

## Magnum PoE Edge Switches Network Doo Technologies Rugged Mobile Video Surveillance Systems

### A Defense Security Application

#### ABOUT DOO TECHNOLOGIES AND 360 DEGREE VIDEO

Doo Technologies specializes in real time total capture 360 degree video providing equipment and solutions for a wide variety of environments in Defense, Homeland Security, Public Safety, Law Enforcement, and the Commercial sector. The surveillance systems from Doo Technologies have been designed to explore multiple avenues to fulfill situational awareness using state of the art 360 video technologies.

#### THE SECURITY CHALLENGE AND SOLUTION

Desert conditions are harsh--subject to temperature extremes as well as sand, dust, and dirt. Industrial Ethernet switches from GarrettCom Europe have been selected to network the ruggedized mobile video surveillance systems, produced by DOO Technologies. The surveillance vehicles can be configured with short, medium and long range PTZ camera systems with both day and night mode, each of the camera systems can be operated and viewed independently by operators within the vehicle using its multifunctional display and control systems. Real time video communication from vehicle to vehicle and vehicle to command can be transmitted using multiple transmission protocols such as Microwave, Satellite, 3G, WIMAX, and WIFI delivering the unique 360 degree video. The video

then be remotely viewed and navigated by individual operators and integrated with data and maps to create superior visual intelligence and saving crucial time in critical decision making situations.

GarrettCom's compact and rugged PES42P switches (-40° to 85°C) were chosen for networking the cameras within the vehicle, with each switch providing four fixed copper ports for PoE - eliminating the need for installing electrical cabling back to a central power source. The remaining two ports may be a.) two 100Mb fiber ports, b.) one fiber and one copper port, or c.) two copper ports. Each vehicle has seven cameras, all of which can be networked via PoE, to two on-board Magnum PES42P Edge Switches.

#### THE RESULTS

The surveillance system from Doo Technologies has been designed to explore multiple avenues to fulfil situational awareness using state of the art 360 video technologies.

From the power management to the human interface, all the components have been tested in situ and have successfully passed all of tests in the harsh environment of the Middle East. The camera system is an affordable, robust and highly reliable integrated vehicle video solution that can be tailored to meet customer requirements.

