

A big step toward the European Digital Single Market

Regulation EU 910/2014 on electronic identification and trust services for electronic transactions in the internal market (eIDAS)

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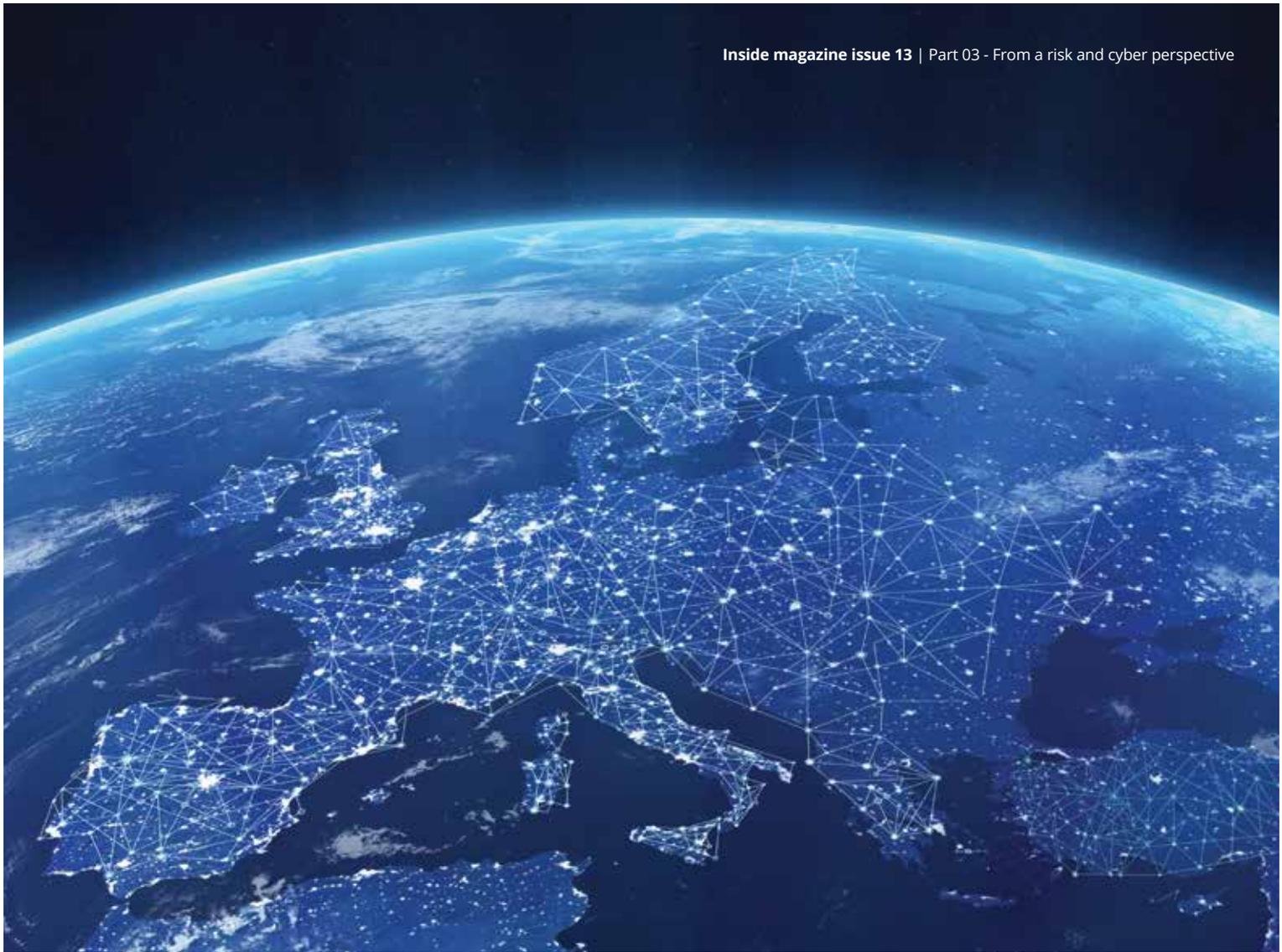
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On 23 July 2014, the European Parliament and the Council of the European Union have adopted the regulation EU 910/2014 on electronic identification and trust services for electronic transactions in the internal market (the “eIDAS” regulation).¹ Repealing the 15-year-old European directive on a community framework for electronic signatures (Directive 1999/93/EC),² this new regulation aims at providing a common transnational foundation for secure electronic interaction between European citizens, businesses, and public authorities. Thus, by providing the building blocks for ensuring trust, convenience, and security in the online environment, the eIDAS regulation represents a major contribution to the European Digital Single Market.

