



Bangalore International Airport India

First International Airport in India to adopt TETRA.



“Evolving to state-of-the-art digital trunked radio system (TETRA) from conventional systems is a must for any world-class airport. Now, with the introduction of this world-class technology, we have set a benchmark for India’s aviation industry.”

Francis Rajan

“We are very satisfied with Motorola’s products and the excellent support they have delivered. Not only do they offer the latest technology, they are a responsive technology partner and true experts in the field of radio communications,” *Francis Rajan, Head ICT, Bangalore International Airport Limited.*

BACKGROUND

The Bengaluru International Airport, owned and operated by Bangalore International Airport Limited (BIAL), officially opened its doors on May 24, 2008. Located in Devanahalli Bengaluru, this state-of-the-art US\$617million air hub is part of the Ministry of Civil Aviation’s plan to develop India’s aviation industry. The new airport expects to handle approximately 11 million passengers in its first year. The project has a larger master plan and will gradually be expanded over the next 15 to 20 years based on the air traffic growth. It will finally be able to handle up to 40 - 45 million passengers per year.

With the establishment of Bengaluru on the global IT map, the city has witnessed exponential growth in air traffic. The airport needed to put in place a world-class technology infrastructure to ensure zero-defect failsafe communications on ground and with the airport control.

In order to ensure that Bengaluru Airport had the latest state-of-the-art radio communication system before it went operational, BIAL set out to identify a reliable and trustworthy communication technology manufacturer. They required a partner with world-class capabilities, strong global footprint and efficiency in deploying on-ground support in order to implement the project in the shortest possible time.

MOTOROLA SOLUTIONS

With a strong presence in India and an established track record in airport communications deployment across the world such as the Suvarnabhumi Bangkok Airport and Munich Airport, Motorola emerged as the partner of choice.

In less than three months, we designed, tested and installed Motorola’s Dimetra IP digital trunked radio system, including over 500 Motorola MTP850 TETRA portables and over 150 MTM800 TETRA vehicle and desktop mobile radio terminals.

CUSTOMER NEEDS

Like any world-class international airport, a robust communications network on a digital platform is absolutely critical to supporting the many facets of airport ground operations such as baggage handling, airline operations, immigration & customs, security apron/tarmac operations and integration with other IT and communication systems.

- Integrating digital voice capabilities and data communications on a single platform
- Ensuring high voice quality for clear communication across all airport operating units
- Efficient, instant and reliable communication across the network
- Ease of operation, management and maintenance
- Establishing a fully-operational digital system within three months
- Provision for system scalability as the airport expands to new sites.



BENEFITS

The shift into digital system provided BIAL with better performance, ease of operation, reliability and safety. Some key benefits include:

- First international airport in India to use TETRA, giving BIAL a considerable edge over the rest.
- Improve operational efficiency
- Digital systems provide better audio clarity
- Availability of Short Data System (SDS)
- Interoperability to meet any emergency situation
- High customer satisfaction from key account management to local support facility

Bangaluru Airport's Dimetra IP digital trunked radio system comes with one Control Center and one Base Station operating in the 410-430MHz frequency band. It offers the flexibility to interface with other conventional or trunked systems to provide communications between systems. This means the system is highly intelligent to establish communication with either a conventional repeater or another trunked radio system when required. As a result, this enables better control and flexibility for the system to facilitate command, control and communication within the airport. Upon request from radio users in either system, the corresponding dispatcher can connect a requested talk-group to the local system.

And in all operations, voice recording is an important functionality, particularly in the event of an accident where the need for scenario reconstruction arises. The Voice Recording System (VRS) capabilities provide BIAL the call recording on the Dispatcher Console for its Airport operations.

Adequate testing and training was provided prior to the system completion and handover. To ensure that the staff can handle the maintenance of the system, two situation-based workshops spanning three weeks were held separately.

The workshops, while simulating emergency scenarios, highlighted the setting up and managing of the Dimetra system as well as advanced maintenance and troubleshooting of the system. Through all the trial runs, we empowered our customer with the knowledge to handle the system on their own.

"Our short turn-around time and the ability to trouble-shoot customers' issues gives us the competitive edge. In fact, in one of the pre-trials, the Motorola team was down at BIAL to re-program 70 radios within eight hours. Hence, other than product expertise, Motorola offers the advantage of professional system integration services, project management and dependable high-quality on-ground support – giving customers the peace of mind they need," Subodh Vardhan, Director Sales & Country Head, Government & Public Safety, Motorola India Private Limited.



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