




PRINCIPALITY OF ASTURIAS, SPAIN

LOCAL AUTHORITY IN NORTHERN SPAIN



To spur economic development, the local government of Spain's Asturias region wanted to bring broadband connectivity to remote rural areas. Meeting this need, Alcatel delivered a world-class fiber-to-the-home backbone and access network, bringing advanced telecom services to the area's homes and businesses.

This contract was established before the merger of Alcatel and Lucent.



Principality of Asturias' Perspective

CHALLENGES

Throughout Spain, many rural areas have had limited or no broadband access, creating a digital divide between these areas and large towns. This situation has arisen in a context where Spain has a strong incumbent operator and no real alternative access networks. Competition between telecom companies in Spain has generally been price-based, leading new operators to focus their activities on the larger towns, which can be cost-effectively served.

The government of Asturias in northern Spain wanted to bridge the digital divide and help serve a rural population of some 200,000 inhabitants. The challenge was to:

- **Foster economic development**, generating new business opportunities by providing high-speed network access to three mining areas in Asturias.
- **Provide innovative communication services**, offering advanced services such as triple play to remote regions and high-density areas alike.
- **Become a wholesale carrier**, deploying the network by itself. The local authority could then competitively operate and rent network capacity to operators (such as Internet service providers (ISPs), cable operators, etc.), delivering broadband services to residential and business users.

SOLUTION

To provide broadband connectivity to Asturias, Alcatel provided a turnkey fiber-to-the-home (FTTH) network in all villages with more than 1,000 inhabitants, reaching some 30,000 households. Alcatel's solution included the design, project management, deployment, rollout and maintenance of a 220 km FTTH backbone and access network. The solution enables users to access a wide range of voice, Internet protocol television (IPTV) and Internet services with speeds of up to 10 mbps.

BENEFITS

- The government of Asturias achieved its goal of creating broadband infrastructure and promoting competition to improve service quality and affordability.
- Alcatel has helped local authorities reduce the digital divide in the mining areas of Asturias by supplying 30,000 homes with high-speed, competitive network access, using a scalable and durable technology.

ABOUT THE PRINCIPALITY OF ASTURIAS

- Located in northern Spain, the Principality of Asturias has 1.1 million inhabitants, the majority of whom are concentrated in three cities (Oviedo, Gijon and Aviles).
- The area's main economic activities are in services and industry. In recent years, however, Asturias has experienced a decline in economic investment. To counteract this, the local authority has focused on promoting information and communications services in the region, particularly in sparsely populated mining areas.



"Alcatel has delivered a world-leading solution to Asturias, enabling us to bring broadband access and advanced communications services to our most remote, rural areas, bridging the digital divide."

Luis Iturrioz, Vice-Councillor of Budgets and Public Administration of the Principality of Asturias

NEXT STEPS

The network will be extended to connect several new service providers, thus enriching the service portfolio offered to citizens of the Asturias region.



Alcatel's Perspective

CUSTOMER REQUIREMENTS

The Principality of Asturias was looking for a turnkey, fiber-optic network to deliver advanced yet inexpensive communications services to its citizens.

OUR METHODOLOGY

- A pilot project was carried out in the city of Langreo, where Alcatel's project team set up the required processes and organization, assessed project feasibility and reduced the risk of technical difficulties occurring further down the road.
- Upon successful completion of the pilot project, the full-scale project was drawn up with all network supplies and service details. Alcatel then deployed the network in four cities simultaneously.
- The next step was a series of trials with service providers, followed by the connection of the first subscribers and the rollout of broadband services.

DELIVERY CHALLENGES

- **Local authority authorization:** Seventeen different local authorities were involved in this project. Each had its own specific regulations and requirements, particularly as regards the laying of aerial cables. Alcatel listened to the specifications of each town and customized the solution according to local rules.
- **Communication:** To facilitate communication with Asturias, Alcatel named as its sole interface a General Project Manager who was responsible for consolidating all customer questions and comments, and for communicating internally with Alcatel personnel.
- **Health, safety and environmental constraints:** Safety is of the utmost importance for the Principality of Asturias. A special committee therefore examined all safety issues on a weekly basis. Moreover, all Alcatel and Asturias staff were given appropriate training before work commenced.
- **Project schedule compliance:** The Principality of Asturias had an aggressive timescale for project implementation, allocating just 14 months in total. To meet this tight schedule, Alcatel began detailed engineering, site conditioning, application for local permits, etc., even before formal contract signature, in order to deliver all components of this complex solution within the specified timeframe.



Fernando Javier Aparicio Robles
General Project Manager
Alcatel

"The Asturias project has been very important for us, attracting great interest from operators and other prospective customers who monitored our progress closely; today it is bringing us new opportunities to work on similar projects."





Principality of Asturias Solution at a Glance

THE BUSINESS SOLUTION

To provide broadband connectivity to Spain's Principality of Asturias, Alcatel provided a turnkey fiber-to-the-home (FTTH) backbone and access network, enabling local residents to access a wide range of voice, Internet protocol television (IPTV) and Internet services with speeds of up to 10 mbps.

Alcatel's solution included the design, project management, deployment, rollout and maintenance of the fiber-optic network, which targeted all villages with more than 1,000 inhabitants, reaching some 30,000 households.

This project enabled the government of Asturias to bridge the digital divide by providing affordable, reliable broadband services in remote, rural mining areas that previously had limited or no broadband access.

THE TECHNICAL SOLUTION

- 220 km fiber-to-the-home (FTTH) backbone and access network.
- 3 Alcatel 7750 Service Routers, ensuring interconnection between multiple networks.
- 7,700 Alcatel 7342 Home Optical Network Terminals (ETSI standard).
- 13 Alcatel 7342 Packet Optical Line Terminals (ETSI standard).



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