

Olam International Boosts Database Performance by up to 300%



Olam International Limited
Singapore
www.olamonline.com

Industry:

Agriculture Commodities Supply Chain

Annual Revenue:

US\$5.4 billion

Employees:

9,000

Oracle Products & Services:

Oracle Database
Oracle Database Lite

“In my mind, we have achieved a good return on investment by upgrading to Oracle Database 11g: better performance, increased productivity in the business and IT divisions, significant time savings, and improved access to near real-time information. Best of all, we have a far more satisfied user group.” – Thiagaraja Manikandan, Senior Vice President and Chief Technology Officer, Olam International Limited

Olam International is a leading global supply chain manager, diversified across 20 agricultural commodities, 60 countries, 6,500 customers, and more than 200,000 suppliers. The company supplies nuts, spices and beans; confectionary and beverage ingredients such as coffee and cocoa beans; rice, sugar, dairy products, packaged foods; and cotton and wood products. In 2008, Olam received a World Business and Development Award, which acknowledges the contribution of the private sector to help achieve the Millennium Development Goals of the United Nations Development Programme through their core business.

To support its expanding business and ensure the availability of critical data and business applications, particularly in remote locations, Olam upgraded to Oracle Database 11g from Oracle9i Database in January 2008.

The upgrade to Oracle Database 11g on Microsoft Windows 2003 has improved the performance of Olam’s reporting system by up to 300%, increased productivity by 30%, eased the maintenance load on IT staff, and ensured access to near real-time business information in areas with poor network connectivity by synchronizing data between two database platforms.

An Oracle-Driven Business

In FY2008, Olam achieved sales revenue of US\$5.4 billion (SG\$8.1 billion), up 48.7% on the preceding financial year. Net profits also increased by 53.8% to US\$112.5 million (SG\$167.7 million).

Key Benefits:

- Improved performance by up to 300% in certain areas of the business
- Increased productivity by 30% by freeing time for staff to complete more activities
- Cut general ledger production time from one hour to 10 minutes
- Enabled staff in remote locations with poor network connectivity to access near real-time information by synchronizing data between two database platforms
- Eased workload of database administrators and enabled IT department to redeploy staff
- Achieved smooth deployment of Oracle Database and Oracle Financials on Linux by leveraging the Oracle Unbreakable Linux support program
- Accommodated resource-intensive risk management solutions and will support move to Linux or UNIX environment
- Mitigated upgrade risk by adopting an application-by-application rollout

To ensure it could support its rapidly growing global business, Olam decided to upgrade its database platform. The company had been running business-critical applications on Oracle9i Database for a few years and decided to upgrade Oracle Database 11g in January 2008.

“We wanted to leverage new features in Oracle 11g, take advantage of improved performance capabilities, and mitigate technology support risks,” said Thiagaraja Manikandan, senior vice president and chief technology officer, Olam International.

Olam’s global operations make it difficult for the company to centralize its IT infrastructure. It has a hybrid model, with a mix of centralized and distributed architectures depending on connectivity issues, cost, performance, manageability, and user requirements within each country. What each country has in common is the Oracle database platform. According to Manikandan, around 80% of Olam’s business is on Oracle Database 11g.

“We are a heavy user of Oracle products,” he said. “In addition to Oracle Database, our middleware layer was built using Oracle technology, including Oracle Forms, Oracle Developer Suite, and Oracle JDeveloper. We also use Oracle Financials 11i to manage corporate finance.”

Olam has an in-house enterprise resource planning (ERP) system to accommodate its complex business, which spans multiple geographies, supply chains, and products. The ERP system, along with the company’s global trading and transaction systems, all run on the Oracle stack.

Oracle Database 11g and most of Olam’s critical applications run on the Microsoft Windows operating system. However, the company also runs Oracle on Linux for its Oracle Financials 11i implementation out of its Singapore headquarters. This is due to the fact that Oracle patches tend to be released first for the Linux environment, followed by the Windows environment. To stay up-to-date on the latest versions, which promise better performance and savings on licensing costs, the company has been running Oracle Financials on Linux since 2007.

“As we are a Windows shop, we did not possess the in-house expertise to migrate to Linux,” said S. Mathiazhagan, senior assistant manager, IT Solutions, Olam International.

“Thanks to the Oracle Unbreakable Linux support program, we were able to do the proof-of-concept by ourselves and successfully deploy Oracle Database and Oracle 11i applications on Linux. We have already witnessed better performance and reliability. We are very satisfied with Oracle’s Linux support capabilities.”

Seamless Synchronization Enables Near Real-time Data Access

According to Manikandan, the most significant benefit of the upgrade was the seamless data synchronization between Oracle Database Lite 10g and Oracle Database 11g. This enabled Olam to ensure offices in remote locations with poor network connectivity have access to near real-time data.

