



LEGAL PROTECTION FOR ELECTRONIC EDITORS

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Article history:	Abstract:
<p>Received: February 1st 2022 Accepted: March 6th 2022 Published: April 20th 2022</p>	<p>In this study, we focused on the legal protection statement for electronic documents, and we discussed the concept of the electronic editor as electronic support for storing data and information so that it can be referenced when needed. The electronic document relies on a new type of writing, which is electronic writing, and if this writing determines a right, it has a legal value. The electronic editor has three parties: the originator of the electronic message (the sender), the recipient, and the mediator. Writing the electronic editor requires conditions, namely, the readability of the electronic editor, the preservation of the integrity of the data recorded in it, and the non-penetration of it so that no one can view it and not prejudice its contents except for those who have the encryption key. Types of encryption, are symmetric, asymmetric, double, and security for electronic transactions. The Iraqi electronic signature and electronic transactions law did not address the concept of the electronic editor and the subject of electronic encryption and its databases over the Internet. From seeing it manipulate it.</p>

Keywords: Electronic Editor - Electronic Writing - Electronic Document - Encryption.

INTRODUCTION

Technological and scientific development has led to the emergence of electronic documents, which are very distinguished and fundamentally different from traditional paper documents, whether in terms of media or props that include these editors or in terms of their creation, exchange, storage, and signature. The electronic editor is saved in electronic containers via a computer so that it can only be read through one of its outputs, and among the most important electronic media used are hard and floppy disks, but these means are exposed to damage due to misuse or the nature of the material used as a support or overtime or viral leakage, which This leads to the difficulty of going back and accessing the editor when needed, in addition to the dangers of rapid technological development, as it is expected that the encryption keys saved in the electronic editor will be revealed.

Reasons for choosing this study:

The observer of the facts that happen in the world as a result of the use of the computer constitutes attacks on information systems and leads to harm to editors and electronic documents, and uses tools such as the virus, so special legislations were issued with the intention of protecting them, so the legal texts related to this are examined.

Research aims:

The aim of the study is to strive to establish legal protection for the electronic editor in order to provide him with a degree of confidence and security,

explaining the means of protecting it and the adequacy of the existing legal texts.

Research Methodology:

The comparative approach was adopted between the Iraqi and Egyptian electronic laws and the UNCITRAL Model Law.

Search structure:

The first topic: What are electronic editors?

The first requirement: the definition of the electronic editor and its characteristics

The second requirement: the parties to the electronic editor

The second topic is the conditions of the electronic editor and the means and controls to protect it from the dangers of penetration.

The first requirement: the terms of the electronic editor

The second requirement: the means of protecting the electronic editor from the risks of penetration and the controls of electronic encryption of data over the Internet.

The first section: Means of protecting the electronic editor from the dangers of penetration

1- Permission to encrypt electronic messages

2- Subjecting encryption operations to strict control

3- Respect privacy

4- Legality of the encryption process

The second section: Controls of electronic encryption of data over the Internet.

THE FIRST TOPIC

The nature of electronic editors



We will divide this topic into two demands. In the first requirement, we will discuss the definition of the electronic editor and its characteristics. In the second requirement, we will show the parties to the electronic editor.

The first requirement

Definition of the electronic editor and its characteristics

In this requirement, we discuss the definition of the electronic editor and its characteristics, in turn:

First: - Defining the electronic editor:

Defined (Article One, Paragraph B) of the Egyptian Electronic Signature Law No. 15 of 2004 an electronic document is (a data message that includes information that is created, combined, stored, sent, or received in whole or in part by an electronic, digital, optical or any other similar means). Article (2) of the UNCITRAL Model Law on Electronic Commerce of 1996 (and Article 1, paragraph C) of the UNCITRAL Model Law on Electronic Signatures of 2001 defined it as (information that is generated, sent, received or stored by electronic, optical or similar means, including For example, but not limited to the electronic exchange of data, e-mail, telegraph, telex or telegraph. And there are those who know it as (data and information that are exchanged through correspondence that takes place between the two parties to the relationship by electronic means, whether through the Internet or through disks). Hard disks, computer screens, or any other electronic means of communicating information between them, establishing a right or performing an action, as it is the means through which the convergents through the Internet are able to communicate the information to each other) (Muhammad Amin Al-Roumi, without the printing year, the electronic document, Dar Al-Fikr Al-Jami'i, Alexandria, Egypt, without the printing year, p. 42). As for the Iraqi Electronic Signature Law No. 78 of 2012, it did not provide a definition for the electronic editor, but merely mentioned electronic writing, electronic documents, and electronic signatures.

