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# Market Roundup

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## IBM Hopes to Attract Mid-Market Customers to Tape Encryption

By *Lawrence D. Dietz*

IBM has announced new tape storage offerings based on the Linear Tape OpenGeneration 4 standard that are targeting mid-sized customers. IBM's enterprise-class tape encryption functionality is now incorporated into several LTO 4 tape storage products and offers improved performance of up to 240MBps data rate, which is 50% faster than LTO Generation 3, and increased cartridge capacity up to 1.6TB, double the capacity of LTO 3. These new tape systems also offer improved management functions, reduced space consumption, improved storage consolidation, and enhanced library utilization over LTO 3. IBM's LTO 4 tape drive encryption also helps address data security needs with rapid drive-level encryption for high backup performance; data compression and encryption for high cartridge capacities; and reduced need for additional encryption appliances or the drain on server resources. Using the same technology as the TS1120, IBM's LTO 4 tape systems are able to compress and encrypt data with virtually no drive performance impact, and they are able to perform on-the-fly checking of encrypted data. The IBM System Storage LTO 4 tape storage systems are available now priced beginning at \$5,170 for the TS2340 Tape Drive LVD SCSI version, \$5,681 for the TS2340 SAS version, \$5770 for the TS3100 and TS3200 Tape Libraries, \$16,530 for the TS3310 Tape Library, and \$22,800 for the TS3500 Tape Library.

IBM will also announce enhancements to its existing Encryption Key Manager software to support LTO encryption. The IBM EKM is being enhanced to support encryption key generation, distribution, and storage for the IBM LTO 4 tape drive as well as encryption features on IBM LTO tape libraries, which are designed to allow customers to implement encryption without changing their applications. Enhanced data security services for tape encryption and key management implementation services for architecture and design, setup and configuration, procedure development, training, and skills transfer will be offered through IBM Global Services. Additionally, security-consulting services for compliance assessment, policy definition, process assessment and development, and information classification of data will be offered. The enhanced IBM Encryption Key Manager will be available on June 15, 2007.

One person's medium is another person's large and so it is for the IT marketplace. Sageza recognizes that U.S. enterprises tend to be larger than those in other parts of the world and that large vendors such as IBM tend to really mean big rather than medium. Nevertheless it's plain to us that IBM continues to drive its enterprise capabilities downmarket to avail smaller companies of the same type of technologies as the larger ones. We feel this is especially important in the often ignored worlds of tape systems and encryption. There is no doubt that more organizations are storing more and more data offline. Today's petabyte (roughly 1,000 terabytes) may be tomorrow's kilobyte as data tends to multiply faster than wire coat hangers in one's closet. Consequently cost-effective storage will become progressively more important over time.

Sageza believes that this type of announcement is very much of a "sleeper" in the sense that it doesn't draw major headlines, but is likely to have a more pronounced effect on IT infrastructure as organizations recognize the importance of encrypting offline storage. We predicted data privacy will be more important in 2007 than compliance. This announcement and the rate of adoption of encryption of offline tapes are indications that our instincts are right-on.

## Microsoft on “Forefront” of Security Market

By *Lawrence D. Dietz*

Microsoft Corp. this week outlined its vision for integrated security and management solutions and announced delivery of products under the Forefront and System Center brands. Microsoft Forefront Client Security is designed to help protect business desktops, laptops, and server operating systems from viruses, spyware, Trojans, and other current and emerging threats. Microsoft Forefront Client Security delivers critical visibility into threats and vulnerabilities through central management, and integrates with System Center solutions, Active Directory services and other Microsoft technologies. Also announced was the launch of System Center Essentials 2007, a unified management solution to help IT professionals in midsize organizations proactively and efficiently manage their IT environment. The solution features a single console from which IT management can view and manage servers, clients, hardware, software and IT services.

The company indicated that for enterprise customers, security and management solutions will be unified through a common service management solution, enabling workflow definition, process automation, and comprehensive reporting across security and management teams. Forefront Client Security is licensed starting at \$12.72 per user or device per year for the security agent, and at \$2,468 per year for the management console. The product is available for purchase today as part of the Microsoft Enterprise Client Access License suite via Microsoft Volume Licensing, with standalone product availability in July via standard Microsoft volume licensing channels. Microsoft System Center Essentials is offered as a management server with built-in support to manage fifty clients and ten servers starting at \$2,000. Customers can add up to 500 clients in increments of twenty, or five Management Licenses (MLs), priced at \$400 and \$100 respectively, and up to thirty servers in increments of five and one ML, priced at \$500 and \$100 respectively. The product will be available in July via standard Microsoft volume licensing and retail channels.

