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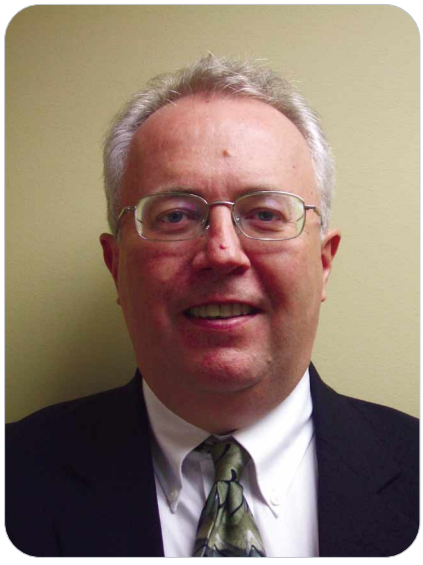
Bridging the communications divide

Monte Egeland, Vice President of Altobridge, speaks to Satellite Evolution and explains the role that satellite plays within their technology and how it is growing in popularity in the military and first responder communities.



Monte Egeland, Vice President of Altobridge

Altobridge is a leading developer of advanced cellular communications solutions for aeronautical and remote communications. Its core patented AM Gateway Platform enables standard wireless service anywhere in the world. Emphasis is placed on providing low-cost communications in the most remote and challenging environments and this is enabled through their innovative and groundbreaking architecture.

Question: Can you begin by introducing yourself to our Readers and giving an overview of Altobridge?

Monte Egeland: I am Monte Egeland and I am Vice President of US Operations for Altobridge and am based out of Washington DC. Altobridge started out in 2002 and coming from the cellular industry we discovered the need to develop more cost effective solutions for GSM and cellular infrastructure or satellite. So we have come up with innovative ways of doing that, in particular taking on demand satellite services such as Inmarsat GAN and BGAN type services and using them in way that makes them a lot more cost effective than they currently are today. We basically have four market areas that we are involved in. The first contract we signed was in 2004 and was in the aeronautical market and our partners are now actually going out into commercial airliners so now you can use your cellular phone and keep mobility while you're in the air.

We moved into the maritime area early last year. We started up an entity called Blue Ocean Wireless that we invested in along with a firm from Ireland. Blue Ocean Wireless is currently servicing the maritime market with crew calling and there are a number of opportunities that have come as a result of that with regard to security so it has kicked up some new markets that just never existed before. We also go into the traditional markets of supporting developing countries and rural

RCC Tactical Cellular/Satellite Communications System

Altobridge, has introduced its ruggedised Remote Contiguous Communications (RCC) tactical cellular system, which uses frequencies typical of civilian mobile phone networks and represents the first application of true cellular communications to the military environment.

Suited to uses with Regular Army and Special Operations units as an addition to any tactical communications portfolio, the RCC enables standard cellular communications anywhere, under any circumstances, including extreme covert scenarios. The system will provide a secure, closed-user-group cellular service in the most challenging environments by establishing its own cellular network wherever it is deployed, totally independent of any local infrastructure.

The RCC combines the patented Altobridge AM Gateway Platform™, a standard pico-cellular base station and a satellite transmission unit, such as Inmarsat GAN/BGAN or VSAT, all in a single-person carry case.

The system can be man portable, or a rack mounted, vehicle-borne system, (e.g. Bradley Fighting Vehicle or HMMWV), as part of a mobile communications command and control centre. The ruggedised system incorporates a Panasonic Toughbook and an Inmarsat BGAN antenna, both of which are already used extensively in military applications.

The RCC fills a number of the applications for which current standard tactical radios and handheld satellite terminals are used, but the technological differences and advantages of the RCC in several scenarios make it an ideal new arrival in a variety of today's theatres of operations.

In addition to special operations, tactical and covert uses, the system is ideal for humanitarian missions following natural disasters, where civil communications services are lost, congested or the disaster takes place outside the normal coverage area. Emergency workers and military personnel deployed to a disaster area can communicate from, and be contacted on, their existing mobile handsets using the RCC.

First responders are able to carry the units with them and simply turn on their existing cellular handsets, ensuring maximum communications impact the moment it is needed. From initial power-up, satellite acquisition to a fully operational first cellular call transmission takes about five minutes. The RCC's operational characteristics can be selected among the standard GSM frequencies of 900Mhz, 1800Mhz and 1900Mhz.

The RCC supports cellular A5/1 and A5/2 encryption and standard cellular features such as person-to-person telephony, together with data services such as short message services and packet data (GPRS). It will also support special military encryption GSM handsets.

