
Market Roundup

August 4, 2006

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New Opteron Systems from IBM

By Clay Ryder

At a press event in New York, IBM announced new AMD Opteron processor-based servers for its System x and BladeCenter product lines. The portfolio of five new systems is based on the next generation of Opteron processors and is targeted at business performance computing, e.g., general business needs, such as business intelligence, enterprise resource planning, etc., by leveraging IBM's Enterprise X-Architecture to bring mainframe-inspired capabilities and other high-end technology to the company's x86-based server products. The latest offerings can deliver up to 21% greater performance within the same power envelope as previous Opteron-based offerings from IBM. Key features of the new systems include: energy-smart solutions that optimize power consumption at the chip, systems, and software levels; a "snap-in" scalable blade server that can double processing capacity in seconds; and IBM Xcelerated Memory Technology to remove bottlenecks and to speed up access to memory by 15%. The company also announced Cool Blue technologies which improve power utilization and reduce energy costs through tools to accurately plan, monitor, and control power consumption at the system, rack, and datacenter levels. The Cool Blue portfolio features IBM PowerExecutive, software that meters power usage and heat emissions and caps usage by a single server or group of servers at any given time; IBM Thermal Diagnostics, a thermal analyzer to pinpoint and automatically correct heat-related issues in the datacenter through developing an inventory of temperature metrics and then applying a "most-likely scenario", automatically diagnosing thermal problems and enabling response by PowerExecutive, IBM Director, and service processors; and IBM Director and Virtualization Engine, which provide a reduction in energy usage through server consolidation and systems management virtualization technologies. The new features that will be available during Q3 are: BladeCenter LS41, enterprise-class scalable two-way to four-way blade, targeting ERP, data marts, data warehouses, databases, and HPC clusters; BladeCenter LS21, enterprise-class two-way blade optimized for performance computing, targeting financial services, scientific, high-performance computing, and databases; System x3755, for mid-market, large enterprise customers, designed for scientific computing such as weather simulations and crash test analysis; System x3655, business-performance server, focused on database/ERP, business intelligence, IPTV, and Video on Demand applications; and System x3455, high-performance compute node, ideal for scientific and technical computing, database, and Linux clusters.

It is obvious that this is a big announcement; big in the number of products being offered, but also big—or more aptly wide—in its breadth and depth. Opteron is no longer strictly new; however, this announcement serves clear notice that at least Big Blue is no longer pigeonholing the processor to the narrowly defined realm of high-performance computing applications. With all that Opteron has had to offer, this artificial limitation has always been perplexing to us; however, now that this (in our view) misguided positioning appears to be over, we are encouraged by IBM's investment in both the processor and the totality of these announced products and their embrace into the mainstream of the IBM System x and BladeCenter product lines.

At the same time, the performance of these solutions, especially at the three-way and higher CPU levels illustrate the value of innovation when creating a solution. The use of HTX as opposed to PCI Express benefits memory

handling and allows what the company claims to be near linear four-way scaling of processors. The ability to maintain faster front bus speeds (667MHz) to memory when deploying more than sixteen DIMMs also provides an advantage as systems and memory requirements scale upward. The technological prowess of the AMD chip as well as the IBM hardware and software, individually all make this possible, but creative innovation in assembling components is what makes for compelling solutions. For those with memory- and compute-intensive applications, these performance innovations will likely be viewed as welcome news. Likewise, Cool Blue offers IT managers the opportunity to reign in power and cooling issues that are plaguing many data centers today. Proactively managing power consumption not only helps improve the operational headroom of the data center, it also reduces the need for cooling by simply not creating as much heat in the first place. The power (no pun intended) of Cool Blue should not be overlooked as it represents a customized and dynamic approach to energy management within the data center: an important tool in the quest of enhanced operational efficiency.