Sageza has long believed that Microsoft would seek to increase its penetration in the security market by leveraging off its dominant position in mainstream IT. Security practitioners have traditionally maintained that built-in security is more efficient than add-on. By linking Forefront and System Center announcements Microsoft is reinforcing the notion of complementary and integrated IT management and security products and functions. Microsoft likes to promote cost efficiency as noted by illustrations such as a customer with System Center Ops Manager 2007 being able to consolidate three configuration groups into one, thereby saving 60% in operational costs. Likewise, the company reinforced this view of efficiency in its PR materials related to this announcement by stating that Forefront Client Security combines antivirus, anti-spyware, and vulnerability and state assessment into a single solution. Clearly, to us, Microsoft is taking aim at the independent security vendors through this consolidation.

Sageza believes that many organizations are likely to give strong consideration to the Microsoft consolidation proposition. However, history has shown that no one size fits all in the IT world and organizations, and larger organizations with heterogeneous IT infrastructures must especially consider their IT architecture more in line with their core business and asset management strategy, than with vendor claims. While consolidation and reduction in number of application software packages in a configuration can generally be cost effective, it remains to be seen whether the level of security offered by this “whole” is more than the sum of the parts of more dedicated and specialized security products.

## IBM & Hoplon Infotainment to Integrate CellBE with System z

By *Clay Ryder*

IBM and Hoplon Infotainment have announced a cross-company project to integrate the Cell Broadband Engine (CellBE) processor with the IBM System z mainframe to create a hybrid that is fast and powerful, with security features designed to handle a new generation of “virtual world” applications, such as the 3D Internet. The project leverages the mainframe’s ability to accelerate work through specialty engines/processors as well as its unique networking architecture that enables the ultra-fast communication needed to create virtual worlds with millions of simultaneous users sharing a single universe. Drawing on expertise from IBM’s research, software, and hardware

units, the project is being undertaken in conjunction with Hoplon Infotainment, a Brazilian online game company whose software is a key component of testing the capabilities of the new environment. The project intends to create an environment that can seamlessly run demanding simulations, such as massive online virtual reality environments, 3D applications for mapping, enterprise resource planning and customer relationship management, 3D virtual stores and meeting rooms, collaboration environments, and new types of data repositories. It plans to achieve this goal by sharing workload between the mainframe and the Cell processor whereby the CellBE would handle the complex simulation associated with operating in virtual worlds and the mainframe would run the administrative tasks for the middleware and applications as well as handling logistics (billing, etc.), and connectivity to third parties as well as to multiple clients, which might include PCs, consoles, mobile phones, music players, TVs, and other devices. To that end, IBM and Hoplon are porting Hoplon software to the CellBE to handle message passing and physics simulation. The companies have already created a programming model and messaging architecture that separates the applications running on the system. The mainframe will run Hoplon's industry-specific middleware for virtual worlds, called bitVerse, currently under development using WebSphere XD as the underlying runtime environment, along with DB2.

It's an interesting twist of irony that what is considered the highest level of computing, the mainframe, is coming together with what would arguably be the most personal, the computational might behind game consoles. For the longest time, the mainframe was the glass house machine that mere mortals might have been able to view from afar, if at all, but certainly not entertain as a guest in their family room. The thought of gaming, a family room staple for many, as being a worthy use of mainframe-class computing was also conceptually out of step. However, technology, and the mainframe in particular, has a habit of changing behavior, attitudes, and assumptions made on its behalf.

This endeavor is intriguing as it further illustrates the flexibility of the System z and its capacity to incorporate specialty engines for new-era workloads into its transaction intensive heritage. Although many may consider 3D Internet or second-life endeavors to be focused on consumer as opposed to business markets, this is overlooking the fact that tomorrow's businesspeople are today's teenagers and college students who are interacting in said graphically rich mediums. Service providers who seek to deliver such environments need the combination of high transaction processing and graphically intensive dynamic interfaces. As such, this would seem to be the perfect commercial storm for this joint development project.

