

Legal Framework for Electronic Labor Contracts in Enterprises

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Abstract

The rapid growth of digital technologies has driven the digitalization of human- resource management, leading to the increasing use of electronic labor contracts in enterprises. Vietnamese law recognizes the legal validity of electronically concluded labor contracts; however, several legal challenges remain regarding electronic signatures, evidentiary value, data integrity, personal data protection, and the parties' responsibilities in dispute resolution. This article analyzes the current legal framework governing e-labor contracts, examines practical issues in enterprise implementation, and proposes recommendations to enhance legal certainty and compliance in the digital labor environment.

Keywords: *Electronic labor contracts; electronic transactions; electronic signatures; personal data; labor relations; labor law; enterprise digital transformation.*

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I. Introduction

The transition toward a digital economy has profoundly transformed the way enterprises operate, with human-resource management being one of the areas most directly influenced by technological advancements. The adoption of electronic labor contracts has become an inevitable trend, enabling enterprises to optimize recruitment–contracting– storage processes, reduce costs, and enhance the speed of administrative procedures. The 2019 Labor Code for the first time recognized the legal validity of labor contracts concluded through electronic means, establishing an important foundation for enterprises to shift toward a digital environment. However, this development also raises various legal challenges. Issues such as signature authentication, verification of contracting parties, personal data processing, ensuring the integrity of data messages, the evidentiary value of electronic information, and dispute resolution remain insufficiently regulated or lack clarity. These gaps create uncertainties for enterprises during implementation, particularly in cross-border transactions or when using third-party electronic-signing platforms. This article aims to analyze the core legal issues surrounding electronic labor contracts, synthesize practical experiences, and propose feasible recommendations for both the State and enterprises.

II. Content

2.1 Legal Basis Governing Electronic Labor Contracts in Vietnam

2.1.1 Provisions of the 2019 Labor Code

The national digital transformation process has brought fundamental changes to the way enterprises manage human resources. Since 2019, Vietnamese labor law has officially recognized labor contracts concluded via electronic means, marking an important step toward the modernization of labor relations. Accordingly, Clause 1 Article 14 of the 2019 Labor Code stipulates that “A labor contract concluded through electronic means in the form of a data message, in accordance with the law on electronic transactions, shall have the same validity as a written contract.” This provision clearly affirms the equal legal value between electronic contracts and paper-based contracts, provided that statutory conditions are satisfied, including: proper contracting parties; the contract containing all mandatory elements prescribed in Article 21 of the Labor Code; and compliance with regulations on electronic transactions. However, the Labor Code does not provide specific guidance on what constitutes “conclusion,” “acceptance,” or “electronic signing,” resulting in practical gaps during implementation.

2.1.2 The Law on Electronic Transactions 2023

To address the gaps in the Labor Code, on June 22, 2023, the 15th National Assembly of the Socialist Republic of Vietnam promulgated the Law on Electronic Transactions 2023, which took effect on July 1, 2024. This Law

sets out fundamental principles governing electronic contracts, including: the legal validity of data messages; conditions under which a data message is recognized as an original; evidentiary value; electronic signatures, digital signatures, and trust services; and electronic sending–receiving–storage procedures.

According to the Law on Electronic Transactions 2023, a data message (information created, transmitted, received, or stored via electronic means) has the same legal validity as a paper document if it satisfies statutory requirements. A data message cannot be denied legal validity solely because it is generated electronically. When the law requires a “document,” “written form,” or “written contract,” a data message fulfills that requirement if its content is accessible and usable when needed. This creates the legal foundation for electronic labor contracts to be fully valid and recognized in the same manner as paper-based contracts.

Regarding conditions for recognizing a data message as an original, the Law stipulates that a data message is deemed an “original” when it satisfies two requirements:

- (i) Integrity of information, meaning the content has not been altered, except for changes arising during transmission, storage, or display that do not affect the substance of the data; and it has not been modified for the purpose of falsification.
- (ii) Accessibility, meaning the storage system must allow the data to be retrieved, read, examined, or extracted when necessary.

Regarding the evidentiary value of data messages, the Law affirms that data messages may be used as evidence before courts or competent authorities. Courts will assess the reliability of the methods used to create, store, and transmit the data; whether the originator is properly authenticated; and the system’s security and anti-tampering capabilities. Accordingly, electronic labor contracts can be used as valid evidence in labor disputes.

Regarding trust services in electronic transactions, the Law on Electronic Transactions 2023 provides for trust services designed to ensure the security and authenticity of electronic contracts. These include: digital signatures/electronic signatures that identify (1) the signer and (2) the signer’s consent to the contract content; timestamps that confirm the time of signing or creation of a data message and may serve as evidence in disputes; and electronic contract certification services that verify the validity of the contract, the parties signing it, and the time of signing, while ensuring that the contract remains unaltered afterward. These technical tools strengthen the legal reliability and evidentiary value of electronic labor contracts.

