

Digital Documents

Financing Paperless Transactions





The Foundation is the only research organization dedicated solely to the equipment finance industry.

The Foundation accomplishes its mission through development of future-focused studies and reports identifying critical issues that could impact the industry.

The Foundation research is independent, predictive and peer-reviewed by industry experts. The Foundation is funded solely through contributions. Contributions to the Foundation are tax deductible.

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INTRODUCTION

Purpose of Study

The Equipment Leasing & Finance Foundation (the “Foundation”) commissioned BuckleySandler LLP to produce this Study in order to provide:

- A snapshot of the current use of electronic records and signatures by equipment lessors (“Lessors”) in connection with the origination of equipment leasing documentation (“Electronic Lease Transactions”);
- A snapshot of the current acceptance of Electronic Lease Transactions by lenders (“Lenders”) as collateral for loans;
- A snapshot of the current use of electronic record storage solutions for managing executed records and effecting transfers of control from one owner of the Electronic Lease Transaction to the next (“eVaults”);
- Insights into the challenges that must be addressed when engaging in Electronic Lease Transactions; and
- Recommendations on potential actions that might be taken by the equipment leasing industry to accelerate adoption of Electronic Lease Transactions.

This Study builds on the Foundation’s 2007 Study “*Paperless Transactions: The Competitive Edge*” (“2007 Study”). The 2007 Study examined where the equipment lease and finance industry stood at that time with respect to automation of equipment leasing transactions and both the business case and a road map for achieving paperless leasing transactions. To do this, the 2007 Study reviewed existing law and literature on the development of paperless transactions in multiple business sectors. It also included the results of discussions concerning the adoption of paperless transactions with various trade associations such as the National Association of Variable Annuities (NAVA) and the Mortgage Bankers Association (MBA) and various standard setting bodies such as Standards and Procedures for electronic Records and Signatures (SPeRS), the Mortgage Industry Standards Maintenance Group (MISMO), NAVA, Association for Cooperative Research and Development (ACORD), the Association for Information and Image Management (AIIM), and the American National Standards Institute (ANSI).

The 2007 Study found that replacing existing paper-based systems with electronic systems to automate credit processes, speed financing communications and improve transaction efficiency, would result in marked gains in efficiency and profitability for those industries willing to “go paperless.” The 2007 Study also found that the legal infrastructure was in place and the technology is readily available.

Since completion of the 2007 Study, the use of electronic records and signatures in many types of contracting relationships has grown exponentially. However, the Foundation’s impression has been that the adoption of electronic records and signatures for equipment leasing has been significantly slower to expand than in some other areas of commerce.

This Study quantifies and refines the Foundation’s understanding of the extent to which the equipment leasing industry is now engaged in Electronic Lease Transactions, and the challenges that have been addressed in the process. The study also seeks to understand those obstacles, both actual and perceived, that are slowing the path to expanded use of Electronic Lease Transactions. Finally, it offers concrete advice on how the industry may address those challenges and accelerate adoption of Electronic Lease Transactions.

Methodology

This Study examines the acceptance and use of Electronic Lease Transactions by two different groups of potential users:

- Equipment Lessors; and
- Lenders providing financing to equipment Lessors and taking the leases as collateral.

Within these two principal categories, this Study further breaks down use and acceptance among:

- Larger and smaller entities;
- Lessors with and without captive financing arrangements;
- Lenders that do, and do not, accept electronic leasing documentation as collateral for loans; and
- Lenders that do, and do not, also engage in equipment financing themselves, either directly or through a subsidiary.

To compile the data for the Study, two methods were used: a survey composed of a series of questions with multiple choice answers (“Survey”), and a set of follow-up one-on-one interviews exploring the Survey responses with some respondents, and other industry participants, in more detail (“Interviews”).

The Survey began with questions intended to define each respondent’s role or roles in the equipment leasing marketplace, followed by questions targeting the respondent’s use of, and attitudes toward, electronic equipment leasing transactions. A copy of the Survey Questions is attached as **Appendix A, Part 1**. The Survey was distributed to over 400 representatives of members of the Equipment Leasing and Finance Association (“ELFA”). Nearly 100 responses were received, of which 46 constituted unique responses from discrete business enterprises. A summary of the responses is attached as **Appendix A, Part 2**. Reports breaking down the responses among various categories of respondents are attached as **Appendix B**.

The Interviews were conducted with representatives of industry participants, including Lessors, Lenders, and vendors of software and service solutions. All interviews were conducted on the condition that responses would be anonymous and would not be attributed to any particular person in the Study. The Interviews were structured with pre-prepared question and issue lists to help guide the discussion, but interviewers were encouraged to diverge from the script as necessary to follow up on opinions or themes that emerged during the interview. The interview results, some of which are interspersed into the Survey findings below, provide additional insight into the significance of, and potential lessons to be learned from, the Survey responses.

EXECUTIVE SUMMARY

The Survey and Interview responses are, of course, shaped by those members of the Equipment Leasing and Finance Association (ELFA) who participated. As such, the responses do not represent the experiences or practices of all equipment lessors, but do provide useful insight into widespread practices and emerging trends.

The Survey and Interviews, taken as a whole, indicate that among respondents a minority of Lessors (33%) is originating Electronic Lease Transactions, and an even smaller minority of Lenders (21%) is currently willing to accept Electronic Lease Transactions as collateral for loans. However, usage is clearly increasing, with both Lessors and Lenders interested in initiating or expanding the use of Electronic Lease Transactions in their business.

The Survey and Interviews indicate the following positive experiences of Lessors who are engaged in Electronic Lease Transactions and responded to the Survey:

- Lessors that currently conduct Electronic Lease Transactions want to expand both their use of electronic records and signatures in completing Electronic Lease Transactions (both the lease documents themselves and internal work flow), and the percentage of their over-all transaction volume that is electronic.
- Lessors are not finding enforceability of Electronic Lease Transactions to be an issue – courts are routinely admitting the electronic records into evidence and enforcing Electronic Lease Transactions (See Transfer vs. Enforceability – Myths and Misconceptions, below).
- There are some Lenders and investors willing to accept Electronic Lease Transactions as collateral and for securitization. Interviewees indicated that certain Lessors, Lenders and investors have been willing to work through the issues related to perfection and transfer of control, and are becoming comfortable with the use of electronic records and signatures for equipment leasing documentation.¹
- Some Lenders and investors are setting up eVaults to accept transfers of control, and others are willing to look at “self-custody” arrangements where the Lessor, or a related entity, serves as the document custodian for Electronic Lease Transactions under UCC Section 9-105 (See **Appendix C** — Article 9 and Electronic Chattel Paper – the Basics; also **Appendix D** – How an eVault Works). Few of the responding Lessors or Lenders are regularly “papering out” Electronic Lease Transactions to create original paper documents.²

There are, however, still a number of perceived challenges associated with moving to Electronic Lease Transactions. The Survey and Interviews reveal that many of the existing obstacles to rapidly expanded adoption of Electronic Lease Transactions by the industry fall into one of two categories:

- Practical considerations that slow, or militate against, adoption, and
- Legal considerations that arise based on a combination of counsel’s limited familiarity or comfort with the underlying law and limited case law or other guidance with respect to key issues.

Practical considerations identified by Survey respondents and Interviewees include:

- The cost of implementation of electronic signing and eVault solutions;
- The need, in some cases, to maintain both a paper and electronic channel for leasing transactions;
- The lack of interoperability among eVaults;
- The logistics of “papering out” original lease documents after electronic execution as an alternative to electronic transfers of control;

- The unwillingness of some third-party document custodians to provide custody services for Electronic Lease Transactions; and,
- The lack of perceived need, in some markets, to adopt Electronic Lease Transactions because of competitive pressure or efficiency considerations.³

Perceived legal considerations include:

- Concerns over the lack of case law on some issues (such as the interpretation of Section 9-105 of the Uniform Commercial Code – see **Appendix C**);
- Questions about the process and requirements for admitting electronic records into evidence;
- Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper;
- Concerns over the legal adequacy of the electronic signature and eVault platforms currently available, and the enforceability of the completed Electronic Lease Transactions; and
- Unfamiliarity of some legal counsel advising Lessors and Lenders with both the technology and the laws permitting the use of electronic records and signatures in leasing transactions.

Taking all of this into account, it appears that the equipment leasing industry may promote expanded adoption of Electronic Lease Transactions by promoting or facilitating certain developments:

- Enhancing the confidence of all parties in the legal sufficiency of signing platforms and eVaults, and the enforceability of the resulting Electronic Lease Transactions;
- Achieving more certainty concerning judicial willingness to enforce ownership rights acquired by a transfer of control under UCC Article 9-105;
- Establishing accepted terms for enforceability, priority and perfection opinions of counsel with respect to control of electronic chattel paper; and
- Availability of infrastructure to support control and the transfer of control between Lessors, Lenders, and investors.

Possible action items for the equipment leasing industry include:

- Establishing a model form enforceability, perfection and priority opinion of counsel with respect to control of electronic chattel paper;
- Establishing common standards for assessing the legal compliance of signing platforms and eVaults;
- Encouraging vendor implementation of eVault interoperability;
- Developing a guide to the basic legal rules and requirements for Electronic Lease Transactions and eVaults; and
- Encouraging the establishment/expansion of third-party document custodians with eVault capabilities.

STUDY AUTHORS' COMMENTARY

Insights and Recommendations

The Study authors reviewed the Survey Responses, the Interviews, and additional insights and feedback provided by the Foundation's Steering Committee for this project as well as the E-Chattel and Documents Task Force (the "ELFA Task Force"). Based on this information, and their own experience with Electronic Lease Transactions, the Study authors have suggested recommended industry action, and advice on key steps for implementing Electronic Lease Transactions, which are found in the Sections of this Study Report on "Recommendations for Industry Action" and "Key Steps for Implementing Electronic Lease Transactions." The Study authors have also prepared appendices to the Study providing legal background on (i) the treatment of Electronic Lease Transactions as electronic chattel paper and (ii) eVaults. **Appendix C** briefly reviews the provisions in Revised Article 9 of the Uniform Commercial Code ("UCC Revised Article 9") governing electronic chattel paper, and the application of those provisions to Electronic Lease Transactions. **Appendix D** examines the key legal requirements for operation of an eVault.

Transfer vs. Enforceability – Myths and Misconceptions

One of the recurring themes encountered by the Study authors has been the tendency of some commentators to conflate the legal issues related to (i) establishing control of electronic chattel paper when it is transferred from one owner to another, which is governed by Section 9-105 of UCC Revised Article 9, and (ii) general issues of enforceability of the underlying lease agreement when evidenced by electronic documentation. In particular, the term "authoritative copy" is often misused as a reference to the copy of the lease documentation authenticated for purposes of introduction into evidence. In point of fact, the term "authoritative copy" has no legal meaning outside of its use to establish control under Section 9-105. It is not relevant with respect to the general enforceability of the Electronic Lease Transaction against the lessee, or introduction into evidence of a copy of the electronic records comprising the Electronic Lease Transaction.

The treatment of equipment leases as electronic chattel paper under UCC Revised Article 9, and issues related to transfer of control, is discussed in **Appendix C** to this Study Report. The balance of this Section of the Study Report addresses some of the basic rules concerning the enforceability of an Electronic Lease Transaction, and its introduction into evidence.

Under Article 2A of the Uniform Commercial Code ("Article 2A"), many equipment leases must be in writing and signed to be enforceable. The laws of most states, and some federal laws, also require that the lease be accompanied by certain disclosures to the lessee, especially in the case of leasing to consumers. The federal Electronic Signatures in Global and National Commerce Act ("ESIGN"), the state-enacted Uniform Electronic Transactions Act ("UETA"), and various other laws and regulations lay the groundwork for using electronic signatures and records to meet the writing, signature and disclosure requirements.⁵ These laws apply to a broad array of transactions, expressly including by their terms equipment leases governed by Article 2A.

While there are important differences between the various laws (such as UETA and ESIGN) allowing electronic records and signatures to substitute for traditional paper copies and wet-ink signatures, understanding those differences is not critical to gaining a general knowledge of what the "law" (in a broad sense) requires before electronic means may replace traditional ones in a transaction. With that understanding in mind, this discussion refers to the various laws collectively as "eCommerce Laws."

The eCommerce Laws allow parties to use electronic records wherever *another* law requires a contract or record to be "in writing." Under the eCommerce Laws⁶, if a contract or other record is otherwise required by law to be "in writ-

ing,” the legal effect, validity, or enforceability of an electronic record of the record may not be denied if the electronic record is in a form that is:

- Capable of being retained; and
- Capable of being accurately reproduced for later reference by all parties or persons who are entitled to retain the contract or other record.⁷

A “record” under the eCommerce Laws is “information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.” This encompasses not only traditional writings, but also anything which is stored on magnetic or optical media (such as a computer hard drive or CD-ROM). Essentially, all that is required is that the information be stored and may be retrieved for review. There is no requirement as to where storage physically occurs. In the context of an Electronic Lease Transaction, a “record” may include disclosures required by law, as well as the contract itself.

An “electronic record” under the eCommerce Laws is “a record created, generated, sent, communicated, received, or stored by electronic means.” Essentially, the term is intended to cover any type of record which is generated or stored electronically; as such, it would cover records created on a computer and stored on any type of media.

