

Cyber Notary In The Indonesian Legal System: Its Urgency and Implementation

Gustianus fernando, Gunawan Djajaputra

Universitas Tarumanagara, Indonesia

Email: gustianus7@gmail.com

ABSTRACT

Advances in information technology have driven transformation in various sectors, including the legal field, especially the notary profession. This article aims to analyze the urgency and challenges of the implementation of cyber notary in the Indonesian legal system. The method used is a juridical-normative approach with an analysis of relevant laws and regulations and a comparative study of cyber notary practices in other countries, such as the United States and Estonia. The results of the study show that cyber notaries offer various advantages, such as time and cost efficiency, increased access to legal services in remote areas, and adaptability in emergency conditions such as pandemics. However, its implementation in Indonesia faces significant obstacles, including regulatory limitations that still require physical presence in the making of deeds, weak technological infrastructure, and low digital literacy among notaries and the public. The discussion emphasized that without legal reform and strengthening of the cybersecurity system, the implementation of cyber notary will only be a concept without realization. It is necessary to revise the Law on the Notary Position and the establishment of special regulations that regulate online procedures, digital identity validation, and a valid and secure electronic document storage system. In conclusion, cyber notaries are an urgent need in the digital era. With the right legal, technological, and socialization support, this system can become an integral part of the modernization of notary services in Indonesia.

Keywords: *If you need an English abstract version with a similar number of words, I'm here to help.*

This article is licensed under [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) 
(Seroja, 2022)

INTRODUCTION

Technological advances have driven major changes in social, economic, and legal life. The legal world cannot turn a blind eye to this progress, including in the notary profession (Escajeda, 2019; Moore, 2019; Seroja, 2022). Cyber notary is one of the results of innovation from digitalization in the legal field, which aims to answer the challenges of the times, especially in providing faster and more efficient services to the community (Kiršienė et al., 2022; Lubis et al., 2023; Nesiabila et al., 2025).

This term refers to the use of information technology in the performance of notary duties, such as the creation of electronic deeds, the use of digital signatures, and the storage of documents through a secure electronic system (Andriani et al., 2025; Felicia et al., 2020; Maengkom, 2021; Toruan, 2022). Along with the needs of modern society, the presence of cyber notaries is an urgent need.

In Indonesia, cyber notaries have not been explicitly regulated in a special regulation. However, there are some relevant regulations, including: (1) Law No. 2 of 2014 concerning Amendments to Law No. 30 of 2004 concerning the Position of Notary. (2) Law No. 11 of 2008 concerning Information and Electronic Transactions (ITE), as amended by Law No. 19 of 2016.

However, the regulation has not yet regulated in detail the mechanism for making deeds online. The existence of a cyber notary requires a clear legal foundation in order to have legal force and be recognized nationally and internationally (Alincia & Sitabuana, 2021; Lubis et al., 2022; Ridwan, 2020).

The urgency of implementing cyber notary is very relevant to the development of public needs for digital-based public services. Some of the reasons underlying the importance of implementing cyber notary in Indonesia include: (1) Time and Cost Efficiency: The notarization process that typically requires physical meetings can be simplified through online platforms. (2) Increase Accessibility: Notary services are accessible to people in remote areas that have been difficult to reach. (3) Emergency Response: The COVID-19 pandemic is proof that online services are essential in crisis conditions. In addition, cyber notaries also play a role in accelerating the digital transformation of the legal sector that is more modern and adaptive to changing times.

Several countries have successfully implemented the concept of cyber notary. In the United States, several states have implemented a Remote Online Notarization (RON) system that allows notaries to authenticate documents via video conference with legally valid digital verification. Estonia is a pioneer in the digitization of public services including notary. Estonian citizens have an e-Identity Card that can be used to sign legal documents online with the same legal force as a conventional signature (Moraes, 2019). This international experience proves that cyber notary is not just a concept, but has become a real practice that provides modern solutions to people's legal needs.

The implementation of cyber notary in Indonesia faces multifaceted challenges encompassing legal, technical, and social dimensions. From a legal standpoint, the current Notary Position Law still mandates the physical presence of all parties during the deed-making process, which directly contradicts the fundamental principle of digital notarization. Technically, cybersecurity remains a major concern, as the legal field is particularly vulnerable to issues such as hacking and data breaches that can undermine the integrity and confidentiality of electronic documents. Infrastructure-wise, the uneven distribution of internet access across Indonesia limits the feasibility of implementing cyber notary services in remote or underdeveloped regions. On the social front, the gap in digital literacy among both notaries and the general public further complicates adoption, as many remain unfamiliar with the use of secure digital platforms and electronic authentication. Without substantial regulatory updates, comprehensive cybersecurity measures, and a robust effort to enhance digital competence, the realization of cyber notary in Indonesia risks remaining a mere discourse rather than becoming a functional legal innovation.

