



# TAN SON NHAT INTERNATIONAL AIRPORT HO CHI MINH CITY, VIETNAM

FIRST VIETNAM INTERNATIONAL AIRPORT TO ADOPT TETRA TECHNOLOGY



## BACKGROUND

Tan Son Nhat International Airport (TIA), which is located seven km away from downtown Ho Chi Minh City, is the largest airport in Vietnam. This airport is an essential traffic hub to the South of Vietnam and many other SE Asian countries, as well as a gateway to various parts of the world.

Built in the 1930s, the airport has grown at a fast pace. After the opening of the new terminal in 2009, the airport capacity has been increased to approximately 20 million passengers a year.

At present, TIA accounts for nearly two-thirds of the international arrivals and departures of all airports in Vietnam. There are more than 40 airlines operating at TIA with an average of 360 flights daily. In the near future, this figure is expected to reach as high as 400 flights a day. The airport is under the management of the Airports Corporation of Vietnam (ACV) and has undergone various expansion projects to keep up with high demand.

## BUSINESS CHALLENGE

Since 1990s, operation in TIA had been using conventional analogue radio with multiple frequency channels. Each group is assigned a fixed frequency channel on VHF. The conventional system encountered many challenges in which the three most striking issues were:

## CUSTOMER PROFILE

**Tan Son Nhat  
International Airport (TIA)**

**Application Industry**  
Transportation & Logistics

## CASE STUDY

### TAN SON NHAT INTERNATIONAL AIRPORT

- Interference caused by frequency congestion in VHF band. This affected the quality and reliability of radio communication.
- VHF system showed limitations in radio coverage in a wide area. Since the inauguration of the new international terminal in 2009, the VHF system had no longer been able to provide adequate and reliable radio coverage for the entire airport area.
- The new level of complexity in TIA airport operation. With the constantly increased capacity in air travel and passengers, VHF radio system exhibited limitation in coordinating communication among multiple agencies.

These challenges required TIA to adopt world-class technology to improve communications on the ground.

### SOLUTIONS AND DEVELOPMENT

TIA authority had envisioned the need for a new radio system that could provide stronger support to its operations. After examining various options in the market and benchmarking with other international airports, management decided to choose TETRA technology and awarded the contract to Motorola Solutions through a bidding process.

**We chose Motorola TETRA solution due to its prestige and competitiveness in the field of radio communications. Products by Motorola are effective and reliable. Besides, Motorola has outstanding in-country support services. We are very satisfied with their products and services.**

Mr. Pham Vu Cuong – Deputy Director of Tan Son Nhat International Airport

The initial deployment was a system with a MTS4 base station of three carriers, allowing connection for 11 voice channels, and 250 portable and mobile radio terminals. To facilitate the transition, the system is also equipped with a MOTOBRIDGE gateway to enable seamless communication between existing analogue VHF radios and the new TETRA digital radios.

The deployment took over three months with careful compliance testing to guarantee all features worked properly. Adequate training was provided before the launch to give technical staff confidence in managing and maintaining the system. Since May 2014, the new system has officially come into operation.

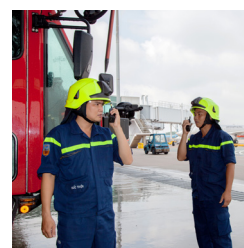
*“TIA made a significant decision in choosing TETRA open standard technology – the proven and most advanced digital radio solution adopted as default technology in airports globally. With our first-in-class TETRA products and a strong in-country presence, we are confident that our technology helps to solve the airport’s business challenges and facilitates its daily operation.”*  
– said Mr. Nguyen Viet Trung – Country Sales Manager of Motorola Solutions Vietnam.

### BUSINESS BENEFITS

The new TETRA radios and the old analogue VHF ones work well together bringing definite benefits to TIA including:

- Clear voice with good audio quality.
- Better radio coverage allows reliable communication at every corner in the airport where staff used to face difficulties in communicating with VHF radios.
- High level of flexibility for conversations allows users to communicate concurrently in various separate talk groups while being able to receive important alerts via features including talk group scan and announcement call.
- Prominent security allows only registered radios to operate on the system.

*“The new system provides better coverage for the airport, helps to overcome disadvantages of the previous analogue system and is able to be extended to provide data services in the future. Besides, this system allows setting up a command center in an emergency situation for the whole area.”* said Mr. Kha Tuan Linh – Vice Management – Communications & Navigation Equipment Team – Tan Son Nhat Airfield Operation Center.



To find out more about TETRA technology, and its solutions and applications, contact your local agent at

[www.motorolasolutions.com/vn](http://www.motorolasolutions.com/vn)

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