Nable Communications Improves Call Processing Capability by More Than 50%

Nable Communications
Seoul, Republic of Korea
www.nablecomm.com

Industry:
High Technology

Annual Revenue:
US$12.9 million

Employees:
115

Oracle Products & Services:
Oracle TimesTen In-Memory Database

"Nable Communications developed nXer-SBC, the first high-end session border controller in Korea, by combining our expertise in communications technologies with the reliable and fast data processing technology provided by Oracle TimesTen In-Memory Database. Also, by leveraging the global recognition of Oracle TimesTen In-Memory Database, we established a firm foundation for the nXer-SBC to compete in the global communications space." – Kim Songhyuk, Group Leader and Vice President, IPC Group, Nable Communications

Founded in 2003, Nable Communications offers internet protocol (IP)-based communications products and solutions to carriers and enterprises. Its products include IP multimedia subsystems (IMS), IP-private branch exchange (PBX) systems, network traffic analysis systems, and IP-Centrex products and application servers, such as presence, instant messaging, short messaging service, and location-based service.

Known for its leading edge IP communications products, in 2008 Nable Communications began developing a new IP-based session border controller (SBC), which enables carriers to provide seamless voice-over-IP (VoIP) services. As such, the SBC must be able to process large amounts of data in real time. To ensure its SBC could do this, Nable Communications deployed Oracle TimesTen In-Memory Database as the underlying database platform.

The Oracle database supports high-capacity data processing, minimizes performance degradation, and ensures fast recovery times in the event of system failures. By implementing Oracle to drive the SBC, Nable Communications ensures the device can accommodate concurrent call processing, which improved call-processing capabilities by more than 50%. Its customers, including some of South Korea's largest communications service providers, will now benefit from faster, more reliable performance.

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Key Benefits:

- Enabled rapid data processing and accommodated concurrent call processing
- Improved call processing capabilities by more than 50%
- Eliminated the need to manage multiple call processing terminals
- Ensured high availability by offering fast recovery times in the event of a failure
- Provided protection against hacking and other external attacks

A Need for a Powerful, Reliable Database Platform

The demand for session border controllers is increasing rapidly, due to the recent expansion of VoIP services. It is an essential device for internet telephony providers, performing functions such as transforming, processing, and managing messages to provide seamless VoIP services. The device also protects VoIP service providers from security breaches and provides quality-of-service functions to ensure service quality.

The importance of the SBC in the internet telephony network means it has to deliver fast, reliable performance even during peak times for phone calls. Communications service providers must meet certain service level agreements, so carrier-grade SBCs must be able to rapidly process calls. It is therefore important that the database underlying the SBC can process data in real time.

Nable Communications was looking for such a database for its carrier-grade nXer SBC. The company needed a solution that offered microsecond response speeds, supported large volumes of calls and users, and enabled high-speed data replication. It also wanted a database that simplified backup and recovery, was easy to manage, and could be quickly recovered in the event of a failure. After evaluating a range of options, Nable Communications selected Oracle TimesTen In-Memory Database.

Call Processing Capabilities Improved by 50%

Nable Communications was the first company in Korea to offer a carrier-grade SBC based on Oracle TimesTen In-Memory Database. The embedded database enables rapid data processing and can accommodate concurrent call processing. This has enabled Nable Communications to improve call-processing capabilities by more than 50% and ensured the SBC has the flexibility to respond to fluctuations in the numbers of calls and users.

Because the SBC can support large numbers of subscribers and high-volume call processing in a single unit, carriers no longer need to manage a multitude of call processing terminals. This is a key competitive advantage of Nable Communications over other communications solution providers. The nXer SBC also offers fast recovery times in the event of a failure, further ensuring availability and reliability.

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Protection from External Attacks

The nXer SBC is equipped with hacking prevention features, which intercept denial of service and distributed denial of service attacks. The device also offers other VoIP security functions to further protect against external attacks, ensuring internet telephony providers can provide a safe service.

Global Expansion on the Cards

Nable Communications' customers include South Korea's leading multi-enterprise internet telephony service providers and government institutions. It also provides solutions for the Korean Government's internet telephony network.

The nXer SBC has been successful because it is faster and more affordable than competitor products. In a performance comparison with Nable Communications' major competitor, the nXer SBC processed calls at twice the speed of the competitor's product. It also costs less to install. Along with performance and cost advantages, the nXer SBC complies with international communications standards and protocols. This puts Nable Communications in a strong position to enter the global communications market, which it intends to do in the near future.

Why Oracle?

During its search for a fast, powerful, and reliable database that would support carrier-grade workloads, Nable Communications became aware of a well-known international VoIP solution provider that was using Oracle TimesTen In-Memory Database with significant success. Testing revealed that the Oracle solution performed better than competing products.

"We were very satisfied with the performance of the application program running on Oracle TimesTen In-Memory Database, which produced faster results than any database used previously," said Park Sangwoo, senior researcher at Nable Communications. "The solution demonstrated its value when it came to mass capacity session processing and system recovery. The test results showed improvements in all performance metrics; the reduction in the average time for call connections was amazing."

Oracle TimesTen In-Memory Database was implemented between December 2008 and September 2009.

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