

Air Traffic Control System Upgrade - L-3 Satellite Networks

ISAT® Frame Relay Used in Eastern Europe

The Situation

Air traffic control systems must provide 100% reliable service. In an environment without an established telephony infrastructure, an Eastern European aviation authority needed radar-gathering and distribution, telephony applications, and local area network (LAN) interconnectivity. The network included 11 sites, connecting a control center with airports throughout the region.

The Solution

L-3 Satellite Networks provided the air traffic services administration with a comprehensive VSAT network via its **ISAT®** product. **ISAT** offers a single platform for simultaneous interactive radar data and voice communications and enabled the customer to improve its ability to serve key air corridors from Europe to Asia and the Middle East.

As a Ku-band network, where uplink power control is required, each of the remote terminals, as well as the hub, needed this capability. Due to the many features of the ISAT product line, this was easily implemented.

A further requirement was the need for communications between remote terminals in a mesh network. Using only a single carrier from the hub and each remote terminal, the **ISAT** network provides a wide range of capabilities without requiring additional bandwidth.

The Benefits

- Simultaneous transmission of high-quality telephony and digital data.
- Simple uplink power control at all stations.
- Efficient bandwidth sharing. With multiple ports at any site, the system acts as an intelligent statistical multiplexer, keeping transmitted bit rates low and minimizing satellite access costs.
- Flexibility. The system was easily expanded after approximately four years to double the number of sites.

ISAT networks utilize a Frame Relay link protocol and patented satellite access techniques to provide highly efficient, full-service communications. They are ideal for heavy data and voice traffic. Versions of **ISAT** are available for many interactive communications applications covering both small and large networks.



communications
Satellite Networks

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