



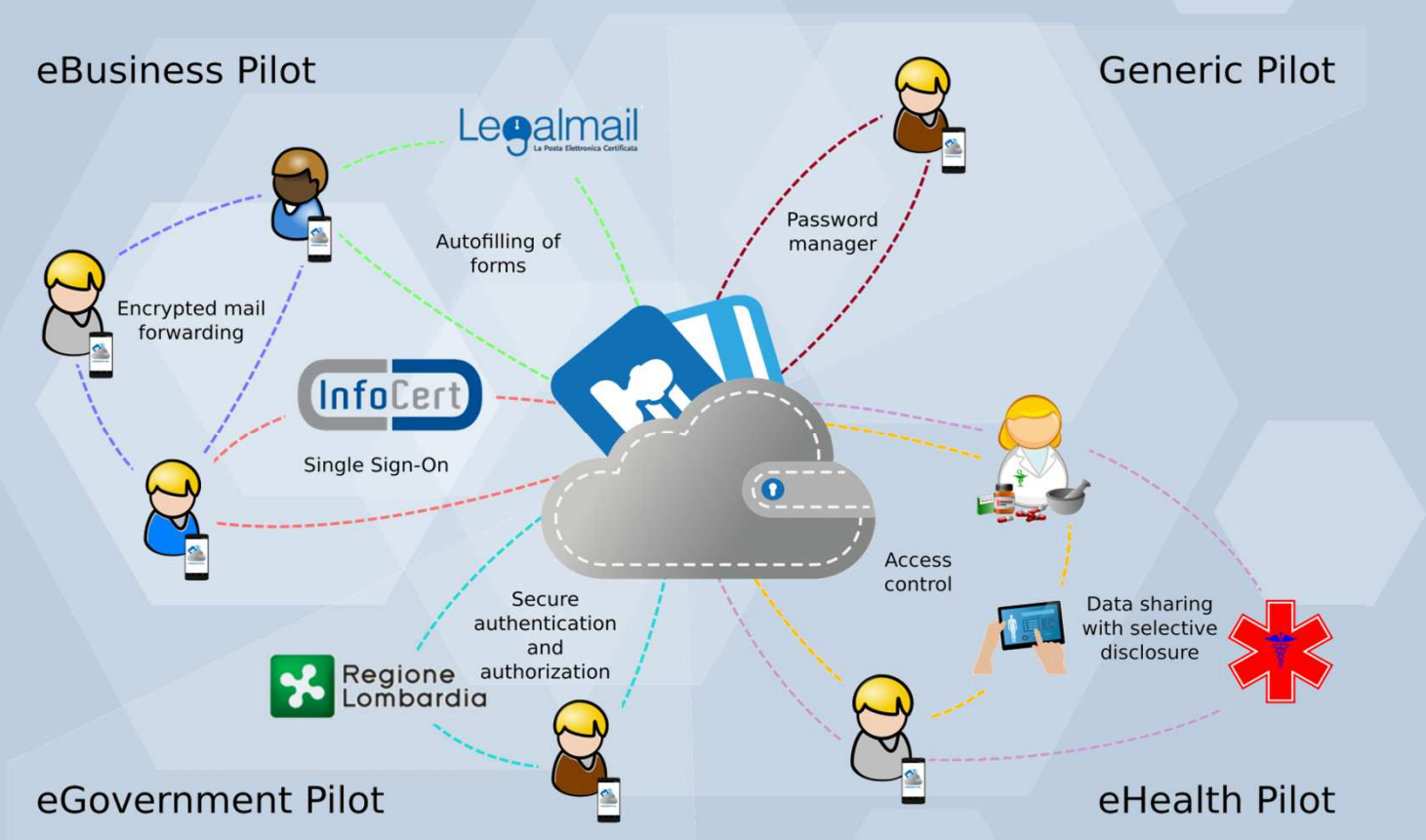
## You are what you keep!

## 2<sup>nd</sup> Newsletter – March 2017

The CREDENTIAL Newsletter series keeps you informed about the project's progress, results, and events. This issue contains an overview of CREDENTIAL pilot scenarios, first impressions of the user interfaces of our generic mobile application, an update of recent publications, and a list of upcoming events. Furthermore, it contains short updates of three of our liaison projects.

### One Tool, Many Applications

The cloud-based CREDENTIAL Wallet provides users with secure repositories and sharing mechanisms for their digital identities and documents. The following figure illustrates how the multiple different pilot scenarios are using the central CREDENTIAL Wallet to realize very different services and functionalities.



For **eBusiness** applications, the CREDENTIAL Wallet can on the one hand be used as an easy-to-use single sign-on system as well as a tool for automatically filling forms, such as a registration contracts, by conveniently sharing the required data from the user's Wallet with the service provider in a privacy-preserving way. On the other hand, this pilot also showcases that CREDENTIAL's cryptographic tools can easily be applied outside the Wallet, for example to forward encrypted mails to a deputy.



