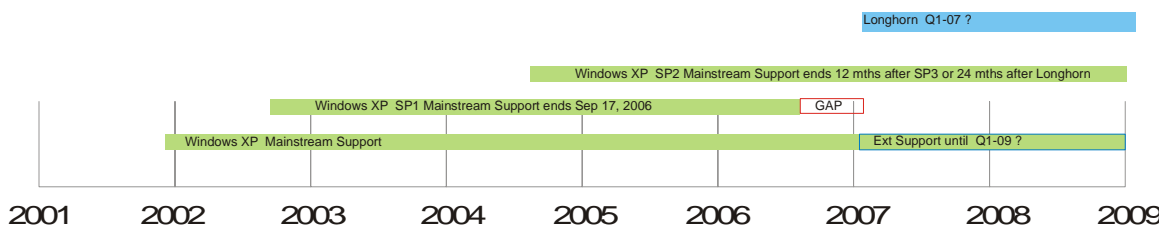
Rather than resolving the issues of functionality loss, companies may intend to use Update Services to attempt to embargo SP2 within the current XP sub-population due to the fact that a corporate-wide software audit to analyze compatibility loss hasn't yet been initiated.

## Support gap between Windows XP SP1 vs. Longhorn

Typically, Microsoft supports the most recent Service Pack until mainstream support of the product (i.e. Windows XP) has terminated. For previous Service Packs, support is continued for a period of one year from the introduction of the *next* Service Pack.

Microsoft's current policy (as of March, 2005) is that Windows XP SP1 will be supported until Sept 17<sup>th</sup>, 2006 (two years instead of one) and that SP2 will be supported via the conditions stated above. As per Microsoft's policy of supporting business software for five years, mainstream support for Windows XP terminates on Dec 31<sup>st</sup>, 2006.

## Potential XP Lifecycle Support Time-Table



With the next edition of Windows (codename Longhorn) not anticipated until late 2006 (see Microsoft's press release: <http://www.microsoft.com/presspass/press/2004/Aug04/08-27Target2006PR.asp>), there is a potential support gap for those who deploy only SP1 in anticipation of leapfrogging over Windows XP SP2 to Longhorn.

It is assumed that Microsoft extended Windows XP SP1 support from 1 year to 2 years to accommodate a seamless support offering for customers not willing to update to Windows XP SP2. Unless Microsoft extends support for Windows XP SP1 further into the first half of 2007 (and Microsoft has extended OS support in the past for Windows 98), customers might face a support gap in Q406 should Microsoft release Longhorn at the tail end of 2006 (as it did for Windows XP in 2001).

Customers who deploy Windows XP SP2 will most likely not face this issue of a support gap.

## Recommendations

- 1.) Identify the magnitude of Windows XP and Windows XP SP2 in your corporation via a PC inventory.
  - a. Do not guess at the potential magnitude of work required; identify the number of XP-based PCs that will require SP2. Furthermore, identify XP-based PCs that are 'internet facing'.
  
- 2.) Verify that technology and business dependencies are not impacted by the use of Windows XP SP2. Alternatively, assess your impact via a PC with Windows XP SP2 already installed, such as a recently purchased PC with an OEM edition of Windows XP Professional.
  - a. Identify all PCs with software identified as having functionality loss (AssetMetrix subscribers should use XP Compatibility report under the Windows XP menu).
  - b. Apply application upgrades where functionality loss is suggested, or replace product if required (remove if product is not required for business operations, i.e. games, etc.)
  
- 3.) Determine if the Windows Update tool should be controlled by the user or by IT management.
  - a. If the user controls the Update Tool behavior, set out a clear governance policy (and support mechanisms).
  - b. If IT management wishes to control the update tool behavior, ensure that all PCs outside the influence of Group Policy Management tools (such as SMS and AD) are taken into account (AssetMetrix subscribers use the Update Policy Manager function for PCs outside the control of SMS or AD).
  
- 4.) Should you decide to deploy Windows XP SP2 within your Windows XP population, updates should be rolled out gradually – and before April 12<sup>th</sup>, 2005 – in order to reduce stress on support services or reduce productivity brown-outs if end-users upgrade simultaneously (i.e. 9am on April 12<sup>th</sup>, 2005).

## Addendum 1: Microsoft's Lifecycle Supported Service Packs (edited)

This list is a *portion* of Microsoft's Support table for Service Packs related to Windows XP, obtained from <http://support.microsoft.com/gp/lifesupsp> (as of March, 2005).  
Review Microsoft's website for a complete and updated list.

