Efficient Synchronization of Linux Memory Regions over a Network (Presentation Notes)

Felicitas Pojtinger

2023-08-29

Hochschule der Medien Stuttgart

- Introduction
  - Title slide
  - ToC
  - About me
  - Abstract/introduction
- Methods
  - Pull-based synchronization with userfaultfd/Userfaults in Go with userfaultfd
    - Technology section: Memory organization & hierarchy
    - Technology section: Page faults
  - Push-based synchronization with mmap and hashing/file-based synchronization, discussion
    - Technology section: ‘mmap“
    - Technology section: Delta synchronization
  - Push-based synchronization with FUSE/FUSE implementation in Go, discussion
    - Technology section: FUSE
  - Mounts with NBD/NBD with go-nbd
    - Technology section: NBD
  - Push-Pull Synchronization with Mounts/managed mounts