ELECTRONIC IDENTITY

How Electronic Identity can reduce government spending.

Governments worldwide are faced with the challenge of transformation. They need to re-engineer government systems in order to deliver efficient and cost effective services.

A key enabler for this transformation is the implementation of Electronic Identities.

In this White Paper we summarize the defining characteristics of Electronic Identity and share a number of key benefits that it can bring in regards to government spending.

Development of information communication technology has significantly changed the way customer consumes services. Governments worldwide are faced with the challenge of transformation. They need to re-engineer government systems in order to deliver efficient and cost effective services. Information and knowledge must be shared using the right communication technologies.

The success of government leaders is increasingly being measured by the benefits they are creating for their constituents, namely, the private sector, citizens and communities . These clients demand top performance and efficiency as well as proper accountability and public trust. But perhaps most of all, they demand a renewed focus on delivering better service and results with the smallest possible administrative burden.

Digitalization of public services

Digitalization of public services has led to a widely known phenomenon – eGovernance. The European Commission has defined e-government as "the use of information and communication technologies in public administration combined with organizational change and new skills in order to improve public services and democratic processes and strengthen support to public policies". It's important to note that digitalization of public services is far more complex than building up few government websites. It's about changing the process to offer better services and setting up an information infrastructure that is open, private, secure, scalable and future-proof.

Services that have great impact and high value (i.e. banking, telecommunications) carry a higher level of risk. In the physical world we are asked to prove our identity or to exhibit identity attributes when it is justified by the level of risk involved in a given interaction. Delivery of such services online expects the same degree of assurance in an online environment.

Any e-government service relies on digitalization of identity management. The management of electronic identity

Definition of eGovernance:

in a few words:

" the use of information and communication technologies in public administration combined with organizational change and new skills in order to improve public services and democratic processes and strengthen support to public policies "

" Digitalization of public services is about setting up an information infrastructure that is open, private secure, scalable and future-proof "

[1] Georgescu, Mircea-Radu; Georgescu, Iuliana (2008) „Do We Need a Powerful E-Government?";

enables trusted remote interactions between an organisation and an individual . In other words, as government services are directed to its citizens and residents, it is crucial to be able to tell them apart in a digital environment. Therefore, the first step is digitalization of identity management that includes establishing electronic identities with unique datasets - a minimum set of unique data attributes that uniquely represent an individual.

" The Management of electronic identity enables trusted remote interactions between an organisation and an individual "

Electronic identity as an infrastructure

Implementation of electronic identity should be considered as an investment. It is a basic component of the infrastructure of which the future of e-government and private e-services will be built on. The domain of issuing a nationally accepted identity is a fundamental government task. The same principal should apply for establishing nationally trusted electronic identity.

Although, there are many different technical approaches for electronic identity carriers (on smart cards, SIM cards, USB and other cryptographic tokens), the main functionalities of electronic identity carrier will remain - electronic authentication and digital signature.

Success of state provided electronic identity is determined by the amount, quality and relevance of e-services that are built on it. It is like infrastructure of roads that future cars will utilize in order to serve their customers. Most common examples are Google and Facebook logins that are quite widely used in online media as sign-on solutions. Electronic identity that can only be used in public services have not lived up to its full potential.

Benefits of electronic identity is not only limited to government services; this technology can be utilized daily for commercial transactions that require higher level of authentication. An open and secure electronic identity solution that is provided by a state is an ideal solution for

Electronic Authentication

in a few words:

Individual identities are based on unique set of characteristics by which a person is known. In the process of authenticating an individual the same credentials received in real time will be validated against registered dataset.

Digital Signature

in a few words:

Digital signature is a digital equivalent of a handwritten signature, stamp or seal. Qualified digital signatures are fraud proof and cannot be forged or tampered with.

[2] OECD (2011) „Digital Identity Management: Enabling Innovation and Trust in the Internet Economy".

private businesses that would benefit from secure online authentication mechanisms without having to build or manage complex electronic identity management systems. With public-private co-operation state provided electronic identity might develop into SSO mechanism that is used in all services across the country. Therefore, setting up electronic identity management should not only take into account public sector goals and strategies, but also fulfil the need of private business.

To establishing electronic identity across multiple actors within a country's ecosystem and also across borders it is essential to set up a minimum set of identity attributes that uniquely represents an individual. For example, a unique identification number that uniquely identifies an individual and can easily be used to link identity across databases in public and private sector.

How Electronic Identity can reduce government spending

Common incentives for implementing national ID with an electronic identity carrier (so called eID) are usually related to document security or next generation identity management. Mostly it's about innovation and rarely about cost management. In most cases efficiency of e-services is measured by overall usage statistics and feedback from users. The economic and social impact of eID implementation usually remains unknown.

In 2013, a socio-economic research centre in Estonia called Praxis published an analysis which objective was to identify and prove the social and economic impact achieved with the development of public services in Estonia and the implementation of e-services. Users found that the analysed e-services have clearly had a positive impact on them: e-services have helped thvem save a lot

Users in Estonia clearly felt that e-services have had a positive impact on them:

Helped save a lot of time

Made dealing with government more accessible

of time and made dealing with the government more accessible. Generally speaking, Estonia has managed to save remarkable amounts of time and money by developing and updating e-services, although obtaining accurate data for calculating the cost effectiveness of e-government investments is very difficult.

Here are few examples of eID benefits that will help to deliver efficient and cost effective services:

1

eID BENEFITS

Implementation of digital signature

Companies and organizations that sign written contracts or other formal documents with their clients and suppliers will benefit from digital signatures.

Digital signatures reduce the direct and indirect expenses of signing documents on paper (travelling cost, better time management etc.). It also increases the speed of monetary transactions.

Faster movement of documents help companies to improve cash flow.

For example

Imagine an organization that on average signs **300 six-page documents** by hand every month.

They usually spends up to **30 minutes** with each customer just to sign a contract. About **30%** of their documents are sent by e-mail.

This company can **save over €2300 every month** just by cutting costs for workplace, printing and mailing with the help of digital signature[3].

" Estonian government have stated that Estonians save up to one working week each year thanks to digital signatures."

2

eID BENEFITS

Providing services online

Electronic Identity is a key enabler for the digitalization of Government provided services. 95% of services do not need any physical presence. The internet enables organizations to provide online services globally 24 hours a day and reduce costs of running physical service point. Procedures that do not produce any meaningful additional value should be automated. It will help to reduce human related errors in the process and increase productivity. The human resources that are freed through digital automation can instead focus on the core business or other more critical issues.

> **As a result of using e-services based on Electronic Identity in Estonia:**
>
> Estonians fill annual tax declaration in 3 minutes on average – and it will become even faster in the future. In most countries it takes several hours or more.

3

eID BENEFITS

Single-window approach

The value of single-window approach is to increase the efficiency through time and cost savings for citizens and residents in their dealings with government authorities. Identity management based on unique digital number will allow to link data related to one person in different databases setting ground for building cross-platform services that utilizes information from several databases. This approach will lead to more efficient and effective deployment of resources.

Today people live in a fast changing world where the free flow of information, ideas and knowledge exchanged across the globe are having a profound impact on the way the world functions. Governments worldwide are faced with the challenge of transformation and the need to reinvent government systems in order to deliver efficient and cost effective services, information and knowledge through information and communication technologies.

The cornerstone of successful e-government is electronic identity management that should be set up in relation to public and private business goals and strategies. A successful transformation towards e-services will rely on the determination of technological, legal and organizational preconditions that will lay down the path for productive transformation.

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