The notion of Business Performance Computing is an interesting one that IBM is positioning as a new market segment, but also one that curiously harkens back to the basics of IT of many years past. Prior to the specialization and marketing goofiness that started in the 1990s, IT investments used to be about improving the operations of a business to create competitive advantage, or in other terms, boosting its business performance. While today it may require a specific statement of fact to this effect, it is nevertheless to our way of thinking the absolutely correct approach to take. Perhaps much like with the Internet, the success of BPC will be ultimately achieved when we stop talking about it. Nevertheless, the top IT needs of organizations remain cost-effectiveness and the ability to dynamically allocate resources to support business process. We applaud the targeting of the product offerings to specific workload combinations, a feature-focused as opposed to technology-focused view of capability, and one that we think is more in line with business as opposed to technology-focused mindsets. Overall, we believe the processor, memory, Cool Blue, and other innovative features of these offering are timely, if not compelling, reflections of the issues facing data centers today.

Wyse: Thin Clients For VMware VDI

By *Tony Lock*

Wyse Technology has announced a thin client desktop device that has been designed for organizations making use of VMware Virtual Desktop Infrastructure (VDI). The solution results from collaboration between Wyse and VMware to make the Wyse Thin OS aware of key VMware VDI technologies. The result, Wyse Thin OS—VDI Edition, is designed to enhance user experience and functionality, delivering all of the qualities associated with VMware VDI in a single “push power button to work” device. The solution incorporates the new Thin OS—VDI edition software and is delivered on the Wyse S-Class thin client appliance. The VDI optimized desktop with the new OS and a single Wyse S-Class Thin Client device is priced at \$299, with volume discounts available.

This announcement represents another step in the long and winding Thin Client road. Thin client solutions have come a long way in the last few years, but have managed to do so without attracting undue attention. We have promoted the use of both the Thin Client service delivery architecture and of VMware Enterprise Desktop Virtualization, as the combination of the two has much to offer. Enterprise Desktop Virtualization allows organizations to employ small, secure thin clients on the user’s desktop and then link them to their own virtual desktop machines residing on centrally managed servers. Adding the Wyse thin client appliance and OS to the mix provides the organization with the opportunity to utilize a totally “stateless” desktop device as the user access platform. These are simple switch-on/switch-off machines with no moving parts and, more importantly, no user-accessible local operating system software to “accidentally” corrupt thus resulting in a near elimination of IT support to manage the desktop device. Equally, there is no way for business information to be stored on the device, as the thin client holds no local storage, thereby greatly enhancing enterprise security should a Wyse Thin Client device be stolen. Similarly, if a device fails, a new thin client appliance can be plugged in to the power and the network and be ready to use. Indeed, any user can log into a desktop from any thin client system in the enterprise.

The combination of Wyse Thin OS—VDI Edition and VMware Virtual Desktop Infrastructure has the potential to radically alter the delivery of desktop services. Users are comfortable with the business applications and the way of working enabled by the PC. The Wyse Thin Client/VMware VDI combination gives users the applications they need in a fashion to which they have become accustomed while greatly improving overall security and availability and minimizing the costs of delivering these key desktop services. With Wyse now promoting a roadmap of future enhancements that includes enhanced multimedia support, virtualized USB, VoIP, and deeper integration into VMware ESX, we believe it is time for enterprises to once again reassess the architecture of desktop service delivery.

IBM Buys MRO Asset Management and Service Desk

By *Tony Lock*

IBM has announced that it has reached a definitive agreement to acquire MRO Software Inc. The all-cash deal will see IBM pay \$25.80 per share, valuing the acquisition at approximately \$740 million. As is ever the case in such circumstances, the acquisition is subject to the usual raft of shareholder and regulatory approval and closing conditions. The deal is expected to close in Q4 2006. As a company MRO was founded in 1968 and currently employs around 900 staff worldwide. MRO's products focus on the areas of Enterprise Asset Management, Service Desk, and Service Catalogue. These are currently marketed under the Maximo brand and the company has attracted over 10,000 customers around the Globe. MRO brings with it both a direct sales force and a wide range of partners with considerable experience of implementing asset and service management solutions. Following the completion of acquisition IBM intends to establish MRO Software Operations as a business unit within the IBM Tivoli software unit and to market and sell MRO software products and services through IBM's and MRO's sales organizations along with the business partners of both organizations. It is expected that over time MRO's software technology will be integrated into Tivoli software solutions and that IBM Global Services will expand its range of asset management consulting practices and services. The integration of the technology will be aided by the fact that MRO has rebuilt and re-architected its entire software solution portfolio using J2EE and SOA principles.

