

Role of e-signature and other authentication tools in business registration among the top Doing Business performing countries

The purpose of this short paper is to provide an overview of the established international practices on e-authentication, including e-signatures, as relevant for Starting a business indicator. The paper was prepared with the following questions in mind:

1. How prevalent is e-signatures in business start-up?
2. What are the proven strategies to:
 - a. prevent fraud;
 - b. ensure robust authentication mechanism;
 - c. and safeguard company data integrity.

Top performers on Starting a business indicator have several common features:

- Procedures are organized in a one stop shop format, physical or electronic;
- Time to register and a number of procedures is low;
- 9 out of 10 countries are not using e-signature as a mode of authentication;
- 8 out of 10 countries are not using a physical company seal as a mode of authentication.

Doing Business 2017 – top 10 performers on the ease of business start up

Rank		Number of procedures	Application mode	e-signature	Company seal
1	New Zealand	1	Electronic (possible to walk in to do a physical transaction, but the physical mode not in use)	No	No
2	Canada	2	Electronic	No	No
3	Hong Kong SAR, China	2	Electronic	No	No
4	Macedonia, FYR	2	Physical	No	No
5	Azerbaijan	2	Physical/electronic	Yes	No
6	Singapore	2	Electronic	No	No
7	Australia	2	Electronic/physical	No	No
8	Georgia	3	Physical	No	No
9	Armenia	3	Physical	No	Yes
10	Ireland	3	Electronic	No	Yes

Among the top 10 countries on the ease of business start up **Azerbaijan** is the one economy requiring e-signature as a part of business start up procedures. The e-signature is, in fact, a multi-functional mobile ID. See attached a detailed presentation about e-signature functionality.

DB 2017 Rank: 5

Starting a business in Azerbaijan 2017

Indicator	Azerbaijan	Europe & Central Asia	OECD high income
Procedure – (number)	2.0	4.9	4.8
Time –(days)	3.0	10.2	8.3
Cost – Men (% of income per capita)	1.3	4.7	3.1
Paid-in min. capital (% of income per capita)	0.0	4.0	9.2

No.	Procedure	Time to Complete (days)	Associated Costs
1	Obtain electronic signature “Asan Imza” for online registration <i>Agency: The Ministry of Communications and Information Technologies</i>	1 day	AZN 72
2	Complete online registration; obtain TIN number and register for VAT <i>Agency: One Stop Shop, Ministry of Taxes</i>	2 days (physical) 15 min electronic	0

ASAN Imza technology allows using a mobile phone as a secure electronic identity card. Like any other technology based on the use of SMART-cards and e-signatures, it can be used to provide secure access to e-services and to certify documents with digital signatures. Unlike other technologies, it does not require a card reader.

The system is based on a special Sim-card called "Asan Imza", which a user can obtain from the mobile operator. The card keeps the private access keys and applications for identification and signatures. Today, mobile e-signature is used in over 500 e-services in Azerbaijan.

At the final stage of the presentation the members of the delegation highly evaluated the mobile ID and e-signature model and emphasized the necessity of cooperation in the field of e-services and innovative solutions between the two countries.

In terms of security, Mobile e-signature offers a strong security framework for all parties. The security related operations are done in the SIM card, a tamper resistant environment, making it almost impossible to misuse the user's identity. Authentication and signature information travels through the SMS and back-end channels to the service provider and is verified by the operator, so even if the user is attacked at the browser level, or the computer is infected, it does not matter. The data never goes through the Internet channel. To be successful, the attacker should also gain access to the mobile operator network to attack/infect the encrypted SMS

messages. The service was developed by an Azeri-Estonian joint venture based on Estonian electronic ID concept (see WBG project document attached, Estonian model is described in details as one of the case studies).

For more information please see <http://asanimza.az/ru/>

Australia

DB 2017 Rank: 7

Indicator	Australia	OECD high income
Procedure – (number)	3.0	4.8
Time – (days)	2.5	8.3
Cost – (% of income per capita)	0.7	3.1
Paid-in min. capital (% of income per capita)	0.0	9.2

Time Motion Details Begins

No.	Procedure	Time to Complete	Associated Costs
1	Complete and lodge ASIC Form 201 "Application for Registration as an Australian Company"; Obtain a certificate of incorporation and an Australian company number (ACN) <i>Agency:</i> Australian Securities and Investments Commission (ASIC) To register a Pty Ltd company, the applicant must complete and submit an ASIC Form 201 ("Application for Registration as an Australian Company") and pay the prescribed fee of AUD 457.	1 day	AUD 463
2	Register for ABN with the Australian Taxation Office (ATO) <i>Agency:</i> Australian Taxation Office This procedure is required under the Income Tax Assessment Act 1936 and the New Tax System (Goods and Services Tax) Act of 1999.	Less than one day (online procedure)	no charge
3	Sign up for Worker Compensation Insurance at an insurance agency	1 day	no charge

