Position paper on electronic identification and trust services for electronic transactions in the internal market (eIDAS regulation)

15 April 2020

Executive summary

The "Twin Transition" – the green and digital transformation of the EU – and the COVID-19 pandemic have highlighted the crucial importance of electronic transactions to businesses and citizens. The demand for trusted, scalable, and user-friendly identification services is increasing. Electronic identification (eID[1]) is governed by the eIDAS regulation, which was introduced in 2014, repealing the outdated Directive 1999/93/EC on "a Community framework for electronic signatures". Recognising the role of electronic identification and trust services alongside the emerging enabling technologies such as Artificial Intelligence, Blockchain, Cloud Computing, Internet of Things, etc., the European Commission started a series of activities towards reviewing the eIDAS Regulation in 2019. In Q2 2020, the Commission launched a public consultation in its efforts to move forward with reviewing the eIDAS Regulation as part of its strategy to shape Europe's digital future through "building a trusted and secure European Digital Identity"

This position paper argues that an efficient eIDAS regulation is needed to scale up electronic identification technologies that can effectively support electronic transactions, including remote working. A new trust service for online identification could expand benefits brought by eIDAS trust services to SMEs, enabling them to develop new value-added services. In addition, standards should play a key role in providing certainty for SMEs to invest in eIDAS value-added services. Identification of standards and the publication of their reference in the Official Journal can guarantee at least a baseline for security and technical interoperability for all the trust services in the public sector. As such the following changes should be considered to review the Regulation:

[1] Also see: https://ec.europa.eu/digital-single-market/en/policies/trust-services-and-eidentification

+32 2893 0235
VAT: BE0899786252
https://digitalsme.eu
office@digitalsme.eu
123 Rue du Commerce, 1000 Brussels, Belgium
EU Transparency Reg.: 082698126468-52

- making it compulsory for the Commission to publish implementing acts referencing standards mandatory for most, if not all, of the different trust services
- minimising the risk of the Regulation becoming obsolete by delegating power to the Commission for minor changes that are not related to the fundamental principles (such as the reference to standards as presumption of conformity) to respond quickly to changing technology paradigms, after consultation with relevant stakeholders, ensuring an adequate representation of SMEs.[2]
- supporting and increase SME participation to standard-setting to improve and adapt standards and have better market recognition.

Background

The European Commission recently launched a public consultation on Regulation (EU) 910/2014 on electronic identification and trust services for electronic transactions in the internal market, commonly known as eIDAS Regulation to "collect feedback on drivers and barriers to the development and uptake of eID and trust services in Europe and on the impacts of the options for delivering an EU digital identity". The consultation was preceded with several activities and studies on electronic identification and the eIDAS Regulations such as:

- Study on the use of Electronic Identification (eID) for the European Citizens' Initiative,
- Trends in electronic identification: An overview, value proposition of eIDAS eID
- CEF Digital's eID portal
- Building trusted digital identity in the European Union: Efficient & secure digital life

The eIDAS Regulation provides a predictable regulatory environment to enable secure and seamless electronic interactions between businesses, citizens, and public authorities by:

[2] Given that after this update the regulation will remain unchanged for many years, this proposal is in the direction to have a more efficient channel for the industry to ensure that the Regulation remains up to date. In case new technologies become available, this proposal shall avoid a situation where the industry and other stakeholders have to wait for years for the regulation to be updated. Giving the Commission the power to amend the Regulation would allow to update it more frequently, provided that such power does not risk bypassing the reference to the standard.

- ensuring that people and businesses can use their own national electronic identification means (eIDs) to access public services in other EU countries, where eIDs are available;
- creating a European internal market for electronic trust services – namely electronic signatures, electronic seals, time stamp, electronic delivery service and website authentication – by ensuring that they will work across borders and have the same legal status as traditional paper-based processes.

Digital technologies are key to reduce the effect of the COVID-19 pandemic on the economy and keep the activities alive even with the most severe restrictions in place. This was vital, especially in the case of SMEs. Now that the EU is investing to recover from the immense damage caused by the pandemic, it is fundamental to promote sustainable growth. In fact, the "Twin Transition" – the green and digital transformation of the EU – is at the centre of the European Commission 2020[3] and 2021[4] Work Programme.

