

CASE STUDY

MOBILITY

Maritime Broadband / Crew Welfare

Japan's OCEAN TRANS Delivers the Goodies

Shipping Company uses IPSTAR for Crew Welfare & Operational Communications



ipstar *
Broadband Satellite

Ocean going vessels are often at sea for lengthy periods when crew can be out of network range and in locations where it is not easy to get access to the Internet. This can impact morale as they are unable to contact family and friends, go online and participate in social networking and shopping activities. Nowadays, being able to connect to services like Facebook, Line and Twitter is must for young crew. Meanwhile operation of the vessels requires constant reporting on the weather, performance, cargo and maintenance.

Satellite technology is the ideal cost-effective solution to deliver reliable broadband services in such circumstances, as Japanese ferry company OCEAN TRANS CO., Ltd. has found out by deploying the High Throughput Satellite (HTS) IPSTAR broadband solution from Thaicom. Before, only the wealthiest shipping companies could afford maritime internet, but due to the HTS technology costs have now been brought down to the lowest point yet, helping to bridge the maritime digital divide.

OCEAN TRANS is a ferry business able to carry passengers, cars, trucks and cargo. It has four ferry boats and with replacement new vessels soon to be introduced, the whole fleet is set to be equipped with IPSTAR technology by 2016. Currently the service is being used on Ocean North, one of its four operational ferries.

The IPSTAR solution is a new low-cost maritime broadband service available to the market now. **Mr. Takahiro Akaishi, Executive Officer of OCEAN TRANS** said: "We have previously considered the introduction of satellite communication based services for the welfare of our crews who stay on board for long periods of time. But the investment costs and monthly fees were prohibitively expensive. The IPSTAR Maritime service is very cost-effective and we are now considering its introduction on all vessels of our fleet."

Challenge

- Provide broadband connectivity in hard-to-reach maritime areas off coastal Japan
- Be reliable and offer a good user experience
- Help crew to connect with family and friends
- Facilitate cost-effective operational communications

Solution:

- An always on 4 / 2 Mbps IPSTAR broadband service using high throughput satellite technology

Benefits:

- **Low-Cost:** The solution can be operational at very low comparative cost providing great value
- **Reach:** All of OCEAN TRANS planned routes are covered by the service
- **Crew Morale and Welfare:** Linking the team with family, friends and entertainment boosts crew productivity
- **Operational:** Saving on costs for essential maintenance, weather and cargo communications



Ku-band marine stabilized VSAT antenna system installation on board the Ocean North

The Solution

The combination of innovative ground and space technologies allows for the delivery of cost-effective satellite broadband covering all of the OCEAN TRANS coastal ferry liner routes at speeds of up to 4 Mbps download and 2 Mbps upload. The IPSTAR broadband satellite system features a gateway earth station communicating over the satellite to provide broadband packet-switched transmissions to OCEAN TRANS ferries wherever they are in the sea off of Japan.

Intellian antennas are provided by IPSTAR and installed onboard along with an antenna controller and beam switching unit to send and receive data from the IPSTAR satellite. OCEAN TRANS has installed Wi-Fi in many areas throughout the ship to provide a strong signal for connectivity to wireless devices including smart phones and tablets used by the crew.

What Makes it Innovative?

Traditional satellite technology utilizes a broad single beam to cover entire continents and regions. With the introduction of multiple, narrowly focused spot beams and frequency reuse, IPSTAR is capable of maximizing the available frequency for transmissions; thus improving efficiencies and increasing bandwidth by a factor of twenty compared to traditional Ku-band satellites.

