Helping Deliver Safety Critical Communications System on London Underground

Contract:	Connect
Client:	London Underground Ltd.
Main Contractor:	Thales Security, Solutions & Services Ltd.
Dates:	June 2006 - Ongoing

Key success factors and innovations

- Legacy to new technology transition experience
- Success with adaptability & flexibility with the changing environments and work disciplines
- Domain operational and engineering knowledge

Bermondsey Site

North Greenwich Site

Background:

London Underground has invested in new communications to help improve safety and reliability, as well as provide better voice, data and image communications.

Thanks to our growing reputation for technical competence and proven delivery in the telecoms sector, Kelly ITS secured a contract to work with Thales Security, Solutions and Services Ltd to install the new communications infrastructure.

Scope of work:

The main elements of the project are a new, implementation of Airwave communications system, integrated terrestrial radio, transmission and Closed Circuit Television (CCTV) system to replace the existing legacy systems. These new services will enable train drivers to make emergency calls from their cabins, instead of having to use line-side telephones. They will also facilitate data communication between stations, allowing them to inform passengers instantly if there are service problems.

Telecom services included fibre cable installation, coax radio feeder cable installation copper voice and data cable installation. Jointing, terminating and testing of fibre, copper and coax cables. The telecom service also involved installing CMS in Tunnels, CERs, SERs, radio antennae, CCTV circuits, cameras, monitors, signal data management control equipment and build equipment racks in SERs and CERs. We also had to test and commission (SDH and PDH) and cut over equipment, decommission, recovery and disposal of redundant equipment.

Electrical services were also required which involved LV power, testing and commissioning, conducting periodic inspections and providing certification of new installations. Further electrical tasks included installing power control and monitoring equipment, tray work and trunking for new electrical installations and electrical upgrades as per client design as well as cut over redundant equipment, decommission and recovery.