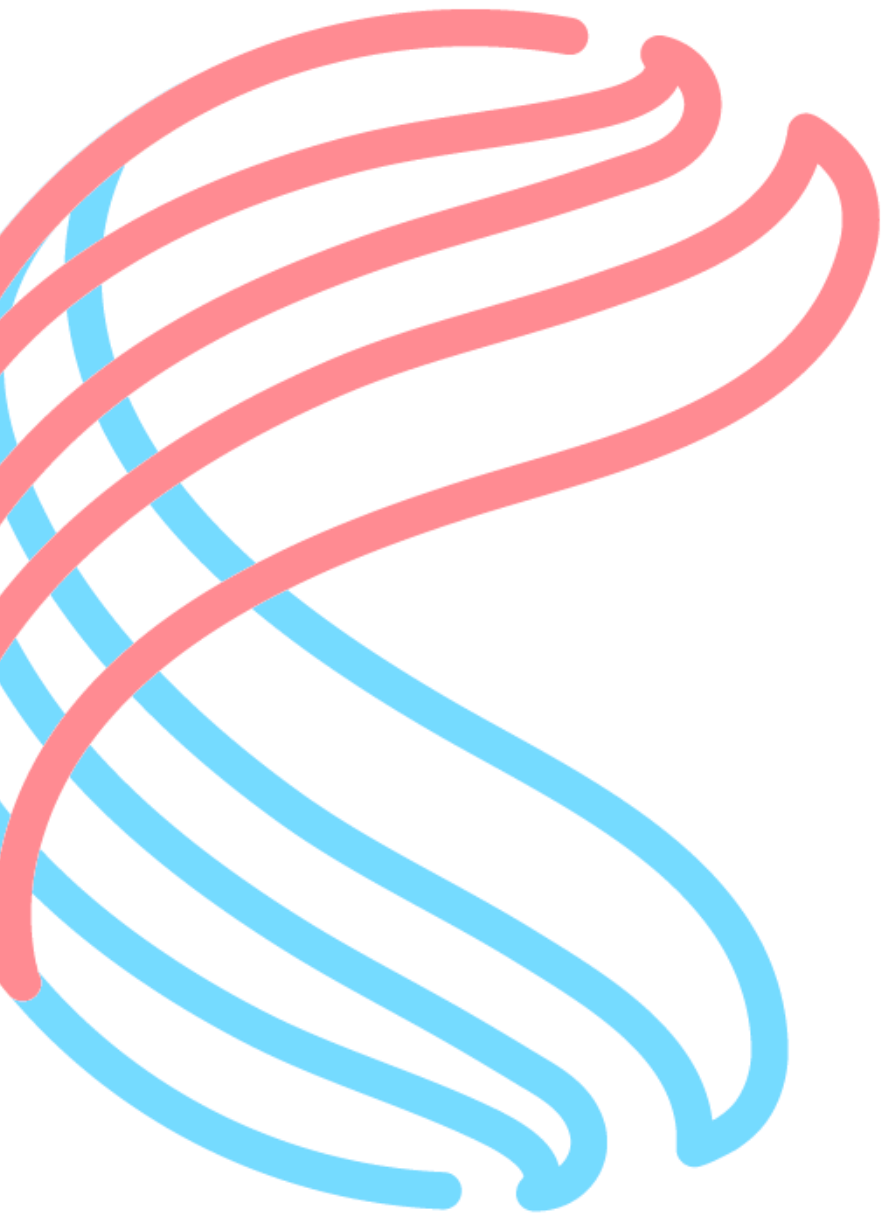

Drillers Control System

MDAQ



MESH
GLOBAL



Duration

10 weeks to manufacture

4 weeks to install & commission

Scope Overview

Review of existing hardware & setup.

Develop specification documentation that included hardware requirements, operating system / software, programming environments, functional requirements, data requirements and interfaces to all external systems.

Complete the following pre-delivery scope, which included: Generating all Factory Acceptance Test (FAT) documentation and completing a final integrated test, using simulation when physical devices were not available.

Provided personnel for the following;

- Decommissioning of the existing system.
- Installation and Commissioning of the new system.
- Conducting offshore training on the system covering operation, maintenance and fault finding.

Achievements

Meeting both the clients budget and time scales allowed them to upgrade a critical system with confidence. The client stated that this was one of the smoothest projects they had been involved with and commended MESH on the approach they take to Engineering. The system will reap future cost reduction benefits for the client due to the WITS interface. Helping clients reduce costs associated with systems by adding in features such as the WITS interface, is exactly what MESH as an organisation are trying to achieve.

Background

Many platforms situated globally are in the later stages of their life. A major UK operator approached MESH Global regarding the replacement of two drilling management systems (on adjacent platforms) that had become obsolete.

Because of the systems age, there were limited compatible spare parts, and neither had digital or remote access.

Two Zone 1, advanced drilling information management systems were specified as replacements. This would provide an integrated, easy to use interface for all drilling operations in the field. The systems had to be compliant to current standards and guidelines, as well as be reliable and operational for the duration of the assets remaining life.

Approach

MESH utilised a Siemens S7 infrastructure for the system allowing for parts to be readily available. This allowed the system to be supported for the required duration of 12 years. The system was designed to be as flexible as possible in regards to interfacing with other 3rd party products with many protocols available.

MESH recommended sensors that would work more efficiently than the client specified type and upgraded these free of charge. We also looked at other ways where we could improve the system functionality. This led to pipe stand counting functionality, as well as a WITS interface. Once the system was manufactured, we invited the client to demo the system in our facility to ensure that they were happy with the screen layouts. A number of interface changes were suggested by the client and their representatives. These changes were implemented within 24hrs to allow the FAT to proceed.

Once the Installation and commissioning phases were complete, familiarisation training was provided to the crew covering operation and maintenance of the system.

Benefits

Our solution provides the client with two identical, fully compliant drilling management systems at a significantly lower cost and lead time than originally proposed.

These systems provide several benefits including:

- Spare parts optimisation with two identical systems across both platforms.
- Remote access via a secure IT connection enabling onshore operations access to real-time drilling data.
- Ability to link to and from 3rd party interfaces for the collection, storage and analysis of drilling data from a variety of sources.
- WITS interface saves time and cost by negating the need for temporary sensors for tank level gauging and flow monitoring during mud logging.
- Having MESH deliver the offshore installation enabled the project to be completed quickly. We continue to provide 24/7 onshore engineering support to our client as required.

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