Member Collateral Electronic Promissory Notes (eNotes) Acceptance Requirements and Guidelines

Date: February 21, 2023

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1. Introduction

An eNote is a promissory note created, signed and stored electronically rather than by a traditional paper document signed with an ink signature. The Federal Home Loan Bank of Chicago (FHLBank Chicago) has developed a set of core requirements and guidelines for accepting eNotes as pledged collateral.

In the initial phase of accepting eNotes as pledged collateral, only certain types of mortgage loans are eligible: 1-4 Family mortgage loans and closed end term 2nd mortgage loans. In the future, additional types of mortgage loans may be accepted as collateral when documented using an eNote.

The requirements and specifications in this document are based, for the most part, on the requirements of the eSignature laws: ESIGN, which is a law that was adopted by Congress and signed into law in 2000, and the UETA, which was adopted by the National Conference of Commissioners on Uniform State Laws (NCCUSL) and recommended for adoption by the 50 states, the District of Columbia, and U.S. possessions and territories in 1999. For a detailed description of the eSignature Laws and for detailed guidance on requirements for electronic signatures, Members are directed to the eMortgage Closing Guide[1], a mortgage industry reference tool published by the Mortgage Industry Standards Maintenance Organization, Inc. (MISMO).

Each Member is responsible for determining that an eNote meets the legal, technological, and operational requirements necessary to electronically create valid, enforceable, and transferable loan obligations and/or effectively service loans and that it otherwise complies with the FHLBank Chicago requirements whether originated or purchased (which, in some cases, may be in addition to minimum statutory requirements).

As part of the FHLBank Chicago eNote readiness review process, Members will need to provide information about the systems and processes employed to originate, to close, to vault and to service eNotes. Prior to pledging eNotes, FHLBank Chicago will work with its respective Members to assess their technology implementations and business processes for conformance to the eNote requirements.

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[1]

http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-closing-guide

This document will be subject to revision at any time in the sole discretion of FHLBank Chicago. Updates may be made frequently to accommodate this rapidly developing area of eMortgage lending.

2. Other Considerations

Please consult FHLBank Chicago's Collateral Guidelines in conjunction with agreements and credit policies, in addition to this document.

2.1.　Held for Sale Loans

Please consult with the FHLBank Chicago regarding eligibility and the process for Held for Sale eNote collateral. Held for Sale collateral may be subject to requirements that differ from collateral held in portfolio as the FHLBank Member is selling directly to an Investor or acting as a Warehouse Lender for an Originator. Held for Sale eNote collateral may be pledged and unpledged daily as well as reconciled and reinstated daily. There may be additional processes and/or agreements required.

3. Supporting Documentation Requirements

Members are required to execute an addendum to the Advances, Collateral Pledge, and Security Agreement in order to pledge eNotes. Please contact the FHLBank Chicago to request the document for execution.

Reporting requirements for eNote collateral are determined by FHLBank Chicago and in some instances may require Members to clearly identify which loans in the pledge portfolio are held as eNotes versus paper. There are conditions where additional documents need to be present with an eNote. Please consult with FHLBank Chicago directly for eNote collateral reporting requirements.

Also please consult FHLBank Chicago for acceptance of any mortgage in which supplemental wet-ink signed documents are required for the eNote (e.g., use of the Power of Attorney, or a Trust), or there is a requirement to make a permanent conversion from an eNote to a paper note (e.g., mortgages with a New York Consolidation, Extension and Modification Agreement ("NY CEMA") as they may be considered ineligible as eNotes.

The format of loan file supporting documentation will be determined by FHLBank Chicago. When originals are not required for collateral eligibility, imaged loan file documentation supporting eNotes is preferred to reduce operational complexities and costs. Imaged loan file supporting

documentation may be retained in an eNote Vault; however, there is no current requirement to do so.

Loan file supporting documentation will generally be retained by FHLBank Chicago in the same manner as paper note loan file documentation. Processes for logically confirming the eNote retained in the eNote Vault and the loan file supporting documentation will be determined by FHLBank Chicago. FHLBank Chicago will retain independent requirements for document custodians for any paper loan file documents. All pledged eNotes must be held in the FHLBank Chicago eNote Vault.

Please consult with FHLBank Chicago directly for record retention of non-loan file supporting documentation (e.g., member relationship documents including tri-party agreements for eNotes).

4. eSignature Requirements

4.1.   Overview

The closing of an eNote requires the use of a specialized computing platform, generally known as an eClosing system that allows the closing agent and the Borrower to electronically review, sign, store and transfer closing documents.

An electronic signature (eSignature) is an action by a person to electronically apply an electronic sound, a 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. For detailed guidance on requirements for eSignatures, Members are directed to the eMortgage Closing Guide[2], a mortgage industry reference tool published by the MISMO. Legal considerations Members should consider when pledging eNotes are discussed in Section 5 of the MISMO eMortgage Closing Guide. Specific eSignature requirements are covered in Section 7 of such guide.

Members must ensure that an eNote pledged as collateral to FHLBank Chicago meets the requirements outlined in this section whether originated by the Member or purchased.

