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Swearing by New Technology: Strengthening the Fourth Amendment by Utilizing Modern Warrant Technology While Satisfying the Oath or Affirmation Clause

INTRODUCTION

Against the backdrop of unwarranted governmental intrusions into the private lives of Americans, the Framers penned the Fourth Amendment of the United States Constitution, which states in part, “no Warrants shall issue, but upon probable cause, supported by Oath or affirmation.”¹ After nearly two-and-a-half centuries, judicial decisions have slowly whittled exceptions into the Fourth Amendment’s Warrant Clause, incidentally carving chunks out of the values that the amendment was designed to preserve. One of these exceptions in particular, the exigent circumstances exception, has led to a significant increase in the number of warrantless searches and seizures conducted by government officials.² This relatively recent proliferation of warrantless invasions into the private lives of American citizens stands in stark contrast to the privacy interests the Framers intended that the Fourth Amendment protect and preserve.

As some scholars have noted, the advent of modern telecommunication technology provides courts with the opportunity to rein in the use of the exigent circumstances exception as a justification for warrantless searches.³ Modern means of communication help facilitate seamless contact between law enforcement officials requesting search warrants in the field and judges reviewing the warrant applications. This modern technology serves to dramatically reduce the time needed for a judge to review an application and issue a warrant upon probable cause.⁴ As the time needed for a law enforcement officer to procure a warrant decreases,

1. U.S. CONST. amend. IV; see Donald L. Beci, *Fidelity to the Warrant Clause: Using Magistrates, Incentives, and Telecommunications Technology to Reinvigorate Fourth Amendment Jurisprudence*, 73 DENV. U. L. REV. 293, 303 (1996).

2. Justin H. Smith, Note, *Press One for Warrant: Reinventing the Fourth Amendment’s Search Warrant Requirement Through Electronic Procedures*, 55 VAND. L. REV. 1591, 1593 (2002).

3. See Beci, *supra* note 1, at 294–96; see also Smith, *supra* note 2, at 1595–96.

4. See Smith, *supra* note 2, at 1625.

the situations in which the exigent circumstances exception applies should also decrease. This Comment submits that modern telecommunications technology has arrived at the point where the communication between a judge and a field officer to obtain a warrant is so seamless and requires so little time that the exigent circumstances exception should be virtually eliminated.

By identifying the benefits of implementing modern technology in the warrant process and the consequences of failing to do so, this Comment advocates updating state criminal codes to allow law enforcement officers and reviewing courts to utilize this technology in an effort to narrow the exigent circumstances exception to the Fourth Amendment's warrant requirement. However, implementing communication technology to procure warrants comes with potential constitutional pitfalls that state legislatures must carefully avoid. Because technology allows for law enforcement officers to apply for a warrant without ever personally appearing in front of a magistrate or, in some situations, without ever speaking to a magistrate, state legislatures need to ensure that their state's electronic warrant systems satisfy the Fourth Amendment's Oath or Affirmation Clause. This is the first comment that prescribes different methods by which state legislatures can ensure that this constitutional requirement is met in the context of implementing modern communications systems for warrant applications in an effort to narrow the exigent circumstances exception.

Part I of this Comment provides a brief history of the Fourth Amendment's Warrant Clause and the values that the clause is designed to preserve. Part I also gives an account of the Warrant Clause's gradual erosion through the exigent circumstances exception. Next, Part II proposes that the situations in which the exigent circumstances exception applies can be dramatically reduced, if not entirely eliminated, through the use of technology in the warrant procurement process. Finally, Part III recommends that state legislatures should be mindful of the oath or affirmation requirement of the Fourth Amendment as they implement technology in their electronic warrant application systems. Part III also provides a historical account of what constitutes an oath or affirmation and recommends three forms of possible electronic warrant systems that would satisfy the Fourth Amendment's Oath or Affirmation Clause.

I. THE WARRANT CLAUSE AND THE EXIGENT CIRCUMSTANCES
EXCEPTION

The Fourth Amendment's Warrant Clause is a textual instrument designed to protect many of the values that the Framers held to be of paramount importance. Understanding the historical factors driving the amendment's creation and the values it is designed to protect helps one comprehend the importance of its preservation and enforcement. Nearly two-and-a-half centuries of judicial decisions have slowly whittled exceptions into the Fourth Amendment's Warrant Clause, incidentally carving chunks out of the values that the Framers intended the amendment to preserve. One of these exceptions in particular, the exigent circumstances exception, has had a significant impact by allowing the government to more readily conduct warrantless searches and seizures. Understanding the justifications for the exigent circumstances exception helps one understand the role that technology can have in reducing the need for the exception and thus reducing the number of warrantless searches and seizures.

A. The History of the Warrant Clause and the Values It Is Designed to Protect

Scholars generally agree that the Warrant Clause was intended to prevent unbridled governmental intrusion into an individual's privacy.⁵ The Framers were well aware of the immense and inherent dangers that can arise from a government having unchecked power to search and seize the property and person of its citizens.⁶ In drafting the Fourth Amendment, the Framers were influenced by abusive British law enforcement methods, particularly the general search warrant and writ of assistance, which provided government officials with virtually limitless discretion to search and seize the property of the colonists.⁷ "The inequities which resulted from

5. For a more detailed discussion of the historical events preceding the Fourth Amendment's ratification, see generally JACOB W. LANDYNSKI, *SEARCH AND SEIZURE AND THE SUPREME COURT* (1966); NELSON B. LARSON, *THE HISTORY AND DEVELOPMENT OF THE FOURTH AMENDMENT TO THE UNITED STATES CONSTITUTION* (1937).

6. Beci, *supra* note 1, at 303.

7. See Tracey Maclin, *The Complexity of the Fourth Amendment: A Historical Review*, 77 B.U. L. REV. 925, 926 (1997); see also Beci, *supra* note 1, at 303.

abuse of the writs of assistance are well documented and were a major impetus in the occurrence of the American revolution.”⁸

In response to the British officers’ abuse of power, the Framers set about crafting a system that would restrain such broad government discretion.⁹ During the ratification debates, the lack of a constitutional provision addressing the searches and seizures became a hot-button issue.¹⁰ Some of the Framers were concerned that unless they limited the situations in which a warrantless search was permitted, the new American government would eventually commit the same types of abuse against its citizens that were experienced under British rule.¹¹ In response to this concern, James Madison drafted the Fourth Amendment.