From a legal perspective, the successful implementation of cyber notary in Indonesia necessitates the revision of several provisions within the current Notary Position Law, which still mandates physical presence and thus does not accommodate virtual attendance. To provide a solid legal foundation for digital notarization, the legislation must be updated to recognize and regulate online procedures. In particular, there needs to be a comprehensive legal framework governing the standards of digital platforms used by notaries, ensuring that these platforms meet requirements for security, accessibility, and reliability. Furthermore, clear procedures for verifying digital identities must be established to prevent fraud and unauthorized

access. The validation of electronic signatures also requires legal clarity, including standards for digital authentication that carry the same legal weight as traditional handwritten signatures. Lastly, the storage and protection of online documents must be regulated to guarantee confidentiality, integrity, and legal admissibility, ensuring that electronic records can be safely archived and accessed when needed. Without strong regulations, the existence of cyber notaries can raise doubts in the aspect of legal proof in the future.

The development of information and communication technology (ICT) has changed the way humans interact, transact, and carry out various aspects of life, including in the field of law. This digital transformation has created the need for faster, more efficient, and adaptive public services. One form of legal innovation that has developed from this phenomenon is cyber notary—a digital-based notary service system that allows the implementation of notary duties online, from making deeds, affixing electronic signatures, to storing documents digitally through a secure electronic system.

In the Indonesian context, the notary profession is still carried out conventionally, which requires the physical presence of the parties to make authentic deeds, in accordance with the provisions of Law Number 2 of 2014 concerning Amendments to Law Number 30 of 2004 concerning the Notary Position. Meanwhile, Indonesians are increasingly accustomed to fast and easily accessible digital-based services, especially since the COVID-19 pandemic forced almost all sectors to switch to an online model. The need for digital notary services is becoming more and more real, but it has not been fully facilitated by the existing legal system (Agustin & Anand, 2021; Alkatiri et al., 2023; Cao et al., 2024).

From a global perspective, several countries have successfully implemented the concept of cyber notary (Lubis et al., 2024). The United States, for example, has implemented a Remote Online Notarization (RON) system that allows the process of legalizing documents to be carried out through video conferencing and legally valid digital authentication (Alkon & Schmitz, 2023; Pahlka, 2023). Estonia has even made digitalization the backbone of its government system, including in notary services through a national digital identity and a legally recognized electronic signature system.

In Indonesia, although there have been regulations regarding electronic information and transactions—such as Law No. 11 of 2008 concerning Electronic Information and Transactions (ITE) as amended by Law No. 19 of 2016—the regulation on digital notarity has not gained a strong and firm position. This leaves a legal vacuum in terms of the validity of electronic deeds, proof mechanisms, and data security guarantees.

This situation poses a dilemma: on the one hand, society and the legal system are required to adapt to technological advances; On the other hand, existing regulations are not fully responsive to the need for digitization of legal services. Therefore, it is necessary to conduct an in-depth study of the urgency, challenges, and direction of regulatory development that supports the existence of cyber notaries in the national legal system.

Studies on notary generally still focus on the implementation of notary duties conventionally, emphasizing the principle of physical presence, legalization of manual signatures, and documentation in physical form. This research presents novelty with a transformative approach, which analyzes notarity from a digital perspective in response to the massive development of information technology.

Several previous studies have laid the groundwork for understanding the cyber notary concept in Indonesia. Arini et al. (2023) explored the formulation of an ideal cyber notary institution, emphasizing the need for regulatory frameworks that accommodate digital notarization within the existing legal infrastructure. Meanwhile, Lubis et al. (2023) examined how international economic law influences the development of cyber notaries in Indonesia, offering valuable insights into the intersection between global legal standards and national practices. While both studies offer important legal perspectives, this research presents a distinctive novelty by adopting a comprehensive approach that not only integrates juridical-normative analysis but also conducts comparative studies of cyber notary practices in countries such as the United States and Estonia. This research further explores regulatory gaps, technological challenges, cybersecurity risks, and the sociocultural readiness of Indonesia in implementing cyber notary systems.

