



A new approach to Railway Operations

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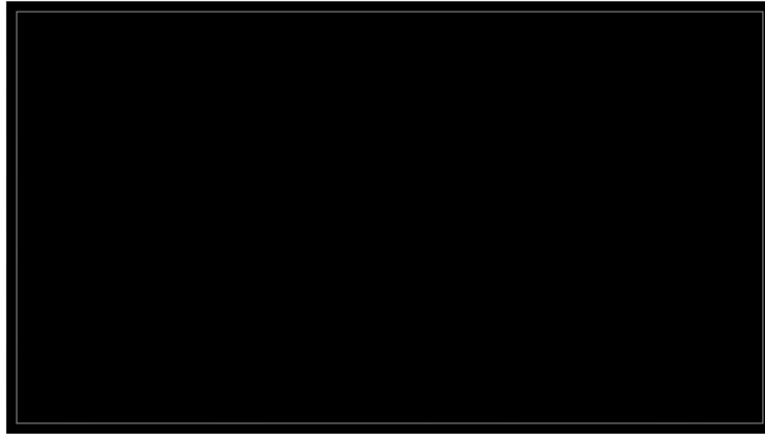
Who is the customer?



<http://www.businessdictionary.com/definition/customer.html>



New Tube for London



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<https://www.youtube.com/watch?v=Z3Q0FZUKHKY>



New Tube – New Start

- New Tube for London (NTfL) is culmination of
 - cancelled Piccadilly Line Upgrade (PLU),
 - Remote Train Operation (RTO) and EVO train project,
 - learning from Sub Surface Upgrade (SUP) and
 - benchmarking from worldwide metros
- Scope includes new rolling stock, signalling, control, power and associated infrastructure on four tube lines
- Once in a lifetime opportunity to genuinely understand the needs of the customer and design a railway for them

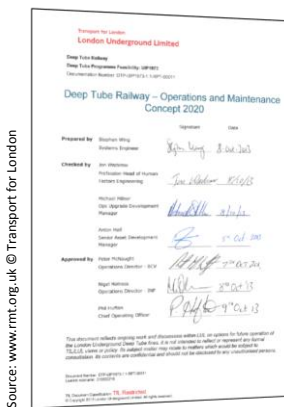


Who delivers the railway?



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Operations & Maintenance Concept



Source: www.rmt.org.uk © Transport for London

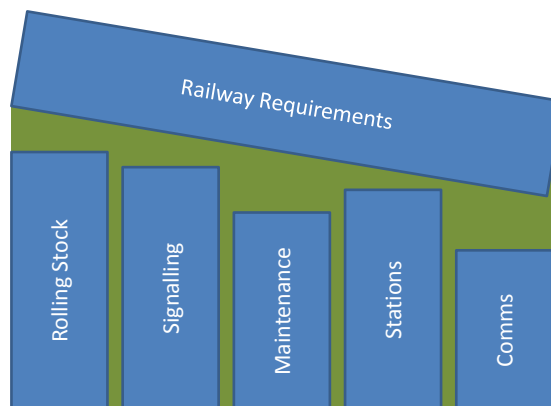
...a single, customer focused organisation and asset portfolio with common goals and values all towards the delivery of a reliable service...

A new way of thinking about a railway

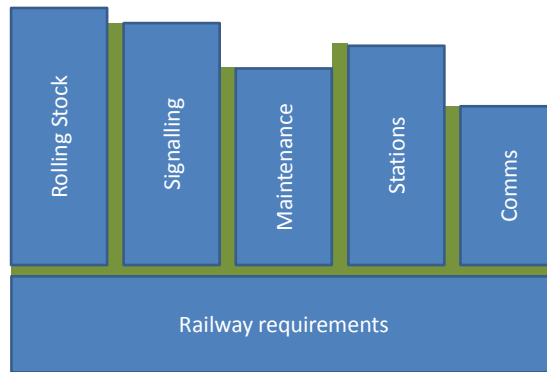
- All of the geographic estate that supports the delivery of customer service on the line becomes “*the railway*”
- Create a *Railway Control System* that controls all aspects of *the railway*
- Form a *Railway Control Organisation* which can control assets through the Railway Control System
- Once you’ve got your new railway, it always stays as “*the railway*” including during engineering windows



Requirements capture



Requirements capture



Further NTfL reading

- Transport for London (2014) *New Tube for London Feasibility Report*, London: TfL.
<https://www.tfl.gov.uk/cdn/static/cms/documents/ntfl-feasibility-report.pdf>
- London Underground (2011) *Deep Tube Railway - Generic Operations and Maintenance Concept - 2020*, London: TfL.
http://www.rmtlondoncalling.org.uk/files/deep_tube_railway_generic_operations_and_maintenance_concept_2020.pdf
- Bull, J. (2014) *The New Tube For London: The Driverless Train With A Driver*
<http://www.londonreconnections.com/2014/new-tube-london-driverless-train-driver/>
- Pedantic of Purley (2014) *Upgrading the Piccadilly line: Calling time on Mind the Gap?*
<http://www.londonreconnections.com/2014/getting-radical-piccadilly-line-upgrade-2/>

Summary

- The customer is always right – just not always the same customer and not all at the same time
- Embed operators and “customer” in your team
- Review your work from the outside and look in at how it’ll be used in practice and where the gaps are
- It can be easier to check you’ve got everything there and often more stable if you design the overall end state first and deconstructing it rather than hoping to glue together individual elements



Questions?





A black rectangular graphic with white and light blue elements. At the top center is a large, stylized letter 'M' composed of parallel diagonal lines. Below it, the text 'RenlimM' is written in a clean, sans-serif font. Underneath that is the phone number '+44 (0) 20 3488 0912'. At the bottom, there are three icons: a Twitter bird, a mouse cursor arrow, and an envelope. Below each icon is its corresponding contact information: '@renlimm', 'renlimm.co.uk', and 'enquiries@renlimm.co.uk'.

M

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