



Charting New Waters: SeaMobile's MTN Satellite Services Expands Broadband to Booming Yacht Market

The maritime sector has long been the frontier of the mobile satellite communications industry. Previously restricted by narrowband connectivity offered through expensive, pay-per-minute services, satellite network providers are now equipping merchant vessels, tankers and offshore oil and gas platforms with high-speed services, affording passengers and crews with connectivity similar to that which they enjoy on land.

MTN Satellite Services (formerly Maritime Telecommunications Network), a SeaMobile company and global communications provider to the maritime community, has capitalized on this growing demand for broadband at sea, emerging as the undisputed market leader in the cruise line industry.

MTN established its leadership in the marketplace based in large part on the iDirect platform. With iDirect's universal hub systems, MTN provides oceanic coverage to ships around the globe. By managing multiple networks through the same platform, MTN can dynamically allocate bandwidth, increasing efficiency and helping to overcome established maritime satellite limitations of service reliability and traffic management.

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Neil Emmott, M/Y Passion



Cruising into the Super Yacht Market

In 2005, MTN entered the expanding yacht market, hoping that the satellite connectivity it provided to cruise liners and other large crafts would transfer to the “super yacht” class of ships exceeding 100 feet in length.

Like cruise liners, super yachts require reliable, always-on service, enabling crews to manage operations with increased efficiency and allowing high profile owners and guests to freely conduct business at sea.

But equipping super yachts with this service presented some unique challenges – super yacht owners demand greater flexibility from satellite services than do cruise liners, with periodic shifts of usage due to off-season inactivity or the presence of guests onboard. Additionally, most yacht crews lack trained satellite technicians, so yacht owners insist that satellite terminals require minimal intervention.



High-Speed Connectivity Anywhere

To overcome these challenges, MTN turned to long time partner iDirect. Through iDirect's platform, MTN tailored a flexible solution for the yacht market that allows users to burst beyond the inbound and outbound bandwidth limits stated in the service agreement. This capability permits yacht owners to purchase an average bandwidth quota, then increase that capacity when guests are onboard or when activities such as videoconferencing require more bandwidth.

The iDirect platform also enabled MTN to provide yacht owners with automatic uplink power control – an important feature of MTN's service that allows the onshore hub to control the power level at which the remote on the ship is transmitting. As a yacht moves between contours in a satellite footprint or encounters different weather conditions, the satellite remote may need to increase or decrease its power to maintain a stable link. In the past, this power control had to be adjusted manually by technicians onboard.

One customer using the new service is Neil Emmott, manger of M/Y Passion, a yacht that frequents the Mediterranean and Caribbean. Emmott offers shore support for the yacht's crew and operations. "Bringing high-speed satellite connectivity onto the boat is like night and day compared to what we had before. It's made our job a lot easier," said Emmott, who utilizes the service for a range of onboard duties, such as ship-to-shore communications and vendor management.

"To check the weather I used to have to call up a weather router and pay \$250 for a bit of information about a passage we're planning to make, now I can look at a few websites and pin down the weather conditions. From the crew's perspective, access to email and the Internet is a critical perk that they use to stay in touch with their families back home."

The M/Y Passion receives MTN's service through e3 Systems Group, the exclusive European distributor of the service with more than 50 installations on super yachts. "Yacht owners want the same connectivity onboard that they enjoy in their homes and offices," said Roger Horner, the group managing director with the e3 Systems Group. "In a way, data communications is almost as important as water to the yacht community."

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Smaller Antenna Opens Big Market Opportunity

The strong success of MTN's offering for super yachts has now prompted it to expand its market focus beyond the world's 3,000 super yachts to include 7,000 small and midsize yachts, presenting an opportunity for MTN to significantly grow its business.

However, mounting a 250 lb, 1.2 meter satellite antenna like those used on many larger yachts presented a challenge on smaller craft. Simply reducing the antenna size would result in lower link margins and decreased service availability. It would also require more powerful amplifiers, resulting in adjacent satellite interference.

Again, MTN turned to iDirect for a solution. iDirect's answer was Direct-Sequence Spread Spectrum, a satellite router feature that diffuses powerful, high rate signals by "spreading out" transmissions in a way that minimizes the interference to adjacent satellites without limiting the link to the intended satellite. Additionally, Direct-Sequence Spread Spectrum regulates the antenna signal to ensure that carriers are modulated at a low spectral density, while at the same time allowing only one remote to transmit at a time.

This technology made all the difference and enabled MTN to begin development of a long awaited service capable of being supported by 60 cm antennas. The new service, which has been extensively tested and featured at industry trade shows, enables MTN to provide high-speed connectivity to small and midsize yachts, and effectively increases its opportunity in the yacht market by more than 300 percent.

"The new spread spectrum on the smaller antenna is exciting because it really opens up new opportunities for us in this market," said Horner.

Conclusion

By partnering with iDirect, MTN has achieved leadership in the cruise line industry, providing top cruise liners with high-speed voice, Internet and data connectivity at sea. From this position of success, MTN continues to innovate, extending into new markets and capitalizing on growing demand for improved communication services. With visionary companies like MTN, high-speed, IP satellite connectivity in the maritime industry is finally coming of age.

New Horizons

MTN has overcome traditional maritime limitations, delivering new gains to super yachts:

- ◆ Always-on, high-speed service, giving passengers and crew the same broadband experience they enjoy on land
- ◆ The ability to adjust bandwidth levels to meet the changing needs of guests and crew
- ◆ Automated controls that reduce the need for technical expertise on board

With these challenges conquered, MTN and iDirect are now advancing satellite technology to deliver broadband to every yacht at sea.



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