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3rd Newsletter – August 2017

The CREDENTIAL Newsletter series keeps you informed about our project's progress, results, and events. This issue provides you with an update of our pilots and with first impressions of the use case specific applications. Furthermore, it contains an overview of recent publications and events, a summary of CREDENTIAL's standardization and certification activities, and an outlook of upcoming workshops and conferences.

First Pilot Impressions

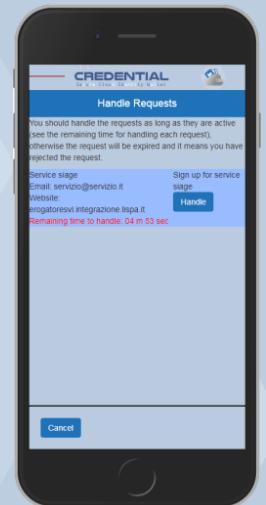
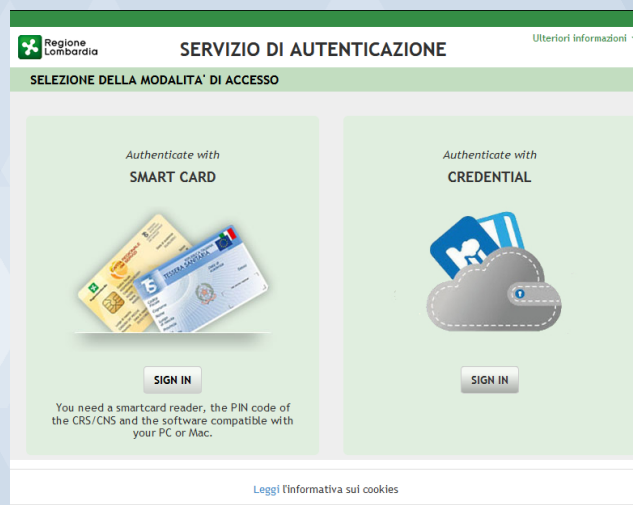
CREDENTIAL is approaching the end of its second project year, and the implementation of the envisioned pilots and use cases has made significant progress since our last newsletter in March 2017. In the following, we provide some first impressions of the different applications realized by the consortium.

eGovernment – Lombardia Informatica S.p.A.

The eGovernment pilot uses the CREDENTIAL Wallet to let users authenticate themselves towards different public authorities, e.g., in order to deliver an electronic tax declaration or to request financial support from the government.

Therefore, the existing login options using the national eID card will be enhanced by an option based on CREDENTIAL. If a user chooses this option, an authentication request will be sent to the user's phone,

which – once accepted – releases the information requested by the service (e.g., birth date, name, social insurance number) to the public agency in order to authenticate the user. Besides strong authenticity guarantees for the user, the user's privacy is upheld at any time as the CREDENTIAL Wallet never gets access to the user's personal information.



eHealth – Fraunhofer Institute for Open Communication Systems and Klughammer GmbH

As one aspect of the eHealth pilot, a communication platform between patients and doctors is implemented, specifically targeting diabetes patients. Patients can therefore use a dedicated mobile application, similar to existing tools. The application is able to communicate with medical devices such as smart scales or glucosemeters in order to fetch and store, e.g., a patient's body weight or blood sugar level. Other supported devices include step counters, etc.



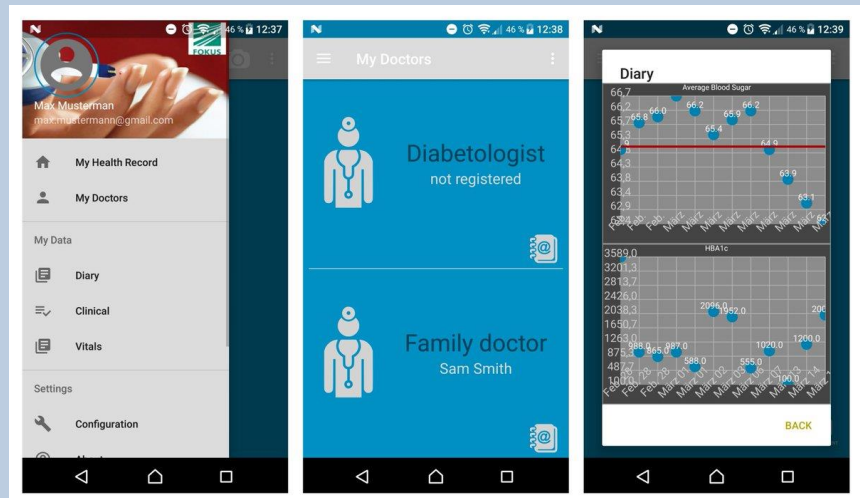
CREDENTIAL

Secure Cloud Identity Wallet

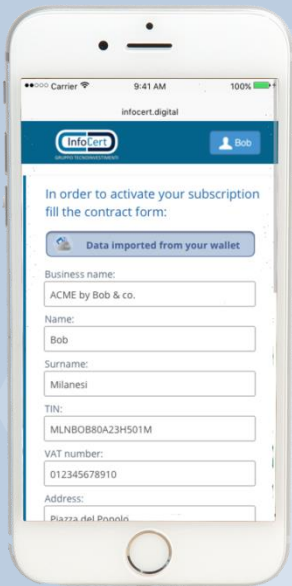


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After having transferred the information to the mobile phone, the patient can either visualize the measurements, or store the data in an encrypted CREDENTIAL Wallet account, from where the data can be securely shared with different doctors. Following the privacy-by-design approach and ambition of CREDENTIAL, the health data of a patient is at no time accessible to the CREDENTIAL Wallet, but end-to-end encrypted using provably secure algorithms.



eBusiness – InfoCert S.p.A.



