

An Event processing Architecture for an RFID based Logistics Monitoring System

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Abstract

Decreasing sizes and a static decline in production costs are fostering the use of RFID tags and sensors in cross-company logistics networks. The EPCIS specification comprises interface standards for the capturing and querying of RFID based event data and its storage in a standardized event data format. Additionally, modern technologies for event processing enable novel event based applications. This contribution examines the potential of the given technological means for the monitoring of complex inter-organizational logistics processes. Based on a use case scenario in the cool chain industry, we identify requirements for the monitoring of individual quality objectives and process constraints using distributed event data. We describe the architecture of a monitoring system addressing these requirements and argue that such a system can be nearly seamlessly integrated into existing EPCglobal compliant RFID infrastructures.