



March 2007

Fannie Mae's How to Implement eMortgages





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Preface

Why eMortgages?

In an increasingly electronic world, processing mortgages electronically seems like a logical next step for the mortgage industry. But like most technology-based enhancements, the thought of implementing an eMortgage initiative raises many questions for lenders: What are the potential benefits, and does my business need to be a certain size or have a specific business model to realize them? What steps would we need to take? How soon could we expect a return on our investment? Is there an advantage to moving forward now, or should we wait until the technology and processes are more mature?

Fannie Mae's research and experience working with lenders to date indicate a growing interest and increasing number of lenders adopting eMortgages. Lender benefits may include better execution through faster funding, improved data integrity, and improved customer service capabilities. As a result of the greater automation and more efficient business processes that eMortgages make possible, lenders can also benefit from reduced operational costs and faster cycle times.

Why this *How to*?

If you are intrigued by the possibilities but don't know where to start, or just want to better understand what is involved in implementing an eMortgage capability, this publication is for you. Fannie Mae developed *How to Implement eMortgages* to help our lenders become more knowledgeable about how to develop an eMortgage capability. The *How to* introduces eMortgage terminology and provides implementation recommendations and tips for navigating through major project phases – planning, developing, and deploying.

This *How to* is intended as an informational tool to assist mortgage industry business leaders in understanding the eMortgage landscape and what is involved in originating eMortgages and delivering them to Fannie Mae. It is not meant to be a comprehensive review of eMortgage processes and technologies. Fannie Mae advises that you also review other sources of information, such as the industry references listed in this publication. This document is intended as an educational supplement only, and does not replace the *Guide to Delivering eMortgages to Fannie Mae* that details Fannie Mae's eMortgage requirements.

Note about Electronic Document Standards

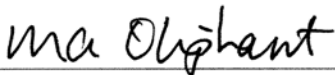
Fannie Mae supports the SMART Doc[®] specification developed by the Mortgage Industry Standards Maintenance Organization (MISMO) for electronic mortgage documents and currently accepts delivery of eNotes in this format. This SMART Doc format is referenced throughout this publication. However, Fannie Mae acknowledges recent industry developments in the area of electronic document signing. If you are interested in originating and delivering a signed eNote in Adobe PDF format or any other file format, please contact your Fannie Mae customer account team for information. We also recommend that you contact your technology provider and/or

document preparation vendor for help with electronic signing solutions and development of electronic documents using the industry-standard SMART Doc specification.

Please note that *How to Implement eMortgages* is a starting point to help lenders gain a basic understanding of how to get started. It is essential that lenders undertake their own due diligence, including involvement of legal counsel, to determine the appropriate implementation for a particular lender as well as to assure compliance with applicable laws.

How Can Fannie Mae Help You?

Publication of this *How to* document is just one way that Fannie Mae provides tools and resources to support industry adoption of eMortgages. As noted throughout the document, we offer several other reference materials, and also will work with lenders directly on an eMortgage initiative. Contact your Fannie Mae customer account team to get started.



Mark Oliphant
Director, Business & Strategic Development
Fannie Mae

**Part 1:
Introduction**

Chapter 1: Executive Overview and Introduction

Background

The mortgage industry continues to evolve toward an electronic environment. Since 2000, the industry has been working through the Mortgage Industry Standards and Maintenance Organization (MISMO) to define key processes, transactions, and data standards used to exchange mortgage data and documents electronically.

Fannie Mae has taken a leadership role in this evolution. Since beginning research on eSignature laws and their applicability to Fannie Mae business, Fannie Mae:

- Purchased the first electronic mortgage in the secondary market in July 2000
- Helped establish the MISMO eMortgage Workgroup
- Proposed the initial SMART Doc[®] specification, now an industry standard
- Designed and implemented a Fannie Mae interim eRegistry while fostering support for the development of an industry eRegistry
- Integrated with the Mortgage Electronic Registration System (MERS[®]) eRegistry
- Worked with many lenders that were undertaking eMortgage pilots
- Led the industry and became the investor of choice for the delivery of eMortgage loans
- Continues to accept delivery of electronic notes (eNotes), and we purchase them daily

Where Do I Start?

To succeed, an eMortgage program must be closely integrated with your institution's business goals. Every eMortgage program should begin with the development of a business case that aligns with your business objectives. As you determine the return-on-investment (ROI) for an eMortgage implementation, you should consider how eMortgages can:

- Strengthen ties to brokers and correspondents
- Increase market share
- Improve customer service
- Improve compliance and reduce risk
- Improve execution
- Reduce costs
- Improve operational efficiency

Partner Network

It is important to develop a network of business partners to seamlessly integrate the electronic exchange of data and documents among all participants in your organization's mortgage value chain. This network will involve all the partners in your business workflow, including:

- Brokers and correspondents
- Technology vendors
- Settlement agents and title companies
- Investors
- Warehouse lenders
- Servicers

Involving these partners early in your planning process is critical to the successful rollout of your eMortgage program.

The Time is Now

Are you ready to move forward with your eMortgage program? Review the next chapter to learn how to get started with Fannie Mae.

Chapter 2: Getting Started with Fannie Mae to Implement an eMortgage Solution

Overview

Fannie Mae has been buying eMortgages since 2000 and encourages the adoption of the eMortgage technology infrastructure. Fannie Mae wants to share our expertise and actively supports our lenders with their eMortgage implementations.

Getting Started

To get started, you may find it useful to first familiarize yourself with the contents of this publication. You may contact Fannie Mae at any time to begin discussing an eMortgage initiative. Complete information on Fannie Mae eMortgage Delivery is available at www.efanniemae.com/sf/guides/ssg/relatedsellinginfo/emtg/ where you can access our *Guide to Delivering eMortgage Loans to Fannie Mae*, *eMortgage Technical Requirements*, and several other documents that will provide you with helpful information.

Lender Support

The Fannie Mae eMortgage team works with our lenders to provide support for:

- Evaluating current processes
- Determining future processes incorporating eMortgage flows
- Reviewing technology requirements
- Testing with vendor integrations
- Planning rollout
- Completing all requirements to deliver to Fannie Mae

Working with Fannie Mae can entail conference calls and on-site visits that provide additional information and education for your team. Please contact your Fannie Mae Customer Account Manager or your Business and Technology Consultant for more information.

Major Tasks to Deliver eMortgages to Fannie Mae

The high-level tasks that need to be completed to begin delivering eMortgages to Fannie Mae fall into three main categories:

Plan

- Contact Fannie Mae.
- Identify executive sponsor within your organization.
- Determine scope of project and assemble a project team.

- Determine external partners and engage with vendor(s) to provide eSigning with digital signature certification, and also electronic vaulting capabilities (integrated with the MERS® eRegistry), or build your own eVault.
- Create a road map for moving from the initial phase to production rollout, considering business issues and procedure changes.

Develop

- Engage with your document preparation provider to create SMART Doc® eNotes and other electronically signable documents as required.
- Become a member of the MERS eRegistry.
- Engage with your closing agent network, and correspondents if necessary, to notify them of your intent and assess their readiness.
- Conduct an end-to-end test with Fannie Mae and a business walk-through meeting to ensure that all parties fully understand the implementation and their roles.

Deploy

- Create training materials and procedure documentation.
- Upon a successful readiness review with Fannie Mae, complete the lender questionnaire and have it signed by an officer of your company.
- Sign the Amendment to your Master Agreement to deliver eNotes to Fannie Mae and the Amendment to your Custodial Agreement, if applicable.

More information on these steps is provided throughout this document.

**Part 2:
eMortgage Concepts**

Chapter 3: Key eMortgage Concepts

Overview

The most important step in undertaking an eMortgage initiative is learning the basic concepts and terminology. There is a wealth of industry information available about eMortgages, but many may find a lot of confusing terminology as well. Some basic definitions are provided in this chapter, and more are included in the Glossary (Appendix A). Links to useful publications and industry sites also are included.

MISMO

MISMO is the Mortgage Industry Standards and Maintenance Organization. MISMO's mission is to develop, promote, and maintain voluntary electronic commerce standards for the mortgage industry. Established in 1999 by the Mortgage Bankers Association, MISMO encourages participation from all sectors of the industry.

Background

The MISMO standards create the foundation for the creation of secure electronic documents. Through its various workgroups, MISMO has published numerous documents that provide an implementation framework for eMortgages.

Links

MISMO Web site

www.mismo.org

Things to Consider Checklist

| | |
|---|--------------------------|
| Do you understand the role of MISMO? | <input type="checkbox"/> |
| Are you familiar with the MISMO publications on eMortgages? | <input type="checkbox"/> |
| Have you considered joining the MISMO eMortgages Workgroup? | <input type="checkbox"/> |

MERS[®] eRegistry

The MERS eRegistry is the system of record identifying the owner and location of electronic promissory notes (eNotes). The MERS eRegistry allows eNotes to be registered and uniquely identified for tracking and verification. To use the MERS eRegistry, a lender must become a MERS member and conduct system integration and testing.

Background

MERS was created in 1995 by the mortgage banking industry as an industry utility to eliminate the need to prepare and record mortgage assignments when trading mortgage loans. In 2004, the MERS eRegistry was created as a system of record for identifying ownership rights of eNotes. The registry is the most important component to ensure transferability of eMortgages and provides the equivalent of “holder-in-due-course” for eNotes. Once an eMortgage is closed, ownership of the electronically signed and tampersealed eNote is registered with the MERS eRegistry. Any subsequent transfers of ownership must be reflected in the registry.

Links

MERS Web site

www.mersinc.org

MERS Knowledge Database

www.mersonline.org/merskb/MERS_Knowledge_Base.htm

Things to Consider Checklist

| | |
|---|--------------------------|
| Do you understand the vital role MERS plays with eMortgages? | <input type="checkbox"/> |
| Is your company a MERS member? | <input type="checkbox"/> |
| Have you contacted MERS regarding implementing an eMortgage solution? | <input type="checkbox"/> |

SPeRSSM

SPeRS – which stands for Standards and Procedures for Electronic Records and Signatures – refers to industry guidelines for implementing electronic signatures, consumer disclosures and consent, and related processes.

Background

Recent laws governing electronic commerce make possible the widespread replacement of paper documents with electronic records. They also enable the broad use of electronic signatures (eSignatures), provided that specific standards are met with respect to systems and processes. SPeRS is the product of a cross-industry initiative to establish such standards. SPeRS is a set of guidelines, procedures, checklists, and strategies for developing systems to create, deliver, sign, manage, and transfer legally enforceable electronic records and signatures in commercial and consumer transactions.

