

# Case Study

# DOO CCTV – Software Assurance and Validation Support

## INTRODUCTION

Frazer-Nash Consultancy provided essential support to Petards Group in the delivery of its eyeTrain CCTV product into passenger service with London Overground Trains. The product is used on this service to enable driver only operation (DOO). The driver uses the CCTV to dispatch the train himself by ensuring the train is safe to depart the station.

## THE CHALLENGE

The Petards product, although installed on train and functioning in operational train tests as per the train manufacturer's expectations, had insufficient documentation to provide evidence for software assessment and certification. Without this evidence, the Petards equipment could not be used in passenger service for driver only dispatch of trains from stations, which is its primary purpose. As a consequence, the train manufacturer, Bombardier, would have been unable to provide a train to meet London Overground's operational requirements. Bombardier, and ultimately Petards, would have been subject to a penalty regime owing to late delivery of trains into service.

#### **OUR INVOLVEMENT**

With deadlines looming, Frazer-Nash was called in by Petards, with a remit to achieve the required software certification. Frazer-Nash's expertise in software development, and experience in rail software validation and delivery, provided the means for Petards to meet the software assessment and certification. Frazer-Nash devised a strategy to reduce the amount of evidence required, and provided analysis of the software in terms of its effect on the safety of the system. Frazer-Nash also provided essential documentation and fulfilled key roles within the Petards team.

#### THE OUTCOME

Frazer-Nash provided expert guidance and technical support to Petards on the meeting of railway software standards. With expert Frazer-Nash support, Petards achieved its software certification ahead of its customer deadlines.

#### Client

Petards

#### Business need

Software validation. Software quality assurance support.

#### Why Frazer-Nash

Dynamic elements within the rail industry require suppliers to be highly reactive. This experience demonstrates that Frazer-Nash can very successfully deliver extremely valuable support to rail customers at short notice.

Date project completed 29<sup>th</sup> November 2018







Offices throughout the UK and Australia