

Intel Accelerating Virtualization Effort

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Intel Corporation is accelerating its broad industry efforts to deliver enhanced virtualization capabilities — codenamed Vanderpool — for Intel®-based clients and servers. The company has released its preliminary Vanderpool Technology External Architecture Specifications (EAS) to facilitate industry design collaboration and advance the pace and breadth of advancements in virtualization.

Virtualization allows a platform to run multiple operating systems and applications in independent partitions or "containers." One physical compute system can function as multiple "virtual" systems. Vanderpool Technology can help improve future virtualization solutions.

Intel's virtualization technology is part of a collection of premier Intel silicon technologies that are expected to enable new computing benefits for home and business users, and IT managers. Other technologies available today in various platforms and market segments include Intel Hyper-Threading Technology and Intel Extended Memory 64 Technology. Intel also has plans underway for Intel® Active Management technology and LaGrande technology that focus on system management and safer computing respectively.

The Vanderpool Technology specifications, found at www.intel.com/technology/vt, provide technology overviews and guidance to software developers who are designing virtualization solutions for both IA-32 and Intel® Itanium®-based processor platforms.

While expected in Itanium-based platforms this year, Intel now also plans to offer Vanderpool Technology in future desktop processor and chipset products in 2005, a year earlier than previously planned.

Intel has been working with several of the industry's leading software vendors to solicit input on the technology, and also to jointly speed the delivery of virtualization to the marketplace. The EAS and Intel's efforts to work with the software community to develop enhanced virtualization solutions -- including current ongoing efforts to develop the first Vanderpool Technology-enabled virtual machine monitor applications -- are currently expected to result in initial systems incorporating Vanderpool Technology later this year and broader growth through 2006.

"There is little doubt across the industry that the potential benefits and applications of virtualization for businesses and consumers are significant," said William A. Swope, Intel corporate vice president and co-general manager of the Software and Solutions Group. "Our work with the software community around Vanderpool is an important step in helping to drive improvements to the reliability and resilience of enterprise servers, potentially reducing total cost of ownership and enabling exciting future uses for the digital home."

Using Vanderpool Technology in the digital office and enterprise, businesses may be able to isolate a portion of a managed PC to perform system upgrades and maintenance without interrupting the end-user. IT managers could create one desktop PC software "build" that could function independently as both a business and personal system, helping to keep software loads separate. They could also create systems that run different operating systems and software for different tasks or legacy applications. Additionally, Vanderpool Technology-enhanced virtualization can potentially provide IT advantages through server consolidation, legacy migration and security benefits.

In the future, home users may be able to create virtual “partitions” isolating multiple user environments such as dedicating resources to a PC game, productivity, and personal video recorder-type environments.

Additionally, as Intel transitions to multi-core platforms, software designers and system-makers could use Vanderpool technology-based partitions and extra processing cores to create unique combinations within a server and/or PC for specialized use.

More details of solutions based on Intel’s Vanderpool Technology solutions will be disclosed at Intel Developer Forum, March 1-3 in San Francisco.

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