

# **Real-time visualization of analyzed industrial communication network traffic**

## **Design Decisions**

PSE Group

Fraunhofer Institute for Systems and Innovation Research ISI

Advisor: M.Sc. Ankush Meshram

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## 1 Overall Design

## 2 Front end

## 3 Client-Hub Communication

- The communication protocol websockets was selected as it is more performant than http and supported by both Javascript and Java.

## 4 Back end

**Java as programming language** Reason: it has APIs for MongoDB, Kafka, and websockets and is well supported by development tools (testing, deployment etc.).

**feeding the data from Kafka to the MongoDB and having the Hub access only the MongoDB** Reason: to simplify data processing (filtering, aggregating).

**Apache Tomcat as webserver** Reason: established platform for web applications, integrates well into a java-oriented development environment.