



**U.S. DEPARTMENT OF EDUCATION**

**STANDARDS FOR ELECTRONIC  
SIGNATURES IN ELECTRONIC STUDENT  
LOAN TRANSACTIONS**

**April 30, 2001**

## **PURPOSE**

This document establishes standards regarding electronic signatures and implementation of certain provisions of the Electronic Signatures in Global and National Commerce Act (E-Sign Act) as they apply to electronic transactions conducted by lenders, guaranty agencies, schools, and borrowers (program participants) under the student loan programs authorized by Title IV of the Higher Education Act of 1965 (HEA), as amended.

## **APPLICABILITY**

The provisions of the E-Sign Act apply broadly to all transactions and related records required to be in writing. However, the standards in this document focus on loan transactions that require a borrower's signature and related records.

### **For loans made under the FFEL Program:**

Except as indicated in the note below, a lender or holder whose processes for electronic signatures and related electronic records satisfy the standards in this document will be protected from the loss of Federal benefits on a loan if the loan is determined to be legally unenforceable by a court based solely on the processes used for the electronic signature or related records. Thus, if a loan is held to be unenforceable solely on that basis, the loan will still be eligible for interest and special allowance benefits as well as for insurance from the guaranty agency and re-insurance from the Department, as long as the electronic signature and related records processes used by the lender or holder of the loan satisfied these standards.

On the other hand, if a lender's or holder's processes for electronic signatures and related records do not satisfy these standards and a loan is held by a court to be unenforceable based solely on those processes, the Secretary will determine on a case-by-case basis whether Federal benefits should not be denied or repaid. The Secretary may, after reviewing the court's decision and the lender's or holder's processes, choose not to deny Federal benefits on the loan or require the repayment of any reinsurance received by the guaranty agency, insurance received by the lender, and any interest and special allowance received by the lender.

Note: Because borrowers attending eligible foreign schools may receive FFEL loan proceeds directly from a lender, a lender is not protected from the loss of Federal benefits on loans made using electronic promissory notes, documents and signatures to borrowers attending eligible foreign schools, even if the lender complies with these standards in regard to those loans. The Department may reconsider this limitation based on our experience with electronic transactions for domestic schools.

**APPLICABILITY – continued**

**For loans made under the Federal Perkins Loan Program:**

A school whose processes for electronic signatures and related electronic records satisfy the standards in this document will not be subject to any liabilities or be required to reimburse its Perkins Loan Fund if the loan is determined to be legally unenforceable by a court based solely on the processes used for the electronic signature or related records. On the other hand, if the school's processes for a loan do not satisfy these standards and the loan is held by a court to be unenforceable based solely on the school's processes for an electronic signature or related records, after reviewing the court's decision and the school's processes, the Secretary may decide not to require the school to reimburse its Perkins Loan Fund.

## **TABLE OF CONTENTS**

### **Section 1: Definitions**

#### **Section 2: Borrower Consent**

- 2.1 Parties Responsible for Obtaining Consent
- 2.2 Manner of Consent
- 2.3 Required Disclosures
- 2.4 Consent to Use an Electronic Promissory Note or Electronic Record for a Covered Transaction
- 2.5 Transferability of Consents

### **Section 3: Electronic Signatures**

- 3.1 Electronic Signature Processes for Covered Transactions
- 3.2 Knowledge-Based Authentication
- 3.3 Attribution
- 3.4 Establishing Attribution for Covered Transactions
- 3.5 Authenticating the Borrower's Identity
- 3.6 Intent to Sign an Electronic Record
- 3.7 Establishing the Purpose for the Signature
- 3.8 Required Display of Terms and Conditions of a Promissory Note or Other Documents

### **Section 4: Format of Electronically-Signed Records**

- 4.1 Printing and Viewing Electronically-Signed Records
- 4.2 Self-Contained Records

### **Section 5: Integrity of Electronic Records**

- 5.1 Authoritative Copies
- 5.2 Associating Electronic Records
- 5.3 Tracking Changes and Updates to Electronic Records

### **Section 6: Managing and Maintaining Electronic Records**

- 6.1 Hybrid Transactions

### **Section 7: Accessing Electronic Records**

- 7.1 Access Rights and Restrictions
- 7.2 Providing Access
- 7.3 Timeframe for Providing Access

### **Section 8: Holder Certifications**

## **Section 1: Definitions**

**Alteration** means a change to the information in a record after it is signed.

**Authoritative Copy** means the copy of an electronic record that is designated by the lender or holder as the controlling reference copy.

