

## Cyber Notary Regulation in Indonesia: Juridical Challenges and Proposed Model for Ensuring the Authenticity and Evidentiary Strength of Electronic Notarial Deeds

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### Abstract

The rapid advancement of information technology has stimulated significant innovation across legal services, including the notarial field. This study addresses a central research problem: whether the implementation of Cyber Notary in Indonesia can fulfill the legal requirements of authentic deeds under Indonesian positive law. The objective of this research is to examine the juridical challenges of Cyber Notary implementation particularly regarding the authenticity, legality, and evidentiary strength of electronic notarial deeds, while evaluating the regulatory readiness and supporting infrastructure. Using a normative juridical method with a descriptive-analytical approach, this study analyzes statutory provisions, legal doctrine, and comparative practices in jurisdictions such as the United States, Singapore, and Malaysia. The findings reveal that although the Electronic Information and Transactions Law (ITE Law) provides an initial legal foundation, the absence of explicit regulation in the Notary Law (UUJN) and lack of comprehensive technical guidelines impede the legal validity and evidentiary weight of electronic deeds. In addition, challenges arise from identity verification mechanisms, legal certainty standards, and the adequacy of cybersecurity infrastructure. Comparative analysis demonstrates that Indonesia lags behind jurisdictions that have established robust remote notarization frameworks, trusted authentication systems, and integrated digital regulatory mechanisms. Accordingly, this study emphasizes the need for legal reforms through revision of the UUJN, harmonization with the ITE Law, and issuance of detailed implementing regulations supported by secure digital authentication procedures and supervisory structures. This research contributes theoretically by enriching the discourse on modernization of notarial law and practically by offering a regulatory roadmap for developing a legally secure and technologically adaptive Cyber Notary system in Indonesia.

## INTRODUCTION

The advancement of information and communication technology has exerted a significant positive influence on various aspects of human life. The continuous development of communication media has enabled the provision of more efficient and effective services in delivering information.<sup>1</sup> Various devices such as computers, gadgets, and other technologies have enabled individuals to access the Internet with great ease in their daily lives. Information technology has now become a fundamental pillar across multiple aspects of life, including the economy, socio-cultural domains, education, and even the legal sector. Since the enactment of Law Number 11 of 2008 concerning Electronic Information and Transactions, there has been a gradual shift from traditional buying and selling activities toward digital transactions.<sup>2</sup>

In the context of public services, there exists a form of non-governmental service that is closely related to state regulation, namely notarial services. Although not part of a governmental institution, notaries play a crucial role within the legal system, as their duties and authorities are governed by statutory regulations. According to Article 1 paragraph (1) of Law Number 2 of 2014, a notary is recognized as a public official vested with the authority to draw up authentic deeds and to perform other functions in accordance with legal provisions. Traditionally, notarial services for the public have been conducted through conventional means. However, with the rapid advancement of information technology, all sectors of life, including legal services, have begun transitioning from conventional methods to digital systems.<sup>3</sup>

This development has also encouraged notarial services to adopt an electronic-based approach known as the Cyber Notary. Consequently, notaries are required to adapt and actively participate in the continuous advancement of information technology. The rapid evolution of digital technology has brought about significant transformations within the legal system, particularly in aspects related to administration, evidence, and public services. In the modern era, the use of electronic signatures, electronic documents, and online-based systems is no longer unfamiliar. This phenomenon presents both challenges and opportunities for the notarial profession. Traditionally associated with face-to-face

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<sup>1</sup> Wiryany, Detya, Selina Natasha, and Rio Kurniawan. "Perkembangan teknologi informasi dan komunikasi terhadap perubahan sistem komunikasi Indonesia." *Jurnal Nomosleca* 8.2 (2022): 242-252.

<sup>2</sup> Wahyu, Ruly, and Men Wih Widiatno. "Tanggung Jawab Hukum Pidana Penyelenggara Elektronik Perbankan Terhadap Perlindungan Data Pribadi Nasabah." *Arus Jurnal Sosial dan Humaniora* 5.2 (2025): 3190-3199.

<sup>3</sup>Istiqomah, Ayu Maharani, and Marlina Br Purba. "Problematisa Hukum Peran Notaris Terhadap Ijin Usaha Melalui Sistem Online Single Submission." *Al Qodiri: Jurnal Pendidikan, Sosial dan Keagamaan* 21.3 (2024): 990-1006.

interactions, physical documents, and manual signatures, notaries are now confronted with the demand to modernize in order to remain relevant to societal needs and contemporary developments.<sup>4</sup> Therefore, the discourse and initial practices surrounding the concept of the Cyber Notary have emerged as a legal innovation expected to provide efficiency, effectiveness, and legal certainty in the drafting of authentic deeds within the digital era.

