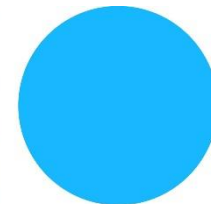
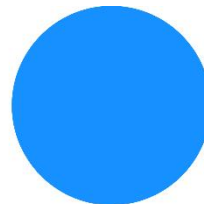




Tallinn
e-Governance
Conference
2018

Estonia and Azerbaijan e-Government case study: scalability and proof of concept



Jana Krimpe

Founder of B.EST Solutions
Head of the Mobile-ID center



GLOBAL ALLIANCE
FOR NATIONAL
MOBILE IDENTITIES



BEST
Solutions

www.asanimza.az

PROOF OF CONCEPT

ESTONIA

- ✓ X-Road
- ✓ e-ID
- ✓ SIM based Mobile-ID
- ✓ e-Residency

- ✓

AZERBAIJAN

- ✓ X-Road
- ✓ e-ID
- ✓ SIM based Mobile-ID /Asan Imza
- ✓ e-Residency + m-Residency

- ✓ + ASAN
- ✓ ASAN VISA
- ✓ DIGITAL TRADE HUB
- ✓ ABAD

A global phenomenon

Examples of mobile identities and e-signatures from around the world



NORWAY:

With more than 3.7 million end users and more than 600 million transactions in 2017, it is the largest and most widely used electronic identification and eSigning solution in Norway.

SWITZERLAND:

In early 2013, Switzerland's leading operator, Swisscom, introduced Mobile ID, a fully managed strong authentication solution and a complete service package for enterprise and business, as well as individual users. Using a PKI-based mobile signature encryption technology on the SIM card, users can securely access available e-services.

ESTONIA:

With more than 98.8% of all banking transactions done online, Estonia is ranked as the best e-government in the world with a highly advanced digital society. Estonia has been using digital identity for +16 years with zero identity breaches, and relies heavily on Mobile ID to access its 1,400 e-services. Major Nordic banks (Swedbank and SEB) are among the founders of the Certification Authority that issues all of the certificates that are used for e-identities.

AZERBAIJAN:

Mobile ID called Asan Imza or Easy Signature was launched in 2013. Since then, Azerbaijan has become a global success story. It has balanced its economy, grown its national wealth and, thanks to having one of the most transparent, business-friendly environments in the region, it has leapt ahead in the World Bank's Ease of Doing Business Index. Most notably, Azerbaijan has become a major digital trade hub – a leading factor behind the country's 27-percent rise in non-oil exports. Along with international trade, foreign direct investments have skyrocketed.

OMAN:

In 2013, Oman's Information Technology Authority (ITA) launched a new Public Key Infrastructure system to help secure online transactions. Mobile ID is adding a true mobility factor to the e-services. Now Omani citizens can access public and private services anywhere, anytime.

ICELAND:

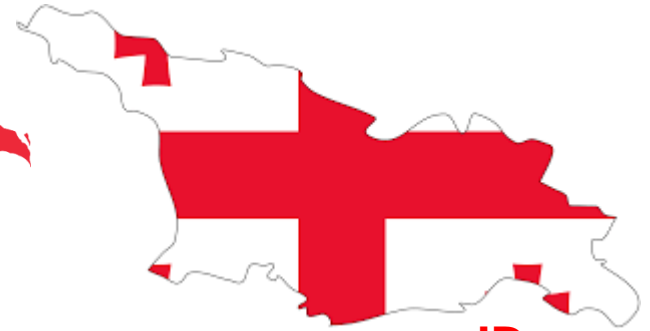
Mobile ID solution enables users on the go in Iceland to benefit from strong authentication and legally binding signatures, which are essential for such applications as secure banking and e-government services. This deployment of the Mobile ID service allows all Icelandic mobile operators to be part of the network, thus providing an interoperable service for all subscribers.

ADDITIONALLY, IN SINGAPORE, BELGIUM, AUSTRIA, SWEDEN, TURKEY, DENMARK, MOLDOVA, UKRAINE, FINLAND AND MANY MORE.

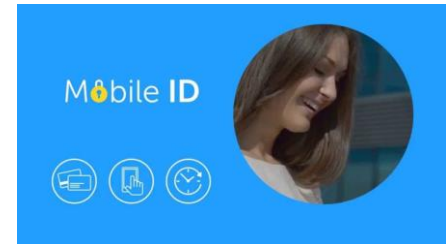


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Mobile-ID in GUAM member-states



m-ID
coming



Start with Mobile Identity

Identity is fundamental



Identity is the cornerstone of all legal interaction between people, businesses and the state. A person's ability to prove who they are is a prerequisite to conducting banking, accessing government services and performing countless other transactions

KEY ENABLER FOR ACCOUNTABILITY AND GOVERNANCE

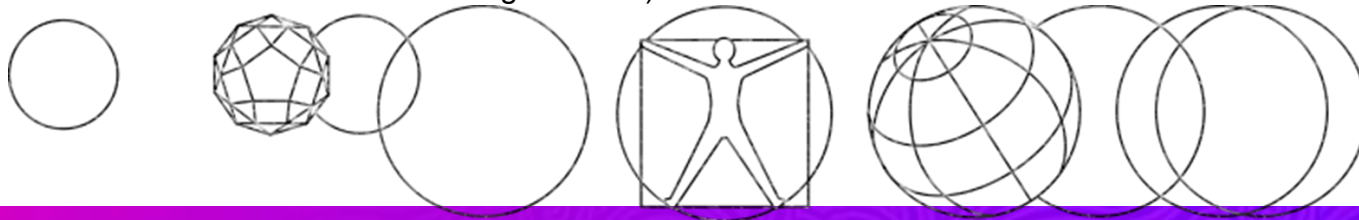
We can't hold someone's wealth in an account without knowing who they are; we can't have transactions without being sure of the counterparties (KYC and KYB)

A FUNDAMENTAL HUMAN RIGHT

The United Nations recognizes identity as a fundamental human right and has included "providing a legal identity for all, including birth registration, by 2030" as one of its Sustainable Development Goals (UN target. 16.9)

PRE-REQUISITE OF A FUNCTIONING ECONOMY

Establishing identity is foundational for economical, social and political opportunity.



What is Mobile-ID?

Asan Imza: SIM based personal identification for digital services



Three-factor authentication

Digital certificates issued by Asan Imza cannot be used without an additional PIN code, meeting the three-factor authentication requirements of:

- ✓ **“something you have”** (physical SIM card),
- ✓ **“something a user is”** (biometrics and face-to-face meeting),
- ✓ **“something you know”** (PIN code).

How secure SIM cards look like

- ✓ Asan Imza also supports Mobile Number Portability service.