4.2.   ESIGN and UETA

In order to be acceptable as pledged collateral, an eNote must be a valid and enforceable Transferable Record pursuant to the Uniform Electronic

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[2] http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-closing-guide

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Transactions Act ("UETA")[3], the Electronic Signatures in Global and National Commerce Act ("ESIGN")[4] or otherwise applicable law, and there must be no defect with respect to the eNote that would give the FHLBanks, or a subsequent transferor, less than the full rights, benefits and defenses of Control (as defined by UETA, ESIGN, or applicable law) of the Transferable Record.

ESIGN, UETA and other applicable laws will be referred to collectively as the "eSignature Laws" in these guidelines. For a summary of UETA, Members are directed to Section 5.3, "Uniform Electronic Transactions Act Summary", and Section 5.4, "ESIGN Summary, in the MISMO eMortgage Closing Guide".[5]

4.3. Disclosure and Consent

Members must be aware of, and comply with, all applicable legal requirements and otherwise follow applicable industry practices regarding electronic disclosures and consents.

Section 101(c) of ESIGN has specific 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. Additional requirements concerning the use of eSignatures, records, and disclosures may be imposed by regulatory agencies or through state legislation.

Some of the key disclosures, requirements, and issues include, but are not limited to:

- Obtaining consumer's express consent to or opting out of electronically signing the record;
- Identifying what the consent applies to;
- The right to withdraw consent and the consequences of doing so;
- How to withdraw consent;
- Consumer's right to receive a paper copy of the Electronic Records;
- A statement to the consumer of the necessary hardware, software and system requirements;
- A reasonable demonstration that the consumer can access Electronic Records regarding consent and the information that is the subject matter of the consent; and
- Hardware, software and system changes that require Notice of revised hardware and software requirements and right to withdraw consent without fees or consequences not previously disclosed.

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[3] https://law.lis.virginia.gov/vacodepopularnames/uniform-electronic-transactions-act/
[4] https://www.fdic.gov/regulations/compliance/manual/10/x-3.1.pdf
[5] http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-closing-guide

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For further information on disclosures and consent for eSignatures, Members are directed to the following sections in the MISMO eMortgage Closing Guide[6]:

- 5.7, "Consent Requirements under ESIGN and UETA";
- 5.8, "Electronic Format and Delivery of Consumer Disclosures";
- 5.9, "Summary of the Federal Board of Governors of the Federal Reserve Bank System's (FRB) Interim Final Rules"; and
- 7.5.1, "Consent and Disclosure".

4.4. Identify the Electronic Record to be Signed

The Electronic Record being signed must be clearly identified and clearly display the Borrower's name and must require the Borrower to take action to initiate the eSignature.

The Electronic Record being signed must be individually presented to the Borrower for review and electronic signing. A single eSignature cannot be applied to multiple Electronic Records.

For further information on identification of the Electronic Record, Members are directed to Section 7.4, "eSignature Best Practice Guidelines" in the MISMO eMortgage Closing Guide.[7]

4.5. Establishing the Borrower's Intent to Use an eSignature

Members must ensure that the Borrower is aware of the legal consequences of using an eSignature. For specifics on this, consult Section 7.5.4, "Establishing the Intent to Sign" in the MISMO eMortgage Closing Guide.[8]

4.6. Attaching/Logically Associating an eSignature to an Electronic Record

The eSignature system must be designed to readily demonstrate (when reviewing an electronically signed eNote or other Electronic Record and its audit trail):

- The Borrower's eSignature has been attached to, or is logically associated with, the eNote or other Electronic Record;
- The type of electronic symbol or process used;
- The name of the Borrower (the name must be typed or otherwise expressed in a visible way on the Electronic Record); and
- The time and date stamp of the eSignature.

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[6] http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-closing-guide
[7] http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-closing-guide
[8] http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-closing-guide

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4.7.   Ineligible Types of eSignatures

The eSignature Laws permit eSignatures in various forms, including biometrics (such as fingerprint, voice, facial or retinal recognition systems) and video and/or audio recordings. At this time, an eNote that is electronically signed by audio or video recording or by biometric means (such as fingerprint, voice, facial, or retinal recognition) is ineligible to qualify as collateral.

4.8.   eNotarization and Presence at Signing

Electronic notarization (eNotarization) is a notarial act performed electronically; i.e., the Borrower's eSignature on an electronic security instrument or other electronic closing documents are remotely and electronically notarized. Notarial law varies widely from state to state and must be considered when contemplating the use of eNotarization.

There are two types of electronic notarial acts: in-person and remote online. In-person Electronic Notarization (IPEN), the notarial act is performed by a notary public and a Borrower in the same physical location where documents are electronically signed and notarized. Remote Online Notarization (RON) is performed by means of an electronic device or process that allows a notary public and a Borrower, who is not in the same physical location as the notary public, to complete a notarial act and communicate with each other simultaneously by sight and sound.

Some state jurisdictions do not permit RON. In a jurisdiction where RON is not authorized but IPEN is authorized, each Borrower must be physically in the presence of the closing agent and/or a notary public coordinating the signing of the eNote, other Electronic Records or paper closing documents. However, all Borrowers do not have to be in each other's presence at the time of signing.

