

Client Server **NEWS** **2000**



The landlord raised our rent 38% so we've moved and are still in the midst of construction. Our new address is 11 Danis Avenue, Glen Cove, New York 11542. Phone and fax numbers remain the same.

Competitive Intelligence and Observations about Industry Standard Servers, Storage and Related Phenomena

Egenera Takes New Approach to the Great Watts Crisis

By Maureen O'Gara

Egenera is about to introduce its third-generation BladeFrame, a widget dubbed BladeFrame EX that promises to double the I/O performance and Ethernet connectivity of the company's existing hardware infrastructure – and along with it a new approach to the watts crisis endemic to the industry that it calls CoolFrame.

Egenera has tied up with Liebert Corporation, a unit of \$1.5 billion-a-year Emerson Network Power – itself a division of the \$17 billion-a-year Emerson Corporation – that provides data centers with power and cooling – Liebert owns 80% of the North American data center cooling market – probably more outside the US – and the two of them have developed an offshoot of Liebert's cooling technology to ensure that the new BladeFrame EX adds virtually no heat to the data center.

It's the first time Liebert XD technology – and Emerson pioneered mainframe cooling back in 1965 – has been used to cool a server rack directly.

Egenera's racks currently dissipate 16,000 watts when max'd out and will soon dissipate 20,000 watts with the next chip upgrade, pretty much the industry norm. With the Liebert widgetry on board, the heat will be cut to 1,500 watts at most and still let the data center honchos get 12 processor cores to the square foot. (Figure 500 watts per square foot.) So CoolFrame is touted as saving both energy and real estate costs.

According to Liebert's calculations, it eliminates 1.5kW of fan load per rack from the data center's cooling system. At full capacity, that equates to a 23% reduction in energy costs. For

reduced loads the percentage of savings is higher.

The Liebert XD is a waterless cooling solution that pumps a gas coolant through the rack and doesn't let the heat escape. Apparently fluids are 3,000 times more effective at cooling than air.

The Liebert modules can be directly attached to the rear of a BladeFrame EX in the field – the rack doesn't have to come from the factory that way – without shutting the system down and don't expand the size of the BladeFrame rack, which is already a bit smaller than a standard rack. The racks aren't fixed in place either and can be moved at will – relatively speaking. Modules can be added and the systems reconfigured. Cabling and serviceability aren't impacted.

According to Emerson, a single Liebert XDP or XDC pumping unit provides 160 kW liquid cooling capacity for up to eight BladeFrame EX systems.

The so-called CoolFrame solution, which will come from Liebert, is supposed to be available next quarter and will add an estimated \$300-\$400 per blade to the system, say, oh, \$6,000 for a dense unit.

Egenera has dibs on the Liebert widgetry basically because of the way its racks and exhaust system are built and it figures its competition is going to have a worse time of it with the advent of Intel and AMD's on-chip virtualization technologies VT and Pacifica.

See, virtualization – and Egenera was early to that game – increases system utilization and with increased use comes increased heat. And that's

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Intel Cans IA-32 EL Replacement

It looks like the IA-32 Execution Layer (IA-32 EL), the pokey Intel-created emulation widgetry, is as good as it's gonna get for running x86 software on Itanium – if anyone still wants to run x86 code on Itanium – the idea of running x86 software on the widget is pretty much a holdover from when Intel dreamed of Itanium being a mainstream chip – and the fact that it was lousy at running x86 code limited its utility to the high end.

Anyway, IA-32 EL is all there is because Intel has ditched the faster on-chip circuitry in the delayed next-generation Montecito Itanium that was going to replace emulation. And anyway the operating systems need it.

Meanwhile, the newfangled Itanium Solutions Alliance – to wit, Itanium's remaining champions Bull, Fujitsu, Fujitsu Siemens, Hitachi, HP, Intel, NEC, SGI and Unisys – have just pulled together an Itanium Solutions Catalog, the first "comprehensive" list of available software for the supposed-to-be-killer chip. See <https://www.itanium-solutionalliance.org/kshow/case/view>.

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whether it's software or hardware virtualization.

Now about those EX BladeFrames.

Egenera users will be happy to know that their current systems can be upgraded. It involves a redesigned Control Blade – with eight fabric connections – that promises a 280% increase in raw network performance and a 230% increase in raw SAN performance. Fabric bandwidth has been improved to 10 Gb/s.

It also involves a new Switch Blade and a new BladePlane. However, current Egenera Processing Blades can be used in the BladeFrame EX.

The BladeFrame's Ethernet ports have been doubled to 16 Gb links per frame and Egenera says 4 Gb FC and 10 Gb Ethernet will be supported as upgrades.