**Borrower** means an individual to whom a loan is made under 34 C.F.R. Part 682 for the FFEL Program, 34 C.F.R. Part 685 for the Federal Direct Loan Program, or 34 C.F.R. Part 674 for the Federal Perkins Loan Program.

**Covered Transaction** means a transaction where a borrower is required to sign:

- A promissory note or loan application;
- A forbearance agreement;
- A request and sworn statement to discharge a loan;
- A new repayment agreement;
- A request to cancel a loan; or
- A request for a deferment on a loan.

**Document or 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.

**Electronic** means technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.

**Electronic Record** means a record created, generated, sent, communicated, received, and/or stored by electronic means.

**Electronic Signature** means an electronic symbol or process attached to, or logically associated with, a record and used by a person with the intent to sign the record.

**Holder** means the owner of the loan.

**Student Loan File** means the paper and/or electronic record of the promissory note, the loan origination or certification record, disbursement and disclosure records for the loan, and other documents or records associated with that loan that are customarily collected by a lender.

**System** means a data processing system used to create, store, sign, retrieve and/or manage the documents or records that constitute the student loan file.

**System Rules** mean rules that apply to all the participants using a particular system. For example, such rules might cover issues relating to access rights, distribution of system risk, sending and receiving electronic records, intellectual property rights, and remedies for breach of the system rules.

**Systems Administrator** means the person or persons responsible for operating one or more of the systems used for processing or maintaining records of student loan transactions.

## **Section 1: Definitions – continued**

**Trusted Third Party** means a person other than the holder or its agent who provides services intended to enhance:

- (a) The trustworthiness of the process for signing electronic records using electronic signatures; or
- (b) The integrity and reliability of the signed electronic records.

## **Section 2: Borrower Consent**

Before a lender or holder may conduct an electronic transaction that requires information to be provided or made available in writing to a borrower, the borrower must affirmatively consent to use an electronic record (Section 101(c) of the E-Sign Act). The borrower's consent must be voluntary and based on accurate information about the transaction to be completed.

The consent process used by the lender or holder must be designed to establish that the borrower understands that electronic records will be used instead of paper documents. The lender or holder may not use coercion, deceptive practices, or misrepresentation to obtain the borrower's consent.

### **2.1 Parties Responsible for Obtaining Consent.**

The lender or holder is responsible for obtaining all necessary consents.

### **2.2 Manner of Consent**

Even where a borrower has consented in writing to conduct a transaction electronically, the borrower must also consent electronically in a manner that demonstrates that he or she has the capability to receive electronic communications from the lender or holder (Section 101(c)(1)(C) of the E-Sign Act).

The lender or holder's procedures for obtaining consent must include a reasonable demonstration of the borrower's ability to access information in the electronic records provided. For example:

- (a) The lender or holder may deliver sample electronic records to the borrower using the same technology and format that will be used when conducting the actual transaction. This would then be followed by an electronic acknowledgment from the borrower that the sample documents were successfully opened and reviewed; or
- (b) For an online session where the lender or holder intends to obtain a borrower's consent to conduct a single transaction electronically, such as executing an electronic promissory note, the session must be designed in a manner that requires the borrower to acknowledge that he or she has the necessary hardware and software to view, print, download, or otherwise access information necessary to complete the transaction.

Under Section 101(c)(6) of the E-Sign Act, a borrower may not consent to an electronic transaction through an oral communication or a recording of an oral communication.

