

Developments in Information Governance: The Emergence of Online Notarization

By Tim Reiniger



As Online Notarization: The Virginia Legal Framework Gains Support Throughout the United States

Virginia's Electronic Notaries Act of 2011¹ has provided the legal framework for the growing national adoption of "online notarization" – electronic notarization by means of webcam or audio-video teleconference technology² – wherein a signer who is located anywhere in the world can lawfully "appear" online before a notary public who is physically located in the state of commissioning. And, on

July 31, 2018, the United States Department of the Treasury called for online notarization to be enacted in all states.³

States that also have enacted the Virginia framework, either in whole or substantial part, now include: Montana (2015), Nevada (2017), Texas (2017), Indiana (2018), Tennessee (2018), Minnesota (2018), and Michigan (2018).⁴ In addition, both the Uniform Law Commission's new amendment to the Revised Uniform Law on Notarial Acts of 2018 ("RULONA")⁵ as well as the National Notary Association's Model Electronic Notary Act of 2017 ("MENA")⁶ incorporate the key principles of the Virginia legal framework.

¹ Virginia Chapter 731 of 2011, available at: <http://leg1.state.va.us/cgi-bin/legp504.exe?111+ful+CHAP0731>.

² For purposes of consistency in this article, the term "online notarization" is used. Other descriptors with the same meaning include "remote notarization," "remote electronic notarization," "remote online notarization," "webcam notarization," "electronic notarial acts by means of audio-video communication," and "notarial act performed by remotely located individual."

³ U.S. Department of the Treasury, *A Financial System that Creates Economic Opportunities: Nonbank Financials, Fintech, and Innovation* (July 2018), p. 109 ("Treasury recommends that states yet to authorize electronic and remote online notarization pursue legislation to explicitly permit the application of this technology and the interstate recognition of remotely notarized documents. Treasury recommends that states align laws and regulations to further standardize notarization practices."), available at: <https://home.treasury.gov/sites/default/files/2018-07/A-Financial-System-that-Creates-Economic-Opportunities---Nonbank-Financi...pdf>.

⁴ MONT. CODE ANN. §§ 1-5-601-628; Nevada: (Chapter 15 of 2017 session, effective July 1, 2018) <https://www.leg.state.nv.us/Session/79th2017/Reports/history.cfm?ID=1078>; Texas (Chapter 340 of 2017 session, effective July 1, 2018) <https://capitol.texas.gov/tlodocs/85R/billtext/html/HB01217F.HTM>; Indiana: (P.L. 59-2018, effective July 1, 2019) <https://iga.in.gov/legislative/2018/bills/senate/372>; Tennessee (Chapter 931 of 2018 session, effective July 1, 2019) <https://publications.tnsosfiles.com/acts/110/pub/pc0931.pdf>; Minnesota (Chapter 176 of 2018 session, effective January 1, 2019) https://www.revisor.mn.gov/bills/text.php?version=latest&session=ls90&number=SF0893&session_year=2018&session_number=0; Michigan (PA 330 of 2018, effective September 30, 2018) <https://www.legislature.mi.gov/documents/2017-2018/publicact/pdf/2018-PA-0330.pdf>.

⁵ See the REVISED UNIFORM LAW ON NOTARIAL ACTS (2018), as approved by the Uniform Law Commission on July 25, 2018, available at: http://www.uniformlaws.org/shared/docs/Notarial_Acts/2018AM_NotarialActs_As%20approved.pdf.

⁶ See THE MODEL ELECTRONIC NOTARIZATION ACT (NAT'L NOTARY ASS'N 2017), available at: <https://www.nationalnotary.org/file%20library/nna/reference-library/model-enotarization-act.pdf>.

The MENA has influenced the enactments in Texas, Indiana, Minnesota, and Tennessee as well as the recommended legislative package offered by the American Land Title and Mortgage Bankers Association, available at:

Because of the ephemeral nature of digital data, unlimited copying and geographic locations of digital information, and ubiquity of networks and access to documents, distinguishing between authentic and forged digital records remains a central information governance concern. Therefore, the strategic management of electronic records must be based on reliable evidence of identity, intent, and document integrity.

Online notarization leverages remote communication technologies to improve the information governance role of the notary by: 1) providing strengthened capability of proving document integrity, 2) providing the means of multi-factor proofing of the signer's evidence of legal identity,⁷ and 3) requiring that a recording of each teleconference session be made and retained.