Nevertheless, the implementation of the Cyber Notary cannot be separated from juridical issues. This is due to the fact that authentic deeds hold a highly significant position within the Indonesian legal system. According to the provisions of Article 1868 of the Indonesian Civil Code (KUHPdata), an authentic deed is defined as a deed drawn up in the form prescribed by law, by or before a public official authorized to do so.<sup>5</sup> The existence of notaries as public officials is further affirmed in Law Number 2 of 2014 concerning the Notary Office (UUJN). Accordingly, the legality and validity of an authentic deed are determined not only by its content and signatures but also by the formal procedures conducted in accordance with legal provisions. This raises a critical question: can the drafting of deeds through an electronic system fulfill the elements of authenticity as stipulated in the Indonesian Civil Code (KUHPdata) and the Notary Office Law (UUJN).

In international practice, the concept of the Cyber Notary has in fact been recognized earlier. Several developed countries have accommodated the use of technology in notarial practices, for instance through online notarization in the United States and several European nations. Their regulations acknowledge electronic signatures and authentication systems based on digital security mechanisms that are equivalent to face-to-face procedures. Indonesia, likewise, already possesses a legal foundation to move in this direction, one of which is the recognition of electronic documents under the Electronic Information and Transactions Law (UU ITE). Article 5 paragraph (1) of the UU ITE affirms that electronic documents constitute valid legal evidence. Furthermore, Article 11 of the same law recognizes electronic signatures as legally valid, provided that

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<sup>4</sup> Asriannor, Muhammad Afdal Zikri, Muhammad Indra Gazali, dan Riski Dwi Nugraha, "Tantangan dan Peluang Profesi Notaris di Era Digital," *Indonesian Journal of Islamic Law and Education (IJIJEL)*, Vol. 3, No. 2 (2025), <https://doi.org/10.62976/ijjel.v3i2.1205>.

<sup>5</sup> Taliwongso, Candella Angela Anatea. "Kedudukan Akta Otentik Sebagai Alat Bukti Dalam Persidangan Perdata Di Tinjau Dari Pasal 1870 KUH Perdata (Studi Kasus Putusan Nomor 347/Pdt. G/2012/PN. Mdn)." *Lex Administratum* 10.2 (2022).

certain requirements are met. These two provisions may serve as an initial juridical foundation for the implementation of the Cyber Notary in Indonesia.<sup>6</sup>

Nevertheless, several juridical issues remain to be addressed, particularly concerning the aspect of deed authenticity. An authentic deed prepared by a notary possesses absolute evidentiary strength; therefore, if such a deed is created electronically, the mechanisms of authentication, identity verification, and data security must fully comply with legal standards. The principle of legality also warrants attention, as neither the Notary Office Law (UUJN) nor the Indonesian Civil Code (KUHPerdata) explicitly regulates electronic deeds prepared through digital media by notaries. This situation creates a legal gap that may undermine legal certainty for parties utilizing Cyber Notary services. Furthermore, challenges related to infrastructure and cybersecurity cannot be overlooked. To ensure the authenticity of electronic deeds, a robust digital security system is required to prevent manipulation or forgery.<sup>7</sup> Cybercrime threats such as hacking, electronic signature forgery, and identity misuse have become serious issues that must be anticipated.

Furthermore, from the perspective of notarial practice, the implementation of the Cyber Notary also raises issues concerning the legal relationship between notaries and their clients. Notarial tradition emphasizes the physical presence of the parties before the notary to provide statements directly, enabling the notary to verify the parties' identity, capacity, and intent. When such interactions are conducted via electronic media, questions arise regarding the extent to which a notary can be confident that the individual participating in a video conference or providing a digital signature is indeed the intended party and not an impersonator. This issue is directly related to the principle of formal truth in authentic deeds, which remains the notary's responsibility.

