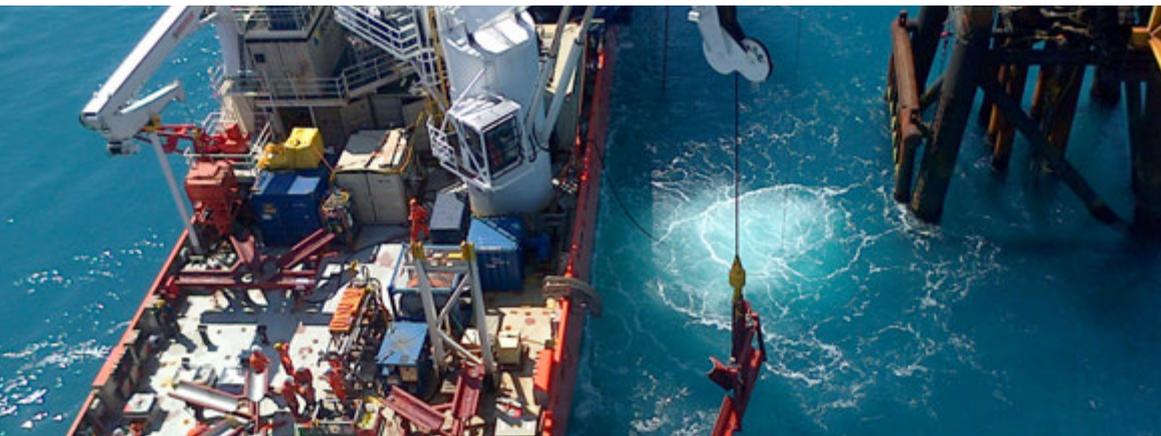


## Royal Boskalis Westminster N.V. Offshore Dive Support Vessels



### Project Summary



Market Sector  
Energy

Client  
Royal Boskalis Westminster  
N.V. (Boskalis)

Location  
Global

Industry  
Offshore

Profile  
Maritime Services company  
operating in dredging and  
offshore energy.

Key Drivers  
Smooth communication and  
compliance of projects and  
business information using  
a SharePoint portal enabling  
full two way collaboration.

## Delivering SharePoint Data To Offshore Dive Support Vessels

### Background

Stable, reliable and resilient communications solutions available all year round are a major priority for the offshore energy market. There can be substantial implications of losing connectivity for even short periods of time. The support of divers operating into cold dark waters often with adverse tides and currents requires the highest levels of safety. The efficient use of expensive resources is dependent on well-co-ordinated plans between the shore based and vessel based teams.

Additionally, increased requirements for compliance with Health, Safety and Environmental regulations dictate all staff must have access to the most up to date procedures, protocols and information available.

### Operating Dive Support Vessels (DSV's)

Royal Boskalis Westminster N.V. (Boskalis) is a leading global maritime services company operating into the dredging, inland infrastructure, and offshore energy sectors. Within offshore energy subsea services consist of Inspection, Repair and Maintenance (IRM), as well as construction and decommissioning services. Subsea projects are conducted into the oil & gas, civil and renewable energy market. Boskalis has been actively involved with offshore diving services since the early 1970's where excellence of operations; and safety of people, the vessel and the environment is of paramount importance.

Boskalis areas of expertise encompasses: Air/saturation diving and ROV services; Inspection, repair and maintenance of subsea infrastructure, subsea construction and removal services.



Boskalis shore based offices already had in place a Microsoft SharePoint solution to support the aggregating, publishing and sharing of project and business information. From there 1000's of documents comprising forms, checklists, project plans, reports and templates were hand carried bi-weekly to the Dive Support Vessels (DSV's) using a USB stick or hard drive. The information was wrapped under HTML to enable web browsing at the vessel end. Each user had a desktop shortcut to link to the shared drive on the vessel network for offline access. This was a one way push of information to the vessels with emails to relay info back from the vessels to the shore based teams.

The process of shore to vessel collaboration adversely impacted project agility, was cumbersome and lacked the reliability desired. The requirement was to automate the outbound updates, increase the frequency of updates to meet the project timelines and secure the reliability of the update process. This would allow further shore to vessel processes to grow over the satellite link to improve operations and safety further. This step up in capability needed to be a manageable change without introducing too much additional complexity to the on-board vessel IT systems. A highly desired option required was the ability to add at a later time full two way automation of the document communications over the satellite link; and extend the collaboration features of SharePoint being used on shore, to the vessels.

### **The iOra Solution**

In the early summer of 2014 Boskalis began trialling iOra's Epsilon and Geo-Replicator SharePoint Server-to-Virtual Server (S2VS) Solution for compression, replication and synchronisation of their data to ensure smooth collaboration and compliancy. This solution enables SharePoint data to be replicated to the vessels as a one way data push without SharePoint being installed on the vessels. Instead the data is held under a Microsoft IIS server where the structure, look and feel of the data is just like it is with SharePoint, but without the wider features which SharePoint delivers (e.g. workflow). At a later time Boskalis have the option to upgrade the S2VS solution to a full SharePoint Server-to-Server solution so enabling full two way collaboration.

Our patented compression technology, Epsilon, remains one of the most highly sought after solutions for organisations operating in remote and challenged network situations due to its delta-differencing capabilities. Epsilon looks for repeating bit patterns across the entire data store down to the byte level. The same bit patterns are only transmitted once. The new data is compressed often by more than 300:1 enabling significant volumes of data to be efficiently synchronised over low bandwidth, high latency networks. For the NOC this delivers the predictability and reliability required to deliver operational efficiency whilst meeting health, safety and regulatory compliance requirements. Network efficiency is dramatically increased.



The Proof-of-Concept (POC) trial was successful and within a few short weeks Boskalis conducted a soft launch of the production installation by applying the permanent software licence keys. The installation of iOra to the DSV Constructor was conducted over the satellite link from the DSV EDT Protea whilst the Constructor was operating in the North Sea. The first amendment file was roughly half the size of the original (iOra had not seen the data before; therefore there were no repeating bit patterns to find). The second update file had a compression ratio of 1651:1!

Boskalis also added an iOra SharePoint server to Laptop installation to enable the Deputy Operations Manager to keep in sync with both the shore and vessel based teams as he travels between the two. iOra technology has been proven with clients to send data over network connections as slow as 2kbps.

### **The Result**

Jillis Koch – Deputy Operations Manager is “very satisfied” with the iOra solution. The rollout was straightforward and the small number of challenges which arose through the POC and subsequent rollout were quickly resolved by the iOra Customer Support Team.

He continues, “The iOra solution has satisfied all the requirements we had at the outset and the iOra Customer Support Team has proven itself to be very responsive whenever I have made calls to make operational adjustments to the installation. This new capability means the on-board crew and shore based teams can be more effective together and stay focused on the project in hand and the needs of our clients”

### **iOra Software Benefits**

- Continuous and fast access to critical operational information where network access is slow or intermittent improves efficiency and communication.
- Share information across consortia for smooth running operations adhering to strict regulatory guidelines.

iOra delivers guaranteed access to information across challenging and unreliable networks.