



OLYMPUS



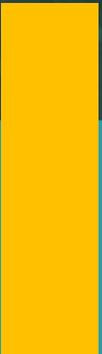
**PROTECTING
CITIZEN
IDENTITY**

OBLIVIOUS IDENTITY MANAGEMENT
FOR PRIVATE AND USER-FRIENDLY SERVICES



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WHY DOES YOUR IDENTITY MATTER?

In a virtual world, protecting citizens' personal data is crucial to ensure a safe and privacy-friendly online environment. Considering the increase of cyberattacks, which are more complex, and especially the identity theft, **it is essential to own a reliable identity structure that provides strong identity guarantees for online transactions and the user privacy.** A trusted identity that can be used anywhere, anytime, whether in real life or online. This is where Olympus project stands out, with its distributed and oblivious Identity Provider!

The goal of **OLYMPUS** is to develop a new system that has, roughly, the convenience of Online IdPs (trusted third parties) and the privacy of Privacy-ABCs. Therefore service providers do not need to change their infrastructure to support strong authentication, and users do not have to rely on trusted hardware tokens.

HOW WILL OLYMPUS FACILITATE AND ENSURE A STRONG IDENTITY FOR CITIZENS?

OLYMPUS will address the challenges associated with the use of privacy-preserving identity management solutions by establishing an **interoperable European identity management framework based on novel cryptographic approaches applied to currently deployed identity management technologies.**

In particular, **OLYMPUS** will employ distributed cryptographic techniques to split up the role of the online IDP over multiple authorities, so that no single authority can impersonate or track its users. Rather, users will obtain short-lived access tokens after authenticating to the system using readily available and platform-independent mechanisms such as passwords or biometrics.

OLYMPUS will also address the security problems of virtual identities by linking citizens' physical identities to their digital identities, respecting the GDPR-compliant procedural and legal standard.



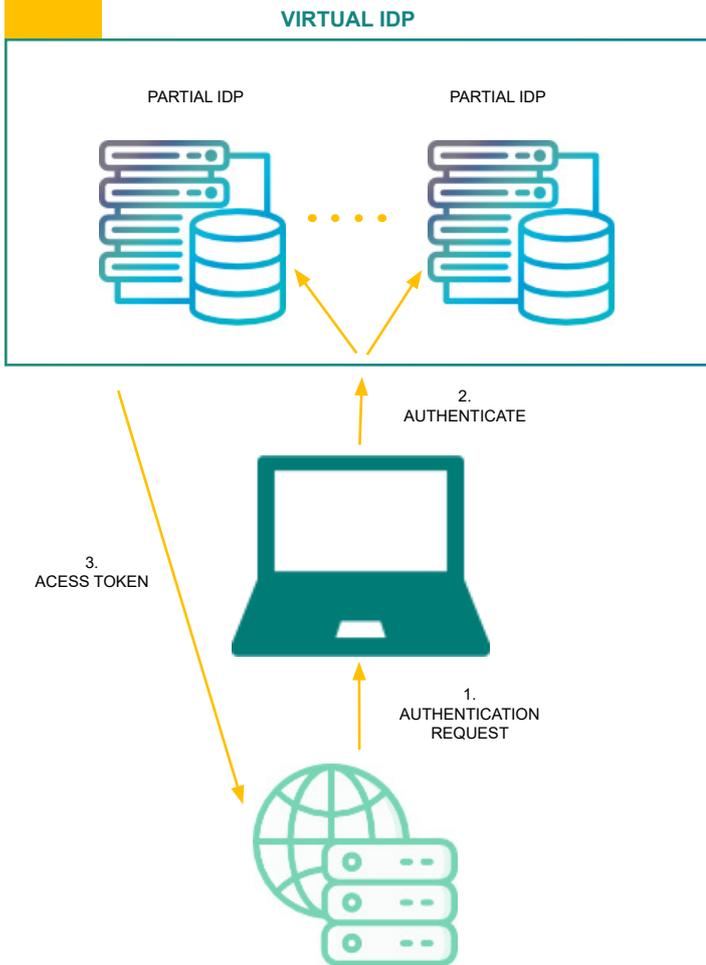


Figure 1 - OLYMPUS Oblivious IdM

A SECURE AND USER-FRIENDLY IDENTITY MANAGEMENT FRAMEWORK THAT WILL REVOLUCIONATE THE NEXT YEARS

The distributed **OLYMPUS** approach will be integrated into popular existing online IdM solutions, such as SAML, or OpenID Connect, where the role of the online IDP is split up among several partial IDPs. Distributing the role of the IDP eliminates the single point of failure that it presents in the system in terms of privacy and security: advanced cryptographic mechanisms based on threshold cryptography, anonymous credentials, and secure multi-party computation ensure that no single partial IDP, or no collusion of less than a certain threshold, can track or impersonate its users.

PROJECT OVERVIEW

- **OLYMPUS** does not rely on secure hardware tokens and ensures user privacy by enforcing untying of authentications and minimal disclosure of data in relation to service providers and identity providers.
- Through the ability of online IDP in traditional IDM systems distributed across multiple partial IDPs, no single server, or no collusion of servers smaller than a certain threshold, can impersonate its users, link their virtual identities between services, or retrieve their passwords.
- More transparency for service providers and identity providers in adhering to existing standards.
- Implementation of a user-centric IdM ecosystem by enabling citizens to manage the disclosure of personal information.
- Set the standard on electronic ID documents for privacy protection of personal information with minimal disclosure.

PARTNERS

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The **University of Murcia** is a large University with approximately 36.000 students and 3.500 staff members. The research group involved in this project has experience in security in network infrastructure and the integration of intelligent techniques and agents based middleware platforms.



The **Alexandra Institute**, located in Denmark, helps public and private organizations develop innovative, IT-based products and services based on cutting-edge IT research. Our Security Lab has strong expertise in working with, and applying, advanced cryptography, which means an added value for the OLYMPUS project development.



Logalty acts as Trusted third Party in online transactions in order to guarantee safe and unalterable transactions and with probative force. Logalty guarantees the confidentiality and content integrity of all transactions, gives faith of the date and time using time stamping with the assurance of a well known certification service provider and, further signs electronically all life cycle milestones of each transaction.



IBM Research - Zurich is one of the 12 IBM research labs worldwide and employs more than 400 researchers from over 20 countries who work on projects in computer science, communications, optoelectronics, and physics. Related to information security, more than 30 researchers are focusing on privacy, cryptography, secure systems, and security management.



MULTICERT is a Portuguese Trusted Service Provider developing and operating an accredited eIDAS Certification Authority, as well as many other large scale PKIs for eID and ePassport. MULTICERT also develops trust and security solutions for Cybersecurity (SOC), Electronic Voting, 2FA, Registered Electronic Mail, Electronic Invoice and Digital Vault.



Scytáles AB is breaking new ground by offering and being a leader in cloud-based software publishing for handheld and hardware devices, as well as back-end systems, for the digitalization (virtualization) of "Security Printed Documents", which is an alternative to today's travel documents, credentials and other identification and validation products both on the governmental and enterprise area.

INFO & CONTACT



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