



## Danish Central Oil Stockholding Entity

### Updated cloud based system for efficient management of the National Strategic Oil Stock

In an unstable geopolitical environment where the balance between supply and demand is generally uneasy, particularly due to growing demand for new mass consumers such as China, the European Union's dependency on imports of petroleum products is an increasing cause for concern for European economic prospects.

In order to ensure the security of its oil supply, EU obliges Denmark and the other member states to guarantee minimum stocks of petroleum products that can be used in the event of a supply crisis to replace all or part of the shortfall. In Denmark, the Danish Central Stockholding Entity (FDO) plays a central role in Danish emergency oil management in the event of oil supply crisis or war.

EU requires member states to build up and constantly maintain minimum stocks of petroleum products equal to 90 days of the average daily consumption. In Denmark, FDO holds 57 day-worth of supplies, while the oil companies themselves hold the remainder.

#### Strategic oil businesses face critical challenges

FDO's business is mission-critical. Correct reporting and management of oil storage plays an important role for FDO to do its job. So the quality of data collection is more important than efficiency.

However FDO was still using a large number of spreadsheets to collect, process and report data on oil supply, usage and specification of stocking from different countries. Semi-manual processes like these easily causes inaccuracies, and in case the data are not correct or do not match with each other, FDO will then have to contact the company for confirmations.

Moreover, there are more than 70 companies registered with FDO, which means that every month there are more than 70 reporting processes being handled by e-mail. As a result, getting a report approved and managing the oil data require a lot of time and efforts especially when something is wrong.

### Technical solutions for the problem

In response to the need of FDO to improve their efficiency in collecting oil data, Ciber took the task. After meeting FDO, Ciber decided to build a new system for monthly reporting using .NET and Microsoft Azure Cloud.

This project followed the best practices for distributed agile development. The development was executed as a closely joint effort between Ciber in Denmark and Vietnam. Consultants from Denmark had face-to-face discussions with the customer and managed the project while the system design and implementation were done by Ciber Vietnam.

In fact, using Microsoft Azure cloud is ideal for distributed agile development because the developers complete the tasks based on FDO's stories and make changes accordingly.

The advantages of using cloud during the development process are manifold but the biggest benefit for both Ciber and FDO is the fact that Ciber Denmark and FDO can immediately see whatever has been produced by developers from Vietnam regardless of the distance and time zone between the two countries. Doing so has strongly improved the communication as well as mutual relationship and understandings between Ciber Vietnam and Denmark's developers.

### New system improves FDO's operational efficiency

The new system to manage monthly reports has made submitting reports easier, faster and more convenient. Yet it is safe and secure, and offers a strict way of controlling who can access the information stored in the system. Companies users can now easily enter data, correct them if they do not match with the tickets or counter-parties' reports.

FDO users can approve or reject the reports submitted by the companies; and create quarterly mandatory reports for the ENS (Danish Energy Agency, an agency under the Ministry of Climate, Energy and Building).

In addition, this system also provides its users with information about the companies registered with FDO; storage locations which indicate where the specified portfolio of products is stored; products available in oil data and product categories that are allowed in agreements; and ticket agreements on stock coverage between companies.

All the information can be easily accessed through the system and helps improve the operations as well as management of FDO and its registered companies.

### About Ciber

Ciber is a global IT consulting company with approximately 6,000 employees in North America, Europe and Asia/Pacific. Ciber partners with organizations to develop technology strategies and solutions that deliver tangible business value. Founded in 1974, the company trades on the New York Stock Exchange (CBR). For more information, visit [www.Ciber.com](http://www.Ciber.com).