

ARTICLE:

THE ELECTRONIC SIGNATURE IN CHILE

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By way of introduction, biometric measurements of unique physical or behavioral characteristics (such as a fingerprint or a voice pattern) are a useful means of verifying personal identity as a first step in determining whether the person is who they say they are and before the person uses an electronic signature to indicate they assent to a transaction. Biometric technology in Chile is widely used to purchase vouchers for medical consultation, and in the control systems of hundreds of enterprises. Furthermore, in September 2002, the Civil Registry and Identification Service adopted the use of a mathematical algorithm developed by NEC, which provides for the codification of the biometric information of the thumb, and has subsequently scanned all the fingerprints available on its files, providing Chile with an important database of scanned fingerprints. The implementation of this technology has, allegedly, turned Chile into the first country in the world with the capacity of using biometric characteristics as part of a transaction. For instance, Redbanc recently announced that it was going to use fingerprint authentication on their automatic teller machines across the country.¹ It is also possible for a biometric measurement to be an expression of proof of intent in the form of an electronic signature.

The legal framework

Law N° 19.799, on Electronic Documents, Electronic Signature and its Certification² regulates the electronic signature in Chile, giving the same legal validity as a manuscript signature, and provides that when a person carries out an act to demonstrate their intent by electronic means, it will have the same recognition and

protection as the one given to those acts, contracts or transactions celebrated on a piece of paper.³

The influence of the UNCITRAL Model Law on Electronic Commerce over the spirit and the drafting of the provisions of the law is manifest, when the promulgation of the law was initiated by a Message of the President of the Republic, on August 9, 2000, part of which stated that:

‘... esta ley modelo tiene como principal objetivo superar ciertos obstáculos jurídicos que dificulten el empleo cada vez mayor del comercio electrónico, los que consisten en la imposición de requisitos de documentación tradicional con soporte de papel.

De esta manera, la ley modelo adopta un nuevo criterio: el del ‘equivalente funcional’ Dicho criterio consiste en reconocer que la documentación consignada por medios electrónicos puede ofrecer un grado de seguridad equivalente a la del papel y, en la mayoría de los casos, mayor. Por todo lo anterior, en su artículo 5º, señala que no se podrán negar efectos jurídicos, validez o fuerza obligatoria a la información por la sola razón de que esté en forma de mensaje de datos. Asimismo su artículo 7º hace equivalente u homologa la firma manuscrita a la electrónica. Por último, en su artículo 10º, se reconoce la admisibilidad y fuerza probatoria de los mensajes de datos’.

‘... this model law has, as its main target, to overcome some judicial obstacles that may make it difficult to use the daily growing electronic commerce, which emphasizes the requirement of traditional documentation on paper.

In such a way, the model law adopts a new criterion: the ‘functionally equivalence’ ... This criterion recognizes that the documentation conceived by electronic means can offer the same degree of

¹ Telefónica Empresas, ‘La Tecnología Limita a la Naturaleza’, *Alta Gerencia*, 2006, Volume 1 Number 1, available on-line at http://www.tempresas.cl/revista/edicion_01/index.php; Rosie Lombardi, ‘Biometrics goes mainstream’, *Computer World*,

March 31, 2006, Volume 22 Number 17, 14 – 15, available on-line at <http://www.itworldcanada.com/pndb/sub/sample/ComputerWorld.pdf>.

² *Ley Sobre Documentos Electrónicos, Firma Electrónica y Servicios de Certificación de Dicha*

Firma No 19.799, 25 de marzo 2002.

³ Renato Jijena Leiva, ‘Comercio Electrónico, Firma Digital y Derecho. Análisis de la Ley N° 19.799’, (2002, Colección Centro de Estudios en Derecho Informático), p 245.

security that the paper does, and in some cases, even higher. That is why article five states that legal effects, validity, or mandatory strength shall not be denied to the information for the only reason that it exists as a data message. On the same line, article seven brings together or considers as equivalent the manuscript and the electronic signature. Finally, article ten recognizes the admissibility and proof of data messages’.

The principles that guide the Law have a direct relation with the UNCITRAL Model, such as the recognition between the validity of the acts and contracts ratified by a manuscript signature and an electronic signature, as provided in article three of the Law, as follows:

‘Los actos y contratos otorgados o celebrados por personas naturales o jurídicas, suscritos por medio de firma electrónica, serán válidos de la misma manera y producirán los mismos efectos que los celebrados por escrito y en soporte de papel. Dichos actos y contratos se reputarán como escritos, en los casos en que la ley exija que los mismos consten de ese modo, y en todos aquellos casos en que la ley prevea consecuencias jurídicas cuando constan igualmente por escrito’.

‘Acts and contracts celebrated by individuals or legal entities, subscribed by an electronic signature, are valid in the same way and will have the same effects that the ones celebrated on a written source and on a piece of paper. Those acts and contracts will be considered as written, on the cases in which the law requires them to be that way, and in those cases in which the law foresees legal consequences when they are on a written source’.

