

Desktop Virtualisation on the Fast Track to Mainstream Adoption



New forces in play are driving organisations to move away from the traditional desktop and embrace virtualisation as a better way to operate their end user environments.

For many businesses, desktop virtualisation appears a natural extension of server virtualisation initiatives, from which they've reaped impressive gains. Those setting off down the desktop virtualisation path, however, need to be mindful that the server and desktop environments are not one of the same. Desktop virtualisation is in fact not a virtualisation project in its traditional sense, but rather an application and desktop delivery initiative. That said, all the signs indicate that IT decision-makers are enthusiastically investigating how desktop virtualisation can address some of their most pressing challenges.

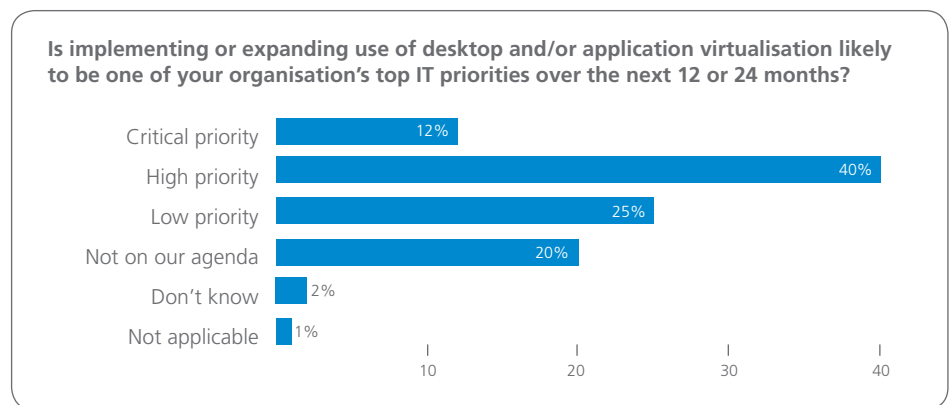
The Client Virtualisation Imperative, 2011, a commissioned study conducted by Forrester Consulting on behalf of Dimension Data, provides new insights into the global desktop virtualisation market, uncovers the principal drivers and restraints to adoption, and explores the timelines that businesses have assigned to their desktop transformation journeys. The study was conducted with 546 senior IT decision makers in 16 countries.

The study confirms that organisations across all industries and geographies are prioritising their investment in desktop virtualisation, and that early adopters are now also emerging from regions other than the heavily regulated industries in North America and Western Europe. Overall, 40% of organisations view investing in and/or implementing desktop and application virtualisation as a 'high priority', while 12% deem this an area of 'critical priority' over the next 12 to 24 months.

In evaluating the findings of the study and, specifically, the upswing in interest in desktop and application virtualisation, it's useful to consider some of the prevailing and emerging trends in the business and technology landscape that are fuelling desktop virtualisation's journey into the mainstream.

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Figure 1: For more than half of firms, client virtualisation will be a critical or high priority over the next one to two years



The anytime, anywhere office

Whether it's to access new markets or to tap into a lower cost base, most organisations today run operations across a number of locations. The study indicates that today the traditional 'nerve centre' of an organisation – its corporate headquarters – houses less than 40% of the workforce. When aggregated, the percentage of employees operating from branch or remote offices (27%), external worksites (7%), and home offices (5%) is substantial and today, 6% of workers may be described as 'mostly mobile'.