Courts have interpreted the Fourth Amendment to impose three basic requirements for the issuance of a warrant: (1) the warrant must be based “upon probable cause,” (2) the probable cause showing must be “supported by Oath or affirmation,” and (3) the warrant must “particularly describ[e] the place to be searched, and the persons or things to be seized.”¹²

The Framers intended the Warrant Clause to “balance[] the privacy interests of individual citizens with the security needs of the general public,”¹³ while protecting “against government tyranny and capriciousness.”¹⁴ Commentators generally recognize that the requirements set forth in the Fourth Amendment are “consistent with the original intent of the Framers of the Constitution to limit the government’s discretion to search and seize.”¹⁵

Naturally, imposing requirements on the government to obtain a warrant impedes, to some extent, the government’s ability to enforce

8. Beci, *supra* note 1, at 303.

9. *See id.*

10. Anita Eve, *Statutory Right to a Warrant, District of Columbia Court of Appeals Project on Criminal Procedure*, 26 HOW. L.J. 844, 849 (1983).

11. Beci, *supra* note 1, at 303.

12. *Dalia v. United States*, 441 U.S. 238, 255 (1979); U.S. CONST. amend. IV (“The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”).

13. Michael John James Kuzmich, *www.warrant.com: Arrest and Search Warrants by E-mail, Review of Selected 1998 California Legislation: Criminal Procedure*, 30 MCGEORGE L. REV. 590, 590 (1999); *see also* Beci, *supra* note 1, at 304.

14. Beci, *supra* note 1, at 294; *see also* Smith, *supra* note 2, at 1600.

15. Beci, *supra* note 1, at 294.

its laws; however, such restraints are widely accepted as necessary to protect against unreasonable searches and seizures and to protect the privacy of citizens.¹⁶ Therefore, the Framers went to great measures to ensure that the privacy of American citizens would be preserved despite an inevitable decrease in law enforcement efficiency. This decrease in law enforcement efficiency is simply the cost to be paid by society to protect the liberty and privacy interests of Americans.

B. Unwarranted Searches and the Fourth Amendment's Erosion Through Exceptions

Despite the paramount importance that the Framers placed on protecting citizens from unwarranted intrusions into their privacy, courts have gradually shifted the balance to favor the needs of efficient law enforcement through various exceptions to the Warrant Clause requirements. Currently, courts recognize over twenty exceptions to the Fourth Amendment's warrant requirement.¹⁷ Over the last several decades, the Supreme Court has repeatedly narrowed the range of situations in which a warrant is required, so much so that warrants have arguably become the exception rather than the general rule.¹⁸ Indeed, exceptions to the Warrant Clause have become so numerous that one commentator claims that the exceptions have eclipsed the rule itself.¹⁹

Of the numerous court-sanctioned exceptions to the warrant requirement, the exigent circumstances exception has perhaps had the greatest impact on increasing the number of situations in which a warrantless search is permitted.²⁰ The exigent circumstances exception applies when there is a compelling need for a government official to act and the official does not have time to secure a warrant.²¹ Whether or not an official can use the exception to negate

16. *See Steagald v. United States*, 451 U.S. 204, 222 (1981) (“Any warrant requirement impedes to some extent the vigor with which the Government can seek to enforce its laws, yet the Fourth Amendment recognizes that this restraint is necessary in some cases to protect against unreasonable searches and seizures.”); H. Morley Swingle & Lane P. Thomasson, *Beam Me Up: Upgrading Search Warrants with Technology*, 69 J. MO. B. 16, 17 (2013) (“Invading someone’s person, home, papers or effects is a serious matter.”).

17. *California v. Acevedo*, 500 U.S. 565, 582 (1991) (Scalia, J., concurring).

18. *See William J. Stuntz, Warrants and Fourth Amendment Remedies*, 77 VA. L. REV. 881, 882 (1991).

19. *See Beci, supra* note 1, at 295.

20. *See Smith, supra* note 2, at 1593–94.

21. *See, e.g., United States v. Marshall*, 157 F.3d 477, 482 (7th Cir. 1998).

the warrant requirement depends on what courts determine “exigent” to mean.²² Some common examples of situations in which courts have determined the exigent circumstances exception to apply include the hot pursuit of a dangerous suspect²³ or the need to prevent the destruction of evidence.²⁴ The implied justification for the exception is that requiring law enforcement officers to travel to a courthouse to obtain a warrant by traditional means²⁵ would “take too long and would unreasonably handicap law enforcement efforts.”²⁶

Indeed, police investigations are typically driven by a sense of urgency combined with the concern that evidence will disappear, metabolize,²⁷ or otherwise escape. This urgency creates pressure, often accommodated by the courts, to streamline law enforcement procedures and eliminate the often inconvenient requirement to obtain a warrant before conducting a search or seizure of a suspect. However, as the Eighth Circuit stated in *United States v. Bozada*, “If the processes of our government are such that police officers are unable to secure search warrants . . . then the cure for that problem is not to sacrifice the Fourth Amendment rights of our citizens, but to streamline the warrant procuring procedure.”²⁸ With modern advances in technology, the procedure by which law enforcement officers obtain warrants can and should be streamlined. If the process is significantly streamlined, the amount of time that it takes for a law enforcement officer to obtain a warrant will be significantly reduced. Consequently, if a law enforcement officer can obtain a warrant in a shorter amount of time, the situations in which the exigent circumstances exception applies will diminish.

22. Smith, *supra* note 2, at 1594.

23. See, e.g., *United States v. Soto-Beniquez*, 356 F.3d 1, 36 (1st Cir. 2003); see also *In re Sealed Case 96-3167*, 153 F.3d 759, 765 (D.C. Cir. 1998).

24. See, e.g., *Hawkins v. Mitchell*, 909 F. Supp. 2d 1011, 1020 (C.D. Ill. 2012).

25. See *infra* Part II (discussing the traditional method of obtaining a warrant by appearing before a judge in person).

26. Smith, *supra* note 2, at 1594.

27. A common warrantless search that courts in many jurisdictions have upheld as lawful under the exigent circumstances exception occurs when law enforcement officers perform a blood draw on a driver without first obtaining a warrant after law enforcement officers had probable cause to suspect that a driver had operated his vehicle under the influence of alcohol. This needs to be done in a timely manner in order to ensure that evidence of the suspect’s blood alcohol level was measured before the driver metabolized the alcohol. See, e.g., *People v. Thompson*, 135 P.3d 3, 17 (Cal. 2006), *cert. denied*, 549 U.S. 980 (2006).

28. 473 F.2d 389, 394–95 (8th Cir. 1973), *quoted in* Smith, *supra* note 2, at 1625–26.