It is evident that the main influence over the law is the so called ‘functionally equivalence’ criteria, meaning, on the one hand, that data subscribed by electronic means offers a security degree equal to that of paper; and, on the other, that acts and contracts ratified by an electronic signature are valid, and thus produce the very same effects as those written and signed on paper. Chilean regulation has been criticized because it did not follow the Model Law with respect to the equivalence between electronic and the written documents. The Model Law provides that there is equivalence between

electronic and written documents only if the information contained on the digital message can be recovered, so that it allows for a later consultation. This element, a very important one, is not included in the national Law.⁴

Jurisprudence of electronic signatures in Chile

Having briefly set out the statutory regulation of the electronic signature in Chilean law, it is of interest to examine the existing jurisprudence and recent comments made by scholars on the subject, in particular relating to what is understood to be an electronic signature. It is especially interesting to study the state of the discussion over the validity of the following: a name typed at the bottom of an e-mail; an e-mail address; a digital signature; a biometric measurement of a manuscript signature; the use of a PIN with a credit card or cash card; the use of the ‘I accept’ or ‘I agree’ icon; a signature on paper sent by facsimile transmission. As a general comment, it is important to state that since Law N° 19.799 was enacted recently, the courts have yet to be requested to offer their opinions on the topic of electronic signatures. However, there has been a development and appearance of sector regulation related to electronic signatures, and the implementation of new technologies related to electronic signatures by the private sector, that may clearly be an expression of self regulation. Moreover, it is possible to find administrative jurisprudence related to the subject.

A name written at the end of an e-mail

Scholars have agreed that typing a name at the end of an e-mail constitutes a simple electronic signature, in accordance to the definition provided on article 2(f): ‘Firma electrónica: cualquier sonido, símbolo o proceso electrónico, que permite al receptor de un documento electrónico identificar al menos formalmente a su autor’. A number of learned professors also support this view. Renato Jijena Leiva offers the opinion that ‘According to Law N° 19.799 a simple electronic signature is the one that can formally identify the author – for example, an electronic message signed by using a code that may be like fingerprint (...)’,⁵ and Francisco González Hoch comments that ‘... las comunicaciones a través de correo electrónico (e-mail) en que se identifica su emisor por cualquier medio constituyen documentos

⁴ Renato Jijena Leiva, ‘Comercio Electrónico, Firma Digital y Derecho. Análisis de la Ley N° 19.799’, p 260.

⁵ Renato Jijena Leiva, ‘Comercio Electrónico, Firma Digital y Derecho. Análisis de la Ley N° 19.799’, p 263.

electrónicos con firma electrónica simple, pero lo que es previsible es que estas comunicaciones sean medios de prueba usuales en el futuro ...', '... the communications made through electronic mail (e-mail) in which the sender is identified by any means, constitute electronic documents subscribed by a simple electronic signature, nevertheless is expectable to have them used as any other evidence in the future (...)'.⁶

An e-mail address

There is no pronouncement stating that the e-mail address by itself constitutes a simple electronic signature. However, Professor González Hoch refers to a closely related hypothesis: he considers that the identity shown in the incoming e-mail folder when receiving e-mails, in the 'from' column, certainly constitutes a simple electronic signature.⁷ In relation to this matter, the legislative history of Law No. 19.799 is of interest, in which it is recorded that the Government,⁸ referring to the different types of electronic signatures used in business, was considering the most simple kinds of signature, such as '... sending an e-mail where the intention of buying is expressed and the signature is made by writing the first name ...'. Law No. 19.799 provides a broad definition of the simple electronic signature, which reflects the example given by the government while the law was being discussed in the Congress, and it is possible to conclude that the address of an e-mail may very well be considered a simple electronic signature, in accordance with the provisions of article 2(f) of the law, providing that the author of the e-mail can be formally identified. Such circumstance may be verified when the address contains the author's name and last name, or in the absence of such features, it contains signs or codes that can, beyond any mistake, be identified with its author, for example, the address of an e-mail containing a publicly and notoriously known expression or phrase that makes the source of the e-mail unambiguous. That

a name in an e-mail address can be a form of electronic signature in Chile, illustrates that the legislation in Chile is in agreement with the international cases that have also decided that the name in an e-mail address can be a form of electronic signature.⁹

A digital signature

According to the provisions of Law No. 19.799, there are two kinds of electronic signature: the simple electronic signature, as defined by article 2(f), and the advanced electronic signature, as defined by article 2(g):

'Firma electrónica avanzada: aquella certificada por un prestador acreditado, que ha sido creada usando medios que el titular mantiene bajo su exclusivo control, de manera que se vincule únicamente al mismo y a los datos a los que se refiere, permitiendo la detección posterior de cualquier modificación, verificando la identidad del titular e impidiendo que desconozca la integridad del documento y su autoría'.

'Advanced electronic signature: the one certified by an authorized provider, that has been created by using the means that the holder maintains under its exclusive control, in a way that it is only linked to it and to the data it refers to, allowing the later detection of any modification, verifying the identity of the holder and preventing him from ignoring the integrity of the document and its authorship'.

