Dagang Oilfield Company Builds Cloud Digital Oilfield with Huawei Desktop Cloud Solution

“After the test, we all agree that Huawei provides the first-class technologies and O&M capabilities. Huawei desktop cloud solution reduces investments and O&M costs, tremendously enhances information security, and facilitates mobile offices.”

- Information development office, Dagang Oilfield Company

Executive Summary

Industry
Energy, Oil & Gas

Challenges
● Poor data security on PCs
● Complicated O&M and high costs for PCs

Huawei Solution
● OceanStor S5500T cloud-architecture platform and storage easily deployed 1,800 desktops in the first phase and 1,370 desktops in the second phase.
● Provides end-to-end security protection.
● Streamlines O&M.
● Provides customized application services.

Customer Benefits
● Enhances data security.
● Reduces Total Cost of Ownership
● Improves overall efficiency by over 40% with mobile office capabilities.
● Reduces power consumption by over 50%.

Introduction
Dagang Oilfield Company, with headquarters in Binhai New District, Tianjin, is an important part of the Bohai economic circle with its strategic location for natural resources and convenience to all forms of transportation. Dagang’s exploration area has oil reserves totaling 2.056 billion tons and natural gas reserves covering 380 billion cubic meters. The annual production of crude oil and natural gas in Dagang Oilfield is 4.8 million tons and 300 million cubic meters, respectively. The company now has about 12,500 employees. The total assets of the company exceed USD 2.56 billion.

Dagang Oilfield Company aims to integrate information processing and production management for oil and natural gas as well as promote scientific development in all fields of service. The company is in the process of transforming to intelligent operations with technologies for digital oilfield, digital office, and digital mining areas. This involves developing a unified information platform covering R&D, production, operation, decision-making, and mining area services.

The company leads the oil industry in IT development by investing over USD15.6 million annually into modernization, including desktop cloud research since 2008. The company has organized several discussions with leading technology companies in the energy industry and performed a series of Proof-of-Concept tests. The plan was to eventually provide 16,000 cloud-enabled desktops.

Challenges
Dagang Oilfield Company had been using traditional “fat client” PCs for providing comprehensive functions. In most cases, PCs were good choices when taking price, performance, and function into consideration. For intelligent application services, PCs had the following disadvantages and inefficiencies:

● **Poor data security**: The data stored on local PCs was prone to leakage. Users could connect peripheral devices or install non-standard software on PCs which created security vulnerabilities and risks of network attacks.

● **Complicated O&M and high costs**: The power consumption of PCs was high but the resource utilization rate is low. Testing and verifying PC configurations was time consuming. In addition, support personnel needed to solve problems on site, which further increased costs.

Huawei Solution
Huawei’s Desktop Cloud Solution integrates hardware, software, and services and ensures optimum overall performance, providing the best service experience for Dagang Oilfield Company. The end-to-end solution built upon Huawei’s S5500T OceanStor converged cloud architecture includes cloud terminals, servers, networks, storage, security, virtualization, a cloud management platform, and service software.

The company now has a cloud data center in which the S5500T serves as the core storage device of the desktop cloud system and centralized storage infrastructure in virtualization platform services. By using multiple S5500Ts, Huawei deployed 1,800 desktops in the first phase and 1,370 desktops in the second phase.

High security and reliability are the main advantages of Huawei’s desktop cloud project. End-to-end security protection is provided for terminals, access control, network, data, cloud platform, and O&M. The solution builds a solid information security system consisting of “Cloud-Pipe-Device” to ensure the highest desktop security for all assets.

In addition, Huawei’s global professional services team, along with partners, co-ordinated delivery of resources and data center integration services to enable quick delivery by providing the company with planning, design, implementation, and training.

**Customer Benefits**

The Huawei Desktop Cloud Solution protects all intellectual property of the company including servers, storage, networks, platforms, terminals, and data. A cloud data center now enhances security with centralized data storage rather than locally on PCs, protecting the company’s core assets and eliminating information leakage caused by PC security attacks.

Compared with conventional PCs, Huawei Desktop Cloud Solution reduced investment of fixed assets by 40%, lowered electricity consumption by 73%, and improved CPU utilization from 5% to 60%. The office device deployment cycle was shortened from three months to less than a week. This also reduced the required number of IT maintenance engineers and improved maintenance efficiency.

The solution contributes to the creation of a green, energy-saving working environment. Now, with less noise than PCs, power consumption of a TC was less than 8W, and the end-to-end power consumption was only 35W, which was far less than the 200W power consumption of a traditional PC.