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G&A NSSL

Growing demand for communications



Established in 1989 NSSL Ltd is a leading independent service provider for satellite communications solutions on land and at sea. Richard Hooper talks to Danielle Edwards, Product Marketing Manager, about the company's activities in the maritime broadband sector, and in particular the Cruise-IP service.

NSSL, an international satellite communications provider, is enhancing a popular service for yachts that enables high speed Internet access from some of the busiest maritime areas. The service, known as Cruise-IP, allows yacht owners to duplicate land-based communications at sea. This means yacht owners can make international telephone calls, surf the web, trade in stocks and shares, access corporate networks and even download newspapers from the comfort of their yacht "as if they were at home". Cruise-IP has become increasingly popular because running costs are typically fifteen times lower than Inmarsat Fleet, the current market leader for maritime broadband. Cruise-IP users also benefit from global 24 hour support, meaning that any technical problems or lost connections can be very quickly dealt with.

According to Bob Chewter, Managing Director of NSSL: "increasingly yacht owners need to be in touch with land whilst at sea. With Cruise-IP the communication possibilities for yacht owners are limitless. Yacht owners using Cruise-IP can listen to the radio; take part in video-conferencing; download TV shows like 'Lost'; trade in stocks and shares; download music and access files from the office."

Cruise-IP works by connecting the onboard computer to a satellite communication modem and antenna which is also located on the yacht. A constant communication link is established between the vessel and the internet via a satellite ground earth station based in North America. All communications, both data and voice, are routed via the internet.

Installation of new gateways
 To enhance the service even further the company launched its own DVB-RCS Gateways in Florida and California in April 2007. This has enabled NSSL to provide

greater independent coverage, better services, and all under their own control.

NSSL has partnered with STM Norway, a subsidiary of STM Group, which specialises in designing, manufacturing, and installing DVB-RCS VSAT Gateways. Under the terms of the agreement, STM has delivered, installed and will support the DVB-RCS hubs on the east and west coasts of the US, providing coverage of the marine routes frequented by ships in the Mediterranean, Caribbean, US and Pacific waters.

With two extra 'gateways' NSSL is able to offer Cruise-IP yacht owners greater functionality. First, the gateways will extend the range of Cruise-IP to include popular yachting routes frequented by business and leisure users in the Pacific, Caribbean and Mediterranean. Second, the gateways will also enable NSSL to offer guaranteed network reliability under one service provider's control – something no other supplier is currently doing. Other supplementary benefits include a dedicated voice service, ability to prioritise video conferencing traffic and capability for customers to customise packages based on either bandwidth and/or contention ratio.

Question: Please can you explain exactly what NSSL does?
Danielle Edwards: NSSL is a satellite service provider. There are two halves to our business, the first is land based and the second is marine. We don't just sell kit, as anybody can do that. We specialise in integration. We talk to customers about what they require and then integrate the best solution for them. On the maritime side, the data rates are always going to be slightly slower than terrestrial, but we try to make it as seamless as possible.

We are a preferred supplier for the UK Ministry of Defence, and a number of major

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players in the media sector including Reuters.

At the moment we are not all things to all people, but we do cover most of the big vertical sectors. Where we fit in is that we are a hardware manufacturer and airtime supplier agnostic – so we are not specifically tied to any particular airtime supplier.

Question: What is Cruise-IP?

DE: Cruise-IP is what we call a VSAT alternative, duplicating land-based communications at sea. Up to the middle of March it used the DVB-RCS technology, but we now have the two new hubs and upgraded that technology to DVB-S2. It is the latest generation and at the moment we are the only hub running that particular technology. It gives us a lot more flexibility in terms of managing end-to-end, and being able to keep our destiny in our own hands rather than handing it over to one of the big providers like Telenor.

