Challenges for Processing Events in Logistics Processes

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Extended Abstract

Business Process Management has proven to be a useful approach to increase the performance of enterprises, with most of its success stories being associated with office work and service processes. Specific challenges are faced in logistics processes, which partially involve physical transportation activities and also casual office work. On the other hand, there are various opportunities for taking advantage of the increasing availability of GPS data stemming for instance from transporters of airplanes and ships or from onboard devices of trucks. This can be of value for monitoring transportation activities in multi-modal logistic processes.

The mentioned challenges are addressed by GET Service, a research project in the EU's 7th Framework Programme. The main aim of this project is to develop the European Wide Service Platform for Green European Transportation. One area of the specific challenges relates to the combination of BPM concepts and complex event processing with needs of logistics monitoring, including the discretization for monitoring status based on streaming events, aggregation for monitoring activities based on fine-granular events and correlation for monitoring cargo based on events of different focus [CBM+13, GCM09].

References

[CBM+13] Cristina Cabanillas, Anne Baumgrass, Jan Mendling, Patricia Rogetzer, and Bruno Bellovoda. Towards the Enhancement of Business Process Monitoring for Complex Logistics Chains. In *11th International Conference on Business Process Management Workshop on "Process-Aware Logistics Systems"*. Springer, 2013.

[GCM09] Kerstin Gerke, Alexander Claus, and Jan Mendling. Process Mining of RFID-Based Supply Chains. In *Proceedings of the 2009 IEEE Conference on Commerce and Enterprise Computing*, CEC'09, pages 285–292, 2009.