Asan Imza is more convinient
with **Nar Mobile**



BAKCELL ASAN İMZA
USE YOUR MOBIL SIGNATURE
WHEREVER YOU ARE



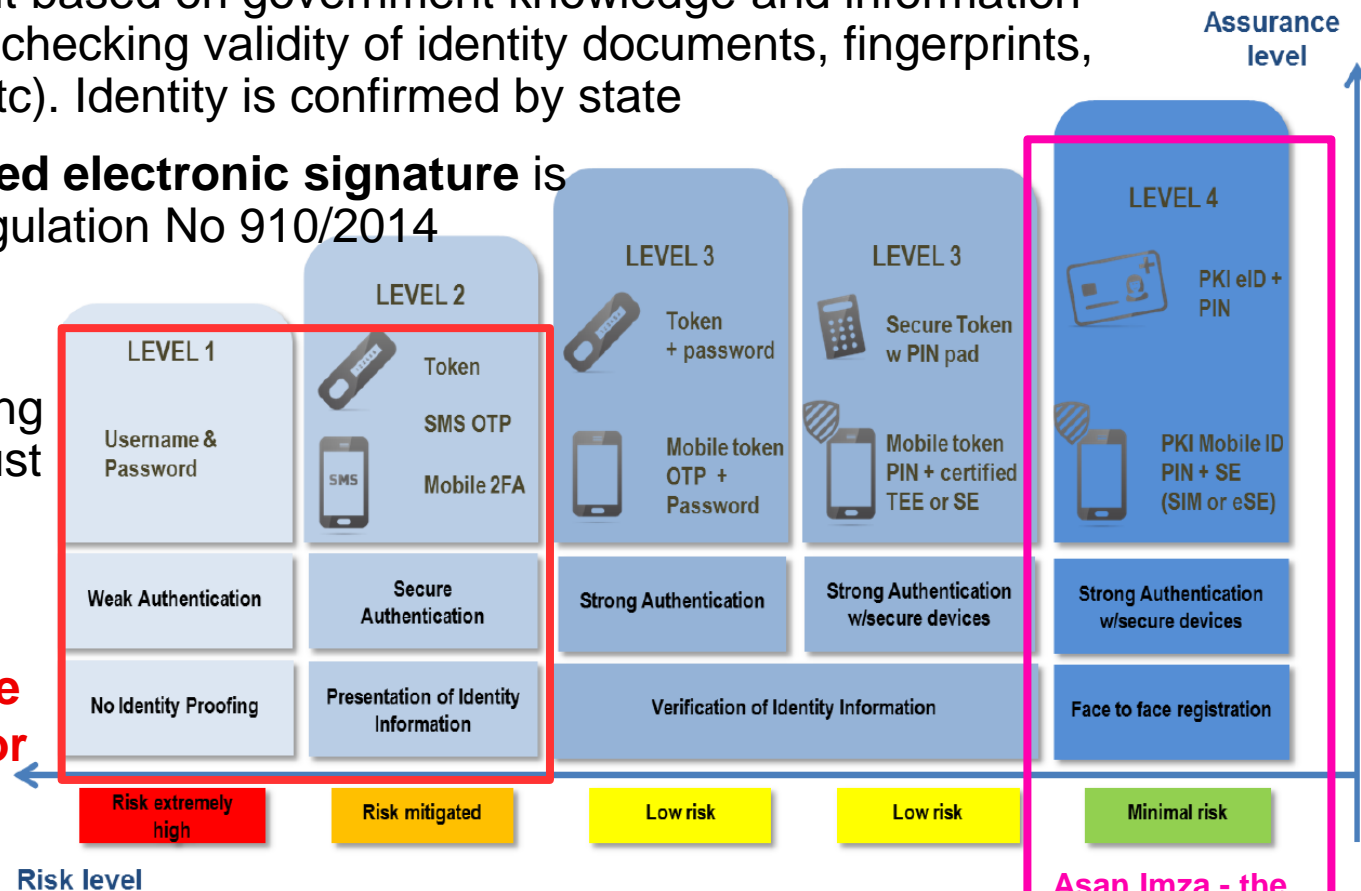
THAT TIME SWEDEN CHANGED ITS TRAFFIC DIRECTION IN A SINGLE DAY



Asan Imza – the highest level of assurance

- The domain of issuing identity is usually seen as a fundamental government task
- Identity management based on government knowledge and information (population registry, checking validity of identity documents, fingerprints, photo, citizenship, etc). Identity is confirmed by state
- Asan Imza - **qualified electronic signature** is compliant to EU Regulation No 910/2014 (eIDAS Regulation)
- Identification and method for processing mID applications must ensure high level of trust

NIST declares the age of SMS-based 2-factor authentication over



Mapping between (ISO) Assurance levels and authentication methods
Source: 'Eurosmart position paper – server signing within the eIDAS regulation'

Asan Imza - the highest degree of confidence and the minimal risk

Asan Imza in numbers

- ✓ Issued more than **700 000** Mobile-ID certificates
- ✓ More than **60** million transactions and Mobile ID signatures
- ✓ Over **90%** of tax declarations submitted electronically
- ✓ **100%** of labour contracts are completed online
- ✓ **100%** of B2B, B2G invoices are issued online
- ✓ **>1000** public- and private-sector e-services are available
- ✓ **100%** of customs declarations are completed online
- ✓ Establishing a company can be done in **5 minutes**
- ✓ **All major banks** are **connected** and issue m-ID
- ✓ All local mobile network operators issue m-ID
- ✓ **m-Residency** project



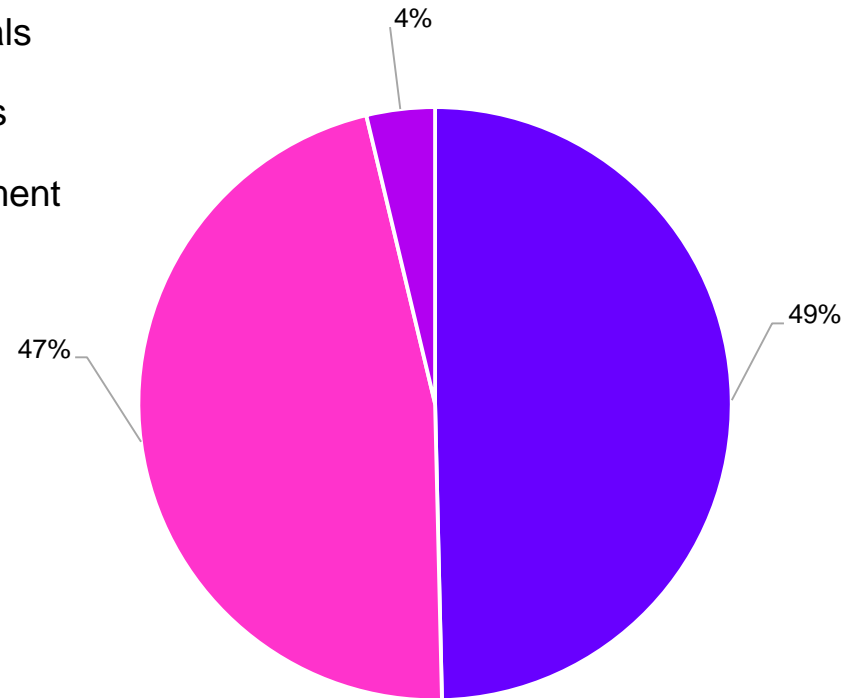
ASAN
imza

Who is the mID user? mID for business and to KYB

- ✓ there have been issued around **700 000** Asan Imza certificates in the country.