Although there are no decisions in relation to the digital signature, there are a number of specific regulations that require the use of an advanced electronic signature. For instance, the electronic acts subscribed under the tax law and regulation requires the use of the advanced electronic signature. Before Law No. 19.799 became into force in February 2001, the Internal Revenue Service issued Resolution No. 09¹⁰ that regulated the use of the

⁶ Francisco González Hoch, 'La Prueba de las Obligaciones y la Firma Electrónica', *Chilean Magazine of Informatics Law*, (Informatics Law Study Centre of Universidad de Chile Law School, LOM Ediciones), N° 1, May 2005, p 82, paragraph 29. This article can be found on-line at: http://www.derechoinformatico.uchile.cl/CDA/der_informatico_completo/0,1492,SCID%253D14649%2526ISID%253D292,00.html.

⁷ Francisco González Hoch, 'La Prueba de las Obligaciones y la Firma Electrónica', p 82.

⁸ Bulletin N° 2.571-19, 'First Commentaries of the Commission of Science and Technology of the House of Representatives', on the project of law about electronic signature and the certification of electronic signature', p 33; this document is available in the website of the Library of the National Congress, <http://www.bcn.cl>.

⁹ United States of America: United States of America

v Siddiqui, 235 F.3d 1318 (11th Cir. 2000) where e-mails were correctly authenticated under the requirements of Fed.R.Evid. 901(a), because a number of internal factors supported the authenticity of the e-mail, including the e-mail address, nickname of the sender and pertinent content; Greece: 1327/2001 – Payment Order, an e-mail address held to be a signature under the provisions of articles 444(3) and 445 of the Civil Procedure Code, for an English translation by Michael G. Rachavelias, see *Digital Evidence Journal*, 2006, Volume 3 Number 1, 57 – 60; Australia: *McGuren v Simpson* [2004] NSWSC 35, an e-mail address held to be a signature for the purpose of the Limitation Act 1969, 554(4); Italy: *Tribunale Mondovi*, 7 giugno 2004, n. 375 (decr.), *Giur. It.* 2005, 1026, the combination of an e-mail address and a user password of the Internet Service Provider was held to be an electronic

signature for the purposes of a summary judgment, for a translation of the pleadings into English, see Gian Paolo Coppola, 'Case Note', *Digital Evidence Journal*, 2007, Volume 4 Number 1, 44 - 46; Singapore: *SM Integrated Transware Ltd v Schenker Singapore (Pte) Ltd* [2005] 2 SLR 651, [2005] SGHC 58, an e-mail address was held to be a signature for the purposes of the Civil Law Act (Cap 43, 1994 Rev Ed) s6(d).

¹⁰ Exempt Resolution N° 09, of February 15, 2001, complemented and modified by the Exempt Resolution of the Internal Revenue Service of July 7, 2005, according to Title II of Law N° 19.799. These resolutions are available at the Internal Revenue Service web site, at <http://www.sii.cl/documentos/resoluciones/anteriores/anteriores.htm>.

electronic signature regarding tax related acts. In this context, the electronic signature was defined as

‘... El sustituto digital de la firma ológrafa que permite al receptor de un documento digital, verificar con certeza la identidad proclamada por el emisor del mismo, mantener la integridad del contenido del documento digital transmitido e impedir al signatario desconocer la autoría del documento digital o repudiarlo en forma posterior ...’

‘... the digital substitute of the manuscript signature that enables the receiver of a digital document, to verify with certainty the identity proclaimed by the issuer of the document, to keep the integrity of the message transmitted in the digital document and to prevent the issuer from ignoring the paternity of the digital document or repudiate it afterwards ...’

This definition is still valid at present, even though it was partially modified by Law No. 19.799, because of the conceptual equivalence between the advanced electronic signature in Law No. 19.799 and the electronic signature regulated for tax related acts.

Biodynamic version of a manuscript signature

There are products available that permit a person to produce a biodynamic version of their manuscript signature. For instance, some delivery companies use hand held devices that require the recipient of an item of post or parcel to sign on a screen acknowledging receipt of the mail. Another method of obtaining a digital version of a manuscript signature is when a person can write their manuscript signature by using a special pen and pad. The signature is reproduced on the computer screen, and a series of measurements record the behavior of the person as they perform the action. The measurements include the speed, rhythm, pattern, habit, stroke sequence and dynamics that are unique to the individual at the time they write their signature. The subsequent electronic file can then be attached to any document in electronic format to provide a measurement of a signature represented in graphic form on the screen.

This technology is used in Chile by the Civil Registry and Identification Service, when someone applies for a

National Identity Card. When doing so, the official of the service hands the applicant a pen designed to write on a special electronic screen that registers the applicant’s signature. The same system is used by a delivery enterprise called Bazuca. The difference is that the screen is incorporated on a mobile device, and the signature of the purchaser is placed on an electronic pad. Nevertheless, the implementation of this technology is not fully developed. Up to the date of writing, it is only used to register a signature, but it does not allow a later comparison of the patterns of the subscriber, such as the speed of movement or the way the lines are traced. The comparison is only a visual one.

