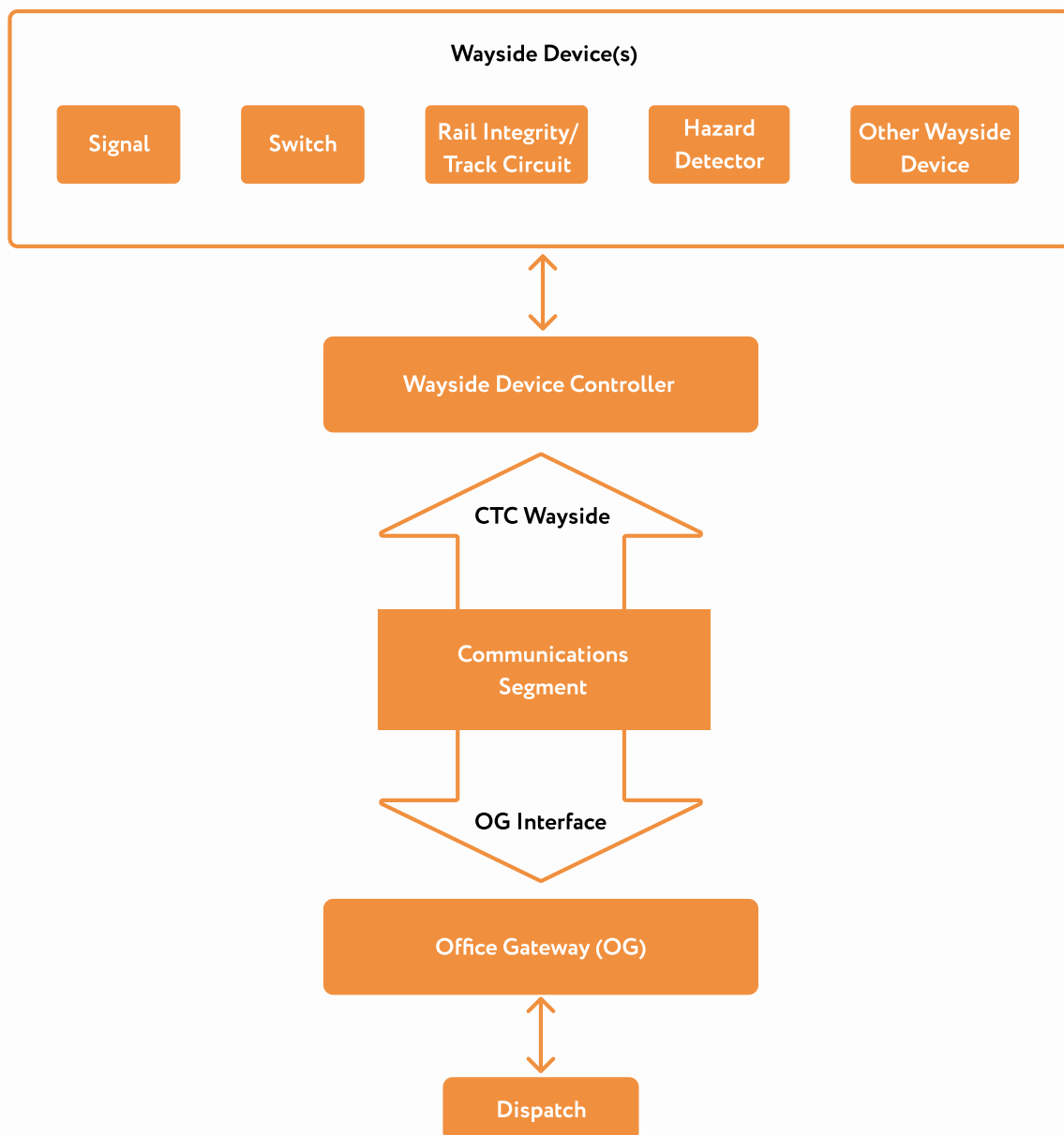# WAYSIDE – CTC COMMUNICATION SERVICE

Datasheet

Project objective

Create the prototype of a messaging service aimed at increasing of quality of communication between the Wayside Controllers and the Office Gateway of the Centralized Traffic Control (CTC) system. It was to empower operation and control for wayside devices by excluding communication failures.

Wayside Device(s)

| Signal | Switch | Rail Integrity/ Track Circuit | Hazard Detector | Other Wayside Device |

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Wayside Device Controller

CTC Wayside

Communications Segment

OG Interface

Office Gateway (OG)

↕

Dispatch

Result

The delivered prototype demonstrates the high reliability of the delivered Wayside – CTC communication solution. The service has passed the required tests and is ready to be implemented in the field.

Scope of work

◈ Creation of a PC-based WDC/CTC server test tool by modifying the SIM NG tool source code

◈ Implementation of EMP (Edge Messaging Protocol)

◈ Implementation of Class D protocol. Converting of Class D protocol into the standalone library to be used by any client service

◈ Updates for the previous version of the service based on ViPro. Add support for correct WDC/CTC control and status bits communications using the ViPro MLK API

◈ Implementation of CTC configuration and status pages to the ViPro Web Interface

◈ API implementation for CTC-to-web interface intercommunication

Activities

◈ Requirements clarification and updates

◈ Software design & implementation

◈ Testing & bug fixing

About the project

Technologies

- Node JS
- Express JavaScript
- HTML
- CSS
- C/C++
- Linux
- Eclipse
- Git

Platforms

- Embedded

Project size

- 1 person

Duration

8.5 months