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ELECTRONIC REAL ESTATE RECORDS: A MODEL FOR ACTION¹

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I. INTRODUCTION

The legal, technological, and structural components are in place to allow the legal community to embark on the process of creating a uniform real property recording act. Certain jurisdictions have started the process by adopting various provisions allowing counties to implement electronic recording systems. These provisions are, however, disparate and inconsistent. Given the inconsistencies in the manner in which the electronic recording systems are developing, national commercial and lending practices would have a difficult time attempting to comply with all the possible permutations.

It is time to focus our experience and our technological capabilities in a prudent, cost effective manner, to create a truly uniform electronic recording system. What follows is a review of the development of the recording of public land records in the United States, focusing mainly on the prior attempts at establishing an electronic recording system. This background establishes the foundation leading to the conclusion that now is the time for the development of a viable electronic recording system. The background is followed by an overview of a possible model electronic recording system, developed in Iowa, that could serve as a starting point for the dialogue and action essential to the creation of a necessary and more uniform electronic recording system.

1. This article is the basis of a chapter, also written by the author, in RUFFORD G. PATTON & CARROLL G. PATTON, *PATTON ON TITLES* (2d ed. 1957 & Supp. 2002).

2. Dean and Professor of Law, Western New England College School of Law, recently appointed as the Reporter for a committee of the National Conference of Commissioners on Uniform State Laws (NCCUSL) that will draft an electronic land records statute titled the Uniform Real Property Electronic Recordation Act (URPERA). See Uniform Law Commissioners Web site at <http://www.nccusl.org/nccusl/nccusl/draftingprojects.asp#urpera> (last visited November 24, 2002).

II. BACKGROUND³

The development and maintenance of public land records in America dates from early colonial times.⁴ America was founded in an era when the historical old-world importance of land as a source of status and wealth was beginning to collapse. Land began to take on the aspect of a commodity. It was to be owned and used. Although it might be passed on to one's heirs or devisees, in all probability it would be sold to a purchaser who, in turn, would use and dispose of it in the same way.

To trust this new commodity in the stream of commerce, evidence of the seller's title, traceable to a secure source, was essential. Few, if any, current owners possessed the deeds from all of the prior grantors. Moreover, as time passed, other interests such as mortgage liens, the hallmark of commerce, needed review. The purchaser could not look to, or even trust, the seller to produce these documents—they were essentially derogatory of the title that the seller was seeking to convey. Some regular process for cataloging the various claims to the land had to be devised.

As a consequence, colonial, and subsequently state, legislatures established land recording systems in which evidence of ownership or claims against the land could be recorded. For the relatively few transactions occurring at that early time, a simple paper system was quite adequate. The purchaser or claimant would present the document to the recorder who would copy it longhand into the records of the town or county. A subsequent purchaser could then inquire at the recorder's office in the town or county in which the land was physically located for copies of the documents affecting the seller's title.

For that era of history, paper technology was more than adequate. But as years unfolded, the document records multiplied. At first they increased as a simple result of the accumulation of time and the resulting accumulation of transfers. In the period of a hun-

3. The focus of this article is on electronic real estate records; this general background section is included to supply the history of recording systems in the United States, which sets up the context from which a functional electronic recording system must emerge. For a more in depth look at the history of recording systems in the United States, see 14 RICHARD R. POWELL, *POWELL ON REAL PROPERTY* § 82.01[1] (Michael Allan Wolf ed., 2002) (discussing the history of recording acts and the early development of recording acts in America).

4. In 1640, the Massachusetts Bay Colony enacted the first functional recording act. 1 *RECORDS OF THE GOVERNOR AND COMPANY OF THE MASSACHUSETTS BAY IN NEW ENGLAND* 306 (Nathaniel B. Shurtleff ed., AMS Press 1968) (1853).

dred or more years, many transfers of real estate, accompanied by various liens and probates of estates, would be recorded. This growth began to increase because conveyances became more frequent, financing became more common and parcels were being subdivided, resulting in even more conveyances. As a consequence, the first innovation in the recording system became necessary—the index. The index served as a starting point for a title examiner to begin his or her search. Earlier index systems were based on the names of the grantor and grantee. Later systems were based on the individual parcels of land and became more prevalent as history progressed.

Still, the land records continued to grow at an increasing rate. By the mid-twentieth century, in order to accurately and efficiently record the increasingly complex and numerous land transfers, county recorders began using other means to simplify the land recording process. Rather than copy documents by longhand or with a typewriter, photocopying systems developed, followed by microfilm and other microform systems. Contemporary land record recording systems are evolving further, displacing paper records with electronic data systems through the use of scanners and computers.

The index has also been simplified. Today it is unusual to find an index on paper or index cards. Rather, the information is maintained in an automated system, usually a computer database, thereby making the parcel and/or grantor and grantee information more readily available, although usually only in the recorders' offices.

As good as these improvements may be, real estate conveyancing and the speed of recording and title searching have not kept pace with the speed of the economy and the complexity and diversity by which it operates. Real estate transactions are no longer simply local events. The land, the seller, the purchaser, and the financier all may be located in different states.⁵ Nor are real estate sales limited to simple residential sales. They are often parts of complex acquisitions and financing transactions. Simply keeping track of the many pieces of paper involved can be daunting.

In an effort to simplify and speed up commercial transactions generally, many states have adopted the Uniform Electronic Trans-

5. Indeed, the seller, purchaser, or financier may be located outside the United States.

actions Act (UETA),⁶ and the federal government has enacted the federal E-Sign Act.⁷ Inter alia, these statutes authorize the conveyance and financing of real estate by electronic means, without any documentation on paper.⁸ However, as of this date, these acts do not require a recorder to accept electronic documents for recording. While such a requirement may be desirable, this objective cannot be accomplished without modernizing the recording system and developing a system for accepting and processing electronic real estate documents.

The land recording system today is designed and equipped to accept paper documents. Since an electronic document is, by definition, not paper, how would such a document be created and how would a person deliver it to the recorder? Although one might imagine delivering such an electronic document to the recorder by e-mail or on a disc, the very nature of the electronic document introduces several difficulties. What would be an acceptable software format for the document? Would it be in a word processing format? If so, which one? Would it be in a graphic file? If so, what kind?

Beyond the simple question of the document format lie other significant issues. Although UETA and the federal E-SIGN Act authorize the use of electronic documents, the kind of electronic signature required for authentication is left to the parties. Many different types of electronic signatures could be used. Nonetheless, the recorder would have to be able to read each of them and determine, at a basic level, that the signatures are valid. With various types of electronic signatures available—many of them proprietary and requiring special software and hardware—the recorder would be overwhelmed and unable to afford the technology needed.

How secure are the various possible electronic signatures? Not all of them provide equal security. What means are available to assure that the grantor actually appended her or his electronic signature to the document? How secure is the document from being intercepted and changed en route to the recorder's office?

6. UNIF. ELEC. TRANSACTIONS ACT (Nat'l Conf. of Comm'rs on Unif. State Laws 1999) [hereinafter UETA].

7. Electronic Signatures in Global and National Commerce Act, 15 U.S.C. §§ 7001-7031 (2002) [hereinafter E-SIGN].

8. These enactments, in effect, state that electronic documents with electronic signatures will comply with the Statute of Frauds. It is no longer necessary that there be a paper document or memorandum containing the agreement signed with a traditional signature.

These questions are by no means intended to be a deterrent to electronic commerce in real estate. Quite the contrary, they merely raise the issues that must be considered and resolved before adopting legislation and protocols for recording systems that can accept electronic documents, process them, and make the information available to the public. When this is done, the end product will be a speedier, simpler, and more uniform process of recording evidence of land titles.

III. STRUCTURE FOR AN ELECTRONIC LAND RECORDS SYSTEM

With existing paper recording systems, there are two basic processes: the recording process and the searching process. An electronic land recording system must accommodate both processes. Any such system must also include procedures and technology to address the security concerns that arise when verifying electronic signatures.

A. *Types of Electronic Documents: Effects on Recording and Searching*

In an electronic land record system, the more complex of the two processes is the recording process. However, once the recording process is fixed, the searching process follows rather neatly from its results.

Somewhat simplified, the traditional recording process consists of delivering a document to the recorder's office where it is verified, copied, and preserved in the land records. Index information is extracted from the document (or may be provided separately by the recording party) and inserted in the appropriate land records index. The searching process consists of examining the index for the purpose of ascertaining what documents in the land records affect the parcel in question. Then the index information is used to locate and retrieve those documents.

In order to set up an electronic recording process, one must first set standards for the format and content of documents that may be recorded. In the paper recording paradigm, this might be considered the same as setting standards for the size and kind of paper, the type font, and the ink color. In the electronic model,⁹

9. In the following description, one should bear in mind that the information in the recorder's office will consist of two separate sets of information: the electronic land records, where copies of electronic documents will be stored, and the electronic index, where information necessary to locate the electronic documents will be stored.

current technology provides several document formats, each raising different electronic recording issues.¹⁰

1. Computer Graphics Files: Created at the Recording Office

The first type of electronic document is quite simple and involves very little change from current practice, at least in those recording offices currently using computer graphics files to copy and preserve documents. In fact, the document itself is not electronic, only the ultimate copy is electronic.

In this system, the document begins its life as a paper document in the scrivener's office. After it is drafted, signed by the necessary parties, and acknowledged, it is physically delivered to the recorder's office. There, the document is electronically scanned into a computer graphic file¹¹ and stored in the electronic land records storage file. Index information is also extracted from the paper document, or provided separately by the party filing the document. The index information is stored in the electronic index, which is a database of index information for all documents in the electronic land records storage file. The information in the index is hyperlinked or otherwise cross-linked to the documents in the electronic land records storage file.

When a person desires to search the land records system, she or he may do so via terminals at such locations as are permitted under the system. The title searcher may access the index and obtain references for all the documents affecting a parcel of land. Once these references are found, the searcher may hyperlink to the actual document. The searcher may also download a copy of the document to her or his terminal.

While this type of document hardly qualifies as a true electronic document in its origins, it would qualify as such after it is converted into a graphic file by the recorder. Indeed, this type of document may be necessary during the (probably lengthy) transi-

10. See generally Dale A. Whitman, *Digital Recording of Real Estate Conveyances*, 32 J. MARSHALL L. REV. 227 (1999); see also Dale A. Whitman, *Digital Recording of Real Estate Conveyances*, Western New England College School of Law Electronic Recording Conference (Oct. 26, 2001), at <http://www.law.missouri.edu/whitmand/digital%20recording/recording.html>; Carmen Bramante, *Choosing the Digital Future: The Use and Recording of Electronic Real Estate Instruments*, Western New England College School of Law Electronic Recording Conference (Oct. 26, 2001), at http://wneclaw.wnec.edu/events/ElecRE/wnec_law_ER.pdf.