A biometric measurement

A biometric measurement is the use of inherent properties of the individual¹¹ as a way of establishing the identity of an individual. Under this context, in the legislative history of Law No. 19.799, the government explained the scope of the concept of the electronic signature set out in the legal project, and expressed the view that ‘... it has to be noted that the concept of electronic signature, includes the definition that is in the new American federal law, ‘Electronic Signatures in Global and National Commerce Act’, of May of the year 2000, under its section & 105, letter a), because that law is open to new forms of authentication, especially to biometric measurements’.¹² The study of the legal project which resulted in Law No. 19.799 indicated that commercial transactions admitted the use of many kinds of electronic signature, from the simplest kinds to the most complex ones, adding, as an example of the latter, the case of the biometric measurements.¹³

In summary, the background discussions that lead to the passing of the law indicated an intention to adopt a similar, wide concept of electronic signatures as provided for in the Federal Law of United States, which includes biometric measurements. In addition, the opinion of academics such as Professor Jijena Leiva, who understands that the latter are included in the complex kind of electronic signatures, lead to the conclusion that biometric measurements are included in the concept of simple electronic signature as defined in Law No. 19.799. A good illustration is the use of fingerprint measurements in the Chilean health system.

¹¹ While Law No. 19.799 was being considered as a Law Project, the Government Presidential Message, (p 12) cited as an example of biometric measures the scanning of a fingerprint or the iris,

or the recording of the voice digitally.
¹² Bulletin No. 2571-19, Message of the President of the Republic, by means of which the law project was presented, p 16.

¹³ Bulletin No. 2571-19, p 261.

Even though there is no formal identification of the subscriber, it is possible to identify the computer machine from where the acceptance was made.

E-Med case: the use of the electronic fingerprint measurements

E-med is a corporation owned by SONDA, which has implemented a revolutionary system to enable a user to buy vouchers for medical consultation, that is, documents that are used for the payment of medical services. The service supplier (clinic, medical centre, or the doctor) receives the payment from the financier (ISAPRE or FONASA) and from the affiliate or patient (co-payment), in the share that corresponds to each one. In this context, each beneficiary of the system that receives attention from a health service supplier must place their finger over an electronic device that validates them as a beneficiary by comparing the measurement of the fingerprint with the measurement of their fingerprints registered and managed by each of the financiers. Conceivably, this method of biometric authentication constitutes a simple electronic signature, taking into account that the supplier validates the position of the beneficiary as a patient by using it.¹⁴

Use of a PIN

The definition of the simple electronic signature provided in article 2(f) of Law No. 19.799, probably means that the use of a secret code or PIN (Personal Identification Number) when using a credit card or a cash card, may well be considered as a simple electronic signature. In reaching this conclusion, the use of the PIN or secret code constitutes a means of validation, which is used by the card issuer to authorize the transaction, and the user of the card taps in the PIN as a manifestation of consent implied when using the PIN. This general conclusion is supported by the regulations applicable to the financial sector that refer to the use of credit and debit cards. According to this regulation,¹⁵ the principle of contractual freedom is fully recognized between the parties to determine how to

enter into transactions between the holder of the card and the issuer of the debit or credit card. In addition, Professor Jijena Leiva concludes that it is possible for both parties to agree that the title is contained in the electronic document as confirmed by the PIN, and the document can be stored in the computer system used to register all the transactions made by using the cards.¹⁶

Use of the 'I accept' or 'I agree' icon

The use of the 'I accept' or 'I agree' icon, by itself, cannot be considered a simple electronic signature, since it does not allow the recipient to identify, not even formally, the author. However, when a person provides more information, it may be considered an electronic signature bearing in mind the definition of an electronic signature contained in article 2(f). To that extent, it will constitute an electronic signature providing it permits the author of an electronic document to be identified. Relevant examples are purchases undertaken over the internet using a credit card, and the acceptance of the license of computer software. In the first case, when submitting the information required by the seller it is possible to recognize, at least formally as required by the law, the subscriber of the document, specially when considering the kind of information which is usually required (such as full name, user name, password, address, age, gender, telephone number).

The second example is more complex. Even though there is no formal identification of the subscriber, it is possible to identify the computer machine from where the acceptance was made. In most instances, a computer is used by a limited number of persons, and usually only one of them is the administrator of the computer. So, in most of the cases, it is possible to identify the subscriber indirectly, or at least to reduce the number of candidates. However, it is arguable whether such indirect identification is sufficient to

¹⁴ 'I-Med y el Bono Electrónico' available on-line at http://www.sonda.com/es/raiz/global/home/casos_de_exito/caso_individual/es/30e2a67c2b/?tx_ttnews%5Btt_news%5D=50&tx_ttnews%5BbackPid%5D=4967.

