



## Market Roundup

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### **A WORM Turn: EMC Introduces Centera Compliance Edition**

*By Charles King*

EMC has announced the availability of Centera Compliance Edition, a new storage system specifically designed to meet or exceed record retention regulations. Based on EMC's content-addressed storage (CAS) technology, Centera Compliance Edition features retention enforcement that allows the setting of hardened retention periods for electronic records and satisfies SEC Rule 17a-4, enhanced disposition (i.e., "shredding") of electronic data as required by DOD Directive 5015.2; and application access security that allows access and authorization activities to be established at the application or server level, as required under regulations including HIPAA. Additional new features include Content Parity Protection (CPP), which enables users to set policies for replicating fixed content. List prices for Centera Compliance Edition begin at \$64,000 for the hardware and \$84,000 for the software in a 4-terabyte protected (8-terabyte raw capacity) total system configuration.

The evolution of enterprise storage has followed two parallel, often intersecting pathways. On one, the ability to efficiently collect, store, and access vast quantities of data enhanced both the quality and value of business information. On the other, securely storing information subject to government and other regulations is in danger of being compromised by the sheer volume of data involved. Traditionally, businesses and agencies have relied on tape- and optical-based storage solutions that offered permanent Write Once, Read Many (WORM) features to ensure the integrity of saved data. But in the evolving world of enterprise storage, where even a minor email can become crucial if it is requested for a financial or government audit, manually sifting through terabytes of optical- or tape-based material can be onerous. Additionally, it seems a fact of life that like data, regulations will continue to expand beyond expectations or understanding.

For that reason, we find EMC's new Centera Compliance Edition of particular interest. Centera (or for that matter, any other ATA-based solution) does not deliver capabilities of high-end storage systems like EMC's Symmetrix or IBM's Shark, but it is unlikely that enterprises would ever utilize high-end systems for processes as banal as secure document or email storage and retrieval. However, Centera's CAS-based solution offers an intriguing and affordable alternative for companies that need faster solutions than those to traditional compliant systems. Centera's use of ATA-based storage technology provides both a more efficient means of

searching for documents than traditional regulation-compliant systems and price/performance that compares favorably against tape and optical solutions. As apparently the first to market with a disk-based regulation-compliant storage solution, we expect EMC will make hay while Centera shines. If the new Compliance Edition fills the niche EMC has designed it for, we would expect other vendors to pursue similar disk-based solutions for burgeoning regulated applications and markets, further shrinking the already tightening market for tape and optical products.

## The Integration of Rational by IBM Looks Complete

*By Jacques Halé*

IBM released further enhancements to the WebSphere Studio this week, crowning in the process the integration of Rational into the IBM marketing machine. Back in December 2002, IBM announced that it would acquire toolmaker Rational Software for \$2.1 billion. With this announcement, IBM indicates that the integration of Rational as a new division and fifth brand, joining WebSphere, Lotus, Tivoli, and DB2, is now complete. Additionally, IBM also restated its pledge to the open standard Eclipse platform, allowing WebSphere Studio to be customized and enhanced by independent partners.

For IBM customers, the Rational acquisition was an important event and one where we expressed concern that the support of platforms other than IBM's might be compromised. However, the company seems to be holding to its pledge for WebSphere Studio to support competitive standards such as Microsoft .Net and BEA. We believe this is a smart move on IBM's part: it should help capture developers who operate in heterogeneous infrastructures. Rational keeps its impetus in providing tools for the whole range of developers, mainly in the three areas of business application deployment, software product development by independent software developers (ISDs) and embedded systems and devices. This last market has been courted by IBM for some time with its IBM's WebSphere Everyplace Embedded Software. The home automation market is one potential application of these technologies, but it is only this week that a serious home automation has finally taken shape (IBM and Commonwealth Builders' development of 170 unit housing community equipped with wireless remote management of home utilities).

Of course, the schedule for new products will be driven by IBM's priorities. The announcement this week of three new products for developers is consistent with the push of IBM towards the promised On Demand World, and Rational is positioned at the center of the brand portfolio comprising also WebSphere, DB2, Tivoli, and Lotus. As the center point, its role is one of integration of application development, data schema, system configuration, and testing, giving a more cohesive portfolio for the development and deployment of the On Demand concept. Welcome to the team!

## Widening the Data Path: Microsoft to Support 64-bit AMD Opteron and Athlon 64 Processors

*By Clay Ryder*

Microsoft announced this week that it is developing native 64-bit versions of Windows XP and Windows Server 2003 that will support the upcoming AMD Opteron and AMD Athlon 64 processors. The company will extend 64-bit support in Windows XP and Windows Server 2003 to run natively on the AMD Opteron processor for servers and workstations, and the AMD Athlon 64 processor for desktops and notebooks. These new versions are targeting increased efficiency for many operations, including engineering and scientific projects, financial services, online transaction processing, data warehousing, digital content creation, video editing, advanced gaming, and computer-aided design. Desktop and server beta releases are expected to be available in the middle of 2003.