From a regulatory perspective, there exists an opportunity to integrate the Cyber Notary into the Indonesian legal system. The Notary Office Law (UUJN) provides leeway through Article 15 paragraph (3), which stipulates that notaries possess other authorities as regulated by statutory provisions. This implies that, should the government issue derivative regulations detailing the mechanisms of the Cyber Notary in the future, such practices could be conducted without violating the principle of legality. Therefore, the primary challenge lies not in whether the practice is permissible, but in how the state

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<sup>6</sup> Pradipa, Arya. "Analisis terhadap Kedudukan Alat Bukti Elektronik dalam Pembuktian Perkara Perdata Pasca UU ITE dan Perkembangan E-Court." *Konsensus: Jurnal Ilmu Pertahanan, Hukum dan Ilmu Komunikasi* 2.3 (2025): 191-203.

<sup>7</sup> Rizkianti, Wardani, et al. "Cyber Notary di Indonesia: Tantangan, Peluang dan Kebutuhan Rekonstruksi Hukum." *Notaire* 8.1 (2025).

formulates comprehensive, harmonized regulations capable of ensuring legal certainty for all parties involved.<sup>8</sup>

The urgency of discussing the Cyber Notary is also related to the increasingly complex needs of society. The digital era demands public services that are fast, convenient, and accessible without geographical limitations. Modern society expects notarial services to be flexible, particularly in cross-regional or even cross-border business transactions. With the Cyber Notary, the process of drafting deeds is no longer confined to physical meetings but can be conducted electronically with guarantees of security and legal validity. However, without a clear legal framework, the implementation of such a system may lead to legal uncertainty, disputes, and doubts regarding the evidentiary strength of deeds.

Therefore, research on the juridical challenges of implementing the Cyber Notary is highly important. First, to identify existing regulatory gaps between the Notary Office Law (UUJN), the Indonesian Civil Code (KUHPerdota), and the Electronic Information and Transactions Law (UU ITE). Second, to analyze whether mechanisms such as electronic signatures, electronic documents, and digital authentication can be equated with conventional procedures in drafting authentic deeds. Third, to provide recommendations regarding the legal policy direction that the government should take to ensure the Cyber Notary can be implemented legally, securely, and with legal certainty. Accordingly, this discussion is expected not only to contribute theoretically to the development of legal science but also to offer practical benefits for policymakers, notaries, and society as users of notarial services.

## **METHOD**

This study employs a normative juridical approach with a descriptive-analytical design to analyze the legal challenges of Cyber Notary implementation in ensuring the authenticity, validity, and evidentiary strength of notarial deeds in Indonesia. Primary legal sources include Law Number 2 of 2014 concerning Notary Office (UUJN), the Indonesian Civil Code (KUHPerdota), and Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law) along with its amendments. Secondary sources consist of academic articles, scientific journals, books, and legal commentaries related to Cyber Notary, while tertiary materials include legal dictionaries and encyclopedias.

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<sup>8</sup> Dinata, Kadek Indra Prayoga, and I. Gede Agus Kurniawan. "Keabsahan Akta Relaas Yang Dibuat Dengan Video Conference Berbasis Cyber Notary (Studi Putusan Pengadilan Tinggi: Nomor 35/Pdt/2021/PT KDI)." *Jurnal Pembangunan Hukum Indonesia* 6.3 (2024): 328-351.

Legal interpretation is carried out through several techniques: grammatical interpretation to examine the textual meaning of statutory provisions, systematic interpretation to contextualize Cyber Notary norms within the broader legal framework (UUJN, KUHPdata, and ITE Law), teleological interpretation to identify the legislative purpose and ensure alignment with digital-era legal needs, and comparative interpretation by analyzing Cyber Notary frameworks in other jurisdictions.

A comparative approach is applied to study the practices in the United States, Singapore, and Malaysia. These jurisdictions were selected due to their advanced regulatory frameworks and relevance to Indonesia's legal development: the U.S. implements remote online notarization at the state-level with strong identity verification systems; Singapore adopts a centralized, technology-driven digital governance model; and Malaysia provides a regional civil-law comparison with early recognition of digital signatures through the Digital Signature Act 1997. Insights from these countries offer benchmarks for regulatory reform, authentication standards, and digital supervisory mechanisms suitable for Indonesia's legal system.

Data analysis is conducted qualitatively by identifying normative gaps, reconstructing legal concepts regarding electronic deeds, and evaluating regulatory readiness and digital infrastructure. Secondary data were validated through cross-referencing multiple credible academic databases, statute checking, and statutory interpretation consistency.

