

CASE STUDY

Integrated Refinery Information System Enables Real-time Decision Making

Drives operational excellence and increases gross refining margins



A joint venture for a greenfield refinery and petrochemical plant in the Persian Gulf planned to implement an Integrated Refinery Information System (IRIS) to streamline operations from day 1. The refinery has a process capacity of 400,000 barrels per day, and produces a wide range of products, including low sulfur transportation fuels and petrochemicals. A functional technical integration architecture was a business imperative for refinery business processes.

The company partnered with Infosys for Front End Engineering Design (FEED), IT consulting and solution design, and charting the IRIS road map. The scope of the engagement included mapping business processes, requirements gathering, product evaluation and recommendation, and IT architecture design.

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Align refining processes with IT

Infosys provided IT consulting and solution design services for critical business processes – refinery planning and scheduling, refinery operations, data validation and reconciliation, and mass and energy balance. In addition, we recommended best-of-breed business processes for health, safety, and environment management, supply chain management, and logistics operations through pipelines, marine vessels, and road tankers for procurement as well as sales.

The Infosys team designed a Service-Oriented Architecture (SOA)-based solution to ensure agility and scalability of the system. We proposed portal-based applications for a majority of business processes. Our centralized information solution ensures seamless access to real-time data, which enables prompt decisions at the refinery.

We developed a product evaluation template for transparent assessment of products for each business application. Our evaluation methodology helped process owners perform a thorough analysis before selecting a product. We created a knowledge repository of assets, identified Key Performance Indicators (KPIs), and developed customized report formats.

Infosys synchronized the implementation road map for the integrated refinery information system with the Refinery Construction Plan.

Ensure profitable operations



The integrated information system is estimated to improve agility of refinery operations by more than 30%. Significantly, streamlined operations will reduce the cost of refining and increase gross refining margins by up to 20% per barrel.

For more information, contact askus@infosys.com

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