According to the Centre for European Policy Studies (CEPS[5]), Member States' experience with digital identification varies. While penetration rate of electronic identification reached 100% in some European countries, other countries are struggling to increase citizens' adoption of electronic identification. Some countries are currently experiencing a surge in demand for digital identification means. For example:

In Belgium, the government digitally transformed its civil registry and replaced its paper-based ID cards, with electronic ID cards. By 2008, adoption rate of electronic IDs for people aged 12 years and older reached 115%, which also covered foreigners. Currently, Belgian nationals and residents have access to several governmental and municipal services - such as filing taxes online, access health services, requesting certificates, etc. - using their electronic identification. In addition to government agencies, private companies are allowed to process citizens' data, provided they secure

[3] https://ec.europa.eu/info/publications/2020-commission-work-programme-key-documents_en
[4] https://ec.europa.eu/info/publications/2021-commission-work-programme-key-documents_en
[5] https://www.ceps.eu/wp-content/uploads/2020/06/TFR_Europe-Digital-Identification-Opportunity.pdf

consent from their clients based on GDPR. Access to data is no longer tied to card readers, but it can be done through applications[6].

In Italy, a similar scheme (the identification scheme system "SPID") has been able to satisfy high demand for digital identification thanks to its unique characteristics:

- numerous identity providers[7], both public and private, audited by accredited Conformity Assessment Bodies and under supervision by the national supervision body allowing access to thousands of public and private services[8];
- the possibility to implement remote recognition procedures;
- no need to distribute physical identification means as most of the identity providers use mobile phone applications for this purpose.

Nordic countries chose a different approach by using identification solutions offered by the private sector and recognised by the government as legally binding for documents, transactions, and other online services that require identification. The solution came from the Banks, who developed through the years an infrastructure for identification, called the BankID. Most of the adult population of the Nordic countries have a BankID. The BankID also works across Nordic countries, which makes identification an easy and seamless operation[9].

According to the impact assessment[10], 15 out of 27 Member states, representing around 58% of the EU population, provide cross-border electronic identification under the eIDAS regulation. The plans for updating the eIDAS regulation aim to increase the adoption rate and increase seamless cross-border use of online services, that is key to enable SMEs to thrive in the digital single market.

[6] Such as Itsme
[7] The registry of the SPID providers is available here: https://registry.spid.gov.it/identity-providers
[8] At time of writing around 6000 services provider allow identification using SPID, both public (see https://registry.spid.gov.it/service-providers) and private (see https://registry.spid.gov.it/private-service-providers)
[9] For more information about the Belgian and Nordic cases, please see the CEPS reference above.
[10] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12528-EU-digital-ID-scheme-for-online-transactions-across-Europe

Three options have been identified:

Option 1: Do nothing. This option reinforces the baseline scenario, which suggests that the eIDAS regulation would remain unchanged and provide the necessary coherence, consistency, and interoperability. This approach works well if most of the transactions are at national level (as illustrated by the Belgian and Italian examples above) but it is difficult to believe that it can scale up to intensive cross-border use.

Option 2: A legislative intervention to extend the scope of eID regulation under eIDAS to the private sector, which enables them to introduce "new trust services for identification,
authentication and for the provision of attributes, credentials and attestations and allowing the provision of identification for devices". This option supports the decentralised approach, as illustrated by the Nordic example above but still can be difficult to scale up to intensive cross-border use unless common standards-based trust services are established.

Option 3: Introduction of a voluntary European Digital Identity scheme (EUid) for identification in order to access online and private services. This option can extend existing centralised and decentralised approaches, as illustrated by all the examples above.

With Option 3, privacy, transparency and access to a trustworthy identification infrastructure should be guaranteed, regardless of a centralised or decentralised implementation. The decoupling of issuance of legal national IDs and the new EUid "anchored" to those IDs, thanks to a new specific trust service, should be guaranteed in order to prevent potential lock-ins, and allow the private sector, especially SMEs, to offer trust services in a competitive environment.