The scope of this research focuses on juridical analysis of Cyber Notary regulations in Indonesia and comparison with selected countries. Limitations include the absence of empirical testing due to the normative nature of the study, and evolving digital-law developments that may influence future interpretations and regulatory designs. The findings are intended to produce legal and policy recommendations to strengthen Cyber Notary regulation, technical procedures, and supervisory mechanisms to ensure legality, security, and legal certainty for the public.

## **RESULTS AND DISCUSSION**

### **1. Notary Positive Legal Regulations in Indonesia Governing the Position and Legality of Authentic Deeds Created through the Cyber Notary**

Within the Indonesian legal system, authentic deeds hold a highly significant position as written evidence possessing absolute evidentiary strength. Article 1868 of the Indonesian Civil Code (KUHPdata) stipulates that an authentic deed is a deed drawn

up in the form prescribed by law, by or before a public official authorized to do so.<sup>9</sup> In the context of civil law, the public official referred to is the notary. Notaries possess authorities and responsibilities specifically regulated under Law Number 2 of 2014 concerning the Notary Office (UUJN), which amends Law Number 30 of 2004. The role of notaries extends beyond merely recording transactions; they also ensure legal certainty for the parties involved in a particular agreement or legal act.

In practice, authentic deeds function as legal instruments that provide protection through certainty, clarity, and authentic evidence concerning a legal act. Article 1870 of the Indonesian Civil Code (KUHPdata) affirms that authentic deeds confer absolute evidentiary power for the parties involved, their heirs, and any other parties who acquire rights therefrom.<sup>10</sup> Thus, an authentic deed is not merely an administrative document but carries binding juridical value. Its formal requirements cannot be overlooked, namely that it must be created in the form prescribed by law, executed by or before a public official authorized to do so, and made within the territorial jurisdiction of that official. Should any of these requirements not be fulfilled, the deed loses its authentic status and is considered only as a private deed.

The advancement of information technology in the digital era has had a significant impact across various sectors, including notarial practice. The concept of the Cyber Notary emerged as an innovation involving the use of digital technology to facilitate the electronic execution of deeds. The Cyber Notary offers efficiency, speed, and convenience for the public, particularly in the context of increasingly complex and dynamic legal needs. However, the existence of the Cyber Notary raises fundamental questions under Indonesian positive law, namely whether electronically executed authentic deeds can be recognized and hold the same legal status as conventional authentic deeds.

To date, the Notary Office Law (UUJN) has not explicitly regulated electronic deeds. Nevertheless, several regulations may serve as normative foundations. One of these is Law Number 11 of 2008 concerning Electronic Information and Transactions (UU ITE), as amended by Law Number 19 of 2016. Article 5 paragraph (1) of the UU ITE affirms that electronic documents constitute valid legal evidence, while Article 11 recognizes electronic signatures as legally valid and effective provided certain requirements are met.

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<sup>9</sup> Arya, Putra, Aju Putrijanti, and Mujiono Hafidh Prasetyo. "Sinkronisasi Pasal 1868 KUH Perdata Dalam Menunjang Terselenggaranya Konsep Cyber Notary di Indonesia." *Notarius*14.2 (2021): 607-624.

<sup>10</sup> Fauziannor, Ahmad, et al. "Perbandingan Kekuatan Pembuktian Antara Akta Otentik Dan Akta Di Bawah Tangan Dalam Sengketa Perdata." *Indonesian Journal of Islamic Jurisprudence, Economic and Legal Theory* 3.2 (2025): 1963-1976.

Accordingly, Indonesian positive law has, in principle, opened space for the recognition of electronic documents and transactions.

Furthermore, Article 15 paragraph (3) of the UUJN stipulates that notaries also possess other authorities as regulated by statutory provisions. This provision provides an opportunity for the expansion of notarial powers to perform functions electronically, provided that derivative regulations exist to govern technical procedures. In other words, although the UUJN does not explicitly regulate the Cyber Notary, Indonesian law does not preclude the recognition of such practices.

From the perspective of legality, three aspects require attention concerning electronic deeds. First, authenticity. Authentic deeds necessitate the formal presence of parties before the notary. In the context of the Cyber Notary, physical presence is replaced by digital authentication mechanisms, such as the use of certified electronic signatures and biometric verification. These mechanisms must ensure equivalence with direct in-person appearances before a notary. Second, evidentiary power. While the UU ITE recognizes electronic documents as legal evidence, in civil procedural law, authentic deeds occupy a privileged position. Therefore, electronic deeds must be guaranteed to retain full evidentiary power, rather than merely serving as supplementary evidence. Third, the status of notaries as public officials. Notarial authority is granted directly by statute. If notarial processes are shifted to digital media, statutory provisions must explicitly recognize notarial acts conducted electronically as acts performed by authorized public officials.

