



Overview

Country or Region : Indonesia
Industries : Financial

Customer Profile

PT KPEI is the center for securities transactions. It belongs to the Indonesian Stock Exchange and its function is to serve the clearing, guarantee, borrowing and lending needs of the stock exchange community.

Business Situation

In the past, KPEI used diverse applications, which also served as data sources. Creating reports was a challenge, as the IT staff had to first determine from which application they should extract the data. This caused long delays in report creation.

Solution

After evaluating products from Oracle and Microsoft, KPEI chose Microsoft® SQL™ Server 2005 as the tool to create their data warehouse. eBiz Cipta Solusi, a Microsoft Gold Certified Partner was chosen for the implementation.

Benefits

- Faster reports creation
- Single truth
- Flexible data presentation
- Reliable vendor support
- No hidden costs

KPEI MAXIMIZES DATA ACCESS SPEED AND ACCURACY WITH DATA WAREHOUSE

Our biggest hurdle in the past was that we used many applications, each of which was also a data source. When a request for a report arrived, we had to chase the data. This involved extensive manual operation.”

Aditya Gadiri

Vice President, Division Head, Information Technology, PT KPEI.

Summary:

Formed in 1995, KPEI provides securities clearing, guarantee, borrowing and lending services to the Indonesian Stock Exchange community. Up to the end of 2007, it had islands of applications. Data was dispersed in these applications, substantially slowing down the processing of regular as well as specific reports. Data accuracy was also questionable.

In January 2008, the company decided to build a data warehouse to consolidate all its data. During the selection process of a database server product, a team consisting of IT staff and users looked for a field-proven product with high performance, capability, capacity and no hidden cost for additional tools that might be needed in the future. After a careful evaluation, it chose Microsoft® SQL™ Server 2005 over a competing product.

Implementation started in January 2009 and was completed in May. Today the data warehouse enables KPEI to reduce the time needed to create reports as it now has a single source of data. Users can flexibly view data in pre-defined charts or table form and perform drill-downs. All of these lead to faster strategic decision making, reduced risks and improved revenues.



"Our selection criteria were performance, capability and price. We preferred using a proven product to creating the data warehouse from scratch. If there is a problem, we can complain to the partner or to Microsoft."

Jerri Parulian

Associate Vice President, Department Head, System Development, PT KPEI.

Situation

PT Kliring Penjaminan Efek Indonesia, or Indonesia Clearing & Guarantee Corporation (KPEI), is a fully owned subsidiary of the Indonesian Stock Exchange. As the center for securities clearing, guaranteeing, lending and borrowing programs, it manages the settlements as well as facilitates the margin trading and securities financing. Its members are the brokers.

In 2000, KPEI introduced scriptless trading, which generated even more data and complexity to what they already had. Data grows rapidly as brokers sell and buy thousands of shares on a daily basis. It is the institution's task to keep track of the number of transacted shares. Aditya Gadiri, Vice President, Division Head, Information Technology, PT KPEI, categorizes KPEI's users into three groups. The first group consists of passive users who just use the reports that the IT department supplies them with. The second group consists of analysts who require more information and create their own reports based on their data analysis. The third group is the most advanced. With an authority to assign others to do research, they can be regarded as application administrators.

Prior to 2008, the company operated with islands of applications and data sources. The situation led to a number of problems. First, reports took a lot of time and required manual labor to create and distribute, making it impossible for the analyst users to respond to price fluctuation and changes in the brokers' performance. Second, as data had to be extracted from various sources and placed in a Microsoft® Excel™ spreadsheet for viewing, the staff had to run test after test to verify its accuracy.

Meanwhile, the users often asked the staff in the IT department to provide them with specific reports. IT department would then pull the data from those different, disintegrated applications. They had to redo the coding, create new templates and determine where the data resided. "It was such a time-consuming activity that the IT staff often had to work until late at night," recalls Aditya.

In 2008, the volume of data had grown substantially while the complexity of the reports had also risen dramatically, prompting

KPEI to make the strategic decision of deploying a data warehouse. The question was which data warehouse platform they had to invest in.

Solution:

In 2008, a KPEI team consisting of IT staff and users started by making a list of often requested reports and from which applications they should extract the data.

