



World Markets Series

BUSINESS BRIEFING

Global Cruise

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Wireless Cruises Towards a Shipboard Mobile Phone Network

a report by

Rob Marjerison

Director of Business Development, Maritime Telecommunications Network

To some, it is the end of an era whereas to many, it opens up new holiday possibilities, but one thing is true for everyone, regardless of their perspective: placing or receiving a call on a mobile phone whilst on a cruise ship at sea will soon be no different from using a mobile at any other holiday destination.

Nearly 10 million people will take a cruise this year. Almost 90% of them will be American. Over the past three decades, cruising has become a popular holiday option for people of all ages. While cruises have always presented good holiday value, there have been some drawbacks.

Telecommunications to and from ships have historically been inconvenient and expensive. Until about 10 years ago, passengers had to go to the radio room on the bridge to make or receive a ship-to-shore phone call, one passenger at a time. It was cost-prohibitive and the push-to-talk radio calls often provided poor voice quality.

In the early 1990s, Maritime Telecommunications Network (MTN), pioneered a new technology that allowed ships to maintain an 'always on' connection to the shore.

Using a stabilised C-Band antenna on ships, the MTN very small aperture terminal (VSAT) service enabled passengers to make (and receive) several telephone calls from the ship simultaneously – and quickly became the industry standard.

During the Internet boom in the late 1990s, it became apparent that e-mail was already an integral part of work, recreation and home life. MTN moved early on to offer a turnkey Internet café service to its cruise line customers. Within a year, Internet and e-mail access became a standard amenity throughout the cruise industry.

More recently, wireless Internet and e-mail accessibility via wireless fidelity (Wi-Fi) technology has gone from being a relative novelty to a service that is widely used in hotels, airports, coffee shops and fast-food restaurants. As an early adopter of Wi-Fi, MTN introduced it to the cruise industry over

two years ago and currently operates over 90 Wi-Fi 'hotspots' on over 50 cruise ships.

For several years, there has been considerable conjecture within the cruise industry regarding the idea of making a mobile phone service available on ships and, although it has been attempted, until now a satisfactory solution has been elusive.

Early this year, MTN and AT&T Wireless formed a joint venture to make mobile phone reception on ships a reality. The joint venture, Wireless Maritime Services (WMS), will combine MTN's expertise in providing satellite services to the cruise industry with AT&T Wireless's expertise in delivering wireless services to consumer and business travellers.

"We look forward to our joint venture with AT&T Wireless delivering a truly global mobile service to ships in international waters," said David Kagan, the Chief Executive Officer of MTN. Using this service, staying in touch will be as convenient for cruise ship passengers as pressing the 'send' key on their own mobile phones. "Our goal is make the experience for the user completely seamless," added Kagan.

To accomplish this essentially means creating a complete mobile phone network on each ship where the service is offered. Conceptually, it is easiest to think of a ship as an island in the Caribbean. In Jamaica or Antigua, a GSM mobile phone will work. In some cases, it will be necessary to contact the network provider, to request that international roaming be enabled; but even then, the mobile phone user can be using the local network within minutes.

Similarly, from a shipboard mobile phone network, calls will go through the existing on-board MTN VSAT Satellite network to MTN in Miramar Florida, where they will be handed over to AT&T Wireless's domestic network.

While the technology that supports a mobile phone network onshore is both prolific and reliable, putting the service in place on cruise ships has been met with numerous obstacles, including technological, regulatory and financial considerations.



Rob Marjerison is Director of Business Development for Maritime Telecommunications Network. His primary role includes finding or creating and bringing to fruition new sources of on-board revenue that are derived from the use of telecommunications and satellite technology. Mr Marjerison's previous jobs have included Senior Consultant for KPMG in the Information Risk Management Practice department and 12 years of shipboard experience in the cruise industry, serving in various positions in the hotel department. He is a Certified Information Systems Auditor and has received a Master of Science degree in Information Systems from Louisiana State University and a Master of Public Administration degree from California State University.

