

Guangdong Telecom Ensures High Performance and Stability with Clustered Server Framework



Guangdong Telecom Co., Ltd
Guangzhou, China
www.gdtel.com.cn

Industry:

Communications

Annual Revenue:

US\$4.87 billion

Employees:

42,000

Oracle Products & Services:

Oracle Database
Oracle Real Application Clusters

Key Benefits:

- Delivered high performance and availability by choosing clustered server framework
- Simplified maintenance by using a range of Oracle database management tools
- Lowered hardware costs by adding commodity servers only when extra processing power is needed
- Supported business growth with scalable system

“Oracle clustering technology enabled us to build a secure, highly available platform for our application systems. In addition to increased reliability and security, the Oracle solution offers low total cost of ownership, so we can devote more resources to building the business.” – Wang Ronghui, Project Manager, Strategy and Planning Department, Guangdong Telecom Company Limited

Guangdong Telecom Co., Ltd., a subsidiary of China Telecom Corp., Ltd., provides domestic and international fixed telecommunications and voice, data, and multimedia services. Its network covers 22 prefecture-level city branch companies, 78 county-level telecommunications bureaus, and 4,502 telecommunications sub-bureaus in Guangdong province.

Competition in the Chinese telecommunications industry intensified when the country opened its markets to foreign investment. Domestic communications companies shifted their focus from network expansion to improving customer service, reducing costs, and strengthening management control.

Many companies turned to information technology to help them manage growing data volumes, streamline operations, refine service, and enhance business intelligence.

In Guangdong Telecom’s case, the company selected Oracle Database and Oracle Real Application Clusters to build a stable, secure platform for its application systems. The Oracle solution enabled data from different data sources across the province to be collected and stored in a single database, giving senior managers a unified view of company performance. It also ensured 24/7 access to critical applications backed up by powerful performance, high security, and easy scalability.

Ensuring Reliable Application Access

In the past, Guangdong Telecom maintained a single database server. If the server malfunctioned or had to be shut down for maintenance, the company’s applications would also be affected, bringing business operations to a halt.

Guangdong Telecom used Oracle Database and Oracle Real Application Clusters to build a robust, two-node database cluster. If one server experiences problems, the workload is instantly transferred to the second server in the cluster. This ensures around-the-clock application availability, eliminating the risk of any impact on the business. Users do not notice any difference in system performance even when only one server is in operation.

High Performance System Improves Efficiency

Guangdong Telecom has experienced a dramatic improvement in processing efficiency because the Oracle clustering solution spreads the workload over two machines and adjusts performance accordingly. In the past, system performance would slow down when a server was overloaded as there was no way of shifting the work to another machine.

The Oracle environment ensures stable, powerful database service even in peak periods. It also enabled Guangdong Telecom to improve resource use, leading to a reduction in hardware costs.

The company has also improved efficiency by centralizing data in a central location and automating workflows. This has enabled Guangdong Telecom to move a certain number of employees to higher-value tasks.

Simplified, Low Cost Maintenance

Managing and maintaining the Oracle database environment is easy with Oracle's powerful system management functions. Guangdong Telecom can automate database management functions such as backup, safety control, space allocation, and performance monitoring. By simplifying database management, the company has improved efficiency and reduced the number of system management personnel it employs.

Flexible, Adaptable System Supports Growth

The Oracle solution gives Guangdong Telecom the flexibility to expand its systems in line with business growth. The company can add or delete hardware in the cluster without any effects on performance. In addition, Guangdong Telecom can buy low-cost commodity servers instead of making a large, upfront investment in expensive hardware with excess capacity. This ensures costs are kept to a minimum.

Why Oracle?

According to Wang Ronghui, project manager of the strategy and planning department at Guangdong Telecom, Oracle Database and Oracle RAC were considered the best solutions for the company's complex environment.

"Oracle Database and Oracle RAC offered outstanding processing ability, usability, flexibility, and security," he said. "The solution also provided good interoperability with other systems. The deployment period was also shorter than other products."

"Oracle Database came with tools that simplified database management," Wang added. "This reduced maintenance costs."

Implementation Process

Guangdong Telecom deployed Oracle Database and Oracle RAC as a two-node cluster. The company uses Sun T2900 servers running the Sun Solaris 9 operating system and Sun SE3130 storage arrays.

Guangdong Telecom Company Limited provides domestic and international fixed telecommunications services and voice, data, and multimedia communications and information services.