The eCommerce Laws apply by opt-in only. This means that a set of actions constituting a transaction is covered by the eCommerce Laws only if the parties have agreed to conduct the transaction through electronic means.⁸ For business-to-business transactions, consent may be by virtually any means, including by being inferred from the circumstances. Where consumers are involved, however, special consent rules may apply (the “Consumer Consent Process”). The elements of the Consumer Consent Process are:

- The consumer must affirmatively consent, or confirm prior consent, electronically;
- The party obtaining the consumer’s consent must provide specific disclosures (“Pre-consent Disclosures”) prior to consent in clear and conspicuous statement; and
- The consent must “reasonably demonstrate” the consumer’s ability to receive electronic records in the formats that will be used for delivering the required information.⁹

This special consent procedure applies whenever a statute, regulation or other rule of law calls for information related to a transaction to be provided to a consumer in writing and must be followed *before* the required “written” material is provided to the consumer electronically. The Pre-consent Disclosures called for by the Consumer Consent Process include notifying the consumer of:

- The consumer’s right to have the required information provided on paper or in non-electronic form;
- The scope of the transaction covered by consent;
- The consumer’s right to withdraw consent during the course of the transaction, and the consequences of withdrawing consent to use electronic records, including:
 - Fees that will be charged for using paper documents in lieu of electronic records, if any, and
 - Whether or not withdrawing consent will result in termination of the transaction;
- The procedure for withdrawing consent;
- The procedure for updating participant contact information;
- The procedure and fees (if any) for obtaining paper copies of electronic records (either at the time of closing the transaction or thereafter, for the life of the transaction); and
- The hardware and software requirements for accessing, printing and retaining electronic records used in the transaction.¹⁰

Equipment leases would likely be subject to the Consumer Consent Process to the extent that (i) the lessee is a consumer, and (ii) applicable law requires, as it does in most states, that the lessee be provided information related to a transaction in writing.¹¹

Once the parties to the lease consent to use electronic records and signatures, the Lessor is then free to deliver records and obtain signatures electronically, within the scope of the consent received.

The eCommerce Laws do not contain specific rules concerning how electronic records must be “presented,” i.e., shown or displayed to the consumer or other party (although there are rules on sending and receipt—see the discussion below). However, any rules about presentation that apply to the transaction under other law (other than a writing requirement) still apply. For example, if the laws of a state required that a disclosure be provided to a purchaser *before* the purchaser executes a lease, the eCommerce Laws do not relieve the seller of that obligation—they merely allow the seller to meet that obligation by electronic means. In addition, courts have started to establish rules concerning when and how an electronic agreement will be considered effectively presented.

The eCommerce Laws define an electronic signature as an “electronic sound, symbol or process, attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record.”¹² The eCommerce Laws do not specify exactly what form an electronic signature should take, but rather allow parties to determine for themselves the technology that is most effective for the transaction at hand. The choices could range from a simple click-through process (e.g., an “I Agree” button), to a PIN number, to a name scribbled with a finger or stylus on a pad or tablet, to a single string of numeric code that is encrypted, to electronic scanners that read thumbprints or eye patterns, or any combination of those things.

A valid “electronic signature” also requires the signer to intend to apply their signature, but the eCommerce Laws do not address exactly how to manifest such intent nor does it address issues of authority and/or attribution with any kind of specificity. However, certain eCommerce Laws do contain the general rule that an electronic record or signature is attributable to a person if it was the act of the person, and the fact that it was the act of the person may be proven in any manner.¹³

The eCommerce Laws provide that if a statute, regulation, or other rule of law requires that a contract or other record be retained, that requirement is met by retaining an electronic record if the record retained:

- Accurately reflects the information set forth in the record; and
- Remains accessible to all persons who are entitled to access by statute, regulation or rule of law, for the period required by such statute, regulation, or rule of law, in a form that is capable of being accurately reproduced for later reference, whether by transmission, printing or otherwise.¹⁴

This standard does not require “originals” to be maintained, and, moreover, it is not possible to maintain the “original” of an electronic document. Under the eCommerce Laws the critical component to retention of the electronic record is *retention of the information contained in the record*. This is because there is no such thing as an “original” in an electronic environment.¹⁵ In the electronic context, what is meaningful with regard to an electronic record—as is the case with all records preserved for eventual possible entry into evidence—is that the *information* in the record that was initially presented in its final form as an electronic record or otherwise (which would include paper) remains accurate and accessible.¹⁶

Although the “original” record in a traditional sense cannot be maintained, the eCommerce Laws provide that an electronic record must be capable of being printed and stored in order to be considered capable of retention by the

recipient (and thus compliant with the eCommerce Laws). Practically, this means that if the presenter of an electronic record (such as the lessor in a lease) or the sender's information processing system inhibits the ability of the recipient (such as the purchaser) to print or store the electronic record, it cannot be "retained" by the purchaser and thus fails to excuse the seller from complying with any other law requiring the document to be "in writing" and/or in a form the purchaser can retain. Moreover, even if there is no requirement to deliver or otherwise provide information in writing, if a presenter inhibits the ability of a recipient to store or print an electronic record, that electronic record is not enforceable against the recipient.¹⁷ This means that a key consideration when obtaining electronically executed leases is how the lessee will be provided a retention copy.

Once the transaction is complete, introduction of the Electronic Lease Transaction documents into evidence will primarily be governed by the Federal Rules of Evidence ("FRE") and, for state courts, the Uniform Rules of Evidence ("Uniform Rules"). The FRE contain two rules that, taken together, regularly impact the introduction of electronic business records into evidence: the "Business Record" Rule,¹⁸ and the "Best Evidence" Rule.¹⁹ The Uniform Rules of Evidence, which have been adopted by courts in many states, follow the Federal Rules of Evidence with respect to the admissibility of business records.²⁰

The FRE generally exclude the admission of "hearsay" evidence in court unless the evidence falls within certain exceptions. Hearsay is defined as an oral or written statement, other than one made by the declarant while testifying, offered in evidence to prove the truth of the matter asserted.²¹ Business records that are submitted in proceedings to prove the truth of documented matters (e.g. "this is what the Security Instrument said when the borrower signed it" or "the Security Instrument was filed of record in Broward County, Florida, on date X at time Y") constitute hearsay.²² However, the FRE permit the introduction of business records of regularly conducted business activity. A business record will be admissible:

- (1) If it is a record, *in any form*, of acts, events, conditions, opinions, or diagnoses, made at or near the time by, or *from information transmitted by*, a person with knowledge, and if (1) the record is kept in the course of a regularly conducted business activity; and (2) it was a regular practice of that business activity to make the memorandum, report, record or data compilation, all as shown by the testimony of the custodian or other qualified witness, or by certification that complies with the Rules of Evidence;
- (2) Unless the source of information or the method or circumstances of preparation indicate the record is not trustworthy.

The term "business" includes businesses, institutions, associations, professions, occupations, and callings of every kind, whether or not conducted for profit.²³

Documents prepared by third parties and incorporated into business records are admissible if the incorporating business relied upon them, and there are other indications of trustworthiness.²⁴ To the extent that a person relies upon third party documents in the ordinary course of its business and creates and maintains them in a manner that ensures that they are both accurate and accessible, converted documents should therefore qualify as a business record admissible under the business records exception to the hearsay rule, absent any other indication that the record is not trustworthy.²⁵

Even though a record is admissible under the business records exception to the hearsay rule, it must also satisfy the Best Evidence Rule. The Best Evidence Rule, sometimes called the "Original Writing Rule," provides that in order to "prove the content of a writing, recording, or photograph, the original writing, recording, or photograph is re-

quired, except as otherwise provided in these rules or by Act of Congress.”²⁶ An “original” is defined as:

[T]he writing or recording itself or any counterpart intended to have the same effect by a person executing or issuing it. An “original” of a photograph includes the negative or any print therefrom. *If data are stored in a computer or similar device, any printout or other output readable by sight, shown to reflect the data accurately, is an “original.”*²⁷

A printout of an electronic record stored in a computer or similar device, including a scanned document, should therefore be regarded as an “original” of the electronic record, so long as the electronic record storage system is demonstrated to accurately store and protect the source record.²⁸

SURVEY FINDINGS

Lessors

There are two basic types of Lessors who responded to the Survey:

- Lessors who are not also Lenders (“Lessors-Only”) (20), and
- Lessors who are also Lenders (“Lenders/Lessors”) (22).

Combined, there are 42 Lessors total who responded to the Survey. Therefore, 52% of the responding Lessors are also Lenders.

Of the 42 total Lessors, there are also three basic sub-categories represented:

- Bank-Owned (16),
- Captives of equipment manufacturers/sellers (7), and
- Independents (18).

Of the 42 responding Lessors, 43% originate over \$250 million per year in equipment leases.

Acceptance of Electronic Lease Transactions generally

First, the penetration level for Electronic Lease Transactions is about the same for both Lessors-Only and Lenders/Lessors.

- For Lessors Only vs. Lenders/Lessors, the percentage that uses electronic records and signatures to document at least some of the equipment leasing transactions is about equal (35% vs. 32% respectively). The over-all percentage of Lessors engaged in Electronic Lease Transactions is 33%.
- For Lessors Only vs. Lenders/Lessors, the percentage that does not use electronic records and signatures to document at least some of their equipment leasing transactions is about equal (65% vs. 68%). The total percentage of Lessors not engaged in Electronic Lease Transactions at all is 67%.

However, a significant difference exists with respect to the Electronic Leasing Transaction adoption rate between the three sub-categories of Lessors.

- For Captives:
71% of all Captive Lessors use electronic records and signatures to document at least some of their equipment leasing transactions. Small differences exist between Lessors-Only (75%) and Lenders/Lessors (67%). The interviews support this finding in that they confirmed that captives are often able to implement the use of electronic records and signatures without being hampered by third-party custodian and financing issues.
- For Independents:
33% of all Independent Lessors (with both Lessors-Only and Lender/Lessors also at 33%) use electronic records and signatures to document at least some Equipment Leasing Transactions. The interviews likewise support this finding in that Lessors who use third-party financing do successfully use electronic lease documentation; however, it has often required determination and perseverance to overcome the concerns of the financing sources.
- For Bank Owned:
Only 19% of all Lessors use electronic records and signatures to document at least some of the equipment leasing transactions. For Lessors-Only, however, 0% use electronic records and signatures to document at least some of

the equipment leasing transactions. For Lenders/Lessors, 25% use electronic records and signatures to document at least some of the equipment leasing transactions.

Additional Data concerning only those Lessors that do engage in Electronic Lease Transactions

The following additional data refers only those entities that do use electronic records and signatures in equipment leasing transactions. All percentages in this Section are based on 100% of the relevant respondents engaging in Electronic Lease Transactions,

Lessors-Only and Lenders/Lessors primarily use electronic records to originate commercial leases, and not leases of equipment to consumers (86% for Lessors-Only vs. 83% for Lenders/Lessors and 85% cumulatively). The types of documents that are presented to a commercial lessee as an electronic record, the two categories of Lessors do deviate somewhat:

- 100% of Lessors-Only present the following documents as electronic records:
 - Lease Agreement;
 - Schedules of Equipment under Lease Agreement;
 - Amendments to Lease Agreement (other than Schedules of Equipment.
 - For Lessors-Only, an additional two documents (Applications and Personal Guaranties of the Lease Payments) are presented electronically by only 20% of the respondents.
- For Lenders/Lessors, no particular type of document is presented electronically by more than 67% of the respondents.

The total number of commercial leases entered by the respondent Lessors ranges from 300 per year up to 50,000, with most doing 5,000 or less per year.

Much like the differences regarding which documents are presented, there are differences between Lessors-Only and Lenders/Lessors regarding the particular type(s) of electronic signatures being used:

- For Lessors-Only, none use a check box or radio button, while 50% use a typed name and/or graphic image of an electronically created signature; 67% use a graphic image of a handwritten signature.
- For Lenders/Lessors, only one method was used by 33% of the respondents (typed name), three other methods (check or radio button, graphic image of an electronically created signature, or graphic image of a handwritten signature) were each used by 17% of the respondents.

For all Lessors, PDF was the dominant electronic record format used (83% of Lessors-Only vs. 100% of Lenders/Lessors) for presentation and execution of electronic lease documents. It should be noted that this refers to dynamic PDF files that evidence electronically signed records and preserve information concerning the signatures, and not the use of PDF as a format for electronically scanned images of paper documents.²⁹

Some Lessors have put special provisions in their lease agreements to allow for the use of electronic records and signatures (50% of Lessors-Only vs. 33% of Lenders/Lessors).

One Lessor-Only noted in its response to the Survey that it has a handful of lessees that insist on Electronic Lease Transactions.

Lessors and vendors who were interviewed indicated that they are not finding enforceability of Electronic Lease Transactions to be an issue – courts are routinely admitting the electronic records into evidence and enforcing Elec-

tronic Lease Transactions. In particular, Lessors have noted that challenges to the use of electronic records in Electronic Lease Transactions, and attribution of signatures to lessees, have been raised during litigation. The experience of Lessors and vendors is that courts regularly reject such challenges.

