



Ministry  
of Digital Affairs



**Expert Group Meeting**  
**on**  
**THE BEST PRACTICES IN**  
**IMPLEMENTATION OF MOBILE**  
**IDENTIFICATION (mID)**

**18-19 October 2016**

**Warsaw, Poland**

**Ministry of Digital Affairs**



## Mobile ID (Asan Imza)

your Mobile-PASSPORT in the new generation Government



### Ulduza Khalilova

Head of Division for e-Services Development and Social Innovations,  
The State Agency for Public Service and Social Innovations  
under the President of Azerbaijan

[www.asan.gov.az](http://www.asan.gov.az)



### Jana Krimpe

Head of the Mobile-ID Center of Azerbaijan

[www.asanimza.az](http://www.asanimza.az)



Ministry  
of Digital Affairs

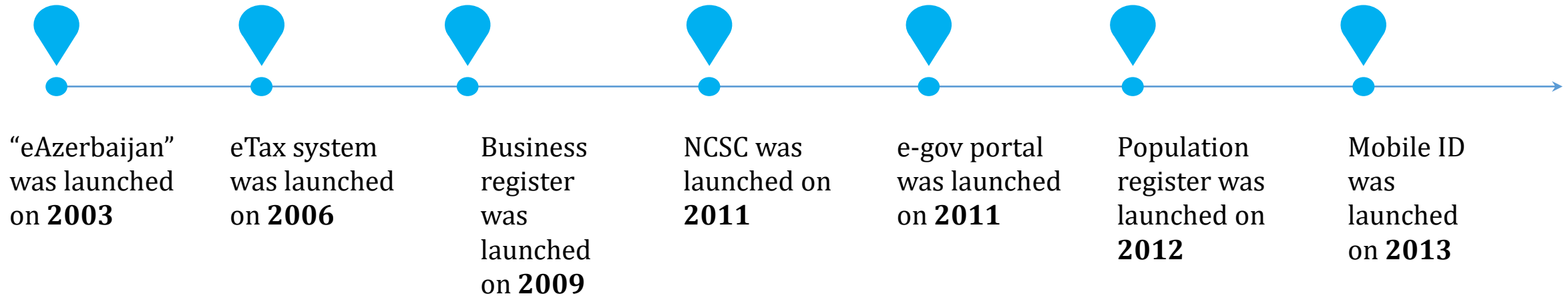


Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities

- Overview about eGovernment platforms - timeline



- **Information portal on public services**
- **eGovernment portals (e-gov.az, e-taxes.gov.az): more than 500 different e-services**
- **Financial services (banks, cross-country payment portals)**
- **Identity services: mID (Asan Imza), eID (eImza, ASAN ID)**



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



**Dövlət xidmətləri ilə bağlı vahid məlumat portalı**

138 Dövlət xidməti | 134 Dövlət xidməti | 271 Dövlət xidməti | 120 Dövlət xidmətləri ilə bağlı xidmətlər

**Dövlət xidmətləri**  
Dövlət xidmətləri ilə bağlı vahid məlumat portalı

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**Ən çox axtarılan xidmətlər**

**Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**Yeni statuslara və işləmə müddətinə...**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**Əvvəlki işləmə müddətinə və işləmə müddətinə...**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**Yeni statuslara və işləmə müddətinə...**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**Dövlət xidmətləri ilə bağlı vahid məlumat portalı**

138 Dövlət xidməti | 134 Dövlət xidməti | 271 Dövlət xidməti | 120 Dövlət xidmətləri ilə bağlı xidmətlər

**Dövlət xidmətləri**  
Dövlət xidmətləri ilə bağlı vahid məlumat portalı

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**Ən çox axtarılan xidmətlər**

**Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**Yeni statuslara və işləmə müddətinə...**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**Əvvəlki işləmə müddətinə və işləmə müddətinə...**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**Yeni statuslara və işləmə müddətinə...**  
Bu qanunla Azərbaycan Respublikasının Səfərbərlik və Hərbi Xidmətə Çağırış Qanunu təsdiqlənmişdir.

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

**ASAN İmza**  
"ASAN İmza" mərkəzlərində göstərilən xidmətlər

Information portal on public services: [www.dxr.az](http://www.dxr.az)



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



The screenshot shows the main interface of the Electronic Government Portal. At the top, there is a navigation bar with the portal logo, user options (Citizens, Business, Non-residents), and a call center number (157). Below this is a search bar and a grid of service categories including 'ALL SERVICES', 'REFERENCE DOCUMENTS', 'E-PAYMENTS', 'SERVICES NOT REQUIRING REGISTRATION', 'GRANTING SPECIAL PERMIT (LICENSE)', 'LIFE SITUATIONS', 'BANKING SERVICES', 'LOCAL EXECUTION AUTHORITIES', and 'APPEALS'. At the bottom, there are three promotional banners for 'ELECTRONIC GOVERNMENT BULLETIN', 'ELECTRONIC GOVERNMENT IDEA BANK', and 'ONLINE PAYMENTS'.

The screenshot shows the login page of the Electronic Government Portal. It features a 'LOG IN' header and a call center number (157). Below the header, there are four login options, each with an icon and a 'How to get?' link: 'Access with e-signature card', 'Access with E-Gov identity', 'Access with Asan imza', and 'Access with username and password given to citizen by e-government system'.

Asan Imza allows to use all e-services

[www.e-gov.az](http://www.e-gov.az)



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



108

Daxil ol

Qeydiyyat

## Ödəniş etməyin ən asan yolu

Xidmət adına görə axtarış

### Ən populyar ödənişlər

<p>Carimələrin ödənişi</p> <p>DYP carimələri</p> <p>Ödəniş edin</p>	<p>Digər ödənişlər</p> <p>Azərenerji Ödənişləri</p> <p>Ödəniş edin</p>	<p>Digər ödənişlər</p> <p>Mobil ödənişlər</p> <p>Ödəniş edin</p>	<p>Rüsumların ödənişi</p> <p>Şəxsiyyət vəsiqəsi</p> <p>Ödəniş edin</p>	<p>Rüsumların ödənişi</p> <p>Sürücülük vəsiqəsi</p> <p>Ödəniş edin</p>	<p>Rüsumların ödənişi</p> <p>Ümumvətəndaş pasportu</p> <p>Ödəniş edin</p>
---	--	--	--	--	---

CƏRİMƏLƏRİN ÖDƏNİŞİ

RÜSUMLARIN ÖDƏNİŞİ

KOMMUNAL ÖDƏNİŞLƏR

DİGƏR ÖDƏNİŞLƏR

Kömək | Xəbərlər | Terminallar | Əlaqə

2016 © ASAN ödəniş sisteminin rəsmi internet saytı. Müəllif hüquqları qorunur.

**AsanPay – a centralized portal for all kind online payments.**

[www.asanpay.az](http://www.asanpay.az)