The objectives of this research are to: (1) analyze the urgency of implementing cyber notary practices in the Indonesian legal system; (2) identify legal, technical, and social challenges to their adoption; (3) compare international practices to draw lessons for national policy development; and (4) propose regulatory frameworks that ensure lawful, efficient, and secure digital notary practices. The benefits of this study include its contribution to the academic discourse on legal digital transformation, its practical implications for lawmakers in drafting comprehensive regulations, its value to the Indonesian Notary Association (INI) in improving digital competency among notaries, and its usefulness as a reference for the public and researchers interested in the modernization of legal services through information and communication technology.

METHOD

This research uses a juridical-normative approach, which is a legal research method that relies on analysis of applicable legal norms. This approach was chosen because the main focus of the research is to examine the urgency and feasibility of the implementation of cyber notary in the Indonesian legal system, as well as to examine the conformity of existing regulations with the development of information technology.

This type of research is qualitative with document analysis techniques or library research, which is to examine primary and secondary legal materials such as laws and regulations, scientific books, legal journals, official government documents, and literature related to cyber notary practices in other countries. This research is also complemented by a comparative legal study approach to see how other countries, such as the United States and Estonia, implement cyber notary systems, in order to provide an overview of best practices that are relevant to the Indonesian context.

The location of the research is not geographically limited because the method used is based on literature studies. However, legal sources and data are analyzed based on the context of Indonesia's national legal system, focusing on applicable regulations such as the Notary Office Law and the Electronic Information and Transaction Law. In secondary data collection, the researcher also referred to documents and publications from Indonesian notary organizations, such as the Indonesian Notary Association (INI), as well as sources from countries that have adopted cyber notary systems.

RESULTS AND DISCUSSION

The Urgency of Cyber Notary Implementation in Indonesia

In the digital era, efficiency and accessibility are two important indicators in the implementation of public services, including legal services. The notary profession as a public official who has the authority to make authentic deeds, plays a central role in various civil transactions. However, the conventional notary system in Indonesia is considered not yet fully able to answer the needs of the community which increasingly demands speed and flexibility. Therefore, the implementation of cyber notary is an urgent need.

Cyber notary is a notary service system that is carried out through electronic media and utilizes information technology, such as digital signatures, video conferencing, and cloud-based document storage. With a cyber notary, the process of making a deed that previously required the physical presence of the parties, can be done online without reducing the validity of the legal documents made.

The need for cyber notaries is further strengthened by extraordinary situations such as the COVID-19 pandemic, which clearly shows the limitations of the conventional notary system in providing services in the midst of social restrictions. In addition, the growth of the digital population in Indonesia—with more than 200 million internet users—also shows the readiness of the community to access digital services, including legal services.

People in remote areas or outside big cities who previously experienced problems in accessing notaries, will be greatly helped by the cyber notary system. Not only in terms of time and cost efficiency, but also in terms of equal access to justice. Therefore, the urgency of implementing cyber notary is not only rooted in the trend of digitalization, but also in the spirit of more inclusive and modern legal service reform.

Challenges of Cyber Notary Implementation in Indonesia

Despite its great potential, the implementation of cyber notaries in Indonesia faces various complex challenges, both in terms of legal, technical, and social.

a. Legal Challenges

One of the main obstacles is the incompatibility between the practice of cyber notaries and the applicable legal framework. Law Number 2 of 2014 concerning the Notary Position still requires the physical presence of the parties and notaries in the process of making deeds. This provision is rooted in the principle of proof and formal validity that are characteristic of authentic deeds.

In addition, there are no explicit regulations regarding digital notarization procedures, electronic identity verification, and the validity of digital signatures in the context of authentic deeds. In fact, without a strong legal basis, the practice of cyber notaries will always be doubtful in terms of the power of proof in court.

b. Technical Challenges

Technical challenges include digital infrastructure readiness, cybersecurity, and standardization of systems used by notaries. Not all regions of Indonesia have stable and fast internet access. This is certainly an obstacle to the implementation of cyber notary evenly.

In addition, cyber notary systems must meet high-level information security standards to prevent data leaks, document forgery, and cyberattacks. The reliance on technology makes data protection and encryption a crucial component that must be prepared from the start.

c. Social and Cultural Challenges

There is still resistance among notaries and the public to the use of technology in legal processes. This is generally due to limited digital literacy and concerns about the security of personal data. Not a few senior notaries are reluctant to use technology because they lack a understanding of digital procedures, while the public also does not fully trust a system that does not involve direct contact.