From these provisions, it is clear that electronic labor contracts hold the same legal validity as original documents when the integrity of information and accessibility are ensured. They possess evidentiary value equivalent to that of paper contracts and are lawful when executed using electronic signatures, digital signatures, or trust services. Notably, the Law emphasizes that integrity and accessibility are the decisive factors determining the legal validity of an electronic contract.

2.1.3 Regulations on Personal Data Protection

Decree No. 13/2023/NĐ-CP and the Law on Personal Data Protection impose a number of obligations on enterprises regarding the management and processing of employees’ personal information, reflected in the following key aspects:

First, regarding minimum data collection and processing, enterprises may collect only the data that is strictly necessary for the conclusion and performance of labor contracts, for fulfilling statutory obligations (such as social insurance and taxation), or for legitimate human-resource management purposes. Enterprises are therefore prohibited from collecting data “for convenience,” collecting excessive information, or using personal data for purposes beyond those previously notified.

Second, enterprises have an obligation to notify and obtain the consent of employees. Before collecting or processing data, employers must clearly inform employees of the types of data to be collected, the purposes of collection, the retention period, and their rights, and must obtain their consent (except in cases where consent is legally exempted, such as for social insurance obligations). Consent must be expressed explicitly—through written confirmation, text message, email, or other clear affirmative actions.

Third, enterprises must ensure data security and access control. They are required to protect personal information through technical measures (encryption, access control, firewalls) and administrative measures (access regulations, logging of access activities). Access must be restricted to authorized personnel only, and any sharing of data with third parties must be strictly monitored. Violations resulting in the leakage of personal data may lead to severe penalties under Decree 13/2023.

Fourth, enterprises are obligated to conduct impact assessments when processing sensitive data. If sensitive data is processed—such as biometric data, health information, location data, financial information, or family-related information—the enterprise must prepare a Data Protection Impact Assessment (DPIA), submit it to the Ministry of Public Security as required, and update it when changes occur. In the labor context, medical records, health conditions, and pre-employment health certificates are considered sensitive data.

Fifth, enterprises must ensure lifecycle management of contract-related data. This is a crucial

obligation under Decree 13/2023/NĐ-CP and the Law on Personal Data Protection, requiring enterprises to manage personal data throughout its entire lifecycle— from collection, storage, use, and sharing to deletion. Enterprises may retain personal data only for the duration necessary to fulfill the stated purposes and must delete or anonymize the data once those purposes have been achieved. Moreover, throughout the data lifecycle, employees have the right to request correction of inaccurate information, to restrict or halt data processing, and to request deletion of their data when it is no longer necessary. All of these activities must be documented, monitored, and implemented in strict compliance with the initially notified purposes and scope of data processing.

2.1.4 Electronic Signatures in Labor Contracts

Electronic signatures used in the conclusion of electronic labor contracts may exist in various forms, such as public digital signatures (PKI-based), OTP-based electronic signatures, signatures created through digital identity platforms, or signatures executed using strongly authenticated user accounts. Under current Vietnamese law, an electronic signature is legally recognized if it meets the criteria of being uniquely linked to the signatory, capable of verification and authentication, and ensuring that the signatory cannot deny their intent regarding the content of the document.

However, in practical application, different forms of electronic signatures offer varying levels of reliability. Only digital signatures—those created using public key infrastructure (PKI) and issued by licensed certification service providers—are regarded as having the highest degree of security and legal validity. This is particularly important in high-risk transactions such as the execution of electronic labor contracts or other documents that create significant legal obligations.

2.2 Practical Application of Electronic Labor Contracts in Enterprises

In practice, the adoption of electronic labor contracts varies significantly across different groups of enterprises. Foreign-invested enterprises (FDI), technology companies, large corporations, and service chains exhibit a high level of implementation, as they are already accustomed to digital infrastructure, possess modern human resource management systems, and are more willing to invest in technological solutions. In contrast, small and medium-sized enterprises remain cautious due to concerns about the legal validity of contracts in the event of disputes, challenges in proving the authenticity of electronic signatures, and risks associated with data security.

Currently, enterprises are employing various models of electronic labor contract execution. (i) The model using public digital signatures (PKI-based) offers high reliability and is suitable for contracts with high legal or financial risk, but its limitation lies in the fact that not all employees possess digital certificates. (ii) The model using electronic contract platforms is the most widely adopted, thanks to the integration of eKYC, transaction logs, and multi-layer authentication; however, it creates dependency on trusted service providers. (iii) The model using OTP-based signatures or user accounts is suitable for low-skilled or general labor but is prone to disputes because it is difficult to definitively identify the person who executed the transaction. (iv) Lastly, the method of scanning signed paper contracts, despite being commonly used in practice, is not legally recognized as a valid electronic contract, as it does not meet the requirements for integrity and verifiability of electronic data messages. In the practical application of electronic labor contracts, numerous legal challenges have arisen, creating barriers for enterprises.

