

A new era of communication at sea

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High-speed Internet services, video conferencing and large volumes of data transfer can now be accessible to all at sea, thanks to developments made by EUREKA project. Securely transferring information through high-speed satellite links and Internet connections, as well as image streaming and conferencing, could prove essential to naval ships or research and surveillance vessels, especially in times of conflict.

Ensuring fast and secure communication links to any sort of ship at sea, has always been a challenging task. Up until now, accessing broadband satellite Internet links from the high seas has been faltering, with low connection speeds and the capacity for only small amounts of data transfer.

According to the FORCE8 project partners, there is a distinct lack in the provision of these services, which needs to be met. They say “the only currently available” communication solution at sea is provided by INMARSAT, “which is often expensive and of insufficient bandwidth”. There are only a small number of independent operators such as TELESAT (Canada) who offer some Internet Protocol (IP) based services.

The three French partners involved in this project have developed a system of accessing Internet broadband services at sea, based on established telecommunications standards such as Internet Protocol, Digital Video Broadcasting, and mobile roaming, using a network of geostationary satellites managed by satellite operators.

The development is a dedicated platform which joins these existing technologies together, to create a flow of information between ship and land-based services. The system uses efficient parabolic antenna technology and combines them with the latest satellite terminal technologies such as modems and VSAT, to transmit data to and from the applications and operators connected to the platform. These allow Internet services which are fully compatible with terrestrial networks.

The project has succeeded in making large bandwidths of between 1 and 2 Mbps possible, and available, off shore. Given this, the project partners envisage two main segments of users. Governmental agencies which want to equip their ships with high-speed interactive two way communication between ships and ground control to improve safety services at sea, or medical services, with tele-medical applications such as transmitting images and data. The second segment of users the project caters for are marine research organisations which want to test high-quality real-time video transmissions.

Marie-Noël Convert, director general of main project partner C2 Innovativ'Systems, says "the system has already been sold to IFREMER, the French research institute for the exploitation of the sea, located in Brest. The EUREKA label has brought recognition of the technical quality of the project. This, together with EUREKA financing, has allowed the development of a bigger market sector", she says.

Source: EUREKA

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