Online Notarization: Six Core Legal Principles

The Virginia framework is built on the foundations of the first online notarization law, which was enacted by Utah in 2000.⁸ Unfortunately, the Utah law was tied to a first in the nation digital signature act that ultimately didn't achieve widespread consumer acceptance and faced concerns about being pre-empted by the technology neutral electronic signature provisions of the federal ESIGN law.⁹ Nevertheless, the Utah online notarization model has provided three enduring principles: 1) use of audio-video communications technology as a basis of personal appearance before a notary, 2) the notary must be physically present in the commissioning state when performing online notarizations, and 3) the notary's required use of encryption technology to render the resulting electronic document tamper-evident.

The Virginia law incorporates the Utah policy principles¹⁰ and adds three others: 1) the signer may be physically located outside of the notary's commissioning jurisdiction,¹¹ 2) the signer's legal identity may be confirmed by means of either the notary's personal knowledge of the signer, a credible witness, or a third-party Identity Provider consistent with national standards for multi-factor identity proofing issued

<https://www.mba.org/audience/state-legislative-and-regulatory-resource-center/remote-online-notarization>. The MENA's influence is particularly evidenced by a requirement for the notarial certificates to indicate the fact that an online notarization was performed.

⁷ Traditionally, standards-based identity proofing is based on three factors consisting of: something you have, know, or are. Multi-factor identity proofing requires a combination of two or more of these.

⁸ Utah Chapter 312 of 2000 (repealed in 2006), *available at*: <https://le.utah.gov/~2000/bills/sbillenr/SB0145.htm> and administrative rule R154-10-502 implementing technical specifications (repealed in 2007), *available at*: https://rules.utah.gov/publicat/bull_pdf/2001/b20010415.pdf.

⁹ ELECTRONIC SIGNATURES IN GLOBAL AND NATIONAL COMMERCE ACT ("ESIGN") (2000), 15 USC §§ 7001 *et seq.*

¹⁰ Virginia law integrates the Utah principles in the following provisions respectively: VA. CODE ANN. § 47.1-2 and § 47.1-15 (A)(1) (policy one); § 47.1-2 (definitional distinctions between 'electronic notarial act' and 'notarial act') and § 47.1-13 (A) (policy two); and, § 47.1-16 (D) (policy three);

¹¹ Pursuant to VA. CODE ANN. § 47.1-13 (D), the online notarial acts are deemed to have taken place in Virginia and under Virginia law.

by the US National Institute of Standards for Technology (“NIST”),¹² and 3) the notary must make and retain a recording of the audio-video online notarization session.¹³ With minor exceptions, seven other states enacting the Virginia framework for online notarization have implemented these six combined core principles.

Principle 1: The Signer May Appear Before the Notary by Means of Audio-Video Communication Technology

With an online notarization, the signer personally appears before the notary via real-time interactive audio-video conference technology and, thereby, invokes the notary’s authority and jurisdiction.¹⁴ Accordingly, enacting laws provide for the legal equivalence between appearance by physical presence and appearance by means of audio-video communication.¹⁵

Principle 2: The Notary Must be Physically Located in the State of Commissioning When Performing Online Notarizations

Notaries must be physically present in their state of commissioning when performing online notarial acts.¹⁶ This is legally important for two reasons. First, a notarial act performed by a notary while outside of the notary’s territorial jurisdiction is void of any legal effect.¹⁷ Second, this ensures that the current interstate recognition statutes with respect to notarial acts throughout the United States will apply to online notarizations in the same manner as they have been applied to traditional paper notarizations.¹⁸

Principle 3: The Notarized Documents Must be Rendered Tamper-Evident

Establishing the authenticity of digital documents requires proof of origin (legal identity of the signer in the case executed documents), content integrity (whether the document has been altered), and time

¹² VA. CODE ANN. § 47.1-2. See the NIST 800-63-3 guidance series for digital identity proofing and verification and digital identity management generally, which govern the Federal PKI Authority and Federal Bridge Certification Authority, *available at*: <https://pages.nist.gov/800-63-3/>.

¹³ VA. CODE ANN. § 47.1-14 (C).

¹⁴ See the Comments to the MENA § 2-1, *infra* note 6, at 5 (“‘Personal appearance’ is the fundamental manner in which principals avail themselves of the jurisdiction, authority, and legal power of a notary public as a public officer.”).