11. An example is a .tiff file.

tion period from paper documents to electronic ones.¹²

However, the shortcomings of this type of system are obvious and many. The original document must still be physically delivered to the recorder, whether by personal delivery or by mail. It must then be converted into a computer graphic file, with all of the possible errors inherent in the process. Furthermore, since the document is "unintelligent," information cannot be extracted from it by an automated computer process.¹³ Consequently, creating the index for the document would entail manual entry of the index information, thereby introducing the potential for further error. Finally, the recording process will be just as time consuming,¹⁴ and potentially more expensive, since there is the need to produce and work with both paper and electronic documents.

2. Computer Graphics Files: Sent to the Recording Office

A second type of electronic document is, in many ways, very similar to the one described above. It, too, begins its existence as a paper document in the scrivener's office. It is drafted, signed by the parties, and acknowledged, just as any other paper document. However, unlike the previously described document, it is converted into an electronic document in the scrivener's office. There, it is scanned and copied into a computer graphics file and the copy becomes the electronic document. The copy, along with any necessary index information, is sent electronically to the recorder's office.

There are several possible means of electronically delivering the document to the recorder's office, potentially as simple as attaching it to an e-mail message to the recorder.¹⁵ Any additional information required by the recorder could also be included. Once the electronic document is received by the recorder, it will be verified, to the extent possible,¹⁶ and stored in the electronic land records. An entry will also be made in the electronic index, quite

12. One should not expect that all attorneys, businesses, and individuals would be emotionally or financially able to make a transition to an all-electronic form of conveying immediately upon adoption of a statute allowing it. More likely, a considerable number of years will pass before all conveyances can be recorded in electronic format.

13. As a graphic file, it exists only as a picture of the original paper document; it does not contain individual words and letters that can be searched and extracted.

14. However, it would not be as time consuming as a search of the records.

15. However, such a means of delivery is not very secure. See discussion *infra* Part III.B and accompanying text.

16. Serious problems exist as to the ability to confirm the veracity of the signature and acknowledgement. Additional problems exist with regard to assuring that the doc-

similar to that described previously. Searching of the electronic land records system will be similar to that previously described.

The clear advantage of this type of electronic document is that it is converted from paper into an electronic format before it is sent to the recorder's office, thereby sharply reducing the time and cost of transmitting the document to the recorder. Nevertheless, there are significant disadvantages. While reducing some costs and saving some time in the recorder's office, the costs and processing time in the scrivener's office are increased due to the document conversion process. The conversion process, as in the previously described process, would also raise the potential for error.¹⁷ Further, since each scrivener may use proprietary software and hardware, which each recorder would also need to possess, these costs to the recorder would be increased. Such proprietary software and hardware would also introduce difficulties in any efforts to achieve uniformity in the system.

Finally, the document sent to the recorder's office would not be the original document—that remains the paper document in the scrivener's office. This raises questions about the legal status of the electronic copy, as well as security issues about its veracity, such as whether the copy has been manipulated or changed from the original before arriving at the recorder's office.

3. A True Electronic Format

A third type of electronic document begins its existence in a true electronic format with no previously executed paper version. Since there is no paper version and no written signature, it depends on UETA¹⁸ or the federal E-SIGN Act¹⁹ for its validity. As described previously,²⁰ these acts authorize the creation of enforceable electronic agreements, provided they are signed with an acceptable electronic signature.

The format of this type of document is, in the first instance, a graphic file. It is created in the attorney's or mortgagee's office by

ument has not been intercepted and tampered with after it leaves the presence of the executing parties and before it is received by the recorder.

17. By comparison, a document which begins as an electronic original would be the actual agreement of the parties and would not suffer the potential of error in conversion.

18. UNIF. ELEC. TRANSACTIONS ACT (Nat'l Conf. of Comm'rs on Unif. State Laws 1999).

19. Electronic Signatures in Global and National Commerce Act, 15 U.S.C. § 7001 (2002).

20. See *supra* notes 6 & 7 and accompanying text.

the use of appropriate hardware and software. The substantive content of the document (i.e., the various agreements of the parties) is reduced to a graphic or picture of words that form the agreement. An electronic signature may then be appended to the graphic electronic document. The signature may be a holographic image of the actual handwriting of the signator.²¹ When completed, the graphic file presents an on-screen picture of what one would expect of a paper version^oof the same document, including a handwritten signature and acknowledgement.

This electronic document is sent to the recorder's office electronically. When the document arrives at the recorder's office, it is stored in the electronic land records storage file. Since the document is a graphic file, and index information can not readily be extracted from it, additional information will likely be required by the recorder when preparing the index. The recorder will obtain that information either from supplemental information supplied by the scrivener, or the recorder will need to read or scan the graphic file to obtain it. The searching of the electronic land records system will be similar to that previously described.

The major advantage of this form of electronic document over those previously described is that it is a true electronic document. There is no need to create a paper original and convert it into a graphic electronic document. It thus enhances productivity by reducing the time and cost of creating the document. As with the former example, it also reduces the time and effort needed for transmittal and recording.

However, a major shortcoming is the fact that it is an "unintelligent" document. It is merely a graphic file and information for the electronic index or for other searching purposes is difficult to extract from it. Thus, supplemental information must be transmitted to the recorder by the attorney or mortgagee. Alternatively, the recorder will be required to extract the information by human intervention. Either of these alternatives adds time and cost as well as increases the potential of mistake due to human error. Further inefficiencies are introduced because of the potential of many different proprietary versions of the technology necessary to create these electronic documents.

21. This signature process is much as one might experience with certain credit purchases at various stores in which an actual graphic of the purchaser's signature is created. For a discussion of holographic signatures, see discussion *infra* Part III.B.1.

4. HTML and XML Protocols

A fourth type of electronic document available under current technology makes use of HTML and XML (XHTML) protocols. These protocols are part of an open software architecture and are available for usage by programmers and end users. The document is thus readable by all parties involved in the transaction, as well as the recorder, without the need for expensive proprietary software and hardware.

A document created with these protocols uses generally recognized embedded "tags" to designate various data entries, such as "grantor," "grantee," "PIN," and other document contents. Each of the entries is an individual set of data that is readable and extractable electronically. Unlike the previously described documents, this type of electronic document is not a graphic file, but rather one containing information in discrete readable data sets. The document is drafted by the scrivener directly in the electronic format; there is no prior paper document. Nevertheless, it will be readable on-screen much as a traditional paper document would be. It is then signed by using a digital signature.²²

After the document is created and signed by the party, it is sent electronically to the recorder's office. Upon arrival at the recorder's office, it will be verified and stored in the electronic land records. Index information can be extracted directly from this document and need not be separately sent to the recorder. Based on established standards, information delimited with certain "tags" can be routinely extracted and entered into the electronic index.

The searching process is much the same as previously described. However, since the document consists of individual "words" that can be searched as well as extracted, the title searcher can, if the system is so set up, not only look for information by searching the index, but may also search the actual electronic document. Thus, it will be possible to use the information for a multitude of purposes. Non-standard information can be searched across documents even though the electronic index does not contain that data.

B. *Security: Verification of Electronic Signatures*

There are security concerns with electronic documents that arise from the potential of an initial forgery of the document, or

22. See *infra* Part III.B.2.

from tampering with the electronic document during transit after it leaves the signator and before it arrives at the recorder's office. In an effort to prevent such forgery and/or tampering, the recorder should verify the document and its signature.

With paper documents, recorders have sought to prevent forgeries and tampering in two ways. First, a recorder attempts to ascertain that the document is actually signed by the party who purports to have executed it. This is usually done by the acknowledgement process. The person executing the document personally appears before a notary public or other authorized figure and signs the document or attests that he or she is the person who signed the document. If the notary public is satisfied that the document is properly signed, she or he signs the acknowledgement and includes certain identifying information. The recorder relies heavily on the authenticity given to the document by the notary public. While not a perfect method, it generally removes all but the most sophisticated forms of fraud and forgery.

The recorder also attempts to ascertain that the document has not been changed after it has left the presence of the signator. This is accomplished by a more or less loose set of standards that looks to such things as initials inserted by the signator if information is struck or inserted. The recorder also looks for obvious attempts to erase or change the contents of the document. If the recorder is satisfied that there has been no fraud, in either the original signature or during the subsequent transmittal, the document is accepted as verified.

Any system of accepting and recording electronic documents should perform essentially the same verification process as currently exists for paper documents. Thus, the electronic recording system should assure that the document was actually created and "signed" by the party who purported to sign the document. It should also assure that the document has not been intercepted and changed in some fashion after the document has left the presence of the signator.

There are several methods of signing documents electronically, some more secure than others. Within the secure methods, some provide more security and are easier to use than others. Among the obvious insecure methods are simple typed messages and attachments as are currently used in general e-mail communication. Anyone may "sign" a person's name, perhaps not even his own, by typing it. Even if signed by the purported signator, the e-mail docu-

ment may be intercepted in transit and its contents changed. Thus, simple e-mail documents are not satisfactory for electronic recording.²³

Another type of document security involves biometrics. With these processes, certain unique bodily features can be used to identify the signing party. These include fingerprint scans, retina scans, and even unique blood characteristics. However, these processes are currently not very satisfactory. The technology needed is expensive and not widely available. There is also difficulty associated with the recorder's ability to verify the biometric scan.²⁴ Finally, there are serious privacy issues that must be resolved before these methods of identification can be widely used.

There are two types of electronic signatures that currently enjoy some usage or acceptance, but provide different degrees of security. One type involves a "holographic" picture of an actual signature that is made by the party and imbedded in the document. The second form of technology, sometimes known as a digital signature, involves a unique set of characters that is imbedded in the document by means of a secure algorithm.

1. The Holographic Signature

The "holographic" signature is a graphic of the signator's actual signature. It has been used most often with the graphic original document described in Part III.A.2 above. The image of the signature and the acknowledgement, if required, is obtained by means of a handwriting stylus. The signature image is then attached to the graphic electronic document and is visible on the computer screen.²⁵ Once the signature is attached to the document itself, it presents a close rendition of what one would normally see on a paper document.

