Communications

More than just communications experts . . . Xorail’s System Integration & Communications Group delivers seamless integration across cutting-edge voice & data communications systems, signaling systems, grade crossings, and train control & dispatch systems.

Our signaling background enables us to do more for you, from conceptual design and communications architecture, to detailed plans, procurement, project management, testing, integration, commissioning, and full documentation.

Specific areas of technical expertise include:

Data Networks
- SONET, Gigabit Ethernet, MPLS
- IP-based Networks
- Passive Optical Networks (FTTH, FTTC)
- Wi-Fi and WiMax Systems
- Technology Planning For Inside/Outside Plant Networks
- Bandwidth Studies for Video, Voice, and Data

Rail Systems and Subsystems
- Positive Train Control (PTC)
- Advanced Train Control Systems (ATCS)
- Supervisory Control and Data Acquisition (SCADA)
- Passenger Information Display Systems (PIDS)
- Public Address Systems and VMS Integration
- Integration with Grade Crossings and Signaling
- Closed Circuit Television Cameras (CCTV)
- Emergency Telephone Systems (E-TEL)
- Vehicle Detection Systems (VDS)

Terrestrial Radio Networks
- Base Station Design and Integration
- Tunnel and In-Building Coverage Systems
- Capacity and Coverage Optimization
- Microwave Backhaul and Integration

Representative Communications Projects:

MRS Logisitica, Brazil: Modernization of signaling and communications for 1200 miles of rail corridor, including design of 80 VoIP radio base stations, dispatch office, 220 MHz and 900 MHz wayside PTC, and tunnel coverage systems.

Caltrain, Northern California: VHF Radio narrowbanding design, 900 MHz ATCS re-design, new dispatch system integration, Digicon support.

Metrolink, Southern California: OC-48 and Gigabit Ethernet on 30-mile network, PTC RF studies.

Northeast Illinois Regional Commuter Railroad Corp (Metra): Communication and Signal engineering design.

Northern Indiana Transportation District: OC-12 SONET design on 80-mile train route.

Denver Regional Transit District: Turn-key design, supply and testing of an integrated CTS, voice, data, PA/VMS, CCTV, PTC Dispatch, and SCADA communication system.

For your communications and signaling needs, Xorail is ready to assist you through any of our offices nationwide. Contact Xorail today for an initial consultation by visiting our website at www.xorail.com or email us at info@xorail.com.