Toward the digital market and the paperless world, eIDAS opens the door for end-to-end electronic transactions and processes that replace the traditional activities and manual processes, while keeping the same legal value. The opportunities for organizations implementing eIDAS trust services are evident: increase the efficiency of the business processes, reduce their operational costs, grow their business, and build a competitive advantage, among others.

“Given its inherently transformative nature, eIDAS is clearly an enabler to building a genuine digital single market.”

Andrea Servida, Head of the eIDAS Task Force in Directorate General “Communication networks, content and technology” (DG CONNECT) of the European Commission.³



The rise and rapid evolution of information and communication technology over the past 20 years have completely transformed the nature of the interactions between citizens, businesses, and public administrations. New digital services and uses have emerged that leverage on these new technologies while responding to customers' needs for mobility, convenience, rapidity in service response time, and multi-channel access to the services. In the banking industry for example, this evolution was reflected by the development of services such as online and mobile banking, along with the rapid adoption of these services by customers.

This trend is well illustrated in the analysis of the Digital Agenda Scoreboard key indicators published by the European Commission, which reveals that the percentage of individuals aged between 16 and 74 years old who use online banking in the European Union rose from 19 percent in 2005 to more than 45 percent in 2015.⁴

However, as these new electronic services grow in magnitude, the risks related to cybercrime, identity fraud, and leakage of personal data have never been higher than they are today and are still increasing. It leaves many organizations with several questions:

- **How can I ensure the identity of a counterpart (natural or legal person) during an electronic transaction?**
- **How can I ensure the authenticity of an online service (e.g., online public service, electronic commerce)?**
- **How can I perform digital business or administrative transactions in a convenient, secure, and seamless manner while maintaining the legal value of these transactions?**
- **And how can I do all this in a cross-border manner within the EU?**

The ambition of the eIDAS regulation is to address these questions, and thereby to build trust for electronic transactions, which is the absolute precondition for ensuring that the different actors (i.e., citizens, businesses, and public authorities) adhere to the opportunities raised by the digital economy. In order to attain this goal, the eIDAS regulation addresses two building blocks of the digital economy: electronic identification and trust services.





By 29 September 2018, a EU citizen with an eID card (notified according to eIDAS) will be able to access any online public service from any EU member state, and perform his/her administrative procedures online with the same trust as if the person was physically present.

Electronic Identification

Identification of a person without his or her physical presence will be possible through “electronic identification (eID)” as defined by eIDAS. As of today, several eID means are deployed in the EU, either by the member states (e.g., electronic identity cards or eID cards) or by private actors (e.g., private smart cards, authentication tokens, and mobile applications). Currently, there is no mutual recognition of these eID means between EU member states, nor alignment on the level of assurance offered by these eID means. For example, a Luxembourgish citizen’s eID card is not automatically recognized by other EU member states for authentication for online services and electronic transactions.

Mutual recognition

In practice, eIDAS gives EU member states the opportunity to notify the European Commission of their eID means (articles 7 and 9) and makes it mandatory for other member states to recognize the eID means for authentication on their online public services. As a concrete application of this provision, a European citizen with an eID card (among the list of notified eID means) will be able to access any online public service from any member state and perform his or her administrative procedures online as if he was physically present in the concerned administration. This will allow the development of cross-border digital administration services such as tax filing, online registration to university programs, online access to medical records across the EU, and more.

eIDAS brings an important change to the current European digital market, as the regulation defines a framework for cooperation and interoperability between member states to ensure a cross-border mutual recognition of the eID means.

Nevertheless, the trust placed in the eID means (e.g., authentication tokens, private smart cards, eID cards) will depend on the level of assurance that they provide regarding the identity of the physical or legal person behind them.

The regulation defines three assurance levels: Low, Substantial, and High, which depend on several aspects—such as the identity proofing and verification processes for the eID means, the management activities of the entities involved in the issuance of the eID means, and the technical and security specifications of the eID means. Each public sector body offering an online public service in a member state will define the minimal assurance levels required for the eID means used to access their online service, depending on how critical the information is, the sensitivity, and the expected level of security of the online public service and the administrative procedures performed therein.