Similar practices have been recognized in various countries. In the United States, several states, such as Virginia and Texas, have regulated remote online notarization, whereby notaries can legalize documents via video conferencing under stringent security procedures.<sup>11</sup> The European Union also implements the eIDAS Regulation (Electronic Identification, Authentication, and Trust Services), which recognizes electronic signatures and cross-border transactions with high security standards. Singapore has enacted the Electronic Transactions Act, providing a robust legal foundation for electronic documents.<sup>12</sup> Meanwhile, Malaysia has enacted the Digital Signature Act 1997, which regulates digital signatures as part of its legal system. This comparison indicates

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<sup>11</sup> Ferryanto, Justitia, Winsherry Tan, and Lu Sudirman. "Potensi dan Tantangan Hukum Digitalisasi Layanan Kenotariatan: Analisis Komparatif Indonesia dan Amerika Serikat." *Jurnal Mediasas: Media Ilmu Syari'ah dan Ahwal Al-Syakhsiyyah* 7.2 (2024): 306-326.

<sup>12</sup> Abdillah, Satrio, Norhasliza Ghapa, and Maheran Makhtar. "Cyber Notary: Sebuah Analisis Tematik Dari Studi Kasus Di Inggris Dan Singapura." *Jurnal Hukum Ius Publicum* 6.1 (2025): 158-175.



that Indonesia remains lagging in terms of Cyber Notary regulation, as no specific legislation explicitly governs its mechanisms.<sup>13</sup>

In the European Union, the existence of the eIDAS Regulation (Electronic Identification, Authentication, and Trust Services) represents a significant milestone in recognizing electronic signatures and digital documents. This regulation applies not only nationally within each member state but also carries cross-border validity. Consequently, documents electronically signed in one EU member state must be recognized by other member states. The presence of such regulation demonstrates the EU's commitment to promoting digital legal integration while providing legal certainty equivalent to that of physical documents.

Meanwhile, Singapore, as a major international business and financial hub in Asia, has enacted the Electronic Transactions Act (ETA). This legislation explicitly provides a legal basis for the use of electronic signatures and digital documents in various transactions, including legal and commercial domains. This practice allows cross-border transactions to occur rapidly, efficiently, and with legal assurance. Similarly, in Malaysia, the Digital Signature Act 1997 has recognized digital signatures generated through specific encryption systems. With these regulations, Malaysia acknowledges the legal validity of electronic documents as part of its legal system.

Compared to these countries, Indonesia still faces several delays in regulatory development. Although the Electronic Information and Transactions Law (UU ITE) recognizes electronic documents and signatures as legal evidence, the regulation remains general and does not specifically govern the status of notarial deeds in the digital domain. Consequently, a legal vacuum exists, creating uncertainty for both the public as users and notaries as authorized public officials.

This delay is also caused by several factors. First, the Indonesian legal system is still oriented toward a conventional paradigm emphasizing physical meetings between parties and notaries, which differs from the Cyber Notary concept that enables online interactions. Second, the readiness of legal technology infrastructure in Indonesia is uneven. Although an Electronic Certification Agency (Lembaga Sertifikasi Elektronik, LSE) can issue certified digital signatures, their use has not become widespread among the public or notaries. Third, from a legal culture perspective, a portion of society still feels more secure using physical documents with wet signatures compared to electronic documents.

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<sup>13</sup> Kurniawan, Dhoni, and Ratih Mumpuni Arti. "Tanda Tangan Elektronik Sebagai Kebiasaan Baru Pasca Pandemi Covid-19." *Jurnal Analis Kebijakan* 5.1 (2021): 107-110.

Public trust also represents a major challenge. The Cyber Notary requires a system that is genuinely secure to prevent identity forgery, document manipulation, or data breaches. Without robust security systems, public confidence in the Cyber Notary will be difficult to establish. This underscores the importance of the state's role in building digital infrastructure that is not only reliable but also integrated with the national legal system.

Another critical challenge is legal harmonization. The UUJN and UU ITE cover different regulatory scopes, and without synchronization, normative conflicts may arise. The UUJN emphasizes the formal aspects of deeds and the physical presence of parties before the notary, while the UU ITE recognizes electronic documents and signatures as valid.

