Abstract

This paper presents a component of the ongoing research project Integrated Real-time Mobility Assistant (IRMA). The component's name is Compensation Engine. IRMA is a software system that targets the personal mobility in a near future scenario, based on green, shared and public transports. IRMA handles end-to-end itineraries that may involve multiple transport systems, and supports the users in schedule and re-schedule their itineraries. This paper focuses on the description of the Compensation Engine component, which monitors the progress of the journey and spots possible transportation issues. The component alerts the user when the journey can not be completed and allows the rescheduling of the route. The Compensation Engine has been implemented and proved on test cases.

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**Index Terms**

Computer Science
Software Engineering

**Keywords**

Transport systems; software engineering; applications of computer science in modeling data and information systems; smart cities; urban mobility; human mobility; mobility integrator; service oriented architecture.