

## Market Roundup

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## Sun Announces Blade/Visualization Products; Intel/RackSaver Notch Pixar Win

By Charles King

Sun Microsystems this week introduced new product and service offerings, including the Sun Fire V1280, the company's first blade server system. The initial V1280 configuration is based on 900 MHz UltraSPARC III processors, supports up to 96GB of memory, and features the SunONE software stack. Sun described the V1280 as a secure, scalable, and cost-effective platform for Wintel server consolidation and mainframe rehosting, and noted that an x86-based configuration would be introduced later this year. The Sun Fire V1280 is available immediately with a starting price of \$79,995. Sun also announced the Sun Fire V880z visualization workgroup system, which features Sun's new XVR-4000 graphics accelerator for 3D rendering applications. The base configuration of the V880z with a single graphics accelerator includes two 900 MHz UltraSPARC III processors, 4GB memory and six 73GB FCAL disk drives, and is currently available starting at \$64,995. In an unrelated announcement, Pixar Animation Studios, the creators of "Monsters, Inc.," announced that it is working with Intel and RackSaver to create a new RenderFarm installation for digital animation production to replace the company's Sun Microsystems-based rendering installation. The new RenderFarm will consist of 1,024 2.8 GHz Intel Xeon processors housed in eight new RackSaver systems running Pixar's RenderMan software, and features two terabytes of memory and 60TB of disk space. Pixar is using the system to produce films scheduled for release in 2004.

At first glance, the Sun and Pixar announcements seem only marginally related but they point to trends in the graphics and larger server markets that are worth considering. On Sun's side of the street, the company's new blade and visualization offerings provide evidence of Sun's efforts to stimulate sales in a down market. While some might fault the V1280 as a relative late-comer to the blade party, we would point out that the market for 64-bit blade solutions is hardly set in concrete. That said, we have some quibbles about Sun's positioning of the V1280 as yet another mainframe rehosting solution. Since Sun's acquisition of Critical Path's rehosting solutions in 2001, the company has touted a variety of products (including the high-end Star Cat 15k and mid-range Sun Fire servers) as lifesavers for what it regards as beleaguered mainframe (i.e., IBM) customers, without much notable success. So now Sun is pitching the blade mainframe. Spare us, please. In all, the Sun Fire V880z seems a more interesting solution. It complements Sun's history in the technical workstation market, and is being positioned to seize market share from SGI's Infinite Reality solutions. The real question is just how the V880z will impact a rapidly shifting high-end graphics market. While RISC-based servers still largely rule the roost in high-end industrial 3D rendering applications, they are rapidly being supplanted in other areas by commodity-based solutions.

Which brings us to Pixar. By any measure, the company's decision to replace its aging Sun rendering facility with a rival product would be a blow, but to drop Sun's signature SPARC/Solaris technologies for a 32-bit Xeon-based solution adds salt to a nasty wound. The fact of the matter is, though, that in the gaming and special effects market, the commodity transition has been evident for some time. Last July, Industrial Light and Magic replaced 600 SGI rendering workstations with Pentium4-based machines. Additionally, the dramatic shift toward commodity-based cluster solutions across a range of HPC, supercomputing, and other high-end applications is helping to push those technologies further into the mainstream commercial market. So Pixar's decision to go with Xeon is hardly a surprise, but it is interesting to speculate just how close Intel is to the heels of its RISC competitors. Typically, the cost-conscious entertainment industry leads the way in getting the biggest bang for the bucks they invest in cutting edge technologies. While RISC may remain the architecture of choice for many industrial visualization applications, we expect their area of influence is likely to erode over time. Remember that a mere two years ago the idea that Pentium-based systems could replace SGI workstations would have been considered sheer techno-lunacy. Not today.

## Hide and Seek

*By Jim Balderston*

Both MSN and Yahoo! are moving to offer major upgrades to their search functions. MSN announced that it has speeded up search times and search results relevance, and now includes a spell checker that helps people make sure they have entered their search terms accurately. Yahoo! is expected to unveil new search capabilities at its analysts' conference later this year, noting that it will use some of the technology the company acquired when it bought Inktomi, one of the first of the Internet's high-powered search engines. Both companies plan to continue upgrading their search algorithms as they try and capture some of the market — and mind — share owned by search giant Google.

