



Who will win the VDI wars?

A CWL Systems White Paper

Implementing a Virtual Desktop Infrastructure (VDI) can create significant management efficiencies and cost savings. So it is no surprise that many organisations are either in the process of migrating to virtual desktops or are actively considering the option. Selecting the right technology for your organisation is important because your decision will effect users.

Virtualising the desktop is very visible and has to be achieved with the minimum impact on staff.

Users will generally 'buy-in' to change when they know the change is strategic and benefits the business. To achieve this your technology partner is critical. VDI is a growing market; powerful new entrants have joined established players. As the market matures there will be winners and losers and the marketplace is likely to be very different in five year's time.

Even in the last eighteen months, the market has changed and we at CWL have seen four major players emerge as leaders in two distinct business sectors. This paper reviews the market from a practical perspective. We examine the key players and predict who the winners of the VDI wars are likely to be.

Why VDI?

Virtual desktops are not a new technology; thin clients have been around for many years. Until quite recently the unquestioned de-facto infrastructure was client-server with every user being equipped with his or her own PC. This provided great flexibility for users but made life difficult for the IT department. Each machine and its associated software needed licensing. Management of updates and security patches could be time consuming and costly. Yet these costs and management complexity were acceptable because users experience with a PC was significantly better than thin client.

However, better connectivity, faster network speeds and improved software has brought virtual desktop performance in line with that of the PC. Major organisations: public and private have migrated to VDI and are reaping significant operational and cost efficiencies.

The main benefits of a VDI include:

- ✓ Improved resource utilisation
- ✓ Improved data integrity
- ✓ Simpler provisioning of new desktops
- ✓ Reduced downtime in the event of server or client hardware-failures
- ✓ Lower cost of deploying new applications
- ✓ Desktop image-management capabilities
- ✓ Longer refresh cycle for client desktop infrastructure
- ✓ Secure remote access to an enterprise desktop environment

Which is why many organisations have already implemented or are actively considering migrating to a Virtual Desktop Infrastructure.

Established Players

Both Citrix and Oracle have been delivering virtual desktops and thin client solutions for many years. This gives them several advantages:

1. Technical heritage.
 - a. They have stable, proven technologies in production environments across the globe.
 - b. They have established R&D departments and a deep knowledgebase built up over many years of delivering VDIs in a variety of clients.
2. Cultural alignment
 - a. Their staff and organisations have been virtualising desktop environments for years. They understand both the technical and cultural barriers to successful implementation.
 - b. Their organisations are structured to support implementation, from initial scoping of projects through helpdesks and upgrade.
3. Existing client base
 - a. Both Oracle and Citrix have established client bases. This gives them significant market share and a 'head start' in the VDI war.
 - b. Case Studies help both players market their solutions and site visits provide valuable reassurance in competitive situations.

Oracle's recent purchase of Sun gave them an established virtual desktop infrastructure company. Sun's technical lead in large-scale virtual infrastructures (1,000+ desktops) is significant but the company were unable to realise the true potential of the technology. Oracle's deep pockets, established client base and powerful marketing machine is, in our opinion, likely to secure Oracle as the leading player in enterprise VDI over the next two years.

By 2007 Citrix had established their credentials as a major desktop virtualisation player before purchasing XenSource for \$500m in August of that year. It was a strategic move that has paid off. Company sales rocketed from \$1m in 2007 to over \$1.6bn in 2008¹. It effectively placed Citrix (and its Xen Suite) as the leader in VDI technology for the mid market (100 - 1,000 desktops). The move also protected the company from takeover. Oracle are unlikely to purchase; they have Sun to sort out and anti-trust laws may block the acquisition.

Over the years, Citrix has cultivated powerful partners: May's launch of Citrix's client side hypervisor, optimised for the Intel vPro processors is hard to ignore. The company also has a long and established alliance with Microsoft. The Intel, Microsoft, Citrix alliance may eventually result in Citrix's XenClient being embedded in Intel technology and resulting in significant market share.

The Citrix/Microsoft/Intel alliance has already secured major strategic partners. Two of the largest OEM manufacturers: Dell and HP have already announced they will be offering Citrix XenClient based PCs.

Market Entrants

It may be harsh to describe VMWare as a market entrant, but their presence in server virtualisation does not automatically make them an established VDI player. But they are a powerful market entrant with the ability to establish significant markets share quickly. The company has a strong parent (EMC²) and an established base of loyal clients; if you have VMware in the server room, it is harder to argue against VMware on the desktop.

VMware's bare metal hypervisor is based on VMware ESXi technology forged for the server room. But server technology does not have all the features required for client side computing. Notable omissions include a lack of support for USB and graphics devices. VMware's original desktop virtualisation software had notoriously clunky graphics performance. Their release of Workstation 7.1 (for PCs) and Fusion for Apple Mac has addressed that problem, but it is hard to shake off the impression that the company is still playing 'catch up'.

Parallels, a builder of virtualisation software for Linux, entered the market by launching Parallels Desktop for Mac OS X. The software enabled Mac users to run most Windows operating systems without having to re-boot the desktop. A quick look at the Parallels website shows that the company is still focused on developing virtualisation products for Mac environments. They are likely to remain a niche player serving smaller to medium sized creative businesses.

Microsoft's desktop virtualisation software may not be as mature as Citrix, VMware or Oracle's but there is no doubting the company's ability to win significant market share. Microsoft is catching up fast. Hyper-V and App-V their server virtualisation offerings integrate seamlessly with their desktop application, MedV. It will be difficult for organisations with a Microsoft infrastructure to argue against selecting Microsoft platforms for their server and desktop virtualisation.

However, the software giant may still be hedging its bets: pursuing a dual strategy of supporting Citrix's efforts whilst their own product set becomes established. This dual strategy might just be a way of building market share without falling foul of anti-trust legislation.

Conclusions

From our perspective the market is maturing into two distinct segments: enterprise and SMB. By combining marketing dollars and technical excellence Oracle have secured their position for larger organisations (1000+ desktops). For organisations of this size savings of over £3m per annum can be achieved on refresh costs alone.

The mid market is more competitive, however the emergence of Microsoft and Citrix with Intel places Citrix and its Xen technology in a strong market position. VMware may have presence in the server room but we believe they will struggle to compete (at least commercially) with the combined force of Microsoft, Intel and Citrix.

Ultimately the choice of technology is a balance between technical and commercial considerations. CWL is technically neutral; we have implemented Citrix, VMware, Oracle and Microsoft virtual environments. We base our recommendations on client's business needs. And we are happy to discuss options and the relative merits of one technology over another for your environment.

References

¹ Source: The Register, Business, 28th December 2009.

About CWL

CWL Systems specialises in ensuring the availability of critical data. If you'd like to discuss any questions or concerns you have in these areas, or points raised in this paper please call us on **0845 880 1285** or visit **www.cwlsystems.co.uk**.