¹⁵ *Recopilación de Normas de la Superintendencia de Bancos e Instituciones Financieras y el Número 3 del título VI del capítulo III.J.1 del Compendio de normas del Banco Central.*

¹⁶ Renato Jijena Leiva, 'Comercio Electrónico, Firma Digital y Derecho. Análisis de la Ley N° 19.799', p 174.

consider the use of these icons as electronic signatures, mainly because the identification of the author, if possible, must be made by means other than from the electronic document that has been subscribed. In conclusion, the use of these icons can only be considered simple electronic signatures when they are used in a context that allows a direct formal identification of the subscriber, so that the subscribed document by itself formally identifies the subscriber.

A signature on a paper sent by facsimile transmission

Professor Jijena Leiva points out that even though a facsimile is electronically transmitted over telephone lines, they are always written on paper, except when they are magnetically recorded, temporary, in the memory of the facsimile machine in order to be printed on paper.¹⁷ In addition, Professor Jijena Leiva also argues that a legal disposition that acknowledges that ‘... a photocopy or any resulting document from a transmission made by using telephone lines and that is made by the receiver facsimile machine, shall legally have the same value as the original document ‘sent, passed, read or swept’ by the sender facsimile machine’, should have been introduced when Law No. 19.799 was a legal project. However, his suggestion was not taken into consideration by the legislators. Should a conflict regarding the legal value of a signature on a paper sent by facsimile transmission occur, it is suggested that the court should take into account the principle of equivalence, as set out in article 9(1) of the Model Law on Electronic Commerce, which states:

Article 9. Admissibility and evidential weight of data messages

- (1) In any legal proceedings, nothing in the application of the rules of evidence shall apply so as to deny the admissibility of a data message in evidence:
 - (a) on the sole ground that it is a data message; or
 - (b) if it is the best evidence that the person adducing it could reasonably be expected to obtain, on the grounds that it is not in its original form.

The original message that was sent will probably be on paper, unless it is a computerfax. If the original document sent by facsimile transmission constituted a paper document with a manuscript signature, the copy made by the receiver facsimile machine should be considered a document with a simple electronic signature.

The electronic signature and the National Direction of Labour’s Resolution

Given how illustrative and prolific the jurisprudence has been from the National Direction of Labour¹⁸ (‘The Direction’), it is necessary to dedicate a special paragraph to its analysis. The Direction has been amended to extend the implementation of the electronic signatures by the employers in their relations with their employees. Several resolutions¹⁹ have mentioned the validity of biometric measurement systems to provide for authentication, and of those that use magnetic cards to register the time in which the employees arrive and leave their place of work. For example, the Direction has established that an automatic registration system located inside the place of work, where control is carried out by sliding the personal identification card that activates a turnstile and immediately prints a certificate showing the worker’s identity, the date and time at which the working day begins and ends; and provides monthly reports, is a valid system to control attendance, and to determine the working hours, according to the existing labor regulation.²⁰

Regarding the use of biometric measurements, the Direction has stated that a computer biometric control system to register the personal attendance of workers by means of a fingerprint measurement, as proposed by several companies, is similar in concept to the function of a clock according to article 33 of the Labor Law:

Artículo 33 del Código del Trabajo

Para los efectos de controlar la asistencia y determinar las horas de trabajo, sean ordinarias o extraordinarias, el empleador llevará un registro que consistirá en un libro de asistencia del personal o en un reloj control con tarjetas de registro’

‘For the effects of controlling the attendance and to determine the hours of work, ordinary or

¹⁷ Renato Jijena Leiva, ‘Comercio Electrónico, Firma Digital y Derecho. Análisis de la Ley N° 19.799’, pp 162 to 163.

¹⁸ The Direction is a decentralized public service (agency) overseen by the President of the Republic

through the Ministry of Labour, which is in charge of supervising the fulfillment of the labour law.

¹⁹ Resolution N° 696/27, January 24, 1996; Notice N° 3478/109, January 24, 1996; Notice N° 815, March 18, 2002; Notice N° 213/05, January 11, 1995;

Notice N° 518/24, January 25, 1995 all from the Direction.

²⁰ Resolution N° 696/27, January 24, 1996.

extraordinary, the employer shall keep a registry that will consist on a personal attendance book or a control clock with registry cards’.

As a result, such systems can be implemented.²¹ In a similar way, it has also been established that other systems of recording attendance and recording working hours that use cards or biometric technology, are a valid method to register attendance.²²

In summary, the Direction has validated the implementation of a variety of technologies by administrative means: cards and fingerprint biometric technology; magnetic band readers; bar-code readers, and the use of RFID (Radio-frequency identification) cards. Even though this administrative entity refers to different kinds of simple electronic signatures, it does not use this concept in an explicit manner. The closest expressions used by the Direction are the references to ‘electronic-computer systems’, without mentioning electronic signatures directly. Thus, the Direction’s resolutions constitute the first jurisprudence related to electronic signature in Chile, although it has only decided on cases relating to simple electronic signatures. This is symptomatic of the current state of the discussion in Chile, because the level of implementation of advanced electronic signatures (meaning those authenticated by an authorized provider of certified accreditation services) is still very low.