For our part, we know it as electronic support that is a place for storing data and information so that it can be read and not tampered with the source of this information and data, and the date and place of sending, receiving, and keeping them so that they can be referenced when needed.

Electronic documents depend on a new type of writing, which is electronic writing. The Iraqi Electronic Signature and Electronic Transactions Law No. 78 of 2012 defined electronic writing as (every letter, number, symbol, or any other sign affixed to an electronic, digital, optical, or any other similar means).

It gives an indication that is comprehensible and comprehensible) (corresponding to Article (1) Paragraph (a) of the Egyptian Electronic Signature Law No. 15 of 2004). The writing in the electronic editor is in the form of algorithmic equations, implemented through data entry and exit operations through the computer screen. By feeding the device with this information through the input units that crystallize in the keyboard, it is able to read the data and retrieve the information stored in the central processing unit or any used floppy disk. After the data is processed, it is written to the output devices that are represented on the computer screen Or printing these documents on the printer, magnetic disk, or any other means of data storage (Mohammed Faraz Al-Matlaqa, without a year of printing, Al-Wajeez in electronic commerce contracts, which was declared Extended by the United Nations Commission on International Trade Law, December 16, 1996, out of print, pg. 207.

Second: The characteristics of the electronic editor:

The electronic editor is characterized by several characteristics, which are the following:

- 1- Writing in the electronic document has a legal value that can be adhered to or invoked, and it is not so unless it establishes a right, whether by creating it, modifying it, canceling it, or establishing it (Dr. Ali Abdel Qader Al-Qahwaji, 2010, Criminal Protection for Computer Programs, Dar). New University, Alexandria, Egypt, p. 144).
- 2- The electronic document is characterized as electronic and contains information that forms symbols or descriptions that can only be understood by connecting the editor to a computer. Magnetic, wireless, optical, electromagnetic, or other similar elements (Dr. Elham bin Khalifa, a research paper tagged with the title "Electronic Editors as a Means of Proving Electronic Transactions" pg. 4, available on the following website: – on 10/24/2021, [HTTPS://www.univ-allowed.DZ/images/2019](https://www.univ-allowed.DZ/images/2019)).
- 3- The electronic editor is characterized by speed and reliability in concluding transactions. Or by refusal (Dr. Abbas Al-Aboudi, 2010, the challenges of proof with electronic bonds and the requirements of the legal system to overcome them, first edition, Al-Halabi Human Rights Publications, Beirut, Lebanon, pg. 4).
- 4- Electronic documents are characterized by confidentiality, as no one can access them except the sender and the addressee because they are extracted from advanced technologies that provide security for them, and are characterized by reducing transportation and storage costs, unlike keeping and storing traditional papers where it is difficult to find a



sufficient place to archive them, and that the documents can be easily archived. Connecting it to the computer to keep it and store what is inside it without needing a large place (Dr. Ilham bin Khalifa, a previous source, pg 4).

THE SECOND REQUIREMENT

About the electronic editor

The electronic editor has two main parties, the sender and the addressee, and given that the electronic document is created and preserved in a technical environment, it imposes the presence of a third party, which is the mediator.

First: The sender (creator):

The Iraqi Electronic Signature and Electronic Transactions Law No. 78 of 2012 did not specify the sender (the originator), but Article 1 of the UAE Electronic Transactions and Electronic Commerce Law No. 2 of 2002 defines the originator as (the natural or legal person who sends or on behalf of whoever sends the electronic message, whatever it is). It is not considered the originator of the entity that performs the task of a service provider with regard to the production, processing, sending, or keeping of that electronic message and other services related to it). Likewise, the UNCITRAL Model Law defines it in Article Two as (as the person at whose hands the electronic document is sent or created), so the sender or originator is the following persons:

- 1- The creator is equal to being a natural or legal person, and at the present time electronic documents are created through computers without the intervention of a natural person, so the person for whose account the programming is done is the creator.
- 2- The creator may be a legal person who commissions one of the employees to create or send the document on his behalf, so it is equal for the creator to create or send the document himself, or it is done by another person on his behalf.

