

Andrea Valle | Chairman of the Steering Committee



Goals of the Consortium





Building a standard for cloud signatures



The Cloud Signature Consortium

- The Cloud Signature Consortium was funded at the beginning of 2016 by an international cooperation group
 of industry and academic experts, including solutions, technology and trust service providers, aiming at:
 - Designing a common architecture and building blocks to facilitate the interaction between Solution, Technology and Trust Service Providers.
 - Developing technical specifications for protocols and APIs to make these interactions interoperable.
 - Publishing the specifications as an open standard.
 - Promoting the Cloud Signature concept.





Funding Members

Adobe Cryptolog / Universign France **Docapost / Certinomis** France **Intesi Group** Italy Italy InfoCert Poland **Asseco Data Systems** D-Trust/Bundesdruckerei Intarsys Spain Izenpe SafeLayer Spain SwissSign Technische Universitat Graz Austria Unibridge Norway

Ireland/USA Germany Germany Switzerland





Multiple scenarios for Cloud Signing



[1] Multiple credentials hosted in centralized HSM

 The personal signature device is replaced by multi-user HSM hosted by a Trust Service Provider offering secure access through multi-factor strong authentication.







[2] Cloud-enabled Smart Card

 A personal signature creation device is connected to a Cloud-based Signature Application Service instead of using a desktop tool for signing. The Cloud service provides a preview of the document and drives the signature through Web or Mobile user interactions.





A quick look into the Standard



The Cloud Signature Consortium Technical Specifications

- The initial scope of the CSC Specifications is to cover architectures, protocols and APIs for Remote Signature creation.
- Designed to support the most demanding CEN and ETSI standards
 - Goal is to support the broadest set of requirements, including those outside the EU standardization domain.
 - The specifications define Web services APIs based on REST protocols and JSON data-interchange. Modern and easy.
- A CSC compliant service provides self discovery of its dynamic capabilities
 - Designed to support modular services in line with the mission/capacity of the provider.
 - Services may implement only a particular subset of the API methods. Clients can easily discover the supported APIs.
- Complete support of client and user authentication
 - Covers all possible implementation contexts: desktop and mobile apps, cloud and on-premise services.
 - Supports password-based, OAuth-based, SAML, federated authentication.
- Flexible support of credential authorization mechanisms
 - Static secret, synchronous and asynchronous OTP, OAuth-based, SAML, OpenID Connect, FIDO.
 - Multi-Factor-Authorization can be obtained by combining multiple mechanisms.



Current status

- The first release of the CSC Specification (V0) has been published for public comments
 - Publicly available from <u>http://www.clousignatureconsortium.org/specifications</u>
- The CSC Specifications have been submitted to ETSI for consideration as a contribution to ongoing standardization process
- The Consortium is working with ETSI to establish a Cooperation Agreement to allow mutual exchange
 of contributions for the development of standards for trust services.

Next steps



Standardization roadmap

- The Standardization roadmap of the Cloud Signature Consortium includes protocols and API supporting the following services:
 - Cloud Signature (Remote Signature)
 - Signature validation
 - Signature augmentation
 - Certificate enrollment
- All these services will benefit from a common service framework
 - Client and user authentication
 - Resource authorization
 - REST+JSON API
 - Interoperability by design



Membership expansion

- The Cloud Signature Consortium has been officially launched at the end of June 2016, in sight of the adoption of the European eIDAS Regulation.
- About 60 leading businesses in the PKI and Trust Service industry from all over the world are joining the Consortium.
- New memberships will be open soon.

Interested to join? <u>www.cloudsignatureconsortium.org/contacts</u>







Thank you

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