PSA
PROFESSIONAL SOFTWARE ASSOCIATES, INC.

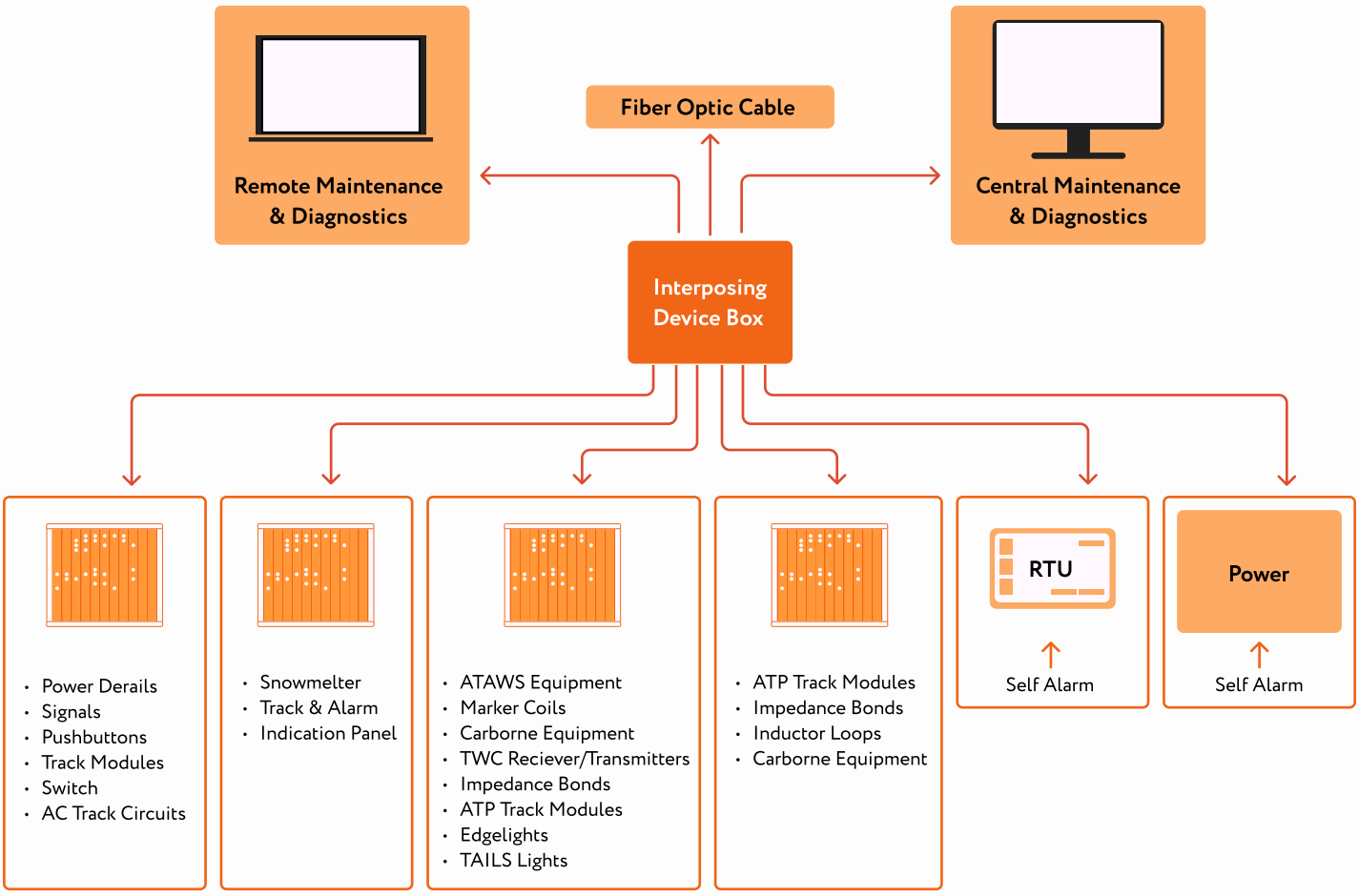
CENTRALIZED MONITORING FOR INTERLOCKING CONTROL SYSTEMS

Datasheet

PROVIDING SOLUTIONS FOR TOMORROW – SINCE 1993

Project objective

Develop a centralized system enabling comprehensive, real-time, and user-friendly monitoring of widely distributed wayside units within rail networks. This would enhance the diagnostics and maintenance processes for widely distributed wayside equipment to improve operational efficiency and reduce downtime.



Result

A two-component system for real-time, remote diagnostics of wayside devices enables their consolidated monitoring and precise failure identification with web-based access. It operates seamlessly with events, alarms, logs, corrective actions, and site-specific information with no need for additional field hardware. The introduced process ensures high data availability for maintainers and decision-makers while minimizing response times in the event of faults.

Scope of work

- Development of a data collection engine from remote devices with the use of a NoSQL in-memory database
- Rational database configuration and automated deployment for long-term data storage
- The configuration of current and historical data representation with the use of a proprietary software platform requested by the customer
- Increasing the number of possible monitoring units by extending system performance capabilities
- Implementation of advanced monitoring by adding new log types and extending their representation
- Enabling synchronization for each network unit
- Product roadmap preparation

Activities

- Requirements definition
- Architecture design
- Software development
- Reverse engineering
- Functional & performance testing
- Continuous support

About the project

Technologies

- Java
- Perl
- Eclipse/IntelliJ Idea IDE
- MySQL
- Vagrant
- Virtual Box
- Docker
- Git

Project size

- 1 Business Analyst
- 3 Software Engineers
- 1 QA Engineer

Duration

2.5 months