The sender (origin) of the electronic editor shall not be:

- 1- His role is limited to merely sending the editor, as the creator is the one who creates the document and issues it even if this document is sent by another person.
- 2- He shall store the document or copy it upon transmission.
- 3- Performs the task of processing service or producing the electronic message.

In the foregoing, it was better for the Iraqi legislator to know the originator in the law of electronic signature and electronic transactions, and

we, for our part, know the originator as a natural or legal person who himself or assigns someone on his behalf to create or send data or electronic messages. Or save that data or e-mails.

Second: the addressee.

Article 1, Paragraph (17) of the Iraqi Electronic Signature and Electronic Transactions Law defines the addressee as (the person to whom the electronic document is sent by electronic means). From this definition, the addressee is a natural or legal person who uses the computer by himself or another person on his behalf. The sender intends to contact him by sending the electronic document to him by electronic means. Anyone whose role is limited to merely receiving or receiving the document shall not be considered as receiving the document, as another person acting on behalf of the addressee with whom the originator of the message intended to contact, receives the documents as if the recipient is one of the workers or employees appointed by the shop owner to receive the documents.

THIRD: THE MEDIATOR

According to the UNCITRAL Model Law, intermediary includes technicians and non-technical persons, meaning any person (other than the sender and the addressee) who performs any of the functions of an intermediary. Among the intermediaries are other value-added services, including the preparation of data message format, translation, registration, documentation, certification, preservation and provision of security services for electronic transactions (Legislative Guide to the UNCITRAL Model Law on Electronic Commerce of 1996, amended 1998, p. 33). From the foregoing it appears that the mediator is:

- 1- Any person other than the sender and the addressee undertakes the task of sending, receiving, storing or storing data on behalf of another person.
- 2- Network operators who provide added services, such as preparing, translating, and documenting, authenticating and archiving message data.
- 3- Whoever provides insurance service for electronic transactions, such as electronic certification service providers?

The second topic

The terms of the electronic editor and the means of protecting it from the risks of penetration

We will divide this topic into two demands. In the first requirement, we will deal with the conditions of the electronic editor. In the second requirement, we will address the means of protecting the electronic editor from the dangers of penetration.



The first requirement

Terms of the electronic editor

Given the special nature of the electronic editor and the risks surrounding it as a result of saving and sending information, a set of conditions are required, which are:

1- Readability of the electronic editor.

We have previously shown that the electronic editor depends on electronic writing, so electronic writing is established on electronic, non-paper-based support. , according to a specific program, and in a computer language, which a person does not understand except through operating programs provided by an electronic computer. 1998, Computer Principles, without a publisher, p. 10). This was followed by the doubt about the possibility of re-writing the same task as paper writing, in terms of the possibility of reading it and understanding what it is intended for and accessing it. Ibrahim Al-Bayh, a previous source, pg. 20). The Iraqi Electronic Signature and Electronic Transactions Law stipulates in the first article, paragraph (fifth), that electronic writing should have a perceptible sign (corresponding to the first article, paragraph (A) of the Egyptian electronic signature law). Article (8) of the UNCITRAL Model Law states that when the law requires the submission of written information and its preservation in its original form, the electronic editor satisfies this requirement if the data contained therein can be accessed in a manner that allows it to be used by reference to it later, and also if this information can be Presenting it to the person to be presented to it when it is required to provide such information.

2- Maintaining the integrity of this data.

The electronic document is saved in electronic containers through a computer in a way that it can only be read through one of its outputs, and among the most important electronic media in this regard are magnetic disks of all kinds, hard and flexible, but these means are exposed to damage as a result of misuse or the nature of the material used as a support or over time Or a viral leak, which leads to the difficulty of going back and accessing the editor when needed, in addition to the risks of rapid technological development, as it is expected that during the few years the possibility of fraud that is difficult to detect by opening the encryption keys saved in the electronic editor, and opening the private key is expected from By knowing the public key available to everyone () d. Mohsen Abdel Hamid Ibrahim

Al-Bayh, The Role of Electronic Editors in Proof in Egyptian Law, research available on the Legal Sciences Blog website on 1/10/2021, pp. 22-23. Law77.blogspot.CoM). The Iraqi electronic signature law in Article (13/first, paragraph A) emphasized the process of preserving and integrity of electronic editor data, as it stipulates that the information contained in electronic documents, electronic writing, and electronic contracts can be saved and stored so that it can be retrieved at any time. The model UNCITRAL in Article (10) paragraph (a) provided that the preservation of the electronic document is achieved if it is preserved in a manner that facilitates access to the information contained in it and in a manner that allows reference to it at a later time.

