rite JetStream™

A Tolling & Multimodal Event Processor

using big data infrastructure and a modern user interface with configurable microservices and pricing algorithms

Key Features

Toll Host Modules Using Leading Open-Source Solutions

- Big data infrastructure
- Modern UI/UX
- Support services and maintenance control

Configurable Micro-Service Deployments

- Flexible, efficient, and low-cost solutions

Support for Future Toll Architecture & Strategy

- Data processed from multiple sources and formats, from tolling to mobility service providers, parking, and beyond
- Configurable pricing algorithms (dynamic/congestion based, TOD, dwell, and static)
- Trip building

Flexible Message-Driven Rules Based Engine

- Rule processing management
- Complete auditability
- Processing complete transactions, from receipt to trip building to transmission into back office/CSC

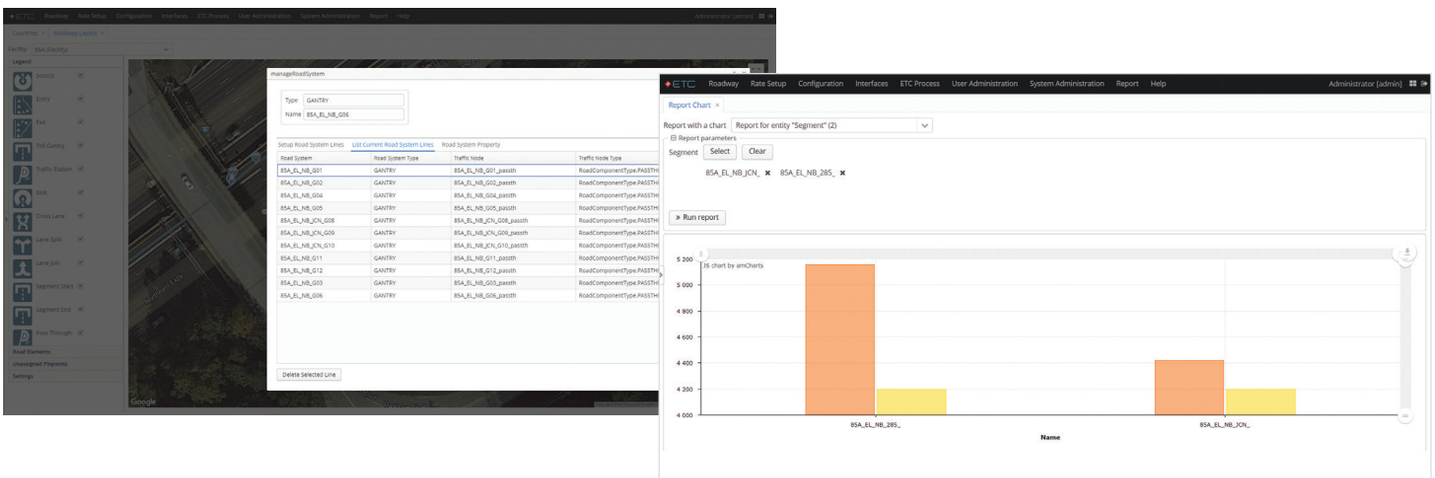
Module Integration Using Communication Bus

- Routing changes and facility-based routing
- High scalability
- Efficient cloud deployments

Proven and Scalable Functionality

- Traditional tolling and dynamic congestion-priced systems
- Smart cities, mobility-on-demand and connected vehicles processing engine

All processing modules and applications integrate through a central communications bus, providing authority-based transaction routing and high scalability, and enabling efficient cloud deployments. The architecture supports future tolling technology by enabling processing from multiple systems (multimodal), configurable pricing algorithms (dynamic/congestion, time-of-day, dwell, and static) and trip building.



Modular Solution • State-of-the-Art Technologies • Future-Proof
Flexible Integration Framework • Manageable and Auditable

riteJetStream™ uses production-proven open source technology with a big data infrastructure to provide toll transaction processing services from receipt through trip building and CSC posting.

riteJetStream Offers:

- Automatic Transaction Auditing
- Vehicle Identification
- Trip Building
- Multimodal Routing
- Rate Assignment
- CSC Posting
- Centralized Communications Infrastructure

Availability and Reliability

riteJetStream runs on a cluster of servers in virtual machines, eliminating single server hardware failures. The communication infrastructure runs on multiple servers, and the redundancy can be configured together with redundant storage. All messages are stored in three interchangeable servers to prevent data loss.

Data, Integrity, Accuracy, Auditability, and Reconcilability

riteJetStream's event-driven design is based on the message exchange of absolute entities to avoid inconsistent states. These messages carry record information, preventing information loss. This design provides full auditability of status changes for toll transactions, multimodal trips, or other entities.

Performance Scalability

Message-based architecture enables parallel and concurrent processing with horizontal scaling to accommodate growing hardware infrastructure and the expanding multimodal data sources base.

Configurability

riteJetStream is configurable through the UI without developer support and allows operators to make substantial changes to maintain system relevance. As a microservice-based system, riteJetstream can modify or add features quickly and efficiently.

Based on this architecture model, our solution maximizes the data used for predictive analysis and machine learning jobs.

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