Product Name	General Availability Date	Service Pack Support Retired
Microsoft Windows XP Embedded Service Pack 2	30-Jan-2002	Not Applicable
Windows XP Home Edition Service Pack 1	30-Aug-2002	17-Sep-2006
Windows XP Home Edition Service Pack 2	17-Sep-2004	Not Applicable
Windows XP Media Center Edition 2002 Service Pack 1	30-Aug-2003	17-Sep-2006
Windows XP Media Center Edition 2002 Service Pack 2	17-Sep-2004	Not Applicable
Windows XP Media Center Edition 2004 Service Pack 1	30-Aug-2003	17-Sep-2006
Windows XP Media Center Edition 2004 Service Pack 2	17-Sep-2004	Not Applicable
<b>Windows XP Professional Service Pack 1</b>	<b>30-Aug-2002</b>	<b>17-Sep-2006</b>
<b>Windows XP Professional Service Pack 2</b>	<b>17-Sep-2004</b>	<b>Not Applicable</b>
Windows XP Tablet PC Edition Service Pack 1	30-Aug-2003	17-Sep-2006
Windows XP Tablet PC Edition Service Pack 2	17-Sep-2004	Not Applicable
Microsoft Windows XP Embedded Service Pack 2	30-Jan-2002	Not Applicable
Windows XP Home Edition Service Pack 1	30-Aug-2002	17-Sep-2006
Windows XP Home Edition Service Pack 2	17-Sep-2004	Not Applicable
Windows XP Media Center Edition 2002 Service Pack 1	30-Aug-2003	17-Sep-2006
Windows XP Media Center Edition 2002 Service Pack 2	17-Sep-2004	Not Applicable

## **Addendum 2: Resources for Managing Windows XP Service Pack 2**

[Microsoft Windows XP Service Pack 2 Deployment Page](#)

[Using SUS to deploy a delayed roll-out or Windows XP SP2](#)

(SUS is a free download for customers using Microsoft's Windows Server 2003 or Windows 200 Server, and can be downloaded from [Microsoft's Download Center](#))

[Using SMS to deploy Windows XP SP2](#)

(Requires Microsoft's System Management Server 2 or 2003)

[Using Group Policy to deploy Windows XP SP2](#)

(Requires Microsoft's Active Directory with Software Installation & Maintenance features enabled)

[Using AssetMetrix to help you deploy or delay Windows XP SP2](#)

[Microsoft's list of app that have an issue with the SP2 Firewall](#)

[Microsoft's list of app with 'loss of functionality' after SP2 is deployed](#)

AssetMetrix Research Lab's Q304 [analysis of 'application issues' with Windows XP SP2](#)  
(PDF, 444Kb)

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## About AssetMetrix

Founded in 2000 and headquartered in Ottawa, Canada, AssetMetrix is the industry's premiere on-demand AssetIntelligence service. AssetMetrix gives CIOs the power to analyze their corporate environment, quantify their business and technology risks, and verify the effectiveness of their management tools and policies.

AssetMetrix offers corporate policy and security threat analysis, identifies viruses and improper anti-virus application configurations, and forecasts PC replacement budgets and platform migration service/component costs. With more than 160 reports, AssetMetrix is the most comprehensive IT asset analysis solution available today. Visit [www.assetmetrix.com](http://www.assetmetrix.com).

## About AssetMetrix Research Labs

AssetMetrix Research Labs is the research division of AssetMetrix, and is responsible for the algorithms used within the many asset analysis reports found within AssetMetrix (i.e. Windows Migration analysis, PC Population Replacement Forecasting, License Calculators, etc.)

AssetMetrix Research Labs focuses on assisting AssetMetrix clientele (and channel partners) with strategic IT Asset Management advice and solutions, and also with monitoring industry events and trends on behalf of AssetMetrix to help partners and clients keep abreast of the most pressing IT Asset Management issues.

## About the Author

Steve O'Halloran is the Managing Director of AssetMetrix Research Labs, and the CKO/Co-Founder of AssetMetrix, Inc. Mr. O'Halloran is an [SIIA Certified Software Manager \(CSM\)](#), and has been in the ITAM marketplace since 1993, and has previously worked with asset management companies such as Compucom, Provance Technologies and Peregrine Systems.

Commentary on this document is welcome.

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