SUPREME COURT OF PENNSYLVANIA
COMMITTEE ON RULES OF EVIDENCE

NOTICE OF PROPOSED RULEMAKING

Proposed Amendment of Pa.R.E. 901

The Committee on Rules of Evidence is considering proposing to the Supreme Court of Pennsylvania the amendment of Pennsylvania Rule of Evidence 901 to add a new paragraph (b)(11) to provide an example of authentication of digital evidence for the reasons set forth in the accompanying explanatory report. Pursuant to Pa.R.J.A. No. 103(a)(1), the proposal is being published in the *Pennsylvania Bulletin* for comments, suggestions, or objections prior to submission to the Supreme Court.

Any reports, notes, or comments in the proposal have been inserted by the Committee for the convenience of those using the rules. They neither will constitute a part of the rules nor will be officially adopted by the Supreme Court.

Additions to the text of the proposal are bolded and underlined; deletions to the text are bolded and bracketed.

The Committee invites all interested persons to submit comments, suggestions, or objections in writing to:

Daniel A. Durst, Counsel
Committee on Rules of Evidence
Supreme Court of Pennsylvania
Pennsylvania Judicial Center
PO Box 62635
Harrisburg, PA 17106-2635
FAX: 717.231.9536
evidencerules@pacourts.us

All communications in reference to the proposal should be received by **September 10, 2019**. E-mail is the preferred method for submitting comments, suggestions, or objections; any e-mailed submission need not be reproduced and resubmitted via mail. The Committee will acknowledge receipt of all submissions.

By the Committee on Rules of Evidence,

John P. Krill, Jr.
Chair

SUPREME COURT OF PENNSYLVANIA
COMMITTEE ON RULES OF EVIDENCE

REPORT

Proposed Amendment of Pa.R.E. 901

The Committee on Rules of Evidence is considering amendment of Pennsylvania Rule of Evidence 901 to add a new paragraph (b)(11) to provide an example of evidence for the authentication of digital evidence. The Committee's initial consideration of this issue arose from its review of *Commonwealth v. Koch*, 106 A.3d 705 (Pa. 2014) (plurality) and the lack of rules-based guidance for resolving authentication questions involving attributed-authorship of digital evidence.

Authorship is a component of authentication when the proponent intends to attribute authorship to a person. The Comment to Pa.R.E. 901 indicates such: "When a party offers evidence contending either expressly or impliedly that the evidence is connected with a person, place, thing, or event, the party must provide evidence sufficient to support a finding of the contended connection."

Attribution can be established either by direct or circumstantial evidence. Direct evidence to connect digital evidence with the author may be from a person who witnessed the author construct and transmit the digital evidence. It may also include the author's admission. The more perplexing issue is the quantum of circumstantial evidence necessary to attribute authorship of digital evidence.

The Committee previously proposed rulemaking to provide such guidance at 46 Pa.B. 3795 (July 16, 2016). The proposal provided examples of authentication through the testimony of persons with knowledge and by circumstantial evidence involving content or the exclusivity of ownership, access, or possession of the device or account at the relevant time. Upon further review, the Committee has refined its earlier proposal and now solicits comments.

Generally, the requirement of authentication is satisfied when the judge determines there is sufficient proof so that a reasonable juror could find in favor of authentication or identification. *See* Pa.R.E. 901(a); Pa.R.E. 104 (Preliminary Questions); *see also Sublet v. State*, 113 A.3d 695, 718 (M.D. 2015) (collecting cases). The growing national consensus is that digital evidence can be authenticated using the existing rules:

> Courts and legal commentators have reached a virtual consensus that, although rapidly developing electronic communications technology often presents new and protean issues with respect to the admissibility of

> electronically generated, transmitted and/or stored information, including information found on social networking web sites, the rules of evidence already in place for determining authenticity are at least generally "adequate to the task."

Tienda v. State, 358 S.W.3d 633, 638–39 (Tex. Crim. App. 2012) (footnote omitted); *see also In re F.P.,* 878 A.2d 91, 95-96 (Pa. Super. 2005).

While jurisdictions have relied upon existing, identically worded authentication rules, namely Rule of Evidence 901, to authenticate digital evidence, the jurisdictions have applied the rules differently. The authentication of digital evidence has developed into several approaches. "The Maryland Approach" and "The Texas Approach" are at opposite ends of the spectrum:

> [The] Maryland Approach courts are skeptical of social media evidence, finding the odds too great that someone other than the alleged author of the evidence was the actual creator. The proponent must therefore affirmatively disprove the existence of a different creator in order for the evidence to be admissible.
>
> Courts following the Texas Approach are seen as more lenient in determining what amount of evidence a "reasonable juror" would need to be persuaded that the alleged creator did create the evidence. The burden of production then transfers to the objecting party to demonstrate that the evidence was created or manipulated by a third party.