Asan Imza User Group

- Individuals
- Business
- Government



Asan Imza
will answer
who is Sabina
and who is
Narmina



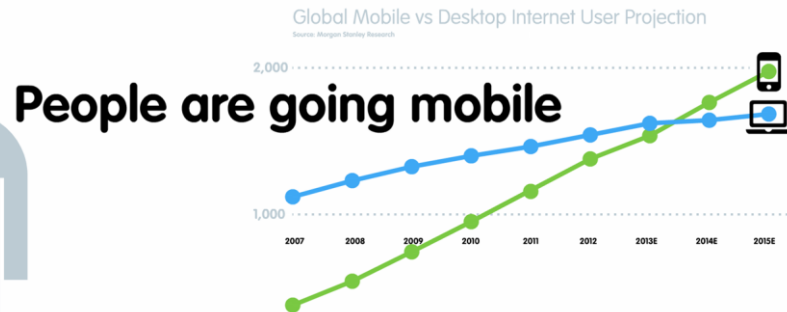
Asan Imza – one unique “National Identity” issued by State. This identity is that which makes a person unique, i.e. itself and not another, and by extension recognizable and distinguishable from others: confers rights and duties.

Asan Imza is easy

All you need is a
mobile phone
with secure SIM



Mobile-ID requires
no device upgrades
on the customer side.



eID vrs mID

Definitive data and analysis for the mobile industry

GLOBAL DATA

Mobile connections, including licensed cellular IoT Apr 2018

8,513,747,936

▲ 6.20%

Unique mobile subscribers Apr 2018

5,061,223,170

▲ 3.72%

Revenue/year FY 2017

\$1.05T

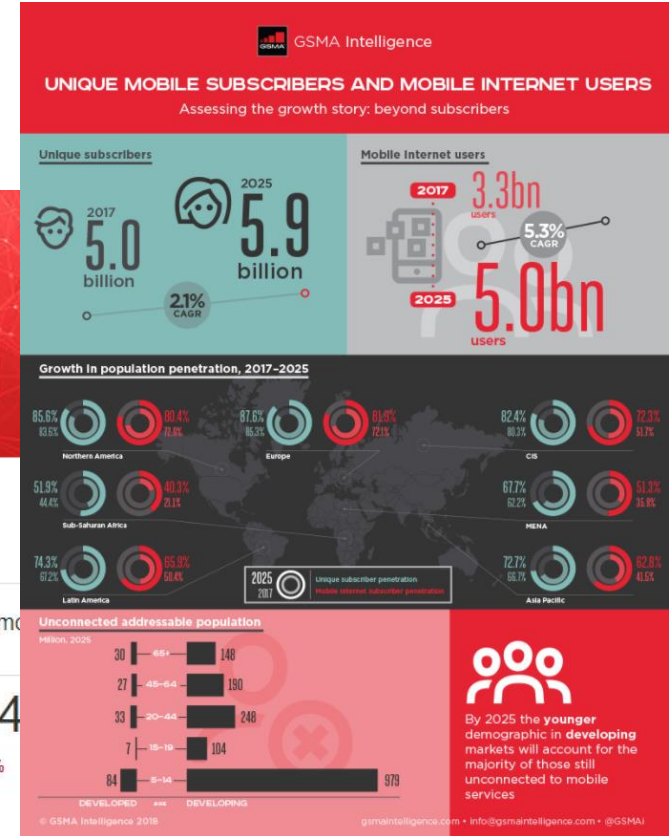
▲ 1.64%

ARPU/mo FY 2017

\$9.4

▼ -3.05%

Source: GSMA Intelligence 2018, current year-end data except interpolated subscribers and connections



NO Card reader



NO ID card



NO E-Token



NO Drivers & PC Soft

Reasons for banks to use strong Mobile Identity



- ✓ **New concept of customer service**
Nowadays banks are globally moving from the traditional “face-to-face” model of customer service to an innovative concept of “e-branches”. Using Strong Mobile Identity solutions definitely contributes to this process allowing banks to cut traditional costs on maintenance of physical branches and be online **24/7 for customers**. No legally proved e-identity no 24/7 digital banking
- ✓ Planned integration of Mobile Identity into innovative **video-banking** channels and ATMs – the best way to fight with skimmers and malware...

Asan Imza

- ✓ cannot be forged
- ✓ reduce paper usage considerably
- ✓ make it possible to rearrange human resources
- ✓ raise cost-efficiency

