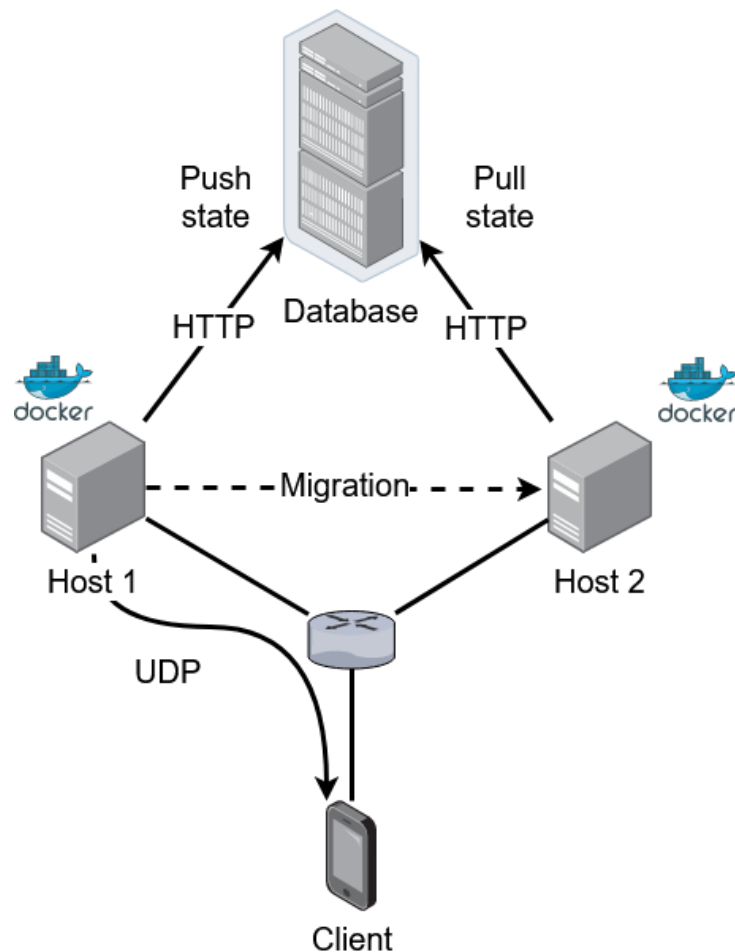


“Lean docker Migration through an HTTP database”

Project Topic in OS Kommunikationssysteme WS 2019/20



Summary: Docker containers are known for their simplicity and portability. This is needed in live migration situations, where the application moves from one host to another with zero downtime. However, the current Docker algorithm takes too long to make the user unaware of the migration. In this project, the student will build a framework that migrates Docker containers through the concept of “Lean NFV”, that is, a database will store the state of the machines and the communication will be done through a REST application.

Components to learn: Software defined networking, Network function virtualization, Docker containers, Lean NFV

Requirements: Basic knowledge about communication networks, bash language

Steps of the project to go through:

Learn about SDN/NFV, Docker, and Mininet.

Create a network in Mininet with the Comnets Emulator

Develop the communication protocol to provide low migration downtime.

Keywords: SDN, NFV, Docker, Mininet, State replication, distributed systems

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