Australia does not use e-signatures as a prevalent mode of personal authentication. The country developed and implemented National e-Authentication Framework upon the review of following international standards: ISO/IEC 29115:2013 Information technology – Security techniques – Entity Authentication Assurance Framework, United States Electronic Authentication Guidelines NIST Special Publication 800-63-2 (2013), United Kingdom Good Practice Guide Identity Proofing and Verification of an Individual GPG No.45 Issue No. 2.2 (2013), New Zealand Evidence of Identity Standard Version 2.0 (2009), Canadian Standard on Identity and Credential Assurance (2013)

Designed initially for government agencies, these standards and guidelines may also serve as a benchmark for private sector organizations, particularly those providing identity related services to, or in conjunction with, government agencies.

- National Identity Proofing Guidelines
- Security Standards for Proof of Identity Documents
- Data Matching Better Practice Guidelines
- Recording of a name to establish identity
- National Biometric Interoperability Framework
- Biometric Interoperability Capability Requirements

More information on e-Authentication standards:

[http://www.egovernment.tas.gov.au/_data/assets/pdf_file/0003/83370/Appendix_3 -
_Gold_Standard_e-Authentication_Requirements.pdf](http://www.egovernment.tas.gov.au/_data/assets/pdf_file/0003/83370/Appendix_3_-_Gold_Standard_e-Authentication_Requirements.pdf)

National Identity Security Strategy:

<https://www.ag.gov.au/RightsAndProtections/IdentitySecurity/Pages/Identity-security-guidelines-and-standards.aspx>

As a part of e-Authentication framework, the Government implemented AUSKey, a secure login that identifies a user when he/she uses participating government online services on behalf of a business. AUSKey allows to access and send business information to government online. It simplifies interaction with government – from changing company's Australian business number (ABN) details, to lodging company's business activity statement (BAS).

There are two types of AUSKey available – an Administrator or Standard AUSKey. Obtaining an AUSKey is free. AUSKey reduces the number of usernames and passwords necessary for government transactions.

AUSKey enabled online services

Agency/Department Name	Service offered online
Austrade	Export Market Development Grants Scheme (EMDGS) External Link An Australian Government financial assistance program for current and aspiring exporters.
Australian Business Register (ABR)	AUSkey Manager Users can manage their AUSKey. Administrator AUSkey holders can manage other AUSkeys for the business. Tax professionals services Tax professionals can undertake multiple activities on behalf of clients in one session. Updating ABN details Businesses and organisations can update their ABN details online.
Australian Financial Security Authority	Online services External Link

(AFSA)	Creditors can login with an Administrator AUSkey to apply for, submit and track bankruptcy notices.
Australian Prudential Regulation Authority (APRA)	APRA Extranet External Link A portal for regulated institutions to report data to the Australian Prudential Regulation Authority. Direct2APRA (D2A) External Link Using D2A, organisations connect with APRA to securely download, complete and submit financial data forms.
Australian Securities and Investments Commission (ASIC)	ASIC Connect External Link Online service for registering and updating business names and self-managed super fund (SMSF) auditors. Government Search Service External Link An online service that allows eligible government agencies to search the Business Names Register. Web Services External Link Allows third party software developers to provide the following services: <ul style="list-style-type: none"> • business name registration • business name search services for eligible government agencies.
Australian Taxation Office (ATO)	Access Manager External Link Enables AUSkey Administrators to set up access and permissions for other AUSkey holders to the ATO's Portals and SBR services. BAS Agent Portal External Link A gateway to ATO's online services for BAS agents. Business Portal External Link A gateway to ATO's online services for businesses. Departing Australia Superannuation Payment External Link Superannuation industry funds, self-managed super funds and Retirement Savings Account (RSA) providers and their administrators can access online applications submitted by their members or lodge applications on their members' behalf. Electronic commerce interface (ECI) External Link A software application developed to allow several tax functions to be completed online. SuperTICK