- ✓ **Maximum security of operations**

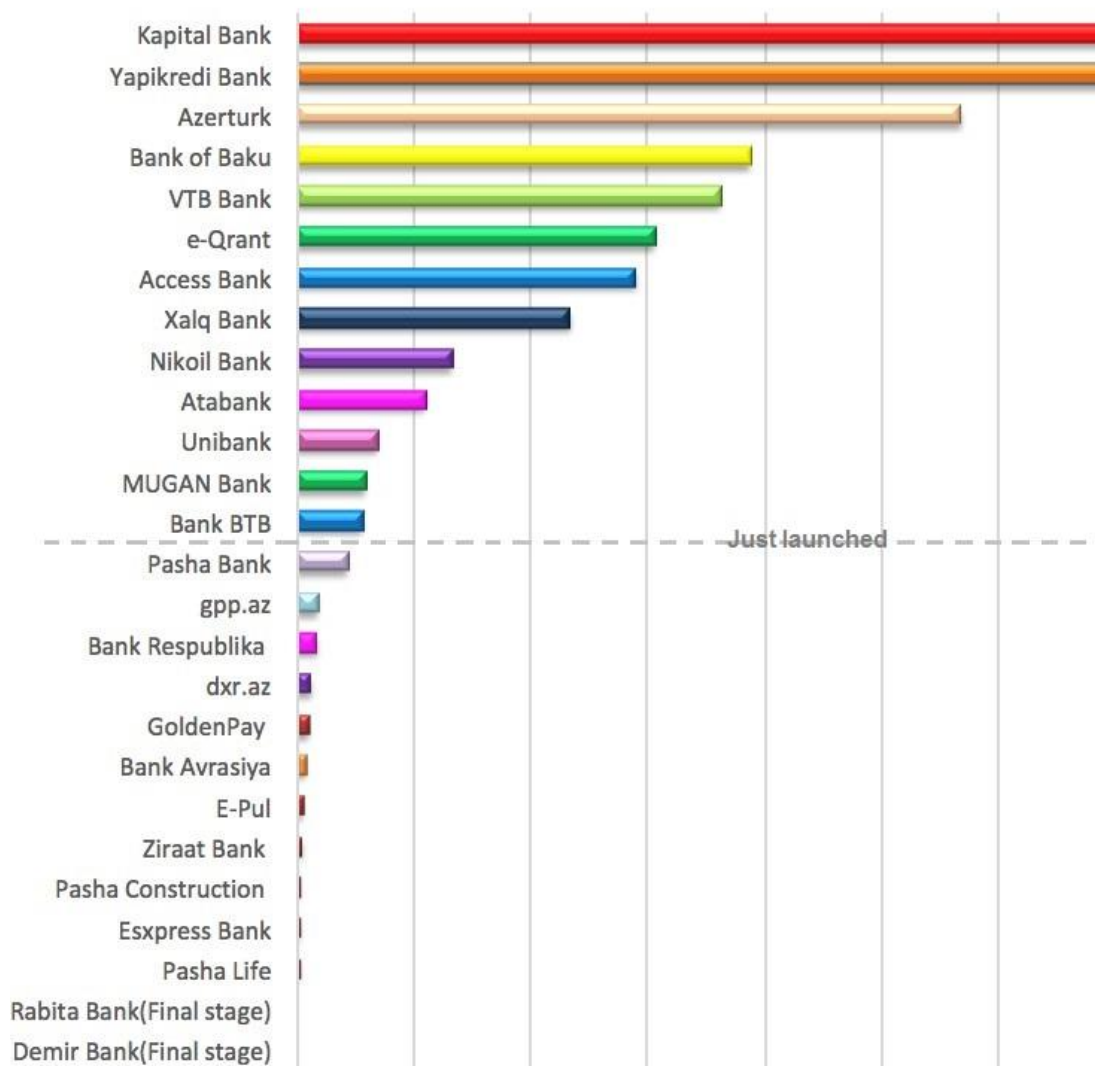
Thanks to Mobile ID technology, there is no need to use such vulnerable and old-fashioned authentication methods as usernames and passwords or OTP. Mobile Identity can no way be hacked or compromised by any third party, thus providing top level of security for all online operations and personal data of customers.

- ✓ **Enhanced customer satisfaction**

Bank customers can get all required services online with their innovative identities just in two clicks not spending their time and resources to visit physical branches of a bank. Additionally, they can use their Mobile-ID a single authentication tool across multiple online banking platforms of various banks.


Asan İmza – secure key to financial services (KYC)

Usage of Asan İmza e-systems within private service providers



[ABOUT BANK](#)[SYSTEM RULES](#)[GUIDELINE](#)

Welcome to internet banking service of Azer-Turk Bank




Asan İmza Number

+994

Asan İmza User Id



SIGN IN



Unibank Mobile

BANK SİZİN TELEFONUNUZDA

TƏHLÜKƏSİZ • SÜRƏTLİ • RAHAT



Asan İmza – real solution for rural areas, for people with low computer & financial literacy and limited access to the internet

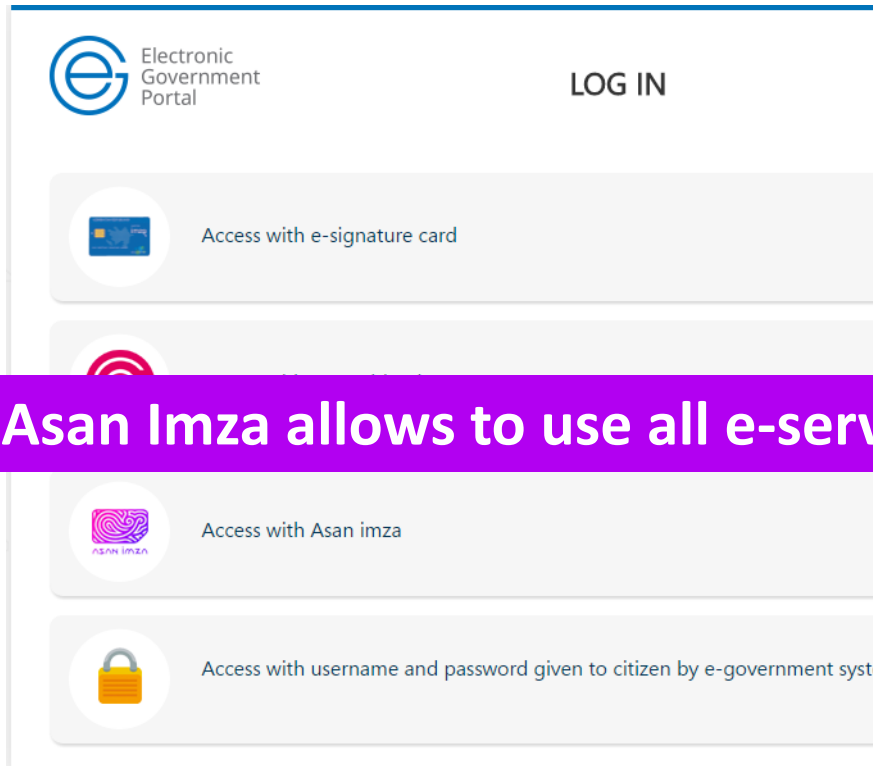
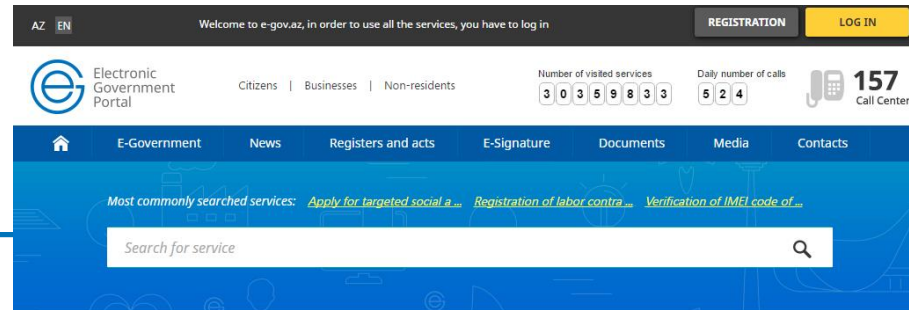
✓ Declaring taxes by phone : 195 Call Centre

Taxpayers can fill in and submit their simplified tax declarations by calling 195 Call Centre. There is even no need to use PC or Internet for this purpose; the operator of Call Centre will guide the taxpayer throughout the overall process only asking to confirm the ready declaration with his/her PIN2 to submit it.

