

Intel's Vanderpool Will Spark Virtualization Innovation

Martin Reynolds

Intel's accelerated release of Vanderpool technology will advance critical virtualization efforts. But this new technology must be carefully managed.

NEWS ANALYSIS

Event

On 20 January 2005, Intel made two major product announcements:

- The company's Vanderpool technology for desktop computing, which provides hardware support and partitioning for software components, will be released in the second half of 2005. (The release was previously scheduled for 2006 at the earliest.) The Vanderpool specification is available for download.
- Vanderpool technology for virtualization of Itanium servers will also be released in the second half of 2005. Xeon servers will not have virtualization support until 2006.

Analysis

Intel's Vanderpool technology will make products such as VMware and Virtual PC more efficient, robust, secure and flexible. Vanderpool also offers an opportunity to "bury" software components inside the platform, so that they operate as part of the hardware. Gartner believes these components will be widely used to implement manageability, security and other platform enhancements. Clearly, the use of this new software space must be tightly controlled to avoid compromising platform integrity.

The release of this technology will spark innovation. IBM's sHype technology is a good example of how this new resource can be managed. sHype is a lightweight module (10,000 lines) that can securely initialize and partition system hardware in preparation for the launch of an operating system or virtual-machine manager. sHype's simplicity makes the task of proving security and integrity far easier than with a full-scale operating system. Another example is the Xen project at Cambridge University. Xen is a heavyweight virtual-machine manager that will use Vanderpool to eliminate the need for customized operating systems. Products that provide desktop security, such as VMware's ACE, will use Vanderpool to close off some remaining security holes.

Recommendations:

- **Enterprise IT buyers:** Pay close attention to the opportunities opening up in virtualization, taking advantage of the cost savings that it can bring.
- **Technology providers:** Develop a common approach to the enhanced platform, delivering innovation without compromising system integrity.

Analytical Source: Martin Reynolds, Gartner Research

Recommended Reading and Related Research

- "VMware Adds Control of PC Virtualization, but Issues Remain" — EMC's VMware ACE will deliver and manage virtual machines outside an enterprise's management domain. But licensing and security integration may increase costs. **By Brian Gammage and Michael Silver**
- "Hypervisor Plug-Ins Create New System Opportunities" — Hypervisors offer a secure managed environment that can be used to enhance system security and manageability. **By Martin Reynolds**

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