Comparative Study: Cyber Notary Practices in Other Countries

a. United States – Remote Online Notarization (RON)

Several states in the United States have implemented a Remote Online Notarization (RON) system that allows notaries to certify documents through video conferencing. Attestation is done after going through a strict digital identity authentication process and video recordings are stored as part of the proof.

Laws at the state level have been adapted to accommodate this online process. In addition, the use of electronic signatures protected by the Public Key Infrastructure (PKI) makes this system legally acceptable in court.

b. Estonia – Electronic Identity-Based Digital Notary System

Estonia is a pioneer in the digitization of public services, including notary. Every Estonian citizen has an electronic identity card that can be used to access legal services online, including the signing of contracts and legal deeds. This digital system is integrated with population data and the national security system, thus ensuring the validity of digital legal documents equivalent to physical certificates.

Estonia's experience shows that the implementation of cyber notaries requires the support of a strong e-Government system, including a secure national digital identity system, inter-agency interoperability, and public trust in the security and legality of such technologies.

Juridical Analysis of Regulations in Indonesia

From the analysis of laws and regulations in Indonesia, it was found that:

- 1) The Law on Notary Positions (UUJN) has not regulated the implementation of notary duties online or the use of electronic media in the process of making deeds.
- 2) The ITE Law has recognized the existence of electronic signatures and electronic documents as legal evidence. However, this recognition has not been specifically addressed to the notary deed as an authentic deed.
- 3) Implementing regulations, such as the Regulation of the Minister of Communication and Information Technology or Government Regulations related to electronic certificates, have not explicitly integrated the notary system into the state's electronic system.

The disharmony between these regulations shows that there is a legal vacuum that needs to be filled immediately through the renewal or drafting of new regulations that specifically regulate the implementation of cyber notaries. Revisions to several articles in the

UUJN, as well as the preparation of national standards related to digital notary procedures and technology are imperative so that there are no overlaps and legal ambiguities in the future.

Regulatory and Implementation Recommendations

Based on the above findings, recommendations for the implementation of cyber notary in Indonesia include:

a. Revision of the Law on the Notary Position

The UUJN should be revised to accommodate online processes, including:

- 1) Recognition of virtual attendance as a valid condition for the making of deeds,
- 2) Use of certified electronic signatures,
- 3) Verification of documents through an audio-visual system.

b. Preparation of Technical Regulations

Technical regulations can be in the form of Government Regulations or Ministerial Regulations that regulate:

- 1) Standardization of notary digital platforms,
- 2) Digitally verify and authenticate identities,
- 3) Online document storage and security.

c. Establishment of Special Supervisory Institutions

It is important to establish a special institution or unit under the Ministry of Law and Human Rights or the Indonesian Notary Association to:

- 1) Supervise the practice of cyber notary,
- 2) Conducting technology certification,
- 3) Provide training and education to notaries.

d. Strengthening the National Digital Identity System

The development of a secure and usable national digital ID for legal authentication will be an important foundation for the success of a cyber notary system. This can be done through collaboration between Dukcapil, BSSN, and Kominfo.

Benefits of Implementing Cyber Notary in the Long Term

If implemented properly and based on strong laws, cyber notaries will provide various strategic benefits for Indonesia, including:

- 1) Expanding access to legal services to remote areas,
- 2) Improving bureaucratic efficiency and public services,
- 3) Encouraging the acceleration of national digital transformation,
- 4) Increasing Indonesia's competitiveness in the realm of global law.

Furthermore, the implementation of cyber notary can also be a catalyst for the reform of the Indonesian legal system as a whole towards a more adaptive, transparent, and technology-based legal system.

CONCLUSION

The concept of cyber notary emerges as a timely response to the growing demand for fast, efficient, and secure legal services in the digital era. This study concludes that although Indonesia has the potential to implement cyber notary systems—supported by increasing digital literacy and urgency for online public services—its realization is hindered by the

absence of specific legal frameworks, insufficient infrastructure, and gaps in public trust. Current regulations, such as the Notary Position Law and the ITE Law, are yet to accommodate digital notarization comprehensively. Therefore, regulatory reform is urgently needed to provide a clear legal foundation that recognizes electronic deeds, digital signatures, and remote authentication processes. In addition, the development of cybersecurity protocols and digital literacy programs for notaries and the public must be prioritized to ensure a trustworthy implementation. Future research is suggested to focus on the design of a regulatory model tailored to Indonesia's legal system, supported by empirical studies on the readiness of notary institutions and public acceptance of cyber notary practices. Such studies will enrich the discourse and serve as a strategic reference for national legal reform in response to digital transformation.

