Hewlett Packard Enterprise

Datang improves real-time access to production data
HPE Structured Data Manager relieves pressure on core database systems

Objective
Improve database performance with a scalable solution in order to boost productivity

Approach
Analyzed various archiving solutions on the market
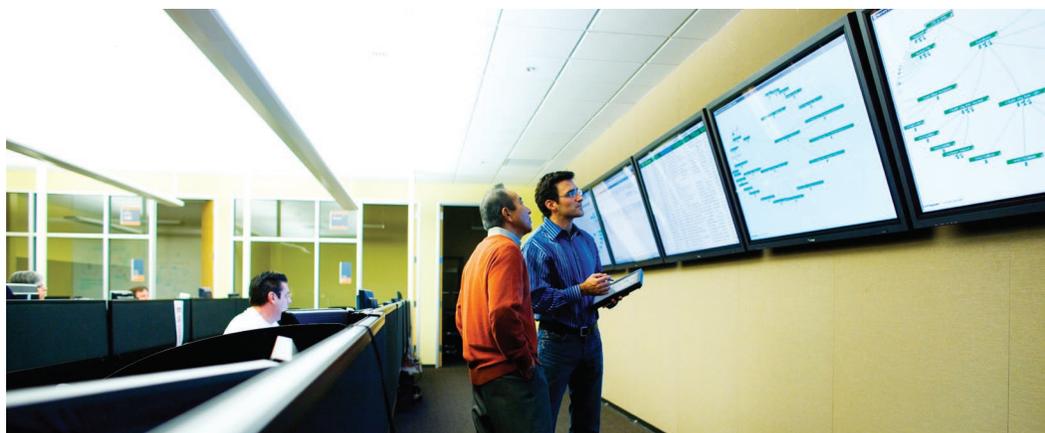
IT Matters
- Reduces the overall scale of Oracle E-Business Suite database
- Provides visual design tools to support custom and internal applications
- Simplifies the development of testing processes

Business Matters
- Reduces space occupied by critical data, improving system performance and alleviating management and maintenance worries
- Enables faster data access at lower cost
- Responds in real time to the production needs throughout the group, providing valuable information for decision makers

Business growth meant that the Oracle databases of China's national power generation group, The Datang Corporation, were running slow and reducing productivity. The answer was to archive inactive data with HPE Structured Data Manager.

Challenge

Slow performance
National power generation group China Datang Corporation is a Fortune 500 company. It runs eight provincial power generation businesses, seven branch offices and the specialized companies Datang Power Fuel, and China Datang Technologies & Engineering. The group used Oracle E-Business Suite (Oracle EBS) to build a unified core business integration platform for these subsidiaries. This greatly improved working efficiency and product effectiveness by consolidating internal resources and integrating business processes.

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"With the implementation of this Hewlett Packard Enterprise archive optimization solution, we've been able to prepare for a rainy day without having to frequently upgrade our server and storage infrastructure."

– Liu Wenzhe, safe production department deputy director and information management office director, Datang Huayin

However, since the platform went online, the volume of production, finance and management data had grown exponentially. As the number of forms increased, the most frequently-used modules ran slowly and response times lagged. This led to dissatisfaction among first-line power plant staff; the optimization of database performance became extremely urgent.

Datang Group faced challenges in the management of functions such as production, finance, fuel and supply chains. To optimize these business processes, it needed a software package that would apply global industry best practices to the construction of a new IT operations and management platform. This would enable the main enterprise management business to be integrated into one platform, supporting collaboration between branches. In turn this would greatly improve the efficiency, risk prevention and control capability of management.

The normal method for improving database performance is to upgrade and expand the database servers and storage. This maintains system processing performance yet increases storage and backup requirements. However, frequent upgrades can lead to system faults and prolonged downtime. The result can be an increase in IT investment.

Datang Group wanted to find a reliable and scalable database archiving solution. This would reduce the response, backup and recovery times of critical applications, improve system manageability, and reduce the administration expenses of managing databases.

