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Inquiry Insights: Client Virtualization, Q3 2008

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EXECUTIVE SUMMARY

Day-to-day desktop operations headaches continue to grow at an alarming pace as employees become more mobile, application incompatibilities increase, and the importance of data security expands. From January 2007 to April 2008, Forrester's inquiry load from IT professionals reflected a concern to standardize and simplify the corporate computing environment, with 39% of all desktop operations and architecture inquiries relating to client virtualization. As client virtualization moves from myth to reality, end users have shown an interest in taming the hype around desktop virtualization, with local and hosted desktop virtualization accounting for 59% of all client virtualization inquiries. Following in suit was vendor interest in the client virtualization space, application virtualization, and the costs associated with desktop virtualization. While these inquiries are just the tip of the iceberg, they give insights into what is on the minds of desktop operations and architects and where the client virtualization market is headed.

CLIENT VIRTUALIZATION MOVES FROM MYTH TO REALITY

The past 18 months have denoted a remarkable year for interest in client virtualization, due largely to clients looking to reduce the complexity and difficulty that plague the corporate computing environment. According to Forrester's Enterprise And SMB Hardware Survey, North America And Europe, Q3 2007, cost, security, and manageability are the top three forces driving interest in alternatives to the traditional PC environment (see Figure 1). However, what many organizations quickly figure out is that it is the latter two benefits that drive deployments: Lower costs are hard to come by, and projects can take upwards of three years to break even. Here are the most frequently asked questions that we are fielding about client virtualization (see Figure 2).

Your Peers Are Asking: "What Does Desktop Virtualization Adoption Look Like Today?"

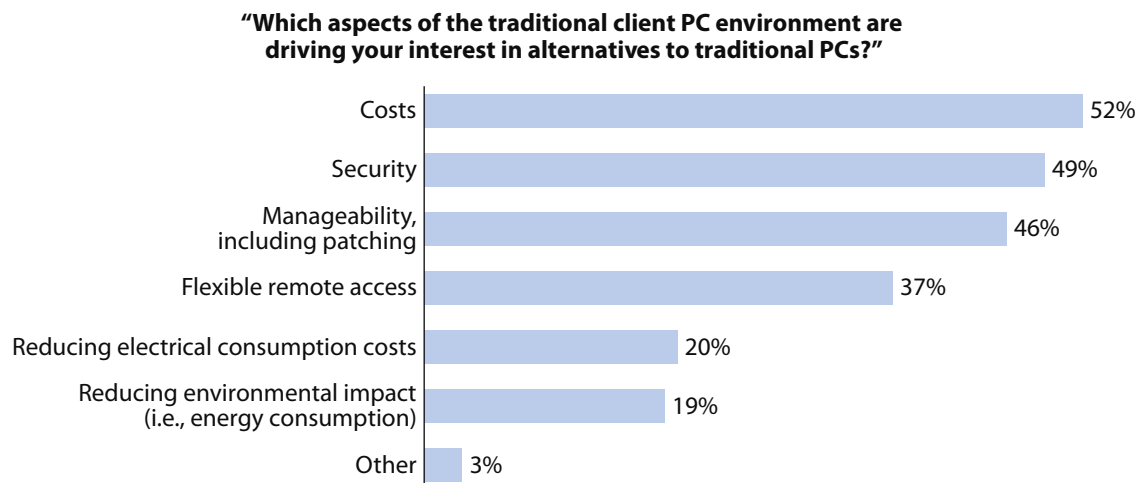
Desktop virtualization has emerged as the main area of interest in client virtualization, accounting for 59% of all client virtualization inquiries from January 2007 to April 2008. While a large number of questions dealt with taming the hype around desktop virtualization, the majority of questions focused on adoption rates — as no organization wants to be the first to deploy a new technology.

- **What you need to know:** Desktop virtualization is the process of executing an operating system, a set of applications, and data in an isolated environment. Although it has many valuable use cases, it's not for everyone. Hosted desktop virtualization is mainly used today to address concerns relating to offshore contractors, by providing them a corporate image without the ability to store data on a local device, and for typical desktop office workers who have no mobility needs. For local desktop

virtualization, contractors or third-party workers are the No. 1 use case, as an unmanaged worker can become a fully managed worker by using a corporate image on an unmanaged device. Beyond these use cases, desktop virtualization still has a ways to go before it hits mainstream adoption; however, vendors are working to make this shift happen faster. Imagine a day when you come into the office and use your hosted desktop from your own personal laptop, then needing to quickly catch a flight, you check out your desktop, which is streamed down to your PC. Now you have an offline version of your desktop to use while on the road for the next three weeks. It's when desktops can be truly used independent of device and network connection that the technology will hit mass adoption.

