SK Telecom builds a successful cloud service infrastructure with Citrix XenServer

SK Telecom aims to create value for customers based on creative innovation

SK Telecom, founded in 1984, is a Korean telecommunications firm known for its leading edge technology that provides the best voice-text service, content, applications and solutions for improved productivity and communication, and the convenient use of information. SK Telecom focuses on the deployment of wireless Internet services such as GXG and Mobile Cyworld, and new convergence services such as Satellite DMB, Telematics, Digital Home and M-Finance. SK Telecom is making strong efforts to advance into new business areas that combine wired and wireless services, such as MelOn and Cizle, and is poised to lead the creation of innovative mobile lifestyles through its expertise in telecommunications.

Searching for ways to promote the development of new services

SK Telecom needed to develop a platform to support the service development environment for its mobile content partners. The existing partners had to build a development server and commercial service separately in order to develop new services, and they had to spend a lot of money and resources on hardware and applications. SK Telecom decided to build a cloud environment for its partners with a PaaS (Platform as a Service) format based on virtualization technology, the first company in the industry to do so.

Sung Bin Lim, a manager in the Data Network Headquarters of SK Telecom, who is in charge of this project explained, “The development companies had to purchase resources such as development servers and applications in order to realize their ideas; this was expensive, time-consuming and inefficient. We decided to implement a PaaS cloud in order to develop services without having to worry about building a platform.”

“We performed a test on function, stability and efficiency with another server virtualization solution. Considering the results, Citrix XenServer was the best choice. Also, the superior function for the price is the unique advantage of XenServer.”

Sung Bin Lim, Manager
Data Network Headquarters
SK Telecom
The PaaS cloud does not require partner companies to build separate services development environments with servers, storage, network and applications. It is a service for requesting resources and having them available for use in the cloud environment provided by SK Telecom. Thus, it is a format for allowing the use of the service as needed, similar to a utility service such as electricity.

Introduction of Citrix XenServer optimized for cloud service

The important aspect for the PaaS cloud computing is to build a platform that can provide a service development environment and make required resources and applications available for use. This is the reason why SK Telecom introduced Citrix® XenServer™, a server virtualization solution, for flexible management of independent resources and efficient composition of the server pool.

SK Telecom reviewed a variety of solutions including VMware and Red Hat in addition to Citrix. SK Telecom’s top priorities were efficiency and function. SK Telecom selected XenServer after considering function, stability and cost of implementation.

Lim said “We performed tests on Citrix XenServer along with other server virtualization solutions and selected Citrix XenServer considering its function, stability and efficiency. Also, the costs of implementation and hardware infrastructure investment for the other companies were higher, but XenServer provided enterprise grade functions with relatively low implementation costs.”

Cost-effective and flexible resource management through XenServer

SK Telecom created a host OS hypervisor with XenServer that provides enterprise-grade functions and is able to efficiently use the virtualized resources required for building a cloud environment. SK Telecom has implemented about 80 physical servers by building 30 additional incubation systems that are currently operated in a test phase. Using the server virtualization technology of XenServer, up to about 600 virtual servers can be created from 80 physical servers (a 7.5:1 reduction ratio). SK Telecom is currently providing about 20 services using the cloud platform and plans to expand the number of services provided in the future.

The cloud platform has produced savings in time, expense and human resources previously needed for new service planning, resource request and resource allocation, made possible through the fast and efficient resource allocation of virtualization technology.

Lim explained, “We are satisfied with the functions and features of Citrix XenServer. We are using resource management, monitoring and provisioning functions through the management tool XenServer. I’d assess the XenServer to have exceptional functions for the cost. In particular, it has the advantage of efficient and flexible management.”

SK Telecom has ultimately reinforced its partner ecosystem by introducing a cloud computing platform by using XenServer server virtualization technology, and it significantly increased the efficiency of time and resources needed for developing and commercializing the services of mobile service development partners. SK Telecom currently provides a cloud service internally but plans to expand this service to external content development partners in the future.

Key benefits

- Efficient use of virtualized resources required for making a cloud environment
- Improvements in the efficiency of resource and server usage
- More flexible resource structure through resource creation, management, backup, monitoring and provisioning
- Superior cost effective function and reduced cost of introduction