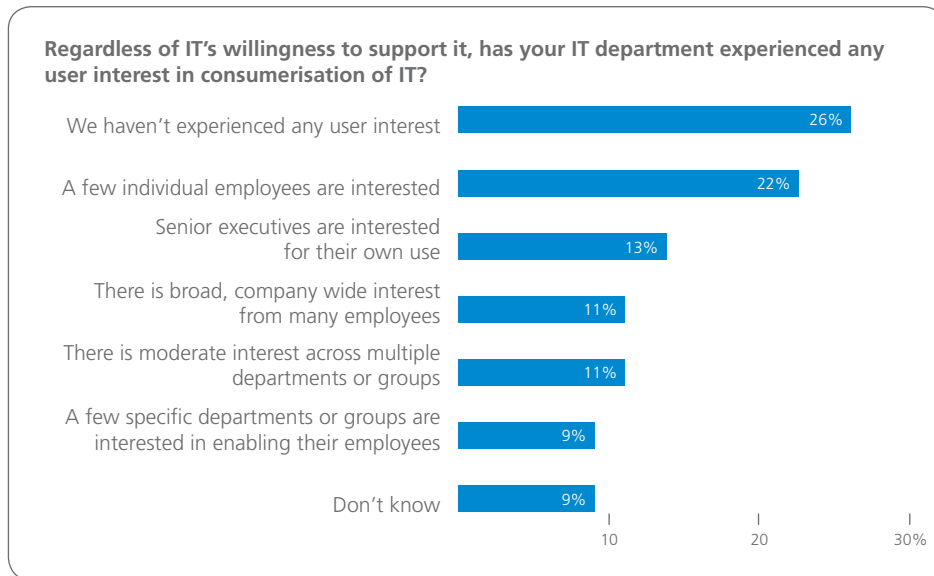
Indeed, the potential benefits of a 'virtual' business are compelling: If you're not constrained by the geographical location of resources, you can hire the best skills. Allowing employees to work from home means the cost of renting, leasing or owning physical property are lowered or altogether eliminated. Employees needn't spend time and energy battling through peak hour traffic, which in turn translates into a more satisfactory work-life balance and a lower carbon footprint for the business.

Desktop PC? No thanks

Not only is the location from which employees operate becoming more varied, so are the devices they're using to perform work-related tasks. The era of 'one PC, one user' is gone forever. Today's employees expect to have immediate access to the information necessary for them to perform their jobs, yet they typically take exception to having to use a specific device in order to obtain that information or having to request permission to access it. More often than not, their devices of choice won't be the standard, corporate-issue PC or laptop, but an independently purchased smartphone or tablet.

Businesses are realising not only the inevitability of integrating consumer-owned, handheld mobile devices into the workplace, but also their inherent potential for productivity. Employees are extremely inventive about how they put their consumer technologies to use in the workplace. Instead of blocking or restricting the use of mobile devices, forward-looking organisations are finding ways to allow the innovation inherent in the devices and the innovation spill-over of users to flow through and benefit the business.

Figure 2: Significant interest in the consumerisation of IT



And it's happening now. The study indicates that two-thirds of organisations have experienced user interest in 'consumerisation of IT' and 'bring your own device (BYOD)' programmes. However, what is also clear is that while many organisations are experiencing interest in BYOD programmes, the relative adoption and implementation of these programmes is still in the early stages as IT and business navigate the most effective way in which to embrace consumer technologies within corporate boundaries.

Caught in the middle

For the desktop team, these trends usher in a host of new considerations and challenges. How do you manage a distributed desktop environment and ensure dispersed users, devices and data mesh together effectively to support continuity and sustain productivity? Given the relentless flow of employee-owned devices across the corporate threshold, is it possible to strike a balance between enablement and flexibility on the one hand, and the business' demands for control and security on the other?

According to Blair Robinson, a Solutions Architect at Dimension Data in Australia, desktop virtualisation holds the answers to many of these questions.

"The case for desktop virtualisation is compelling and rests in its ability to enable IT teams to break new ground in several important areas," he says.

With the traditional desktop, the applications, operating system and user data are all 'tied' to a specific piece of hardware. Virtualisation breaks the bonds between these elements into isolated layers, enabling IT administrators to change, update and deploy each component independently, leading to improved response time and greater agility. Regardless of users' devices or geographic locations, they may log onto the corporate network, and the virtual desktop infrastructure management tools will assemble their virtual desktop on demand, based on each user's specific profile. What's more, the desktop can be modified at any time, based on any changes to user's requirements. If appropriate, IT teams can also allow users to provision applications independently, on a self-service basis.

"Desktop virtualisation focuses on what's being delivered," says Robinson,

"rather than the device to which it is delivered. Through centralisation of user settings and data, organisations can abstract the actual PC that's being used and make all relevant data and settings available on any authorised device. End users enjoy the same rich desktop experience, but with the added ability to access that computing environment from a multitude of devices and access points in the office, from an Internet kiosk, at home or on the road."

Not only can users log on where they want but should they encounter any desktop-related problems, they can continue

working on another machine with minimal interruption.