Implementation of electronic signatures by the courts

One of the expressions of the implementation of electronic signatures by the courts of justice is demonstrated in the Administrative Order issued by the Supreme Court, relating to the implementation of electronic documents and signatures by notaries,²³ the real state registration administrator and the judicial archives administrator of October 17, 2006. By this Administrative Order, although in principle it is accepted

that it is necessary to adopt norms related to the use of documents and electronic signatures by notaries, real estate registration administrators and judicial archives administrators, nevertheless the court recognizes the impossibility of adopting an electronic signature for the subscription of:

- a) Aquellos actos en que la ley exige una solemnidad que no sea susceptible de cumplirse mediante documento electrónico;
 - b) Aquellos actos en que la ley requiera la concurrencia personal de alguna de las partes, y
 - c) Aquellos actos relativos al derecho de familia.
- a) acts or contracts that demand a solemnity which cannot be satisfied by electronic means;²⁶
 - b) acts requiring the personal appearance of one of the subscribers;
 - c) acts related to family law.

The Supreme Court also requires that notaries, real estate registration administrators and judicial archives administrators may use electronic signatures, providing they use an advanced electronic signature satisfying the following additional requirements:

- (a) Vincular los datos de verificación de la firma a la identidad del auxiliar, cargo que sirve y la calidad en que lo hace, según los casos, así como el territorio en el cual ejerce su competencia; y,
 - (b) Que tiene como finalidad la suscripción y otorgamiento de documentos electrónicos en ejercicio de la función notarial, conservatoria o de archivero, según corresponda.
- (a) to link the verification data of the signature to the identity of the subscriber, their position and the quality in which the signing party is using it, and the territory where he exercises its competences;

²¹ *Oficio Ordinario N° 3478/109 de 24 de enero de 1996.*

²² *Oficio Ordinario N° 815, de 18.03.2002; Oficio Ordinario N° 213/05, Oficio Ordinario N° 518/24; Oficio Ordinario N° 696/27 of the Direction.*

²³ *‘Los Notarios son ministros de fe pública encargados de autorizar y guardar en su archivo los instrumentos que ante ellos se otorguen, de dar a las partes interesadas los testimonios que pidieren, y de practicar las demás diligencias que la ley les encomiende’.* ‘Notaries are ministers of public faith who are required to authorize and retain the instruments subscribed before their presence, to give the interested parties the testimonies they request, and to undertake other duties as provided by the Organic Code of Tribunals.’

²⁴ *‘Los Conservadores son los Ministros de fe*

encargados de los registros conservatorios de bienes raíces, de comercio, de minas, de accionistas de sociedad propiamente mineras, de asociaciones de canalistas, de prenda agraria, de prenda industrial, de especial de prenda y demás que les encomienden las leyes’. ‘Real state registration administrators are in charge of the administrative registration of landed property, commerce, mines, of shareholders of mine companies, of canal companies, agrarian pawns, industrial pawns, and special pawns, as established by article 446 of the Organic Code of Tribunals’.

²⁵ *‘Los Archiveros son Ministros de fe pública encargados de la custodia de los documentos que establece la ley y de dar a las partes interesadas los testimonios que de ellos pidieren’.* ‘The judicial archives administrator belong to the legal

category of justice administration auxiliaries, defined as functionaries that cooperate with the courts in the exercise of the judicial function; they are also ministers of public faith in charge of keeping the documents established by law, and of giving the interested parties the testimonies they request, as provided on article 453 of the Organic Code of Tribunals.’

²⁶ *An example of a solemnity that cannot be satisfied using an electronic document, is the one established by article 1401 of the Civil Code, which requires that a donation made during life must be authorized by a civil judge. Since the implementation of electronic signatures has not reached the civil courts, this solemnity cannot be provided by an electronic document.*

Of principle concern is that communications between governmental organs involved in criminal proceedings take place by proper means, as provided in the Code.

- and,
 (b) the subscription to the electronic document must indicate the function the signing party performs, such as a notary, real state registration administrator, or judicial archives administrator.

The Administrative Order provides that the officials set out above may electronically submit, using an advanced electronic signature, all the documents allowed by the law, especially authorized copies of public and private documents, registered documents, the certification of digital signatures stamped in their presence, protests and factual verifications relating to registers and acts. However, the Administrative Order requires that the inscription or annotation of titles or documents transmitted by electronic means can be requested, provided the documents were subscribed with an advanced electronic signature by the authority that issues it.

Criminal procedure

In 2000, amendments to criminal procedure in Chile changed the process from one that relied on a written process to that of an oral one, where immediacy became the main principle. As a result, files containing paper documents no longer exist to the same extent as in the past. In this regard, it has been necessary to have an electronic back-up of the pleadings and other instruments, so documents in digital format have increased in importance.

