KTF Improves Transaction Speed by 1,000% with Integrated Authentication Service System

KTF
Seoul, Korea
www.ktf.com

Industry:
Communications

Annual Revenue:
US$5.8 billion

Employees:
2,500+

Oracle Products & Services:
Oracle TimesTen In-Memory Database
Oracle Real Application Clusters

Key Benefits:

- Handled average of 50,000 transactions daily
- Increased transaction speed by 1000% with 1 millisecond average response time
- Gained 24x7 non-stop system with two-node in-memory database and four-node clustered framework
- Improved speed between relational database management system (RDBMS) and memory database using caching function
- Reduced RDBMS overload

"Oracle TimesTen In-Memory Database and Oracle Real Application Clusters 10g enabled us to handle over 50,000 transactions daily, providing customers with a faster and more reliable service." – Choi, Byoung-Cheol, Vice President, KTF

Established in 1997, Korea Telecom FreeTel (KTF) is Korea's second largest mobile operator with a subscriber base of approximately 12–13 million. The company offers a range of wireless telephony, high-speed wireless data, and multimedia services. In a market that leads the telecoms world in service and technology innovation, KTF was named *Business Week* magazine's '2002 Best Mobile Telecommunications Company' in its Top 100 IT Companies survey. KTF generates annual revenue of US$5.8 billion and employs more than 2,500 staff.

The company launched its flagship WCDMA 3G cellular network dubbed 'SHOW' in 2007 and has since signed over 3 million users to the service. The network provides high-speed data, video-based services, and global roaming via HSDPA.

KTF was also the first telecommunications provider in Korea to release an icon-based multimedia download service called 'Multipack' and a high-speed mobile 1xEVDO product under the name 'Fimm'. MagicN is the company's wireless internet offering.

KTF's Service Infrastructure Research Centre, part of its Research & Devlopment Institute, has deployed Oracle TimesTen In-Memory Database and Oracle Real Application Clusters (RAC) 10*g* to develop a fast, integrated subscriber and service authentication system for its wired and wireless services.

Non-Stop System

KTF has rolled out a 24x7 'non-stop' system comprised of a two-node in-memory database and a four-node cluster using Oracle Real Application Clusters. This provides fault tolerance, keeping the system secure and continually up and running while increasing application performance. Each RAC node is independent

Published March 2008

according to function, minimizing the effect of failure between each node.

During emergency situations when the in-memory database fails to process authentication transactions, the system fails over to the four-node cluster, ensuring service stability.

KTF is now able to process more than 50,000 transactions daily at an average processing speed of 1 millisecond per transaction, an increase of 1,000% over the previous system.

“Oracle TimesTen In-Memory Database and Oracle Real Application Clusters 10*g* enabled us to provide customers with a faster and more reliable service,” said Choi, Byoung-Cheol, vice president, KTF.

Why Oracle?

KTF required a system that could be developed quickly and was compliant with existing databases. A useful feature of Oracle’s TimesTen In-Memory Database called Cache Connect to Oracle, improves speed between the relational database management system and memory database using a caching function.

This feature creates a cache for Oracle data in the application tier in real time, offloading computing cycles from backend systems and resulting in reduced development time and improved application performance.

KTF is Korea’s second largest mobile operator with a subscriber base of approximately 12-13 million. The company offers a range of wireless telephony, high-speed wireless data, and multimedia services.

Published March 2008