



The Legal Advantages of Blockchain Technology for Notary Protocol Archives

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ABSTRACT

The rapid progress of the development of information technology has made many changes in human life on this earth. Work and activities that used to be done manually are now shifting to using a technological approach. So far, notary services to the public are still conventional, but with the development of information technology, notary services inevitably must shift towards electronic services, which are currently known as cyber notaries. In Article 1 paragraph (13) of Law Number 30 of 2004 concerning Amendments to Law Number 30 of 2004 concerning the Position of Notary Public, it is explained that the Notary Protocol is one of the state archives, therefore the notary protocol must be treated like a state document kept and kept authentic. Therefore, the notary protocol must always be stored and maintained under any circumstances even if the notary who has the protocol is taking leave or has passed away. Because the Notary Protocol is categorized as a State Archive, the archive is also indirectly subject to Law Number 43 of 2009 concerning Archives. The Archives Act recognizes the existence of electronic archives. Blockchain technology offers a way to do digital archiving that is decentralized.

Keywords: Blockchain Technology; Notary Protocol; Archive

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INTRODUCTION

Law Number 2 of 2014 concerning changes to Law Number 30 of 2004 concerning the Office of a Notary (State Gazette of the Republic of Indonesia of 2014 Number 3, Supplement to the State Gazette of the Republic of Indonesia Number 5491), promulgated in Jakarta on January 15, 2014, hereinafter referred to as UUJN -P. Stating that a Notary is a public official authorized to make authentic deeds and has other authorities as referred to in the notary office law or other laws. Every legal act, agreement, stipulation, and event made before or by a notary are intended as authentic written evidence to guarantee legal certainty, order, and protection.

The development of technology has resulted in convergence, or it can be called integration in a technological development including in terms of communication, as well as in terms of information or it can be called telematics. Initially, technology moves separately, which means it is linear between one thing and another. However, at this

time all technologies are increasingly unified, or one might say convergent. The form or form of telematics convergence is evidenced by the creation of a newer technological product and unites the capabilities of the two systems, namely an information-based system and a communication-based system based on a system on a computer connected to a network or network whose system is electronic-based, which is the local, regional, and global scope.¹ With the development of computer hardware and software as well as internet connections, the world community has begun to enter a truly digital era. This is evidenced by the increasing number of activities in the real world (physical) that are diverted to the Internet world. For example, teaching and learning activities in classrooms at schools and tertiary institutions can now be carried out online remotely by utilizing an internet connection (E-Learning). Likewise, business activities in the form of E-Business and E-Commerce.² The globalization hugely influences the nation's existence as the economic controller.³

One of the responsibilities of a notary in administration is to preserve and maintain all papers, including a collection of deeds and other paperwork which is generally referred to as a notary protocol. Following the guidelines of Article 1 paragraph (13) UUJN2, it is stated that the Notary Protocol is a collection of papers that are state archives and that a Notary is required to retain and maintain them in compliance with applicable laws. According to Article 62 of Law Number 30 of 2004 concerning the Position of a Notary (hereafter abbreviated as UUJN1), the Notary Protocol consists of the following:

- a. Original master of the deed.
- b. Register of deeds or repertoire.
- c. Privately made deed signed before and attested by a notary.
- d. List of names of the appearers or Klapper.
- e. Protest register book.
- f. Will register book.
- g. Other records that a notary must keep in conformity with the principles of laws and regulations.

As stated in Article 1 paragraph (13) UUJN2, the Notary Protocol is one of the state archives, and as such, it must be considered a state document that is stored and authenticated. As a result, even if the notary who owns the protocol is on leave or dies, the notary protocol must always be retained and maintained. The archival law, namely Law Number 43 of 2009 concerning Archives, must therefore also be considered when discussing the Notary Protocol as a state archive (Archive Law). The retention of an archive itself is not regulated by UUJN, it is however addressed in Article 49 letter b of the Archives Law concerning archives that preservation time has passed, and which may

¹ Syamsir Syamsir and Yetniwati Yetniwati, "Prospek Cyber Notary Sebagai Media Penyimpanan Pendukung Menuju Profesionalisme Notaris," *Recital Review* 1, no. 2 (2019): 132–46.