A "holographic" signature could be verified by the use of an acknowledgement, the method currently employed in verifying paper documents. The notary could witness the signature or take the

23. To the extent that this means of signature has been used, the enabling acts or recorder practices have limited acceptance of documents so signed to "trusted signators"—persons or entities that might be assumed to be reliable. *See, e.g.*, ARIZ. REV. STAT. § 11-461 (C) (2001); CAL. GOV'T CODE § 27279.2 (2002). Of course, this does not assure that they were not forged, nor does it assure that there was no tampering with the document in transit.

24. This will require a database of retina scans, fingerprints, and/or blood characteristics.

25. This signature process is much as one might experience with certain credit card purchases where the purchaser signs with a special pen or stylus.

acknowledgement and thereupon attach his or her own signature and certification. Both signatures would then be a part of the document and be transmitted to the recorder's office.

However, without more, either the signature and/or the acknowledgement could be tampered with or the document subsequently changed. Thus, by itself, this form of electronic signature is not very secure. Various proprietary vendors may offer secure procedures by the use of passwords, but they are still subject to the same issues. The proprietary nature of these processes also raises issues regarding the ability of the recorder to verify the signature without actually possessing a copy of the proprietary software and hardware.

2. Digital Signature Technology

Digital signature technology involves the use of a private key and a public key (PKI). The private key allows both the execution and the reading of the document, while the public key only permits reading of the document. A certification authority issues a digital signature to a subscribing party.²⁶ The signature consists of a unique string of characters assigned to the subscriber. The subscriber is issued a private key containing that signature. The document can only be signed using the private key. The public key is made generally available to the public and allows another party, such as the recorder or title examiner, to verify the signature executed by the subscriber.

The PKI technology may also be incorporated into a "smart card," that is, a "credit" card that allows the signator to "sign" the document by using the card. This card is similar to a credit card with a computer chip imbedded in it, containing the PKI information. By this means, the document can be verified by tracing it back to the "smart card" issued to the signator.

When the document is "signed" using this technology, an algorithm is applied to the entire document that combines the electronic document with the digital signature in such a way that it is extremely difficult, if not practically impossible, to tamper with the document after it leaves the presence of the signator. If the document has been tampered with, the fact of tampering will be revealed when the document is read using the public key. This form of secure signature is generally associated with the XHTML document described in Part III.A.4. It may also be used to "wrap" the

26. See, e.g., Utah Digital Signatures Act, UTAH CODE ANN. § 46-3-101 (2001).

graphical signature and the acknowledgement to the document itself, as described in Part III.A.3 above.

IV. UNIFORMITY AND STANDARDIZATION OF RECORDING PROCESSES

Real estate transfers have historically been a local process. Attorneys, lenders, and recorders have established recording standards for formatting and verifying documents. In some cases these standards are established by state law, but in many others they are based on local custom and tradition. Although a fair degree of uniformity has come into practice across the United States, there continue to be many differences among recording jurisdictions, such as the acceptable physical size of the document, the necessity and use of header space on the first page of the document, the appropriate wording of the acknowledgement, and acceptable type size. These differences tend to make documents created in one jurisdiction difficult to record in another jurisdiction unless the scrivener has prior knowledge of the appropriate protocols. They have kept real estate practice substantially local.

In recent years the nature of real estate transactions has changed. Purchasers often purchase from, or at least move from, out-of-state locales. Financing of real estate purchases, especially with the dominance of the secondary mortgage market, is no longer a local transaction. Although the originator of mortgages sold in the secondary mortgage market has tended to remain local, the custom is no longer as common with the advent of national mortgage lenders and mortgage lending on the Internet. While the nature of real estate transactions has evolved in recent years, from a purely local one into one involving many participants at some physical distance from the real estate locale, recording protocols have tended to remain very local.

One major influence in the financing marketplace in recent years has been the Federal National Mortgage Association (Fannie Mae). Fannie Mae is the dominant purchaser of real estate mortgages in the secondary mortgage market. As such, it has had the ability to insist that certain content be included in any mortgage that it purchases. Eventually it created the standard form "FNMA" real estate mortgage, with allowable local non-uniform covenants.²⁷

27. Fed. Nat'l Mortgage Ass'n - Fed. Home Loan Mortgage Corp., FNMA/FHLMC Multistate Fixed Rate Note and Mortgage (required for secondary market purchase by FNMA/FHLMC).

So dominant is the position of Fannie Mae that most residential mortgages today are executed on the standard FNMA form.

With its position in the mortgage market so strong, it is reasonable to expect that Fannie Mae will have a significant interest in the standards and protocols involved in the creation and recording of electronic documents. On October 25, 2000, shortly after the effective date of the federal E-SIGN Act, it issued LL09-00: Electronic Mortgages.²⁸ The letter set forth Fannie Mae's concept of the type of documents it will purchase in electronic format. It was not a definitive designation and would certainly be supplemented at a later date. It did, however, set out Fannie Mae's focus on HTML and XML technology in an open standard known as XHTML. On June 28, 2002, Fannie Mae issued Announcement 02-08, in which it supplemented the earlier letter by stating that it was ready to begin accepting e-Notes and e-Mortgages that comply with certain standards.²⁹

Fannie Mae's presence in the secondary mortgage market suggests several important facts for any electronic land recording system. First of all, as a matter of practical necessity, even if not as a matter of law, mortgages will generally be executed in a Fannie Mae-acceptable electronic format. Since most local originators of mortgages desire to have them purchasable by Fannie Mae, they will draft electronic mortgages in a format acceptable to Fannie Mae.

Moreover, recording systems must be sufficiently uniform to allow national recording of mortgages. Any aspect of the system that allows local recorders to deny recording of electronic documents in the format designated by Fannie Mae, due to undesirable or unintelligible format requirements, will be problematic.

Finally, the electronic recording system developed in any jurisdiction should be sufficiently adaptable in order to accommodate new developments in electronic technology. For example, one might easily foresee that new methods for transmitting electronic documents among attorneys, mortgagees, and recorders will develop. As a matter of legal structure, the electronic recording act should be a "shell" that allows the appropriate administrative per-

28. Fannie Mae Announcement, LL09-00: Electronic Mortgages (Oct. 25, 2000), <http://www.efanniemae.com/singlefamily/docs/LL09-00.doc>.

29. Fannie Mae Announcement, 02-08 (June 28, 2002), <http://www.efanniemae.com/singlefamily/pdf/02-08.pdf>; see generally Fannie Mae Guide Announcement Summaries at http://www.efanniemae.com/singlefamily/forms_guidelines/guide_announcements/db_guide_announcements.jhtml.

sonnel to adopt new protocols for such changes. Nevertheless, it must establish a system that creates sufficient certainty for recording and verifying documents so that all reasonable needs are met.

The Property Records Industry Association (PRIA)³⁰ is an organization composed of county recorders and is derived from its two constituent groups—The National Association of County Recorders, Election Officials and Clerks (NACRC),³¹ and The International Association of Clerks, Recorders, Election Officials, and Treasurers (IACREOT).³² It is generally joined by the lending industry through the Mortgage Industry Standards Maintenance Organization (MISMO)³³ and particularly by Fannie Mae and Freddie Mac. Their primary efforts have been oriented towards developing a uniform technological foundation for electronic recording. Although the PRIA has yet to publish protocols establishing an electronic format that would be applicable to county recorders, the lending industry, and Fannie Mae and Freddie Mac, it is moving in that direction.³⁴

V. CURRENT EXPERIENCES WITH ELECTRONIC RECORDING SYSTEMS

The current legal framework for creating and recording electronic documents is transitional and divergent. Many issues exist. What types of electronic documents will meet state requirements for recording? What kind of electronic signatures are acceptable? Will the system continue to be one of independent recording in each county or recording jurisdiction? Will there be a centralization of the recording process, or will there be something in between the two?

Currently, counties in seven states engage to some extent in electronic recording.³⁵ The recording acts of these states provide very little direction, if any, on how the electronic recording process will operate in those jurisdictions. For the most part, existing state

30. See PRIA's Web site at <http://faxxon.cifnet.com/taskforce/> (last visited Oct. 20, 2002).

31. See NACRC's Web site at <http://www.nacrc.org/startingpt.html/> (last visited Oct. 20, 2002).

32. See IACREOT's Web site at <http://www.iacreot.com/> (last visited Oct. 20, 2002).

33. See MISMO's Web site at <http://www.mismo.org/> (last visited Oct. 20, 2002).

34. See PRIA's Web site *supra* note 30.

35. States currently utilizing electronic recording include Arizona, California, Florida, Michigan, Utah, Virginia, and Washington. See Ingeo Systems, Inc. at <http://www.ingeo.com/content.asp?pid=112> (last visited Oct. 20, 2002).

law has simply been amended to provide that “electronic” or “digital” documents, or copies of a document, can be recorded.

In California, for example, recorders in San Bernardino and Orange Counties may accept a “digitized image of a recordable document.”³⁶ Similarly, under Arizona law, a recorder may “accept a digitized image of a recordable instrument.”³⁷ Because both statutes limit the recorder to accepting “digitized images” of recordable documents or instruments, they seem to suggest that the documents must start their existence as a paper document. Subsequently, a “digital image” of that document may be created and transmitted to the recorder electronically.³⁸ Under these statutes, Orange County, California and Maricopa County, Arizona account for an overwhelming proportion of all electronic recordings.³⁹

Broward County, Florida⁴⁰ has created a system for recording electronic real estate documents. Under this system, a graphic representation of a traditional document is created and signed electronically.⁴¹ Since the original document is electronic, its legal validity depends on UETA⁴² and the federal E-SIGN Act.⁴³ Because such a document is a graphic file, it is not readily searchable. Consequently, index information will be supplied to the Broward County recorder outside the document itself to enable proper indexing and recording.

In Salt Lake County, Utah⁴⁴ and in Thurston County and Snohomish County, Washington⁴⁵ the county recorders may accept electronic real estate documents created with XML/HTML protocols. In these counties the documents are searchable, and index content can be entered in the electronic recording system directly

36. CAL. GOV'T CODE § 27279.1 (2002). Recording of electronic documents also occurs in Riverside County, *see* Ingeo Systems, Inc. *supra* note 35.

37. ARIZ. REV. STAT. § 11-461 (2001).

38. *See supra* Part III.A.1.

