

Biometric Signature Solution **digitalsign**✓

Did you know that not all electronic signatures are the same?

Our biometric signature solution helps your organization to digitally transform and streamline your paper based processes when the physical presence of the signatory is required.

This technology captures graphological patterns of the handwritten signature as biometric data (velocity, pressure, inclination, pen up/down times etc.) according to standard ISO/IEC 19794-7.

This allows, in the future, a verification process in case of repudiation or fraud, regardless of any technological developments.

The biometric data are encrypted and embedded in the electronic document to respect the signatory's privacy. The electronic document is also sealed by means of a digital certificate to ensure the integrity of all content.

Additionally, a timestamping can be added in order to legally vouch the time and date the document was signed.

- ✓ Authenticity
- ✓ Standards ISO
- ✓ Easy integration ERP, CRM etc.
- ✓ Integrity of all data collected
- ✓ Legal value
- ✓ Timestamps
- ✓ Long term validation
- ✓ Tested by forensic experts



Signatory's biometric data is encrypted using public-key technology (PKI). The private key may be stored and managed by a trusted third party, a Qualified Trust Service Provider.

Read on the next page how your organization can benefit from this technology

Human Resources

Transform the way you hire



Lifecycle

Throughout the management of the entire life cycle of its human resources, an organization needs to collect multiple signatures and approvals, for a variety of purposes: signing the contract, collecting consents, signing expenses reports, approval workflows, policy statements etc..

In most cases, these processes are still supported by paper-based documents and handwritten signatures which, in some cases, prove to be insecure, expensive and inefficient, since they are time-consuming and have an associated administrative burden.

Many of these documents end up getting lost during their handling, or end up forgotten at some desk. Plus, sometimes they have errors that require the entire process to be restarted.

Maximize HR efficiency

Through the combination of different technologies, we can accelerate, simplify and standardize several HR processes that, in their different phases, require the signature or approval of several stakeholders, even if they are geographically separated. At the same time, various legal and security risks associated with paper processes (improper access, transport, falsification, security files, etc.) are mitigated.

Through the use of electronic signatures it is possible for the document to be created and maintained in digital format throughout its entire life cycle, with full legal validity.

DigitalSign also offers a solution, [SigningHub](#), which allows approval and signature workflows.



- Employment Contracts

- Obtain consent
- Policy acknowledgement
- Work schedules
- Salary receipts
- Performance evaluation
- Expenses approvals

- Relocation
- Assets return
- Promotions



By implementing electronic signatures in HR processes, your organization can convert paper into searchable PDFs, collaborate and leverage templates to create electronic forms and documents, and use a workflow to automatically route documents for approval. They can also password-protect documents to safeguard personal information and restrict copying, editing, or printing. The following page presents a practical case of dematerialization in the HR area in the retail sector.

Case Study

Retail and Distribution



The problem

A multinational retail and food distribution company, with more than 600 stores located in different geographic locations, intended to dematerialize the onboarding and hiring of new employees, and all subsequent documentation signing resulting from the employment relationship.

The new employees contracts, weekly changes to employee timetables and overtime records, require the signature of several stakeholders, from the employee himself, his superior and, in some cases, the general human resources manager.

The documentation resulting from these activities consisted on numerous paper documents, shared through internal mail, taking days to complete.

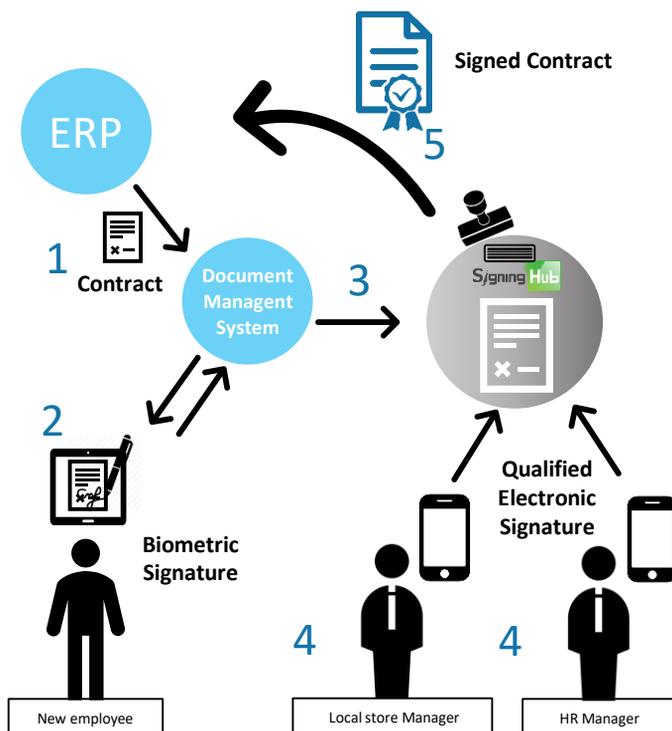
How we can solve it

By combining the biometric signature solution with remote qualified signature, we provide a different set of tools, with different use cases, to enable the document signature by all the counterparts.