Each Member is responsible for determining that notarization is performed in accordance with and is legally valid under the laws and regulations of the state in which the notarization is performed, at the time it was performed, and in compliance with the Uniform Electronic Transactions Act, as adopted in such state, and the Electronic Signatures in Global and National Commerce Act.

In states that permit RON, each Member is responsible to ascertain that the notary public is commissioned and physically located in the state where the notarial act occurred and, where required by law or regulation, is specifically approved to perform a RON. If the Borrower and the Mortgaged Premises are located in a State different from the State in which the notary public is

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commissioned and located, each Member is responsible to ascertain that the State law in the State where the notary public is commissioned and located must authorize the notary public to engage in such interstate RON transactions.

Each Member should verify that the system used for RON meet the following minimum standards[9]:

- At least two-factor identity authentication, including using a government-issued photo ID that has a signature, credential analysis and identity-proofing;
- Tamper-sealed notarized documents and system security sufficient to (A) prevent interference with the authenticity, integrity and security of the notarial ceremony or corruption or loss of the recording of the same, and (B) protect the communication technology, electronic record and backup record from unauthorized use;
- The remote online notary must keep a secure electronic journal of the notarial act including evidence of identity of the principal (a video and audio conference can be the basis for satisfactory evidence of identification) and maintain a backup of the electronic record; and
- Recording of the notarial ceremony with storage for the minimum period required by applicable laws or if no period is specified in the applicable law, for seven years.

Each Member must have the capability to maintain the recording of the notarial ceremony.

If the loan document is required to be recorded, then the county recorder in the state and county where the property is located must accept the remotely notarized document for recording.

4.9. Transferable Record Requirements

To ensure that the eNote is a discrete Transferable Record, closing instructions or other procedures should be created to ensure that the Borrower signs only the eNote at closing and does not also sign a paper version of the promissory Note.

Note: An imaged version of a wet-ink signed paper promissory note is not a Transferable Record or an eNote.

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[9] http://www.mismo.org/standards-and-resources/emortgage-specifications/remote-online-notarization-standards

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4.10.   Electronic Signing Process Information

To preserve the ability to attribute the signer's signature to his or her identity, certain documents and system records must be retained in a manner that will provide ready access to such documents and records should such evidence be required. In addition to retaining evidence of a Borrower's identity in the loan file, additional information about the electronic signing process must be collected and retained in system logs and audit trails. The audit trails and/or system logs should:

- Establish a temporal and process link between the presentation of identity documents and the electronic signing of a document;
- Provide evidence of the Borrower's agreement to conduct the transaction electronically; and
- Provide evidence of the Borrower's execution of a particular eSignature.

At a minimum, retention of information about the signing process must include:

- The name of the person (and related entity, if the Borrower is not a person) who signed each document in the loan file;
- The date of the signature, and the method by which the document was signed; and
- Any relevant identifying (and other) information that can be used to verify the eSignature and its attribution to the signer's identity.

5. eNote Document Requirements

5.1.   Overview

The promissory note must contain certain features and attributes when in an electronic format. This section outlines the requirements for an eNote to be eligible as pledged collateral.

Members must ensure that an eNote pledged as collateral to FHLBank Chicago meets the requirements outlined in this section whether originated by the Member or purchased.

5.2.   eNote Electronic Record Format and Software Licensing Terms

Members must ensure that eNote Vaults and eligible eNotes are in an electronic format free from software licensing conditions that would prohibit, limit, or inhibit FHLBank Chicago from using the eNote and other Electronic Records for any customary business purpose. In addition, FHLBank Chicago

shall not be required to pay any royalties or any other fees for its use of the eNotes and Electronic Records.

5.3.   eNote View

The human readable view of the eNote must not contain any data that is sensitive, personal and identifying information such as a Social Security Number (SSN).

5.4.   Uniform Instruments

It is recommended that eNotes are originated using the Uniform Fannie Mae[10]/Freddie Mac[11] form of eNote. This form of an eNote is created by modifying the appropriate Fannie Mae/Freddie Mac Uniform Note that includes addition of a specific provision that addresses the electronic nature of the note including that it is a Transferable Record. This special provision also includes a reference to the MERS® eRegistry.

Loans that are originated using the Uniform Fannie Mae/Freddie Mac form of the eNote as specified by Fannie Mae and Freddie Mac are acceptable for pledging. FHLBank Chicago management reserves the right to consider formats other than Fannie Mae/Freddie Mac Uniform Notes.

5.5.   eNote Transferable Record Clause

An eNote must contain the following clauses as the last numbered section (Fannie Mae/Freddie Mac Uniform Note Section 11, or Section 12 in the case of ARM eNotes) of the eNote before the signature line. The most current clauses were updated effective January 1, 2023. The revised eNote clauses are clearer and easier for borrowers to understand, while maintaining compliance with the Uniform Electronic Transactions Act and the federal ESIGN Act.