¹⁵ Montana: MONT. CODE ANN. § 1-5-603(7)(a); Nevada: NRS 240.1882; Texas: 121.006(c) Civil Practice and Remedies Code; Indiana: IC 33-42-17-4(b); Tennessee: TCA § 66-22-101(d); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 7(e); Michigan: PA 330 of 2018 Sec 26b(11); RULONA: Section 14A(b); and, MENA: 5A-2.

¹⁶ Montana: MONT. CODE ANN. § 1-5-615(3)(a); Nevada: NRS 240.1993(2); Texas: 406.101(8) Government Code; Indiana: IC 33-42-17-2(g); Tennessee: TCA § 18-16-307(3); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 3(a); Michigan: PA 330 of 2018 Sec 26b(1); RULONA: Section 14A(c); and, MENA: 5A-4(a).

¹⁷ See, e.g. State v. Haase, 530 N.W.2d 617, 619 (Neb. 1995) (Iowa notary could not legally notarize in Nebraska, a state in which he was not commissioned as a notary). However, note that, in the case of paper notarizations, nearly half of the states have historically authorized commissioners of deeds to perform notarizations for recognition in the commissioning state.

¹⁸ Every state currently provides for recognition of other states’ notarial acts. For a list of citations, see the Comment to Sec. 6-3 of the MENA, *infra* note 6, at 40.

of execution or issuance.¹⁹ A critical part of the authentication inquiry is whether safeguards have been implemented to assure the continuing accuracy and integrity of the originally created record.²⁰ Thus identity, integrity, and time, recognized as the three main components of authenticity, must be handled in a fashion that will allow the capability of strong evidentiary tests or proof, in the future, should questions arise.²¹

To prove authenticity and prevent fraudulent alternation, the notary's signature and seal (commission) information must be affixed using technology that renders the electronic signatures and document tamper-evident.²² With an online notarization performed in this matter, any subsequent attempt to modify the electronic document will be detectable to anyone viewing it. Currently, some states have opted to require the notary to use encryption technology, such as in the form of a digital certificate that leverages public key infrastructure (PKI), as the means best suited to render electronic documents tamper-evident.²³

Principle 4: Signer May Be Physically Located Outside of the Notary's Commissioning State

A notary may perform an online notarization with a signer who located outside the physical presence of the notary, regardless of whether the signer is in the same state, a different state or territory, or a different country.²⁴ In all cases, the validity of the online notarial act is governed by the law of the notary's location (i.e. the state of commission).²⁵ For domestic online notarizations, only Montana requires that either the signer or the transaction have a legal nexus.²⁶ For signer's traveling outside of the United States, a number of enacting states as well as the amended RULONA and the MENA require that the notarized document to have a legal nexus to the United States.²⁷

¹⁹ WINN & WRIGHT, THE LAW OF ELECTRONIC COMMERCE § 20.05 (4th ed. Aspen Publishers, Inc. 2007); See generally George L. Paul, The 'Authenticity Crisis' in Real Evidence, 15 THE PRACTICAL LITIGATOR No. 212-13 (2004).

²⁰ See *In re Vinhnee, American Express Travel Related Service Co. Inc. v. Vinhnee*, 336 B.R. 437 (9th Cir. B.A.P. 2005) (proponent failed to authenticate computer generated business records because of an inability to assure content integrity over time).

²¹ GEORGE L. PAUL, FOUNDATIONS OF DIGITAL EVIDENCE (American Bar Association 2008) at 36.

²² Montana: MONT. CODE ANN. § 1-5-615(1)(a); Nevada: NRS 240.199(2); Texas: 406.109(d) Government Code; Indiana: IC 33-42-17 Sec 4(b); Tennessee: TCA § 8-16-309(d); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 1(a) and Subd 6(b); Michigan: PA 330 of 2018 Sec 26b(2)(a) and (b); RULONA: Section 20(a); and, MENA: 5A-4(a).

²³ See, e.g. Virginia Electronic Notarization Assurance Standard, v.1 (January 21, 2013) Section 2.1, available at: <https://www.commonwealth.virginia.gov/media/governorvirginiagov/secretary-of-the-commonwealth/pdf/VAe-NotarizationStandard2013Version10.pdf>.

²⁴ Montana: MONT. CODE ANN. § 1-5-615(3)(a); Nevada: NRS 240.1993; Texas: 406.110(a) Government Code; Indiana: IC 33-42-17-3(e); Tennessee: TCA § 66-22-101(d); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 3(a) and Subd 7(a); Michigan: PA 330 of 2018 Sec 26b(1); RULONA: Section 14A(c); and, MENA: 5A-2.

