

ITS Application Focus

14th July, 2015

- Porterbrook 144e Life Extension Demonstrator

Porterbrook Leasing has recently unveiled it's Class 144e demonstrator in Derby. This concept, realised in partnership with Lloyds Register Rail and RVEL as well as other collaborators, revolves around the class 144 Pacer Diesel Multiple Unit which has seen service since 1986. It is intended to demonstrate what can be achieved by refurbishment in lieu of outright replacement, in situations where the rolling-stock itself is deemed to be fundamentally sound.



144e Concept and Scope

As part of the drive to comply with PRM TSI accessibility regulations, and to provide an enhanced passenger experience, Porterbrook unveiled their first fully refurbished 144e on June 26th. The revisions included accessibility improvements throughout, with additional space and access enhancements required to be implemented by the end of 2019. However, the refurbishment scope went much further. It showcased how technology, and the concept of a 'connected' DMU, could be of real benefit to operators and users, by providing real-value services while offering additional future return on investment. UR Group were selected for it's technology know-how and supply chain capability to provide the latest Ethernet backbone technology.

Technology and Return on Investment

At the core of the technology offering is the connectivity; in this case the Ethernet backbone. The clear benefit of this in terms of enriched passenger experience is WiFi access and enhanced passenger information systems (PIS). However, these systems give operators the ability to provide additional advertising and targeted marketing opportunities. They can be further optimised by adapting to the demographic footfall, depending on the hour and day of the week, and even the geo-location (geo-fencing) of the unit. Consider a city-centre commuter's interest and available viewing time versus that of a mid-day leisure traveller traversing the countryside.

Moreover, with this backbone in place, operators can take advantage to incorporate additional connected technologies intended for the purpose of improving operational services, maintenance and security. In the case of the 144e this includes automation of announcements and information systems as well as forward-facing and in-car security CCTV systems. However, it can be leveraged further to provide connected data for environmental and maintenance conditions, passenger-counting, automated ticketing and fare-collection as well as a plethora of other operational enhancement systems. All of these technologies combine to provide a compelling case for real-world return on investment.

Services from UR Group in this application included design concept and functional layout support, integration with complimentary and connected technologies, design-proving and pre-install live demonstration, through to kitting services and the fulfilment of the hardware requirement.

The 144e program is successful in demonstrating how existing, sound and viable rolling-stock can be modernised and adapted for future directives and at the same time take advantage of new technology to increase the ROI value of these DMU's for many years to come. For UR Group, all three of our core customer-focused elements; Technical Competence, Supply Chain Management and Sales and Fulfilment were leveraged and we feel proud to be associated with the program.

You can read more here:

Read the Porterbrook article here:

<http://www.porterbrook.co.uk/pages/corp2015.html>

Download the Brochure:

<http://www.porterbrook.co.uk/downloads/144Brochure.pdf>

Railway Gazette Article

<http://www.railwaygazette.com/news/passenger/single-view/view/porterbrook-unveils-pacer-dmu-life-extension-demonstrator.html>

About UR Group

Through our mission to enable global connectivity, UR Group is advancing public transport systems.

Our customer-driven approach brings together the key elements necessary to implement robust, efficient and secure solutions for connected intelligent transport networks. With our application of industry expertise and integrated technologies, we are helping to improve key areas such as security, passenger comfort, on-board and remote communications, resource management, diagnostics, monitoring and operational efficiency. While these solutions are focused on delivering real world benefits to operators and users alike, we understand that it is paramount that they also deliver a positive return on investment.

We specialise in industrial-grade solutions for rail, bus, infrastructure and marine and are sensitive to the environmental and application-specific requirements for each sector. These technologies include communications networks and links for data, voice and video, rugged and reliable computing platforms and intelligent security systems.

Our product and solutions expertise are enhanced further by the addition of value-added services such as custom design and development, system integration and supply chain services. In an environment where efficiency and vendor management continue to challenge, UR Group offer a value proposition which is unique in the marketplace today.

We are enabling global connectivity.

INDUSTRIAL COMPUTING – INDUSTRIAL NETWORKING – SATELLITE COMMS – SATCOM-ON-THE-MOVE – WIRELD & WIRELESS COMMUNICATIONS LINKS – FIBRE LINKS – CCTV & SECURITY SYSTEMS - SMART CHARGING



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