

# eMortgage Guide



## **Abstract**

This MISMO® eMortgage Guide, published by the Mortgage Industry Standards Maintenance Organization, Inc. (“MISMO”), a wholly owned subsidiary of the Mortgage Bankers Association, is a mortgage industry reference tool, providing voluntary guidelines to facilitate efficient eMortgage processes and reduce cost, time, and risks.

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# MISMO eMortgage Guide

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## Revision History

<b>Date</b>	<b>Version</b>	<b>Description</b>	<b>Author</b>
9/8/2005	1.0 Draft	IPR Disclosure Release	MISMO eMortgage Guide Subgroup
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# MISMO eMortgage Guide

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# 1 About This Guide

## 1.1 Summary

The MISMO eMortgage Guide, published by the Mortgage Industry Standards Maintenance Organization, Inc. (“MISMO”), a wholly owned subsidiary of the Mortgage Bankers Association, is a mortgage industry reference tool – a detailed guide to the various aspects of eMortgage technology and business. MISMO is dedicated to developing, promoting, and maintaining, through an open process, voluntary electronic commerce procedures and standards for the commercial and residential mortgage industries.

## 1.2 Purpose

The MISMO eMortgage guide is intended to educate the mortgage industry community about the business and (high-level) technical aspects of eMortgage implementations and their potential benefits. It provides guidance on how to get started with your own eMortgage system implementation, and describes general industry-acceptable guidelines for eMortgages that mortgage industry participants may elect to apply across related mortgage processes. This guide provides general information about the legal framework surrounding eMortgage implementation. It is educational in nature and is not intended as legal advice. Professional advice should be sought in connection with any specific efforts to implement eMortgages.

## 1.3 Scope

The MISMO eMortgage Guide describes and explains industry-standard concepts, definitions, and high-level processes. It is not intended to be a technical implementation guide. It also does not provide information about any specific company’s internal processes, patented concepts, business logic, algorithms, or other proprietary details. Neither does it provide legal advice. Rather, this guide provides general information about the legal framework surrounding eMortgage implementation. Professional advice should be sought in connection with any specific implementation of eMortgages.

## 2 Executive Summary

The mortgage industry continues to evolve to an electronic mortgage environment. Since 2001, the mortgage industry has been working cooperatively within the Mortgage Industry Standards Maintenance Organization, Inc. (MISMO) to define key processes, transactions, and XML data standards to exchange the mortgage data and documents electronically. This collaborative work led to the formation of a suite of eMortgage concepts and voluntary standards, described in this eMortgage Guide.

Today's origination process usually involves the electronic generation of loan documents, which are then printed on paper for borrowers to sign. The paper documents are then manually shipped back, typically imaged, indexed, stored in electronic document repositories, and exchanged after origination. The data that is exchanged electronically must be certified against the data on the paper documents. Thus, while imaging can provide significant benefits, manual processes and physical shipping are still required.

The eMortgage framework and standards take these processes to the next level, into a fully paperless environment. eMortgage documents are generated, transferred, signed, sealed, registered, and stored electronically, eliminating the need for printing, imaging, shipping, couriers, data re-entry, manual data certification, and other costly steps of today's mortgage processes. The data in these electronic documents can be verified and trusted, because the documents are digitally signed to reveal any tampering.

This guide provides an overview of the eMortgage landscape as it exists today, including:

- Benefits of eMortgages,
- Key industry standards and concepts,
- Underlying legal framework and concepts,
- General guidance for key processes, and
- Sources of additional information to get started.

The mortgage industry is slowly but steadily moving forward on eMortgage development and implementation because the resulting paperless processes will provide significant savings of time and money for business and ultimately for consumers. MISMO standards are critical to achieving eMortgage adoption across the industry. During the transition from paper to eMortgages, both individual loans and loan pools will be hybrid, using combinations of paper, imaging, and electronic documents. This guide provides a reference tool to help you move forward toward a true eMortgage environment.

### 3 Benefits

The MISMO standards and resulting eMortgage system implementations can benefit all participants in the mortgage lending environment including the borrower, real estate agent, mortgage broker, mortgage lender (retail, wholesale, correspondent, direct), loan servicer, investor, title company, service provider (document prep, title, flood, credit, fraud, appraisal), notary, county recorder, and others. As mortgage lenders develop and execute their corporate strategies, it is very important to understand that the business benefits available from eMortgage technology are being leveraged by many institutions today. The purpose of this section of the eMortgage Guide is to document the eMortgage benefits and to provide a general description of how those benefits are achieved.

Although the supporting MISMO standards and other technologies are equally significant, the SMART Doc™ concept is the key point for executives and managers in mortgage banking to grasp in order to leverage this pivotal eMortgage business opportunity. After the legal framework (ESIGN and UETA) for eMortgages was established in 2000, MISMO developed the technical specification required to create digital documents that could be legally exchanged across the industry to replace their paper counterparts. This digital document specification is known as the SMART Doc™ specification and is being used by technology vendors, lenders, and other parties throughout the mortgage industry.

The fundamental idea embodied by the SMART Doc™ specification is the encapsulation of the document data with a corresponding digital view of the document to replace the paper documents we know today. This secure digital object (the data combined with the document view) can then be managed, validated, and manipulated electronically. Once your process is enabled using the SMART Doc™ specification for your electronic documents, workflow systems can be configured to automatically validate the data, to review against business rules, and to execute the transaction logic necessary to complete mortgage banking processes electronically. (Please note that more detailed discussion of the SMART Doc™ concept is available in Section 5.2 of this eMortgage Guide (“SMART Doc™ Concept”), and in the [SMART Doc™ Implementation Guide](#) available at [www.mismo.org](http://www.mismo.org))

MERSCORP, Inc. (MERSCORP) and its wholly owned subsidiary, Mortgage Electronic Registration Systems, Inc. (MERS), will be other key elements of any eMortgage strategy. MERSCORP and MERS are the mortgage industry utility that eliminates the need to prepare and record assignments of mortgages when trading mortgage loans. Borrowers name MERS as mortgagee and nominee for the lender on deeds of trust and mortgages that are recorded in the public land records. Lenders then register the loans on the MERS® System operated by MERSCORP and electronically track changes in servicing and investor ownership rights over the life of the loan. MERSCORP also operates the MERS® eRegistry which is the system of record for the mortgage industry to

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identify the current Controller (holder) and Location (custodian) of the Authoritative Copy of an electronic promissory note.

The SMART Doc™ specification, combined with MISMO data transaction standards, the MERS® eRegistry, and other eMortgage technologies, provide many benefits for every process we know today in mortgage banking. Key benefits to consider as your company begins to implement eMortgage technology are:

- Significant reductions in cycle time for all processes. With the reduction in cycle time, associated benefits can include higher customer satisfaction, lower costs, and higher quality from the mortgage processes. The magnitude of the possible eMortgage benefits cannot be matched by other, less-comprehensive technologies.
- Increased data integrity as the data and document become one in the SMART Doc™ format. This data can be used throughout the process, eliminating unnecessary re-keying of loan data.
- Cost savings in system integration. Using the MISMO data standards greatly reduces development time and maintenance of proprietary system-to-system interfaces.
- Reduced risk – quality control and regulatory checks can now be performed electronically, throughout the life of the loan. This electronic integration of compliance throughout the mortgage banking process (not as its own silo) may virtually eliminate the need for such functions as the post-closing audit.
- Increased value of eMortgage assets, as investors also accrue the benefits described above, when they receive electronic delivery of product.

More details on the benefits available with eMortgage technology can be found in the “eClosing ROI Study” to be published by MISMO in 2005.

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As examples of how you can use eMortgage technology today, let's consider the opportunities presented below to use the SMART Doc™ specification in your origination and servicing processes.

<b>Opportunity</b>	<b>Benefits</b>
eCompliance	Replaces manual quality control and compliance checks with automated checks throughout the process, which will improve loan quality and shorten cycle times.
eDisclosure	Eliminates manual preparation and shipping of application and initial disclosure packages to/from the borrower(s).
eNote	Eliminates shipping, manual data reentry, manual data certification, and imaging of the investor collateral packages. With intelligent workflow, the eNote also enables a significant reduction in the closing and funding cycles.
eClosing	Eliminates the manual scheduling of closings and shortens cycle time of overall closing processes; data is shared by all in the service supply chain, which eliminates redundant data entry and errors.
eDelivery	Reduces document management overhead, shortens cycle times, and improves overall process efficiencies with secure electronic delivery of mortgage-related documents.
eRecording	Improves the real estate recording process, reduces overall cycle time for all participants and reduces the costs for both county recorders and their customers.
eServicing	Lowers costs and improves customer service for all business partners as companies begin to leverage the MISMO standards to move Investor Reporting, Delinquency Reporting, and other traditional servicing tasks to a collaborative Internet environment.

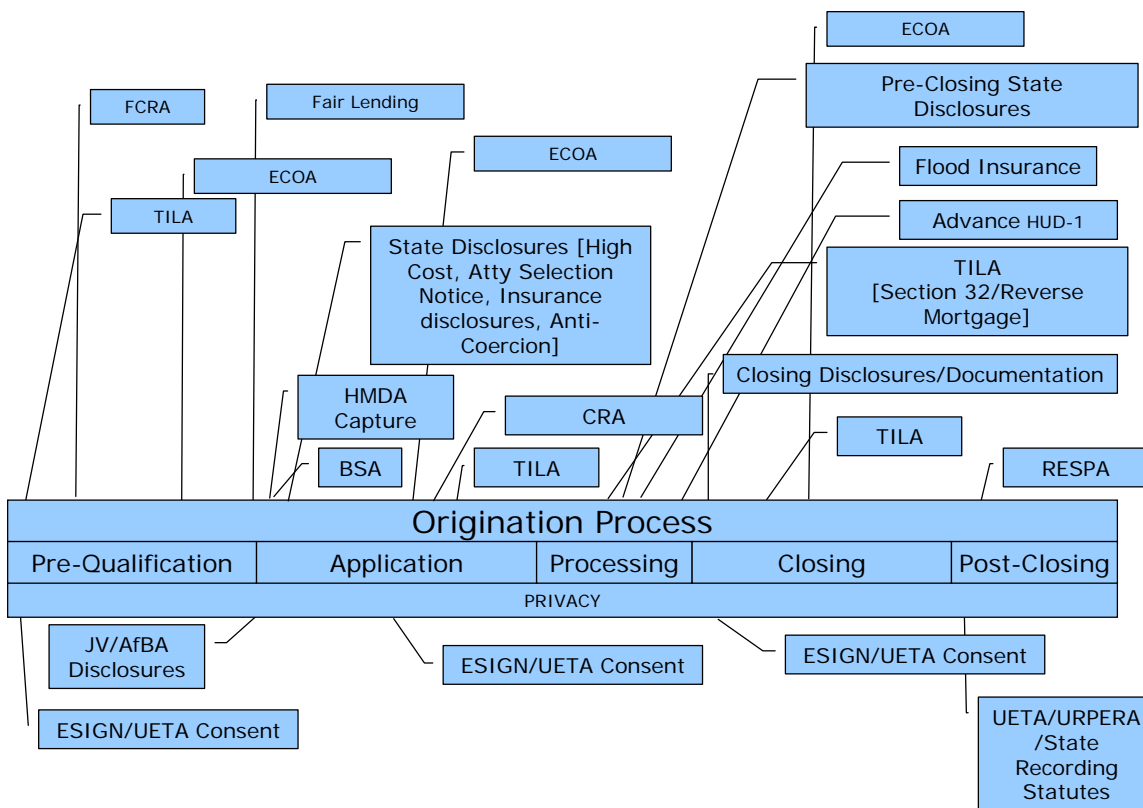
In conclusion, extensive benefits and cost savings may be achieved by moving to the eMortgage environment. These benefits and cost savings can be attained incrementally as we evolve from paper to hybrid to a fully electronic and paperless mortgage environment. Each business has the opportunity to re-examine its processes to take advantage of efficiencies permitted by the SMART Doc™ specification. The MISMO eMortgage Workgroup will soon publish an eMortgage ROI white paper and cost-benefit analysis worksheet template, to allow you to calculate your own potential eMortgage ROI.

## 4 Legal

### Introduction

Many existing mortgage industry processes are based on the legal and regulatory framework that is uniquely applicable to residential mortgage loan origination. As the industry moves forward toward an electronic environment, a new, and equally unique framework is evolving. This chapter provides a summary of the legal context for eMortgage transactions. The content of this chapter is for informational purposes only and should not be considered legal advice generally or with respect to any specific facts or circumstances.

The following diagram illustrates the legal compliance reference points that should be considered in the implementation of any electronic mortgage loan origination process.



### Uniform Electronic Transactions Act Summary

The National Conference of Commissioners on Uniform Laws (NCCUSL) promulgated the Uniform Electronic Transactions Act (UETA) in 1999 as a model act for adoption by the states. UETA represents the first effort at providing uniform rules to govern transactions in electronic commerce. Since UETA's introduction, almost every state,

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including the District of Columbia, has adopted some version of UETA although some states have included non-uniform provisions. The objective of UETA is to ensure that transactions in the electronic marketplace are as enforceable as transactions memorialized on paper with manual signatures without changing any of the substantive rules of law that apply and without imposing specific technology requirements for verification of identity or the integrity of the document itself. UETA applies only to transactions in which each party has agreed by some means to conduct them electronically.

The basic rules are in Section 7 of UETA (Legal Recognition of Electronic Records and Electronic Signatures). The most fundamental rule in Section 7 provides that a "record or signature may not be denied legal effect or enforceability under state law solely because it is in electronic form." The second most fundamental rule says that "a contract may not be denied legal effect or enforceability solely because an electronic record was used in its formation." The third most fundamental rule states that any law that requires "a writing" will be satisfied by an electronic record. And the fourth basic rule provides that any signature requirement in the law will be met if there is an electronic signature.

UETA establishes the concept of "transferable records" in Section 16. "Notes" under Article 3 (Negotiable Instruments) and "Documents" under Article 7 (Warehouse Receipts, Bills of Lading, and Other Documents of Title) of the Uniform Commercial Code (UCC) are "transferable records" under UETA when in electronic form. Promissory notes may be negotiable instruments. The quality of negotiability relies in part upon the note or document being the single, unique embodiment of the obligations and rights in the note or document. Maintaining the "unique token" quality for electronic promissory notes is the subject of Section 16. A transferable record exists when there is a single authoritative copy of that record existing and unalterable in the "control" of a person. Section 16(d) of UETA provides that a person in "control" is a "holder" for the purposes of transferring or negotiating that record under the UCC. If a state has enacted UETA, it will be the governing law in the state regarding the enforceability of electronic transactions. States may amend UETA, as they deem appropriate, so that state enactment of UETA has not resulted in a national standard for real estate finance professionals to follow. See the next section for how UETA relates to federal ESIGN legislation.

### **ESIGN Summary**

On June 30, 2000, Congress enacted the Electronic Signatures in Global and National Commerce Act (ESIGN), to facilitate the use of electronic records and signatures in interstate and foreign commerce by ensuring the validity and legal effect of contracts entered into electronically. Congressional action reflected concerns over the pace of enactment of UETA by the states and the continued enactment of state laws either modifying UETA or establishing new regulatory regimes. For states that have enacted a uniform version of UETA, the provisions of ESIGN may be superseded in whole or in part. Regardless, most of the provisions in ESIGN mirror provisions contained in UETA. However, in order to preserve the underlying consumer protection laws governing

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consumers' rights to receive certain information in writing, ESIGN imposes special requirements on parties that want to use electronic records. For more information on these requirements, see the Consent Requirements section below.

