

Metro de Sevilla



Benefits

- Easy to integrate with modern IP-based networks
- Full redundant operation to achieve high availability
- Excellent coverage on all locations



Client overview



Concesionaria Metro de Sevilla was responsible for the construction and is now responsible for the exploitation of Line 1.

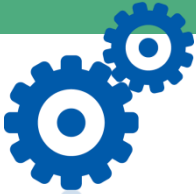
The Seville Metro is a light metro network serving the city of Seville, Spain and its metropolitan area. The system is totally independent of any other rail or street traffic. All stations were built with platform screen doors.

It was the sixth Metro system to be built in Spain. Currently, it is the fifth biggest Metro Company in Spain by number of passengers carried. Metro takes the largest percentage in the way of transport in Sevilla that also offers service after midnight during the weekends.



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Project challenge



The construction of Line 1 started end 2003. On April 2, 2009 Line 1 opened partially and since November 23 of the same year the complete line is in operation, serving an estimated 230.000 inhabitants and functioning as an important link for communications and commuters between the metropolitan area and the city.

The line is 18 km long and has 21 stations. For three other Lines are plans developed. Line 1 transports an estimated 20 million people per year.

Solution



The TETRA network is created around a redundant TetraNode eXchange that controls 17 Base Station Systems with 20 TETRA carriers. Optical and RF-RF repeaters complete the coverage to include all the premises at the stations, the emergency exits and the control room. Coverage inside the tunnels is achieved through more than 14 km of 1¼” radiating cable, which together with the extremely high sensitivity of the carriers allow for in train coverage with hand portable radios) on the whole line.

Network management system is used for network configuration and maintenance and a telephone gateway secures the interconnection with the metros telephone system. All TETRA communications are recorded on TetraNode’s Voice-data Logging server.

Special in the project is the integration of a third party metro dispatching solution that monitors and communicates with the metro trains according to time table. The dispatchers interface the TETRA network using the TetraNode Application Program Interface. The interconnection was tested and satisfactory validated with Rohill’s Application Partner Program.