Wendy Angus-Anderson, *Authenticity and Admissibility of Social Media Website Printouts*, 14 Duke L. & Tech. Rev. 33, 37-38 (2015) (footnotes omitted); *see also Parker v. State*, 85 A.3d 682 (Del. 2014).

A middle ground has evolved: "The Massachusetts Approach." This approach is neither the heightened proof of no one else being the author (Maryland) nor the lower proof of sufficient evidence for a reasonable juror to determine authorship (Texas); rather, it is a "reasonable juror plus" standard. *See* John T. Lee *et al., Status Update on Authenticating Social Media Evidence: The Three Primary Approaches Applied Nationally*, 2 NAGTRI J. 2, 6 (2017).

> Evidence that the defendant's name is written as the author of an e-mail or that the electronic communication originates from an e-mail or a social networking Web site such as Facebook or MySpace that bears the defendant's name is not sufficient alone to authenticate the electronic communication as having been authored or sent by the defendant. There must be some "confirming circumstances" sufficient for a reasonable jury

> to find by a preponderance of the evidence that the defendant authored the e-mails.

Commonwealth v. Purdy, 945 N.E.2d 372, 381 (Mass. 2011) (internal citations omitted). The "reasonable juror plus" standard requires not only sufficient evidence for a reasonable juror to attribute the digital evidence to the purported author, but also "confirming circumstances" showing authorship.

In *Commonwealth v. Koch*, 106 A.3d 705 (Pa. 2014), the opinion in support of affirmance eschewed the Massachusetts Approach ("This is not an elevated form of '*prima facie* plus' standard or imposition of an additional requirement."), although it required corroboration of authorship of text messages. *See id.* at 714. An opinion in support of reversal contended that authorship went to the weight of the evidence, not authentication, see *id.* at 721-22, while another opinion in support of reversal aligned more closely with the view that authorship is a relevant consideration in most electronic communication authentication matters, see *id.* at 717.

The Committee does not believe that the authentication of digital evidence requires a heightened standard of proof; the *prima facie* standard applies. *See* Pa.R.E. 901(a). However, Pennsylvania case law is developing with regard to the type of circumstantial evidence used to authenticate digital evidence. Mere evidence of ownership of an account no longer appears adequate to attribute authorship of digital evidence. For example, in *Commonwealth v. Mangel*, 181 A.3d 1154 (Pa. Super. 2018), the prosecution tried to attribute Facebook postings to the defendant by showing the account bore the defendant's name, hometown, and high school. Citing *In re F.P.*, 878 A.2d 91 (Pa. Super. 2005) and *Commonwealth v. Koch*, 39 A.3d 996 (Pa. Super. 2011), and relying upon *U.S. v. Browne*, 834 F.3d 403 (3rd Cir. 2016), the Superior Court held that a proponent of text messages and social media must present direct or circumstantial evidence to corroborate the identity of the author of the communication. Citing other jurisdictions' precedent, the Superior Court concluded that the mere fact that an electronic communication facially appears to have originated from a certain person's account is generally insufficient to attribute the communication to the author. *Cf. State v. Hannah*, 151 A.3d 99, 107 (N.J. Super. 2016) (court holding that identity similarities, including Twitter handle and profile picture, and content containing information known by the sender and its nature as a reply to be sufficient to connect a Tweet to the author).

The authentication of digital evidence with circumstantial evidence is nuanced. The use of circumstantial evidence of content ("attribution by content") appears distinct from the use of circumstantial evidence of ownership of, possession of, control of, or access to a device or account ("attribution by device or account") to attribute digital evidence to an author. With "attribution by content," the content of the digital evidence itself is used to connect it to the author. This concept that connectivity can be proven

circumstantially through content, similar to Rule 901(b)(4), is not new with regard to digital evidence. *See, e.g., U.S. v. Siddiqui*, 235 F.3d 1318 (11th Cir. 2000) and *Massimo v. State*, 144 S.W.3d 210 (Tex. App. 2004).

The Committee believes that "attribution by content" can be a means of attributing authorship. There may be words or statements in the content of digital evidence that establish *prima facie* evidence sufficient for the jury to decide authorship. This is consistent with Pa.R.E. 901(b)(4). However, the Committee is mindful of appropriated identity concerns. Therefore proposed paragraph (b)(11)(B)(i) specifies "identifying content" of digital evidence rather than reiterating the more inclusive language of Pa.R.E. 901(b)(4). This was intended to exclude evidence of the device or account when making a content-only authentication determination involving authorship. Further, it was intended to emphasize "identity" and focus less on potentially imitated appearance and patterns contained within the evidence.