None of the responding Lessors has historically put a special provision in its lease agreements to allow for the electronic lease to be converted into a paper original, though one Lessor-Only noted in its response to the Survey that it is just beginning to do so.³⁰

The large majority of both Lessors-Only and Lenders/Lessors use a third-party vendor to present and sign electronic records (83% vs. 67% respectively). However, for storing electronic records, there are greater differences between the two. For Lessors-Only, 33% use proprietary and 50% use both proprietary and a third-party vendor, while only 17% use a third-party vendor. For Lenders/Lessors, 83% use a third-party vendor with only 17% using a proprietary system.

For transferring control of signed electronic leases to third parties, however, the numbers are the inverse of storing electronic records. Here, 67% of Lessors-Only use a third-party vendor, with only 17% using a proprietary system or both options. For Lenders/Lessors, 67% use a proprietary system, and only 33% use a third-party vendor, with no respondent using both.

The interviews offered some significant additional insights in the area of storage and transfer of control. Several interviewees noted that a number of significant third-party document custodians still do not have the capacity to accept electronic collateral. One interviewee noted that inter-vendor eVault transfer operability (that is, the ability of one eVault vendor's software solution to accept a transfer of control from another eVault vendor's software solution) is under development by vendors, but is not currently available. Another interviewee noted that some Lenders and investors are permitting the lease originators to act as the lender/investor's eVault custodian.

Some Lessors have investors, Lenders or securitization underwriters that require the company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging collateral (33% of Lessors-Only vs. 50% of Lenders/Lessors).

A majority of Lessors have encountered investors, Lenders or securitization underwriters that refuse to accept electronically signed equipment lease agreements for sale, assignment, or pledging collateral (67% of Lessors-Only vs. 50% of Lenders/Lessors).

Of the Lessors currently engage in Electronic Lease Transactions, 100% of respondents want to expand their use of electronic records and signatures in leasing transactions.

Challenges and Obstacles to Electronic Lease Transactions

For both Lessors-Only and Lenders/Lessors, the largest obstacle identified by respondents was "Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper," with 71% and 65% respectively (68% collectively).

For both Lessors-Only and Lenders/Lessors, no other obstacle was mentioned by more than 50% of the respondents, although for both types of Lessors, the next most-mentioned obstacle was "The need for interoperability of systems operated by Lessors, Lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next" with 47% and 35% respectively (41% collectively).

For both Lessors-Only and Lenders/Lessors, only a small number of respondents indicated that their company does not perceive competitive or efficiency advantages from using electronic records and signatures, at 6% and 15% respectively (11% collectively). One interviewee (a lender who is also a lessor) stated that in its experience, there was no expectation of electronic execution, and therefore, no particular interest in moving to Electronic Lease Transactions, i.e., no competitive advantage (or disadvantage). The interviewee stated that because the company is not currently losing business due to not having Electronic Lease Transactions available, the company has no current plans to make them available.

The most-mentioned obstacles did vary somewhat depending on the Lessor's sub-category.

- For Captives:
Only 33% of respondents indicated that the “Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper” was an obstacle. Instead, for Captives, “The need for interoperability of systems operated by Lessors, Lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next” was the largest obstacle, at 67%. The second largest obstacle was “Your company does not have the technical infrastructure to store or manage electronically signed leases” at 50% of respondents, while for Bank Owned that figure was halved, at 25% of respondents, and for Independents, it was 0%.
- For Bank Owned and Independent Lessors:
“Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper” was the largest obstacle, at 69% and 86% respectively. However, for Independents, the second highest obstacle was “Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans” at 71% of respondents. For Bank Owned, it was only 12%, and for Captives, it was 0%. For Bank Owned, the second highest obstacle was “Your company lacks confidence in the enforceability of electronically signed leases,” at 56% of respondents. For Independents, it was listed by only 29% of respondents, while for Captives, it was 0%.

The interviews offered additional insights on challenges to adoption:

- One interviewee noted that it had close relationships with its mid-market and large ticket clients with lots of face-to-face meetings, so getting a signature on paper-based leases was not an issue.
- A lender/lessor stated that they were reticent to move towards electronic records because an original is the best evidence in litigation and a good deterrence against fraud.
- A lessor stated that it believes that education is its largest obstacle, and is not otherwise hostile to the idea of adopting electronic records and signatures.
- One interviewee noted that the economic viability of moving to electronic leasing is impaired, in some cases, because of the perceived or practical need to preserve a “two channel” approach, where both an electronic signing option is available, and paper lease documentation is also still an option.
- A lessor who is looking to implement electronic records notes that some of the challenges include: (i) whether electronic documents would suffice during an audit; (ii) whether electronic documents would be acceptable to syndicated bank Lenders; (iii) company executives who are uncomfortable with the idea.
- Objections from legal counsel who are uncomfortable or unfamiliar with the legal foundation for Electronic Lease Transactions were mentioned as obstacles in several of the interviews.
- One interviewee noted that providing viable retention options to lessees for copies of lease documents continues to be a challenge in “on-site” leasing, with some Lessors who use this model going so far as to install Bluetooth printers in their company vehicles to assure their ability to provide print copies on-site, if the circumstances prevent electronic delivery or the lessee is unwilling to get the copy electronically.

- One interviewee noted that the use of mobile devices to present the lease documents for execution is an area of growing interest.

Mitigating factors that could accelerate adoption

The most-often cited potential mitigant for both Lessors-Only and Lenders/Lessors is a “Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code,” with 72% and 74% respectively (and 73% cumulatively). 74% of Lenders/Lessors, however, also listed three other possible mitigants:

- Published court decisions enforcing electronically signed leases,
- Independent technology industry standards that would allow competing vendor platforms to be certified for compliance with legal requirements, and
- Independent industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all.

Those same three categories were listed by 50%, 50%, and 56% of Lessors-Only, respectively.

For Lessors-Only and Lenders/Lessors, model language for legal opinions relating to perfection and priority of security interest in electronic chattel paper was identified by a little more than 60% of respondents, with 61% and 63% respectively (and 62% cumulatively).

Cumulatively, every mitigant listed in the Survey was identified as desirable by more than 60% of the respondent, except for “simpler rules for transferring control,” which only garnered a 38% positive response.

While there was some variation between Captives, Bank Owned, and Independent regarding how each possible mitigant scored, the percentages mostly followed the above. For example, for Captives, “Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code” was not the most-often selected mitigant (at 56%). The mitigant most often selected by Captives was “Published court decisions enforcing electronically signed leases,” at 69%.

Additional insights on potential mitigants from the Interviews:

- One interviewee noted that Electronic Lease Transactions may be a bigger benefit in custom leases than templates because it would allow the client to receive his lease more quickly and to ensure that he reads the documents.
- One interviewee noted that it would be helpful to have a basic step-by-step guide on what a company would need to do if they wanted to use electronic records and signatures.

Lenders

Twenty-five Lenders who accept equipment leases as collateral for loans responded to the Survey. 56% were either banks or owned by a bank (“Bank Owned”). 52% originate over \$250 million per year in equipment leases.

Acceptance of Electronic Lease Transactions generally

Only 21% of the Lenders accept electronically signed lease documents as collateral for loans. Of that number, 80% are Bank Owned, and 20% are Independent. None are Captives. Of those Lenders accepting electronically signed lease documents as collateral, 60% originate over \$250 million per year in loans secured by equipment leases; the remaining 40% originate \$100 million or less per year.

This means that 79% of the responding Lenders do not currently accept electronically signed lease documents as collateral for loans. Of that number, 53% are Bank Owned, 26% are Independent, and 16% are Captive. Of that number, 53% originate over \$250 million per year in loans secured by equipment leases, and 26% originate less than \$50 million per year. Of that number, at least two Lenders are looking into the possibility of accepting electronically signed lease documents as collateral, while another plans to begin looking into the possibility in a few months.

Additional Data concerning only those Lenders that do accept Electronic Lease Transactions as collateral

Of the Lenders that do accept electronically signed lease documents as collateral for loans:

- 100% perfect their security interest by filing; 75% do so by transfer of control; and 50% do so by conversion to paper and possession (the results indicate that some Lenders use both transfers of control and conversion to paper).
- 100% of Lender respondents use a third party to both (i) store signed electronic records that it receives from Lessors as collateral and (ii) transfer control of electronically signed leases evidencing collateral to or from third parties.
- 67% want to expand the acceptance of electronically executed lease documents as collateral for loans.

Challenges and Obstacles to Electronic Lease Transactions

For all Lenders, including both Lenders who *do* accept Electronic Lease Transactions as collateral (100%) and those that *don't* (59%), the main obstacle to either initiating or expanding acceptance is "Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper." Cumulatively, this obstacle was identified by 65% of all Lenders, including 100% of the Lenders currently accepting Electronic Lease Transactions as collateral, and 59% of those that do not.

No other obstacle was identified by more than 35% of all Lenders. Some specific notes regarding the Lender sub-categories:

- 60% of the Bank Owned Lenders that do not accept electronically signed lease documents as collateral identified the following statement as an obstacle to adoption: "Your company lacks confidence in the enforceability of electronically signed leases." No other sub-category of Lender that did not accept electronically signed leases as collateral identified this as an obstacle.
- Captive Lenders that do not accept electronically signed leases as collateral offered two comments in connection with their responses to the Survey: (i) Securitization of these types of assets can be difficult, and (ii) the biggest obstacle is gaining more market penetration for Electronic Lease Transactions.
- One of the Independent Lenders that does not accept electronically signed leases as collateral note that its funding sources do not accept Electronic Lease Transactions as collateral at this time.

Mitigating factors that could accelerate adoption

Each mitigant listed in the Survey, except one, was identified by at least 63% of all Lenders as potentially enabling or enhancing acceptance of Electronic Lease Transactions as collateral, with four of the mitigants being selected by 74% of the respondents. Those four are:

- Published court decisions enforcing electronically signed leases;
- Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code;
- Industry standards that would allow vendor platforms to be certified for compliance with legal requirements;
- Industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all vendors.

63% of Lenders also selected “Model language for legal opinions relating to perfection and priority of security interests in electronic chattel paper.”

“Simpler rules for transferring control” was selected by only 37% of Lenders. As noted above, this was also the least-selected mitigant by Lessors.

INSIGHTS FROM VENDORS OF ELECTRONIC SIGNING PLATFORMS AND EVAULT SOFTWARE/SERVICES

As the Survey indicates, many Lessors and Lessors are utilizing third-party vendors for presenting electronic records, conducting Electronic Lease Transactions, and storing the records after execution in eVaults. Vendors were not included among the Survey participants, but several were interviewed as part of the follow-on process. The following were insights provided by vendors during the Interviews:

- Vendors noted that most Lessors engaged in Electronic Lease Transactions are able to sell those transactions to third-party investors or use them as collateral with Lenders. However, they also noted that the acceptance process has been slow, and often occurs on a case-by-case basis for each Lessor. The vendor perspective was that most investors still prefer dealing with paper documents, rather than electronic records.
- Vendor eVault solutions are not currently interoperable, but there is interest among vendors in doing so. At least one vendor predicted that interoperability among multiple eVault solutions would be available in the near future.
- Vendors find that Lender and investor concerns about underlying legal issues, or concerns about the legal sufficiency of electronic signature and eVault platforms, often serve as a “speed bump” in adoption of Electronic Lease Transactions by Lessors. Concerns range from the lack of case law on some issues (such as the interpretation of Section 9-105 of the Uniform Commercial Code – see **Appendix C**) to concerns over admissibility in evidence, to a basic unfamiliarity with the laws permitting the use of electronic records and signatures in leasing transactions.
- Regarding storage and management of the Electronic Lease Transactions after execution, the consensus among interviewed vendors is that:
 - Equipment Lessors are often acting as document custodians for the Electronic Lease Transactions they originate, because Lenders and investors have gotten comfortable with self-custody by the Lessors. Some Lessors are holding the documents for the Electronic Lease Transactions in their own eVault, acting as custodian under contract for Lenders and investors.
 - Many Lessors and Lenders believe that the logistics of the “papering out” process – converting Electronic Lease Transactions to paper original documents after execution -- are too complex to deal with and they do not see conversion to paper documents as a viable long-term solution for transferring the documentation from one owner to another.
 - Lessors who begin e-signature/eVault implementation projects are not abandoning them, but the projects are frequently taking a long time to bring into production – often more than a year, and in some cases significantly longer.
 - Large Lessors frequently have internal processes that hinder conversion to Electronic Lease Transactions because the Lessors have to re-design their internal systems to integrate the use of electronic documents. Once begin, the integration process frequently takes several years to complete.
 - There has been surprising resistance among companies that currently serve as third-party document custodians for the industry to offer eVault custody services for Electronic Lease Transactions. This is despite the fact that the customers of third-party document custodians have been requesting the service. Third-party eVault services may be particularly attractive to small to mid-market Lessors and Lenders, because it may be cost-prohibitive for these companies to establish and maintain an eVault of their own.

RECOMMENDATIONS FOR INDUSTRY ACTION

The result of this Study suggest that the adoption of Electronic Lease Transactions by the equipment leasing industry is expanding gradually and at a deliberate pace, and will continue to do so. Certain of the factors currently slowing adoption are probably beyond the influence of the industry, including the perceived lack of competitive pressure. However, the Study findings do suggest that there are actions that could be taken by the industry to enhance the acceptance of Electronic Lease Transactions and speed the rate of adoption by industry participants otherwise interested in moving to electronic documentation. Among the possible initiatives are the following:

- Make available to the industry a model form enforceability, perfection and priority opinion of counsel with respect to electronic chattel paper and specific to the equipment leasing industry;
- Create minimum industry standards for electronic signing platforms and eVaults;
- Promote establishment of a certification process addressing the legal sufficiency of electronic signing platforms and eVaults;
- Publish a guide on the legal issues related to enforceability, transferability and perfections of security interest in electronic chattel paper;
- Encourage eVault vendors to promote technical interoperability; and
- Encourage the establishment/expansion of third-party document custodians with eVault capabilities.

