

# Product Acceptance



## CASE STUDY



Vertex has a wealth of experience assisting asset owners, suppliers and assessors with the task of approving products for use in environments that require a level of Safety Integrity, SIL 0 TO 4.

As Vertex is independent of any asset owner, operator or equipment supplier it can take an impartial view and therefore provide an assessment based on the merits of the product or the benefit of application of a product to address a user's needs. For the transport sector where safety, reliability and availability is a key requirement for the infrastructure operator, Vertex has found that many, often new, product suppliers struggle to meet the acceptance requirements. This often leads to a protracted approvals process that results in higher costs to the supplier and delay in use of the product by the infrastructure operator. Vertex provides a full acceptance package to suppliers and infrastructure operators and has an incomparable record of accomplishment in completing approvals within short timescales.

Vertex has considerable experience of the Network Rail control systems, the Rule Book, operational procedures used by Network Rail, in particular trials, and testing that fall outside of the normal project related Works Testing (SWTH). Vertex has also supported a number of parties with the introduction of new signalling systems and other signalling products such as points, monitoring systems, control/command, level crossing, information, train systems and train detection systems. Vertex has supplied numerous safety cases to infrastructure & rolling stock operators, suppliers and carried out independent analysis on behalf of the approval parties such as Network Rail SRP. Vertex has also supported a number of infrastructure & rolling stock operators with the introduction of new operational procedures.

Example Product Acceptance Project;

**2018 to date: Enhanced Warning Device for footpath & bridleway level crossings (Project Meerkat)**

Support from proof of concept through to trial operation of the Lidar based warning device developed and manufactured by Costain Ltd for use on footpath & bridleway level crossings located on Network Rail Infrastructure.

**2013 to date: Rail Infrastructure Alignment Acquisition System (RILA)**

Provision of Product Acceptance support for the train mounted RILA system manufactured and operated by Fugro B.V. from acceptance to undertake trials through to full acceptance for use on Network Rail infrastructure.

**2016 -2017: Programmable Logic Controllers for use on Level Crossings**

Product acceptance support for trial use at Level Crossings of the HiMatrix Programmable Logic Controllers (PLC) manufactured by Hima-Sella on Network Rail infrastructure.

**2013-2015: Hima-Sella Tracklink**

Provided product acceptance support for the Hima-Sella Tracklink Selective Door Opening system for use by London Overground on Network Rail owned infrastructure.

**2012-2015: Modular Signalling & MCB-OD level crossings on Great Northern Great Eastern (GNGE)**

Product acceptance support for over 30 new products for Modular Signalling and Manual Control Barrier (MCB)-Obstruction Detector (OD) Level Crossing equipment.

**2012: Siemens ACM100 Axle Counters, Stansted Tunnel**

Product acceptance support from trial through to acceptance of the Siemens ACM100 axle counter system as a replacement to track circuits within Stansted Tunnel.

**2010 – 2013: Phoenix MB Hot Bearing Detector System**

Product acceptance support from trial through to full acceptance of the Phoenix MB Hot Bearing Detector System developed and manufactured by Signal & System Technik GMBH for use on Network Rail Infrastructure.

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**Vertex Systems Engineering** is  
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Number: 04440268.

A list of the types of systems product approval has been provided for since 2003 to date is as follows:

- Power supply equipment, such as lineside equipment, 400v and new products that supported SIN119, traction power, AT
- Train detection, track circuit (voltage, frequency), axle counter systems
- Interlocking, CBTC, RRI, Programmable Logic Controllers
- Point operating equipment, both on ballast/track and in bearer
- Lineside indications, signals, signage
- Transmission equipment
- Telecom equipment, FTN, GSM-R
- ETCS equipment, both line side and on board
- ATP, ATO other train protection (TPWS, AWS) and operation equipment
- Traffic Management
- Command & Control panel and VDU
- Monitoring systems such as WILD, HABD
- Ancillary equipment such as equipment cases, stretcher bars, connectivity, de-railers
- Survey systems
- Level crossing equipment, barriers, controllers, radar
- Staff protection, ATWS
- Productivity support tools used in the lineside environment
- Lineside engineering works support equipment

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