Unless told otherwise, Egenera will ship its customers BladeFrame EX. It won't cost more than the existing generation. Egenera's OEM partner Fujitsu Siemens will also be shipping th EX. ◆

Halfway to Fusion

Oracle's web-based Project Fusion, where in all of the software that it acquired in its \$19 billion buying spree is supposed to be integrated together, is on track to appear in 2008 according to what Oracle told customers Wednesday.

Oracle said that half the Fusion projects – reportedly the hard bits – are done – defining the architecture and data model, certifying the tools and mapping the functionality planned for future releases of Fusion Applications. The architecture is based on SOA, business intelligence and grid computing.

Oracle figures 80% of its customers will be able to upgrade to the stuff and get the functionality they had pre-acquisition along with new features like a Web Services Repository.

Oracle needs Fusion to wrestle with SAP and enlarge its turf. Credit Suisse figures SAP has been more deft at marketing NetWeaver and is ahead of it in creating an ecosystem of third-party apps though Oracle's architecture is much more open and "hot pluggable" and supports competitive infrastructure offerings from IBM and BEA. ◆

AMD Beats Intel's Pants Off

Absent its recent Spansion flash spin-off and focusing just on its core MPU business, AMD said Wednesday that it had sales of \$1.35 billion in the last quarter, a 78% increase year-over-year and a 34% increase sequentially. Intel the day before trundled in, wounded and a bit bloodied, with an increase of merely, oh, 2.4% and only allowed that AMD might have relieved it of a point of share when it actually looks like AMD ate Intel's lunch.

AMD CEO Hector Ruiz congratulated the industry, particularly the increasing tier-one OEMs, for "breaking free from the artificial barriers" erected by Intel.

Ruiz, who described the December quarter as "a little healthier than we expected" and the company's momentum as "the best in its history," claimed market share of 15.3%, up from 11.9% in Q3, and says AMD is poised to gain more at 2x the industry but might have to wait until '07 to realize its ambitions. It wants 25%-30% of the market.

Folks like Piper Jaffray believe that AMD will continue to gain market share at Intel's expense this year across all segments and figures it'll get increasingly aggressive in the desktop and notebook markets. The Opteron server chip is of course AMD's engine of growth.

AMD attributed its delirious high to increased units and increased ASPs, increased demand and acceleration in its commercial server and client businesses. All things Intel said the opposite of. Unlike Intel, AMD claimed "lean inventories" among its customers and no production glitches. It said it "depleted" its own inventories in Q4.

AMD also said server, mobile and desktop processors grew "significantly" over Q3, especially in North America,

Europe and China. Intel had trouble in Asia-Pacific and North America.

Chips generated a record operating income of \$287 million in the fourth quarter for AMD, up from \$149 million in Q3.

Memory sales, on the other hand, dipped 3% to \$487 million year-over-year and registered a \$62 million operating loss, up from a \$50 million loss in Q3.

Overall, AMD earned \$96 million, or 21 cents a share, on sales of \$1.84 billion and an operating income of \$206 million. The results include a \$110 million charge, or 24 cents a share, coming from the Spansion joint venture IPO. Wall Street thought AMD would come in with 27 cents on revenues of \$1.65 billion.

Declaring the industry "healthy" in case people had doubts in the wake of Intel's numbers, AMD said it expects chip sales this quarter to be flat to slightly down, allowing for seasonality, from its Q4 numbers, noting that if it can do that it'll be up 70% over its Q105 results.

Gloating, and rightly so, AMD said it now has AMD64 machines in at 45% of the Global 2000 and noted that those machines are increasing desktops and mobile as well as servers. There are, it seems, 100 AMD platforms either shipping or development and AMD is now talking about itself as a "premium brand" for both the commercial and consumer sectors. It expects to add new Opteron platforms.

AMD, which sees itself "seizing the mantle of leadership," is aiming at having capacity for producing 100 million units in 2008. It claims its 90nm technology is ramping "excellently" and that its 65nm is "encouraging." Apparently it's gotten 65nm chips.

Icahn's AOL Vision

TimeWarner's unhappy-enough-to-threaten-a-proxy-fight stockholder Carl Icahn and his investor group want the company to merge AOL and its entertainment interests with a smaller Internet portal, according to the Wall Street Journal. That would move AOL in with Warner Bros. Entertainment, New Line Cinema, Home Box Office, CNN and TNT. The Icahn group has reportedly been sounding out unidentified portals.

Egenera Gets Utility Computing Patent

Egenera has gotten a US patent on virtualized server failover technology that the company says has been key to its value proposition since 2001. It has something to do with enabling primary to failover ratios as high as 23:1 rather than the usual 1:1 ratio of production to backup machines. It's number 6,971,044.