Considering international practice, the need for legal efficiency, and the demands of the digital era, Indonesia indeed has an urgent need to formulate Cyber Notary regulations. Falling too far behind may result in legal gaps with other countries, which in turn could impact investment climate, cross-border transaction certainty, and the competitiveness of the national legal system. Therefore, regulatory reform in the notarial sector becomes imperative to ensure that Indonesia not only keeps pace with technological developments but also provides legal protection comparable to global practices.

This situation highlights the need for legal reform in the notarial sector. Measures that can be taken include revising the UUJN to explicitly incorporate provisions on electronic deeds, synchronizing the UUJN with the UU ITE to prevent normative conflicts, and issuing implementing regulations such as Government or Ministerial Regulations that govern the technical procedures of the Cyber Notary. Furthermore, adequate digital infrastructure must be developed, including cybersecurity systems capable of protecting the authenticity and integrity of legal documents.

The challenges of implementing the Cyber Notary in Indonesia are not only normative but also technical and sociological. From a technical standpoint, the risks of data leakage, hacking, and identity misuse are serious threats. From a procedural law perspective, doubts remain as to whether electronic deeds will be treated equivalently to conventional authentic deeds in court. Sociologically, Indonesian society still tends to trust wet signatures and face-to-face processes over electronic transactions. Additionally, from a professional perspective, not all notaries possess sufficient technological proficiency, highlighting the need for specialized training and certification.

Despite these challenges, the implementation of the Cyber Notary is an inevitable necessity. The digitalization of legal services will provide convenience, efficiency, and speed, particularly for modern society demanding technology-based services. If

regulations and legal infrastructure are comprehensively established, Indonesia can catch up with international practices and provide a legal system responsive to contemporary developments.

In conclusion, Indonesian positive law has not yet fully regulated the status and legality of electronic deeds through the Cyber Notary. However, normative foundations exist in the UU ITE, which recognizes electronic documents and electronic signatures as legal evidence. Therefore, the next steps should focus on strengthening regulations through UUJN revisions, synchronization with the UU ITE, and the issuance of technical rules regarding the Cyber Notary. With clear regulations in place, the Cyber Notary can be implemented without compromising the authenticity, evidentiary strength, and legal certainty of notarial deeds.

## **2. Juridical Challenges in the Implementation of Cyber Notary to Ensure the Authenticity, Legality, and Evidentiary Strength of Notarial Deeds in Indonesia**

The advancement of information and communication technology has brought significant changes to nearly all aspects of human life, including the legal field. Digitalization has spurred the emergence of various innovations aimed at providing greater efficiency, effectiveness, and legal certainty. One such innovation currently under discussion in Indonesia is the implementation of the Cyber Notary. This concept refers to notarial practices utilizing digital technology, whereby the execution of authentic deeds is no longer conducted conventionally through physical meetings but rather via online platforms supported by electronic signatures and cybersecurity systems.

Although this idea promises convenience, flexibility, and adaptation to the needs of modern society, its implementation faces significant challenges, particularly from a juridical perspective. Notarial deeds, as authentic deeds, are legal documents whose status is strictly regulated under Indonesian positive law. Therefore, the transition from conventional to digital processes must ensure the fulfillment of all formal elements that guarantee the authenticity, legality, and evidentiary strength of the deeds before the law.

Authenticity is a fundamental element that distinguishes authentic deeds from private deeds. According to Article 1868 of the Indonesian Civil Code (KUHPdata), an authentic deed is a deed executed by or before a public official authorized to do so, in compliance with the form prescribed by law.<sup>14</sup> In conventional notarial practice, this element of authenticity is established through the physical presence of the parties before the notary, direct identification of the parties' identities by the notary, and the oral

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<sup>14</sup> Setiawati, Diana, et al. "Penyuluhan Mengenai Pentingnya Pembuatan Akta Otentik Sebagai Bentuk Kepastian Hukum Bagi Masyarakat Desa Dalem." *Borobudur Journal on Legal Services* 4.1 (2023): 1-7.

reading of the deed by the notary in the presence of the parties. In the context of the Cyber Notary, physical presence is replaced by virtual presence via video conferencing.<sup>15</sup> The question then arises as to whether virtual presence can be equated with physical presence as stipulated in the Indonesian Civil Code (KUHPdata) and the Notary Office Law (UUJN). The absence of specific regulations on this matter creates legal ambiguity.

