Overview of Windows XP Service Pack 3

Abstract

Windows® XP Service Pack 3 (SP3) includes all previously released updates for the operating system, in addition to a small number of new functionalities that will not significantly change customers' experience with the operating system. This white paper summarizes what is new in Windows XP SP3, and how to deploy the service pack.

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Introduction

Microsoft works to continually improve the performance, security, and stability of the Windows operating system. As part of this effort, Microsoft develops updates, fixes, and other improvements that address issues reported by the company's customers and partners. To make it easier for customers to get these updates and enhancements, Microsoft periodically combines them into a single package, and makes that package available for all Windows customers. These packages are called *service packs*.

Windows XP Service Pack 3 (SP3) includes all previously released Windows XP updates, including security updates and hotfixes. It also includes select out-of-band releases, and a small number of new enhancements, which do not significantly change customers' experience with the operating system.

Service Pack

Windows XP SP3 provides a new baseline for customers still deploying Windows XP. For customers with existing Windows XP installations, Windows XP SP3 fills gaps in the updates they might have missed—for example, by declining individual updates when using Windows Update.

Windows Vista provides the most advanced security and management capability, but for PCs that cannot be upgraded to Windows Vista right now, Windows XP SP3 ensures these PCs have all available updates and allows these PCs to leverage some new Windows Server 2008 capabilities, such as Network Access Protection (NAP).

This white paper describes what is new in Windows XP SP3 and provides an overview of how customers can deploy the service pack.
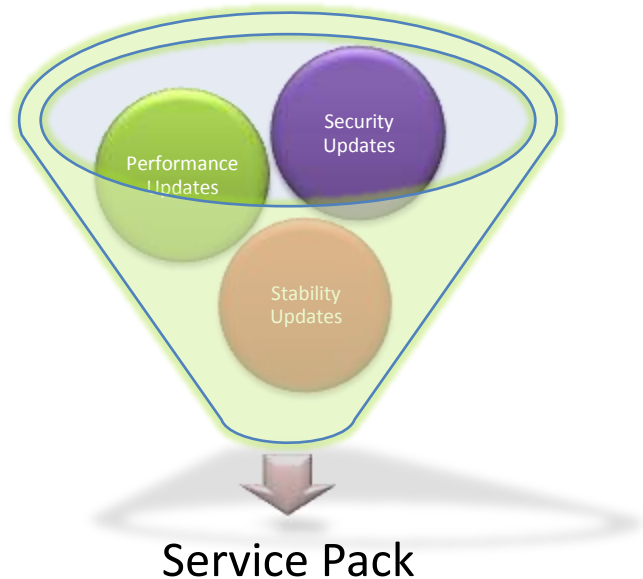
What Is In Service Pack 3

Windows XP SP3 includes all previously released Windows XP updates, including security updates and hotfixes, and select out-of-band releases. For example, the service pack includes functionality previously released as updates, such as the Microsoft® Management Console (MMC) 3.0 and the Microsoft Core XML Services 6.0 (MSXML6).

Microsoft is not adding significant functionality from newer versions of Windows, such as Windows Vista, to Windows XP through XP SP3. For instance, Windows XP SP3 does not include Windows Internet Explorer 7, although Windows XP SP3 does include updates to both Internet Explorer 6 and Internet Explorer 7, and it will update whichever version is installed on the computer. One notable exception is that, SP3 does include Network Access Protection (NAP) to help organizations that use Windows XP to take advantage of new features in the Windows Server® 2008 operating system. For more information about Internet Explorer 7, visit http://www.microsoft.com/windows/products/winfamily/ie/default.mspx.

Knowledge Base article 936929 lists all other all Knowledge Base articles associated with updates that are included in Windows XP SP3. The following sections also provide a high-level description of the functionality included in Windows XP SP3.

Previously Released Functionality

The functionality that Table 1 describes is already available for Windows XP in stand-alone updates. System administrators must choose to install each of these updates, however. Windows XP SP3 includes them by default.

