Technology Solutions - LG CNS - Case Study

LG CNS constantly strives to make lives more convenient and valuable through the use of the Internet and digital technology anytime, anywhere. This vision enabled LG CNS to grow into a comprehensive IT service company that provides customers with a total solution of highest quality covering all issues pertinent to IT, starting from consulting and covering system construction and operation. In particular, its three strongholds—thorough understanding of the industry, specialists knowledgeable in advanced IT technologies and service quality acknowledged as the best in the industry—serve as the foundation to lead informatization in government and corporate IT.

LG CNS was in need of a diverse development environment to develop and construct the optimal IT environment to accommodate the business needs and environment of members of its corporate group of companies as well as its clients. LG CNS felt that application virtualization entailed technological limitations in resolving the diverse needs of its development environment. As a result, it began to consider desktop virtualization that would enable it to load the entire desktop in the datacenter at the operational system level.

In addition, the desktop virtualization resolved the main technology and data security issues. Seong-Jin Kim, deputy general manager of the Information Strategy Team of LG CNS Management Supervision Section in charge of IT, managed the LG CNS Desktop Virtualization Project. He explained, “Since internal information leakage was one of our issues, our first agenda was to fortify the security and to prevent leakage of internal information. We started the project expecting to resolve the security issue at the root of the problem by managing the desktop and data of corporations and organizations separately in the central station, away from the end users. Our goal was to build a desktop usage environment free of security concerns for the corporations, IT managers and end users, and to build a more convenient and dynamic environment.”

Company-wide desktop virtualization with XenDesktop

In July 2008, LG CNS launched a project for an internal feasibility review to construct the desktop virtualization solution, under which a separate task force team was formed to analyze the effect of IT investment preparation and IT infra-technology changes. From December 2008, the First Pilot Open was launched involving about 350 staff members to conduct inspection tests on the documentation process in a few organizations that were involved in business proposals. The potential technical problems and the information leakage prevention effect were verified in the test. The Second Pilot Test was launched around May 2009 involving IT development and operation staff members to inspect the resolution of technical problems that were addressed and to verify the feasibility of adopting the system.

Seong-Jin Kim added, “We reviewed the products from numerous vendors for our desktop virtualization solution. We decided to go with XenDesktop because we found it to be the best solution in the aspects
of network optimization and performance such as network ICA protocol performance, delivery in WAN environment, etc.

As the project progressed into a company-wide Citrix® XenDesktop® implementation, it entailed confirming how to build the optimal architecture and how the process would change with the implementation of desktop virtualization. With the decision to expand the usage throughout the company, implementation was completed by February 2010 for the Head Office and for staff members working in LG CNS business sites in Kasan, Sangam, Boopyung Center and elsewhere. Implementation for staff members working at external sites is currently underway. Once completed, the expansion covering more than 10,000 staff members will be an unprecedented desktop virtualization project for Korea as well as for the entire world.

Desktop provided to users within 30 minutes

LG CNS constructed a more effective and dynamic desktop environment with centralized management of the distributed desktop through the desktop virtualization. All resources are located in the datacenter and the users gain access to the desktop through the terminal. In such an environment, the performance of the hardware device has little significance and, therefore, employees received netbooks because of their portability and low cost.

The implementation allowed instant provisioning of the necessary desktop, thereby minimizing the PC delivery down-time entailed in new personnel assignments and the addition of employees. Also, the system is beneficial in other areas, such as eliminating data loss upon assumption of a new work position and fortifying a cooperative environment.

Seong-Jin Kim said, “In the past, providing a PC to an end user required time for placing an order by entering the order information on the hardware and creating a user-ready environment after installing the OS, software and security module. However, a desktop virtualization environment enables the employees to access the desktop within 30 minutes through company-provided netbooks or other terminals once the central station creates the available resource, which means that access can be achieved practically instantly.”

Construction of safer and more convenient desktop environment

With the construction of the desktop virtualization environment, LG CNS gained the ability to prevent leakage of internal information, which was its most crucial problem. Distribution of the virtual desktop from the datacenter enables centralization of the internal operation and fundamental prevention of information leakage.

In the previous PC environment, hardware failures entailed down-times while the system underwent time-consuming repair and restoration, resulting in inevitable delays and problems at work. In the worst case scenario, there were times where restoration was impossible. However, in the desktop virtualization environment, work can continue through another available device and terminal even when there is a terminal failure, thereby minimizing any interruption in the work process. From the user's standpoint, secure and fast desktop access is not limited to the office but it is also available from home or any other location, which grants them continuity in the business and availability for work.
XenDesktop provides a fast, high-definition user experience

The level of user experience made available is a vital element in the desktop virtualization environment. While IT-based management, efficiency and ease in construction are all important elements, user convenience is the utmost priority because user discomfort due to slow speed, buffering and low image quality would thwart actual use.

XenDesktop is superior in these performance aspects as well. In particular, Citrix® HDX™ technologies optimize the multimedia, voice, image and 3D graphic delivery based on the existing user experience. High image quality and high capacity contents such as 3D application or multimedia can be delivered more quickly and smoothly.

Plans for expansion into external implementation

Not stopping at internal implementation, LG CNS is now offering its customers the construction of virtual desktop infrastructure and cloud service type desktop delivery service based on its experience from the internal construction.