

AURIGA CORPORATION TRAIN CONTROL SYSTEMS SERVICES



Since 1990, Auriga Corporation has developed an industry-wide reputation for high quality and value-added services. Auriga is recognized as a premier provider of professional engineering services for Train Control and Communications Systems. Auriga's Train Control Systems Design approach is based on current best-practice methodologies that have been successfully developed and applied in the past projects. Auriga has a solid foundation as an ISO 9001 compliant company. Principal consultants at Auriga have an average of twenty-five (25) years of prior experience working for public and private sector firms.

Advanced Train Control System (ATCS) represents a cost-effective means of improving the efficiency, reliability and safety of train operations. ATCS requires highly reliable train control and communication systems for operations. ATCS consist of: central control system; station control and wayside systems; on-board control system and communication network including mobile communications.

Auriga's Train Control System Services are focused on design, implementation, testing and system integration of Advanced Train Control Systems. The methods used to plan, design, specify, procure, integrate, test, accept and commission the new systems, are critical in the transition to the new systems and technologies. System integration techniques used to manage the institutional, operational, technical, physical and communications interfaces are important in the success of the Train Control System projects.

Auriga's client base is located throughout California, the United States and in countries around the world. Auriga's Train Control Systems clients include a broad base of *transit agencies listed below*.

REPRESENTATIVE RAIL & TRANSIT CLIENTS:

- California High Speed Rail Authority
- Metropolitan Transportation Commission
- San Francisco Bay Area Rapid Transit District
- San Mateo County Transit District
- Santa Clara Valley Transportation Authority
- San Francisco Municipal Transportation Agency
- Los Angeles County Metropolitan Transportation Authority
- New York Metro North Railroad

Auriga is certified as a *Small Business* by the Department of General Services, State of California; *Disadvantage Business Enterprise* (DBE) by the Bay Area Rapid Transit District (BART), *Minority Business Enterprise* (MBE) by the Supplier Clearinghouse for the Utility Supplier Diversity Program of the California Public Utilities Commission.



San Francisco Municipal Transportation Agency

Currently, Auriga is providing Systems Engineering Services to SFMTA for the Twin Peaks Crossover Advanced Train Control System (ATCS) Signaling Project.

The Scope of Services includes:

- Systems Engineering Support to Develop Requirements and Technical Specifications
- Project Management Support to Develop Request for Proposal, Cost Analysis and Contract Negotiations
- System Integration, Testing and Commissioning support.

New York Metro North Railroad

Auriga provided Systems Engineering Services to New York MNR for the Real Time Data Links Design Project.

The Scope of Services included:

- Design Support for Train Time Interface Control
- Functional Requirements
- Conformed Plans and Technical Specifications
- Systems Design Outlines
- Concept of Operations for Real-Time Train Data System.

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SCOPE OF SERVICES:

Auriga Corporation provides a wide range of Train Control and Communications System consulting services including:

- Program and Project Management
- Business Needs Assessment
- System Architecture Design and Configuration
- Functional and Performance Requirements
- Technical Specifications
- Procurement Support
- Development of Requests for Proposals
- Proposal Evaluation
- Contract Negotiations
- Implementation Support

Auriga's Project Management activities supporting Train Control and Communications Systems include:

- New Technology Assessment
- Gap Analysis
- Pilot Program Evaluation
- System Architecture Design and Configuration
- Design Reviews
- Configuration Control
- Software Development
- System Integration
- Testing
- Commissioning
- System Acceptance
- Training
- Documentation
- System Maintenance Support

Auriga's highly qualified and experienced Train Control and Communications Systems consultants are certified in their respective professional subject matter specialties, including Project Management Professionals (PMP), and registered and licensed Professional Engineers (PE).

For additional information and inquiries, contact:

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Santa Clara Valley Transportation Authority

Auriga Corporation developed an Automated Train Tracking System for VTA, for real-time monitoring and tracking of their Light Rail Vehicles.

The Scope of Services included:

- Creation of Computer Aided Dispatch Application to integrate schedule information to create real-time tracking predictions.
- Interface with Xerox's' Real Time Interface and TransLoc's Smart Traveler Application to provide arrival predictions to customers.
- Real-Time Graphical User Interface for Operations and Controls staff to monitor all trains in service.

Santa Clara Valley Transportation Authority CAD/AVL System – Clever Devices

Auriga is providing Systems Engineering and Software Development Services to Clever Devices to develop an Interface Application for VTA's CAD/AVL Project.

The Scope of Services includes:

- Functional and Performance Requirements
- Software Design, Development, Integration and Testing
- Training & Documentation
- System Maintenance.