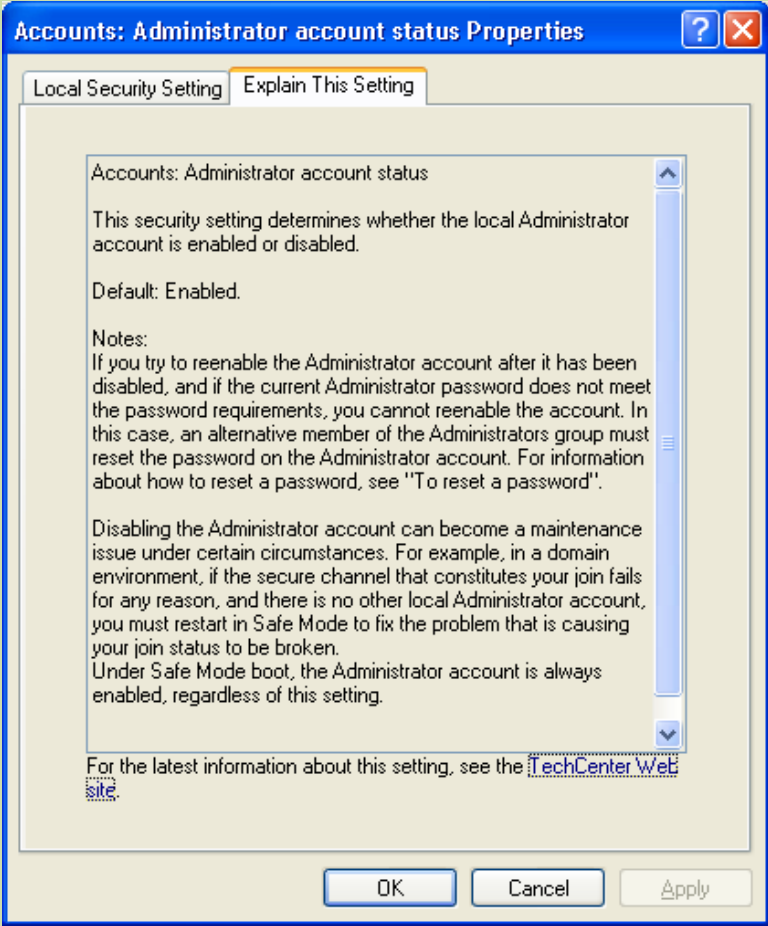**Table 1. Previously Released Functionality**

	Functionality	Description
Management	MMC 3.0	MMC 3.0 is a framework that unifies and simplifies day-to-day system management tasks in Windows by providing common navigation, menus, toolbars, and workflow across diverse tools. Microsoft Knowledge Base article 907265 describes this functionality in detail.
MDAC	MSXML6	MSXML6 provides better reliability, security, and conformance with the XML 1.0 and XML Schema 1.0 W3C Recommendations. It also provides compatibility with System.Xml 2.0.
MSI	Microsoft Windows Installer 3.1 v2 (3.1.4000.2435)	Windows Installer 3.1 is a minor update to Windows Installer 3.0, which Microsoft released in September 2004. Windows Installer 3.1 contains new and enhanced functionality. Additionally, Windows Installer 3.1 addresses some issues that Microsoft found in Windows Installer 3.0. Microsoft Knowledge Base article 893803 describes this functionality.
Networking	Background Intelligent Transfer Service (BITS) 2.5	BITS 2.5 is required by Microsoft System Center Configuration Manager 2007 and Windows Live™ OneCare™. BITS 2.5 helps improve security. If you use BITS to transfer data, the new features also improve flexibility. Microsoft Knowledge Base article 923845 describes BITS 2.5.
	IPsec Simple Policy Update for Windows Server 2003 and Windows XP	This update helps simplify the creation and maintenance of IPsec filters, reducing the number of filters that are required for a server and domain isolation deployment. The Simple Policy Update removes the requirement for explicit network infrastructure permit filters and introduces enhanced fallback to clear behavior. Microsoft Knowledge Base article 914841 describes this previously released update in more detail.
	Digital Identity Management Service (DIMS)	DIMS makes it possible for users who log on to any domain-joined computer to silently access all of their certificates and private keys for applications and services.
	Peer Name Resolution Protocol (PNRP) 2.1	This update enables Windows XP SP3–based programs that use PNRP to communicate with Windows Vista programs that use PNRP. Microsoft Knowledge Base article 920342 describes this previously released update.
	Wi-Fi Protected Access 2 (WPA2)	This update to Windows XP provides support for WPA2, the latest standards-based wireless security solution derived from the IEEE 802.11i standard. Microsoft Knowledge Base article 893357 describes this update.

New and Enhanced Functionality

Table 2 describes some of the more significant changes in Windows XP SP3. With few exceptions, Microsoft is not adding new features or functionality from newer versions of Windows to Windows XP through SP3. As noted earlier, one exception is the addition of NAP to Windows XP to help organizations running Windows XP to take advantage of new features in Windows Server 2008. For a list of Knowledge Base articles that Windows XP SP3 addresses, see Knowledge Base article 936929.