² I Putu Agus Eka Pratama, *E-Commerce, E-Business Dan Mobile Commerce* (Bandung: Informatika, 2015), 2.

³ Orin Gusta et al., "The Impact of Covid-19 Pandemic on Effective Electronic Criminal Trials : A Comparative Study," *Journal of Human Rights and Legal System* 3, no. 2 (2023): 185–209, <http://www.jhcls.org/index.php/JHCLS/article/view/57>.

be destroyed. This means that a notary protocol has no expiration date and must be retained indefinitely.

In the last several decades, the subject of archives has been greatly impacted by the advancement of information technology in the digital era. Before gradually switching over to digital means, archive administration was done mostly on paper. Now, managing digital archives are common. The development of electronic archives gives a variety of benefits and opportunities that were previously unavailable due to the lack of physical archives. When compared to conventional archives, electronic archives provide significant improvements in the simplicity and efficiency of distribution and sharing. Additionally, electronic archives reduce the need for physical storage space. Although the idea of blockchain is not particularly new, it has lately gained attention and become a trend across a variety of industries. Blockchain first emerged in the 2010s, a decade that was characterized by a cryptocurrency bubble, with Bitcoin being the most well-known currency. Considering that it was created especially for the creation of digital money by a group operating under the pseudonym Satoshi Nakamoto. The term blockchain was first used for Bitcoin, however, there is a paradigm, and the blockchain may be utilized in a variety of sectors, including archives.

Anyone may read and verify the complete record since it is a distributed ledger, which is a decentralized concept used in blockchain technology. Due to its decentralized structures, blockchain is also regarded as a system that cannot be interfered with or hacked, thus if someone wants to modify anything, they must update everything in all systems. As a result, the system will automatically reject any changes made without first getting approval or getting them confirmed. Based on the background of the research above, this research will study the following main problems:

1. What is the legal status of notary protocol filing?
2. What are the legal advantages of blockchain for archiving notary protocols?

In practice, archival documents in the form of Notary Protocols are a problem, especially for senior Notaries who have produced many deeds. Space and a place to store the protocol in large quantities are needed in the form of cupboards or filling cabinets. The need to reduce the number of minuta bundles, by allowing the issuance of electronic certificates, must also change the ITE Law. Learn to make electronic certificates from France which already uses electronic certificates. We here still have paper rules, practice is electronic.⁴

METHOD

This research implemented normative legal research, or legal research on laws, legal principles, legal norms, statutory regulations, and expert opinions. A type of normative legal research, namely research refers to laws and regulations that apply well in Indonesia. This research can also be said as library research. In this study, the legal materials used were collections from a literature study. Then an in-depth analysis was carried out to be able to answer some of the problem formulations taken in this study.

⁴ Henry Donald Lbn Toruan et al., *Efektivitas Majelis Pengawas Notaris*, 1st ed. (Jakarta: Balitbangkumham Press, 2019), 151.

The analysis process in this study uses a descriptive analysis which is the object of this research so that the circumstances and conditions are clear. This analysis is also one of the efforts to solve the problems found and determine the relationship between the problems that have been found to find out how to solve them.

DISCUSSION

Archiving Authority of Notary Protocol

UUJN defines a Notary as a public official authorized to make authentic deeds and has other authorities as referred to in this law or based on other laws as contained in Article 1 paragraph (1). In UUJN, what is known as a notary deed is an authentic deed made by or before a notary according to the form and procedure set out in UUJN. This means that the making of an authentic deed made by or before a Notary is of course guided by the rules contained in UUJN. UUJN makes a Notary a public official so that the legal consequences in the Notary's deed get an authentic position. An authentic deed essentially contains formal truths in accordance with what the parties notify the Notary. However, the Notary has the obligation to include that what is contained in the Notary deed has really been understood and is in accordance with the wishes of the parties, namely by reading it so that the contents of the Notary deed become clear.⁵