Links

SPeRS Web site

www.spers.org

Things to Consider Checklist

| | |
|---|--------------------------|
| Do you understand the value of including SPeRS in your implementation plan? | <input type="checkbox"/> |
| Is your legal department aware of SPeRS? | <input type="checkbox"/> |
| Have you confirmed that any eMortgage vendors you are considering are compliant with SPeRS? | <input type="checkbox"/> |

SMART Doc[®] Standard

The SMART Doc specification is an industry-standard electronic format that locks data and presentation together in a way that can be system-validated to guarantee the integrity of the document. The SMART acronym stands for Securable, Manageable, Archivable, Retrievable, and Transferable. eNotes delivered to Fannie Mae must be in SMART Doc Category One format. More information about Category One can be found in the SMART Doc links referenced below.

Background

The SMART Doc specification has three components: view, data, and map. The view section is the HTML-based presentation that the borrower sees at the time of closing. The data section contains individual data fields that capture information presented to the borrower in the view that are stored using the MISMO standard definitions. The map section “arcs,” or compares, the data and view sections by ensuring a collection of items that reference an ID in the data section are the same on the view section.

A document in SMART Doc format can be secured to detect tampering. This ensures that what the borrower sees and signs electronically is the exact document that will be stored and used for processing the loan.

Links

SMART Document Frequently Asked Questions

www.mismo.org/files/mismo/eMortgage_SMART_Doc_FAQs_v_1-0.pdf

SMART Document Technology Overview

www.mismo.org/files/mismo/eMortgage_SMART_Doc_TechOverview_v_1-0.pdf

Things to Consider Checklist

| | |
|---|--------------------------|
| Do you understand the SMART Doc concept? | <input type="checkbox"/> |
| Has your document vendor implemented the SMART Doc format? | <input type="checkbox"/> |
| Can your document processing system handle SMART Doc forms? | <input type="checkbox"/> |

Digital Signature and Tamperseal

A digital signature is an electronic signature that can be used to authenticate the identity of the sender of a message or the signer of a document, and is used to guarantee that the original content of the message or document that has been sent is unchanged.

A tamper-evident seal, or tamperseal, is a cryptographic protection applied to a document using a private key. The tamperseal can be created using an individual user certificate or a server-based certificate, and it must be applied to a document after the borrower signature has been applied.

Background

Each electronic document delivered to Fannie Mae must be tampersealed using a digital signature. The use of a digital signature enables application of a time-stamp. This feature, combined with a cryptographic tamperseal, ensures that the original signed documents cannot be easily altered without breaking the seal.

For eMortgage implementations using a server-based certificate to generate the tamperseal, Fannie Mae requires that the private keys be securely stored using a hardware security module (HSM). This will prevent unauthorized access to the keys repository and prevent inappropriate usage of the keys used to generate the tamperseal.

Links

Federal Digital Signature Standards

www.itl.nist.gov/fipspubs/fip186.htm

Federal Information Processing Standards

www.itl.nist.gov/fipspubs/geninfo.htm

Things to Consider Checklist

| | |
|--|--------------------------|
| Do you understand why Fannie Mae requires that delivered electronic documents be protected with a tamperseal? | <input type="checkbox"/> |
| Are you planning to implement a server-based certificate to generate tamperseals? If so, are you planning to implement an HSM to store and protect the private keys? | <input type="checkbox"/> |

Electronic Vault

An electronic vault (eVault) is a term used by the mortgage industry to identify a system that stores electronic documents or records for safekeeping.

Background

Just like paper documents, electronic documents require physical safekeeping and policies and procedures to control unauthorized access to them. In the eMortgage business, electronic documents are required to be saved in a secure, authoritative storage system (eVault).

Links

MISMO eMortgage Vaulting Guide

www.mismo.org/files/mismo/MISMOeMortgageVaultingGuidev3.0Final.pdf

Electronic Vaulting for Enterprises

<http://h71028.www7.hp.com/ERC/downloads/4AA0-9813ENW.pdf>

Things to Consider Checklist

| | |
|--|--------------------------|
| Does your business model require storage and routing of electronic records? | <input type="checkbox"/> |
| Does your company support electronic vaults? | <input type="checkbox"/> |
| If so, are auditable business processes and electronic verification of documents required? | <input type="checkbox"/> |

References

For more information related to the implementation of eMortgages, refer to these Fannie Mae materials:

Frequently Asked Questions about eMortgage Delivery to Fannie Mae

www.efanniemae.com/sf/guides/ssg/relatedsellinginfo/emtg/pdf/emdfaq.pdf

Guide to Delivering eMortgage Loans to Fannie Mae

www.efanniemae.com/sf/guides/ssg/relatedsellinginfo/emtg/pdf/emtgguide.pdf

Chapter 4: The Legal Framework

Overview

The legal framework for electronic mortgage closings is well-established and is used routinely to support the origination and sale of mortgages in the secondary market. A series of eSignature laws enacted by Congress and states in recent years to spur the growth of electronic commerce – and specifically electronic closings – makes electronic mortgage documents fully enforceable in every jurisdiction. These standards provide a solid legal framework for the electronic signing of mortgage documents.

Statutory Basis for Electronic Mortgage Closings

The statutory basis for electronic mortgage closings is provided by the Electronic Signatures in Global and National Commerce Act (E-SIGN) and the Uniform Electronic Transaction Act (UETA), which is the model for state laws. Federal E-SIGN and the state UETAs provide the legal basis for the use of electronic documents in contracts, lending, and consumer disclosures.

Because paper promissory notes have very specific legal benefits under the Uniform Commercial Code (UCC), the drafters of both E-SIGN and UETA sought to re-create these benefits with respect to electronic promissory notes (eNotes). Known as the “transferable records” provisions of E-SIGN and UETA, they allow lenders to create the electronic equivalent of negotiable instruments that will have the same benefits under the UCC as would a paper note.

Electronic Signatures

Neither E-SIGN nor UETA dictate what type of electronic signature technology a lender must use to create enforceable electronic mortgage documents. (Even voice signatures are permissible under law, although practical considerations thus far have prevented their use for electronic mortgage documents.) Rather, E-SIGN and UETA require that the signature be attributable to the signer.

The Role of the MERS® eRegistry

While ownership and other rights to a paper note are determined largely by endorsements and possession, the eNote by virtue of its electronic status requires a different structure. At a high level, to qualify for “transferable record” status, (i) the eNote must qualify as a promissory note but for its electronic nature, (ii) the borrower must agree to the creation of the eNote, and (iii) there must be a reliable system to establish who is *in control of* (i.e., who holds) the eNote.

The MERS eRegistry satisfies the requirement for a reliable system to establish who is in control of the eNote. The registry also allows interested parties to validate that a particular copy of the

eNote is the same as what was originally registered. Most closing systems register the eNote with the MERS eRegistry immediately after signing by the borrower.

Title Insurance

In July 2006, the American Land Title Insurance Association (ALTA) adopted a new title policy that, among other things, makes specific mention of electronically signed mortgage documents. Although previous versions of these policies do not specifically mention eMortgages, it is believed that these policies cover electronically signed closing documents.

Other Process Participants

Warehouse lenders, document custodians, lenders, servicers, and others have been participating for years in a variety of forums to help set industry standards for electronic mortgage transactions. For example, the MERS eRegistry was created after detailed business requirements were developed by an industry body coordinated by the Mortgage Bankers Association (MBA). MISMO is an excellent source of information on eMortgage standards.

References

MERS eRegistry

www.mersinc.org

ALTA Title Policies

www.alta.org

MISMO

www.mismo.org

Chapter 5: Business Building Blocks

Overview

Implementing an eMortgage solution requires enterprisewide participation. Support for original electronic documents will impact each functional area involved in the creation, delivery, and servicing of a mortgage. This chapter provides an overview of the functional building blocks and what can be involved in their implementation:

- Creating documents using the SMART Doc[®] specification
- eSigning and closing, registering, and storing electronic documents
- Managing electronic documents after closing
- Delivering eMortgages to an investor
- Certifying eMortgage loans
- Servicing eMortgage loans

Basic Building Blocks

Creating Documents in the SMART Doc Format

SMART Doc is the industry standard for secure electronic forms that are populated with data by an eClosing system and electronically executed to create an eMortgage. Specifications for the SMART Doc format are maintained by MISMO. As discussed in a subsequent chapter, you may wish to create these electronic forms yourself, but many document preparation providers to the mortgage industry have begun building SMART Doc templates for industry standard notes and other documents. Fannie Mae has worked with these providers to test their eMortgage solutions. Lenders should check with their document providers to determine if they support eMortgages.

Follow Fannie Mae's SMART Doc requirements outlined in our *Guide to Delivering eMortgage Loans to Fannie Mae* and *eMortgage Technical Requirements*. Refer to Chapter 11, Requirements Analysis for Build/Integration, for more information on using the SMART Doc specification.

eSigning and Closing, Registering, and Storing Electronic Documents

At a minimum, an eMortgage program requires the use of an electronic closing (eClosing) system. This typically is a web-based system that allows the lender, closing agent, and borrower to review, sign, store, and transfer original electronic closing documents. Several eClosing solutions are currently available and support the following functions:

- **Accept an upload of an eNote or create an eNote and other documents.** Several document vendors have electronic templates for documents such as the note, which can be populated by your eClosing system prior to closing.

- **Comply with E-SIGN requirements regarding electronic disclosures.** E-SIGN has specific legal requirements about the type and content of the consent that must be obtained from borrowers before electronically providing any of the disclosures that are required by law to be given to borrowers.
- **Display the loan documents on screen to the closing agent and the borrower and allow the borrower to electronically sign the documents.**
- **Tamperseal the documents.** This entails applying a tamper-evident digital signature to the electronically signed document to permit detection of changes to the document.
- **Register the eNote with the MERS[®] eRegistry immediately after closing.** Your eClosing system should provide support for immediate registration of the eNote with the MERS eRegistry after the closing is completed. This involves electronic transmission of the eNote to the MERS eRegistry. Although the MERS eRegistry does not retain a copy of the note, the ownership is registered and the tamper-evident signature is stored in the MERS eRegistry to protect the integrity of the document.
- **Store the documents, at least temporarily.**
- **Deliver the documents to another party, if appropriate.**
- **Maintain a permanent audit trail of all transactions.** Your eClosing platform must contain a permanent audit trail documenting all details and timing of changes to the electronic documents prior to and through closing and registration of the eMortgage.

