


Korea Labour Welfare Corporation speeds up decision making with Enterprise Data Warehouse



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– Do-Hyeon Jeong
Vice-Director Information Systems
Korea Labor Welfare Corporation



As global competition intensifies, the need for fast and effective decision making through analysis of data churned by all business units in an organisation is becoming more important. But converting data into useful information requires the integration of data residing in different IT systems and the application of new technologies that allow company stakeholders to access critical business data.

The Korea Labor Welfare Corporation (KLWC), recognised the importance of effective data management and analysis in building a competitive edge. With the help of HP, it constructed an enterprise data warehouse (EDW) that was able to respond to the rapidly-changing business environment. "The aim was to establish EDW as the organisation's knowledge backbone to raise operational efficiency and improve the public services that it delivers", said Do-Hyeon Jeong, Vice-Director of KLWC's Information Systems.

The business drivers

Established in 1995, KLWC's mission is to help develop a welfare society, providing wage guarantee programmes, industrial disaster insurance, and small- and medium-enterprise labour welfare programmes. The company has since strengthened its position as an exclusive public agency taking charge of labour welfare and it is continually seeking new ways of using IT to manage its business.

Although the main objective of the data warehouse is to help the company provide key welfare services and meet diversified customer demands, the need for the system also came about when timely policy data has to be offered to the government and other public agencies. KLWC was responsible for compiling various statistical data for academic institutions and government agencies to analyse, plan and develop labour welfare programmes.

However, they lacked the decision-making support infrastructure to do this. Besides, their internal IT systems are too diverse and disparate. This makes the task of compiling accurate and up-to-date information a difficult one.

As a result, they decided to enhance their decision-making capabilities by building a field-oriented data warehouse in March 2003. This allows the company to collect, store and analyse labour insurance and labour welfare business data.

Essentially, the enterprise data warehouse operates as a database that converts data from the legacy system's database into a useful format for general management to make better decisions. It also acts as a backbone infrastructure for customer-oriented strategies, serving as a stepping-stone to meet the organisation's knowledge management objectives.

"We intend to align the EDW project with our mid- and long-term strategies rather than leaving it as a simple, standalone system," said Mr Jeong, adding that there are plans to leverage on the data warehouse infrastructure by building applications such as electronic approval, general document and data management systems.

Execution plans

The company conducted a benchmarking exercise before drawing up an implementation plan. They discovered that many major domestic financial companies have built data warehouses in conjunction with customer relationship management (CRM) systems as part of their business strategy.



These companies expect to maximise internal management efficiency and improve customer satisfaction.

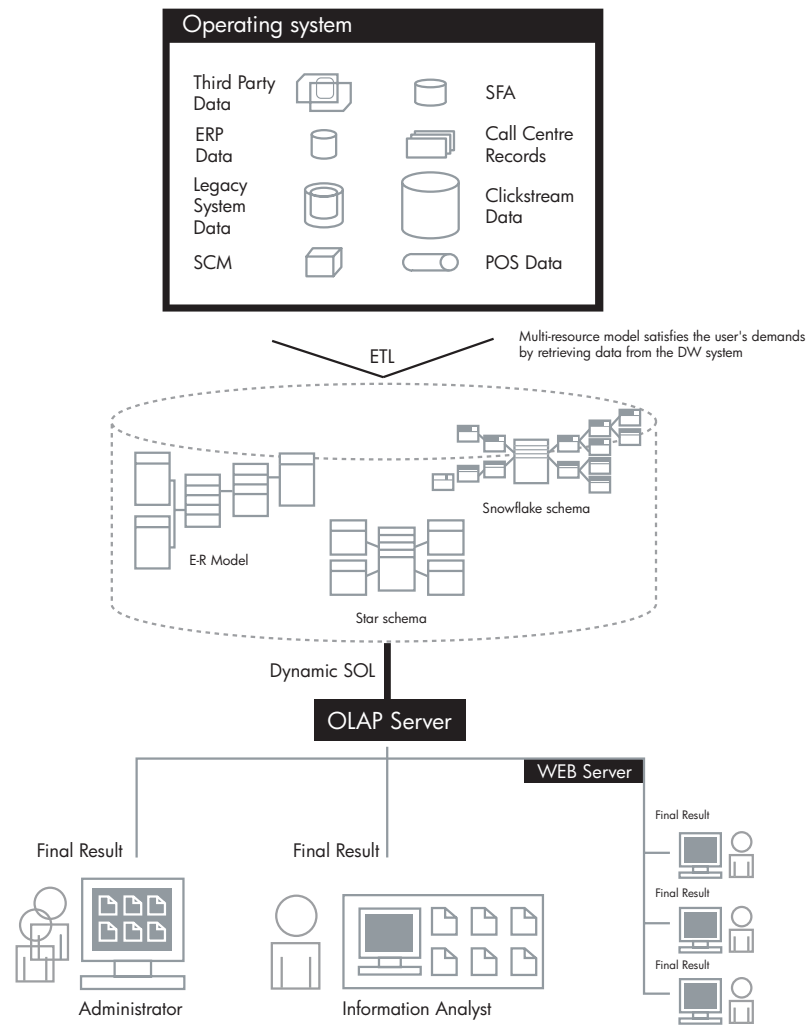
However, it was common for many companies to implement projects without integrating all their systems that contain customer data. This led to the public perception that enterprise data warehouse projects often failed to live up to expectations.

