POSCO Responds 10x Faster to Customer Inquiries, Gains Steel-Production Efficiency, and Enhances Customer Satisfaction

**The strategic relationship with Oracle, and the integrated platforms it delivers, allow us to differentiate our value to customers and support global business expansion. Oracle applications running on Oracle engineered systems optimized system performance and provided the accuracy and speed we required to support better decision-making, improve our customer response time, enhance control of production costs, and maximize our operating efficiency.**

*— Gyeong-Cheol Kim , Head of Information Infrastructure Promotion Group, POSCO*

POSCO—which has been recognized for the seventh consecutive time as the world’s most competitive steelmaker by World Steel Dynamics, the internationally renowned steel research institute—is known for its leading role in product innovation within the industry. With two integrated steel mills in Korea and steelworks in India and Indonesia, it produces high-quality steel for a broad spectrum of uses in the engineering, automotive, electronics, and construction sectors. Furthermore, POSCO has increased its overseas investment to secure stable supplies of raw materials, and it continues to improve its sales ratios for strategic, high-value-added sales.

POSCO initiated an ongoing process-innovation project to re-engineer its entire enterprise resource planning (ERP) process, including sales, purchasing, and production. It required an integrated management platform to consolidate and standardize product data across 176 global business systems, including ERP, manufacturing execution, supply chain, and business intelligence to ensure accurate customer orders and improve steel-production efficiency.

By integrating Oracle Fusion Product Information Management solutions—including Oracle Fusion Product Hub, Oracle Fusion Product Hub Data Steward, and Oracle Enterprise Data Quality Product Data Extension—with Oracle Unified Business Process Manufacturing Suite and Oracle Process Manufacturing, it enhanced data integrity for enterprisewide product specifications as well as control over commodity inventory and production costs across all factories. The solution also reduced production cycle time and ensured timely product delivery.

By running Oracle applications on Oracle Exadata and Oracle Exalogic, POSCO shortened the time it takes to respond to customer inquiries by 10x, calculated production costs 30x faster, enhanced decision-making, and increased customer satisfaction. POSCO also used Oracle Platinum Services to maximize system availability and performance for Oracle engineered systems and to ensure smooth operations.

* Increases Production Efficiency, Responds to Customer Queries 10x Faster

With POSCO’s build-to-order manufacturing process, it was critical for the company to design and deliver customer orders according to exact product specifications, such as steel thickness and width, and item coding. To improve production efficiency and increase customer satisfaction, POSCO required a centralized data repository to standardize product information received from its ERP system as well as from external supplier and customer systems.

Oracle Fusion product information management solutions enabled POSCO to aggregate, validate, and share complete, standardized, and consistent product data across the enterprise by automatically searching and comparing millions of customer-order requirements with standardized product specifications, based on predefined business rules, such as steel-alloy composition requirements. By integrating Oracle Fusion product information management with Oracle Unified Business Process Management Suite, POSCO improved its ability to monitor the performance of the data validation processes and alert staff to missing information through integrated product dashboards to ensure appropriate review and remediation before importing clean and validated data to its ERP system. The enhanced data integrity, in turn, minimized the waste of human and material resources in steelmaking operations.

“Oracle Fusion product information management solutions, running on Oracle Exadata and Oracle Exalogic optimized system performance and further enhanced the accuracy and efficiency of manufacturing operations. We can now respond to customer inquiries in one day instead of ten days, dramatically improving customer service” said Kim Gyeong-Cheol, head of information infrastructure promotion group, POSCO.

* Captures Precise Product Costs, Supports Proactive 사전 Decision-Making

POSCO had been using separate Oracle Discrete Manufacturing modules for each of its three steel mills. With continuing business expansion and globalization, POSCO needed enterprisewide visibility into the procurement 구매 process to enable a systematic approach to tracking and managing the specific commodities 상품required for each factory, such as raw materials used in steelmaking.

