
Market Roundup

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Sun Introduces the Sun Blade 6000

By *Clay Ryder*

Sun Microsystems has introduced the Sun Blade 6000 Modular System, which offers a choice of blades powered by the UltraSPARC T1 processor with CoolThreads technology, Intel Xeon processors, or AMD Opteron processors and supports Solaris, Windows, and Linux operating systems. Its increased memory capacity and I/O bandwidth makes Sun Blade 6000 well positioned as a virtualization platform that supports large memory configurations and microprocessors with four and eight cores. The Sun Blade 6000 Modular System includes the Sun Blade 10 RU chassis that supports up to ten blades with up to four chassis per rack for a maximum capacity of 320 cores, 2.5TB of memory and 5TBps usable I/O throughput per rack.

There are three blades available. Sun Blade T6300 Server Module is a 1-socket UltraSPARC T1 blade, Sun Blade X6250 server module is a 2-socket Quad-Core Intel Xeon processor 5300 series-ready blade, and Sun Blade X6220 Server Module is a 2-socket Second-Generation AMD Opteron blade. All aspects of the 6000 feature optimized cooling and airflow, industry standard PCI-Express I/O architecture and adapters, and supports for the most standard management interfaces to facilitate easy integration into customers' existing blade or rack mount management infrastructure. The company also stated that the new blades running Solaris 10 achieved the top industry-recognized Java, HPC, and compute-intensive benchmarks. Also noted in the announcement is that the Sun Refresh Service now includes the Sun Blade X6220 Server Module with future support planned for the other server modules. The subscription service includes installation of the Sun Blade 6000 Modular System with server modules, plus three refreshes of server modules to the latest blade architecture over a 42-month period. The Sun Blade 6000 Modular System is available now, with entry-level pricing starting at \$4,995 for the Sun Blade 6000 Chassis; \$5,995 per server module for the Sun Blade T6300; \$3,695 per server module for the Sun Blade X6250; and \$3,995 per server module for the Sun Blade X6220.

The blade system horserace that is underway between HP, IBM, Sun, and Dell is chock full of competitive salvos and technological prowess that typifies the latest and greatest market opportunity in quite some time. HP, IBM, and Sun have now created at least two series of chassis each with its own stated leadership through a variety of interesting design approaches. In this latest offering from Sun, the design criteria appear focused on the smaller, albeit not small, side of the scale. With the Blade 6000 Modular System, Sun has brought to market a blade environment that may not hit the current top of computing heights, but may just well deliver a cost-effective solution for the SMB marketplace. The two-socket 1U rack market segment is an oft-quoted target for blade consolidation; however, blade solutions tend to not be cost-effective from an acquisition perspective unless the chassis is mostly filled to account for the fixed expense of switches and other interconnects installed in the chassis. Given Sun's penchant for using only standard switching interfaces such as PCI Express, the entry point for a 6000 series solution is notably less than some competitive offerings and is free of additional licensing costs associated with interconnect switches and thus may give the company some additional ammunition to attack the rack-and-stack solutions being sold by all the major systems vendors.

The Sun Blade 6000 series similar to its big brother 8000 series in that it differentiates itself from competitors through expanded levels of RAM, fast I/O, high numbers of processor cores, and potentially low power

consumption based upon processors selected. The Sun Blade X6250 represents Sun's first Intel Xeon-based and Sun's first quad-core based product. In addition, the systems management approach, the electronics on the blade, and hot pluggable I/O are also the same between the 6000 and 8000 series. This is consistent with Sun's power and compute efficiency focus on the past couple of years but it also lets Sun compete head on for workloads such as streaming media, Internet infrastructure, and technical computing all of which tend to be memory and I/O intensive. In addition, these some of these workloads are ideal candidates for virtualized environments where the ability to support high levels of I/O and RAM assists in overall virtualization efficiency. We are also intrigued by the support for four SAS disk drives on each blade along with corresponding SAS support on the midplane and backplane as well as PCI express modules. With some vendors steering the storage for blades discussion away from onboard disks, Sun clearly believes that there will be market demand for onboard storage with decent performance characteristics and a small package footprint. Similarly to IBM, Sun also supports its own RISC processor in its blade offerings, which allows customers to consolidate existing RISC-based UNIX applications alongside state-of-the-art Linux and Windows applications without a porting exercise. This is capability that is unique to these two players.

All the technology aside, perhaps the most innovative aspect of the new blade solution is its inclusion in the Sun Refresh Service. Sun has been in the forefront of adapting subscription models not only to its software offerings, but more importantly to its hardware as well. By ensuring that organizations will have up to three refreshes of their technology over a 42-month period, Sun is effectively compressing the traditional technology refresh cycle of three to five or more years down to one. Given the continued innovation in the server marketplace, this should be a compelling alternative to the present model in which technology loses its cutting edge long before the depreciation completes. Financially, this model can permit smoothing out the expense incurred by bringing the cost born in closer alignment with the value derived, which is always a good thing. In the blade realm in particular, we see this approach as very compelling as organizations not only have the option of adding capacity incrementally as needed, but also to refresh the solution to current standards more frequently than they have had the option to do in the past.

