

SAP Customer Success Story
Engineering, Construction, and Operations –
Subsea Contracting



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Dave Downing, Global Equipment Manager, Subsea 7 Ltd.

AT A GLANCE

Company

- Name: Subsea 7 Ltd.
- Location: Aberdeen, Scotland
- Industry: Engineering, construction, and operations; oil and gas
- Products and services: Contracting (subsea operations)
- Employees: 4,000
- Web site: www.subsea7.com
- Implementation partner: Capgemini UK

Challenges and Opportunities

- Elimination of time-consuming, paper-based maintenance order processes
- Tools to empower field technicians to enter changes and manage on-site tasks
- Creation of a global view for each vessel’s maintenance cycle
- Elimination of redundant paperwork to free up staff for other tasks

Objectives

- Automate the maintenance scheduling process
- Reduce reporting lag times from 2 weeks to less than 24 hours
- Allow technicians to work offline locally
- Give on-site staff a global view of their spare parts inventory

SAP® Solution and Services

SAP® xApp™ Mobile Asset Management composite application

Implementation Highlights

- Simple 1-day on-board installation
- Back-end synchronization

Why SAP

- A natural extension of existing global SAP footprint
- Personalized access to asset management for mobile technicians
- Minimal end-user training required

Benefits

- Elimination of manual processes
- Greater visibility of the maintenance life cycle
- More efficient use of key personnel

Existing Environment

SAP software for enterprise resource planning

Third-Party Integration

- Database: Oracle
- Hardware: HP
- Operating system: Microsoft Windows

SUBSEA 7

Subsea Engineering Firm Empowers Its Technicians with SAP® xApp™ Mobile Asset Management

As one of the world’s leading subsea engineering and construction contractors, Subsea 7 Ltd. sends its personnel to all corners of the globe. However, the company’s workforce is more likely to be found floating aboard platforms and on vessels in places like the North Sea, the Caspian Sea, and the Persian Gulf, than behind a desk or in a warehouse. The combination of a truly worldwide footprint, frequently remote job sites (such as an offshore oil platform in the North Sea), and extremely complex and costly equipment makes for monumental asset management and maintenance challenges. Today, the SAP® xApp™ Mobile Asset Management composite application helps ensure Subsea 7 can meet those challenges effectively and with ease.

Subsea 7’s approximately 4,000-strong workforce must manage more than 100 remotely operated vehicles (ROVs), five oil pipeline construction yards, and a fleet of 25 vessels capable of laying pipe and supporting deepwater diving and construction. All told, the company must keep track of more than 17,000 material assets – difficult in its own right. But, because Subsea 7’s vessels spend weeks or even months in remote locations, scheduling maintenance for equipment such as multimillion-dollar ROVs, surveillance tools, and diving gear is made even more arduous by having to synchronize information with management at home base.

Ad Hoc “Pack-and-Sack” Method

Prior to the SAP installation at Halliburton (Subsea 7’s former parent company), Subsea 7’s field technicians were relying on an ad hoc “pack-and-sack” method that amounted to tossing their laptops and necessary paperwork in rucksacks and flying via helicopter to the vessel or rig in question. Once there, they would work through their task lists during the course of several weeks,

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Graeme Smith, Project Manager, Subsea 7 Ltd.

doing the best they could (if a spare part was missing, it would often take days to replace it). They would update the local system accordingly and note the changes in their personal logs, which they would then e-mail, mail, fax, or carry home and hand over to colleagues for manual entry into the company’s master asset management system.

“That became a very tiresome, cumbersome process,” says Graeme Smith, project manager with the Aberdeen, Scotland-based Subsea 7. “Paperwork was just going round and round and often got lost; it was taking a week or two to update the system, and gradually it just became too much to handle. When SAP xApp Mobile Asset Management came along, we thought it would be an ideal opportunity to do away with the pack-and-sack routine.”

Real-Time Connectivity – But Not Necessarily All the Time

Subsea 7 conducted a pilot implementation of the SAP xApp Mobile Asset Management application on one of its vessels – the *Skandi Navica* – for use on technicians’ laptops. Subsea 7 chose the composite application because the company was already using SAP software for enterprise resource planning to run its core operations, and because SAP xApp Mobile Asset Management offered effective offline support. This is important for vessels like

the *Skandi Navica*, which are often challenged by limited Internet connectivity (in spite of having satellite uplinks). Field technicians working from remote locations need the ability to synchronize maintenance records with the core back-office system – in real time.

After installing the solution, Subsea 7 saw an immediate change in maintenance processes aboard the vessel. Scheduling became much faster and more accurate, thanks to automated processes and synchronization with the company’s enterprise systems. Personnel no longer had to wait for further instructions after they’d completed their tasks. Now, when the field technicians enter their changes into the system, the software automatically triggers scheduling for the next round of maintenance. “They can do a much better job of coordinating all of the equipment for the entire job, which means they only need to make one trip instead of five,” comments Smith. “And on that one trip, they’ll have all the parts they need, rather than having to wait for several attempts at resupply.”

Dave Downing, global equipment manager with Subsea 7, adds, “The SAP xApp Mobile Asset Management pilot aboard the *Skandi Navica* has delivered many benefits for Subsea 7. The most important one is that it helps us keep the vessel’s equipment up and running at all times while reducing maintenance costs. This is a key strategic advantage for Subsea 7.”

Meanwhile, back on land, employees who had previously devoted most of their time to data entry can now focus on more important tasks.

Onboard for Full Deployment

With the help of a team from Capgemini UK, Subsea 7 installed the SAP software on PCs aboard the *Skandi Navica* in less than a day – the time required to test the system and synchronize the software via the vessel’s onboard CapRock Communications satellite uplink.

The *Skandi Navica* was the first of three vessels due to deploy SAP xApp Mobile Asset Management by Q2 2007. Eventually, Subsea 7 intends to roll out the software to its entire fleet.