There is today no doubt at all that enterprise asset management is important. Indeed, in a recent survey of CEOs around 40% of those responding highlighted "asset utilization" as an area of major focus. With IT now a cornerstone in almost every business transaction, the optimization of IT asset usage has never been more important, nor more visible. As we have said before, effective IT management can only be built on a solid foundation of asset and service knowledge. Asset Management and Service Catalogue are the foundations on which IT operations run and by which the costs associated with service delivery optimised. The addition of the MRO offerings adds real depth to the IBM management suite and complements the existing portfolio of tools well. It is worthwhile noting the complementary fit with other IBM acquisitions of the last eighteen months, especially Isogon, the mainframe software asset management solution, and CIMS Lab with its charge back and financial reconciliation tools.

While much of the initial focus of the acquisition of MRO is likely to center on the Asset Management and Service Catalogue capabilities, it should not be forgotten that MRO also brings with it a well established Service Desk solution. Although in many markets "Service Desk" or "Help Desk" is now considered to be well established, and therefore very difficult to swap out, IBM believes that it has considerable opportunities to win Service Desk deals in the rapidly growing emerging markets of the world. In fact IBM has stated bluntly that it sees potential to grow its revenues in all of the areas in which MRO's solutions fit. The acquisition sits well with the IT Service Management strategy solutions that IBM is building. However, IBM will need to take its entire management portfolio to market far more aggressively than it has in the past if the company is to penetrate the markets as effectively as it could. While recognition of the value of IT management is rising, organizations know that they need help and many do not know where to start. IBM must get potential customers to recognize them as having IT service management solutions that fit their needs. The technology is good; now Tivoli needs to show excellent marketing, selling, and solution delivery.

Cisco Keeping PACE

By Susan Dietz

Cisco has recently announced its Proactive Automation of Change Execution (PACE) solution for IT management. PACE is intended to help companies' IT departments control the operations, technical, and deployment services, and is designed to address the needs of any size business. The solution reportedly uses secure proactive automation of change, configuration, and analysis tasks while providing reduced management cost and time. PACE is configured to support the Cisco Service-Oriented Network Architecture (SONA) in order to centrally manage network infrastructure and ease the deployment of advanced services across the enterprise. The complete PACE solution is comprised of Cisco's Access Control Server (ACS), CiscoWorks Network Compliance Manager (NCM), Cisco Works LAN Management System (LMS), Cisco Configuration Assurance Solution (CAS), and Cisco Lifecycle Services. Cisco designed the reportedly scalable PACE solution to meet a wide range of customer needs, and it is intended to be open enough for customer flexibility in ordering. Customers can reportedly select products and services as needed by the specific network or take advantage of the scalability and features of the entire suite of products. PACE offers several features, among them changing user names and passwords from one central control point, managing unplanned device configuration changes, detailed compliance reporting (SOX, COBIT, HIPAA, and PCI acts are all claimed to be included), and comprehensive analysis and validation reporting. Cisco backs up its PACE solution with operations consulting services, technical consulting services, and deployment services.

Overall, networks are getting larger and more complicated, and require a higher degree of understanding and expertise in order to be effectively managed. At the same time, network security is becoming more important on an almost exponential basis. Both of these phenomena mean that there is a severe shortage of staff that has the necessary skills to implement and manage even simple networks securely. Thus, network management tools are essential for the successful running of a company's IT. Cisco is seeking to bridge the gap between need and skills with their PACE solution, and hopefully, it will address this need in an elegant solution that effectively rivals the offerings from HP's OpenView, Dell's OpenManage Client Administrator, and a host of boutique IT management companies. However, Cisco is generally trusted to manage Cisco networks.

