Privacy Management in Ubiquitous Environments

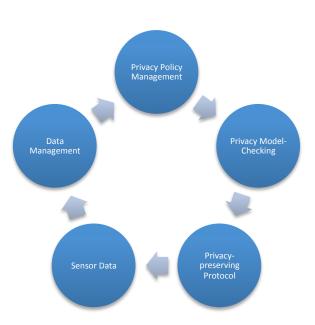


Challenge:

- Interpreting users privacy intents and translating them into actionable rules.
- Checking the consistency of rules.
- Invoking appropriate privacypreserving protocols to comply with users intents.

Solution:

- Automatically generate privacy rules from high-level intents via natural language and actions.
- Model-checking technique is used to ensure that rules correctly enforce users privacy intents.
- Automatically translates control policies to privacy preserving protocol executions via protocol compiler and protocol negotiation.



Project info (1657774, Boise State University, Hoda Mehrpouyan,

hodamehrpouyan@boisestate.edu)



Scientific Impact:

- Develops a suite of requirement analysis specification to translate users' informal privacy intents into actionable, verifiable privacy.
- Develops computational tools and algorithms to identify shifts in users' disclosure behavior.

Broader Impact:

- The proposed approach is applicable to a large spectrum of applications (e.g., health-care, connected automotive systems, and smart cities).
- Due to the multidisciplinary nature, this work will present an ideal avenue for training both undergraduate and graduate students