



Server Virtualisation for Schools

Maximise Your ICT Potential

IT's Personal

Virtualisation is the latest buzzword in the ICT community. But what is it, and how can it help your school?

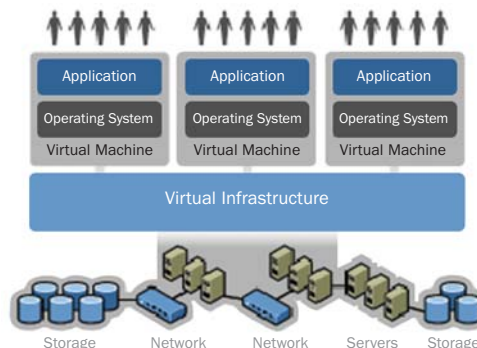
What is Virtualisation?

Virtualisation essentially lets one computer do the job of multiple computers, by sharing the resources of a single computer across multiple environments. Virtual servers and virtual desktops let you host multiple operating systems and multiple applications locally and in remote locations, freeing you from physical and geographical limitations. Servers and desktops rarely run at their full potential, so if you can squeeze eight virtual servers into three physical server boxes running at close to 100%, you save money, reduce support overhead, and reduce your carbon footprint. In addition to energy savings and more efficient use of your hardware resources, you get high availability of resources, better desktop management, increased security, and improved disaster recovery processes when you build a virtual infrastructure. Virtualisation is a proven software technology that is rapidly transforming the IT landscape and fundamentally changing the way that people work.

How Does Virtualisation Work?

Today's powerful x86 computer hardware was originally designed to run only a single operating system and a single application, but virtualisation breaks that bond, making it possible to run multiple operating systems and multiple applications on the same computer at the same time, increasing the utilisation and flexibility of hardware. Generally, virtualisation solutions work by introducing a thin layer over the physical server. This layer partitions the physical server into separate areas that the virtual computers then run on. Computing resources from the underlying server are viewed as a pool of resources which can then be shared among the virtual machines sitting on top.

On a Virtual platform, each virtual device acts as its own entity; problems with an application on one virtual machine do not affect other virtual machines on that same physical server. Virtualisation benefits can be realised on both server and desktop platforms.



Why Virtualise my Servers?

There are many reasons for adopting server virtualisation. A popular one is better resource utilisation. It is not uncommon to see servers running at 10% or less of their capacity at different points in the day. By letting several virtual servers share a single set of hardware, a much higher average utilisation rate is achieved, and hardware and support costs are lowered.

Virtualisation also makes it easier to provision and reallocate servers. Instead of having to manually set up a server, the virtualisation software can set up a server using an existing template and shift server images from one physical server to another to balance workloads or improve efficiency.

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SERVER VIRTUALISATION FOR SCHOOLS

VMWare® can also automatically set up a new virtual server on a different machine when there is a hardware malfunction. Each application is isolated from the others, which provides greater security. Because virtualisation allows for the quick creation of different operating system environments, it is easy to run legacy applications alongside new versions, migrate applications to new environments, and restore systems in post-disaster scenarios.

Why Adopt Virtual Desktop Infrastructure (VDI)?

While not for everyone, VDI can give some customers the flexibility they need for a modern client rollout. Desktop virtualisation provides many of the advantages of a terminal server, but with modern technology can also stream video and audio at a seamless rate. A user can log in from any local or remote PC and access their complete desktop environment, including installed applications and localised settings.

Because all of the processing is done remotely on the server, many users can log into their desktop through a low power desktop PC or a small, quiet and robust thin client. Because all of the virtual desktops are located on the server cluster, they're exceptionally easy to manage, provision new desktops, push down upgrades and patches etc.

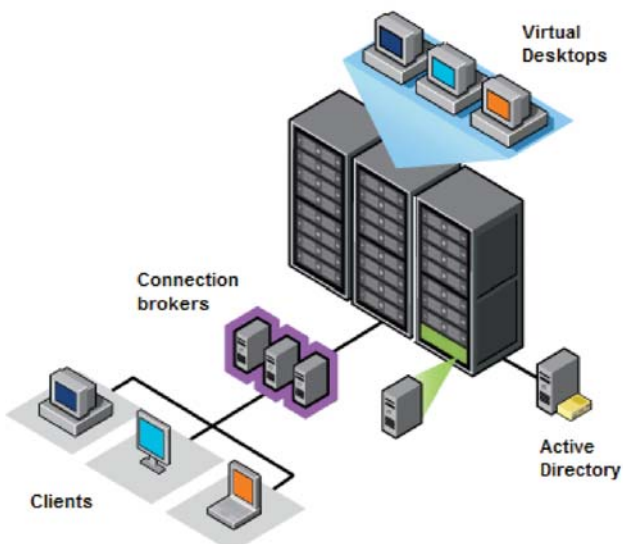
(VDI) Benefits Include:

- Instant provisioning of new desktops
- Near-zero downtime in the event of hardware failures
- Significant reduction in the cost of new application deployment
- Robust desktop image management capabilities
- Normal 2-3 year PC refresh cycle extended to 5-6 years or more
- Existing desktop-like performance including multiple monitors, bi-directional audio/video, streaming video, USB support etc.
- Ability to access the users desktop environment from any PC (including the students home PC)
- Much reduced energy client consumption

What can Viglen do for you?

Viglen can offer a whole range of services around the science of virtualisation, including consultation, solutions design, infrastructure management training, and solution implementation. We have a large portfolio of satisfied customers in the Education sector, from smaller installations to large scale Academies. Our VMWare® accredited engineers are on hand to help you specify and install virtualised solutions of all sizes.

All Viglen servers are VMWare® certified and approved, meaning you have peace of mind when buying an integrated virtualised solution.



**For more information on Virtualisation call the
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