II. REINVIGORATING THE WARRANT CLAUSE: USING TECHNOLOGY TO REIN IN THE EXIGENT CIRCUMSTANCES EXCEPTION

“In this modern day of electronics and computers, we foresee a time in the near future when the warrant requirement . . . can be fulfilled virtually without exception.”²⁹ The Oregon Supreme Court made this prediction nearly three decades ago. The time has come when advances in technology should be used to reinvigorate the Fourth Amendment’s warrant requirement by narrowing its exceptions.³⁰ This is especially true with regards to the exigent circumstances exception. Courts should reevaluate the exigent circumstances exception in light of the technology that is readily available to law enforcement officers. This technology expedites the warrant procurement process so as to virtually eliminate circumstances that can truly be considered exigent.³¹

Before relatively recent advances in technology, the traditional method for a law enforcement officer to obtain a search warrant required the requesting officer to appear personally before a neutral magistrate. The officer would then present the magistrate with a sworn affidavit that contained the information alleging to show probable cause for the warrant.³² If the magistrate deemed the officer’s affidavit sufficient, the magistrate would provide the officer with a written warrant,³³ which the officer would take with him when conducting the search or arrest.³⁴

In 1977, the Federal Rules of Criminal Procedure were amended to authorize telephonic search warrants.³⁵ The Federal Rules of

29. *State v. Brown*, 721 P.2d 1357, 1363 n.6 (Or. 1986).

30. Smith, *supra* note 2, at 1595.

31. See Edward F. Marek, *Telephonic Search Warrants: A New Equation for Exigent Circumstances*, 27 CLEV. ST. L. REV. 35, 36 (1978) (“The availability of telephonic search warrants affects most directly the body of decisional authority permitting warrantless searches where exigent circumstances exist.”).

32. See *Brinegar v. United States*, 338 U.S. 160, 175–76 (1949) (explaining the requirements for probable cause).

33. See John E. Theuman, Annotation, *Validity of, and Admissibility of Evidence Discovered in, Search Authorized by Judge over Telephone*, 38 A.L.R. 4th 1145, 1148 (1985).

34. *Id.*

35. See FED. R. CRIM. P. 41(c)(2) (1977) (current version at Fed. R. Crim. P. 41(d)(3)) (stating, in relevant part, “[i]f the circumstances make it reasonable to dispense with a written affidavit, a Federal magistrate may issue a warrant based upon sworn . . . testimony communicated by telephone or other appropriate means”). The process of obtaining a telephonic search warrant under the method proscribed in the Federal Rules has been described as follows:

Criminal Procedure were amended again in 1993 to allow magistrates to use fax machines to receive warrant applications and issue warrants.³⁶ Most recently, in 2006, Congress once again amended the Federal Rules to permit warrants to be issued “based on information communicated by . . . other reliable electronic means.”³⁷ Therefore, even before the 2006 amendment, courts had generally permitted warrants to be obtained through electronic means.³⁸

One of the reasons that Congress began permitting law enforcement officers to obtain search warrants by telephone in 1977 was to make it easier to get warrants quickly, thereby “circumscrib[ing] [the] use of the exigent circumstances exception.”³⁹ The same reasoning can logically be applied to the 1993 and 2006 amendments to the Federal Rules. The federal system’s success in encouraging the implementation of technology to expedite the warrant procurement process has encouraged many states to adopt similar statutes authorizing the use of technology to expedite their own processes.⁴⁰

[T]he officer requesting a telephonic warrant must prepare a duplicate original warrant containing information that would normally be provided by an affiant in front of a magistrate. After describing the circumstances of time and place which make it reasonable to request the issuance of a warrant based on oral testimony and after being placed under oath, the officer must then read the duplicate original warrant verbatim to the federal magistrate who will document the conversation using a recording device or stenographic transcript. If the magistrate determines that probable cause exists to justify the search, the magistrate will direct the requesting officer to sign the duplicate warrant while the magistrate signs and dates the original. Copies of these documents are then filed at the courthouse.

Smith, *supra* note 2, at 1606 (quotations omitted) (citations omitted).

36. *See* FED. R. CRIM. P. 41(c)(2) (1994) (current version at Fed. R. Crim. P. 41(d)(3)).

37. *See* FED. R. CRIM. P. 41(c)(3)(A) (2007) (current version at Fed. R. Crim. P. 41(d)(3)).

38. *See, e.g.*, California v. McCraw, 276 Cal. Rptr. 208, 209 (Cal. Ct. App. 1990) (“A warrant may be sent by any electronic method, and it is just as effective as the original.”).

39. Smith, *supra* note 2, at 1606–07; *see also* FED. R. CRIM. P. 41(c)(2) (amended 1977), advisory committee’s note, *reprinted in* 19 U.S.C. App., at 1672–74 (Supp. III 1979).

40. *See* Smith, *supra* note 2, at 1608–14. Many states have adopted electronic signature and warrant statutes, including Colorado (COLO. REV. STAT. ANN. § 16-1-106 (West 2012)); Florida (FLA. STAT. ANN. § 901.02 (West 2013)); Indiana (IND. CODE ANN. § 35-33-5-8 (West 2014)); Louisiana (LA. REV. STAT. ANN. § 9:2603.1 (2010), LA. CODE CRIM. PROC. ANN. art. 162.2 (2012)); Michigan (MICH. COMP. LAWS ANN. § 780.651 (West 2009)); Missouri (MO. ANN. STAT. § 542.276 (West 2010)); New Hampshire (N.H. REV. STAT. ANN. § 595-A:4-a (2014)); and Tennessee (TENN. CODE ANN. § 40-6-109 (West 2014)).

Technology is rapidly approaching the point where electronic communication between the law enforcement officers in the field and the magistrate issuing the warrant is continuously available, thereby narrowing the situations in which the exigent circumstances exception should be applied.⁴¹ In this modern age of high-powered laptops equipped with cellular access to the Internet, police (like the general public) have ready access to communication methods such as email, instant messaging, and even face-to-face video conferencing wherever they go.⁴² These new methods of reliable communication make it possible for law enforcement officers to quickly obtain a warrant from a judge without leaving the area they are investigating. Before modern technology, the exigent circumstances exception routinely allowed officers to conduct warrantless searches when the officer believed that the person or property he wished to search would disappear,⁴³ the evidence would be destroyed,⁴⁴ or someone would be put in danger if the officer took the time necessary to obtain a warrant before searching.⁴⁵

These “[a]dvances in electronic and telecommunications technology, however, have eliminated many of the temporal and geographic hurdles which previously prolonged the time needed to obtain a warrant.”⁴⁶ The Court of Appeals for the District of Columbia Circuit has stated that “courts must . . . consider the amount of time necessary to obtain a warrant . . . in determining whether exigent circumstances exist.”⁴⁷ In a case that dealt with the practicality of obtaining a telephonic warrant, a California Court of Appeals determined in 1983 that a warrant could be obtained by telephone in less than forty-five minutes.⁴⁸ With more modern

41. See Smith, *supra* note 2, at 1595.

42. See Beci, *supra* note 1, at 297–98 (noting that in 1996, when the article was written, “computers can transmit both the warrant application and the approved warrant electronically—directly from the officer’s computer to the magistrate’s computer and then back again—through a cellular modem”).