The recognition of the notified eID means by all EU member states is mandatory as of 29 September 2018. However, as of 29 September 2015, the member states have already had the option, on a voluntary basis, to notify their eID means to the European Commission, and to recognize the eID means defined by other member states.

Liability and obligations in case of security breach

Mutual recognition of eID means will help break down the barriers related to electronic administration. However, like for all electronic processes, the benefits come with new risks and security issues. To address them, the regulation enforces member states' accountability for the eID means under their responsibility.

Member states will be held liable for damages caused intentionally or negligently in a cross-border transaction due to a failure to comply with the regulation. In addition, in the case of a security breach affecting the reliability of the notified eID means, member states will have to suspend or revoke the cross-border authentication or the compromised parts and notify other member states as well as the European Commission.⁵

Implementing acts

As previously mentioned, with eIDAS, every EU member state can allow their citizens to benefit from a secure, convenient, and cross-border digital administration across the entire EU. However, in order to achieve this goal, they need to respect and implement a common set of rules, which were defined in the Commission's implementing acts adopted in 2015:

- Implementing act 2015/296 establishing the procedural agreements for cooperation between member states on electronic identification⁶
- Implementing act 2015/1501 describing the requirements of the interoperability framework between national eID means⁷
- Implementing act 2015/1502 describing the requirements of the assurance levels for the eID means⁸
- Implementing act 2015/1984 describing the circumstances, formats and procedures of notification of eID means to the European Commission⁹



The recognition of the eID means (notified according to eIDAS) will be mandatory as of 29 September 2018 for all EU Member States.

“A qualified electronic signature shall have the equivalent legal effect of a handwritten signature.”

Article 25(2) of the eIDAS regulation.

Since 1 July 2016, eIDAS created opportunities for banks to remotely open clients' accounts, sign electronically contractual documents, validate electronic transactions, and deploy other electronic services while ensuring a cross-border legal value of these documents and processes within the EU. Other financial businesses are able to implement online signatures of documents between several counterparties in the EU, in a matter of minutes, instead of days or even weeks with the traditional paper-based processes, for the same legal value.

Trust services

Previous to eIDAS, when the European Union adopted the Directive 1999/93/EC on electronic signatures, the objective was the promotion of electronic signature, the development of international electronic commerce, and cross-border activities. However, the main shortcoming of the previous framework was that, as a directive, it was transposed differently in the national laws, thus leading to a lack of harmonization between member states regarding the technical standards as well as the cross-border recognition of the legal value of the electronic signatures. In practice, under the previous directive, electronic signatures carrying a legal value within one member state (i.e., in accordance with the member state's national law) were not recognized as such in other EU member states. These limitations hindered the development of the electronic signature in Europe and its adoption by businesses and citizens.

eIDAS addresses the cross-border harmonization of the electronic signatures' legal value within the EU. In addition, leveraging the new technologies and the development opportunities identified for the European Digital Single Market, the eIDAS regulation goes further by defining new trust services in addition to the electronic signatures:

- **Electronic seals:** Trust service intended for legal persons to ensure the origin and integrity of data and documents
- **Electronic time stamps:** Trust service aiming at ensuring the correctness of the time linked to data and documents
- **Electronic registered delivery service:** Trust service aiming at transmitting data and documents between third parties and providing evidence relating to this transmission



- **Website authentication:** Trust service aimed at ensuring visitors of a website of the identity of the legal person owning the website
- **Validation service** for qualified electronic signatures, qualified electronic seals, certificates related to those services, and certificates for website authentication
- **Preservation service** for qualified electronic signatures, qualified electronic seals, and certificates related to those services

For addressing the risks related to the provision of these trust services and for ensuring an adequate level of security, the regulation defines security requirements for trust service providers in terms of risk management and security incident management, such as the definition of measures for prevention, mitigation, and notification of incidents.

Moreover, for each of the trust services, the regulation defines statuses of qualified trust service providers and qualified trust services (i.e., trust services provided by qualified trust service providers and meeting specific security requirements).

In addition to the requirements applicable to all trust service providers, qualified trust service providers are subject to even stricter requirements related to their qualified status:

- Requirements regarding their systems and activities related to the trust services they offer (management and operational processes, usage of trustworthy systems and products, etc.)
- Requirements for audits of their systems and activities by a conformity assessment body at least every 24 months against specific standards referred to in the Commission's implementing acts

Legal effect of trust services and electronic documents

All trust services (qualified and non-qualified) and electronic documents benefit from the principle of non-discrimination as evidence in legal proceedings, meaning that no judge can deny the legal effect and admissibility of a trust service or an electronic document in any court of the EU member states.