"ISSUANCE OF TRANSFERABLE RECORD; IDENTIFICATION OF NOTE HOLDER; CONVERSION FROM ELECTRONIC NOTE TO PAPER-BASED NOTE

(A)   The following terms used in this Section 11 are defined as set forth below: (1) "Authoritative Copy" will have the meaning ascribed to such term in the UETA and E-SIGN (both as defined below), as amended from time to time; (2) "Electronic Note" means an electronically created note; (3) "Electronic Record" means a Record

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[10] https://www.fanniemae.com/singlefamily/notes

[11] https://sf.freddiemac.com/tools-learning/uniform-instruments/all-instruments

created, generated, sent, communicated, received, or stored by electronic means; (4) "Electronic Signature" means an electronic symbol or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign a record; (5) "E-SIGN" means the Electronic Signatures in Global and National Commerce Act, codified at 15 U.S.C. § 7001 et seq., as it may be amended from time to time, or any applicable additional or successor legislation that .governs the same subject matter; (6) "Note Holder Registry" means a registry system that is used to record the issuance and transfer of Electronic Notes; (7) "Paper Note" means an Electronic Note that is converted into a paper note; (8) "Record" means information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form; (9) "Transferable Record" means an Electronic Record that: (i) would be a note under Article 3 of the Uniform Commercial Code if the Electronic Record were in writing and (ii) I, as the issuer, have agreed is a Transferable Record; and (10) "UETA" means the Uniform Electronic Transactions Act, as enacted by the jurisdiction in which the property is located, as may be amended from time to time, or any applicable additional or successor legislation that governs the same subject matter.

(B)   I have signed this Electronic Note using my adopted Electronic Signature. By signing this Electronic Note using my adopted Electronic Signature, I am: (1) promising to pay the amount owed, as evidenced by this Electronic Note, to the Note Holder, and (2) agreeing that this Electronic Note is a valid, enforceable and effective Transferable Record issued by me to the Note Holder under the transferable records provisions of UETA and E-SIGN. By virtue of my agreements above, this Electronic Note is a Transferable Record.

(C)   After I issue this Electronic Note to the Note Holder, the Note Holder will register this Electronic Note in the Note Holder Registry. This Electronic Note will be registered in the Note Holder Registry operated by ***[Insert Name of Operator of Registry]****. I agree that the Note Holder has the right, at any time to transfer the registration of this Electronic Note to another Note Holder Registry. The Note Holder Registry will contain the identity of the Note Holder and the location of the Authoritative Copy of this Electronic Note. I understand that I may request a copy of the Authoritative Copy of this Electronic Note from the Note Holder or the Note Holder's designee. The only copy of this Electronic Note that is the Authoritative Copy is the copy identified by the Note Holder named in the Note Holder Registry or the Note Holder's designee.

(D)   I agree that the Note Holder has the right, at any time, to convert this Electronic Note into a Paper Note. If this Electronic Note is converted to a

Paper Note: (1) the Paper Note will be governed by the negotiable instrument provisions of the Uniform Commercial Code as enacted in the jurisdiction where the Property Address is located; (2) a copy or representation of my Electronic Signature affixed or attached to a printed paper copy of the Electronic Note will be, for all legal purposes, my adopted, original, written signature on the Paper Note; (3) I have authenticated, issued and delivered the Paper Note to the Note Holder; (4) the Paper Note will be a valid original writing for all legal purposes; (5) upon conversion of this Electronic Note to a Paper Note by the Note Holder, my promise to pay the amount owed, evidenced by this Electronic Note, will automatically convert to, (without interruption, alteration or diminution) my promise to pay the amount owed, evidenced by the Paper Note; (6) I am bound by my promise to pay the amount owed evidenced by the Paper Note; and (7) the Note Holder will update the Note Holder Registry to reflect the conversion of this Electronic Note to a Paper Note and remove the registration of (de-activate) this Electronic Note in the Note Holder Registry such that the Electronic Note ceases to have any effect or validity.

Note: Insert "MERSCORP Holdings, Inc., a Delaware corporation" as the name of the Operator of the Registry, unless directed otherwise by FHLBank Chicago.

5.6.   eNote Header

An eNote must contain the following heading:

Note
(For Electronic Signature)

5.7.   Signature Lines

Text above or below the signature must **<u>not</u>** contain the following: "(Sign original only)".

5.8.   MISMO Format(s) Accepted

The eNote must be a valid, Version 1.02 MISMO Category 1 SMART Doc®™[12], signed using an eSignature process, and secured by a Tamper Evident Signature.

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[12] http://www.mismo.org/x142958.xml

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5.9.   eModifications

Loan modifications executed in an electronic format are acceptable and are not required to be a SMART Doc®. The modification is required to be reported to the MERS eRegistry. Please refer to the MERS eRegistry Procedures Manual for a current listing of MERS eRegistry requirements.

6. eClosing Requirements

6.1.   Overview

This section outlines the requirements for eClosing systems that have been established for eNotes as collateral. For detailed guidance on requirements for electronic closing systems and processes, Members, whether originating or purchasing eNotes, are directed to the MISMO eMortgage Closing Guide[13]. An overview of the eClosing process that Members should consider when pledging eNotes is discussed in Section 3 of the MISMO eMortgage Closing Guide. Consult Section 6 of such Guide for guidelines for Electronic Records and Section 9 of such Guide for Electronic Record security requirements.