With "attribution by device or account," the ownership, possession, control, or access of the device or account is used to connect the digital evidence to the author. For example, the ownership of a cellular telephone is used to attribute the owner as the author of a text message sent from the telephone number associated with the telephone. Connecting digital evidence to a person or entity as the author based solely on a device or account when the substance of the digital evidence does not contain distinctive characteristics may be a cause of uneasiness. There are concerns about false attribution when devices are shared, accounts were unsecure, or exclusive access was otherwise compromised. Relatedly, the issue of "spoofing" arises wherein another may masquerade as the author by appropriating the author's identity even though the author's account or device remains secure.

The Committee believes that "attribution by device or account" has a role in authentication, but with respect to Pennsylvania case law, proposed paragraph (b)(11)(B)(ii) contains a requirement for corroboration by circumstances indicating authorship. In considering language, the Committee rejected evidence of "sole" ownership, possession, control, or access to authenticate digital evidence. Such a standard appeared near impossible to prove in some matters. Instead, the proponent would need to show sufficient proof of ownership of, possession of, control of, or access to a device or account at the relevant time for a reasonable juror to make a finding, as well as corroborating circumstances indicating authorship, which can include content-related evidence, the strength of which may not be sufficient to authenticate the digital evidence.

The proposal does not alter the quantum of evidence for authentication; rather it illustrates the nature of the evidence sufficient for a finding of attribution. All comments, concerns, and suggestions concerning this proposal are welcome.

ARTICLE IX. AUTHENTICATION AND IDENTIFICATION

Rule 901. Authenticating or Identifying Evidence

(a) In General. To satisfy the requirement of authenticating or identifying an item of evidence, the proponent must produce evidence sufficient to support a finding that the item is what the proponent claims it is.

(b) Examples. The following are examples only – not a complete list – of evidence that satisfies the requirement:

(1) Testimony of a Witness with Knowledge. Testimony that an item is what it is claimed to be.

(2) Nonexpert Opinion about Handwriting. A nonexpert's opinion that handwriting is genuine, based on a familiarity with it that was not acquired for the current litigation.

(3) Comparison by an Expert Witness or the Trier of Fact. A comparison with an authenticated specimen by an expert witness or the trier of fact.

(4) Distinctive Characteristics and the Like. The appearance, contents, substance, internal patterns, or other distinctive characteristics of the item, taken together with all the circumstances.

(5) Opinion About a Voice. An opinion identifying a person's voice – whether heard firsthand or through mechanical or electronic transmission or recording – based on hearing the voice at any time under circumstances that connect it with the alleged speaker.

(6) Evidence About a Telephone Conversation. For a telephone conversation, evidence that a call was made to the number assigned at the time to:

(A) a particular person, if circumstances, including self-identification, show that the person answering was the one called; or

(B) a particular business, if the call was made to a business and the call related to business reasonably transacted over the telephone.

(7) Evidence About Public Records. Evidence that:

(A) a document was recorded or filed in a public office as authorized by law; or

(B) a purported public record or statement is from the office where items of this kind are kept.

(8) Evidence About Ancient Documents or Data Compilations. For a document or data compilation, evidence that it:

(A) is in a condition that creates no suspicion about its authenticity;

(B) was in a place where, if authentic, it would likely be; and

(C) is at least 30 years old when offered.

(9) Evidence About a Process or System. Evidence describing a process or system and showing that it produces an accurate result.

(10) Methods Provided by a Statute or a Rule. Any method of authentication or identification allowed by a statute or a rule prescribed by the Supreme Court.

(11) Digital Evidence. To connect digital evidence with a person or entity:

(A) direct evidence such as testimony of a person with personal knowledge; or

(B) circumstantial evidence such as:

(i) identifying content; or

(ii) proof of ownership of, possession of, control of, or access to a device or account at the relevant time when corroborated by circumstances indicating authorship.

Comment

Pa.R.E. 901(a) is identical to F.R.E. 901(a) and consistent with Pennsylvania law. The authentication or identification requirement may be expressed as follows: When a party offers evidence contending either expressly or impliedly that the evidence is connected with a person, place, thing, or event, the party must provide evidence sufficient to support a finding of the contended connection. *See Commonwealth v.*

Hudson, **[489 Pa. 620,]** 414 A.2d 1381 (**Pa.** 1980); *Commonwealth v. Pollock*, **[414 Pa. Super. 66,]** 606 A.2d 500 (**Pa. Super.** 1992).