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities



**e-Custom  
declaration**

<http://customs.gov.az/>



**Labour and social  
protection services**

<http://www.mlsp.gov.az>



**Tax services**

<http://taxes.gov.az>





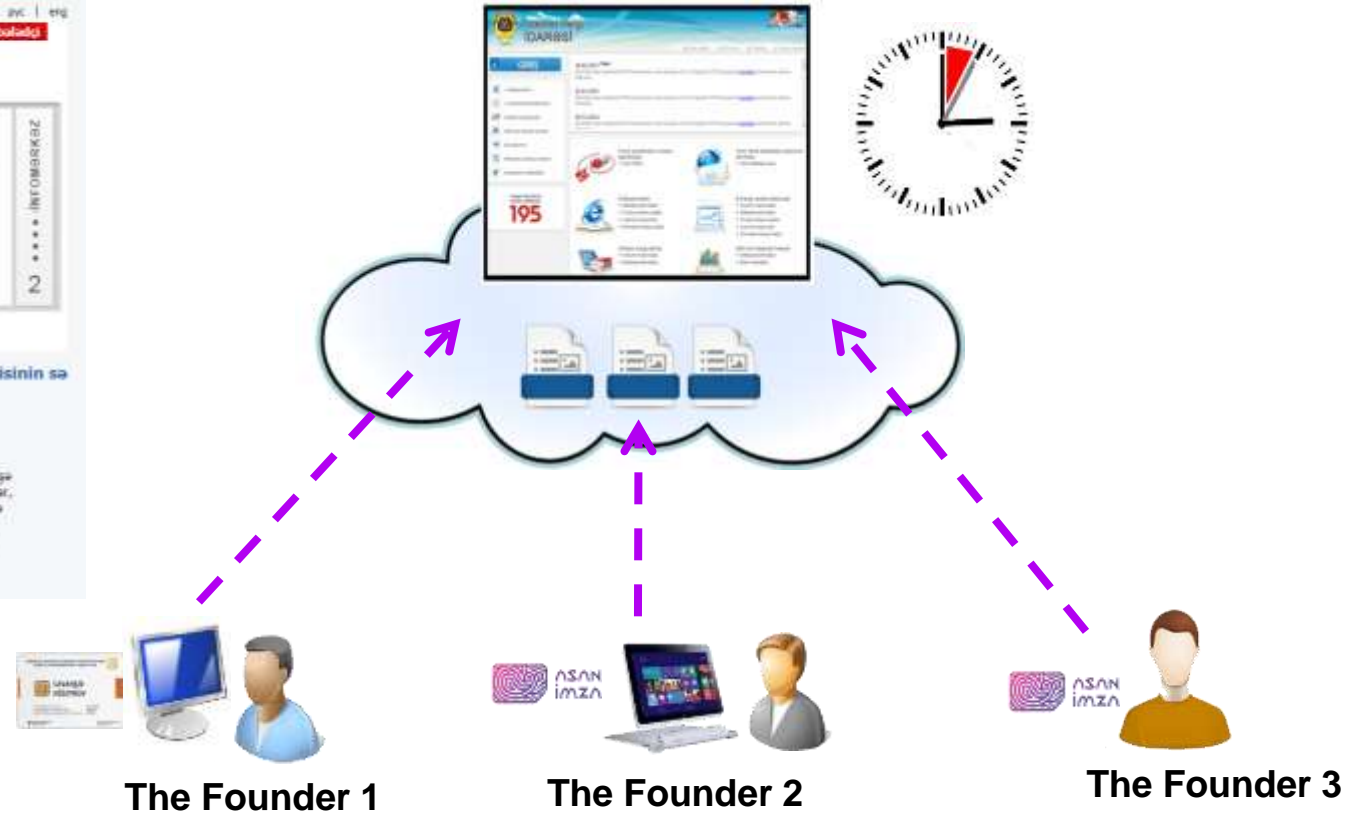
Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



The screenshot shows the homepage of the Azerbaijan Tax Authority website. At the top, there is a navigation bar with links like 'Haqqında', 'Qanunvericilik', 'Bəyannamə', 'Xidmətlər', 'Bir Pencərə', 'Müraciətlər', 'Statistika Hesabat', 'Fayllar', and 'TAX FREE'. Below the navigation bar is a search bar and social media icons. The main content area features a large banner for 'Yaşayış və qeyri-yaşayış sahələrinin təqdim edilməsi və bina tikintisi fəaliyyəti üzrə VERGİ HALKULYATORU'. Below the banner, there are several news items and service sections, including 'ASAN İmza sahiblərinin nəzərinə... elan' and 'Vergi ödəyicisinin sə'.



Online registration of legal entities

<http://taxes.gov.az>





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities

### Declaring taxes by phone: 195 Call Centre

<http://taxes.gov.az>

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.





Ministry  
of Digital Affairs

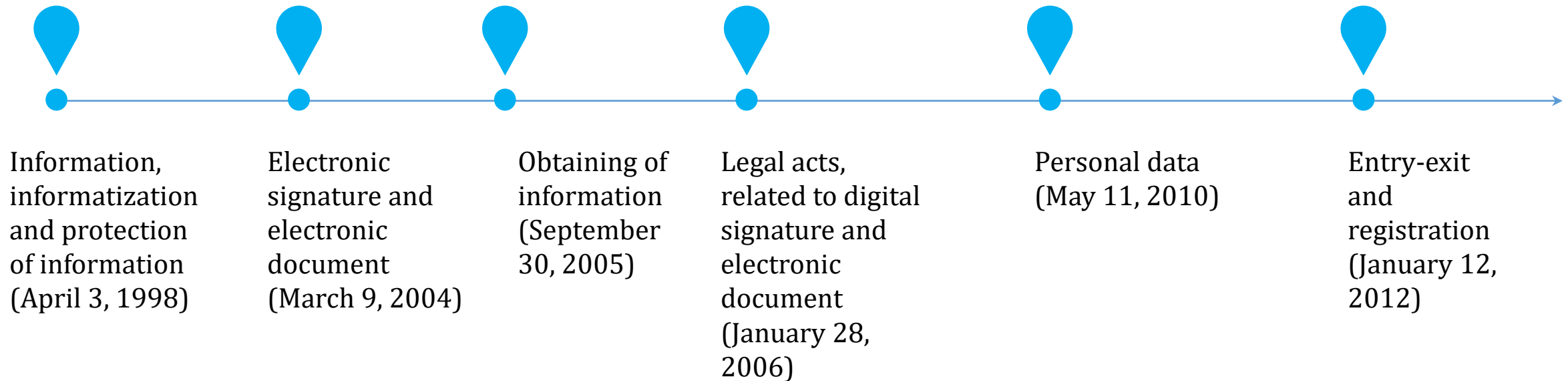


Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities

- Overview of legal framework





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



- Overview of portfolio of ID solutions used by Citizens (like PKI, mID, Token/OTP, Smart Cards etc)



### Asan Imza

Asan Imza Mobile ID provided by the Certificate Services Center of the Ministry of Taxes.

### ASAN ID – digital smart-card based ID solution

### Electronic signature (card and token)

Electronic signature issued by the Data Processing Centre of the Ministry of Communication and High Technologies



Ministry  
of Digital Affairs

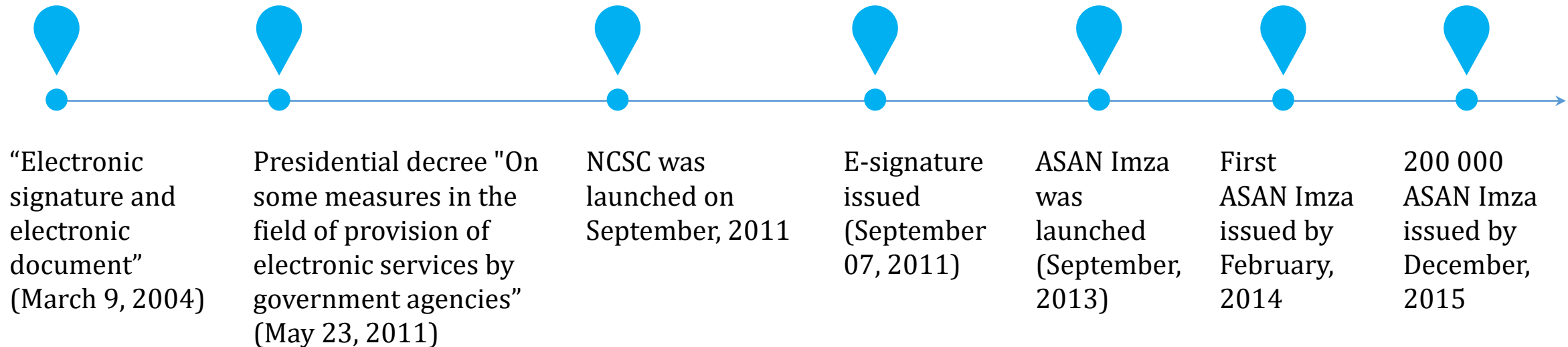


Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities (10 minutes)

- Short history of identity development – key dates (eg. started in 2009)





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



- mID in numbers – statistics about uptake, popularity, transaction per day, avg transactions per citizen, popular transation



- Pilot launch in **September 2013**, product in February 2014 as the first SIM based digital identity in Azerbaijan
- Issued by **all major mobile operators**: MNO Azercell (TeliaSonera), Bakcell and Azerfon
- **Two years in numbers:**
  - Issued more than **250 000 Mobile-ID certificates**
  - More than **15 million transactions** and Mobile ID signatures
  - **Over 90% of tax declarations** submitted electronically (in total 400 thousand taxpayers in Azerbaijan)
  - over-state e-service using Asan İmza in process of appointment of authorized persons and labor contracts registration
  - Around **500 different e-services** in Azerbaijan



