IDENTITY ON THE WEB

We develop user-centric online services that are based on the Digital ID protocol: a novel technology constituting an identity layer for the internet and a lookup layer for personal information. It gives internet users full control over the access to their data and provides a secure, private and automated way to exchange sensitive information over the web. With verifiable digital identities, we drastically facilitate user identification and authentication while providing a highly user-friendly, cost-efficient solution for digital onboarding, online checkouts, e-signing, secure messaging, and payment.

The internet lacks identities

Today, user authentication is left to service providers, which means that users have to give up control over personal information while being flooded with accounts. This flawed mechanism leads to a number of widespread problems:

- **Repeated manual entries**
  of personal data which is cumbersome to maintain and control

- **Unverified user attributes**
  that lead to fraud through impersonation & spam due to non-authenticated senders

- **Weak authentication**
  with human passwords prone to phishing, ID theft and rainbow attacks

As a consequence, the absence of authentic user identities often leads to tedious client onboarding with bad security and poor user experience.

We introduce a verifiable Digital ID

With the Digital ID Protocol, natural and legal persons create a digital identity and host it at a trusted provider. The open identity layer allows internet users to manage their attributes, control access and authorize devices to act on their behalf. This conceptual innovation provides several improvements for online services:

- **Unified user profile**
  with prefilled attributes that can be synchronized with other users and service providers

- **Verified identities**
  as the users’ personal attributes can be certified by trusted third parties (e.g. a bank)

- **Strong authentication**
  by using cryptographic credential systems instead of vulnerable password authentication

Digital ID significantly improves the user experience of online services in general by making user journeys **seamless, secure and private**. It also substantially facilitates user identification and authentication, enabling **fast client onboarding with great security and user experience**.
Digital ID Solutions for more secure and convenient Online Business

Synacts offers easy-to-implement components for a lean and user-centric service ecosystem.

Our Digital ID products suite consists of:

- **Digital ID Wallet App** for end users
- **Certification Tool + API** for certification authorities
- **Web sign-on** for service providers
- **Transaction gateway** for service providers

### Digital ID Wallet App

A lean app that acts as an access control manager and allows users to manage their personal attributes and give selective access to other users, service providers and certification authorities. The Digital ID Wallet is the “interface” to the user’s digital identity and behaves like a physical wallet: it belongs to the user and can be used for identification, authentication and legal transactions.

### Digital ID Certification Tool + API

An application for certification authorities (CA) to certify specific user attributes such as *name, address, birthday, phone number, credit card number* and so on. Attributes can be defined and certified by organizations. For example, the attributes *university degree, salary* and *IBAN* could therefore be certified by the respective university, employer or bank.

When users authenticate themselves towards service providers with certified attributes, they merely claim to be certified. The service provider can then verify this claim by looking up the certificate at the respective CA over the Digital ID Certification API. For this service, the CA can ask providers to pay a verification fee for each request. As a consequence, this solution component enables users to be onboarded and perform online checkouts with an already verified digital identity.

### Digital ID Web Sign-on

A simple, browser-based sign-on field for users to initiate the authentication towards or the checkout at a service provider by entering their unique identifier, e.g. john.smith@myhost.com.
Digital ID Transaction Gateway

For service providers, the transaction gateway (TG) acts as an access point to the user's Digital ID Wallet through a REST API and allows sending rich, personalized push notifications in the context of digital onboarding and customer service:

<table>
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<tr>
<th>Value Propositions of Digital ID</th>
<th>Benefits</th>
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<tr>
<td><strong>Strong Authentication</strong></td>
<td>Service Providers</td>
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<tr>
<td>Login through cryptographic keys instead of passwords.</td>
<td>Reduction of cyber risks such as the elimination of phishing</td>
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<tr>
<td><strong>Device Independence</strong></td>
<td>Service Providers</td>
</tr>
<tr>
<td>Not bound to SIM card or a hardware tokens.</td>
<td>No hardware costs</td>
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<tr>
<td><strong>Prefilled Attribute Replies</strong></td>
<td>Service Providers</td>
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<td>Users grant access to (verified) attributes stored in their Digital ID Wallet.</td>
<td>High data quality for any kind of attribute and increased conversion</td>
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<td><strong>Certified User Attributes</strong></td>
<td>Service Providers</td>
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<tr>
<td>Prevents repeated re-identification of users, e.g. for KYC-compliant transactions.</td>
<td>Cost reduction for KYC, fraud prevention and additional revenues over the Cert. API</td>
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<td><strong>One App for many Service Provider</strong></td>
<td>Service Providers</td>
</tr>
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<td>Providers that use the TG can directly push transaction requests to a user’s wallet.</td>
<td>Lean implementation for many different use cases</td>
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<td><strong>User-centric Data Control</strong></td>
<td>Service Providers</td>
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<td>Users do not give away personal data to a service provider’s platform but choose an independent host and grant access.</td>
<td>Reduced liability through improvement of user data protection and compliance with key aspects of the EU-GDPR</td>
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<td><strong>Globally Unique Identifiers</strong></td>
<td>Service Providers</td>
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<td>Digital ID users have a globally unique identifier.</td>
<td>Unified user directories with distinct identifiers</td>
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<td><strong>Rich Content Push Notifications</strong></td>
<td>Service Providers</td>
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<tr>
<td>Service providers can send users rich push messages e.g. for e-signing or questionnaires.</td>
<td>More secure, personalized and use-case specific user notifications than email or SMS</td>
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- **Multiple Use Cases**
- **High-End Security**
- **Cost Savings**
- **Revenue Opportunities**
- **Convenience**
- **Seamless UX**
- **Transparency & Control**
- **Privacy by Design**
Implement Digital ID Solutions into your own Business

We enable truly digital and user-centric services to help service providers manage the digital transformation. With our services, businesses do not only get ready for future changes such as the European General Data Protection Regulation (EU-GDPR) but also set an example for a better, more secure and private user experience.

Our Vision

After giving internet users the possibility to create their own digital identity, we will incrementally broaden the spectrum of use cases for the Digital ID Wallet by continuously onboarding new service providers from different industries such as banks, insurances and online shops. With these extensions, we will then evolve the Digital ID Wallet to a Personal Cloud that gives users back the control over all their data on the internet. This decentralization of data control – by putting the ownership of sensitive data in the hands of the actual data owner, the user – is of crucial importance as it will open a new dimension of standardized and semantically interoperable online services that are unparalleled in terms of automation and harmonization of security, privacy and usability. These are the key success factors for the future of Internet of Things, Big Data, Analytics and Semantic Search.

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