



## Success Story

Cloud Computing

# PetroChina Company Ltd.

Remaining competitive in the globalized oil and gas industry requires constant commitment to innovation, versatility, and efficiency. Faced with these challenges, PetroChina diversified its extraction methods. To support this innovation, the company transformed its core IT systems by migrating to SAP HANA on SUSE® Linux Enterprise Server for SAP Applications, deployed on a private cloud. With these solutions in place, PetroChina has cut its IT overheads and established a bedrock for greater productivity.



### Overview

The largest producer and distributor in China's oil and gas industry—and one of the largest in the world—PetroChina extracts, produces, refines, and transports crude oil and derivative petrochemicals. State-owned, with over 500,000 employees and five subsidiary companies, PetroChina leverages its dominant market position to generate some of the highest sales revenues in China.

### Challenge

With more global players entering the petrochemical industry and the price of crude oil low, limiting costs and increasing versatility is essential to stay ahead of the curve.

PetroChina is responding to this difficult climate by expanding its operations and

investing in new methods of petrochemical extraction—but innovation brings its own challenges. The new extraction methods generate enormous volumes of data, and PetroChina's IT infrastructure was struggling to keep up.

Haitao Dou, Deputy General Manager of Orient Sky Technologies, PetroChina's internal IT service provider, explains: "Expanding our operations and capabilities has massively increased the quantity of data we are generating. It is essential that we process this data quickly and reliably—our customers expect us to deliver reports within tight timeframes, and delays incur substantial penalties—but our traditional ERP system lacked the performance and stability to efficiently handle the increased load."

Aiming to maximize the value of its new investments and satisfy its customers, PetroChina decided to revitalize its IT estate by migrating its ERP system to a SAP HANA in-memory database, virtualized within a private cloud environment. SAP HANA would deliver the performance necessary to support the business' evolving needs, yet PetroChina knew that to make the most out of the platform, it also needed a world-class operating system.

**"SUSE Linux Enterprise Server is helping us to pursue our growth and innovation strategy, since we are confident in the knowledge that we have a cutting-edge IT infrastructure behind us."**

HAITAO DOU

Deputy General Manager  
Orient Sky Technologies  
(a subsidiary of PetroChina)



## PetroChina

### PetroChina Company Ltd at a Glance:

*PetroChina dominates the Chinese petrochemical industry as the largest producer and distributor of oil, gas and chemical products in the country.*

#### ■ Industry and Location

Manufacturing

#### ■ Products and Services

SUSE Linux Enterprise Server for SAP Applications

#### ■ Results

- + Enables business growth and innovation by scaling seamlessly
- + Boosts efficiency, through reduced infrastructure costs
- + Eliminates risk of vendor lock-in, enhancing flexibility

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Haitao Dou continues: “Our existing operating system was expensive proprietary software, which limited our flexibility. We realized that this project represented the perfect opportunity to migrate to an open-source environment.”

## Solution

PetroChina looked for a solution that would enhance its flexibility, stability and performance. After considering various options, the company chose SUSE Linux Enterprise Server for SAP Applications.

Haitao Dou says: “We wanted an open-source operating system, since it would help us eliminate the risk of vendor lock-in while reducing costs. We explored both Red Hat Enterprise Linux and SUSE Linux Enterprise Server. In our view, the SUSE solution offered better value for money and superior capabilities.”

SUSE Linux Enterprise Server for SAP Applications delivers many advantages to PetroChina, including higher levels of security, wider access to platform and application support desks, broader customizability, and improved adaptability. Additionally, the interoperability of the operating system ensures seamless integration with SAP HANA.

“The SUSE solution also provides excellent support for virtualization, working well alongside technologies such as VMware hypervisors,” adds Haitao Dou. “This was key since we were deploying SAP HANA as a cloud solution, enabling us to flexibly allocate resources across the PetroChina business as and when they are needed.”

## Results

With SAP HANA running on SUSE Enterprise Server for SAP Applications, PetroChina has gained an ultra-high performance infrastructure, more than capable of processing rising data volumes with speed and stability. And as the business continues to expand, the scalability of the open-source SUSE technology and the cloud deployment will help PetroChina to ensure that it continues to exceed its customers’ expectations.

Haitao Dou explains: “We’ve gained a cost-effective, stable and flexible environment. Running SAP HANA on SUSE Linux Enterprise Server in the cloud is both economical and powerful: it has reduced our costs and optimized the performance of our ERP systems at the same time. Cutting IT costs enables us to invest in other value-add activities, and with international crude oil prices so low, this kind of competitive edge is invaluable.”

Crucially, PetroChina is now better-positioned to capitalize on opportunities for growth.

Haitao Dou concludes: “The SUSE solution removes barriers to expansion by scaling seamlessly. Using SUSE Linux Enterprise Server as the foundation for our new cloud solution is helping us to pursue our growth and innovation strategy—confident in the knowledge that we have a cutting-edge IT infrastructure behind us.”



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