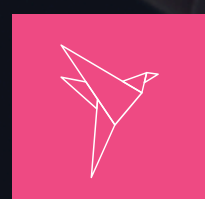


E-BOOK

ELECTRONIC SIGNATURE – SURVIVAL GUIDE FOR EVERY COMPANY

Digitization of company documents and contracts
in the online world



Motúzová & Lacko
advokátska kancelária
your lawyer

INTRODUCTION

Do you spend most of your day communicating electronically? Has your company gone "online" apart from contracts and documents?

In today's business world, digital tools are becoming increasingly popular to optimize processes and make tasks easier. Despite this, electronic signature and the digitization of contracts still have a long way to go in catching up.

That's why ANASOFT and Motúzová & Lacko law firm have collaborated to create a straightforward guide that explains how electronic signatures work.

Electronic signing significantly saves time, reduces paper and printing costs and removes corporate bureaucracy. However, many companies are hesitant to adopt this technology because they are unsure how to use it properly. Furthermore, there has been a lack of clear instructions on how to use electronic signatures in compliance with legal requirements.

If your company is considering using electronic signatures but needs more information to get started, this e-book is specifically designed for you.

What kind of information the e-book offers?

- you will discover that in 99.9% of cases, you don't need an ID card with a chip to sign documents electronically,
- that there are much more effective ways of electronic signing,
- we will explain the different types of electronic signatures (basic, advanced and qualified),
- we will clarify what are the fundamental differences between a basic, advanced and qualified electronic signature and what are their advantages,
- we will explain the legal aspects of electronic signatures and how to sign documents validly and effectively

We are confident that this e-book will assist you in navigating the complexities of electronic signatures and document digitization from both technical and legal perspective, enabling you to harness the full potential of electronic signing.

We will be happy if you also forward the e-book to your lawyers, IT department and CEO. Start e-signing today!

ANASOFT and Motúzová & Lacko

WHAT IS AN ELECTRONIC SIGNATURE?

When we receive signed document through traditional mail, such as contract with service provider or school principal, we typically don't question the authenticity of the handwritten signature.

Who would think of requesting the sender's ID card?

On the other hand, we rarely trust email messages, electronic orders or scanned contracts. Even if they come from a trusted partner we've been doing business with for two decades. Probably the greatest sense of security comes from a handwritten signature, the authenticity of which you wouldn't even think of verifying.

However, as we'll reveal in this e-book, electronic signatures can also be legally binding and meet the conditions set forth by legislation. We'll dive into the details of how electronic signing works in practice, giving you the knowledge and confidence to embrace this technology.



TYPES OF ELECTRONIC SIGNATURES

What is an electronic signature and what are the different types of electronic signatures?

On the territory of European Union, Regulation of the European Parliament and the Council (EU) No. 910/2014 of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/ES ("eIDAS Regulation") applies. The sole purpose of the eIDAS Regulation is to help you learn how to use an electronic signature.

eIDAS Regulation categorizes electronic signatures into three types:

1. basic (simple) electronic signature,
2. advanced electronic signature,
3. qualified electronic signature.

According to Art. 49 of the preamble of the eIDAS Regulation applies the principle according to which ***"an electronic signature should not be denied legal effect because it is in electronic form..."***.

This means electronic signatures cannot be denied legal effect simply because they are in electronic form. Does it sound complicated? On the contrary, many of the actions we perform electronically can be considered as electronic signatures since they are performed under our name or some other identifier.

1. BASIC ELECTRONIC SIGNATURE

The category of basic electronic signature includes any electronic data that is connected or logically associated with other data in electronic form, and which the signer uses to sign.

Such data can be, for example, the letters of your name inserted at the end of an e-mail message, but also an image in JPG format depicting your signature.

Additionally, electronic signatures can also be utilized during a phone call that is being recorded. For example, when you make an appointment with a doctor via phone or change your bank details. All you have to do is tell your name, date of birth or social security number.

One of the major benefits of basic electronic signature is that it exists in many forms and has wide applicability. You might not even realize it, but you're probably already using it on a daily basis.

