

Case Studies

TURKISH GROUND SERVICES (TGS): A SWITCH TO DIGITAL AND KENWOOD NEXEDGE®

Orgen, the official distributor of Kenwood radio communications systems in Turkey, has recently completed the first phase of building the largest digital radio communication system in the country, using Kenwood NEXEDGE® products. Their client, Turkish Ground Services (TGS), was formed on January 1, 2010, in partnership with Turkish Airlines and HAVAS and has already grown to become a major player in the global aviation industry.



TGS currently operates in six of the busiest airports in Turkey: Atatürk and Sabiha Gokcen (both in Istanbul), Ankara, Izmir, Antalya and Adana. Employing more than three thousand pieces of equipment and six thousand employees, they provide all ground services operations to international quality standards.

Understanding the background of the Turkish aviation industry was a key component in building the business case for Orgen's proposed solution.

Competitor companies were established in the ground services segment in Turkey, due in the main to their past investment in radio communications infrastructure. Airport and airline companies therefore typically rented their radio equipment to operate on the existing infrastructure.

The main problems identified with the existing fifty-year-old infrastructure – in an industry where continuous communication by voice and data is vital – were:

- Analog only
- Lack of advanced functions
- Insufficient no. of channels
- Low coverage
- Poor voice quality
- Zero in-built redundancy

Orgen undertook a comprehensive study to establish the core needs of TGS and, following an extensive review of the existing system and infrastructure, presented the Kenwood NEXEDGE® digital two-way radio system as the optimum solution. While there was no doubt the NEXEDGE® system would meet and exceed all of the client's technical and operational requirements, the challenge was to prove the cost effectiveness – as well as immediate and longer term benefits in efficiency – of investment in a new digital infrastructure.

Orgen was awarded the project through proving the value of the 100% coverage, extended capabilities and scalability of the NEXEDGE® digital system. TGS, as a relatively new enterprise, was keen to embrace the operational benefits of an up-to-date digital system supported by a reputable supplier and using world-class products.

Other benefits of Kenwood NEXEDGE® radios and systems that proved to be crucial included:

- Robust IP-67 design of Kenwood portable radios – as TGS staff will often use the radios in harsh conditions;
- Ease of use (both primary & advanced functions) – as the radios may well be of vital importance in stressful, critical situations;
- Speed of deployment – as time was short and Orgen promised to install the digital system in eight weeks across a total of six air ports; and
- Economy – as the solution presented by Orgen employed up to 75% fewer base stations than those offered by the competitors.

To mitigate the investment in infrastructure, Orgen offered TGS a long-term lease plan and consequently secured the contract for a 5+5+3-year term.

The NEXEDGE® digital two-way radio communication systems installed at TGS locations are as follows:

- Istanbul Atatürk Airport (IST): 12 channels (upgrading to 20 channels by August 2011)
- Istanbul Sabiha Gokcen Airport (SAW): 8 channels
- Ankara Airport (ESB): 8 channels
- Izmir Airport (ADB): 8 channels
- Antalya Airport (AYT): 8 channels
- Adana Airport (ADA): 4 channels



TGS currently uses 1,500 radios. By 2013, the company plans to expand its services to 35 airports worldwide and will deploy Kenwood NEXEDGE® systems across all locations. Orgen is anticipating a requirement for 80 channels and 3,000 radios by that date.