39. As of June 9, 2002, out of 2,130,770 electronic documents filed nationally, 1,985,467 were filed in Orange and Maricopa Counties. *See* Ingeo Systems, Inc. at <http://www.ingeo.com/content.asp?pid=112> (last visited Oct. 20, 2002).

40. FLA. STAT. ANN. § 668.001 (West 2002) (authorizing the use of electronic signatures). However, FLA. STAT. ANN. § 117.20 (West 1997) authorizing the use of electronic notarization was subsequently repealed, 1991 Fla. Laws ch. 97-241, § 2.

41. *See supra* text accompanying note 21.

42. UETA (Nat'l Conf. of Comm'rs on Unif. State Laws 1999).

43. E-SIGN, 15 U.S.C. § 7001 (2002).

44. UTAH CODE ANN. § 63-46a-17 (2001) (allowing government agencies to “make rules regarding electronic records”).

45. WASH. REV. CODE § 65.04.030 (2002) (providing that the recorder may record documents in an “electronic format”). However, the statute does not specifically permit the filing of electronic documents.

from the document itself.⁴⁶ These too are genuine electronic documents, and their legal validity is dependent on UETA⁴⁷ and the federal E-SIGN Act.⁴⁸

Recent statutory amendments in several other states also provide for the recording of electronic documents.⁴⁹ The type of electronic documents that these statutes authorize varies by jurisdiction.

The statutory enactments listed above generally do not specify a verification protocol to assure that electronic documents are not forged or have not been tampered with in transit. Decisions on the protocol are generally left to the county recorder implementing the electronic recording procedures. Nevertheless, some guidelines or limitations are provided. For example, in Arizona, a county recorder may only accept "digitized" documents if "submitted by a title insurer or by a title insurance agent . . . by a state chartered or federally chartered bank . . . by an agency, branch or instrumentality of the federal government or by a governmental entity."⁵⁰ In California, a recorder may accept a digitized instrument if the submitting party is "an entity, agency, branch or instrumentality of the state or federal government."⁵¹ In Virginia, the entities authorized to file documents electronically are "federal, state, and local governmental entities, or political subdivisions thereof, and quasi-governmental agencies, corporations, or authorities, including but not limited to Fannie Mae, Freddie Mac, and VHDA."⁵²

In these states, by limiting the types of entities entitled to record electronic documents, it is hoped that fraud and forgery will be prevented. Whether that will be true is not clear, but such limitations certainly will limit the frequency of any fraud. However, this restriction will also limit the usefulness and frequency of use of the electronic recording system. For the most part, these limitations only permit governmental entities to record documents. Although

46. *See supra* text accompanying note 22.

47. UETA (Nat'l Conf. of Comm'rs on Unif. State Laws 1999).

48. 15 U.S.C. § 7001.

49. *See* MO. REV. STAT. § 59.563 (2002); TEX. GOV'T CODE ANN. § 845.116 (Vernon 2002); VA. CODE ANN. §§ 17.1-256 & -258 (Michie 2001).

50. ARIZ. REV. STAT. § 11-461(C) (2001).

51. CAL. GOV'T CODE § 27279.2 (2002). In the alternative, recorders may accept the document if, in their judgment, the submitting party "has effective security precautions addressing potential fraud and forging of documents in the electronic recordation process." § 27279.1 & .3.

52. VA. CODE ANN. § 17.1-256 (Michie 2001).

some provisions allow recording by lenders or title companies,⁵³ there is no general authority for individuals to record documents.⁵⁴ Since some portion of the populace will not be able to record electronic documents, two separate sets of recorded documents and two separate methods of recording will have to be maintained to accommodate both electronic and paper filings. Consequently, the efficiencies hoped to be achieved by electronic recording will not be accomplished. In fact, the total cost may be higher since duplicate document sets and recording processes will be involved.

As can be seen from the above listing of implementing states, the adoption of electronic recording is patchy at best. In those states authorizing electronic recording, few counties have actually adopted such means. Most counties continue to proceed with paper documents as usual. Even in the counties adopting electronic recording, the requirements for recording are not uniform. What is recordable in Orange County, California is not recordable in Broward County, Florida, and documents from neither of them are recordable in Salt Lake County, Utah. In order to promote efficiency and economic development, it is necessary to adopt some sort of statewide system that will permit electronic documents to be recorded by all parties, using accepted types of electronic signatures anywhere in the state. Furthermore, the system must be relatively uniform among the states so as to permit a document created in one system to be recorded elsewhere.

VI. THE IOWA EXPERIMENT

In 1998, the Iowa State Bar Association Board of Governors established a Real Estate Modernization Project Committee.⁵⁵ A main function of the Committee was to review the feasibility and advisability of establishing an electronic land records system in the State of Iowa. If the Committee determined that such a system was feasible and advisable, it was also to draft the appropriate legislation to present to the Board of Governors for approval.

The Committee first determined that the establishment of an electronic land records system in Iowa was feasible and advisable. The system would provide a speedier and more efficient system of

53. ARIZ. REV. STAT. § 11-461 (C) (2001).

54. It would be possible for the individual grantee to record an electronic document in California if the purchaser obtains title insurance and the title insurer does the recording. CAL. GOV'T CODE § 27279 (2002).

55. The author of this article has the privilege of being the Reporter for the Iowa Electronic Recording System.

land records than currently exists in the State. It would enhance the economy of the State and benefit its citizens. The Committee then began to design an electronic land records system, taking into consideration the appropriate structure and parameters for such a system. The Committee's work product is the Iowa Electronic Recording System (IERS).⁵⁶

A. *The Basic Architecture of IERS*

Documents, whether in electronic⁵⁷ or traditional paper format,⁵⁸ will be sent to the county recorder in the county in which the subject real estate is located. There, the documents will be received, and in the case of paper documents, converted into an electronic format. The recorder will examine the document to assure that the information contained therein is correct and adequate, that all requirements have been met, and that all fees and taxes have been paid. Documents will then be entered into a centralized database on terminals that are located in the respective county recorders' offices, but linked electronically with the Office of the Secretary of State.

The Secretary of State will establish and maintain the centralized land records system for all real estate interests in the State of Iowa. There are two parts to the system: an Electronic Land Records Index and an Electronic Document Record. The Electronic Land Records Index will contain index information that will be used to locate documents in the Electronic Document Record. An index reference will be linked to the related document in the Electronic Document Record. The Electronic Document Record will contain a copy of the actual electronic document as it was presented to the recorder. Once the title information is entered into the Electronic Land Records Index and the Electronic Document Record, it will constitute notice to all persons of the interests revealed therein.⁵⁹

56. The Committee's Report to the Board of Governors of the Iowa State Bar Association set forth its proposal in December 2000. The Board of Governors accepted the proposal and placed it on the Association's 2001 legislative agenda. For budgetary reasons the proposal was not adopted by the Iowa Legislature in 2001. The Committee continues to work on revising and improving its proposal with the expectation that it will be presented to the Iowa Legislature again in 2003. The current version of the proposal is set forth in Appendix A.

57. *See supra* Part III.A.2-4.

58. *See supra* Part III.A.1.

59. An electronic copy of each document also will be retransmitted to the county recorder once it is entered into the centralized database. The county may then maintain

The centralized system will be available for title examination twenty four hours per day, seven days per week, except during routine or necessary maintenance. The centralized system will be located in the Office of the Secretary of State in Des Moines or in such place as the Secretary may determine. A simultaneous backup system will be located in such other place(s) in the state as the Secretary may designate.

B. *Benefits of this Architecture*

The IERS structure provides a centralized electronic database of all documents relating to real estate in the state, but maintains the traditional position and functions of county recorders. The Committee considered a single uniform system of land records essential in today's diverse, worldwide economy. At the same time, the Committee also believed it important to recognize the local nature of real estate transactions.⁶⁰ Both interests will be accommodated in the IERS. Original filings, whether electronic or paper, will be made to the county recorder in the county where the real estate is located. The recorder will continue to provide valuable functions in reviewing the documents to assure correctness and compliance with recording requirements. Although copies will be maintained in the local county, the official and controlling copy will be maintained in a uniform fashion in the centralized system.

1. Uniformity

One of the primary reasons for the centralized system is to maintain uniformity in the recording of documents throughout the state. Uniformity in filing, access, and maintenance will be possible only if a centralized system is used. A centralized system can assure uniform recording policies without the need to audit county offices for compliance. Scriveners will be able to file documents in each county in the state using the same document formats, protocols, and processes. Additionally, filers would not need to obtain information about and comply with different protocols and processes that

this supplemental database for purposes such as cadastral, land use planning, and the like. It is purely supplemental and is not part of the system for providing notice regarding real estate transactions.

60. Indeed, it is expected that the recording of locally presented paper documents will continue for some time during a transition period while electronic documents will become more frequent.

might exist in each county.⁶¹

Title searching will also be simplified because access to the centralized system will allow searching of all public land records across the state through one protocol. In fact, a title examiner will be able to search for title information on multiple properties in multiple counties at the same time by accessing the centralized database. Overall, a centralized system would minimize the cost of filing documents and searching titles while enhancing efficiency.

2. Efficiency

The cost of establishing and maintaining a decentralized electronic land records system in each county is considerably higher than that needed to establish and maintain a single, substantially centralized, IERS.⁶² A preliminary estimate projected initial development costs to be nearly ten times higher for a decentralized system, with annual maintenance and network costs to be proportionally higher.⁶³

3. Reliability

A recognition of computer reality means that one must expect certain "glitches" and errors that occur in any computerized process. If independent decentralized county-based systems are used, it is estimated that the chance for errors would be increased in proportion to the number of counties. In order to increase the degree of reliability for a decentralized system, the additional costs of hardware and software for assuring that reliability would be multiplied by the number of separate independent systems. Furthermore, hiring trained and competent personnel in each of the counties, especially counties with very small populations, would make it difficult to achieve uniformity and system reliability. For any given cost, there is a higher degree of reliability in a substantially centralized system than there is in a decentralized one.

61. This might be particularly important with electronic documents since various protocols, some of which are proprietary, might exist in the various counties.

62. In Iowa there are 99 counties, one of which has two recording districts. Thus, in a totally decentralized system, there would be 100 separate electronic land records systems in the State of Iowa.

