Department of Computer Science
Technical University of Cluj-Napoca

Distributed Systems

Laboratory activity

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Contents

Chapter 1

Requirements

Implement a Monitoring and Communication Microservice for the Energy Management System. The microservice is based on a message broker middleware that gathers data from the smart metering devices, processes the data to compute the hourly energy consumption and stores it in the database of the Monitoring and Communication Microservice. The synchronization between the databases of Device Management Microservice and the new Monitoring and Communication Microservice is made through an event-based system that uses a topic for device changes (sends device information through a queue for the Monitoring and Communication Microservice).

Chapter 2

Conceptual architecture of the distributed system

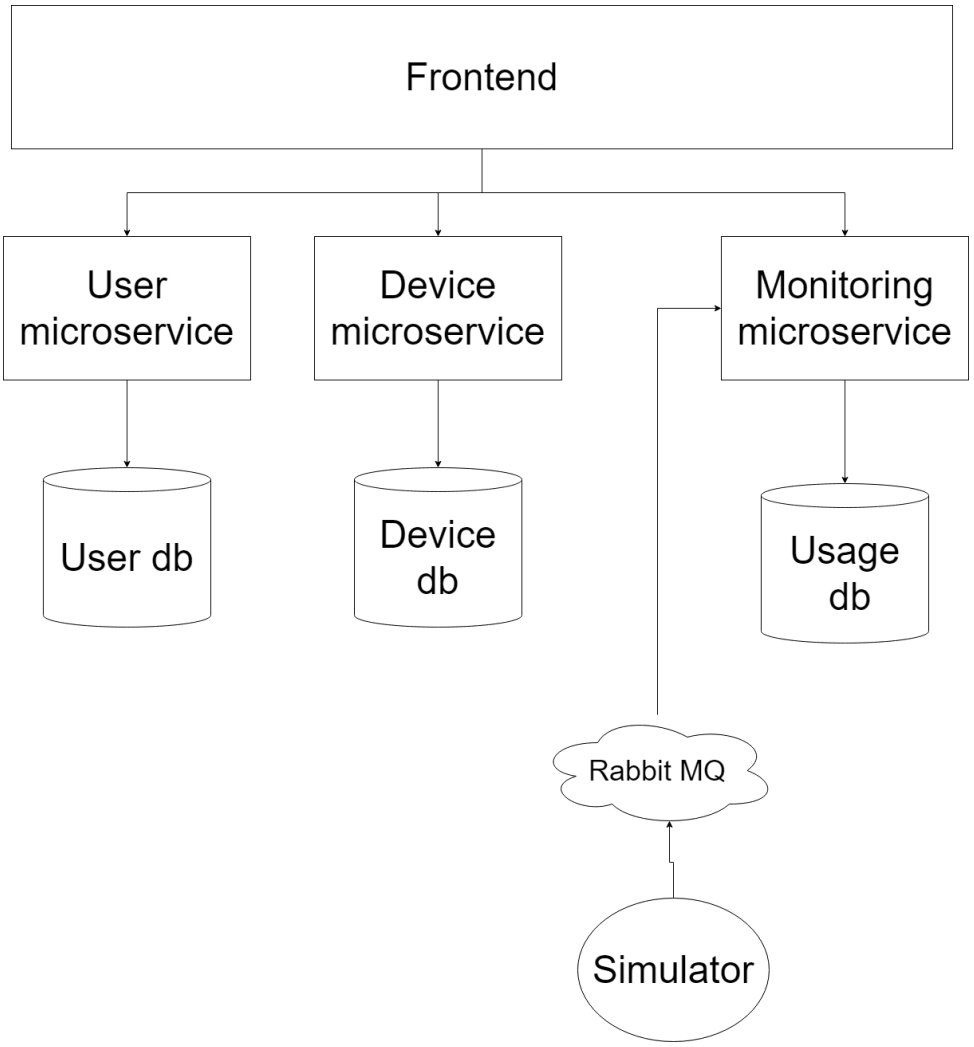

Figure 2.1: Conceptual Architecture

Chapter 3

UML Deployment diagram.