The implementation of an electronic closing process may differ greatly among lenders and eClosing vendors. However, as with paper closings, it is important for the closing to include confirmation of the borrower's identity. Although specific investor requirements may vary, taking measures to minimize the risk of tampering is critical to the electronic closing process. Best practices dictate, and Fannie Mae requires, that electronically signed documents receive a tamper-evident digital signature as soon as possible after the last signature is applied. Once the closing is completed, the eClosing system will communicate with the MERS eRegistry to register ownership of the eNote and store a copy of the tamper-evident signature.

Managing Electronic Documents after Closing

After the loan has closed, the lender will need access to the closing documents. Depending on the application, the tamper-sealed documents could be managed by the lender in the eClosing system eVault or server, or could be transferred from that application to an eVault or server owned or managed by the lender or a third party.

At a minimum, the lender will want to:

- Be informed that the loan has closed.
- Have the ability to review the loan documents.
- For some broker or correspondent business models, provide the ability for the broker or correspondent to transfer legal control of those documents to the lender in the MERS eRegistry (see information on MERS Broker-Delegatee in the MERS Integration Handbook at www.mersinc.org).
- Have the ability to store, render, and transfer documents in the SMART Doc format into your document management system.
- Have the ability to transfer the authoritative copy of an eNote from one eVault location to another and update the MERS eRegistry.

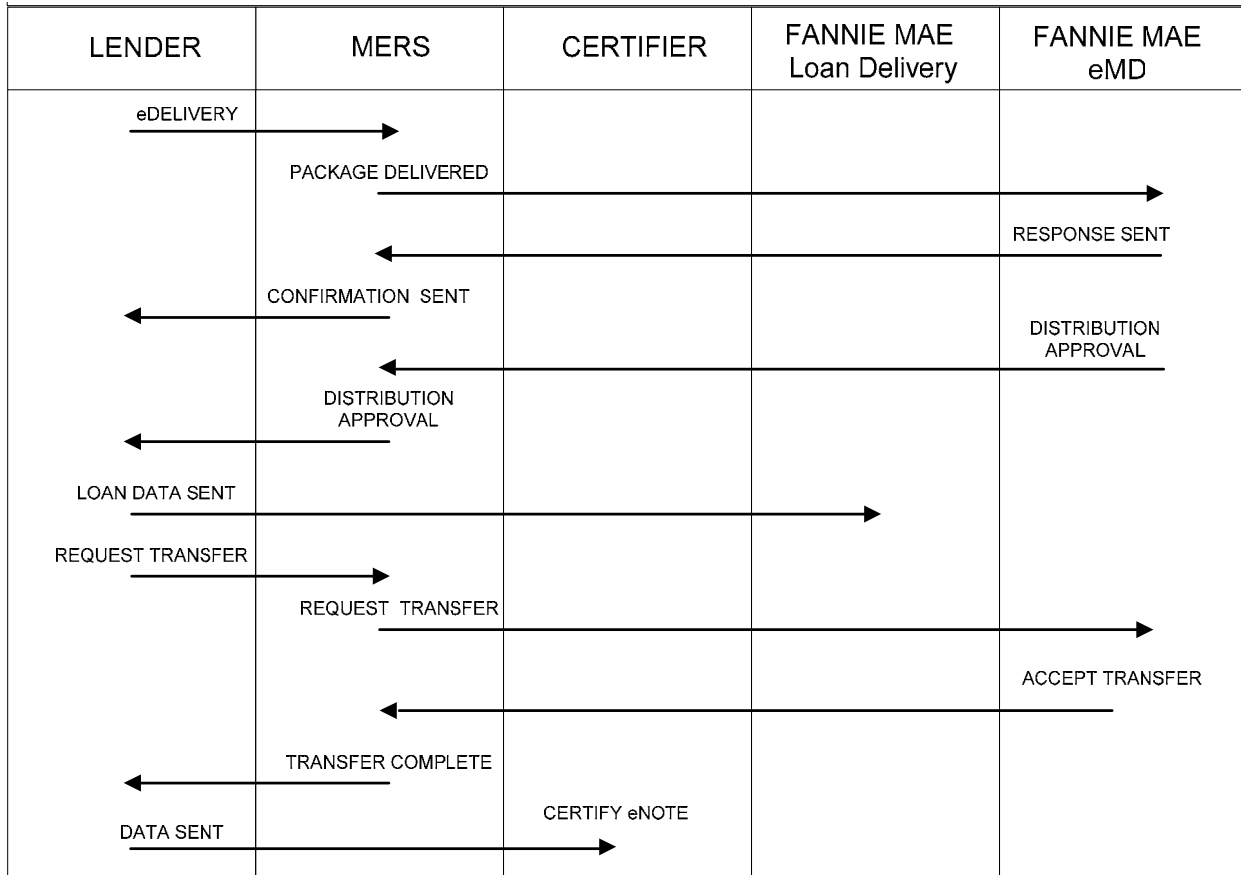
Delivering eMortgages to Fannie Mae

Once an execution decision is made to sell an eMortgage to Fannie Mae, you must have the capability to complete the necessary steps for delivery of an electronic mortgage. Although the steps below apply to delivery to Fannie Mae, similar requirements may apply to all investors. The lender will need to:

- **Send the eNotes to the investor.** When Fannie Mae is the investor, we require the lender to deliver the eNotes to us through the MERS eDelivery service. This could be achieved by integrating your document storage system with MERS eDelivery, which allows you to package eNotes and other documents for delivery. Once the documents are received by Fannie Mae, we will validate the documents and return a status message to the lender through MERS.
- **Transfer control to the investor.** Sale of an eMortgage to an investor requires that the lender transfer ownership of the eNote in the MERS eRegistry. This is achieved through integration with the MERS eRegistry to electronically request a change in ownership.
- **Code loans and complete delivery of loan-level data.** Lenders must add special feature code 508 to the schedule of Mortgages for each eNote delivered through Fannie Mae's Loan Delivery system. This code can be added manually or be generated automatically by business rules that identify eMortgages in your system.

Figure 1 graphically depicts the steps in the process for delivery of eMortgages to Fannie Mae.

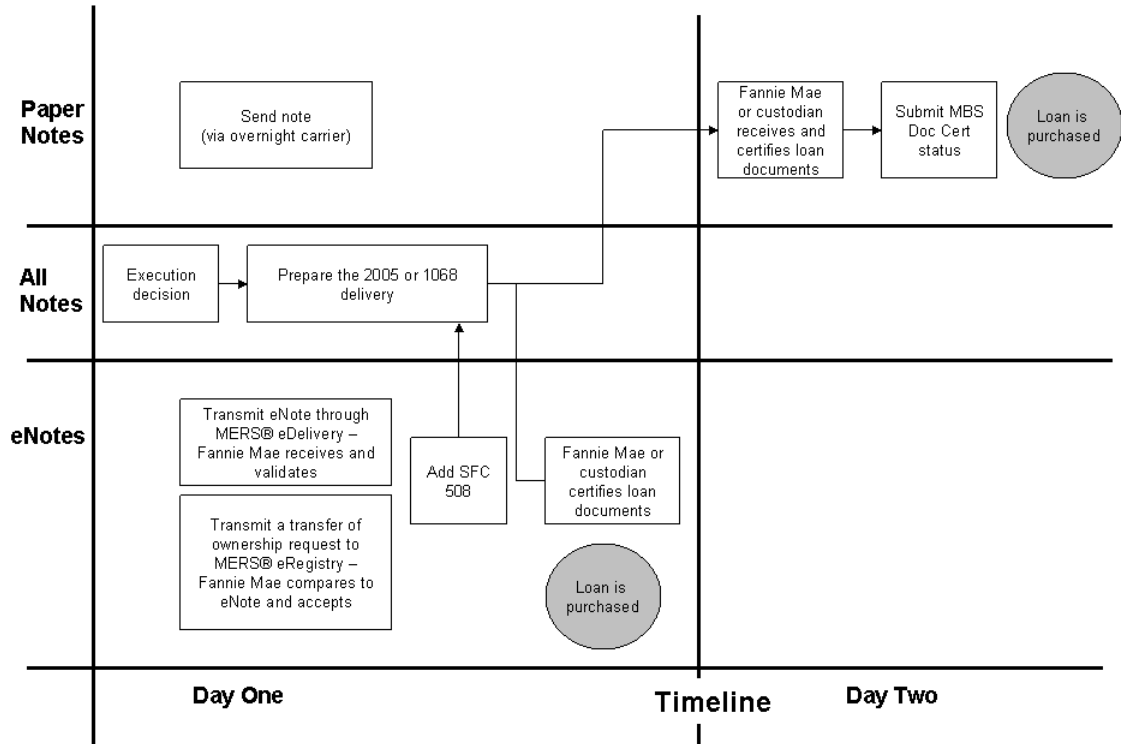
Figure 1. eMortgage Loan Delivery to Fannie Mae Process Flow



How an eMortgage is Different from a Paper Delivery

The creation and delivery of original electronic mortgage documents eliminates the cost and time of packaging and mailing paper. Also, the documents are received and reviewed almost instantly. Certifying the data could be automated so that loans are ready for purchase or pooling a full day sooner than with a paper process. Figure 2 depicts the timeline for eMortgage delivery.

Figure 2. Paper and eMortgage Delivery Processes



An eMortgage loan differs from a paper loan in the following ways:

- eMortgage delivery data must include a special feature code 508 (when delivering to Fannie Mae).
- eMortgage delivery includes four steps: 1) delivery of eNote, 2) transfer of ownership through the MERS eRegistry, 3) data delivery via Fannie Mae web-based Loan Delivery system, and 4) update of the certification status in Document Certification, if MBS delivery.
- eMortgage delivery can be completed in a single day, including certification and funding.
- eMortgage loans are purchased on day one, while paper loans are purchased on day two.

Certifying eMortgage Loans

Certifying loans is a highly manual process because it requires every note to be individually reviewed. eNotes have the potential to enable “lights-out” certification. Please refer to our *Guide to Delivering eMortgage Loans to Fannie Mae* for more information.