EXAMPLES FROM PRACTICE

Signature in email



JOHN DOE

Marketing specialist

john.doe@company.sk
www.company.sk

Checkbox



I have read the general terms and conditions and I agree with them *

2. ADVANCED ELECTRONIC SIGNATURE

Advanced electronic signature requires a higher level of security and certainty about who signed the document. It has to meet the following conditions:

- it is uniquely associated with the signer,
- it enables identification of the signer,
- it is created using data that the signer can use with a high degree of trust under his sole control (for example, a handwritten signature made on a digital screen, a one-time password sent to the user's mobile phone, a grid card);
- it is linked to the data (such as a message or document) that is signed by it in such a way that any subsequent change to the data can be identified.

Advanced electronic signature is essentially mathematics. It is a simplified version of the qualified electronic signature (QES), which doesn't require authorization from a state authority. Nevertheless, for the majority of documents, this level of signature (QES) is unnecessary.

Main advantages of advanced electronic signature

With an advanced electronic signature, the **identity of the document signer is almost 100% certain and guarantees that the document remains unaltered in transit**. This is achieved by utilizing the data that establishes the signer's identity to create the advanced signature. For example, by signing directly in the application interface.

Did you know that even if a document is signed with a qualified electronic signature (QES), it is not 100% guaranteed that the signature was made by the owner of the identity card? For example, unauthorized individuals could gain access to your ID card and PIN and "forge" your QES.

How to use advanced electronic signature in company practice?

There are several methods how you can use an advanced electronic signature in your business and corporate practice:

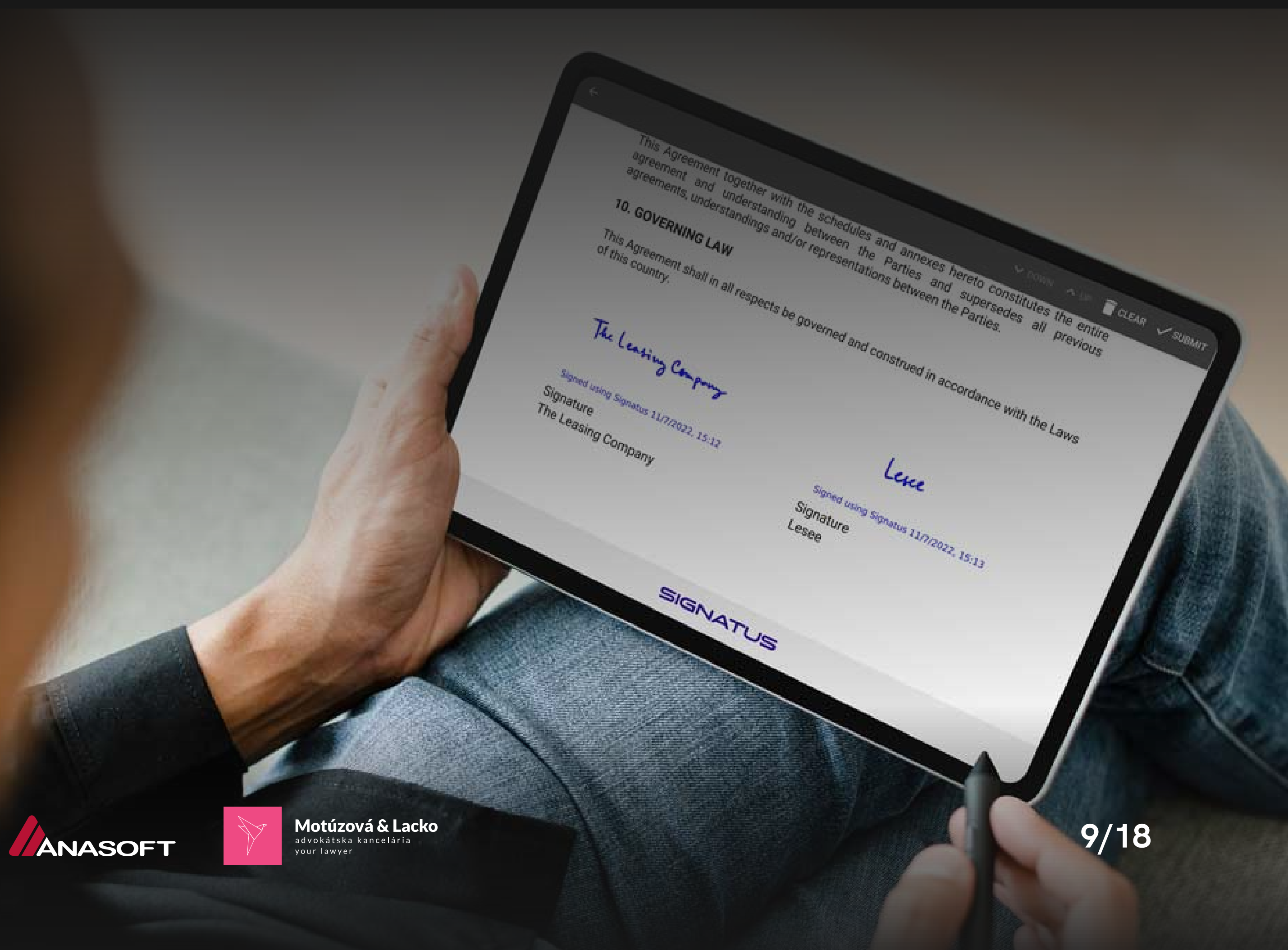
- **signing with a finger** - capturing a signature using a digital device with a touch screen (e.g. couriers of delivery companies),
- **signing with a digital pen** - capture signature using a digital device with a pen capable of capturing the detailed characteristics of the signature,
- **physical card with a certificate** - issued by a trusted authority, most often a private company,
- **signing with the second factor** - two-step authentication (e.g. with mobile banking),
- **SMS signature** - verification text or numerical code.