To debunk this widely held belief, KLWC conducted a thorough analysis of how their data were stored and of their standard business processes. After putting together an advisory committee to focus on project content and technologies, they came up with the data warehouse construction project plan in September 2003. They continually analysed and monitored the project throughout the implementation period in order to build an optimal system. An EDW project team within the company was set up in November 2003 to spearhead and deploy the project.

This resulted in a plan to build a data warehouse based on a meta-data solution. After analysing various data residing in different systems, the company organised their data terminologies to build a user-friendly system that enables staff to search for relevant data simply by keying in a terminology.

"KLWC's system is a truly user-oriented system in that users can directly retrieve and analyse the desired data with only a term," said Mr Jeong.

Korea Labor Welfare Corporation's System Structure



Since the enterprise data warehouse is the backbone infrastructure of the company's knowledge management initiative and is key to improving the organisation's processes, the project had the full support of KLWC's Chairman Yong-Seok Bang. He placed the best people in all the project teams, assigned responsibilities to them and emphasised corporate support for the project. The project came under the joint supervision of the Information System Team headed by the General Affairs Director and the Information Analysis Team led by the Insurance Director.

The vendor selection process started in December 2003. As KLWC was looking to invest some 6 billion won (US\$5.2 million) in the project, it was important to select vendors who have a good understanding of its operations, the capacity to integrate different systems, and the ability to provide consulting services.

Built for the future

KLWC's data warehouse consisted of four core systems: standard terminologies, data collection, information analysis and reporting, and management information. It was designed to offer timely policy data required to make decisions based on the organic correlation of the company's overall operations.

HP identified six areas in the company's IT infrastructure that could be improved including the existing data warehouse. HP also provided consulting services for the next-generation information system. To construct the enterprise data warehouse using the HP Superdome architecture, six high-end Unix servers were deployed.

Challenges

- Enable the organisation to provide leading welfare services and meet diversified customer demands
- Make it easy and convenient for users to collect, store, manage and analyse corporate data
- Improve the business decision-making process
- Build a backbone infrastructure for KLWC's knowledge management initiative

Solutions

- HP Superdome
- HP Consulting and Integration services

Results

- Improved business management processes
- Streamlined human resource management
- Improvements in operational processes in the customer management unit
- Speeds up the strategic decision-making process
- Simplifies the statistical development and reporting process

"The HP Superdome was selected because of data residing across heterogeneous IT systems. Servers with high system stability were required for the data warehouse to function smoothly", said Mr Jeong. "The HP Superdome has received great reviews on its performance and good responses from customers, and [that is why] we believe it was the appropriate system to integrate all our systems."

The implementation scope covered the integration of four key business systems, which comprises labour insurance, general administration, welfare administration and cyber management systems, as well as 21 civil affairs management systems and 62 other legacy systems.

As part of the project, KLWC also modified its role among government agencies and integrated its labour welfare statistical operations with relevant bodies such as the Korea Occupational Safety & Health Agency, the Human Resources Development Service of Korea and the Korea Labour Institute.

To complete the project, there were six specific tasks that KLWC had to undertake as part of the deployment process. These included

- The alignment and construction of EDW based on its customer management, performance management, statistics management and strategic management goals;
- Business process reengineering (BPR) methodologies were also applied to maximise data warehouse utilisation;
- Databases were constructed for its labour insurance and labour welfare businesses;

- Online analytical processing (OLAP) was chosen as the information infrastructure for users to analyse information and process reports;
- An executive information system (EIS) had to be constructed to enable users to access relevant information for accurate decision making; and
- An EDW portal was deployed based on a meta-data-oriented database schema to make it easier and more convenient for users to access corporate data.

When the project is scheduled to be completed in October 2004, KLWC will be able to better manage and grow its business faster.

"Through the EDW project, we expect to dramatically develop its business because management can directly view or analyse the desired information or data," said Mr Jeong. This is expected to simplify the statistical development and reporting process, and subsequently increase business efficiency and better strategic decision making.

In addition, the company expects human resource management to be streamlined and operational-processes to be improved in the customer management unit.

Jeong added, "Going forward, we anticipate that we will not only be able to make prompt decisions, but also analyse and process various information more efficiently. EDW will eventually become the stepping-stone for our knowledge management system."