KEY STEPS FOR IMPLEMENTING ELECTRONIC LEASE TRANSACTIONS

Based on the 2007 Study and the results of this Study, the following are key steps Lessors should consider for preparing and implementing an Electronic Lease Transactions program:

- Focus on electronic delivery, signing and management solutions that are able to provide integrated delivery, signing and eVault functions. Key considerations include:
 - Whether to install all or part of the services behind the Lessor's firewall, or to use a "software as a service" solution managed by third parties; and
 - To what extent is it desirable and feasible to integrate document generation and post-execution record management into other of the Lessor's system?
- Require provider(s) of the electronic solution to provide a legal opinion or similar documentation concerning the solution's compliance with the federal ESIGN Act, the Uniform Electronic Transactions Act, and Article 9 of the Uniform Commercial Code ("eCommerce Laws").
- At the design and selection stage:
 - Consider including the lessor's regular lenders and/or investors in the planning and dialog concerning the use and acceptance of Electronic Lease Transactions;
 - Engage legal counsel and compliance professionals to advise throughout the selection, design, and implementation process.
- Review and revise the electronic leasing transaction documentation to reflect electronic delivery, execution, and management of the lease documents.
- When using a third-party for long-term storage and management of the records, establish contractual terms to specifically address record management responsibilities, access controls, service levels, and record retention. Be sure to address both the lease documentation itself, and accompanying audit logs and audit trails related to the transaction, as records to be managed and maintained.
- Obtain a legal opinion addressing the Lessor's specific implementation of the solution and its compliance the eCommerce Laws.

Additional key steps for Lenders to consider include:

- Review available opinions of counsel concerning compliance of the solution with the eCommerce Laws. These opinions could come from counsel for the Lessor, the eCommerce platform company, or other transaction participants.
- Review the revised lease documentation to confirm that it properly reflects electronic delivery, execution, and management of the lease documents.
- Work with the Lessor to address document custody issues, including the availability of a third-party document custodian and the possibility of self-custody arrangements under contract, taking advantage of the Lessor's eVault.
- When using a third-party for long-term storage and management of the records, address all the same considerations as identified for Lessors, above.
- Evaluate or obtain a legal opinion addressing the Lender's control and perfection with respect to the Electronic Lease Transactions under Revised Article 9 of the Uniform Commercial Code.

APPENDIX A – PART 1 – SURVEY QUESTIONS

1. Is your company:

- Independent
- Bank Owned
- Captive
- Broker

Comments: _____

2. Previous year's origination volume:

- Less than \$50 million
- \$50 million to \$100 million
- \$100 million to \$250 million
- Over \$250 million

3A. Are you a lender to Lessors or lessor assignees?

- Yes
- No

If you answered "No" to Question 3A, skip to Question 12

3B. Does your company accept electronically signed lease documents as collateral for loans?

- Yes
- No

Comments: _____

If you answered "No" to Question 3B, skip to Question 12

4. How is your company's security interest in the collateral perfected? (Select all that apply)

- Filing
- Transfer of control
- Conversion to paper and possession

Comments: _____

If you did not check "Transfer of Control" as part of your answer to Question 4, skip to Question 9

5. To store signed electronic records your company receives from Lessors as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

- Proprietary
- Third-party vendor
- Both

6. To *transfer control* of electronically signed leases evidencing collateral to or from third parties, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

- Proprietary
- Third-party vendor
- Both

7. Who is your company's third-party vendor for *storing* electronic records and signatures, if applicable?

8. Who is your company's third-party vendor for *transferring control* of electronic leases, if applicable?

9. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

- Yes
- No

Comments: _____

10. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed lease documents for sale, assignment, or pledging as collateral?

- Yes
- No

Comments: _____

11. Does your company want to initiate or expand, as applicable, the acceptance of electronically executed lease documents as collateral for loans?

- Yes
- No

Comments: _____

12A. Does your company act as the lessor, or the assignee of the lessor, on equipment leases?

- Yes
- No

If you answered "No" to Question 12A, skip to Question 35

12B. Does your company use electronic records and signatures to document at least some of the equipment leasing transactions, *excluding* the practice of simply electronically imaging documents that have been presented and signed on paper?

- Yes
- No

If you answered “No” to Question 12B, skip to Question 35

13. Does your company use electronic records and signatures to originate consumer leases, commercial leases, or both?

- Consumer Only
- Commercial Only
- Both Consumer and Commercial

If you answered “Commercial Only” to Question 13, skip to Question 18

14. Which of the following documents are presented to a consumer lessee as electronic records (Choose all that apply):

- Application
- Lease Agreement
- Schedules of Equipment under Lease Agreement
- Amendments to Lease Agreement
- Other lease-transaction related documents

(Please list) _____

15. Approximately how many of your consumer leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

A. The Application

- None
- Less than half
- Half
- More than half
- Nearly All or All

B. The Lease Agreement

- None
- Less than half
- Half
- More than half
- Nearly All or All

C. Schedules of Equipment under Lease Agreement

- None
- Less than half
- Half
- More than half
- Nearly All or All

D. Amendments to Lease Agreement (other than Schedules of Equipment)

- None
- Less than half
- Half

- More than half
- Nearly All or All

16. Approximately how many consumer equipment leases does your company enter into in a year?

17. What is the approximate average amount of the aggregate payments to be made by a consumer lessee under a lease entered into with your company?

If you answered “Consumer Only” to Question 13, skip to Question 22

18. Which of the following documents are presented to a commercial lessee as electronic records (Choose all that apply):

- Application
- Lease Agreement
- Schedules of Equipment under Lease Agreement
- Amendments to Lease Agreement (other than Schedules of Equipment)
- Personal Guaranties of the Lease Payments

19. Approximately how many of your commercial leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

A. The Application

- None
- Less than half
- Half
- More than half
- Nearly All or All

B. The Lease Agreement

- None
- Less than half
- Half
- More than half
- Nearly All or All

C. Schedules of Equipment under Lease Agreement

- None
- Less than half
- Half
- More than half
- All or nearly all

D. Amendments to Lease Agreement (other than Schedules)

- None
- Less than half
- Half
- More than half
- All or nearly all

E. Personal Guaranties of the Lease Payments

- None
- Less than half
- Half
- More than half
- All or nearly all

20. Approximately how many commercial equipment leases does your company enter into in a year?

21. What is the approximate average amount of the aggregate payments to be made by a commercial lessee under a lease entered into with your company?

22. What type of electronic signature(s) do you use (Pick all that apply):

- Checkbox or radio button
- Typed name
- Graphic image of handwritten signature
- Graphic image of electronically created signature
- Other (list) _____

23. What electronic record format do you use for lease documents (Pick all that apply):

- PDF
- PNG
- XHTML
- Other (list) _____

24. Have you put special provisions in your lease agreements to allow the use of electronic records and signatures?

- Yes
- No

Comments: _____

25. Have you put special provisions in your lease agreements to allow the electronic lease to be converted into a paper original?

- Yes
- No

Comments: _____

26. To *present and sign* electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

- Proprietary
- Third-party vendor
- Both

27. To *store* signed electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

- Proprietary
- Third-party vendor
- Both

28. To *transfer control of* signed electronic leases to third parties either purchasing the leases or taking them as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

- Proprietary
- Third-party vendor
- Both

29. Who is your company's third-party vendor for *presenting and signing* electronic records and signatures, if applicable?

30. Who is your company's third-party vendor for *storing* electronic records and signatures, if applicable?

31. Who is your company's third-party vendor for *transferring control of* electronic leases, if applicable?

32. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

- Yes
- No

33. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed lease documents for sale, assignment, or pledging as collateral?

- Yes
- No

34. Does your company want to initiate or expand, as applicable, the use of electronic records and signatures in its leasing transactions?

- Yes
- No

35. Which of the following do you view as obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic records and signatures (Choose all that apply):

- Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper
- Lack of company resources (money, personnel) to initiate or expand use of electronic records and signatures
- Your company lacks confidence in the enforceability of electronically signed leases
- Your company does not perceive competitive or efficiency advantages from using electronic records and signatures
- Your company does not have the technical infrastructure to store or manage electronically signed leases
- Customers are unwilling to review and/or sign lease documents electronically
- Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans
- Investors are unwilling to purchase leases evidenced by electronic records and signatures
- The complexity of maintaining "control" of electronically signed leases under Section 9-105 of the Uniform Commercial Code
- The need for interoperability of systems operated by Lessors, Lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next
- Other (please specify)

36. Which of the following do you believe would help overcome the obstacles to initiating or expanding your company's use or acceptance lease documents using electronic records and signatures (Choose all that apply):

- Model language for legal opinions relating to perfection and priority of security interests in electronic chattel paper
- Published court decisions enforcing electronically signed leases
- Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Commercial Code
- Industry standards that would allow vendor platforms to be certified for compliance with legal requirements
- Industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all vendors.
- Simpler rules for transferring control
- Other (please specify)

37. Please list the types of property your company leases.

38. Please list your business title and area of responsibility within your company.

39. If it is acceptable for us to contact you for follow-up or additional information, please list your name and contact information below (this information will not be listed in the final report).

APPENDIX A – PART 2 – SURVEY QUESTIONS WITH RESPONSES

(Note: Answers to Questions 37 and 38 Omitted to Avoid Disclosure of Identity of Respondents)

Equipment Leasing and Finance Foundation Questionnaire on the Use of Electronic Records and Signatures: Overall Responses

1. Is your company:

		Response Total	Response Percent
Independent		19	41%
Bank Owned		18	39%
Captive		8	17%
Broker		0	0%
Comments:	27. We are a division of a bank		
Total Respondents		46	

2. Previous year’s origination volume:

		Response Total	Response Percent
Less than \$50 million		12	26%
\$50 million to \$100 million		7	15%
\$100 million to \$250 million		6	13%
Over \$250 million		21	46%
Total Respondents		46	

3A. Are you a lender or Lessors or lessor assignees?

		Response Total	Response Percent
Yes		25	56%
No		20	44%
Total Respondents		45	

If you answered “No” to Question 3A, skip to Question 12

3B. Does your company accept electronically signed lease documents as collateral for loans?

		Response Total	Response Percent
Yes		5	21%
No		19	79%
Comments:	1. increasing acceptance of fax copies 4. Not yet, but it is an option for the near future 7. None of our originators use electronically signed documents 9. We accept scanned originals signatures to follow with originals. 11. Very sparingly 14. At this time, our company accepts electronically signed 16. LOOKING INTO ELECTRONIC DOCUMENTS 24. We plan to (in a few months)		
Total Respondents		24	

If you answered “No” to Question 3B, skip to Question 12

4. How is your company’s security interest in the collateral perfected? (Select all that apply)

		Response Total	Response Percent
Filing		4	100%
Transfer of control		3	75%
Conversion to paper and possession		2	50%
Comments:			
Total Respondents		4	

If you did not check “Transfer of Control” as part of your answer to Question 4, skip to Question 9

5. To *store* signed electronic records your company receives from Lessors as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		2	100%
Both		0	0%
Total Respondents		2	

6. To *transfer control of* electronically signed leases evidencing collateral to or from third parties, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		2	100%
Both		0	0%
Total Respondents		2	


7. Who is your company’s third-party vendor for *storing* electronic leases, if any?

1. EOriginal			
2. DocuSign			
Total Respondents			2


8. Who is your company’s third-party vendor for *transferring control of* electronic leases, if any?

1. EOriginal			
2. DocuSign			
Total Respondents			2


9. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment or pledging as collateral?

		Response Total	Response Percent
Yes		0	0%
No		2	67%
Comments:	1. we have held all of these transactions to date		
Total Respondents		3	

10. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed equipment lease documents for sale, assignment or pledging as collateral?

		Response Total	Response Percent
Yes		0	0%
No		2	67%
Comments:	1. we have held all of these transactions to date		
Total Respondents		3	

11. Does your company want to initiate or expand, as applicable, the acceptance of electronically executed lease documents as collateral for loans?

		Response Total	Response Percent
Yes		2	67%
No		1	33%
Comments:			
Total Respondents		3	

12A. Does your company as act the lessor, or the assignee of the lessor, on an equipment lease?

		Response Total	Response Percent
Yes		42	100%
No		0	0%
Total Respondents		42	

If you answered “No” to question 12A, skip to Question 35

12B. Does your company use electronic records and signatures to document at least some of the equipment leasing transactions, *excluding* the practice of simply electronically imaging documents that have been presented and signed on paper?