### **Consent Requirements under ESIGN and UETA**

*Under ESIGN and UETA, a party must agree to use electronic records and/or signatures with respect to a specific transaction or group of transactions.*

Nothing in ESIGN or UETA requires a party to use electronic records and/or electronic signatures in a transaction with another party. Generally, the agreement to use electronic records and/or signatures can be evidenced by an express or implied agreement between the parties to conduct business electronically, except if there is a federal law requiring a writing.

*Before a party can electronically provide information required to be “in writing” to a consumer, the provisions of ESIGN (or in some cases the state UETA) require the party to provide specific ESIGN consent disclosures to the consumer, and require the consumer to affirmatively consent to receive the information electronically.*

Section 101(c)(1)(C)(ii) of ESIGN requires businesses to obtain from consumers electronic consent or confirmation to receive information electronically that the law requires to be delivered in writing (e.g., Truth in Lending disclosures). Before consent can be given, a consumer must be provided with information regarding:

- any right or option to receive a disclosure in paper form;
- whether the consent applies only to a particular transaction or to categories of records that may be provided during the course of the parties' relationship;
- the right to withdraw consent to have records provided electronically, including any conditions, consequences, or fees associated with doing so. The institution must describe the procedures for withdrawing consent and for updating information needed to contact the consumer electronically;
- how, after the consent, the consumer may obtain a paper copy of a record upon request; and
- the hardware and software requirements for access to and retention of the electronic information.

ESIGN requires that consumers express their consent electronically, or confirm their consent electronically, in a manner that reasonably demonstrates that the consumer will be able to access required notices or disclosures electronically. If, after consent is provided, a change is made in the hardware or software requirements needed to access or retain the electronic disclosures and the change creates a material risk that the consumer will not be able to access or retain an electronic disclosure that was the subject of the prior consent, the consumer must be provided with an appropriate notice of the change and must re-consent electronically in a manner that reasonably demonstrates the consumer's ability to access the electronic notice or disclosure within the changed hardware or software environment.

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*Under ESIGN and UETA, an issuer (borrower) must expressly agree to treat an electronic record as a transferable record.*

An electronic form of promissory note cannot qualify as a “transferable record” under ESIGN or UETA unless the issuer of the electronic promissory note has expressly agreed that it is a transferable record. This express agreement can be obtained separately from the transferable record or be contained within the transferable record itself. For example, Fannie Mae and Freddie Mac have developed an eNote clause for their Uniform Instruments in electronic form. The new clause must be included in eNotes intended to be sold to Fannie Mae or Freddie Mac and contains specific language whereby the issuer (borrower) agrees that the eNote is a valid transferable record.

### **Establishing Control of a Transferable Record**

An important aspect of the secondary mortgage market is the mortgage industry’s ability to sell mortgage notes. As mentioned above, ESIGN and UETA create a parallel structure for the transfer and negotiability of an electronic promissory note to a third party so that a third party transferee has the rights and defenses analogous to those held by a “holder,” or a “holder in due course,” under the UCC. The key to the transferability of an electronic record under ESIGN and UETA is “control,” which can be thought of as the equivalent of possession in the paper world. ESIGN and UETA provide that a person has control of a transferable record if a system employed for evidencing the transfer of interests in the transferable record reliably establishes that person as the person to which the transferable record was issued or transferred.

Control can be shown if the system meets the list of safe harbor requirements under Section 16(c) of UETA and Section 201(c) of ESIGN, as described below.

*A single authoritative copy of the record exists that is unique, identifiable, and unalterable (with limited exceptions).*

To qualify as an authoritative copy, an electronic promissory note must be unique, identifiable and unalterable (with limited exceptions). An electronic promissory note can be unique by having a specific characteristic that distinguishes it from other copies. The characteristic can be provided by technology, by process, or by agreement. For the electronic promissory note to be identifiable, the system being used or the agreement between the parties needs to specify or describe the unique feature that identifies the authoritative copy and how that unique feature can be accessed or confirmed. The electronic record must be unalterable, except with the permission of the person asserting control.

*The authoritative copy identifies the person asserting control as either the person to whom the transferable record was issued or the person to whom the transferable record was most recently transferred.*

The authoritative copy must be tied to a system or process for identifying the current party in control of the record. This can be accomplished through the use of a trusted third party registry, such as the MERS® eRegistry. For example, the MERS® eRegistry was

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designed as an industry utility serving as the central location to identify the current person in control of and the location of the authoritative copy of the electronic promissory note. Language, such as Fannie Mae and Freddie Mac's eNote clause, is included in the electronic promissory note referencing the MERS<sup>®</sup> eRegistry or another trusted third party registry, as the system for identifying the person in control of the electronic promissory note.

*The authoritative copy is communicated to and maintained by the person asserting control or its designated custodian.*

The person asserting control of the authoritative copy or her designated custodian would be equivalent to the person who is authorized to possess the physical promissory note in a paper environment. As a result, the person asserting control or its custodian must have access to the authoritative copy and be able to maintain the authoritative copy without the ability for others to duplicate or acquire the authoritative copy without their permission.

*Copies or revisions that add or change an identified assignee of the authoritative copy can be made only with the consent of the person asserting control.*

ESIGN and UETA permit an authoritative copy to be revised in order to add or change its identified assignee, but only with the consent of the person asserting control.

*Each copy of the authoritative copy and any copy of a copy is readily identifiable as a copy that is not the authoritative copy.*

All copies of the authoritative copy of the electronic promissory note need to be readily identifiable as such. This can be accomplished by inserting language into the electronic promissory note that gives third parties notice that they may not be viewing the authoritative copy of the note and that they would need to check a designated third party registry (i.e., the MERS<sup>®</sup> eRegistry) in order to determine the actual location of the authoritative copy. Fannie Mae and Freddie Mac drafted the eNote clause for their Uniform Instruments to meet this requirement.

*Any revision of the authoritative copy is readily identifiable as an authorized or unauthorized revision.*

Revisions to an authoritative copy, such as modifications to an electronic promissory note, must be identifiable as authorized or unauthorized revisions. This can be accomplished using a trusted third party registry, such as the MERS<sup>®</sup> eRegistry. Whenever a modification is created and agreed upon by the person in control and the obligor(s) to the electronic promissory note, the modification can be registered on the third party registry in such a way that it is associated with the original electronic promissory note. Any persons that check the registry will be put on notice that a modification to the electronic promissory note exists.

### **eNotarization**

Notaries in the United States entered a new era in 1999 when UETA was published. UETA specifically allows for the use of electronic signatures by notaries:

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Section 11. Notarization and Acknowledgment. If a law requires a signature or record to be notarized, acknowledged, verified, or made under oath, the requirement is satisfied if the electronic signature of the person authorized to perform those acts, together with all other information required to be included by other applicable law, is attached to or logically associated with the signature or record.

Additionally, ESIGN closely tracks UETA, including the provision on use of electronic signatures by notaries:

Subsection 101(g). Notarization and Acknowledgment. If a statute, regulation, or other rule of law requires a signature or record relating to a transaction in or affecting interstate or foreign commerce to be notarized, acknowledged, verified, or made under oath, that requirement is satisfied if the electronic signature of the person authorized to perform those acts, together with all other information required to be included by other applicable statute, regulation, or rule of law, is attached to or logically associated with the signature or record.

The legislative history of ESIGN indicates that 101(g) is intended to remove any requirement of a stamp, seal, or similar embossing device as applicable for electronic notarizations. This notation recognizes that the notary's seal may be represented simply as "information" (textual or otherwise) on an electronic document, as long as that data conforms to existing state laws concerning the information that must be conveyed by the notary's seal. However, the fact that ESIGN itself does not address the seal issue specifically raises interpretative issues that many real estate and legal professionals would like to see clarified by statute.

### *State Laws and Regulations Enabling eNotarization*

States have adopted or are currently working on adopting legislation to support electronic notarization, including clarification of the status of seals. NCCUSL's draft of the Uniform Real Property Electronic Recording Act (URPERA) [Sec. 3(c)], which some states have already adopted, effectively duplicates the UETA and ESIGN language regarding the use of electronic signatures by notaries and specifically adds a provision that the notary's seal need not display as a physical or visual image on an electronic document being recorded.

These legislative efforts will bring clarity to the legal effect of electronically notarized documents and will establish the rules, procedures, and guidelines that govern notary practice in the electronic age. Parties interested in eNotarization should determine whether their state has, or will implement laws or regulations governing eNotarization. Additional guidance can also be found through state or national notary professional organizations.

### eRecording

*Implementation of electronic recording (eRecording) necessarily implies that the real estate document being submitted for filing in the public land records is a valid electronic document and that the receiving body is authorized and willing to accept the electronic record for recording. Fortunately, the broad nature of ESIGN and UETA permits real estate documents to be in electronic format, to contain electronic signatures, and to be accepted for filing in the event county recorders choose to do so.*

ESIGN and UETA's general rules of validity similarly provide that, with respect to a "transaction," a record or signature may not be denied legal effect or enforceability solely because it is in electronic form. Both ESIGN and UETA define a "transaction" as an action or set of actions relating to the conduct of business, consumer, commercial affairs between two or more persons, and in the case of UETA, the definition of "transaction" additionally covers governmental activities. In addition, ESIGN's definition of "transaction" specifically includes the sale, lease, exchange, or other disposition of any interest in real property. Real estate documents, such as deeds of trusts and mortgages, often have to be notarized or acknowledged under applicable state law. ESIGN and UETA provide that this requirement can be met if the electronic signature of the notary or other authorized person is attached to or logically associated with the electronic real estate document. Therefore, ESIGN or UETA do not specifically preclude real estate documents from being in an electronic format or having electronic signatures.

*ESIGN and UETA, whichever is applicable, are written broadly enough to allow a county recorder the choice of accepting electronic real estate documents for recording.*

ESIGN and UETA do not mandate that county recorders accept electronic real estate documents for recording. However, since ESIGN and UETA provide that electronic records and electronic signatures are legally equivalent to paper records and ink signatures, a county recorder can choose to accept electronic real estate documents for recording, subject to any record standards or format requirements issued by a federal or state regulatory agency or self-regulatory organization.

*State attorneys general and the Property Records Industry Association (PRIA) have differing opinions on whether ESIGN and UETA give county recorders sufficient authority to accept electronic real estate documents, including scanned documents, for recording.*

Several state attorneys general ("AGs"), including those in California, New York and Texas, have issued opinions in recent years maintaining that ESIGN and UETA, without additional state law, do not require a county recorder to accept electronic documents, including documents with electronic signatures, for recording. The AGs' opinions stipulate that electronic real estate documents are legal and enforceable between the parties to a particular transaction. However, the opinions point out the difference between enforcing the underlying real estate document between parties and the distinct activity, under state statutes that require the filing of paper documents with "live" signatures, of accepting an electronic document for recording in the public land records to give third parties notice of rights in a parcel of real property.

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There is also controversy regarding whether scanned documents (i.e., paper documents converted to electronic form) meet state requirements that an “original” document or document containing an “original signature” be presented for recording. California, New York and Texas attorneys general have asserted that scanned documents and/or scanned signatures are only copies of original documents or signatures.

PRIA and the Electronic Financial Services Council (EFSC) have taken the position that ESIGN and UETA do provide a clear basis for recordings of electronic real estate documents. With regard to scanned images, PRIA and EFSC maintain that the definition of “electronic” includes a scanned image. This opinion is supported by the UETA commentary which makes it clear that “electronic data interchange, electronic mail, voice mail, facsimile, telex, telecopying, scanning and similar technologies” would qualify as electronic.

As a result of these differing views, mortgage lenders should consult with the particular counties and the state attorney generals’ offices in the states in which they wish to submit electronic or scanned documents for recording to ensure the recognition of the validity of electronic real estate document filings.

*URPERA and other state laws clarify the authority of county recorders to accept electronic real estate documents for recording.*

To clear up this confusion as to whether electronic real estate documents can be accepted for recording, including the ability to accept scanned documents and to establish electronic recording standards for county recorders to follow, NCCUSL published URPERA in August 2004. If adopted by a state, URPERA will give county clerks and recorders the legal authority to prepare for and develop systems to accept electronic recording of real property instruments. Similar to ESIGN and UETA, URPERA reiterates that electronic documents and electronic signatures will satisfy any laws requiring a document to be an “original” or “in writing” and laws requiring a document to contain original or written signatures, notarizations and acknowledgments for recording purposes. URPERA also provides that a state electronic recording commission or a state agency responsible for setting electronic recording standards must consider the standards and practices of other jurisdictions and the standards promulgated by national standard-setting bodies (e.g., PRIA), in addition to considering the needs of counties and views of interested persons. A few states, such as Virginia, have already adopted URPERA and several other states have bills on URPERA pending.

Additionally, states such as California and Colorado, have adopted separate electronic recording statutes that provide for the acceptance of electronic real estate documents, including, in some cases, digitized images of electronic real estate documents, for recording.

### **Title Insurance Coverage for eMortgages**

The American Land Title Association (ALTA) is circulating a draft of a new Loan Policy accessible at [www.alta.org/forms/ALTALoanDraft.pdf](http://www.alta.org/forms/ALTALoanDraft.pdf). The draft policy includes several references to electronic loan obligations (*See* Covered Risk 2(a)(iii); Conditions Paragraph 1(d) definition of "indebtedness" and 1(e) definition of "Insured" and 1(j) definition of "Mortgage"). Please note that these references are designed to emphasize coverage that is already embodied in the existing ALTA policy under the Insuring Clause 2, "Defects, liens and encumbrances affecting title."

### **Electronic Delivery of Consumer Disclosures**

The delivery of required consumer disclosures in an electronic mortgage lending environment presents a unique challenge. Not only do some disclosures require an ESIGN consent before they are provided electronically, creditors will still need to keep in mind that neither ESIGN nor UETA affect any statutory or regulatory requirement regarding the content, proximity or format of any warning, notice, disclosure or other record required to be posted, displayed or publicly affixed. For example, if a required notice must appear immediately above the consumer's signature line, it must continue to be positioned in the same manner within the electronic form of the document (e.g., appearing immediately above the portion of the screen where the consumer places her electronic signature). Additionally, creditors will need to ensure that the method in which they choose to provide disclosures electronically will meet any required communication, timing, verification or acknowledgment of receipt (if required), storage and retention requirements.

ESIGN contains additional conditions on providing disclosures electronically, such as prohibiting oral consumer disclosures, except as otherwise provided under applicable law. Additionally, ESIGN does not allow the consumer to consent to receive in electronic form any notice of acceleration, repossession, foreclosure, eviction, or right to cure relating to a credit contract secured by the consumer's primary residence.

For compliance guidance on the electronic delivery and retention of consumer disclosures, mortgage lenders should look to federal agency issuances, such as the interim final rules (although they are not mandatory) amending Regulation B and Regulation Z (as discussed below) and advisory letters issued by the Comptroller of the Currency on Electronic Consumer Disclosures and Notices (AL 2004-11) and Electronic Record Keeping (AL 2004-9).

### **Summary of the Board of Governors of the Federal Reserve System's (FRB) Interim Final Rules**

In order to establish uniform standards for the electronic delivery of disclosures required under Regulation Z (Truth in Lending) and Regulation B (Equal Credit Opportunity Act),

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the FRB released interim final rules in 2001. Since then, the FRB has withdrawn the mandatory compliance date on the interim final rules, but has subsequently advised that compliance with the interim final rules will satisfy the statutory requirements for consumer disclosures under ESIGN. Below is a summary of some of the provisions in the interim final rules that may have applicability in a mortgage lending transaction.

### ***Electronic Delivery Provisions within Regulation Z and Regulation B***

#### *Requirements for Electronic Communication*

Regulation Z and Regulation B define “Electronic Communication” as a message transmitted electronically between a creditor and consumer in a format that allows visual text to be displayed on equipment, for example, a personal computer monitor. Generally, a creditor may provide, by electronic communication, any disclosure required by Regulation Z or Regulation B to be in writing. Before a creditor can provide such disclosures electronically, a creditor is required to obtain a consumer’s affirmative consent to receive such disclosures electronically pursuant to ESIGN.