Servicing eMortgage Loans

Servicing eMortgage loans is very similar to servicing paper loans. However, Fannie Mae requires servicers to perform a few additional tasks when servicing eMortgages. For example:

- Servicers are required to integrate with the MERS eRegistry to update it with life-of-loan events, as necessary.
- Servicers need to identify eMortgage loans in their servicing portfolios.
- In the event of a servicing transfer that includes eNotes, the servicer must ensure that the new servicer has the capability to service eMortgages.

For a full set of requirements, refer to the *Guide to Delivering eMortgage Loans to Fannie Mae*.

Links

Guide to Delivering eMortgage Loans to Fannie Mae

www.efanniemae.com/sf/guides/ssg/relatedsellinginfo/emtg/pdf/emtgguide.pdf

Part 3: Planning

Chapter 6: The Business Case and Executive Sponsorship

Overview

Once you have decided that an eMortgage initiative can benefit your company, you will need to create a detailed business case and obtain an executive sponsor for the program. This chapter will help you create the case to bring to your executives for approval.

Executive Sponsorship

In Fannie Mae's experience, the most important success factor for launching an eMortgage initiative is executive sponsorship. In many ways, an eMortgage initiative creates fundamental changes through the value chain, requires education and understanding by many departments, and will require an initial resource commitment. Executive sponsorship is an important prerequisite to getting support from all internal stakeholders.

Business Case Template

Developing a business case assessment will help you determine the potential value and approximate return to justify the investment.

At a minimum, we recommend that you address the following:

- Project description
- Situational (current state) assessment and process flows
- New state process flows for eMortgages
- Cost and benefit analysis
- Implementation timeline
- Critical assumptions and risk assessment
- Conclusions and recommendations

Benefits

The industry agrees that there are many potential benefits of an eMortgage solution. There may be process efficiencies you can realize in reducing the number of errors on closing documents, or you may be able to take advantage of reduced cycle times to improve execution and profitability.

Potential eMortgage benefits include:

- **Operational Efficiencies**
 - Improved post-closing review process
 - Imaging capabilities
 - Improved document tracking

- **Better Execution**
 - Reduced cycle times, which reduces warehouse costs
- **Better Compliance**
 - Immediate access to eNotes
 - Potential “lights-out” certification opportunity
- **Improved Customer Service**
 - **Retail:** Consumer has early access to closing documents and spends less time signing
 - **Broker/Correspondent:** Faster funding, fewer errors and delays

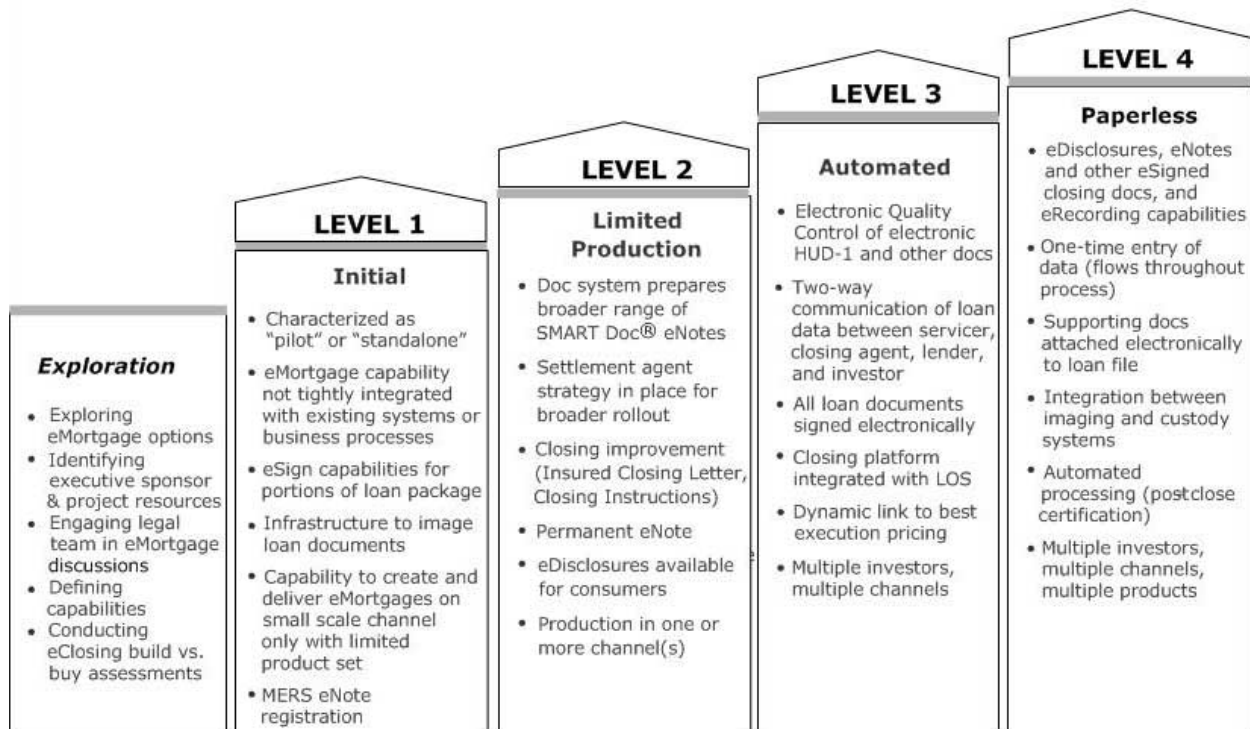
Incremental Steps to a Full Paperless Mortgage Solution

You may want to consider an eMortgage solution as part of your overall long-term strategic direction to achieve your desired objectives. Rather than an “all or nothing” approach, you can start down the path and design your eMortgage initiative as a set of strategic individual goals to tackle. Smaller and more manageable projects over time will help you maximize expected benefits while driving toward a comprehensive eMortgage solution.

A good first step for your company may be to automate the initial disclosure process and electronic distribution to customers. Another step is to provide eSigning capabilities to a small channel to test the eMortgage concept prior to roll-out on a larger scale.

Fannie Mae has developed the Paperless Maturity Model (Figure 3) to help you determine where your organization currently is and what level you would like to achieve with eMortgages in the future. This model is an example of the potential path your organization should consider in achieving your eMortgage objectives. This model takes an incremental approach from simply automating the delivery of the initial consumer disclosure package to a completely paperless environment.

Figure 3. Fannie Mae's Paperless Maturity Model



You may also want to review MISMO's *eClosing Cost Benefit White Paper Analysis* that takes an objective look at quantifying the benefits an eMortgage solution can provide. MISMO includes helpful tools your organization can use to calculate timeframes and estimate your expenses to determine the potential value eMortgages could bring your organization.

Your organization must look at the cross-functional business process flow impacts and identify where an eMortgage solution may provide process improvements.

Costs

Your business case will require that you estimate the cost of implementing and maintaining your eMortgage initiative, which will be a part of the return-on-investment (ROI) analysis.

Initial costs depend on the scope of your phased implementation, but need not be onerous. At a minimum, cost analysis should consider:

- eMortgage planning team
- eSigning system, which can be built or purchased
- Training

Integration with any legacy back-end systems will require detailed analysis and planning. A deeper integration may enable a faster volume ramp-up which may increase the ROI.

References

MISMO's *eClosing Cost Benefit White Paper Analysis*

www.mismo.org/files/mismo/MISMOeClosingCostBenefitWhitePaperandAnalysis.zip

Chapter 7: Scope and Deployment Strategy

Overview

There are various approaches your organization can take to design, develop, and deploy an eMortgage program. Based on your business goals, you may consider improving quality control in a specific channel or increasing process efficiency companywide. Maybe your company's strategy is to enhance your mortgage customer's closing experience. Regardless of your goals, a key piece of your planning will involve both the scope of your initiative and your overall strategy, which are of course deeply related. At the end of your assessment, you should have an eMortgage launch/prioritization plan that should define the origination channel, available products, partners, geographic restrictions, and other key parameters.

Scope

Every eMortgage initiative will require a road map to ramp up to full production. Defining that road map and its phases will include a consideration of business and technology scope.

Business Scope

Your business scope analysis should address:

- **Channel** – Retail, wholesale, correspondent?
- **Geography** – Some lenders begin a program defined by geographical location, such as county or state.
- **Closing package** – Just the eNote or the whole package?
- **Execution** – Pools or whole loans (Fannie Mae allows the delivery of hybrid pools, paper and electronic)?
- **Products** – Fannie Mae accepts eMortgage deliveries for most products, but your implementation may be easier to manage if the initial scope is limited to a few products.
- **Extent of the closing value chain** – eMortgages can be implemented to include electronic execution of steps throughout the closing process, from eDisclosures to eRecording, with an electronic notarization of the recordable documents. Many lenders begin with the borrower simply signing the eNote and wet-signing the recordable documents.
- **Settlement agent network** – Partner with a title underwriter and control your closing agent network or enable your correspondent lenders to take responsibility for closing valid eMortgages.
- **Business partners** – What other partners will be involved?

Technology Scope

Technology scope analysis must address:

- **Buy or build decision regarding the eSign system** – Decide whether to license a commercially available off-the-shelf solution for a pilot and defer a longer-term strategy, or plan a full production and phasing.
- **Level of integration within the company** – It is possible to launch an eMortgage Initiative with an eSign/eVault system alone – that is, with a lender interface to the eSign/eVault system, a lender can close loans, manage the portfolio, deliver loans to the investor, and make servicing updates to the MERS® eRegistry, assuming the solution has implemented all of the MERS eRegistry interfaces.

Deployment Strategy

Successful deployment of your eMortgage capabilities requires close coordination with key business partners. Understanding the needs and leveraging the capabilities of these partners can remove future obstacles affecting deployment.

Retail versus Wholesale/Correspondent Approach

You may have better control over your technology infrastructure in the retail channel and it may make more sense to start an eMortgage initiative in that channel. Things you should reflect on before considering a broker channel eMortgage strategy include the level of influence or control you have over your brokers' selection of the closing agent or settlement provider.

Do you have any business arrangements with settlement providers you could leverage? Do you have any business arrangements or partnerships with closing agents or title companies in your broker/correspondent channels? If so, are they in certain geographic areas? In certain channels?

Settlement Agent Strategy

It's critical to the success of your eMortgage initiative that you engage with your settlement/closing agents early in the process. Questions you should ask yourself and/or your partners might include:

- How will your organization engage with your settlement agents/closing agents/title company to ensure a successful eMortgage roll-out?
- Are there partnership opportunities to differentiate yourself in the market to provide a better closing experience for your customers?
- Can you leverage the development and investments your settlement agents may have already made in an eSign or eClosing solution?
- What type of support will your closing agents require to ensure a successful roll-out?