Piper Hangs Tough

Piper is sticking by its guns in predicting that Dell is going to go with AMD and start shipping the widgets in the second half no matter what Dell might say, pegging its belief on Dell's share losses to other people's AMD systems. Apparently the head of Dell UK Josh Claman has been telling the press that Dell didn't have a "done deal" with AMD, labeling the speculation rumor.

MySQL Claims Things Are Ducky

Without using any numbers or anything, privately held MySQL said Tuesday that it had had its second straight profitable quarter in Q4, closing its best year so far. It claims it added 2,000 new customers last year such as Caterpillar, the Chicago Mercantile Exchange, SAS and the Finnish National Public Health Institute.

Oracle Strikes Again

Oracle has bought – my those words are getting hackneyed – a Texas outfit called 360Commerce Inc on undisclosed terms to add to its collection of retail software – the business that now includes recent acquisitions Retek and ProfitLogic.

PC Shipments Up 17.1% in Q4: IDC

PC shipments were up 17.1% in Q4 to 61.1 million units, according to IDC, off slightly in the US with overseas, particularly China, South Korea and India, picking up the slack and laptops leading the way. IDC only expected 15.1% growth. Dell shipped the most followed by HP, Lenovo, Acer and Fujitsu/Fujitsu Siemens worldwide. IDC has pegged 2006 shipment growth at 10.6%, up from a previous estimate of 8.5%. It's figuring Vista will have some impact though it says most corporate Vista deployments will be in '07. HP apparently had a bit of a problem in the US despite its AMD boxes. Lenovo had problems outside China.

XP SP3 Pushed Out

Microsoft is now anticipating delivering XP Service Pack 3 way out in the second half of 2007, a year later than most people thought considering Steve Ballmer had suggested it could be out before Long Horn.

Microsoft apparently used a pencil in setting the date, calling it "preliminary." It put the scheduling down to its focus on Vista and a few days ago Microsoft sent Vista beta testers some security patches.

Seems that among other things its graphics rendering engine is vulnerable to remote code execution.

Meanwhile, the tentative date for Windows Server 2003 Service Pack 2 is now the "latter half" of this year.

Nobody knows what's in these packs.

XP SP2 came out in August 2004. (There have been a reported 54 patches since then).

Otherwise, Microsoft will cease to support its already dated Media Player for the Mac and replace it with a free copy of Telestream's Windows Media Components for QuickTime.

Blue's Priorities

IBM watchers say Blue's themes for the new year are SOA, software as a service and probable business performance transformation, which IBM calls a "multibillion-dollar opportunity." IBM has just created a Business Transformation Outsourcing (BTO) unit under Global Services and moved Erich Clementi over from the zSeries to run it, promising to throw everything it has at the target. Jim Stallings, who's been VP, IP and standards, will replace Clementi at the mainframe operation.

Last Laughs Department

After a 12% advance in its stock price, Apple's market cap passed Dell's last Friday: \$72.13 billion to \$71.97 billion. When Steve Jobs came back to Apple and Michael Dell was asked what he would do with Apple if he were Jobs, he said, "I'd shut it down and give the money back to the shareholders." And to think Michael is now reportedly and heretically contemplating adding an AMD line, sorta like Stevie switching to Intel. Michael is richer than Steve however.

Bartz To Improve Her Golf Swing

Carol Bartz, the ex-Sun marketer who's run Autodesk since 1992, will be moving to executive chairman, letting Auto-desk's COO Carl Bass be president and CEO effective May 1. In her new job, she's supposed to focus on business in China, India and Eastern Europe and improve her golf game.

Is Steve Jobs the New Walt Disney?

In case you haven't caught up with this bit of news, according to the Wall Street Journal, now that that nasty Michael Eisner isn't running Disney anymore, Disney may take over Pixar, Steve Jobs' other company, a deal that would make Steve, who owns a bit over 50% of Pixar, Disney's biggest shareholder. And if that doesn't work, well, maybe Steve will just let the post-Eisner Disney distribute Pixar's films again. The Journal says the talks are down to price. It's supposed to be stock swap with Pixar going for a few-bucks-a-share over its market cap, which after the story broke, was north of \$7 billion. Jobs would probably get a board seat and Pixar a free hand with Disney animations.

Restrictions Work Both Ways

Apple's new Intel-based iMacs can't run Microsoft's Virtual PC, the software that lets Macs run Windows software, and the Virtual PC rewrite that will reportedly work won't be ready until next year. Oh, and, Walt Mossberg, the PC critic at the Wall Street Journal, tested the new iMac against the PowerPC-based iMac G5 and says it's hokum that the Intel machines run two to three times faster – maybe it will when the applications are rewritten – but not using the Rosetta translator software.