CASE STUDY:

Korea National Police

800 MHz TETRA system

MOTOROLA

Motorola completed the system implementation within a tight timeframe to deliver Asia's largest operational 800 MHz TETRA system.

BACKGROUND

Being selected as host for the 2002 FIFA World Cup marked a significant milestone in the sporting history of Korea. The FIFA World Cup is held once every four years and is broadcast live to audiences all over the world, giving the host country substantial prominence and coverage.

The intensive infrastructure planning and preparation for one of the world's most watched sporting events extended not merely to the building of stadiums to house the world's best 32 football teams, it also made it necessary for Korea's law enforcement agencies to review their overall strategy and communications infrastructure.

The Korea National Police had the behemoth task of maintaining law and order amidst a highly charged sporting atmosphere with an average of 50,000 avid football fans per stadium. The force also had to ensure the security and safety of the general public — in addition to managing their day-to-day law enforcement operations.

In December 2000, Motorola was awarded the contract to provide the Korea National Police with an 800 MHz TETRA system in preparation for the 2002 FIFA World Cup.

The new digital radio communications system was designed to equip the Korea National Police force of 18,000 officers and a fleet team of over 2,700 vehicles comprising patrol cars and motorcycles with reliable and secure communications that would help them fight crime and maintain public safety.

The system provided the Korea National Police force with extensive communications coverage in four major Korean cities — Busan, Daegu, Daejeon and Gwangju — as well as the capacity to handle the high traffic peaks that accompanied this major event.

In order to meet the delivery deadline before the World Cup Finals commenced in June 2002, Motorola completed the system implementation within a tight timeframe to deliver Asia's largest operational 800 MHz TETRA system.

BENEFITS

- Superior audio quality for enhanced communications
- Extensive radio coverage in all areas essential for Police operations
- Increased frequency efficiency
- Expandable digital radio and computer infrastructure based on an open standard to support future system enhancements

CUSTOMER NEEDS

The ability to remain in command and control was of paramount importance in the Korea National Police's law enforcement agenda. In addition, they required a reliable system that could offer superior yet secure communications over wide area coverage.

This system would also be Korea's first digital trunked radio communications solution and Korea National Police wanted to ensure that their investment was future-proof. As a result, the network had to be compatible nation-wide to make room for future expansion plans.

The impending FIFA World Cup event also called for the system to be delivered and fully operational in time for the World Cup Finals commencing June 2002.

MOTOROLA SOLUTION

Motorola's fully TETRA-compliant 800 MHz Dimetra system was designed to support Korea National Police in its operations to better help fight crime and ensure the safety of its citizens.

The entire solution consisted of four Dimetra systems deployed in each of the four cities, 35 Elite Console positions, and over 20,000 portable, mobile, motorcycle and fixed station radios. Replacing a legacy VHF conventional radio system, the new digital communications system has larger capacity, better coverage and security.

For adequate wide area coverage with full feature support, the system required 12 enhanced base transceiver sites (EBTS) across the four city sites to ensure seamless communications. These sites were further strengthened with bi-directional amplifiers and optical repeater systems for enhanced radio coverage in shadow areas and subway stations. This allowed for selected user groups to effectively make inter-city nationwide calls.

This solution provides a robust digital backbone for the Korea National Police to support future technology requirements for sophisticated voice and data applications such as wireless messaging, database access, vehicle tracking, computer-aided dispatching, mug shot, fingerprinting and slow-scan video.

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