The appeal of desktop virtualisation to businesses seeking to facilitate the use of employee-owned mobile devices need not be spelled out.

"Greater flexibility and choice equals more empowered, satisfied users," explains Robinson.

Thanks to desktop virtualisation, IT teams finally have an actionable tool that strikes a balance: it grants employees the freedom they desire to use different devices to access business data, while delivering an enhanced end-user experience. It can also address seemingly 'soft' issues, (many of which are nevertheless very important to users) such as improving the 'look and feel' of the desktop, to more critical aspects, such as expediting the process of obtaining assistance from the service desk.

Similarly, supporting remote branch offices, mobile workers and home workers is now suddenly less of an obstacle, given the location independency of desktop virtualisation. Businesses are able to side-step many of the drawbacks of dispersion while reaping its benefits.

A reduced need for desk-side visits translates into lower support costs and enhanced user productivity. Extending access to corporate resources to temporary and unmanaged workers and third-party contractors and suppliers in a controlled manner is also much more feasible and secure. Administrators can assign rights and profiles based on users' unique roles within the organisation and their respective task requirements.

Robinson relates a scenario where this capability delivered significant value to one of Dimension Data's Australian clients:

"The organisation frequently engages the services of ad-hoc field contractors to assist in identifying and remediating electrical faults. Each contractor has his own laptop, yet needs access to corporate information relating to the physical location of underground cables. The contractors' remit includes visiting sites, taking photographs of faulty cabling, which are uploaded to a central server for diagnostic review. Naturally, the need to ensure integrity and security of confidential corporate data represented a concern.

“Desktop virtualisation provided the answer to their dilemma. Today, the organisation simply issues contractors with secure access to a virtualised application that can interact with local devices such as cameras and measurement equipment, from their own laptops. As the application is hosted in the company data centre, there is no resident data left on the contractor’s device once they complete the work. In this way, the organisation has found a way to strike a balance between enablement and control, thanks to the power of desktop virtualisation.”

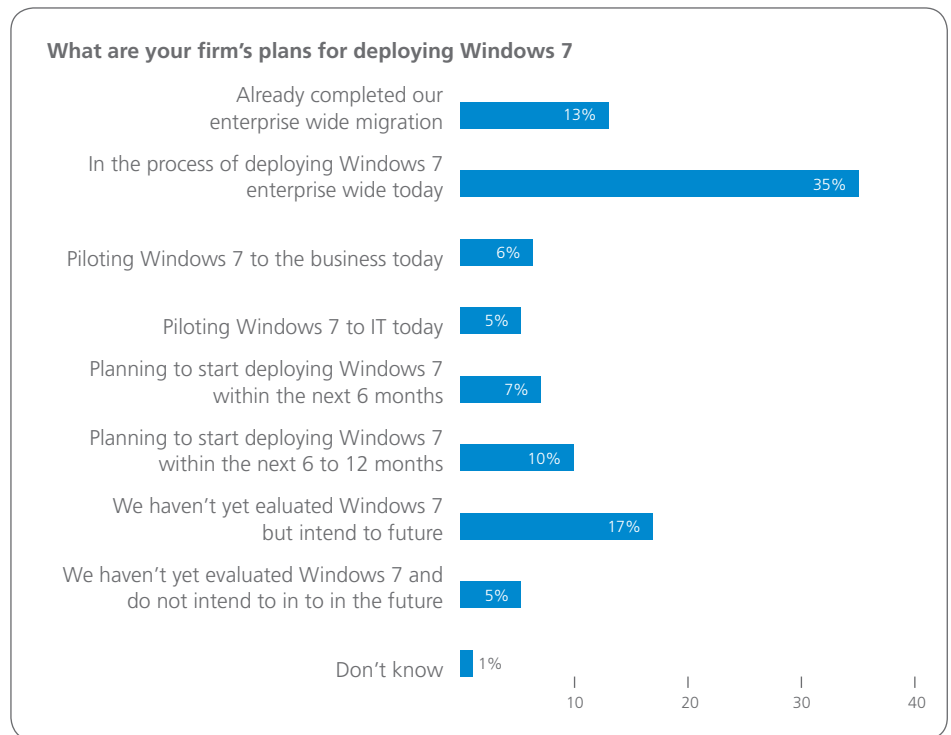
Side-stepping operating system upgrade woes

The study indicates that one of the most compelling drivers for desktop virtualisation is its inherent potential to ease operational complexity, specifically the pain traditionally associated with operating system upgrades.

