



# Korean Air takes to TETRA



## Korean Air Goes Digital with TETRA

As South Korea's national and largest airline, and among the top 20 airlines in the world in terms of passengers carried, Korean Air needs to ensure that it continues to stay competitive and attractive to its passengers. One of its most immediate needs is to digitalize its processes for more efficient operations.

Korean Air has taken its first step in this direction by digitalizing its communications infrastructure and has upgraded its existing analogue radio to a digital Trunked Radio System (TRS) – a first for the Korean travel industry.

## Manual Data Entry Poses a Challenge to Operational Efficiency

Even in today's digital age, it is not surprising that some major aviation hubs in Asia are still very much entrenched in manual procedures – from recording flight information to taking down customers' meal requests. The information recorded on paper is then re-entered and filed into a computerized system. Such inefficiency in processes potentially impacts customer satisfaction and hinders business operations inadvertently caused by human error.

Korean Air spent nearly three years evaluating for a communication system that best meet their needs and the airline business operating environment. A secure digital system that allows flexibility for integrated voice communications and data applications as well as scalable for future enhancement or integration into the IT system.

## TETRA's Digital Efficiency

"Using conventional radio voice communications and manual entry for ground work limits business process innovation. We chose a (TErrestrial Trunked Radio) TETRA-based TRS private network to enable us to implement new working practices on a secure and ultra-reliable framework," said Lee Hyogeun, general manager, IT Department, Korean Air.

The system that went live in May 2008 is now fully operational, and serves about 4,000 employees – who rely on Motorola's MTP850 TETRA portable for their daily operations. The MTP850 portable comes customized with a Korean language keypad, conveniently allowing users to send and receive data or instructions from the control room. Information such as maintenance, flights changes, and the schedule of airplanes, transportation of passengers and cargo, and loading in-flight meals can be communicated and recorded in real-time.

## Customer Profile

**Company**  
Korean Air

**Industry Name**  
Aviation

## Solutions

### Scalable Dimetra IP

- Easy to set up and operate
- Fully scalable in size and features giving users flexibility in deployment
- Supports a wide range of applications allowing organisations to connect seamlessly to other networks and services

## Products

### TETRA MTP850

- Easy access to databases and directories via WAP applications
- Ensures confidential information is kept private through secure communications
- Integrated GPS (satellite) location service allows users to be located instantly

## Benefits

- Increase in promptness of service delivery
- Greater ease of aircraft maintenance
- Faster response to flight inquiries



“We chose a TETRA-based TRS private network solution to enable us to implement new working practices in a secure and ultra-reliable framework. With this system, the four major domestic airports in Incheon, Gimpo, Jeju, and Busan have been turned into one private wide area network significantly improving the efficiency and precision of ground work operations.”

Lee Hyogeun, General Manager, IT Department, Korean Air

#### Summary

With over a fleet of 120 planes and four major domestic airport operations under its management, Korean Air needs to digitalize its communications processes and infrastructure on a digital trunked radio network.

The newly implemented TETRA system will cut away the operational bottleneck resulted from the manual administration of airline and passenger information.

#### Marked Improvement in Korean Air's Services

“We selected a system that supports an all-IP environment and can be used to design and customize a network according to the number of users and their needs,” said Lee.

“With TETRA, the four major domestic airports in Incheon, Gimpo, Jeju, and Busan are now linked on a single, private, wide-area communications network, which will significantly improve our overall efficiency and precision of ground work coordination,” added Lee, who oversaw the project, on the reasons for introducing the TETRA system.

In addition, the Wireless Application Protocol (WAP) programmed into the MTP850 portable helps to facilitate faster inquiries on flight information, and allow ground crew to respond to the changing situation instantaneously. As a result, precision and promptness in services is increased, and this translates into greater efficiency in flights management.

The greatest relief for the airline ground staff was the elimination of manual data entry. With the WAP-enabled application, data is only captured once on the portable, and recorded instantly. The handling of ground operations has become seamless and “paperless”.

#### Further Enhancement

Korean Air expects to see great improvement in its fleet maintenance. Currently, it ranks first in this area and maintains other airlines' airplanes, other than its own.

Adding TETRA Enhanced Data Services (TEDS) capabilities to the current TETRA system, there will be greater bandwidth for data transmission. With enhanced data capabilities, Korean Air plans to load its maintenance manual and processes online progressively, thus streamlining its maintenance system.

Korean Air plans to conduct a further feasibility study to include the remaining smaller airports onto its communications network. The long-term plan includes a feasibility study for wireless data telecommunications at major overseas airports.

Going a step further, it intends to develop its current TETRA-based TRS into an integrated IT infrastructure network of airports.

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