It is clear to us from the foregoing that it is necessary to ensure the correctness and integrity of the data when saving electronic documents so as to ensure reference to them and knowing the information contained therein when needed.

3- No penetration.

Penetration of the electronic document is defined as viewing and accessing it in a legitimate way of making modifications to the data or erasing part of it without them having the right to do so (Dr. Mohsen Abdel Hamid Ibrahim Al-Bayh, previous source, p. 26). If an unauthorized person or more attempts to access a network of networks on the Internet or a specific computer and then enter it and spy on the information and data in it or change the system on the computer or obtain security holes in the operating system in order to view, steal, sabotage and eliminate It is done using specialized programs (Alaa Hussein Ali Al-Obaidi, article available online, dated 11/13/2021 on the website <https://www.uobabylon.edu.iq/uobColeges/lecture.aspx?fid=13&depid=5&lcid=95516>). This matter exposes the contractors to online notifications, including disclosing secrets related to the contracting process, which the contractors wish not to disclose to others, such as transaction prices and contract size, or changing the address in which the goods are shipped and replacing it with another, or intercepting the customer's bank account numbers and changing their data, such as changing the name of the payee in electronic networks or the amount transferred to a bank account, which leads to abuse of the relationship between dealers (Raafat Radwan, 1999, the risks that companies and institutions are exposed to from attacks by amateurs and professionals on



information on the Internet, Cairo, Egypt, p. 103). If a person impersonates an institution or another person or knows the bank card number of a person, for the purpose of obtaining money illegally from workers and merchants.

The second requirement:

Means of protection for the electronic editor and the controls of electronic encryption of data over the Internet

Due to the development of electronic commerce via the Internet, it requires providing the necessary protection for the electronic editor from the dangers of illegal access to it, and that it is protected from any change or distortion in its content, whether by modification or deletion, in order to gain confidence and security (Tariq Abdel Rahman Naji Kamil, 2003, contracting via the Internet And its effects, a comparative study, research to obtain an in-depth postgraduate diploma in private law, Mohammed V University, Agdal, p. 123). Which makes this issue the most important problem for working with electronic editors in the legal field. Therefore, advanced means have been devised that make the electronic editor mere symbols and incomprehensible and unclear signs, so that no one can touch them or reveal their content except to those who have the special key for that, and this technology is The so-called encryption technology (the legal system of electronic editors in Morocco, article available online on 10/15-2021 at www.elkanounia.com/2020/03/Articles_9.html).

From the foregoing, we will divide this requirement into two subsections. In the first section, we will deal with the concept of encryption and its types. In the second section, we will show the rules and controls of electronic encryption of data over the Internet

First branch

The concept and types of encryption

First: the concept of encryption

Encryption is defined as the process of converting information into incomprehensible symbols so that unauthorized persons cannot see or understand this information, and the information is re-converted to its original form using the appropriate key to decode (Dr. Modern Communication, a comparative study, Dar Al-Nahda Al-Arabiya, Cairo, Egypt, 1, p. 217). This was defined by the Egyptian Electronic Signature Law Regulation No. 109 of 2005 in Article 1 - Paragraph 9 as (an arithmetic technical system

that uses special keys to process and transfer electronically readable data and information so that it prevents the extraction of this data and information except by using a key or decryption key). Encryption allows providing confidence to electronic transactions, and encryption is done for tools, means, or methods for transferring information with the aim of concealing its contents and preventing its modification or illegal use. The information is not received by anyone except the addressee who, using technical means, can access the content of the information (Dr. Medhat Abdel Halim Ramadan, Criminal Protection for Electronic Commerce, Dar Al-Nahda Al-Arabiya, Cairo, Egypt, without a year of publication, p. 31).

For our part, we define encryption as the use of special programs to convert incomprehensible information, data, or signals into understandable information, data or signals, or vice versa so that unauthorized persons cannot understand or access this information and this information is re-converted to its original form using your key to decrypt.