Ministry  
of Digital Affairs



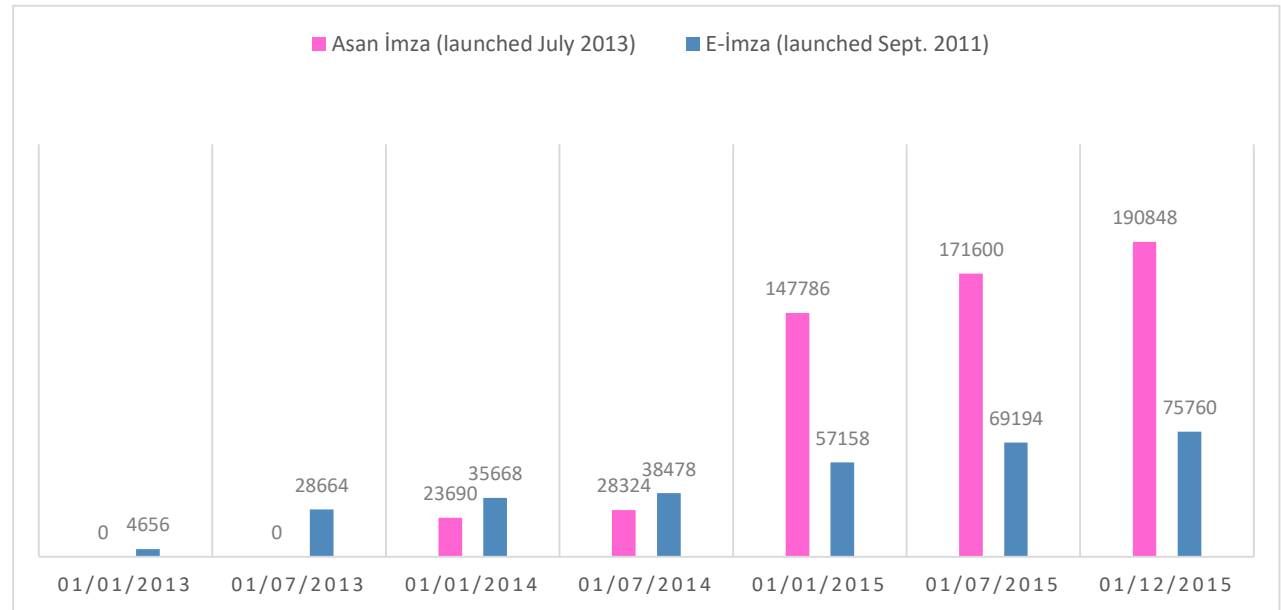
Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities

- mID in numbers – statistics about uptake, popularity, transaction per day, avg transactions per citizen, popular transation

### People prefer mID to eID



93.002 certificates issued



220.023 certificates issued





Ministry  
of Digital Affairs

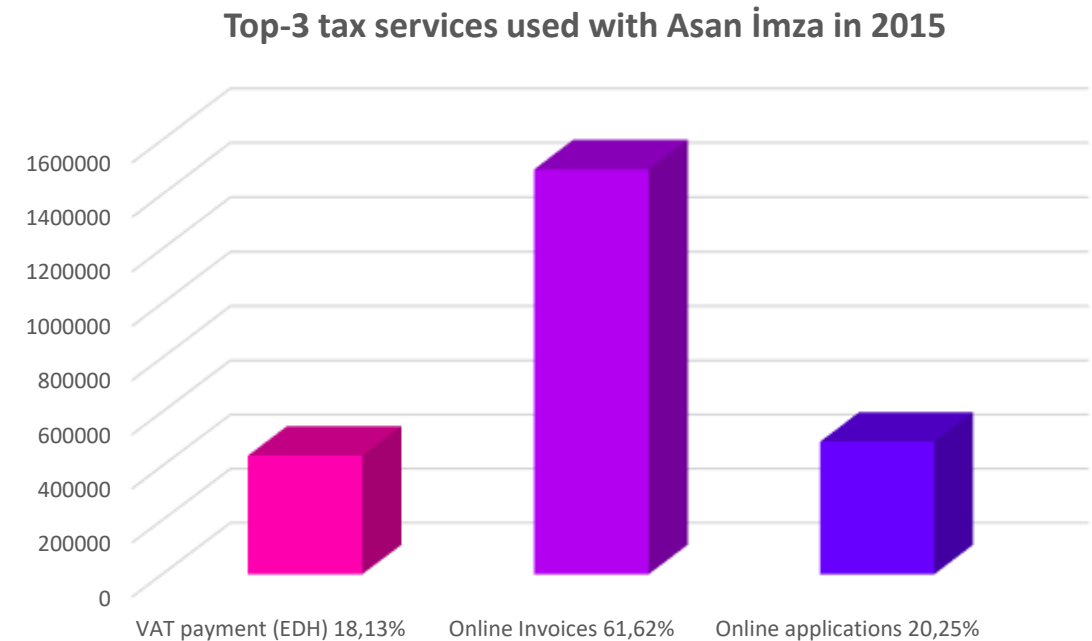
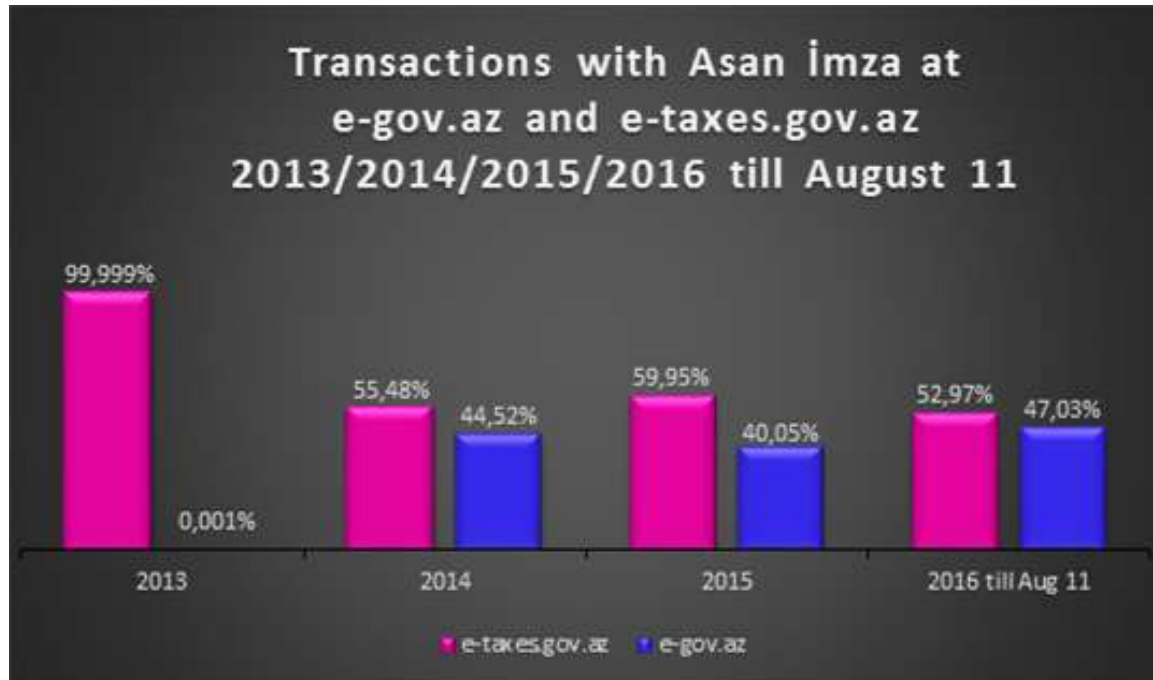


Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities

- mID in numbers – statistics about uptake, popularity, transaction per day, avg transactions per citizen, popular transaction





Ministry  
of Digital Affairs

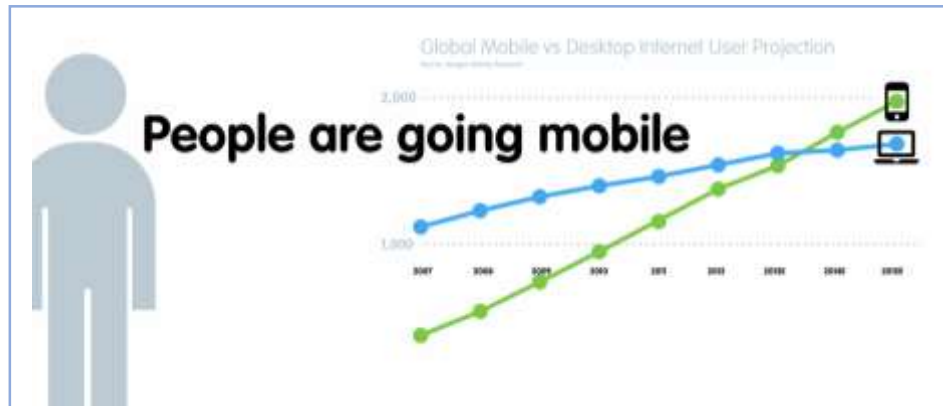


Azerbaijan  
Mobile ID (ASAN Imza)

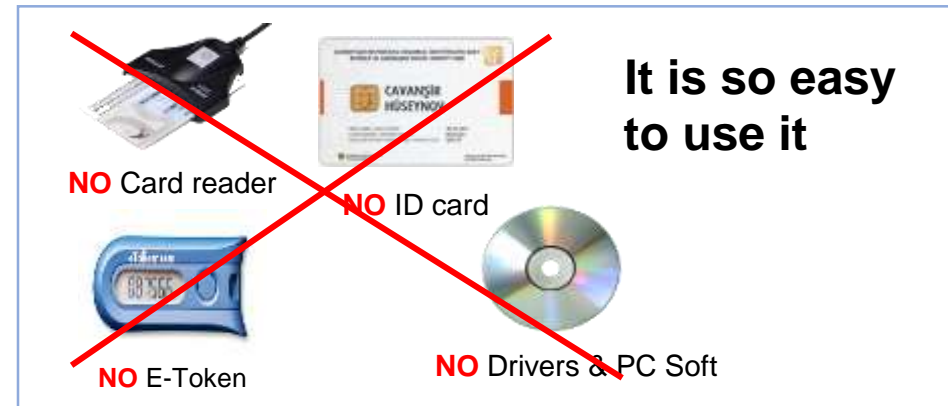


- What were the key success factors for successful mID implementation?

