



Market Roundup

March 29, 2002

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IBM Announces Intel/Linux-Based Telco Server

By Charles King

IBM has announced the IBM eServer x343, an NEB Class 3 certified Intel-based server optimized to run a carrier-grade version of Linux. The x343 is designed for telecom service applications including mobile network infrastructures, and softswitches for VoIP and network services. It joins two other IBM xSeries telecom products, the x300 and the x330, which are designed for converged voice and data network environments. The x343 is based on Intel's carrier grade server "kits" announced in May 2001, which include pre-assembled chassis with Intel processors, chipsets, and boards that can be enhanced by OEMs and TEMs with custom parts and software. A typical configuration of the x343 comes with two Intel 1.26GHz processors, 2GB of RAM, a 36GB SCSI hard drive, and redundant power supplies with a base price of \$9,999. In an unrelated announcement, IBM said it plans to open a new Linux Service Provider Test Lab next month in Beaverton, Oregon. The new lab will allow application developers to test their products in Linux environments on IBM hardware including the x343 and x330. Other vendors involved in the new lab include chipmaker Intel, middleware developer GoAhead, soft switch maker Convergent Networks, and MontaVista Software, a producer of hardened Linux solutions and developer tools.

While this story appears to be all about IBM, the x343 really concerns Sun Microsystems, the overwhelming leader of the telecom market IBM covets. Sun assumed that position by delivering tough, reliable machines like the Netra 20 that can take the literal heat and humidity that typify telecom data center environments. As such it has helped propel Sun to a near 80% market share that delivers substantial benefits to the company's bottom line. In fact, the Netra 20 provides the subtext for IBM's announcement, since it was matched against the x343 in IBM lab tests. Testing aside, probably the most dramatic issue here is that the list price of an x343 is about 40% less than a similarly configured Netra 20. In other words, the x343 shows IBM following a strategy that has served the company well during the past two years: enter new markets with products that offer performance similar to or better than the competition at drastically reduced price points, and leverage Linux any and every way you can. Does this mean Sun's blazing telecom lead will be extinguished any time soon? Hardly, but it does give a company with a lot on its plate one more thing to contend with.

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So that must mean that the x343 signals that all's right in the Big Blue world with IBM leaving the competition deep in the dust. Not so fast. In our view, a couple of issues may cast a small pallor on IBM's party. First, IBM's UNIX-based p640 B80 is both NEBS-compliant and able to fill many telecom data center needs targeted by the x343. The p640 is a good deal more robust (given its copper-based Power3-II processors & AIX OS) and expensive than the xSeries machines, and aimed more at markets like universities and research labs that require higher performance solutions. But this slight market overlap leaves us wondering how IBM's strategy to undercut Sun's UNIX-based machines will eventually affect its own UNIX solutions. While we do not see this as a serious problem today, it could grow as Intel brings increasingly powerful 32- and 64-bit processors to market. We also see Linux as a potentially unstable ingredient in a volatile mix. IBM's continuing tangible support of Linux (evidenced again by its new test lab announcement) has given the company a big stick to use on Sun, who avoided Linux until recently. We wonder how the playing field might come to look if Sun backs up its public embrace of Linux with serious action. By creating its own Linux solutions for telecom applications, or even offering a platform that supports both Linux and Solaris, Sun could change the field considerably for IBM and virtually every other IT player.

Red Hat Announces Linux Enterprise Server

By Charles King

Red Hat has announced Red Hat Linux Advanced Enterprise Server, which the company described as the first enterprise-class Linux operating system. Advanced Enterprise server supports Intel 32-bit architecture, and includes features such as clustering, high availability failover and data integrity provisions through Red Hat Cluster Manager; scalability with asynchronous I/O, improved process scheduler, and support for up to eight-way SMPs. Advanced Enterprise Server is managed via a Java-based Web console, and Red Hat promised to support customers with long term API consistency and twelve-to-eighteen-month updates. Intel, IBM, Compaq, Dell, Oracle, and Veritas publicly announced support for Advanced Enterprise Server, and Red Hat expects additional announcements from other major vendors. Advanced Enterprise Server will be available in April from Red Hat, with prices at \$800 and up, based on the level of value added services provided.

At one level, Red Hat's introduction of an enterprise-class Linux server OS is anything but surprising. The curious triumph of Linux in the server space (contrasted with and compounded by its essential failure on the desktop) pushed virtually the entire corps of hard-pressed Linux vendors to reinvent themselves as business specialists. Their success ranged from minimal to nonexistent, but Red Hat and a handful of others have emerged from those dark times into at least partial daylight. How did Red Hat accomplish this? By leveraging their reputation as Linux-centric application specialist into currency for promoting the company as a Linux-centric consultant and business integrator. Well-chosen alliances with Linux-friendly business vendors including Intel, IBM, and Compaq, among others, have helped Red Hat stay float in seas that sank many others. Overall, the company's latest earnings report showed Red Hat generating over 80% of their \$18.6 million in quarterly revenues from corporate sales.

