

451 ICE Report

Virtualization: Reinventing desktop computing

July 2008

EXECUTIVE OVERVIEW

the **451** group

Report snapshot

- Service: 451 ICE Report
- Report: *Virtualization: Reinventing desktop computing*
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Some of the report's key findings

- The number one driver of desktop virtualization is better security through centralized management. Cost is number two.
- The number one concern in server-hosted desktop virtualization is eliminating network latency in graphics performance. Citrix's ICA and Microsoft's Calista acquisition both address this issue.
- With desktop virtualization, the stack can get more complicated, desktops end up in datacenters designed to host servers, and responsibility for managing those desktops ends up in limbo between the traditional desktop support team and IT operations.
- For many users, the advantages outweigh the costs. Adoption is proceeding rapidly, and it is proceeding most rapidly in the biggest user bases. In 12 months' time, one-third of general-purpose desktop users and mobile workers may be provided with virtual desktops.
- The emergent consensus is that next-generation infrastructure – the IT cloud, if you will – requires virtualization at every layer, from the hardware (bare-metal hypervisors ESX and Xen) to the OS (VMware WorkStation, Microsoft Virtual Server) to the application layer (SoftGrid, SVS).
- Obviously, anyone whose business is managing traditionally configured and provisioned Windows desktops is now under threat from desktop virtualization. Faced with this kind of pressure, incumbents will build or buy.

About the report

Desktop computing, as it is practiced in enterprises today, is broken. Windows desktops are not secure. They are plagued by email-borne viruses and other malware. For this and other reasons, they are too costly to manage. Their configuration drifts, and correcting that drift is nontrivial. Nor is it easy to deploy applications to these endpoint devices in an efficient way. Even when a Windows desktop is in a reasonably steady state, it's hard to determine whether it is in compliance with corporate or regulatory standards.

All of these factors make desktop virtualization very attractive. Put a desktop inside a VM, and it's no longer tied to the physical device. Organizations can host it, within reason, wherever it makes most sense. Even better, they can serve up a fresh VM per session, from a known uncorrupted image of the desktop OS and applications, and pair it with the user's preferences as stored in their profile.

This year, VMware is pouring resources into its desktop virtualization initiative. Citrix, Microsoft and Quest Software are following suit.

But desktop virtualization may not be the slam-dunk its server analogue was. Getting graphics to perform adequately over LAN and WAN links is nontrivial. It's also essential, since knowledge workers will not accept virtual desktops that do not perform as well as or better than their physical counterparts. Similarly, rebuilding desktop provisioning to the extent required by virtualization initiatives can reintroduce exactly the same serious security and management challenges a virtualization migration was supposed to address.

It's a huge opportunity, but realizing profits won't be straightforward. While the problems of managing distributed Windows desktops are, for some organizations at least, pressing, for others current approaches may be good enough. It is always hard to muster (or mobilize) the energy for such far-reaching change.

This report aims to guide vendors, investors and end users around some of the pitfalls desktop virtualization presents. It defines desktop virtualization, segments the markets, examines when the approach is and isn't appropriate, delves into some of the technology and organizational challenges, and profiles both the startup and incumbent players – as ever, with an eye on the M&A environment.

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Companies Profiled within this report

Avocent

BMC Software

CA

Citrix Systems

Dell

Hewlett-Packard

IBM

Microsoft

NetApp

Novell

Phoenix Technologies

Quest Software

Red Hat

Sun Microsystems

Symantec

VMware