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# Market Roundup

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## Virtualization for the Real World of Business

By *Tony Lock*

This week VMware announced the release of VMware Virtual Infrastructure 3, a suite of virtualization and virtual machine management tools consisting of several discrete elements, some of which represent the latest versions of existing tools along with a number of new elements. At the heart of VMware Virtual Infrastructure 3 can be found VMware ESX Server. This is the virtualization layer technology that allows organizations to abstract physical server resources (such as processor, memory, storage, and networking elements) and presents them as one or more virtual machines. The new release also includes VMware Virtual Machine File System (VMFS), a high-performance cluster file system that provides pools of VMware ESX servers simultaneous access to storage and VMware Virtual SMP, software that allows a single virtual machine to use multiple physical processors at the same time. Increasingly sophisticated management capabilities are supplied by VMware VirtualCenter. The final components of the release announcement include VMware Distributed Resource Scheduler (DRS), VMware VMotion software that delivers virtual machine migration facility without service interruption, VMware High Availability (HA), and, finally, VMware Consolidated Backup. VMware Virtual Infrastructure 3 will be supplied in three packages named VMware Enterprise, Standard, and Starter and each includes a mix of the individual components described above but all packages include basic management capabilities.

There is no doubt of the business needs driving the adoption of virtual machine solutions. Physical hardware performance capabilities in the Intel/AMD server space grow almost exponentially leaving the traditional single-server, single-application IT delivery model lacking in flexibility and the ability to effectively utilize resources. At the same time management costs escalate. The time is now right for the wide-spread adoption of virtual machine systems to support a wide range of mainstream business applications. VMware is well established in the IT departments of many organizations and VMware Virtual Infrastructure 3 now delivers packages that are ready to support live business-critical systems. While each of the components are technically sound, it is the provision of sophisticated management tools that add considerable weight to the real-world use of the VMware portfolio. In particular, the automation capabilities coupled with high availability and sophisticated backup/protection tools could take VMware in mainstream usage very rapidly. Indeed VMware is complementing its own developing stack with the creation of a virtual infrastructure architecture that is divided into the three areas: the core VMware Virtual machine container, VMware Infrastructure Services, and VMware Infrastructure Virtualization. Together these allow the creation of good multi-node virtualization and management. In this way one can synthesise a virtual computer with almost any desired "physical" attributes from a pool of centrally managed resources, thereby allowing service management in terms not of individual resources but linked more closely with quality of service attributes. It should not be forgotten that VMware also has good virtualization and management capabilities for desktop systems. This is an area ripe for growth as is that of Virtual Machine Appliances.

VMware is actively promoting the creation of open standards for virtual machines and has made many of its APIs widely available to partners as it actively seeks to expand its ecosystem of partners that work to build business solutions. VMware Virtual Infrastructure 3 is ready to support many business-critical initiatives in organizations of all sizes, not just for large enterprises. VMware has established a near-dominant position in its existing market

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space. The challenge now is to expand its adoption in business critical systems and to attract the mid-market. Over the next year or two it plans to continue to develop its offerings and expand its partner community as it readies itself for the expected launch of competitive systems, most notably those from Microsoft. It is well positioned so to do.

## Tallying the Value of Virtualization: Tivoli Usage and Accounting Manager

By *Clay Ryder*

IBM has announced its Tivoli Usage and Accounting Manager that targets customers seeking to track the usage of their virtualized IT infrastructure. The software provides a simple billing mechanism to charge internal departments or individual clients for the computing services they consume. IBM Tivoli Usage and Accounting Manager, which incorporates technology from the January acquisition of CIMS Lab, has a Web-based interface that meters and bills technology use to enable customers to measure their virtual server, storage, network, software, middleware, and email usage by organization, department, or even individual. This latest offering is designed to simplify how IT outsourcing companies track virtualized data centers and accurately bill each of their clients to eliminate the need for discrete server deployment for each customer in order to meet service level agreements. The software also helps individual companies who manage their own virtualized IT by providing a simple way to bill internal departments that use shared computing resources as well as aiding in the planning of future upgrades, consolidations, and purchases of new technology. The IBM Tivoli Usage and Accounting Manager is now available through IBM or IBM Business Partners for IBM x86 servers and the System z mainframe and will be available for System p later this year. Pricing begins at \$599 per server for the System x and \$75,000 for System z mainframe customers in the United States.

Virtualization is a hot topic with the commensurate level of market activity evidenced as each vendor seeks to define itself as a leading proponent and provider of virtualization whether it be for servers, storage, or stroganoff. Technical differentiation and variation amongst vendors abounds, but the simple notion of virtualization as a mechanism to help improve productivity and bring IT costs under control is very appealing, and rightfully so. Despite the flurry of activity around virtualization and CIO's penchant to demand improved cost effectiveness in IT operations, most virtualization schemes talk about cost savings, but have lacked the ability to demonstrate and recoup cost savings in a multi-departmental environment. Sure, the consolidated infrastructure is less expensive to install and there are fewer cables lying around, but demonstrating the ongoing per capita cost savings of virtualization has been a more of a philosophical than an accounting-based discussion, at least until now.