Second: - Types of electronic encryption over the Internet.

1- Symmetric encryption: It is based on the presence of one key to encrypt the data as well as the encryption solution, which is the system known as the symmetric system. This system was taken as insecure because the sender and receiver of the transaction had the same key (referred to by Dr. Abdel Fattah Bayoumi Hegazy, 2002, The Legal System To protect electronic commerce, Dar Al-Fikr Al-Jamii, Egypt, Alexandria, p. 203). And that it does not contain a formula in terms of the method of exchanging the codes of these keys between dealers, and that the use of the same key by the sender and the addressee weakens the authenticity of the extracted documents and their evidentiary strength (Dr. Amr Khaled Al-Zureikat, online sales contract, Ph.D. thesis, Faculty of Law, Ain University The Sun, without a date and publisher, p. 246).

2- Asymmetric encryption: It is based on the presence of two keys, one of which is a public key known to some parties and confidential to the public (Dr. Huda Hamed Qashkoush, 2006, Criminal Protection of Electronic commerce via the Internet, Dar Al-Nahda Al-Arabiya, Egypt, p. 77), and an unknown private key. For any person other than the person to whom the message is addressed to decipher the code, this system is known as asymmetric (referred to by Dr. Taher



Shawqi Moamen, 2007, electronic sales contract, Arab Renaissance House, Cairo, Egypt, p. 103). This system has taken on the necessity of sending the private key with the encrypted message for the possibility of solving it, which requires the use of a secure method to send the private key to the addressee (Dr. Qadri Abdel Fattah El-Shahawy, 2005, Electronic Signature Law and its Executive Regulations, Dar Al-Nahda Al-Arabiya, Cairo, Egypt, pg. 416).

3- Double encryption: It is a system of mixture between symmetric and asymmetric encryption, and the message is encrypted with a private key, then the private key is encrypted with a public key, and both the encrypted message and the encrypted private key are sent to the addressee using any communication network (Dr. Taher Shawqi Moamen, 2007, Electronic Sale Contract, Dar Al-Nahda Al-Arabiya, Egypt, Cairo, p. 103).

4-Security encryption system for electronic transactions: It is a system that aims to secure financial transactions on the Internet using credit cards. An electronic signature, Nile House for Printing and Publishing, Cairo, Egypt, p. 72).

Second branch

Rules and controls for electronic data encryption over the Internet

1- Permissibility of electronic encryption.

The Iraqi Electronic Signature and Electronic Transactions Law did not address the issue of electronic encryption and its databases over the Internet, so it was more appropriate for the Iraqi legislator to address the issue of encryption and its rules to preserve the confidentiality of data and not enable others to view it or manipulate it. As for the executive regulations of the Egyptian Electronic Signature Law No. 109 of 2005, it is permissible to encrypt data and information that is transferred, edited, or dealt with through electronic media, as a method of securing information over the Internet.

2 - Subjecting encryption operations to control.

Article (11) of the Executive Regulations of the Egyptian Electronic Signature Law states that (without prejudice to what is stipulated in Articles "2, 3, 4" of this regulation from a technical point of view, any modification or alteration in the data of the electronically signed editor using the technology of The cipher of the public and private keys, by emulating the electronic certification certificate, and the data for creating the electronic signature with the origin of this certificate and

those data, or by any similar means). It is clear from this text that the encryption processes and controls for importing and using its hardware and software that are used to complete it are subject to controls determined by the competent authority, because the use of encryption in some cases, determining the type of devices that are used in performing it and licensing their import or manufacture is related to higher interests that must be organized in a special organization and under the supervision of an authority competent to do so, and with this law, the protection of a person's privacy and secrets is equated with the requirements of public safety and national security so that criminals cannot use encryption to limit the ability of security services to follow up on their communications (Dr. Mohsen Abdel Hamid Ibrahim Al-Bayh, previous source, p. 29).

3- Respect privacy.