6.2.   Electronic Record Security

Members, whether originating or purchasing eNotes, are required to tamper evident seal the eNote after each Borrower signs and immediately after the last Borrower signs.

To preserve the integrity of the electronically signed document, an eNote and other electronically signed documents must be tamper-evident sealed using W3C compliant digital signature algorithms and utilizing X.509 certificates issued by an accredited issuing authority. The tamper-evident seal digital signature value must be included in the document and be accessible to validate that the Electronic Record has not been altered after it was electronically signed.

Tamper-evident seals can be created using an individual user certificate or a server-based certificate. If a server-based certificate is used, evidence that the server-based certificate private keys are appropriately stored is required, and a separation of staff roles regarding access to those keys must be provided.

The eNote's eClosing system must have logged and reconciled the eNote Document's interim or final Tamper Evident Signature(s). Confirmations of

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[13] http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-closing-guide

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validations to the SMART Document's DTDs/Schemas must be logged for the eNote. The validation and confirmation processes required by this Section 6.2 must be independently verifiable.

To maintain collateral eligibility, Members, whether originating or purchasing eNotes, must ensure that Electronic Records created and maintained by the eClosing system are not (and have not been) subject to unauthorized access or alteration. If there has been an incident of unauthorized access or alteration, please notify FHLBank Chicago.

6.3.   Authoritative Copy and Copies of the Authoritative Copy

The eNote's eClosing System must distinguish the display Authoritative Copy as the original and not as a copy of the Authoritative Copy. The eNote Vault screen on which the Authoritative Copy of the eNote appears must clearly and conspicuously state that the viewer is viewing the Authoritative Copy. Any other eNote vault screen on which a copy of the Authoritative Copy appears must clearly and conspicuously state that the viewer is viewing a copy of the Authoritative Copy.

6.4.   Electronic Loan File

The eNote's eClosing system must create and store a record of each eNote and Electronic Record presented and signed ("eClosing Transaction Record"). The eClosing system must also track and log actions related to the creation, signing, and transferring of the eNote and other Electronic Records using the eClosing system. Such information must be contained in the eClosing Transaction Record. The eClosing Transaction Record must be retained and maintained by the Member originating or purchasing the eNote and, if the servicing of the eNote is transferred, it must be retained and maintained by the subsequent Servicer. At all times, the eClosing Transaction Record must be stored and maintained in a manner that preserves the integrity and reliability of the eClosing Transaction Record for the life of the applicable eNote.

6.5.   Electronic Record

All eNotes and other Electronic Records, regardless of format, must have no licensing conditions that would prohibit, limit, or inhibit the FHLBanks, any assignee of FHLBank Chicago or the purchaser of a liquidated portfolio of eNotes, from using the eNote and other Electronic Records for any customary business purpose. In addition, FHLBank Chicago shall not be required to pay any royalties or any other fees for its use of the eNotes and Electronic Records.

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Electronic Records presented to the Borrower in the eClosing system must comply with all applicable state and federal requirements concerning the content, display and format of information and retention (as required for paper records).

The eNotes and other Electronic Records must accurately reproduce the fonts, styling, margins, and other physical features when electronically displayed and printed post-execution and as required by state and/or federal law. In addition, the party viewing or printing the Electronic Record must be able to ascertain:
- The content of the Electronic Record;
- The name of the Borrower signing the Electronic Record and the legal capacity in which the Borrower signed; and
- The time and date the Electronic Record was signed.

6.6.   Encryption Requirements

Encryption algorithms used by eClosing systems and processes must be compliant with National Institute of Standards and Technology (NIST) and FIPS 140-2 guidance.

The eNote's eClosing systems and processes that utilize X.509 digital certificates for device/server-based TLS/SSL session authentication must support a minimum of a SHA-256 signing hash. TLS session of eClosing systems and processes must use a minimum of 2048-bit RSA key and 128-bit AES key.

The eNote's eClosing systems and processes must support and utilize multifactor authentication methods such as combinations of unique user ID/password, S/Key, Password tokens, Biometrics, Smart card authentication, and X.509 digital certificates.

Members, whether originating or purchasing the eNotes, must conduct due diligence on a digital certificate issuing authority's (Certificate Authority) compliance with industry standards. Failure to do so may result in greater susceptibility to encryption eavesdropping (such as man-in-the-middle attacks) and fraudulent digital signatures and increases the risk to data integrity and confidentiality.

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7. MERS® (Mortgage Electronic Registration Systems, Inc.) eRegistry Requirements

7.1.   Overview

An eRegistry, in simple terms, is a ledger that tracks an owner of an asset, any related transactions of that asset (including authentication) and the storage location of the original electronic version. It may be thought of as a shared database repository that shows the transactions concerning a given asset (in this case, eNotes). Such details include where the asset originated, where it has moved, the owner of the asset, and assurance that the asset has not changed in any way.

MERS offers the MERS System – a national electronic registry that tracks the changes in mortgage servicing, servicing rights and beneficial ownership interests in residential mortgage loans that are registered on the MERS registry. MERS serves as the mortgagee in the land records for loans registered on the MERS System, and is a nominee (or agent) for the owner of the promissory note.