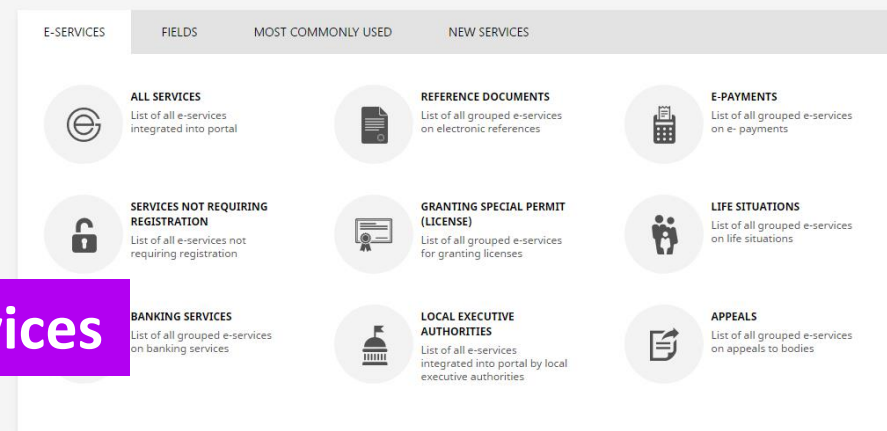
- ✓ Expanding the list of services at 195 Call Centre and integrate other popular services via other call centers with Asan İmza including financial services



Asan İmza has been integrated into e-Government Portal



Asan Imza allows to use all e-services



How is the mID verified during registration (eg. face-to-face)



1.

Turn to your mobile operator and apply for an Asan İmza (Mobile ID) SIM-card Face2Face.



2.

Please note that you need to provide an **identification document** to be authenticated in accordance to the requirements of KYC



3.

Sign a **subscription** for an Asan İmza (Mobile ID) SIM-card and services.



4.

After the subscription is signed, your mobile operator **provides you with a new, PKI SIM card**, which you must place in your mobile phone.



5.

Turn to an office of the Asan Certification Service Centre of the Ministry of Taxes (ASXM) in order to activate your Mobile Identity certificates. Please note that you need to bring an identification document (containing yours ID number) with you. You can get Business Certificates to follow KYB. The certificates will thereupon **be activated** and you are ready to start using the Asan İmza (Mobile-ID) services (authentication and digital signing).



6.



7.

If you would like to make all above mentioned steps in one place please turn to ASAN Xidmət Centers.



7.

Starting from 2018 you can get your Mobile Identity- Asan Imza at bank within 20 minutes



ASAN
İMZA

mResidency with Asan Imza

- ✓ **mResidency** program in Azerbaijan - the issuance of Mobile ID (“Asan Imza”) to non-residents through diplomatic representative offices and consulates.
- ✓ The aim of the project to issue Asan Imza to everybody who is interested to start business in Azerbaijan, to invest to the country and to use all opportunities of online services in Azerbaijan being abroad.

All m-Residents of Azerbaijan will:

- Establish an Azerbaijani company online within a day
- Administer the company from anywhere in the world
- Conduct e-banking and remote money transfers
- Have access to international payment service providers
- Digitally sign and transmit documents and contracts
- Manage accounting records and declare Azerbaijani taxes online
- etc....



WELCOME TO THE DIGITAL WORLD OF AZERBAIJAN

**Anywhere, anytime, anyhow
any service to anybody**

Our main goal is to create possibilities for citizens to use easy, secure e-services without limitation of place, time and devices and confirm operations with their mobile signature.

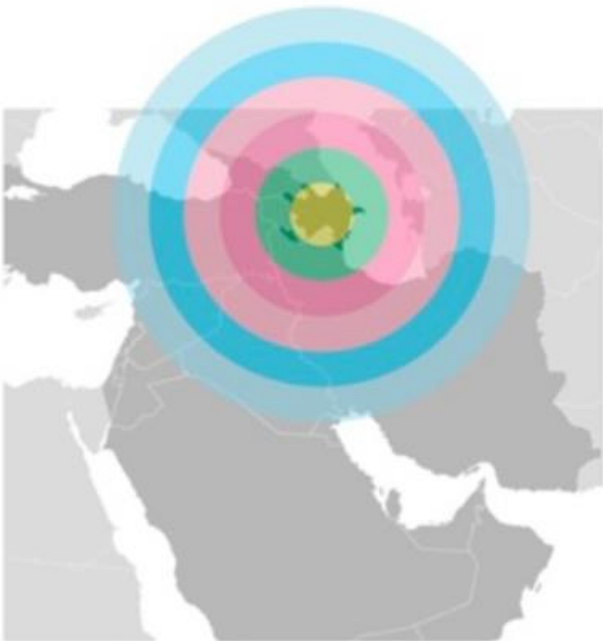


ASAN
imza

Parliament of Azerbaijan approved the draft law "On free economic zone of Alat" on May 18, 2018

Becoming an economic hub of the region.

DIGITAL TRADE HUB OF AZERBAIJAN



Free Trade Zone will play a pivotal role in international multimodal transportation and the Eurasian supply chain via Azerbaijan. A strong domestic and regional logistics network and logistics market would provide a solid foundation for the Alyat project. The port will act as a major logistics hub in the Caspian region, serving both European and Asian markets, as well as being part of an extensive international logistics network linking Europe and Asia.

Investors, entrepreneurs, residents of the free zone, legal entities of the free zone and their employees have the right to conduct transactions in any currency, without restrictions.

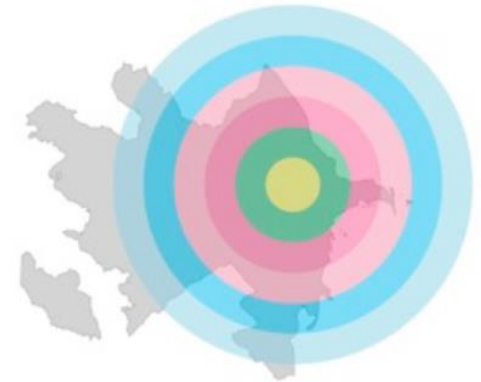
Digital Trade Hub of Azerbaijan:

Become the economic hub of the region

- First e-Trade and e-Commerce platform guaranteed by the government under the management of Center for Analysis of Economic Reforms and Communication. All transactions are legally binding according to partner country legislation.
- One of the unique attributes is its arrangement based on the PPP principle and corporate governance standards. Private companies are involved in the development of the platform and in building cross-border e-services.
- Latest technology: blockchain, M2M, e-government interoperability data-exchange platform, mobile identity, PKI, KYC, KYB.
- It offers useful cross-border e-services including B2B and B2G services, e-customs operations between DTH partner countries, online company registration, online bank accounts and more.
- The DTH is integrated with global e-commerce players like **Amazon, eBay, Alibaba**, etc.
- A single window for SME (PPP) provides all necessary international standards (certificates, financial transactions).



