



## PODCAST

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## APPLICATION DELIVERY



# a virtual change

**SCOTT CRAWFORD**, Research Director with Enterprise Management Associates, discusses end-point management and the changing face of virtualization with **JOHN HUMPHRIES**, Director of Marketing at Citrix

**Scott Crawford** I've been familiar with Citrix for some time, but over the last couple of years both the market and Citrix have embraced a number of aspects of virtualization. It has clearly become one of the most talked about trends in IT in recent years, but I think most people probably think of that strictly in terms of server virtualization, when in fact, virtualization is overhauling a number of long-accepted approaches to IT and IT management. **What are some examples of the other ways in which virtualization is revolutionizing IT?**

**John Humphries** Today it seems as if you can't launch a product in the technology marketplace without virtualizing something. Storage virtualization is an area with a »



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tremendous amount of interest as well as network virtualization. Server virtualization is a major focus area for the company with the acquisition of the XenServer product line. We've expanded and broadened that to improve XenDesktop, which is a server-hosted virtual desktop offering, whereby a customer's entire environment is sitting on a server inside a data center, and then they're presented with the keyboard video mouse and the rendering of the screen out at their desktop. There are a host of reasons why customers are interested in doing that and adopting what's become known as Virtual Desktop Infrastructure (VDI).

Presentation virtualization is another area we've invested in for a long time. It is similar to desktop virtualization, but instead of the entire desktop environment, you can envision a single application hosted in a server presented to the users through some graphical user interface. A lot of our customers have been using this for years and it's been a great way to get single applications that a whole host of users need to have access to, no matter where they are or what device they're running on. So, that's been our bread and butter. We've also been investing in application virtualization. That's really about being able to encompass, isolate, and decouple the application from the underlying operating system.

Virtualization means two things. It means isolation and it means the ability to decouple the above layers from the below layers. It's a very interesting area and there are many good reasons as to why a customer might want to consider virtualization and how they are going to be virtualized.

**SC** Talking about end-point desktop and application virtualization — these relate directly to end-point management, which has itself been one of the most problematic issues for the enterprise for a long time. From patch management, to ensuring consistency in end-point configuration to security, where the end point is undeniably the biggest target and where the costs of security can easily spiral out of control within the enterprise. Give us your take on how end-point desktop as well as application virtualization helps with all of these issues.

**JH** We find most of our customers talking to us about the cost of security. This is why we see customers gravitating to VDI or server-hosted based virtual desktops. Obviously, it's not for everyone. There are some of us inside the organization who are either on the road a tremendous amount or need offline access to computing resources. We've seen this for years in the IT industry, the growing trend toward laptops, and 2008 was the first year that laptop sales actually outpaced desktop sales. The “pain point” for customers is patch management, change management, update management, and having all of these devices both connected

and then at times disconnected, and ensuring they get the latest updates, whether they are application or security or patch-up dates for the operating system.

At Citrix we have an initiative called “project independence,” whereby you would be able to maintain a dedicated hypervisor on your device and that device would encompass your entire desktop needs. With this, you would patch remotely from a single image that was maintained in the data-center, and employee actions such as logging out would automatically be updated. This opened up a new initiative called “BYOC,” or bring-your-own computer. The company is able to move the hardware off of its balance sheet, give the employee a stipend, and have them go out and choose the device of their choice. Citrix has implemented this over the course of the past year and by the end of 2008, about 20 percent of employees had signed up for this program. It gives them two things — by having a Xen client initiative they're able to run a corporate environment next to a personal workspace environment with isolation between the two. We're really excited about what's happening here.

**SC** It is a trend that falls under the general umbrella of the commoditization of IT, but it goes a little deeper. It's about the expectations of the new generation coming into the work force.

**JH** We've recognized this and I think what we're starting to see is — instead of employees adapting to their employer — it's vice versa. This next generation is really setting a trend that is going to change the face of corporate computing for years to come. We're really excited about it and I would think virtualization is the key enabler to make all this possible.

**SC** On the other end of the spectrum we have the big concepts that have captured a lot of attention in the last several months, such as cloud, for example. **When we talk about cloud, of course, service-based concepts certainly aren't new, so from your perspective, what do you see that's different about today's cloud concepts? In particular, what is virtualization's role in making this possible?**

**JH** There are a couple things that virtualization enables. You get more granular use or leverage of resources — the physical servers within that cloud environment — that's certainly important. Instead of running one application, you run 10, 15 or 20. Furthermore, with server virtualization you get mobility. Ultimately the service providers are able to transition from your per host business model or per server business model to one that's based on services. This allows them to drop or lower their pricing, which

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encourages more people to leverage that. A lot of companies see cloud as a way to engage with small and mid-sized organizations that historically have had to maintain all of these services in their own IT shop, and that’s just really difficult for them.

**SC** There are a lot of organizations that are looking at a cloud approach to delivering IT within the enterprise. **Are you seeing an up-tick of virtualization being applied in that kind of model and what are some of the dynamics that you think are driving how virtualization is deployed to fit that kind of model?**

**JH** At one point people thought that payroll was the most competitive thing in the organization. Today, the vast majority of us outsource our payrolls to an Automatic Data Processing Service (ADP). There is this constant evolution of what’s competitive and what’s not competitive. Anything that they think is competitive is not a service that they want to think about outsourcing.

IT within a large organization can look at itself as a service provider. Departments are its customers instead of companies, so needs around multi-tenants, isolation, and security are the same. You don’t want your engineering department to have access to HR applications, even though they’re running on the same shared infrastructure. There are a lot of similarities; it’s being able to think of IT as a service provider to your bricks and mortar business.

**SC** Is it your anticipation that a lot of hybrid approaches are going to prevail, particularly in these early years, or do you think people are going to feed the cloud in certain aspects of what they outsource?

**JH** Hybrid means having some “in” and some “out.” How are you going to federate that? Do you extend that boundary from your current organization into a third party cloud? Or do you try and move wholesale, specific

applications or services out to a third party? I suspect it’s probably the latter. These questions are difficult ones, so I suspect you’ll have one or the other.

**SC** Tell us a little bit about how virtualization can help a business better prepare for the worst that could happen or reduce the impact of affected disaster recovery, even when a plan is already in place.

**JH** Disaster recovery is an insurance policy that we all want and we all have to have. With virtualization, you have portability of an environment, the portability of an application, the ability to replicate a Virtual Machine (VM) across distances, as well as the fact that with a VM, it becomes almost infrastructure homogenous. You homogenize the infrastructure therefore you don’t need exact copies of primary data centers anymore. All of these things are causing people to think about how they can architect disaster recovery and use virtualization as a way to enhance or cover a greater percentage of their assets.

**SC** That fact by itself ought to have a tremendous impact on the total cost of recovery.

**How is the economy itself impacting your customers? What are they telling you about how they’re dealing with it, particularly when Citrix is a key element of their strategy?**

**JH** Most of our customers are talking about how their IT budgets are either being reduced or are not growing like they have been over the past few years. They want to invest in things that have a good ROI and can help them save money and/or free up dollars. Server virtualization is a great example of that. In this down economy, we’re going to see more companies gravitate to virtualization because of the clear ROI and the focus on saving hard operating expense (OPEX) dollars that it’s been associated with. So I think for most of us, we’re really trying to help customers save capital costs and also look to improve operational efficiencies as a secondary benefit. **BTQ**

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# Seven Keys to Successful Application Delivery

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