With the endless banter, promises, delays, and inevitability of Intel's 64-bit Itanium processor, one could easily overlook the fact that Intel is not the only player with a 64-bit IA game plan. The official release of AMD's Opteron processor is imminent, and Microsoft's commitment to this platform is an important coup for AMD and its partners. As of late, AMD with its Athlon processor has been methodically competing against Intel, mostly in the lower end of the market, as a cost-conscious but high-quality alternative to Intel's Pentium

4 family of processors. However, overcoming Intel's continuous and effective marketing has been a significant issue for AMD, especially when the most visible differentiation has often been the price of the processor, which across the board is a commodity whose price has continued to fall. Nevertheless, with Opteron, we believe the case will be different and AMD has a real chance to capture a significant portion of the 64-bit IA market despite the Itanium marketing onslaught.

The crux of this opportunity is the simple fact that Opteron, while being a 64-bit implementation, is backwards-compatible with existing 32-bit IA applications, whereas Itanium is not. Thus, users who would like to upgrade to 64-bit computing without rewriting, recompiling, or repurchasing their applications have a path to do so while coexisting with their 32-bit applications. Microsoft's support for the processors means that users would be able to upgrade to a 64-bit operating environment while continuing to use some or all of their 32-bit applications. This flexibility would allow users to upgrade to 64-bit applications on their own timeline, not one dictated by a systemwide upgrade (and the commensurate downtime and IT misery). For the SMB marketplace, we believe this removes a critical impediment to 64-bit computing as it does not automatically obsolete existing software and IT investments. At the same time, Microsoft's support for the processors could prove helpful in bolstering an Intel competitor, which would help undercut the argument that Microsoft and Intel represent a computing monopoly. This would not be the first time that the Windows NT code base, the antecedent to XP and Server, was made available for multiple platforms (remember NT 3.51?). However, this time around application availability for this non-IA-32 platform is built in, the lack of which doomed NT from ever gaining traction on Alpha, MIPS, and PowerPC. Overall, we believe Microsoft's support for the latest from AMD is very important and may buttress a potentially substantial windfall for AMD, SMBs, and ultimately itself.

## Threat and Response?

*By Jim Balderston*

The FBI's Internet Fraud Complaint Center announced this week that it had referred 48,252 fraud complaints to a range of federal and local law enforcement agencies, a total that was triple the 16,775 that it made in the prior year. The FBI also said it had another 37,000 complaints about computer hacking, spam, and pornography. The FBI's report on fraud said that \$54 million was lost in 2002, up from a figure of \$17 million in 2001. The largest single category of complaint was for non-delivery of merchandise or nonpayment for same. Credit card fraud was 12% of all cases. The report also noted that the Nigerian letter fraud had made further inroads in the fraud Hall of Fame, with victims of the scam losing a median of \$3,864. According to the report, seventy-four individuals alone lost \$1.6 million to this scam. Meanwhile, a former Bush administration official told Congress this week that the government is moving too slowly on upgrading its Internet security infrastructure. Richard Clarke, a former special advisor to the President, said that the Homeland Security Department was moving too slowly to prepare and protect both government and private sector infrastructure, noting that hundreds of cyber-security jobs that were to fall under the purview of the Homeland Security Department are unfilled. Government officials noted that while much was left to be done, a 50% increase in federal systems had developed up-to-date security plans. However, Clarke noted that as long as there were well-known vulnerabilities that can be inexpensively exploited the risk of such attacks remains high.

It should come as no surprise that the recorded complaints of Internet fraud are rising year to year. Even a tripling of such complaints cannot come as any sort of shock. Not only is the online commerce between individuals exploding in raw numbers, the number of grifters drifting to the Internet as the locale of their next scam is growing as well. We do not read the FBI's statistics as evidence of a new outbreak in lawlessness. Instead we see new generations of an eternal class of people following the money trail. Regardless of any information awareness campaigns, the trusty old Nigerian fund transfer scam is going to continue to hook people left and right. There's a sucker born every minute, and nothing – not technology, nor legislation – is going to alter the fundamental reality that gullibility and greed are a fool's cocktail.

That being said, the increasing number of scam artists now plying their craft on the Internet does raise

concerns, especially as it pertains to more serious threats to national infrastructure and government operations. In the early days of the Internet security was largely a factor of obscurity. Few people knew where everything was, or how to get there, so that any attacks on the system could be traced to a relatively small number of people who had the requisite knowledge and skill to make such an incursion. In most cases, those people guarded their knowledge carefully; they knew the potential harm it could cause if allowed to fall into the wrong hands. Today, that small circle of knowledgeable and largely responsible people has been burst asunder, and the knowledge needed to do real harm has been disseminated much more broadly. The *esprit de corps* of the early Internet participants – one that provided a self-policing mentality – has been burst asunder as well. As we view the future, we see more and more people gaining the rudimentary skills and knowledge needed to do real harm to network resources or real-world assets that are managed through those resources. Just as terrorists used simple box-cutters to bring down the Twin Towers, one must consider the ability of someone with simple hacking tools available all over the Internet to cause real havoc. In such an environment, we believe that both private and public sector IT security issues must be addressed in a forceful and expeditious manner. In the never-ending game of measure/counter-measure that is IT security, simply standing still means that an enterprise is losing ground.

