

28 May 2007

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Windows Vista
Microsoft

[The Downsides of 64-bit Windows Vista](#)

Driver and application support

Microsoft delivers Windows Vista in both 32-bit and 64-bit flavors. While a system configuration with a x64 processor certainly recommends one of the 64-bit editions of Windows Vista, these versions of the operating system do come with downsides that customers need to be aware of. Being essentially identical to 32-bit Windows Vista, the 64-bit editions will deliver support for 32-bit applications without any problems. This aspect is one of the pillars of the transition to 64-bit. Users are encouraged to adopt the next wave in computing technology while still being able to enjoy the same programs they used to on their 32-bit system. However, 64-bit Vista does not offer support for 16-bit applications or components. Old solutions designed for platforms that preceded 32-bit will not function on x64 Vista. 64-bit Windows Vista also features an additional line of defense against buffer overflow attacks. Vista's Data Execution Prevention (DEP) will work in conjunction with the 64-bit processor to prevent exploits, but one major shortcoming is the fact that legitimate applications and processes will be stopped if the operating system detects a buffer overflow condition. Another problem that users will face on 64-bit Vista is the generalized lack of driver support. Drivers in x64 Vista are a completely different deal than on 32-bit Windows platforms. And although 64-bit Vista supports 32-bit applications it does not do the same with 32-bit drivers. The products have to be prepared for 64-bit Vista, as the operating system brings to the table a feature called Signed Kernel Mode Drivers. 64-bit kernel-mode drivers will not be installed in Windows Vista without digital signatures. Also automatic registry and system file redirection specific to the 32-bit operating systems have not made it into 64-bit Vista. And last but not least, the x64 version of Windows Vista introduces Kernel Patch Protection. PatchGuard is a technology designed to prevent access to the core of the operating system. All applications - including legitimate programs such as security solutions - that needed to access the operating system's kernel in order to function will fail under 64-bit Vista.