The larger the business, the more complex and urgent the compliance issues become, and the bigger the target it is for both security threats and government overseeing agencies. At first blush, Cisco's PACE may have the most appeal in the enterprise sector; however, organizations where "network" specialists are in short supply, namely the mid tier and small enterprises, will likely find much that is appealing in this offering. Enterprise businesses will more easily become compliant with regulations if it is easier and more cost-effective to do so rather than to procrastinate, and perhaps PACE is easy enough and inexpensive enough that more enterprises will get on board with the whole compliance issue. Outside organizations themselves, another sector that could use this technology would be service providers that seek to supply network management to end-user organizations.

Among the things to be considered when setting up any IT management solution is the identification of how the network should be configured, which would ideally encompass the combination of skills, knowledge, best practice, and experience available in a company's IT department. Then the solution needs to ensure that all components in the network are properly configured, and a monitoring solution of all of the components will need to be implemented to ensure that the system is running in accordance with the desired outcome. And last but not least, any system must have an excellent change management available to make sure that any changes to network infrastructure will not compromise security or delivered services and quality of said services. Whether Cisco's PACE lives up to all expectations remains to be seen; however, even if PACE doesn't meet or exceed all expectations, the notion of management solution offerings is spot on.

WiFi Goes Green

By Susan Dietz

The nonprofit organization Green Wi-Fi has taken on an ambitious project by attempting to bring the Internet to developing countries, especially schools in those countries, by using cheap, solar-powered WiFi networks. In some

areas of developing countries, basic, reliable electricity is often a problem as are other infrastructure details such as cable and telephone lines. However, with initial funding from One Laptop Per Child, an organization whose goal is to develop and distribute \$100 laptops in developing countries, Green WiFi will launch a full-scale pilot project this summer in Northern India. One school in the area has a cable connection but no reliable electricity, and is an ideal candidate for testing purposes.

Most of the technology for this noble endeavor has already been developed; it just needed to be put together in a creative way while coping with the decision of a cost ceiling of \$200 per node. The nodes need what the organization calls an "intelligent charge-controller." The controller sits between the battery and the router, and regulates power to the router depending on the charge level of the battery and the amount of incoming sunlight. Bailke developed the software used in the controller, which categorizes users based on a per-need basis. At full power, everyone can connect. However, when power drops (e.g., during monsoon season when there is often a month or more of clouds and much less sunlight), then certain groups are cut off, bandwidth is limited, and hours of operation can be restricted to the open hours of the school. A simple web-based interface manages the division of groups and routing of power.

Of course, no good deed goes unpunished and there are critics of every project. One criticism of Green WiFi is that people don't care to learn about the Internet when they don't have adequate food or water, and that connecting people to the Internet when they are still living in aching poverty is putting the cart before the horse. But to be fair, Green WiFi probably cannot deliver food, water, medical care, etc., and is delivering what could be of substantial value, provided that more traditional relief and economic development agencies play their part in delivering basic life-supporting staples. Other critics note that even if the electrical supply is more or less reliable, the wifi service won't be, but then again, could such a claim be made in the industrial world? Does that mean that people shouldn't use wifi until it is as reliable as a cable connection? Of course not. It just means that everyone is further connected by a worldwide frustration with the limitations of current technology.

The technologically advanced areas of the globe have recently been squeezed by astronomical oil prices and more constricting pollution laws; Green WiFi's solution may just be a boon to those areas as well. Some cities are dealing with brownouts in their electrical supply, with most of California and New York being the first areas that come to mind. Rising summer temperatures drives air conditioning demand, and the increased drain on the grid means that some businesses and residences are left without power some of the time. Maybe solar-powered wifi is just a drop in the bucket compared to total electricity usage, but it might be viewed differently by those who need to continue conducting business during a brownout.