Wireless Real-Time Video Stream

Global Secure Systems / Honda Formula 4-Stroke Series Racing

The Challenge
In an effort to enhance the thrill of watching powerboat races for highly engaged spectators, Global Secure Systems (GSS), in conjunction with Honda Formula 4-Stroke Powerboat championship organizers, wanted to find a way to relay the powerboat racers' perspective to the on-shore audience in real time.

The high-speed boats' extreme conditions — constant exposure to water sprays, bouncing and speeds of up to 55 miles per hour — prevented the mounting of a video-streaming system to capture the viewpoint. To accomplish GSS' goal, a wireless solution of the utmost durability was required.

The Solution
Using 3e Technologies International's rugged Wi-Fi products, GSS installed and set up Wi-Fi capabilities on the AppGate Mermaid powerboat with a FIPS 140-2 Validated™ wireless video server and a four-channel wireless video network system.

The 3eTI access points allowed a breakthrough video stream back to shore during the Torquay Grand Prix race in the English Riviera, enabling thousands to experience the sport of powerboat racing from the drivers' angle for the first time. A world first, this 3eTI solution pushes the entertainment of powerboat racing one step further to simulate the experience of racing in a high-speed powerboat.

The 3eTI wireless access points on the powerboat provided industrial-strength connectivity and delivered self-configuring, scalable and self-healing networks.

3eTI's access point devices belong to a family of interoperable Wi-Fi products providing seamless, secure and low-latency IP traffic — ideal for video streaming in harsh outdoor environments.

The Benefits
Relaying a video stream to an audience in real time from a powerboat enhances the audience's experience ten-fold. "Spectators can now get a taste of the thrill of racing onboard a Formula One 4-Stroke powerboat, as the footage is so clear and instant you feel that you are almost participating in the race," said David Hobson, driver of the App-Gate Mermaid. The Wi-Fi access points cleanly transmit the video stream that spectators desire, boosting their overall experience and encouraging fan loyalty.

The 3eTI / GSS product solution proves to overcome even the most extreme outdoor and maritime environment of powerboat racing. The sturdiness of 3eTI products, combined with the engineering abilities of its partner companies, continue to head world breakthroughs, such as that of the AppGate Mermaid video stream at the Torquay Grand Prix powerboat competition.

Applications
As demonstrated on the AppGate Mermaid powerboat, 3eTI wireless devices can be installed on high-speed boats to transmit a video stream back to land. Whether a powerboat racing competition, a marine security operation, an aquatic wildlife-watching expedition or the Coast Guard utilizing the products for bettered homeland security, 3eTI's Wi-Fi access points provide clear and instant video streams back to the audience on shore.

Products Used
- FIPS 140-2 / 802.11i Video Server and Wireless Mesh AP / Bridge (3e-525V-3)