For purposes of either Regulation Z or Regulation B, a consumer’s electronic address is an e-mail address that is not limited to receiving communications transmitted solely by a creditor. For consumer disclosures that require an ESIGN affirmative consent, a creditor shall either (1) send the disclosure to consumer’s electronic address; or (2) make the disclosure available at another location (i.e., Internet Web site) and alert the consumer of disclosure’s availability through a notice sent to the consumer’s electronic address. In either situation, the creditor is required to make the disclosure available for at least 90 days from the date disclosure first becomes available or from the date of the consumer notice, whichever is later.

If an electronic disclosure is returned to creditor undelivered, the creditor is required to take reasonable steps to redeliver the disclosure using information from its files. If the regulation requires a consumer to sign or initial a particular disclosure, then an electronic signature, as defined by ESIGN, would satisfy this requirement.

For disclosures provided on a creditor’s equipment (i.e., a computer terminal in creditor’s lobby, ATM at a public kiosk, etc.), the creditor must ensure the equipment satisfies requirements to provide timely disclosures in a clear and conspicuous format that consumer may keep. For example, if disclosures are required at time of the on-line transaction, the disclosures must be sent to consumer’s e-mail address or be made available on an Internet Web site, unless the creditor provides a printer that automatically prints the disclosures.

### ***Applicability to Delivery of Regulation Z Disclosures***

#### *ESIGN Consent Required for Transaction-Specific Regulation Z Disclosures*

With respect to ESIGN’s consent requirements, Regulation Z makes a distinction between disclosures that relate and not relate to a transaction. For transaction-specific

## Legal

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disclosures required to be in writing (i.e., rescission notices), an affirmative ESIGN consent is required from the consumer before the creditor can deliver such disclosures electronically. However, certain disclosures are specifically not considered related to a transaction (i.e., early adjustable rate mortgage (ARM) disclosures, early home equity disclosures, credit advertisements, etc.). Such disclosures can be provided electronically without the consumer's affirmative ESIGN consent.

### *Early Home Equity and Early ARM Disclosures*

With respect to early disclosures required by Regulation Z, a consumer must be able to access the disclosures (including FRB's home equity brochure, if applicable) at the time the blank application or reply form is made available by electronic communication, such as on a creditor's Internet Web site. With respect to early home equity disclosures, a creditor can provide these on a Web site using a link to prevent the applicant from bypassing the disclosures before submitting the application. If a link is not used, application or reply form must clearly and conspicuously refer the consumer to the fact that rate, fee, and other cost information either precedes or follows the application or reply form. As an alternative to a link, a creditor can provide the early home equity disclosures by ensuring that the disclosures automatically appear on the computer screen when the application or reply form appears. A creditor is not required to confirm that the consumer has read the disclosures or the home equity brochure.

### *Notice of Right to Rescind*

In any transaction or occurrence subject to rescission under Regulation Z, a creditor shall deliver two copies of the notice of right to rescind to each consumer entitled to rescind (one copy to each if the notice is delivered by electronic communication as provided in 12 C.F.R. §226.36(b)). If e-mail is used, the creditor can comply if one notice is sent to each co-owner of the secured property. However, each co-owner must consent to receive electronic disclosures and each must designate an electronic address for receiving the disclosure.

### *Applicability to Delivery of Regulation B Disclosures*

#### *Regulation B Disclosures Given At Time of Application*

With respect to Regulation B, if certain disclosures are provided on or with the loan application, the disclosures are not subject to the affirmative consent requirement under ESIGN. Common Regulation B disclosures that may be provided on or with the electronic loan application without affirmative consumer consent are the notice of right to receive a copy of the appraisal and the information requested for monitoring purposes.

If the creditor allows an applicant to apply on-line, the applicant must be required to access any disclosure required at application before the consumer submits the application. For example, a creditor can utilize a link to prevent the applicant from bypassing the disclosures before submitting the application or a creditor can have the disclosures appear automatically on the computer screen. In either case, the creditor is not required to confirm that the applicant has read the disclosures.

## Legal

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### *Appraisals and Adverse Action*

The commentary to Regulation B provides that disclosures provided by e-mail are timely based on when the disclosures are sent. With respect to disclosures posted at an Internet Web site, such as adverse action notices or copies of appraisals, disclosures are timely when the creditor has (1) made the disclosures available on the Web site and (2) sent a notice alerting the applicant that the disclosures have been posted. For example, under 12 C.F.R. § 202.9, a creditor must provide a notice of action taken within 30 days of receiving a completed application. For an adverse action notice posted on the Internet, a creditor must post the adverse action notice and notify the applicant of its availability within 30 days of receiving the applicant's completed application.

### **Conclusion**

A legal infrastructure exists for creating valid and enforceable electronic loan obligations. For residential loans, state and federal statutes validating electronic loan obligations must be integrated with the existing myriad of laws governing mortgage lending. This integration of technology provides new opportunities to ensure compliance with existing law and provide more information to consumers. While this summary does not cover every legal topic raised by eMortgage implementation, it provides a starting point for discussion in institutions considering eMortgage-related projects. The SPeRS Handbook provides a more detailed discussion of many of the points set forth this section.

### 5 Key Concepts

The eMortgage framework and standards are based on key industry standard concepts that allow the mortgage documents to be generated, transferred, signed, sealed, registered, and stored electronically, eliminating the need for printing, imaging, shipping, couriers, data re-entry, manual data certification, and other costly steps of today's mortgage processes.

This chapter provides a high level summary of the key building blocks that support the eMortgage framework and standards. The following is a list of key concepts in this chapter:

- MISMO XML Standards
- MISMO SMART Doc™ Specification
- MISMO ePackage
- MERS® eRegistry
- eVault
- eSignature

The eMortgage framework and standards will continue to evolve together with the mortgage industry and electronic commerce. Additional key concepts may be leveraged to support the evolution to a completely paperless mortgage environment or more efficient processes that reduce time, cost, and risks.

For more details, please visit MISMO Web site at [www.mismo.org](http://www.mismo.org).

## 5.1 MISMO XML Data Standards

MISMO was founded in 1999 to develop voluntary XML data standards for mortgage industry transactions. These standard transactions greatly reduce the time and effort required for business partners to create new data interfaces with each other.

XML (and closely related standards like XHTML and XML Digital Signature) was chosen for several reasons:

- It is the standard language for describing data in e-commerce and Internet applications
- It is extensible, allowing business partners to add their own custom data elements to a standard transaction without “breaking” the standard
- It is low-cost – many XML tools and utilities are free or nearly free, and even commercial tools cost far less than (for example) data mapping tools for the ASC X12 standard of the Accredited Standards Committee.

MISMO consists of both process-area workgroups for specific mortgage process area transactions and centralized workgroups whose work spans all of the various process areas.

MISMO has developed a Logical Data Dictionary (LDD) which now holds over 3,500 unique data tags. All of the MISMO process-area workgroups, which develop transactions for specific business process areas like Origination, Underwriting, Tax, Title, Flood, and more, share the same common pool of data elements defined in the LDD. This ensures that a specific data element will have the same agreed-upon definition in every MISMO transaction that uses it.

The LDD is maintained by the Core Data workgroup (“Core Data”), which reviews all new or updated process-area transactions. Core Data reconciles these transactions against the LDD, and ensures that existing data elements are re-used wherever possible, rather than introducing a new data element that has a similar or overlapping meaning.

The Architecture workgroup and its Core Structures subgroup maintain architectural consistency for all of the MISMO transactions, by making decisions on overarching issues such as the move from XML DTD (Document Type Definition) to XML Schema.

The eMortgage Workgroup operates cooperatively with all of the MISMO process-area workgroups, and Core Data and Architecture, to develop voluntary guidelines, specifications, and XML transactions which enable a fully paperless electronic mortgage process, from application through delivery to secondary market investors and loan servicing. The eMortgage Workgroup builds on the MISMO process-area DTDs, like the Closing DTD, adding the data elements and structure necessary to support SMART

# MISMO XML Data Standards

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Doc™ implementations of the many paper forms and documents that make up the loan package.

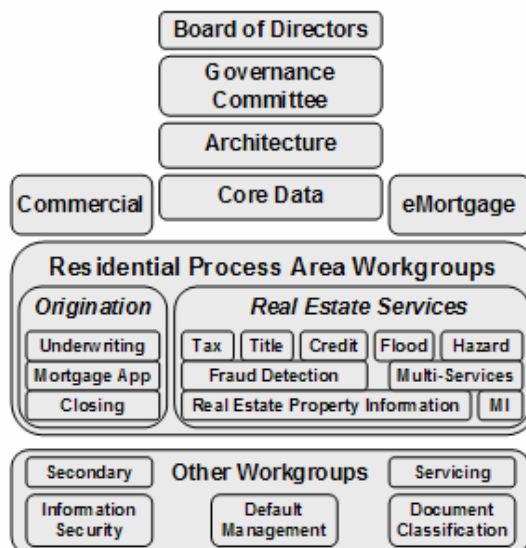
The eMortgage Workgroup has published a number of documents to provide an implementation framework for eMortgages, including:

- SMART Doc™ Specification
- SMART Doc™ XML DTDs
- SMART Doc™ Implementation Guide
- ePackaging Specification
- ePackaging Implementation Guide
- eMessaging Specification
- eMessaging Implementation Guide
- eVault Implementation Guide

MISMO also has close relationships and alliance agreements with other related industry groups, including:

- ALTA (American Land Title Association, [www.alta.org](http://www.alta.org))
- PRIA (Property Records Industry Association, [www.pria.us](http://www.pria.us))
- SPeRS (Standards and Procedures for electronic Records and Signatures, [www.spers.org](http://www.spers.org))
- SISAC (Secure Identity Services Accreditation Corporation, [www.sisac.org](http://www.sisac.org)), a wholly owned not-for-profit subsidiary of the Mortgage Bankers Association
- Appraisal Institute
- NAR (National Association of Realtors, [www.realtor.org](http://www.realtor.org))
- CMSA (Commercial Mortgage Securities Association, [www.cmbs.org](http://www.cmbs.org))

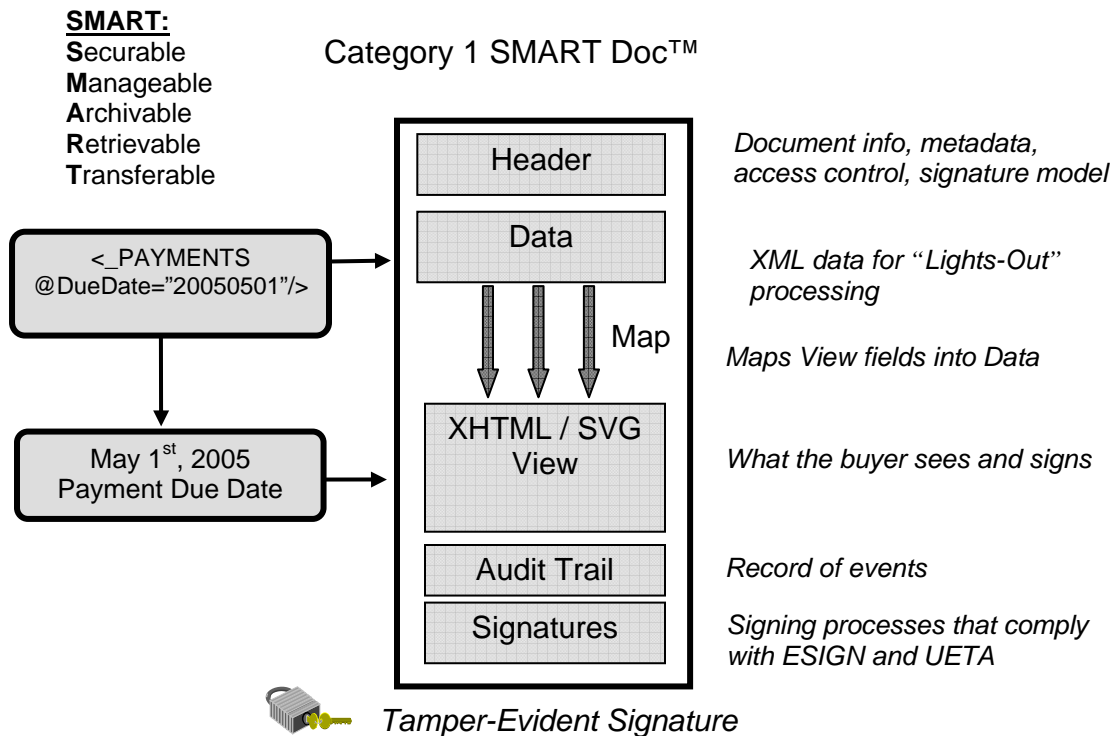
## Simplified MISMO Organization



## 5.2 MISMO SMART Doc™ Concept

The SMART Doc™ specification is designed to create a single immutable electronic file for representing mortgage information using open standard technologies. This specification provides an industry standard for easing implementation and processing of electronic mortgage loans.

The SMART Doc™ specification is a technical framework for representing documents in an electronic format. This format links data, the visual representation of the form, and electronic signatures. The visual representation of the documents can utilize a variety of technologies, such as XHTML, PDF, SVG and TIFF. A SMART Doc™ can be secured to identify if tampering has occurred. Therefore, the specification provides a way to ensure that what the borrower sees and signs on the computer screen is the exact document that will be stored. The SMART Doc™ framework also allows for a verification process to validate that the data displayed in an onscreen document matches the XML data used for processing the loan.



The current origination processes involve electronic generation of loan documents and printing them on paper for borrowers to sign. Then, the paper documents are manually shipped back, typically imaged, indexed, stored in electronic document repositories, and

## MISMO SMART Doc™ Concept

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exchanged after origination. Because executed documents are imaged, data that is exchanged electronically needs to be certified against the data on the documents. Thus, while imaging can provide significant benefits, manual processes and physical shipping are still required.

The MISMO SMART Doc™ specification takes these processes to the next level of a paperless environment. Electronic documents can be generated, transferred, signed, sealed, registered, and stored electronically without a need for printing and imaging. The benefits ultimately include elimination of manual shipping, courier expense, data re-entry, data certification, and many other manual steps throughout the mortgage process. The data in the electronic documents can be trusted because the documents are electronically sealed to provide evidence of tampering.

In summary, the SMART Doc™ specification provides tremendous business value because the data is part of the electronic document, electronically signed, tamper-evident sealed and registered; therefore the manual data re-entry and certification processes can be eliminated and replaced with automated processes.

### 5.3 MISMO ePackage Concept

The MISMO ePackaging specification provides a flexible yet simple mechanism to collect a set of files (typically electronic documents using the SMART Doc™ specification). The ePackage may then be used for a variety of purposes like storage, transport, and more. It does not provide for messaging aspects such as addressing and receipt confirmation but is only concerned with bundling multiple files together in a consistent fashion.

The ePackage supports SMART Docs of any level as well as other electronic documents and data files (for example, PDF, DTD, MS Word, TIFF). Thus, an ePackage that is exchanged between business partners might contain a partial set of documents or a completed file with signed loan documents.

Specific methods of encryption and compression have not been mandated; these decisions are left up to the trading partners. However, the MISMO Information Security Workgroup is developing recommendations for security-related technology implementations. The choice of messaging technologies is left open; implementers may choose to use the MISMO eMessaging Request/Response standard, or other technologies like SOAP or an existing messaging backbone.

ePackages are recursive – they may be nested to form a “package of packages” when needed.

The ePackage specification provides customizable metadata elements to allow business partners to add as much custom descriptive data as desired.

After an ePackage has been filled with the desired files or eDocuments, it can be “signed and sealed” using a tamper-evident signature, which allows a recipient of the ePackage to verify its integrity upon receipt.