Today, the reign of Microsoft® Windows XP is fast coming to an end and its April 2014 end of support deadline is looming large. Whether organisations are tying their Microsoft® Windows 7™ upgrade to their normal technology refresh cycle (31%) or adopting a ‘big bang’ approach (20%), the Forrester study indicates that most are well into their journey. Overall, 35% of organisations are currently in the process of deploying their Windows 7 roll-out, 13% have already completed it and a further 28% are in various stages of planning and piloting their upgrade path.

Desktop virtualisation **helps** organisations **deploy** and **support** Windows 7 more efficiently as it **allows** them to **deliver, test** and **manage** the desktop ‘layers’ individually.

Figure 3: Windows 7 deployment plans



Upgrading a business’ operating system is no mean feat; it requires a large-scale application rationalisation effort. All existing applications in use within the organisation must be inventoried, tested for compatibility and, if found not compatible, either be removed or, if they’re deemed critical to business operations, redeveloped, often at considerable cost. The study confirms that application bloat is rife. Most organisations support in excess of 300 applications enterprise-wide.

Those businesses that have lived through generations of Windows operating systems will attest to the fact that upgrades are time and resource intensive endeavours. Increasingly, they’re realising that desktop and application virtualisation can act as enablers to accelerate this transformation.

“Under pressure to beat the Windows XP end of support deadline,” continues Robinson, “and feeling somewhat daunted at the prospect of another upgrade, organisations are recognising the need ‘re-architect’ their desktop infrastructure and find ways to deliver and manage a more efficient, cost-effective desktop fleet. Many see the roll-out of Windows 7 as an ideal opportunity to put in place a more modern, next generation desktop

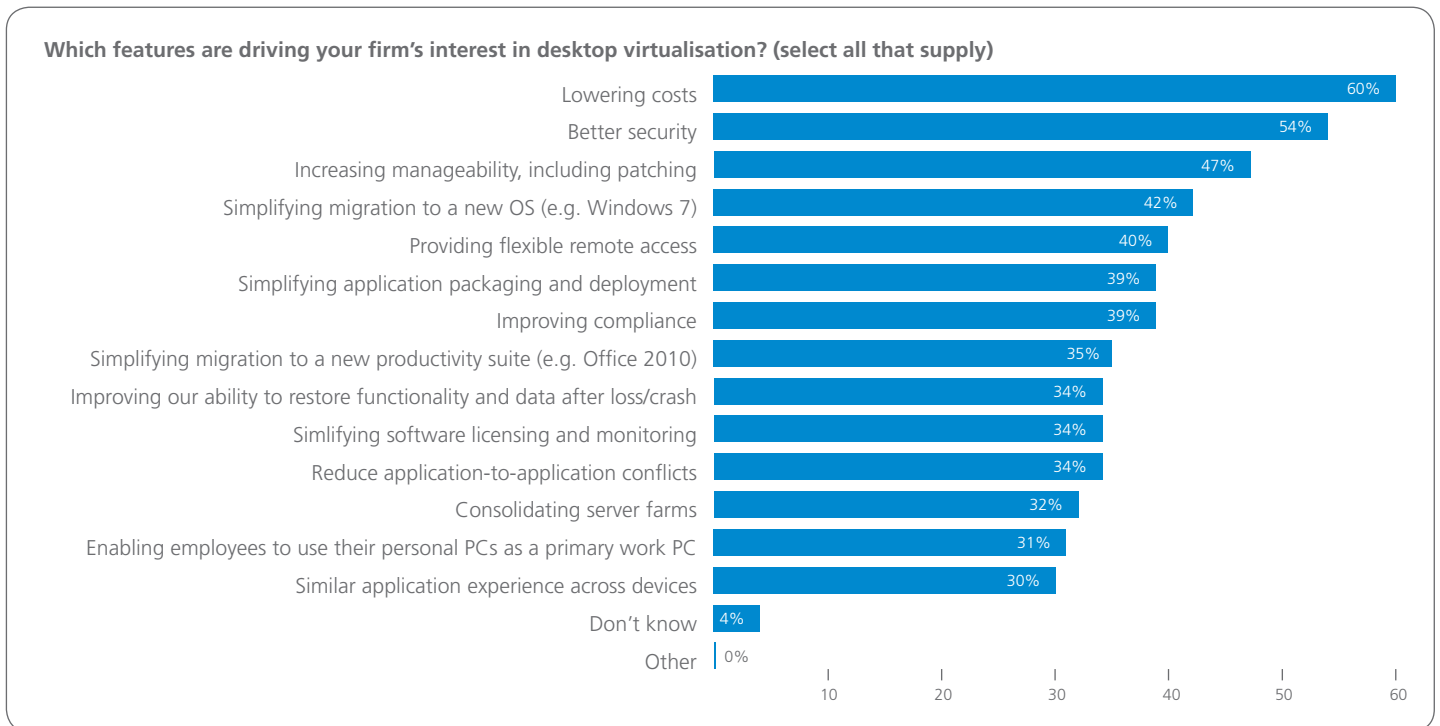
that will be more secure, less time- and labour-intensive to administer, and provide users with the functionality, interface and access they desire.”

