



Photo courtesy Getty Images

# Integrated Technology Secures UAE Grand Prix

By Siva Sivakumar

**A**bu Dhabi is home to the world's newest and perhaps most technically advanced motor racing facility — the Yas Marina Circuit, site of the United Arab Emirates' (UAE) inaugural Etihad Airways Formula One World Championship Grand Prix 20 October – 1 November 2009. The name Abu Dhabi can be traced to the Arabic *Ab zab* — meaning father of gazelle — so it's no wonder the emirate has an innate passion for speed. Within two years, the barren sands of Yas Island have given way to a luxurious venue that includes a marina adjacent to a state-of-the-art motor raceway straddled by a five-star hotel and bordered by covered grandstand seating for 50,000 spectators at strategic vistas around the track.

The Formula One Higher Security Committee, comprised of the Abu Dhabi police and a number of government agencies including the emirate's armed forces, contacted UAE-based Atlas Telecom for a video surveillance solution. VDG Security, a video firm from the Netherlands, installed more than 250 cameras throughout the Yas Marina Circuit property. The cameras fed into a video management system and a wall of monitors at a server center. That building was in turn linked by a WAN connection to the command operations center, as well as a redundant center at a remote location.

Mohamed Al Mutawa, head of Atlas' security division, deployed software from Solacom Technologies to integrate several mobile command centers, including a tethered dirigible floating high over the site. The new

system integrated radio in a mobile VoIP environment over a wireless network. A month before the race, installation and testing of the LibertyCOMMAND integrated software for strategic command centers began.

“When we started the project, many had questions regarding the ability to provide an integrated video system involving mobile and static environments,” Al Mutawa says.

The inaugural Abu Dhabi race witnessed a number of firsts — including the first day into night Formula One Grand Prix. For night operations, the mobile command centers were equipped with high-resolution day/night vision cameras, as well as radars. All cameras and radars fed into encoders, and each center, except for the dirigible, also had an IP phone supplied by Solacom.

The encoded video and the VoIP calls were transported over a wireless mesh network to the server center. The command operations center and remote backup center were each equipped with a workstation with the software and an IP phone.

Operators at the prime and redundant command operations centers selected and viewed the video feeds from any of the mobile command centers. The operators instantly communicated by voice or conference with security agents in the vehicles, or anywhere else, for rapid response to developing threats. Security agents within the mobile command centers communicated by VoIP to other mobile agents, the command operations center or both.

“All were impressed with how we

moved video from multiple mobile cameras into one coherent picture with no issues regarding latency or integration,” Al Mutawa says. “Without exception, the ability to show anyone a view at any point and at any time as to what was happening, made a great difference in making everyone comfortable with the security arrangements at the event.”

In fact, the system was engineered to integrate more than 250 mobile and static cameras into one common operating picture with remote pan tilt zoom (PTZ) control for all cameras. The system also recorded and time stamped all video and imagery, as well as interfaced with database applications for facial, license plate and object movement recognition.

For increased mobility throughout the perimeter, the Yas deployment could have extended actionable situational awareness to portables such as smart phones or personal digital assistants (PDAs), with video, data and voice connectivity to the command operations center. Other features such as text messaging, group calling and networking, hot button customization and direct public announcing access from phone networks could also play a role in event security. Solacom technology has also caught the eye of neighboring Saudi Arabia, where the Royal Saudi Navy is set to deploy multiple LibertyCOMMAND systems this year. ■

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