## Digital Shadow: Biometric Sensor

Master's Thesis Seminar

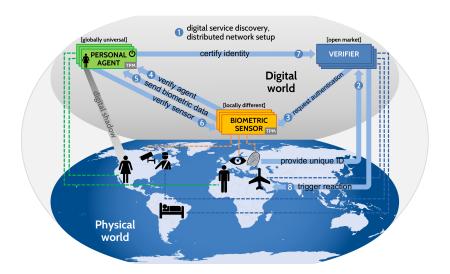
Michael Preisach



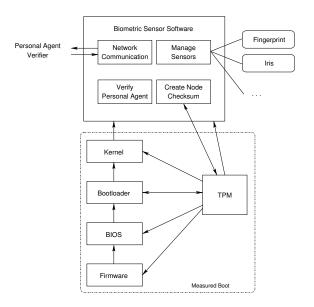
June 19, 2018

1/6

# Project Overview Digital Shadow



### Biometric Sensor: Tasks



#### Focus of this Thesis

- Measured Boot with TPM and GRUB
- measure all relevant software parts
- extract the data of a biometric sensor
- send sensor data to Personal Agent
- cryptographic verification of running software
- ...

# State of the Project: What is done

- bought small PC with separate TPM 2.0
- installed a version of GRUB with TPM 2.0 support
- learned Rust programming language
- read parts of the book Trusted Computing Platforms TPM2.0 in Context

## State of the Project: Problems and Next Steps

- bought hardware does weird things with the TPM (Communication with the service desk of the manufacturer ongoing)
- special version of GRUB is not yet booting properly
- when GRUB is booting properly, Rust should access the written registers in the TPM and generate the checksum