As evidence that the parties concerned have entered into a certain agreement is that the parties concerned have agreed to enter into an agreement which will be poured into an authentic deed. As proof for the parties that what has been written in the agreement is the aim and desire of the parties is that the contents of an agreement made by the parties as outlined in the authentic deed are true of the wishes of the parties. As evidence to a third party that on a certain date, unless specified otherwise, the parties have entered into an agreement and that the contents of the agreement are, if denied by a third party, the party who denies it is the one who must prove that the deed is not true, and the authentic deed has a definite date and content according to the will of the parties.⁶

According to the elaboration of Article 62 UUJN1, the notary protocol consists of:

- 1) The Original master of the deed. In these minutes of the deed, the personal information of the appeasers and other papers necessary for the creation of the deed is included as the original master of the deed, which is original notarial deeds.
- 2) Register of deeds or repertoire. Every day, a Notary is required to enter all deeds prepared by or presented to them, both in the form of minutes of deed and originals into the Repertorium, noting the date, serial number, monthly number, type of the deed, and the names of the parties appearing.
- 3) Privately made deed signed before and attested by a notary; Notaries are obligated to legitimize and record private papers by providing the serial number, date, nature of the letter, and the names of all parties.

⁵ Cyndiarnis Cahyaning Putri and Abdul Rachmad Budiono, "Konseptualisasi Dan Peluang Cyber Notary Dalam Hukum," *Jurnal Ilmiah Pendidikan Pancasila Dan Kewarganegaraan* 4, no. 1 (2019): 32, doi:10.17977/um019v4i1p29-36.

⁶ Edmon Makarim, *Notaris Dan Transaksi Elektronik, Kajian Hukum Tentang Cybernotary Atau Electronic Notary*, 3rd–4th ed. (Depok: Rajawali Pers, 2021).

- 4) List of names of the appearers or Klapper. Every month, notaries are required to compile a list known as a klapper that includes the names of all parties involved, the kind of deed, and its number. This list is organized alphabetically.
- 5) Protest register book. Every month, the Notary provides a List of Protest Deeds, and if there are none, the protest deed must still be filed with the word "NIHIL" or "NONE".
- 6) Will register the book. The will that a notary created must be included in the will register book. Furthermore, by the 5th of each month, a notary is required to create and submit a list of wills for the previous month. Even if no will has been made, one must be made and reported with the words "NIHIL." or "NONE."
- 7) Other records that a notary must keep in conformity with the principles of laws and regulations. One of these is the Limited Liability Company Register Book, which keeps track of the date the company was founded, the deed number, any amendments to the articles of association, and any changes to the membership of the board of directors, board of commissioners, or shareholders.

A notary is required to provide to the MPD a certified copy of the list of deeds and other lists produced in the preceding month by written submission every month by the 15th at the latest. According to Article 70 UUJN1, the MPD has the authority to examine the notary protocol, decide the place of storage of the notary protocol that is 25 (twenty-five) years old or older, and select a notary to temporarily retain the notary protocol who is appointed as a state official. According to Article 63 paragraph (5) UUJN2, a notary protocol from another notary that is 25 (twenty-five) years old or older at the time of submission is submitted to the MPD by the notary who receives the notary protocol. According to Article 70 Letter E of the UUJN1, the MPD is given the power to choose where the notary protocol is preserved. According to this rule, the MPD, as a notary supervisor, has the authority to decide where the notary protocol is stored.⁷ However, the provisions of this article have not clarified how the MPD performs its obligations for deciding the location of storage. This has an impact on the MPD, which lacks a legal foundation for policymaking, resulting in the absence of standard operating procedures in the submission of the notary protocol.