In application of this principle, Article (12/Second) of the Iraqi Electronic Signature Law states that (e-signature data, electronic media, and information submitted to the certification body shall be confidential, and it is not permissible for the person to whom it has been submitted or who has seen it by virtue of his work to disclose it to others or use it for a purpose other than that for which it was provided from (corresponding to Article (12) of the Egyptian Electronic Signature Law No. 15 of 2004). This principle means not to see the privacy of others without their knowledge or permission, respecting the confidentiality of encrypted data, and acknowledging the right of its owners to their privacy and non-aggression (Fattouh Al-Shazly, Afifi). Kamel Afifi, Computer Crimes, Copyright, Artistic Works and the Role of the Police and the Law, A Comparative Study, 1st Edition, Al-Halabi Human Rights Publications, Syria, without a year of publication, pg. Dr. Hoda Hamid Qashqosh, 2006, Criminal Protection of Electronic Commerce over the Internet, Dar Al-Nahda Al-Arabiya, Cairo, Egypt, p. 61).

4- The legality of the encryption process.

We have previously explained the definition of encryption and its types, and Article (10) of the Executive Regulations of the Electronic Signature Law states that (technically and technically, the signatory's control alone is achieved over the electronic medium used in the process of installing the electronic signature through the signatory's possession of a tool for keeping the private code key Including the secured smart card and the secret code associated with it), it is clear from this



article that the electronic environment needs to encrypt data and information in order to preserve its confidentiality and not enable others to view or manipulate it. Understood, and then re-converted to the state it was in. Maintaining the confidentiality of the data and protecting it from tampering is that the sender converts the text into ciphers, and then the addressee decodes it (Dr. Mohsen Abdel Hamid Ibrahim Al-Bayh, previous source, pp. 31-32).

CONCLUSION

- 1- The Iraqi Electronic Signature and Electronic Transactions Law No. 78 of 2012 did not address the concept of the electronic edition, but rather mentioned the electronic writing and the electronic document.
- 2- Electronic editors depend on electronic writing, as they are in the form of algorithmic equations, implemented through data entry and output operations through the computer screen.
- 3- If the writing in the electronic document decides a right that has a legal value that can be adhered to or invoked.
- 4- The electronic document is characterized as electronic and contains information that forms symbols or descriptions that can only be understood by connecting the editor to a computer.
- 5- The electronic editor is characterized by speed and credit in concluding transactions. In a few seconds, a person in one country can meet with another person in another country thousands of miles away, in a virtual environment via the Internet.
- 6- Electronic documents are characterized by confidentiality, as no one can view them except the sender and the addressee.
- 7- The electronic editor has two main parties: the sender and the addressee, and a third party, which is the mediator imposed by the technical community.
- 8- Due to the special nature of the electronic editor and the risks surrounding it as a result of saving and sending information, a set of conditions are required, namely, the readability of the electronic editor, the preservation of the integrity of the data edited in it, and the non-infiltration, that is, the lack of access to it by an unauthorized person.
- 9- The electronic editor is protected from alteration and distortion in its content in order to gain confidence in dealing through encryption.
- 10- The Iraqi Electronic Signature and Electronic Transactions Law did not address the concept of encryption and its databases for online data.

11- Electronic encryption via the Internet has types of symmetric, asymmetric, and duplex, and a secure encryption system for electronic transactions.

RECOMMENDATIONS:

- 1- The Iraqi legislator did not address in the electronic signature and electronic transactions law the concept of the electronic document, and we, for our part, know it as an electronic pillar that is a place for storing data and information so as to secure its reading and not to tamper with the source of this information and data and the date and place of sending, receiving and keeping them so that they can be referenced when the need.
- 2- The Iraqi legislator did not address in the law of electronic signature and electronic transactions a definition of the originator of the electronic message, and we, on our part, know him as a natural or legal person who himself or assigns someone on his behalf to create or send data or electronic messages. Send or save such data or electronic messages.
- 3- From our side, we believe that it requires verifying the validity and integrity of data when saving electronic documents so as to ensure reference to them and knowledge of the information contained therein when needed.
- 4- The Iraqi legislator did not address the concept of encryption and its rules, and we, for our part, know it as the use of special programs to convert incomprehensible information, data, or signals into understandable information, data or signals, or vice versa so that unauthorized persons cannot understand or access this information. Re-convert this information to its original form using a private key to decrypt it.
- 5- We believe from our side that the Iraqi legislator should introduce an amendment to the Electronic Signature and Electronic Transactions Law No. 78 of 2012 regulating the electronic editor and its parties, and clarifying the concept of encryption and its rules.

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