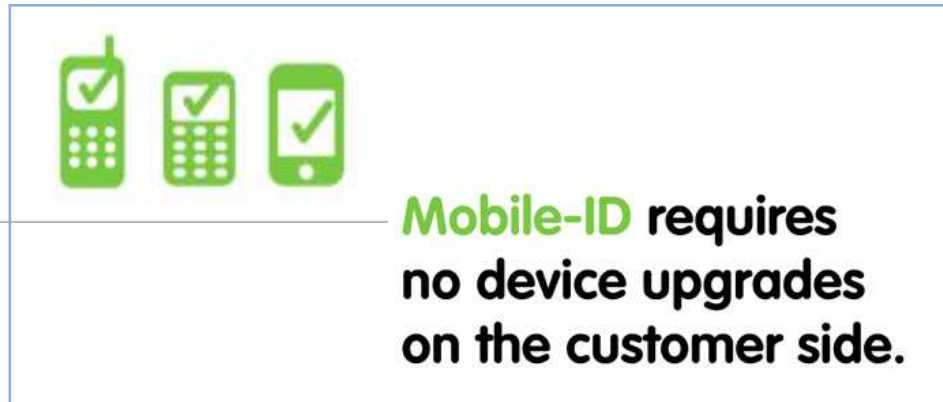
1.



2.



3.



All you need is a mobile phone with secure SIM



- What were the key success factor for successful mID implementation?

		mID	eSign
<b>Conveniency</b>	Ubiquity	Yes	No
	Smart card, PC, USB card reader	Not required	Required
	Special software	Not required	Required
<b>Supported OS</b>	Windows	Yes	Yes
	MAC	Yes	No
	Linux	Yes	No
	Android	Yes	No
	IOS	Yes	No
<b>Flexibility</b>	Several certificates can be linked to one carrier (individual + business/public)	Yes	No (each certificate is issued separately and linked to a separate smart-card)
<b>Activation period</b>	Instantly	Yes	No (around 3 days and more)

- High mobility and easiness is the most evident advantage of mID
- mID enables using the mobile phone as an authentication and signing tool in a fully secure environment granting access to a wide spectrum of services.



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 1: Introduction on mID: Trends, Challenges and Opportunities

- What were the key success factor for successful mID implementation?





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)

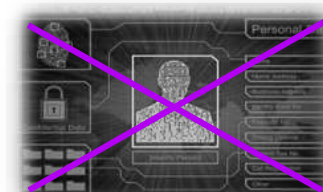


- What were the key success factor for successful mID implementation?



Removing the password in favor of a physical token dramatically increases the security

M-ID is easy and fast to use







Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 2: Business Models of mID Finance Accord and Public-Private Exchange

- Who pays for what – to whom and etc? What are the fees in system?

Mobile-ID (Asan İmza) system is based on the PPP model and the partners here are the government, all three national MNOs, Mobile ID service provider, governmental certification authority, e-service providers.



End-user of mID paying to MNO:



- ✓ mID service subscription fee – **10 € (VAT incl.)**
- ✓ mID service monthly usage fee – **0.5 € (VAT incl.)**
- ✓ mID service transaction fee – **0.02 € (VAT incl.)**



All 3 MNOs in Azerbaijan provide mID service.





## Session 2: Business Models of mID Finance Accord and Public-Private Exchange (10 minutes)

- Is the system private-based or public-based?

**mID (Asan Imza) system is PPP (Public-Private Partnership) based system.**

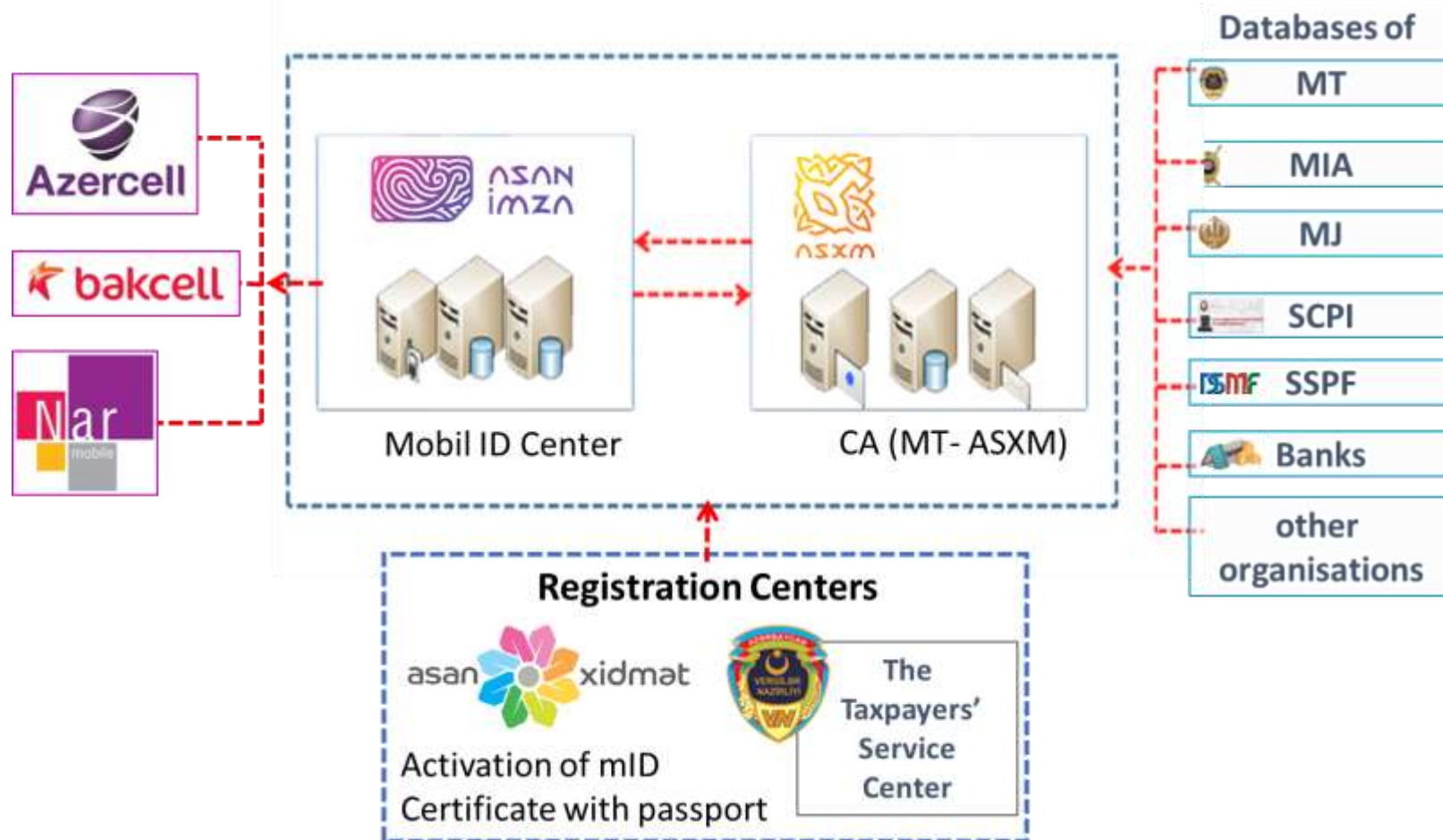
**Stakeholders are:**

- ✓ Certification Authority (ASXM)
- ✓ Mobile-ID Service Provider (B.EST Solutions)
- ✓ Mobile Operators (Azercell, Azerfon, Bakcell)
- ✓ End-users
- ✓ End-user Service providers
  - ✓ e-Government
  - ✓ Banks
  - ✓ ...



## Session 2: Business Models of mID Finance Accord and Public-Private Exchange

- Is there a central hub for eID exchange?