Becoming a model on modern governance and a case-study for other institutions to follow



Attracting investments from foreign capital.





SINGLE EXPORT APPLICATION

"Single Export Application" provides access to several permits and licenses through a single application for individuals seeking to export their products. Entering information once, an exporter may obtain origin, quality, phytosanitary and free-of-sale certificates and can delegate filling out customs declaration and export promotion application to "Azexport.az".

<https://dth.azexport.az/>



- It shortens the time to obtain export documents. On average filling out each application takes 5 minutes.
- The service is free of charge. The cost of creating the export package is minimized.

Legal basis: Amendments to "Regulations on declaration of goods and means of transport crossing the customs border", approved by the Cabinet of Ministers of the Republic of Azerbaijan dated July 22, 2014 No 263.

Decree No. 920 of the President of the Republic of Azerbaijan dated May 21, 2016 on approving "The rules of the use of the green corridor and other grading systems for conveyance of goods and means of transport across the customs border".

Decree of the President of the Republic of Azerbaijan No 1255 of February 22, 2017 on "Additional Measures to Strengthen the Position of the Republic of Azerbaijan as a Digital Trade HUB and Expand Foreign Trade Transactions".

www.iqtisadiislahat.org

www.ereforms.org

www.ecoreform.az

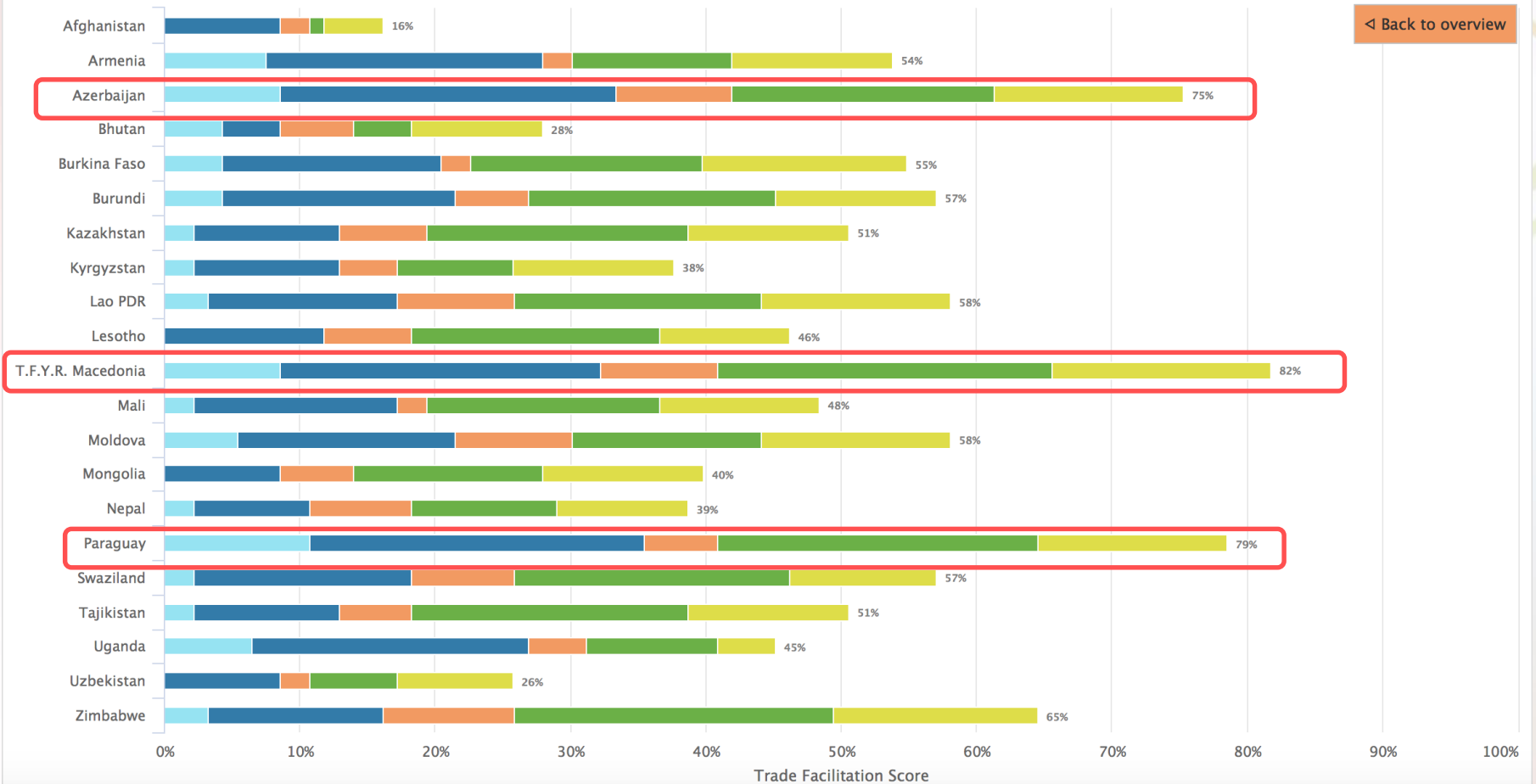
Paperless Trade

Trade Facilitation and Paperless Trade Implementation



● Cross-Border Paperless Trade
● Paperless Trade
● Institutional Arrangement and Cooperation
● Formalities
● Transparency

[Back to overview](#)



Source: UN Global Survey on Trade Facilitation and Paperless Trade Implementation 2017

First year results from 2017:

475\$M worth of goods ordered to 74 countries

The simplified winning formula:

Interoperability data-exchange platform

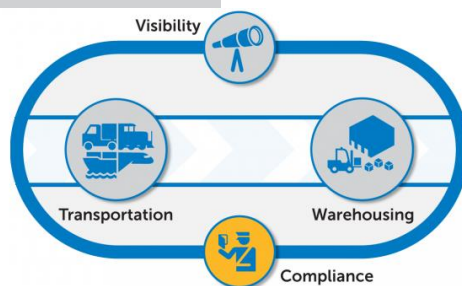
+

Mobile Identity (legally binding)