### **2.3 Required Disclosures**

In accordance with Section 101(c)(1) of the E-Sign Act, prior to giving consent, a borrower must receive from the lender or holder a clear and conspicuous disclosure of:

- (a) Any right or option he or she has to conduct the transaction on paper or in non-electronic form;
- (b) His or her right to have documents provided or made available on paper at no charge to the borrower;
- (c) His or her right to withdraw consent and the procedure for doing so. During an online session where the lender or holder seeks to obtain the borrower's consent to conduct a single transaction electronically (e.g., sign a promissory note), the borrower must be able to withdraw his or her consent during the session prior to completing the transaction. Alternatively, if the consent sought by the lender or holder will initiate one or a series of subsequent transactions, the borrower must be informed that any consent provided may be withdrawn at any time;
- (d) The consequences of withdrawing his or her consent to use electronic records;
- (e) The scope of the consent, i.e., whether the consent applies to a particular transaction or other transactions;
- (f) The procedure for obtaining paper copies of electronic records; and
- (g) The hardware and software requirements for accessing, printing, and retaining, as appropriate, electronic records used in the transaction or covered under the scope of the transaction.

#### **2.4 Consent to Use an Electronic Promissory Note or Electronic Record for a Covered Transaction**

In general, a lender or holder that wishes to conduct loan transactions with a borrower electronically must obtain the borrower's consent for those transactions.

In an online session where a borrower plans to execute a promissory note electronically, or electronically sign a document for another covered transaction, the lender must design the session for that purpose only and in a manner that prevents the borrower from electronically signing the note or document until after the borrower consents to use that electronic note or document. The lender must maintain a record that the consent was granted prior to the signing of the note or document.

## **2.5 Transferability of Consents**

If a lender or holder obtains a borrower's consent to conduct transactions electronically, that consent generally does not transfer to another holder of the loan. The new holder must again obtain the borrower's consent, unless the loan:

- (a) Continues to be serviced by the same entity used by the prior lender or holder; and
- (b) Continues to be serviced under the same procedures disclosed by the prior holder under Section 2.3.

If a lender transfers the right to make new loans under a Master Promissory Note (MPN) to another lender, the borrower's consent to conduct transactions relating to prior loans made under the MPN does not transfer to the new lender unless the conditions listed above are satisfied.

## **Section 3: Electronic Signatures**

An electronic signature is intended to replace the "wet signature" traditionally used to sign writings. The process that a lender or holder uses to allow a borrower to create an electronic signature must address the topics in this section.

### **3.1 Electronic Signature Processes for Covered Transactions**

Processes that may be used as electronic signatures for executing electronic promissory notes and signing electronic documents for covered transactions include:

- (a) A shared secret, such as a personal identification number (PIN) or password uniquely associated with the borrower and known only to the borrower and the lender or holder (or third party responsible for maintaining the shared secret);
- (b) A unique credential or token provided to the borrower by a trusted third party, such as a public-private keypair, a cryptographic smartcard, or a one-time password device;
- (c) A computer file or number that corresponds to a biometric measurement uniquely associated with the borrower, such as a fingerprint or retinal pattern;
- (d) A signature image (a computer file that is created from the scanned image of the borrower's handwritten signature); or
- (e) A typed name, combined with (a), (b), (c), or (d).

Audio recordings of oral statements or conversations are not acceptable electronic signature processes.



### **3.2 Knowledge-Based Authentication**

For an online session where a lender or holder seeks to obtain a borrower's signature for a promissory note or another covered transaction, the session must be designed in a manner that:

- (a) Requires the borrower to enter at least two personal identifiers such as those in Section 3.5;
- (b) Requires the borrower to use his or her shared secret or credential;
- (c) Authenticates, or uses the services of a trusted third-party to authenticate, the identity of the borrower based on the information provided by the borrower in (a) and (b).

The entire online session between the borrower and the lender or holder must be secure, starting from the time the borrower enters the personal identifiers and shared secret and ending after the borrower electronically signs the promissory note or other document for a covered transaction.

### **3.3 Attribution**

Attribution is the process of associating the identity of a borrower with his or her signature. The lender or holder must maintain evidence sufficient to establish that the electronic signature may reasonably and effectively be attributed to the borrower purported to have provided the electronic signature.

