Aria

Advanced Transportation Management System

Next Generation Open Architecture Platform

Real-time Control and Monitoring

Aria is an award-winning Advanced Transportation Management System (ATMS) that represents Fortran's next generation of central systems. The centerpiece component of Aria is a reliable real-time centralized Traffic Signal Control System. It provides an integrated platform for ITS initiatives including traffic signal control, real-time traffic management, signal priority and preemption and connected vehicle communications.

Aria is a time-proven product with more than two decades of ongoing product advancement that has enabled it to adapt to changes in technology and the industry as well as to meet new traffic challenges as they continue to evolve.

Open Architecture Design

Aria is an open platform system that delivers high availability, scalability, and security along with extensive traffic control capabilities. It centers around a modular and easy-to-use modern web-based user interface that enables access to system from any platform.

Support for standard communication protocols (NTCIP) and design flexibility enable Aria to be extended to manage other ITS applications and related data with minimal impact on existing system components.

Extensibility and Support

A variety of optional modules and our dedicated software development team enables Fortran to provide easy expansion and allows you to add the modules you need as your requirements grow. Our comprehensive hardware and software maintenance and support ensures that customers are able to capitalize upon these advancements.

System Features

Real-time Intersection Control & Monitoring

- Simultaneous control and monitoring of up to 2000 intersections
- Time-Of-Day and Traffic Responsive and real-time control and monitoring
- Comprehensive alarm management: generation, notification and filtering
- Support of both distributed and central control
- Multiple intersection configuration based on Time-Of-Day
- Intersection configuration import and export
- Standard and proprietary NTCIP MIB upload and download

Modular design and customizable based on the customer needs including support for:

- IP Cameras (CCTV)
- Dynamic Message Signs (DMS)
- Traffic Data Collection
- ntegration with AVL systems
- Integration with Video Detection systems
- Open APIs for data exchange with 3rd party systems
- etc.

Map-Driven User Interface

- User-specified map views and map layers from variety of sources
- Display of dynamic symbols on the map with user definable dynamic attributes
- Display real-time and historical status information on maps

Reports

- More than 35 predefined graphical and tabular standard and MOE reports
- Automated Traffic Signal Performance Measures (ATSPMs) reports
- Unlimited customizable reports
- Schedulable reporting capability

Real-Time Displays

- Real-time Global MOE dashboard
- Real-time and historical intersection and detectors second-by-second monitors
- Intersection graphic displays
- Real-time and historical Time Space Diagram
- Real-time and historical Cyclic Flow Profile

Transit Signal Priority

- Support of Central and Center to Center (C2C) Transit Signal Priority
- Connected Transit Signal Priority (C-TSP)
- Implementation of flexible and schedulable priority strategies
- Support of NTCIP 1211 standard
- Support of Siri 2.0 standard

Connected Vehicles

- Real-time monitoring and configuration of Roadside Units (RSU)
- Implementation of Virtual RSUs through LTE communication
- Web-based user interface to program standard V2I messages (e.g. TIM, MAP, SPaT)
- V2I messages analytics
- Open source V2I mobile app (Glide)
- Open APIs for 3rd party system integration

Support of NTCIP standard protocols

40+years

Aria ™ | Transportation Management System

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