



TECHNICAL MEETING

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Tyne & Wear Metro signalling system

Presented by
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Tuesday 11 November 2025

Venue: TfL building, Auditorium, 5ES, Stratford, London E20 1JN

Commencing at 5:30pm GMT

Talk synopsis

The Tyne & Wear Metro has been in operation since 1980, this presentation will provide a brief overview of its original railway origins, the Metro's inception and how it has grown to the current system of today. It will cover the present railway signalling system design and operation, highlighting some recent changes, including light-hearted unusual features found both within signalling and the railway as a whole. Completing with, what is in the future for what may be the largest Metropolitan railway in the UK, outside of London?

Speaker biography

Ken, currently Principal Engineer Railway Signalling for the Tyne & Wear Metro, was always aware of railways and their operation being a son of a freight operation railwayman. Ken's career began as an apprentice in 1980 when he joined British Rail as a Trainee Signalling Technician at Newcastle upon Tyne, involving all forms of signalling available at the time in the area (no digital signalling then); with many different teams, learning the craft and where the best Cafes were! As part of this training, he was involved in signalling recovery works, before the Metro took over parts of British Rail infrastructure. After completing the scheme, he continued for a short while as a Signalling technician. Unfortunately the railways of the North East were in decline, and progress within British Rail was limited. Ken moved to London to work for GEC General Signalling as a Signal designer; being involved in British Rail traditional signalling projects, Freight railway in Brazil and the first full British Rail Solid State interlocking 'Inverness', after the successful trial at 'Leamington Spa'.

During this time he was approached by a small computer hardware support company in the North East of England. Ken continued with computers and networks with a bias for hardware and system administration, through the 1990s to 2010 in various roles and organisations. However has always kept in touch with railways, mainly through his father's work.

In 2010 Ken found Nexus, which operate the 'Tyne & Wear Metro', were looking for a Railway Signalling Technician. It had been long time, was it like riding a bike? With some reading up and refreshing, Ken was successful in obtaining the role, not realising how rare railway signalling experience is in the 2000's. Nexus operates in a lean manner, with a small core of signalling staff; an Engineers post became available in 2015, alongside the Principal Engineer 'PE', Head of Railway Signalling. Ken was successful in this post and due to retirement, the PE role became vacant in 2016. Ken applied, was successful, with a steep learning curve and support from colleagues all through his time at Nexus, has been Principal Engineer

Railway Signalling for the Tyne & Wear Metro to date.

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