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 3: IT and Technical Architecture: Solutions, Services and Advantages

- **What were the key technical questions that were answered during project?**
  1. wPKI infrastructure: how to integrate all parts of the infrastructure, MNO, SIM vendors, Applets, OTA, CA, Verification Authority, RA, Service Providers.
  2. How to follow technically law requirements on identity, international standards on PKI, latest trends in security.
  3. Billing issue with MNO.



### Session 3: IT and Technical Architecture: Solutions, Services and Advantages

- **Was the identity solution implementation Client-side (on SIM/device) or server-side (eg. token generated via centralized system)**

Solution is Client-side. Each service providers which integrates to the system, generates tokens by itself. Transaction ID generates by service-provider' server side during transaction time and transaction ends after authentication or signing process will be completed by client.

Everybody is responsible for their transaction (as service proves as client).

20.3 Signature holder bears responsibility for protection of signature creation information and signature means and must not admit use of them by another person. If control on these is lost or there is danger to this, signature holder must immediately inform the respective center and demand to stop validity of certificate.

*Article 20. Rights, duties and responsibilities of signature holder*

*Law of the Republic of Azerbaijan on Electronic Signature and Electronic Document*



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



### Session 3: IT and Technical Architecture: Solutions, Services and Advantages

- **Was the system build in house or bought from the market? Is the system open-sourced and current code could be reused by other countries?**

NO, it is built in house and it is source code is not open.



### Session 3: IT and Technical Architecture: Solutions, Services and Advantages

- **Does mID solution use biometrics? Which kind (iris, palm, fingers etc). What is the name of biometrics provider (vendor like Fujitsu)**



Andrew Tryie, the chair of the UK government's influential Treasury Select Committee: The letter says that the Committee has heard evidence that **biometric data can be "relatively easily obtained by fraudsters"**.

Olga Kochetova, security expert, Kaspersky Lab, says: "The problem with biometrics is that unlike passwords or pin codes, which **can be easily modified** in the event of compromise, it is impossible to change your fingerprint or iris image.

In September 2015, the US Office of Personnel Management warned that hackers who breached its systems over the summer made off with the **fingerprint records of 5.6 million individuals**, raising questions over the security of biometrically-protected identities.





## Session 3: IT and Technical Architecture: Solutions, Services and Advantages

- **Does mID allow to use it in real, physical work or only digital?**

Only digital!

- **Is there any central system which logs every transactions?**

Authentication and signing transactions are being logging in central system. But, processes transactions logs are stores in Service Provider's side.

- **Is every transaction handled by central system? This means that country / system knows about every transactions (citizen could have problem with privacy)**

Each transactions are flowing in system in binary format. Central system logs only time durations of authentication and signing transactions. Content of transaction is unknown and do not includes in flow.

- **Does citizen has access to his transactions and logs (like where his mID was used?)**

It was integrated into CA portal, people can have access with their mID to the personal cabinet, where they can see the history of all their transactions with mID.

- **How is mID verified? Are there any physical chips or scanners which are used by eg. Policeman in order to verify mID ?**

It is verifies by OCSP from Certification Authority. Physically it is not verifies by human.



- What are the security mechanisms used e.g. in order to assure integrity, authentication?



- a) Application and SIM card supports either RSA encryption (i.e. RSA encryption-based signature and authentication) functionality with RSA cryptographic keys at least of 1024 bits or ECC encryption (with minimum key length of 256 bit)
- b) SIM card must support counter, ciphering and cryptographic checksum of SMS-s sent by the server.
- c) Mobile-ID, WPKI (Wireless Public Key Infrastructure), Mobile e-ID – a service that offers authentication and digital signatures in electronic channels
- d) SIM (Subscriber Identity Module), USIM (Universal Subscriber Identity Module), UICC (Universal Integrated Circuit Card) – a hardware token for authenticating users in mobile networks, governed by following standards: GSM 11.11, ETSI TS 102 221 and 3GPP 31 102
- e) STK - (SIM Toolkit), also SAT (SIM Application Toolkit), CAT (Card Application Toolkit) and USAT (USIM Application Toolkit)- SIM Toolkit support was first added to standards in 1996 (Release 96) as GSM 11.14 5.0.0, and is continued to today Release 11 (ETSI TS 102223) and 3GPP 31.111 release 11.



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



- What are the security mechanisms used e.g. in order to assure integrity, authentication?
  - Asan Imza is the SIM-based digital signature system: most secure on the market.
  - Asan Imza uses SIM cards that are evaluated at the EAL5 level: higher than required by international standards.
  - Most secure, surpassing the required EAL4+ level and going as high as EAL5
    - Signing keys are stored in the secure SIM card that is installed into phone
    - The keys are protected using the separate PIN codes and user has total control over the keys
  - Can be used for the governmental communication (Applet with PKI supports RSA1024/RSA2048/ECC256 encryption)
  - Can be used with all phones: both SIMPLE ones and smartphones





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 4: Security and Privacy: Mechanism and Requirements

- Have the mID solution been ever hacked or did somebody tried to hack mID? What were the typical attacks?
  - **NO, system never been hacked.**
  - We added username to avoid spam messaging to mobile numbers.
  - We added security pop-up message (verification code), so the user can check that the act on the background on the device is the same as in pop-up message. To be sure that there is no malware or unauthorised doing between actions, to avoid clone webs, client should follow verification code!



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 4: Security and Privacy: Mechanism and Requirements

- Is there a central certification body? Its is public or private?

Yes we have certification centre. It is public.

- Was there any generated false mID on the market?

NO! It is impossible, but in countries with e-registration it could happen.

In our case, client (citizen) have to come to registration authority to receive his mID and activate his certificate physically with passport (face to face). When certificate expires, client (citizen) can extend his certificate digitally, but until his certificate is valid.

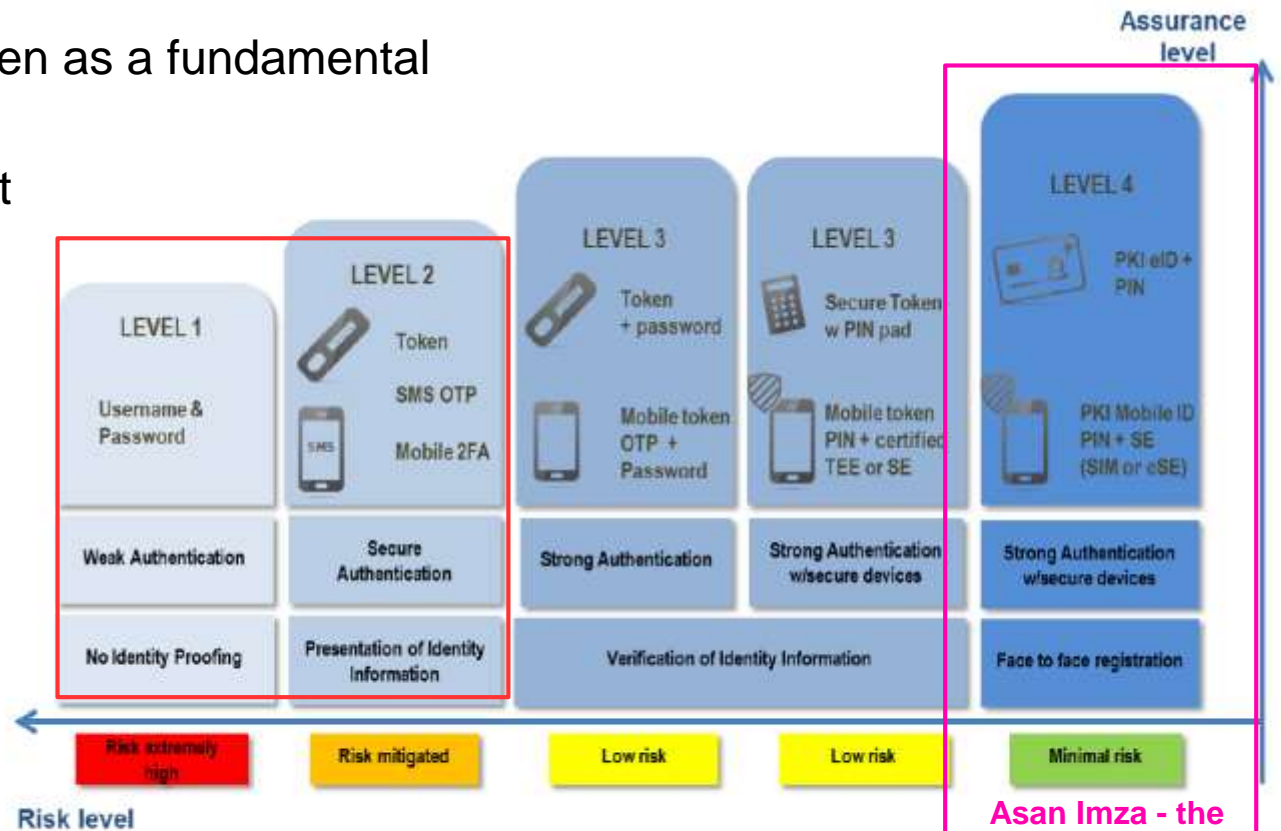


## Session 4: Security and Privacy: Mechanism and Requirements

- What are the key security requirements for secured ID?

