FUTURE OF THE DESKTOP

One of the most important parts of the IT infrastructure is the desktop. Nick Martin and Rhys Sharp of SCC suggest how companies can keep this area up-to-date while still cutting costs.

Nick Martin

Rhys Sharp

The desktop is a major area of investment and change for corporate technology users. Decisions around which direction to go are influenced by many factors.

A year to 18 months ago, an overriding driver was the need to simplify desktop technology and provide a better level of support to the end user. More recently, cost of ownership has come strongly to the fore, along with the need to improve flexibility and remote connectivity.

Today's challenges fall broadly into three categories. They relate to the operating system (OS), the device and/or the applications. By focusing on these areas, companies can put in place a more optimised and dynamic desktop. However, with the trend towards virtualisation and increased mobility, the impact on the data centre, back-end services and connectivity must also be taken into account.

Industry and vendor influences

Many organisations' desktop deployments typically include a hardware refresh. Usually companies opt to stay with the traditional desktop for office-based users, and laptops for mobile workers, with most able to standardise on single models of desktop and a small number of laptops.

However, businesses are constantly evolving, often resulting in multiple versions of hardware. By working towards automated OS builds and keeping it as basic as possible (Windows XP, for example), companies can achieve a significantly smaller number of builds – often just one – regardless of the hardware in use.

In fact, many organisations have moved on to provide multiple versions of laptops, according to job function or health factors. Again, a lot of companies with mobile workforces are deploying laptops with built-in third-generation adaptors.

These devices offer a number of advantages over USB or PCMCIA. Firstly, the user does not have to worry about an external device. Secondly, the antenna is built into the casing of the laptop, offering a better signal. And finally, they offer better integration with the laptop hardware and limit battery drain.

On the other hand, SCC has not seen any significant take-up of ultra-mobile PCs. One central government organisation looked at these devices, but discounted them due to a lack of usability. If there were applications developed specifically for the devices, they might be put to better use because they do provide a great deal of power in a very small package.

Another factor influencing the choice of device is that of corporate responsibility (CR) – green issues in particular, and specifically power consumption. This is an area where the manufacturers are working hard to make a positive impact.

For a long time, thin-terminal manufacturers have suggested their devices consume significantly less power as they require less energy-hungry CPUs and have no power-consuming moving parts. However, one downside of lowering power consumption at the desk – by using a server-based computing solution – is that additional power is required in the data centre, involving a more comprehensive review of actual power consumption across the internal IT landscape.

The vendor roadmap for the device area revolves around two desktop approaches – fat client and thin client – plus Blade PCs and workstations, and laptops for the mobile users. But what is particularly interesting is HP's acquisition of NeoWare, a thin-client terminal manufacturer, which speaks volumes about the strategic direction of one of the world's largest PC manufacturers, which will in turn influence the desktop industry as a whole.

Going virtual

The virtual desktop is in the ascendancy. Organisations that we have dealt with have typically used the solution to deliver development environments to offshore agencies, as in the case for two large insurance companies. American Express Bank has also been active in this area, as it sought a solution for branch offices in the Middle East, where supporting desktops remotely had created issues for IT support.

One major challenge for companies looking to utilise the virtual desktop, is licensing Microsoft operating systems which are prone to regular change.

To address this, Microsoft has introduced the Vista Enterprise Centralised Desktop (VECD) licence which is aimed at hosted desktop operating systems, allowing Windows XP or Windows Vista to be hosted. However, this licence is only available when the correct licensing commitments have been made across the software estate.

Many organisations offer a full desktop operating environment to the user, via terminal services. Typically, this has been used to deliver individual applications, whilst retaining a fat client. More recently, we have seen a shift in the direction of delivering a complete desktop via terminal services or Xen; this is largely due to the fact that it supports a higher density of users per server.

At the desk, where possible there has been a move from sweating the asset in favour of deploying a thin client, to reap the immediate benefit of a significant reduction in power consumption.