As you can see, advanced electronic signature offers more security measures compared to a regular electronic signature. These components guarantee that the signature is firmly linked to the user. When signing with a finger or a pen on a touch device, signature along with the document that was signed is saved on the device. When signing in electronic banking, you will receive a unique code via SMS on the phone number registered with the bank to sign.

How can one ensure that an advanced electronic signature fulfills all the conditions established by the eIDAS Regulation? Without an ID card equipped with a chip, how can one guarantee the security of the signature, its unique association with the author, and the reliable identification of the author? And how can all this be accomplished swiftly, effortlessly, and in a simple way?

To create a perfect handwritten electronic signature, software assistance is essential. As we said, you can create an advanced electronic signature using a mouse or a finger on a touch screen, this method of signing can be inconvenient for the user and cannot precisely capture the handwriting movement and stroke that is characteristic of the signer. **The ideal solution is therefore a digital pen in combination with a touch screen that digitally captures and securely stores your handwritten signature.**

This approach produces an electronic signature that possesses all the characteristics of an advanced electronic signature, as well as some additional features. It can be verified in a manner similar to a handwritten signature on paper.



Technological standards and procedures

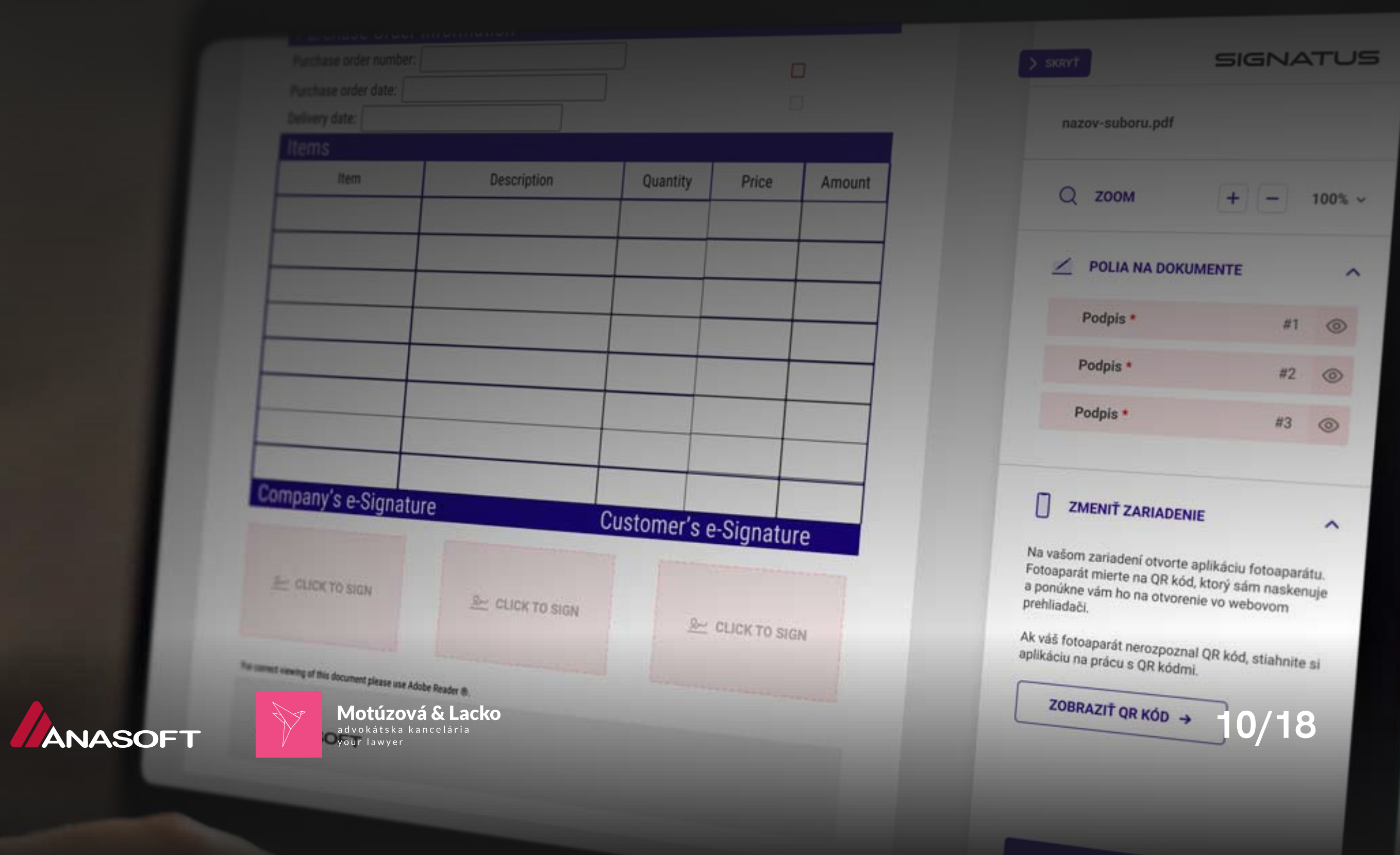
Safe and reliable solution for an advanced electronic signature has to adhere to the following standards and procedures specified in the eIDAS Regulation:

- PDF compatible with the ISO 32000-1:2008 standard - ensures viewing of the document in all PDF browsers,
- recording of the signature process according to the ISO/IEC 19794-7:2021(E) standard - helps to determine the identity of the signer,
- data hashing - unmistakably and indisputably links the signature data with the signed document,
- data encryption with an asymmetric encryption key - protects signature data,
- connection with a PDF document, signature with a digital certificate according to PAdES - every change in the document is automatically detectable.

It is important to note that experts in criminology - forensic handwriting experts - are capable of analyzing advanced electronic signatures.