43. See, e.g., United States v. MacDonald, 916 F.2d 766, 769–70 (2d Cir. 1990), *cert. denied*, 498 U.S. 1119 (1991).

44. See, e.g., United States v. Socey, 846 F.2d 1439, 1444–45 (D.C. Cir.), *cert. denied*, 488 U.S. 858 (1988).

45. See, e.g., United States v. Perez, 440 F. Supp. 272, 286–87 (N.D. Ohio 1977), *aff’d*, 571 F.2d 584 (6th Cir.), *cert. denied*, 435 U.S. 998 (1978).

46. Beci, *supra* note 1, at 319–20.

47. United States v. McEachin, 670 F.2d 1139, 1146 (D.C. Cir. 1981).

48. People v. Blackwell, 195 Cal. Rptr. 298, 302 n.2 (Cal. Ct. App. 1983). Notably, this case was decided before the advent of cell phones. Reaching a magistrate at unusual hours

modes of communication available, such as email, video messaging, and text messaging, the amount of time required to obtain a warrant today would almost always be considerably less. Given our currently available technological resources, all on-call magistrates could theoretically be reached at any time and in any place by cell phone, tablet, or laptop. These resources would allow magistrates to answer phone calls or review electronic warrant submissions wherever they are with little or no delay.⁴⁹ When delays in the warrant procurement process are virtually eliminated, so too is the exigent circumstances exception.⁵⁰

Failure to implement new technology in the warrant procurement process will potentially lead to an increase in warrantless searches, further diminishing the protections provided by the Fourth Amendment's Warrant Clause. As the population in the United States grows, and as new forms of crime and terrorism emerge, the already significant burden on law enforcement departments and the judicial system will likely continue to increase.⁵¹ Without the help of technology to assist in and expedite the warrant application process, each request for a warrant could further burden both the requesting law enforcement officer and the reviewing court. If the warrant procurement process becomes bogged down with more applications, causing each warrant to take longer to obtain, the exigent circumstances exception could conceivably be invoked more often rather than less often.⁵² If this occurs, "the exigent circumstances exception will have eclipsed the warrant requirement itself."⁵³

Because of the numerous advantages of implementing technology in the warrant process and the undesirable consequences

of the day could potentially be difficult, thereby increasing the average time of being able to obtain a warrant by telephone.

49. See *State v. Rodriguez*, 156 P.3d 771, 778 (Utah 2007) ("We are confident that, were law enforcement officials to take advantage of available technology to apply for warrants, the significance of delay in the exigency analysis would markedly diminish.").

50. When telephonic search warrants were introduced, courts required more pressing circumstances to apply the exigent circumstances exception than were required before telephonic search warrants. See *Marek*, *supra* note 31, at 35. If modern technology continues to develop to the point where it allows for instantaneous procurement of a search warrant, conceivably the circumstances in which the exigent circumstances exception would apply would be almost entirely eliminated.

51. Smith, *supra* note 2, at 1605; see generally RICHARD POSNER, *THE FEDERAL COURTS: CRISIS AND REFORM* (1985) (discussing the backlog of cases in the federal system).

52. Smith, *supra* note 2, at 1605.

53. *Id.*

of failing to do so, states that have not updated their criminal procedure statutes to allow for the utilization of technology in the warrant application process should do so immediately. However, it is important to recognize that each state has unique needs, and therefore each state should implement the program that best addresses its needs, taking into account its population density, size, geography, demographics, financial resources, and other important factors. These unique needs would make it difficult to create a uniform model code, but state legislators can and should look to Rule 41(d)(3) of the Federal Rules of Criminal Procedure as a general guide to update their own criminal codes.⁵⁴ For additional insight, state legislators should also look to similarly situated states that have already adopted electronic warrant statutes.⁵⁵

With the technology available today, courts must no longer “choose between the warrant requirement, which protects liberty interests, and warrantless searches, which permit the government to move swiftly in exigent circumstances.”⁵⁶ Modern technology allows an effective warrant process to be reclaimed and preserved; it expedites the process by which law enforcement officers may obtain a warrant to such a degree that circumstances that can truly be considered exigent are virtually eliminated, thereby “enabl[ing] a return to a more balanced Fourth Amendment jurisprudence.”⁵⁷

III. A NEW CONCERN: MEETING THE REQUIREMENTS OF THE OATH OR AFFIRMATION CLAUSE

As states implement technology in an effort to restrain the use of the exigent circumstances exception and reinvigorate the Warrant Clause, state legislatures must ensure that the methods put in place comply with the constitutional requirements set forth in the Fourth Amendment, especially the Oath or Affirmation Clause. The Fourth Amendment specifically mandates that “no Warrants shall issue, but

54. *See id.*, at 1624–25. Rule 41(d)(3) of the Federal Rules of Criminal Procedure states: “In accordance with Rule 4.1, a magistrate judge may issue a warrant based on information communicated by telephone or *other reliable electronic means.*” FED. R. CRIM. P. 41(d)(3) (emphasis added).

55. *See* Smith, *supra* note 2, at 1625. For a list of states that have adopted electronic signature and warrant statutes, see *supra* note 40.

56. Beci, *supra* note 1, at 299.

57. Smith, *supra* note 2, at 1625.

upon probable cause, *supported by Oath or affirmation . . .*”⁵⁸ Failure to abide by the oath or affirmation requirement invalidates any warrant issued and any evidence obtained pursuant to that warrant.⁵⁹ For this reason, it is vital that state legislators fully understand the standards that must be met to ensure that their state’s electronic warrant system complies with the Fourth Amendment’s oath or affirmation requirement.

This section proceeds by first attempting to define what is meant by an *Oath* or *affirmation*. The Supreme Court has never elaborated on what an *Oath* means precisely. However, centuries of common law and commentary reveal the origins of oaths and affirmations, and understanding these origins sheds light on what the Framers of the Constitution likely understood oaths and affirmations to entail. This section will establish that identifying and abiding by the original understanding of the Framers is the best way to ensure the constitutionality of modern warrant systems. Lastly, this section prescribes a series of recommended requirements that state legislatures can abide by as they frame their respective electronic warrant systems to ensure that they pass constitutional muster.

