CUSTOMER BENEFITS

› Complete integrated design
› High capacity for service frequency and efficiency
› Moving-block technology for minimum headways with safe operation
› Reduced life-cycle costs
› Proven safe and reliable in use for over 25 years

THALES URBAN RAIL SIGNALLING

HYDERABAD, INDIA
METRO LINES 1, 2, 3
“The Hyderabad metro project will be first in the country to run on a communications-based train control system. Our endeavour is to bring the best of international players in metro rail technology to make the project world-class”

V.B. Gadgil
Chief Executive and Managing Director, LTMRHL

THE CHALLENGE
Hyderabad is the capital and largest city of the Indian state of Andhra Pradesh on the Deccan Plateau in southern India. The population of the metropolitan area of Hyderabad is nearly 8 million, projecting to 14 million by 2021, making it India’s sixth most populous urban centre.

Hyderabad initiated an urban rejuvenation and redesign effort to transform it into a people-friendly ‘green’ city. Plans included a new efficient, safe and reliable metro system to help decongest the city’s roads and provide a seamless transport network to reduce travel time. Eco-friendly, the metro would reduce carbon emissions, both by using zero-emission electricity and by minimizing high-emission road transport.

The network involves complex construction of elevated and underground metro rail corridors, monorails, and composite railway construction works. The metro will include ultra-modern stations with state-of-the-art depots, an automatic fare collection system, and will integrate with existing rail terminal and bus stations.

Larsen and Toubro (L&T) Limited, one of the largest Indian conglomerates, was awarded the Hyderabad Metro Rail Project, a Public-Private Partnership (PPP) project, by the Government of Andhra Pradesh.

THE SOLUTION: SELTRAC® CBTC
In November 2012, Thales Canada, Transportation Solutions was awarded the new metro network contract by L&T Metro Rail (Hyderabad) Limited (LTMRHL) to design, build, deliver, test and commission its world-leading and proven Communications-Based Train Control (CBTC) solution. This is Thales Canada’s first CBTC project in India and it is scheduled for completion in 2017.

The greenfield project consists of an elevated metro rail, with two tracks on a viaduct erected on pillars in the central median of the road.

The 72-kilometre, 66-station project includes signalling three dense corridors, Lines 1, 2 and 3: from Miyapur to LB Nagar; Jubilee Bus Stand to Falaknuma; and Nagole to Shilparamam. From a central control operations facility, trains will operate semi-automatically with an attendant on board. Enhanced safety is provided by applying brakes automatically in case of driver error. Fast, secure and reliable communication will also be available throughout the metro network. Broadcast announcements from the control centre, displays in different languages, emergency call lines, CCTV real-time surveillance for all stations, depots and tracks, will form part of the communication systems. There will be one depot per line.

Thales will supply and deploy its SelTrac CBTC system in six stages, providing the capability to run one train every 90 seconds, each side. The network will initially carry about 148 000 passengers per day by 2015. The system includes Automatic Train Control (ATC), Automatic Train Protection (ATP) and Automatic Train Operation (ATO). There will be 57 trains running at speeds of 34 kph on average, with a maximum speed of 80 kph.

Integrated with the CBTC system, Thales will also deliver its comprehensive Integrated Communication System (ICS) package, composed of Data Transmission, Public Address, Passenger Information Display, Fault Reporting Facilities, Office Automation and Information Technology, CCTV, Access Control and Intrusion Detection, Master Clock, Telephony, Voice Recording and Radio Tetra systems.