An interesting aspect of applying digital format to criminal procedure is evidenced in the notification of resolutions. The new Criminal Procedure Code requires that notifications that must be provided to an accused that is being detained, must be provided in person wherever the accused is detained, even if the place is located outside of the jurisdictional territory of the court. Delivery must be undertaken by an officer of the detention center, and under the responsibility of the person in charge.²⁷ To achieve this, the court might

send the resolutions by any means of communication, such as facsimile transmission, e-mail, or any other method. In addition, the Code also provides that notification can be carried out by any means accepted by the court if, according to its judgment, the means of communication can be considered efficient, and that it will not cause a lack of a proper defense.²⁸ It is suggested that a systematic interpretation of the rules discussed above will lead to the conclusion that any person might ask for notifications to be sent by e-mail, which implies the use of an electronic signature by the court.

Of principle concern is that communications between governmental organs involved in criminal proceedings take place by proper means, as provided in the Code.²⁹ The provisions relating to the proper means of notification (among which e-mails may potentially be found), is also reflected in the regulation regarding the communications between the public ministry and other persons involved with the procedure, allowing the prosecutor to require the personal appearance of a participant, while investigating, to summon him by any proper means.³⁰

It is considered that the legal regime by which electronic signatures are used will lead to the conclusion that documents sent electronically require the participation of an authorized service provider to certify that the signature is an advanced one, in accordance with the requirement of the Law, as provided for in article 7, which provides as follows:

‘los actos, contratos y documentos de los órganos del Estado, suscritos mediante firma electrónica, serán válidos de la misma manera y producirán los mismos efectos que los expedidos por escrito y en soporte de papel. Con todo, para que tengan la calidad de instrumento público o surtan los efectos propios de éste, deberán suscribirse mediante firma electrónica avanzada’

²⁷ Article 29.

²⁸ Article 31.

²⁹ Article 21 and following.

³⁰ Article 23.

'Acts, contracts and documents of the State organs, subscribed by an electronic signature, will be valid in the same way and have the same effects as if they were written on paper'.

However, for such documents to have the quality of a public instrument, or to produce the effect of a public document, the document must be subscribed by an advanced electronic signature. It is considered that this provision follows the one contemplated in article 1699 of the Civil Code, according to which the public or authentic document is the one that is authorized with the legal solemnities by the competent official. Indeed, given the provisions of article 7, it could be stated that for an act, contract or document of a state organ to have the quality of a public instrument when electronically subscribed, it must satisfy a legal solemnity, such as to be subscribed by an advanced electronic signature. In summary, although the law eases the implementation of electronic signatures by organs of the state - amongst which are the courts of justice, prosecutors, and administration - since there is no requirement to pay an authorized provider to certify the signatures, the certification of the signature may be carried out by the minister of faith official.³¹ In this way, when an official of a state organ subscribes a document with an electronic signature, and it is certified by the same minister of faith, a public instrument has been created, which is validated under the principle of the functionally equivalence of the digital and manuscript signature. This conclusion, it is suggested, also affects the courts of justice.

Electronic signature on the Civil Registry and identification

The use of the 'digital stamp' for the sending of certificates through the internet is a part of the process of the simplification of formalities developed by the Civil Registry and Identification Service in Chile, in the context of improving its management. The project that established it during 2000 envisaged the incorporation of a digital stamp on the documents electronically configured and printed with any printer port. The digital stamp gives the documents the same validity that the traditional documents subscribed by a functionary with

a manuscript stamp and signature. This stamp is a bar-code applied over the document, which is obtained by its own keys.

In 2003, Chileans living abroad were able to send certificates with a digital stamp, which is an initiative that was developed within the framework of the state's Modernization and Improvement Project. Certificates offered abroad are birth, marriage and death certificates, besides several data, and they are delivered within seven days, through the web site of the consulate. To put this concept into effect, the internet office subscribed to an agreement with the Foreign Relations Ministry, which has authorized the use of certificates in the consulate since September 2003. Until that date, the same procedure through the diplomatic communication system took between 30 and 60 days, depending on the location of the consulate from where the request was made. In 2004, the system established further agreements with transactional companies and the banks, because its success depends on the means of payment used, and the information required to enter the transaction.³² Where a document is supported by a certificate linked to an advanced electronic signature, it can then be considered a public document, and will have full evidential value. Nevertheless, the implementation of agreements and systems for its expedition by the Civil Registry and Identification Service is an expression of the planned advance of the government in achieving a full level of 'Electronic Government', where its main principle is the use of electronic signature.

Amendments made to the laws and regulations

Law No. 19.886, on Terms and Conditions of Administrative Agreements for Supply and Service Rendering,³³ has not been modified since its publication. The only amendment introduced to this Law was a modification made to chapter 2, introduced by Law N° 20.088,³⁴ in which reference is made to a new obligation that applies to the authorities that carry out a public function; in particular, they are required to make, in addition to the declaration of interests that already exists, a sworn statement about their patrimony. Law No. 20.088, came into force on January 5, 2006

³¹ Article 9 of the Law states: *La certificación de las firmas electrónicas avanzadas de las autoridades o funcionarios de los órganos del Estado se realizará por los respectivos ministros de fe. 'The certification of advanced electronic signatures of the officers or authorities of the State organs will be undertaken by the respective ministers of faith'.*

³² 'Bitácora e-gov uso de timbre digital en la emisión de certificados' available on the web site of the Chilean government at <http://www.modernizacion.cl/1350/article-68787.html>.