	External Link Enables superannuation funds and RSA providers to meet a mandated requirement to validate member details when processing rollover requests and initial registration information associated with employer contributions. Tax Agent Portal External Link A gateway to ATO's online services for tax agents and their employees.
Australian Communications and Media Authority (ACMA)	Broadcasting Licence Fees External Link Holders of commercial radio and commercial television broadcasting licences can lodge their broadcasting licence fee return to ACMA online.
Department of Human Services – Centrelink Services	Paid Parental Leave External Link As an employer you can lodge your form online.
Department of Employment	Wage Subsidies External Link Employers who provide jobs to people who have been unemployed for a long time may be able to get financial help from the Australian Government.
Department of Social Services	Forms Administration Portal External Link Access services such as the Aged Care Benchmarking System and various Online Aged Care Form Submission from a central location. For specific information about available forms, please refer to the Portal Homepage.
Department of Immigration Border Protection	SkillSelect External Link Helps Australian employers find skilled workers who want to migrate to Australia.
Department of Industry	Australian Business Account (ABA) External Link An online service designed to help you set up, expand and manage your business. When you use the ABA, you will be able to: <ul style="list-style-type: none"> • create a free business account • use this account to deal with all levels of government, in all states and territories. The ABA is delivered by a partnership of Australian, state, territory and local governments. Automotive Transformation Scheme External Link Allows Automotive Transformation Scheme (ATS) participants to submit Quarterly Returns and Third Quarter Business Plan Updates online.
Department of Veterans' Affairs (DVA)	Booked Car Scheme External Link DVA transport contractors will receive bookings from

	DVA.
NSW Department of Education and Communities	Early Childhood Education and Care External Link ECCMS (Early Childhood Contract Management System) is the secure system used by Early Childhood Education and Care to manage funding and contracting with funded early childhood service providers. State Training Services External Link STS Online is a secure portal for Registered Training Organisations to do business with State Training Services.
Workplace Gender Equality Agency	<i>Workplace Gender Equality Act 2012</i> , private-sector employers with 100 or more employees are required to report online to the Workplace Gender Equality Agency between 1 April and 31 May each year. Further information can be found at wgea.gov.au/report External Link
State Revenue Offices	
ACT Revenue Office	ACT Revenue Office SBR-enabled lodgement External Link
NSW Office of State Revenue	Payroll Tax Online Services External Link NSW Office of State Revenue SBR-enabled lodgement External Link
NT State Revenue Office	TRMer External Link Territory Revenue Office SBR-enabled lodgements External Link
QLD Office of State Revenue	QLD Office of State Revenue SBR-enabled lodgements External Link Online services – OSR connect External Link
SA State Revenue Office	Revenue SA SBR-enabled lodgements (Revnet) External Link
State Revenue Office - Victoria	PTX Express External Link VIC SRO SBR-enabled lodgements External Link
TAS State Revenue Office	Tasmanian Revenue Online Service External Link TAS SRO SBR-enabled lodgement External Link
WA Office of State Revenue	Revenue Online Service (ROL) External Link WA OSR SBR-enabled lodgements External Link

For more information on AUSKey functionality, please see <https://abr.gov.au/AUSkey/>.

New Zealand

DB 2017 Rank: 1

Indicator	New Zealand	OECD high income
Procedure – (number)	1.0	4.8
Time – (days)	0.5	8.3
Paid-in min. capital (% of income per capita)	0.0	9.2

No.	Procedure	Time to Complete	Associated Costs
1	Apply online for registration with the Companies Office (including IRD number application and registration for GST) <i>Agency:</i> New Zealand Companies Office To reserve a company name online, entrepreneurs can visit the New Zealand Companies Office Web site (www.companies.govt.nz). A new company's name must be unique and can be reserved for up to 20 working days with the Companies Office. To be incorporated under the Companies Act 1993, a company must have a name reserved by the Registrar of Companies, at least one share, at least one shareholder, at least one director, a registered office, and an address for service.	Less than one day (online procedure)	NZD 10.22 name reservation + NZD 150 company incorporation

New Zealand developed digital ID system called RealMe®

<https://www.realme.govt.nz/what-it-is/> It is a collaboration between the Department of Internal Affairs and New Zealand Post.

<https://www.youtube.com/watch?v=RgzcLzQKPh0>

The RealMe service exists to:

- Provide the easiest and most secure way for users to manage their identities online.
- Be at the centre of online identity for New Zealand.

RealMe enables access via login to 90 services, including business registration, taxation and banking, across 32 organizations and 12 organizations are now using the verified information provided by the RealMe service. Since the launched in July 2013 there were 3.05 million accounts created, 248,813 verified identities confirmed and 56.5 million transactions executed. Right now, just over 53% of New Zealanders'

transactions with government are completed online — the Government's aim is for the RealMe service to help support getting that up to 70% by 2017.

Please see attached a technology solution overview for RealMe.