

Admissibility of Evidence in Federal Court

HON. PAUL W. GRIMM, US DISTRICT COURT JUDGE, DISTRICT OF MARYLAND, AND GREGORY P. JOSEPH, JOSEPH HAGE ARONSON LLC, WITH PRACTICAL LAW LITIGATION

Is the item **relevant** under Federal Rule of Evidence (FRE) 401?

See Practice Note, Evidence in Federal Court: Basic Principles: Evidence Must Be Relevant.

YES

NO

The item is inadmissible.

Is the item **excluded from evidence** by:

- The United States Constitution?
- A federal statute?
- The FRE, such as because the item is impermissible evidence of:
 - character or "bad acts" under FRE 404?
 - habit under FRE 406?
 - subsequent remedial measures under FRE 407?
 - a settlement agreement or negotiations under FRE 408?
 - a person or entity's payment of another person's medical or similar expenses under FRE 409?
 - plea negotiations under FRE 410?
 - liability insurance under FRE 411?
- Other rules prescribed by the United States Supreme Court?
(FRE 402.)

NO

YES

The item is inadmissible.

Is the item **protected from disclosure** by either:

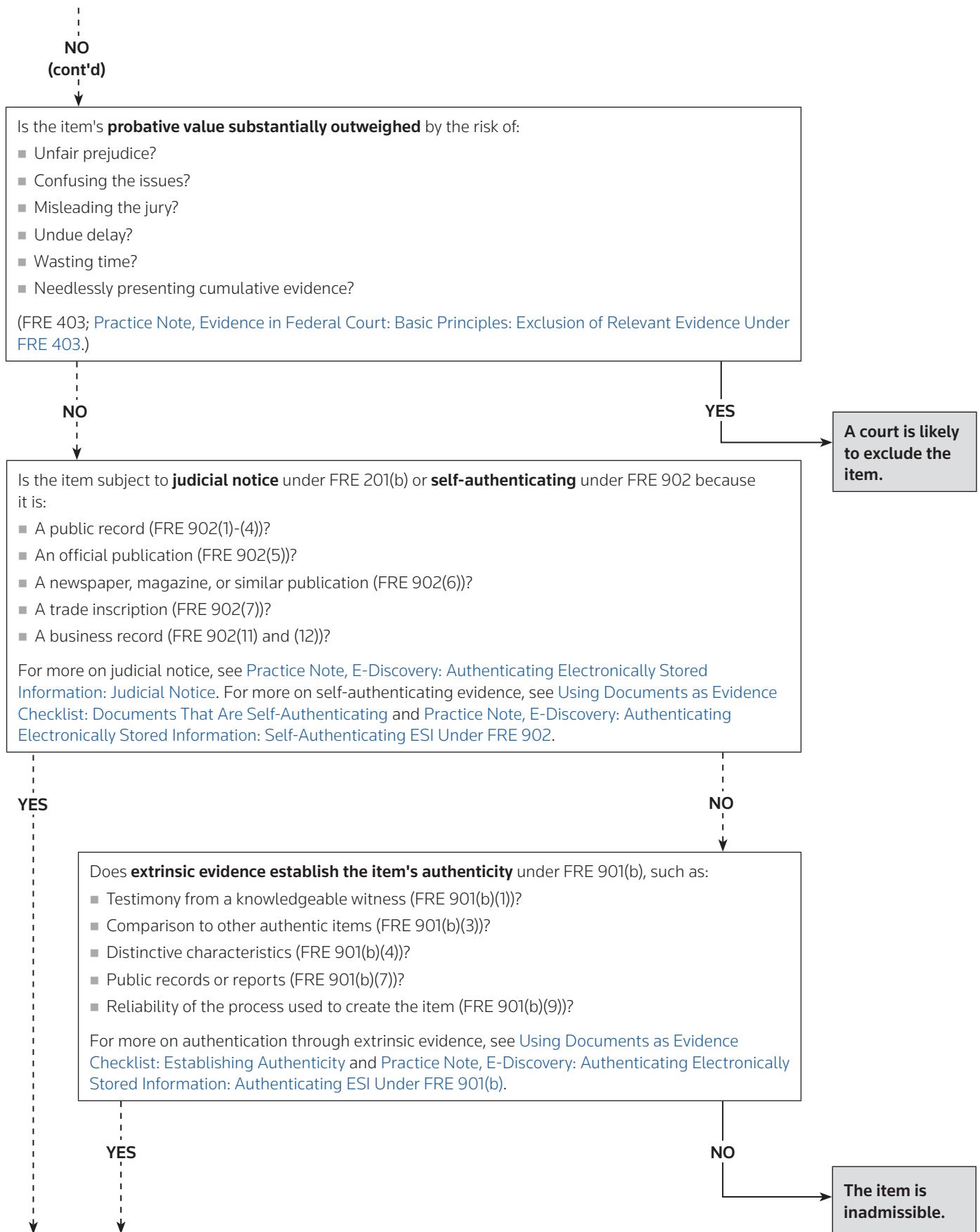
- The **attorney-client privilege**?
- The **work product doctrine**?

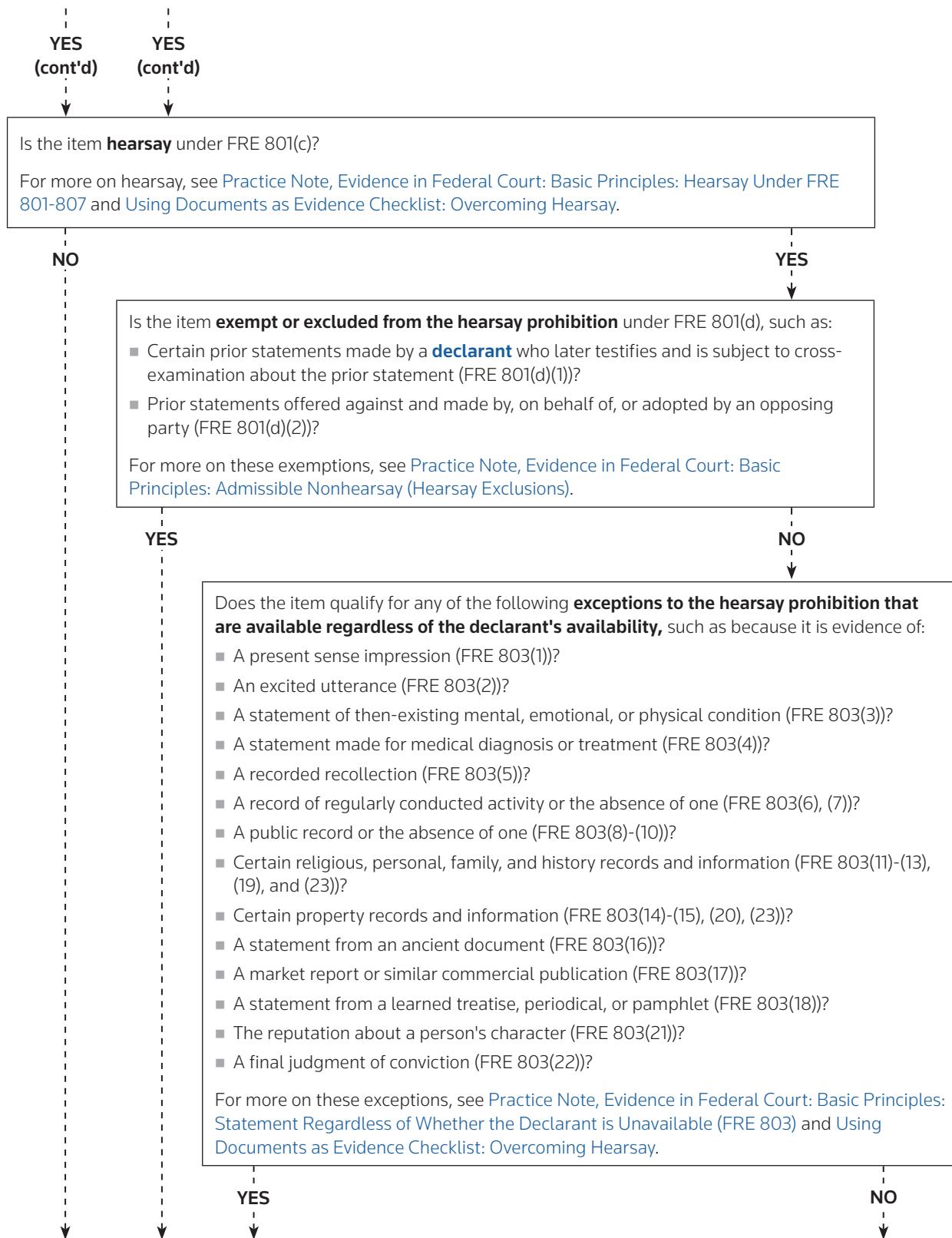
For more on the attorney-client privilege and the work product doctrine, see [Attorney-Client Privilege and Work Product Doctrine Toolkit](#).

