



# TETRA Provides Always Available Communications for Barcelona Airport



## AENA Barcelona Airport

Barcelona airport is operated by AENA, the largest airport group in the world by passenger traffic and operates 47 airports in Spain alone supporting nearly 200 million passengers per year. Barcelona, the second largest airport in Spain, supports over 30 million passengers, over 300,000 flights and over 100 million Kg of cargo every year.



Central to Barcelona's success is the efficient turnaround of both passengers and cargo. Providing a full range of supporting services is also critical including aeronautical and maintenance services; logistic support services; catering and shopping services and car parking.

### The Challenge: Providing Secure, Resilient Communications

An airport's primary business objective is to turn around passengers, baggage, and freight as fast and efficiently as possible while maintaining security and safety. Higher efficiency results in higher revenues for the airport, the airlines, and the supporting businesses, and higher passenger satisfaction. One way efficiency can be improved is through more effective coordination and communication.

As part of its continued efforts to improve the efficiency and effectiveness of the service that it offers, Barcelona Airport looked at options available to provide a modern and effective communication systems to replace the existing analogue solution. Any new system would have to improve the overall communications within the airport and therefore its overall efficiency. The system had to provide excellent coverage both indoors and also outside to support apron operations. It needed to be secure and highly resilient and be able to support both voice and data communications.

### The Solution: Using TETRA for Airport Communications

To provide a communication system, not just for today but also the future, Barcelona chose TETRA as their communication solution. The new system was introduced by Motorola and local partner Amper Sistemas in May 2007 with full operational capability planned for July 2008. The solution is based on Motorola's new Dimetra IP compact platform and also includes 150 MTP850 handportables, 80 MTM800 mobiles plus installation, commission and three years system support.

Dimetra IP Compact is a fully integrated TETRA radio communications solution developed to meet the needs of public safety, industrial, transportation and enterprise users of all sizes. Modular, scalable, compact and affordable, Dimetra IP Compact provided Barcelona with a flexible architecture that

Company  
**AENA Barcelona Airport**

Technology Partner  
Amper Systems

Industry Name  
Airport

Product Name

- Dimetra IP Compact
- MTS base stations plus in-building coverage solutions
- MTP850 handportables plus MTM800 mobiles
- Supporting services

Solution Features

- Secure, always on communications
- Voice and data capabilities
- Excellent in-building coverage
- Flexible and efficient communications

Benefits

- Enhanced airport efficiency through improved communications
- Improved safety, especially during a crisis
- Cost effective solution

Always available communications are crucial for the smooth running of airport operations and minimising unnecessary downtime. It is also vital for both staff and passenger safety, especially during a crisis.

#### Barcelona use TETRA for Airport Communications

Barcelona Airport's TETRA solution provides a resilient and efficient solution for airport communications.

The solution is based on Motorola's flexible and scalable Dimetra IP compact platform and also includes 150 MTP850 handportables, 80 MTM800 mobiles plus installation, commission and three years system support. The solution offers a range of features to maximise efficiency. Going forwards data services will also be offered.

supports all the high-quality voice and seamless data capabilities demanded by the different user groups within the airport including: airport services; maintenance and engineering staff; airlines; the fire brigade; security and medical services. The solution is also fully scalable to meet the needs of additional users and to further extend the coverage provided. Indeed Barcelona are already looking to extend the coverage, especially indoors.

The Dimetra IP Compact platform shares the same software and hardware platforms as our Dimetra IP TETRA solution and leverages the same proven feature set used in nationwide networks. It provides flexible and efficient communication between the staff teams involved in processing a flight like Ramp Management, aircraft fleet maintenance and the personnel at the gate. It also enables talk groups to be dynamically changed to meet new operational needs as they arise.

The MTP850 and MTM800 TETRA radios provided Barcelona with the ideal radio solution. They are rugged and easy to use and also support the same high quality user interface thereby simplifying training. They also enable users to harness the full range of TETRA data services through the integrated WAP browser and GPS receiver. Data is a key future requirement for Barcelona including the introduction of location based tracking solutions.

#### The Benefits

Barcelona chose Motorola and Amper for a number of reasons including the technical strength of the solution, the excellent reputation enjoyed by both companies and the very good engineering solution proposed to provide in-building coverage.

The TETRA solution has already provided Barcelona with many benefits. It has proved to be secure and highly resilient. Always available communications are crucial for the smooth running of airport operations and minimising unnecessary downtime. The importance of this is illustrated by the fact that the cost of an aircraft sitting at a gate is around €10,000/hour. Always available communications is also vital for both staff and passenger safety, especially during a crisis.

Compared with the previous analogue system it has provided excellent coverage especially indoors. This will be further enhanced with the additional improvements already planned. In addition to providing an extensive and highly resilient communication solution, it has also provided the platform for further enhancements going forward. For example, the use of data solutions including location tracking solutions.



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