### 5.4 eVault Concept

#### Introduction

The term “eVault” is typically used in the mortgage industry today to describe where electronic documents are stored for safekeeping. However, to date, there is no comprehensive and authoritative source that defines requirements and responsibilities for implementing and operating an eVault on the behalf of lenders, warehouse lenders, or investors.

To provide information and guidance for evaluating, implementing, and relying on eVaults for storing electronic documents, MISMO has published the eVault I-Guide.

#### Key Points

The transition from paper to a completely electronic mortgage process using electronic security instruments and other closing documents will no doubt take some time. During the transition period, custodians will be required to handle paper documents as well as electronic ones.

After developing your requirements from a review of all available information sources, you should review your requirements with your investors to confirm that they are appropriate and comply with each investor’s requirements for delivering and storing eNotes. Investor requirements will continue to evolve as the investors gain more experience with purchasing eNotes.

If your investor has not yet integrated its eMortgage delivery systems with the MERS® eRegistry, you should ask them if that is their intent and when you might expect them to be ready. The business process and technical requirements for delivering eNotes to an investor’s proprietary registry will change when that investor integrates with the MERS® eRegistry.

Finally, in lieu of any instructions to the contrary, you should expect that the provider of eVaulting services is subject to the same requirements that Ginnie Mae, Fannie Mae, Freddie Mac and other investors have stipulated for the holding of paper notes. However, as of the publication date of this document, the Document Custody Committee of the MBA is working with Ginnie Mae, Fannie Mae, and Freddie Mac on recommendations for eVerification requirements for eNotes, which will provide clearer direction on the entities’ requirements for certifying eNotes.

To learn more about the eVault concept, you should obtain a copy of the eVault I-Guide by visiting [www.mismo.org](http://www.mismo.org) and clicking on the “eMortgage Guidelines and Recommendations” link.

## 5.5 MERS® eRegistry Concept

### Introduction

MERSCORP, Inc. (MERSCORP) and Mortgage Electronic Registration Systems, Inc. (MERS) are the mortgage industry utility that eliminates the need to prepare and record assignments of mortgages when trading mortgage loans. Borrowers name MERS as mortgagee and nominee for the lender on deeds of trust and mortgages that are recorded in the public land records. Lenders then register the loans on the MERS® System operated by MERSCORP and electronically track changes in servicing and investor ownership rights over the life of the loan.

MERSCORP also operates the MERS® eRegistry, which is the system of record for the mortgage industry to identify the current Controller (holder) and Location (custodian) of the Authoritative Copy of eNotes.

### Assumptions

The following discussion assumes that:

- Proprietary electronic custodial repositories (eVaults) will exist to store eNotes.
- When an eNote is sold, the electronic file may be transferred from the seller's eVault to the buyer's (or it may remain in place, if the buyer and seller have a business relationship that allows for that).
- Any electronic copy of an eNote is identical to any other – since they are simply bit-for-bit copies of computer files; no one copy of an eNote can contain data that would identify it as the Authoritative Copy (the electronic equivalent of the paper copy with the wet ink signatures).

### Key Points

The concept of the MERS® eRegistry resulted from the need to create an evolving industry infrastructure for eMortgages that would ensure that users could “reliably establish” the controller and location of the single authoritative copy of an electronic promissory note, which, in the electronic world, is the functional equivalent of “possession” of a paper promissory note secured by real property. In the electronic world, a finding of control is key to establishing holder in due course status and the right to enforce an obligation. Without the assurance of a single, national facility for the identification of the controllers of electronic notes to help assure enforceability, investors will be less likely to purchase eNotes.

Based on this need, the MERS® eRegistry allows eNotes to be registered and uniquely identified for tracking and verification. It stores information on the Controller and

## MERS® eRegistry Concept

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Location of the Authoritative Copy of the eNote. The MERS® eRegistry does not store the actual eNote but only identifying information about it.

### **Conclusion**

To make use of the MERS® eRegistry, you must be a member of MERS and you must integrate your business process and technology environments with the MERS® eRegistry. For more information about MERS and the MERS® eRegistry, visit [www.mersinc.org](http://www.mersinc.org) and click on the MERS® eRegistry tab.

## 5.6 eSignature Concept

### Introduction

An electronic signature (eSignature) is intended to provide an equivalent to the “wet signature” traditionally used to sign paper documents. E-SIGN and UETA define an electronic signature as an electronic sound, symbol, or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record.

### Key Points

We already use eSignatures in our daily lives when we shop on the Internet or buy groceries in a store. The following are the most common types of eSignatures that are used today.

- **Click-through signature:** Click on the “I agree” button or other similar process resulting in an electronic symbol
  - We use it to buy stocks or order goods on the Internet. We also use it as part of our internal business and human resources processes.
- **Digitized signature:** Image of a handwritten signature (also known as a holographic signature)
  - Many retail stores have adopted it to sign credit card receipts. Also, some Motor Vehicle Departments affix an image of your signature on your driver’s license.
- **Digital signature:** Created by generating a unique numerical (hash) value of the document and encrypting it with the private key of the signer
  - Computer systems use digital signatures for secure communication processes. Digital signatures may also be used for consumer transactions, and consumer adoption may increase over time based on usability, cost, and other factors.

Any eSignature method is appropriate for electronic mortgage transactions as long as it is compliant with the rules and policies appropriate for that transaction. SPeRS, government agencies, and other entities have provided eSignature guidance since the passing of the UETA and E-SIGN legislation.

The following is a very high-level summary of SPeRS standards that provides basic compliance guidance:

- **Authentication & Authority:** Relationship and credentials.
  - *Examples:*
    - Notaries perform an independent authentication process during the closing process because they review a signer's credentials such as a driver's license and

## eSignature Concept

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screen signers for willingness and awareness. The notary processes also may include a journal to record the notary transaction.

- In addition, user ID and password or other confidential details are recommended to complete the authentication steps and create a more secure eSignature environment.
- **Consent to Use Electronic Records and Signatures**
  - Obtaining the borrower's affirmative consent to use electronic records and signatures.
  - Providing the ESIGN Consumer Consent Process disclosures.
  - Strategies for meeting the ESIGN "reasonable demonstration" requirement.
- **Agreements, Notices and Disclosures**
  - Principles for delivering, displaying and presenting records and information.
  - Acknowledging access and delivery.
  - Indicating agreement to notices and disclosures.
  - Methods of displaying notices and disclosures.
- **Electronic Signatures**
  - Establishing intent to sign.
  - Associating an electronic signature with a record.
  - Attributing a signature: Process or signature that associates signer's identity with the signature.
- **Record Retention**
  - Compliance with federal, state, investor, and other requirements.

ESIGN and UETA do not specify what the eSignature should look like or what technology to use. However, the ESIGN and UETA electronic signature definitions are focused on three types of signature formats: process, symbol, and sound. From a technical point of view, all electronic signatures require a process and must result in an electronic symbol or sound that is logically associated with the electronic record or embedded in the electronic record. This is the same for the digital signatures, digitized signatures, "click-through," or others because a valid symbol or sound cannot be created without an appropriate process at least internally to a system that generates or adds the symbol or sound. In addition, all eSignature methods must have an appropriate authentication process. The same eSignature method may have a stronger or weaker authentication process based on needs and procedures. Digital certificates or user IDs for "click-through" can be issued with varying levels of data and verification of credentials based on needs and procedures.

The original SPeRS comparison on eSignature methods intentionally excluded authentication steps, instead discussing authentication in a separate section. This, however, should not be interpreted to mean that public key infrastructure (PKI) is the only secure and acceptable solution, because the authentication step is a requirement for any type of eSignature method. The level of authentication may depend on security requirements and may vary across different transaction types.

# eSignature Concept

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## Conclusion

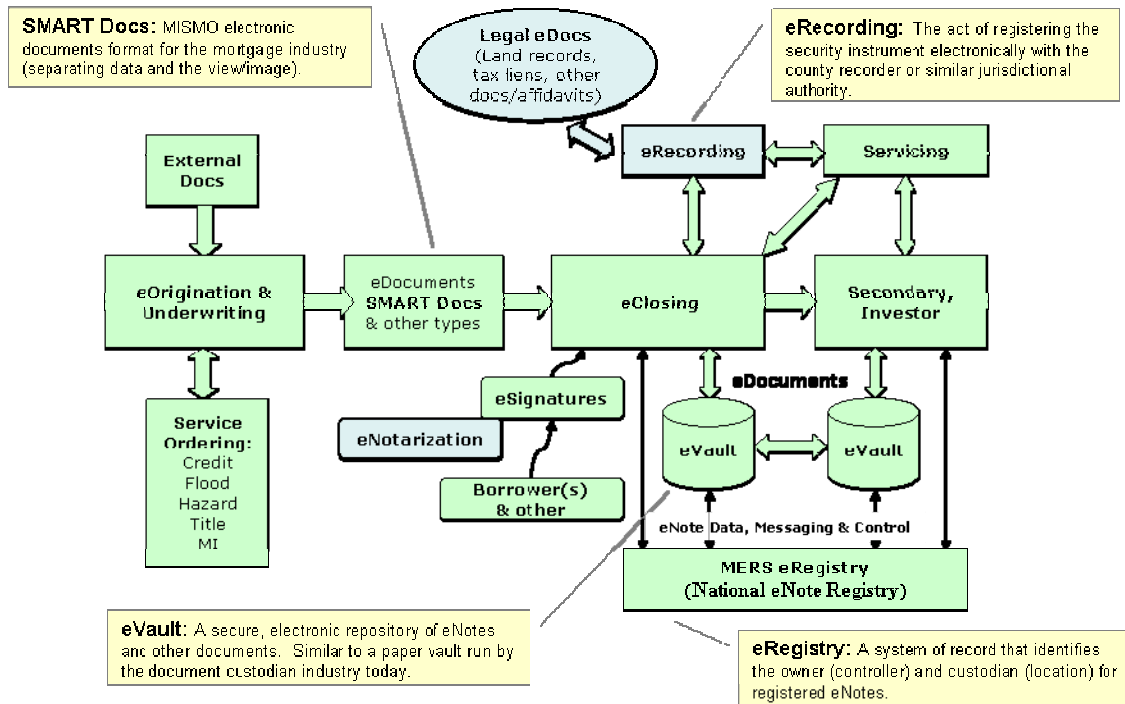
Usability, simplicity, and cost of eSignature methods will drive their adoption as long as security and legal requirements are satisfied. Today, we use click-through on the Internet and digitized handwritten signatures in stores. These methods may continue to dominate electronic transactions going forward.

## References:

- U.S. Department of Education. Standards for electronic signatures in electronic student loan transactions. [www.ifap.ed.gov/dpcletters/attachments/gen0106Arevised.pdf](http://www.ifap.ed.gov/dpcletters/attachments/gen0106Arevised.pdf)
- SPeRS: Standards and Procedures for Electronic Records and Signatures. v1. 2003.

## 6 Industry Processes

The mortgage industry continues to evolve to an electronic mortgage environment because of more efficient processes reducing time, cost, and risks. The eMortgage processes involve the borrowers, lenders, title companies, county recorders, document custodians, investors, and other key participants across origination, secondary marketing, and servicing.



The evolution to eMortgages can be approached in many different ways. The goal of this chapter is to provide a high level overview of general industry processes based on the key concepts and acceptable guidelines. The following is a list of the processes summarized in this chapter:

- eDisclosure
- eNote
- eSecurityInstrument
- eTitle
- eClosing
- eNotary
- eRecording
- Fraud Prevention

## Industry Processes

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The open industry standards allow the participants to move forward with eMortgages, take advantage of more efficient processes, and achieve the potential benefits. The process summaries help to get started with eMortgages leveraging general industry acceptable guidelines and recommendations without getting into internal processes, business logic, algorithms, or other proprietary details.

## 6.1 eDisclosure Processes

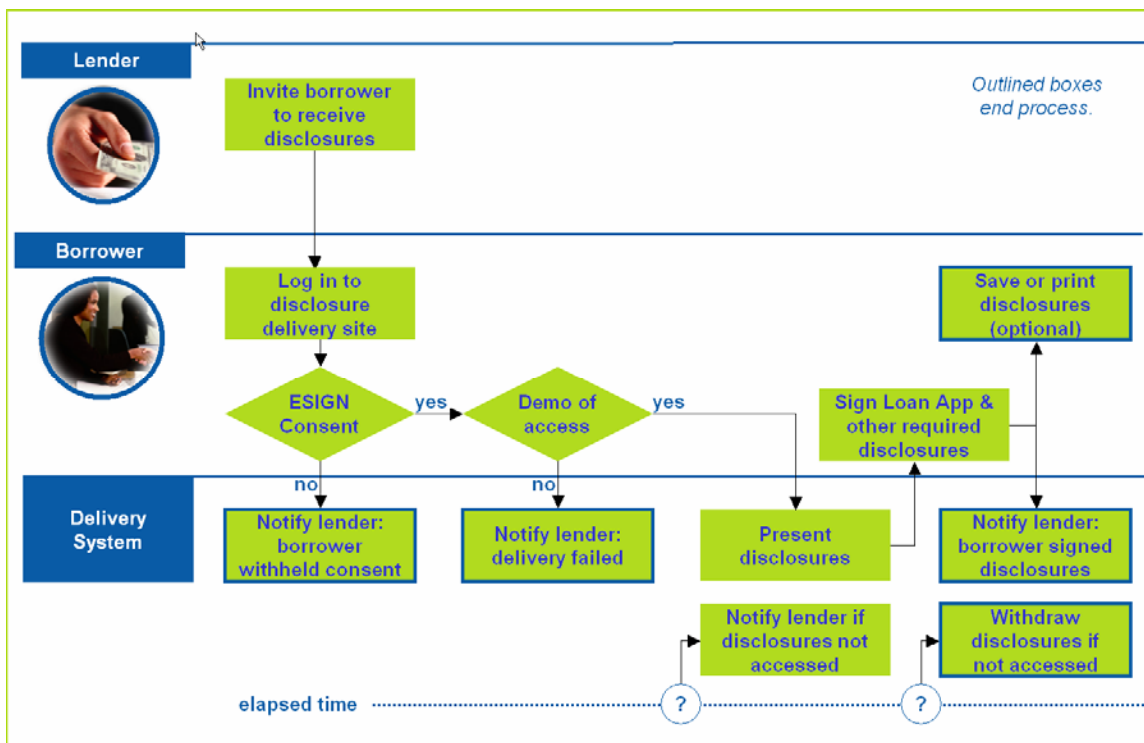
### Introduction

ESIGN, UETA, and other rules of law facilitate the use of electronic records and signatures in many contexts where paper records and traditional signatures are otherwise required.

This section illustrates a sample business process for the electronic delivery of legally-required disclosures (eDisclosures) to consumer borrowers via a Web site and provides references to applicable SPeRS standards for more particular guidance and additional strategies for delivering eDisclosures in compliance with ESIGN and UETA. The business process illustrated is not the only process that is suitable for providing eDisclosures to borrowers.

The sample business process is independent of any particular document format, but MISMO recommends the SMART Doc™ format wherever applicable.

### Sample eDisclosure Business Process Model



### Recommendations

## eDisclosure Processes

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The titles of the following sections match the names of steps in the eDisclosure business process model shown above; each section provides information related to one step in the process.

### **Invite Borrower to Receive Disclosures**

Invitations to borrowers to receive eDisclosures can be provided through several methods, including at the initial in-person interview, during a telephone discussion with the borrower, or via e-mail. Lenders should carefully consider whether or not to send confidential information via e-mail, and the utmost care should be taken to properly authenticate the borrower before providing the borrower with a method of accessing the eDisclosure delivery system.

Sample invitation sent by e-mail:

Welcome to Real Mortgage eDisclosure electronic delivery service. Your eDisclosure package with important information about your mortgage loan application is available for you to review.

