GSM on any vessel, anywhere

As a leading maritime GSM provider, **On-Waves** affords offshore vessels and oil rigs secure and affordable means of communication for personnel. CEO Kristinn Ingi Lárusson briefs *World Expro* on the group's range of services, which are customised to the specific needs of customers.

Could you provide an overview of On-Waves, specifically with regard to offshore vessels and oil rigs?

Kristinn Ingi Lárusson: On-Waves was formed in 2007, focusing mainly on providing telecommunications services to cruise liners and ferries. Since then, we have expanded into other areas, and today are focusing more and more on commercial vessels found in the offshore oil and gas sector – namely, any kind of vessel with an interest in using Global System for Mobile Communications (GSM).

What's happening right now is that the equipment we have allows us to offer GSM services anywhere, either through regular roaming or by using On-Waves pre-paid cards. Furthermore, the cost is relatively low compared with what it was in the past, both in terms of the equipment and the GSM service.

As of today, we provide a one-stop-shop solution. The kit that we offer is basically a small, self-contained device that enables GSM onboard vessels of any kind – a supersolution, if you will. However, optimisation is always offered in respect of the communication needs of the vessel.

> "The beauty of On-Waves is that we are able to offer flexible solutions, so if a customer has a particular need, we can help them."

So the solutions are tailor-made to your customers' specific needs?

Yes, completely. It is a package, but we can offer a tailor-made solution, which is mainly dependent on the size of the vessel. All in all, it's easily installable, but we can assist the customer if they need any additional help.

How does On-Waves go about developing new technologies in-house?

As you may be aware, we are a subsidiary of Síminn – formerly Iceland Telecom – a well-known international mobile phone carrier. So we have a lot of resources available through them; however, the development team at On-Waves – and I can say this with a great deal of pride – has a lot of very clever people despite it being a relatively small company with presence in Iceland, Finland, Sweden, Germany, France, Canada and the US. We have taken great pride in developing our own solution instead of simply using off-the-shelf products that have not been designed for the marine environment.

On-Waves is increasingly working with commercial vessels in the offshore oil and gas sector.

Are there any projects in the pipeline you are willing to discuss?

Currently, we have numerous offshore oil and gas interests and are involved in multiple projects in Africa, particularly on the west coast of Africa, off Nigeria, Angola and Ghana. We are also working with LNG tankers en route to Asia.

We are working with many of our partners, which have big tankers in that area. So we work both as a direct company and in collaboration with other players as well.

It doesn't really matter who we partner with on the VSAT side; our GSM system directly connects to the vessel network itself. Because our solution is so easily integrated and implemented, we can confidently deploy it over any existing network infrastructure.

So would you say that it is this level of flexibility that differentiates On-Waves from its competitors?

Absolutely. The beauty of On-Waves is that we are able to offer flexible solutions, so if a customer has a particular need, we can help them. Even though there is a standard package, which you can buy 'off the shelf', and which is a very simple solution that you can install yourself, we also provide permanent solutions for specific vessels. When you put communication equipment onboard specialised vessels, you always want to have things installed correctly from the start, instead of having to spend money to go onboard again. It has to be perfect from the beginning – this is what we are offering to the market. ■

Further information
On-Waves
www.on-waves.com

Smart move

Though the digital oilfield concept has existed since the early 2000s, fully integrated smart equipment has yet to make its way into the hands of many field workers. **Arjen Dorland** speaks to Jack Wittels about Shell's latest innovation that seeks to redress this balance, using wireless technology to empower the company's mobile engineers.

At a remote Shell production site in Oman, a mobile worker has discovered a corroded pipeline. The damage is significant and requires immediate attention, though it is not clear precisely what has caused the problem, or how best to proceed. Before making the repair, the worker wants to access the pipeline's operating history and look at its construction drawings. He would also like to obtain a second opinion.

Standard practice would dictate that the worker drive back to head office, where he could access the company database and discuss the situation with another professional.

However, this particular worker is part of Shell's Smart Mobile Worker (SMW) technology project. Rather than heading back to his vehicle, he pulls a tablet device from his pocket, wirelessly accesses Shell's database and downloads the required information. The worker then approaches the pipeline, turning on his helmet's camera and voice-integration system as he goes, connecting with field experts in head office who can now see and hear along with him. Together, they analyse the situation, decide on a solution, then the mobile worker drives to the nearest spare part supplier, which he uses his tablet to locate.

The tablet and voice-and-camera-integrated helmet, along with a host of other devices, all fall under the umbrella of Shell's SMW technology. Currently being tested in Oman, Iraq and the Netherlands, the technology is expected to significantly enhance the productivity and efficiency of the firm's mobile engineers. Though yet to finalise the design specification, Shell has described the innovation as "full end-to-end connectivity and service availability that connects to anywhere in Shell. It required the solution integration of hardware, software, infrastructure, architecture, IT-security and video-conferencing systems."

In practice, SMW technology is the wireless integration of Shell's devices and communication between its personnel. Information from everything a well-equipped worker carries – GPS tracker, helmet with camera and voice integration, temperature-monitoring device and a range of other tools – is accessible to office-based employees working online. Reports from independent machine-monitoring devices also flow automatically into the company's databases.

Crucially, the process works in reverse as well: remote workers can access Shell's electronically stored information, including work orders, manuals, histories, construction drawings, device diagnostics, operational procedures and captured data. It is also possible to operate loop checks or valve stroke tests through the remote and direct manipulation of live systems, should the need arise.

Driving innovation

But while all this may sound impressive, the innovative aspect of SMW technology lies not in the individual components – none of which are new to the market – but in the way Shell has used wireless technology to bring them all together. The project dates back to 2009, when the company carved out and ring-fenced a separate hybrid unit comprised of business, IT, science and technology staff. ››