A. What Are Oaths and Affirmations?

Black’s Law Dictionary defines an *oath* as “[a] solemn declaration, accompanied by a swearing to God or a revered person or thing, that one’s statement is true or that one will be bound to a promise[,]”⁶⁰ while an *affirmation* is defined as “[a] solemn pledge

58. U.S. CONST. amend. IV (emphasis added).

59. See *United States v. Shorter*, 600 F.2d 585, 588 (6th Cir. 1979) (holding that the telephonic search warrant was invalid where the oath was not administered by the magistrate immediately); *Levine v. City of Bothell*, 904 F. Supp. 2d 1124, 1130 (W.D. Wash. 2012) (holding a search warrant invalid where police officer’s affidavit in support of the search warrant was not sworn under oath or signed under penalty of perjury, thereby not satisfying the Oath or Affirmation Clause). In perhaps its first case interpreting the Fourth Amendment, the United States Supreme Court invalidated a warrant because it did not contain an oath. Speaking for a unanimous Court, Chief Justice John Marshall held that the warrant “was illegal, for want of stating *some good cause certain, supported by oath*.” *Ex parte Burford*, 7 U.S. (3 Cranch) 448, 453 (1806) (emphasis in original); see also *Dow v. Baird*, 389 F.2d 882 (10th Cir. 1968) (“The constitutional requirement that no search warrants ‘shall issue but upon probable cause supported by Oath or affirmation’ is not to be cavalierly brushed aside as an empty formality. . . . When a magistrate, as in this case, acts as a mere rubber stamp for the police a basic constitutional protection with roots deep in our national history is reduced to so many empty words. That cannot be explained away, condoned, excused or tolerated. The search warrant was clearly and obviously invalid.”).

60. BLACK’S LAW DICTIONARY 1176 (9th ed. 2009).

equivalent to an oath but without reference to a supreme being or to swearing[.]”⁶¹ The legal effect of both an oath and an affirmation is to subject the person giving testimony to “the penalties for perjury” if the testimony is false.⁶² Today, affirmations are generally regarded to be equal in weight with oaths.⁶³

Determining precisely what the Oath or Affirmation Clause requires is necessary to ensure that electronic warrant systems comply with the Fourth Amendment. In interpreting the meaning of the Fourth Amendment, the Supreme Court has stated that it is appropriate to determine how the language of the amendment would be interpreted within its original meaning.⁶⁴ The text of the Fourth Amendment itself does not provide any clues for the content or form of an oath or affirmation. Therefore, in interpreting what the requirement entails, it is appropriate to “begin with history,” and, in particular, “the statutes and common law of the founding era.”⁶⁵

1. Oaths as a religious affirmation of truth

The practice of taking oaths is a custom of nearly every culture.⁶⁶ For centuries, civilizations have implemented oaths “because we do not place confidence in the veracity of men in general, when they profess to speak the truth.”⁶⁷ Individuals often lie, particularly when

61. *Id.* at 68.

62. *Id.*

63. *See, e.g.,* Hong Sai Chee v. Long Island R.R. Co., 328 F.2d 711, 713 (2d Cir. 1964) (“No reason in law exists for differentiation in the quality of truth between an oath and affirmation. Plaintiff’s capacity to tell the truth and the truthfulness of his testimony [after affirming] were not diminished in any way by his failure to take an oath and no statement that they might have been should have been made.”).

64. *See* United States v. Jones, 132 S. Ct. 945, 950 n.3 (2012) (“[O]ur task, *at a minimum*, is to decide whether the action in question would have constituted a ‘search’ within the original meaning of the Fourth Amendment.”).

65. *See* Virginia v. Moore, 553 U.S. 164, 168 (2008).

66. *See* Eugene R. Milhizer, *So Help Me Allah: An Historical and Prudential Analysis of Oaths as Applied to the Current Controversy of the Bible and Quran in Oath Practices in America*, 70 OHIO ST. L.J. 1, 4 (2009). In ancient societies, individuals would make an oath by calling upon a beast or a thing of nature to witness the truth of what the oath-taker was attesting to and to harm the oath-taker if what he was saying was false. Thomas Raeburn White, *Oaths in Judicial Proceedings and Their Effect Upon the Competency of Witnesses*, 51 AM. L. REG. 373, 374 (1903). What is likely the oldest recorded example of an oath can be found in the Old Testament’s account of a conversation between Abraham and the King of Sodom found in Genesis 14:22–23. JAMES ENDELL TYLER, OATHS: THEIR ORIGIN, NATURE, AND HISTORY 96–97 (1834).

67. TYLER, *supra* note 66, at 6.

it is in their best interest and the situation involves high-stakes matters.⁶⁸ Because of this, procedures that promote truth, such as oaths, are used to combat the “internal and natural inclinations” to act in line with “egoistic self-interest.”⁶⁹ Oftentimes, oaths expressly invoke divine or supernatural punishment to the oath-taker if he or she should swear falsely.⁷⁰

Under early English common law, only Christians could be sworn under oath as witnesses.⁷¹ Sir Edward Coke,⁷² a prominent early-seventeenth-century English jurist, endorsed the idea that only Christians could be sworn under oath, explaining that under English common law, an oath was “an affirmation or denial by any *Christian* of anything lawful and honest, before one or more, that have authority to give the same for advancement of truth and right, calling Almighty God to witness, that his testimony is true.”⁷³ It was not until the mid-eighteenth-century seminal case *Omychund v. Barker* that the English common law’s restriction against non-Christians taking oaths as witnesses was lifted.⁷⁴ *Omychund* marked a major change in the common law and presaged modern Western oath practices. In a concurring opinion, the Lord Chancellor Hardwicke explained that “the obligation of an oath . . . depends wholly upon the sense and ‘belief of a Deity,’” not necessarily a belief in the Christian God.⁷⁵ The Lord Chief Justice Lee observed that so long as “the witness is of a religion, it is sufficient; for the foundation of all religion is the belief of a God.”⁷⁶

68. Milhizer, *supra* note 66, at 5; *see also* White, *supra* note 66, at 373 (“Every man naturally seeks to promote the welfare of himself and his family before that of his neighbor. Unless he be largely influenced by considerations of morality or religion, he will, if necessary, tell a lie for that purpose.”).

69. Milhizer, *supra* note 66, at 5–6.

70. *See* TYLER, *supra* note 66, at 13–14.

71. *See* White, *supra* note 66, at 386–87. By the early eighteenth century, the common law generally permitted Jews to also be sworn under oath as witnesses. *See* 2 WILLIAM HAWKINS, A TREATISE OF THE PLEAS OF THE CROWN 434 (3d ed. 1739).

72. Sir Edward Coke (1552–1634) was an English barrister and judge who is widely regarded to be the greatest jurist of the Elizabethan and Jacobean eras. J.H. BAKER, AN INTRODUCTION TO ENGLISH LEGAL HISTORY 167 (4th ed. 2002).

73. 3 EDWARD COKE, INSTITUTES OF THE LAWS OF ENGLAND 165 (1797) (emphasis added) (spelling modernized).

