Maritime Application Brief

Cargo Ships • Tankers • Bulk Carriers

The communications needs of a maritime operation are straightforward. Keep a quality crew happy, healthy and in touch with family and friends. Stay connected with clear, reliable voice communications under any weather conditions, in any region. Have instant online access to the right data and information to operate effectively, smoothly and safely at sea. Run the most efficient business operations possible, just like any other remote office.

Gone are the days when a vessel would unplug from the global communications network when it disembarked from port. Today 100% mobile connectivity at sea — high-speed broadband VSAT service — is an imperative for elevating crew welfare and improving business.

Investing in crew welfare is a priority. A shortage of qualified crew, compounded by a new generation of web-savvy crew members, means crews can take their pick of ships — and broadband-enabled vessels top their list.

> **By 2018, more than 44,000 vessels will be using VSAT.**
> Comsys Maritime VSAT Report

✦ i D I R E C T

The Connected Ship

Crew Welfare
- High-speed Internet access
- Cellular phone service
- Online training & productivity applications
- Telemedicine
- Remote IT services

Vessel Management
- Electronic charting and weather
- Electronic port and customs documentation
- Live video monitoring and conferencing
- Cargo monitoring and tracking
- Generate business intelligence

With increasingly longer stretches at sea comes a growing need to stay well connected with landbased operations and head office networks.

Shorter stays at port, reduced turnaround times, tighter security rules and increasing customer demand means limited time for critical repairs, maintenance and exchange of cargo information. There's never been a greater need for onboard IP business applications to function remotely in order to stay competitive and on schedule.

IP satellite technology maximizes the full potential of networks everywhere and holds the key to supporting multiple business applications at sea, improving operational efficiency and quality of life for all.

Raising Crew Welfare and Morale

Today, crew welfare means having anytime access to the Internet, being able to call home and send SMS messages. It also means being able to stream high-speed video, interact on social media and have access to personal productivity applications like online bill pay and banking.

For vessel operators, crew welfare can also mean providing access to new applications that improve

Improving Business Productivity

productivity. It means access to the latest training courses via high-quality web casts and video, so skills and important crew certifications don't suffer during longer stretches at sea.

And when emergencies and serious illness occur at sea, high-quality medical care can't be compromised. Access to state-of-the-art maritime telemedicine systems using a VSAT communications network assure vital clinical patient data is rapidly transmitted to shore. The reliable transmission of medical, imaging and health informatics data from ship to shore has changed the character of maritime.

Creating Intelligent Vessels

With each passing day, maritime operations become more dependant on the ability to transfer large amounts of data between ship and shore. VSAT communications, using IP technology, enables the reliable and instant transfer of voice, video and data files between vessels and land-based offices.
Shore-based management has greater, more real time visibility into what's happening at sea. Increased automation on board ships enables land-based personnel to track, monitor and evaluate information, helping to ease the burden of crew onboard.

At sea, vessels operators are utilizing applications that help monitor weather patterns to cut fuel costs, file regulatory documents and order supplies from sea to save time in port and generate business intelligence.
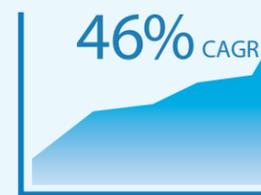
VSAT technology increases productivity by connecting these two halves of the business. It's easier to make smarter decisions that impact schedules and profits. With iDirect, even the most complex operational systems and business applications can be running online smoothly, efficiently, while crew are accessing email, on the Internet or calling home.

Maritime companies require high-speed connectivity more than ever. These vessels transport nearly all goods produced around the world, advance global energy production, increase our food supply, provide a home away from home for crew members as they sail and serve around the world.

VSAT connectivity is at the heart of keeping maritime vessels operating smoothly and most efficiently. The need for a range of different business, operations, crew and passenger applications, coupled with the fact that VSAT economics are improving from both a hardware and service perspective, means that this trend will continue on a steady course going forward.

24 Gbps

HTS DEMAND: An additional 24 Gbps of HTS demand into the maritime market in coming years. (NSR)

46% CAGR

TOTAL MARKET SIZE: VSAT services across all segments will reach $1.8 billion by 2018. (Comsys)

VSAT Vessels

iDirect — Standard for Maritime

Through a diverse global network of satellite providers, network operators and carriers, iDirect provides the advanced technology that enables IP applications to run efficiently over satellite.

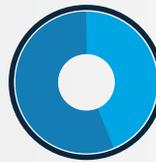iDirect's scalability and flexibility enables maritime service providers to deliver always on regional or global services. These cost-effective solutions enable pricing models that emphasize flat monthly rates over expensive pay-per-minute and pay-per-megabyte plans.

iDirect's advanced VSAT technology has been intelligently designed to provide the crucial link between the connectivity and the application. This enables our partners to provide services with high value, not high price.
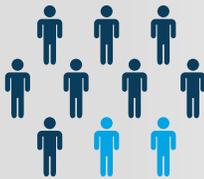
7 of the top-10 maritime service providers by unit rely on iDirect as their platform of choice

More than 50% of all VSAT remotes deployed on vessels are made by iDirect.

8 of the top-10 maritime service providers by revenue use iDirect

Satellite operators Inmarsat, Intelsat and Telenor launching HTS constellations targeted at maritime using iDirect