Data Analysis as a Service: an infrastructure for storing and analysing the Internet of Things

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Abstract

We have many small-scale solutions for making the Internet of Things work, but very few research oriented full-stack implementations for gathering, storing, and analysing data. Data Analysis as a Service (DAaaS) is one attempt at solving the problem: it accepts, stores, and provides both real-time and static access to the data using JavaScript throughout the entire stack. Storage of time-series data in a regular document database, and machine-to-machine communication through standardised APIs are the key considerations. One common research challenge in the Internet of Things, *security*, is not considered thoroughly by the implementation and should be considered to be of utmost importance in future research.