There are several ways to temporarily support Internet Explorer 6 (IE6) applications during a migration from Windows XP. All have costs associated with them, but the one Microsoft recommends is particularly heavy and costly.

Key Findings

- IE6 is an obsolete browser that diverges from Internet standards.

- From 2001 to 2006, Microsoft was very successful at getting organizations and independent software vendors (ISVs) to write applications using features unique to IE6.

- Many homegrown, browser-based applications and ISV applications fail to run on IE8 or third-party browsers.

- Inventorying and remediating IE6 applications is extremely time-consuming, was not part of the promoted migration plans and tools from Microsoft, and is delaying Windows 7 migrations.

Recommendations

- Whether or not you find a temporary solution to support IE6 applications on Windows 7, continue to fix or replace affected applications with ones that adhere to Internet standards by April 2014; avoid standardizing on a single browser.

- Evaluate non-Microsoft application virtualization solutions to virtualize IE6, but also consider the legal and technical risks of doing so.

- Request Microsoft to grant specific contractual amendments to allow you to virtualize IE6 as a Windows 7 compatibility solution without fear of reprisal (but consider that Microsoft could still pursue your application virtualization vendor with legal action).

- Organizations in need of IE6 compatibility solutions that don’t have sufficient licenses to use Terminal Services and want to comply with Microsoft’s recommendation to avoid IE6 application virtualization should petition Microsoft for use of Windows 2003 Server software and associated Remote Desktop Services (RDS) client access licenses (CALs) for the sole use of accessing IE6 at no charge through 8 April 2014.
WHAT YOU NEED TO KNOW

Organizations with IE compatibility problems that are preventing them from migrating to Windows 7 need to solve them fast. A variety of solutions are available, some from Microsoft, some from third parties. Microsoft suggests that some solutions may be suboptimal or violate their licensing terms.

STRATEGIC PLANNING ASSUMPTION(S)

Through 2014, IE8 compatibility problems will cause at least 20% of organizations to run overtime or overbudget on their Windows 7 migration projects.

ANALYSIS

While some organizations have migrated from IE6 to IE7 or IE8, many organizations that didn’t are finding the IE migration to be a major challenge in their move to Windows 7. Some IE6 fixes are fairly simple, but others are extremely complex and expensive. The process of inventorifying all Web apps is time-consuming and costly. Once complete, mitigating the problems is challenging, because Web apps often do not generate an error message or crash; they simply degrade “gracefully.” Organizations running IE6 report that up to 40% of homegrown browser applications fail to run properly with IE8. Furthermore, many ISV applications, including complex ERP and CRM applications, with lengthy and expensive migration requirements, must be remediated before IE8 can be used. Gartner believes that IE8 compatibility problems will cause at least 20% of organizations to run overtime or overbudget on their Windows 7 migration projects.

Gartner has always cautioned organizations to not standardize on one browser, not to develop or adopt browser applications that did not conform to standards, and to move to IE7 or IE8 to gain security benefits. However, many organizations have not been able to take that advice for a variety of reasons:

• The desire to minimize costs
• ISV requirements for specific versions of IE for their applications
• The global economic recession
• The limited uptake of Windows Vista; 80% of Gartner clients responding to surveys and polls skipped Windows Vista, which would have required a move to IE7

Alternatives

Fix the Applications — best, but potentially the most difficult, solution: The best path to resolving the IE6 dilemma is to fix the affected applications (see Note 1). But many organizations don’t have the time or budget to do that. And since IE6 application support is in the critical path to Windows 7 (which cannot natively run older versions of IE), the longer IE application remediation takes, the later the move to Windows 7 can begin, or the longer it will take. The move off Windows XP and onto Windows 7 should be completed by April 2014, when Microsoft withdraws support for Windows XP, or by the time ISVs deliver new, desirable applications that don’t run on Windows XP, which will likely be sooner.

While IE8 includes some compatibility modes to run applications designed for older versions of IE, IE6 is not one of them. Microsoft would rather put the nonstandard browser technology behind it. It appears that Microsoft is attempting to distance itself from IE6, reversing its stance of 2001 to 2006, when it encouraged development of IE6-specific applications.

Aside from fixing and replacing the affected applications, there are several other temporary, potentially less-expensive and quicker alternatives. Gartner outlined some of these in “XP on Windows 7: Temporary Relief for Migration Headaches, but No Cure,” including running IE6 from a terminal server or accessing IE6 from hosted virtual desktops. Gartner clients report that Microsoft commonly advises them to run Microsoft Enterprise Desktop Virtualization (MED-V) to resolve these issues, which requires licensing Windows Software Assurance and Microsoft Desktop Optimization Pack (MDOP), and outfitting each PC with a Windows XP virtual machine (VM).

Terminal Servers or Hosted Virtual Desktops — lighter weight, temporary help: These client models are most appropriate for running IE6 for organizations that already have or are planning significant investments in these infrastructures. Using terminal servers is probably the easier, most mature and least expensive of the temporary alternatives, but many organizations have many users that don’t use the technology and are not licensed for it. Organizations need to understand application compatibility with terminal services, which could be problematic, as well as the fact that Windows 2003 Server, which does not have advanced technology like RemoteApp, must be used for the best Windows XP compatibility.