74. *Omychund v. Barker*, (1744) 26 Eng. Rep. 15 (K.B.); 1 Atk. 22.

75. *Id.* at 32–33.

76. *Id.* at 31.

This English common law understanding of oaths was the basis for the lawmakers' understanding of oaths on the American continent.⁷⁷ As early American lawmakers established the first laws and legal procedures governing oaths, they continued to extensively borrow from their English forebearers. The United States Constitution mandates that oaths must be used to inaugurate some of the most significant government officials.⁷⁸ By the beginning of the twentieth century, nearly every state had adopted some legislation that incorporated the oath requirement.⁷⁹

2. *Affirmations as an alternative to oaths*

Just like an oath, an affirmation serves to promote truth; however, unlike an oath, affirmations do not invoke divine authority.⁸⁰ An affirmation “does retain all of the other key elements that provide significance to an oath: a *public* proclamation that is *formally* made in a way designed to *awaken the conscience* of the person affirming, under the *penalty* of perjury.”⁸¹

The original purpose of allowing the use of affirmations in lieu of oaths was to accommodate particular Christian sects, most notably the Quakers, whose religious beliefs prohibited the swearing of oaths.⁸²

77. Milhizer, *supra* note 66, at 27–28.

78. The United States Constitution incorporates the oath requirements in four places: Article I, Section 3, Clause 6 (Senators “shall be on Oath or Affirmation” when sitting for the purpose of impeachment); Article II, Section 1, Clause 8 (the President shall take the enumerated oath or affirmation before entering office); Article VI, Clause 3 (Senators, Representatives, members of State Legislatures, and all federal and state executive and judicial officers “shall be bound by Oath or Affirmation, to support this Constitution”); and Amendment IV (requiring an “Oath or affirmation” to obtain a warrant).

79. See 3 JOHN HENRY WIGMORE, A TREATISE ON THE SYSTEM OF EVIDENCE IN TRIALS AT COMMON LAW § 1828, at 2364 (1904).

80. Milhizer, *supra* note 66, at 37.

81. *Id.*

82. Some religious sects, such as the Quakers, objected to taking oaths based on the admonition of Jesus Christ in *Matthew* 5:33–37:

Again, ye have heard that it hath been said by them of old time, Thou shalt not forswear thyself, but shalt perform unto the Lord thine oaths:

But I say unto you, Swear not at all; neither by heaven; for it is God's throne:

Nor by the earth; for it is his footstool: neither by Jerusalem; for it is the city of the great King.

Neither shalt thou swear by thy head, because thou canst not make one hair white or black.

But let your communication be, Yea, yea; Nay, nay: for whatsoever is more than these cometh of evil.

Because the common law required witnesses to be put under oath, religious objections by Quakers and other minority Christian sects resulted in their exclusion as witnesses. This “effectively precluded these groups from using the court system to protect themselves and left them vulnerable to their adversaries, ‘who could sue them for property and never doubt the result.’”⁸³ Quakers and other Protestant dissenters remained legally disadvantaged until near the end of the seventeenth century, when the English Parliament began to provide relief from many of the laws that were oppressive to them.⁸⁴ Beginning in 1696, Quakers were “permitted in judicial proceedings to make a solemn affirmation” in lieu of an oath, thus allowing them to provide evidence in judicial proceedings.⁸⁵

Similar to how the English common law understanding of oaths was the basis for early American lawmakers’ understanding of oaths, so too was the understanding of American lawmakers regarding the use of affirmations heavily influenced by English common law.⁸⁶ By the time the United States Constitution was ratified, affirmations had become so generally accepted that they were expressly incorporated in each instance where an oath was required.⁸⁷ Where an oath was constitutionally required, an affirmation was constitutionally permitted. Also, similar to oaths, by the turn of the twentieth century, almost every state permitted affirmations in lieu of oaths for “either persons who were forbidden by ‘conscientious scruples’ or anyone who may have such a preference.”⁸⁸

B. Ensuring That Electronic Warrant Systems Satisfy the Requirements of the Oath or Affirmation Clause

When the Framers of the Fourth Amendment drafted the Oath or Affirmation Clause, they likely envisioned law enforcement

83. Michael W. McConnell, *The Origins and Historical Understanding of Free Exercise of Religion*, 103 HARV. L. REV. 1409, 1467 (1990) (quoting ROBERT J BRUGGER, MARYLAND: A MIDDLE TEMPERAMENT 30 (1988)).

84. See White, *supra* note 66, at 420.

85. 3 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 369 n.22 (Barron Fields Analysis, 1860). This accommodation applied only in civil cases, not in criminal cases. *Id.*

86. See Milhizer, *supra* note 66, at 38.

87. See *supra* note 78 (discussing the place of oaths in the Constitution).

88. Milhizer, *supra* note 66, at 39 (quoting WIGMORE, *supra* note 79, § 1828, at 2371) (noting that every state except for Oklahoma that had passed a statute on the matter permitted the use of affirmations in lieu of oaths).

officers appearing in person before magistrates when applying for a search warrant. The thought of satisfying the oath or affirmation requirement by testifying over a telephone, facsimile, email, laptop computer, tablet, or through other modern electronic means would never have crossed any of the Framers' minds. But with the Fourth Amendment's Warrant Clause being slowly eroded through the broad application of the exigent circumstances exception, implementing new technology is a valuable resource to help the Warrant Clause reclaim its place in protecting individuals' liberty interests in situations in which the exigent circumstances exception would otherwise apply.⁸⁹ However, state legislatures must ensure that the systems they design and implement are consistent with both the original purpose of oaths and affirmations and courts' modern application of Fourth Amendment principles.

1. The "true test" for satisfying the oath or affirmation requirement

In designing an electronic warrant system, states have a great deal of flexibility in the manner in which they wish to satisfy the oath or affirmation requirement of the Fourth Amendment. The oath or affirmation requirement "is a matter of substance, not form."⁹⁰ Neither the United States Constitution nor federal statutes mandate that oaths take any particular form,⁹¹ and state laws typically give considerable leeway concerning an adequate form for oaths and affirmations.⁹² Therefore, contrary to popular belief, there is no particular ceremony that is necessary to constitute the act of taking an oath or affirmation.⁹³ The only requirement is that *both* the

89. See *supra* Part II.

90. 2 WYANE R. LAFAYE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 4.3(e), at 660 (5th ed. 2012) (quoting *State v. Tye*, 636 N.W.2d 473, 478 (Wis. 2001)).

91. Milhizer, *supra* note 66, at 35.

92. See, e.g., *H.A.M.S. Co. v. Electrical Contractors of Alaska, Inc.*, 563 P.2d 258, 262 (Alaska 1977), *order supplemented*, 566 P.2d 1012 (Alaska 1977) (holding that substantial compliance on the part of affiants with the elements necessary to form a legal document is sufficient to satisfy the statutory requirements of an oath or affirmation).

