1 Motivation

Fog computing combines processing at the edge of the network (e.g., at Internet of Things (IoT) devices) with cloud-based computational resources [2]. Within the fog, applications are able to roam freely, i.e., software may be run at the edge of the network or within the cloud, depending on how many resources are necessary to provide a particular service. Among other application areas, fog applications could be used for the processing of data in event-based systems in order to decrease the necessary data transfer between data sources and event processors. However, so far, there is no concrete solution allowing to (pre-) process events at the edge of the network and to combine this with the capabilities of fog computing.

Therefore, within this thesis, it is the goal to conceptualize and implement a solution for fog-based event processing. For this, the idea of eventlets [1] can be used as a foundation and should be extended to cater for specifics of fog computing.

2 Work Description

- Literature work on distributed event processing and fog computing.
- Conceptualization of a model for fog-based eventlets (or a similar concept).
- Implementation of the model.
- Qualitative and quantitative evaluation.

3 Further Information

Start: Immediately (might also be later)

Basic Requirements: Very good implementation skills; knowledge about cloud computing and the IoT is helpful

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References
