

A CASE STUDY OF

Enabling the continuity of reliable high quality live TV over VSAT Internet links to cruise liners around the world

The Problem

PONANT, a French cruise line and the world leader in Polar cruising is



also well known for matching the live content it broadcasts to each cruise liner according to the passengers on board. PONANT uses VSAT Internet links to each ship wherever they are in the world. However, the quality of their live TV broadcast in the past was sometimes very poor due to VSATs' sensitivity to changes in weather, fog, and ship's movement.

The Solution

Add VideoFlow's Digital Video Protection (DVP) to enable the continuity of a reliable high quality live TV broadcast over VSAT link to each cruise liner.

The live content is gathered at PONANT's headquarters in Marseille where it is encoded using a Sumavision encoder. The content is then sent to each ship via VSAT Internet satellite connection. PONANT uses a DVP10X (setup as Protector) in their headquarters in Marseille to reach DVP10X devices setup as Sentinel in each ship.

The Results

PONANT's guests on board no longer have to forgo watching live their favorite sports events like the Super Bowl. They now have the best of both worlds they can enjoy a magnificent cruise while still being able watch their favorite TV channels at the quality of their own living room TV.

"An important feature of the VideoFlow DVP solution is that it provides detailed diagnostics in real time. If there is an issue with a stream, you can't easily go and investigate as the other sides, the ships, could be

"Sometimes we have the chance that all the work we do in the back-end and all technologies that we deploy in the 'shade' appears in the sunlight. It is the case for all VideoFlow technology that we deploy on our vessels linked to our headquarters that allowed PONANT to make the live broadcast of the last edition of the Super Bowl in Antarctica."

Mr. Jean-Louis Cambert, CIO of Ponant

anywhere in the world from the Arctic to Australia. The VideoFlow DVP in Marseille and in each ship monitors the stream in real time hence it is very simple to determine if the root cause is in Marseille, in the ship or in the VSAT link connection enabling a fast detection and isolation of problems

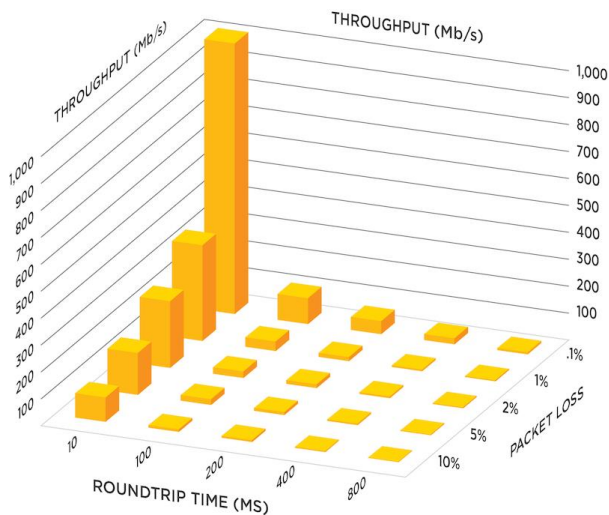
reducing dramatically the time it takes to regain high quality service." said Mr. Herve Peuaud, Technical Manager at SAV. SAV successfully planned and executed the live TV over VSAT project for PONANT.

**For more information or to buy these products please contact Carol or Terry at NyeTec Limited.
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VideoFlow Comments

The PONANT case is a clear example of why TCP-based technologies like HLS, RTMP and SMOOTH do not meet the requirements for live broadcast. The issue being that TCP is sensitive to both packet loss and round trip delay. For example a ship cruising near Australia the roundtrip delay easily reaches more than 650ms. Adding packet loss caused because of VSAT sensitivity to changes in weather, fog, ship movement etc. and the bit rate drops to levels that are not suitable for live video broadcast.



VideoFlow DVP makes professional video transport technology UDP reliable. VideoFlow's 9 layers protection scheme makes sure that no packets are lost, jitter is eliminated, and bit rate fluctuations are compensated for which enables to ensure uninterrupted, high quality, live TV broadcast.

About PONANT

PONANT specializes in luxury cruising aboard its fleet of intimate yacht-style vessels (32 to 122 staterooms) embodying a lifestyle "à la française." These elegant, small-capacity yachts offers chic cruising without the crowds, being small enough to reach ports that are inaccessible to bigger ships with destinations to Antarctica, Alaska & the Arctic, the Caribbean, Central & South America, the Mediterranean, Northern Europe & the Baltic, West Africa, Asia and the Pacific. The latest eco-friendly technologies, attentive five-star service, bilingual crew, luxurious staterooms and suites, a gourmet cuisine and meticulously planned excursions guarantee a voyage that is unique and full of emotionally moving experiences.



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