

## Switching Push - Pull: An Energy Efficient Notification Approach

### Reference:

D. Burgstahler, N. Richerzhagen, F. Englert, R. Hans, and R. Steinmetz, "Switching Push - Pull: An Energy Efficient Notification Approach". In: 3rd International Conference on Mobile Services (MS 2014), Anchorage, AK, USA, 2014, p. 68-75. ISBN 978-1-4799-5060-7.

### Abstract:

An increasing number of modern smartphone applications are dependent on information updates from the cloud. To realize such information updates mainly two communication approaches are common, namely push- and pull. Due to different communication patterns both approaches differ in their energy consumption and notification latency. The energy constrained nature of mobile devices entails a sensible selection of the appropriate notification approach. In this paper we provide an evaluation of the energy consumption of both communication approaches. Based on this we provide a transition approach that is able to use the best of both, low latency and low energy consumption. Our results show that energy savings of up to 7% of the total smartphone battery per day can be achieved by switching between both approaches, depending on the context.