Following the instructions below, please download and review your eDisclosure package. The eDisclosure package is set to expire on: 2005-05-09 09:19 EST (3 business days from the time it was sent to you). If the eDisclosure package expires before you have accessed them, you will need to call your loan officer at (800) xxx-xxxx for a new document package to be generated. If you download these documents within the time allowed, they will remain accessible through the link for 90 days.

#### **HOW TO PICK UP YOUR PACKAGE**

Click on the following Web address:

<https://real.mortgage.com/45340256>

You will be taken to a secure web site.

Internet Explorer and Netscape Navigator provide a padlock icon (near the lower right corner of the browser window) that can be used to verify the identity of a secure web site. To confirm the authenticity of this message, double-click on the padlock and verify that the site certificate was issued to real.mortgage.com.

After clicking the link, you will be asked to answer a question in order to authenticate yourself. If you do not remember the answer to your question, please click on the "Forgot Your Password?" link.

After you successfully answer the authentication question, you will be presented with your eDisclosure package. You will need Adobe® Reader® to access your documents.

If you do not have Adobe Reader installed on your computer, please click on the Adobe Reader link to install the software on your computer. Once opened, please follow the instructions on the cover letter of the document package.

Thank you for using Real Mortgage eDisclosure Document Delivery System. For technical support, please call (800) ###-####.

## eDisclosure Processes

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Adobe and Adobe Reader are trademarks or registered trademarks of Adobe Systems, Inc.

Note:

- Lenders may wish to require answers to more than one question.

### **Log in to Disclosure Delivery Site**

Since disclosure documents may contain confidential information, eDisclosure systems must ensure that eDisclosures are accessible only to authorized authenticated parties.

Lenders may wish to require that multiple authentication methods be used in combination (“two-factor authentication”).

Sample authentication methods:

- a. Challenge borrower to supply a predetermined password, blocking account access after three consecutive failures to log in.
- b. Challenge borrower to answer several questions based on information that only the borrower would be expected to know—for example, the borrower’s pet’s name, favorite color, and favorite sports team. (While someone other than the intended recipient might know the answer to one of these questions, it is unlikely that anyone else would know the answers to all of them.)
- c. Challenge the borrower to provide information that can be verified against a third party database, such as a portion—not all—of the borrower’s Social Security number.
- d. Require the borrower to use a hardware device, such as a USB token, to access the eDisclosure system.

See SPeRS Standards 1-2, 1-3, and 1-4.

### **ESIGN Consent**

Consumers are not required to accept eDisclosures, although lenders may make eDisclosures a requirement of doing business with them. However, before federally-required written disclosures can be delivered electronically, lenders providing the eDisclosures must provide the borrower with certain legal disclosures (see Legal Section) describing their online practices, and must obtain the borrower’s consent to receive the eDisclosures prior to sending such eDisclosures.

## eDisclosure Processes

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### Sample consent process:

If you want Real Mortgage eDisclosure to send you your mortgage loan disclosure documents electronically (eDisclosures) you must read and agree to the following:

You have the right to receive the eDisclosures listed below in writing on paper. If you wish to receive them in writing on paper please call us at 513-999-8787, write us at Real Mortgage eDisclosure c/o Loan Agent, 123 Main St., Cincinnati, OH, 55555 or e-mail us at [loanagent@realmortgagecorporation.com](mailto:loanagent@realmortgagecorporation.com).

You have the right, without any cost, to withdraw your consent to receive the eDisclosures by calling us at (###) ###-####, writing us at Real Mortgage eDisclosure c/o Loan Agent, ### Main St., Cincinnati, OH, ##### or e-mailing us at [loanagent@realmortgagecorporation.com](mailto:loanagent@realmortgagecorporation.com). If you withdraw your consent before we have provided you with the eDisclosures, the processing of your loan request may take additional time as we transition to paper.

This consent applies to the following eDisclosures for this mortgage loan only:

- Uniform Residential Loan Application
- Good Faith Estimate
- Truth in Lending Disclosure
- Borrowers Certification and Authorization
- Gift Letter
- Request For Copy Of Tax Return

To access these eDisclosures, you must have a computer with an Internet connection, a Web browser, and a functioning copy of Adobe® Reader® version 7.0 or above. If you do not have a copy of Adobe Reader, please [click here](#) to download a copy. [Click here](#) for Adobe Reader's hardware requirements. To save a copy of these disclosures, you must have an electronic storage device such as a hard drive, floppy disk, or USB drive. To print a copy of these disclosures, you must have a computer printer attached to your computer.

For any future mortgage loan with us we will have to obtain your consent again. If your e-mail address (username@domain.com) changes, notify us by sending us an e-mail at [loanagent@realmortgagecorporation.com](mailto:loanagent@realmortgagecorporation.com), calling us at (###) ###-#### or writing us at Real Mortgage eDisclosure c/o Loan Agent, ### Main St., Cincinnati, OH, #####.

Clicking on the "I CONSENT" button below indicates your acknowledgement and agreement to the following:

1. I consent to use of eDisclosures in place of written paper documents.
2. I am able to view this consent. I am also able to download and review files in Adobe Reader.
3. I have an account with an Internet service provider and I am able to send e-mail and receive e-mail with hyperlinks to Web sites.
4. If applicable, I am consenting on behalf of all other co-borrowers. I am authorized to consent on their behalf.

If you do not click the "I CONSENT" button then we cannot send you the mortgage loan eDisclosures electronically; instead, we will have to deliver them to you on paper.

[I CONSENT]

[CANCEL]

Adobe and Adobe Reader are trademarks or registered trademarks of Adobe Systems, Inc.

## eDisclosure Processes

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Note:

- The list of eDisclosures shown in this example is for illustration only; the actual disclosures sent may vary.

The Loan Agent should be notified if the borrower does not consent to eDisclosures to ensure that the borrower obtains paper copies of the disclosures within the time period required by applicable legal requirements.

Sample notification email:

Regarding the following loan, the borrower has not consented to eDisclosures. Please print and send a Customer Correspondence Package by FedEx today.

Loan Number: 12345

Property Address: 123 Main St. / Cincinnati, OH

See SPeRS Standards 2-1 through 2-3.

### **Demonstration of Access**

Under ESIGN and certain state enactments of the UETA, a borrower's consent to receive eDisclosures electronically is contingent on the borrower's ability to reasonably demonstrate the capacity to access the information (in this case the eDisclosures) in the format to be used by the lender for delivery. The borrower should reasonably demonstrate an ability to access the eDisclosure in both the method (e.g., e-mail, Web page, etc.) and format (e.g., PDF, WORD, ASCII, HTML, etc.) used. (This is often referred to as the "reasonable demonstration test.") If the process does not in some way reasonably demonstrate the borrower's ability to access information sent electronically, the consent may not be legally effective and the information sent (the eDisclosures) may be deemed not to have been delivered.

One approach for reasonably demonstrating the ability to access information in a particular electronic format is to deliver the consent to eDisclosures through the use of a unique, unpublished URL (Web address) and asking the borrower to use the link to review the content and acknowledge receipt. Accessing the URL and acknowledging receipt of the content should reasonably demonstrate that the borrower is capable of accessing the eDisclosures (so long as the eDisclosures are delivered through the same process).

Another approach is to ask the borrower to acknowledge demonstration of access by demonstrating an ability to use the formats provided. For example, if PDF format were to be used, the lender could confirm that the borrower had software capable of displaying PDF files by sending the borrower a link to a test PDF document (or by providing a test PDF file on the Web site). The borrower would then click on the link to view the PDF file in which a message would appear. The borrower would then enter the message on

## eDisclosure Processes

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the consent form. The communication of the message would demonstrate that the borrower could access PDF documents.

See SPeRS Standards 2-6 and 3-5.

### **Present Disclosures**

Rules of law sometimes dictate that certain information must be displayed in a “clear and conspicuous” manner, which has generally been defined as being: 1) reasonably understandable; and 2) designed to call attention to the information that is being disclosed. Other rules of law may require that disclosures be provided in a particular format. For example, a rule of law might require that a lender present certain information in 12-point bold type.

Lenders must consider these requirements when providing eDisclosures to borrowers. Lenders can use a variety of tools to ensure that clear and conspicuous and formatting requirements are satisfied, including using hyperlinks, dialog boxes and other tools and visual cues to ensure that the information in the eDisclosures is being effectively displayed.

See SPeRS Standards 3-1, 3-2, 3-6, and 5-5.

### **Save or Print Disclosures**

eDisclosures must be provided in a format that may be retained by the borrower for later reference, and lenders must not do anything to prevent borrowers from saving or printing eDisclosures.

The eDisclosure process should make clear to borrowers that they can retain or print eDisclosures for later reference and should explain how to retain or to print disclosures. eDisclosures should remain available to borrowers for at least 90 days.

See SPeRS Standards 3-1, 3-2, and 3-3.

### **Notify Lender if Disclosures Not Accessed**

A Web-based eDisclosure process should be able to notify the sending Loan Agent if eDisclosures have not been accessed within a certain amount of time. If a borrower has not consented to receive eDisclosures and demonstrated the ability to access information in the format used for the eDisclosures, then the eDisclosures may be deemed not to have been delivered, regardless of the time at which an invitation to receive the eDisclosures was sent.

Sample notification e-mail:

Regarding the following loan, eDisclosure documents have not been accessed. Please contact the borrower immediately and, if necessary, send a Customer Correspondence Package by FedEx today.

## eDisclosure Processes

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Loan Number: 12345  
Property Address: 123 Main St. / Cincinnati, OH

### **Withdraw Disclosures if Not Accessed**

If eDisclosures have not been accessed within a reasonable amount of time (as defined by the lender and applicable rules of law), the lender may want to withdraw the invitation sent to the borrower. Accordingly, an eDisclosure system may provide some support for withdrawing invitations.

Sample notification e-mail:

Regarding the following loan, eDisclosure documents have not been accessed, and the borrower's invitation to access disclosures electronically has been withdrawn. Please contact the borrower and send a Customer Correspondence Package by FedEx today.

Loan Number: 12345  
Property Address: 123 Main St. / Cincinnati, OH

### **System-Level Requirements**

Systems must meet a number of requirements that are not specifically related to a step in the eDisclosure process. For example, appropriate physical, network, hardware, and software controls must be used to protect confidential information. Companies also should collect information necessary to demonstrate: 1) that a borrower consented to the use of eDisclosures; and 2) when and how the borrower accessed eDisclosures. Furthermore, in order to ensure that eDisclosures are legally effective, they need to meet ESIGN record retention requirements, including that the eDisclosures be in a form that is capable of being retained and accurately reproduced for later reference by all parties or persons who are entitled to retain the eDisclosure. Finally, companies who use an eDisclosure service provider should use due diligence in selecting a provider and in continuing oversight of that provider's activities.

See SPeRS Standards 5-1, 5-2, 5-5, and 5-6.

### **Conclusion**

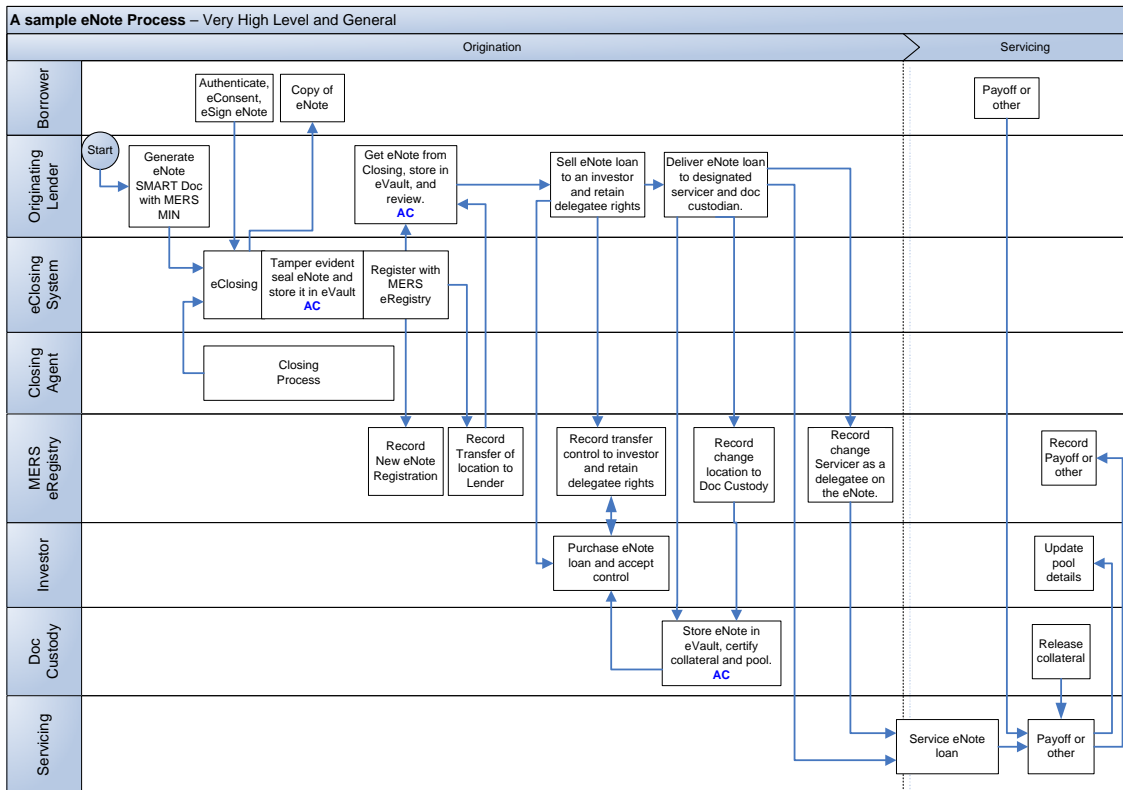
ESIGN, UETA, and other rules of law facilitate the use of electronic records and signatures in many contexts where paper records and traditional signatures are otherwise required, including the electronic delivery of legally required disclosures. This section illustrates a sample business process for the electronic delivery of disclosures ("eDisclosures") to consumer borrowers and provides references to applicable SPeRS standards for more particular guidance and additional strategies for delivering eDisclosures in compliance with ESIGN and UETA. The sample business process shown is not the only process that is suitable for providing eDisclosures to borrowers.

# eNote Processes

## 6.2 eNote Processes

The MISMO eMortgage glossary defines eNote as, "...an electronic promissory note." The mortgage note is a promissory note that creates a legal obligation of the borrower to repay the debt secured by the mortgage. The note is structured to be negotiable. This allows the mortgage lender to assign the loan upon sale into the secondary mortgage market. Once the debt is repaid in full, a notice of satisfaction is recorded. This clears the lien from the property's title.

The goal of this section is to connect the eNote across origination, closing, the MERS® eRegistry, secondary, document custody, servicing, and other key areas using MISMO standards, at a high level, without getting into internal processes and systems. For the purposes of the scenario, the lender is a retail lender that sells the loan to an investor.



### Origination

- Prior to Closing
  - The lender generates the eNote using the SMART Doc™ Category 1 with MERS MIN, uniform eNote clause, and MERS as the operator of the eRegistry. The MIN is the same as for the security instrument.