		Response Total	Response Percent
Yes		14	33%
No		28	67%
Total Respondents		42	





If you answered “No” to question 12B, skip to Question 35

13. Does your company use electronic records and signatures to originate consumer leases, commercial leases, or both?

		Response Total	Response Percent
Consumer only		1	8%
Commercial only		11	85%
Both Consumer and Commercial		1	8%
Total Respondents		13	

If you answered “Commercial Only” to Question 13, skip to Question 18

14. Which of the following documents are presented to a consumer lessee as electronic records (Choose all that apply):

		Response Total	Response Percent
Application		2	100%
Lease Agreement		1	50%
Schedules of Equipment under Lease Agreement		1	50%
Amendments to Lease Agreement		1	50%
Total Respondents		2	

15. Approximately how many of your consumer leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or all	Response Total
The Application	0% (0)	0% (0)	0% (0)	50% (1)	50% (1)	2
The Lease Agreement	50% (1)	0% (0)	0% (0)	0% (0)	50% (1)	2
Schedules of Equipment under Lease Agreement	50% (1)	0% (0)	0% (0)	0% (0)	50% (1)	2
Amendments to Lease Agreement (other than Schedules of Equipment)	50% (1)	0% (0)	0% (0)	0% (0)	50% (1)	2
Total Respondents						2

16. Approximately how many consumer equipment leases does your company enter into in a year?

- 1. thousands
- 2. 7500

Total Respondents	2
--------------------------	----------

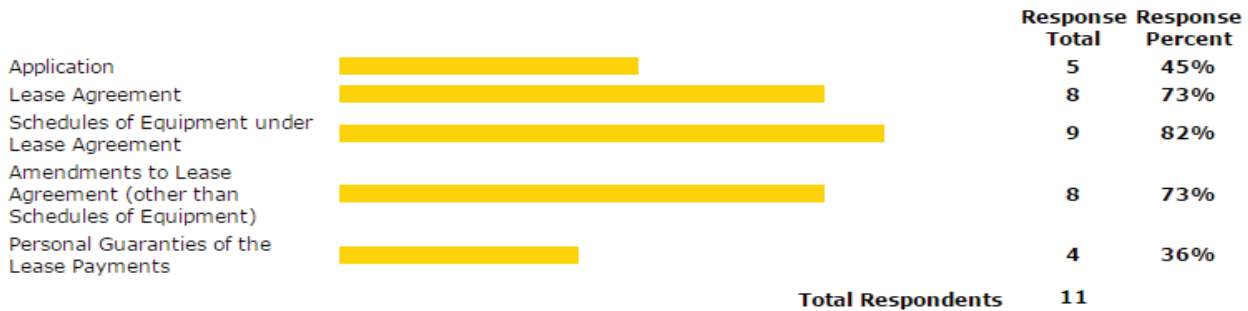
17. What is the approximate amount of the aggregate payments to be made by a consumer lessee under a lease entered into with your company?

- 1. Millions
- 2. 40000

Total Respondents 2

If you answered “Consumer Only” to Question 13, skip to Question 22

18. Which of the following documents are presented to a commercial lessee as electronic records (Choose all that apply):



19. Approximately how many of your commercial leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or half	Response Total
The Application	63.64% (7)	27.27% (3)	0% (0)	9.09% (1)	0% (0)	11
The Lease Agreement	36.36% (4)	45.45% (5)	9.09% (1)	0% (0)	9.09% (1)	11
Schedules of Equipment under Lease Agreement	36.36% (4)	45.45% (5)	9.09% (1)	0% (0)	9.09% (1)	11
Amendments to Lease Agreement (other than Schedules)	36.36% (4)	54.55% (6)	0% (0)	0% (0)	9.09% (1)	11
Personal Guaranties of the Lease Payments	72.73% (8)	9.09% (1)	9.09% (1)	0% (0)	9.09% (1)	11
Total Respondents						11

20. Approximately how many commercial equipment leases does your company enter into in a year?

- 1. 800
- 2. 5,000
- 3. 1100
- 4. 400
- 5. 50000 in the US
- 6. Our company roughly enters into 5,800 commercial equipment leases per year or roughly 20% of our US portfolio.
- 7. 3600
- 8. Approximately 100 schedules, approximately 7-8 new master lease agreements
- 9. Greater than 10,000
- 10. 5000
- 11. 300





Total Respondents 11

21. What is the approximate average amount of the aggregate payments to be made by a commercial lessee under a lease entered into with your company?

- 1. 300m
- 2. \$500,000
- 3. \$350000
- 4. 120000
- 5. \$400K
- 6. On average, our loans typically range between 12 month terms and 60 month terms.
- 7. \$40,000
- 8. \$750,000
- 9. Small Ticket
- 10. 00
- 11. \$600,000



Total Respondents 11

22. What type of electronic signature(s) do you use (Pick all that apply):

		Response Total	Response Percent
Checkbox or radio button		1	8%
Typed name		5	42%
Graphic image of handwritten signature		5	42%
Graphic image of electronically created signature		4	33%
Other (list)	<ul style="list-style-type: none"> 1. none 3. None of these. Only use electronic for UCC&#39;s. 6. Our users have the options to select a "sign here" option and their name and title appears after clicking this option. 		



Total Respondents 12

23. What electronic record format do you use for lease documents (Pick all that apply):


		Response Total	Response Percent
PDF		9	75%
PNG		0	0%
XHTML		1	8%
Other (list)	<ul style="list-style-type: none"> 3. None 6. Our electronic records are also housed in a vaulted electronic format. 7. eOriginal 12. uncertain 		

Total Respondents 12

24. Have you put special provisions in your lease agreements to allow the use of electronic records and signatures?

		Response Total	Response Percent
Yes		5	42%
No		6	50%
Comments:	6. We have agreements from our legal staff that allows for the usage of electronic records. 8. We have a handful of lessees that insist on esign. 12. Just beginning the process		
Total Respondents		12	

25. Have you put special provisions in your lease agreements to allow the electronic lease to be converted into a paper original?

		Response Total	Response Percent
Yes		0	0%
No		11	92%
Comments:	12. Just beginning to do this		
Total Respondents		12	

26. To *present and sign* electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		3	25%
Third-party vendor		9	75%
Both		0	0%
Total Respondents		12	

27. To *store* electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		3	25%
Third-party vendor		6	50%
Both		3	25%
Total Respondents		12	

28. To *transfer control of* signed electronic leases to third parties either purchasing the leases or taking them as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		5	42%
Third-party vendor		6	50%
Both		1	8%
Total Respondents		12	

29. Who is your company’s third-party vendor for *presenting and signing* electronic records and signatures, if applicable?

1. na
2. EOriginal
3. NA
4. DocuSign
5. NA
6. Silanis
7. eoriginal
8. Selected by lessee. Usually DocuSign.
9. NA
10. confidential
11. EchoSign
12. NA

Total Respondents **12**

30. Who is your company’s third-party vendor for *storing* electronic records and signatures, if applicable?

1. na
2. EOriginal
3. Unavailable vendor. System is called FileNet
4. DocuSign
5. NA
6. NA
7. eoriginal
8. See above
9. NA
10. confidential
11. EchoSign
12. NA

Total Respondents **12**

31. Who is your company's third-party vendor for *transferring control of* electronic records and signatures, if applicable?

- 1. na
- 2. EOriginal
- 3. NA
- 4. Docusign
- 5. NA
- 6. NA
- 7. eoriginal
- 8. See above
- 9. NA
- 10. confidential
- 11. ShareFile
- 12. NA

Total Respondents 12

32. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		5	42%
No		7	58%
Total Respondents		12	

33. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		7	58%
No		5	42%
Total Respondents		12	

34. Does your company want to initiate or expand, as applicable, the use of electronic records and signatures in its leasing transactions?

		Response Total	Response Percent
Yes		12	100%
No		0	0%
Total Respondents		12	

Digital Documents: Financing Paperless Transactions

35. Which of the following do you view as obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

	Response Total	Response Percent
Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper	25	68%
Lack of company resources (money, personnel) to initiate to expand use of electronic records and signatures	8	22%
Your company lacks confidence in the enforceability of electronically signed leases	13	35%
Your company does not perceive competitive or efficiency advantages from using electronic records and signatures	4	11%
Your company does not have the technical infrastructure to store or manage electronically signed leases	8	22%
Customers are unwilling to review and/or sign lease documents electronically	7	19%
Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans	13	35%
Investors are unwilling to purchase leases evidenced by electronic records and signatures	13	35%
The complexity of maintaining "control" of electronically signed leases under Section 9-105 of the Uniform Commercial Code	11	30%
The need for interoperability of systems operated by lessors, lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next	15	41%
Other (please specify)		
4. Unknown conversion costs (or savings) associated with implementing		
8. Our funding sources have not accepted the practice at this time		
10. New process for us so testing its viability		
12. Securitization of assets is very difficult		
23. The biggest obstacle is gaining more market penetration for the electronic signing product.		
25. EXPENSE		
27. Government Regulations for KYC		
28. Would prefer not to comment.		
32. We currently use electronic signatures with no obstacles		
36. Competing priorities.		
37. No specific obstacle has been identified; but that was not yet on top of our priority list		
Total Respondents	37	

APPENDIX B – SELECTED SURVEY SUB-REPORTS AND GRAPHS

1. All Lessors
2. All Lenders
3. Independent Lessors
4. Captive Lessors
5. Bank Owned Lessors





(Note: Answers to Questions 37 and 38 Omitted to Avoid Disclosure of Identity of Respondents)

Equipment Leasing and Finance Foundation Questionnaire on the Use of Electronic Records and Signatures: All Lessors

1. Is your company:

		Response Total	Response Percent	Points	Avg
Independent		18	43%	n/a	n/a
Bank Owned		16	38%	n/a	n/a
Captive		7	17%	n/a	n/a
Broker		0	0%	n/a	n/a
Comments:	24. We are a division of a bank				
Total Respondents		42			


2. Previous year's origination volume:

		Response Total	Response Percent	Points	Avg
Less than \$50 million		11	26%	n/a	n/a
\$50 million to \$100 million		7	17%	n/a	n/a
\$100 million to \$250 million		6	14%	n/a	n/a
Over \$250 million		18	43%	n/a	n/a
Total Respondents		42			

3A. Are you a lender or Lessors or lessor assignees?



		Response Total	Response Percent	Points	Avg
Yes		22	52%	n/a	n/a
No		20	48%	n/a	n/a
Total Respondents		42			

12A. Does your company as act the lessor, or the assignee of the lessor, on an equipment lease?

		Response Total	Response Percent	Points	Avg
Yes		42	100%	n/a	n/a
No		0	0%	n/a	n/a
Total Respondents		42			




If you answered "No" to question 12A, skip to Question 35

12B. Does your company use electronic records and signatures to document at least some of the equipment leasing transactions, *excluding* the practice of simply electronically imaging documents that have been presented and signed on paper?

		Response Total	Response Percent	Points	Avg
Yes		14	33%	n/a	n/a
No		28	67%	n/a	n/a
Total Respondents		42			





If you answered "No" to question 12B, skip to Question 35

13. Does your company use electronic records and signatures to originate consumer leases, commercial leases, or both?

		Response Total	Response Percent	Points	Avg
Consumer only		1	8%	n/a	n/a
Commercial only		11	85%	n/a	n/a
Both Consumer and Commercial		1	8%	n/a	n/a
Total Respondents		13			
		(skipped this question)	29		

If you answered "Commercial Only" to Question 13, skip to Question 18

14. Which of the following documents are presented to a consumer lessee as electronic records (Choose all that apply):

		Response Total	Response Percent	Points	Avg
Application		2	100%	n/a	n/a
Lease Agreement		1	50%	n/a	n/a
Schedules of Equipment under Lease Agreement		1	50%	n/a	n/a
Amendments to Lease Agreement		1	50%	n/a	n/a
Total Respondents		2			
		(skipped this question)	40		

15. Approximately how many of your consumer leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or all	Response Total	Points	Avg
The Application	0% (0)	0% (0)	0% (0)	50% (1)	50% (1)	2	n/a	n/a
The Lease Agreement	50% (1)	0% (0)	0% (0)	0% (0)	50% (1)	2	n/a	n/a
Schedules of Equipment under Lease Agreement	50% (1)	0% (0)	0% (0)	0% (0)	50% (1)	2	n/a	n/a
Amendments to Lease Agreement (other than Schedules of Equipment)	50% (1)	0% (0)	0% (0)	0% (0)	50% (1)	2	n/a	n/a
Total Respondents						2		
(skipped this question)						40		

16. Approximately how many consumer equipment leases does your company enter into in a year?

- 1. thousands
- 2. 7500

Total Respondents 2

(skipped this question) 40

17. What is the approximate amount of the aggregate payments to be made by a consumer lessee under a lease entered into with your company?

- 1. Millions
- 2. 40000






Total Respondents 2

(skipped this question) 40

If you answered "Consumer Only" to Question 13, skip to Question 22

Digital Documents: Financing Paperless Transactions

18. Which of the following documents are presented to a commercial lessee as electronic records (Choose all that apply):

		Response Total	Response Percent
Application		5	45%
Lease Agreement		8	73%
Schedules of Equipment under Lease Agreement		9	82%
Amendments to Lease Agreement (other than Schedules of Equipment)		8	73%
Personal Guaranties of the Lease Payments		4	36%
Total Respondents		11	
		(skipped this question)	31

19. Approximately how many of your commercial leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or half	Response Total
The Application	63.64% (7)	27.27% (3)	0% (0)	9.09% (1)	0% (0)	11
The Lease Agreement	36.36% (4)	45.45% (5)	9.09% (1)	0% (0)	9.09% (1)	11
Schedules of Equipment under Lease Agreement	36.36% (4)	45.45% (5)	9.09% (1)	0% (0)	9.09% (1)	11
Amendments to Lease Agreement (other than Schedules)	36.36% (4)	54.55% (6)	0% (0)	0% (0)	9.09% (1)	11
Personal Guaranties of the Lease Payments	72.73% (8)	9.09% (1)	9.09% (1)	0% (0)	9.09% (1)	11
Total Respondents						11
						(skipped this question) 31

20. Approximately how many commercial equipment leases does your company enter into in a year?

- 1. 800
- 2. 5,000
- 3. 1100
- 4. 400
- 5. 50000 in the US
- 6. Our company roughly enters into 5,800 commercial equipment leases per year or roughly 20% of our US portfolio.
- 7. 3600
- 8. Approximately 100 schedules, approximately 7-8 new master lease agreements
- 9. Greater than 10,000
- 10. 5000
- 11. 300

Total Respondents 11

(skipped this question) 31





21. What is the approximate average amount of the aggregate payments to be made by a commercial lessee under a lease entered into with your company?