We now control the end-to-end solution and that has positive implications for customer support. If somebody needs additional bandwidth we can supply it on demand to his vessel. The investment in the hubs and the technology has been very important to us because it gives us a greater degree of flexibility from the support to the service itself. Customers are now getting what they need, ideally replicating their land based communications.

People are now asking for broadband where ever they are, and that is what we are delivering. It looks like any other communications system while onboard the vessel, there is an antenna inside a radome and depending on where you are in the world we use either Ku-Band or C-Band, but generally Ku. In the Gulf of Mexico for example you cannot legally use C-Band. C-Band is traditionally for the land based version of Cruise-IP over Africa. The systems are engineer installed on the vessels and this takes between four and five days. We don't let the customers do it on their own. We won't release the hardware without our engineers being there.

Question: How big is the onboard installation?

DE: As I mentioned, the product looks like any other communications system while onboard. The onboard antenna is relatively small at just 1.2 metres.

Question: What is the advantage over a traditional VSAT system?

DE: On traditional VSAT services it is a dedicated channel which is all yours. But for that you pay a hefty price. VSAT solutions are not always the cheapest. With Cruise-IP, once the system is onboard it is a shared channel, so like a DSL line at home your provider will tell you have 8Mbytes, when

actually you don't have that bandwidth at all most of the time. Because of the number of users and where you are that figure will fluctuate. So by sharing the channel, we can drop airtime costs right down.

NSSL can now provide a low-cost alternative to VSAT offering high-quality broadband IP at a fraction of the running costs; and in the locations where you need service most. We offer a number of different monthly package plans. A bit like BT at home, you decide how much bandwidth you require and then pay a fixed sum of money. You can then use the system as much as you want without any worries as to a shock invoice suddenly arriving through the post.

For example, we have had cases in the past with customers using the Inmarsat Fleet Service which is a pay as you use, where customers have gone from zero to 10,000 on their invoice in a matter of days. It can be a scary proposition awaiting the invoice at the end of the month.

Question: Does Cruise-IP work with both voice and data?

DE: Yes, the system gives you both voice and data at the same time. If a customer does not have a voice solution we can integrate one into the system for them.

In addition, because customers requirements can often change, if somebody suddenly requires extra bandwidth for a specific task, we can allocate that.

Question: Cruise-IP was introduced in 2005. How many have been installed?

DE: We have over 90 vessels with Cruise-IP installed. Growth is encouraging, and now we have the trust in the market with Cruise-IP, we have people ringing us for the solution. Most of the installs are on super yachts.

I don't know whether you know but in this business we don't advertise the system, the sales come from one owner seeing another use the system while moored in Monaco or one of the other luxury spots around the world.

Question: What makes Cruise-IP a popular installation on cruise ships and yachts?

DE: Why is it so popular. Simple, users can replicate their onland experience and that is huge plus for businessmen on their luxury yachts. If you polled the users, they would tell you they don't really care how many megabytes they have at sea or on land. They just want to know that when they click something happens, and they are not waiting for it to respond. The second thing is cost, it is a cheaper solution.

Question: Why do people use NSSL?

DE: Why do people deal with us. Well, we do our job really well, and our 24/7 backup and support is excellent. Our customers know our engineers by name, and are often programmed into the speed-dial on their mobile phones. For businessmen time is money and therefore immediate support response times are essential.

Question: How important is cost when installing a system like Cruise IP?

DE: Cost is not massively important in the type of vessels that Cruise-IP is installed. It is all about value and whether the system delivers what it says it does.

Question: What is the main consideration on such a system – speed or reliability?

DE: It is always such a difficult question – but I would say reliability. It is similar to being at home or in the office – you want access when you want it, without any reliability issues. Speed is a secondary consideration that you balance against reliability.

Question: What is the reliability of the system like?

DE: Any downtime we have had has been planned. We contact our customers to schedule downtime for upgrades and development work. If there have been failures it is not in the service but normally a hardware component. In which case an engineer is normally dispatched within hours.

Lady Manna. Photo courtesy of NSSL.