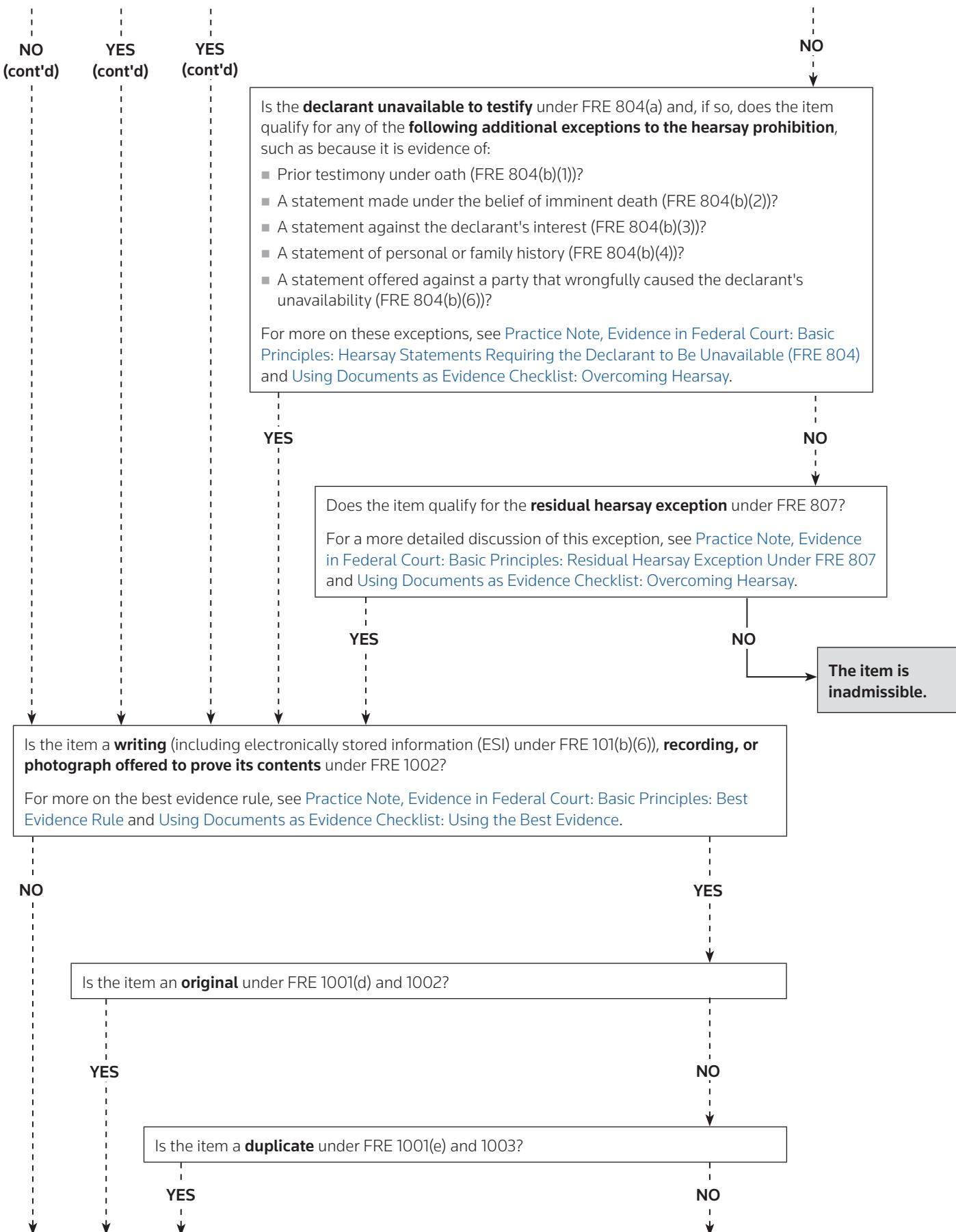
NO

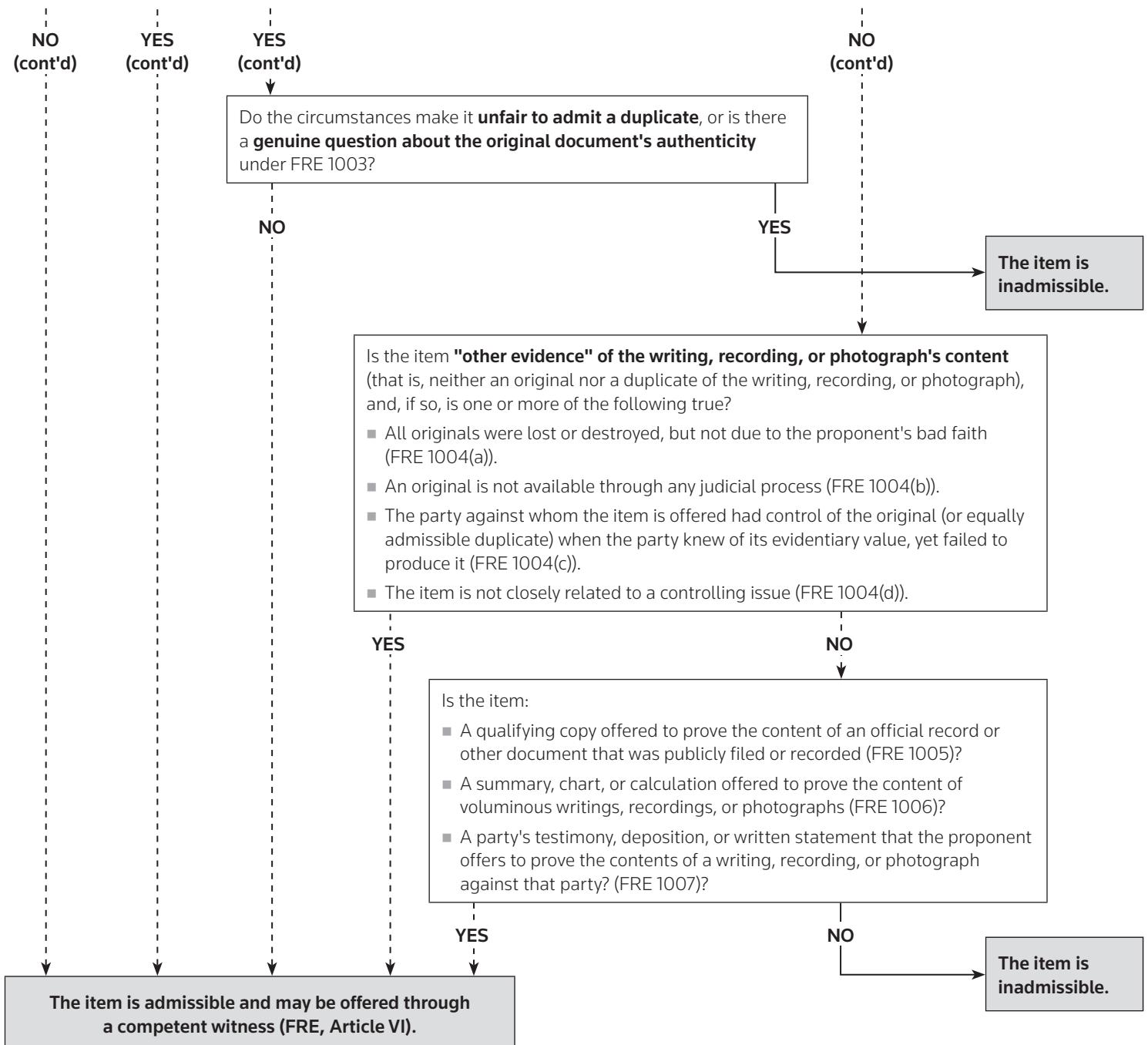
YES

The item is inadmissible.







