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## Market Roundup

April 30, 2004

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### IBM Previews Virtualization Engine

*By Charles King*

IBM has previewed its Virtualization Engine, a technology designed to improve the economics and to simplify the management of IBM and non-IBM systems. IBM's Virtualization Engine leverages technologies originally developed for the company's mainframe products, and deploys basic provisioning and management tools from Tivoli, as well as open Grid capabilities from the WebSphere runtime environment across a range of IBM systems. The new solution also includes advanced "micro-partitioning" technology, allowing customers to run as many as ten virtual servers per microprocessor. In addition, the Virtualization Engine includes IBM's Director Multiplatform which offers a single point of control and management for local and global IBM and non-IBM systems; enterprise workload management and provisioning tools to optimize resources, simplify management, and increase availability; and IBM TotalStorage Open Software to virtualize and centralize the management of heterogeneous storage devices. IBM plans to roll out Virtualization Engine technologies and services across its servers and storage products this year, beginning with the company's new iSeries servers expected in the second quarter.

The concept of virtualization is hardly new to IBM, as it originally arose decades ago as a concept for leveraging mainframe environments by creating multiple "virtual" machines which could interoperate with applications like the real things. But over the past couple of years, virtualization has devolved into a fuzzy piece of the True Cross of heterogeneous storage and system management. While virtualization theoretically allows the discovery and mapping of multiple server and storage platforms, as well as management of the messy bunch as an integrated whole, virtualization solutions have tended, not surprisingly, to reflect their promoters' disparate core competencies and interests. While some vendors have spoken of virtualization as some fully formed holistic entity, the reality they delivered more closely resembled loose confederations of related tools and applications. Truth be told, this is as it should be. While virtualization consists of a wide range of related processes, how closely their solutions are related and integrated will naturally vary widely across time and from provider to provider.

Taken with that bit of salt, how does IBM's new Virtualization Engine shape up? Pretty well, though with a few caveats. To begin, the company has a great deal of virtualization experience (via its mainframe expertise) to base its solutions on. In addition, IBM is leveraging its home-grown WebSphere and Tivoli tools for provisioning and management processes. Most importantly, though, the company is utilizing its extensive work in grid computing (through participation in the Globus Project and other grid organizations) and open storage management (via SNIA's SMI-S initiative) to open the door to making these solutions interact with other systems. All well and good. On the caveat side, this solution is not leaping into the market fully formed as the sort of heterogeneous manager conventionally associated with virtualization, but as a tool integrated first with new POWER5-based solutions (such as the soon-to-be-released iSeries systems) and some Sun Solaris servers. Though it is logical that additional capabilities and extensions to other platforms will arrive incrementally, these "shortcomings" are likely to be the targets of IBM detractors trying to undermine the company's Virtualization Engine accomplishments. While such comments carry a sheen of truth for the time being, they purposely ignore the concrete steps IBM has taken toward delivering tangible, workable, virtualized management solutions for heterogeneous systems. The new IBM Virtualization Engine may qualify as a work in progress, but we believe it is one with enormous future promise.

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## HP Delivers CCI Blades

*By Charles King*

HP today announced availability of the HP Blade PC bc1000, a critical part of the company's Consolidated Client Infrastructure (CCI) solution. The HP CCI solution consists of an access device such as an HP Compaq Thin Client that connects through a secure log-in to an HP blade PC bc1000 and network storage located in a centralized data center. According to HP, CCI's benefits include reductions in maintenance and support; high availability and reduction of business risks associated with viruses, security/theft, lost data, and compliance with software licenses; and increased end-user productivity. The HP bc1000, featuring a 1.0GHz Transmeta Efficeon TM8000 processor, 40GB ultra ATA/100 hard drive and up to 1,024MB of double data rate SDRAM, is available in North America and is planned to be available in other regions at a later date. Pricing for the bc1000 starts at an estimated Internet list price of \$820 per blade. Customized CCI solutions including HP Blade PCs, HP Compaq thin clients, network storage, complete solution implementation, training, and a support contract start at less than \$1,399 per seat. HP also recommends services offerings to optimize and expedite CCI deployments including implementation services, project management, installation, and customer orientation and training.

Originally announced in December 2003, HP's CCI offered an interesting mix of old-world thin-client/network PC values leveraged against new blade server capabilities, but also bore some of its predecessors' heavy baggage. In many ways, thin clients and network PCs suffered the fate of many children who receive too much loving attention. While their bright points were many, they were hardly the saviors their supporters claimed. At least as importantly, the technologies' most dotting proponents, Oracle's Larry Ellison and Sun's Scott McNeely, tend to prefer the shine of the gaslights to supporting deserving offspring from the wings. Though a number of vendors continue to ship thin clients, they do so in far smaller volumes than were once imagined. So is HP's CCI any different than previous network-attached incarnations? Somewhat. CCI has benefited so hugely from technological evolutions in areas including processors, storage, DRAM, and power efficiency that HP can promote the bc1000 as a cost-effective replacement for conventional desktops, making it far easier to recoup potential management savings. In addition, integrated blade environments simplify the set-up and cabling nightmares that plagued many thin-client and network PCs.

