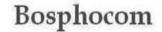
## **Air Traffic Control (ATC)**

Advance Business Communication via Satellite



## Bosphocom Timeline (1)

Established on 2004

August 2004
Obtaining the 2nd type of TR Satellite services license

January 2008-April 2009

Bosphocom, which has successfully implemented the largest project ever carried out in Turkey, a total of 5000 terminals, broadband VSAT network over satellite, has become the fastest growing leading company in the satellite communication sector of our country,

January 2006
Obtaining a type C
UMTH license
(Long distance
telephone services)

June 2006-2011

WDR (West Deutsche Rundfunk), the largest TV broadcaster in the Federal Republic of Germany, has all OB satellite transmission capacity has been supplied by Bosphocom. Likewise, the technical controls and technical parameter adjustments of all live broadcasts of WDR were carried out by Bosphocom personnel with remote access from the Bosphocom NOC (Network Operation Center) in Istanbul, which operates 24/7

# Bosphocom Timeline (2)

#### 2006-2012

Bosphocom, which establishes closed-circuit corporate communication networks at home and abroad; It has established communication infrastructure for many companies in Afghanistan, Turkmenistan, Syria and Iraq. References include companies with a widespread network such as Petro Canada, Ina Oil, Kolin Construction, Ülker.

#### 2016-present

Bosphocom, which is active in the field of low orbit (LEO) satellites with its extensive experience in the field of satellite communications; It continues its activities in the field of corporate satellite communication and continues to be a service provider.

#### 2013-2014

The satellite communication infrastructure used for radar, radio and data communication transmission between all air traffic control points of LCAA (Libyan Civil Aviation Authority) has been procured, installed and commissioned by Bosphocom.

## Air Traffic Control (ATC)

#### Solution Features:

- Highest reliability and availability
- Fully independent of terrestrial infrastructure
- Support of real-time voice, video and data simultaneously
- Support of VHF communication signals
- Minimal bandwidth consumption through dynamic bandwidth allocation

## Air Traffic Control (ATC)

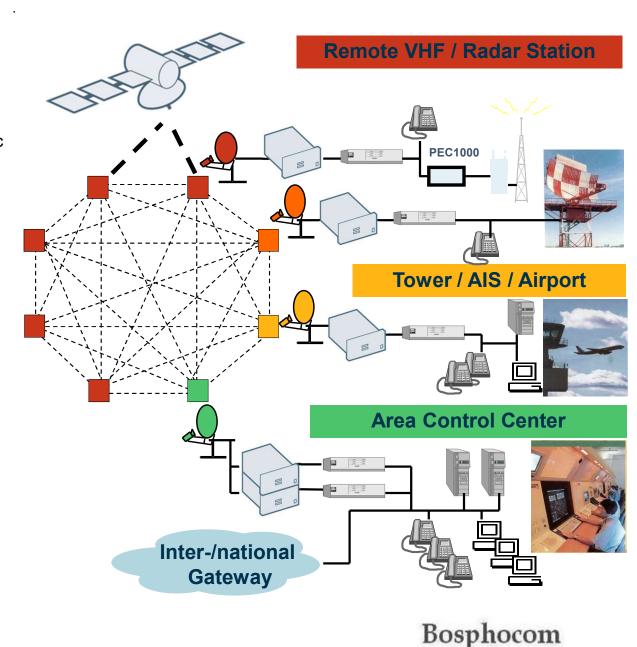
## Seamless Connectivity and Reliable Communications

- Flight controllers depend on reliable communications for voice, radar and messaging traffic between ATC sites.
- As aircraft move from one airspace zone or sector to another, the transfer must be clearly communicated and seamless.
- In certain locations, terrestrial infrastructure may not be available to connect radar signals or messaging traffic.
- Our team of dedicated engineers have designed a highperformance, satellite communications networking solution that provides maximum reliability and availability, is fast to deploy and is independent of terrestrial infrastructure.