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E-Discovery: Authenticating Common Types of ESI Chart

HON. PAUL W. GRIMM, US DISTRICT COURT JUDGE, DISTRICT OF MARYLAND, AND GREGORY P. JOSEPH,
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While all authentication methods recognized by the Federal Rules of Evidence (FRE) are available to authenticate electronically stored information (ESI), some methods apply to ESI more easily than others. This Chart provides a snapshot of the methods that counsel most often use to authenticate common types of ESI.

	Emails and Text Messages	Chat Room or Instant Messages	Social Media Postings	Websites	YouTube, Voicemail, and Other Audio and Video Recordings	Databases
FRE 901(b)(1) (witness with personal knowledge)	See Authenticate Email and Text Messages	See Authenticate Chat Room or Instant Message (IM) Communications	See Authenticate Social Media Postings	See Authenticate Websites	See Establish That a Recording is Unaltered	See Authenticate Databases
FRE 901(b)(3) (comparison with other authenticated evidence)	See Authenticate Email and Text Messages				See Authenticate YouTube, Voicemail, and Other Audio and Video Recordings	
FRE 901(b)(4) (circumstantial evidence)	See Authenticate Email and Text Messages	See Authenticate Chat Room or Instant Message (IM) Communications	See Authenticate Social Media Postings	See Authenticate Websites	See Authenticate YouTube, Voicemail, and Other Audio and Video Recordings	
FRE 901(b)(5) (familiarity with voice)					See Establish Speaker Identity	
FRE 901(b)(9) (accuracy of recording process)	See Authenticate Email and Text Messages	See Authenticate Chat Room or Instant Message (IM) Communications	See Authenticate Social Media Postings	See Authenticate Websites	See Establish That a Recording is Unaltered	See Authenticate Databases
FRE 902(5) (public authorities' publications)				See Authenticate Websites		

	Emails and Text Messages	Chat Room or Instant Messages	Social Media Postings	Websites	YouTube, Voicemail, and Other Audio and Video Recordings	Databases
FRE 902(6) (newspapers and periodicals)				See Authenticate Websites		
FRE 902(11) and (12) (business records)	See Authenticate Email and Text Messages	See Authenticate Chat Room or Instant Message (IM) Communications	See Authenticate Social Media Postings	See Authenticate Websites	See Authenticate YouTube, Voicemail, and Other Audio and Video Recordings	See Authenticate Databases
FRE 201(b) (judicial notice)				See Authenticate Websites		
Implicit Authentication by Production	See Practice Note, E-Discovery: Authenticating Electronically Stored Information: Authentication by Production (w-002-6960)					

For more information on these authentication methods, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Ways to Authenticate ESI ([w-002-6960](#)).

AUTHENTICATE EMAIL AND TEXT MESSAGES

To authenticate an email or text message, counsel may rely on:

- The testimony of a witness with personal knowledge that the message is what counsel claims it is (FRE 901(b)(1)). This witness may be:
 - the sender (or author) of the message; or
 - an individual who observed the sender writing the message (see *United States v. Fluker*, 698 F.3d 988, 999 (7th Cir. 2012)).
- A comparison of the message with other authenticated evidence, such as another message that:
 - resembles the proffered message in a relevant manner; and
 - the court has found to be authentic.

(FRE 901(b)(3); see *United States v. Safavian*, 435 F. Supp. 2d 36, 40 (D.D.C. 2006).)

- Circumstantial evidence regarding the message's:
 - appearance, such as the presence of the purported sender's email address on the message;
 - content, such as information in the message known to a small group of people that includes the purported sender;
 - internal patterns, such as the use of the nicknames or other abbreviations in the message; or
 - other distinctive characteristics.

(FRE 901(b)(4); see *Lorraine v. Markel Am. Ins. Co.*, 241 F.R.D. 534, 546 (D. Md. 2007).)

- The accuracy of the electronic recordation system (such as a server) to disprove a claim that a proffered message has been altered, which can be established by showing that:
 - all texts sent from the subject device are saved on a server; and

- the server is secure, so files on the server cannot be edited or manipulated.

(FRE 901(b)(9).)

- The message itself as a self-authenticating business record if a qualified person (such as the person who created the record, a person who developed and implemented the business practice that lead to its creation, or the records custodian) certifies that it was:
 - created by someone with knowledge of the subject event at or near the time of the event as part of an ordinary business activity; and
 - kept in the course of ordinary business activity.

(FRE 803(6) and 902(11), (12).)

For more information on authentication under FRE 901(b) and 902, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Ways to Authenticate ESI ([w-002-6960](#)).

ESTABLISH THE SENDER'S IDENTITY

If another party disputes the identity of the sender of an email or text message, counsel may rely on:

- The headers (to, from, and date fields) and footers (electronic signatures) of the message. Examples of this evidence include:
 - for emails, the purported sender's known email address appears in the "From" header field or in the electronic signature (see *Hardin v. Belmont Textile Mach. Co.*, 2010 WL 2293406, at *5 (W.D.N.C. June 7, 2010));
 - for emails, that the purported sender had access to the email account used to send the email at the relevant time (see *Fluker*, 698 F.3d at 999);

- for texts, the telephone number listed as the sender of the text is the purported sender's known telephone number or is a telephone number to which the purported sender had access at the relevant time; or
- for texts, the sender's name (as stored in the recipient's phone and displayed on the face of the subject text) is the purported sender's name, initials, nickname, or moniker.

(FRE 901(b)(4).)

- The body of the message, such as:
 - the purported sender's use of initials, a nickname, a screen name, an alias, or a moniker (see *United States v. Brinson*, 772 F.3d 1314 (10th Cir. 2014) and *Lorraine*, 241 F.R.D. at 546);
 - the purported sender's customary use of emojis or emoticons;
 - a writing style that is similar or identical to the purported sender's manner of writing; or
 - content known only to the purported sender or a small subset of individuals that includes the purported sender, such as contact information for relatives or loved ones, photos of the sender or the sender's possessions, or the sender's personal information (see *Rowe v. DPI Specialty Foods, Inc.*, 2015 WL 3533844, at *4 n. 28 (D. Utah June 4, 2015)).

(FRE 901(b)(4).)

- Details about the device on which the subject message was found, for example:
 - the purported sender owned or possessed the device on which the messages were located (see *United States v. Mebratu*, 543 F. App'x 137, 140-41 (3d Cir. 2013) and *United States v. Lundy*, 676 F.3d 444, 454 (5th Cir. 2012));
 - the device contains other emails or texts that are linked to the purported sender by name, email address, phone number, or other information (see *Mebratu*, 543 F. App'x at 140-41); or
 - the device contains other messages for which authorship was sufficiently authenticated.

(FRE 901(b)(4).)

- Forensic information that supports a finding that the purported sender sent the subject message, such as:
 - an email's hash values (*Lorraine*, 241 F.R.D. at 546-47); or
 - testimony from a forensic expert that the email or text metadata reveals that it was sent from a particular device when the purported sender possessed the device.

