





First steps for high-tech wonder child

Born five years ago, ABB's remote diagnostics service (RDS) is still in its infancy. But this brainchild of service technology is growing fast – and its future looks bright.

A new control center in Norway and RDS connections being fitted to vessels still in the yards are among the first steps ABB Marine's high-tech service technology has taken.

RDS is one in a range of global ABB remote solutions that moves the quality of after-sales service up a notch. From a control center just outside Oslo, systems specialists are available to troubleshoot faults in electrical installations on board ships anywhere in the world.

And for customers who have signed up for 24/7 RDS, engineers are on call around the clock to offer this support. (See also page 61.)

They also help with periodic maintenance and provide continuous monitoring. With the data they collect,

Tailor-made contracts

RDS is just one element in a total service and operations package. Vessel owners/operators can pick and choose modules from three levels of ABB service contracts.

- Level 1 - Priority Support
- Level 2 - Preventive Service
- Level 3 - Performance Optimization

The Global Service contract, which can include RDS and technical support, allows monitoring of equipment lifecycle and provides a maintenance plan.

RDS customer portal (under development)

An important part of RDS is its customer portal, where customers can log on to find all the information they need in one place, including:

- Status of ongoing support cases
- Equipment availability
- Maintenance recommendations
- Life-cycle status of equipment
- Service bulletins

these engineers are also developing the capability to tell owners how to improve operations, up availability and reduce maintenance costs.

Began life on an FPSO

RDS monitors, measures and alerts to faults on vessel thruster systems, propulsion systems, drilling systems, motors, drives and switchgears through to protection relays, instrumentation and automation systems.

Rune Braastad, Vice President of ABB's Marine Services, says the service began as a pilot project on an FPSO in the Gulf of Mexico in 2008: "The owner wanted 100 percent uptime but was operating on the Mexican side of the Gulf, where it was difficult to get service engineers on board. So we offered them the RDS that they're still using today.

"We slowly started to roll it out to other vessel segments. LNG tankers, some of which operate in high-risk areas, are quite big on it now. In the last five years satellite has been a revolution on all vessels from a very simple connection. Now it's standard, even for sailing ships, so connection isn't a problem any more. That's why RDS is more available to any type of ship."

Currently 27 vessels are connected to RDS. From this year, the service is offered on all newbuilds delivered from South Korea and Singapore, covering the entire ABB package on board.

Worldwide support

But the technical competence isn't limited to Norway. While RDS gives immediate support when a customer calls, a query can be routed to a marine service center closer to the customer. A service engineer may then be dispatched, but often this isn't necessary because the problem is solved from the RDS center.

The team in Norway consists of 14 technical support engineers, but callers can access the resources of 600 ABB personnel around the world.

"Being able to offer a single point of contact is important. Customers don't have time to navigate through the different vendors in the organization to find the right person. They need help there and then.

"This isn't just to minimize downtime but also for safety. Some vessels operate in harsh environments and they don't have much time to act when there's a failure.



"Newbuilds with ABB equipment on board will automatically have this service but the existing fleet could also use it," says Braastad.

Looking to the future

A future scenario where remote engineers are alerted to a ship's problem, before the crew on board knows about it, is not that far-fetched. "We are looking into continuous monitoring and alarms. So, in the future, an engineer on duty could get an alarm on a mobile phone, see the failure, then call the customer. This is already possible.

"Already we detect problems before they happen through our reports. For example, we see pressure drops in the internal cooling system of propulsion drives by looking at the trend for the last three months," says Braastad.

But the future of RDS as a bigger team being more available to more ships doesn't end there. It could alter the investment case for a new vessel by assuming more of the risk for the ship to be profitable. "We are not there yet," says Braastad, "but we're moving in that direction. As we go, we'll gather more

and more information. Then we'll be able to calculate risk based on historical data."

RDS also has the potential to move from technical to commercial management. "We get a lot of valuable information that we can use to give advice about operations," says Braastad.

All of this is not bad going for a five-year-old. It's clear this 21st century whiz kid is going places. (See also page 71).

Text: Helen Karlsen

Photo: Johs Ensby

For technical insight see *Remote Diagnostic Service - always on board* on page 136.