As of 2011, Gangnam Severance Hospital (GSH) had 804 treatment rooms across 36 departments. It operates a cancer ward, a spinal injuries ward, and a dental centre, as well as medical speech-language, rehabilitation myopathy, and spinal laboratories. In addition, it also houses specialised facilities for the treatment of major diseases, such as the Health Promotion Centre and Cardiovascular Centre. GSH’s Injury Treatment Centre, which provides specialist care to trauma victims, was the first facility of its kind in Seoul.

By moving to a VDI environment based on VMware View™, GSH was able to comply with new data security requirements and improve mobile access to medical information, without requiring costly hardware upgrades.

When GSH opened, the Gangnam area of Seoul was not well served with medical facilities. In keeping with the motto of its parent institution, Yonsei University – “Love, service, and the spirit of Christianity” – GSH offers a holistic approach to patient care backed by the latest advances in medical science. It is highly regarded as a centre of education, research, and treatment.

As the hospital expanded, it became clear that considerable investment would be needed to ensure its IT infrastructure remained adequate to its needs. Moreover, new privacy laws in Korea were introduced, meaning that there had to be a system in place to keep patients' personal information secure. Finally, a cost-effective way had to be found to incorporate the full benefits of mobile technology. What was the best solution?

Gangnam Severance Hospital's Choice: VMware View™

There is no shortage of desktop virtualization solutions on the market. GSH subjected all of these to in-depth testing, to evaluate their ability to improve performance in what was an aging physical desktop environment. While all the solutions had strengths and weaknesses, VMware View™ clearly delivered the most stable performance levels. The VDI environment runs as fast when deployed on three-to-five-year-old PCs as it does on brand new machines – meaning that the migration could be undertaken without the need for a general upgrade of desktop PCs.

But this was just one of the reasons why GSH chose VMware View™. A virtual desktop environment requires that disk space be allocated to each user on the server – so minimising the amount of space needed per user was also an important consideration.
Reduced Disk Usage and Enhanced Mobile Functions

GSH deployed the Premier edition of VMware View™ 5. This provides end users with the operating systems and mission-critical applications that they need, while leveraging the benefits of disk image sharing. If multiple virtual machines use the same operating system, having a completely separate disk image for each of them is a huge waste of storage resources. But with VMware View™, disk image is shared as far as practicable, allowing available storage capacity to be utilised with far greater efficiency.

The benefits of this are immediately apparent, and resource usage is up to 70% lower than with competitor solutions.

GSH had previously been using dedicated mobile apps for the hospital’s medical information system. However, these could not be developed fast enough to keep pace with the changing needs of medical staff. The introduction of VMware solutions has meant that employees can now effectively use tablets such as the Apple iPad as mobile PCs, reducing the need to develop bespoke mobile apps and increasing satisfaction levels among medical staff.

Further Expansion of the VDI Environment Planned

The GSH’s ultimate vision is to make available a full VDI environment in every treatment room. This will reduce not just hardware costs, but also the costs associated with monitoring for unauthorised software. The amount of electricity needed to deliver 24-hour access to medical information systems will also be reduced significantly. Increasing VDI usage therefore fits perfectly with the GSH’s ongoing programme of efficiency improvements.

Summary

- New system of VDI consoles installed without needing to upgrade existing PCs
- Efficiency of disk utilisation increased by sharing of disk images
- Reduced electricity consumption
- Mobile access to medical information systems through a virtualization solution