Notaries have the power to store Notary Protocols. As part of his or her power and responsibility, a Notary is required to retain the protocol and keep it confidential, as specified in Article 16 paragraph (1) letter f UUJN2. Every power or grant must be accompanied by a corresponding obligation and/or responsibility to the bearer. The Notary must thus complete all criteria established to preserve the state document, including in the form of Minutes of Deed, which are also a part of the Notary Protocol, since the Notary has been granted the authority to make an authentic deed.⁸ The

⁷ Misranto Misranto and Sony Nurul Akhmad, "Kekuatan Akta Autentik Yang Dibuat Oleh Notaris Untuk Pembuktian Terhadap Tindak Pidana Pemalsuan," *Jurnal Hukum Dan Kenotariatan* 3, no. 1 (2019): 84–99.

⁸ Hilda Sophia Wiradiredja, "Pertanggungjawaban Pidana Notaris Dalam Pembuatan Akta Yang Didasarkan Pada Keterangan Palsu Dihubungkan Dengan Undang-Undang Nomor 30 Tahun 2004 Tentang Jabatan Notaris Jo Undang-Undang Nomor 2 Tahun 2014 Dan KUHP," *Jurnal Wawasan Yuridika* 32, no. 1 (2015): 58–81, doi:10.25072/jwy.v32i1.90.

requirement and responsibility to preserve it will remain for as long as the office of a notary is still required by the State.

Notary Protocol Archiving is an endeavor to preserve the integrity of the notary deed as an accurate record for the parties and their successors regarding everything included in the deed. Preserving the confidentiality of the Notary Protocol and the integrity of the Notary Protocol with state archives are also objectives of a Notary's duty to store and archive the Notary Protocol. If the notary is shown to have been irresponsible and failed to maintain the secrecy of the appearers listed in the deed in the future, they will be held accountable.⁹ According to Article 1, number 3 of the Regulation of the National Archives of the Republic of Indonesia Number 6 of 2021 about the Management of Electronic Archives, Electronic Archives are archives generated and collected in electronic format or archives resulting from media transfer.

Electronic Archive Management is executed in accordance with Article 4 paragraph (1) of the National Archives Regulation of the Republic of Indonesia Number 6 of 2021 about Electronic Archive Management, including the principles of authenticity, reliability, integrity, and usability:

- 1) Authenticity is a description of the features of electronic records that can demonstrate that they were made or delivered by the correct party at the appropriate time.
- 2) The term "reliability" refers to the features of electronic records which contents are considered to offer a comprehensive and accurate description of the transactions, activities, or facts expressed and may be relied on for later transactions or activities.
- 3) The term "integrity" refers to the features of an electronic archive that is comprehensive, unaffected, and secured from illegal modification; and
- 4) Usability provides a description of electronic records that may be located, accessed, displayed, and analyzed at a time determined by stakeholders and linked to work activities or transactions.

Notary Characteristics as a State Archivist

In English, a document is something written or printed, as well as any item that contains information that has been selected to be collected, compiled, delivered, or distributed.¹⁰ There are various expert perspectives on document meaning, including:¹¹

- 1) According to Louis Gottschalk. In contrast to oral traditions, artifacts, painted remains, archaeological remains, and artifacts, documents are written sources of historical knowledge. Official letters and state papers such as letters of agreement, legislation, grants, and concessions are created for use in documents. In its widest

⁹ Sjaifurrachman and Habib Adjie, *Aspek Pertanggung Jawaban Notaris Dalam Pembuatan Akta* (Bandung: Mandar Maju, 2011).

¹⁰ Ivo Dewi Kumalawati, Herowati Poesoko, and Ivida Dewi Amrih Suci, *Hukum Kenotariatan: Karakteristik Minuta Akta Notaris Sebagai Arsip Negara* (Yogyakarta: Laksbang Pustaka, 2021), 27.

¹¹ Ghansham Anand, *Karakteristik Jabatan Notaris Di Indonesia* (Surabaya: Zifatama Publisher, 2014), 73.

meaning, a document is any sort of evidence based on any type of source, whether written, oral, graphic, or archaeological.