63. The preliminary estimates were: IERS development cost—\$5,695,000 compared to independent county system development cost—\$62,015,000; IERS annual maintenance and network costs—\$102,880 compared to independent county system annual maintenance and network costs—\$1,188,000. Iowa Electronic Recording System Cost Estimate Comparisons (May 2002) (on file with Western New England Law Review).

4. Security

A potentially serious concern for an electronic land records system is security. "Hackers" could wipe out all information in a poorly maintained system. One can also imagine a disgruntled computer sophisticate who might try to "hack" a county system and impose liens on land owned by all of his or her adversaries. Assuring security from such attacks is costly and would not likely be maintained by many counties, especially smaller ones or ones facing poor economic times. A centralized system can provide greater assurance for less overall cost.

C. *IERS Recording Process*

All documents, whether in electronic or paper format, must contain certain essential information. Although the system is designed to be adaptable to most types of electronic documents and signatures, it establishes certain requirements.

Information in a paper document consists of index information, body text, a signature, an acknowledgement, and possibly maps, plats, surveys, and similar graphical information. It must be accompanied by a document information memorandum. The document information memorandum summarizes the paper document and can be read by a scanner or similar device. Upon receipt of the paper document and document information memorandum, the recorder will convert the document information memorandum into an electronic text format, utilizing a scanner or other appropriate device. The recorder will also convert the paper document into a computer graphics format. At the system terminal, the recorder will also enter the index information, the graphics file, and the electronic document information memorandum.

An electronic document consists of the index information in an electronic format, the electronic body text, an electronic signature, and possibly graphical information such as maps, plats, surveys, and similar graphic information.⁶⁴ When recorders receive the electronic document, they will review it to determine whether it contains all essential information and a valid electronic signature. The Secretary of State will only approve electronic document formats, electronic signature technology, and certifying authorities that can

64. The Committee is considering whether to add a requirement that, if the electronic body text is in a format that is not susceptible to text searching, *see supra* Part III.A.2 & .3, the electronic document must also be accompanied by a document information memorandum.

assure (i) the indicated party is the one who actually executed the document and (ii) the document has not been changed after it left the possession of the executing party. Since this is the primary purpose of an acknowledgement, no separate acknowledgement is required.

Upon entry of the recording data⁶⁵ into the county system terminal, it will be transmitted to the centralized system. Upon receipt and entry of the information in the centralized system, the recording process will be complete. Constructive notice will be given to any subsequent purchaser at that time.

Subsequently, the Secretary of State's office will send a copy of the recorded information to the county recorder for use by the county. The Secretary will also send a "Confirmation of Recording" to the county recorder. The confirmation will contain the date and time of the recording along with summary information about the recorded document. The recorder will then send a copy of the "Confirmation of Recording" to the various parties to the transaction. That confirmation may be sent electronically or by mail.

If a correction should have to be made to any entry in the system due to some error, regardless of who made the error, the correction must be made by a "Correcting Entry" document. The county recorder or the Secretary of State can make the "Correcting Entry" without the signatures of the parties to the transaction, but the parties must be immediately notified of the "Correcting Entry." One or more of the parties may make objections, which will also be entered into the IERS. Such a process leaves a clear "document trail" so that all entries to the system can be traced, if need be. This means that no entry can ever be simply "erased" *ex post facto*. This will prevent situations where a title searcher checks and relies on the status of title to a parcel of land on a particular date and thereafter a subsequent non-traceable "erasure" eliminates the history of the information relied upon by the searcher. It is part of a "fail safe" system to avoid changes that might have a negative effect on the parties to the transaction.

For example, interests such as judgment liens, mechanics liens, and *lis pendens* are filed in Iowa in the office of the clerk of the district court. Those transactions have currently been converted, or are in the process of being converted, into an electronic format through the Iowa Court Information System (ICIS). The IERS in-

65. The recording data could be initially either an electronic or paper document.

corporates ICIS information and makes it available to the title examiner for review.

Additionally, UCC security interests that affect real property are also maintained in the Secretary of State's office. This information is also incorporated into the IERS and is made available to the title examiner.

D. *IERS Searching Process*

Title searches will be made directly to the centralized electronic land records system in the Secretary of State's office. Entry into the centralized title records will be via Internet service providers or dial-up connections. Since the entire post-act history of title to all real estate will be located on the centralized system, abstracters will no longer need to maintain a title plant in order to make proper title searches. Attorneys and bankers can also make last minute checks of the centralized system for the title status of the property prior to the closing of a mortgage or conveyance. They can also make post-closing checks to assure that all entries have been made for a particular transaction.

Title searches can be made based on a Parcel Identifier Number (PIN), a grantor, a grantee, or a tax address. Lien searches can also be made in the system based on the mortgagor, lienor, and as part of a general search or in a separate lien search.

Major users of the system can establish subscription access based on the quantity of their usage. In the alternative, it will be possible to pay for usage by means of a credit card or similar charging device.⁶⁶

Searches will disclose general title information contained in the Electronic Land Records Index. This index information may be printed on-line. In addition, a person searching a title will often want copies of the individual documents that support the index entries. If so, the title searcher may view and request a copy of the documents. Payment for copies of the documents may be accommodated in a subscription account or may be paid for separately.

66. Searches may also be made from a public terminal located in the county recorder's office. Such public terminals will be administered by the county recorder and payment will be made to him or her. These terminals will be especially valuable in accommodating citizens wishing to conduct a single search.

E. *Noteworthy Aspects of IERS*

1. PINs

When searching for title information electronically, it is important that the description information be submitted precisely as it exists in the Electronic Land Records Index. For example, if a description should contain a comma but the search criteria does not, an error might, and probably would, occur. Land descriptions, particularly metes and bounds descriptions, can be very long, and knowing whether any Index contains a comma, a semi-colon, or any other punctuation is virtually impossible. Beyond the relatively simple punctuation differences are actual differences in the description of the same parcel. For example, the description as contained in the index may label a call as "North 10 degrees, 20 minutes, and 30 seconds east." However, the information available to the searcher may erroneously describe the last portion of the call as "40 seconds east." The descriptions are different but intended to describe the same parcel. Unless the title searcher knows to look for "30 seconds east," the document will not be discovered.

The method of avoiding this problem is to use Parcel Identifier Numbers (PINs). A PIN is a unique identifier⁶⁷ that is applied to a parcel of land that allows the parcel to be searched, conveyed, mortgaged, or otherwise affected. The PIN could be applied in a land court proceeding, such as a Torrens Registration. In the Iowa situation, the description currently applied to a parcel of land will be used. The use of the PIN is not meant to suggest that the description is precise or even correct. It is simply a shortcut for describing the parcel. If the description should be incorrect, it can be changed by a quiet title or similar action, and the new description will be referenced by the PIN.⁶⁸

The PIN must be assigned before the transaction, or the recording process will be delayed while waiting for the assignment of the number. The assignment process must also accommodate the possibility that parcels will be further subdivided or consolidated. At the time of the subdivision or consolidation, a number will be assigned to carry forward thereafter. The recording history of the old parcel(s) and PIN(s), up to the date of the subdivision or con-

67. A "PIN" is a number or alpha-numeric combination that is unique to the parcel.

68. Since Iowa has 99 counties, it is convenient to number all PINs by a county number followed by an alpha-numeric number.

solidation, will then become part of the history of the new parcel(s) and its PIN(s).

2. Land Records Predating IERS

When IERS is adopted and becomes effective, there will be over 150 years of prior land records maintained in the various county recorder offices.⁶⁹ To be complete, these volumes of documents must be copied into graphic files or scanned or typed manually, and then recorded in the centralized system. However, such a process is very lengthy and expensive. Without incorporating the current land records into the IERS, it would be necessary every time that real estate is transferred or mortgaged for a title examiner to examine the county's paper records until the time period prescribed by the Iowa version of the Forty Year Marketable Title Act⁷⁰ has expired. A decision had to be made regarding whether to convert these old documents or to pursue some alternative solution.

The Committee decided to take a new approach, made possible by the fact that Iowa has a form of state-supported title guarantee. Under this system, many Iowa attorneys obtain title "insurance" through Title Guaranty of Iowa. These guarantees are based on an abstract of title going back to the root of title under the Forty Year Marketable Title Act and an attorney's opinion based on that abstract.

The IERS statute provides that only documents filed after the effective date of the Act will be entered into the IERS. If the purchaser or mortgagee should obtain title assurance through Title Guaranty of Iowa, then Title Guaranty will assure the purchaser, or mortgagee, as well as all future bona fide purchasers acquiring an interest in the property through them, that there are no adverse interests, unless specified, arising out of the *prior paper records*. Of course, that assurance will be based on a search of the prior paper records, but no future search will be necessary. In effect, the first electronic document recorded under IERS will become an "electronic root of title" for further searching. Subsequent searchers can rely on the "electronic root of title" and will not need to search the paper records prior to the effective date.

As a result, the State of Iowa will bear a slightly greater under-

69. In some states the record history is potentially much longer. For example, in Massachusetts the recording system dates from 1640. *See supra* note 4.

70. IOWA CODE §§ 614.29–.38 (2001).

writing risk to save a considerable sum in conversion costs.⁷¹ However, the underwriting risk will be minimal since assurance must be made to the insured under the initial policy. If a claim should be later asserted, and the insured sued thereon, Title Guaranty would be responsible to the insured. A similar approach could be used in other states, perhaps through an agreement between the state and various title insurance companies. In such a system, the state would agree to cover a slight increase in the title insurance premium when it is initially issued, with coverage to carry forward to subsequent purchasers.

As a further step in removing stale claims, there is also a ten-year curative act. It provides that when ten years have transpired from the filing of a memorandum certificate by Title Guaranty, and no objection based on the prior interest have been filed, that prior interest would be cured and would be unenforceable.

VII. CONCLUSION

The history of the ability to use and record electronic documents is brief. Only with the advent of networking and the World Wide Web has the ability been present to transmit electronic documents between parties to the transaction and from them to a recorder. In fact, this history may be as short as ten years. During this time, we have seen considerable effort and success in the development of the potential for electronic documents and electronic recording. The next few years will undoubtedly see that potential carried into fruition.

Exactly how long it will take for universal adoption of electronic recording is not clear. The technology needed to implement an electronic recording system currently exists. However, several further developments need to occur before electronic recording will become widely established. Perhaps first among these is the establishment of a single generally-accepted protocol for the format of electronic documents and electronic signatures. Until that occurs, the formats chosen by any one local recording authority may not be the one other authorities use. This will lead to unnecessary expense, confusion, and delay in recordings.

