

Ulasim



Benefits

- Full redundant operation to achieve high availability
- Excellent scalability; allows step-by-step expansion
- Integrated with Command and Control Centres



Client overview

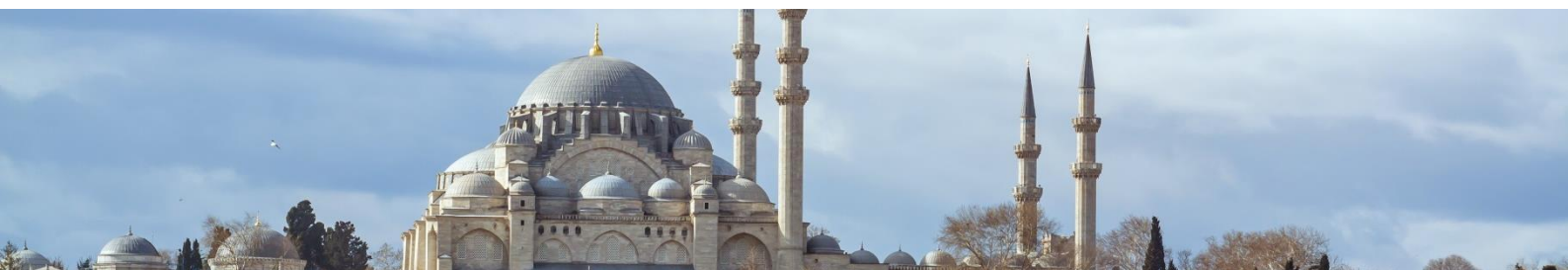
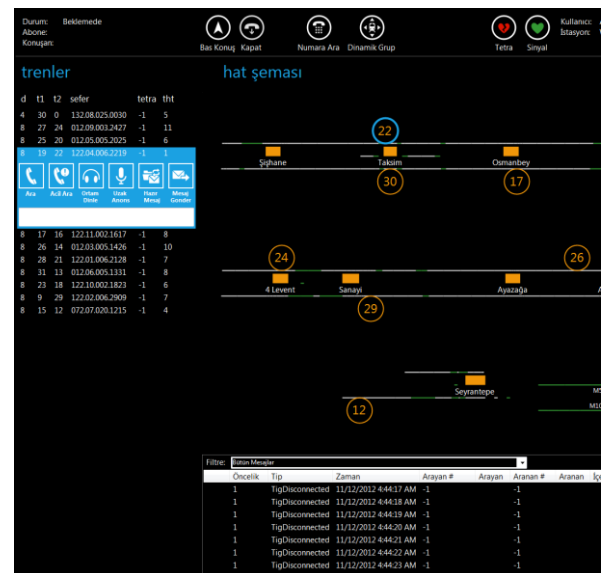


Istanbul Ulasim A.S. is an affiliate company of Istanbul Metropolitan Municipality operating the tramway, metro, light rail, funicular and aerial cable cars in Istanbul. Istanbul Ulasim serves more than 1.5 million passengers every day.

Metro started 1989 the construction with the metro line M1 in phases that connects the airport Ataturk with the City.

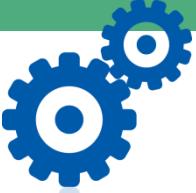
Today Ulasim operates:

- M1 Aksaray - Ataturk Airport Light Metro Line
- M2 Sishane - Haciosman Metro Line
- M4 Kadikoy-Kartal Metro Line
- T1 Kabatas - Bagcilar Tram Line
- T3 Kadikoy - Moda Heritage Tram Line
- T4 Habibler - Topkapi Tram Line
- F1 Taksim - Kabatas Funicular Line
- Macka - Taskisla Aerial Cable Car Line
- Eyup – Pierre Loti Aerial Cable Car Line



Ulasim

Project challenge



The number of people using Istanbul's urban transport is increasing every year. Effective communications across the network are key to ensuring this growth is managed effectively. As part of its ongoing program of improvement, Istanbul Ulasim looked to migrate the existing conventional analogue radio system to a TETRA communications network capable of managing the demands of 21st century urban travel.

A comprehensive ongoing expansion plan will see the metro lines extend to a total length of some 776 km, from the initial 45km back in 2004. The first implementation of TetraNode for Istanbul Ulasim was in 2007, for the metro and tram lines. In 2012, with the construction of the new 22km metro line from Kadikoy to Kartal, the TetraNode network was expanded to cover the new route, and provides communications for the entire Istanbul rail transport network.



Solution



The network covers Istanbul on both sides of the Bosphorus with a total of three networked TetraNode eXchanges, ten Base Station Systems with 20 TETRA carriers. One Base Station System is used to feed underground part of the network. All communications are recorded using three Voice-data Logging Servers, three Line Dispatch Stations Chameleon and telephone gateways.

Istanbul Ulasim operates the transport network through two Command and Control Centres, one on the European and one on the Asian side of Istanbul. It uses voice and signalling data communications used between Control Centre Operators and Train Drivers working with Train Numbers over TETRA.