Vice President of Altobridge, Monte Egeland, said, "When troops need to blend in at a local level during covert operations, being able to use a normal cellphone is a major differentiator over other tactical radio communications systems. The idea of standard cellphone usage has proven extremely attractive to various Special Operations and Counter Insurgency communities with whom we are currently in discussions."

villages and communities that weren't cost effective before for cellular operators. We're using satellite now.

The fourth area that we focus on is the military and private networks market where our clients need to set up portable sites where they can use cellular telephones - for example for the special operations groups as well as for the first responder community after a disaster when the infrastructure is down. They just plug our system in with available satcom whether it's a traditional VSAT if that's available or any portable satellite terminals. They can then serve a small community using cellular telephones. So that gives you the four different market areas that we focus on. Satellite plays a key role within our solution.

Question: The slogan on your website is 'bridging the communications divide'. Can you explain how your technology enables you to do this and what would you say is your unique selling point?

Monte Egeland: In terms of bridging the communications divide, there are various different communications solutions for all the different communities we serve. There are various communications solutions that exist but are not widely deployed in different market areas. What we have done is made available a system that will service that community in a much more cost effective way. Let's take the merchant maritime market and Blue Ocean Wireless.

Over 90 percent of merchant mariners aboard the world's largest deep sea trading vessels currently own a standard GSM mobile phone. The problem of course is that it is rendered useless while at sea, beyond the range of land-based GSM coverage. It means whilst seafarers are at sea, contact with family and friends is either impossible or prohibitively expensive. And even where crew-calling payphones do exist onboard, crew tell us that making calls in this way lacks the privacy and flexibility they desire. But thanks to Altobridge's patented technology, officers and crew can make and receive calls as well as send and receive SMS messages, at very affordable prices, wherever they are on the world's oceans. And what's more, they can do so in private, away from the bridge, using their own personal mobile handsets. I think that the pricing that Blue Ocean Wireless have published on the market is about $1.25 a minute on the high seas and probably around 50 to 75 cents per message. This is something that was asked for by the crew members and we have the solution to fulfil that, so that's an example.

Another example is in the traditional markets where they are trying to bring more wireless communications into developing countries. There are programmes going on there but there's another billion subscribers, even more than that, out there and that's something that we are tackling either directly or in conjunction with cellular operators where they are finding additional means for satellite. The thing that sets us apart is that the only time we end up using satellite infrastructure is when a call is in progress. We're not utilising it at any other time so that's the key difference and that is part of our patents.

Question: Can I just ask about the regions where you're working at the moment? You're obviously an international company. Where would you say your key regions are?

Monte Egeland: Earlier this year, Maxis, which is a tier one cellular GSM operator in Malaysia, selected our technology to go out into the remote village market. Up until this point they had not been able to find a cost effective solution. With our technology and the way in which we use our bandwidth along with the fact that we do not consume satellite bandwidth unless there are calls in progress, we presented a positive business case to them. They have fairly reasonable usage levels with 50 – 100 subscribers in an area.

Asia and Africa are big potential markets for us. I have been working on running trials in the United States with a cellular operator out there for first responder deployment as well as maritime type applications.

Later this year we will start to do work in Africa. From a worldwide standpoint, our partners are working on aeronautical and commercial aircraft as well as global ocean vessels.

