Obsolescence and existing field optimisation

Client:

CNR

Location:

UK

Equipment:

Artemis 1G and open communications hub (OCH)

Background

The client required an extension of their existing subsea control system situated in a subsea tieback field in the UKCS (135 miles from the coast). Owing to obsolescence and limit of operational spares a threat to existing system maintenance and availability existed. Additionally future client opportunities for system extensions could not be realised due to the technology limitations of the current system.

Project description

Using our retrofit expertise and capabilities, Proserv provided a fully redundant co-exist solution which secured not only the production capability but also provided the opportunity to plug in for future field extension opportunities. To ensure minimal impact to the current operations Proserv worked closely with the client to implement a system that utilised existing power and assured the current communication network was maintained. To ensure fully compliant integration with the existing XT assemblies, Proserv's subsea control modules and mounting interfaces were implemented. This approach provided future spares/maintenance capabilities for management and replacement of obsolete equipment during the remaining field life.

Scope

The scope included test and evaluation of the existing system including evaluation of umbilical characterisation. Integration into the system required the provision of Proserv's Open Communications Hub (OCH), which provided power and communication distribution to the two Subsea Control Modules (SCM), also provided by Proserv.

The OCH was equipped with a power/communication extension to support a production system on a future 12km step-out. The existing topology utilised separate communications and power which required the installation of the Proserv Topside Power and Communication Unit (TPCU) to integrate the Proserv communications onto the existing umbilical.

Conclusion

Proserv successfully supplied a OCH providing the client with an extension of their existing subsea control system.

Benefits

- Cost-effective solution using standard Proserv technology assuring reliable and field proven products
- Integration into the existing subsea system has minimal interface connections, reducing risk and impact on day to day operations
- Proserv products have extensive inbuilt configuration and diagnostic capabilities, providing enhanced performance compared to the clients existing system
- Future extension capability is now in-built to enable the client to realise commercial and operational opportunities
- Risk of obsolescence during extended life of field has been mitigated
- System supports future integration of additional instrumentation that may benefit production optimisation or asset surveillance