Nevertheless, only qualified trust services benefit from the presumption of reliability in legal proceedings (i.e., presumption of integrity, correctness of the origin, and accuracy) and cross-border recognition of qualified status in the EU member states. In the specific case of the qualified electronic signatures, the regulation goes even further in Article 25 by bestowing a qualified electronic signature the equivalent legal effect of a handwritten signature. ➔



Supervisory body

The trust in these digital services would have no value without a proper governance framework, including adequate supervision. Thus, the regulation introduces the role of supervisory bodies designated by the member states and responsible for:

- supervising of the trust service providers' activities
- granting qualified statuses to trust service providers and trust services

In addition to their supervision tasks, supervisory bodies are urged by the regulation to cooperate, mutually and with other authorities such as member states' data protection authorities and the European Union Agency for Network and Information Security (ENISA).

The European Union has provided the fertile ground for a trustworthy, secure, and convenient digital single market. It is up now to European actors of the digital economy (citizens, businesses, and public authorities) to unlock the full potential of electronic identification and trust services for their activities.

Trusted lists and EU trust mark for qualified trust services

To enable European citizens and organizations to use the qualified trust services in a confident and convenient manner, the regulation defines two concepts:

- The trusted lists (Article 22), which are established, maintained, and published by each member state and include information related to qualified trust service providers and qualified trust services under the member state's scope of responsibility
- The EU trust mark (Article 23) for qualified trust services,¹⁰ which is a logo that can be used by qualified trust service providers to indicate the qualified trust services they provide

International aspects

In the increasingly globalized world, development of the digital economy at the international level is key for business development. The regulator truly understands that and opens the door to conditional mutual agreements between the EU and third countries with the objective of mutual recognition between qualified trust services in both markets.

Since 1 July 2016, the provisions pertaining to trust services and electronic documents under the eIDAS regulation are applicable in the EU member states, which means that European citizens, businesses, and public authorities can already benefit from these innovative services and their cross-border legal value in the course of electronic transactions. In practice, since 1 July 2016, eIDAS created opportunities for banks to remotely open clients' accounts, sign electronically contractual documents, validate electronic transactions, and deploy other electronic services while ensuring a cross-border legal value of these documents and processes within the EU.

Other financial businesses are able to implement online signatures of documents between several counterparties in the EU, in a matter of minutes, instead of days or even weeks with the traditional paper-based processes, for the same legal value.

The legal tools introduced by the eIDAS regulation give private sector and public authorities a tremendous opportunity to set themselves apart by offering innovative cross-border digital services to their customers. If before this regulation, the legal value of the digital signatures and transactions was limited inside the borders of a member states, eIDAS brings the enablers for developing an EU digital market where the confidence in electronic identities and electronic transactions has no border. In a business development perspective, boulevards of opportunities are opening for the organizations in the private sector and a large palette of process optimization comes out for the public sector.

Organizations choosing to implement eIDAS trust services will now start a journey to:

- define their business digital strategy and the processes to be digitally transformed
- identify which eIDAS trust services are relevant for their digital strategy
- design the target business solutions leveraging the eIDAS trust services, while taking into account governance, risk, compliance, and information security considerations
- integrate the eIDAS trust services and solutions within their existing IT infrastructure
- assess the organizational changes for their employees, clients, and partners

In their digital transformation project, they should also consider key aspects such as regulatory, legal, technical, and operational factors.

In addition, organizations in the Grand Duchy of Luxembourg can combine the eIDAS opportunities with the law on electronic archiving of 25 July 2015¹¹ in order to take their digital transformation to a new level, namely by:

- digitizing their original paper documents and archiving them while keeping their legal value
- transforming the traditional business processes into electronic processes while keeping the same legal value

Exploiting all these opportunities is not a complex exercise, but should be done by involving all the concerned actors of the organizations, including the business, IT, and Information Security, and should consider eIDAS requirements before launching a digital transformation.

The European Union has provided the fertile ground for a trustworthy, secure, and convenient digital single market. It is up now to European actors of the digital economy (citizens, businesses, and public authorities) to unlock the full potential of electronic identification and trust services for their activities. ●



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