²⁵ Montana: MONT. CODE ANN. § 1-5-615(3)(a); Nevada: NRS 240.1993(2); Texas: 406.110(a) Government Code; Indiana: IC 33-42-17-3(d),(i) and 33-42-17-12(b); Tennessee: TCA § 18-16-310(d); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 3(b).

²⁶ Montana has the greatest variation in that it requires signers physically located outside of the state to be either Montana residents or non-residents who are seeking an online notarization for use in Montana.

²⁷ RULONA: Section 14A(c)(4); and, MENA: 5A-2.

Principle 5: Capability for Strong Proof of Identity

To ensure that online notarization is reliable and resistant to fraud, the online notary must *confirm* the legal identity of the signer by using one of a selection of strong methods for proving identity: 1) the notary's personal knowledge of the signer; 2) a credible witness who is personally known to both the notary and the signer; or 3) reliance on two factors of identity proofing.²⁸ The first factor is a prior (i.e., antecedent) in-person proofing event²⁹ performed by a third party in connection with the issuance of a credential, such as typically a state driver's license or a passport, combined with validation by means of credential analysis. The second factor is another third-party means of verifying identity, such as successful completion of a dynamic knowledge-based assessment. With respect to the state enactments, nearly all specify the two factors of identity proofing consistent, in whole or part, with the existing national standards issued by NIST.³⁰ Only Montana does not authorize the use of third-party Identity Provider services as a method for confirming the signer's identity.

Online notarization recognizes the reality that, with cloud-based services, signers located outside of the notary's physical presence of the notary can have their identities confirmed online by a notary using common and easily understood software and hardware. Consistent with national identity proofing standards developed by NIST, the notary performing an online notarization will have access to identity providers who can validate credentials by means of either professionally trained personnel or automated processes.³¹ In addition, the online notaries will have access to identity providers equipped to perform various processes, known as identity proofing, for verifying the signer's identity evidence or attributes.

²⁸ Montana: MONT. CODE ANN. § 1-5-615(3)(a); Nevada: NRS 240.1997; Texas: 406.108(a)(5) and 406.110(b) Government Code; Indiana: IC 33-42-17-5; Tennessee: TCA § 8-16-310(b) and § 8-16-308(a)(5); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 4, 5, and 7; Michigan: PA 330 of 2018 Sec 26b(5)(A); RULONA: Section 14A(c)(1); and, MENA: 5A-5 (requiring one factor of identity proofing).

²⁹ As a baseline, NIST 800-63-3 defines "identity" as "[a]n attribute or set of attributes that uniquely describe a subject within a given context" and "identity proofing" as "[t]he process by which a CSP [Credential Service Provider] collects, validates, and verifies information about a person." The term "identity proofing" encompasses a wide variety of methods, including but not limited to antecedent proofing (previously issued digital certificates, government identity credentials, and private sector credentials based on an in-person vetting), credential analysis, biometrics, and dynamic knowledge-based assessment (also known as "KBA").

³⁰ The following enactments, either by express statute or rule-making, to integrate national identity standards from entities such as NIST: VA. CODE ANN. § 47.1-2; MONT. CODE ANN. § 1-5-628(4)(a); Indiana: IC 33-42-16-2(b)(1); Michigan: PA 330 of 2018 Sec 26b(2)(e); Vermont Chapter 160 of 2018 § 5323(b)(1). *See also* RULONA Section 14A(i)(1) and MENA Appendices I and II.

³¹ NIST 800-63A permits validation of identity credentials by means of professionally trained personnel or automated checks with appropriate technologies. However, based on risk determinations, some industries and state rule-makers may opt to require online notarizations that have been performed only with automated credential analysis.

Principle 6: Requirement for Notary to Make an Audio-Video Recording

Online notarization laws require the notary to keep a copy of the recording of the entire audio-video session.³² The recording of each audio-video session must be maintained for a period of years varying from state to state but typically for a minimum of five years the date of the transaction, although notaries (or parties relying on the recordings) may elect to keep the recordings in perpetuity.³³ The online notary or her legal representative must maintain security and control over the recordings even when a custodian has been selected for purposes of storing and backing up the recordings.³⁴ Criminals will most likely be thoroughly deterred by this recordkeeping requirement; after all, what criminal would willingly sit still for a digital recording of his crime?

