

# Bharat Petroleum Reduces Staff and Training Costs with Infrastructure Monitoring Service



Bharat Petroleum Corporation  
Limited  
Mumbai, India  
www.bharatpetroleum.com

**Industry:**

Oil & Gas

**Annual Revenue:**

US\$14.7 billion

**Employees:**

12,000

**Oracle Products & Services:**

Oracle Database  
Oracle Application Server  
Oracle Real Application Clusters  
Oracle Advanced Customer  
Services

*“We are saving around US\$42,000 (2 million rupees) annually in costs associated with database monitoring as a result of implementing Oracle’s Online DBA service.” – Ajay Nigam, Senior Manager (Database), Bharat Petroleum Corporation*

Established in 1977, Bharat Petroleum Corporation Limited (BPCL) is an oil refining and marketing company based in Mumbai, India. The company manufactures petroleum and lubricants for domestic and industrial markets. It sells to 7,000 dealers and corporate customers throughout the country. The Government of India holds a 66.2% share of the company, with the balance owned by foreign institutional investors, financial institutions, employees, and private investors. BPCL is listed on the Bombay Stock Exchange and National Stock Exchange in India.

In 2000, BPCL launched an innovative customer loyalty program called PetroCard. Under the program, customers earn points when they buy petroleum products, which can be redeemed for gifts.

The company runs the PetroCard smart card application on an Oracle Database, Oracle Application Server, and Oracle Real Application Clusters. The Oracle infrastructure replaced Microsoft SQL Server, which was unable to handle the high transaction load.

In 2004, BPCL turned to Oracle’s Online DBA service to provide around-the-clock monitoring of its Oracle infrastructure to ensure the ongoing success of the program.

“Retaining good technical staff to manage this infrastructure was difficult,” said Ajay Nigam, senior manager (database) at Bharat Petroleum Corporation. “The Oracle Online DBA service eliminates the need for us to train new staff and ensures our database is always being monitored.”

**System Support and Maintenance Costs Reduced**

The Oracle Online DBA service, available through Oracle Advanced Customer Services, provides Oracle support staff to

**Key Benefits:**

- Saved US\$42,000 (2 million rupees) annually in costs associated with database monitoring by eliminating the cost of hiring additional in-house IT staff to monitor databases
- Enhanced availability by providing around-the-clock infrastructure monitoring
- Ensured that a good system maintenance and support infrastructure was in place
- Provided fast problem resolution with a reliable alerting system
- Gained access to highly skilled Oracle engineers

monitor BPCL's database and application infrastructure, which are critical to the smooth running of the loyalty program.

The Oracle Online DBA team gains remote access to BPCL's servers through a Web-based interface.

By outsourcing the infrastructure management and monitoring function to Oracle, BPCL can eliminate costs associated with hiring in-house system support and maintenance staff.

"The loyalty business represents around 25% of our total sales and we have a high transaction load, so it's crucial that a solid maintenance and support infrastructure is in place," said Nigam.

"We are saving around US\$42,000 (2 million rupees) annually in costs associated with database monitoring," he said. "We would normally have to hire and train staff to perform this. Now we have a trusted, reliable partner to do this job on our behalf."

Nigam added: "What we value most is customer service, and, by using Oracle's Online DBA solution, we are assured that our loyalty program is always available. Ultimately, customer satisfaction is not something that can be measured in rupees."

**Active Monitoring with Alerts**

The Oracle Online DBA team sets database thresholds and is automatically alerted to any infrastructure issues that may arise. "They get all sorts of alerts if anything goes beyond thresholds that have been set and take immediate action to rectify any problems," said Nigam.

Oracle is required to adhere to set service level agreements (SLAs) and alerts BPCL's IT department if there are issues with database or application server infrastructure. These could be related to a simple issue such as the availability of disk space or something that requires a minimal amount of downtime to repair.

"Many of these problems are resolved without us even knowing," said Nigam. "Oracle can tackle anything and tell us about any potential changes to our infrastructure that may affect the smooth running of our operations in the future."

**Problems Resolved with Good Communication**

Problem escalation metrics are also well-defined and there is good communication between Oracle and the company's IT department.

“If there is an issue that can’t be resolved straightaway, we’ll have a conference call so we can map out a plan to rectify it,” Nigam said.

BPCL recently migrated from Oracle9i Application Server to Oracle Application Server 10g, a process that resulted in very minimal downtime and virtually no disruption to the business.

“We planned the transition in such a way that there was only 10 minutes downtime,” said Nigam.

### Why Oracle?

Oracle understood the importance of the loyalty program and provided a team of experts that could be trusted. “We were not comfortable with having a third-party manage our infrastructure,” said Nigam. “Oracle offered us direct access to a team of experienced engineers and administrators.”

In addition, Oracle was the only organization that could offer this type of online monitoring service. “There was no other service like this available and Oracle has delivered on its promise,” said Nigam.

### Implementation Process

In October 2003, the Oracle team reviewed BPCL’s architecture and devised a plan to roll out the Online DBA service. Data from 7,000 terminals was uploaded and alert parameters were set.

“The team was here for a week to get their heads around our systems and our business requirements,” said Nigam. “Ten days later our system was configured with alerts and warnings, and simple settings were changed on our firewall to allow Oracle to access our servers while maintaining a high level of security.”

Tests were conducted in December 2003 before the service was switched on in January 2004. Oracle Online DBA celebrates its fifth anniversary at Bharat Petroleum in 2009.

*Bharat Petroleum Corporation Limited (BPCL) is an oil refining and marketing company based in Mumbai, India. It manufactures petroleum, LPG, and lubricants for domestic and industrial markets.*