Operational Process Strategy

Streamlining your existing process to maximize cost savings or resource allocation opportunities is an integral part of any eMortgage strategy. Some things to consider:

- Is there an opportunity to evaluate your current process and design a more streamlined solution based on the improved efficiencies an eMortgage initiative may provide?
- Are you willing to take relevant steps to review your current, or enforce new, controls and practices to assure that the data in your process is accurate and true to the best of your knowledge?

Corporate and Business Strategy Integration

Determine the potential impacts and opportunities throughout your organization. Identify opportunities with your nonconforming loans. Are your other investors starting electronic delivery capabilities, and how can you leverage your eMortgage initiative companywide?

Chapter 8: Partner Selection Guidelines

Overview

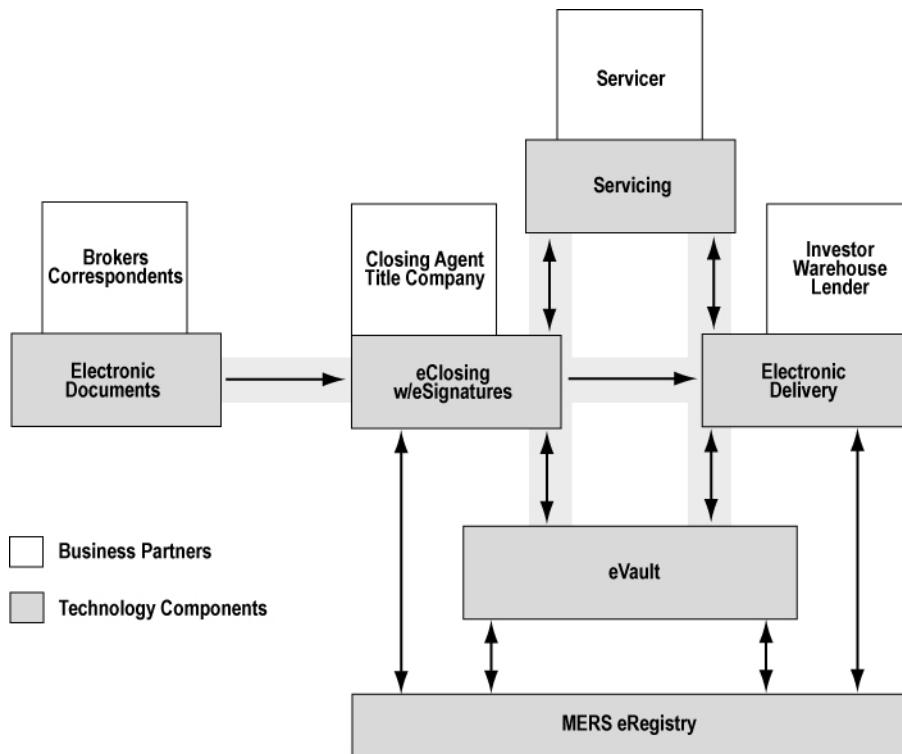
Any eMortgage initiative will involve a team that includes external partners, both technology and business (see Figure 4). This chapter walks you through some of the questions and issues involved in partner selection and agreements.

Types of Partners Involved

Your partner list will include some or all of the following:

- **MERS** – Lenders must join the MERS[®] eRegistry to register and transfer eNotes.
- **Fannie Mae** – We will work with you throughout your rollout to help your eMortgage initiative be successful.
- **Custodians** – Engage with your custodian regarding eVault capabilities and certifying eMortgages.
- **Correspondent lenders and brokers** – Unless you originate all of your own product, you will need to include a strategy for third-party originators.
- **Technology vendors** – If you wish to purchase an eClosing/eSigning system rather than build, you will need to partner with one or more vendors who offer solutions.
- **Document provider** – You will need to use the SMART Doc[®] format to create eNotes and possibly other documents. Check with your document vendor to see if they currently support the SMART Doc specification.
- **Warehouse lenders** – If your eMortgage initiative will involve one or more warehouse lenders, you will want to engage with them early on to elicit their participation and gain a mutual understanding about how they will want their interest reflected in the process.
- **Servicers** – You will need to work with mortgage loan servicers that are integrated with the MERS eRegistry if you plan to transfer servicing.

Figure 4. eMortgage Partners Network



Selecting your Partners

eClosing/eSign Solutions

As of early 2007, there are at least seven eSign vendors who have solutions that have been tested with the MERS eRegistry and Fannie Mae. MERS can supply a list describing the vendors and the tests that have been completed. We also are happy to enter into an eMortgage initiative with you using your vendor of choice provided they meet our requirements. Please note that Fannie Mae does not endorse any vendor, nor make any representations about the suitability of any vendor.

We recommend that you create a checklist or scoring model based on your needs and that you engage in a review and demonstration with each vendor you would like to consider. Some factors to keep in mind when selecting a vendor include:

- **Size/strength of the company** – Is the company viable and do they have the resources to support this product?
- **Product maturity** – How mature is the product in including eMortgage support? Forms? Interfaces?
- **Objectives** – Do the company’s objectives regarding evolving the product align with those of your organization?

- **Integration** – Which product best integrates with your organizational systems and processes?
- **Technical proficiency** – What is the vendor’s depth of understanding regarding the SMART Doc format, MERS interfaces, etc.?
- **Technical support and training materials** – Is this company capable of providing the level of support your organization requires?

MERS eRegistry

Every company participating in the eMortgage partner network must be registered with MERS and is identified by a unique seven-digit MERS Organization ID. MERS offers a number of publications on engaging with MERS and how to integrate your systems with theirs for the registration, transfer, and servicing of eMortgages.

Through integration with MERS, you as a lender will be able to test your ability to:

- Register an eNote
- Receive a distribution approval from Fannie Mae via MERS eDelivery
- Send an eNote to Fannie Mae using MERS eDelivery
- Transfer control and/or control and location to Fannie Mae
- Accept a transfer back

Servicers will be able to test their ability to:

- Perform servicing updates to the MERS eRegistry
- Update the delegatee in the case of a servicing transfer

When to Engage with your Partners

In this *How to* publication, we have discussed the process of creating an eMortgage initiative. We think that partner selection is one of the key project deliverables and we encourage you to begin selecting your eSign vendor early and engaging with Fannie Mae to create your pilot.

Chapter 9: Project Plan

Overview

The project plan is your roadmap to a successful eMortgage implementation. The timeline, complexities, and specific tasks required to begin originating eMortgages will depend on many factors, including the project scope, origination channels, technology decisions, resource allocations, and the level of knowledge and expertise within your organization.

Regardless of the scope of your initial eMortgage implementation, there are several essential elements that should be part of your project plan. This chapter discusses the planning process and briefly outlines important aspects of each phase.

An effective eMortgage plan might include the following (see Appendix B for a sample project plan):

- Selecting and empowering a project manager
- Setting objectives
- Project initiation
- Education
- Process re-engineering
- Technology review
- Application development
- Testing
- Deployment

Selecting and Empowering a Project Manager

The introduction of eMortgages is likely to have significant impacts across many functional areas of your organization. For this reason, there must be commitment and sponsorship at the highest level of your company. An effective project manager should have a thorough understanding of business processes and be able to work effectively with stakeholders across your organization as well as external constituencies. All of the project stakeholders must share a common vision and understand the implications of incorporating eMortgages into their business processes for a smooth transition to electronic documents.

Setting Objectives

Establishing clear goals and objectives for your initial eMortgage implementation is important in helping to achieve and maintain broad support for the initiative. As with any major change, you are liable to incur some resistance, especially early on when benefits may not be as apparent and when bifurcated processes may create operational inefficiencies. It is important for all

stakeholders to understand the overall strategic vision and the objectives of the initial implementation.

Project Initiation

Hosting a project kickoff meeting is often an effective way to engage all internal and external stakeholders. This meeting can be used to broadly define the scope of the effort, identify internal and external resources, provide early education to project members, anticipate possible roadblocks to success, and further develop the project plan. Fannie Mae has significant experience working with customers in planning and implementing eMortgage programs and we encourage you to include us in this effort.

Education

eMortgages are associated with new vocabulary, concepts, and constituents. All members of your project team should have a common understanding of the terminology and the fundamentals of eMortgages. The term eMortgage itself can have different meanings to different individuals. The lack of a common lexicon can sometimes obscure goals and expectations.

Process Re-Engineering

Re-engineering your business processes for electronic mortgages is essential to take advantage of the benefits of the SMART Doc[®] format. This effort should begin with a clear picture of current process and information flows, and an understanding of the process flows required to support eMortgages. It is important to understand all the external touch points between your systems, MERS, and investors such as Fannie Mae. The following chapter provides additional detail on this topic.

Technology Review

This portion of the project plan involves gaining an understanding of the systems, tools, interfaces, hardware, and other IT components necessary to originate eMortgages and an assessment of those requirements against your current capabilities. Originating eMortgages will likely include impacts to closing, document processing, delivery, document custody, servicing, and other systems. Many of the mortgage industry technology providers have already begun incorporating support for eMortgages into their offerings, so you should understand the capabilities of your current business partners.

Application Development

Whether you decide to build or buy technology solutions, close coordination with your business partners is essential to providing a seamless solution that minimizes the need for manual processes. When eMortgages are delivered to Fannie Mae through the MERS[®] eRegistry, Fannie Mae's eMortgage Delivery System provides detailed status and/or error messages back to our customers. Designing a technology solution that can effectively handle exception processing will simplify the task of managing your eMortgage pipeline. For this reason, including Fannie Mae

and other business partners in the design and requirements phase of your application development makes good sense.

Testing

Both MERS and Fannie Mae will provide customers with access to a separate test environment for testing your eMortgage capabilities. Fannie Mae will provide you with test scripts for you to use in validating that your systems can deliver electronic documents, transfer ownership, and accept a transfer back from Fannie Mae. These test scripts include both positive and exception scenarios. Successful execution of the test scripts is a prerequisite to production deployment with Fannie Mae.

Deployment

Deploying your eMortgage systems and processes will require careful planning and close coordination between you and your business process partners. This includes not only Fannie Mae and MERS, but also your network of closing agents that will conduct your eClosings. Your ability to deploy eMortgages broadly will require agent acceptance and readiness. In some channels you may have less control over these factors. Understanding the specific needs of closing agents and how eMortgages will mesh with their current business process is important. These key business partners should be included early in the process.