Learning from the experience of other companies, they also knew that a data warehouse project was a major undertaking that was prone to failure. A lot of companies wanted to make it perfect right from the start, and this usually caused the project to fail. "We learned that a data warehouse deployment should evolve with time, especially as users tend to add more complexity in their requests," says Jerri Parulian, Associate Vice President, Department Head, System Development, PT KPEI.

With the requirements more or less defined, the team started the selection phase. They seriously looked at the database server products from two top vendors, namely, Microsoft and one of its competitors. "We did not consider the other vendors, as it would force us to hire more people for development and maintenance," says Aditya. A beauty contest took place in July 2008.

Their selection criteria included performance, cost and capability. They conducted a weighted analysis of the various parameters, and they finally chose Microsoft SQL™ Server for the data warehouse backend.

Microsoft offered the newly released Microsoft SQL Server 2008, but KPEI was more interested in Microsoft SQL Server 2005. "We did not choose the 2008 version, as it was very new and we would rather use an already proven product," says Aditya.

The team visited one of Microsoft sites, which was a major company that sold consumer goods and had a big number of branches across Indonesia. They were happy to see how the data warehouse built based on Microsoft SQL Server 2005 enabled the company to collect the data from the branches and create daily as well as real-time consolidated reports.

"The data warehouse forced the users to store their data in one place. The single truth helps the three groups of users in performing their tasks faster, especially the analysts who usually have specific requirements."

Aditya Gadiri,

*Vice President, Division Head,
Information Technology, PT KPEI.*

KPEI consulted with Microsoft to find the right Microsoft Gold Certified Partners for the implementation. Then, after a series of careful, score-based evaluations, KPEI invited eBiz Cipta Solusi to give a demonstration and Proof of Concept.

Satisfied with the PoC, KPEI fully outsourced the implementation to this Microsoft partner. KPEI's team was involved only in the requirements specification stage. The company built their data warehouse in stages, one division at a time. The Division of Guarantee, Risk Management and Development was the first in line, but the data warehouse was immediately accessible by other relevant divisions as well as the BOD.

Fortunately, since 2006 KPEI has maintained its data in the cube format instead of just raw data. This helped simplify data storage. So, for example, if a user asks for marketing data or the sales completed by a broker on a specific date, all that the IT staff has to do is get the cube from that date.

Implementation started in January 2009 and was completed in May 2009. Then they put the data warehouse to production on an HP Proliant RX 6600. Currently, the volume of data in the data warehouse was already 47.5 GB, and it is growing by one gigabyte per month. For the front-end, KPEI selected Microsoft® Office PerformancePoint™ Server 2007.

Benefits:

The data warehouse at KPEI has brought the company multiple benefits, particularly efficiency, speed and accuracy.

1. Faster Report Creation

The time to prepare regular reports has been reduced from 3 days on average to one day as the system has taken over many of the manual chores. Yesterday's data can be

analyzed today and users can choose when they want to receive the reports. Some of the reports go out to the Indonesian Stock Exchange and Capital Market Supervisory Agency. "In the past, we often had to stay late in the office to meet the deadlines. Today we can go home in time to be with our families," says Aditya.

2. Single Truth

As data from various applications is now stored in one place, there is no more need to verify the accuracy. "The data warehouse has eliminated the need for copy and paste into a worksheet," adds Aditya.

3. Flexible Data Presentation

The Office PerformancePoint lets the users shape the data without compromising its integrity. They can now look at the data in pie chart or in table form and then with a double-click they can drill down to obtain more details. "We only allow the users to view their data in pie charts. Each time a user requires a more complex chart, the IT staff will prepare it to ensure accuracy," says Aditya.

4. Reliable Vendor Support

KPEI can consult with Microsoft if a new or a more complicated report is required and they need assistance in creating it. "Yet, so far we have never had to escalate any problem to Microsoft," Jerri adds.

5. No Catch

Microsoft SQL Server 2005 already came with everything that KPEI would need, including the SQL Server Integrated Services, or SSIS. There was no additional tool or services to pay for. "This allows us to define our IT budget more confidently," says Jerri. If the need comes to scale up, KPEI can adopt clustering.