MED-V — a bridge from XP with a high toll: Microsoft’s MED-V preference is an expensive one, requiring Windows Software Assurance (approximately $40 or more per PC per year), MDOP ($7 to $10 per PC per year), plus additional RAM and PC resources.
It's ironic that it violates its licensing terms. According to Microsoft, IE is only application/IE virtualization solutions, Microsoft's position is that formal legal action by Microsoft toward vendors or customers of The Legality of Virtualizing IE:

Microsoft recommends against this method for legal and technical reasons.

Application Virtualization — new potential: In past research, we suggested that application virtualization was not a certain fix for application-to-OS compatibility problems, and explained why Microsoft explicitly states that its entry in this market, AppV, is not a solution for these problems. Other vendors differ in their approaches and opinions. At least four vendors recently launched application virtualization solutions specifically targeted at application-to-OS compatibility problems, with many focused specifically on virtualizing older versions of IE for use on Windows 7. These vendors include InstallFree, Symantec, VMware and Spoon.


Note 1. Microsoft IE compatibility resources

Microsoft has several sites and tools to help organizations understand and repair their IE compatibility issues, including:


(See “Quantifying the Value of Software Assurance for Windows Client, Mid-2010 Update” and “Quantifying the Value of Microsoft’s Desktop Optimization Pack, Mid-2010 Update” for a discussion of the cost and value of Software Assurance and MDOP.) Early adopters have reported that MED-V is a very heavy solution, slowing performance, causing multiple security authentications, and requiring hardware upgrades for some PCs they are trying to move to Windows 7 (Microsoft claims that the next version of MED-V, which is in beta, will resolve some issues). It also means essentially doubling the number of Windows images that need to be deployed, secured and managed. Running a whole Windows XP VM (or hundreds or thousands of them) would seem to be counterintuitive to solve a problem with a browser, which is supposed to be a very lightweight way to access applications. For many organizations, the cost of deploying, running, supporting and securing MED-V on the percentage of their PCs that need IE6 access is exorbitant. Using MED-V to virtualize IE seems like overkill (though if multiple Windows XP applications are required, MED-V may make more sense).

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Is Microsoft Acting Against Its Own Interest? It’s ironic that Microsoft would oppose methods that could help organizations accelerate the move to Windows 7. We believe Microsoft must do more to help organizations with their IE6 problems that Microsoft helped create. While Gartner is sympathetic to Microsoft’s desire to avoid perpetuating nonstandard IE6 code, many organizations that committed to Microsoft and IE6 simply cannot commit the time and money to eliminate it quickly enough to avoid problems moving to Windows 7; in many cases, the problems are tied to third-party product support, which are beyond the customer’s control.
We believe Microsoft needs to explore all avenues that could ease the transition away from IE6. Granting organizations contractual amendments to allow them to virtualize IE6 as a Windows 7 compatibility solution (while not endorsing or supporting it) and committing to not pursue vendors of such solutions with legal action would give organizations an additional lightweight compatibility alternative and help them migrate off Windows XP and onto Windows 7, a result desired by Microsoft.

Microsoft must be careful with anything it does here, as scrutiny over Windows continues from the European Commission and other government bodies. This may limit Microsoft from either supporting or limiting third-party alternatives.

**Examine the Risks:** Organizations considering IE application virtualization should examine the technical risks. Microsoft support for IE6 will end 8 April 2014, the same day Windows XP support ends. If Microsoft releases any security fixes for IE6 before then, the IE “bubbles” may have to be rebuilt to be secured, and there is the possibility of new problems being introduced. Organizations that continue running IE bubbles after the end of support may similarly be vulnerable to security problems. Furthermore, organizations should discuss legal issues with their own counsel, as well as with the legal department of the vendor whose solution they wish to use. We believe Microsoft would be more likely to pursue vendors of IE virtualization solutions than users of them, but this could be a significant risk if Microsoft stops a vendor from selling or even supporting a solution. It also risks very bad public relations and loss of goodwill, and could drive organizations away from IE toward alternatives. Organizations should select solutions that are tactical (have quick ROI) and limit advance payments for product and maintenance.

**Negotiating Stance:** We believe that a thinner, lighter alternative would be better, namely running IE6 from terminal servers, but this can also be an expensive solution for organizations that do not already run it. Money would need to be spent on server hardware, Microsoft (and perhaps third-party) software, and IT labor to acquire the skills and deploy the solution. For an organization without the necessary skills and infrastructure, this solution is probably three to four times the cost of an IE application virtualization solution. MED-V is similarly three to four times the cost of an IE application virtualization solution.

We believe Microsoft needs to help organizations minimize the cost of temporarily running their IE6 applications on Windows 7. If Microsoft is unhappy with organizations using IE virtualization to minimize costs, it should offer other forms of assistance. One way would be for Microsoft to help organizations provide access to IE6 through Windows Terminal Services, a method it approves. Microsoft could provide Windows 2003 Server software and associated RDS CALs at significant discounts or at no charge through April 2014 for the sole use of accessing IE6.

Gartner agrees with Microsoft that any solution to address IE6 (or IE7) compatibility issues, short of fixing or replacing the affected applications, should be temporary in nature. Gartner also suggests that organizations continue to adopt Internet standards as they design, build, repair, select and deploy new software, and ensure that all browser-based applications work on at least one non-Microsoft browser.

Organizations should encourage users who still have IE6 to use more modern, secure and standards-compliant browsers for public Internet access. They should have policies that do not discourage use of these alternatives, because they help with the overall goal to maintain browser independence.

Organizations need to resolve IE problems and begin their migration to Windows 7 as soon as possible, and Microsoft needs to do more to help.