Current Information Governance Challenges Posed by Online Notarization

Implementation of online notarization has raised a number of new information governance challenges. First, there are ongoing concerns about interstate recognition of online notarizations performed by out-of-state notaries.³⁵ In response to concerns about interstate recognition of electronic notarizations, in 2010 the U.S. Congress unanimously passed an interstate recognition bill that was vetoed by

³² Montana: MONT. CODE ANN. § 1-5-618(4); Nevada: NRS 240.1991(3)(c) and 240.1995; Texas: 408.106 Government Code; Indiana: IC 33-42-17-3(f) and (h); Tennessee: TCA § 8-16-308(a)(6); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 4(b); Michigan: PA 330 of 2018 Sec 26b(6); RULONA: Section 14A(c)(3); and, MENA: 5A-6.

³³ Montana: MONT. CODE ANN. § 1-5-618(4) (ten years); Nevada: NRS 240.1995(4) (seven years); Texas: 408.108(c) Government Code (5 years); Indiana: IC 33-42-17-8(a) (five years); Tennessee: TCA § 8-16-308(a) (five years); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 4(d) (ten years); Michigan: PA 330 of 2018 Sec 26b(9) (ten years); RULONA: Section 14A(f)(ten years recommended); and, MENA: 5A-6 (ten years).

³⁴ VA. CODE ANN. § 47.1-14(E); Montana: MONT. CODE ANN. § 1-5-618(7); Nevada: NRS 240.201(2)(b) and 240.202(2)(a); Texas: 406.108(b) and 406.109(b) Government Code; Indiana: IC 33-42-17-8(a); Tennessee: TCA § 18-16-308(b) and § 18-16-309(b); Minnesota: Minnesota Statutes 2017, § 358.645 Subd 4(c); Michigan: PA 330 of 2018 Sec 26b(2)(b) and (10); RULONA: Section 14A(f); and, MENA: 5A-6(d).

³⁵ Because individual notarial acts and records do not expressly fall within the terms of the Full Faith and Credit Clause of Article IV of the United States Constitution, all states have enacted interstate recognition provisions to ensure enforceability. *See infra* note 18. However, this state-level treatment has proven to be inconsistent with respect to the types of out-of-state notarial acts that are deemed enforceable. For example, Iowa bars recognition of online notarizations. IOWA CODE ANN. § 9B.2(10) (specifying that personal appearance is satisfied only by a physical appearance).

President Obama.³⁶ And now the U.S. Treasury Department appears to be asking Congress to revisit this previous effort.³⁷

Second, with respect to the acceptance for filing or other purposes of electronically notarized documents, questions have been raised as to whether ESIGN and the Uniform Electronic Transactions Act authorize acceptance of paper printouts of the electronically signed documents. In response, the amended RULONA has expressly incorporated authorizing language that some states may opt to enact to ensure acceptance of paper printouts.³⁸

Third, the online notary's duty to maintain the audio-video recording is raising privacy concerns because, under most enactments, the procedures for responding to third-party access requests are unclear. In this respect, online notarization laws have imposed on the notary and her legal representative a duty to enable lawful access to the recording by both signers and third parties, whether for inspection by law enforcement, a commissioning official's request, or in connection with a civil lawsuit investigation.³⁹ In addition, the online notary must have a means of providing certified copies of entries, be able to identify the requesting individual, and complete an entry in the electronic journal for each such access and request for a certified copy. Because of the overall duty to maintain control over the recordings, it is necessary for the notary or her legal representative to know who has access to the recordings and for what purpose.

Fourth, the allocation of liability between the notaries, online notarization signing platforms, and third-party identity providers is unclear. There are a number of common liability concerns facing identity providers that remain ill-defined and uncertain with respect to court treatment. Should identity providers have legal protection if they have complied with the applicable notarial standards to validate credentials that were nonetheless incorrectly issued? What is the liability of an identity provider for an

³⁶ With the "Interstate Recognition of Notarizations Act of 2010" (the "IRON Act"), shepherded by Representative Robert Aderholt of Alabama, the United States Congress sought to establish a uniform national evidence-based approach for ensuring the enforceability of both paper and electronic out-of-state notarial acts. See, H.R. 3808, 111th Cong., 2d Sess., 111 CONG. REC. S7558 (2010) ("Each court that operates under the jurisdiction of a State shall recognize any lawful notarization made by a notary public licensed or commissioned under the laws of a State other than the State where the court is located if...in the case of an electronic record, the seal information is securely attached to, or logically associated with, the electronic record so as to render the record tamper-resistant") available at <http://www.gpo.gov/fdsys/pkg/BILLS-111hr3808enr/pdf/BILLS-111hr3808enr.pdf>. The bill hearing is available at: <https://www.gpo.gov/fdsys/pkg/CHRG-109hhrg26412/html/CHRG-109hhrg26412.htm>. For a discussion of the veto of the Interstate Recognition of Notarizations Act of 2010 ("IRON Act"), see <https://www.secureidnews.com/news-item/iron-act-veto-impacts-national-strategy/>.