IT is logical enough to assume that MSN's and Yahoo's interest in improved search function has something to do with Google's success, not just as a brand but as a money-making concern. Google has weathered the Internet downturn nicely, thank you very much, by selling ranked search results that it displays next to those generated by its search engine. A good clean strategy, no doubt, as the advertiser is placed in front of the consumer offering something that in all likelihood is related to the very thing consumer seeks in the first place. Simple, and perhaps, sublime.

While those companies chasing Google hope to muscle in on some of its market, we see other consequences of the ever-improving search capabilities presented to Internet users of all stripes. Essentially, people have developed higher and higher expectations of finding the information they are looking for and doing so in a reasonable and timely fashion. We suspect the rising expectation curve would look very similar to those of not so long ago when a sudden increase in bandwidth to the end user created whole new levels of expectations and dissatisfaction when the new access speed was suddenly not available. Such issues, we suspect, could become a major sticking point for vendors of IT products and services who offer information about their products. As users' expectation levels of finding exact bits of information rise, so too must vendors' abilities to deliver precise information. In an economy that still is trudging along in the doldrums, penny pinching customers will search long and hard to find offerings that fit their budgets and existing needs; finding the information that tells them if product A or product B better suits their needs will be a key spark for those purchasing decisions. Not only will searchers know what they can find, they will also be keenly aware of what information is not available. Vendors that fail to provide full and comprehensive product and service data may find themselves knocked off prospective vendor lists by IT managers who will increasingly expect and demand to find the information from vendors in an easy to navigate and find fashion. Information not available in that condition, we suspect, will raise a red flag (or stop sign) in many prospective buyers' minds, to wit: what are these guys trying to hide?

## Just the PACS, Ma'am: IBM and EMC Both Announce Storage Solutions for Healthcare

*By Charles King*

IBM and Siemens have announced a new methodology for delivering Picture Archiving and Communications Systems (PACS) data including CT-Scans, MRIs, and mammography data in hospital settings by combining Siemens SIENET Integrated Radiology Suite with IBM's new Management Storage Service. The new service is an "on demand" solution that delivers storage capacity as hospitals require it via secure Internet connections, and consists of IBM's Shark storage systems and Tivoli management software. In a series of unrelated announcements, EMC showcased a variety of storage solutions aimed at aiding the transition of PACS data into complete Electronic Patient Records (EPR) applications. EMC promoted its automated networked storage solutions for PACS as an integrated means for collecting, storing, and managing patient information across the total data lifecycle from short-term live images to long-term archive images. As part of this effort, EMC and Eastman Kodak announced plans to integrate Kodak DirectView PACS solutions with EMC's Symmetrix 8000 series and CLARiiON CX400 and CX600 products. In a separate announcement, EMC said Rogers Medical Intelligence Solutions (RMIS) has implemented an automated networked storage solution based on EMC's CLARiiON and Centera products for delivering complex clinical information to pharmaceutical and biotech firms and to healthcare professionals nationwide.

Along with the legal, financial, insurance, and government sectors, the healthcare industry is notable for the sheer volume of paperwork it generates. But medical applications also carry the burden of collecting and storing masses of patient images that have a unique lifecycle. While some must remain readily accessible, others disappear into archives unless/until they are required for charting the genesis or progress of maladies. The evolution of PACS benefits hospitals and other medical facilities by offering a means for more easily updating, storing, and retrieving comprehensive EPRs. At one level, the IBM/Siemens deal is an example of how commercial IT solutions can evolve out of research work. IBM has been involved in a number of large scale medical imaging projects including the University of Pennsylvania Mammography Grid and the UK Breast Cancer Grid, which depend on flexible, scalable storage technologies. But the new deal also offers evidence of the key role storage plays in IBM's On Demand strategy. If creating and maintaining such image repositories is beyond the means of medical facilities, they will have the option of turning to vendors like IBM and Siemens who offer PACS storage as a service.

The EMC announcements offer different variations on a similar theme. The EMC deal with Eastman Kodak will provide robust PACS solutions similar those offered by IBM and Siemens, but are aimed more at medical facilities and HMOs that can and will maintain their own image archive systems. Of equal interest is the agreement between EMC and RMIS for delivering EPR and clinical data for a range of clinical uses. While PACS applications require the muscular handling of sheer volumes of data, the opportunities in automated EPR are also huge for vendors and clients, but demand far more nimble strategies. Given the capabilities of EMC's content addressed storage (CAS) Centera technology for securely managing and delivering complex, comprehensive, and changeable information, it appears a solid choice for this sort of application, and could also provide EMC a springboard into other healthcare opportunities.