- **What you should do about it:** Now is the time to start planning for desktop virtualization. Determine which users in your organization will benefit most from the technology; for example, those without large mobility requirements, who use a desktop PC, and who touch sensitive information will be a great fit for hosted desktop virtualization. Look to vendors that have the largest client virtualization portfolios, such as Citrix, Microsoft, and VMware, as they will be able to provide different desktop environments for your different users. As you plan your deployments, remember that there is no one client virtualization technology that will meet the needs of all of your users; it's crucial to accept that there will be many moving parts to deliver your next-generation desktop. Bottom line: Desktop virtualization is here to stay — now is the time to beef up your understanding of the technologies and determine how they can help you streamline your operations.

Figure 1 Cost, Security, And Manageability Drive Interest In Alternatives To Traditional PCs



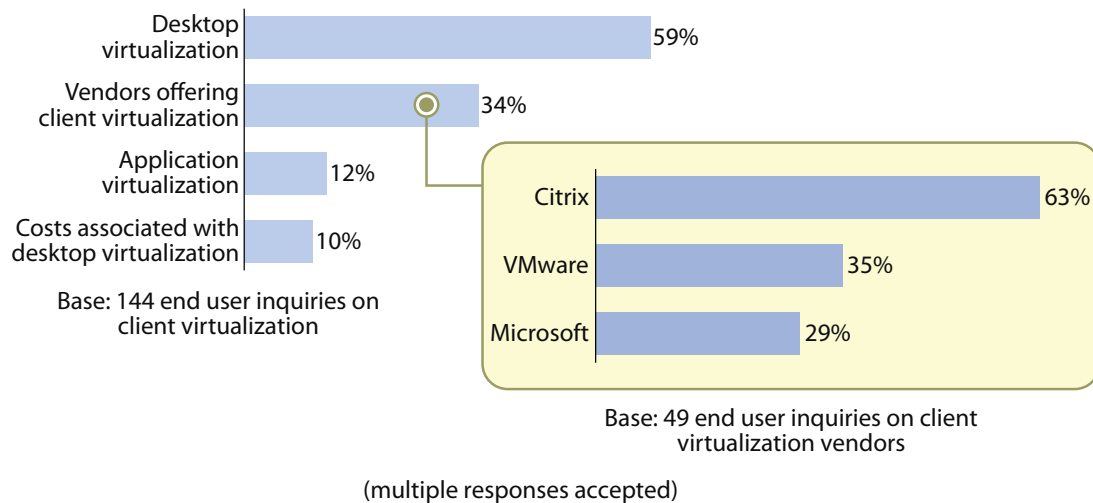
Base: 565 PC decision-makers at North American and European enterprises (multiple responses accepted)

Source: Enterprise And SMB Hardware Survey, North America And Europe, Q3 2007

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Source: Forrester Research, Inc.

Figure 2 Desktop Virtualization Leads Inquiries On Client Virtualization



Source: Forrester's inquiries from January 2007 to April 2008

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Source: Forrester Research, Inc.

Your Peers Are Asking: "Who Are The Vendors We Should Look At For Client Virtualization?"

When it comes to client virtualization, desktop managers want to know the top vendors to look at; consequently, it's no surprise that 34% of all client virtualization inquiries focused on finding the right vendor for each technology. Citrix has become synonymous with hosted application virtualization, and thus there's a large interest in what's next from them. VMware's VDI solution is the top-of-mind solution for anyone looking at hosted desktop virtualization, but IT staffers want to know what other vendors offer similar solutions. For organizations looking for a local application virtualization solution, Microsoft is the frontrunner; however, many folks ask about alternative tools that are easier to acquire.

- **What you need to know:** The client virtualization market is very diverse. Depending on your virtualization needs, each vendor has something different to offer. For example, Citrix offers an integrated hosted desktop and application virtualization solution to decouple the apps from the OS and reduce storage requirements for hosted desktops. On the other hand, Microsoft offers all four client virtualization technologies and uses its core System Center to act as the management platform. However, there are multiple "gotchas" to keep in mind when looking at vendors. For starters, Microsoft Application Virtualization and the upcoming Microsoft Enterprise Desktop Virtualization are part of Microsoft's Desktop Optimization Pack and can only be purchased by Microsoft's Software Assurance customers. Additionally, Citrix's local application virtualization technology can only be acquired through the purchase of the Enterprise or Platinum edition of

Citrix XenApp. It's important to understand what technologies are actually provided under each solution so that you don't: 1) unknowingly look to two vendors for the same technology, and 2) misunderstand the full price and licensing implications of your choice.

- **What you should do about it:** Look at your current environment — do you have a lot of VMware ESX already deployed? Are you a large Citrix XenApp (formerly Presentation Server) customer? Your existing vendors may offer the client virtualization solution you need, saving you from having to create another vendor partner relationship. Furthermore, the training overhead will be minimal when staying in the vendor family, as management tools within a product line have a similar look and feel. Bottom line: If your client virtualization needs fall within the offerings of your current vendors, give them a chance. If not, map your needs to the technologies of the main vendors and choose based on the flexibility the solution and licensing give you to offer desktops and applications to your entire user base.

Your Peers Are Asking: “Why Are We Being Told To Deploy Application Virtualization?”