### **3.4 Establishing Attribution for Covered Transactions**

The following methods may be used to establish attribution for covered transactions:

- (a) Selection by the borrower, or assignment to the borrower of a PIN, password or other shared secret, that the borrower uses as part of the signature process, together with:
  - (1) An express agreement by the borrower not to share or disclose the PIN, password, or secure access procedure to others;
  - (2) A procedure by which the borrower may notify other parties to the transaction that the shared secret has been compromised; and
  - (3) Effective lender procedures to protect against disclosure of the shared secret to unauthorized parties.
- (b) Delivery of a credential to the borrower by a trusted third party, used either to sign the electronic record or to prevent undetected alteration after the electronic record is signed using another method, together with:
  - (1) Implementation of reasonable hardware and software security permitting the borrower to restrict access to the credential;

### **3.4 Establishing Attribution for Covered Transactions – continued**

- (2) Systemic lender protections against discovery or use of the credential used by the borrower;
  - (3) An express agreement by the borrower not to disclose the secure access procedure or voluntarily deliver any hardware device used in connection with the credential to a third party; and
  - (4) A procedure by which the borrower may notify other parties to the transaction that the credential has been compromised.
- (c) Measurement of some unique biometric attribute of the borrower and creation of a computer file that represents that measurement, together with lender procedures to protect against disclosure of the associated computer file to unauthorized parties.
  - (d) Capture of the borrower's handwritten signature as a digitized graphic representation, together with lender procedures to protect against disclosure of the associated computer file to unauthorized parties.

### **3.5 Authenticating the Borrower's Identity**

Before a lender or holder issues a shared secret or other credential that may be used by a borrower as part of a process to sign electronically a record for a covered transaction, the lender or holder must confirm the identity of the borrower by authenticating data provided by the borrower with data maintained by an independent source (e.g., by conducting data matches). Independent sources include, but are not limited to:

- (a) National commercial credit bureaus;
- (b) Commercially available data sources or services;
- (c) State motor vehicle agencies;
- (d) Government databases.

School databases are not independent sources.

At a minimum, the lender or holder must verify a borrower's name, social security number or driver's license number, and date of birth.

After the lender or holder completes the required data matches verifying the borrower's identity, it must mail the shared secret or other credential via the U.S. Postal Service to the borrower.

Alternatively, the lender or holder may issue the shared secret or other credential by mailing it to a borrower without conducting the data matches if the lender or holder has previously authenticated the borrower's identity in a manner that satisfies the requirements of this Section. For example, the lender or holder used information on paper documents (social security card) and/or photographic identification (driver's license) presented by the borrower to confirm his or her identity.

### **3.6 Intent to Sign an Electronic Record**

The process used by a lender or holder for obtaining an electronic signature must be designed to demonstrate that the borrower intended to sign the record. Establishing intent includes:

- (a) Identifying the purpose for the borrower signing the electronic record (see Section 3.7);
- (b) Being reasonably certain that the borrower knows which electronic record is being signed; and
- (c) Providing notice to the borrower that his or her electronic signature is about to be applied to, or associated with, the electronic record.

For example, intent to use an electronic signature may be established by:

- (a) An online dialog box or alert advising the borrower that continuing the process will result in an electronic signature;
- (b) An online dialog box or alert indicating that an electronic signature has just been created, and giving the borrower an opportunity to confirm or cancel the signature; or
- (c) A click-through agreement advising the borrower that continuing the process will result in an electronic signature.

### **3.7 Establishing the Purpose for the Signature**

The system or process used by a lender or holder must provide the borrower the purpose or reason for his or her signature. The purpose of the signature may be:

- a(a) Apparent within the context of the transaction;
- b (b) Described to the borrower in the electronic record itself; or
- (c) Described in a separate notice, explanation, or statement provided to the borrower at or before the time of signing.

### **3.8 Required Display of the Terms and Conditions of a Promissory Note or Other Documents**

During the online session where a borrower intends to execute a promissory note electronically or electronically sign a document for a covered transaction, all terms and conditions of the note (including the Statement of Borrower's Rights and Responsibilities) or document, must be displayed to the borrower by means of a required click through page. The session must be designed to require the borrower to acknowledge that he or she has read the terms and conditions of the promissory note (including the Statement of Borrower's Rights and Responsibilities) or document before the borrower is allowed to sign that note or document.

## **Section 4: Format of Electronically-Signed Records**

Electronic records used for covered transactions must include all of the terms and conditions contained in the comparable paper records.