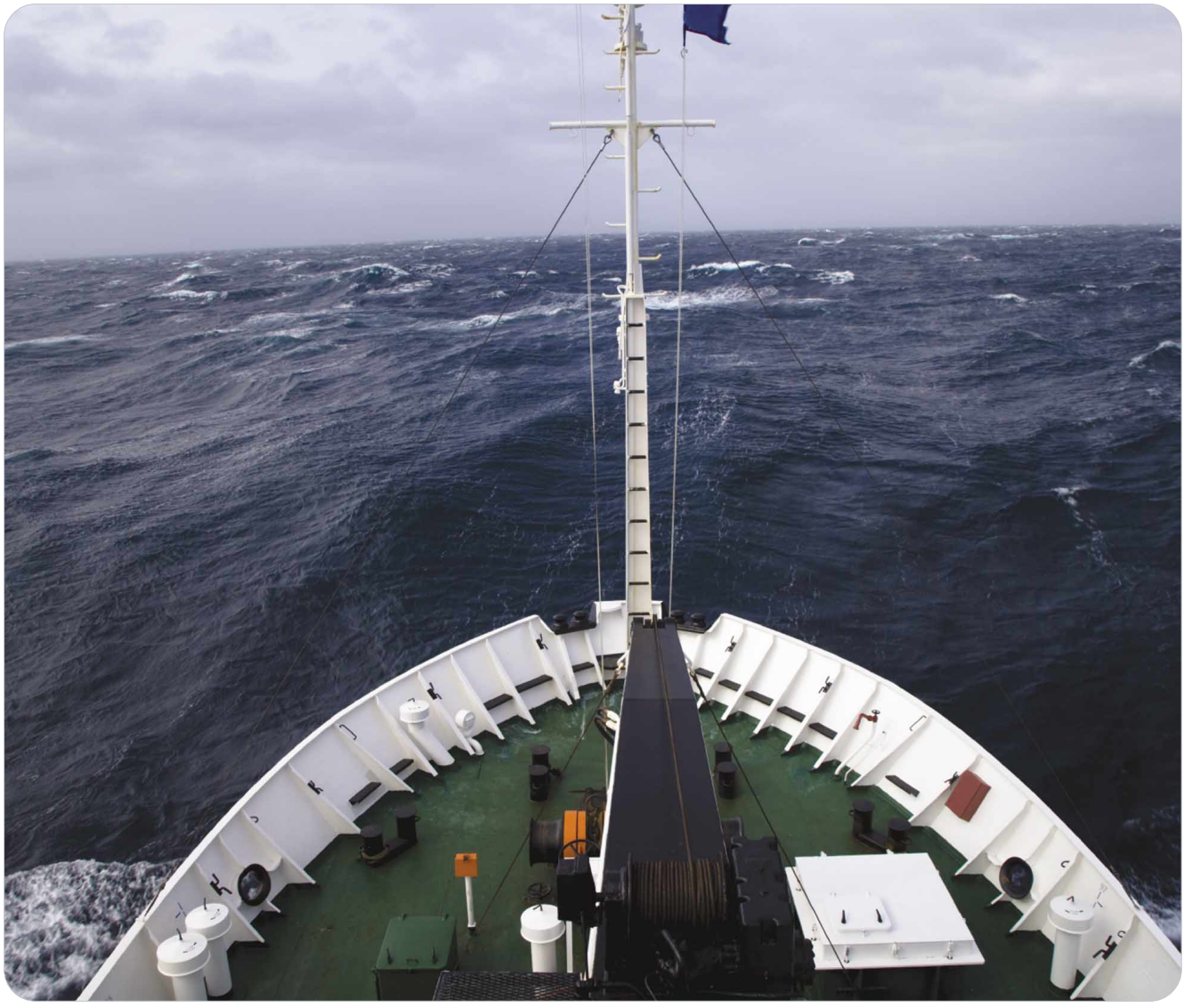
Question: I read with interest your latest press release on the RCC Cellular satellite communications system. It is particularly suited to the battlefield and also for humanitarian organisations and first responders. Can you tell us a little more about the system and about how it works and how long it takes to deploy? Can it be used by non-technical personnel as well?

Monte Egeland: Absolutely. We were approached a couple of years ago to develop a system that can be taken out and deployed by one person. Our customer was very interested in how this would work with on demand satellite systems such as the Inmarsat type GAN or BGAN terminals. So we developed a package that includes a small portable satellite system that takes about five minutes to set up and that includes pointing the satellite terminal and acquiring the signal and connecting the remote base station over RCC unit back into the cellular infrastructure.

We do demonstrations that involve our salespeople so we don't need engineers to set it up. It's basically a case of 'press this button' and that is what we focused our effort on. There are a lot of systems out there but every time they are either man portable so they take two people to take them out and set them up and they need a technician to go and work them. Our US Director of Sales went out with the special operations group of the US military and set it up in a car park and ran it off car power from an SUV that was there. They were able to make calls and the general that was watching said 'I could even do this!'. So that becomes very important and is a real key concern especially for first responders and the military market who need specialised resources.

Question: What will be Altobridge's main objectives going forward in 2008?

Monte Egeland: The thing for us right now is that we have moved into several new markets. We have a technology. It's there and it's proven through a number of trials so now is a case of expanding the reach. We will be making certain enhancements at our customer's requests to expand the capacity of the system to work over a wider area. But as far as the core side of things goes, it is ready and we are now looking at the different satellite systems and how we can become more efficient. That's really the key.



Over 90 percent of merchant mariners aboard the world's largest deep sea trading vessels currently own a standard GSM mobile phone. Photo courtesy of iStockphoto.com.