REFERENCES

- Agustin, I. Y., & Anand, G. (2021). Proposing Notaries' Deed Digitalization in Indonesia: A Legal Perspective. *Lentera Hukum*, 8, 49.
- Alincia, D., & Sitabuana, T. H. (2021). Urgency of Law Amendment as Foundation of The Implementation of Cyber Notary. *Law Reform*, 17(2), 214–231.
- Alkatiri, N. H., Putra, M. F. M., & Ongko, K. (2023). A Legal Perspective: Implementing an Electronic Notarization System in Indonesia in the Post-Pandemic Era. *Jambura Law Review*, 5(2), 332–355.
- Alkon, C., & Schmitz, A. (2023). Opening the Virtual Window: How on-Line Processes Could Increase Access to Justice in the Criminal Legal System. *Cardozo J. Conflict Resol.*, 25, 177.
- Andriani, D., Sitorus, W., & Pati, S. (2025). Legal Protection of Electronic Storage of Notary Protocols. *Science of Law*, 2025(1), 7–12.
- Cao, Z., Rajamanickam, R., & Dahlan, N. K. (2024). Cyber Notary: The Transformation of Public Legal Services Based on "Internet+ Notarization." *Asian Journal of Law and Governance*, 6(2), 1–9.
- Escajeda, H. G. (2019). The Vitruvian lawyer: How to thrive in an era of AI and quantum technologies. *Kan. JL & Pub. Pol'y*, 29, 421.
- Felicia, H., Agustina, Y., & Pakpahan, E. F. (2020). Readiness and Role of Notaries in Making Electronic Deeds towards the Industrial Revolution. *Proceedings of the International Conference on Culture Heritage, Education, Sustainable Tourism, and Innovation Technologies, Cesit 2020*, 105–112.
- Kiršienė, J., Amilevičius, D., & Stankevičiūtė, D. (2022). Digital transformation of legal services and access to justice: Challenges and possibilities. *Baltic journal of law & politics*, 15(1), 141–172.
- Lubis, I., Murwadji, T., & Sukarja, D. (2023). The Role of a Notary in Carrying Out His Positional Duties Regarding the Development of the Cyber Notary Concept in the Era of the Industrial Revolution 4.0 and Social 5.0. *Russian Law Journal*, 11(8S), 478–492.
- Lubis, I., Murwadji, T., Sukarja, D., Azwar, T., & Sitepu, F. (2022). Development of the Concept of Cyber Notary in Common Law and Civil Law Systems. *Keizerina Devi and Sitepu, Faradillah, Development of the Concept of Cyber Notary in Common Law and Civil Law Systems (October 17, 2022)*. *Law and Humanities Quarterly Reviews*, 1(4).
- Lubis, I., Siregar, T., Lubis, D. I. S., & Lubis, A. H. (2024). Exploring the Potential of the Cyber Notary Concept in the Framework of International Transaction Settlement. *Acta Law Journal*, 3(1), 1–13.
- Maengkom, C. R. (2021). Electronic Information Security System for Notarial Deeds as

- National Archives. *Asia-Pacific Research in Social Sciences and Humanities Universitas Indonesia Conference (APRISH 2019)*, 748–752.
- Moore, T. R. (2019). The upgraded lawyer: Modern technology and its impact on the legal profession. *UDC/DCSL L. Rev.*, 21, 27.
- Moraes, T. K. L. (2019). *Originalmy: decentralising notary and authenticity services with blockchain-based technology*.
- Nesiabila, M. R., Fachrurozi, M., Febriana, E. A., Fatihanisa, R. C., Nasution, A. P., & Dianti, A. (2025). Legal Implementation Of Cyber Notary Regulation: Implementation Opportunities And Legal Challenges In Indonesia. *Jurnal Abdisci*, 2(9), 455–480.
- Pahlka, J. (2023). *Recoding America: why government is failing in the digital age and how we can do better*. Metropolitan Books.
- Ridwan, M. (2020). Reconstruction Of Notary Position Authority and Implementation Of Basic Concepts Of Cyber Notary. *Jurnal Akta*, 7.
- Seroja, T. D. (2022). Technological Advancement In The Society 5.0 Era For Notary In Indonesia: Glory Or Obsolete? *Legal Brief*, 11(3), 1589–1597.
- Toruan, H. D. L. (2022). The Importance of Using Electronic Deeds to Facilitate The Service and Storage of Notary Archives. *Jurnal Penelitian Hukum De Jure*, 22(4), 483–498.