³⁷ See *infra* note 3, at 109 ("Treasury further recommends that Congress consider legislation to provide a minimum uniform national standard for electronic and remote online notarizations. Such legislation would facilitate, but not require, this component of a fully digital mortgage process and would provide a greater degree of legal certainty across the country. Federal legislation is not mutually exclusive with continued efforts at the state level to enact a framework governing the use of electronic methods for financial documents requiring notarization.").

³⁸ RULONA Section 4(c) and Section 20(c).

³⁹ Note that Minnesota 358.645 Subd 12(b) permits third-party access to the recording only with the prior consent of the signer or the signer's legal representative.

identity attribute that is incorrectly verified? Who has the liability when a relying party disseminates or provides access to valuable or protected data based on a false identity assertion? Thus far, only Virginia provides statutory grounding and liability clarity concerning private-sector identity providers.⁴⁰

Fifth, there is a concern that some states, whether through statute or rule-making, will too rigidly limit the available approved processes for third-party credential analysis and identity proofing with the result that online services will be foreclosed to many signers such as foreign citizens doing business in the United States, elder citizens, and individuals without a credit history.⁴¹ In addition, administrative rules in states such as Texas, Nevada, Tennessee, and Minnesota, by being statutorily de-coupled from national identity standards issued by NIST, run the risk of undermining efforts at achieving national uniformity along with imposing prescriptive requirements that will be hard to change in response to market changes and technology obsolescence.⁴² Finally, there is a concern that some states, by authorizing only the use of government-issued credentials, will prevent the ability for signers to use emerging private sector identity provider services that leverage the ubiquity of mobile phones and the FIDO authentication standard.⁴³

Online Notarization Looking Forward

The Virginia legal framework for online notarization is now achieving adoption and, thereby, becoming a legal standard throughout the United States. Thus far, nine states have enacted online notarization laws⁴⁴ More states are expected to join this trend next year with the Uniform Law Commission having added authorization language to the RULONA and the United States Department of the Treasury calling for online notarization to be authorized in all states.

The global move toward reliance on electronic signatures and records has driven the need for strategic information governance to establish reliable approaches for proving attribution of electronic signatures and legal identities. Online notarization gives notaries an enhanced ability to prove the authenticity of

⁴⁰ Virginia Chapter 483 of 2015, available at: <https://lis.virginia.gov/cgi-bin/legp604.exe?151+ful+CHAP0483+pdf>.

⁴¹ The Minnesota statute is an example of a rigid approach toward identity proofing by authorizing only automated means of credential analysis. In contrast, the RULONA requires two factors of identity proofing without specifying or limiting the types of processes or technologies that may be used.

⁴² For an example of an industry-specific approach, see the MISMO standard efforts that some states are looking to as an alternative to the NIST guidelines, available at: <http://www.mismo.org/get-started/participate-in-a-mismo-workgroup/remote-online-notarization-dwg>. In contrast, see the Treasury Report, *infra* note 3, at 199: "Treasury supports the efforts of OMB to fully implement the long-delayed U.S. government federated digital identity system. Treasury recommends policies that would restore a public-private partnership model to create an interoperable digital identity infrastructure and identity solutions that comply with NIST guidelines and would reinvigorate the role of U.S. government-certified private sector identity providers, promoting consumer choice and supporting a competitive digital identity marketplace."

⁴³ For information about the FIDO Standards, see <https://fidoalliance.org/>.

⁴⁴ In addition to the nine previously referenced states, this year Vermont enacted a version of RULONA that gave the Secretary of State power to authorize online notarization by means of rule-making (Chapter 160 of 2018) <https://legislature.vermont.gov/bill/status/2018/H.526>. The rules, however, have not yet been issued.

electronic signatures and digital identities. It will be interesting to see whether other nations follow the lead of the United States.

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