Overall, this announcement is good for Sun as it broadens the blade opportunity that it can address, it is good for organizations seeking consolidated solutions for their future needs as well as providing a refresh alternative for their legacy SPARC servers, and it is good for the market at large as it continues the focus and innovative efforts around the blade platform. We expect that this is not the last we will hear on the topic from Sun, nor HP, nor IBM, and look forward to see what other blade focused initiatives the big boys will unveil as the summer progresses.

Topia Technology Tries Bottoms-Up Marketing to Penetrate DOD by Helping Soldiers

By *Lawrence D. Dietz*

According to Tacoma, WA-based vendor Topia Technology, U.S. Soldiers will no longer be able to use the Department of Defense (DoD) network to log onto MySpace, YouTube and more than a dozen other websites. The troops use the websites to socialize with friends and family back home by sending and receiving pictures and journals and other information. Concerned about security, DoD is now restricting soldiers' use of these sites while they are on the department's computer system. In addition, the Defense Department just released an alert about the potential vulnerability posed by the new SnoopStick USB Flash Drive which, once docked, allows realtime monitoring of that computer, including Internet usage, Instant Message, and Chat Room conversations. Calling it "Operation TroopSkoot," Topia is donating thousands of copies of the revolutionary data sharing technology, SKOOT, on USB drives to the spring deployment from Fort Lewis. SKOOT enables soldiers, families, and friends to create a Private Family Network for securely communicating and sharing data while bypassing email and other banned Internet programs. SKOOT has been tested up to 65GB or the equivalent of ten feature length films, enabling families to share home videos, pictures, documents and more. Data of unrestricted size is securely and instantly "skooted" through cyberspace.

In our mind there are three major angles on this announcement: 1) high-tech vendor finding a way to support deploying military troops; 2) a novel approach to marketing to the U.S. Department of Defense, and 3) an appreciation for the growing importance of Internet-based communications in our business and professional lives. Any of these might warrant some analysis, but seeing all three is worthy of comment. We applaud the initiative of

Topia in its employment of technology to address personal needs of deploying soldiers and their families. When today's battle can appear on television and the Internet literally as it happens or shortly thereafter, family members in particular need to have their concerns assuaged through communication from deployed loved ones. There is no denying that marketing to the public sector is a challenge, and marketing to the Defense sector of any government is generally considered the most difficult of all due to security issues and a cumbersome labyrinth of procurement rules and regulations. Employing a bottoms-up approach to military marketing is ingenious. It helps bolster the morale and welfare of the troops and provides a demanding showcase for the technology. Wide acceptance can sometimes lead to being established as a standard. However, the DOD can be rather capricious. Rules can and are changed rapidly and without notice. While the Topia solution may be compliant today, there is no guarantee that it will be compliant in the future. In any event, clearly the upside outweighs the risk and we applaud Topia's efforts in this regard.

The Internet is today's dial tone. Just as the telephone emerged as the essential communications device of the twentieth century, so has the Internet evolved as the quintessential medium of the twenty-first. It's also significant to note that a growing percentage of Internet traffic is increasingly visual, utilizing photos, videos, animations, etc. Clearly even today a picture is worth a thousand words and Topia seems to be on the right track to capitalize on the parallel trends of Internet dependency and need for security.

VMware Announces Service Provider Program

By Clay Ryder

VMware, Inc. has announced the VMware Service Provider Program (VSPP), a new program that allows hosting providers such as Web hosting services, telecom companies, and outsourcing businesses to market virtual infrastructure as a service offering. Unlike traditional hosting services, which use dedicated servers and can lead to long-term capacity over-commitment, virtual computing services provide flexibility to easily add or reduce capacity instantaneously, to align capacity purchased with actual present need. With VMware Infrastructure 3, hosting providers can develop customized offerings for their customers in which multiple virtual machines are hosted and managed on the same physical server, but unlike traditional shared hosting, the virtual machines are fully isolated so that if one fails, it does not impact the operation of others. Hosting providers can choose to license either VMware Infrastructure 3 Enterprise or Starter thus providing a range of potential hosting packages for their customers. Additional benefits of the VSPP include VMware High Availability, which automatically restarts a virtual machine affected by hardware failure on a different physical server; VMware Distributed Resource Scheduler, which reacts to increased demand on physical resources by automatically moving virtual machines to less utilized hardware; and ease of scalability as the VMware Infrastructure enables capacity to be adjusted based on fluctuating customer needs such as seasonal or peak demands without the need to provision new hardware. VMware conducted a pilot of the new program earlier this year, and hosting providers that are currently participating include Data Return, NetAccess, Intermedia.net, Rackspace, and Vericenter in the USA; Attenda, Interoute, and Mistral in the UK; and Tepucom and Dedigate in the Netherlands.

