

# Korea Telecom Case Study

## KT Leverages Nexenta Cost Efficiency to Win Competitive Advantage over Other Cloud Service Providers

Korea  
www.kt.com  
Telecommunications



### Summary

**Challenge:** Provide price-sensitive cloud services while moving away from vendor lock-in

**Solution:** NexentaStor High Availability (HA) Cluster

**Platform:** CloudStack

**Use Case:** High Performance and Availability, Hosting Services

**Benefits:**

- Increased administrative efficiency
- Responsiveness to customer requirements
- Leverage of existing hardware for maximum cost-effectiveness
- Rapid deployment
- Lower costs for competitive advantage

### Business Overview

Established in 1981, and a privately owned company since 2002, KT (formerly Korea Telecom) is an integrated wired / wireless telecommunication service provider, with the largest portion of South Korea's local telephone and high-speed Internet business. Its business includes 95 percent of fixed line telephone subscribers, more than five million IPTV household subscribers, a public cloud for 1.5 million private users, and nearly 1,800 enterprise subscribers, along with a new 700-rack data center with Sofbank.

With the explosive expansion of data from smart phones, the Internet, and multimedia, KT wanted a storage solution for its public cloud services business that would support growth now and into the future. And, to compete against Amazon's AWS, the solution needed to be low cost, flexible, and have the ability to scale as needed.

### Challenges

In order to maintain and grow its position as a leading global cloud service provider, KT needed to upgrade its storage infrastructure. Multiple customers, each with unique needs, required KT to seek a flexible storage solution that could scale out to meet increasing demand.

In addition, the solution needed to future-proof the company by constraining costs and leveraging in-house hardware.

*“NexentaStor is the leader in three crucial categories: scalability, interoperability, and cost effectiveness. With NexentaStor, we were able to develop and deliver a world-class public cloud service within six months.”*

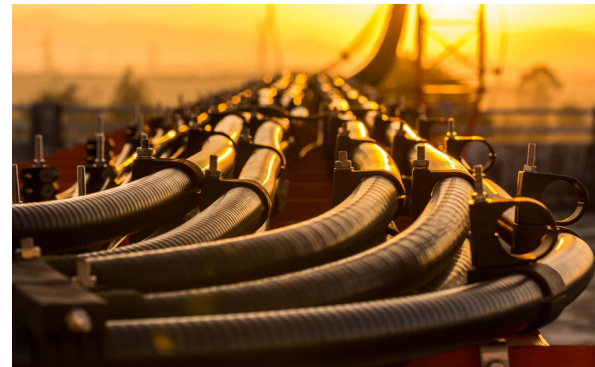
Jung-sik Suh

CEO  
KT Cloudware

KT wanted a solution that would complement its Compute Service (CS) operations, where customers could use server resources within five minutes of sign-up. The solution had to allow customers to pay for only the services they needed and used, without upfront expenses.

KT needed an effective way to control operational costs. In particular, the company needed an OpenStorage solution that could run on standard hardware and provide extended functionality, such as deduplication, compression, self-healing, synchronous and asynchronous replication, and HA cluster availability.

As part of the solution, flexibility in the build-out phase was required. KT did not want to replace all of its hardware presently in use. Nor did it want to rely on only one vendor instead, the company wanted a hardware-agnostic solution, allowing it to use, and add to, existing systems. Open source storage software, running on standard Intel-based hardware, was the path to take.



## Solution and Benefits

### Solution

NexentaStor gives KT almost limitless future flexibility and scalability in performance and capacity. Its scale-out architecture shifts compute-intensive workloads into the storage tier, taking advantage of the underlying capabilities of the Intel Xeon processors. Standard hard drives provide cost-effective capacity expansion while Intel SSDs provide accelerated read / writes when performance targets are more demanding.

As the leading hardware-independent storage solution, NexentaStor enabled KT to leverage its existing hardware into a new, expanded configuration. Time and money will not have to be invested on new hardware until the company needs to expand, at which time it will only have to add nodes, not replace the entire system.

NexentaStor supports a wide range of protocols for unified storage, including CIFS, NFS, rsync, iSCSI, Fiber Channel, and SATA. In addition, NexentaStor provides global access, in a range of time zones, with consistent data access.

### Benefits

NexentaStor helped KT implement a high-performance, yet cost-effective data storage solution. With Nexenta's Open Source-driven Software-Defined Storage solution running on Intel Xeon processor-based hardware, KT was able to reduce operational costs and beat competitive prices set by other cloud service providers.

NexentaStor customers typically experience significant cost savings (up to 70 percent) versus proprietary solutions through increased efficiency.

KT was able to deploy a turnkey NexentaStor solution in less than six months. This time-saving deployment meant KT could focus valuable resources on other business priorities instead of trying to implement a new storage solution from the ground up. The end result was a much faster time to market and a quicker return on investment. In day-to-day operations, too, NexentaStor's ease of use enables KT to scale quickly and efficiently in response to customer needs, while keeping its administrative costs low.



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