Dongguk University Boosts Administration System Security with Audit Control Solution

Dongguk University
Seoul, Korea
www.dongguk.edu

Industry:
Education & Research

Employees:
2,945

Oracle Products & Services:

Oracle Database
Oracle Real Application Clusters
Oracle Audit Vault

"Oracle Audit Vault is the only solution in the marketplace based on open standards that allows us to easily collect and analyze audit data, and take appropriate action. The centralized system also provides the ability to search for unauthorized activities that violate security and governance policies." – Moon Sangkuk, Senior Manager, Information Planning Team, Information Management Computing Center, Dongguk University

Established in 1906, Dongguk University is a private, coeducational university in Korea, and one of the few Buddhist-affiliated universities worldwide. It has campuses in Seoul and Kyonngjju with about 24,000 students and 2,945 teaching staff.

As part of its drive to be the number one university in Korea based on student and teacher satisfaction, the institution deployed a Web-based academic administration system, called uDRIMS, to streamline administrative tasks.

Students use the system to manage their profiles and timetables online while teachers and staff use it to organize course details and other important administrative tasks. One of the most important parts of the deployment was the rollout of an auditing system to provide control over user privilege rights and strengthen security.

The system enables the university's IT staff to create an audit trail of information about who uses the system, when and where they access information, and which tasks are performed. Security staff then uses this information to create audit reports.

However, the university ran into issues as IT staff had to analyze all of the Web access logs to match application users with their database operations.

"This required additional development time to build the necessary functions to generate and collect the appropriate audit trails and to report them, which was costly and meant that we were unable to perform audits as frequently as required." said Moon Sangkuk, senior manager, information planning team, information management computing center, Dongguk University.

Published October 2009

Key Benefits:

- Automated the collection and consolidation of audit data, which lowered the risk of insider security threats
- Provided audit controls which verified that only the authorized application user was performing the specified database tasks
- Made the auditing process easy by providing useful information such as user name, corresponding IP addresses, and role in the application
- Allowed reports and audit policy functions to be viewed on screen, eliminating the cost and time associated with completing manual audits
- Enabled the university to meet data audit regulations related to information security

"In addition, using Web application logs, it was hard to guarantee if the database job was completed. As a result, we decided that the main audit control should be at the database, not application level."

Automated Audit Data Collection

As a result, Dongguk University deployed Oracle Audit Vault as part of its auditing system. The solution, which runs across a two-node Oracle Real Application Clusters framework, lowers the risk of insider security threats by automating the collection and consolidation of audit data.

Oracle Audit Vault enables the university to easily recognize user tasks processed within its Oracle Database when conducting major audits. It provides audit controls to verify that only the authorized application user is performing the specified database tasks. This addresses the requirement for final audit trails to include the exact application user information, and the SQL operation performed by the user.

Oracle Audit Vault also includes Oracle Database Vault, a built-in access control technology that enables the separation of duties to manage auditor and administrator tasks related to critical data. This also provided the university with secure storage of audit data.

Improved Security, Reduced Costs with Reporting

Oracle Audit Vault enables Dongguk University to automatically collect and analyze data originating from several systems, enabling the institution to easily conduct internal security audits.

"Oracle Audit Vault makes it possible for our Oracle Database to audit all database activities based on the live Web application user information regardless of the use of shared connection pools," said Sangkuk. "The solution makes the auditing process easy by providing useful Web user information such as the user name, corresponding IP address, and role in the Web application."

Because all audit information is created at the database level, access by unauthorized external users can also be detected. "We can easily identify any wrong doing, recognize abnormal data access, and clarify who is responsible for wrong or unauthorized data access."

Published October 2009

In addition, various reports and audit policy functions can be viewed on screen, which eliminates the cost and time associated with completing manual audits.

"We can now easily access reports required to compile audits at any time," said Sangkuk.

"Oracle Audit Vault is the only solution in the marketplace based on open standards that allows us to easily analyze audit data, and take appropriate action.

The centralized system also provides the ability to rapidly search for unauthorized activities that violate security and governance policies while enabling us to adhere to regulations related to information security."

Why Oracle?

As an Oracle Database customer, Dongguk University trusted the performance and reliability of Oracle Audit Vault.

"Oracle Audit Vault was the best solution to meet our requirements at the lowest cost," said Sangkuk. "The solution works well with the Oracle Database and is also compatible with other databases from competing suppliers.

Implementation Process

Dongguk University undertook a proof-of-concept review to determine if Oracle Audit Vault was suitable before starting the implementation in May 2009. The solution went live on July 1, 2009.

Dongguk University is a private, coeducational university in Korea, and one of the few Buddhist-affiliated universities worldwide. It has campuses in Seoul and Kyonngjju with about 24,000 students, and 2,945 teaching staff.

Published October 2009