The First, one of the most common issues in disputes involving electronic labor contracts is the difficulty in proving the identity of the signatory, as employees may deny having signed the contract or claim that another person signed on their behalf. Although system logs, timestamps, and IP addresses serve as important evidence, many enterprises fail to store them properly or lack a standardized process for recording transaction data.

The Second, the evidentiary value of electronic data messages is another significant concern. In dispute resolution, courts require enterprises to prove that the data has not been altered, that the electronic signature was lawfully created, and that the electronic contracting system operated correctly. However, the absence of unified technical standards leads to inconsistent interpretation and evaluation among judicial authorities.

The Third, long-term storage and data security continue to pose major challenges. Electronic contracts must be retained for many years, while risks such as data loss, system failures, cyberattacks, or file format obsolescence remain constant. Many enterprises have yet to establish reliable long-term storage mechanisms or robust backup systems.

The Finally, enterprises that store servers abroad or rely on cross-border cloud platforms face increasing risks of violating Vietnam's regulations on personal data localization—particularly as the Personal Data Protection Law imposes strict requirements on data transfer outside the country.

As a result of the aforementioned legal issues, various types of disputes have emerged in the application of electronic labor contracts. A common category is disputes regarding contract validity, occurring

when enterprises implement improper signing procedures or fail to meet legal requirements for electronic data messages, allowing employees to claim that the contract is invalid. Additionally, disputes concerning contract termination frequently arise because enterprises do not adequately preserve evidence of the contracting process—such as authentication logs, signing timestamps, or consent confirmations—making it difficult to prove the legality of the contract.

Disputes relating to the collection of excessive personal data have also become increasingly prevalent, with employees alleging that enterprises collect unnecessary information or fail to clearly notify them of the purpose of data processing. Lastly, disputes may arise when contractual terms are amended or supplemented electronically, particularly if enterprises lack mechanisms to re-confirm employee consent or cannot prove that the employee genuinely agreed to the modifications.

2.3 Recommendations for Improving the Legal Framework and Solutions for Enterprises

To improve the legal framework and enhance the effectiveness of electronic labor contract implementation, a coordinated set of solutions is required from the State, enterprises, and employees.

From the State’s perspective, it is essential to promulgate a dedicated decree governing electronic labor contracts to establish consistency in definitions, procedures, and legal validity across the legal system. At the same time, a hierarchical structure for the legal value of different types of electronic signatures—similar to the European Union’s eIDAS model—should be adopted. The State should also issue technical standards for electronic contract storage, including timestamp requirements, hash standards, and data security protocols. Furthermore, mechanisms for receiving and evaluating electronic evidence in court must be developed in a transparent and user-friendly manner, alongside the improvement of regulations on personal data protection in the labor field, especially with respect to sensitive data. Another critical measure is the development of a national electronic labor contract signing platform integrated with VNeID, thereby standardizing processes and enhancing the reliability of electronic transactions.

For enterprises, priority should be given to using reputable electronic contract signing platforms that meet security standards, while implementing multi-layer authentication mechanisms such as eKYC – OTP – digital signatures to reduce the risk of disputes. Enterprises must also standardize procedures for storing contracts, perform periodic data backups, provide legal and compliance staff with training on electronic evidence, digital archiving, and data governance, and establish transparent data protection policies when collecting and processing employees’ personal information.

From the employees’ perspective, it is important to improve their understanding of digital identification, electronic signatures, and the risks associated with entering into online contracts. Employees must exercise caution when reviewing contract content before confirming it, and proactively safeguard their personal information and account credentials to minimize potential misuse or disputes.

III. Conclusion

Electronic labor contracts represent an inevitable trend in modern human resource management, delivering significant benefits in terms of time efficiency, cost reduction, and transparency. However, their implementation continues to face numerous legal challenges relating to authentication, evidentiary value, data security, and long-term storage. For electronic labor contracts to operate effectively in practice, several factors must be aligned: a comprehensive legal framework, reliable technological infrastructure, robust internal procedures, and improved awareness among all parties to the employment relationship. The coordinated efforts of the State, enterprises, and employees will form a solid foundation for Vietnam’s digital labor market in the new era.

References

- [1] Labor Code (2019). National Assembly of the Socialist Republic of Vietnam.
- [2] Law on Electronic Transactions (2023). National Assembly of the Socialist Republic of Vietnam.
- [3] Decree No. 13/2023/NĐ-CP on Personal Data Protection.
- [4] Law on Cyberinformation Security (2015).
- [5] Law on Cybersecurity (2018).
- [6] Regulation (EU) No 910/2014 (eIDAS).
- [7] US ESIGN Act (2000) & Uniform Electronic Transactions Act (1999).
- [8] Singapore Electronic Transactions Act (2010).
- [9] OECD (2022). Digital Labour and Data Governance.
- [10] UNCITRAL Model Law on Electronic Commerce (1996).