- 2) According to G.J Renier. Documents, in the broadest meaning, comprise all written sources, both written and oral. Documents in a narrow sense, which includes only written sources. Only official letters and state letters, such as letters of agreement, statutes, concession awards, and so on, are considered documents. Documents are all materials that can convey important and legitimate information in the form of products, photographs, or writing.

According to Article 16 paragraph (1) UUN1, preserving the minutes of the deed as part of the Notary Protocol is also a Notary obligation. This also means that the Notary should maintain the Notary Protocol personally and not allow the Notary Protocol to be controlled by the employee or loaned to anyone without going through the application process since the Notary Protocol is a set of papers that are state archives that a Notary must preserve and maintain.

According to Article 2 of the Archives Law, the management of national archives is meant to give legal clarity. Meanwhile, archival management based on Article 3 of the Archives Law intends to:¹²

- 1) Ensuring the establishment of archives for activities executed by state institutions, local governments, educational institutions, corporations, political groups, community organizations, and individuals, as well as the National Archives of the Republic of Indonesia as the national archives' organizer.
- 2) Providing accurate and dependable archives as legal evidence.
- 3) Assuring the implementation of dependable archive management and the usage of archives in accordance with the provisions of laws and regulations.
- 4) Supporting the preservation of the state's interests and citizens' rights through the administration and use of authentic and reliable archives.
- 5) Organizing the national archives dynamically as a comprehensive and integrated system.
- 6) Maintaining the safety and security of archives as record of responsibility in society, nation, and state life.
- 7) Maintaining the preservation of national assets in the economic, social, political, cultural, defense, and security sectors as well as national identity and personality.
- 8) Improving the quality of public services through the administration and the use of authentic and trustworthy archives.

For the Notary Protocol, which is a crucial dynamic state archive if it is connected to the Article 3 of the Archives Law, the UUN's goals in managing its archives are as follows:¹³

- 1) Providing accurate and dependable archives as legal evidence.
- 2) Assuring the implementation of dependable Notary Protocol management and the use of archives in line with applicable laws and regulations.
- 3) Contribute to the protection and civil rights of the parties who have entrusted the Notary as the public authority that upholds the Notary Protocol.

¹² Kumalawati, Poesoko, and Suci, *Hukum Kenotariatan: Karakteristik Minuta Akta Notaris Sebagai Arsip Negara*, 123.

¹³ *Ibid.*, 124.

- 4) Maintaining the integrity and preservation of archives as proof of the Notary's obligation.
- 5) Ensuring the Notary's authority as a public officer.
- 6) Improving Notaries' performance as public and authorized officers in the reliable and secure preservation of Notary Protocols.

Legal Advantages of Blockchain in Notary Protocol Archiving

Blockchain Technology, often known as Cryptocurrency, is one of the technologies presently being discussed during the COVID-19 pandemic. Blockchain technology is a secure, transparent, and long-term digital data storage platform. As suggested by its name, which is made up of the words block (block) and chain (chain), blockchain makes use of resources to create a blockchain that includes various types of information. Each piece of information will be connected to the others. Each data block contains three (three) major elements: data, hash, and hash generated from the preceding block. Since each block of data and its contents are marked or differentiated by a hash, even if the data is public, no one can identify who transacted with or saved the data. Blockchain technology is one of the most significant breakthroughs of the 21st century, with numerous applications from banking to manufacturing to education. Several governments across the world have begun to incorporate blockchain into their government systems. Blockchain advantages have three (three) key qualities, which are as follows:

- 1) Decentralization. With blockchain technology, all crucial data and information won't be stored in a single site. Using computer resources, blocks that hold all information will be connected to form a network or chain to multiple locations.
- 2) Transparency. The cryptography system used in this transparent storage system protects the security and privacy of the data and information saved. Each block will contain a hash that may be used to generate a special code for the presentation of completed transactions.
- 3) Immutability. Data and information that is saved are immutable and permanent. It is impossible for anybody to modify, interfere with, or hack the data and information entered. The sabotage alarm will activate if someone tries to change the data or information. The cryptographic hash's unique code will modify the whole block chain.

