

Liaohe Oil Field accelerates oil exploration through high-performance computing.

Overview
Liaohe Oil Field Pan Jin, China www.cnpc.com.cn/eng
Industry <ul style="list-style-type: none"> Chemicals and Petroleum
Hardware <ul style="list-style-type: none"> IBM BladeCenter HS20 server IBM eServer xSeries 366 server IBM System x 3850



“By leveraging IBM technology, we can bolster our oil exploration efforts, identify more reserves and elevate production levels.”

—Hhang Guo Jun, IT manager of Liaohe Oil Field
Exploration & Production Research Institute

Founded in 1970, Liaohe Oil Field operates the third largest oil field in China. The company is a subsidiary of China National Petroleum Corporation, which focuses on oil and gas exploration and the development, production, processing and sale of crude and refined oil products.

Challenge

As the third-largest oil field in China, Liaohe produces about 6% of the country’s oil supply. To capitalize on China’s booming economy and growing demand for oil, Liaohe is in constant search of new reserves on its field. But Liaohe didn’t have the necessary computing resources to analyze seismic data and identify new reserves as quickly as it wanted to. In fact, potential reserves could only be analyzed one at a time, significantly hindering oil exploration efforts across the company’s massive acreage. To boost overall oil production, Liaohe first needed to find a way to accelerate its exploration efforts.

Solution

Using a high-performance computing cluster from IBM, Liaohe can now process seismic data faster and can even analyze multiple areas at a time. The solution completes complex data processing jobs quickly, allowing the company to explore its oil field for potential reserves faster than ever before. In addition, the cluster substantially accelerates large tasks such as prestack depth migration data processing, which helps to enhance the precision of geological images and guide decisions on where to drill. The cluster is powered by IBM BladeCenter and IBM System x hardware.

Benefits

- Accelerates data processing tasks by up to 50%
- Allows up to 60% more work to be done without requiring additional resources
- Could potentially help Liaohe improve overall oil production



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10-07
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