+

Cross-border e-services

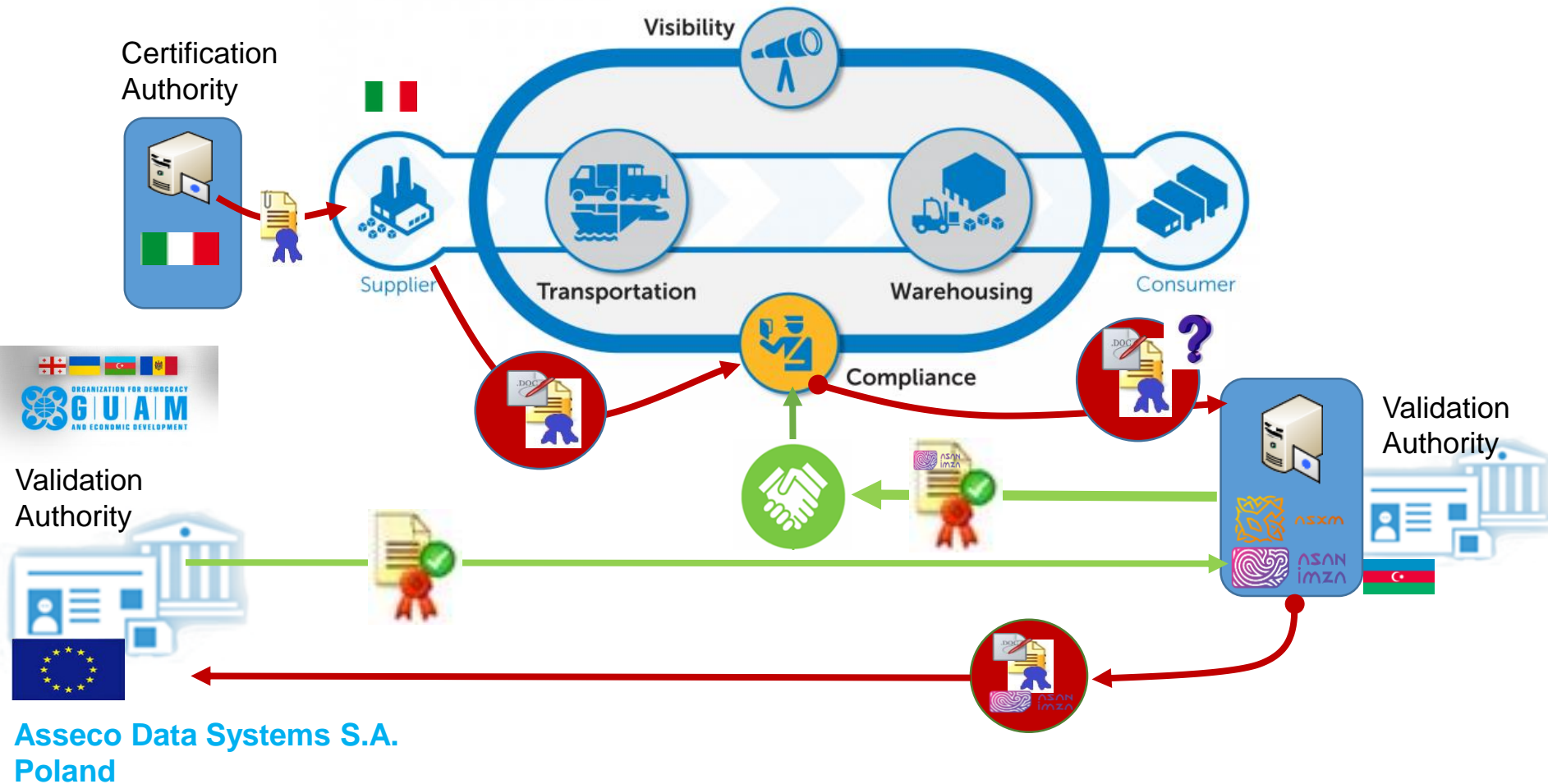
Digital Trade Hub – cross-border custom' e-services for GUAM, Silk Road, EU, USA and others



United Nations
UNCITRAL

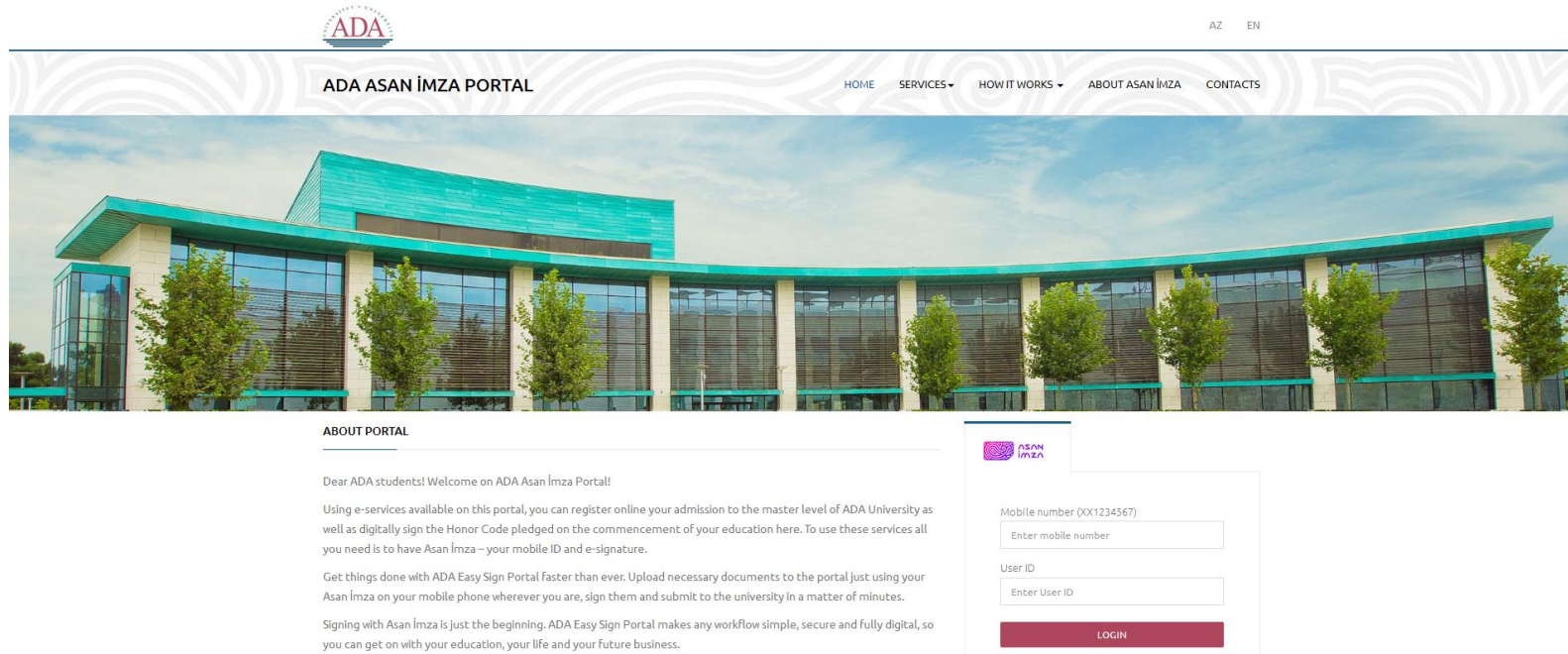


Digital Signatures' Validation process between Azerbaijan and EU, GUAM, Silk Road – base for cross-border e-services