- 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
- 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





- How is the mID verified during registration (eg. at Police station, face-to-face)?

Turn to your mobile operator (Azercell, or Bakcell or Nar) and apply for an Asan İmza (Mobile ID) SIM-card.

2.

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

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 the service. Please note that you need to bring an identification document (containing your FIN number) with you. You can then apply for the activation of the Asan İmza (Mobile-ID) **by filling in and signing an appropriate form**. The registrar of the Asan Certification Service Centre of Ministry of Taxes (ASXM) will approve your application and enter your data into system.

6.

The registrar of the Asan Certifications Service Centre of the Ministry of Taxes (ASXM) will explain you the conditions of the Asan İmza (Mobile-ID) and **print out certificate acceptance form** for you. **By signing** the certificate acceptance form you accept the conditions of the Asan İmza (Mobile-ID) service and confirm that you have received certificates you applied for. The certificates will thereupon **be activated** and you are ready to start using the Asan İmza (Mobile-ID) services (authentication and digital signing).

7.

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



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 4: Security and Privacy: Mechanism and Requirements

- If mID is an app then how is it certified and distributed?

No, our solution is not application in smartphone, it's not cloud based.

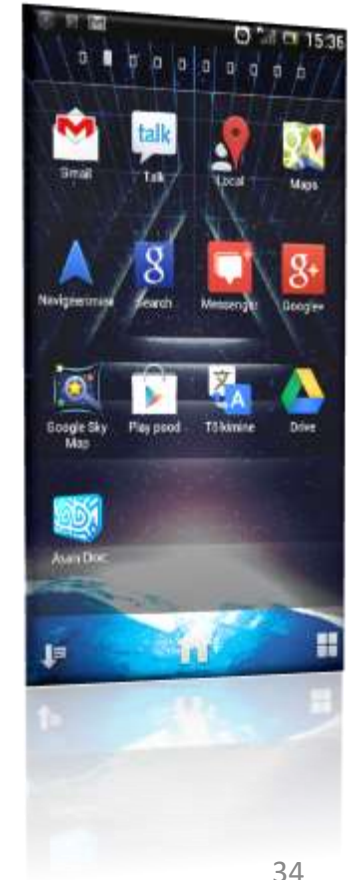
We have app for signing documents. (Windows, Mac, Android, iOS), but digital signature is given by PKI solution.

The mID applet is certified by global sim card manufacturer and by certification authorities part. Sim Card manufacturer stores that applet into sims and distributes physically to related MNOs.

iOS



Android



Mobile devices:



▪ iOS



▪ Android



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 4: Security and Privacy: Mechanism and Requirements

- Is mID device paired with mID?

Yes, it should be paired up to related standards.

- How privacy is secured for citizens?

This is PKI solution which is using private and public key pairs. Privacy for citizens secured by Private key, which only stores in sim cards and belongs to citizens. It can't be copied, duplicated or moved out from chips.



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 5: mID use cases and processes: Is it a real usage?

- Is mID used in real, physical world?  
NO, only in digital electronic world.

- Is mID used in electronic transactions?

YES! Every bank transaction, purchases in e-shop, e-insurance, e-tiket can be (have to be) digitally signed.



Ministry of Digital Affairs



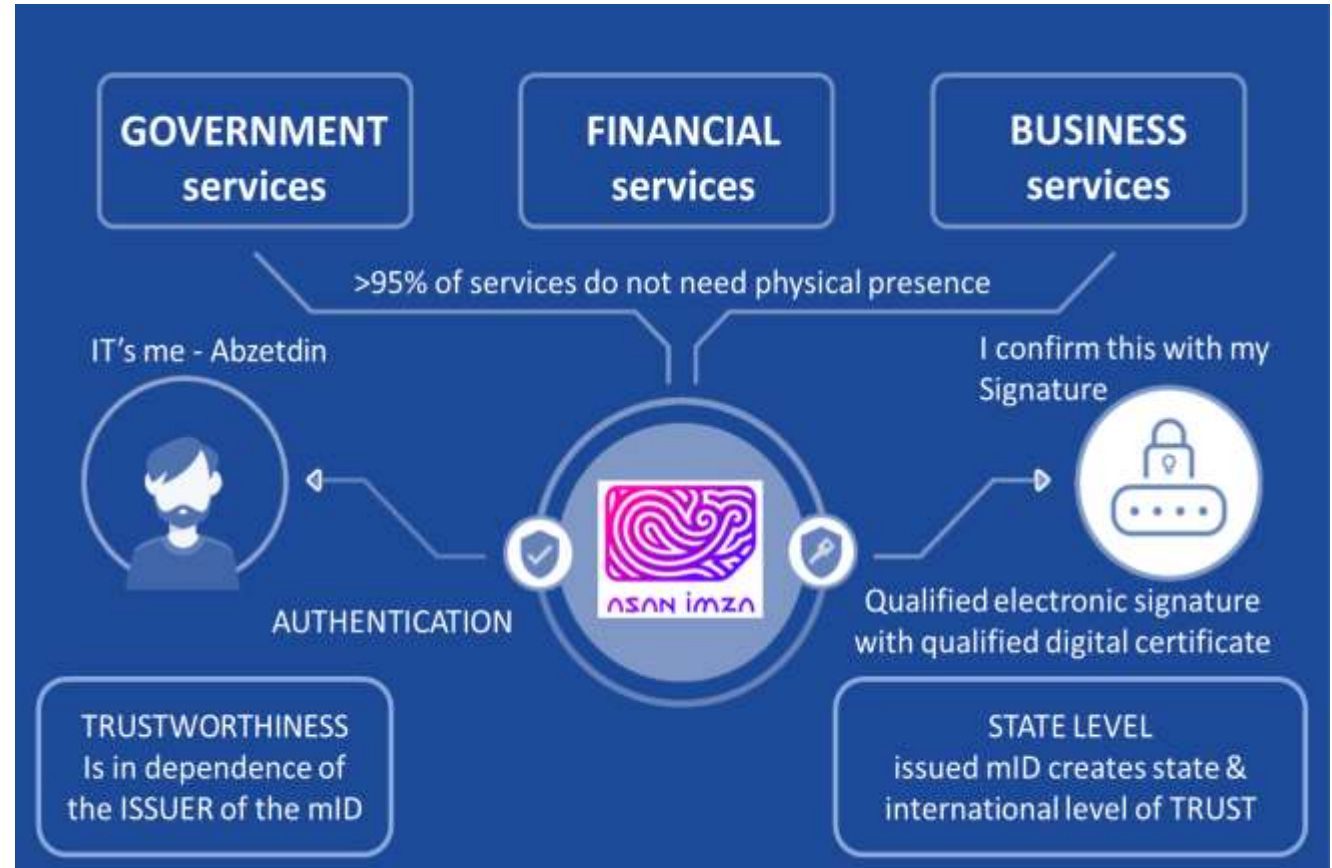
Azerbaijan Mobile ID (ASAN Imza)



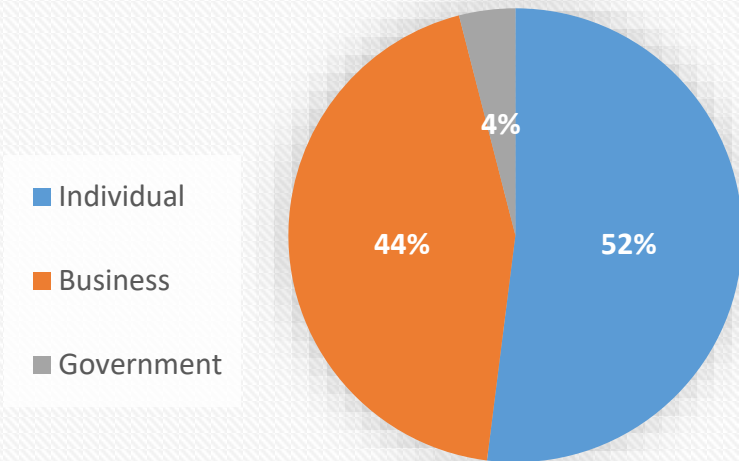
- Whether mID is used in public or private sectors?



Asan Imza – unified authentication both for public and private sector services



### Asan Imza user groups







Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 5: mID use cases and processes: Is it a real usage?

- What the the most popular services which use mID?