Solution

Archiving software
The company examined and tested the industry's leading data archiving products and matched them to its own development processes and products. In the end, it found HPE Structured Data Manager (SDM), previously known as HPE Application Information Optimizer, was most suitable.

HPE SDM automates application lifecycle management by relocating inactive data from expensive production systems and legacy databases, while preserving data access. With SDM, users can retire outdated applications through an automated process of extracting, validating, and deleting data. This significantly reduces capital expenses and administrative costs. It also allows users to respond quickly to legal and compliance requests.

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Ultimately, users drive more value from their data. It interfaces with Oracle's major business applications and possesses comprehensive archiving modules that can be run immediately. Each module has been pre-planned and tested, complies with Oracle Business Rules and its processes, and supports data and application integration.

Prior to implementation, experts from HPE Technology Services researched the Datang requirements in detail. They conducted field surveys into the existing structure, modules, data volume, performance, and verification environment in order to determine which business operations were running slow. They found accounts were taking a long time to post after the certification of financial documents, and profit ledgers were also being calculated very slowly. More importantly, the client wanted to include additional companies and business online in the future, and was becoming more worried about scalability.

Subsidiary Datang Huayin used database archiving software from Hewlett Packard Enterprise to implement its single-instance live archiving solution, in accordance with Datang Group's Oracle EBS application environment. Under this solution, there is no need for additional database servers. Production data and historical data exist in the same high-performance HPE Integrity Superdome 2 server, but belong to different table spaces.

The logical layer distributes data in order to improve the overall performance and facilitates storage management. In addition, using this solution means the archiving process is relatively simple and different permissions can be set according to requirements. Access to historical data is reconfigured, but performance will not decrease.

HPE SDM provides an EBS-standard module large table archiving model with a visualization module environment. Financial material and system management modules customize well on delivery and the standard model can be directly imported. Datang Group also has numerous reporting and business intelligence systems it has developed, though these customized parts require secondary development. This designer tool quickly creates new archiving modules. This enables users to simply find forms within the architecture browser and drag them into the designer interface, where they can be customized.

Benefit

Speed & scalability
Datang Huayin has greatly reduced the overall scale of its Oracle EBS system. This has improved system performance by migrating inactive data, thereby greatly reducing the space occupied by critical data. It alleviated worries about management and maintenance.

Customer at a glance

Hardware
• HPE Integrity Superdome 2

Software
• HPE Structured Data Manager (SDM)

"HPE SDM possesses comprehensive data archiving functions. It effectively manages database growth and improves the overall access so systems still run efficiently even when there are large numbers of simultaneous users."

– Liu Wenzhe, information management office director, Datang Huayin

This solution has been recommended as the standard for the database archiving of Datang Group's tier two subsidiary companies' core business integration platforms.

Director Liu Wenzhe says: "HPE SDM effectively manages database growth and greatly improves the overall access efficiency of the core business integration platform, so the system still runs efficiently even when large numbers of users are using it simultaneously."

Database to database archiving supports faster data access while also reducing costs. The reduction of the volume of data has significantly accelerated end-user access which significantly improves the performance and availability of task-critical database applications.

The full range of simplified access capabilities together with a web-based console meet business operations, compliance and audit requirements. It can be operated without third party tools, while the integrity and consistency of data is always maintained. Visual design tools support custom and internal applications, and enable business analysts to focus on business-specific archiving rules. With powerful scalability the solution can also process the largest and most complex database applications.

After archiving, the core business integration platforms of each of the group's branches will be able to guarantee that the size of the production database is maintained at an optimum level for the next five to 10 years. This will avoid database server and high-end storage expansion, reduce database tuning expenses and system maintenance costs, and improve Return on Investment (ROI).

By migrating inactive data to a separate online database, the constantly expanding data will be effectively managed, maximizing business efficiency and responding to the challenges of business growth.

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