### **4.1 Printing and Viewing Electronically-Signed Records**

A lender or holder's system must be able to reproduce electronic records when printed or viewed as accurately as if they were paper records. The lender or holder must enable the viewing or printing of electronic records using commonly available operating systems and software.

#### **4.2 Self-Contained Records**

Electronically signed records must contain all the information necessary to reproduce the entire electronic record and all associated signatures in a form that permits the person viewing or printing the entire electronic record to verify:

- (a) The contents of the electronic record;
- (b) The method used to sign the electronic record, if applicable; and
- (c) The person or persons signing the electronic record.

### **5. Integrity of Electronic Records**

The lender or holder must ensure that electronic records signed by the borrower have not been altered.

#### **5.1 Authoritative Copies**

The lender's or holder's system must be designed so that the signed electronic record is designated as the "authoritative" copy. Additional copies of that record used by the system, or accessed by the borrower or other program participant, should be copied from the authoritative copy.

#### **5.2 Associating Electronic Records**

The system used by the lender or holder must ensure that all electronic records that reflect activities relating to a student loan can be associated with the loan so that any particular transaction is identifiable, and accessible, as part of that loan history.

#### **5.3 Tracking Changes and Updates to Electronic Records**

The system used by a lender or holder must be structured to prohibit changes to the authoritative promissory note record. For other electronic records, the lender's or holder's system must log and account for any changes to the records and must be structured so that changes can be made only by authorized individuals.

## **Section 6: Managing and Maintaining Electronic Records**

The system used by a lender or holder must protect the processing and storage environment during the creation of electronic records and must protect the integrity of the stored records and the data contained in those records. The lender's or holder's system must be at least as rigorous as the system used by the lender or holder for its non-Federal electronic processing and record storage.

### **6.1 Hybrid Records**

Student loan records may involve the use of a combination of electronic records and paper records which become part of the student loan file. For hybrid records:

- (a) The lender or holder is responsible for maintaining appropriate cross references from the paper student loan file to the associated electronic records, and from the electronic records to the paper student loan file; and
- (b) Any paper record that is part of the student loan file may be scanned and digitized by the lender or holder, noted as an imaged copy of the original, added to the electronic record file, and, except for the promissory note or loan application, be disposed of, if desired. In no event may a signed paper promissory note or loan application be destroyed unless all obligations under that note have been discharged in full.

## **Section 7: Accessing Electronic Records**

The system used by a lender or holder must be designed to control access to electronic records and provide that access in a manner that can be tracked and monitored in accordance with system rules.

### **7.1 Access Rights and Restrictions**

The lender's or holder's processing and storage system must be designed to restrict access rights to borrowers, lenders, holders, or other parties depending on their role or involvement in the loan transaction. The access control must be capable of restricting access to transactions, records, or data for different classes of users.

### **7.2 Providing Access**

After the borrower executes a covered transaction, he or she must be given reasonable and timely access to the authoritative copies of the electronic records or copies of the authoritative copies. The lender or holder must:

- (a) Provide access for the borrower to view, download, and/or print copies of the electronic loan records; and
- (b) Inform the borrower how he or she may obtain paper copies of the electronic records.

### **7.2 Providing Access – continued**

At any point in the life of the loan, the current holder is responsible for ensuring that all parties entitled to access, including the guaranty agency and the Department of Education, have appropriate access to the electronic loan records.

### **7.3 Timeframe for Providing Access**

The lender or current holder must provide reasonable and timely access to the electronic records to a borrower from the time he or she executes a covered transaction until the loan is paid off, plus three years. Reasonable and timely access must be provided to other parties when they become associated, and during the time they remain associated, with the loan transaction.

### **Section 8: Holder Certifications**

The lender or holder must cooperate with any subsequent holder in all activities necessary to enforce the loan. The holder must provide:

- (a) To a transferee of the loan an affidavit or certification regarding the creation and maintenance of the electronic records of the loan in a form appropriate to ensure admissibility of the loan records in a legal proceeding. This certification may be executed by or for the holder at the time a loan is transferred to another holder, and may be executed in a single record for multiple loans provided that this record is reliably associated with the specific loans to which it pertains; and
- (b) Witness testimony, if necessary, to ensure admission of the electronic records of the loan in legal proceedings to enforce the loan by a transferee of the loan.