

Ponant Case Study

Live TV to Cruise Ships
Passengers over VSAT
Internet Links

VideoFlow DVP Enables PONANT to Broadcast Live TV to Cruise Ships Passengers over Standard VSAT Internet Links

“Sometimes we have the chance that all the work we do in the back-end and all technologies that we deploy in the ‘shade’ appear in the sunlight. It is the case for VideoFlow’s DVP products we deployed on our vessels linked to our headquarters that allowed PONANT to make the live broadcast of the Super Bowl in Antarctica.”

Mr. Jean-Louis Cambert,
Chief Information Officer,
Ponant

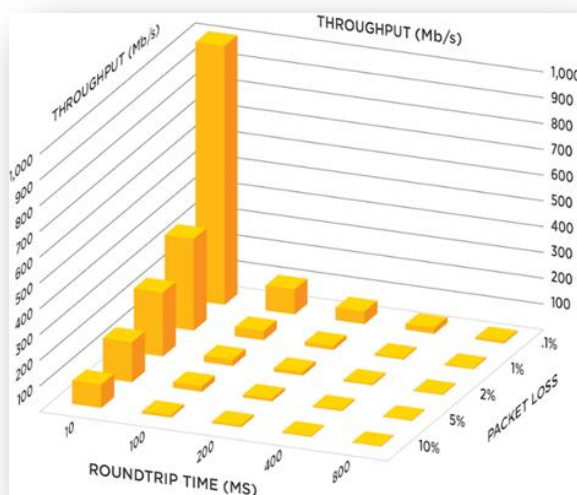
Live TV to Ships Anywhere on the Globe

PONANT, a French cruise line and the world leader in Polar cruising, takes pride in matching the live content it broadcasts to each cruise liner according to the passengers on board. For example, US channels and news for American passengers, French content for French passengers, etc. PONANT uses VSAT (satellite) internet links to connect its NOC to each ship around the world. However, the quality of their live TV broadcast in the past was sometimes lacking due to VSAT limitations and the inherently unreliable nature of IP networks for professional live broadcast.

Eliminating Jitter, Delay and Packet Loss over IP Networks

PONANT’s video quality issues are an excellent example of the challenges facing IP-based live TV broadcast. Since live video broadcasts are sent as a continuous bit stream, packets must be delivered reliably and on time to ensure uninterrupted, broadcast quality service. To provide cruise passengers with a living room-like TV experience, PONANT needed a way to overcome the inherent jitter, packet loss, and delays of unmanaged IP networks. Any delay beyond 2 seconds will be unacceptable to viewers expecting to enjoy the excitement of live sports and other events.

TCP-Based Streaming Protocols Like HLS and RTMP Did Not Deliver



Using streaming techniques like HLS or RTMP did not work for PONANT. For a cruise ship near Australia, the roundtrip delay easily reaches more than 650ms. With the additional packet loss due to the VSAT’s sensitivity to changes in weather, fog and ship movement, the bit rate plummeted to levels preventing broadcast-quality live video.

VideoFlow DVP Enables Live Broadcast of Super Bowl to Antarctica

To provide broadcast quality live TV to its passengers, PONANT chose to deploy VideoFlow's Digital Video Protection (DVP) to enable a reliable, high-quality live TV over VSAT Internet links to each cruise liner.

The live content is gathered at PONANT's headquarters in Marseille, where it is re-encoded. The content is then sent to each ship over a VSAT link. A DVP "sender" is located at PONANT headquarters in Marseille, and one DVP "receiver" is deployed on each ship.

Using VideoFlow's DVP solution, PONANT is now able to deliver reliable live broadcast over a standard internet connection to its cruise liners. This means that PONANT's guests on board no longer have to forgo watching their favorite live sports events while on a cruise. For example, PONANT simultaneously broadcast the American Super Bowl live to all of its cruise liners across the globe, including Antarctica.

All the Features PONANT Needs to Broadcast With CONFIDENCE

DVP includes the following broadcast enablement features:

- **Patented packet recovery** – VideoFlow's Emmy® award-winning packet recovery technology recovers 100% of lost packets with the lowest bitrate overhead and delay in the industry. DVP is proven to guarantee service reliability even when the network drops half the packets.
- **Bit Rate Adaptivity** – The only way to ensure reliable service over the internet is to adapt the bit rate. DVP offers three methods to adapt the video bit rate in real time to changes in the network bitrate capacity.
- **Real-Time Diagnostics** – PONANT engineers can log into the DVPs on the ships from headquarters and use the DVP's ETR290 to monitor stream health in real time.

"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 side, the ships could be 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 straightforward to determine if the root cause is in Marseille, in the ship or in the VSAT link connection. This enables 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, the integrator that planned and executed the live TV over VSAT project for PONANT.

Results and Benefits

By using VideoFlow's DVP, PONANT has achieved concrete benefits:

- **Broadcast quality live video** – VideoFlow technology enables PONANT to overcome the packet loss, latency, and jitter of IP networks.
- **Outstanding passenger experience** – PONANT cruise passengers can watch their favorite TV channels with an uninterrupted, high-quality viewing experience wherever they are.
- **Monitoring** – PONANT engineers at headquarters can view stream health and network statistics on DVP sender and DVP receiver in real time to quickly determine the root cause for any problem.
- **Lower cost operations** – One DVP on each ship and a standard VSAT internet link enabled PONANT to offer first class premium service at low operational costs.
- **Simple to use and configure** – Full support for remote management allows easy configuration of remote DVPs, as well as analysis, from PONANT's headquarters.

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 offer 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, gourmet cuisine, and meticulously planned excursions guarantee a voyage that is unique and full of emotionally moving experiences.