(FRE 901(b)(4).)

- Information beyond the message itself, including that the purported sender:
 - told the recipient to expect a message before its arrival;
 - orally repeated the contents to the recipient soon after the message was sent;
 - discussed the contents of the message with a third party; or
 - acted according to (or in response to) the message.

(FRE 901(b)(4).)

For more information on authentication under FRE 901(b), see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Authenticating ESI Under FRE 901(b) ([w-002-6960](#)).

ESTABLISH THE RECIPIENT'S IDENTITY

If another party disputes the identity of the recipient of an email or text message, counsel may rely on evidence that:

- The sender received a reply to the email from the purported recipient's known email address or an email address to which the purported recipient had access at the relevant time (FRE 901(b)(4)).
- The sender received a reply to the text from the purported recipient's known telephone number or a telephone number to which the purported recipient had access at the relevant time (FRE 901(b)(4)).
- The purported recipient's subsequent conduct or communication reflects his knowledge of the contents of the message (FRE 901(b)(4)).
- A device in the possession and control of the purported recipient received, or was used to access, the subject message (FRE 901(b)(4)).
- The recipient is the proponent of the email (see *Held v. Northshore Sch. Dist.*, 2014 WL 6451297, at *4 (W.D. Wash. Nov. 17, 2014); and see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Authentication by Production ([w-002-6960](#))).

For more information on authentication under FRE 901(b), see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Authenticating ESI Under FRE 901(b) ([w-002-6960](#)).

AUTHENTICATE CHAT ROOM OR INSTANT MESSAGE (IM) COMMUNICATIONS

To support a claim that a particular individual sent a chat room or IM communication, counsel may rely on:

- The testimony from a participant in the communication who personally knows that the transcript fairly and accurately reflects the conversation (FRE 901(b)(1); see *United States v. Lebowitz*, 676 F.3d 1000, 1009 (11th Cir. 2012)).
- A comparison by the trier of fact between the communication and other authenticated items (FRE 901(b)(3)).
- Circumstantial evidence, including evidence that:
 - the purported sender used the same screen name on other occasions;
 - the purported sender acted according to the communication;
 - the purported sender identified himself as the individual using the screen name;
 - the communication includes a customary signature, nickname, or emoticon associated with the purported sender;
 - the communication includes particularized information that is either unique to the purported sender or known only to a small group that includes the purported sender;
 - the communication appears on the purported sender's computer or other device; or

- the purported sender discussed the same subject matter elsewhere.

(FRE 901(b)(4); see *United States v. Simpson*, 152 F.3d 1241 (10th Cir. 1998).)

- The communication itself as a self-authenticating business record if a qualified person (such as the person who created the communication, a person who developed and implemented the business practice that lead to its creation, or the records custodian) certifies that it was:

- created by someone with knowledge of the subject event at or near the time of the event as part of an ordinary business activity; and
- kept in the course of ordinary business activity.

(FRE 803(6) and 902(11), (12).)

- Testimony from the recipient of the message, if the recipient can testify that she:
- knows that the purported sender uses the platform used to send the message;
 - recognizes the account from which the message was sent and associates it with the purported sender; and
 - finds the manner of communication consistent with prior communications from the purported sender.

(*United States v. Barnes*, 803 F.3d 209, 217 (5th Cir. 2015).)

- For more information on authentication under FRE 901(b) and 902, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Ways to Authenticate ESI ([w-002-6960](#)).

AUTHENTICATE SOCIAL MEDIA POSTINGS

To authenticate social media postings, counsel may rely on:

- Testimony from a witness with personal knowledge of the posting, such as testimony from:
 - the purported creator of the social network account and related postings; or
 - an individual who observed the purported creator establish or post to the page.

(FRE 901(b)(1).)

- Circumstantial evidence of authenticity, such as evidence that:
 - the posting includes non-public details of the purported creator's life, like biographical information or nicknames that are not generally known or accessible;
 - the posting includes references or links to the purported creator's loved ones, relatives, or co-workers;
 - the posting includes content that only the purported creator (or a small group that includes the purported creator) knows;
 - the posting includes photos, videos, or other content that the purported creator would likely post;
 - the posting includes comments in the purported creator's style or structure;
 - the purported creator acted according to the contents of the post;

- the purported creator previously used the social media account to communicate with others;
- the purported creator knows the password to the account;
- the purported creator had exclusive access to the social media account (or the computer on which it was created) at the relevant time;
- the social media account is connected to the purported creator's email account (see *Brinson*, 772 F.3d at 1320-21 and *United States v. Hassan*, 742 F.3d 104, 133 (4th Cir. 2014));
- based on a forensic evaluation of the purported creator's computer hard drive, the social media account was created or accessed on that computer; or
- the posting was made from a computer or device with an internet protocol address (IP address) associated with the purported creator.

(FRE 901(b)(4).)

- Evidence that the social media platform reliably and accurately tracks the account holder's activity, such as:
 - expert testimony on how a person accesses that type of social network account and what methods account holders may use to prevent unauthorized access; or
 - evidence from the social networking website that connects the purported creator with the account.

(FRE 901(b)(9).)

- An argument that the posting is self-authenticating as a business record under FRE 902(11) or (12). Although establishing that a posting is a self-authenticating business record may support a finding that it is unaltered, it likely will not authenticate the post regarding the particular author (see *Hassan*, 742 F.3d at 134).

For examples of how select courts evaluate the authenticity of social media posts, see Practice Note, Social Media: What Every Litigator Needs to Know: Authenticating Social Media ([3-568-4085](#)). For more information on authentication under FRE 901(b) and 902, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Ways to Authenticate ESI ([w-002-6960](#)).

AUTHENTICATE WEBSITES

To authenticate a website, counsel may:

- Request judicial notice, if the version depicted in the exhibit is identical to the current version of the website (FRE 201(b); and see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Judicial Notice ([w-002-6960](#))).
- Rely on the website as self-authenticating, if it is:
 - a government website (FRE 902(5));
 - a newspaper or other periodical website (FRE 101(b)(6) and 902(6)); or
 - a website certified as business record by a qualified person (FRE 803(6) and 902(11), (12)).

For more information, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Self-Authenticating ESI Under FRE 902 ([w-002-6960](#)).

ESTABLISH DYNAMIC WEBSITE INFORMATION

When an exhibit depicting a website is not identical to the current version of the website, counsel must establish that the exhibit accurately depicts the website as it existed at the relevant time. Counsel may rely on:

- Testimony from the individual who created or was in charge of maintaining the website that the exhibit accurately reflects the webpage content at the relevant time (FRE 901(b)(1); *St. Luke's Cataract & Laser Inst., P.A. v. Sanderson*, 2006 WL 1320242 (M.D. Fla. May 12, 2006)).
- Testimony from a witness who:
 - typed in the web address on the exhibit on the relevant date and time;
 - viewed the webpage's contents; and
 - contends that the exhibit fairly and accurately reflects what she saw at that time.

(FRE 901(b)(1); *Buzz Off Insect Shield, LLC v. S.C. Johnson & Son, Inc.*, 606 F. Supp. 2d 571, 594 (M.D.N.C. 2009).)

- Circumstantial evidence that:

- the exhibit contains distinctive website design, logos, photos, or other images associated with the website or its owner;
- the contents of the webpage are of a type ordinarily posted on that website or websites of similar people or entities;
- the owner of the webpage has published some or all of the same contents elsewhere;
- the contents of the webpage have been republished elsewhere and attributed to the website; or
- the exhibit displays on its face the website address and a date and time stamp (*Foreword Magazine, Inc. v. OverDrive Inc.*, 2011 WL 5169384, at *8-11 (W.D. Mich. Oct. 31, 2011)).

(FRE 901(b)(4).)

- A printout from the Wayback Machine or similar website archival service that depicts how the website appeared on a particular date. Some courts require that counsel present a witness from the archival service to establish that it employs a process that produces accurate results (FRE 901(b)(9)). However, other courts take judicial notice of these sites (FRE 201(b)). For more information, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Archival Websites ([w-002-6960](#)).