MERS also offers an eRegistry and an eDelivery service for eNotes. The MERS eRegistry is different and distinct from the MERS System. The MERS eRegistry component was created in 2003 in response to the eCommerce laws and registration is required for eNotes sold to Fannie Mae and Freddie Mac. The MERS eRegistry meets the safe harbor requirements, as specified in the eCommerce laws, ESIGN and UETA, for transferable records.

In order for eNotes to qualify as collateral, the FHLBanks currently require use of the MERS eRegistry.

7.2.   Agreements

The Member must execute the necessary agreements with MERS in order to be an active participant in the MERS eRegistry and establish FHLBank Chicago as an eligible Secured Party.

7.3.   Registration

eNotes must be issued a MIN (Mortgage Identification Number) by MERS and registered in the MERS eRegistry prior to being considered qualifying collateral.

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eNotes must be registered within one business day of the closing date. A case-by-case basis review may allow exceptions at onboarding.

The human readable view of the eNote must not contain a Social Security Number; please consult the MERS eRegistry technical support team for information on providing the Social Security Number to the MERS eRegistry for eNote registration.

7.4. MERS eRegistry Designations

The level of FHLBank Chicago control exercised over changes to MERS entities, location, data or status, with regards to pledged eNotes, may vary based upon Member organization types, financial condition, risk rating, collateral quality and collateral availability. In certain circumstances Members/Shareholder changes to an entity association may be automatically accepted. In other circumstances, such changes may require manual acceptance by FHLBank Chicago as the Secured Party. This level of automated authorization is held to the discretion of FHLBank Chicago.

7.5. Entities on the MERS eRegistry

7.5.1. Controller

The Controller is the Party (entity) named on the System of Record that has Control of the eNote. 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.

The Member will be the Controller of the eNote. FHLBank Chicago, as the Secured Party, may replace the Member as the Controller in order to protect its security interest unless otherwise required by the member's collateral arrangement with FHLBank Chicago.

7.5.2. Controller's Delegatee

The Controller Delegatee is a Member of the MERS eRegistry that is authorized by the Controller to perform certain MERS eRegistry transactions on the Controller's behalf. The assignment of the Controller Delegatee is designated at the Member's discretion unless restricted by the member's collateral arrangement with FHLBank Chicago.

7.5.3. Secured Party

The Secured Party is the entity named on the MERS eRegistry that has been assigned or granted a security interest in the eNote by the Controller. All eNotes must list FHLBank Chicago in the Secured Party field of the MERS eRegistry for as long as the collateral is pledged.

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7.5.4. Secured Party Delegatee

The Secured Party Delegatee is the Member of the MERS eRegistry that is authorized by the Secured Party to perform certain transactions on the Secured Party's behalf. This field is determined in the FHLBank's discretion.

7.5.5. eNote Location

This is the entity that maintains the Authoritative Copy of the eNote, and any electronic documents that modify the terms of the eNote (Location). For pledged eNote collateral, this must be the FHLBank Chicago eNote Vault.

7.6.   Transfer of Control or Location

In the MERS eRegistry, a system transaction is used to request a change to the current Controller or Location of an eNote, of a Member, or location of a pledged eNote, and may be subject to FHLBank Chicago notification and/or approval depending on the Member's collateral arrangement.

Generally, all Members that have granted the FHLBank Chicago a blanket lien and report collateral on the Qualified Collateral Report will have transactions automatically accepted in the MERS Registry, whereas members pledging on a specified or delivered basis will be subject to review and approval by the FHLBank Chicago.

Note that upon acceptance of a Transfer of Control transaction, the Secured Party is removed. Such acceptance and authorizations are held at the discretion of the FHLBank Chicago, subject to the FHLBank Chicago's right as Secured Party to revoke that automatic acceptance.

7.7.   Change Data Transactions

Changes to data on the MERS eRegistry for assumptions, naming or releasing a Servicer or a Delegatee, modifying an eNote, and/or updating data (such as a name change) may not need acceptance by the FHLBanks.

7.8.   Change Status Transactions

7.8.1. Pay Off + Reversal and Charge Off and Reversal

MERS has the ability to change set restrictions of the Controller (or any other authorized Rights Holder) to deactivate an eNote record while a Secured Party is named. A Member's capability to perform deactivations to

an eNote record while FHLBank Chicago is named as Secured Party is established in a tri-party agreement between MERS, FHLBank Chicago, and the Member as MERS Member.

If a MERS member is permitted to perform deactivations to an eNote record while FHLBank Chicago is named as Secured Party, FHLBank Chicago will receive notification.

If a MERS Member is not permitted to deactivate an eNote record while FHLBank Chicago is named as Secured Party, FHLBank Chicago will need to first release its interest before the eNote can be deactivated.

7.8.2. Registration Reversal

While named as the Secured Party, FHLBank Chicago will receive notification of registration reversals.