In some cases, real evidence may not be relevant unless its condition at the time of trial is similar to its condition at the time of the incident in question. In such cases, the party offering the evidence must also introduce evidence sufficient to support a finding that the condition is similar. Pennsylvania law treats this requirement as an aspect of authentication. *See Commonwealth v. Hudson*, **[489 Pa. 620,]** 414 A.2d 1381 (**Pa.** 1980).

Demonstrative evidence such as photographs, motion pictures, diagrams and models must be authenticated by evidence sufficient to support a finding that the demonstrative evidence fairly and accurately represents that which it purports to depict. *See Nyce v. Muffley*, **[384 Pa. 107,]** 119 A.2d 530 (**Pa.** 1956).

Pa.R.E. 901(b) is identical to F.R.E. 901(b).

Pa.R.E. 901(b)(1) is identical to F.R.E. 901(b)(1). It is consistent with Pennsylvania law in that the testimony of a witness with personal knowledge may be sufficient to authenticate or identify the evidence. *See Commonwealth v. Hudson*, **[489 Pa. 620,]** 414 A.2d 1381 (**Pa.** 1980).

Pa.R.E. 901(b)(2) is identical to F.R.E. 901(b)(2). It is consistent with 42 Pa.C.S. § 6111, which also deals with the admissibility of handwriting.

Pa.R.E. 901(b)(3) is identical to F.R.E. 901(b)(3). It is consistent with Pennsylvania law. When there is a question as to the authenticity of an exhibit, the trier of fact will have to resolve the issue. This may be done by comparing the exhibit to authenticated specimens. *See Commonwealth v. Gipe*, **[169 Pa. Super. 623,]** 84 A.2d 366 (**Pa. Super.** 1951) (comparison of typewritten document with authenticated specimen). Under this rule, the court must decide whether the specimen used for comparison to the exhibit is authentic. If the court determines that there is sufficient evidence to support a finding that the specimen is authentic, the trier of fact is then permitted to compare the exhibit to the authenticated specimen. Under Pennsylvania law, lay or expert testimony is admissible to assist the jury in resolving the question. *See, e.g.*, 42 Pa.C.S. § 6111.

Pa.R.E. 901(b)(4) is identical to F.R.E. 901(b)(4). Pennsylvania law has permitted evidence to be authenticated by circumstantial evidence similar to that discussed in this illustration. The evidence may take a variety of forms including: evidence establishing chain of custody, see *Commonwealth v. Melendez*, **[326 Pa. Super. 531,]** 474 A.2d 617 (**Pa. Super.** 1984); evidence that a letter is in reply to an earlier communication, see *Roe v. Dwelling House Ins. Co. of Boston*, **[149 Pa. 94,]** 23

A. 718 (**Pa.** 1892); testimony that an item of evidence was found in a place connected to a party, see *Commonwealth v. Bassi*, **[284 Pa. 81,]** 130 A. 311 (**Pa.** 1925); a phone call authenticated by evidence of party's conduct after the call, see *Commonwealth v. Gold*, **[123 Pa. Super. 128,]** 186 A. 208 (**Pa. Super.** 1936); and the identity of a speaker established by the content and circumstances of a conversation, see *Bonavitacola v. Cluver*, **[422 Pa. Super. 556,]** 619 A.2d 1363 (**Pa. Super.** 1993).

Pa.R.E. 901(b)(5) is identical to F.R.E. 901(b)(5). Pennsylvania law has permitted the identification of a voice to be made by a person familiar with the alleged speaker's voice. *See Commonwealth v. Carpenter*, **[472 Pa. 510,]** 372 A.2d 806 (**Pa.** 1977).

Pa.R.E. 901(b)(6) is identical to F.R.E. 901(b)(6). This paragraph appears to be consistent with Pennsylvania law. *See Smithers v. Light*, **[305 Pa. 141,]** 157 A. 489 (**Pa.** 1931); *Wahl v. State Workmen's Ins. Fund*, **[139 Pa. Super. 53,]** 11 A.2d 496 (**Pa. Super.** 1940).

Pa.R.E. 901(b)(7) is identical to F.R.E. 901(b)(7). This paragraph illustrates that public records and reports may be authenticated in the same manner as other writings. In addition, public records and reports may be self-authenticating as provided in Pa.R.E. 902. Public records and reports may also be authenticated as otherwise provided by statute. *See* Pa.R.E. 901(b)(10) and its Comment.