DIGITAL SME key demands

An efficient eIDAS regulation is needed to scale up electronic identification technologies

The eIDAS Regulation contributed to reducing the need for face-to-face interactions enabling eGovernment and business interactions supporting cross-border reliable and trustworthy electronic identities and trust services, such as eSignatures, eDelivery, and eID, which are key enablers for the digital transformation. The eIDAS Regulation already introduced a first cross-border framework for mutual recognition of notified digital identities aiming to ensure that individuals and businesses can use their own national electronic identification means (eIDs) to authenticate when accessing public online services in other EU Member States. This was achieved by establishing an interoperability framework and by enforcing mutual legal recognition of notified schemes.

However, the current eIDAS interoperability framework setting based on eIDAS nodes has some flaws:

- it is inefficient and often hard to use, especially by inexperienced users, and can hardly scale up to support real business needs, where users are familiar with simple and immediate identification means when using online services,
- it is not possible to use paper-based identification documents, and
- many eIDs require card readers. Only the most recent eIDs that support Near Field Communication (NFC) have a seamless integration with smartphones (that support NFC).

Experience shows that the adoption of secure but difficult to use devices and technologies is a huge hindrance to widespread use of eID enabled services. Thus, a new type of qualified trust service for identification of natural and legal persons – conceptually similar to the Italian SPID or Belgian eID discussed above – would be a better approach. Electronic Identification fully relies on official identification documents issued by the Italian government, either paper based or electronic. In practice, identity is not a stand-alone identification document but relies on the official IDs issued by the Ministry of Interior and enables to reuse the identity online, thanks to electronic assertion electronically sealed by the ID providers.

Under the eIDAS framework, SPID is considered as an identification scheme, but it is very similar to a qualified trust service both in terms of governance and at the technical level, providing electronic identification of a natural or legal person to an electronic service in a very effective and scalable way. This approach would allow to decouple the issuance of legal IDs, reserved to Member States authorities, from electronic identification means “anchored” to those IDs, issued by the States. This is a key element to deploy an identification service that can scale seamlessly to EU

wide dimension without changing the rules for legal IDs that must remain under the Member State sovereignty.

This new trust service can (and should) benefit from the same sound approach of other trust services, i.e.:

- supervision;
- conformity assessment under accreditation and based on standards;
- electronic signatures and seals format (for identity assertions to be consumed by services);
- trusted lists for mutual recognition.

This proven trust framework can effectively support remote working that now is the prevalent behaviour for many European employees and will likely continue to play a key role when the pandemic is over. This can also help to address the huge challenge of assessing and managing the security threats coming from a radically changed scenario that is very alarming, especially for SMEs. The pandemic has also brought about a huge increase in cyber-attacks; thus, it is crucial to have this trust framework to address the issue.

SMEs are expected to benefit from a widespread EU eID infrastructure, especially if those flaws are removed. It is of paramount importance to consider trustworthiness, performance, resilience and, most important, user-friendliness as top priorities for widespread business use. Benefits brought by eIDAS to SMEs are twofold. On the one hand, SMEs can benefit as users of trust services and supporting their digital transformation; on the other hand, SMEs can act as providers of trust services and related solutions.

Standards can help SMEs reap the full potential benefits of the new eIDAS framework and invest in eIDAS services across the EU

A new trust service for online identification could expand benefits brought by eIDAS trust services to SMEs enabling them to develop new added value services. This should be an evolution of the current eIDAS framework, not a revolution: the stability and neutrality of the legal framework should remain the guiding principles. The eIDAS regulation sets only the basic legal principles but it is not enough to be used directly at technical level. This is not a limitation, on the contrary, it is a fundamental property of legislation to allow a state-of-the-art interpretation, and this is exactly the role of standards. Their role in fact is to have a common and

consistent technical baseline, possibly usable also in different legal frameworks, that avoid the risk of having completely different approaches between Member States or also outside the European Union.

