



HMEL: Integrating IT and Operational Technology Systems with SAP® MII

Industries in India rely on HPCL Mittal Energy Limited (HMEL) for high-quality products, including polypropylene, petcoke, sulphur, and LPG gas. The efficient operation of its refinery in Bhatinda is core to the company's business. To streamline processes, HMEL was looking to integrate various refinery applications such as control systems, supervisory control and data acquisition systems, distributed control systems, manufacturing execution systems (MES), and the SAP® ERP application.

HMEL implemented the SAP Manufacturing Integration and Intelligence (SAP MII) application as the platform behind its integration framework, enabling integration of more than 13 applications. The HMEL application architecture is divided into five major layers, and the second and the fifth layers are integrated. The host interface creates a workflow across the underlying systems. This means unified visualization of key performance indicators, events, alerts, and decision support to users in real time through role-based dashboards. The result is a more unified HMEL, which is good for the business and customers alike.



Automatic production order creation for refinery units

Company

HPCL Mittal Energy Limited
(HMEL)

Headquarters

Noida, India

Industry

Oil and gas

Products and Services

Petroleum products

Employees

>1,200

Revenue

US\$4.4 billion

Web Site

www.hmel.in

Objectives

- Undertake next-level integration of manufacturing execution systems, SAP® software, and control systems by replacing IBM integration tool
- Leverage the intelligence of the SAP Manufacturing Integration and Intelligence (SAP MII) application in the future HMEL road map
- Use the semantic mapping capability of the rapid-deployment solution plant information catalog

Why SAP

- Longstanding user of SAP solutions, including implementation of more than 14 SAP software modules
- Availability of intelligence and analytics to drive improved business decision making through real-time and role-based dashboards

Resolution

- Replaced IBM integration tool with SAP MII; among the early customers to deploy version 15.1
- Enabled dynamic reporting and improved decision making with correct and timely availability of data insights
- Achieved process efficiency and compliance with operational excellence, process standardization and optimization, and compliance

Future plans

- Use the industrial Internet of Things and machine-to-machine technology to create business value
- Gain enterprise-wide insights from real-time event processing, Big Data manufacturing analytics, and visual business intelligence

"HMEL was founded with the philosophy of being a highly integrated enterprise. The large-scale implementation of SAP MII has integrated both our operational and information technologies, which resulted in the seamless flow of information from shop floor to top floor."

Harak Banthia, CFO, HPCL Mittal Energy Limited

~\$200,000

Reduction in IT maintenance costs

>\$100,000

Gained by increased productivity and reduction in manual work

1,270

Parameters for 127 tanks integrated for inventory-level reporting

>250

Parameters for key performance indicators updated in near-real time for better decision making

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