### Solutions for Air Traffic Control

#### **Key Features**

- High network reliability, based on customized redundancy concepts
  - Digital multi service communication platform, enhanced with ATC-specific access devices for:
    - AFTN message handling
    - remote VHF communication controller-to-pilot
    - highest Quality-of-Service for voice communication
    - Real-time service for Radar data
    - Intranet service TCP/IP based
    - administrative phone/fax services
- High available Network Management System, SNMP based
- Capable for fully meshed network topologies
- Bandwidth efficient with lowest operational costs



### Air Traffic Control Networks

- National and international Air traffic control
- International thru IATA, ICAO, Sita
- National thru respective organisations
- Countries covered (full or partly): China, Papua New Guinea, Afghanistan, Pakistan, Iran, Syria, Saudi Arabia, Libya, Sudan, Venezuela, All Africa,.....

China



South Pacific



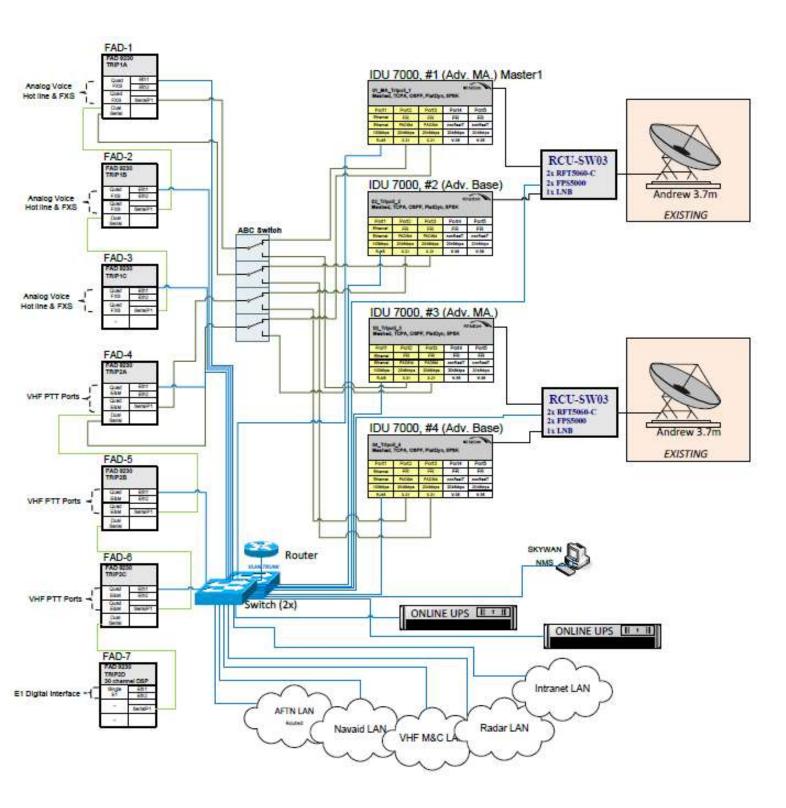
**Central Asia** 



**Africa** 



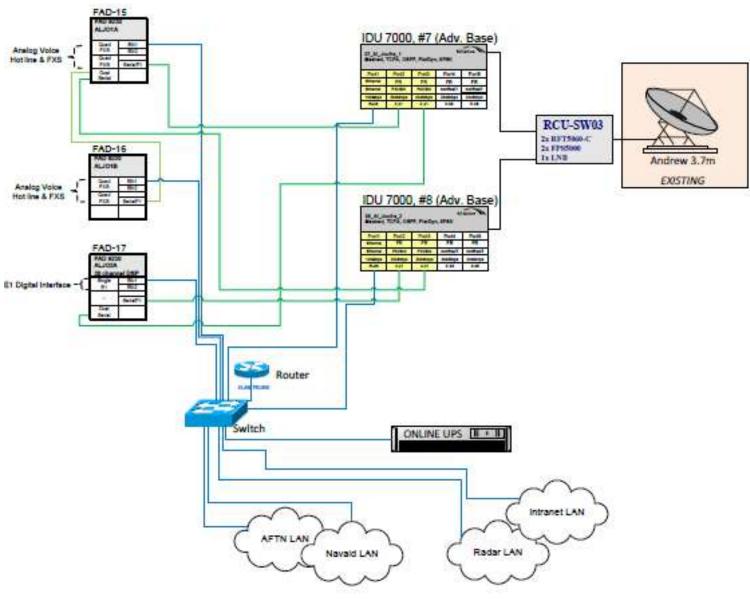
Bosphocom



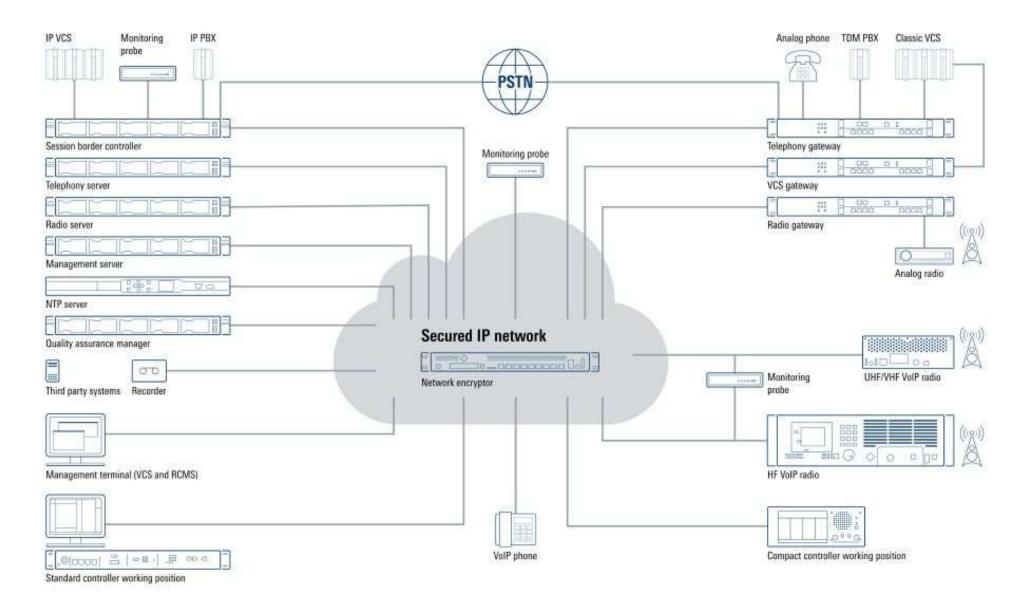
MAIN AIRPORT Design Template

Bosphocom

#### Remote Airport Design Template



## Secure Voice Communication System for ATC

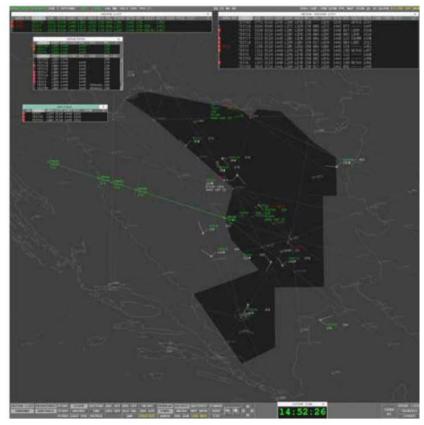


## Air Traffic Control Automation System

## Major System Components

- Flight Data Processing
- Safety Nets
- Radar Data Compressor Unit
- Survaillance Data Processing
- Control & Monitoring Display
- Data Recording Facility





# LCAA INTEGRATION PROGRESS IN GERMANY - I







## LCAA INTEGRATION PROGRESS IN GERMANY - II





# LCAA INTEGRATION PROGRESS IN GERMANY - III