For more information on authentication under FRE 901(b), see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Authenticating ESI Under FRE 901(b) ([w-002-6960](#)).

ESTABLISH THE CREATION DATE FOR WEBSITE CONTENT

If counsel must establish the date on which website content first appeared or when content was created, (rather than that the content was present on a site at a certain date or time), counsel may rely on:

- Testimony from a witness with knowledge of when the content (such as a video) was created (FRE 901(b)(1); see *Sublime v. Sublime Remembered*, 2013 WL 3863960 (C.D. Cal. July 22, 2013)).

- Circumstantial evidence related to the date on which the content was uploaded or created (FRE 901(b)(4); see *United States v. Bloomfield*, 591 F. App'x 847, 848-49 (11th Cir. 2014)).

For more information on authentication under FRE 901(b), see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Authenticating ESI Under FRE 901(b) ([w-002-6960](#)).

AUTHENTICATE YOUTUBE, VOICEMAIL, AND OTHER AUDIO AND VIDEO RECORDINGS

To authenticate YouTube, voicemail, and other audio and video recordings, counsel may rely on:

- A certification under FRE 803(6) that qualifies the recording as a self-authenticating business record, although many courts are reluctant to accept this method (FRE 902(11), (12); see *Randazza v. Cox*, 2014 WL 1407378, at *4 (D. Nev. April 10, 2014) and *Hassan*, 742 F.3d at 133; see also Authenticate Email and Text Messages).
- A comparison of the recording with other authenticated evidence, such as another recording that:
 - resembles the proffered recording in a relevant manner; and
 - the court has found to be authentic.

(FRE 901(b)(3).)

- Circumstantial evidence (FRE 901(b)(4); see also *Ciolino v. Eastman*, 2016 WL 70449, at *2 (D. Mass. Jan. 6, 2016)).
- Evidence that:
 - the recording has not been altered (see Establish That a Recording is Unaltered); and
 - a particular individual is the speaker heard on the recording (see Establish Speaker Identity).

For more information on authentication under FRE 901(b) and 902, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Ways to Authenticate ESI ([w-002-6960](#)).

ESTABLISH THAT A RECORDING IS UNALTERED

To authenticate audio or video recordings and establish that the recording is unaltered, counsel may rely on:

- Witness testimony from an individual who:
 - overheard or observed the recording being made; and
 - confirms that the recording accurately reflects her observations and recollection.
- Evidence that the recording's chain of custody is intact (FRE 901(b)(4); see *McLaurin v. New Rochelle Police Officers*, 439 F. App'x 38, 40 (2d Cir. 2011) and *Bruins v. Osborn*, 2016 WL 697109, at *1 (D. Nev. Feb. 19, 2016)).
- The reliability and accuracy of the recording device, which counsel may establish through testimony from the individual who operated the device that:
 - the recording device functioned properly;

- the individual operating the recording device was competent to do so; and
- the recording device reliably recorded audio content at the relevant time.

(FRE 901(b)(9).)

For more information on authentication under FRE 901(b), see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Authenticating ESI Under FRE 901(b) ([w-002-6960](#)).

ESTABLISH SPEAKER IDENTITY

To establish that a particular individual is the speaker in an audio or video recording, counsel may:

- Rely on:
 - a comparison of the recording with other authenticated evidence (FRE 901(b)(3));
 - circumstantial evidence like that often used to authenticate social media postings (FRE 901(b)(4); see Authenticate Social Media Postings); or
 - testimony from a lay or expert witness familiar with the purported speaker's voice who can identify her as the speaker in the recording (FRE 901(b)(5)).
- Invite the judge or jury to compare the recorded voice with the purported speaker's voice, if the judge or jury is familiar with the speaker's voice (FRE 901(b)(5); see *Ricketts v. City of Hartford*, 74 F.3d 1397, 1410 (2d Cir. 1996)).

AUTHENTICATE DATABASES

Litigants often locate and produce relevant database information by running a query to locate relevant database records and then producing a report of the query result. To authenticate the report, counsel must authenticate both:

- The contents of the report by relying on:
 - testimony from a witness with personal knowledge of the content (FRE 901(b)(1)); or
 - a certification sufficient to qualify the content as a self-authenticating business record (FRE 803 and 902(11), (12); see *Potamkin Cadillac Corp. v. B.R.I. Coverage Corp.*, 38 F.3d 627, 632 (2d Cir. 1994)).
- The query and report process by relying on either:
 - testimony from a witness with knowledge of the database system, such as how information is uploaded to the database or how queries are run to find information residing in the database; or
 - evidence that the company relied on the database in conducting its business, which indicates that the database was sufficiently accurate.

(FRE 901(b)(9); see *U-Haul Intern., Inc. v. Lumbermens Mut. Cas. Co.*, 576 F.3d 1040 (9th Cir. 2009) and *Friends of Mariposa Creek v. Mariposa Pub. Utilities Dist.*, 2016 WL 1587228, at *11 (E.D. Cal. Apr. 19, 2016).)

For more information on authentication under FRE 901(b) and 902, see Practice Note, E-Discovery: Authenticating Electronically Stored Information: Ways to Authenticate ESI ([w-002-6960](#)).

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Authenticating Electronically Stored Information

Electronically stored information (ESI) poses unique authentication challenges for counsel, given the varying approaches courts have taken when authenticating different forms of digital evidence. To avoid this uncertainty, counsel often try to authenticate ESI through proactive, cooperative methods. However, because these methods are not always available, counsel must understand how digital evidence can be formally authenticated in federal court.

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HON. PAUL W. GRIMM
US DISTRICT COURT JUDGE
DISTRICT OF MARYLAND

Judge Grimm was appointed to the District Court in 2012, and previously served as Chief Magistrate Judge for the District of Maryland. In 2009, Judge Grimm became a member of the Advisory Committee for the Federal Rules of Civil Procedure where he served as Chair of the Discovery Subcommittee until September 2015. He is a member of the American Law Institute, and has been an adjunct professor of law at the University of Baltimore School of Law and the University of Maryland School of Law, teaching courses on evidence and discovery, and he has written extensively on both topics.



GREGORY P. JOSEPH
PARTNER
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Gregory previously served as President of the American College of Trial Lawyers, Chair of the Section of Litigation of the American Bar Association, and a member of the Advisory Committee on the Federal Rules of Evidence. He has tried cases involving disputes over securities fraud, takeovers, intellectual property, corporate governance, fiduciary duty, federal taxation, tort, and contract.

Under the Federal Rules of Evidence (FRE), a court may not admit an item into evidence for purposes of trial or summary judgment unless the evidence is authenticated and satisfies certain additional criteria. Digital evidence derived from ESI presents complex authentication challenges because, unlike paper records and other tangible evidence, ESI can be easily replicated and tampered with in numerous ways. Although the same authentication and admissibility standards govern traditional evidence and ESI, technological evolution has led courts to adopt varying approaches to authenticating different forms of digital evidence. In short, there is no "one-size-fits-all" authentication method for ESI. Like traditional evidence, courts and juries ultimately will consider a variety of factors in their analyses.

To minimize risk, counsel often try to authenticate ESI before a hearing or trial through requests for admission or by seeking a stipulation from opposing parties as to authenticity. However, because these proactive, cooperative methods are not always available, counsel should be well-versed on the statutory framework and relevant case law that govern ESI authentication, including:

- The standard for authenticating evidence in federal court.
- Whether the judge or jury is tasked with determining authenticity.
- The formal methods for authenticating various types of ESI.