In the near future, Fannie Mae, the Property Records Industry

71. The Committee was of the opinion that the potential cost added to Title Guaranty of Iowa by this process would be a very small cost to be paid by the State. The alternative of copying or converting all old records into the IERS would be much more costly.

Association, and the Mortgage Industry Standards Maintenance Organization⁷² should set forth such a protocol. Thereafter, one can project a substantial and immediate “push” to establish electronic recording on a national scale. The promulgation of a Uniform Act on electronic recording would also promote national uniformity. It would provide a framework for an enactment by each state that would assure a single national recording structure.⁷³

Another major limiting factor is the time and cost needed to purchase and install the necessary equipment in each recording jurisdiction, along with the necessary communication hardware needed to join each jurisdiction with the real estate marketplace. The economic realities of state and/or local government financing may cause some delay in achieving the ultimate goal, but the economic advantage of such a system to the real estate market will certainly be the impetus toward its ultimate achievement.

A final indecipherable factor having an effect on universal adoption of an electronic recording system is human nature itself. Most people are experienced with paper, and human experience is difficult, at times, to change. Thus, as suggested above, the system must accommodate a transition period, a process that allows for the continued use of paper documents. How long such a transitional process must continue is not easy to project. Perhaps it might have to continue for as long as a generation on the assumption that human experience will take that long to adapt. Perhaps it might take even longer if the system must accommodate the recording of “incidental” paper documents that are difficult to copy electronically. However, just as there has been an unbelievably fast transition into the digital world in the last ten years, one might predict that an all-electronic land records system might evolve with equal rapidity.

72. *See supra* Part IV.

73. In the fall of 2002, the National Conference of Commissioners on Uniform State Laws appointed a drafting committee to draft a Uniform Real Property Electronic Recording Act. That committee will begin its deliberations in the spring of 2003 with a goal of preparing a draft for a Uniform Act to present to the Conference in a two year timeframe. One of the objectives of such an act will be to provide a framework for a single uniform national structure for the acceptance and recording of electronic documents. *See* http://www.nccusl.org/nccusl/pressreleases/pr_082302_new_comma.asp.

CHAPTER 558B – IOWA ELECTRONIC RECORDING SYSTEM*

§ 558B.01 – STATEMENT OF PURPOSE AND UNIFORMITY.

§ 558B.01(a) – STATEMENT OF PURPOSE. The creation and transfer of interests in real estate are essential parts of the economy of the State of Iowa. The speedy, efficient and secure preservation and searching of real estate records are essential to the creation and transfer of such interests. The methods of Electronic commerce have developed to a degree of sophistication that will allow for a speedier, more efficient and secure system of real estate records for the State of Iowa than currently exists. The purpose of this chapter is to provide for an Electronic recording system applicable to all Documents that create or transfer interests in real estate located in the State of Iowa. This system shall be known as the Iowa Electronic Recording System.

§ 558B.01(b) – UNIFORM INTERPRETATION AND APPLICATION. The Iowa Electronic Recording System, as enacted in this chapter, is intended to function in a uniform manner for the recording of all Documents relating to real estate located in the State of Iowa. In order to better effectuate that objective, this chapter shall be interpreted and enforced in such a manner as to accomplish uniform statewide procedures and standards for an Electronic recording system.

§ 558B.02 – DEFINITIONS.

Unless the context clearly indicates otherwise, the following terms shall have the following meanings:

§ 558B.02(a) – BACKUP. “Backup” means information in the IERS that is duplicated and saved in order to provide a source from which the information may be replicated and reentered into the IERS should it suffer a loss of information. A Backup may consist of more than one system of duplication and security.

§ 558B.02(b) – CENTRALIZED SYSTEM. “Centralized System” means the centralized Electronic recording system maintained by the Office of the Secretary of State of Iowa for the storage and recording of all Documents affecting real estate located in the State of Iowa. It is comprised of all the components of said system, including the information, databases, hardware and software.

* Draft prepared by the Real Estate Modernization Project Committee of the Iowa State Bar Association and presented to the Board of Governors on December 3, 2002.

§ 558B.02(c) – CONFIRMATION OF RECORDING. For the meaning of “Confirmation of Recording,” see § 558B.06(f).

§ 558B.02(d) – CORRECTION ENTRY. For the meaning of “Correction Entry,” see § 558B.06(g).

§ 558B.02(e) – COUNTY SYSTEM. “County System” means the county Electronic recording system maintained by a county in the State of Iowa. It is comprised of all the components of said system, including the information, databases, hardware and software.

§ 558B.02(f) – DOCUMENT. “Document” means any instrument that creates, transfers, asserts or explains an interest in real estate. *Inter alia*, a Document includes a deed, patent, mortgage, will, lien instrument, grant of easement, affidavit, court order or decree, notice, orders of fence viewers, and any other instrument that affects an interest in real estate. It refers to either an Electronic Document or a Paper Document.

§ 558B.02(g) – DOCUMENT INFORMATION MEMORANDUM. “Document Information Memorandum” means a memorandum summarizing the contents of the accompanying Paper Document. The Document Information Memorandum shall be in a format prescribed by the Secretary of State by rule.

§ 558B.02(h) – ELECTRONIC. “Electronic” means technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.

§ 558B.02(i) – ELECTRONIC DOCUMENT. “Electronic Document” means a Document that is created, generated, sent, communicated, received or stored by Electronic means and that contains the information described in § 558B.06(b)(i).

§ 558B.02(j) – ELECTRONIC DOCUMENT RECORD. For the meaning of “Electronic Document Record,” see § 558B.04(b).

§ 558B.02(k) – ELECTRONIC LAND RECORDS INDEX. For the meaning of “Electronic Land Records Index,” see § 558B.04(a).

§ 558B.02(l) – ELECTRONIC SIGNATURE. “Electronic Signature” means an Electronic sound, symbol, or process, attached to or logically associated with an Electronic Document and executed or adopted by a person with the intent to sign the Electronic Document.

§ 558B.02(m) – IERS. “IERS” means the Iowa Electronic Recording System. IERS is comprised of all the components of said system, including the information, databases, hardware and software, that form the statewide Electronic recording system es-

established by this chapter. It includes all components of both the Centralized System and the County Systems.

§ 558B.02(n) – INDEX INFORMATION. For the meaning of “Index Information,” see § 558B.04(a).

§ 558B.02(o) – PAPER DOCUMENT. “Paper Document” means a Document printed on paper that contains the information described in § 558B.06(c)(i).

§ 558B.02(p) – PARCEL. For purposes of this Chapter, a “parcel” is any separately described fee simple interest in real estate.

§ 558B.02(q) – PARCEL IDENTIFIER NUMBER. For the meaning of “Parcel Identifier Number,” see § 558B.05(a).

§ 558B.02(r) – STATUS OF THE PARTIES TO THE DOCUMENT. “Status of the parties to the Document” means the marital, corporate, partnership or other similar legal status of the person(s) or entity(ies) who are parties to the Document.

§ 558B.03 – STRUCTURE OF IERS.

§ 558B.03(a) – DOCUMENT ENTRY. Except as otherwise provided herein, the entry of each Document into the IERS shall be performed by the county recorder of the county in which the real estate is located. Such entry shall be made on a terminal in the county recorder’s office that is linked with the Centralized System.

§ 558B.03(b) – CENTRALIZED SYSTEM. The Secretary of State shall establish and maintain a centralized Electronic recording system for all Documents affecting real estate in the State of Iowa. The system shall consist of the Electronic Land Records Index and the Electronic Document Record as described in § 558B.04. After a Document is entered in a terminal by the county recorder, it shall be transmitted electronically to the Centralized System where it shall be indexed in the Electronic Land Records Index and stored in the Electronic Document Record. The Centralized System shall be deemed to be a part of the recording system in each county recorder’s office in the State of Iowa.

§ 558B.03(c) – COUNTY SYSTEM. Each county shall establish a County System. The State of Iowa shall provide the initial funds to establish the County System, which shall thereafter be maintained by the appropriate county personnel. Any updates or changes to the hardware or software of the County System shall be compatible with the Centralized System. A duplicate copy of the Index Information, in the Electronic Land Records Index and the Documents in the Electronic Document Record pertaining to real estate located in that county, as stored in the Centralized System, shall be

stored in the County System. Such information shall be sent electronically by the Office of the Secretary of State to the County System upon the completion of indexing and recording the Document in the Centralized System.

§ 558B.03(d) – INFORMATION BACKUP AND SECURITY. For security purposes, the Electronic Land Records Index and the Electronic Document Record in the Centralized System shall be backed up on a daily basis or at more frequent intervals as determined by the Secretary of State. At least one copy of such regular Backup shall be stored at a secure site that is physically separate from the locale of the Centralized System. The Office of the Secretary of State shall take such other measures as may be necessary to protect the Centralized System against the loss of the Index Information in the Electronic Land Records Index and the Documents in the Electronic Document Record. It shall also take such measures as may be necessary to protect the Centralized System from access or tampering by unauthorized persons.

§ 558B.03(e) – OPERATION. Except during periods of routine or necessary maintenance, the data in the Centralized System shall be accessible 24 hours per day, 7 days per week to persons searching the system for real estate information. The Office of the Secretary of State shall maintain and update the system to assure speedy access and functionality.

§ 558B.04 – ELECTRONIC LAND RECORDS INDEX; ELECTRONIC DOCUMENT RECORD.

§ 558B.04(a) – ELECTRONIC LAND RECORDS INDEX. The Electronic Land Records Index shall contain the Index Information for each Document creating, transferring, asserting or explaining any interest in real estate that is recorded in the Centralized System. The Index Information shall consist of the following: (i) the Parcel Identifier Number of the real estate, to the extent not inconsistent with state or Federal law; (ii) the address of the real estate, as contained in the real estate tax records, to the extent available; (iii) the names of the parties to the Document; (iv) the status of the parties to the Document, to the extent not inconsistent with state or Federal law; (v) the date of the Document; and (vi) such other information as shall be determined by the Secretary of State by rule. Each entry in the Electronic Land Records Index shall be linked to the Document that it references in the Electronic Document Record.

§ 558B.04(b) – ELECTRONIC DOCUMENT RECORD. The Electronic Document Record shall contain an Electronic version of each Document that is recorded in the State of Iowa. Each Electronic version of a Document shall be linked to the Index Information in the Electronic Land Records Index that references it.