Another challenge pertains to the mechanism of party identification. In conventional practice, notaries can directly examine the identification documents presented by the parties. However, in the Cyber Notary, identification is conducted through digital documents, which carry a risk of forgery.<sup>16</sup> This raises questions regarding how to ensure that the identity of the party present truly corresponds to the actual individual, rather than being a product of technological manipulation. In addition, the mechanism of electronically reading the deed presents a separate issue: how to guarantee that virtual reading fulfills the formal requirements with the same validity as in-person reading. The legality of notarial deeds is closely linked to the principle of legality. In the Indonesian legal system, legality requires that every legal act must be based on statutory law.<sup>17</sup> To date, the Notary Office Law (UUJN) and the Indonesian Civil Code (KUHPdata) have not explicitly recognized the existence of electronic deeds. Consequently, a legal gap arises, which may lead to serious risks.

The first risk is the possibility that an electronic deed may be deemed not to fulfill the formal requirements of an authentic deed. In such a case, the deed would only carry the legal effect of a private deed. The second risk involves legal uncertainty when an electronic deed is presented in judicial proceedings. Judges may reject the deed on the grounds that it does not conform to the definition of an authentic deed under the KUHPdata. This would, of course, undermine the function of notarial deeds as legal instruments that should possess binding and definitive authority. Evidentiary strength is a crucial aspect of authentic deeds. Article 1870 of the KUHPdata states that an authentic deed provides perfect evidence of its contents for the parties involved as well as for third parties. However, when a deed is executed electronically, a challenge arises as to whether courts will recognize it as providing conclusive proof.

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<sup>15</sup> Aulia, Farah Nizrina, Moh Ali, and Nuzulia Kumala Sari. "Rekontruksi Asas Tabellionis Officium Fideliter Exercebo Dalam Perspektif Cyber Notary: Studi Perbandingan Indonesia dan Amerika Serikat." *Acten Journal Law Review* 2.2 (2025): 169-187.

<sup>16</sup> Kinasih, Nadia Pitra. "Kepastian Hukum Notaris Menerapkan Cyber Notary Dalam Verlidjen Akta Notaris Secara Digital." *Acten Journal Law Review* 1.3 (2024): 231-252.

<sup>17</sup> Ikhsan, R. Moch Arizky Saeful, and Ronny Kusuma. "Kedudukan Hukum Barcode Pada Tanda Tangan Notaris Dalam Sistem Peraturan Perundang-Undangan Di Indonesia." *NUSANTARA: Jurnal Ilmu Pengetahuan Sosial* 12.6 (2025): 2495-2504.

Potential issues include the risk of digital data manipulation. Electronic documents can be altered without leaving clear traces if not protected by adequate encryption systems. In addition, evidentiary standards in courts also become a concern: how judges can assess the validity of contested electronic signatures or digital documents. This indicates that the Cyber Notary requires clear procedural standards to ensure that the evidentiary strength of deeds is not degraded.

Beyond juridical aspects, the implementation of the Cyber Notary is also closely related to the readiness of infrastructure and cybersecurity. Electronic deeds stored in digital databases are highly vulnerable to hacking, electronic signature forgery, identity misuse, and document content manipulation.<sup>18</sup> To ensure the authenticity and legality of electronic deeds, a robust authentication system is indispensable. One mechanism that can be employed is Public Key Infrastructure (PKI), an encryption system using a pair of public and private keys to secure digital documents.<sup>19</sup> In addition, data encryption, multi-layered authorization, and secure backup storage are critical elements that cannot be overlooked. Without the support of robust security infrastructure, the Cyber Notary would be vulnerable to risks that could undermine public trust.

Notaries in the Indonesian legal tradition serve as formal overseers in legal transactions. The physical presence of notaries is considered to provide greater legitimacy and legal protection. With the emergence of the Cyber Notary, the personal relationship between notaries and clients is diminished. This gives rise to ethical risks, including the notary's reduced ability to fully supervise the veracity of parties' statements, increased potential for identity misuse, and the loss of face-to-face interaction that is characteristic of traditional notarial practice. Furthermore, online practice raises questions regarding professional responsibility. In the event of identity misuse or forgery, it remains unclear to what extent a notary can be held accountable and whether the responsibility is equivalent to conventional practice, or if new standards are required in a digital context.