Applications: Crew Leisure and Company Operation

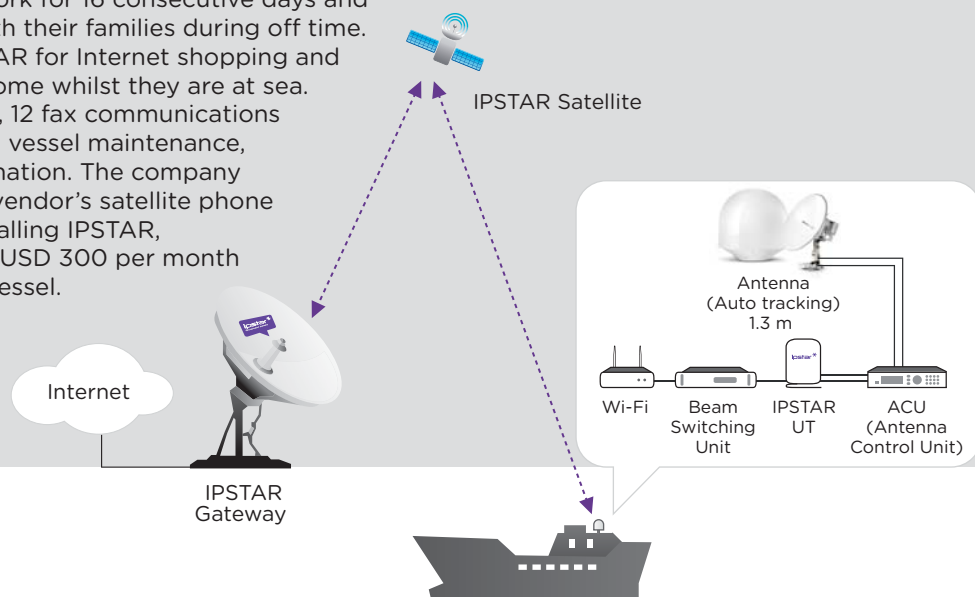
The service is used for both essential operational communications and for crew welfare and recreational purposes. Staff usually work for 16 consecutive days and need to communicate with their families during off time. Some crew also use IPSTAR for Internet shopping and have products shipped home whilst they are at sea. For operational purposes, 12 fax communications per day are sent detailing vessel maintenance, weather and cargo information. The company previously used another vendor’s satellite phone technology, but after installing IPSTAR, OCEAN TRANS is saving USD 300 per month just on this task for one vessel.

Cost

In Japan, the initial cost for IPSTAR Maritime Broadband service—available on an end-to-end basis—starts from USD 50,000. The service covers the equipment and the installation, with monthly service fees from approximately USD 300 to USD 500.

Potential for Industry

“IPSTAR allows the provision of crew welfare services at very competitive broadband speeds and prices,” says **Mr. Komson Seripapong, General Manager IPSTAR Japan**. “Currently such a kind of broadband service is not used among ferry companies because of high cost - but we are aiming to change this with our new service. Our initial analysis of the market identifies great potential and many more vessels operating long ferry services that could benefit immediately.”



About Thaicom

Thaicom Public Company Limited, a leading Asian satellite operator, was established in 1991. The Company was the first to launch a broadband satellite in the world, and is a leader in developing integrated solutions for satellite broadband and broadcast services. The Company's engineering teams provide leading-edge innovative solutions for satellite-based telecommunications services. Since its establishment the Company has launched seven satellites, with four satellites in operation: THAICOM 4 (IPSTAR) provides a variety of broadband and data services, including cellular backhaul, mobility, government USO support, content delivery, business continuity and emergency services in thirteen countries in Asia Pacific. THAICOM 6 is to expand the Company's broadcast carrying capacity in SE Asia and Africa (by the name "AFRICOM 1") and is collocated with THAICOM 5 at 78.5 degrees East—the satellites board a combined 700 TV channels both in SD and HD formats. THAICOM 7 was launched in September 2014 to provide media & data services for Asia's and Australasia's entertainment and telecom industries at 120 degrees East. THAICOM 8 will be launched in 2016 to expand Thaicom's servicing capacity and footprint in the region. Thaicom is traded on the Stock Exchange of Thailand (SET) under the trade symbol "THCOM". For more information, visit www.thaicom.net and www.ipstar.com.



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OCT 2014
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