# CREDENTIALIAL

Secure Cloud Identity Wallet



## You are what you keep!

The **eGovernment** pilot focuses on identity management to authenticate citizens and assess their eligibility to access a service. In this scenario, CREDENTIALIAL shares the user's encrypted attributes in an identity protocol as part of an identity assertion. Moreover, CREDENTIALIAL's integration with national as well as international authentication solutions is demonstrated.

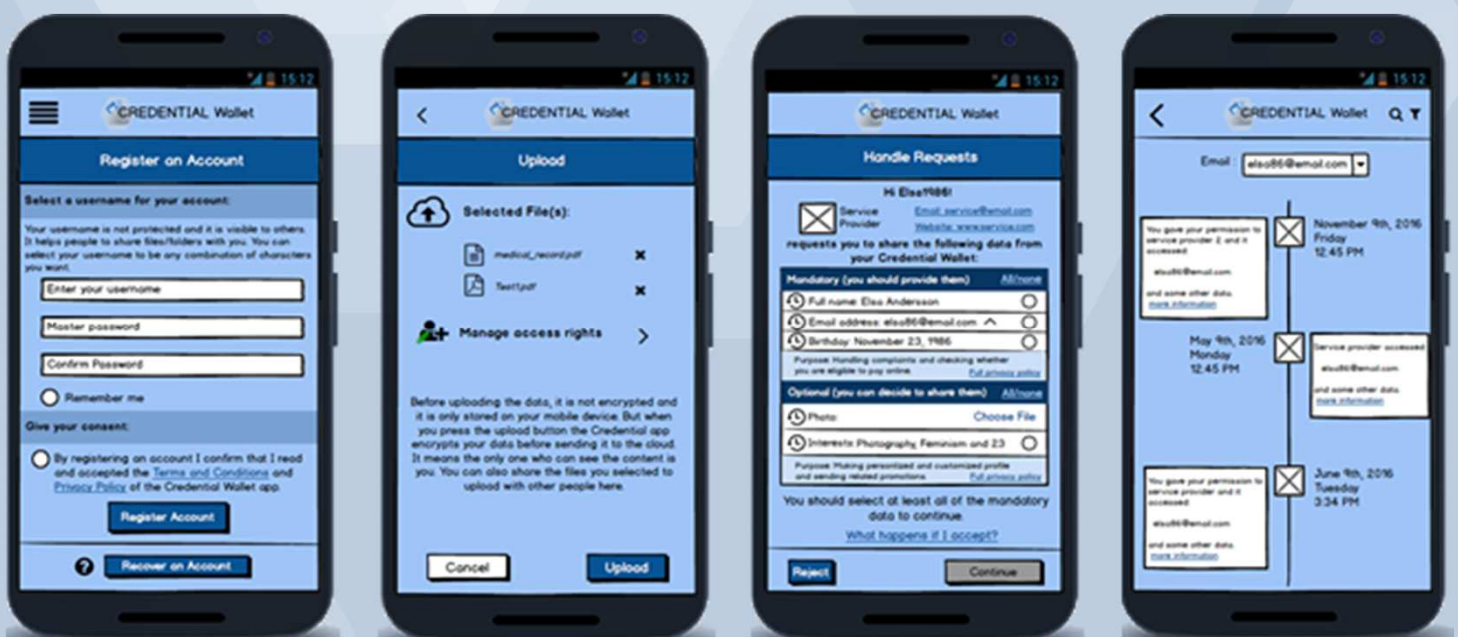
In the **eHealth** domain, the CREDENTIALIAL Wallet is used for access control and data sharing purposes for medical data, such as diabetes-related measurements and documents, between patients and doctors. Furthermore, our enhanced cryptographic mechanisms empower users to selectively disclose parts of those documents with other entities involved in the health care process.

Finally, the CREDENTIALIAL Wallet also serves as a secure password manager for convenient authentication at services that do not integrate the Wallet as identity provider.

## User Interfaces of Generic Mobile Application

As mentioned before, all pilots can be seen as very different flavours of the same central Wallet developed within CREDENTIALIAL. This CREDENTIALIAL Wallet comes along with a generic mobile application which can be used by the user to register accounts, upload data, grant access rights to other users, display the access history on stored data, and many more. This allows one to use the same CREDENTIALIAL account for many different applications in a very convenient way, simply using a mobile phone. Furthermore, this releases services providers who wish to adapt CREDENTIALIAL technologies from having to implement and maintain generic functionalities that are not specific for their concrete application scenario.

In the following we present mockups of our generic mobile application for the mentioned features.





You are what you keep!

## Publications

The following two publications were accepted since the last CREDENTIALIAL newsletter:

- Marco Ghiglieri, Melanie Volkamer, and Karen Renaud. [Exploring Consumers' Attitudes of Smart TV Related Privacy Risks](#). HCI International 2017. Vancouver, Canada, July 9-14, 2017.
- Oksana Kulyk, Benjamin Maximilian Reinheimer, and Melanie Volkamer. [Sharing Information with Web Services - A Mental Model Approach in the Context of Optional Information](#). HCI International 2017. Vancouver, Canada, July 9-14, 2017.