## eNote Processes

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- The lender delivers the eNote and other documents to the eClosing platform.
- Closing
  - The borrower's identity is authenticated.
    - For example: The borrower is using User ID and a secret password. In addition, the notary checks borrower's credentials with a valid form of identification.
  - The borrower reviews required eSignature disclosures and provides an affirmative consent for the eNote and other electronic documents. A tamper evident signature (seal) is applied to the eConsent document, and it is stored in the compliant eVault.
  - The borrower agrees to the eNote using a standard eSignature method.
    - Please see eSignature section about standard eSignature methods.
  - When all required signatures have been applied, a tamper-evident signature is applied to the eNote, and it is stored in an eVault.
  - Before a closing is completed, the closing agent requests eNote registration with MERS<sup>®</sup> eRegistry.
  - For more details, please see eClosing processes.
- After Closing
  - The lender receives an authoritative copy of the eNote, eConsent, and other documents from the closing agent. The lender stores eSigned documents in the compliant eVault and requests appropriate changes in MERS<sup>®</sup> eRegistry.
  - The lender performs usual post closing processes using eNote instead of the paper note.
  - The lender sells the eNote loan to an investor, typically as part of a hybrid (paper and electronic mortgage) pool.
  - To complete the sale, the lender delivers a copy of the eNote to the investor and requests MERS<sup>®</sup> eRegistry to transfer control from the lender to the investor.
  - Per investor instructions, the lender delivers a copy of the eNote to the designated custodian and servicer as well as requests MERS<sup>®</sup> eRegistry to transfer location to the custodian and delegatee to the servicer.
  - The designated custodian receives a copy of the eNote and accepts location request from MERS<sup>®</sup> eRegistry. At this point, the custodian has the authoritative copy of the eNote for certification and safekeeping functions.

### Servicing

- The servicer performs usual functions using a copy of the eNote instead of a paper or image copy.
- To complete a payoff request, the servicer requests MERS<sup>®</sup> eRegistry to record a payoff for the eNote record. Also, the servicer notifies the custodian and the investor using the usual processes.

### Conclusion

The eNote processes are supported by the key industry standards such as MISMO standards, MISMO SMART Doc™ specification, MERS® eRegistry, eVault, and others. The data is a part of the electronic document, eSigned, and tamper-evident sealed during eClosing. The seal is also registered with MERS® eRegistry. The manual data re-entry and certification can be automated because the data can be trusted. This is one of the key steps toward a completely electronic mortgage environment.

### Additional details:

- MERS® eRegistry Manuals  
([www.mersinc.com/MersProducts/manuals.aspx?mpid=5](http://www.mersinc.com/MersProducts/manuals.aspx?mpid=5))
- Investor Guidelines or Manuals

### 6.3 eSecurityInstrument Processes

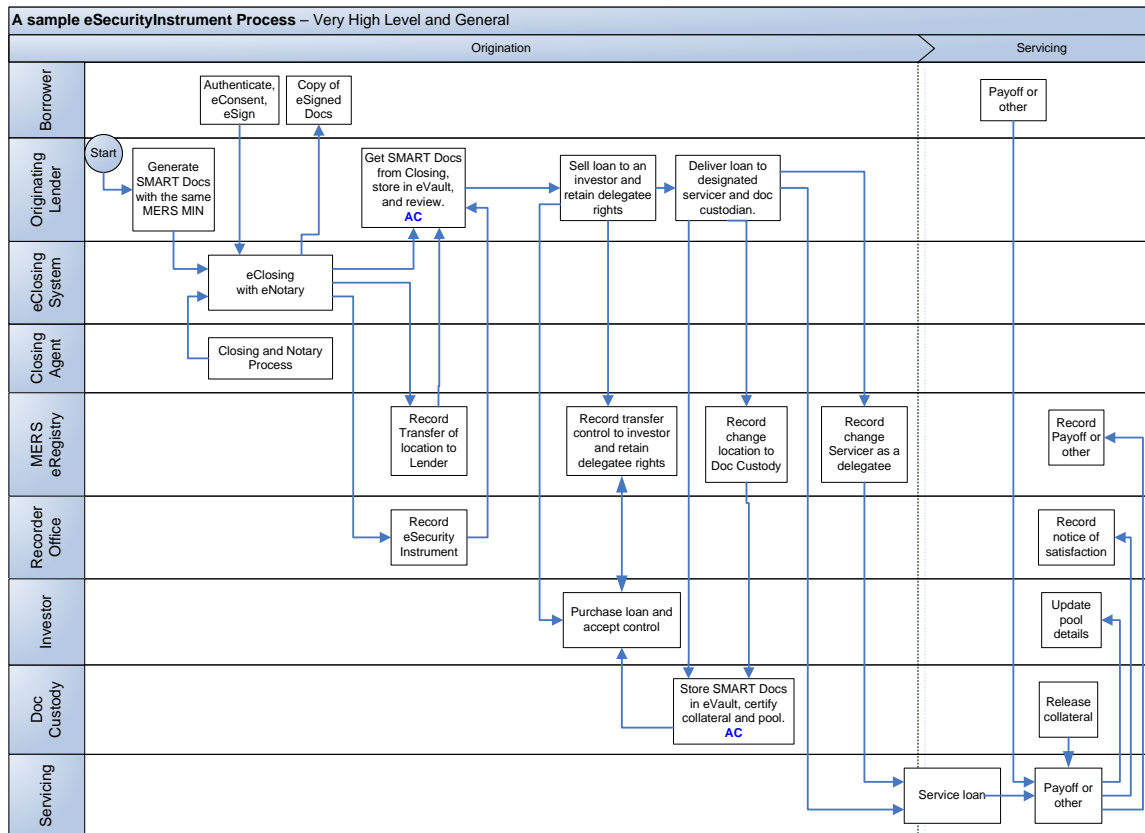
The MISMO eMortgage glossary defines eSecurityInstrument as, "...an electronic security instrument such as a mortgage or deed of trust evidencing the pledge of real estate as collateral for the loan."

The security instrument evidences the mortgage lender's security interest in the real property. In many states, this instrument is a "mortgage," while in others it is a "deed of trust" or "security trust deed." The security instrument gives a legal description of the property and provides for conveyance of the property from the borrower (mortgagor) to the lender (mortgagee) in the case of default on the note. Once the debt is repaid in full, the servicer of the mortgage records a satisfaction or lien release in the local public land records. This removes the lien from the property.

After loan closing, the settlement agent ensures that the security instrument, signed by the borrower and the notary, is recorded in the local public land records to make public record of the security interest (in the form of a mortgage or deed of trust) and assignment of the mortgage, if any. Recording protects the borrower and the mortgage banker from competing claims against the property and creates a first lien on the property.

The goal of this section is to connect the eSecurityInstrument across origination, closing, notarization, MERS registration, title, recording, secondary market delivery, document custody, servicing, and other key areas using MISMO standards at a high level, without describing internal processes and system requirements. For the purposes of the scenario, the lender is a retail lender and using an eNote together with the eSecurityInstrument.

# eSecurityInstrument Processes



## Origination

- Prior to Closing:
  - The lender generates the eSecurityInstrument using a MISMO SMART Doc™ Category 1 with MERS MIN. The MIN is the same as for the eNote.
  - The lender delivers the eNote, eSecurityInstrument, and other documents to the eClosing platform.
- Closing:
  - The borrower's identify is authenticated.
    - For example: The borrower is using user ID and a secret password. In addition, the closing agent checks borrower's credentials with a driver license.
  - The borrower reviews required eSignature disclosures and provides an affirmative consent for the eNote, eSecurityInstrument, and other electronic documents. A tamper-evident signature (seal) is applied to the eConsent SMART Doc™, and it is stored in a compliant eVault.
  - The borrower signs the eSecurityInstrument using a standard eSignature method, the same for the eNote.
    - Please see eSignature section about standard eSignature methods.
  - The eSecurityInstrument is notarized using an eNotarization method.

## eSecurityInstrument Processes

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- If the closing agent is not a notary (or if an attorney is required to close the loan), then a notary signing agent or attorney must be authenticated by the system (using a username/password combination or some other acceptable authentication process).
- If the closing agent is also a notary, then the notary/closing agent is already authenticated by the eClosing system.
- The notary adds any required electronic notary seal to the eSecurity Instrument and electronically signs the document (using an acceptable eSignature technology such as a “click-button” signature, signature pad, or even a digital signature).
- In addition, the notarial act is recorded in an electronic notary journal to comply with appropriate state laws and regulations.
  - Please see eNotary Process section for more details.
- After the last required signature is obtained, a tamper-evident signature is applied to the eSecurityInstrument, and it is stored in an eVault along with the eNote.
- Before the closing is completed, the closing agent requests eNote and eSecurityInstrument registration with the MERS<sup>®</sup> eRegistry.
  - The registration results in one MERS<sup>®</sup> eRegistry record identified by the same MIN for both the eNote and the eSecurityInstrument.
    - The registry record has separate eDocument identifiers for the eNote and eSecurityInstrument documents.
    - Each eDocument identifier has the unique tamper-evident signature from the respective eDocument.
- For more details, please see eClosing processes.
- After Closing:
  - The closing agent reviews all documents and requests the eRecording process.
    - For more details, please see eRecording processes or PRIA.
  - The lender receives the authoritative copy of the eNote, the eSecurityInstrument, eConsent documents for both documents, and other documents from the closing agent. The lender stores eSigned documents in a compliant eVault and requests appropriate changes to the MERS<sup>®</sup> eRegistry.
  - The lender performs the post-closing processes using the eNote and eSecurityInstrument instead of the paper note and paper security instrument.
- Sales and Delivery:
  - The lender sells the eNote/eSecurityInstrument loan to an investor as part of a typical hybrid loan delivery.
  - To complete the sale, the lender delivers a copy of the eNote to the investor and requests the MERS<sup>®</sup> eRegistry to transfer the eNote and eSecurityInstrument control from the lender to the investor.

## eSecurityInstrument Processes

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- Per investor instructions, the lender delivers a copy of the eNote and eSecurityInstrument to the designated custodian and servicer as well as requests the MERS<sup>®</sup> eRegistry to transfer Location to the custodian and Delegatee to the servicer.
- The designated custodian receives a copy of the eNote and eSecurityInstrument as well as accepts Location request from the MERS<sup>®</sup> eRegistry. At this point, the custodian has the authoritative copy of the eNote for certification and safekeeping functions.

### Servicing

- The servicer performs usual functions using a copy of the eNote and eSecurityInstrument instead of a paper or image copy.
- To complete a payoff request, the servicer requests the MERS<sup>®</sup> eRegistry to record a payoff for the eNote / eSecurityInstrument record. The servicer also sends an electronic and notarized request for satisfaction to the County Recorder.
  - For more details, please see eRecording processes or PRIA.
- The servicer notifies the custodian and investor using the usual processes.

### Conclusion

The eSecurityInstrument processes are leveraging the eNote standards and processes. The processes are also supported by the key industry standards such as MISMO standards, the MISMO SMART Doc<sup>™</sup> specification, MERS<sup>®</sup> eRegistry, eVault, and others. The data is a part of the electronic document, eSigned, eNotarized, tamper-evident sealed during eClosing, and eRecorded after the closing as well as after the payoff. This is a major step toward a completely electronic mortgage environment.

### Additional details:

- MERS<sup>®</sup> eRegistry Manuals  
([www.mersinc.com/MersProducts/manuals.aspx?mpid=5](http://www.mersinc.com/MersProducts/manuals.aspx?mpid=5))
- Investor Guidelines or Manuals

### 6.4 eTitle Processes

The MBA Mortgage Terms glossary defines Title Policy as, “A Contract by which the insurer agrees to pay the insured a specific amount for any loss caused by defects of title to real estate, wherein the insured has an interest as purchaser, mortgagee, or otherwise.”

Today across the mortgage industry loan title policies and preliminary products are often produced and delivered on paper in a long form or short form. The costs associated with creating, shipping, handling, reviewing and storing paper title policies can be high for both title companies and mortgage lenders.

There are also examples of electronic production and delivery that provide a good vehicle to introduce a SMART™ version of a title product. There are national and state regulations to consider when producing both paper and electronic versions of these products. These will also need to be examined to provide the proper guidance as we move to the SMART Doc™ based title policy.

The MISMO organization, in cooperation with various title companies, mortgage lenders, and the American Land Title Association have developed the XML data structure to satisfy the title specific information required to produce and map a title policy to a MISMO SMART Doc™ form. The following forms have been considered:

- ALTA and TLTA Short Form Loan Policies.
- ALTA Long Form Loan Policy.

#### The Title Provider

- There are several large and many smaller providers of the title service.
- A lender usually has a master agreement with specific providers for underwriting title. The master agreement usually includes the scope of products to be produced and the liabilities insured between the parties.
- It is not uncommon for a provider to contract out portions of the title production work depending on the location and automation of the title work. They are still responsible for the final product as the underwriter of the policy.
- In certain parts of the country, title work is often requested in conjunction with the closing service. When this occurs, there may be an explicit or implicit request for the service that must be tracked in conjunction to closing or settlement services.

#### The Title Order

- Lender places title order using Title Request. They have the ability to choose the production office and specific product(s).

## eTitle Processes

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- Order confirmation is sent from the title company using Title Response. The response supports acknowledgements of receipt of the order as well as subsequent status reporting on the progress of the title order.

### The Title Commitment

- The title company searches and examines the property title and prepares a title commitment or other form of title evidence. The title commitment is prepared in a paper form as well as electronic in many cases.
- A preliminary title commitment is then sent to the settlement agent and/or lender.
- Any curative items or exceptions are noted and resolved.
- Multiple drafts of a commitment may be produced and exchanged. Endorsements and supplements may also be included depending on the product and policy type.
- The title underwriting party provides approval prior to a final commitment being produced.

### The Title Policy

- Several preliminary policies and supporting title documents may be sent to the lender and closing parties.
- The electronic version of title policy is sent to the lender and document retention party (if 3<sup>rd</sup> party).
- Language that is specific to electronic title forms may be required to be compliant with UETA and should be agreed upon by the industry participants and associations.
- Any policies around transfers or endorsements may also need to be considered relative to electronic title forms.

### Conclusion

The title operations and business have made good strides in automating and producing electronic versions of their products. There are also standards via ALTA around the forms used to present interim and final products.

The MISMO organization has added key data points to the existing Title Request and Response DTDs to enable electronic title transactions including the delivery of the eTitle Policy document.

### 6.5 eClosing Processes

#### Introduction

The MISMO eMortgage glossary defines eClosing as, “The act of closing a mortgage loan electronically. This occurs through a secure electronic environment where all closing docs are accessed and executed via the Web. This is also known as the ‘execution’ phase of creating an electronic mortgage loan.”

#### Assumptions

For the purposes of this chapter we assume that the closing results minimally with an eNote signed by the borrower. Other closing documents may or may not be eSigned.

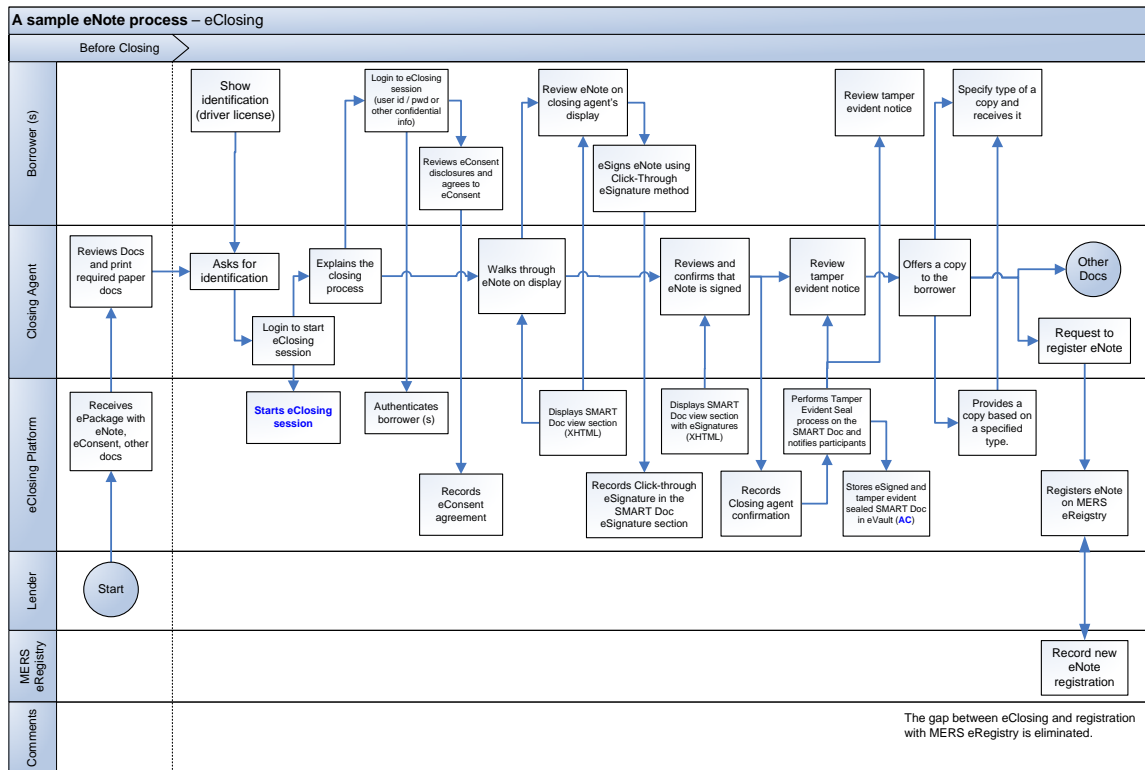
The eClosing process illustration below also assumes that the eClosing occurs at the offices of an independent settlement agent with a notary present to confirm the identity of the borrower. We recognize that on a refinance the process could occur in the borrower’s home in the presence of a signing agent.