But what can they do with such raw data? Fortunately, there are tools available that can display a handwritten electronic signature.

We've developed one such tool in collaboration with handwriting experts.



Features of the analysis tool

The analysis tool can load the raw signature data and visualize it and has other built-in functions:

- real-size visualization of the execution of the signature,
- playing the signature at real speed as it was created,
- examination and comparison of several signatures,
- measurement of length, angles and number of strokes,
- visualization of digital pen pressure,
- displaying graphs and statistics.



In the image you can observe what using the analysis tool entails and how it enables one to analyze the advanced electronic signature created with the use of our technology.

Don't worry if the customer only signed one document electronically. One advantage of this is that handwriting experts can compare both classic paper signatures and electronic signatures when obtaining evidentiary materials.

Furthermore, additional data such as IP address, GPS location, device type and model, and web browser version can be attached to the electronic signature.

As a result, it can be said with certainty that forging electronic signatures is significantly more challenging than forging handwritten signatures on paper. This makes it significantly harder for potential counterfeiters and discourages them from engaging in this type of criminal activity.

The advantage is that handwriting experts are able to compare traditional ink signatures with digital signatures when collecting evidence.

3. QUALIFIED ELECTRONIC SIGNATURE

The most secure type of electronic signature available is the Qualified Electronic Signature (QES), which is specifically designed for situations where a written paper form is necessary. It is an advanced electronic signature based on a qualified certificate and stored on a qualified medium that is certified by the National Security Office. In this case, the qualified certificate serves similarly to verification by a notary, which guarantees the authenticity of the signature.

A high level of legal force of a qualified electronic signature is guaranteed by our Civil Code. According to §40 of the Civil Code, even if a legal act requires a written form, this form is considered preserved if the legal act is executed with a qualified electronic signature.