Table 2. New and Enhanced Functionality

	Functionality	Description
Networking	"Black Hole" Router Detection	Windows XP SP3 includes improvements to black hole router detection (detecting routers that are silently discarding packets), turning it on by default.
	Network Access Protection (NAP)	NAP is a policy enforcement platform built into Windows Vista, Windows Server 2008, and Windows XP SP3 with which you can better protect network assets by enforcing compliance with system health requirements. Using NAP, you can create customized health policies to validate computer health before allowing access or communication; automatically update compliant computers to ensure ongoing compliance; and optionally confine noncompliant computers to a restricted network until they become compliant. For more information about NAP, see Network Access Protection: Frequently Asked Questions.

	Functionality	Description
Security	Descriptive Security Options User Interface	The Security Options control panel in Windows XP SP3 now has more descriptive text to explain settings and prevent incorrect settings configuration. Figure 1 shows an example of this new functionality. **Figure 1. Security options explanatory text**
	Enhanced security for Administrator and Service policy entries	In System Center Essentials for Windows XP SP3, Administrator and Service entries will be present by default on any new instance of policy. Additionally, the user interface for the *Impersonate Client After Authentication* user right will not be able to remove these settings.
	Microsoft Kernel Mode Cryptographic Module	Microsoft Kernel Mode Cryptographic Module (Fips.sys) is a FIPS 140-1 Level 1–compliant, general purpose, software-based, cryptographic module in the kernel mode level of the Windows operating system. It runs as a kernel mode export driver (a kernel-mode DLL) and encapsulates several different cryptographic algorithms in an easy-to-use cryptographic module accessible by other kernel mode drivers. It can be linked to other kernel mode services to permit the use of FIPS 140-1 Level 1–compliant cryptography. For more information, see the Microsoft Kernel Mode

Functionality	Description
	[Cryptographic Module](#).
Setup — Windows Product Activation	As in Windows Server 2003 SP2 and Windows Vista, users can now complete operating system installation without providing a product key during a full, integrated installation of Windows XP SP3. The operating system will prompt the user for a product key later as part of Genuine Advantage.
	As with previous service packs, no product key is requested or required when installing Windows XP SP3 using the update package available through Microsoft Update.
	Note The Windows Product Activation changes in Windows XP SP3 are not related to the Windows Vista Key Management Service (KMS). This update affects only new operating system installations from integrated source media. This update affects the installation media only and is not a change to how activation works in Windows XP.

Deploying Windows XP SP3

Windows XP SP3 will be available through Windows Update and the Microsoft Download Center. The service pack will also be available to Volume License customers, TechNet subscribers, and MSDN® subscribers. Through Windows Update, the download size varies, but it is typically 70 megabytes (MB), depending on the computer's configuration. Through the Download Center, the download size is approximately 580 MB.

Fundamentally, deploying Windows XP SP3 works the same as deploying SP1 and SP2 for Windows XP:

- SP3 is cumulative, so users can install SP3 on top of Windows XP SP1 or SP2.

- Windows XP SP3 supports the same languages as Windows XP did in its initial release.

- You can run the SP3 update package on any SKU of Windows XP SP1 or SP2. For example, you can run the SP3 update package on a computer running the Windows XP Media Center Edition with SP1.

- Tools and guidance for system administrators have not fundamentally changed from Windows XP SP2. For comprehensive information, visit the Deploy Windows XP Professional and Windows XP Service Pack 2 Deployment Information sites on Microsoft TechNet.

- You can deploy SP3 using Microsoft Systems Management Server 2003, Microsoft System Center Configuration Manager 2007, or third-party solutions. The process has not fundamentally changed.

Windows XP SP3 is for x86 editions of Windows XP only. The x64 editions of Windows XP were serviced by Windows Server 2003 SP2. For additional information, go to Windows Server 2003 Service Pack 2.

Summary

Windows XP SP3 combines all previously released performance, security, and stability updates. It also provides a limited number of new and enhanced functionalities, although it does not significantly change the Windows XP experience or bring functionality from newer versions of Windows to Windows XP. The goals of Windows XP SP3 are to:

- Provide a new baseline for customers still deploying Windows XP, to help them avoid the inconvenience of applying individual updates.

- Fill gaps in the updates users might have missed by declining individual updates when using Automatic Updates, and to deliver updates not made available through Windows Update.

Windows Vista provides the most advanced security and management capability, but for PCs that cannot be upgraded to Windows Vista right now, Windows XP SP3 ensures these PCs have all available updates and allows these PCs to leverage some new Windows Server 2008 capabilities, such as Network Access Protection (NAP).

For more information about Windows XP SP3, go to [Windows XP Service Packs](#).