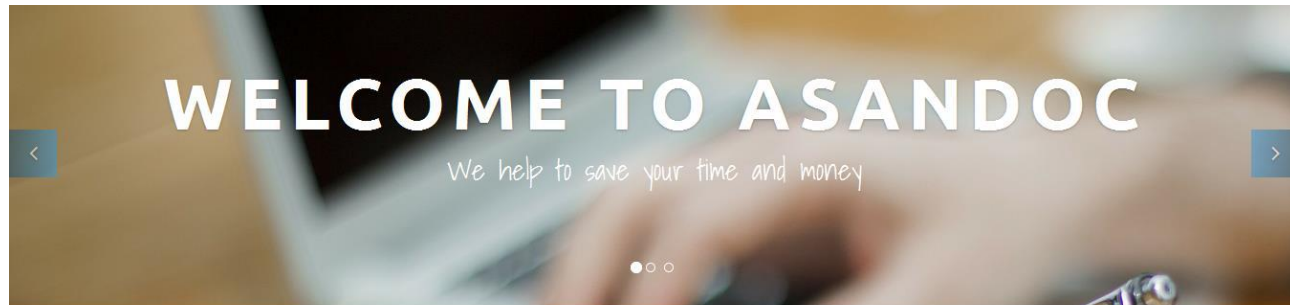
ADA University Asan İmza Portal: mobile ID brings innovations to education

- The first-ever online platform in the Azerbaijani education sphere integrated with the Mobile ID technology – Asan İmza.
- ADA Asan İmza Portal represents a unique digital environment to combine existing and future e-services of ADA University. This portal currently incorporates e-services on registration of admission to the university and e-signing of Honor Pledge of ADA University. The portal can be accessed only by students who have been admitted to the master degree of ADA University this year as well as relevant officers of the university. The authentication tool for logging in to the portal is “Asan İmza” (Mobile-ID with e-signature).



AsanDoc – over-the-country e-&m-signing portal

- Works are underway on creation of a brand-new online document storage and e-&m-signing portal which will be available to all Asan İmza (Mobile ID) users in our country and will enable them to store, sign and exchange their documents using the portal.
- The service is launched both as a business solution for corporate customers as well as for individuals who wish to benefit from the functionality provided on the portal.



ABOUT ASANDOC

One of the main differences between customary identification documents like passports and digital identities comprised of certificates stored in an appropriate CA and private keys stored on either a smartcard (Rəqəmsal ID-kart) or a SIM-card in a mobile phone (Asan İmza or Mobile ID) is that the latter have the function of giving signatures. Saving both time and money, as you can sign electronic versions of documents without printing and shipping hard copies, it is also secure, as both the identity of the signer and the authenticity of the signature are guaranteed by respective certificates. Only a signature given with a certificate valid at the moment of signing is valid itself, which is why an appropriate service is available to verify the validity of a certificate in real time. Digital signatures can be used for confirming payments in internet banks, using services of state institutions or private enterprises online, concluding agreements with business partners, etc.—basically anything for which you have customarily written your signature as the statement of intent.

ASAN İMIZA

AZ ID Card

Sign In

Mobile number

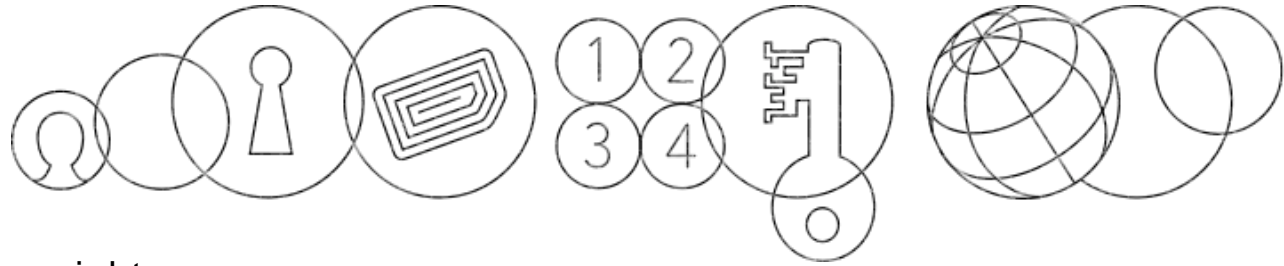
Enter email

User ID

Password

LOGIN

Key takeaways and benefits



- Identity is fundamental human right
- Banks are the epitome of trust relying heavily on identification solutions.
- 95% of services, can be done remotely if you have a legally binding unique and universal Mobile-ID (opening a bank account, medical prescriptions, establishing a company)
- Mobile-ID (mID) is the gold standart of electronic ID's, it works in cities and rural areas with limited access to internet, and low computer and financial literacy
- KYC/KYB (know-you-customer-business) made easy
- Can be launched in 6 months
- Pre-requisite for a e-government (equal treatment of citizens, minimize corruption and bureaucracy)
- Connecting country with its Diaspora
- Digital-ID and eGOV can save 2% of GDP per year or more in your country (example Estonia)



ISESCO BESTDOC Portal – a cross-border corporate platform for digital signature

- ✓ ISESCO BESTDOC PORTAL, claiming to be the first ever m-signing and authentication service in the ISESCO countries and globally as the best practice of innovative document management system for international organisations, aims to export the paperless society experience and enables sharing and m-signing of documents in any format underpinned by strong user authentication.
- ✓ **Islamic Educational, Scientific and Cultural Organization (ISESCO) BESTDOC PORTAL** uses e- & m-signature and authentication technology that aims to be at the forefront in the mobile signature world.
- ✓ Introduction to the project was in November 2015 at ISESCO annual meeting in Baku. Agreement signed in November 2016.





GANMI

Welcome vendors and providers of National Mobile Identities to join GANMI

- ✓ Mobile Devices are increasing being seen as carriers for National Credentials – either primary or derived.
- ✓ Standards are still not complete, and interconnectivity between schemes is non-existent. This leads to hesitation in take up due to adverse risk.
- ✓ The aim of GANMI
 - is to converge the standards applicable to this domain, in order to promote global interoperability, extend supplier choice, and reduce risk.
 - to agree best practices and standards
 - to build the community, technical resources
 - to promote interoperability and establish pilot demonstrators between different MID schemes at both API and GUI levels
- ✓ GANMI members from [Austria](#) (chair), [Azerbaijan](#) (co-chair), [Turkey](#), [Estonia](#), [Iceland](#) and [Norway](#), [Switzerland](#), [Oman](#), [Moldova](#), [Belgium](#) and [Israel](#).



GLOBAL ALLIANCE
FOR NATIONAL
MOBILE IDENTITIES

Asan İmza – Happy to share



ASAN
İMZA





My government is
always with me

www.asanimza.az