Prior to implementing Oracle Database 11g, Olam could either install Oracle9i Database Lite or Oracle9i Database Enterprise Edition, but not both, in a single location. Oracle9i Database Lite was only synchronized with the enterprise database server once a month, which meant users were not working with the most current information.

“Our business is largely aligned to the market price for commodities, so the most important information for us is the daily position,” said Manikandan. “If we do not know our position on a daily basis, we run a huge risk. The monthly data updates were clearly not often enough, as our users needed real-time access to current data.”

By migrating to Oracle Database Lite 10g and Oracle Database 11g, Olam has achieved seamless integration between the two platforms and can offer both online and offline access to near real-time data. “We moved to daily data synchronization within two weeks of upgrading to Oracle Database Lite 10g and Oracle Database 11g,” said Manikandan.

The ease of synchronization means Olam can install Oracle Database Lite 10g and Oracle Database 11g in a single country. For example, in Nigeria there are areas with good and bad network connectivity. In the good areas, the company can implement the enterprise database. In areas with poor connectivity, it can install Oracle Database Lite 10g and synchronize the data between the two locations. This means users can work offline when network connections drop out, with the

knowledge that data is synchronized with the enterprise database server and will be updated when connections are restored.

“We can expand our penetration in each country as online, offline, and hybrid solutions can now co-exist,” said Manikandan. “Today we have near real-time access to information, globally. Our users can access the critical information they need when they need it, improving our ability to supply customers with the products they need at the right price.

“Within Olam, the ability to seamlessly synchronize data between different database platforms was considered the most significant breakthrough we made as a result of upgrading to Oracle Database 11g,” he said.

Olam is now looking at hourly data synchronizations, using the background sync feature in Oracle Database Lite 10g.

Up to 300% Improvement in Performance

Following the upgrade to Oracle Database 11g, Olam experienced significant performance improvements.

“Our main business reports can be completed within 15 minutes, compared to 30 minutes in the past—100% faster than before,” said Manikandan. “In other areas of the business, we have seen performance improvements of up to 300%. In one instance, we have cut the time required to produce general ledger reports from one hour to 10 minutes.”

While these performance improvements are welcome, Manikandan said it is the time saving that is most important. “Our users are more productive because they don’t have to spend as much time waiting for reports to be generated as they did in the past,” he explained. “In the example above, staff has 50 more minutes in which to complete other tasks. I would say productivity has improved by as much as 30%.”

Maintenance Load Eased

Upgrading to Oracle Database 11g has eased the maintenance load of Olam’s database administrators (DBAs). According to Manikandan, the solution is very easy to manage.

“We operate in multiple time zones but our IT management is centralized in India, with Singapore offering corporate IT services,” he said. “Today our DBAs no longer need to constantly

monitor the database, so they can go home at night with peace of mind.”

The productivity of the IT team has also improved as DBAs are redeployed to other duties. Olam is looking at leveraging the database caching function to further reduce the maintenance load.

“The role of IT is to work towards reducing the cost of doing business,” said Manikandan. “In my mind, we have achieved a good return on investment by upgrading to Oracle Database 11g: better performance, increased productivity in the business and IT divisions, significant time savings, and improved access to near real-time information. Best of all, we have a far more satisfied user group.”

Why Oracle?

The opportunity to move to a more powerful database and stay with a familiar operating system platform proved attractive to Olam. The company chose to upgrade its older Oracle databases to Oracle Database 11g despite the potential of Microsoft SQL Server.

“Oracle provides much better stability, performance, and availability capabilities than Microsoft SQL Server, so it doesn’t make sense to switch to some other technology when you’re already using a top-of-the-line database,” said Manikandan.

Olam considered Microsoft SQL Server less flexible because it runs only on the Microsoft platform, a fact that would impede Olam’s switch to Linux or UNIX if it were to consider an operating system change sometime in the future.

Upcoming decisions about applications also influenced Olam’s choice of database. “We’re looking at some top-of-the-line risk management solutions that are very resource-intensive,” said Manikandan. “They only run on high-end databases like Oracle.”

Implementation Process

Olam started piloting Oracle Database 11g in January 2008 and completed the enterprisewide upgrade in October that year. According to Manikandan, the project wasn’t just a simple Oracle9i Database to an Oracle 11g upgrade.

“It involved a lot of other migration activities, including migrating stored procedures from other technologies such as Java, to leverage full potential of the Oracle Database,” he said.

“Throughout the project, from pilot to go live, we met all our objectives successfully, thanks to Oracle providing adequate platform migration tools and a solid technology roadmap.”

Olam adopted an application-based migration approach, where applications were upgraded one at a time, irrespective of complexity and the number of locations it served. This balanced the time and risk of the project, while allowing Olam to benefit from any lessons learnt during the phased deployment. The implementation was carried out with in-house and third-party resources. Oracle provided advisory services whenever needed to steer the project.

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