

Andorra Telecom

Benefits



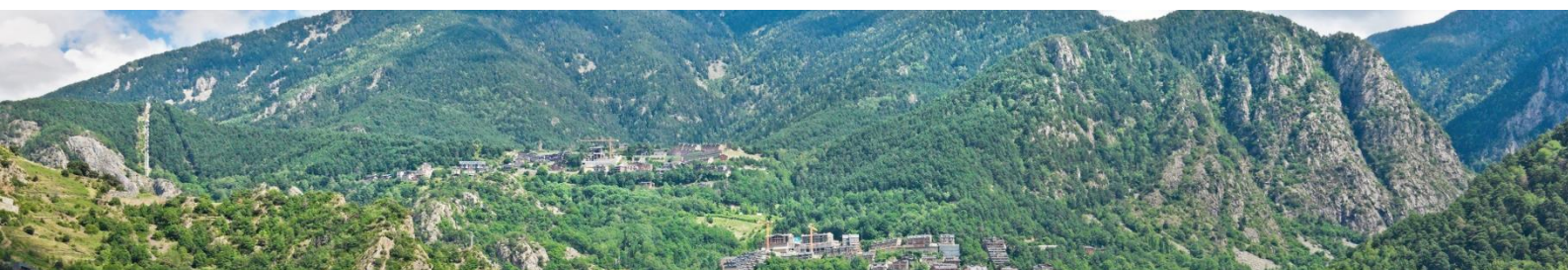
- Excellent countrywide coverage, including Air-to-Ground
- Improved cooperation between public safety agencies
- Strict separation of end-user groups where necessary

Client overview



Andorra Telecom was formed in 1975. It is a public operator which manages and operates all Andorran telecommunications services as fixed and mobile telephony, data transmission, Internet and international communications.

Andorra Telecom is also responsible for managing the technical infrastructure and national broadcasting networks related to radio and Terrestrial Digital Television. Andorra Telecom is controlled and managed with full responsibility to the Government of Andorra.



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Project challenge



The Andorra Government ordered the construction of a new 112 Command and Control Room for the Emergency Services and assigned Andorra Telecom as a public operator to build and operate the necessary infrastructure and support the integration projects as Geographical Information System and location positioning system. The project started 2006 in three Phases and migrated during the initial project from regular E1 links to full redundant Ethernet IP. After the network was completed, the coverage and cell handovers were checked by test driving the network and it proved excellent coverage.

Main users of the national TETRA network are Police, Fire Brigades, Health Service & Ambulances and the network is designed to operate in a true multi-agency environment.



Solution



The solution is built around a high available Geo redundant TetraNode High End TETRA switch.

Principat d'Andorra is a mountainous country; this sets out challenges to radio coverage. Therefore the TetraNode TETRA network is built with 20 Base Station Systems and 40 TETRA carriers for the outdoor coverage. For the coverage of tunnels through the mountains additional five Base Station Systems and five TETRA carriers are operational.

The TetraNode network has inter-connections to telephone systems via POTS and E1 interfaces.

Andorra Telecom monitors and maintains the network using Network Management Station and NodeView.

All network communications are recorded using a redundant Voice-data Logging Server with additional Application Program Interface to collect positioning data by various organisations. The TETRA network also includes an Application Program Interface for the special 112 control room dispatch applications that directly interface with the TetraNode eXchange.

Each Organisation manages their own fleet and subscribers.

