

A photograph of an industrial refinery at sunset. The sky is a mix of orange, yellow, and blue. In the foreground, there are several large, white, spherical storage tanks. In the background, there are several tall, dark, skeletal structures, likely distillation columns, with some lights on. The overall scene is industrial and atmospheric.

# How Indian Oil Saved \$470m a Year With Real-Time Data

CASE STUDY

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## **A new system for LPG pricing in India made use of real-time consumption data.**

**Name of Organization:** Indian Oil Corporation Ltd.

**Industry:** Oil and gas

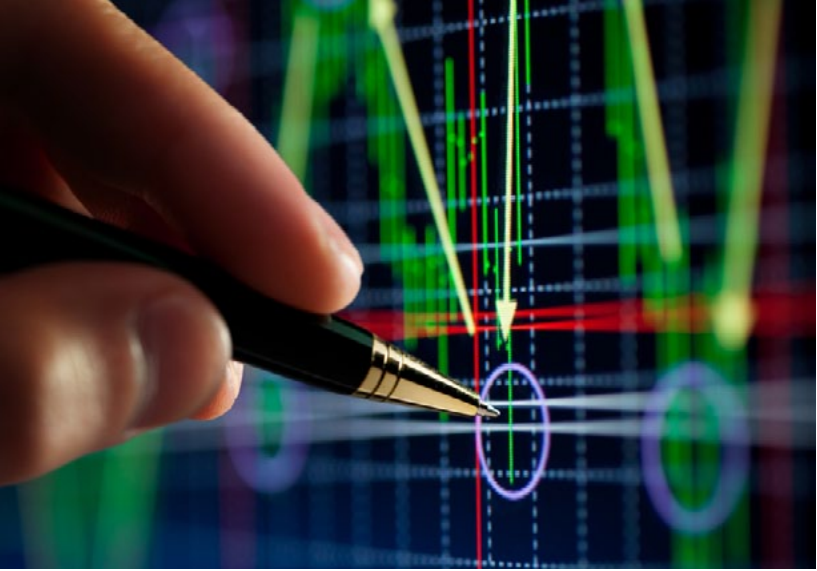
**Location:** Mumbai, Maharashtra, India

### **Business Opportunity or Challenge:**

When the Indian government decontrolled petroleum prices recently, that paved the way for market-driven LPG pricing in India. But for Indian Oil, the challenge to tie prices to the market was immense. The company has 43,000 customer touchpoints in oil and gas refining, distribution, and retailing.

“We have the largest refining capacity in India,” says Abhishek Choudhary, manager of information systems at Indian Oil, which is 80-percent owned by the Indian government.

The company faced challenges implementing a dual pricing system for liquid petroleum gas (LPG). As Choudhary explained, every household in Indian has a connection for LPG, which Indians use for cooking. The Indian government subsidizes LPG, but wanted to bring the product under market pricing while still allowing subsidies to continue through direct transfers to a customer’s bank account.



**"WE'RE CAPTURING  
REAL-TIME DATA FROM  
SALES THROUGH GAS  
STATIONS."**

## How the Business Challenge Was Met:

Indian Oil deployed the Informatica Platform, which included the [Vibe Data Stream](#) and [Real-Time Data Integration](#) components. The challenge was to be able to recognize if a sale qualified for a government subsidy, and to immediately transfer money into the consumer's bank account, versus selling LPG at a separate subsidized price.

"We converted our systems into a real-time consumption package," says Choudhary. "We actually know how much consumption happened yesterday night. We're capturing real-time data from secondary sales through gas stations across India."

Leveraging Internet of Things capabilities also plays a role in the effort, Choudhary adds. The initiative takes "old-line LPG and petrol refinery stuff, and modernizes it with the real-time analytics from Informatica," Choudhary points out. "We're getting this data on a real-time basis, and then putting in systems or real-time systems that decide whether these subsidies get transferred to consumers or not, to make settlement."

## Measurable/Quantifiable and "Soft" Benefits From This Initiative:

Indian Oil saw a number of benefits from real-time data integration, including:

**AUDITED SAVINGS WERE  
\$470 MILLION A YEAR.**

The audited savings from the effort were \$470 million a year, which included benefits of \$200 million in a year preventing subsidy leakage by integrating consumer accounts across LPG companies in India.



**"WE ACTUALLY KNOW THE CONSUMPTION WE'RE HAVING ON A REAL-TIME BASIS. THAT'S HUGE."**

The company also met the goals of the Indian Government to remove \$1.5 billion (USD) in budget provisioning for LPG subsidies. Rather, the new system ensured that \$125 million in subsidies reached the correct end consumer. Plus, citizens can log into the system and check the status of their accounts, Choudhary adds.

Indian Oil was able to make better decisions on dynamic pricing of petroleum and gas as well as achieve better monitoring of stock and dispensing units at retail outlets. Monitoring enabled preventative maintenance on equipment and averted market dry-out situations at petrol stations.

The impact, however, goes well beyond the company, and is playing a role in the Indian economy, Choudhary says.

**MORE THAN \$120 BILLION WAS TRANSFERRED TO THE BANKING INDUSTRY.**

"We are capturing the data on a real-time basis direct from these devices and applying real-time analytics. We're sourcing the secondary sales coming out of these deals. Once we have this data, since we control 70 percent of the Indian market, we actually know the consumption that India is having on a real-time basis. That is huge data."

The real-time initiative is helping to "change the way business is done in India, at least for the oil industry," he adds. "The sheer magnitude makes it so large, that up to today, we have actually transferred \$120 billion into the banking industry that was not there."

## About Informatica Vibe Data Stream:

Informatica Vibe Data Stream for Machine Data (VDS) is a distributed, scalable system that uses a high-performance brokerless messaging technology to greatly simplify streaming data collection. Features include:

- Lightweight agents for an ecosystem of sources and targets
- Brokerless messaging transport using a publish/subscribe model
- Flexibility to connect sources and targets in numerous patterns
- High-performance delivery direct to targets over LAN/WAN
- Simplified configuration, deployment, administration, and monitoring

Out-of-the-box source and target agents collect and distribute streaming data through the high-performance message bus. The embeddable agents on sources collect data in real-time and stream millions of records per second into big data platform targets such as Hadoop and Cassandra. Vibe Data Stream also streams data directly into Informatica PowerCenter Real Time Edition, Informatica RulePoint Complex Event Processing, and Storm to enable event processing and operational intelligence in real time.



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