The European legislation, eIDAS Regulation, allows the creation of qualified electronic signatures in a remote environment solely through the use of a smartphone, reaping the benefits of mobile and cloud technology.

Thus, it was possible to dematerialize and streamline the signature of several HR documents, considering, in this case, that two or more signatories were geographically separated, and the issuance of a digital certificate was not suitable for the new employee.

Transform the way you hire



The diagram below represents the adopted solution:

1. During the onboarding process the new employee contract is generated by the ERP.
2. Using specialized signature pads the new employee reads and signs the contract with a biometric handwritten signature
3. The contract is shared through a platform that allows the pre-definition of signature workflows. It can be used either [SigningHub](#), or other internal document management software (DMS), to share the documents between the signatories. Both solutions can be combined when there is the need to collect the signature from external entities.
4. The counterparts use a previously issued digital certificate to create a qualified electronic signature, deemed to be equivalent to an handwritten signature by the European legislation. The authentication builds upon a two factor authentication mechanism (2FA). A timestamping is added to allow long term validation.
5. The duly signed contract is stored in the ERP module.

Point of Sale



Simplify and go paperless

In today's competitive business climate it's crucial to seek cost cutting possibilities, improve operational efficiency and pay attention to customers expectations and demands. Printing documents, just to collect a signature not only transmits an outdated image of your organization but also represents a waste of time and money, not to mention the environmental damage.

With the use of the biometric electronic signature solution at the POS, it is possible to eliminate all paper in a variety of segments, especially in business-to-consumer (B2C) models such as bank branches, retail stores, customer relationship centers or even to your mobile sales teams on a mobility basis.



A simple digitization of an handwritten signature, such as those made on tablets without biometric data collection, does not offer any legal guarantee against the possible repudiation of the signature.

Case study: retail bank

A biometric signature can be used in a variety of documents:

- Transactions approvals (cash deposits and withdrawals, transfers);
- Standard contracts (account opening, products subscription);
- Credit agreements ;
- Investment contracts;

Business process:

1. The customer visits a branch to subscribe a new service e.g. credit card system.
2. The customer reviews the document to be signed electronically, this can be done directly in the signature pad. The customer adds his handwritten biometric signature to the document using the pad to sign.
3. The request is processed, the document is sealed with a digital certificate and a timestamp is added to the document.
4. The system files the PDF/A signed in a secure digital archive.
5. No document is printed, unless the customer insists to receive a paper copy.
6. The customer can access the document signed via his home banking.

Benefits



- The **ROI** is immediate as the costs of printing, time lost in collecting signatures, transport, scanning and archiving of paper documents are far superior when compared to an end-to-end digital process.
- The dematerialization of paper based processes enables the traceability of the data processed, allowing a more effective access management approach, in order to ensure the "need to know principle", a key factor to comply with the **General Regulation on Data Protection (GDPR)**.
- Not printing paper allows the development of a more sustainable and **environmentally friendly** business culture.
- The new qualified electronic signature cloud technology offers a **great user experience**, allowing you to sign a document anywhere with your smartphone and an internet connection, with a signature equivalent to an handwritten signature.
- The biometric electronic signature is not merely an image of the handwritten signature, without any legal probative value. With this solution it is possible to guarantee the **authenticity** of the signatory in the future. The content of the document and signatures are uniquely associated with the document, protecting it from any change and ensuring its **integrity**.
- All of the technologies used are **uniquely associated with the signer** and its replication is not possible at any time.
- The **WYSIWYS** (what you see is what you sign) principle is guaranteed, so as to ensure that from the legal point of view no content of the documents can be repudiated.
- All connections and data transfers are encrypted using unique methods (RSA and AES) for encryption and key exchange. This ensures that biometric sensitive data is protected at all times, ensuring the **confidentiality** of the process.
- **Biometric data are encrypted** using a private key which can be managed by a qualified trust service provider, only being made available in case of strict necessity (e.g. expert analysis of signature in case of repudiation), ensuring that no one has access to biometric data, thus complying with data protection legislation.
- Timestamps allow the documents **long-term validation - LTV** .



DigitalSign is a global provider of secure digital solutions across a wide range of sectors such as banking, government, pharmaceutical industry. With more than 15 years experience in PKI, key management and identity verification.

We are present in the EU trusted list accredited as a European Qualified Trust Service Provider and .

Lear more at: www.digitalsign.pt