Using the Railway Mobile Terminals in the Process of Validation and Vending Tickets

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EXECUTIVE SUMMARY

This article describes the functional and technical side of Railways Ltd. mobile terminals project. The advantage of mobile terminals lies in the greater efficiency of railway tickets vending, the control and real-time supervision of complete process of vending tickets in the country. Mobile terminals allow railway conductors to automatically vend and verify tickets. Also, information about each sold ticket is transmitted wirelessly via GSM/GRPS in real time or near real time. The information about sold tickets is received by the central server and stored in the main database. The data are available for analysis and report making.

Keywords: applications software; centralized/decentralized organizations; client-server; distributed systems; interface characteristics; IS culture; organizational culture; public sector; wide area networks; wireless technologies

ORGANIZATION BACKGROUND

Railways Ltd. is one of the railway companies in the Republic of Croatia. The company was founded in 1990 after the country gained its independence from Yugoslavia. However, the history of railway traffic in Croatia starts in the 19th century with the first railway line operating in 1860.

Today, the national railway network connects all major Croatian cities except Dubrovnik. As can be seen in Figure 1, due to geographic reasons, Croatian national railway network is quite spread out. Statistically, railroads are mostly mountainous with only one truly straight and fast line in the Slavonia lowland region that connects the capitol Zagreb and the city of Vinkovci.

The country of Croatia is located well geographically on the crossroads of Central, Eastern, and Southern Europe. There are three Pan-European Corridors running through Croatia forming the backbone of the railway infrastructure (see Figure 2). Croatia has direct railway lines to Slovenia, Hungary, Italy, Austria, Switzerland, Slovakia, France, Germany, Bosnia-Herzegovina, Serbia, and Montenegro. Also, there are indirect lines to almost all other European countries.
Figure 1. Croatian railway network

Figure 2. Pan-European corridors