However, utilizing a QES requires several steps and the use of various software and hardware products.

What do you need if you want to sign with QES signature?

eID card

eID card reader

eID client application

websigner app

card reader driver

How to do it?

1. Download and install applications and driver ▶

2. Run the necessary applications ▶

3. Insert the eID card into the reader ▶

4. Upload a document ▶

5. Enter BOK ▶

6. Select a certificate ▶

7. Enter PIN ▶

8. Download or send signed document

When to use qualified electronic signature?

Qualified electronic signature is mainly used for identification, authentication of individuals and for documenting identity in public administration. As an illustration, suppose you purchased a condominium and require updating the owner information in the cadastral registry.

It is possible to utilize qualified electronic signature in your personal life, like when signing a loan agreement. However, can you imagine signing with your ID card at a bank branch? Remember a pair of 6-digit codes or carry them with you? And what about connecting your ID card to a reader and a computer you don't trust?

You can also use it when communicating with state authorities, courts, executors or tax authorities - essentially, anywhere the law mandates it, or if you prefer to guarantee the same level of validity as a traditional handwritten signature.



SUMMARY

In short, just because your signature is in electronic form, it doesn't mean that it won't be recognized as valid. Whether you're communicating with your boss, sending confidential company information to a competitor, or placing a business order, your signature will be 100% valid, effective and will have legal consequences for you - unless it's proven otherwise. For example, that it was not you who signed. This applies to every form of electronic signature, including the strongest (QES), but also to handwritten signatures on paper.

But which electronic signature should you choose?

We believe that you are no longer afraid of electronic signing. How to choose a simple and fast-to-use signing solution in a company that will also be legally effective? It is important to bear in mind that security and convenience don't always go hand in hand.

For electronic signing in the company, it is also important to remember that many documents (including contracts) can be signed using a basic or advanced electronic signature. Only a small number of operations will require a qualified electronic signature (QES).

However, to ensure that signing remains organized, documented, and secure within the company, it's recommended to implement policies and measures. This is nearly impossible with a regular electronic signature used on various platforms. On the other hand, using a QES requires a significant amount of time and effort.

To ensure the highest level of security and legal certainty, it is best to opt for a solution such as software that verifies the signer's identity and securely stores data regarding the signature or the contents of the document being signed. This will result in an advanced electronic signature, which provides greater security and legal certainty since the signature is thoroughly documented.

Final recommendations

We hope we have provided you with a clear understanding of the basics of electronic signing. However, additional steps, such as addressing signature forms, digitizing your contracts, or selecting the right technology, can be time-consuming.

If you're interested in streamlining your business processes and adopting electronic contracts, please don't hesitate to contact us. We'll be happy to offer advice not only on electronic signatures and documents, but also on digitizing contracts and managing your relationships with partners. By doing so, you'll be able to focus solely on your primary business activities.

We wish you great success and look forward to the opportunity to work with you!

ABOUT US



Since 1991, we have been developing software applications supporting the digital transformation of businesses. Our solutions include digitization of paper processes, cyber security and intelligent management of production and logistics. We are experts in complex business information systems and real estate management systems.



LUKÁŠ BÚRI

Product manager for digital transformation at ANASOFT

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He is in charge of developing and maintaining digital signature products. Lukáš has many years of experience in simplifying solutions for digital transformation - from the field of logistics and production, through financial institutions, to the banking sector.



MAREK ILKOVIČ

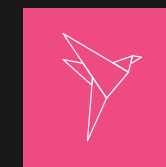
Partnership manager for digital transformation at ANASOFT

in Marek Ilkovič

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He takes care of existing customers and develops relationships with existing or new partners who implement our technology abroad and help us move forward.

ABOUT US



Motúzová & Lacko
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We are technology advocates. We will ensure the digitization of your agenda and help you determine which type of electronic signature to use when. We will set up electronic relationships with your customers and save you money and time.



ZUZANA MOTÚZOVÁ

Lawyer and expert on technological law

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Zuzana is like a fish in water in technological law. She likes to make software contracts and handles all technology legal issues from the initial idea to the sale of the company. She likes to assist clients in technology legal disputes.



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Pavel is an expert on GDPR and electronic signing. If clients are clueless, he always finds a reasonable solution. His passion is litigation, negotiation and arbitration. He also helps clients in the area of AML and compliance and also sets conditions for e-commerce companies.