To address these challenges, several solutions can be pursued. First, regulatory updates are imperative. The Notary Office Law (UUJN) should be revised to explicitly include provisions regarding electronic deeds. Harmonization with the Electronic Information and Transactions Law (UU ITE) must also be carried out to avoid normative conflicts. The government may additionally issue implementing regulations, whether in

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<sup>18</sup> Gayatri, Damella Chandra. "Penerapan Cyber Notary Dalam Meningkatkan Keamanan Dan Kepercayaan Transaksi Elektronik." *Acten Journal Law Review* 1.2 (2024): 145-158.

<sup>19</sup> Eli, Grace, and Rasji Rasji. "Pembaharuan Hukum Terhadap Kekuatan Akta Autentik Elektronik." *JURNAL USM LAW REVIEW* 8.2 (2025): 849-864.

the form of Government Regulations or Ministerial Regulations, to technically govern the procedures of Cyber Notary.

Second, strengthening the authentication system is essential. The use of certified electronic signatures issued by authorized institutions, integration with biometric data from the Civil Registry (Dukcapil), and the application of facial recognition technology can help ensure the identities of the parties involved. Third, the procedural framework for Cyber Notary needs to be meticulously designed. For instance, official procedures for reading deeds via video conference, the obligation to record and store the entire process as part of the notarial protocol, and the implementation of strict data security protocols should be established. Fourth, supervision and law enforcement are equally important. The Notary Supervisory Council must play an active role in monitoring Cyber Notary practices. Strict sanctions should be applied to notaries who are negligent or abuse their authority in the implementation of the digital system.

Despite numerous challenges, the implementation of Cyber Notary is an urgent necessity for Indonesia. Modern society demands notarial services that are fast, flexible, and accessible across regions. Without adequate regulation, Indonesia risks lagging behind other countries that have already adopted this practice. Globally, the trend of legal digitalization indicates that Cyber Notary is no longer merely an option, but a necessity. Countries such as the United States, Singapore, and Malaysia have demonstrated that digital notarial practices can function effectively when supported by clear regulations, competent technology, and strict oversight. Indonesia must learn from these practices and adapt them to the characteristics of its own legal system.

The juridical challenges in implementing Cyber Notary in Indonesia encompass three main aspects: authenticity, legality, and evidentiary strength of notarial deeds. Additionally, there are supplementary challenges related to technological infrastructure, cybersecurity, and ethical notarial practice. To overcome these challenges, legal reform is required through the revision of UUJN, harmonization with UU ITE, and the issuance of technical regulations governing Cyber Notary procedures. On the other hand, strengthening the authentication system, structuring detailed procedural guidelines, and ensuring rigorous supervision are also key factors for success. With these measures in place, Cyber Notary can become a legal innovation that is not only modern and efficient but also ensures legal certainty and protection for society. Ultimately, the implementation of Cyber Notary in Indonesia is expected to strengthen the national legal system while enhancing Indonesia's competitiveness in the global digital era.

## CONCLUSION

In conclusion, this study finds that the implementation of Cyber Notary in Indonesia remains constrained on three core juridical dimensions: authenticity, legality, and evidentiary strength. First, the authenticity of electronic deeds has yet to be fully guaranteed due to the absence of explicit rules equating virtual presence and digital verification with physical appearances before a notary. Second, the legality of Cyber Notary practices remains uncertain because the UUJN and KUHPperdata do not expressly regulate electronic deed execution, resulting in potential legal gaps and interpretive inconsistencies. Third, while the UU ITE recognizes electronic documents and signatures as legal evidence, the evidentiary strength of electronic notarial deeds has not been clearly ensured to match the absolute evidentiary power traditionally held by authentic deeds.

To address these challenges, concrete policy reforms are required, including: (1) amending the UUJN to explicitly recognize electronic deeds and virtual notarization procedures; (2) harmonizing the UUJN, KUHPperdata, and UU ITE to avoid normative conflicts; (3) issuing comprehensive implementing regulations governing technical procedures, digital authentication, and secure storage of electronic notarial records; and (4) establishing a national digital notarial system integrated with certified electronic signature providers and population identification databases.

Through these regulatory and institutional measures, Cyber Notary can operate with strengthened authentication mechanisms, standardized procedures, and dedicated supervisory controls, ensuring both public trust and the integrity of electronic notarial services. Academically, this study contributes to the modernization of Indonesian notarial law by articulating a structured legal framework for Cyber Notary implementation and offering a comparative legal model that aligns domestic reform with global best practices. With robust legal foundations and technological readiness, Cyber Notary has the potential to transform notarial services in Indonesia into a secure, efficient, and future-oriented legal system that upholds legal certainty and public protection in the digital era.

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