7.8.3. Conversion to Paper and Reversal

MERS has the ability to restrict the Controller (or any other authorized Rights Holder) to convert an eNote record to paper while a Secured Party is named. A Member's capability to convert an eNote record to paper while FHLBank Chicago is named as Secured Party is established in a tri-party agreement between MERS, the MERS Member, and the Secured Party.

If a MERS Member is permitted to convert an eNote record to paper while FHLBank Chicago is named as Secured Party, FHLBank Chicago will receive notification.

If a MERS Member is not permitted to convert an eNote record to paper while FHLBank Chicago is named as Secured Party, FHLBank Chicago will need to first release its interest before the eNote can be converted to paper.

7.8.4. Transfer to Proprietary Registry and Reversal

MERS has the ability to restrict the Controller (or any other authorized Rights Holder) to transfer an eNote to a Proprietary Registry while a Secured Party is named. A Member's capability to transfer an eNote to a Proprietary Registry while FHLBank Chicago is named as Secured Party, is established in a tri-party agreement between MERS, the MERS Member, and the Secured Party.

If a MERS Member is permitted to transfer an eNote to a Proprietary Registry while FHLBank Chicago is named as Secured Party, FHLBank Chicago will receive notification.

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If a MERS Member is not permitted to transfer an eNote to a Proprietary Registry while FHLBank Chicago is named as Secured Party, FHLBank Chicago will need to first release its interest before the eNote will be transferred to a Proprietary Registry.

7.8.5. Modification Reversal

While named as the Secured Party, FHLBank Chicago will receive notification of modification reversals.

7.9.   Doing Business As (DBA) Tradenames on eNotes

As a general rule, state law recognizes a DBA or tradename as an alias; it is not a separate legal entity, but merely an alternative name for the legal entity using the tradename. There are special considerations for DBA tradenames on eNotes on the MERS® eRegistry.

The relationship between the differing names – the DBA is listed on the eNote and the Member's legal entity name (MERS eRegistry Organization identifier) as the Controller – is not reflected on the MERS eRegistry. This may cause risk to the Member's legal rights as the Controller.

For Member's which intend to utilize DBA tradenames on eNotes:
(1) the legal entity name must also be included on the face of the eNote (e.g. ABC Financial, Inc., dba XYZ Mortgage), AND
(2)   the initial MERS eRegistry registration reflect the legal entity name as the initial controller.

8. eNote Vault Requirements

The FHLBanks have completed a basic security and technical review of many eNote Vault vendor systems. Members need to conduct the appropriate due diligence review of their systems and confirm compliance with requirements in this section. If the Member's eNote Vault was not previously reviewed by FHLBank Chicago, the eNote Vault must go through FHLBank Chicago review and due diligence process. If the Member/Shareholder is using one of the reviewed systems, a signed certification form confirming their system is compliant with FHLBank Chicago requirements, including interfacing and integrating, is required.

Prior to accepting eNotes as collateral, the Member must execute the necessary legal agreement(s) with FHLBank Chicago and complete any FHLBank Chicago required initial checks to ensure compatibility with FHLBank Chicago's eNote Vault.

8.1.   Authoritative Copy Requirements

Once approved, the Member must store the Authoritative Copy of an eNote in the Member's eNote Vault until pledged. Once an eNote is pledged and the location of the Authoritative Copy is transferred to the FHLBank's eNote Vault, the Member must store *a copy* of the Authoritative Copy of the eNote in its own eNote Vault. Periodic reconciliation between the Member eNote Vault and the MERS eRegistry to ensure alignment between the two systems is required. Additionally, the Member eNote Vault must have functionality to perform eNote integrity validation to verify that the tamper-evident seal digital signature is valid and has not been compromised. Proof of periodic audits of the tamper-evident seal digital signature are required.

The eNote Vault used by the Member must interface with MERS eRegistry. Third parties involved with the process of the eNotes to be pledged must also be setup in the Member's MERS eRegistry profile in MERS and within the eNote Vault application. This includes all related third parties within the eNote process for loans pledged to FHLBank Chicago (e.g., servicer, sub-servicer and Location).

The Member's eNote Vault view screen on which the Authoritative Copy appears must state that the eNote being viewed is the Authoritative Copy.

The Member's eNote Vault view screen on which *a copy* of the Authoritative Copy appears must state the eNote being viewed is *a copy* of the Authoritative Copy.

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The eNote Vault used by the Member, upon receipt of the eNotes, validates (re-computes) all of the eNotes' tamper evident signatures and compares them with the corresponding tamper evident signatures in the MERS eRegistry.

Note: Validation against the MERS eRegistry is automatically completed by the FHLBank Chicago eNote Vault upon delivery of the Authoritative Copy of the eNote.

8.2. Assignment of FHLBank Chicago to Secured Party and Location roles in MERS eRegistry

As instructed by FHLBank Chicago, proper assignment within the MERS eRegistry will need to be performed per loan to support the FHLBank as the Secured Party for pledging.

8.3. Length of time to support the eNote and supporting documents

The eNote Vault used by the Member must preserve the eNote and other electronic documents that relate to pledged collateral for the life of loan plus seven years.

8.4. Integrity and Security

The eNote Vault used by the Member must support one or more authentication methods to authenticate user access.