CREDENTIAL's eBusiness pilot again comes in different flavors. The first use case uses the CREDENTIAL Wallet to securely import existing user information from the user's account, e.g., into registration forms when registering for a new service, without leaking this information to the Wallet.

The second scenario does not use the CREDENTIAL Wallet as such, but shows how to modularly re-use specific parts of the software being developed. Specifically, the proxy re-encryption technology is used to enable a seamless forwarding functionality for encrypted emails. This solves the problem that emails cannot be accessed, e.g., by a holiday replacement or a secretary, because this would require to share one's secret decryption key. Using proxy re-encryption, the company's mail server can, with the explicit consent of the user, translate emails encrypted for the intended recipient to emails encrypted for the substitution – without itself ever learning sensitive key material or the plaintext messages. The functionality will be directly integrated into InfoCert's LegalMail service.

Publications

The following publications were accepted for publication since the last CREDENTIAL newsletter:

- Pritam Dash, Christoph Rabensteiner, Felix Hörandner, and Simon Roth. [Towards Privacy-Preserving and User-Centric Identity Management as a Service](#). OIS 2017. Karlstad, Sweden. October 5-6, 2017.
- Farzaneh Karegar, Daniel Lindegren, John Sören Pettersson, and Simone Fischer-Hübner. [Assessments of a Cloud-Based Data Wallet for Personal Identity Management](#). ISD 2017. Larnaca, Cyprus. September 6-8, 2017.
- Alexandros Kostopoulos, Evangelos Sfakianakis, Ioannis Chochliouros, John Sören Pettersson, Stephan Krenn, Welderufael Tesfay, Andrea Migliavacca, and Felix Hörandner. [Towards the Adoption of Secure Cloud Identity Services](#). SECPID@ARES 2017. Reggio Calabria, Italy. August 29 – September 2, 2017





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Certification and Standardization

On April 5, CREDENTIALIAL's cloud certification activities had their official kick-off in form of a StarAudit training organized by Tobias Höllwarth. As part of this training, about 20 project members were accredited as *StarAudit Ambassadors*. Furthermore, the participants learned how to formulate controls for the StarAudit certification scheme. After having finished the requirements engineering phase in September, we expect to provide first controls on privacy-enhancing data sharing and identity provisioning to the scheme in late fall 2017.

Regarding standardization, 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. As a first step towards this liaison, the project was presented at the SC27 plenary meeting in Hamilton, New Zealand, in April, and both WGs recommended to accept the liaison request. A formal decision by SC27 and JTC1 is expected soon.

In order to maximize our impact, CREDENTIALIAL, in tight collaboration with the Austrian Standards Institute and PRISMACLOUD, initiated a study period on "Redactable Signatures" in WG2. The call for contributions is currently open, and we expect a decision on next steps at the upcoming SC27 working group meeting in Berlin, Germany, in October/November.

Recent Events

- **Advisory Board Meeting**
June 6, 2017: Vienna, Austria

Our second Advisory Board meeting was held at AIT. The meeting was attended by experts from different domains, including security agencies (ENISA), data protection and consumer agencies (Konsument Europa, ULD), but also potential end users of our pilot applications from the domains of eGovernment, eHealth, and eBusiness. We are grateful to the external experts for valuable inputs on the CREDENTIALIAL Wallet as a whole, the functionality and security of the different pilot scenarios, and the exploitation of the project results!



- **Annual Privacy Forum and Internet Privacy Engineering Network**
June 7 – 9, 2017: Vienna, Austria

Subsequently to our Advisory Board meeting, the 5th Annual Privacy Forum (APF), co-located with the 4th IPEN Workshop organized by the European Data Protection Supervisor, took place at the University of Vienna. To increase the visibility of CREDENTIALIAL and because of the tight link of the workshops' goals and our project's ambition, the consortium financially supported the organizers and also actively participated in both events.





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Upcoming Workshops and Events

- **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, CREDENTIAL and our liaison project PRISMACLOUD will organize the 2nd SECPID workshop, which will again be held in conjunction with ARES 2017. The workshop will be supported by multiple further European cloud security projects under the umbrella of the DPSP cluster.

- **IFIP Summer School on Privacy and Identity Management 2017 – the Smart World Revolution**
September 3 – 8, 2017: Ispra, Italy

Together with PRISMACLOUD, we will organize a privacy-forum at this year's IFIP Summer School. Besides presentations by members of the consortium, workshop participants will be given the chance to get hands-on experience from our pilots. CREDENTIAL will be represented by colleagues from AIT, Goethe University Frankfurt, Lispa, and InfoCert.

- **World e-ID and Cybersecurity**
September 25 – 27, 2017: Marseille, France

The 13th edition of the World e-ID and Cybersecurity conference is focusing on secure identification technologies, their implementation, and related challenges. As part of the Smart Security Weeks with more than 1'000 attending security professionals, we are looking forward to this opportunity to distribute the ambition and results of CREDENTIAL to a broader audience.

Key Messages

- CREDENTIAL successfully passed the mid-term review through the European Commission
- All public deliverables produced so far are available at <https://credential.eu/deliverables/>
- Our first project video is now online – visit our website for more details

Contact Details and Meta Data

Website: <https://credential.eu>
Twitter: [@CREDENTIALH2020](https://twitter.com/CredentialH2020)
LinkedIn: <https://www.linkedin.com/in/credential> | CREDENTIAL Project
CORDIS: http://cordis.europa.eu/project/rcn/194869_en.html
Additional information can also be requested via 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