THE AUTHENTICATION STANDARD

FRE 901(a) generally requires a party proffering evidence (a proponent) to authenticate it by providing enough supplemental evidence to establish that the proffered evidence is what the proponent claims it is (see, for example, *Hutchens v. Hutchens-Collins*, 2006 WL 3490999, at *2 (D. Or. Nov. 30, 2006)). The same authentication standard applies to both ESI and traditional forms of evidence (see *Lebewohl v. Heart Attack Grill LLC*, 890 F. Supp. 2d 278, 298 (S.D.N.Y. 2012); *Foreword Magazine, Inc. v. OverDrive, Inc.*, 2011 WL 5169384, at *3 (W.D. Mich. Oct. 31, 2011)).

The FRE 901(a) authentication standard is not particularly rigorous. A court need only find that there is sufficient evidence for a reasonable jury to conclude that the proffered evidence is what the proponent claims it is. The rule does not require a court to conclude that the proffered evidence actually is what the proponent claims it is. For example, if an opponent challenges the authenticity of ESI evidence by raising the possibility that a party or non-party altered the ESI, FRE 901(a) does not require the proponent to disprove that possibility before the ESI may be deemed authentic. (See *Linde v. Arab Bank, PLC*, 97 F. Supp. 3d 287, 337 (E.D.N.Y. 2015).)

AUTHORITY TO MAKE AUTHENTICATION DECISIONS

FRE 104 dictates when the judge decides admissibility and when that issue is passed on to the jury. Because authenticity is a required element of admissibility, the rule likewise governs whether the judge or jury determines if a proponent sufficiently authenticated the ESI.



Search [Evidence in Federal Court: Basic Principles](#) for more on the admissibility and exclusion of evidence in a federal civil case.

Search [Using Documents as Evidence Checklist](#) for issues counsel should consider when preparing to use documents as evidence in summary judgment motions or at trial, including information on privilege, authentication, hearsay, and best evidence.

JUDICIAL DETERMINATIONS UNDER FRE 104(a)

A judge must admit ESI under FRE 104(a) when:

- After considering all non-privileged evidence related to the ESI's authenticity, the judge either:
 - finds enough evidence that a reasonable jury could find that the ESI is what the proponent claims it is; or
 - does not find sufficient evidence to support a finding that the ESI is something other than what the proponent claims it is.
- The ESI satisfies all other admissibility requirements.

Once admitted into evidence, the jurors may give the ESI whatever weight they think it deserves.

Conclusory or hypothetical objections, such as speculation that the ESI could possibly be something other than what the proponent claims it is, are not evidence and therefore do not factor in to the judge's authentication analysis. For example, if opposing counsel object to ESI as improperly or insufficiently authenticated, that objection has no bearing on the judge's authentication analysis unless opposing counsel offer actual evidence that either:

- Disputes the proponent's authentication evidence.
- Otherwise supports a finding that the ESI is something other than what the proponent claims it is.

In practice, judges unilaterally make the majority of admissibility decisions (including authentication determinations) under FRE 104(a), including through decisions on motions *in limine*.



Search [Motion in Limine: Motion or Notice of Motion \(Federal\), Motion in Limine: Memorandum of Law \(Federal\), and Motion in Limine: Proposed Order \(Federal\)](#) for a sample motion *in limine*, along with a supporting memorandum of law and form order, that counsel can use to exclude evidence from a federal civil trial, with explanatory notes and drafting tips.

Search [Admissibility of Evidence in Federal Court Flowchart](#) or see page 41 in this issue for a guide to determining whether evidence is admissible in federal court.

JURY DETERMINATIONS UNDER FRE 104(b)

FRE 104(b) speaks to admissibility broadly, but it applies equally to authentication as an element of the admissibility analysis. In some circumstances, analyzing authenticity (and ultimately admissibility) is complicated because both:

- The proponent offers evidence that is sufficient to support a finding that the ESI is what the proponent claims it is.
- Another party offers evidence sufficient to support a finding that the ESI is not what the proponent claims it is.

In other words, the identity or nature of the ESI might be a disputed fact. In this situation, the judge may not simply find that the proponent satisfied FRE 901(a) and, assuming the ESI satisfies

all other admissibility requirements, unilaterally admit the ESI for the jury's consideration under FRE 104(a). Rather, the judge may only conditionally admit the ESI into evidence under FRE 104(b).

When a judge conditionally admits ESI because the parties offer conflicting evidence on the ESI's authenticity, the judge also must:

- Allow the jury to review the ESI.
- Allow the jury to hear all evidence supporting and disputing the ESI's authenticity.
- Instruct the jurors that if they find by a preponderance of the evidence that the ESI is:
 - what the proponent claims it is, they should deem the ESI admitted and consider it during their deliberations; and
 - something other than what the proponent claims it is, the ESI is irrelevant and inadmissible, and they may not consider it during their deliberations.

ESI AUTHENTICATION METHODS

As discussed above, the same authentication rules and standards apply to both traditional forms of evidence, such as hard-copy documents, and ESI. However, certain authentication methods work better for ESI than others (see *Box, Authenticating Common Types of ESI*). These include:

- Providing supplemental authentication evidence under FRE 901(b).
- Establishing that the evidence is self-authenticating under FRE 902.
- Requesting judicial notice under FRE 201(b).
- Seeking a ruling from the court that the opposing party conceded the ESI's authenticity by producing it in discovery.

PROVIDING SUPPLEMENTAL EVIDENCE UNDER FRE 901(b)

FRE 901(b) provides a non-exhaustive list of evidence that a proponent can use to authenticate ESI (see *Bury v. Marietta Dodge*, 692 F.2d 1335, 1338 (11th Cir. 1982); *Fin. Co. of Am. v. BankAmerica Corp.*, 493 F. Supp. 895, 900 (D. Md. 1980)).

A proponent also does not need to simultaneously proffer all of the evidence identified in FRE 901(b) to establish the authenticity of any particular ESI.

Under FRE 104(a), the judge may consider the proffered evidence as part of the authentication analysis even if the evidence is inadmissible, so long as it is not subject to privilege. Of the examples noted in FRE 901(b), to authenticate ESI, proponents most commonly use evidence based on:

- Testimony from a witness with personal knowledge.
- Testimony describing the process or system used to generate the ESI.
- Comparisons to previously authenticated evidence.
- Other circumstantial evidence showing the ESI's authenticity.

Personal Knowledge Evidence

Testimony from a witness with personal knowledge that the proffered ESI is what the proponent claims is a common form of authentication evidence (FRE 901(b)(1)). For example, a proponent can authenticate:

- An email, through the author's testimony that she sent the email (see *Anderson v. United States*, 2014 WL 6792129, at *4-5 (N.D. Ga. Dec. 2, 2014)).
- A chat room transcript, through a participant's testimony that the transcript accurately represents the exchange (see *United States v. Browne*, 834 F.3d 403, 413-15 (3d Cir. 2016)).
- A social media posting, through the testimony of a witness who observed the purported author writing and posting the subject content.
- Database content, through testimony from the employee who entered the subject content.

Similarly, a proponent can authenticate an audio recording by offering testimony from a witness who is familiar with and can identify the speaker's voice (FRE 901(b)(5); see *United States v. Hemmings*, 482 F. App'x 640, 643 (2d Cir. 2012)).

Under FRE 104(a), the judge may consider the proffered evidence as part of the authentication analysis even if the evidence is inadmissible, so long as it is not subject to privilege.

Process or System Evidence

Testimony describing the process or system used to generate ESI and establishing that the process or system produces an accurate result can authenticate the generated ESI (FRE 901(b)(9)). For example, a proponent can authenticate:

- A text message, through testimony from an information technology professional who knows that the subject message was collected from a server that is inaccessible to users and renders the stored messages unalterable (see *United States v. Kilpatrick*, 2012 WL 3236727, at *3 (E.D. Mich. Aug. 7, 2012)).
- A social media posting, through expert testimony about how the social media platform reliably and accurately tracks account access and activity.
- A previous version of a website, by proffering both:
 - a printout from an archival website (see below *Archival Websites*); and
 - a witness from the archival website who can testify on the accuracy and reliability of their archival and retrieval practices.