## Who's the MAN? Intel, Others Join WiMAX

*By Charles King*

Communications component and equipment companies including Intel, Nokia, Fujitsu Microelectronics, Aperto, Proxim, and Wi-LAN have announced they are joining WiMAX, a non-profit corporation, to help promote and certify the compatibility and interoperability of broadband wireless access equipment adhering to the IEEE 802.16 technical standard. The 802.16 standard is a wireless metropolitan area networking (MAN) technology that will connect 802.11 hot spots to the Internet and provide a wireless extension to cable and DSL for last-mile broadband access. According to the organization, the 802.16 technology provides up to thirty-one miles of linear service area without direct line of sight to the base station, and offers shared data rates of up to 70 Mbps per base station sector, enough to provide T1-type connectivity to more than sixty businesses or DSL-type connectivity to hundreds of homes. A typical base station supports up to six sectors. During the next year, WiMAX will develop conformance test plans, select certification labs, and host interoperability events for 802.16 equipment vendors. The organization will also work with the European Telecommunications Standards Institute (ETSI) to develop test plans for HIPERMAN, and European broadband MAN standard.

While we usually do not discuss efforts whose eventual applications lay far in the future, the WiMAX effort is intriguing enough to pique our interest. The 802.16 standard is not the first wireless broadband technology to hit the street, but it is the most powerful non-line of sight solution that we have heard of. Additionally, the technology's sheer capacity offers some interesting scenarios for consideration. The WiMAX announcement suggests that 802.16 could provide the wireless broadband backbone for quickly provisioning T1-style business networks with far lower costs than wired installations, or even deliver "on demand" style wireless connectivity for singular events like trade shows or at temporary locations such as construction sites. We would amend that list with wireless solutions that could provide cable-quality data to entire urban or suburban neighborhoods or deliver DSL-type Internet access to rural areas that are beyond the "last mile" budgetary restraints of service providers.

That said, actually implementing such solutions lays a good ways off in the future, but it is easy enough to see why Intel and other vendors are intrigued with 802.16. During the past year or so, the booming popularity of wireless networking solutions for homes and businesses has raised their profile among many vendors. Cisco's recent purchase of home networking stalwart Linksys indicated one direction this interest is leading and the WiMAX effort offers another, more elemental approach. The fact is that is 802.16 becomes a reality, it (and the vendors/promoters involved) will become the backbone technology partners of choice for telecoms, ISPs, cable operators, and anyone else with content to deliver or an Internet service to provide. For years, media companies have discussed the potential ramification of ubiquitous online connectivity unrestrained by geographic limits or considerations, but a simple examination of cellular phone service maps reveals that

vision is still beyond reach. While 802.16 may not extend the Internet to every “last mile,” it is likely to lead vendors and users down any number of roads not seen or considered before.

## Remedy Announces Strategic Adjustments at User Group Meeting

*By Myles Suer*

This week the Remedy User Group meeting was held in San Francisco with 800 to 1,000 of the faithful on hand. The end of the period of darkness was proclaimed: the Peregrine Acquisition. At the same time, BMC (Remedy's new parent) and Remedy announced Business Services Management, the new positioning for BMC as well as the IT Service Management portion of Remedy's business. In addition, Remedy stated that it is no longer in the CRM business as it will no longer offer sales force or marketing automation software. With this stroke, Remedy defined what it calls Customer Service and Support. Remedy claims that with this focus, it will be able to achieve a best-of-breed solution, but it does see the need to integrate with CRM solutions. Remedy indicated a willingness to collaborate in the marketing and sales force automation marketplace.

We believe linking IT Help Desk functionality with the concept of Business Service Management is very interesting. BMC is making the IT Help Desk effectively the repository from which systems information will be housed. Additionally, the blending of BMC and Remedy technology functionality for IT Service Management should improve BMC's market competitiveness – especially as the technology of MasterCell is added to the mix. At the same time, the combined technology should give BMC the ability to act as systems player, not a toolmaker. To take the next step, BMC must pull together an integrated, composite story for CIOs and the Global 2000 on why BMC Service Management should be the first thing on their purchase list. We believe this is also true for Remedy's customer service and support business. Remedy was early to build out a Web Service interface and a leader in rethinking its business focus in light of the connectivity that is only now starting to become possible. This is not to say that BMC and Remedy do not face challenges ahead. Remedy needs to innovate and improve the customer experience, and shift its emphasis towards marketing as opposed to technology. In sum, BMC and Remedy seem to be making the right moves but it is still early in a new game.