



From PIS to Multimedia Services: Standards and Market Trends

Davide AMATO¹, Victoria CALLEJA DURO², Laurent LLERENA³, Eric LAVILLONNIERE⁴, Tom LANE⁵

¹Sadel S.p.A., Castel Maggiore (BO), Italy

²International Union of Railways, Paris, France

³SNCF Rolling Stock Engineering Center, Le Mans, France

⁴Mitsubishi Electric R&D Centre Europe, Rennes, France

⁵Ampetronic Ltd, Newark, United Kingdom

Corresponding Author: Davide AMATO (davide.amato@sadel.it)

Abstract

In the design of modern trains, there are strong requirements from railway operators to enable the passenger to be highly connected: fully informed about their train journey, entertained with songs, movies and internet surfing. They want to have also the whole knowledge about their door-to-door travel with details about other means of transport and real-time update about connections at their train destinations. Also the train staff (train driver and train conductor) requires advanced and complete interaction with the passengers. Equipment must provide the monitoring of the whole train and enable fast response to customers' requests (i.e. Passenger Alarm System). The train operator has to comply also with regulations for Persons with Reduced Mobility and further additional national requirements for blind and hearing impaired people.

The needed solutions already moved the border from an obsolete Passenger Information System (PIS) to a comprehensive MULTIMEDIA System with several services. Special attention must be considered for Safety and Security aspects for some of their functionalities.

The established UIC-IEC SLG (Strategic Liaison Group) MULTIMEDIA Subgroup collects expertise of train operators, train builders, system integrator and product manufacturers. The subgroup collected several Use Cases from the most important players of the railway market. The analysis of the acquired information and identification of common solutions is allowing the subgroup to provide inputs for both organizations, UIC and IEC, to update existing standards or create new ones.

Keywords: Rolling Stock, PIS, MULTIMEDIA, IEC Standards, UIC Leaflets.