(See *Open Text S.A. v. Box, Inc.*, 2015 WL 428365, at *2 (N.D. Cal. Jan. 30, 2015); *Specht v. Google Inc.*, 758 F. Supp. 2d 570, 580 (N.D. Ill. 2010), judgment entered, 2011 WL 4737179 (N.D. Ill. Oct. 6, 2011), and aff'd, 747 F.3d 929 (7th Cir. 2014).)

- An audio or a video recording, through testimony from the recording device operator that she is competent to operate the device and the device reliably recorded the content at the relevant time (see *Leo v. Long Island R.R. Co.*, 307 F.R.D. 314, 324 (S.D.N.Y. 2015)).

Comparison Evidence

A comparison of the proffered ESI with an authenticated specimen by an expert witness or the fact finder can serve to authenticate the ESI (FRE 901(b)(3)). For example, a proponent can authenticate a text message by asking the judge to compare the proffered text with a text that the court previously recognized as authentic under FRE 901(a).

Circumstantial Evidence

A proponent can use circumstantial evidence, such as the appearance, contents, substance, internal patterns, or other distinctive characteristics of the ESI, for authentication purposes (FRE 901(b)(4)). The significance of these factors might differ if the authenticity dispute relates to the identity of the sender or the recipient. For example, a proponent can authenticate:

- An email, by offering evidence that:
 - the purported author is known to use the email address listed in the "From" header field;
 - the email body includes facts known to a small group of people that includes the purported author; or
 - the signature block at the end of the email contains the purported author's name, title, and company logo.

(See *United States v. Safavian*, 435 F. Supp. 2d 36, 40-41 (D.D.C. 2006).)

- A social media posting, by offering evidence that:

- the purported author previously communicated using the subject social media account; or
- the purported author discussed the substance of the post in other forums.

(See *United States v. Barnes*, 803 F.3d 209, 217 (5th Cir. 2015).)

- An internet post, by offering testimony from the individual who downloaded the post and pointing to other indicia of reliability appearing on the face of the exhibit, such as the internet domain address or forensic information that supports a finding that the purported author sent the subject message (see *Lebewohl*, 890 F. Supp. 2d at 298-99).
- A video recording, by offering evidence that it contains non-public details of the purported creator's life, such as nicknames that are not generally known or accessible.

A proponent also can authenticate a website under FRE 901(b)(4) by offering evidence that it contains distinctive website design, logos, photos, or other images associated with the website or its owner (see *Metcalf v. Blue Cross Blue Shield of Mich.*, 2013 WL 4012726, at *10 (D. Or. Aug. 5, 2013); *Perfect 10, Inc. v. Cybernet Ventures, Inc.*, 213 F. Supp. 2d 1146, 1154 (C.D. Cal. 2002)).

ESTABLISHING ESI AS SELF-AUTHENTICATING UNDER FRE 902

FRE 902 identifies types of evidence that do not require supplemental, extrinsic authentication evidence, based on long-standing assumptions about the trustworthiness of certain types of documents. For example, courts have found the following types of ESI self-authenticating under FRE 902:

- Website publications, including books and pamphlets, purportedly issued by a public authority (FRE 902(5); see *Williams v. Long*, 585 F. Supp. 2d 679, 685-690 (D. Md. 2008) (finding that printed webpages from branches or subdivisions of the Maryland state government were self-authenticating as official publications); *EEOC v. E.I. Du Pont de Nemours & Co.*, 2004 WL 2347559, at *2 (E.D. La. Oct. 18, 2004) (finding that printed webpages from the US Census Bureau, a government website, were self-authenticating as official publications)).
- Online publications purporting to be newspapers or periodicals (FRE 902(6); see *Davis v. Hous. Auth. of Birmingham*, 2015 WL 1487199, at *2 (N.D. Ala. Mar. 31, 2015) (noting that an article from an online news outlet is analogous to a traditional newspaper article and holding that the article was self-authenticating); but see *Specht*, 758 F. Supp. 2d at 582 (holding that an article appearing on *forbes.com* was not self-authenticating under FRE 902(6) because *forbes.com* was not a printed newspaper or periodical)).
- Online, certified copies of domestic or foreign records of regularly conducted activities, such as a company's policies and procedures (FRE 902(11)-(12); see *Intermarine, LLC v. Spliethoff Bevrachtingskantoor, B.V.*, 123 F. Supp. 3d 1215, 1218 (N.D. Cal. 2015) (noting that the portions of Dropbox's website regarding its business and practices are self-authenticating under FRE 902(11))).

Authenticating Common Types of ESI

	EMAILS AND TEXT MESSAGES	CHAT ROOM OR INSTANT MESSAGES	SOCIAL MEDIA POSTINGS	WEBSITES	YOUTUBE, VOICEMAIL, AND OTHER AUDIO AND VIDEO RECORDINGS	DATABASES
FRE 901(b)(1) (Witness with personal knowledge)	X	X	X	X	X	X
FRE 901(b)(3) (Comparison with other authenticated evidence)	X					
FRE 901(b)(4) (Circumstantial evidence)	X	X	X	X	X	
FRE 901(b)(5) (Opinion about a voice)					X	
FRE 901(b)(9) (Process or system evidence)	X	X	X	X	X	X
FRE 902(5) (Self-authenticating official publications)				X		
FRE 902(6) (Self-authenticating newspapers and periodicals)				X		
FRE 902(11) and (12) (Self-authenticating certified records of regularly conducted activity)	X		X	X	X	X
Judicial Notice				X	X	X
Production in Discovery	X	X	X	X	X	X

Courts are more likely to take judicial notice of reference websites that represent online versions of reputable, print sources that courts historically have been willing to judicially notice.

REQUESTING JUDICIAL NOTICE UNDER FRE 201(b)

When ESI's authenticity is not subject to reasonable dispute, a court may take judicial notice and admit the ESI into evidence (FRE 201(b)). Judicial notice saves the proponent the time and expense of gathering resources and presenting evidence on the ESI's authenticity, and may be taken at any time, including on appeal.

A proponent should consider asking a court to take judicial notice of the authenticity of ESI, particularly where the ESI involves:

- Government websites.
- Select non-governmental websites.
- Archival websites.
- GPS data.

Government Websites

Courts often take judicial notice of government website postings based on their view that this evidence is presumptively accurate and reliable (see *Denius v. Dunlap*, 330 F.3d 919, 926-27 (7th Cir. 2003); *United States v. Head*, 2013 WL 5739095, at *3 n.2 (E.D. Cal. Oct. 22, 2013)). For example, courts have taken judicial notice of evidence from:

- Court websites (see *Feingold v. Graff*, 516 F. App'x 223, 226 (3d Cir. 2013) (taking judicial notice of an attorney's disciplinary record as posted on the Supreme Court of Pennsylvania website)).
- Agency websites (see *Lawrence v. Fed. Home Loan Mortg. Corp.*, 2015 WL 1455441, at *11 n.6 (W.D. Tex. Mar. 30, 2015), adopted and rejected in part by 2015 WL 11348289 (W.D. Tex. May 11, 2015) (taking judicial notice of the federal government's agreement with a national bank as posted on the US Treasury Department website)).
- Department websites (see *Flores v. City of Baldwin Park*, 2015 WL 756877, at *2 (C.D. Cal. Feb. 23, 2015) (taking judicial

notice of a printout showing information from a municipal police department website)).

Courts also may extend this presumption of reliability to evidence found on:

- Foreign government websites (see *United States v. Broxmeyer*, 699 F.3d 265, 296 n.32 (2d Cir. 2012) (taking judicial notice of content on the Brazilian and Vietnamese government websites)).
- International or quasi-governmental organization websites (see *Kirtsaeng v. John Wiley & Sons, Inc.*, 133 S. Ct. 1351, 1367 (2013) (taking judicial notice of information on the World Bank website)).

