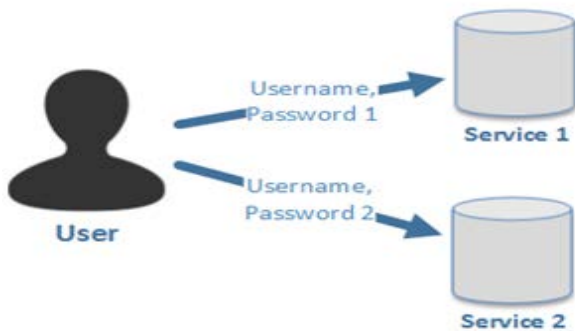# From Real-world Identities to Privacy-preserving and Attribute-based CREDentials for Device-centric Access Control

Prof. **Christos Xenakis**
University of Piraeus

ReCRED's goal is to promote the user's personal mobile device to the role of a unified authentication and authorization proxy towards the digital world.

Problems addressed by ReCRED
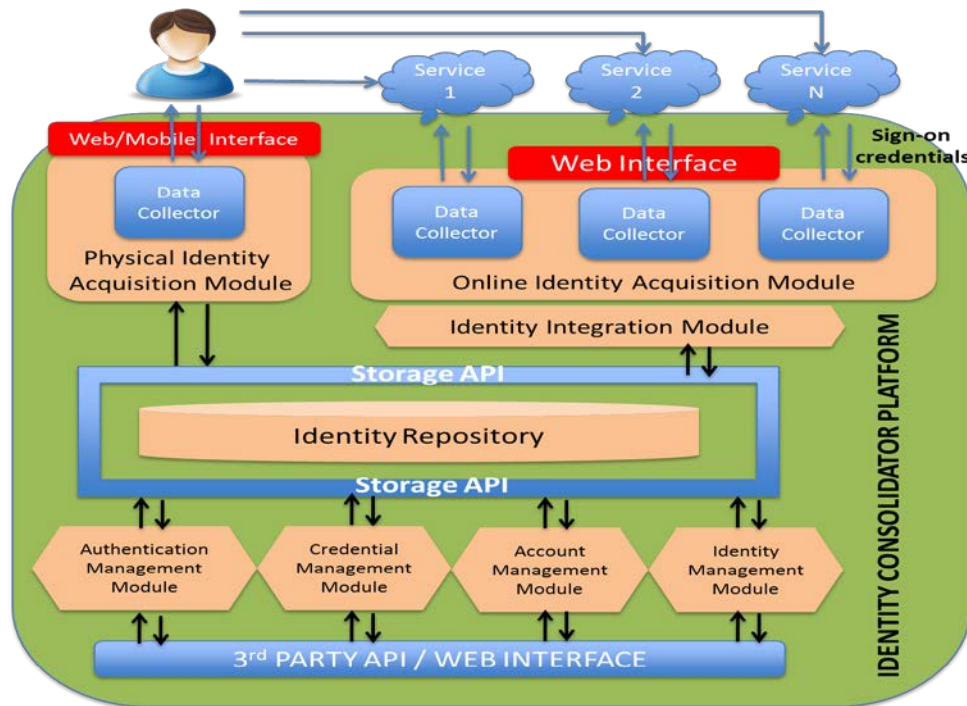
ReCRED's approach – employed technologies

Device-centric authentication & Single Sign On
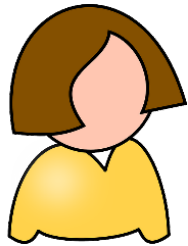
ReCRED's approach – employed technologies

Identity consolidation

Real-to-online identity mapping

ReCRED's approach – employed technologies

Attribute-based access control

Account-less access through verified identity attributes (e.g., Age, Location, etc.)

Issue cryptographic or anonymous credentials

ReCRED's approach – employed technologies

- It **anchors** all **access control needs** to **mobile devices** that users **habitually use** and **carry**

- It is aligned with **current technological trends** and **capabilities**

- It offers a **unifying access control framework**

    - **On line** and **physical authentication** and **authorization**

    - Using **off-the-self mobile devices**

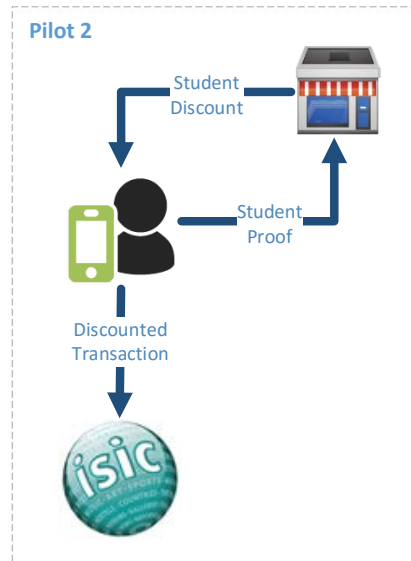- It is **attainable** and **feasible** to implement in the existing products
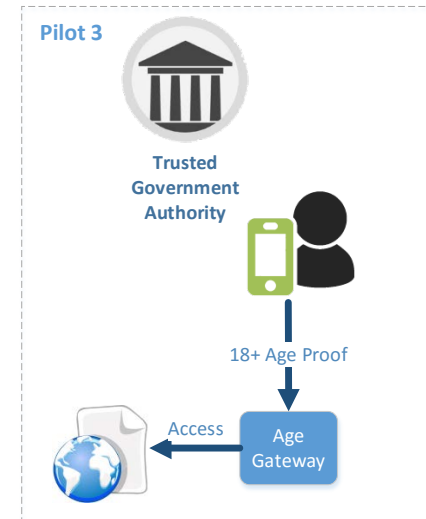
ReCRED's pilots

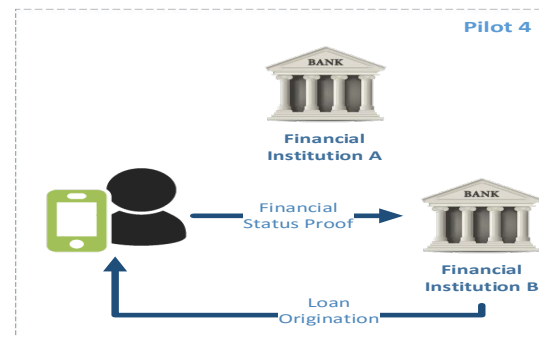**Pilot 1:** Device-centric campus WiFi and web services access control
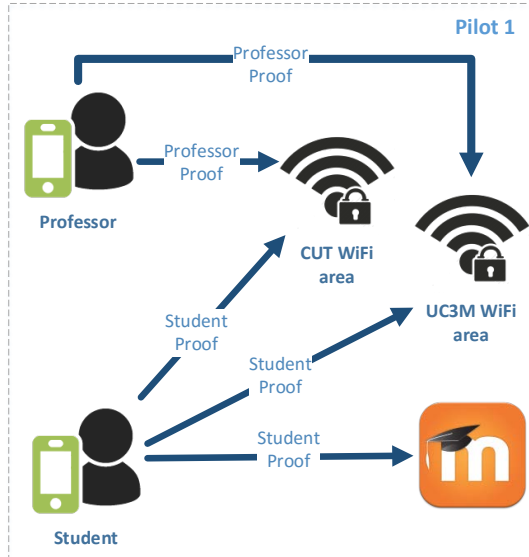
Pilot 2: Student authentication and offers

Pilot 3: Attribute-based age verification online gateway

Pilot 4: Financial services – microloan origination

Thank you !

www.recred.eu

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