



WHITE PAPER

The affordable way to migrate away from Windows XP

Abstract

Many companies have not yet migrated away from Windows XP. One major hurdle is a lack of budget to upgrade both PCs and peripherals. Another is a lack of IT staff to perform a widespread PC rollout. PCs cost more than just their price alone.

In an effort to overcome both of these hurdles, companies are removing PCs from the equation entirely and turning to desktop virtualization for a more efficient and cost-effective migration.

The traditional model: computing with PCs at every desk

Funding obstacles

Every IT administrator knows that if they haven't already done so, they will one day soon have to migrate away from Windows XP to keep their business running into the future. While the need is clear and the intent is there, administrators often find themselves challenged to fund such initiatives, which involve significant investment in upgraded PCs and peripherals.

Laptops, tablets and notebooks are often considered as an alternative to new PCs. While these may be reasonable options where employee mobility is critical, they may require a significant investment in WiFi or mobile data networks to adequately support every user. Plus, there will be additional costs to repair and replace broken and stolen devices.

IT staffing obstacles

Let's say a company is able to increase funding and purchase brand new PCs for every employee. Rolling out new PCs will stretch existing IT resources. Other operational functions, like end-user support, may suffer during the rollout.

The end result

Eventually, the backlog of technical support requests will diminish and your team will finish the PC rollout. But now you have just spend a lot of time, money and resources to reset your environment to exactly what it was a few years earlier, and can expect history to repeat itself. There must be some way to escape this endless cycle.

The sustainable model: computing with desktop virtualization

Desktop virtualization moves the operating system (OS), applications and data from each distributed PC to one centralized location, usually a server. Employees then connect simultaneously to the server to access their software and files from simple terminals, removing the need for resource intensive PCs. The end-user experience is virtually identical, but the simplicity of the environment and the cost of maintenance are vastly improved.

The two flavors of desktop virtualization

There are two main approaches to desktop virtualization. Both work by virtualizing software in a central location and presenting it to the user on distributed devices.

- **Virtual Desktop Infrastructure (VDI):** With VDI, the entire operating system, applications and settings that would have been deployed on a PC are instead virtualized as a package for each employee on the server, called a virtual machine or VM. This allows IT to manage resources centrally, but they must still manage an entire set of OS and applications for each employee.
- **Session virtualization (Remote Desktop Services):** With session virtualization, a single instance of both the operating system (OS) and applications required by the group are installed on a server. Special software creates individual desktop sessions that are presented to each employee as if they are the only one using it. This allows IT to manage fewer resources and dramatically reduce, or even eliminate, desk-side support visits.

Lower acquisition cost

In both desktop virtualization models, an office of up to 100 PCs may be replaced by a server supporting those 100 employees through simple, low cost and durable thin clients at each desk. The cost of the server and 100 thin clients is less than that of 100 PCs. And because servers and thin clients last longer than PCs, refresh cycles and the investment they require are greatly reduced.

Session virtualization has additional cost savings over VDI because it is more scalable. Because session virtualization allows a single instance of the OS and each application to support many users, fewer servers are needed to support the same number of users. This makes it far more cost effective than the one-to-one model of VDI where each server must run a full independent desktop for each user.

Lower technical support cost

The cost of supporting a PC (maintenance, patching, repairs, and general management) is 85% of the total cost of ownership. Simply by reducing the number of physical computers, and therefore the number of computers you have to repair or visit each day, overall support costs are reduced significantly.

Desktop virtualization allows technical support staff to use server management software to provide support for multiple office locations without ever leaving corporate headquarters. If a virtual desktop needs attention, the employee simply alerts the support technician back at headquarters who accesses the station on the server and applies a fix in a matter of minutes, with minimal disruption.

Ongoing savings through green infrastructure

Desktop virtualization puts less strain on existing office infrastructure.

- **Space:** Thin clients are no larger than a paperback book and can be mounted to the back of a monitor with a few screws. This reduces the footprint to just that of the keyboard and mouse and prevents the thin clients from being kicked or spilled on. It gives managers much more flexibility in the physical configuration of their department and slightly reduces the cubical space needed for each employee.
- **Electrical:** Compared to a 110 watt PC, thin clients require a fraction of the electricity. Using as little as 5 watts per device, 100 thin clients in an office would require just 500 watts of power whereas 100 PCs would use 11,000 watts on average. This creates significant ongoing savings that increase as energy costs increase.
- **HVAC:** Because thin clients require minimal electricity, offices that transition from PCs experience a decrease in heat generated in the office. This reduces strain on HVAC systems and the cost associated with running them.

Conclusion

Businesses across the globe are overcoming IT budget and resource barriers to migrating away from Windows XP thanks to desktop virtualization. Its benefits in reducing acquisition costs, lowering the IT administrative burden and eliminating infrastructure challenges, offer a computing model that is not just attainable, but more sustainable into the future.