## Messages from Our Liaison Projects

### PRISMACLOUD – PRIVacy and Security MAIntaining services in the CLOUD

PRISMACLOUD is a research project about building secure and privacy preserving cloud services and follows a similar vision like CREDENTIALIAL. The first project phase was a big success with **more than 44 scientific publications**, which in the implementation phase are now being transferred into real world applications. Recently PRISMACLOUD had been selected for participation in the Common Exploitation Booster program and organized an “Exploitation Strategy Seminar” together with the experts from META. The workshop helped us to streamline the exploitation strategy and come to a market action plan for project results. We are actively contributing to specific joint dissemination and exploitation activities with CREDENTIALIAL, such as SECPID 2017 or ISO standardization activities for cryptographic techniques. → <https://prismacloud.eu/>

### TREDISEC – Trust-aware, RELiable and Distributed Information Security in the Cloud

TREDISEC is addressing an important problem in the cloud security market: encompassing security concerns with cloud functional and non-functional requirements. This challenge has immediate applicability in the current market and would increase cloud adoption by industrial players and SMEs. TREDISEC’s main innovation points provide a long-sought solution for security and privacy issues that no technology in the market is currently able to offer. Such objectives will remain relevant even in the face of a continuously evolving cloud market.

Based on our assessment, we have identified 7 key innovation points of TREDISEC, including **deduplication on encrypted, multi-tenant data, secure outsourced analytics/processing in a multi-tenant environment, or distributed enforcement of access control policies**. → <http://tredisecc.eu/>

### WITDOM – empOWering privacy and securiTy in non-trusteD envirOnMents

WITDOM has just entered its third and final year, and the **WITDOM end-to-end security and privacy framework for outsourced data**, will be finally validated in two realistic application scenarios. The framework is based on a flexible end-to-end secure architecture for untrusted environments, which was one of the major outcomes of 2016. It also relies on the WITDOM platform, which orchestrates a variety of complex processes to protect sensitive data in a trusted domain in order to enable secure and privacy-preserving further processing, storage, and sharing of protected data in an untrusted environment.

First versions of both platform and protection components were released recently and they are nowadays under a full integration and deployment process, expected to end in July 2017. → <http://witdom.eu/>





## You are what you keep!

### Upcoming Workshops and Events

- **Cloud Security Expo**

March 15–16, 2017: ExCeL, London, United Kingdom

Together with seven partner projects from the DPSP cluster on Data Protection, Security and Privacy in the Cloud, we will be presenting our project at Stand 1239. → <http://www.cloudsecurityexpo.com/>

- **ISO/IEC JTC1/SC27 Meeting**

April 18–22, 2017: Hamilton, New Zealand

In order to maximize impact, CREDENTIALIAL requested a Category C liaison with WG2 (Cryptography and security mechanisms) and WG5 (Identity management and privacy technologies) of ISO/IEC JTC1/SC27 on IT Security techniques. In order to proceed with this request, we were invited to present our project and standardization plans at their next plenary meeting.

- **Internet Privacy Engineering Network – IPEN 2017**

June 9, 2017: Vienna, Austria

After last year’s success, CREDENTIALIAL will again support this year’s IPEN workshop, an event initiated in 2014 by the European Data Protection Supervisor. The event is directly preceded by the Annual Privacy Forum 2017 in Vienna. → <http://www.edps.europa.eu/>

- **International Workshop on Security, Privacy, and Identity Management in the Cloud – SECPID 2017**

August 29–September 2, 2017: Reggio Calabria, Italy

Given the success of last year, CREDENTIALIAL and our liaison project PRISMACLOUD will organize the 2<sup>nd</sup> SECPID workshop, which will again be held in conjunction with ARES 2017. Furthermore, we are happy to announce that the workshop will be supported by multiple further European cloud security projects under the umbrella of the DPSP cluster. → <http://ares-conference.eu/>

### Contact Details and Meta Data

**Website:** <https://credential.eu>

**Twitter:** <https://twitter.com/CredentialH2020> | @CREDENTIALH2020

**LinkedIn:** <https://www.linkedin.com/in/credential> | CREDENTIALIAL Project

**CORDIS:** [http://cordis.europa.eu/project/rcn/194869\\_en.html](http://cordis.europa.eu/project/rcn/194869_en.html)

Additional information can also be requested via [admin@credential.eu](mailto:admin@credential.eu)

**Call:** Digital Security: Cybersecurity, Privacy and Trust

**Topic:** DS-02-2014 Access Control

**Type of Action:** Innovation Action

**Duration:** 36 months

**Start Date:** 01.10.2015

**Requested EU Contribution:** ~6.0M €

**Coordinator:** AIT Austrian Institute of Technology GmbH