Blockchain technology itself is divided into several categories, namely:¹⁴

- 1) Public. The distributed ledger system in Blockchain is permissionless, which implies that anybody who has access to the internet and can join the blockchain may be a part of it. One example is the use of Ethereum.
- 2) Private. In contrast to public blockchains, private blockchains require authorization to enter the system. Blockchain is often employed in companies that are already blockchain-registered. Blockchain is appropriate for organizations and

¹⁴ Luon-Chang Lin and Tzu-Chun Liao, "A Survey of Blockchain Security Issues and Challenges," *International Journal of Network Security: A Survey of Blockchain Security Issues and Challenges* 19, no. 5 (2017): 655, doi:10.6633/IJNS.201709.19.

companies since it is exclusively used internally. Furthermore, data for this type is consolidated in a single network maintenance authority.

- 3) Consortiums. Blockchain is the best ideal for implementation in an organization since it integrates both forms of blockchain, including public and private blockchain. In this case, more than one network is in charge, or, generally, more than one organization is involved in providing access to this network. This access might take the form of being able to read, write, or audit the blockchain. This kind preserves its decentralized character since there is no single authorization.

The use of blockchain technology in the archives sector is directly related to digital archives, which have previously been discussed about electronic archives and have been defined under the National Archives Regulation of the Republic of Indonesia No. 6 of 2021 concerning Electronic Archive Management. Electronic Archives are defined in Article 1 number 3 as archives formed, particularly to be made and received in electronic format, or archives resulting from media transfer. Blockchain is a distributed database system that can track any data recorded in it. This system will include a link to the block containing the prior transaction and an adjustment to the Notary protocol archive to update the time information. Each data block has an identity, which is encrypted using a specific algorithm. The block will be decentralized and stored in the network, making the contents in the block permanent and unchangeable. The data block can only be added; it cannot be changed since changing it would influence other blocks, causing the modification to be rejected by the blockchain. As a result, the data recorded by the blockchain will be protected against hackers or anybody intending to change the data.¹⁵ Blockchain may be viewed as an archive of transactions stored in blocks with timestamps. A hash uniquely identifies each block. However, each block refers to the hash of the previous block. As a result, connections between blocks formed, resulting in the formation of a blockchain. This is described in the Description of Archives Law Article 73 paragraph (1) letter c:

“The intended phrase of "preserving and rescuing archives and archive storage locations" is to coordinate rescue operations with associated parties to authority and competency, with the aim that archive rescue may be conducted efficiently and effectively.”

According to the description of Article 73 paragraph (1) letter c of the Archives Law above, in addition to knowing that the Notary Protocol is a state archive and the authority of a Notary who should archive the Notary Protocol, as well as the authority of the MPD which must determine the place of storage of the Notary Protocol if it is 25 (twenty-five) years old or more at the time of handover. The MPD is then given the authority to appoint a Notary who will serve as the holder of the Notary Protocol. Through using this authority, MPD can assign other parties who are authorized and have the competency to use blockchain technology to archive the Notary Protocol. The Directorate General of Taxes (for Online Pajak) is a member of the Indonesian Blockchain

¹⁵ Fadhila Rizqi and Siti Nurul Intan Sari, “Implementasi Cyber Notary Di Indonesia Ditinjau Dalam Upaya Reformasi Birokrasi Era 4.0,” *Jurnal Hukum Dan Kenotariatan* 5, no. 1 (2021): 37–51, doi:10.33474/hukeno.v5i1.9391.

