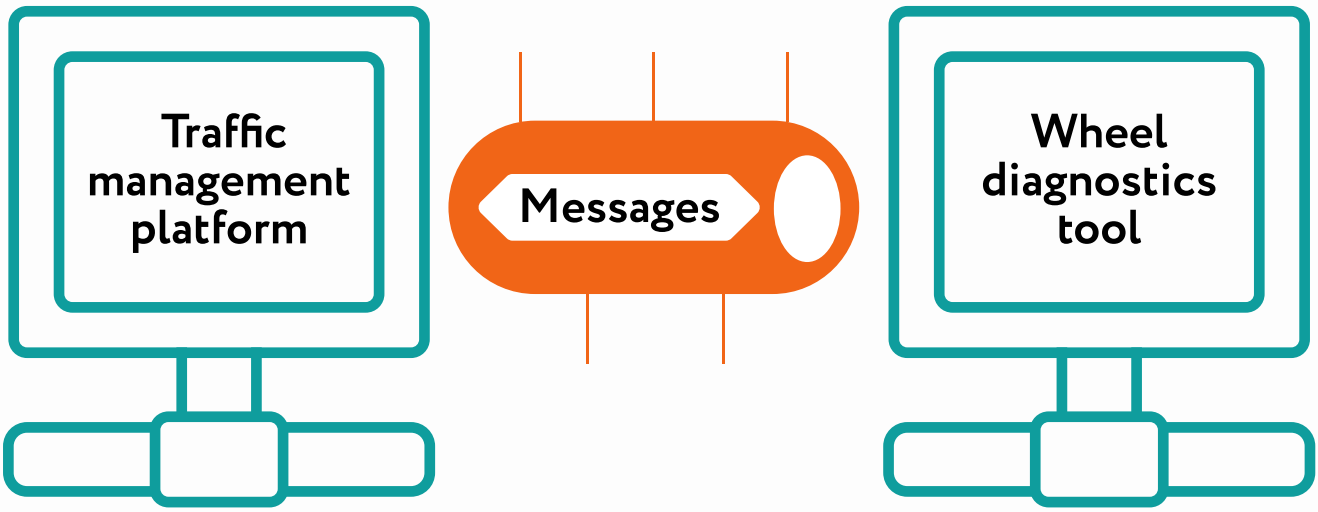
ADVANCED TCS: EMPOWERED TRAFFIC & WAYSIDE CONTROL

Datasheet

PROVIDING SOLUTIONS FOR TOMORROW – SINCE 1993

Project objective

Refine Train Control System to enable wheel diagnostics management from a centralized traffic control platform. Enhance the communication channel across wayside equipment to enable its remote diagnostics, updates, and control.



Result

The interactive, real-time traffic control platform is now enhanced with a new critical capability – centralized wheel diagnostics management, significantly streamlining the operator decision-making process. The internet-based communication channel between the interlocking system and both field devices and external rail signaling control equipment enables rapid response to failures as they occur.

Scope of work

- Implementation of control interface module, enabling complete communication management between traffic control and wheel diagnostics tools
- Design and development of a LAN-compatible communication protocol
- Development of a traffic platform simulator to support full-scale system testing and debugging
- Refinement of the wayside communication channel using an IP-based protocol for remote operations

Activities

- Requirements Definition
- Software Development
- Onsite Implementation
- Unit Testing

About the project

Technologies

- C++
- C Shell
- Eclipse
- GCC
- imake
- ssh
- VPN
- TCP/IP
- Valgrind
- WireShark
- UML

Project size

- 1 Business Analyst
- 3 Software Engineers

Duration

8 months