Chapter 10: Process Flow Impacts

Overview

The move from paper to electronic originations is likely to have significant impacts on your business process flows. Subject-matter experts from each impacted functional area should participate in this exercise. The ultimate “future state” flows may exceed the scope of the initial implementation and assume an entirely electronic closing package. However, it is useful to begin here to demonstrate where data-enabled electronic documents can eliminate or streamline processes. This discussion may help drive your decisions on which products, documents, and interfaces should be implemented first to get the most impact, and may help further refine the scope.

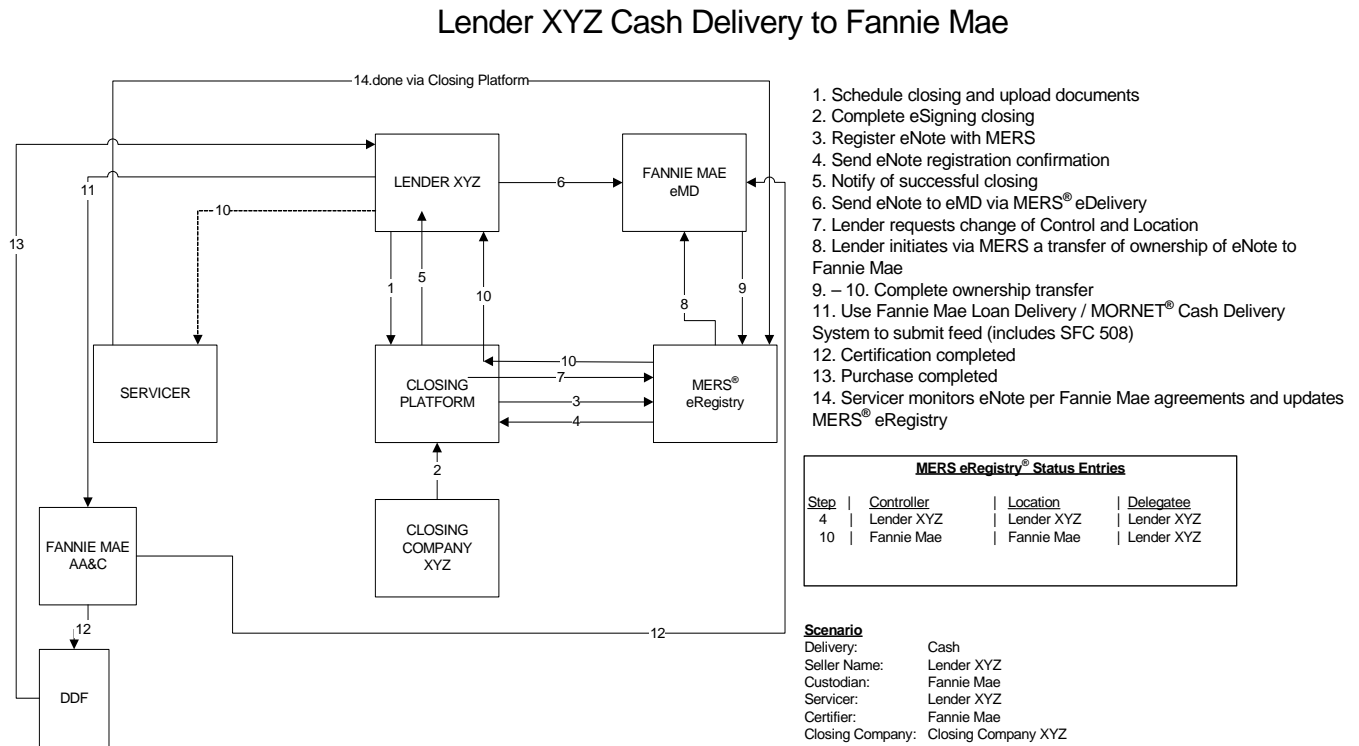
With the current state and future state in mind, you should consider documenting the intermediate flow(s) that represent the transition to the fully electronic mortgage and account for the scope of your initial effort. This will likely include a mix of original paper and electronic documents and some different processes for “e” versus traditional originations. Some functional areas may be adversely impacted by supporting dual processes, but it is important to remember that this is an intermediate stage in moving to a process that ultimately may provide significant benefits across your company.

Operational Process Flow

Closing an eMortgage and delivery to Fannie Mae involves some steps that are unique to eMortgages and must be part of your technology solution and operational processes. Some of these processes, such as MERS integration for eNote registration, delivery, and transfer, are an integral part of commercially available eClosing solutions.

Figure 5 depicts some of the critical events in the operational process flow for eMortgage closing and investor delivery.

Figure 5. Sample Operational Process Flow



Closing and Delivery Process Flow

The most critical step in the eMortgage process is the eClosing with eSigning of the electronic documents (the eNote). A step-by-step breakdown of the closing process is provided below.

The Closing Process

The MISMO eMortgage glossary defines eClosing as “The act of closing a mortgage 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.”

Closing Process Steps

Essentially, all electronic closings of mortgage loans involve a system to which the electronic documents are loaded and in which the borrower can view the documents and perform electronic signing. The electronic process typically follows these steps:

➤ **Prior to Closing**

- eClosing platform receives the eNote and other closing documents.
- Closing agent reviews the documents and prints any documents that need to be paper recorded, which might include the mortgage, deed of trust, etc.

➤ **During Closing**

- Closing agent asks borrower for proper identification, such as driver's license.
- Closing agent starts eClosing session using the agent's computer, user id, and password.
- Closing agent explains eClosing process to borrower(s), who agrees to conduct the closing electronically.
- Borrower(s) logs in to eClosing session using borrower(s) user id and password or other confidential information.
 - The user id and password can be established prior to the eClosing session using an online registration process and confidential data.
- Closing agent walks borrower(s) through the eNote on a computer display. (The SMART Doc[®] view section is used for the display of the eNote.)
- The borrower(s) eSign the eNote. More information is available in the SpeRS section on electronic signatures.
- eClosing system attaches borrower(s) eSignature(s) in the SMART Doc signature section.
- After a final required eSignature, the eClosing system performs a tamper-evident seal of the eNote.
- eClosing system stores eSigned and sealed eNote in an eVault.
- eClosing system displays a tamper-evident seal confirmation on the display.
- eClosing system registers the eSigned and sealed eNote with the MERS[®] eRegistry.
- Closing agent offers a copy to the borrower(s).
 - Borrower(s) may select electronic or paper format.
 - Closing agent continues with the closing process for other documents.

➤ **At Delivery (process for delivery to Fannie Mae)**

- Transfer loan level data, including special feature code 508, to Loan Delivery application for transmission to Fannie Mae.
- Deliver electronic documents to Fannie Mae via MERS eDelivery.
- Transfer control of eMortgage to Fannie Mae in the MERS eRegistry.
- Complete certification of eMortgage documents.

References

Guide to Delivering eMortgage Loans to Fannie Mae

www.efanniemae.com/sf/guides/ssg/relatedsellinginfo/emtg/pdf/emtgguide.pdf

**Part 4:
Developing**

Chapter 11:

Requirements Analysis for Build/Integration

Overview

Whether you are building or buying specific components of your eMortgage solution, your implementation must take into account the business and technical requirements of your trading partners. This is critical to ensure the efficient flow of documents and information through the eMortgage partner network with minimal manual intervention.

When delivering eMortgage loans to Fannie Mae, the MERS[®] eRegistry acts as a hub in the transaction, connecting trading partners for specific purposes. Many of the requirements for interacting with Fannie Mae's eMortgage Delivery system (eMD) are dependent upon published MERS specifications for integrating with MERS. In addition, eMD returns certain information to our lender customers (through the MERS interface), which is optional to the initial MERS transaction but is important for lender systems to consume and evaluate. This section discusses some of these integration requirements and includes some design considerations for your eMortgage implementation.

The following areas are discussed in this chapter:

- Creating documents in the SMART Doc[®] format
- eClosing systems
- Integrating with Fannie Mae's eMortgage Delivery system via MERS
- Loan certification

Creating Documents in the SMART Doc Format

Fannie Mae requires that eMortgages delivered to us include an eNote in SMART Doc format. The SMART Doc format version currently supported by Fannie Mae is 1.02. MISMO provides specific data requirements and guidance for creating documents using the SMART Doc specification that meet Fannie Mae/Freddie Mac Uniform standard notes. Sample eNotes are available in the MISMO *SMART Doc Implementation Guide* and in Fannie Mae's *eMortgage Technical Requirements* document available at www.efanniemae.com/sf/guides/ssg/relatedsellinginfo/emtg/.

Many vendors that specialize in document preparation already have developed a library of valid eNotes for fixed, adjustable, interest-only, and other mortgage product types. Some of those vendors have tested their eNotes to ensure they are compatible with Fannie Mae's validation routine in our eMortgage Delivery system. If you decide to create your own document templates, you will need to complete similar testing with Fannie Mae to ensure the validity of your documents.

eClosing System

For important guidance on selecting/developing/customizing your eClosing system, see the SPeRSSM manual, which provides guidance on eClosing systems. Also, review the MERS documentation and the MISMO Closing Guide (see References at the end of this chapter).

eClosing systems will include, but not be limited to, these functionalities:

- **On-screen presentation of electronic documents to borrower** – The borrower views the electronic documents to be signed. Providing access to these documents to the borrower prior to closing could make the closing proceed more smoothly.
- **Affixing eSignatures to document(s)** – The signature must be attached to, embedded, or associated with the document using a process that is verifiable. Please note that when building or selecting an eClosing system, it is important to understand how state laws and rules may affect a notary's use of electronic signatures during a loan closing transaction.
- **Affixing a digital tamper-seal to the electronic document(s)** – This should be done immediately after the last signature has been affixed to limit the possibility of tampering prior to registration.
- **Registration of the eNote with the MERS eRegistry immediately after closing** – It is important to design a process that registers the eNote with MERS as soon as the closing is completed. Fannie Mae requires that the eNote be registered with the MERS eRegistry using registration Option 2 – eNote presentation. Specific requirements for eNote registration are available from MERS.
- **A detailed audit trail contained in the eClosing application** – This log should capture all relevant events from the creation of documents to registration and delivery.
- **Storage** – You will need to store the electronic documents (at least temporarily) and be able to deliver them to external systems as needed.