Firstly, satellite bandwidth is still relatively expensive. The volume of usage expected will require more bandwidth for this service alone than most ships currently have for their combined data, Internet, passenger and crew phone lines and corporate usage.

Another challenge was the variety of different mobile phone protocols that are used in the US. No single protocol has been able to penetrate more than 40% of the market. If less than half of the passengers were able to use their mobile phones, there would be as much frustration as there was satisfaction on-board. This has resulted in a business model that is challenging to promote and operate profitably.

Installing a mobile phone network requires a significant investment in retrofitting the ships with cables, not to mention the cost of the hardware itself. Modern ships are rarely out of service, with two or more years between scheduled dry-dock visits not uncommon.

A wireless service of any type and technology on ships in particular are challenging operations, due to the unique nature with which radio frequency waves proliferate through what is essentially a giant steel honeycomb. Installing a mobile phone network is no exception. Providing a high-quality signal throughout a large ship requires very specialised engineering knowledge and experience. Installing a system with all the necessary cabling and multiple antennae on a ship in service is a very complex undertaking.

There are numerous and varied regulatory issues surrounding the international use of both the satellite and mobile phone technologies. While understanding and meeting those complicated requirements can be time-consuming and costly, ignoring them would involve inviting litigation at some point in the future. MTN and AT&T Wireless each provide tremendous value within their respective areas of operation, with their experience and knowledge base as well as with existing contracts and licenses.

Although it sounds fairly straightforward, it is actually a very costly, complicated and technologically challenging business. It is the considerable customer demand that has driven forward the interest in providing this type of service. For many people, convenient mobile telecommunications have become an essential part of everyday life. Over the two months that have elapsed since the WMS service was introduced, it has become known in the cruise industry as the 'holy grail of shipboard telecommunications'.

To the cruise lines, this service presents a significant potential revenue stream; but, much more importantly, it will open up two new demographics of people as potential cruise passengers. Firstly, there are huge segments of the population that are either mobile

or home-office workers. Many of these are dual-career families that have difficulty planning vacations. If one of them can work from the ship via a combination of Wi-Fi and a mobile phone, they will be able to cruise.

Secondly, there are billions of dollars spent annually on corporate business conventions and other business-related group travel, in the US and abroad. With a convenient and low-cost mobile phone service and Internet connection being offered from ships, some of that business travel revenue can be expected to be redirected to the cruise industry. At least one major cruise line sees this market as a potentially large source of growth in the next few years.

When asked whether mobile phones are something people would rather escape on a cruise, Dave Kagan, the Chief Executive Officer of MTN replied:

"It doesn't seem so. In our focus groups and research we haven't found anything to indicate that there will be a backlash at all. In fact, just the opposite, it seems many passengers think it will be great. There may be a small percentage of the population that objects to others using their mobile phones, but that is part of life for all of us today, whether we're dining in a fine restaurant, going to a Broadway show, at a ball game or on the freeway. I noticed recently that a major movie theatre had posted signs asking patrons to turn their phone to vibrate or off completely. If a person's phone rings during the film, the person is asked to leave and come back another day. While I don't think anyone is likely to get put off a ship for a ringing mobile phone, I believe it will become part of the cruise experience for Dining Room Managers, for example, to request passengers to turn their phones off during dinner or for the Cruise Director to ask phones to be turned off during the evening show. In just under two years, Wi-Fi for Internet and e-mail connectivity on ships has become an industry standard that passengers expect and take for granted. We expect the mobile phone business to become an expectation of cruise ship guests even more quickly."

One of the differences between marketing Wi-Fi and mobile phone services on cruise ships is that when Wi-Fi was rolled out, it was a challenge persuading passengers to bring their laptops on the cruise. Mobile phone use on ships is likely to ramp up quickly because passengers are likely to bring their mobile phones with them anyway, as they often use them while travelling to and from the cruise ships.

Perhaps, in the future, a convergence of voice and data communications can be expected and, at some point, there may even be no distinction. Meanwhile, passengers may well be advised to refrain from talking on mobile phones during the lifeboat drill. ■