The consistent use of standards is a key principle introduced with eIDAS and demonstrated to be an effective tool to avoid putting at risk and challenge the investments made by many SMEs in creating innovative services based on eIDAS trust services. The identification attributes should be specified only semantically in the Regulation implementing acts, leaving to standards their concrete technical implementation.

In addition to electronic identification, trust services are another fundamental and cornerstone innovation introduced by eIDAS that greatly improved the previous legislation removing their limitations and creating a real single market for electronic signatures, electronic seals, time stamps, electronic registered delivery services and website authentication with a sound governance and interoperability framework.

However, common legal rules alone do not lead to technically interoperable services: the eIDAS approach was innovative because it guaranteed a legal layer common to all EU member states with a good level of technical neutrality while relying on standards for the technical layer, leaving therefore freedom to the market to regulate these aspects.

This innovative approach introduced by eIDAS for trust services is similar to the New Legislative Framework one that relies on harmonised standards to fully specify the essential requirements of products. It is now time to further develop this approach to fully achieve the expected results of eIDAS: the identification of standards and the publication of their reference in the Official Journal can guarantee at least a baseline for security and technical interoperability for all the trust services in the public sector.

Currently, only a few of the possible implementing acts referencing standards were published by the Commission. They are limited to electronic signature and seal formats, qualified signature and seal devices and trust lists. This has created an obstacle in reaping the full benefits of the new eIDAS framework. New standards should be referenced for other qualified trust services, especially for eDelivery that has applications both in the public sector (ranging from eProcurement and eInvoicing to e-Justice and eHealth) and in the private sector. SBS recommends making the publication of implementing acts referencing standard mandatory for

most – if not all – the different trust services, along the lines of what is already foreseen for electronic signatures and seals.

Moreover, while the general principles of the eIDAS Regulation are and will almost certainly remain substantially unchanged thanks to its technologically neutral approach, a complete exclusion of all the technical aspects from legislation is not possible nor desirable, as it could become too abstract and leave unwanted room for interpretation. It is therefore suggested to add to the eIDAS Regulation a delegation of power to the Commission for minor changes that do not relate the fundamental principles but allow to adapt those parts that are more likely to require changes to adapt the Regulation when new technology paradigms emerge. Examples of parts that should be possible to be adapted are the specification of signature, seal and their validation, the content of signature, seal and web certificates, qualified signature, and seal creation devices, etc. The Commission should be required, before adopting those delegated acts, to consult the relevant stakeholders. This would minimize the risk that the Regulation becomes obsolete and requires frequent time-consuming changes continuously chasing technological progress.

It is also important that security is addressed by a wider adoption of standards. Standardisation processes in European Standardisation Organisations are open to all interested parties and security standards like ETSI 319 401 are developed and updated by a consensus-based approach open to all interested parties from the market. Participation in standard setting allows any actor – including SMEs – to improve standards and have better market recognition.

Conclusion

The eIDAS Regulation has helped citizens and companies, including SMEs, to process a wide range of services electronically, which helped the fight against COVID-19 and supported digital transformation, one of the two pillars of the “Twin Transitions”. eSignatures, eDelivery, and eID and other eServices are key enablers that contribute to strengthening the EU Single Market through cross-border reliable electronic identities and trust services.

The eIDAS regulation can be more effective for better cross-border services by (1) decoupling production of legal IDs and electronic identification for legal IDs, (2) speeding up adoption of eID in eServices, (3) supporting new verification methods,

and (4) remaining technology neutral. The way to achieve this level of effectiveness is through adopting a similar approach to the NFL, where more eIDAS-related standards are published as an effective tool to provide certainty and avoid risk.

About this paper

This position has been drawn up based on input from DIGITAL SME's working group on ICT Standards (WG Standards), developed by Mr. Andrea Caccia, and coordinated by Ms. Annika Linck and Mr. Omar Dhaher in consultation with DIGITAL SME's general membership and relevant working groups.

For further information on this position paper, please contact:

Omar Dhaher, Senior Technology Manager

E-Mail: o.dhaher@digitalsme.eu