One more point that requires emphasis is that a successful eClosing implies that the resulting eNote’s enforceability is insured by the title policy, just as it is implied with the closing of a paper note. Some lenders make that implication explicit in the “Closing Protection Letter” that they have signed when doing business with a new settlement agent.

#### Key Points

The following process steps and proposed standards are offered as an example of how an eClosing can occur. They are designed to close the gap in time between creating the eNote and registering the eNote on the MERS® eRegistry so that salability of the eNote can be ensured immediately.

# eClosing Processes



## Pre Closing:

- Lender sends required eSigning disclosures, conventional disclosures and closing documents to the borrower.
- The lender and settlement agent have agreed on the use of a specific eClosing platform.
- The lender has created the closing documents and uploaded them to the eClosing platform.
- The settlement agent has reviewed the documents, added title-related documentation (may include new HUD1) and confirmed the content and accuracy of the closing package with the lender.
- For convenience, the lender may have provided the borrower with a user ID and password to make the closing package available via the Internet or the lender may e-mail the documents to the borrower for review.

## Closing:

- Settlement agent prints documents that will not be signed electronically.
- Notary confirms identify of borrower.
- Participants access the eClosing platform.
- Settlement agent explains disclosures and confirms borrower's consent (consent can be obtained electronically or manually.)

## eClosing Processes

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- Settlement agent guides borrower through documents and shows borrower where to initial and sign each document that is signed electronically.
- After final signature is obtained on the eNote, the eClosing platform accesses the digital certificate and signs the eNote with a tamper-evident seal.
- The eClosing platform deposits the Authoritative Copy of the eNote into an eVault. The Location on the MERS<sup>®</sup> eRegistry can identify the Authoritative Copy of the eNote as residing in the eVault of the original Controller, or in a third party eVault designated by the original Controller.
- Settlement agent ensures that the Controller and Location of Authoritative Copy of the eNote on the MERS<sup>®</sup> eRegistry agree with the closing instructions.
- Prior to logging off the eClosing platform and ending that specific eClosing session, the eClosing platform launches the registration transaction with the MERS<sup>®</sup> eRegistry and confirms successful registration.
- The eClosing platform records all transactions in a permanent audit trail.
- Settlement agent provides borrower with copy of closing package either electronically or on paper.

### Conclusion

The specific process used for any given eClosing will vary according to the lender, the product and the eClosing platform on which the eClosing is conducted. However, the following key principles apply to all eClosings:

- A notary is present to confirm the identity of the borrower.
- The process obtains the borrower's consent to sign electronically.
- The eNote is legally signed electronically by the borrower.
- The process properly applies the tamper-evident signature to the eNote.
- The eNote is registered with the MERS<sup>®</sup> eRegistry immediately after closing.
- The eClosing platform maintains a permanent audit trail of all transactions.
- The eClosing process results in an enforceable eNote insured by the title policy.

### 6.6 eNotary Processes

#### Introduction

In every state, the transfer of real property or interest in real property typically requires one or more notarized documents. Some of these notarized documents are recorded publicly by county clerks or recorders. Some are simply held by a receiving party for any number of years to satisfy certain legal requirements.

Notaries in the United States entered a new era in 1999 when the National Conference of Commissioners on Uniform State Laws (NCCUSL) published its Uniform Electronic Transactions Act (UETA). Since then, almost every state (and the District of Columbia) has legislatively adopted some form of the UETA, which, among its provisions, allows for the use of electronic signatures by notaries. Even more significant than individual states' enactment of the UETA was passage by the U.S. Congress in 2000 of the Electronic Signatures in Global and National Commerce Act — commonly referred to as “ESIGN.” With most of its provisions effective Oct. 1, 2000, ESIGN is closely modeled after the UETA, including the provision on use of electronic signatures by notaries. In addition, ESIGN eliminates the requirement that a notary's seal appear as a visual image – the notary's seal may now appear as “information” in lieu of the visual image.

More recently, NCCUSL's Uniform Real Property Electronic Recording Act (URPERA) amplifies the language in UETA and ESIGN regarding the use of electronic signatures by notaries and that the notary's seal need not be displayed as a physical or visual image on an electronic document being recorded.

#### State Electronic Notarization Legislation

Taken together, UETA, ESIGN, and URPERA intend to address the legal sufficiency requirement of the notary's electronic signature. Additional legislation at the state level may be needed to authorize notaries to perform acts electronically. A handful of states, including Arizona and Colorado, have passed such enabling legislation. A rather large number of states are actively working to pass enabling legislation.

##### *Arizona*

In 2001, Arizona revised their Notary Public Law to permit electronic notarization. A.R.S. §41:351-369 permits notaries to perform notarial acts electronically by allowing electronic signatures and electronic notary tokens to replace the traditional handwritten signature and notary seal when needed for electronic documents. Rules pertaining to the electronic notary were approved in 2003 and detail the process of appointment, powers, fees and penalties. Rules can be found in Title 2, Chapter 12 of Arizona's Administrative Code.

##### *Colorado*

## eNotary Processes

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Colorado's Notaries Public Act of the Colorado Revised Statutes was amended in 2004 to substantially the same effect – in brief, the notary's electronic seal can appear as information (for example, a string of text) on an electronic document, rather than as a physical or visual image.

### *Existing Legislation Applies*

It is important to remember that as electronic notarization legislation and regulations are adopted to authorize the performance of notarial acts electronically, any existing legislation governing the notary's conduct still applies. Thus, many states require notaries to keep their seals (whether paper-based or electronic) "safe and secure" at all times. In addition, many states expressly state the notary's tools of the trade – the notary seal and journal – are the exclusive property of the notary. When evaluating or developing electronic notarization technologies, it is important to consider how regulatory statutes such as these are being satisfied.

### **Developing or Evaluating Electronic Notarization Technologies**

For those responsible for building or evaluating electronic notarization technologies, the following criteria apply:

1. Notarization, whether electronic or not, requires the physical appearance of the signer(s) before the notary.
2. Electronic notarizations (and electronic notarization technology) must satisfy any existing state statutes or regulations that govern the conduct or practice of the notary public (for example, if the state requires the notary to keep his/her seal "safe and secure" at all times, it is recommended that the electronic technology used by the notary to affix a seal be protected from misuse by other parties, e.g., a passphrase known only to the notary or a similar security protocol).

For those responsible for building or evaluating electronic notarization technologies, it is likely that the following criteria will be applicable in the majority of states (if not all):

1. Most states will likely require notaries to register to perform acts electronically. In one state, Arizona, the electronic notary must hold a separate commission to perform electronic notarial acts.
2. Most states will likely require a notary to use an electronic signature technology that is approved by and/or registered with the state.

### **Performing Notarial Acts Electronically**

Generally speaking, electronic notarization will involve the same steps of a paper notarization.

- Signer appears personally before the notary – physical appearance prevents fraud and protects consumers by compelling the signer to appear and request an act.
- Notary verifies signer's identity – notaries perform an independent authentication process that is governed by state law.

## eNotary Processes

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- Notary screens signer for willingness and awareness – many states contain express provisions that require the notary to screen a signer for willingness and awareness; in most cases, a notary meets with a signer independently of any third party and makes a common sense determination of the signer’s volition.
- Notarial act (swearing of signer, administering of oath, witnessing signer’s signature) is performed.
- Notary completes certificate (signs and affixes seal to document) – the notary’s certificate in the electronic age is still an important indication to receiving agencies of the notarial act performed, and in any event is the legal evidence of the fact of the notarization.
- Notary completes journal entry (required or recommended in most states) – this third party record complements the independent authentication of the signer by the notary.

### **Conclusion**

When notarizing documents that transfer real property or the interest in real property from one party to another, the notary’s primary role is to preserve and protect the property rights of the transacting parties.

What is important to consider is that the protective role of the notary is largely determined by the adherence of the notary to the process described above. A notary exists to compel personal appearance, verify the identity of a signer, screen the signer for willingness and awareness (and thus ward off the undue influence of third parties), affix his or her signature and seal, and, in most cases, create an independent record of the transaction for evidentiary purposes.

### 6.7 eRecording Processes

eRecording is the act of recording the security instrument and other recordable documents electronically with the county recorder or similar local public authority for the purposes of making real estate documents public and providing constructive notice.

Recording a real estate document represents the process that places a copy of the original document – deed, mortgage, lien release, etc. - in the public record at the local county recorder's office, town clerk, or other local public agency. This process puts the local community on notice with respect to real estate ownership, interest in real estate, and provides critical information to prospective subsequent purchasers of real estate. Real estate recordings are transactions entered and indexed into the public land records and are maintained in the recorder's system.

Electronic recording redesigns the real estate recording process. eRecording initially redesigned the method of delivering real estate documents to the county recorder and returning the documents to the closing agent, lender or mortgage servicer. The goal of electronic recording is to create efficiencies whereby costs are reduced for both the county recorder and the customer (e.g., closing agent, mortgage servicer, or real estate owners).

Later, because federal ESIGN and UETA allow for the replacement of paper and ink signatures with electronic records and signatures, other technologies are introduced to the recording process to represent the real estate information to be recorded, e.g., scanned images, electronic documents, or electronic data (e.g., XML), which allows for the redesign of other processes within the recorder's office, such as document examination, indexing, and recording fees collection. The electronic recording process reduces or, in some cases, eliminates steps that reduce time and costs, and provides quicker turnaround time for closing agents and mortgage servicers.

Recorders' offices around the country are increasingly adopting electronic recording because it saves time and money. There are three models, or types, of eRecording:

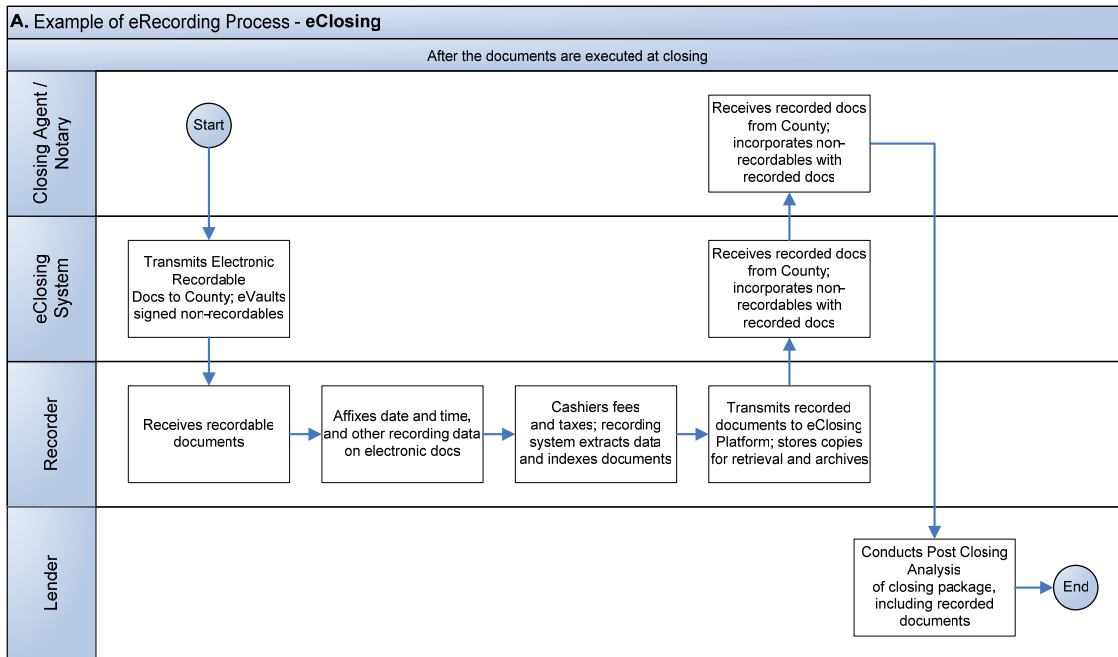
- Model 1: Scanned paper, or images, of the original transaction are transmitted over secure networks, such as virtual private networks (VPNs), to the recorder's office;
- Model 2: Images and data, usually XML, are transmitted securely to the recorder's office for processing; and
- Model 3: One electronic file representing both the electronic document and the XML data, such as XHTML, SMART Doc™ or PDF, is transmitted securely to the recorder's office for processing.

# eRecording Process

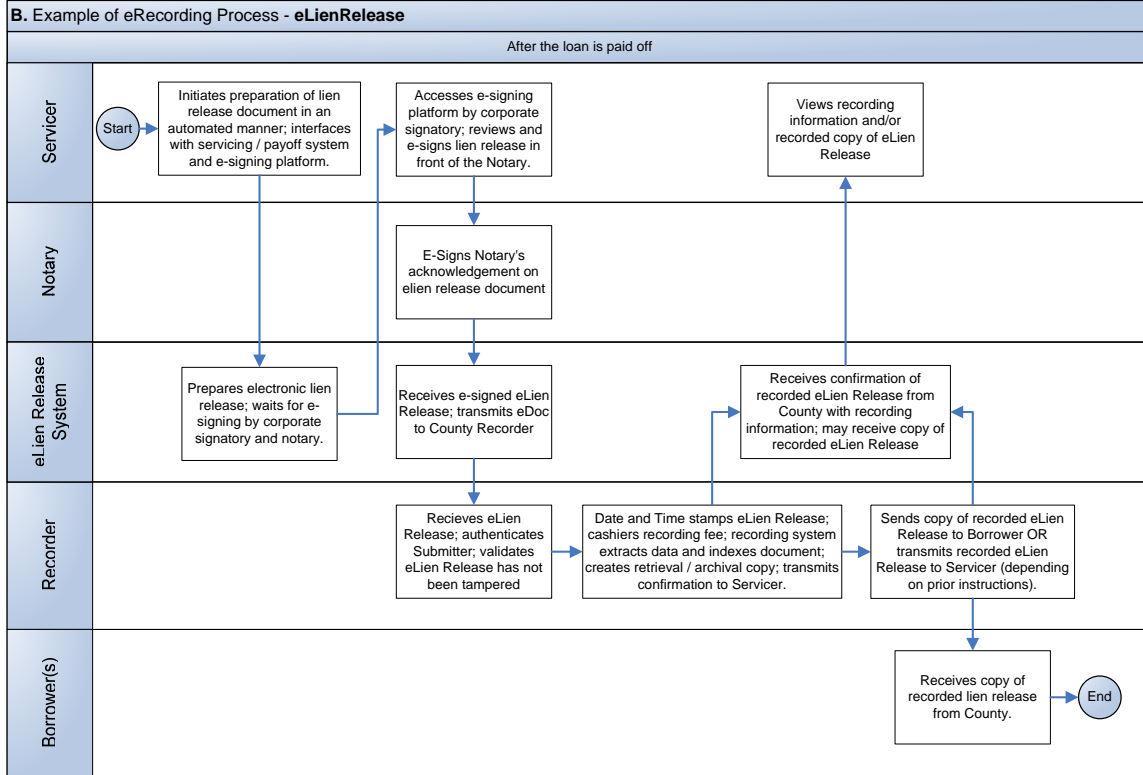
MISMO and the Property Records Industry Association (PRIA) are alliance partners working to ensure the creation and maintenance of interoperable technological standards for eMortgages and eRecording across origination and servicing processes.