§ 558B.05 – PARCEL IDENTIFIER NUMBERS.

§ 558B.05(a) – ESTABLISHMENT OF UNIFORM PARCEL IDENTIFIER NUMBER SYSTEM. Each separately described parcel of real estate located in the State of Iowa shall be assigned a unique Parcel Identifier Number. The Parcel Identifier Number shall be a number beginning with a two digit county number and followed by a number that is unique for each parcel of real estate located in that county. The county portion of Parcel Identifier Numbers may be any combination of numbers and alphabetical letters that provide for a system of unique numbers. In order to assure a unique and uniform system of Parcel Identifier Numbers, the numbering system employed in each county shall be approved, in advance, by the Secretary of State.

§ 558B.05(b) – ASSIGNMENT IN ADVANCE. The county recorder shall ascertain each separately described parcel of real estate existing in the county on the effective date of this Act and shall assign a unique Parcel Identifier Number to it. The Parcel Identifier Number shall be deemed to incorporate the parcel's legal description existing in the county's land records on the date of the assignment. All subsequent transfers of the parcel shall refer to the Parcel Identifier Number.

§ 558B.05(c) – CHANGES TO PARCEL IDENTIFIER NUMBERS. In the event that the legal description of a parcel of real estate should be changed, whether by agreement of the parties or by operation of law, the county recorder shall assign a new unique Parcel Identifier Number to it. Any Document forming the basis of the change shall be recorded in the IERS. The title history of the parcel shall include the prior Parcel Identifier Number for the period prior to the date of the assignment of the new number.

§ 558B.05(d) – SUBDIVISIONS AND ASSEMBLAGES.

(i) In the event that a parcel of real estate shall be subdivided (whether under Chapter 354 of the Iowa Code, or otherwise), the county recorder shall assign a new unique Parcel Identifier Number to the subdivided parcel. Any Document forming the basis of the change shall be recorded in the IERS. The title history of each sub-

divided parcel shall include the title history of the parcel from which it was subdivided for the period prior to the subdivision.

(ii) In the event that a parcel of real estate shall be assembled from two or more existing parcels, regardless of whether one or more of the parcels has a Parcel Identifier Number, the county recorder shall assign a new unique Parcel Identifier Number to the assembled parcel. The new Parcel Identifier Number may be requested by the owner of the previously existing parcels, with the consent of the owners of any affected interests in those parcels, on forms provided by the county recorder. The Document requesting the assemblage together with any other Document forming the basis of the assemblage shall be recorded in the IERS. The title history of the assembled parcel shall include the title history of each parcel from which it was assembled for the period prior to the assemblage.

§ 558B.06 – RECORDING PROCESS.

§ 558B.06(a) – DOCUMENT REQUIRED. Information regarding an interest in real estate may not be entered into the IERS unless it is based on a Document submitted and entered into the IERS. To the extent required by law, the Document shall also include or be accompanied by the address to which tax statements for the real estate shall be sent, a declaration of value statement, and a groundwater hazard statement.

§ 558B.06(b) – ELECTRONIC DOCUMENTS.

(i) Information in an Electronic Document shall consist of (A) the Index Information for the Electronic Document in Electronic format, (B) Electronic body text, (C) an Electronic Signature(s), and (D) if appropriate, Electronic graphical information.

(ii) Except as herein provided, the Electronic Document shall be submitted to the county recorder in the county in which the real estate is located. The county recorder shall review the Electronic Document to ascertain that it contains the appropriate Index Information and an Electronic Signature(s). In accordance with procedures established by the Secretary of State by rule, the county recorder shall also review the Electronic Signature(s) to assure, to the extent possible, that it is a valid Electronic Signature(s). As soon as the county recorder has ascertained compliance with the requirements of this subsection, the county recorder shall enter the Electronic Document into the IERS.

(iii) The acceptable formats for any Electronic Document and the technological processes and certifying authorities for any Elec-

tronic Signature shall be determined by the Secretary of State by rule. The Secretary of State shall only approve formats for Electronic Documents and technological processes and certifying authorities for Electronic Signatures as are capable of assuring that (A) the party indicated to have signed the Electronic Document is the party who actually signed the Electronic Document, and (B) the Electronic Document and its Electronic Signature have not been changed after it was executed.

§ 558B.06(c) – PAPER DOCUMENTS.

(i) Information in a Paper Document shall consist of (A) the Index Information for the Paper Document, (B) body text, (C) a signature(s), (D) an acknowledgment(s), and (E) if appropriate, graphical information. Each Paper Document shall be accompanied by a Document Information Memorandum. The format, font and type size of the Document Information Memorandum shall be prescribed by the Secretary of State by rule in order to assure that the Document Information Memorandum may be converted into an Electronic text format by a scanner or other appropriate device.

(ii) Except as provided herein, the Paper Document and the Document Information Memorandum shall be submitted to the county recorder in the county in which the real estate is located. The county recorder shall immediately ascertain that the Paper Document and the Document Information Memorandum contain the appropriate Index Information, signature(s) and acknowledgment(s). As soon as the county recorder has ascertained compliance with the requirements of this subsection, the recorder shall make a copy of the Document Information Memorandum in an Electronic text format by means of a scanner or other appropriate device. The recorder shall also make a copy of the Paper Document in a computer graphics format. The recorder shall create a combined Electronic version of the Paper Document by attaching the computer graphics version of the Paper Document to the Electronic text version of the Document Information Memorandum. The technology and format for the Electronic text, computer graphics and attachment process shall be prescribed by the Secretary of State by rule. Said technology and format must assure that the combined Electronic version of the Paper Document has not been changed after it was transmitted by the county recorder. The county recorder shall keep the original Paper Document and the Document Information Memorandum until the recording process is completed. As soon as the county recorder has created the combined Electronic version of the Paper Document, the recorder shall

enter the Index Information and the combined Electronic version of the Paper Document into the IERS.

§ 558B.06(d) – RECORDING IN CENTRALIZED SYSTEM. An Electronic Document or combined Electronic version of a Paper Document, as described in subsections (b) and (c) of this section, shall be electronically transmitted from the county recorder's office to the Centralized System. The Index Information shall be entered in the Electronic Land Records Index in the Centralized System. The Electronic Document or combined Electronic version of the Paper Document shall be stored in the Electronic Document Record in the Centralized System. Upon the completion of the indexing and recording process in the Centralized System, the recording of the Document shall be complete and it shall constitute constructive notice to all persons as provided in § 558B.10(a).

§ 558B.06(e) – COPY IN COUNTY SYSTEM. A duplicate copy of the Index Information and Document as recorded in the Centralized System shall be electronically transmitted by the Office of the Secretary of State to the County System upon the completion of the indexing and recording process in the Centralized System. The County System shall be considered supplemental to the Centralized System and shall not have any effect on the constructive notice given by the information contained in the Centralized System.

§ 558B.06(f) – CONFIRMATION OF RECORDING. Upon the completion of the indexing and recording process in the Centralized System, the Office of the Secretary of State shall electronically transmit a Confirmation of Recording to the county recorder who entered the Document in the IERS. The Confirmation of Recording shall contain the date and time of the completion of recording along with summary information about the recorded Document. The format of the Confirmation of Recording and the summary information content shall be determined by the Secretary of State by rule. At the same time that the Confirmation of Recording is sent to the county recorder, the Office of the Secretary of State shall also send a copy of the Confirmation of Recording to the parties to, or affected by, the recorded Document. The Confirmation of Recording sent to the parties may be sent electronically or by postal mail, depending on the information provided to the Secretary of State.

§ 558B.06(g) – CORRECTION ENTRY. Should an error occur in the recording process and require a correction either to the Document as contained in the Electronic Document Record or to the

Index Information contained in the Electronic Land Records Index, the correction may only be made by means of a Correcting Entry. The Correcting Entry may be executed by the county recorder from whom the Document originated or by the Secretary of State. The Correcting Entry is a Document that contains any corrections to the Index Information or recorded Document that may be necessary to conform the Index Information or recorded Document to the original Document. The Correcting Entry shall be stored in the Electronic Document Record and shall be entered in the Electronic Land Records Index in such a way as to link it to both the original parcel(s) or party(ies) and the corrected parcel(s) or party(ies). The county recorder or the Secretary of State may execute the Correcting Entry without the prior consent of the party(ies) affected by the Correcting Entry, but the county recorder or Secretary of State shall immediately give said party(ies) notice of the Correcting Entry. Said party(ies) may make an objection to the Correcting Entry in an appropriate Document and said Document shall be indexed and recorded in the IERS. The Office of the Secretary of State shall electronically transmit a copy of the recorded Correcting Entry and its Index Information, and a copy of the recorded objecting Document and its Index Information, if any, as stored in the Centralized System to the County System upon completion of the indexing and recording process in the Centralized System.

§ 558B.06(h) – UCC FILINGS. The filing of documents creating, transferring or terminating security interests that affect a parcel of real estate under Article 9 of the Iowa Uniform Commercial Code shall be coordinated with the provisions of this chapter. The Secretary of State shall establish and maintain a centralized electronic document record and index system for electronic security interests. Such documents creating, transferring or terminating security interests shall be submitted either in electronic format, or in paper format and converted to electronic format, as provided in this chapter. If said document is filed with the county recorder, the county recorder shall transmit the electronic document or an electronic version of the paper document to the Office of the Secretary of State where it shall be indexed and recorded in the centralized electronic security interest system. If said document is filed with the Office of the Secretary of State, it shall be indexed and recorded in the centralized electronic security interest system. In either case, the information contained in the centralized electronic security interest system shall be indexed in such a fashion that a search of the IERS will disclose the creation, transfer or termina-

tion of the security interest. Implementation of this system shall be performed by the Secretary of State in order to further the purposes of providing speedy, efficient and secure information concerning real estate in a uniform fashion.

[§ 558B.06(i) – COORDINATION WITH ICIS.

(i) The filing, indexing or docketing of Documents creating, transferring or terminating interests in real estate in the offices of the clerks of the district court, including but not limited to lis pendens, judgment liens and orders or decrees of court, shall be coordinated with the provisions of this chapter. Such Documents may be filed, indexed or docketed with the clerk of the district court in the county in which the real estate is located either in Electronic format or paper format. The information contained in such Document, whether in a paper or Electronic format, shall be entered electronically into ICIS (Iowa Court Information System) and shall be made available immediately to a person searching the centralized Iowa Electronic Recording System. Said information shall be indexed by the names of the parties in such a fashion that a search of IERS will disclose the creation, transfer or termination of such interest. Implementation and coordination of ICIS and the Iowa Electronic Recording System shall be performed by the Secretary of State and the Supreme Court Administrator in order to further the purposes of providing speedy, efficient and secure information concerning real estate in a uniform fashion.

