

Erik Sy, Tobias Müller, Matthias Marx and Dominik Herrmann

The protection of users' privacy is an important property of smartphone apps. However, most apps do not honour the privacy of their users. Privacy enhancing technologies (PETs) provide solutions to address privacy risks. AppPETs **aims to foster the adoption of PETs** by encapsulating them in easy-to-use frameworks. Nonetheless, a framework on its own is not sufficient: Many PETs involve a dedicated server-side infrastructure, e.g., multiple, possibly non-colluding servers. Therefore, app developers who are willing to integrate PETs into their apps need access to reliable PET infrastructure services.

### Privacy Mindset of App Developers

Unawareness of privacy best practises and PETs to address data protection on mobile devices.

## Privacy Frameworks for App Developers

Hardly any tools exist to assist the developer with the implementaion of data protection methods.





Privacy Seal with corresponding audit

## P-Lib

- Software library for app developer
- Features to protect data sinks and sources

### ACN

- Provides unlinkability based on IP addresses
- Adapted for usage within mobile networks

#### **P-Service**

 Provides PETs such as PIR, ABC and secure multi-party-computation
 Non-colluding operators

mediaTest

digital

## Audit

Validate data protection behavior of an app
Privacy Seal is granted for successful audits

# Example Apps

News Reader The integration of the AppPETs interface to anonymization networks allows an app to achieve **receiver anonymity** for its users. To allow the access of paid content while maintaining receiver anonymity for the reader requires an **ABC P-Service**.

ToDo List

**DAI**-Labor

UH

Universität Hamburg

To keep a secret to the user only and to share such secret among multiple devices, the AppPETs interface of the **Secure Storage P-Service** provides solutions for data encryption and key management to help app developers to avoid common pitfalls.

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Sicherheit durch Wissen