- 1. 300m
- 2. \$500,000
- 3. \$350000
- 4. 120000
- 5. \$400K
- 6. On average, our loans typically range between 12 month terms and 60 month terms.
- 7. \$40,000
- 8. \$750,000
- 9. Small Ticket
- 10. 00
- 11. \$600,000

Total Respondents 11

(skipped this question) 31



22. What type of electronic signature(s) do you use (Pick all that apply):

		Response Total	Response Percent	Points	Avg
Checkbox or radio button		1	8%	n/a	n/a
Typed name		5	42%	n/a	n/a
Graphic image of handwritten signature		5	42%	n/a	n/a
Graphic image of electronically created signature		4	33%	n/a	n/a
Other (list)	<ol style="list-style-type: none"> 1. none 3. None of these. Only use electronic for UCC's. 6. Our users have the options to select a "sign here" option and their name and title appears after clicking this option. 				

Total Respondents 12

(skipped this question) 30



23. What electronic record format do you use for lease documents (Pick all that apply):

		Response Total	Response Percent
PDF		9	75%
PNG		0	0%
XHTML		1	8%
Other (list)	<ol style="list-style-type: none"> 3. None 6. Our electronic records are also housed in a vaulted electronic format. 7. eOriginal 12. uncertain 		


Total Respondents 12

(skipped this question) 30



24. Have you put special provisions in your lease agreements to allow the use of electronic records and signatures?

		Response Total	Response Percent	Points	Avg
Yes		5	42%	n/a	n/a
No		6	50%	n/a	n/a
Comments:	6. We have agreements from our legal staff that allows for the usage of electronic records. 8. We have a handful of lessees that insist on esign. 12. Just beginning the process				
Total Respondents		12			
		(skipped this question)	30		

25. Have you put special provisions in your lease agreements to allow the electronic lease to be converted into a paper original?

		Response Total	Response Percent
Yes		0	0%
No		11	92%
Comments:	12. Just beginning to do this		
Total Respondents		12	
		(skipped this question)	30

26. To *present and sign* electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		3	25%
Third-party vendor		9	75%
Both		0	0%
Total Respondents		12	
		(skipped this question)	30

Digital Documents: Financing Paperless Transactions

27. To *store* electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary	<div style="width: 25%; height: 15px; background-color: #FFD700;"></div>	3	25%
Third-party vendor	<div style="width: 50%; height: 15px; background-color: #FFD700;"></div>	6	50%
Both	<div style="width: 25%; height: 15px; background-color: #FFD700;"></div>	3	25%
Total Respondents		12	
(skipped this question)			30

28. To *transfer control of* signed electronic leases to third parties either purchasing the leases or taking them as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary	<div style="width: 42%; height: 15px; background-color: #FFD700;"></div>	5	42%
Third-party vendor	<div style="width: 50%; height: 15px; background-color: #FFD700;"></div>	6	50%
Both	<div style="width: 8%; height: 15px; background-color: #FFD700;"></div>	1	8%
Total Respondents		12	
(skipped this question)			30

29. Who is your company's third-party vendor for *presenting and signing* electronic records and signatures, if applicable?

1. na
2. EOriginal
3. NA
4. Docusign
5. NA
6. Silanis
7. eoriginal
8. Selected by lessee. Usually Docusign.
9. NA
10. confidential
11. EchoSign
12. NA

Total Respondents 12

(skipped this question) 30

30. Who is your company's third-party vendor for *storing* electronic records and signatures, if applicable?

- 1. na
- 2. EOriginal
- 3. Unavailable vendor. System is called FileNet
- 4. Docusign
- 5. NA
- 6. NA
- 7. eoriginal
- 8. See above
- 9. NA
- 10. confidential
- 11. EchoSign
- 12. NA

Total Respondents 12

(skipped this question) 30



31. Who is your company's third-party vendor for *transferring control of* electronic records and signatures, if applicable?

- 1. na
- 2. EOriginal
- 3. NA
- 4. Docusign
- 5. NA
- 6. NA
- 7. eoriginal
- 8. See above
- 9. NA
- 10. confidential
- 11. ShareFile
- 12. NA



Total Respondents 12

(skipped this question) 30


32. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		5	42%
No		7	58%
Total Respondents		12	
		(skipped this question)	30

33. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		7	58%
No		5	42%
Total Respondents		12	
		(skipped this question)	30

34. Does your company want to initiate or expand, as applicable, the use of electronic records and signatures in its leasing transactions?

		Response Total	Response Percent
Yes		12	100%
No		0	0%
Total Respondents		12	
		(skipped this question)	30

Digital Documents: Financing Paperless Transactions

35. Which of the following do you view as obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

	Response Total	Response Percent	Points	Avg
Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper	25	68%	n/a	n/a
Lack of company resources (money, personnel) to initiate to expand use of electronic records and signatures	8	22%	n/a	n/a
Your company lacks confidence in the enforceability of electronically signed leases	13	35%	n/a	n/a
Your company does not perceive competitive or efficiency advantages from using electronic records and signatures	4	11%	n/a	n/a
Your company does not have the technical infrastructure to store or manage electronically signed leases	8	22%	n/a	n/a
Customers are unwilling to review and/or sign lease documents electronically	7	19%	n/a	n/a
Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans	13	35%	n/a	n/a
Investors are unwilling to purchase leases evidenced by electronic records and signatures	13	35%	n/a	n/a
The complexity of maintaining "control" of electronically signed leases under Section 9-105 of the Uniform Commercial Code	11	30%	n/a	n/a
The need for interoperability of systems operated by lessors, lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next	15	41%	n/a	n/a
Other (please specify)				
4. Unknown conversion costs (or savings) associated with implementing				
8. Our funding sources have not accepted the practice at this time				
10. New process for us so testing its viability				
12. Securitization of assets is very difficult				
23. The biggest obstacle is gaining more market penetration for the electronic signing product.				
25. EXPENSE				
27. Government Regulations for KYC				
28. Would prefer not to comment.				
32. We currently use electronic signatures with no obstacles				
36. Competing priorities.				
37. No specific obstacle has been identified; but that was not yet on top of our priority list				

Total Respondents 37

(skipped this question) 5

Digital Documents: Financing Paperless Transactions

36. Which of the following do you believe would help overcome the obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

	Response Total	Response Percent	Points	Avg
Model language for legal opinions relating to perfection and priority of security interests in electronic chattel paper	23	62%	n/a	n/a
Published court decisions enforcing electronically signed leases	23	62%	n/a	n/a
Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code	27	73%	n/a	n/a
Industry standards that would allow vendor platforms to be certified for compliance with legal requirements	23	62%	n/a	n/a
Industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all vendors	24	65%	n/a	n/a
Simpler rules for transferring control	14	38%	n/a	n/a
Other (please specify)				
2. appropriate technology				
26. Government Reulators acceptance				
27. Prefer not to comment.				
28. Education				
32. N/A				

Total Respondents 37





(skipped this question) 5

Equipment Leasing and Finance Foundation Questionnaire on the Use of Electronic Records and Signatures: All Lenders

1. Is your company:

		Response Total	Response Percent
Independent		7	28%
Bank Owned		14	56%
Captive		3	12%
Broker		0	0%
Comments:	14. We are a division of a bank		
Total Respondents		25	

2. Previous year's origination volume:


		Response Total	Response Percent
Less than \$50 million		7	28%
\$50 million to \$100 million		3	12%
\$100 million to \$250 million		2	8%
Over \$250 million		13	52%
Total Respondents		25	

3A. Are you a lender or Lessors or lessor assignees?

		Response Total	Response Percent
Yes		25	100%
No		0	0%
Total Respondents		25	




If you answered "No" to Question 3A, skip to Question 12

3B. Does your company accept electronically signed lease documents as collateral for loans?

		Response Total	Response Percent
Yes		5	21%
No		19	79%
Comments:	<ol style="list-style-type: none"> 1. increasing acceptance of fax copies 4. Not yet, but it is an option for the near future 7. None of our originators use electronically signed documents 9. We accept scanned originals signatures to follow with originals. 11. Very sparingly 14. At this time, our company accepts electronically signed 16. LOOKING INTO ELECTRONIC DOCUMENTS 24. We plan to (in a few months) 		
Total Respondents		24	
(skipped this question)			1


If you answered “No” to Question 3B, skip to Question 12

4. How is your company’s security interest in the collateral perfected? (Select all that apply)


		Response Total	Response Percent
Filing		4	100%
Transfer of control		3	75%
Conversion to paper and possession		2	50%
Comments:			
Total Respondents		4	
(skipped this question)			21

If you did not check “Transfer of Control” as part of your answer to Question 4, skip to Question 9

5. To store signed electronic records your company receives from Lessors as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		2	100%
Both		0	0%
Total Respondents		2	
(skipped this question)			23

6. To transfer control of electronically signed leases evidencing collateral to or from third parties, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		2	100%
Both		0	0%
Total Respondents		2	
(skipped this question)			23

7. Who is your company's third-party vendor for storing electronic leases, if any?

1. EOriginal
2. Docusign

Total Respondents 2

(skipped this question) 23



8. Who is your company's third-party vendor for transferring control of electronic leases, if any?

1. EOriginal
2. Docusign


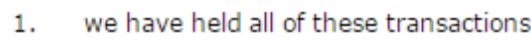
Total Respondents 2

(skipped this question) 23



9. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment or pledging as collateral?

		Response Total	Response Percent
Yes		0	0%
No		2	67%
Comments:	1. we have held all of these transactions to date		
Total Respondents		3	
		(skipped this question)	22

10. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed equipment lease documents for sale, assignment or pledging as collateral?

		Response Total	Response Percent
Yes		0	0%
No		2	67%
Comments:	1. we have held all of these transactions to date		
Total Respondents		3	
		(skipped this question)	22

11. Does your company want to initiate or expand, as applicable, the acceptance of electronically executed lease documents as collateral for loans?

		Response Total	Response Percent
Yes		2	67%
No		1	33%
Comments:			
Total Respondents		3	
		(skipped this question)	22

Digital Documents: Financing Paperless Transactions







35. Which of the following do you view as obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

	Response Total	Response Percent	Points	Avg
Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper	13	65%	n/a	n/a
Lack of company resources (money, personnel) to initiate to expand use of electronic records and signatures	5	25%	n/a	n/a
Your company lacks confidence in the enforceability of electronically signed leases	7	35%	n/a	n/a
Your company does not perceive competitive or efficiency advantages from using electronic records and signatures	3	15%	n/a	n/a
Your company does not have the technical infrastructure to store or manage electronically signed leases	5	25%	n/a	n/a
Customers are unwilling to review and/or sign lease documents electronically	4	20%	n/a	n/a
Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans	6	30%	n/a	n/a
Investors are unwilling to purchase leases evidenced by electronic records and signatures	7	35%	n/a	n/a
The complexity of maintaining "control" of electronically signed leases under Section 9-105 of the Uniform Commercial Code	5	25%	n/a	n/a
The need for interoperability of systems operated by lessors, lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next	7	35%	n/a	n/a
Other (please specify)	<ol style="list-style-type: none"> 1. Unknown conversion costs (or savings) associated with implementing 3. Our funding sources have not accepted the practice at this time 5. New process for us so testing its viability 6. Securitization of assets is very difficult 13. The biggest obstacle is gaining more market penetration for the electronic signing product. 15. EXPENSE 16. Would prefer not to comment. 20. No specific obstacle has been identified; but that was not yet on top of our priority list 			

Total Respondents 20
(skipped this question) 5


Digital Documents: Financing Paperless Transactions

36. Which of the following do you believe would help overcome the obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):





		Response Total	Response Percent
Model language for legal opinions relating to perfection and priority of security interests in electronic chattel paper		12	63%
Published court decisions enforcing electronically signed leases		14	74%
Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code		14	74%
Industry standards that would allow vendor platforms to be certified for compliance with legal requirements		14	74%
Industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all vendors		14	74%
Simpler rules for transferring control		7	37%
Other (please specify)	15. Prefer not to comment.		
		Total Respondents	19
		(skipped this question)	6

Equipment Leasing and Finance Foundation Questionnaire on the Use of Electronic Records and Signatures: Independent Lessors



1. Is your company:

		Response Total	Response Percent
Independent		18	100%
Bank Owned		0	0%
Captive		0	0%
Broker		0	0%
Comments:			
Total Respondents		18	

2. Previous year's origination volume:

		Response Total	Response Percent
Less than \$50 million		6	33%
\$50 million to \$100 million		6	33%
\$100 million to \$250 million		4	22%
Over \$250 million		2	11%
Total Respondents		18	

3A. Are you a lender or Lessors or lessor assignees?