So does all this mean that CCI is apt to attain the starring roles similar technologies only dreamed of? Possibly, but with two caveats. First, we are concerned about the absence of concrete details regarding the role software plays in CCI, especially considering the company's highlighting of recommended service offerings, which are likely to provide some devilish details for businesses concerned with CCI's overall cost. In addition, while CCI leverages blade technology in an interesting way, it also continues the age-old model of allocating a specific user a specific processor and/or hard drive. A more visionary and potentially similarly cost-effective, approach could be found in deploying virtual desktops or workstations via partitioned blade servers. Overall, network-based desktop solutions should focus on effectively delivering computing access, not computer access. At this point, CCI follows the latter, lower, evolutionary road. Still, HP's weight in the corporate desktop space offers the company an exemplary position to leverage their new offering. If they find notable success, we expect other blade server vendors to follow HP's suit but hope they will pursue a more revolutionary path.

## Synergize This!

*By Jim Balderston*

IBM has announced a series of new services and product offerings designed for mid-tier enterprises. The company announced IBM Network Operations and Management Services and IBM Infrastructure Recovery Services. The Network Operations Service will give mid-tier enterprises the ability to contract with IBM to remotely monitor the customers' IT environment twenty-four hours a day. The Infrastructure Recovery Services offers ways for mid-tier enterprises to create and lay out their business recovery plan. A two-day consulting engagement is included and a temporary iSeries or pSeries system can be deployed in event of an outage. IBM also announced IBM Infrastructure Express Portfolio Solution on iSeries and the High Availability Express Portfolio on iSeries. The Infrastructure Management Express Portfolio is targeted at SMBs that are seeking to consolidate server

deployments by leveraging the iSeries' capacity to run multiple operating systems simultaneously. The high availability offering will allow iSeries running Express products to be linked via a variety of data mirroring vendors' products.

IBM continues its assault on the SMB market with further extensions of the Express offerings and new SMB-specific services that are offered directly or through business partners. The new Network Operations and Management service closely parallels last week's announcement of IBM's Desktop Management Services, in which a tedious, time consuming but crucial task is taken off the plate of thinly stretched SMB IT shops and put squarely in IBM's lap. As we noted last week, such an offering cannot only relieve SMB IT, it also is a persuasive selling tool for IBM business partners.

These announcements go even further, however, adding specific product extensions that should be attractive to SMBs struggling with cost-containment issues in the face of ever increasing technology demands. To date the Express portfolio on its own has made very solid inroads into the SMB market, and IBM has been successful in translating its experience with large enterprise IT environments into products appropriately built for less demanding IT deployments. By throwing new offerings on the iSeries, IBM ups the ante for competitors and offers new options to SMBs wishing to simplify their IT deployments through consolidation and virtualization. Since iSeries increasing is looking like a "Mini Me" Mainframe, such efforts should bear substantial fruit in the SMB grove. IBM also continues to make its product offering partner-friendly, leveraging business partner market expertise and relationships to move IBM product into the market. Services, software, hardware go-to-market strategy. Can you say synergy? We can say leverage!

## No Cause and Effect

*By Jim Balderston*

President Bush announced during a speech this week in Minneapolis that he hoped broadband technology offerings would be available to every household in the United States by the year 2007. Noting that broadband subscribers had risen from 7 million in 2000 to 24 million today, the president also said that the country ranked 10th among industrial nations concerning broadband availability and adoption. Bush said that clearing regulatory hurdles was one way to advance broadband deployments as was opening up federal lands for the use of transmission lines or microwave towers. But Bush also said that he hoped Congress would extend the ban on local or state taxes on broadband, as that was a means to make it affordable. Bush said banning broadband taxes would help speed universal broadband access.

No one needs to be reminded that this is an election year, and candidates are spending a great deal of time talking to constituents about a variety of national issues, including technology issues, and IT issues in particular. President Bush is no exception: his speech in Minneapolis not only touched on broadband access, but hydrogen fuel cars, electronic medical records, and vocational training needed to meet the workplace demands of the 21st century. Like most political stump fodder, this speech was made to be heard while eating rubber chicken.

The President's cause-and-effect linking of broadband taxation and its crawling reach to the hinterlands begs further scrutiny. The Pew Internet Report on Broadband indicates that 39% of U.S. households now have some sort of broadband, and that nearly 60% of those said they bought broadband because of their frustrations with dial-up access speeds. File downloads, page loading and other factors drove this need for speed. The Pew study also showed that price point was a very small element in the decision-making process to most consumers of broadband. Considering that the President is asking that Congress extend the existing ban on broadband taxes it is clear he is urging the continuation of the status quo, which makes us wonder how exactly it will change adoption decisions of potential broadband users or deployment decisions of broadband providers and actually speed the availability of broadband to every nook and cranny of America. Cause and effect? Not in our mind.