With that scenario, the company's Advanced Enterprise Server OS should be a slam-dunk success, right? Well, not exactly. The migration of Linux into the enterprise is generally driven by departments and work groups that will derive little benefit from an enterprise-class OS. Additionally, enterprises typically work most closely with vendors and integrators in making OS-related decisions, and vendors including IBM have developed Linux ports or systems themselves or with the help of Red Hat, SuSE, TurboLinux and

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others. Given those market realities, is the success of Advanced Enterprise Server reasonable for Red Hat to assume? We believe it depends entirely on the depth of Red Hat's alliance with the vendor in question. If Linux continues its trajectory into the enterprise, we expect that many vendors will begin to consolidate Linux development (along with service/consultant fees) internally. But the emergence of Red Hat's new OS does offer one other notion to consider. We have written at some length concerning how the development of commodity server processors will affect the market. Depending on its success, Red Hat Advanced Enterprise Server could offer a similar commodity model for business operating systems. If that occurs, we envision a day when IT vendors will be differentiated not simply by the hardware they sell, but almost entirely by the services they provide.

Thin As Thin Can Be? NCD Announces NCD Thinpath PC

By Clay Ryder

Network Computing Devices announced NCD ThinPATH PC the latest software product in NCD's Thininfrastructure portfolio. This software is designed to manage PCs as thin clients with the goal of bringing the reductions in TCO and maintenance associated with thin clients to existing PC desktops. The company indicated that ThinPATH is positioned for organizations that are deploying server-based computing environments, but are not yet ready to deploy Windows-based terminals to replace existing PC desktops. NCD ThinPATH PC will be priced at \$119 per desktop license or is available through the Subscription Plus program that allows customers to automatically receive software updates and technical support for an annual fee. The software will be available through NCD resellers beginning in April.

Thin clients are nothing new, and we incidentally happen to like them. As we have long maintained, the value proposition of thin clients, especially in environments where there is a preponderance of single function workers, or a highly mobile workforce, is considerable. But despite this, the fact remains that most organizations were never too keen on replacing existing desktop PCs with WBTs, thin clients, or other hardware since the legacy PCs were already paid for and in place. NCD as a vendor of thin clients has faced the uphill battle that the price of commodity component PCs continued to drop while the price of non-commodity thin clients did not fall as rapidly. ThinPATH may just be able to tip the scales slightly more towards the company's favor.

At \$119, the cost of ThinPATH is negligible especially in light of the burdened cost of a single IT help desk call. Part of the rationale for organizations to deploy server-based software solutions — reduced maintenance costs — could be easily overrun by the cost of new desktop hardware, but the leverage of existing desktops by ThinPATH could significantly improve the value proposition of server-based applications, which of course is in the long term interest of NCD. However, there is an unmistakable irony at play. The cost of a new low-end PC has dropped below \$300 in many markets, and such a PC loaded with ThinPATH is an effective competitor with WBTs and leaves the customer with the option to convert back to a thick client environment at later time if needed. The challenge for NCD will be to fully develop the customer relationship to ensure that ThinPATH acts as a transitional path to ultimate WBT deployments as opposed to a path to future deployments of commodity PCs with ThinPATH being NCD's only piece of the desktop expenditure pie.

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Security in the Age of Service Computing

By Jim Balderston

Recent reports note that a large percentage of security vulnerabilities are the result of improper configuration of both security-specific and non-security software. Reasons cited include IT inexperience, increasing complexity of networks, and the higher visibility of companies doing business online. Security companies have responded with a broad range of offerings to improve the management of security products; this week V-One joined that crowd with the announcement of their SmartGuard Command Center for VPNs in the enterprise environment. Color-coded graphical displays and secure remote management are designed to help beleaguered IT staff keep things up and running. On a similar vein, PatchLink Security Technologies claims an upsurge in the demand for its PatchLink Update software, which centralizes and manages software patch distribution across the enterprise network. PatchLink Update presently is available for the Windows platform; other versions for Novell Netware, Linux, and UNIX are due later this year.

While security companies scramble to make their products more user-friendly — and thereby more secure — there remains a substantial misconception about security in many enterprises (and vendors, for that matter). Security has been largely conceptualized as a perimeter around the enterprise network, a perimeter that is discrete and largely disconnected from the day-to-day functions of the network itself. The perimeter is designed to protect the network, not to be a part of it. Unfortunately, this conceptual guideline is running contrary to the ongoing developments and deployments of the building blocks of the Service Computing environment. We have argued — and will continue to argue — that the march towards the implementation of Service Computing infrastructure is both inevitable and irresistible. So whither the security vendors trapped in the perimeter mode of thinking? We believe they are going to be severely challenged by the Service Computing model, which is going to require a much more granular approach to security and security management. Simply adding another layer of firewalls is not going to cut it.

When we look at a product like PatchLink Update, we see something more akin to the needs of the emerging Service Computing environment, a tool that allows IT managers to distribute patches — including security patches — throughout the network, not simply on its perimeter. While PatchLink certainly has no monopoly on update distribution (just run Windows XP on a computer for two weeks to see how often Microsoft is distributing updates) the idea that software environments are constantly evolving is core to the Service Computing model. Also core to that model is the idea of general and universal connectedness, in which applications and data stores are going to be accessible to each other and end users in a near-infinite number of pathways and combinations. Such an environment will not tolerate the discrete separation of security and non-security infrastructure. The high value associated with highly improved access to key information in an *ad hoc* and fluid fashion will be severely retarded by this outdated and simplistic separation of church and state, as it were.

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