**Tax services**



**Labour and social  
protection services**



**Internet banking  
services**





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



### ✓ **Tax services**

Ministry of Taxes of Azerbaijan holds the premier position among other public service providers. 62 of 432 public e-services are provided by the Ministry. It is one of the few government authorities rendering its services to the users also via a dedicated tax portal ([www.e-taxes.gov.az](http://www.e-taxes.gov.az)). In general, in 2015 taxpayers conducted around 2.5 MLN. tax operations using their Asan İmza via the e-Tax Portal.

### ✓ **Labour and social protection e-services**

The second largest figure of using e-services with Asan İmza is related with the e-services of labor contract registration for employers and employees rendered by Ministry of Labor and Social Protection of Population and e-services of State Social Protection Fund. The cumulative number of usage of these e-services with Asan İmza made approximately 1.5 MLN. in 2015.

- ✓ **e-Custom declaration** The newly introduced e-customs declaration service allows citizens and businessmen to electronically declare their imported goods and transport means using mobile ID (Asan Imza) without the need to physically apply to any customs broker/customs department as it earlier used to take place. The whole process is as easy as logging in to the e-Government portal using Asan İmza, filling in the e-declaration and signing the ready declaration with again Asan İmza. Within only 6 months more than 211 000 declarations have been sent.



Ministry  
of Digital Affairs

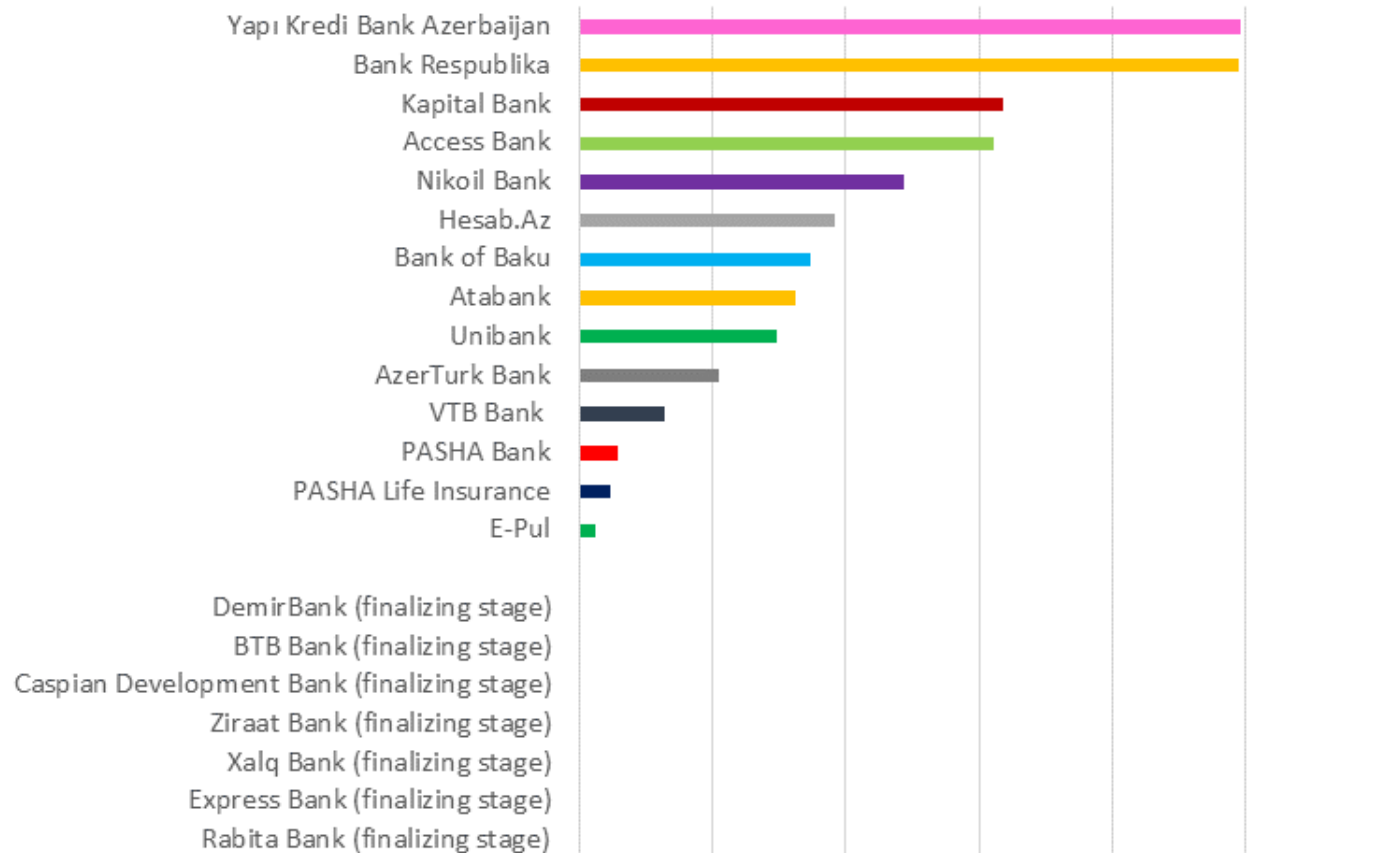


Azerbaijan  
Mobile ID (ASAN Imza)



## Session 5: mID use cases and processes: Is it a real usage? Asan İmza – secure key to financial services (KYC)

Usage of Asan İmza in e-systems of private service providers





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)

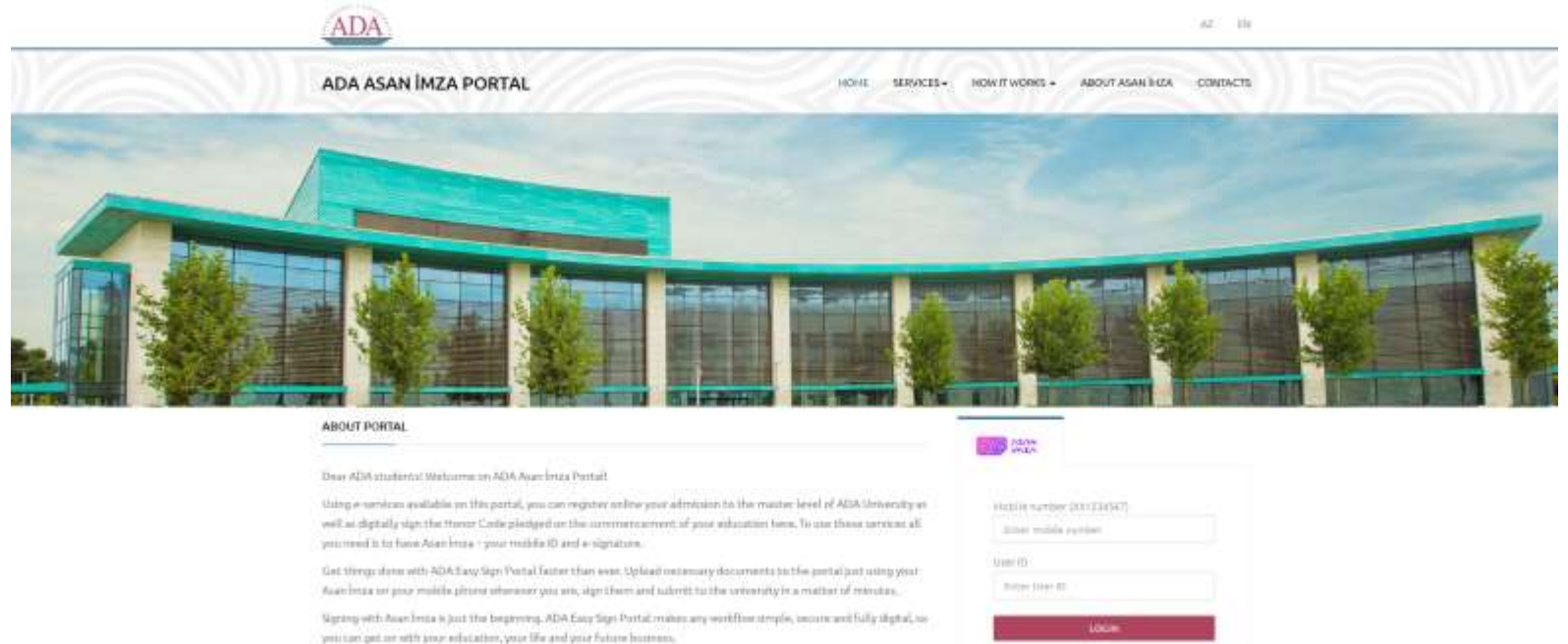


## Session 5: mID use cases and processes: Is it a real usage?

### 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).





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 5: mID use cases and processes: Is it a real usage?

- Is mID offered to every citizen including child?