Association (ABI), which indicates that parties aiming to integrate the Notary Protocol archiving into Blockchain technology are already existing in Indonesia.¹⁶

Furthermore, based on the 2021 National Survey on Public Perceptions of Personal Data Protection conducted by the Ministry of Communication and Information Technology of the Republic of Indonesia discussed and analysed the concept of preserving personal data privacy as one of the citizens' constitutional rights. According to the survey, 94.1 % of Indonesian citizens understand what personal data is. The definition of personal data in the Permenkominfo No. 20/2016 Regulation of the Minister of Communication and Informatics concerning the Protection of Personal Data in Electronic Systems (Permenkominfo No. 20/2016) is specific individual data that is saved, maintained, and preserved true while also being secured by confidentiality. Meanwhile, personal data has a close relationship with the right to privacy as disclosed in Article 28 Letter G paragraph (1) of the 1945 Constitution of the Republic of Indonesia (UUD) which states that everyone has the right to protect personal, family, honor, dignity, and property that are under their control, and have the right to a sense of security and protection from the threat of fear to do or not do something that is a human right. According to Article 26 paragraph (1) UUIITE, the correlation between the right to privacy and personal data is that, unless otherwise specified by the Laws and Regulations, the use of any information concerning a person's data through electronic media must be conducted with the consent of the person concerned.

Based on the discussion above, it can be stated that personal data and the right to privacy have a relationship that resides in a person's right to open or inform their data to other parties in line with that person's intentions. According to Article 16 paragraph (1) letter f UUIJN2, a Notary has the responsibility to maintain everything about the deed they made, and any information collected for the preparation of the deed in line with the oath/promise of office, unless the law specifies differently. As can be observed from the above paragraph, the Notary must maintain the confidentiality of all personal information and information on the deed they issued.

The advancement of technology appears to be straightforwardly relative to the right to privacy. Numerous incidents have led to the distribution of people's data that should be secured by a company or institution because of hacking. Blockchain is a decentralized technology in which all important data and information are not held in a single location. Through computer resources, blocks that hold all information will be connected to form a network or chain to multiple locations.¹⁷ The Notary Protocol archive received by the Blockchain will be turned into a block, then connected with a chain or what is known as a chain, and eventually given a time stamp. Since the blocks are interlinked, anyone attempting to change one of them must first get approval from the person in control of the entire network. As a result, changing one block changes the whole blockchain. Furthermore, the installation of sharing security increases the layered nature of data security in the Blockchain. Therefore, if someone wants to change a block on the

¹⁶ Luthfan Hadi Darus, *Hukum Notariat Dan Tanggung Jawab Jabatan Notaris* (Yogyakarta: UII Press, 2017), 22.

¹⁷ Arliman S Laurensius, *Notaris Dan Penegakan Hukum Oleh Hakim* (Yogyakarta: Deepublish, 2015).

blockchain, they must get past several authorized persons who are linked to the Notary Protocol archive. In terms of dealing online, making notarial deeds can be done quickly and efficiently. In addition, in the case of dealing online, a mechanism/protocol can also be applied in such a way that the authenticity of the identity of the appearers can be guaranteed. Thus, the parties dealing with the Notary are legitimate and authorized appearers. Blockchain is software that is useful for storing data in a distributed manner. The advantages of this technology are that the data stored is more secure, easy to review and randomize, and has the nature of data that is permanent and cannot be deleted. This means that the level of validity of the data is higher, in accordance with the nature of notarization where the accuracy of the data is accounted for. The advantages for notaries who utilize the latest technology, especially blockchain, are saving costs for storing data electronically, facilitating data search, and reducing the risk of disease transmission during a pandemic because they are not involved face-to-face. Physically stored data can be lost due to fire, flood, being eaten by termites, and various other threats. In addition, a notary who does not have an adequate place is forced to do archiving in an optimal manner, so it will be difficult to search for deeds that have long passed.¹⁸

One of the uses of technology in carrying out the Notary profession is blockchain. Blockchain is software that is useful for storing data in a distributed manner. The advantages of this technology are that the data stored is more secure, easy to review and randomize, and has the nature of data that is permanent and cannot be deleted. This means that the level of validity of the data is higher, in accordance with the nature of notarization where the accuracy of the data is accounted for. In addition, the use of technology for Notaries can also be applied in terms of storing deeds electronically, electronically signing, and dealing with appearers online.¹⁹ In the case of storing deeds electronically, a notary can make deeds digitally and store them in a secure digital system. If this can be implemented, of course, there are many benefits for the Notary, one of which is being able to save space for storing the deed and the deed can be easily accessed.

