CUSTOMER BENEFITS

- Automatic train operation, protection and supervision
- Moving-block technology for optimum headway and service frequency
- Reduced life-cycle costs
- Proven safe and reliable in use for over 25 years
THE CHALLENGE

To alleviate one of the most congested traffic corridors on the Anatolian (Asian) side of Istanbul, the Metropolitan Municipality of Istanbul (IBB) decided in 2008 to build the 22km double-track Kadikoy-Kartal metro rail line – a clean, safe and efficient mode of public transit linking these two suburbs. By 2012 the fully-underground line will service 16 stations with 30 four car trains.

The project is intended to help make Istanbul a more attractive business location and improve the living standards of its population. By extending coverage of an efficient mode of public transit to the Asian side of the city, the project will help improve overall urban mobility, reduce travel times, expand the labour market, improve access to essential social services and improve the functioning of land markets, thereby contributing to increased urban productivity, economic growth and private sector development.

For its signalling system, IBB initially wanted driverless ATO-with-attendant operation, however after visiting a number of fully automated UTO metros, realized that they could achieve much better operation flexibility and throughput with the higher end UTO solution.

THE SOLUTION: SELTRAC® CBTC WITH THALES’S INTEGRATED COMMUNICATIONS SYSTEM

To operate the fully automated system, IBB selected Thales and its world-leading SelTrac integrated Communications-Based Train Control solution for safe and reliable unattended train operation. SelTrac includes automatic train protection and supervision, and moving-block technology to optimize headway and passenger service frequency. SelTrac CBTC has been designed to interface to a future platform door system, and will provide the necessary flexibility for the first several years of revenue operation until a full depot is built – until that time trains will be stored and launched from guideway storage locations, and serviced in a completely underground maintenance area. For the Kadikoy-Kartal line, the system headway requirement of 120 seconds was improved to 90 seconds with UTO operation.

From a central control facility, operators will use Thales’s advanced NetTrac MT platform, which supervises the automatic operation of the entire rail fleet. NetTrac MT is designed to provide automatic control of all train operations under normal conditions without operator intervention. It enables operators to easily track and control train movements and routes, automatically launch more trains at peak service times, and handle system disruptions quickly.

IBB also selected Thales for its communications system. The central control system will integrate Thales’s CBTC and communications system incorporating passenger information and SCADA.