

The systems are complemented by several VMC-1 "Eagle" video management centres. With its three components (joystick, Jog-Shuttle, and keyboard with monitor) it combines, neatly arranged, all the functionalities that one can expect from a modern video management system.

"Despite the fact that the installation is highly complex, the operation of the system remains highly convenient and intuitive for the security personnel," explained Riaan Kruger, Regional Representative of Dallmeier Southern Africa.

Axis network cameras ensure safety of supporters at Mbombela Stadium

The Mbombela Multipurpose Recreational Stadium, with a capacity of approximately 46 000, was constructed from scratch on the outskirts of Nelspruit as one of the 10 official venues of the 2010 FIFA World Cup.

Belinda Gouws, Director of TVMS, the security technology company that was awarded the CCTV installation tender during the construction of the stadium, says "Although we faced many challenges ranging from architectural alterations to tender specification adjustments, we were able to implement a highly successful IP video surveillance system, using cutting edge Axis network cameras, to provide effective stadium security."

"In order to meet the standards and regulations set by FIFA ensuring the safety and security of all stadium equipment, visitors, staff and contractors, we needed to design and implement a network (IP) video surveillance system, using digital network cameras to provide effective stadium security," says Roy Alves, country manager of Axis Communications South Africa.

"A network-based (as opposed to an analogue) system enabled us to deploy our award-winning network video products which are designed with built-in computers so they do not require a direct connection to a PC or any additional software to stream live video and audio over networks. Simply, they connect the network video products to an IP network (such as a LAN, intranet or internet) and one can then view live images from any local or remote, networked computer with a standard web browser," adds Alves.

The significance of the installation was evident even before the stadium was commissioned – management used the surveillance system to apprehend a number of people responsible for stealing from contractors as construction tapered off.

In an event leading up to the World Cup, the network cameras were used to avert a stampede at the gates when the turnstiles malfunctioned. During the World Cup fixtures, troublesome fans were identified, photographed and monitored by the police.

"Extensive crowd surveillance is imperative when there are thousands of people gathered together in a relatively small area," says Alves, "the objective was to allow attendees to simply enjoy their chosen event without having to concern themselves with their personal safety or the security of the venue. The project utilised Axis network cameras in an unobtrusive yet all-encompassing manner to maximise monitoring capabilities."

To ensure facial recognition of fans entering the stadium, the AXIS 216MFD Network Camera with superior megapixel resolution and high performance was used to monitor the turnstiles. This provided a discreet, tamper-resistant solution for meticulous monitoring.

Effective protection against tampering was also again a priority within the stadium, resulting in the selection of the AXIS 225FD and AXIS 216FD Fixed Dome Network Cameras to monitor the lower concourse

inner ring and the majority of covered areas, such as suites, passages and the basement, respectively. The AXIS 216FD is not daunted by low-light conditions and features two-way audio capability while the AXIS 225FD is a tough, outdoor-proof camera with night and day functionality.

A total of 26 AXIS 214 PTZ Network Cameras were installed on the outer ring of the stadium at each level from basement to upper concourse to monitor crowd flow and give an overview of the turnstiles to monitor mass movement. The AXIS 214 PTZ allows an operator to use a mouse or joystick to quickly and precisely track an object or person remotely.

AXIS P5534 PTZ Network Cameras, mounted on the roof of the stadium in a circular pattern, complete the surveillance system. The spectacular AXIS R5534 offers HDTV-quality performance; 360° pan ability and an IP51-rating against dust and water making it the ideal choice for identifying individuals in the crowd. Besides the obvious benefit of crowd surveillance, the security system continues to demonstrate its worthiness.

As a legacy of the 2010 FIFA World Cup, the distinctive Mbombela Stadium and its state-of-the-art surveillance solution will persist in providing a secure, internationally acceptable sporting and entertainment venue for the entire Mpumalanga province. The stadium is set to host no fewer than nine key events subsequent to the 2010 FIFA World Cup. ■