³³ Ley 19.886, Bases sobre Contratos Administrativos de Suministros y Prestación de Servicios.

³⁴ Ley 20.088, Establece como obligatoria la

declaración jurada patrimonial de bienes a las autoridades que ejercen una función pública.

introducing additional parts 4, 5 and 6 to article 4 of Law No. 19.886. These amendments prohibit officials of public agencies, and directors of state owned companies, in contracting with the state administration, and set out the sanctions for doing so.

The administrative regulation of the law was modified by Decree No. 1562 of 2005 (published on April 20, 2006),³⁵ and issued by the Ministry of Finance, which mainly relates to the way in which the resolutions that decide an acquisition must be issued. In addition, on July 22, 2006, the Ministry of Finance published Decree No. 95, approving the administrative regulation of Law No. 18.928,³⁶ by means of which members of the armed forces were able to acquire corporal and incorporeal furniture goods and services, as provided for in Article 38(g) of the law.

Expected modifications

Although Law No. 19.779, on Electronic Documents, Electronic Signature, and Advanced Electronic Signature Certification has not been modified, the Chilean Congress is currently assessing a legal project³⁷ that intends to give certainty about the date incorporated in an electronic document, to enable the document to be used as proof in judicial proceedings. The President of the Republic founded the project by stating that:

‘Por otra parte, es preciso también actualizar la Ley N° 19.799 sobre firma electrónica, pues luego de dos años de operación ha sido posible advertir que la fecha que se incorpora tecnológicamente a los documentos no da certeza respecto de la misma. Por esto, se hace indispensable el reconocimiento de técnicas y medios electrónicos dirigidos de manera directa a lograr dicho resultado. Se trata de herramientas que se encuentran disponibles en el mercado nacional e internacional, y que habitualmente se les conoce con el nombre de ‘Time Stamping’, sellado de tiempo o fecha electrónica, entre otros.

Siguiendo la reciente modificación efectuada en la legislación española al régimen jurídico aplicable a las firmas electrónicas, por medio de la Ley 59/2003, de 19 de diciembre, el proyecto recoge la misma expresión allí utilizada (‘fecha electrónica’) y le confiere un idéntico significado. De esta manera, se

incorpora un mecanismo tecnológico capaz de dar certeza respecto al momento de otorgamiento o suscripción de un acto, contrato o documento.

Como consecuencia de esta innovación, es indispensable adecuar el alcance del artículo 5º de la citada ley, en lo que respecta a los instrumentos privados que se encuentran suscritos mediante firma electrónica avanzada. El proyecto dispone que estos documentos harán plena prueba únicamente respecto al hecho de haberse otorgado y las personas que aparecen interviniendo; la fecha, en cambio, sólo hará plena prueba en la medida que se haya empleado un sistema de fecha electrónica provisto por un certificador de firma electrónica’.³⁸

‘... to update Law No. 19.799, on electronic signature, as – since it came into force - it has shown that there is no certainty about the date technologically incorporated to the electronic documents. Therefore, it is indispensable to recognize the techniques and electronic means intended to do this directly. These tools are available in the national and international markets, and they are usually named as ‘Time Stamping’, time sealing or electronic date, among others. Following the recent modification in the Spanish legislation to the electronic signature law, by the Law 59/2003, of December 19, this project adopts the same expression used (‘electronic date’) with the same meaning. By this way, it is incorporated a technological mechanism which enables to give certainty about the moment an act, contract or document has been executed or given.

As a result of this innovation, it is indispensable to adapt the meaning of Article 5 of the abovementioned law, in relation to private instruments that are subscribed by using advanced electronic signature. The project states that these documents shall make incontrovertible proof only of the facts of being granted and the people that appear intervening; the date, on the other hand, will only make incontrovertible proof when it has been used an electronic date system provided by an electronic signature certifier’

This legal project is on the second stage of

³⁵ Decreto N° 1562, de 2005, Modifica Decreto N° 250, de 2004, que aprueba Reglamento de la Ley N° 19.886, de Bases sobre Contratos Administrativos de Suministro y Prestación de Servicios, publicado en Diario Oficial el

20/04/2006.
³⁶ Reglamento de la ley 18.928, sobre adquisiciones de bienes corporales e incorporeales muebles y servicios de las Fuerzas Armadas y de Orden y Seguridad, 22 de julio de 2006.

³⁷ Bulletin No. 3797-19, March 2, 2005.

³⁸ Bulletin No. 3797-19, March 2, 2005. The full text of the message can be found on the Senate’s web site at <http://www.senado.cl>.

constitutional review. When finishing this stage, the project will be reviewed by the President, who might introduce the observations she considers important (if she does includes observations, the project will return to the Parliament). Once it is approved by the President, and if she introduces modifications that are approved by the Parliament, the project will be promulgated and published as a law.

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