This is an interesting program in that it offers a win-win scenario for both hosting providers as well as their customers. Although there has been much ink spilled about the value of virtualization efforts in the enterprise, for many organizations the datacenter is a largely, if not completely, an outsourced activity. Historically, for these organizations there were two options: either rent a dedicated server and incur the expense and underutilization inherent in this choice, or rent part of a shared server resource and incur the risk of operating in a shared environment with unpredictable workloads. With the VSPP we now see a third option—rent a specific level of capacity and service—that we believe will resonate with organizations that have previously found themselves between two less-than-perfect options.

VSPP, as with virtualization in general, allows the service provider and its customers to focus on the service required, not how it is implemented. For the smaller organization, this implies granular service level options, e.g., 1.5 machines, which were previously unavailable but also might be available at a lower price point than past dedicated solutions. For the service provider, virtualization has all the advantages as does an enterprise as the provider can improve its ROI through enhanced utilization as well as offer new tiers of service to its customers without mandating capital spending on additional or dedicated equipment. In addition, the ease in which

resources can be added to virtual servers allows for closer load tracking where the occasional or seasonal peak can be accommodated without impacting other customers in a shared environment or hitting the physical limitations of a dedicated environment. Further, this also implies that high availability can be a service offering without requiring dedicated equipment, which should act to reduce the provider's cost of providing such a service level. This ability to offer varying capacity as well as high availability could easily part of a value-added hosting package, which can provide the benefit of peak load support and high availability to the user, but also provide an additional revenue source for the provider. At the same time, providers benefit from the flexibility to shift virtual resources across physical resources without disrupting service levels thus allowing better management of physical resources throughout the workday.

As virtualization ultimately becomes the norm rather than the exception in many computing environments, the novelty of purchasing a hosted virtual environment may wane; however, we do not see this as a negative. Just as the Internet was once considered somehow discrete and special from the rest of IT, the reality was we were able to judge its ultimate success when we stopped talking about it and just expected it to be there. Virtualization still has a lot of discussion left; however, for many we believe the notion of virtualization will become par for the course. Once that happens, we will know that virtualization will have become just another expected, and yes, very valuable, part of the IT solution puzzle. To our way of thinking, this announcement is just another example of this inexorable trend and virtualization's overall importance to end users, organizations, and the marketplace as a whole.

Securent Solution Addresses Security and Compliance for Microsoft SharePoint

By *Lawrence D. Dietz*

Securent, Inc. has announced that it is first in the industry to deliver an entitlement management solution supporting Microsoft Office SharePoint Server 2007 and Windows SharePoint Services 3.0, enabling organizations to deploy SharePoint while meeting security and compliance requirements. Securent's newly released standards-based Entitlement Management Solution (EMS) enables organizations to consistently manage, enforce, and audit access control policies to any SharePoint resource, including documents or document libraries, lists, search queries, and Web parts. With Securent's out-of-the-box solution for MOSS 2007, security is logically separated from site content and can be configured and audited by local and remote administrators. Enterprise, department, and individual SharePoint sites and applications now have the delegated fine-grained authorization and centralized visibility that are required to meet enterprises' security, compliance, and risk management mandates. Companies are challenged today with balancing access to collaboration tools such as SharePoint with the need to safeguard confidential information and ensure compliance with internal policies as well as regulatory requirements. SharePoint's native security model, based on the pre-establishment of static permissions applied to individuals or groups, is optimized for personal sites, not enterprise deployments. When SharePoint is deployed broadly, enterprises suffer from a number of security and compliance shortfalls, which include difficulty in enforcing enterprise-wide policies, especially policies based on dynamic or resource attributes. Costs can be quite high for manually mapping users or groups to permissions and enforcing access control policies consistently between SharePoint and the rest of the enterprise IT and application infrastructure.

Securent offers fine-grained policies that can be centrally administered and appropriately delegated to individual site owners, and applied consistently to distributed SharePoint sites. Securent's EMS agents integrate with SharePoint for minimal impact to new or existing deployments, and audits use on-demand review functionality and realtime SharePoint user and administrator reports. Securent EMS offers organizations the ability to secure sensitive applications and data with XACML standard-based solution to create, enforce, review, and audit fine-grained access policies across heterogeneous application and IT environments distributed throughout the enterprise, all with centralized management and visibility. The result is a more scalable and cost-effective alternative to custom coding of fine-grained access controls into applications.

Many organizations are looking for ways and means to ensure that applications, especially those dealing with sensitive information, are being used appropriately and that individuals are not exceeding their authority when performing operations within the applications. Organizations are also striving to simplify their policies with regard to the information and document lifecycles and, in some cases, prepare for potential litigation and optimize

their responses to the production of electronically stored information. Application security has been a subject in news and research. However, most of the attention is focused on the development of secure applications and not necessarily the potential for abuse of applications and their data by authorized users. Application entitlement management as controlled by Securent's EMS offering appears to be a step in the right direction. We believe that for maximum effectiveness any technology must be accompanied by complementary policies and procedures. No technology has shown itself to be a silver bullet in addressing security issues. However, diligently employed, technology such as that offered by Securent may address areas that have not be adequately addressed in the past.