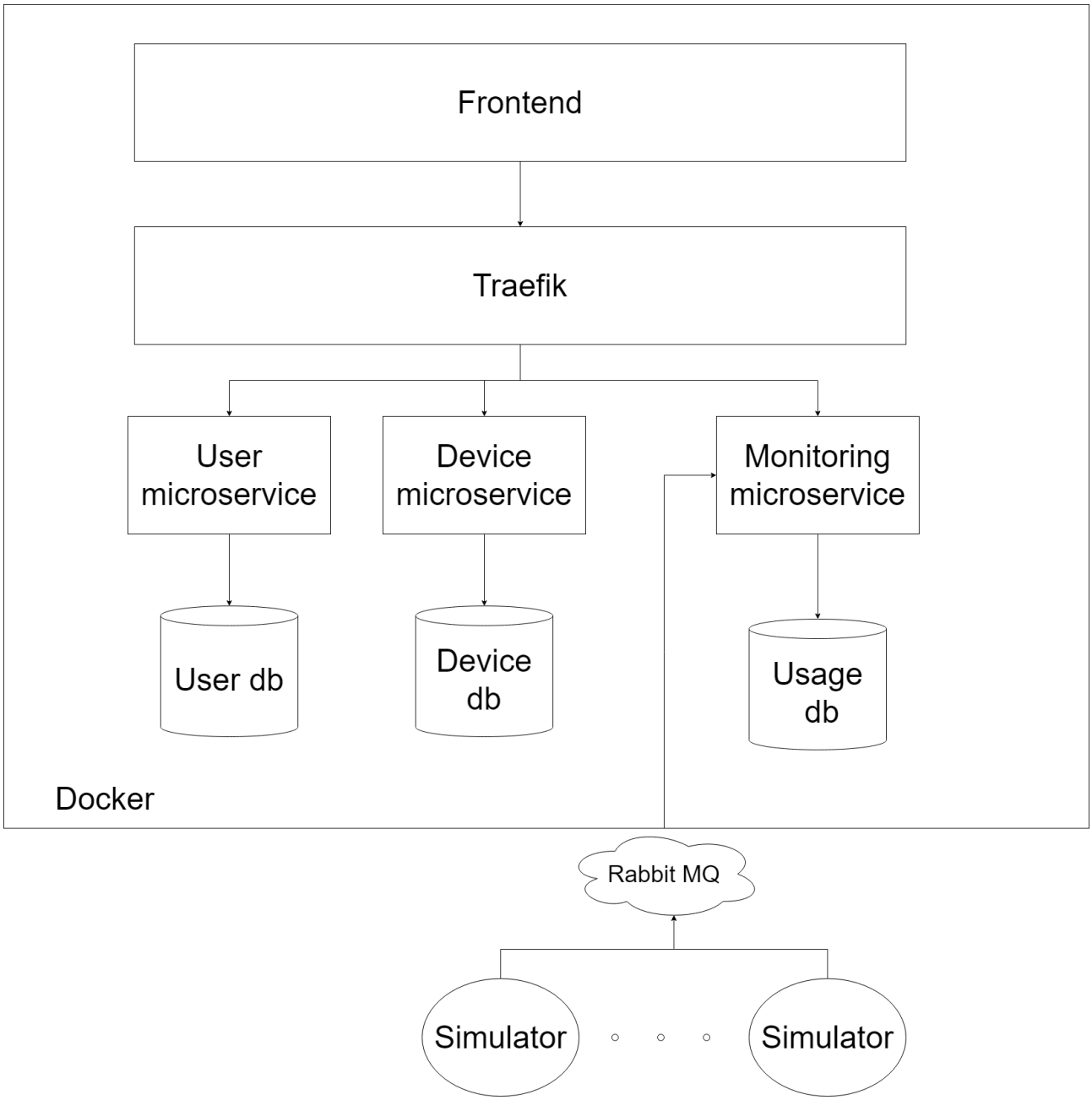

Figure 3.1: Docker deployment diagram