It is offered only over the age 18!

Foreigners as well could receive mID for digital transactions.





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 5: mID use cases and processes: Is it a real usage?

- What is mID used for?

Although Asan Imza was developed for governmental services, it actually creates many opportunities for the private businesses too, wherever secure identification is needed. Therefore, Asan Imza is like a gateway for modern services in all sectors.





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 5: mID use cases and processes: Is it a real usage?

- Please describe high-level processes for registration, first verification and revoking and re-registering for ID.







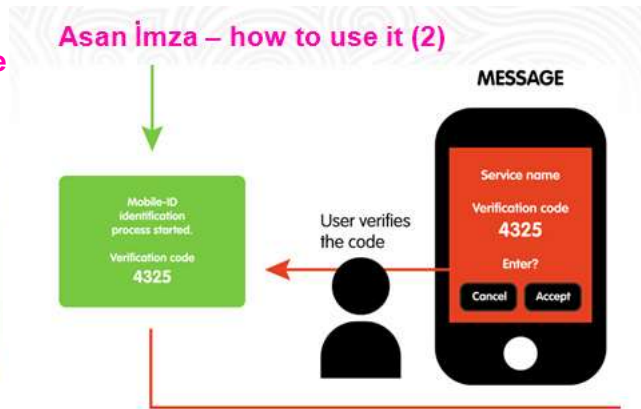
## Session 5: mID use cases and processes: Is it a real usage?

- Please describe high-level process for transaction.

Asan imza – how to use



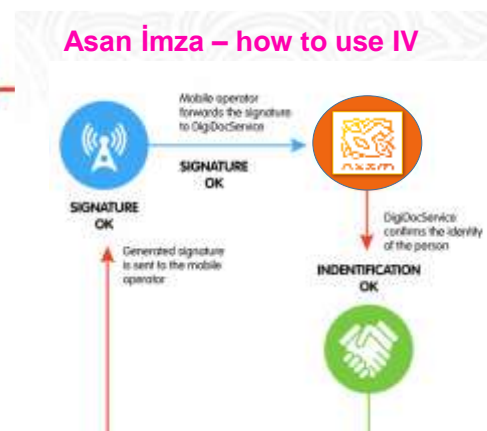
Asan imza – how to use it (2)



Asan imza – how to use III



Asan imza – how to use IV



Asan imza – how to use V





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 5: mID use cases and processes: Is it a real usage?

- Please describe high-level process for transaction.

During authentication procedure, the hash - or challenge code sent by server signed with authentication private key, according to following procedure:

EM is calculated, according to EMSA-PKCS1-v1\_5-Encode in PKCS#1

Signature is calculated, according to RSASSA-PKCS1-v1\_5 in PKCS#1  
(or ECC 256)

Resulting signature is sent back to server



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 6: Aspect of awareness raising and information campaign: Are we well aware of mID?

### Are You Turtle? Live You 300 Years?

*Appreciate your time, nerves and money.  
See what a clever and successful person use!*





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 6: Aspect of awareness raising and information campaign: Are we well aware of mID?

- What were the main concerns with regards to mID (in society)?

The main concerns that we faced (and still continue facing) can be outlined as follows:

- **Primary concern** - mentality of people who were not accustomed to electronic services;
- **Lack of basic IT literacy** among general masses (though some layers of the population were quite IT-literate, mainly representing the business community);
- **Channels of provision** of mobile ID service initially were scarce; we started the mobile ID service with one mobile operator at the beginning.



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Critical success factors

mID should be issued on bases of the state  
provided information

Strong state guaranteed identity is  
crucial

Should be obligatory to accept by all  
Governmental institutions

mID is an infrastructure solution and  
public sector should take a lead

Strong carrier should be used (special SIM)

Carrier SIM based national mID  
increases security and trust

Qualified e-signature = handwritten  
signature

Handwritten signature should not be  
privileged

PKI access to the services

Qualified digital certificates will provide  
chain of trust

Should be usable to access ALL public  
services

Challenge for TRUST



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 6: Aspect of awareness raising and information campaign: Are we well aware of mID?

- How were they addressed?

The first and basic concern still continues as it takes significant time to achieve changing of mindset of people at a countrywide scale; we strongly believe that the positive experience of each person interacting with e-services and mobile ID technology will "infect" others and bring them to the mobile ID users community of our country.



**ANYWHERE, ANYTIME, ANYHOW**

Access to ANY service by ANYBODY





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 6: Aspect of awareness raising and information campaign: Are we well aware of mID?

What was the  
societies'  
response?



"Asan Imza has shortened and expedited my daily signing process to just a few minutes; this makes my business process much more efficient – with no environmental footprint.

Asan Imza service delivers a great solution to Azerbaijan businesses of all sizes by speeding up business processes and making all governmental and private services accessible to their customers anytime, anywhere."

**Sabina Parvizi, Regional Marketing Communications Enterprise Manager - Microsoft Azerbaijan, Belarus, Georgia**

"Asan Imza makes possible rapid implementation of all necessary banking operations without visiting the bank's office."

**Ilgar Rahimov, Local Branch Office of ERICSSON AB**



"Asan Imza solution impressed me instantly with its high level of security, capabilities, and seamless implementation. Our management team and me personally use Asan Imza regularly from anywhere in the world, anytime, and it has become an integral part of our standard electronic business practice."

**Murad Dadashov, Honoured Artist of Azerbaijan Republic, CEO - "MGP" (M Group Production)**



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## What was the societies' response?



"Thanks to Asan Imza, I can handle all my issues in Baku not leaving United States. I would say Asan Imza is by right the innovative brand of Azerbaijan, as it allows a citizen to technologically stay abreast of his works even in his absence in the homeland."

***Emil Afrasiyab, Composer-pianist - Honoured Artist of Azerbaijan Republic, Dean's List Student of Berklee College of Music, USA***



"When I planned to set up a business in Azerbaijan preparing students for international higher educational I spent a year researching the market. Then I discovered the Azerbaijan e-Taxes service that lets entrepreneurs set up their business entirely online, using Asan Imza.

Asan Imza is an innovative tool that enables you to register a company using your smartphone and file your tax returns.

With Asan Imza you can use their on-line bank system and make payments! I was pleasantly surprised to discover this practical Azeri mobile innovations and I recommend, when starting a business in Azerbaijan, make sure you are aware of the benefits of Asan Imza".

***John Crawford Florey, Director - Oxbridge Educational Services & London Educational Services***





Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## What was the societies' response?



"Today, the most important benefactor working with electronic authentication and signatures, is time. Time is a critical aspect for our customers. Timeframes for signature of Audit Reports and Contracts have reduced from 1-2 weeks into a matter of an afternoon. Cost and time saving with Asan Imza is literally immeasurable, and has paved the way for us to move wholly into paperless office."

***Vugar Aliyev, Managing Partner - KPMG Azerbaijan***



"Paper was the bane of our lives, and we had been looking for a reliable and secure way to sign electronic documents in our inside document-management system of our bank.

The ability to place multiple signature fields on the same page and to sign multiple pages with just a click makes the signing process fast and easy. We didn't have to change to or buy a specific HR system; it is an extension of our existing systems, so it was agile, quick, and easy to set up with great support from the Asan Imza team."

***Emil Mammadov, Vice-Chairman - Nikoil Bank***



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 6: Aspect of awareness raising and information campaign: Are we well aware of mID?

**Some  
challenges still  
exist...**

- ✓ E-environment of Azerbaijan should be streamlined: usage of traditional usernames/passwords and other unsecure authentication methods should be eliminated in favor of mobile and e-ID as strong authentication tools.
- ✓ Asan İmza is the best way for the public and private sectors to save substantial amount of funds: according to studies, using mobile ID through creating wide e-environment in the country, can save almost 2% of GDP on average.
- ✓ Existence of multiple certification centers is not an efficient mechanism for the overall development of e-government; the best practice is to have a single certification center for all digital ID instruments used in the country.
- ✓ Using of one unified key of identity will stimulate rapid development of e-government, simplify usage of e-services for the population and significantly improve e-literacy of the population.



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 6: Aspect of awareness raising and information campaign: Are we well aware of mID?



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

**Islamic Educational, Scientific and Cultural Organization  
(IESCO) BESTDOC PORTAL** uses e- & m-signature and  
authentication technology that aims to be at the forefront in the  
mobile signature world



Ministry  
of Digital Affairs



Azerbaijan  
Mobile ID (ASAN Imza)



## Session 6: Aspect of awareness raising and information campaign: Are we well aware of mID?

**One of the key success factor of mID implementation and e-government development is political will and government support.**

The President of Azerbaijan receives the first Mobile ID (Asan İmza) certificate in June 2013





# Asan İmza (Mobile ID)