Both terminal services and virtualised desktops offer a great deal of flexibility at many levels. Firstly, users can easily roam around the organisation using whichever or whoever's machine they get to.

Secondly, it provides an alternative remote access method for users or third parties, whereby they can access the desktop used in the office from a home PC, internet café or any other device, without having to be issued with a laptop.

Thirdly, these solutions offer an alternative disaster recovery (DR) capability. By replicating some or all of the servers used in supporting the desktop, the DR facility can easily provide both server and desktop functionality. This also enables more users to continue working from home, instead of travelling to a DR facility, potentially saving financial resource.

Moreover, relocating desktop computing to the data centre means that as long as suitable networks are in place, the desktop facility does not have to be in the company's data centre. The desktop could actually be bought as a service from a hosting supplier. This is a solution that has seen significant take-up.

Hosted desktops

As more organisations move towards outsourced data centres, or cloud-based computing models, they will no longer need a full desktop sitting on a user's desk – and it will become possible to migrate desktops wholesale from the desk to the data centre or cloud.

This delivery of the desktop from a remote location via a virtual desktop infrastructure (VDI) can pose a number of challenges, because many applications that need to be accessed from the desktop often exist within the company's infrastructure.

However, some businesses can achieve this now; and where an organisation has highly mobile users, but needs connectivity for applications to function, VDI offers a viable solution. With the right technology in place, it is possible to access a remote desktop from a mobile phone, eliminating the need for a full desktop computer.

VDI is in widespread, but not wholesale, use. The challenge is getting the technology right in order to deliver a rich and functional experience to all types of user.

To gain the same experience as a full desktop today, you often need a high-performance network and clever client technology – eliminating all but the top-end organisations, such as trading environments, where the priority is not necessarily cost saving but enhancing the environment.

Looking forward

The current economic environment is both a catalyst and inhibitor to desktop change. Realising cost savings is a major driving force; but the need to still make an investment may act as an inhibitor.

In our experience, organisations that truly understand their current model are best placed to articulate the advantages of change to the business, and therefore are best placed to deploy new technology to create efficiencies.

By 2010, many of the current challenges relating to network and graphical experience will have been eliminated. Likewise, the operational savings that can be realised through centralising desktop management, or the ability to buy the desktop as a service from the cloud, will eliminate capital costs and make the desktop investment more predictable.

The take-up of cloud computing from the internet is likely to increase through to 2010, with more solutions being bought as a service and delivered via the cloud.

Microsoft's entry into the UK market with its Software plus Services delivery for messaging and collaboration will grow the market; and we will see smaller software vendors enter the hosted software market, delivering it as a subscription licensing model.

Moving to the new world

Any shift in technology has to be carefully considered. Now, more than ever, companies need to examine at the reasons for change. It can't be just about the newest and the best – it must deliver a benefit to the business.

The key drivers for change are centralisation, in order to reduce cost of ownership; and mobility, to enhance organisational capability.

As a first step, companies need to understand the impact of changing their mechanism for delivery of the desktop or applications; and they need to understand how software is consumed within their current environment.

It is only by considering the current position that strategies and the impact of future change can best be understood. Around the desktop, organisations should know the current cost of ownership, how users are using both PCs and their software, and what the company's strategy is for desktop and software consumption.

Leap of faith or measurable approach?

In summary, the benefits of changing the desktop delivery mechanism are well-understood and measurable. The challenge is how to actually realise those benefits.

Organisations that have a well-managed desktop will in turn have a clear strategy and understand how it's being used. With these businesses, benefit realisation is straightforward.

However, where those elements are not fully in place or understood, companies may see some of these technologies as a route to gaining more control or optimising their desktop. In this case, the approach may not achieve the desired benefit realisation and might even have a negative impact on the delivery of the desktop to the users.

● *Nick Martin is general manager of solution architecture and Rhys Sharp is chief technology officer at independent IT infrastructure solutions provider SCC. Website: www.scc.com.*

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