ReCRED

From Real-world Identities to Privacy-preserving and Attribute-based CREDentials for Device-centric Access Control

EEMA
London, July 4-5

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- Project funded by EU under H2020
- Call Identifier: H2020-DS2-2014-1

www.recred.eu
ReCRED Context

8.15 billion Mobile connections

5.02 billion unique subscribers

$1.06 trillion Revenue/year

6.4 billion Connected "Things" Will Be in Use in 2016*

81% of confirmed data breaches involved leveraging weak, default or stolen passwords.

Source: https://www.gsmaintelligence.com/
*Gartner
ReCRED’s goal

- To promote the user’s personal mobile device to the role of a unified authentication and authorization proxy towards the digital world.
ReCRED concepts

- User to Device & Device to Service authentication

Binding digital Identity with Real-world Identities

Account less access through verified identity attributes
  (eg. Age, location etc)
ReCRED’s adopted Technologies and Standards
ReCRED’s adoption of FIDO
ReCRED reference Architecture
ReCRED’s Pilots

**Pilot 1:**
Device-centric campus WiFi and web services access control

**Pilot 2:** Student authentication and offers

**Pilot 3:** Attribute-based age verification online gateway

**Pilot 4:** Financial services – microloan origination
ReCRED’s Innovation

1. Device-centric Authentication, Password-less experience, FIDO UAF
2. Fine-grained control of identity attributes to be revealed (ABAC)
3. FIDO + OpenID Connect Integration
4. Support for privacy-preserving ABAC (Idemix, U-Prove, CP-ABE)
5. Biometrics and behavioral authentication
6. Single Sign On (SSO) with federated identities
7. Enhanced security & privacy by employing the crypto functions and secure storage of TEE
8. Unlinkability & untraceability
**Where to find more information**

- [www.recred.eu](http://www.recred.eu)
- Linkedin: [ReCRED - H2020](https://www.linkedin.com/company/recred-h2020)
- Facebook: [https://web.facebook.com/ReCRED-393935714133064/](https://web.facebook.com/ReCRED-393935714133064/)
- Twitter: [@ReCRED_H2020](https://twitter.com/ReCRED_H2020)
Thank you.