By deploying a single global instance of Oracle E-Business Suite Release 12 and rolling out Oracle Process Manufacturing across its multiple factories, POSCO gained the ability to accurately calculate cost information for each commodity and monitor inventory consumption and actual production costs for all factories.

“Thanks to Oracle Process Manufacturing’s detailed cost-tracking feature and flexible analytical tools, we can create real-time reports and detect risks early, respond proactively to challenges, and increase the transparency of management activities,” Kim said.

* Supports 3x Data Growth, Increases Staff Productivity and Satisfaction

Oracle E-Business Suite running on Oracle Exadata and Oracle Exalogic maximized ERP system performance and enabled POSCO to process 3x its previous data volume without bottlenecks. For example, it used to take 12 hours for each steel mill to calculate product costs. With Oracle hardware and software working in tandem 협력 관계, the company now processes data 30x faster, reducing the time required to calculate various costs to minutes, and increasing employee satisfaction.

POSCO also used its manufacturing execution system (MES) to control and monitor critical, steelmaking operating functions, such as heating, rolling, fixing, and warehousing. Oracle engineered systems enabled POSCO to process MES reports 4x faster, allowing management to gain real-time insight into manufacturing operations and support rapid decision-making.

“Oracle software running on Oracle hardware is the ultimate solution, enabling us to process 100,000 daily MES transactions faster, and facilitating real-time uploads to our ERP system. It improved work productivity across the enterprise, and enabled us to differentiate our value to our customers,” Kim said.

* Maximizes System Availability and Supports Strategic Initiatives

POSCO also enhanced its support services by implementing Oracle Platinum Services to gain 24/7, remote, fault monitoring and patch-deployment services for Oracle engineered system at no additional cost. This ensured a high level of system availability and minimized disruption to manufacturing operations.

“With Oracle Platinum Services, we raise service requests (SRs) 45x faster, diagnose problems 15x faster, and have initiated a predefined action plan. We can also upload log files 4x faster with support from Oracle engineers, reducing the time the IT team spends on administrative and maintenance work, and enabling them to focus on strategic initiatives,” Kim said.

Challenge:

* Consolidate, verify, and share standardized product data across 176 enterprisewide business systems, including ERP, MES, and supply chain, to optimize steel-production efficiency and increase customer satisfaction
* Centralize the ERP system and gain the ability to track materials consumption for commodities across multiple steel factories and control better production costs to support global business expansion
* Provide a high performing and scalable hardware platform to support three-fold data growth and eliminate bottlenecks, such as delays in calculating product cost
* Enable 24/7 support service for the business-critical hardware platform to reduce disruptions to manufacturing operations and improve IT productivity

Result:

* Boosted customer satisfaction by standardizing steel product data required for build-to-order manufacturing process with Oracle Fusion product information management running on Oracle Exadata and Oracle Exalogic, enabling responding to customer inquiries 10x faster
* Gained control for commodities’ consumption and production costs by deploying a single global instance of Oracle E-Business Suite Release 12 and capturing accurate cost information, such as the standard and actual costs for each commodity used by all factories, supporting business expansion
* Enhanced data integrity and minimized resource waste in steelmaking by automatically matching millions of customer order requirements with standardized product specifications, based on predefined business rules, enabling users to review and correct data errors before uploading clean data into the system
* Calculated production costs 30x faster—in minutes instead of taking up to 12 hours—by running Oracle E-Business Suite Release 12 on Oracle engineered systems, improving staff satisfaction
* Enhanced decision-making by generating MES reports 4x faster, allowing senior managers to gain real-time, global insight into factory operations and work productivity, providing differentiated value to customers
* Gained the ability to log SRs 45x faster and diagnose problems 15x faster, with Oracle Platinum Services’ predefined action plan, reducing the burden on IT staff and enabling them to focus on strategic initiatives
* Ensured smooth manufacturing operations by gaining 24/7, remote-fault monitoring with Oracle Platinum Services to maximize the availability and performance of Oracle engineered systems