SplitKey

Next generation digital identity with unbreakable security.
Convenient and cost-efficient

SplitKey turns smartphones into secure authentication devices, equipping online service providers with a reliable and secure access management tool.

- Tokenless mobile digital identity that can turn any smart device into secure authentication and qualified signature device. No need for a special smartcard, PIN-calculator or the like.

- Secure PKI cryptography with full user control over their private key.

- Regulatory compliant with the EU PSD 2 and the eIDAS (electronic Identification, Authentication and Trust Services) regulations.

- Turnkey solution with full infrastructure, service design and advisory for implementing digital identity.
Unique technology

Virtual key
(Never exists in the whole)

User's Device

Key generation

Never leaves the device

HSM / Server

Threshold Cryptography

ID confirmed / Signature
Cryptographic Solution
SplitKey technology is based on proven principles of public key cryptography, digital signature schemes, and PKI. Public key cryptography works on the concept of key pairs:

- the public key is bound with the verified identity of the user
- the private key is confidential and protected, e.g. inside a smart-card, which is under sole control of the user

Access authentication
SplitKey provides secure but simple authentication for accounts that require superior online security. Banking sites, trading platforms, government department sites, or any online portal can protect its users’ accounts by ensuring that only the user has control of their private key.

Digital signing
SplitKey ensures that only the user can sign or approve a transaction, due to the user retaining one piece of their private key which never leaves their device. SplitKey complies with the European QSCD (Qualified Signature Creation Device) requirements and PSD2 (Payment Services Directive).

Patented technology
The technology applied in the SplitKey product is patented as a European patent no. 3529948.
Unbreakable security

- Common Criteria certified to EAL4+ (Evaluation Assurance Level 4+) as a qualified signature creation device (compliant with current eIDAS regulation)
- Assessed to correspond to assurance level “high” eID authentication scheme (compliant to the current eIDAS regulation)
- Evaluated internally within a MS, an un-notified eID scheme
- Compliant to PSD2 directive and secure authentication requirements
- Used on daily basis for eIDAS high level authentication and qualified digital signing by more than 2 million customers in Estonia, Latvia and Lithuania (both in public and private sector services, including widely in financial services)
- Developed by scientists and cryptographers, research published in a peer-reviewed journal
- No security breaches or other privacy compromising security incidents during past 5 years
ID Wallet

Cybernetica is expanding its SplitKey product line to compliment the emerging European Union Digital Identity Wallet (EUDIW) ecosystem.

Estonian Government funded SmartWallet project is currently underway to create a prototype for a secure digital identity wallet solution. At the core of this is SplitKey CSP, a cryptographic service provider based on our patented private key protection solution SplitKey. This hardware agnostic solution means that wallets using our technology will work securely on mobile platforms that do not have a hardware based Trusted Execution Environment or Secure Enclave chip, or rely on them.
References

Smart-ID / Baltics and Iceland

Cybernetica’s digital identity technology is used all over the Baltics and Iceland in collaboration with the Smart-ID service operator.

- 3 million users and 75 million transactions per month
- Used in services provided by top Nordic banks, leading telcos and e-commerce providers

Mobile-ID / Azerbaijan

Complete e-government mobile-ID solution for the government of Azerbaijan.

- Development of Certification Authority and data platform for interoperability
- All systems and services created are still in operation today

Partnership with PWC / Middle East


- Elevating the Saudi digital identity with new technological opportunities.
- Work on Technical Architecture, eID and Trust Services, Standards, and Legal chapters.
“Cybernetica AS has been a trusted partner in the development of the Estonian Digital Identity ecosystem and has been a long-standing strategic partner of the Estonian government. They have been involved in projects, both with the Estonian Ministry of Economic Affairs and Communications and other agencies.”

Luukas Ilves  
Government Chief Information Officer

“Using Smart-ID for customer authentication doubled the number of monthly new users in our mobile bank. We are very satisfied with Smart-ID regarding both the ease of technical integration, as well as convenient user experience of the application. This mindset is supported by our internet and mobile banking clients from whom already 25% are using the possibilities of Smart-ID.”

Margus Holland  
LHV Bank - Head of Digital Banking

“Cybernetica has been a valuable partner of PricewaterhouseCoopers in the Middle-East in advising our customers on designing digital governance and identity frameworks and solutions.”

Fadi Komati  
PwC Middle East - Digital Consulting Partner
Cybernetica

Cybernetica has 25 years of experience in building future-proof products that rely on research and development. Currently our technologies are used in more than 35 countries all over the world.

“We are extremely proud of our decades-long journey. We are certain that with our values, our people and our capabilities, we will continue to be the driving force in emerging technologies.”

Oliver Väärtnõu
CEO

Essential facts

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