		Response Total	Response Percent
Yes		6	33%
No		12	67%
Total Respondents		18	

If you answered "No" to Question 3A, skip to Question 12

12A. Does your company as act the lessor, or the assignee of the lessor, on an equipment lease?

		Response Total	Response Percent
Yes		18	100%
No		0	0%
Total Respondents		18	


If you answered “No” to question 12A, skip to Question 35

12B. Does your company use electronic records and signatures to document at least some of the equipment leasing transactions, excluding the practice of simply electronically imaging documents that have been presented and signed on paper?

		Response Total	Response Percent
Yes		6	33%
No		12	67%
Total Respondents		18	

If you answered “No” to question 12B, skip to Question 35

13. Does your company use electronic records and signatures to originate consumer leases, commercial leases, or both?

		Response Total	Response Percent
Consumer only		0	0%
Commercial only		5	100%
Both Consumer and Commercial		0	0%
Total Respondents		5	
		(skipped this question)	13

If you answered “Commercial Only” to Question 13, skip to Question 18

14. Which of the following documents are presented to a consumer lessee as electronic records (Choose all that apply):

		Response Total	Response Percent
Application		0	0%
Lease Agreement		0	0%
Schedules of Equipment under Lease Agreement		0	0%
Amendments to Lease Agreement		0	0%
Total Respondents		0	
		(skipped this question)	1

Digital Documents: Financing Paperless Transactions

15. Approximately how many of your consumer leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or all	Response Total
The Application	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
The Lease Agreement	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Schedules of Equipment under Lease Agreement	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Amendments to Leas Agreement (other than Schedules of Equipment)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Total Respondents						0
(skipped this question)						1

16. Approximately how many consumer equipment leases does your company enter into in a year?

[No Answer Entered]

No responses were entered for this question.

17. What is the approximate amount of the aggregate payments to be made by a consumer lessee under a lease entered into with your company?






[No Answer Entered]

No responses were entered for this question.

If you answered “Consumer Only” to Question 13, skip to Question 22

Digital Documents: Financing Paperless Transactions

18. Which of the following documents are presented to a commercial lessee as electronic records (Choose all that apply):

		Response Total	Response Percent
Application		2	50%
Lease Agreement		4	100%
Schedules of Equipment under Lease Agreement		4	100%
Amendments to Lease Agreement (other than Schedules of Equipment)		4	100%
Personal Guaranties of the Lease Payments		1	25%
Total Respondents		4	
(skipped this question)			14

19. Approximately how many of your commercial leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or half	Response Total
The Application	50% (2)	50% (2)	0% (0)	0% (0)	0% (0)	4
The Lease Agreement	0% (0)	75% (3)	25% (1)	0% (0)	0% (0)	4
Schedules of Equipment under Lease Agreement	0% (0)	75% (3)	25% (1)	0% (0)	0% (0)	4
Amendments to Lease Agreement (other than Schedules)	0% (0)	100% (4)	0% (0)	0% (0)	0% (0)	4
Personal Guaranties of the Lease Payments	75% (3)	0% (0)	25% (1)	0% (0)	0% (0)	4
Total Respondents						4
(skipped this question)						14

20. Approximately how many commercial equipment leases does your company enter into in a year?

- 1. 400
- 2. 3600
- 3. Approximately 100 schedules, approximately 7-8 new master lease agreements
- 4. 300

Total Respondents 4

(skipped this question) 14




21. What is the approximate average amount of the aggregate payments to be made by a commercial lessee under a lease entered into with your company?

- 1. 120000
- 2. \$40,000
- 3. \$750,000
- 4. \$600,000

Total Respondents 4

(skipped this question) 14



22. What type of electronic signature(s) do you use (Pick all that apply):

	Response Total	Response Percent
Checkbox or radio button	0	0%
Typed name 	2	50%
Graphic image of handwritten signature 	3	75%
Graphic image of electronically created signature 	1	25%
Other (list)		



Total Respondents 4

(skipped this question) 14


23. What electronic record format do you use for lease documents (Pick all that apply):

		Response Total	Response Percent
PDF		2	50%
PNG		0	0%
XHTML		1	25%
Other (list)	2. eOriginal 4. uncertain		
Total Respondents		4	
		(skipped this question)	14


24. Have you put special provisions in your lease agreements to allow the use of electronic records and signatures?

		Response Total	Response Percent
Yes		1	25%
No		2	50%
Comments:	3. We have a handful of lessees that insist on esign. 4. Just beginning the process		
Total Respondents		4	
		(skipped this question)	14



25. Have you put special provisions in your lease agreements to allow the electronic lease to be converted into a paper original?

		Response Total	Response Percent
Yes		0	0%
No		3	75%
Comments:	4. Just beginning to do this		
Total Respondents		4	
		(skipped this question)	14



26. To present and sign electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		4	100%
Both		0	0%
Total Respondents		4	
		(skipped this question)	14

27. To store electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		2	50%
Both		2	50%
Total Respondents		4	
(skipped this question)			14

28. To transfer control of signed electronic leases to third parties either purchasing the leases or taking them as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		3	75%
Both		1	25%
Total Respondents		4	
(skipped this question)			14

29. Who is your company's third-party vendor for presenting and signing electronic records and signatures, if applicable?

1. Docusign
2. eoriginal
3. Selected by lessee. Usually Docusign.
4. NA

Total Respondents 4

(skipped this question) 14

30. Who is your company's third-party vendor for storing electronic records and signatures, if applicable?

1. Docusign
2. eoriginal
3. See above
4. NA

Total Respondents 4

(skipped this question) 14

31. Who is your company's third-party vendor for transferring control of electronic records and signatures, if applicable?

- 1. Docusign
- 2. eoriginal
- 3. See above
- 4. NA

Total Respondents 4

(skipped this question) 14

32. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		1	25%
No		3	75%
Total Respondents		4	

(skipped this question) 14

33. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		3	75%
No		1	25%
Total Respondents		4	

(skipped this question) 14

34. Does your company want to initiate or expand, as applicable, the use of electronic records and signatures in its leasing transactions?

		Response Total	Response Percent
Yes		4	100%
No		0	0%
Total Respondents		4	

(skipped this question) 14







Digital Documents: Financing Paperless Transactions

35. Which of the following do you view as obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

	Response Total	Response Percent
Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper	12	86%
Lack of company resources (money, personnel) to initiate to expand use of electronic records and signatures	3	21%
Your company lacks confidence in the enforceability of electronically signed leases	4	29%
Your company does not perceive competitive or efficiency advantages from using electronic records and signatures	1	7%
Your company does not have the technical infrastructure to store or manage electronically signed leases	0	0%
Customers are unwilling to review and/or sign lease documents electronically	5	36%
Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans	10	71%
Investors are unwilling to purchase leases evidenced by electronic records and signatures	7	50%
The complexity of maintaining "control" of electronically signed leases under Section 9-105 of the Uniform Commercial Code	3	21%
The need for interoperability of systems operated by lessors, lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next	6	43%
Other (please specify)	5	
5. Our funding sources have not accepted the practice at this time		
Total Respondents	14	
(skipped this question)		4

Digital Documents: Financing Paperless Transactions

36. Which of the following do you believe would help overcome the obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

		Response Total	Response Percent
Model language for legal opinions relating to perfection and priority of security interests in electronic chattel paper		11	73%
Published court decisions enforcing electronically signed leases		8	53%
Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code		13	87%
Industry standards that would allow vendor platforms to be certified for compliance with legal requirements		9	60%
Industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all vendors		9	60%
Simpler rules for transferring control		7	47%
Other (please specify)	13. Education		
		Total Respondents	15
		(skipped this question)	3

Equipment Leasing and Finance Foundation Questionnaire on the Use of Electronic Records and Signatures: Captive Lessors

1. Is your company:

	Response Total	Response Percent
Independent	0	0%
Bank Owned	0	0%
Captive	7	100%
Broker	0	0%
Comments:		
Total Respondents	7	

2. Previous year's origination volume:

	Response Total	Response Percent
Less than \$50 million	2	29%
\$50 million to \$100 million	0	0%
\$100 million to \$250 million	1	14%
Over \$250 million	4	57%
Total Respondents	7	

3A. Are you a lender or Lessors or lessor assignees?

	Response Total	Response Percent
Yes	3	43%
No	4	57%
Total Respondents	7	



If you answered "No" to Question 3A, skip to Question 12

12A. Does your company as act the lessor, or the assignee of the lessor, on an equipment lease?

	Response Total	Response Percent
Yes	7	100%
No	0	0%
Total Respondents	7	



If you answered "No" to question 12A, skip to Question 35

12B. Does your company use electronic records and signatures to document at least some of the equipment leasing transactions, excluding the practice of simply electronically imaging documents that have been presented and signed on paper?

		Response Total	Response Percent
Yes		5	71%
No		2	29%
Total Respondents		7	





If you answered “No” to question 12B, skip to Question 35

13. Does your company use electronic records and signatures to originate consumer leases, commercial leases, or both?

		Response Total	Response Percent
Consumer only		1	20%
Commercial only		4	80%
Both Consumer and Commercial		0	0%
Total Respondents		5	
		(skipped this question)	2

If you answered “Commercial Only” to Question 13, skip to Question 18

14. Which of the following documents are presented to a consumer lessee as electronic records (Choose all that apply):

		Response Total	Response Percent
Application		1	100%
Lease Agreement		1	100%
Schedules of Equipment under Lease Agreement		1	100%
Amendments to Lease Agreement		1	100%
Total Respondents		1	
		(skipped this question)	6

15. Approximately how many of your consumer leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or all	Response Total
The Application	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
The Lease Agreement	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Schedules of Equipment under Lease Agreement	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Amendments to Leas Agreement (other than Schedules of Equipment)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Total Respondents						1
(skipped this question)						6

16. Approximately how many consumer equipment leases does your company enter into in a year?

1. 7500

Total Respondents 1

(skipped this question)

6

17. What is the approximate amount of the aggregate payments to be made by a consumer lessee under a lease entered into with your company?

1. 40000

Total Respondents 1






(skipped this question)

6

If you answered “Consumer Only” to Question 13, skip to Question 22

Digital Documents: Financing Paperless Transactions

18. Which of the following documents are presented to a commercial lessee as electronic records (Choose all that apply):

		Response Total	Response Percent
Application		1	25%
Lease Agreement		3	75%
Schedules of Equipment under Lease Agreement		3	75%
Amendments to Lease Agreement (other than Schedules of Equipment)		3	75%
Personal Guaranties of the Lease Payments		2	50%
Total Respondents		4	
(skipped this question)			3

19. Approximately how many of your commercial leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or half	Response Total
The Application	100% (4)	0% (0)	0% (0)	0% (0)	0% (0)	4
The Lease Agreement	50% (2)	25% (1)	0% (0)	0% (0)	25% (1)	4
Schedules of Equipment under Lease Agreement	50% (2)	25% (1)	0% (0)	0% (0)	25% (1)	4
Amendments to Lease Agreement (other than Schedules)	50% (2)	25% (1)	0% (0)	0% (0)	25% (1)	4
Personal Guaranties of the Lease Payments	75% (3)	0% (0)	0% (0)	0% (0)	25% (1)	4
Total Respondents						4
(skipped this question)						3

20. Approximately how many commercial equipment leases does your company enter into in a year?

- 1. 50000 in the US
- 2. Our company roughly enters into 5,800 commercial equipment leases per year or roughly 20% of our US portfolio.
- 3. Greater than 10,000
- 4. 5000

Total Respondents 4

(skipped this question) 3

21. What is the approximate average amount of the aggregate payments to be made by a commercial lessee under a lease entered into with your company?

- 1. \$400K
- 2. On average, our loans typically range between 12 month terms and 60 month terms.
- 3. Small Ticket
- 4. 00

Total Respondents 4

(skipped this question) 3

22. What type of electronic signature(s) do you use (Pick all that apply)


		Response Total	Response Percent	Points	Avg
Checkbox or radio button		0	0%	n/a	n/a
Typed name		2	40%	n/a	n/a
Graphic image of handwritten signature		2	40%	n/a	n/a
Graphic image of electronically created signature		3	60%	n/a	n/a

- 2. Our users have the options to select a "sign here" option and their name and title appears after clicking this option.


Total Respondents 5

(skipped this question) 2


23. What electronic record format do you use for lease documents (Pick all that apply):

		Response Total	Response Percent
PDF		5	100%
PNG		0	0%
XHTML		0	0%
Other (list)	2. Our electronic records are also housed in a vaulted electronic format.		
Total Respondents		5	
		(skipped this question)	2



24. Have you put special provisions in your lease agreements to allow the use of electronic records and signatures?

		Response Total	Response Percent
Yes		0	0%
No		5	100%
Comments:			
Total Respondents		5	
		(skipped this question)	2




25. Have you put special provisions in your lease agreements to allow the electronic lease to be converted into a paper original?

