



TECHNICAL MEETING

<https://d10-dev-3.techsoc.org.uk/talks/evolving-client-challenge-signalling-rolling-stock>

The Evolving Client Challenge in Signalling & Rolling Stock

Presented by
Toby Nicholson

Tuesday 10 March 2026

Venue: 10th Floor (Small Auditorium 1), 5 Endeavour Square, Stratford

Commencing at 5:30pm GMT

Talk synopsis

The challenges of rolling stock and signalling procurement and delivery have fundamentally changed in the last 40 years from a combination of technology advances and supply chain consolidation. This retrospective discusses where we have come from, what has changed and how this impacts the skills and approaches required from a client in managing rolling stock and signalling procurements today.

Speaker biography

Toby Nicholson is the Principal Systems Engineer at railRS3 Ltd. Toby started his rail career as a student engineer with GEC Traction/Transportation Projects in 1983. After a brief diversion into plastic packaging R&D he returned to rail as the Electric and Electronics Engineer responsible for elements of the narrow gauge locomotives and rolling stock used in the construction of the Channel Tunnel.

In 1992, Toby was hired by an American consulting firm, Booz Allen & Hamilton, and relocated to San Francisco. He stayed with BAH (and successor companies) for 20 years. During this period, he was based in the USA, Australia, Hong Kong and London. His assignments ranged from diesel electric locomotives, monorails, light rail vehicles and EMUs in the rolling stock arena, while in signalling Toby helped to apply CBTC to brownfield railways across the whole implementation cycle in both North American and London.

In 2012, Toby formed railRS3 Ltd and has since completed assignments, usually for infrastructure owners but occasionally governments and suppliers, covering both signalling and rolling stock in multiple countries including Malaysia, the Philippines, Singapore, Australia, Netherlands, Finland, Montenegro and the UK. Technically he is happiest when faced with a nice safe braking model for a brownfield CBTC system, where all the challenges of taking a true systems approach are present.