Integrating with eMortgage Delivery (eMD) via MERS

To use eMD, Fannie Mae lenders must integrate with the MERS eRegistry. All participating organizations must apply to MERS for an organization ID and obtain a digital certificate from the Secure Identity Services Accreditation Corporation (SISAC) to authenticate transactions with MERS. Complete requirements and a detailed process for integration are available from MERS.

The specific transactions and document type definitions that will need to be built and tested will depend on your business model, but for lenders they typically include eDelivery, Distribution Approval message, and Transfer of Control/Location/Delegatee transactions. Lender systems should be able to initiate or receive transfer of ownership transactions in the MERS eRegistry and should use MERS eDelivery for delivering electronic documents to Fannie Mae. For all eDelivery transactions, the lender systems should be able to accept the corresponding Distribution Approval messages from Fannie Mae and any errors related to the electronic documents once eMD has accepted and reviewed the package.

eMD accepts delivery and control of eMortgages for Fannie Mae. Through integration with the MERS eRegistry, lenders can communicate with and receive communications from eMD. MERS

has published standards for program interfaces that lenders must use to perform the following functions:

1. Delivery of Electronic Loan Documents to Fannie Mae

Fannie Mae requires that a copy of the eNote be delivered to us before we accept control of the eNote through the MERS eRegistry. Lenders should integrate with MERS eDelivery to deliver eMortgage documents to Fannie Mae. When using eDelivery, the eNote and associated documents are bundled together into an eMortgage package that is digitally signed by the lender prior to transmission. An eDelivery can include one or more packages and is routed by MERS to Fannie Mae based on the Organization ID assigned by MERS. All eDeliveries to Fannie Mae must use the unique MERS Organization ID 1000130 that identifies Fannie Mae. When the package is accepted by Fannie Mae, MERS returns a delivery receipt to the sender.

When Fannie Mae receives an eDelivery, individual packages are inspected by eMD for validity. eMD only accepts packages in the MISMO-specified eMortgage package format. Each package is opened and the individual documents are examined and stored. eMD checks that the eNote was correctly registered on the MERS eRegistry. In addition, the note's data content is evaluated to ensure that all required data is included, that the corresponding data elements in the view section match the data section of the document, and that the data elements include a mapping or ARC from the data to the view. eNotes failing eMD validation still may be eligible for purchase, but will require manual review for certification.

Once Fannie Mae has completed processing of an eDelivery, a Distribution Approval message will be returned to the lender through MERS, which will include a status message for each MERS Mortgage Identification Number (MIN) included in the delivery. This message will indicate one of the following for each MIN:

- **Approve** – No errors found with the package; ready for Transfer of Control.
- **Conditional** – Error(s) found that may impact sale of this note and must be reviewed by certifier. Specific error codes will be included. Transfer of Control still can be initiated, but completion of the sale is pending further review.
- **Disapprove** – Serious defects were noted that prevent processing of the eNote in eMD. Specific error codes identifying the error(s) will be returned with this message.

Your delivery capabilities should be built not only to support positive delivery scenarios, but also to alert users when a delivery has issues that need to be investigated and resolved. This should include capturing status information coming back from Fannie Mae in the event of delivery failures. If you have successfully tested delivery and validation of your eNote templates with Fannie Mae, delivery errors should be rare and the entire process of delivering eMortgages to Fannie Mae should be fast and efficient.

2. Transferring Control of eMortgages to Fannie Mae

Once Fannie Mae has received a copy of the eNote and other electronic documents, you must submit a request to the MERS eRegistry to transfer ownership to complete the transaction. The

request may be to transfer control of the note only, or also may include transferring the location of the authoritative copy and the delegatee.

When the note is registered in the MERS eRegistry by the lender, MERS does not keep the note. Instead, MERS keeps a copy of the tamper-evident digital signature. When the lender transfers the note to Fannie Mae via MERS, the transfer notification from MERS includes a copy of the digital signature. Fannie Mae's eMD application matches that information against the eNote to authenticate our copy of the note. Once eMD identifies an exact match, it automatically sends a message to MERS to accept control.

For every transfer request submitted, MERS will return a notification to the lender signaling that the transaction is completed. The completion notification can indicate a result of "Success," meaning that the transfer to the new owner is complete, or "Failed," meaning that the transaction was not successful for some reason. When Fannie Mae rejects a transfer, we will return a reason code indicating the reason for the rejection. Any error codes returned from either MERS or Fannie Mae should be stored in your system and available to users for troubleshooting. Because Fannie Mae requires a copy of the eNote to be delivered to eMD prior to accepting Transfer of Control, eMD will delay responding to a transfer request if we have not yet received the eNote. If the note is not received by the end of the day, MERS will automatically cancel the transfer and send a completion-failure notification to both parties. For this reason, you may want to consider having your system wait until the Distribution Approval message is received from Fannie Mae before initiating a Transfer of Control.

3. Accepting Transfer of Control from Fannie Mae

Lenders must have the capability to accept Transfer of Control back from Fannie Mae. This requires responding to an incoming "Pending" notification from the MERS eRegistry to allow MERS to complete the transfer.

Loan Certification

Fannie Mae allows certifiers who are certifying eNotes in Smart Doc Category One format to completely automate the certification process for eMortgage loans. Please refer to the *Guide to Delivering eMortgage Loans to Fannie Mae* for more information.

References

Guide to Delivering eMortgage Loans to Fannie Mae

www.efanniemae.com/sf/guides/ssg/relatedsellinginfo/emtg/pdf/emtgguide.pdf

MERS eRegistry Integration Handbook

www.mersinc.org

MISMO eMortgage Closing Guide

www.mismo.org

SPeRS Manual

www.spers.org

Chapter 12: End-to-End Test with Partners

Overview

Prior to implementing your eMortgage solution, you will need to test it with Fannie Mae's eMD application and the MERS® eRegistry. Many vendors who specialize in document preparation have developed a library of SMART Doc® eNotes for fixed, adjustable, interest-only, and other mortgage product types. To ensure that these eNotes can be accepted by eMD, we require vendors to test and confirm that they pass Fannie Mae's document validation routine. Whether you are building your own capabilities or integrating vendor products into your workflow, some level of testing with Fannie Mae and MERS is required prior to deployment. This includes not only your initial deployment but also subsequent enhancements you make to your systems to add new features or products.

MERS and Fannie Mae both provide test environments and support for testing to determine whether once an eNote is originated it can be registered and delivered without difficulty. As you add additional products (and the associated SMART Doc eNote templates) to your eClosing system, testing the structure and validity of the template against Fannie Mae's validation engine will help you resolve issues prior to a production deployment.

The testing required by MERS and Fannie Mae only includes validating the required functions, but this should be only part of your overall integration testing. Your own test plan should include additional positive and negative test scenarios for the following:

- Registration with MERS
- MERS eDelivery
- MERS eDelivery Distribution Approval message
- Transfer of Control / Transfer of Control and Location
- Transfer back to lender from Fannie Mae
- Capacity tests
- Transfer of Delegatee

Fannie Mae is committed to supporting our customers' eMortgage efforts and will work with you to test your systems and prepare you for a successful eMortgage implementation.

Plan your End-to-End Test

You will need to coordinate your testing with support resources from both Fannie Mae and MERS. Fannie Mae and MERS will provide you with scripts for testing specific functions required for eMortgage delivery registrations.

Execute the Test

Fannie Mae's end-to-end test scenarios document contains a set of test scripts that must be successfully executed prior to deployment. To perform the tests related to the eMD application, the following items and actions are required:

- Your organization must be registered with a MERS Organization ID in the MERS Integration environment. This Organization ID also must be set up in eMD by the Fannie Mae eMortgage team.
- Your application should point to the MERS Integration environment (see URL below).

The Fannie Mae eMortgage team will provide testing and troubleshooting support during your test phase.

MERS Integration URL:

www.mersregistryxmlintg.org/eRegistryXML/processxml.jsp

(Note that this URL does not display a Web page; it is used only for data transfer.)

References

End-to-End Test Scenarios

Please contact the Fannie Mae eMortgage team.

MERS eRegistry Technical Integration Overview

www.mersinc.org/files/filedownload.aspx?id=269&table=ProductFile

Part 5: Deploying

Chapter 13: System Readiness Review

Overview

Before delivering eMortgages to Fannie Mae, a lender must submit documentation to us for review. The process begins with lender completion of an eMortgage questionnaire. Following a successful lender readiness review and the lender's completion of the implementation tasks detailed in this document, Fannie Mae and the lender will sign an Amendment to the lender's Master Agreement to allow the delivery of eMortgages.

Document custodians who will perform certification of Fannie Mae-owned eNotes must execute an Amendment to the Custodial Agreement to account for the custodian's eMortgage responsibilities.

Lender eMortgage Questionnaire

Fannie Mae's eMortgage questionnaire is designed to provide Fannie Mae with information about a lender's business and technical implementation. The document must be signed by an officer of the lender company and by the appropriate Fannie Mae Customer Account Manager, Risk Manager, and Servicing Consultant. The document becomes a part of Fannie Mae's Readiness Review file, which is an auditable part of our approval process.

Fannie Mae has found the eMortgage questionnaire to be very useful to both lenders and us. In the process of lenders completing the document, issues have been uncovered that would have resulted in larger problems down the road. The questionnaire should be completed by the lender with the help of the technology provider and then reviewed with Fannie Mae. This process helps to ensure that all parties are clear on the implementation details.

Readiness Review

Fannie Mae conducts a readiness review of the lender's implementation as a final step. During the review, the lender's implementation plans are presented to an officer of Fannie Mae including the scope, process flow, completed eMortgage questionnaire, end-to-end test results, and final walk-through summary. Once the readiness review is completed, the contract agreements are finalized.

Production Ready

Once the contract amendments are completed and the lender and their vendor(s) have completed the other tasks detailed in this publication, delivery of eMortgages to Fannie Mae can begin. Lenders are encouraged to develop their eClosing pipeline during the final implementation phases.

Chapter 14: User Training and Rollout

Overview

The readiness review discussed in the preceding chapter focuses on systems and business processes. Beginning production of eMortgages also requires that internal staff and external partners are trained and ready to incorporate eClosings into their business process. Your network of closing agents obviously is of critical importance, as their acceptance and readiness is paramount to a successful deployment. This chapter discusses some important considerations in deploying your eMortgage capabilities.