Nevertheless, we can think of other scenarios where this combination would be well suited including genomics research, DNA sequencing, and other scientific applications where there is a combination of intensive data processing combined with rich graphical representations of the results. Overall, we are intrigued with the potential of this technological marriage. To our way of thinking, this is much more than simply creating a Gameframe; it is marrying intensive back-end processing with rich graphical rendering and with it opening the door to a new way of attacking the market opportunities that will inevitably unfold over the next few years.

## IBM Previews Workstation Blade

*By Clay Ryder*

IBM has previewed its next generation "Workstation Blade," developed in collaboration with Blade.org partner Devon IT. The new offering will include the new IBM Workstation Blade and associated connection broker software and desktop device from Devon IT, and is designed to help customers host workstation environments for targeted users including financial services traders, CAD design engineers, and distance collaboration, among others. The IBM Workstation Blade will also offer leading-edge remote display and graphics acceleration through hardware compression in the rendering of graphics from blade server to desktop device. Additionally, a full array of USB devices will be supported. The IBM Workstation Blade will extend the infrastructure integration capabilities of the BladeCenter and will complement IBM's Virtual Client Solution, introduced in 2005. The desktop device from Devon IT consumes 15 watts, and has no noise-generating components such as local disk drives or fans. Official announcement of the product is expected later this year.

Normally, a preview or forward-looking announcement is not something that would warrant coverage, as many preannouncements rapidly fade into memory before ever making it to market. However, in this case we will make

an exception, as we have seen the prototype, the company's long-term viability is not in question, and there are some very interesting and unique capabilities in this preview.

This new WorkStation blade is unique in that it targets a specific user profile that historically has been underserved or poorly served by past server-based client solutions. For users of graphically intensive applications, remote access schemes across the network have limited performance to the point where usability was sufficiently impacted so as to make the solution unusable. Historic abilities in transferring graphically intensive information have tended to be low due to the combined limitations of the network bandwidth (especially in the 10MBps era) and the I/O processing power on the server and desktop client NICs. However, this new hosted client solution specifically targets the audience left wanting with past solutions by incorporating graphical and networking enhancements that are designed to reduce the bandwidth than necessary to deliver graphical applications as well as boost the overall performance of the application on the blade and in the thin client device. Unlike early X Window applications that could distribute graphically intense data over networks but rapidly consumed all available bandwidth in the process; this new solution requires only a fraction of the bandwidth due to its optimization technology. Further, by maintaining a one-to-one correspondence between the desktop device and the server blade there is no degradation in performance due to sharing of resources. Additionally, with full support of USB devices in the thin client, users will not be forced to give specialized input or other devices common in many design environments.

Astute observers will quickly note this precludes the use of this solution in a virtualization scenario, but this is not the target market of this thin client solution. While there's a great deal of value in virtualized BladeCenter solutions for the thin desktop, especially in fixed function environments with modest graphics performance needs, workers with graphically intense workloads are not a good fit for such an approach. Unfortunately this has meant this class of users' applications has not had access to the management and operational efficiencies afforded by server-based applications. There have been past solutions, notably HP's CCI for example, that have offered a one-to-one server-client solution replacement for the desktop; however, these solutions lacked the specialized attention to graphically intensive workloads and their impact on the network have not positioned them as an optimum solution for such workloads. We believe this focused attention on the impact of graphic-intensive workloads on the network will help assuage the concerns of many IT managers as they consider the overall impact on their network by centrally hosting graphically intensive workloads.

Collectively IBM and Devon IT have positioned themselves well to illustrate that they would act as good stewards of network bandwidth and IT resources overall. This may provide a winning combination wherein the operational efficiency of server based workloads and the ability to render graphically intensive workloads on a thick client desktop can be brought together in the thin, efficient, and low-impact hosted solution that works as well within the local organization as across a wide area network of more modest bandwidth. As a result some tasks become manageable that could never previously have been considered for remote operations even if the notion of remote is a mile or two away or across country. Although many of the specifics of the future WorkStation blade product are not known at this time, we believe its narrow focus on a specific class of workloads and the clever use of compression technologies to reduce the overall network impact positions this future offering well. We look forward to the actual product announcement when we will be able to see in more detail the extent of this offering's seemingly unique alternative to rendering graphically intensive workloads on environmentally low-impact and low-cost thin clients without a degradation in user experience while leveraging the operational advantages of server-hosted applications.