The eNote Vault used by the Member must protect system integrity through appropriate measures such as safeguarding against malware, firewall and network perimeter security controls, etc.

The eNote Vault used by the Member must verify document integrity including, but not limited to, compliance with eNote Document Type Definition ("DTD") or schema and eNote Tamper Evident Seal before accepting documents.

The eNote Vault used by the Member must log the validations (re-computations of Hash Values) of eNotes' and any other SMART Documents' Tamper Seals.

The eNote Vault used by the Member must periodically reconcile the information stored in the eNote Vault and the information stored on the MERS eRegistry.

8.5.   eNote Vault to eNote Vault Transfers and eDelivery

The eNote Vault used by the Member must have the capability to transfer eNotes and any other Electronic Mortgage File Documents in the eNote Vault to another eNote Vault using MERS eDelivery or by other means as mutually approved in advance by the Member and its FHLBank.

8.6.   Verifications

The collateral review process includes verification that there is a physical representation of an eSignature present on the eNote and that the Borrower's name is typed below the eSignature.

Verification of the registry operator (e.g., "MERSCORP Holdings, Inc., a Delaware corporation")") is listed as the operator of the Registry in Transferable Record Section of the eNote is required, as excerpted below:

> (B) Except as indicated in[11][12](subsections (D) and (E) below, the identity of the Note Holder and any person to whom this Electronic Note is later transferred will be recorded in a registry maintained by MERSCORP Holdings, Inc., a Delaware corporation or in another registry to which the records are later transferred (the "Note Holder Registry").

Refer to Section 5.5 of these guidelines, "eNote Transferable Record Clause", for registry operator requirements.

8.7.   Encryption Requirements

The eNote Vault encryption algorithms used by the Member are compliant with NIST and FIPS 140-2 guidance.

The eNote Vault X.509 digital certificates used by the Member for device/server-based TLS/SSL session authentication support a minimum of SHA-256 signing hash. The eNote Vault used by the Member for TLS sessions must use a minimum of 2048-bit RSA key and 128-bit AES key.

The eNote Vault used by the Member must support industry acceptable multifactor authentication.

The Member should conduct due diligence on a digital certificate issuing authority's (Certificate Authority) compliance with industry standards. Failure to do so may result in greater susceptibility to encryption eavesdropping (such as man-in-the-middle attacks) and fraudulent digital signatures and increases the risk to data integrity and confidentiality.

8.8.   eMortgage File Documentation Management

The Mortgage File Documents for eNotes pledged may contain paper and electronic documents, so long as Member maintains records that cross-reference the paper and electronic documents.

If some of the Mortgage File Documents are paper and some are electronic, the paper documents must be retained in accordance with the Collateral Guidelines, which are available on eBanking, and the other Electronic Mortgage File Documents must be retained in Member's eNote Vault. To view the Collateral Guidelines, log into eBanking, click on "Library" under "Resources" in the footer of the page, click on "Product Guides and Policies," and then click "Collateral Guidelines and Forms."

If the eNote Vault does not allow storage of Electronic Mortgage File Documents other than the eNote, the documents must be stored securely as required in the Collateral Guidelines.

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9. Servicing System Requirements

9.1.   eMortgage Servicer

<u>Note</u>: Servicer in this section may refer to the Member or a third-party servicer.

The servicer must have an FHLBank Chicago-approved eNote Vault or have a third-party arrangement with a custodian or servicer that is holding eNotes on the member's behalf in an approved eNote Vault to have the ability to perform MERS eRegistry transactions. FHLBank Chicago may need access to the servicer's eNote Vault and/or servicing data while collateral is pledged.

The servicer must have the ability to identify all eNotes pledged. The servicer must be an approved and active member and user of the MERS eRegistry and has (and shall maintain at all times) connectivity to the MERS eRegistry and eDelivery.

The servicer must have the ability to record all status changes and required actions that occur during the life of the eNote in the MERS eRegistry. The servicer can confirm that the MERS eRegistry accurately reflects the "Controller", "Secured Party" and "Location" at all times.

The servicer must have documented eNote servicing procedures.

9.2.   Performing Loans

The servicer must maintain the current status of the eNotes on the MERS eRegistry.

Neither the servicer nor any other party may convert a pledged eNote into a paper-based Note without the FHLBank's prior specific and express written consent. Once a pledged eNote is converted to a paper-based Note it can no longer be considered eNote collateral and no longer considered eligible collateral.

In the event FHLBank Chicago gives its specific and express written consent to convert a pledged eNote to paper, the Member must comply with the FHLBank's instructions in connection with such conversion.

9.3.   Transfer of Servicing of eMortgages

Members may be required to notify FHLBank Chicago prior to any future changes in servicing and document custody of paper loan file documents. For changes in servicing, the Member must update the MERS eRegistry.

Additional agreements may need to be executed and testing may need to be performed to ensure compatibility with the FHLBank Chicago eNote Vault.

10. Glossary

Capitalized terms used and not defined in these guidelines shall have the meaning set forth in the MISMO eMortgage Glossary: http://www.mismo.org/standards-and-resources/emortgage-specifications/emortgage-glossary

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