Operations Staff Readiness

Associated with eMortgages are many new terms, processes, and partners. Your operations staff should be trained in all aspects of eMortgages so that they are able to effectively communicate with internal and external parties regarding questions and issues that may arise. Staff training should include ensuring that they understand not only your systems and processes, but also how your systems interface with MERS and Fannie Mae for delivery of eMortgages.

Origination, delivery, and transfer of control of eMortgages to an investor should be a highly automated process with minimal manual intervention required. When issues do arise that require staff attention, however, it is important that your personnel understand how to interpret your own internal system flags or indicators showing that a problem has occurred, as well as the tools and resources available to troubleshoot the problem. Training should cover use of the MERS[®] eRegistry for verifying registrations, deliveries, and transfers, and understanding the error codes and messages from eMD detailing specific issues with problem deliveries and transfers. Involving business users in the testing process can be useful because several of the required test scenarios involve validating correct messaging on problem deliveries.

Partner Readiness

Close coordination with external business partners prior to deployment is essential to ensure that their corresponding systems, processes, and personnel are ready to support eMortgages. This starts with your closing network, where closing agents must be familiar with new processes and systems for electronic closings. Such familiarity is essential for widespread deployment. Involving these critical partners early in the planning process to ensure that their needs are met and they are committed to the initiative may ease some implementation hurdles. Appropriate training and support for your partners will make initial eClosings go more smoothly and help to ensure support for your eMortgage business.

Your servicing staff (or third-party servicer) must be ready to begin servicing eMortgages. Fannie Mae has few requirements specific to servicing eMortgages (see *Guide to Delivering eMortgage Loans to Fannie Mae*), but servicers must have the ability to update the MERS

eRegistry for life-of-loan events, and servicing personnel must be familiar with the specific requirements and processes required to service eMortgages.

Things to Consider Before Deployment

- Is your operations staff knowledgeable about eMortgage terms and concepts?
- How will operations staff be informed of process failures (e.g., a delivery failure), and are they equipped to resolve these issues?
- Does your operations staff know the resources available to assist with problems or issues?
 - MERS account manger
 - MERS eRegistry
 - Fannie Mae Customer Contact Center
 - Fannie Mae eMortgage team
 - Internal support staff
- Have you included key external partners in the planning stages, and do you have a strategy for deploying your solution to, and training, closing agents?
- Is your servicer ready and approved to service eMortgages?

Appendices

Appendix A: Glossary

Note: The purpose of this glossary is to aid readers in the understanding of eMortgages, and to create a common vocabulary for discussion. This glossary is not intended to be the definitive source for the meaning of these terms, nor is this glossary intended to alter any contractual obligations between Fannie Mae and its lenders. Some glossary entries are adapted from industry sources.

| | |
|---------------------------------------|--|
| Authoritative Copy | The controlling reference copy of the Transferable Record (eNote), which is registered on the MERS [®] eRegistry. |
| Controller | 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. |
| Delegatee | A member of the MERS [®] eRegistry that is authorized by the Controller to perform certain MERS [®] eRegistry transactions on the Controller’s behalf, such as updates. |
| Digital Certificate | A process that uses a digital signature to bind together a public key with identity information, such as the name of a person or organization, address, etc. The certificate can be used to verify that a public key belongs to an individual or an organization. |
| Digital Signature | A cryptographic method of authenticating the identity of the sender of a message or the signer of a document. It can also be used to ensure the original content of the message or document has not been altered. Digital signatures are easily transportable, deter fraud, and can be automatically time-stamped. The ability to ensure the original signed message was received provides some security protection. |
| Document Certification | Document Certification is a Fannie Mae Web-based application that gives document custodians the ability to certify MBS pools and transmit the certification status to Fannie Mae and the lender. This application provides enhanced access to lenders’ pool data, allowing for more accurate and efficient document certification. |
| DTD (Document Type Definition) | A file that defines the “markup language” that will be used to describe the data in digital files. 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. |

| | |
|--------------------------------------|---|
| eMD | eMortgage Delivery (eMD) is a Fannie Mae web-based application that customers can use to deliver eMortgage documents to Fannie Mae. eMD communicates with the MERS® eRegistry to allow lenders to deliver eNotes and other related documents and to transfer control of eNotes to Fannie Mae. |
| eMortgage | (electronic mortgage) A mortgage for which the promissory note and possibly other documents (such as the security instrument and loan application) are created and stored electronically rather than by using traditional paper documentation that has a pen and ink signature. Because of the limited number of recording jurisdictions that accept electronic documents for recordation, most (but not all) eMortgages typically consist of a paper security instrument and an electronic note (eNote). |
| eNote | An electronic promissory note that is a Transferable Record as defined by E-SIGN and/or UETA. |
| Entity | 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. |
| Environment | Examples of environments (where code can be stored and migrated to) are Development, System Test (initial testing), UAT or Acceptance (generally all of QA testing), Integration (customer access for testing), and Production. |
| E-SIGN | Electronic Signatures in Global and National Commerce Act. Congress passed E-SIGN, in part, to encourage flexibility and legal certainty for electronically signed transactions. E-SIGN is largely technology-neutral, allowing entities to utilize appropriate technological means to implement electronic commerce solutions. |
| eVault (electronic vault) | A term used by the mortgage industry to identify a system or company that stores electronic documents or records for safekeeping. In this publication, this term refers to an electronic repository for delivery and storage of eNotes and other mortgage-related files. |
| Loan Delivery | Fannie Mae's Loan Delivery enables the delivery of whole loans and MBS pools within the same Web-based application. Loan Delivery is designed to import the current 2000-character loan delivery file, so there is no need to adjust the file format. |
| Location | (As it pertains to Transfer of Location) The entity named on the MERS® eRegistry that maintains the Authoritative Copy of the eNote either a Controller or as a custodian on behalf of the Controller. |

| | |
|-----------------------------------|---|
| MERS | Mortgage Electronic Registration Systems, Inc., a company created by the mortgage banking industry to streamline the mortgage process by using electronic commerce to eliminate paper-based transactions. |
| MERS[®] eDelivery | MERS [®] eDelivery provides a method for distributing eMortgage packages from one MERS [®] eRegistry Member to another, using the existing MERS [®] eRegistry infrastructure and transaction security requirements. |
| MERS[®] eRegistry | The MERS [®] eRegistry is the System of Record to identify the current Controller and Location of the Authoritative Copy of an eNote. |
| MERS MIN | 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. |
| MERS Org ID | Organization Identification Number – a MERS assigned seven-digit number uniquely identifying a Member of MERS. |
| MISMO | Mortgage Industry Standards Maintenance Organization, created in 1999 by the Mortgage Bankers Association of America. |
| SFC 508 | Special feature code 508, used by Fannie Mae's Loan Delivery system to track eMortgages delivered to Fannie Mae. |
| SISAC | Secure Identity Services Accreditation Corporation – an organization owned by the Mortgage Bankers Association of America that is responsible for accrediting digital identity credential issuers for the mortgage industry. |
| SMART Doc[®] | An industry-standard specification developed by MISMO for creating electronic documents for eMortgage transactions. The SMART Doc [®] format locks together data and presentation in such a way that it can be system-validated to help maintain the integrity of the document. SMART stands for Securable, Manageable, Archivable, Retrievable, and Transferable. |
| SPeRSSM | Standards and Procedures for Electronic Records and Signatures. SPeRS developed guidelines for implementing electronic signatures, consumer disclosures, and consent and other information. |
| Tamperseal | A “seal” wrapping an electronic document that is created by a digital signature. The seal can be verified to determine that no changes have been made to the document since the seal was put in place. Also known as a Tamper-Evident Digital Signature. |
| Transfer of Control | A system transaction used to request a change of Controller. |
| Transferable Record | An electronic record under E-SIGN and UETA that is analogous to a paper promissory note (negotiable instrument). |

UETA

Uniform Electronic Transactions Act – a model statute that has been enacted by most states to provide a legal framework for electronic transactions. It makes clear that electronic signatures and records are enforceable.

XML

Extensible Markup Language – 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.

Appendix B: Sample Project Plan

Lender eMortgage Implementation

Documenting the project using a project planning tool such as Microsoft Project or the sample project plan below will help all parties involved to stay focused in meeting targeted implementation timeframes. This tool is also a good vehicle for communicating the project status with other stakeholders and/or senior management.

| TASK | RESOURCES |
|--|--------------------------------|
| 1. Project Plan | |
| Document goals and objectives | Lender |
| Establish project lead and approach | Lender |
| Ensure stakeholder participation | Lender |
| 2. Initial Kickoff Meeting | |
| Prepare checklists | Fannie Mae, Lender |
| Complete kickoff meeting (Legal, IT, Operations, Business, Management) | Fannie Mae, Lender |
| Business Education and Planning | |
| Discussion of delivery requirements | Fannie Mae, Lender |
| Discussion with business leads regarding integration | Fannie Mae, Lender |
| 3. Technology Implementation Review | |
| Document Preparation | |
| Prepare process flow impact with parties | Lender, Vendor, Closing Agents |
| Review/complete lender questionnaire | Lender |
| Develop Smart Doc [®] eNote | Vendor |

| | |
|--|----------------------------------|
| Request documentation for testing in eMD integration environment | Vendor |
| Review Technology Selections | Fannie Mae, Lender |
| Warehouse Lender: Review process flow impact | Lender |
| eClosing implementation | Lender, Vendor, MERS |
| 4. Process Flows | |
| Complete lender eMortgage process flows | Lender, Fannie Mae |
| Review drafts | Lender, Fannie Mae |
| Finalize process flows and procedures | Lender |
| Fannie Mae Functional Review | |
| Account team | Fannie Mae |
| Legal | Fannie Mae |
| Asset Acquisitions and Custody | Fannie Mae |
| Servicing | Fannie Mae |
| Document roll out strategy | Fannie Mae, Lender |
| Secure partner participation | Lender |
| 5. Lender Questionnaire | |
| Prepare initial draft | Lender |
| Review and discuss questionnaire | Fannie Mae |
| Final lender approval | Lender |
| 6. Testing | |
| eNote testing | Lender, Vendor, MERS, Fannie Mae |
| End-to-end integration testing | Lender, Vendor, MERS, Fannie Mae |
| MERS® eDelivery testing | Lender, Vendor, MERS, Fannie Mae |
| 9. Final Reviews and Approvals | |
| On-site review | Fannie Mae |
| Contracts and agreements | Fannie Mae, Lender |
| 10. Production Start | |
| Provide ongoing support | Fannie Mae, Lender |
| Review progress against goals | Fannie Mae, Lender |