In the case of electronic signing, the Notary can identify and verify the electronic signatory of the document so that it can ensure the validity of a document whether there is or is not a change in the document. This authentication guarantee can be seen from the presence of a hash function in the electronic signature so that the data recipient (recipient) can compare hash values. If the hash values are the same and match, then the data is truly authentic in the sense that there has never been an act of changing the data during transmission, so authentication can be guaranteed. However, if the hash

¹⁸ Qurani Dewi Kusumawardani, "Perlindungan Hukum Bagi Pengguna Internet Terhadap Konten Web Umpan Klik Di Media Online," *Jurnal Penelitian Hukum De Jure* 19, no. 1 (2019): 16, doi:10.30641/dejure.2019.V19.11-30.

¹⁹ Nurul Muna Zahra Prabu, Endang Purwaningsih, and Chandra Yusuf, "Problematika Penerapan Cyber Notary Dikaitkan Dengan Undang-Undang Nomor 2 Tahun 2014 Tentang Perubahan Atas Undang-Undang Nomor 30 Tahun 2004 Tentang Jabatan Notaris," *Jurnal Surya Kecana Dua: Dinamika Masalah Hukum Dan Keadilan* 6 (2019): 886–87, doi:10.32493/SKD.v6i2.y2019.3995.

value is not the same or there is a change in the hash value, then it should be suspected that there has been a data modification.²⁰

Archiving notarial deeds electronically also has risks, namely being exposed to virus/malware attacks, being hacked and data being inaccessible because the server is having problems. Electronic data can also be forged, such as date data, signatures, or names by hackers. Law Number 11 of 2008 concerning Electronic Information and Technology initiates steps for technology to be enjoyed and utilized as well as possible. Blockchain technology then emerged to bring solutions to the complex problems of modern society, especially in the notary sector. The practicality of blockchain technology makes it feasible to be involved as an alternative in making agreements that are naturally and traditionally done in a written way on paper.

By eliminating the direct involvement of a notary, the parties will meet directly in cyberspace. All processes, starting from agreements, transferring rights and obligations to storing "deeds" can be carried out on just one platform. Authentic deed is the strongest and most complete evidence. With an authentic deed, the rights, and obligations of interested parties have been clearly defined, so that an authentic deed contains legal guarantees. Notary is an official who has the authority to make authentic deeds and keep them as part of the Notary Protocol. If you want to use the deed as authentic evidence, you must involve a notary in making it. Blockchain-oracle connects all activities that occur off-chain (in the real world) with activities that are formed on-chain (in the blockchain). Utilization of the Oracle blockchain will eliminate the essence of utilizing blockchain technology, namely eliminating the involvement of third parties. But with blockchain oracle, the use of blockchain technology to create authentic deeds can be realized.

CONCLUSION

The Notary Protocol is a state archive since it contains specified sorts of documents related to the Parties' legal standing and responsibilities, as well as a Minutes of Notary Deed that is fully admissible in court. Based on the function, creation, preservation, administration, and access to the Notary Protocol, it can be inferred that the Notary Protocol is an essential closed dynamic State Archive. The Notaries, MPD, and Minister of Law and Human Rights all have the authority to appoint additional parties who are qualified and authorized to handle electronic filing, particularly regarding Blockchain Technology. Furthermore, with the usage of decentralized Blockchain Technology, modifying the Notary Protocol that has been stored in advance into Blockchain Technology would be impossible. This is in relation to the Notary's privacy and authority to keep the deed they issued confidential.

²⁰ Andi Suci Wahyuni, "Urgensi Kebutuhan Akta Autentik Di Masa Pandemi Covid-19," *Jurnal Ilmiah Hukum Dan Dinamika Masyarakat* 18, no. 1 (2020): 9, doi:10.56444/hdm.v18i1.1748.

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