(ii) This section does not supercede the provisions of Chapter 624 concerning the effectiveness of a judgment lien in counties other than the county in which the judgment is rendered. Upon the filing, indexing or docketing of a Document in the ICIS system, constructive notice shall be deemed given to a person acquiring an interest in land referenced in said Document only if it is located in the county in which the Document is filed, indexed or docketed.]

§ 558B.06(j) – RECORDING FEES AND TAXES.

(i) Persons recording a Document in the IERS shall pay the applicable fees and taxes. The applicable fees shall be the auditor's transfer fee as provided in § 331.507(ii)(a), the general recording and filing fee as provided in § 331.604, the document management fee as provided in § 331.605(A), and an IERS fee in the amount of \$??. The applicable taxes shall include the real estate transfer tax as provided in § 428A.1.

(ii) A person recording an Electronic Document shall have an account established with the Office of the Secretary of State. The

Office of the Secretary of State will issue a person an account and password upon demonstration of financial ability to pay the filing fees and taxes for Documents recorded under authority of the account.

(iii) A person recording a Paper Document shall pay the applicable fees and taxes to the county recorder where the Paper Document is filed.

(iv) The fees and taxes collected under this subsection shall be allocated among the various counties and the office of the Secretary of State in accordance with law.

§ 558B.07 – SEARCHING FOR REAL ESTATE INFORMATION.

§ 558B.07(a) – SEARCHING PROCESS.

(i) A person may search for real estate information in the IERS by establishing access with the Centralized System in the Office of the Secretary of State. A search of the Electronic Land Records Index may be performed based on a Parcel Identifier Number(s), a grantor(s) or grantee(s) in a Document, or the address of the real estate, if available. A search of the Electronic Land Records Index for lien information may be performed based on a Parcel Identifier Number(s), name(s) of the record owner(s) of the real estate, or the address of the real estate, if available. Such searches will disclose the Index Information contained in the Electronic Land Records Index pertaining to the search criteria. If a searcher should also request a copy of the Document(s) to which the Index Information is linked, the requested Document(s) will be supplied on-line and may be printed by the searcher or, at the election of the searcher, may be supplied in any other format provided by the Secretary of State.

(ii) The Secretary of State shall also establish a process by which the Electronic Document Record may be searched for words, terms and information not available in an index search as described in paragraph (i) of this subsection. The information disclosed in such a search shall be supplied to the searcher on-line and may be printed by the searcher. If the searcher should request a copy of the Document(s) that is disclosed by said search, the Document(s) will be supplied on-line and may be printed by the searcher or, at the election of the searcher, may be supplied in any other format provided by the Secretary of State. By rule, the Secretary of State shall establish fees for both the search and Document delivery.

§ 558B.07(b) – SEARCHING ACCESS AND PAYMENT OF FEES.

(i) A person may establish personal access with the Centralized

System by having an account and a password issued by the Office of the Secretary of State. Viewing of the Index Information and Document(s) on-line shall be at no cost to the searcher. If a searcher should also request a copy(ies) of the Document(s), such copy(ies) shall be subject to a uniform fee as determined by the Secretary of State by rule. The Office of the Secretary of State will issue a person an account and password upon demonstration of financial ability to pay the fees incurred under authority of the account and password.

(ii) A person may establish access with the Centralized System by using a public terminal in a county recorder's office. The account and password for each public terminal shall be issued to the county recorder for use in the county recorder's office. The use of a public terminal is subject to the supervision of the county recorder. Viewing of the Index Information and Document(s) on-line shall be at no cost to the searcher. If a searcher should also request a copy(ies) of the Document(s), such copy(ies) shall be subject to a uniform fee as determined by the Secretary of State by rule.

§ 558B.08 – CONTINUANCE OF PRIOR PAPER RECORDS; CERTIFICATE BY TITLE GUARANTY; CURATIVE ACT; RECOVERY FUND.

§ 558B.08(a) – APPLICABLE ONLY TO DOCUMENTS FILED AFTER EFFECTIVE DATE OF ACT. The provisions of this Act shall only apply to Documents filed after the effective date of this Act. Records of Paper Documents filed in county offices prior to the effective date of this Act shall continue to be maintained by the county offices.

§ 558B.08(b) – CERTIFICATE BY TITLE GUARANTY OF IOWA. A person holding or acquiring an interest in real estate after the effective date of this Act may obtain a certificate of title assurance from Title Guaranty of Iowa with regard to said real estate. The first such certificate issued to a person acquiring an interest in real estate after the effective date of this Act shall assure (i) the current owner, and (ii) all subsequent good faith purchasers acquiring an interest in the real estate from or through the current owner, that there are no enforceable adverse interests or claims affecting the real estate that were created or transferred by a Document recorded prior to the effective date of this Act, unless such an adverse interest or claim is ascertained and noted in the certificate. A subsequent good faith purchaser acquiring an interest in the real estate shall not include a title insurer, examiner or searcher.

§ 558B.08(c) – CURATIVE ACT. Title Guaranty shall record in

the IERS a Notice of Certificate for the first said certificate issued after the effective date of this Act. Said Notice of Certificate shall include a brief summary of the title information that Title Guaranty reports to the certificate holder regarding transactions recorded prior to the effective date of this Act. A person holding an adverse interest in, or claim to, the real estate that was created or transferred by a Document recorded prior to the effective date of this Act shall record a Document in the IERS, or commence an action, asserting such interest or claim within ten years after the recording of the Notice of Certificate. When more than ten years shall have transpired after the date of the recording of the Notice of Certificate, with no Document having been recorded in the IERS, or action having been commenced, asserting an adverse interest or claim that was created or transferred by a Document recorded prior to the effective date of this Act, said adverse interest or claim shall no longer be valid or enforceable and an action based upon such interest or claim shall not be maintained in a court, either in law or in equity.

§ 558B.08(d) – REAL ESTATE RECOVERY FUND. In order to provide a source of compensation for any person who may suffer a loss because of any deficiency in the Electronic procedures of the IERS, there is hereby established a Real Estate Recovery Fund. Said Fund shall be maintained and administered by the Secretary of State and shall be funded by a uniform fee in the amount of \$[___] charged by the Secretary of State for each document recorded. In order to recover from said Fund, the person alleging a loss must establish, to the satisfaction of the Secretary of State, that the interest or claim (i) was valid, (ii) was properly filed, and (iii) would have placed a purchaser on constructive notice of the asserted adverse interest or claim had the deficiency not occurred.

The maximum recovery from said Fund to all persons regarding a single transaction, whether consisting of one or more Documents, shall be \$300,000. Said recovery shall be limited to actual compensatory damages and shall not include punitive damages, costs of litigation or attorney's fees. This section does not limit the liability of, or recovery for claims against, any person or entity other than the Fund.

§ 558B.09 – AUTHORITY OF THE SECRETARY OF STATE; REAL ESTATE RECORDS DIRECTOR.

§ 558B.09(a) – AUTHORITY TO PROMULGATE RULES TO ACCOMPLISH PURPOSES OF THIS ACT. The Secretary of State shall

have the authority to propose and adopt rules to implement the provisions and objectives of this Act. Such rules shall be designed to promote a uniform system of real estate information throughout the State of Iowa.

§ 558B.09(b) – REAL ESTATE RECORDS DIRECTOR. There is hereby established in the Office of the Secretary of State the position of Real Estate Records Director. The Real Estate Records Director shall report, and be responsible, to the Secretary of State.

§ 558B.09(c) – DUTIES OF REAL ESTATE RECORDS DIRECTOR. The Real Estate Records Director shall have the following authority and duties:

(i) The Secretary of State may delegate to the Real Estate Records Director the authority to propose and adopt rules to implement the provisions and objectives of this Act. The Secretary of State may also delegate to the Real Estate Records Director the authority to enforce the provisions of this Act and the rules adopted to implement it.

(ii) The Real Estate Records Director shall also have the authority to issue opinions based on this Act and the rules adopted to implement it. Said opinions shall be for the purpose of resolving, in a uniform fashion, issues concerning the interpretation and application of the IERS.

(iii) The Secretary of State may delegate to the Real Estate Records Director such other authority and duties as the Secretary may deem appropriate.

§ 558B.09(d) – ADVISORY COMMITTEE. The Secretary of State shall appoint a five person advisory committee to give advice and direction to the Real Estate Records Director regarding common issues that arise in the recordation process. The membership of the committee shall be composed of county recorders in the State of Iowa and attorneys practicing in the conveyancing field in the State of Iowa. Members shall be appointed for staggered five year terms.

§ 558B.10 – NOTICE RECORDING STATUTE.

§ 558B.10(a) – NOTICE RECORDING STATUTE. A Document is of no validity against subsequent purchasers for a valuable consideration, without notice, or against the state or any of its political subdivisions during and after condemnation proceedings against the real estate, unless the Document is recorded in the IERS, as provided in this chapter. Upon the completion of the indexing and recording process in the Centralized System, as provided in § 558B.06(d), the Document shall be deemed recorded and shall

give constructive notice to all persons acquiring an interest in the real estate affected by that Document.

§ 558B.10(b) – NOTICE LIMITED TO INFORMATION DISCLOSED IN ELECTRONIC LAND RECORDS INDEX. The constructive notice provided by a recorded Document under subsection (a) of this section is limited to a Document disclosed by a search of the Electronic Land Records Index as provided in § 558B.07(a)(i).

§ 558B.11 – COORDINATION WITH OTHER ELECTRONIC SYSTEMS.

§ 558B.11 – COORDINATION WITH OTHER ELECTRONIC SYSTEMS. In accordance with rules adopted by the Secretary of State, the IERS may be coordinated with cadastral or GIS systems currently existing or subsequently implemented in the State of Iowa. However, the information contained in the IERS may not be changed or modified as the result of any such coordination.

§ 558B.12 – EFFECTIVE DATE.

§ 558B.12 – EFFECTIVE DATE. The effective date of this Chapter is July 1, 2006, except as to any pilot programs implemented cooperatively by the Secretary of State and County Recorders or Recorder-Auditors, in which cases this Chapter is effective July 1, 2004.