Application virtualization questions accounted for about 12% of all client virtualization inquiries from January 2007 to April 2008. Firms most interested in application virtualization focused mainly on the vendor landscape as well as understanding why application virtualization is changing the traditional software deployment model.

- **What you need to know:** Application virtualization is the process of abstracting an application from the underlying operating system. These applications are then executed on the local PC or on a data center server where users can access them over a network connection. The primary benefit of application virtualization is that traditional software conflicts (where two different applications can't run on the same PC) disappear, as these applications can no longer see each other. When using local application virtualization, applications are packaged in a “bubble” and run on a user's machine. As these applications can't see outside their bubble, tasks such as patch testing are no longer necessary, since the applied patches will only affect the targeted applications. Hosted application virtualization, on the other hand, runs each application on a data center server, putting a true physical divide between applications. The real advantage of these technologies is decreasing the management costs associated with maintaining applications.
- **What you should do about it:** Forrester believes local application virtualization is the future of software deployment, and within the next five years every single application on a PC will run virtually.¹ Why? Because this technology fundamentally changes how software interacts with the underlying system — for the better. Ask any desktop ops or support professional and she'll tell you that application incompatibilities and maintenance take up a large portion of her time. Preventing the application from breaking in the first place will go a long way toward cutting other operational costs of maintaining a desktop environment. Leading local application virtualization products include Altiris Software Virtualization Solution, Citrix

XenApp, Microsoft Application Virtualization, and VMware ThinApp. Leading products in hosted application virtualization include Citrix XenApp, Microsoft Terminal Services, and Sun Secure Global Desktop. Bottom line: Investigate application virtualization today; it will greatly decrease your support costs and increase user productivity since you will no longer have users unproductive due to broken applications.

Your Peers Are Asking: “What Are The Costs Associated With Desktop Virtualization?”

Ten percent of client virtualization inquiries dealt with the costs associated with hosted desktop virtualization. End users were interested in both the capital costs required to implement hosted desktop virtualization and the cost savings associated with the deployment.

- **What you need to know:** It’s natural for end users to approach client virtualization in terms of cost savings, but building your business case around cost is a misguided approach. Anecdotally, we’re finding that organizations must spend approximately \$1,760 per user (plus any required network upgrades) to get this solution up and running — and that’s just the first year.² Thus the majority of organizations we speak with that have successfully deployed hosted desktop virtualization state that cost didn’t play into their assessment — data security, increased manageability, and remote access drove their business case.
- **What you should do about it:** Focus on your company’s greatest desktop operations headaches — day-to-day management, data security, remote access, regulatory compliance, and business continuity initiatives. Mapping these to hosted desktop virtualization will help build the foundation for a business case that will stand up to even the most skeptical management team. For example, most of the financial services firms we speak to with successful virtual desktop deployment built their case on data security — no longer having data on endpoint machines greatly reduced their risk of a data breach. Alternatively, many manufacturing firms have attributed their success to a business case built upon a combination of data security, remote access, and regulatory compliance. Why? Because many of their users must access intellectual property from PCs around the world, and being able to assure that these users can do so in a secure manner is of utmost importance. Bottom line: There are many benefits to desktop virtualization — don’t let high capital costs prevent you from seeing the light at the end of the tunnel.

WHAT IT MEANS

CLIENT VIRTUALIZATION IS READY FOR MAINSTREAM ADOPTION

Looking back just two years ago, client virtualization was a vision with many moving parts but not a whole lot of concrete solutions. Today, client virtualization incorporates four distinct technologies that each offers multiple benefits to the IT organization — and your peers are taking advantage of them. Ask yourself what is the primary problem you need to fix with the existing PC environment (and please, think beyond simply lowering costs). Is it securing the data on the machines? Being able to get a newly provisioned machine to a user in a day as opposed to three? Is it lowering support costs for maintaining applications or providing an always available desktop to your users regardless of their location? Whatever your needs, there are client virtualization technologies available to support your initiatives. Take the time to understand the technologies and map your needs to the appropriate solution. And trust that you're not the first organization diving headlong into the world of virtualization.

ENDNOTES

- ¹ Local application virtualization is the future of software deployment. Within the next five years every single application on a PC will run virtually. Why? Because it solves many of today's problems that would otherwise not get solved, like the much-needed ability to run both Microsoft Excel 2003 and Excel 2007 on the same machine. When applications are isolated and packaged in a bubble, there are two immediate benefits: 1) They can't see other applications on the machine, which eliminates conflicts, and 2) they decrease management and support costs by allowing IT to reset an application back to a good state. Finally, local application virtualization can be used in conjunction with other types of client virtualization: It's not uncommon to see enterprises running virtual apps inside of virtual desktops. See the April 9, 2008, "[Demystifying Client Virtualization](#)" report.
- ² Forrester made the following assumptions when coming up with the \$1,760 per user cost for hosted desktop virtualization: 1) \$300 per thin client; 2) \$10,000 per server that can accommodate 10 users; 3) \$200 storage costs per user (20 GB at \$10 per GB); 4) \$110 per device for the Windows license; and 5) \$150 per user for the virtualization license.