When utilized with SMART Doc™ forms or PDF, eRecording provides trading partners with a reduction in recording time in the public land records and turnaround time for their trading partners; reduction and possible elimination of errors and rejections because re-keying of data is not needed; reduction of costs and time for all trading partners; improvement in productivity; reduction of certain document fraud because electronic documents are encrypted; automated document data extraction and system data population; and improvement of overall customer service and satisfaction.

## Examples of eRecording Processes:



# eRecording Process



**References:**

- <http://www.pria.us>

## 6.8 Fraud Detection Processes

### Introduction

Fraud in the mortgage industry includes misrepresentation and falsified documentation by borrowers and industry participants. Misrepresentation is most common in the following areas:

- Identity
- Occupancy
- Employment/Income
- Asset/ Liabilities
- Down Payment
- Property Valuation

Fraud also includes double selling.<sup>1</sup>

Electronic mortgage documents cannot inherently control misrepresentation of original data any better than paper mortgage documents. However, eMortgages can improve upon fraud detection in terms of changes to documents, identity of industry participants who are involved in selling eMortgages and double selling.

### Assumptions

This chapter is limited to specific anti-fraud technologies and procedures that relate to the creation and selling of eMortgages.

### Key Points

Changes to Documents are mitigated by the SMART Doc™ standard

The SMART Doc™ format, specifically Level One and Level Seven, provides, in many ways, a “mini eVault” for eNotes and other eMortgage Documents.

- The tamper-evident seal that is applied to the signed eNote immediately after the document has been signed by the borrower(s) ensures that any changes made to the document can be detected by the hash validation.
- Tamper-evident seals can, in fact, be used to lock down documents all through the pre-closing process, ensuring document integrity for documents in transit

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<sup>1</sup> Business Requirement – Working Draft – MISMO’s Fraud Detection Workgroup (5/19/05)

## Fraud Detection Processes

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- Once the eNote has been “sealed,” the mapping of the data to the view provides the ability to validate that the data section used in downstream processes is identical to the data that the borrower signed in the view.
- The MERS<sup>®</sup> eRegistry becomes the single definitive source of ownership information for registered loans, tracking the controller of the eNote at any one moment in time. The eNote record is also the single definitive source of the digital hash information – essentially capturing a fingerprint of the loan immediately when it is created and storing that hash value for validation at any point in the life of the loan, and providing a central service for ensuring that the eNote is never changed in any way.
- SMART Doc<sup>™</sup> forms can also be used to compare the data that goes to the closing table with other data, from the loan origination system (LOS), etc. There could be an opportunity there to detect fraud.

### Authentication of MERS users is validated through the use of SISAC digital certificates

Packages submitted to MERS must be signed using a digital certificate, which is authenticated by MERS, ensuring that the party who submits the package can be authenticated. All MERS users must abide by the legal agreements that authorize their use of the registry.

We recommend that great care be taken to protect the private key used to sign the package/message transmitted to MERS. A hardware storage module, used to store the private key on the server transmitting to MERS, provides an appropriate level of security to protect the key.

### Double selling is mitigated by the MERS<sup>®</sup> eRegistry

Each eNote includes a unique MIN and hash value. The MERS<sup>®</sup> eRegistry validates that each eNote registered is unique and the corresponding eNote record ensures that there can only be a single controller of any individual eNote at any one point in time. Any entity seeking to know the controller of an eNote can query the eRegistry, named in the eNote, to determine controller information.

### Audit trails mitigate against fraud during the pre-closing, closing and post-closing processes

Because all events are or should be logged by Closing Systems, the audit trail gives added protection documenting each event in the pre-closing and closing process. This event log can evolve as we move forward to create an auditable play-by-play of each action in the life of the loan.

## Conclusion

## Fraud Detection Processes

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The potential for fraud cannot be eliminated; however, as the industry evolves from paper to the electronic mortgages, the fraud detection processes will be significantly improved because of underlying standards and technologies such as MISMO SMART Doc™ forms, MERS® Registry, and other.

## 7 Appendix

### 7.1 FAQ

#### **How do ESIGN and UETA differ?**

ESIGN was enacted in 2000 to facilitate the use of electronic records and signatures in interstate commerce. ESIGN adopts many of the most significant provisions of UETA, provides consumer consent standards through electronic disclosures for purposes of federal disclosure requirements, legitimizing electronic consents, and sets boundaries for regulatory authority. UETA is currently enacted in 47 states and was initially approved by the National Conference of Commissioners on Uniform State Laws in 1999. UETA is adopted at a state level and authorizes electronic signatures and the replacement of tangible writings with electronic records. ESIGN allows the state to modify, limit, or supersede ESIGN, or adopt a state alternative that is consistent with ESIGN.

#### **Can the MERS<sup>®</sup> eRegistry be used to hold eNotes?**

No, the MERS<sup>®</sup> eRegistry is the system of record to identify the Controller and Location of an eNote. An eNote is stored in an eVault owned by the Controller of the asset or the managed through a third-party relationship such as document custodian.

#### **What is “Location” on the MERS<sup>®</sup> eRegistry?**

“Location” identifies the organization that stores the Authoritative Copy of the eNote. That organization is identified by the 7-digit MERS-assigned Org ID. The Controller of the Authoritative Copy may choose to specify its own Org ID as the Location, or a designated Custodian.

#### **What legal guidelines have been provided for electronic record keeping?**

Aside from the provisions of ESIGN and UETA, the Office of the Comptroller of the Currency ([www.occ.gov](http://www.occ.gov)) has developed an advisory letter on electronic record keeping. The advisory provides a basic overview of considerations a company should make when retaining electronic documents.

SPeRS (Standards and Procedures for Electronic Records and Signatures) has developed guidelines for implementing electronic signatures, consumer disclosure and consent, records retention, printing, delivery, and presentation of information. The SPeRS manual can be ordered at [www.spers.org](http://www.spers.org).

In 2001, the Federal Reserve Board ([www.federalreserve.gov](http://www.federalreserve.gov)) issued an interim rule to establish standards for electronic disclosures to consumers for lenders to comply with ESIGN. These interim rules have never been finalized but remain a good source for compliance advice.

## Appendix – Reference Links

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### 7.2 Reference Links

<b>MBA</b>	Mortgage Bankers Association of America <a href="http://www.mortgagebankers.org">www.mortgagebankers.org</a>
<b>MISMO</b>	Mortgage Industry Standards Maintenance Organization. <a href="http://www.mismo.org">www.mismo.org</a>
<b>MERS</b>	Mortgage Electronic Registration System Inc. <a href="http://www.mersinc.org">www.mersinc.org</a>
<b>PRIA</b>	Property Records Industry Association. <a href="http://www.pria.us">www.pria.us</a>
<b>SISAC</b>	Secure Identity Services Accreditation Corporation. <a href="http://www.sisac.org">www.sisac.org</a>
<b>SPERS</b>	Standards and Procedures for Electronic Records and Signatures. <a href="http://www.spers.org">www.spers.org</a>
<b>NNA</b>	National Notary Association <a href="http://www.nationalnotary.org">www.nationalnotary.org</a>
<b>USNA</b>	United States Notary Association <a href="http://www.enotary.org">www.enotary.org</a>

## Appendix - Glossary

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### 7.3 Glossary

<b>Authentication</b>	A process of identifying an individual, either in connection with the creation of a relationship or in connection with the individual's participation in a transaction.
<b>Authoritative Copy (AC)</b>	The unique controlling reference copy of the Transferable Record (eNote), which is registered on the MERS eRegistry.
<b>Certificate</b>	A computer-based record or electronic file that, at least, states name or identifies the issuing Certificate, identifies the Subscriber, contains the Subscriber's public key, identifies the Certificate's Operational Period, contains a Certificate serial number, and is digitally signed by the Issuing Authority.
<b>Control</b>	A Person has control of a Transferable Record if a system employed for evidencing the transfer of interests in the Transferable Record reliably establishes that Person as the Person to which the Transferable Record was issued or transferred pursuant to Section 16 of UETA and Section 201 of ESIGN. For example, Control can be thought of as having possession of an original paper note.
<b>Controller</b>	The Person named on the MERS eRegistry that has Control of the eNote and its Authoritative Copy. For example, the Controller can be thought of as the "holder," "holder in due course," and/or "purchaser" of an original paper note as defined under the Uniform Commercial Code.
<b>Delegatee</b>	A member of the MERS eRegistry that is authorized by the Controller to perform certain MERS eRegistry transactions on the Controller's behalf.
<b>Digital Certificate</b>	A public key (or digital) certificate is a certificate that uses a digital signature to bind together a public key with an identity - information such as the name of a person or an organization, their address, and so forth. The certificate can be used to verify that a public key belongs to an individual or an organization.
<b>Digital Signature</b>	A cryptographic method of authenticating the identity of the sender of a message or the signer of a document that can also be used to ensure that the original content of the message or document has not been changed. Digital signatures are easily transportable, cannot be imitated by someone else, and can be automatically time-stamped. The ability to ensure that the original signed message was received means that the sender cannot easily repudiate it later.
<b>Digitized signature</b>	A handwritten signature that is converted upon execution into an electronic form. This is usually performed with a pen and a graphics drawing tablet used for sketching new images or tracing old ones. The user makes contact with the tablet with a pen or puck (mistakenly called a mouse) that is either wireless or connected to the tablet by a wire. For sketching, the user draws with the pen or puck and the screen cursor "draws" a corresponding image. This technology alone will not encrypt a document once signed.
<b>DTD</b>	Document Type Definition. A file that defines the "markup language" that will be used to describe the data. It defines and names the elements that can be used in the document, the order in which the elements can appear, the element attributes that can be used, and other document features.
<b>Electronic Record</b>	A record created, generated, sent, communicated, received, or stored by electronic means.

## Appendix - Glossary

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<b>Electronic Signature</b>	An electronic sound, symbol, or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record.
<b>eClosing</b>	The act of closing a mortgage loan electronically. This occurs through a secure electronic environment where all closing docs are accessed and executed via the web. This is also known as the “execution” phase of creating an electronic mortgage loan.
<b>eMortgage</b>	A mortgage where the critical loan documentation – specifically the promissory note, assignments and security instrument, are created electronically, executed electronically, transferred electronically and ultimately stored electronically. AKA – the paperless mortgage.
<b>eNote</b>	A Transferable Record as defined by ESIGN or UETA, whichever is applicable.
<b>eRecording</b>	An act of registering the security instrument and other recordable documents electronically with the county recorder or similar jurisdictional authority”.
<b>eSecurity Instrument</b>	An electronic security instrument such as a mortgage or deed of trust evidencing the pledge of real estate as collateral for the loan
<b>eVault</b>	eVault is a transferable records management solution that meets ESIGN, UETA, and other compliance requirements. The concept is similar to a paper vault run by the document custodian industry today. Because there will be multiple eVaults, there is a need for national registry service (MERS® eRegistry) to manage the authoritativeness of records. In addition to the transferable records, the solution may support other types of eDocuments.
<b>GSE</b>	Government Sponsored Enterprise: A private organization with government charter and backing. Examples are Freddie Mac and Fannie Mae.
<b>HUD-1</b>	Uniform settlement statement. Same as a closing statement.
<b>Hybrid Transaction</b>	A transaction in which the associated documents are a combination of electronic records and paper documents.
<b>Location</b> (as it pertains to Transfer of Location)	The Person named on the MERS eRegistry that maintains the Authoritative Copy of the eNote either as Controller or as a custodian on behalf of the Controller.
<b>LOS</b>	Loan Origination System.
<b>MERS</b>	Mortgage Electronic Registration Systems, Inc.
<b>MERS® eRegistry</b>	The MERS® eRegistry serves as the System of Record to identify the current Controller and Location of the Authoritative Copy of an eNote.
<b>MIN</b>	MERS Mortgage Identification Number. The MIN is an 18-digit number composed of a seven-digit Organization ID, 10-digit sequence number, and check digit.
<b>MISMO</b>	Mortgage Industry Standards Maintenance Organization. The Mortgage Bankers Association (MBA) created MISMO in October 1999. The Mortgage Industry Standards Maintenance Organization's mission is to develop, promote, and maintain voluntary electronic commerce standards for the mortgage industry.

## Appendix - Glossary

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<b>MOM</b>	MERS as the Original Mortgagee. Language written into security instruments that establishes MERS as the Original Mortgagee and nominee for the Lender, its successors and assigns.
<b>Person</b>	An individual, corporation, business trust, estate, trust, partnership, limited liability company, association, joint venture, governmental agency, public corporation, or any other legal or commercial entity.
<b>PKI</b>	Public Key Infrastructure. A system that provides the basis for establishing and maintaining a trustworthy networking environment through the generation and distribution of keys and certificates. This is also the foundation technology for providing enhanced Internet security.
<b>Secure Sockets Layer (SSL)</b>	The industry-standard method for protecting Web communications developed by Netscape Communications Corporation. The SSL security protocol provides data encryption, server authentication, message integrity, and optional client authentication for a Transmission Control Protocol/Internet Protocol connection
<b>SISAC</b>	Secure Identity Services Accreditation Corporation. SISAC is responsible for accrediting digital identity credential issuers for the mortgage industry. SISAC is owned by the MBA.
<b>SMART Doc™ Specification</b>	An electronic document specification published by MISMO. A SMART Doc™ form locks together data and presentation in such a way that it can be system-validated to guarantee the integrity of the document.
<b>System of Record</b>	Authoritative System recognized to establish ownership and location of the Authoritative Copy of the eNote.
<b>Tamper-evident seal</b>	A "seal" wrapping an electronic document that is created by a digital signature. The seal can be verified to ensure that no changes have been made to the document since the seal was put in place.
<b>Transferable Record</b>	An Electronic Record under ESIGN and UETA that (1) would be a note under the Uniform Commercial Code if the Electronic Record were in writing; (2) the issuer of the Electronic Record expressly has agreed is a Transferable Record; and (3) for purposes of ESIGN, relates to a loan secured by real property. A Transferable Record is also referred to as an eNote.
<b>UCC</b>	Uniform Commercial Code.
<b>UTC</b>	Universal Time Coordinated. UTC is also referred to as GMT (Greenwich Mean Time) and is the global standard for time. All dates used by the MERS eRegistry will use UTC format.
<b>W3C</b>	World Wide Web Consortium. The World Wide Web Consortium was created to lead the World Wide Web to its full potential by developing common protocols that promote its evolution and ensure its interoperability.
<b>X509</b>	A standard for defining a Digital Certificate. It is the signing system used for SSL.
<b>XHTML</b>	Extensible Hypertext Markup Language. A family of current and future document types and modules that reproduce, subset, and extend HTML 4. XHTML family document types are XML based, and ultimately are designed to work in conjunction with XML-based user agents.

## Appendix - Glossary

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### **XML**

Extensible Markup Language. XML is a markup language designed specifically for delivering information over the World Wide Web. In creating an XML document, the user creates and assigns the element names.

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**For notes and comments**