93. See *United States v. Brooks*, 285 F.3d 1102, 1106 (8th Cir. 2002) ("[A] person may be under oath even though that person has not formally taken an oath by raising a hand and reciting formulaic words."); *People v. Sullivan*, 437 N.E.2d 1130, 1133 (N.Y. 1982) ("There is no constitutional prescription as to the particular form of the 'oath or affirmation' or the exact manner in which it is to be administered. In the usual case, there will be a formal swearing before a notary to the truth of the information provided, and any written statements submitted in support of the warrant application generally will contain the traditional jurat. This

magistrate issuing the warrant and the law enforcement officer applying for the warrant must understand that the warrant applicant is taking an oath or affirmation.⁹⁴

Even though it is not necessary that electronic warrant applications contain any *specific* wording to constitute an oath or affirmation,⁹⁵ it is critical that the wording used in electronic warrant applications impress upon the warrant applicant “an appropriate sense of obligation to tell the truth.”⁹⁶ As Fourth Amendment scholar Wayne R. LaFave notes, the “true test” for satisfying the oath or affirmation requirement is whether the affiant could be charged with perjury if a material allegation in the affidavit were false.⁹⁷ Although no precise wording is necessary to constitute an oath or affirmation, states could ensure that their electronic warrant application affidavits satisfy the oath or affirmation requirement by including a statement which plainly alerts the affiant to the fact that he or she could be charged with perjury if his or her statement is false.⁹⁸ Such a statement could be as simple as, “False statements made herein are punishable as a Class A Misdemeanor pursuant to section 210.45 of the Penal Law,”⁹⁹ and should explicitly state that the affiant’s false statement is punishable as a crime. At least one court has held that including such a formal notice in writing “may

does not mean, however, that such procedural formality is the *sine qua non* of the ‘oath or affirmation’ requirement.”).

94. 2 LAFAVE, *supra* note 90, at 658–59.

95. Indeed, the Framers did not understand an oath or affirmation as requiring particular wording. Different language used by different state constitutions illustrate that there was not a consensus among the states as to a particular language that constituted an oath or affirmation. Compare DEL. CONST. of 1776, art. 22 (providing that incoming office holders take an “oath, or affirmation,” which includes stating that they “will bear true allegiance”), with N.J. CONST. of 1776, art. XXIII (requiring incoming legislators to “take the following oath or affirmation, viz: ‘I, A.B., do solemnly declare’”), and PENN. CONST. of 1776, art. II, § 10 (requiring incoming legislators to take the “oath or affirmation of fidelity and allegiance . . . viz: I—do swear (or affirm)”).

96. 2 LAFAVE, *supra* note 90 (quoting *State v. Tye*, 636 N.W.2d 473, 478 (Wis. 2001)).

97. *Id.* at 659.

98. See *Sullivan*, 437 N.E.2d at 1133 (“[A] method of verification by which the maker of the statement is first alerted to the criminal consequences of knowingly providing false information in connection with a warrant application and then voluntarily acknowledges his acceptance of those consequences should suffice for purposes of the constitutional mandate that a warrant be issued upon proof ‘supported by oath or affirmation.’”).

99. This is the wording that was used in the affidavit involved in *Sullivan*, 437 N.E.2d at 1132.

provide a greater practical assurance against intentional misstatements of fact than the more mechanical and oftentimes routine procedure of swearing before a notary” or judge.¹⁰⁰ The wording need not invoke God or a supreme being because, as noted above, affirmations carry sufficient legal weight. What is vital to satisfying the constitutional requirement is to include language that threatens perjury, which has been proven to be an effective tool to impress upon a person the importance of telling the truth by emphasizing the legal consequences of making a false statement when providing the probable cause for the search.¹⁰¹

2. Satisfying the signature requirement

After satisfying this “true test” of including a statement that unequivocally subjects the affiant to perjury if a material allegation in the affidavit is false, state legislators must also ensure that the affiant’s signature is attached to their statement in a legally binding way. Without a legally binding signature, the oath or affirmation requirement of the Fourth Amendment is not satisfied, regardless of the particularized wording of the statement invoking the penalty of perjury for false testimony.¹⁰² There are various ways to satisfy the signature requirement, and different local jurisdictions should implement the method that local lawmakers feel best balances the necessity of making the process as quick as possible to eliminate the exigent circumstances exception while still impressing the importance of the matter onto the affiant to satisfy the oath or affirmation requirement while working within their specific budgetary constraints. The following is a non-exhaustive list of three different ways to satisfy the requirement, as well as the benefits and drawbacks of each method.

One method in implementing modern technology is for the affiant to email the affidavit to the reviewing magistrate and swear her affirmation over a face-to-face remote video conversation, such as Skype.¹⁰³ This method may be appropriate in jurisdictions that want to maintain closer contact between the officer applying for the

100. *Sullivan*, 437 N.E.2d at 1134.

101. *See Swingle & Thomasson, supra* note 16, at 17.

102. *See Beci, supra* note 1, at 298.

103. *See Swingle & Thomasson, supra* note 16, at 20 (noting that a county in Missouri has plans in place to implement Skype in its electronic search warrant process).

warrant and the magistrate that reviews the warrant, more closely resembling the traditional method of obtaining a warrant by appearing in person before a magistrate. This method shares some of the benefits of telephonic search warrant applications, including providing the magistrate with the “opportunity to examine the affiant should any questions arise in his mind concerning any of the allegations in the affidavit or of the sufficiency of the affidavit as a whole.”¹⁰⁴ Importantly, using face-to-face video technology also allows the magistrate to make observations and credibility judgments about the demeanor of the affiant,¹⁰⁵ although how much judges rely on such evidence in issuing a warrant is not entirely clear.¹⁰⁶ This method might be more redundant and time consuming than necessary, since the applying officer must also email his or her affidavit (that already contains the necessary information to receive a warrant) to the judge. The more time-consuming the process, the more likely that the exigent circumstances exception may be employed. However, the combination of an email and videoconference is preferred over only having a videoconference because the email creates a paper trail that only holding a videoconference would not.¹⁰⁷ A disadvantage of this method is that law enforcement agencies would need to make face-to-face video technology readily available to both police officers in the field and judges, which could prove to be cost prohibitive depending on the resources available to local law enforcement agencies.

