LEVITON®

Gran Canaria Airport
Leviton Offers Long-term Solution to Leading Airport Operator

A Leviton Cat 6 connectivity solution has been installed as part of the expansion of Gran Canaria airport.

AENA is a state-owned company with 49% private capital which manages 46 airports and 2 heliports across Spain plus, through its subsidiary AENA Internacional, 15 airports in Latin America and 1 in the United Kingdom. It has now become the world's leading airport operator in terms of passenger traffic, with over 580 million passengers passing through its Spanish airports alone in the last three years.

Expansion Plans

With some of the most modern airports in the world, AENA relies on cutting-edge technology to support efficient services and a wide range of shopping opportunities. It is also aware of the important economic opportunities their operations bring to the areas where they work.

To meet these commitments, AENA has recently completed the expansion of Gran Canaria Airport, a key facility in the island's economic infrastructure. The aim of the expansion is to increase capacity and improve the quality of service for passengers, and at the heart of this is an upgrade and extension to the airport's critical IP Network.

Strong Relationship with System Integrators

Over the preceding ten years, Leviton's technology has been installed as a networking infrastructure solution in a number of new terminals in Spain, including those in Málaga-Costa del Sol, Santiago and Palma de Mallorca, while also setting up copper and fiber infrastructure in several existing terminals.

Gran Canaria Airport

At a Glance

Profile: Gran Canaria Airport

Industry: Transportation/Aviation

Location: Grand Canaria, Spain

Business Problem: As part of a major expansion, the airport required a robust copper and fiber network to connect two data centers and over 40 telecommunications rooms spread across the extensive campus.

Solution: Leviton Cat 6 copper system and fiber optic backbone

Complex Environment

Airports rely on highly complex data networks to run smoothly. Their networks are often spread across a campus environment, some the size of small towns. Three aspects drive these networks: security, passenger experience and ever-growing air traveller numbers.

One of the key challenges was working in a busy operational airport without impacting day-to-day running. Working with a system integrator partner, Leviton achieved this, as well as completing the job on schedule and within budget.

The wide variety of electronic and ICT systems now converging, due to the shared use of IP and Ethernet, means that airport operators need an ICT cabling infrastructure that is "fit-once' but which can be easily adapted as needs change. It was against this background that our clients decided to trust in a Leviton Cat 6 connectivity solution to be installed as a networking infrastructure solution for AENA as leading Airport Management Company.

> " *Our products are field-proven world-wide to be of the necessary high-quality for an airport environment.* "

Antonio Muñoz
Senior Director Southern European Sales

"They're robust, reliable and form the basis for a high level infrastructure that also offers room to grow and evolve.

Alongside this, it's impossible to under-estimate the importance of the excellent working relationship that Leviton has developed with our system integration partners over the years. They know that both our pre and post-sales support is second to none, and that everything is backed up with a 25-year no-quibble warranty."

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An airport network must serve the very different needs of airport administrators, airlines, retail and services tenants, baggage operators, air traffic control, police, customers and government authorities.

It must also support many types of machine-to-machine communication, such as smoke/fire sensors and alarms, HVAC, thousands of building management systems components, and lighting and power distribution control. Further uses can include electronic signage, check-in and self-check-in terminals, public address, and TV and video distribution.

Many of these are critical systems, and downtime could cause massive disruption to passengers: aircraft diversions to other airports and penalty claims by airlines. So it was highly important that the systems installed have been proven in services at a number of airports world-wide.

The Leviton Cat 6 system installed comprises Category6/Class E copper cabling with 24 port patch panels throughout. Long distance campus and backbone links extend single-mode fiber in a variety of cables having fiber counts from 12 to 48 per cable interconnected through single mode fiber patch panels. Additionally, a significant amount of 100 pair LSZH (low smoke zero halogen) cable was installed for non IP services.

Zones

The project was divided into two distinct zones, the Terminal Zone and the Campus Zone. As well as carrying data and being able to cope with large file transfers, the structured cabling solution also needed to support voice over Internet protocol (VoIP) and CCTV.

The Terminal Zone includes two data centers, 16 telecommunications rooms and four remote telecommunications rooms, spread over two floors and covering some 800m^2.

The two data centers serve both zones, providing the duplication necessary to ensure resilience under failure conditions—allowing the airport to continue functioning at all times. The two data centers, which are physically remote from each other, are interconnected by a 96-fiber single-mode backbone.

In the Terminal Zone, each of the 16 local telecommunications rooms is connected to both data centres by a 24 single-mode fiber backbone with an additional 100-pair copper connection to the nearest data center.

The four remote telecommunications rooms are each parented off the nearest main telecommunications room with 12 single-mode fibers interconnects and 50-pair copper cabling.

The Campus Zone, meanwhile, includes one primary telecommunications room which interconnects to both data centers with 48-fiber backbone links. This primary telecommunications room also forms the star-point for a further 21 telecommunications rooms distributed around the campus.

For more information, visit Levitonemea.com.

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