With IBM's newest Tivoli software, the true shared costs of virtualized resources can be empirically demonstrated at the smallest or largest server, and in many cases may make the argument in favor of virtualization even stronger within organizations. When confronted with the cost delta of discrete vs. shared resources (with the requisite SLAs) LOB professionals would be able to see that it is in their interest as well as that of the organization as a whole to migrate operations to a shared environment except for a valid operational reason to not do so. Aligning the cost of IT with the business processes it supports is an essential undertaking for any organization, and virtualization can play a significant part in this. However, without the ability to accurately gauge cost-effectiveness, virtualization could become viewed as another IT spending binge/excuse brought forth by IT with the requisite skepticism and backlash from LOB and management. This would be unfortunate. Overall, we are pleased to see IBM offer a very reasonably priced tool to help organizations of most any stripe measure their IT efficiency improvements garnered through virtualization and also educate all as to the cost of and benefit derived from their use of IT.

## Google in the Office

By *Susan Dietz*

Google recently announced a new application, appropriately named Google Spreadsheet. It is accessible by invitation while being in limited test mode. The application is available online, and keeps users' spreadsheet data in an online site. Since it is a beta version, there are still some bugs to work out, such as the fact that it does not handle graphs or macros, nor does it allow only part of a spreadsheet to be printed, among a few other things.

However, it does allow users to share their spreadsheets with others in real time via an email invitation, and it is not platform-specific.

The previously elusive goal of Web-based collaboration appears to be a good idea for those who want to access the same spreadsheet. Common budget spreadsheets within a department, for example, even if that department is geographically diverse, would seem to be efficient. Another plus for Web-based applications is the fact that they aren't platform-specific and overcome limitations with file sharing across many different platforms among many different users. Many different users could access the same information, make changes and updates, and share that information with others in real time regardless of the platform being used. This would be much more efficient than the traditional "email with highlighted changes" protocol. So far, the only real competition for Microsoft Office has been Sun's Star Office or the Open Source Open Office, which have been around for some time, but have not realistically put a dent in Microsoft's dominant position. Also, the appeal of Microsoft's integration factor should not be discounted. Most other options are too piecemeal, opening up questions about support, integration, and seamlessness. However, if a consumer is of the "live free from MS or die" mindset, this piecemeal approach might be a viable option. Provided, of course, the consumer is technically able to provide their own overall support. The Google offering competes mainly with Microsoft and this may be a large part of its appeal to the ABM crowd.

Speaking of Microsoft, the company has long held sway in getting their prices for operating systems and applications. Just as Open Source Solutions are appearing to challenge Microsoft dominance in the OS world, lower cost options for the office suite may prove attractive to large end users who spend big bucks with Microsoft. Governments, for example (security implications notwithstanding), are always looking for ways to reduce their IT costs. So is Google actively competing with Microsoft by building its own communications suite? It certainly seems that way, much to the delight of some. Is this beta spreadsheet going to be a serious contender in the long haul? Perhaps, provided some serious bugs are worked out, but what will ultimately be the revenue model for such a product? In these times of increasingly large and well publicized security breaches within companies, however, it would seem that consumer confidence in the inviolability of their information is shaky, and that is most likely going to be a larger problem for Google overall than the unavailability of certain spreadsheet macros.

## Qlusters: Open Source Meets Systems Management

*By Joyce Tompsett Becknell*

This week, Qlusters announced some of the progress it is making with openQRM, its open source systems management solution for virtual environments and data center automation. Since the product was launched in January, Qlusters has seen more than 17,000 downloads, and the number of active contributors to the project has doubled. It has also garnered some recognition in the form of achieving finalist level in three categories of SourceForge's first annual community Choice Awards, and was named "One to Watch" in a recent review of open source systems management solutions by *Computer Business Review*. In May Qlusters co-founded the Open Management Consortium, which seeks to establish conventions and standards to enable open source integration and interoperability. Qlusters launched this group along with five other companies, and there are now more than twenty members. The cofounders include Ayamon, Emu Software, Symbiot, Webmin, and Zenoss.

Management is a challenge for most IT managers regardless of the platform their equipment runs on, and this is particularly true for the x86 server space, where the number of servers installed has grown to uncomfortable management levels. The traditional systems management players are all heavily involved in this space, but the open source movement is staking a claim as well. The major management players are pursuing strategies for building the über-management system that will control nearly everything except the weather, and we've been on our soapbox before about the fact that working together is ever so much more useful for end users than building yet another archipelago of vendor creativity. We understand why the vendors aren't as keen on this approach, yet we believe that since management is about making things work together better with minimal hassle to the IT manager, this should be the macro-philosophy or meta-philosophy: as above, so below. The open source community frequently understands this better than most and is actually making quite a go of turning philosophy into practice, as well as giving corporate lawyers a new realm for specialization. The notion of open source

management, compounded by a consortium of open source management partners is mind bogglingly good. It gives one hope that IT managers will be able to take their farms of heterogeneous servers and make them better managed with open source as an option.

It would seem that mid-market companies are one of the segments that could most benefit from an organization like the Open Management Consortium, in that they want to be able to use products that are integrated, right-sized and affordable. Frequently they can neither afford the products from the traditional vendors in the space, or those products are too big, or too complex for their needs. At the same time, they are less likely to use open source products at this point in time. It's not a philosophical issue so much as it's a support issue. Mid-market companies tend to have fewer IT employees without specialization and subsequently less time to spend on products that are not fully integrated or that require special skills. By bringing together the support and capabilities of multiple vendors, mid-market companies may find it easier to use their products and be more likely to try those solutions. While all the big vendors profess to be highly interested in the mid-market, their success has been varied and certainly not as strong as they would like. The smaller open source players are also small or mid-market businesses, and they understand the needs of these companies. The combination could be a winning match if the Open Management Consortium and companies like Qlusters can launch successful marketing to those customers.