Pa.R.E. 901(b)(8) differs from F.R.E. 901(b)(8), in that the Pennsylvania Rule requires thirty years, while the Federal Rule requires twenty years. This change makes the rule consistent with Pennsylvania law. *See Commonwealth ex rel. Ferguson v. Ball*, **[277 Pa. 301,]** 121 A. 191 (**Pa.** 1923).

Pa.R.E. 901(b)(9) is identical to F.R.E. 901(b)(9). There is very little authority in Pennsylvania discussing authentication of evidence as provided in this illustration. The paragraph is consistent with the authority that exists. For example, in *Commonwealth v. Visconto*, **[301 Pa. Super. 543,]** 448 A.2d 41 (**Pa. Super.** 1982), a computer print-out was held to be admissible. In *Appeal of Chartiers Valley School District*, **[67 Pa. Cmwlth. 121,]** 447 A.2d 317 (**Pa. Cmwlth.** 1982), computer studies were not admitted as business records, in part, because it was not established that the mode of preparing the evidence was reliable. The court used a similar approach in *Commonwealth v. Westwood*, **[324 Pa. 289,]** 188 A. 304 (**Pa.** 1936) (test for gun powder residue) and in other cases to admit various kinds of scientific evidence. *See Commonwealth v. Middleton*, **[379 Pa. Super. 502,]** 550 A.2d 561 (**Pa. Super.** 1988) (electrophoretic analysis of dried blood); *Commonwealth v. Rodgers*, **[413 Pa. Super. 498,]** 605 A.2d 1228 (**Pa. Super.** 1992) (results of DNA/RFLP testing).

Pa.R.E. 901(b)(10) differs from F.R.E. 901(b)(10) to eliminate the reference to Federal law and to make the paragraph conform to Pennsylvania law.

Pa.R.E. 901(b)(11) has no counterpart in the Federal Rules of Evidence. "Digital evidence," as used in this rule, is intended to include a communication, statement, or image existing in an electronic medium. This includes emails, text messages, social media postings, and images. The rule illustrates the manner in which digital evidence may be attributed to the author.

The proponent of digital evidence is not required to prove that no one else could be the author. Rather, the proponent must produce sufficient evidence to support a finding that a particular person or entity was the author. *See* Pa.R.E. 901(a).

Direct evidence under Pa.R.E. 901(b)(11)(A) may also include an admission by a party-opponent.

Circumstantial evidence of identifying content under Pa.R.E. 901(b)(11)(B)(i) may include self-identification or other distinctive characteristics, including a display of knowledge only possessed by the author. Circumstantial evidence of content may be sufficient to connect the digital evidence to its author.

Circumstantial evidence of ownership, possession, control, or access of or to a device or account alone is insufficient for authentication of authorship of digital evidence under Pa.R.E. 901(b)(11)(B)(ii). *See, e.g., Commonwealth v. Mangel*, 181 A.3d 1154, 1163 (Pa. Super. 2018) (social media account bearing defendant's name, hometown, and high school was insufficient to authenticate the online and mobile device chat messages as having been authored by defendant). However, this evidence is probative in combination with other evidence of the author's identity.

Expert testimony may also be used for authentication purposes. *See, e.g., Commonwealth v. Manivannan*, 186 A.3d 472 (Pa. Super. 2018).

There are a number of statutes that provide for authentication or identification of various types of evidence. *See, e.g.*, 42 Pa.C.S. § 6103 (official records within the Commonwealth); 42 Pa.C.S. § 5328 (domestic records outside the Commonwealth and foreign records); 35 P.S. § 450.810 (vital statistics); 42 Pa.C.S. § 6106 (documents filed in a public office); 42 Pa.C.S. § 6110 (certain registers of marriages, births and burials records); 75 Pa.C.S. § 1547(c) (chemical tests for alcohol and controlled substances); 75 Pa.C.S. § 3368 (speed timing devices); 75 Pa.C.S. § 1106(c) (certificates of title); 42

Pa.C.S. § 6151 (certified copies of medical records); 23 Pa.C.S. § 5104 (blood tests to determine paternity); 23 Pa.C.S. § 4343 (genetic tests to determine paternity).

Note: Adopted May 8, 1998, effective October 1, 1998; rescinded and replaced January 17, 2013, effective March 18, 2013**; adopted , 2019, effective , 2019**.

Committee Explanatory Reports:

Final Report explaining the January 17, 2013 rescission and replacement published with the Court's Order at 43 Pa.B. 651 (February 2, 2013).

Final Report explaining the , 2019 amendment published with the Court's Order at 49 Pa.B. (, 2019).