Another method of implementing modern technology in the warrant procurement process is for the officer or judge to place their electronic signatures on electronically submitted documents using the format: /s/ John or Jane Person.¹⁰⁸ Earlier this year, the Indiana legislature approved the use of electronic signatures on an affidavit and

104. Smith, *supra* note 2, at 1615 (quoting *People v. Chavez*, 27 Cal. App. 3d 883, 886 (Cal. Ct. App. 1972)).

105. See E. John Wherry, Jr., *Vampire or Dinosaur: A Time to Revisit Schmerber v. California?*, 19 AM. J. TRIAL ADVOC. 503, 528–29 (1996) (stating that the demeanor or credibility evidence is important to the judicial function in issuing warrants).

106. Smith, *supra* note 2, at 1614–15 (“While those unfamiliar with the criminal justice system may believe that magistrates scrupulously review evidence and meticulously question affiants, in reality, warrant applications are often approved after only minimal inspection.”).

107. See Paul D. Beechen, *Oral Search Warrants: A New Standard of Warrant Availability*, 21 UCLA L. REV. 691, 701 (1973) (noting that telephonic search warrants lack a written record between the magistrate and the affiant for later courts to review).

108. See Swingle & Thomasson, *supra* note 16, at 19.

warrant, noting that “[a]n electronic signature may be indicated by ‘s/Affiant’s Name’ or ‘s/Judge’s Name’ or by any other electronic means that identifies the affiant or judge and indicates that the affiant or judge adopts the contents of the document to which the electronic signature is attached.”¹⁰⁹ This method is preferable over simply checking a box on a web application form screen¹¹⁰ and implements laptop computer technology that is already widely available in police vehicles and judges’ chambers, so purchasing expensive new equipment would be unnecessary.

The final potential method is for the affiant or judge to use an electronic written signature.¹¹¹ There is currently a variety of computer programs, applications, and hardware that make it possible to include a person’s actual signature within the body of an email or other document. For example, the officer could use an iPad to sign his or her signature, and then use an iPad application to securely attach that signature to his or her electronically composed affidavit before sending it to the judge for review. The greatest benefit of this method is that the act of actually signing one’s name and attaching the signature to a document impresses the importance of the matter onto the affiant, thereby satisfying a key component of the oath or affirmation requirement. Signing a signature by hand is more likely to help the affiant realize the importance of his or her actions than simply typing characters on a keyboard, as would be the case in the previous two methods. However, similar to the drawbacks of the face-to-face videoconference method described previously, this method would require law enforcement agencies to purchase and

109. IND. CODE ANN. § 35-33-5-8(h) (West 2014); *see also* MO. SUP. CT. R. 103.04(d) (approving a similar method in contexts other than warrant applications, stating that “[a]n electronic document requiring a signature shall be signed by an original signature, stamped signature or an electronic graphic representation of a signature, or in the following manner: /s/ John or Jane Person”).

110. Courts have held that simply checking a box on a computer screen is legally binding in at least one other context. *See, e.g., ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996) (holding that a purchaser of computer software accepted the offer and terms contained within a computer program license by clicking through a dialog box). However, as noted in Part III.B.1, the most important requirement is to impress upon the person making the statement the importance of telling the truth by emphasizing the legal consequences of making a false statement. Requiring the persons testifying to take the extra step to sign their name rather than simply checking a box would more clearly impress upon them the significance of their testimony.

111. Swingle & Thomasson, *supra* note 16, at 19.

maintain new touchscreen devices, which might prove cost-prohibitive to some agencies.

In summary, understanding the original meaning of the Oath or Affirmation Clause is necessary to ensure that state-implemented electronic warrant systems comply with the Fourth Amendment. In implementing new technologies, state legislatures must ensure that the systems they design are consistent with both the original purpose of oaths and affirmations and courts' modern application of Fourth Amendment principles. Based on the original purpose of oaths and affirmations, the true test for satisfying the oath or affirmation requirement is to impress upon the affiant that he or she could be charged with perjury if a material allegation in the affidavit used to procure a warrant were false. States could best ensure that their electronic warrant application system satisfies this requirement by including a statement that plainly alerts the affiant to the fact that he or she could be charged with perjury if his or her statement is false. State legislatures must also ensure that the affiant's signature is attached to his or her statement in a way that carries legal weight. As lawmakers implement the form of technology that best fits their jurisdiction's needs, they will more readily be able to ensure that the Oath or Affirmation Clause of the Fourth Amendment is satisfied, despite officers' lack of appearing in person before a judge to obtain a warrant.

IV. CONCLUSION

In order to better protect the privacy and liberty interests of American citizens, state legislatures should update their state's criminal code to allow law enforcement officers and reviewing courts to utilize the most modern technology in an effort to narrow the exigent circumstances exception to the Fourth Amendment's Warrant Clause. The Fourth Amendment's Warrant and Oath or Affirmation Clauses were intended by the Framers to serve as a check on government power designed to protect and preserve Americans' liberty and privacy interest. The exigent circumstances exception has been one of the means most often used by law enforcement officials to circumvent the Fourth Amendment's warrant requirement. Although the exigent circumstances exception was once necessary to secure time-sensitive evidence due to the often long amounts of time it took to procure a warrant, the time has come when modern technology can and should be utilized to foster a seamless connection between law enforcement personnel and judges.

This new technology, including laptops and tablets with cellular capabilities, enables a law enforcement officer to remotely apply for and obtain a warrant in a matter of minutes, a significant decrease in time from previous warrant application methods. Because advanced communications technology dramatically decreases the amount of time necessary to obtain a warrant, the circumstances that are considered exigent and an exception to the warrant requirement should also decrease. State legislatures should implement such technologies in their state's warrant application systems and reinforce the vital protections that warrants provide to American society.

However, as state legislatures work to utilize new technology, they must be mindful of the requirements set forth in the Fourth Amendment's Oath or Affirmation Clause. A careful analysis of the history of oaths and affirmations, and the Framers' likely understanding of oaths and affirmations at the time of the drafting of the Fourth Amendment, reveals that the oath or affirmation requirement is satisfied when the person providing testimony is impressed with the seriousness of his or her statement and understands that she could be charged with perjury if his or her statement is false. In designing states' electronic warrant systems, states should use language in the warrant application process that plainly alerts the affiant submitting the application of this reality. Also, in order to satisfy the oath or affirmation requirement, state legislatures should ensure that the affiant's signature is attached in a form that is legally binding upon the affiant.

In sum, as state legislatures strive to update their criminal codes to utilize the most modern technology, the liberty interest protected by the Fourth Amendment's Warrant Clause will be reinforced because situations in which the exigent circumstances exception applies will likely decrease. In utilizing this new technology, state legislatures should protect their warrant application systems from constitutional challenges by implementing systems that (1) impress upon the affiant the legal significance of her statement, and (2) require a signature electronically attached to the document, thereby satisfying the oath or affirmation requirement of the Fourth Amendment.

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