Select Non-Governmental Websites

Courts are more likely to take judicial notice of reference websites that represent online versions of reputable, print sources that courts historically have been willing to judicially notice. For example, courts have taken judicial notice of:

- Maps and geographic data from websites like Google Maps and MapQuest (see *McCormack v. Hiedeman*, 694 F.3d 1004, 1008 n.1 (9th Cir. 2012) (holding that Google Maps' accuracy could not reasonably be questioned); *Cline v. City of Mansfield*, 745 F. Supp. 2d 773, 801 n.23 (N.D. Ohio 2010) (taking judicial notice of the time of the sunset on a particular date as stated on *timeanddate.com*)).
- Basic calendar information (see *Local 282, Int'l Bhd. of Teamsters v. Pile Found. Constr. Co.*, 2011 WL 3471403, at *7 n.5 (E.D.N.Y. Aug. 5, 2011) (taking judicial notice of the October 2009 calendar as stated on *timeanddate.com*)).
- The publication of newspaper and periodical articles (see *Ford v. Artiga*, 2013 WL 3941335, at *7 n.5 (E.D. Cal. July 30, 2013) (taking judicial notice of the publication of newspaper articles but not the truth of their content); *HB v. Monroe Woodbury*



Cent. Sch. Dist., 2012 WL 4477552, at *5 (S.D.N.Y. Sept. 27, 2012) (same)).

- Online versions of textbooks, dictionaries, rules, and charters, such as:
 - the Physicians' Desk Reference (*United States v. Mosley*, 672 F.3d 586, 591 (8th Cir. 2012));
 - the Oxford English Dictionary (*Shuler v. Garrett*, 743 F.3d 170, 173 (6th Cir. 2014));
 - the American Arbitration Association's rules (*Dealer Comput. Servs., Inc. v. Monarch Ford*, 2013 WL 314337, at *4 n.3 (E.D. Cal. Jan. 25, 2013); *Price v. HotChalk, Inc.*, 2010 WL 5137896, at *1 (D. Ariz. Dec. 10, 2010));
 - the Financial Industry Regulatory Authority's rules (*Morgan Stanley Smith Barney LLC v. Monaco*, 2014 WL 5353628, at *2 n.1 (D. Colo. Aug. 26, 2014)); and
 - the American Society of Composers, Authors and Publishers' articles of association (*Famous Music Corp. v. 716 Elmwood, Inc.*, 2007 WL 5041415, at *4 n.7 (W.D.N.Y. Dec. 28, 2007)).

Many courts are reluctant to take judicial notice of non-governmental websites, aside from those noted above, due to the ease with which websites can be created or manipulated (see, for example, *Victaulic Co. v. Tieman*, 499 F.3d 227, 236 (3d Cir. 2007) (declining to take judicial notice of a party's website); *Gonzales v. Unum Life Ins. Co. of Am.*, 861 F. Supp. 2d 1099, 1104 n.4 (S.D. Cal. 2012) (declining to take judicial notice of information contained on Wikipedia); *United States ex rel. Dingle v. BioPort Corp.*, 270 F. Supp. 2d 968, 973 (W.D. Mich. 2003), aff'd *sub nom. Dingle v. Biopart Corp.*, 388 F.3d 209 (6th Cir. 2004) (declining to take judicial notice of three private websites)).

However, some courts will take judicial notice of the fact that certain content appeared on a website on a certain date, while

declining to take judicial notice of the truth or accuracy of that content (see, for example, *McCrary v. Elations Co.*, 2014 WL 1779243, at *1 n.3 (C.D. Cal. Jan. 13, 2014)).

Archival Websites

Counsel can access archived versions of billions of websites made available on *archive.org* (the so-called Wayback Machine), *cachedpages.org* (which searches for prior versions of websites available from the Wayback Machine, Google Cache, or Coral Cache), and similar websites.

Some courts take judicial notice of archived versions of websites (see *Under a Foot Plant, Co. v. Exterior Design, Inc.*, 2015 WL 1401697, at *2 (D. Or. Mar. 24, 2015); *In re Methyl Tertiary Butyl Ether ("MTBE") Prods. Liab. Litig.*, 2013 WL 6869410, at *4 n.65 (S.D.N.Y. Dec. 30, 2013); *Martins v. 3PD, Inc.*, 2013 WL 1320454, at *16 n.8 (D. Mass. Mar. 28, 2013)). However, judicial notice typically is limited to the content that appeared on a website on a given date, as courts rarely take judicial notice of either:

- The truth of the archived website's content, unless the website is a government website or a non-governmental website of the sort that courts consider sufficiently trustworthy (see above *Select Non-Governmental Websites*).
- Images or links in the archived websites, because the depiction of images and function of links are less reliable in archived versions.

Other courts have authenticated archived versions of websites only when they are accompanied by witness testimony regarding the archival service's process and reliability (see *Specht*, 747 F.3d at 933 (requiring testimony from a witness with personal knowledge of the archival service's reliability, rather than testimony from only the website creators, asserted from memory, that the archived screenshot reflected how the websites looked at the relevant time); *United States v. Bansal*, 663 F.3d 634, 667 (3d Cir. 2011) (finding an archived website image to be authentic based on testimony about the archival service's reliability and testimony that compared the archived screenshot with other authenticated images of the subject website at a later time)).

GPS Data

Courts have taken judicial notice of GPS data based on the overall reliability, frequency of use, and wide availability of GPS devices (see *United States v. Brooks*, 715 F.3d 1069, 1078 (8th Cir. 2013) (affirming the district court's judicial notice of data from a GPS tracker that a teller placed in an envelope of stolen money during a bank robbery)).

SEEKING CONCESSION OF AUTHENTICITY BASED ON PRODUCTION

A proponent can proffer ESI that an opposing party produced in discovery. However, the opposing party might object to the authenticity of the ESI. Some courts have broadly held that a party that produces ESI in discovery implicitly concedes the ESI's authenticity (see *EEOC v. Fred Meyer Stores, Inc.*, 954 F. Supp. 2d 1104, 1117 (D. Or. 2013) (holding that ESI produced in discovery by one party is deemed authentic when the opposing party proffers

it as evidence); *Schaghticoke Tribal Nation v. Kempthorne*, 587 F. Supp. 2d 389, 397 (D. Conn. 2008), aff'd, 587 F.3d 132 (2d Cir. 2009) (holding that ESI was authentic by virtue of the act of production)).

Other courts have considered the fact that the objecting party produced the ESI as one of several factors in the authenticity analysis (see, for example, *Gallegos v. Swift & Co.*, 237 F.R.D. 633, 641 (D. Colo. 2006) (the proponent established authenticity with sufficient circumstantial evidence by showing that the opposing party produced the evidence and much of it contained either corporate letterhead or the company officials' signatures)).

However, several courts have found that production implies authenticity only for ESI produced in response to sufficiently specific requests for production. These courts are less likely to find that a producing party concedes the authenticity of ESI it produces in response to a broad request for all documents in its possession, custody, and control on a particular topic. Typically, these courts conclude that production in this context is not an endorsement that a document is what it appears to be on its face, but instead is only a representation that the ESI:

- Was in its possession, custody, or control.
- Relates to the particular topic.

Courts take this position because parties often have ESI in their possession, custody, or control that originated from other sources, such as ESI obtained from a third party in response

to a subpoena. These parties typically are not in a position to verify that other entities' ESI actually is what it appears to be on its face.

However, the opposite is true when a party produces ESI in response to a more specific request, such as a request to produce its own business records on a particular topic. In this circumstance, the producing party typically is best positioned to authenticate its own ESI because the party has firsthand knowledge of how, when, and why it created the ESI. By contrast, a party generally is less familiar with ESI that it obtained from an outside source. For these reasons, courts are more likely to find that a producing party implicitly authenticates ESI when it produces the ESI in response to a targeted request for its own records.

Several courts have found that production implies authenticity only for ESI produced in response to sufficiently specific requests for production. These courts are less likely to find that a producing party concedes the authenticity of ESI it produces in response to a broad request.