Encouragingly, organisations participating in the study demonstrated a high level of awareness of desktop virtualisation’s potential to simplify the move to a new operating system such as Windows 7 and many cited it as the key driver behind their decision to invest therein. In fact, a total of 29% of respondents reported that they are deliberately co-inciding their investments in Windows 7 and desktop virtualisation.

Desktop virtualisation helps organisations deploy and support Windows 7 more efficiently as it allows them to deliver, test and manage the desktop ‘layers’ individually. This enables them to roll out Windows 7 more swiftly and manage the operating system with greater ease. It also reduces the cost of deploying and maintaining applications on Windows 7 and it provides a solution to supporting incompatible applications.

In the longer term, desktop virtualisation not only helps with application conflicts, but also greatly reduces the time organisations need to spend on application management after they’ve deployed Windows 7, including application updates.

Figure 4: Drivers for desktop virtualisation



What about cost savings?

No discussion regarding the drivers for desktop virtualisation would be complete without reference to the issue of cost savings. Interestingly, this appears to be an area where significant lack of clarity exists, with many organisations labouring under the misconception that a desktop virtualisation initiative will translate into immediate cost savings. The study bears testament to this, with 60% of organisations citing 'cost savings' as one of the desktop virtualisation features that sparked their interest.

However, organisations need to be cognisant that in order to realise the advantages of desktop and application virtualisation, they'll need to upgrade and optimise the infrastructure required to support it.

"Desktop virtualisation is not cheaper than a traditional desktop deployment and it's unlikely to save you money in the short term," explains Robinson.

"The initial investment required to upgrade storage, servers and the network, not to mention the impact on software licensing all need to be factored into when deciding if desktop virtualisation is the correct solution for your desktop strategy."

Thus, building a compelling economic case for desktop virtualisation, given the initial capital expenditure involved, can be tricky. Robinson believes that successfully winning over business stakeholders calls for a value discussion, not a cost discussion.

"Desktop virtualisation's true value lies in the enablement of mobility, flexibility regarding device choice, security and management ease – these are the drivers you need to focus on to build your business case."

On the fast track

Desktop transformation is on the fast track. The tools are here and they are maturing fast. Organisations that prioritise and embrace desktop and application virtualisation will be able to grant employees the flexibility to work anytime, anywhere, on a range of devices and better manage access to confidential information. They'll also simplify compliance and management operations and speed up their Windows 7 deployments. Will your business be one of them?

About the the research

The Client Virtualisation Imperative, 2011, is a commissioned study conducted by Forrester Consulting on behalf of Dimension Data. In this study, Forrester conducted an online survey of 546 organisations, across all industries in Australia, Belgium and Luxembourg, Brazil, China, Czech Republic, Germany, Hong Kong, India, Kenya, Netherlands, New Zealand, Singapore, South Africa, the United Kingdom and the United States evaluate the adoption of desktop and application virtualisation and the desktop transformation journey on which organisations are embarking. Survey participants included decision-makers in managerial roles and above for enterprise companies (1,000+ employees in developed economies and 500+ employees in developing economies).

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