Strengthening Competitiveness of Operations by Rebuilding Headquarters IT Systems

NS Solutions provides AP, infrastructure/development, and operation.

Looking into new systems for more sophisticated operations

Mitsui O.S.K. Lines, which has just celebrated its 130th anniversary, is one of the largest players worldwide in the area of shipping. While operating a wide range of different types of vessels, the company is working to strengthen its management base. In 2009 the company began to rebuild its “headquarters accounting system” and the “core front office system,” which is used to manage voyage profitability, vessel movements (operation status), charter contracts, and fuel. The profitability of the international shipping business is drastically affected by rising fuel costs. Under these circumstances, the company was looking to build new systems that would let users from various different departments assess data about charters, fuel costs, and vessel movements in real time so that the profitability of each shipping voyage could be quickly and accurately reflected in the balance sheet.

Utilizing NS Solutions’s standard AP architecture and the cloud

NS Solutions proceeded to provide comprehensive support extending from building the applications and IT infrastructure through the entire deployment process to actual operation. Because of the large scale of the project, MOL Information Systems, which was divided into two phases, was divided development work into two phases. In phase 1, NS Solutions started up the headquarters accounting system using Oracle E-Business Suite R12 in April 2012. In phase 2, it developed a core front office system from scratch; this system has been operating since April 2014. For developing the core front office system, NS Solutions employed its standard AP architecture “AmiNavire,” which is based on the NET Framework. This served to improve both quality and productivity. The IT infrastructure for both systems is the managed system, which has been operating since April 2014. For developing the core front office system, deployment was divided into separate phases for the headquarters accounting system and the core front office system. During 2011, when phase 1 for deployment of the headquarters accounting system was underway, it was decided to also go ahead with moving the IT infrastructure into the cloud.

Looking at the schedule in particular, it enables assessment of the profitability of the vessel for each voyage in close to real time. Through integration with the core front office system, it reduces data re-entry operations and improves data consistency, as well as the efficiency of the settlement process. Building English-language support into the user interface also allows easy deployment at group member companies overseas. The use of AmiNavire and the AmiNavire Enterprise Cloud Service with their proven track record ensures high stability of the system core. NS Solutions services for system operations, covering the entire range of applications and the cloud IT infrastructure, made it possible to establish a framework that reliably supports 24x7 uptime.

The key to success

The reason why Mitsui O.S.K. Lines wanted to rebuild its headquarters accounting system and core front office system was to achieve more sophisticated internal business operations on a global level. Profitability for each voyage can be assessed in close to real time, and management of receivables and payables information has been strengthened.

NS Solutions used cloud distributed development environment

Due to the large scale of the project, there were also a significant number of hurdles that had to be overcome. As Mr. Deguchi recollects, “Especially in phase 2, delays in defining all the requirements and conditions led to shifts in the schedule for testing and implementation, which were sometimes hard to control. The support from NS Solutions was an important factor enabling us to carry on with the project over a period of four and a half years.”

Mr. Kimura adds, “Although the schedule was tight, NS Solutions made full use of its cloud-based distributed system development environment and its unique AP architecture, and they impressed us by developing high-quality applications within short periods of time. I feel that the applications have been put on a solid base, and the stability of the cloud services that are the backbone of the system is excellent.”

In April 2014 phase 2 of Minerva was completed, and the entire system went into full operation. NSWOL is still in charge of operations as well, covering the entire scope from applications to the IT infrastructure. As Ms. Sakamoto puts it, “The NS Solutions operators examine the content of every alert and notify us only of significant ones. Response is always very quick, and even at late night problems are addressed swiftly.”

Mr. Kimura concludes, “We now have a new business operations base that incorporates the full know-how of Mitsui O.S.K. Lines. With the aim of becoming even more cost-competitive, we will make use of this tool to enable us to act swiftly on a global scale.”

Outline of Minerva system deployed for Mitsui O.S.K. Lines

The outline of Minerva system deployed for Mitsui O.S.K. Lines is shown below.

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Optimizing voyage management

With regard to tramp vessels operating on an irregular schedule in particular, it enables assessment of the profitability of the vessel for each voyage in close to real time. Through integration with the core front office system, it reduces data re-entry operations and improves data consistency, as well as the efficiency of the settlement process. Building English-language support into the user interface also allows easy deployment at group member companies overseas. The use of AmiNavire and the AmiNavire Enterprise Cloud Service with their proven track record ensures high stability of the system core. NS Solutions services for system operations, covering the entire range of applications and the cloud IT infrastructure, made it possible to establish a framework that reliably supports 24x7 uptime.