Design and Implementation of a Reverse Publish-Subscribe Scheme for the Internet of Things using CoAP

Sinziana-Maria Sebe, B.Sc., TU Clausthal

With devices becoming more and more interconnected, we see the Internet of Things rapidly growing. One should take advantage of this fact by extending the idea of cloud computing, and move computationally difficult tasks to dedicated devices. Within a constrained device network this idea lends itself perfectly, with sensor motes requesting processors for complex operations. Whereas normally the server would require the client to subscribe to it, the concept of a reverse subscription takes the opposite approach. The number one concern for a constrained device is its lifespan, which should be extended by any means possible. By using a communication protocol specifically designed for little devices, namely CoAP (Constrained Application Protocol) and the concept of reverse subscription, the performance of such a network can be greatly improved.