		Response Total	Response Percent
Yes		0	0%
No		5	100%
Comments:			
Total Respondents		5	
		(skipped this question)	2



26. To present and sign electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		2	40%
Third-party vendor		3	60%
Both		0	0%
Total Respondents		5	
		(skipped this question)	2

27. To store electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		3	60%
Third-party vendor		1	20%
Both		1	20%
Total Respondents		5	
(skipped this question)			2

28. To transfer control of signed electronic leases to third parties either purchasing the leases or taking them as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		3	60%
Third-party vendor		2	40%
Both		0	0%
Total Respondents		5	
(skipped this question)			2

29. Who is your company's third-party vendor for presenting and signing electronic records and signatures, if applicable?

1. NA
2. Silanis
3. NA
4. confidential
5. EchoSign

Total Respondents 5

(skipped this question) 2

30. Who is your company's third-party vendor for storing electronic records and signatures, if applicable?

1. NA
2. NA
3. NA
4. confidential
5. EchoSign

Total Respondents 5

(skipped this question) 2

31. Who is your company’s third-party vendor for transferring control of electronic records and signatures, if applicable?

- 1. NA
- 2. NA
- 3. NA
- 4. confidential
- 5. ShareFile

Total Respondents 5

(skipped this question)

2

32. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		1	20%
No		4	80%
Total Respondents		5	

(skipped this question) 2

33. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		1	20%
No		4	80%
Total Respondents		5	

(skipped this question) 2

34. Does your company want to initiate or expand, as applicable, the use of electronic records and signatures in its leasing transactions?

		Response Total	Response Percent
Yes		5	100%
No		0	0%
Total Respondents		5	

(skipped this question) 2







Digital Documents: Financing Paperless Transactions

35. Which of the following do you view as obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

	Response Total	Response Percent	Points	Avg
Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper	2	33%	n/a	n/a
Lack of company resources (money, personnel) to initiate to expand use of electronic records and signatures	1	17%	n/a	n/a
Your company lacks confidence in the enforceability of electronically signed leases	0	0%	n/a	n/a
Your company does not perceive competitive or efficiency advantages from using electronic records and signatures	1	17%	n/a	n/a
Your company does not have the technical infrastructure to store or manage electronically signed leases	3	50%	n/a	n/a
Customers are unwilling to review and/or sign lease documents electronically	1	17%	n/a	n/a
Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans	0	0%	n/a	n/a
Investors are unwilling to purchase leases evidenced by electronic records and signatures	2	33%	n/a	n/a
The complexity of maintaining "control" of electronically signed leases under Section 9-105 of the Uniform Commercial Code	2	33%	n/a	n/a
The need for interoperability of systems operated by lessors, lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next	4	67%	n/a	n/a
Other (please specify)	<ol style="list-style-type: none"> 1. Securitization of assets is very difficult 3. The biggest obstacle is gaining more market penetration for the electronic signing product. 5. We currently use electronic signatures with no obstacles 			
Total Respondents	6			
	(skipped this question)	1		

Digital Documents: Financing Paperless Transactions


36. Which of the following do you believe would help overcome the obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

		Response Total	Response Percent
Model language for legal opinions relating to perfection and priority of security interests in electronic chattel paper		3	60%
Published court decisions enforcing electronically signed leases		3	60%
Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code		4	80%
Industry standards that would allow vendor platforms to be certified for compliance with legal requirements		3	60%
Industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all vendors		4	80%
Simpler rules for transferring control		3	60%
Other (please specify)	4. N/A		





Total Respondents **5**
(skipped this question) 2

Equipment Leasing and Finance Foundation Questionnaire on the Use of Electronic Records and Signatures: Bank Owned Lessors

1. Is your company:

		Response Total	Response Percent
Independent		0	0%
Bank Owned		16	100%
Captive		0	0%
Broker		0	0%
Comments:			
Total Respondents		16	

2. Previous year's origination volume:

		Response Total	Response Percent
Less than \$50 million		3	19%
\$50 million to \$100 million		1	6%
\$100 million to \$250 million		1	6%
Over \$250 million		11	69%
Total Respondents		16	

3A. Are you a lender or Lessors or lessor assignees?

		Response Total	Response Percent
Yes		12	75%
No		4	25%
Total Respondents		16	

12A. Does your company as act the lessor, or the assignee of the lessor, on an equipment lease?

		Response Total	Response Percent
Yes		16	100%
No		0	0%
Total Respondents		16	



If you answered "No" to question 12A, skip to Question 35

12B. Does your company use electronic records and signatures to document at least some of the equipment leasing transactions, excluding the practice of simply electronically imaging documents that have been presented and signed on paper?

		Response Total	Response Percent
Yes		3	19%
No		13	81%
Total Respondents		16	


If you answered “No” to question 12B, skip to Question 35

13. Does your company use electronic records and signatures to originate consumer leases, commercial leases, or both?

		Response Total	Response Percent
Consumer only		0	0%
Commercial only		2	67%
Both Consumer and Commercial		1	33%
Total Respondents		3	
		(skipped this question)	13

If you answered “Commercial Only” to Question 13, skip to Question 18

14. Which of the following documents are presented to a consumer lessee as electronic records (Choose all that apply):

		Response Total	Response Percent
Application		1	100%
Lease Agreement		0	0%
Schedules of Equipment under Lease Agreement		0	0%
Amendments to Lease Agreement		0	0%
Total Respondents		1	
		(skipped this question)	15

15. Approximately how many of your consumer leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or all	Response Total
The Application	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
The Lease Agreement	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Schedules of Equipment under Lease Agreement	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Amendments to Lease Agreement (other than Schedules of Equipment)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1

Total Respondents 1
(skipped this question) 15

16. Approximately how many consumer equipment leases does your company enter into in a year?

1. thousands

Total Respondents 1

(skipped this question) 15

17. What is the approximate amount of the aggregate payments to be made by a consumer lessee under a lease entered into with your company?

1. Millions






Total Respondents 1

(skipped this question) 15

If you answered “Consumer Only” to Question 13, skip to Question 22

18. Which of the following documents are presented to a commercial lessee as electronic records (Choose all that apply):

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		Response Total	Response Percent
Application		2	67%
Lease Agreement		1	33%
Schedules of Equipment under Lease Agreement		2	67%
Amendments to Lease Agreement (other than Schedules of Equipment)		1	33%
Personal Guaranties of the Lease Payments		1	33%
Total Respondents		3	
		(skipped this question)	13

19. Approximately how many of your commercial leasing transactions (based on your total transaction volume by number of leases) make use of electronic records and signatures for:

	None	Less than half	Half	More than half	Nearly all or half	Response Total
The Application	33.33% (1)	33.33% (1)	0% (0)	33.33% (1)	0% (0)	3
The Lease Agreement	66.67% (2)	33.33% (1)	0% (0)	0% (0)	0% (0)	3
Schedules of Equipment under Lease Agreement	66.67% (2)	33.33% (1)	0% (0)	0% (0)	0% (0)	3
Amendments to Lease Agreement (other than Schedules)	66.67% (2)	33.33% (1)	0% (0)	0% (0)	0% (0)	3
Personal Guaranties of the Lease Payments	66.67% (2)	33.33% (1)	0% (0)	0% (0)	0% (0)	3
Total Respondents						3
						(skipped this question) 13

20. Approximately how many commercial equipment leases does your company enter into in a year?

1. 800
2. 5,000
3. 1100

Total Respondents 3

(skipped this question)

13



21. What is the approximate average amount of the aggregate payments to be made by a commercial lessee under a lease entered into with your company?

- 1. 300m
- 2. \$500,000
- 3. \$350000

Total Respondents 3

(skipped this question) 13

22. What type of electronic signature(s) do you use (Pick all that apply):

		Response Total	Response Percent
Checkbox or radio button		1	33%
Typed name		1	33%
Graphic image of handwritten signature		0	0%
Graphic image of electronically created signature		0	0%
Other (list)	<ul style="list-style-type: none"> 1. none 3. None of these. Only use electronic for UCC's. 		

Total Respondents 3

(skipped this question) 13

23. What electronic record format do you use for lease documents (Pick all that apply):

		Response Total	Response Percent
PDF		2	67%
PNG		0	0%
XHTML		0	0%
Other (list)	<ul style="list-style-type: none"> 3. None 		

Total Respondents 3

(skipped this question) 13

24. Have you put special provisions in your lease agreements to allow the use of electronic records and signatures?

		Response Total	Response Percent
Yes		2	67%
No		1	33%
Comments:			

Total Respondents 3



(skipped this question) 13

25. Have you put special provisions in your lease agreements to allow the electronic lease to be converted into a paper original?

		Response Total	Response Percent
Yes		0	0%
No		3	100%
Comments:			
Total Respondents		3	

(skipped this question) 13

26. To present and sign electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		1	33%
Third-party vendor		2	67%
Both		0	0%
Total Respondents		3	



(skipped this question) 13

27. To store electronic records, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		0	0%
Third-party vendor		3	100%
Both		0	0%
Total Respondents		3	

(skipped this question) 13

28. To transfer control of signed electronic leases to third parties either purchasing the leases or taking them as collateral, do you use a proprietary system your company designed itself, a third-party vendor solution, or both?

		Response Total	Response Percent
Proprietary		2	67%
Third-party vendor		1	33%
Both		0	0%
Total Respondents		3	

(skipped this question) 13

29. Who is your company’s third-party vendor for presenting and signing electronic records and signatures, if applicable?

- 1. na
- 2. EOriginal
- 3. NA

Total Respondents 3

(skipped this question) 13

30. Who is your company’s third-party vendor for storing electronic records and signatures, if applicable?

- 1. na
- 2. EOriginal
- 3. Unavailable vendor. System is called FileNet

Total Respondents 3

(skipped this question) 13

31. Who is your company’s third-party vendor for transferring control of electronic records and signatures, if applicable?

- 1. na
- 2. EOriginal
- 3. NA

Total Respondents 3

(skipped this question) 13

32. Do any of your investors, Lenders or securitization underwriters require your company to convert electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		3	100%
No		0	0%
Total Respondents		3	

(skipped this question) 13

33. Do any of your investors, Lenders or securitization underwriters refuse to accept electronically signed equipment lease agreements into paper form for sale, assignment, or pledging as collateral?

		Response Total	Response Percent
Yes		3	100%
No		0	0%
Total Respondents		3	

(skipped this question) 13

34. Does your company want to initiate or expand, as applicable, the use of electronic records and signatures in its leasing transactions?

		Response Total	Response Percent
Yes		3	100%
No		0	0%
Total Respondents		3	

(skipped this question) 13

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35. Which of the following do you view as obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

	Response Total	Response Percent	Points	Avg
Lack of clear standards for legal opinions relating to perfection and priority of security interests in electronic chattel paper	11	69%	n/a	n/a
Lack of company resources (money, personnel) to initiate to expand use of electronic records and signatures	3	19%	n/a	n/a
Your company lacks confidence in the enforceability of electronically signed leases	9	56%	n/a	n/a
Your company does not perceive competitive or efficiency advantages from using electronic records and signatures	2	12%	n/a	n/a
Your company does not have the technical infrastructure to store or manage electronically signed leases	4	25%	n/a	n/a
Customers are unwilling to review and/or sign lease documents electronically	0	0%	n/a	n/a
Lenders are unwilling to accept leases evidenced by electronic records and signatures as collateral for loans	2	12%	n/a	n/a
Investors are unwilling to purchase leases evidenced by electronic records and signatures	3	19%	n/a	n/a
The complexity of maintaining "control" of electronically signed leases under Section 9-105 of the Uniform Commercial Code	5	31%	n/a	n/a
The need for interoperability of systems operated by lessors, lenders and investors so that signed electronic records may be efficiently transferred from one owner to the next	4	25%	n/a	n/a
Other (please specify)	<ul style="list-style-type: none"> 2. Unknown conversion costs (or savings) associated with implementing 4. New process for us so testing its viability 10. EXPENSE 11. Government Regulations for KYC 12. Would prefer not to comment. 15. Competing priorities. 16. No specific obstacle has been identified; but that was not yet on top of our priority list 			

Total Respondents 16

Digital Documents: Financing Paperless Transactions

36. Which of the following do you believe would help overcome the obstacles to initiating or expanding your company's use or acceptance of lease documents using electronic signatures and records (Choose all that apply):

		Response Total	Response Percent
Model language for legal opinions relating to perfection and priority of security interests in electronic chattel paper		9	56%
Published court decisions enforcing electronically signed leases		11	69%
Published court decisions enforcing an investor or lender's "control" of an electronically signed lease under Section 9-105 of the Uniform Compliance Code		9	56%
Industry standards that would allow vendor platforms to be certified for compliance with legal requirements		10	62%
Industry standards for technical interoperability of signed records and electronic signature platforms that are adopted by all vendors		10	62%
Simpler rules for transferring control		3	19%
Other (please specify)	<ol style="list-style-type: none"> 1. appropriate technology 11. Government Reulators acceptance 12. Prefer not to comment. 		
Total Respondents		16	

APPENDIX C – ARTICLE 9 AND ELECTRONIC CHATTEL PAPER – THE BASICS³¹

Revised Article 9 governs the creation, priority and enforcement of security interests in personal property. This includes the perfection of a security interest in, and also the rights of a purchaser or assignee of, an equipment lease. Leases of specific equipment are included within the definition of “chattel paper” in Article 9. Revised Article 9 is excluded from coverage under E-SIGN and UETA, so that Article 9’s rules with respect to the use of electronic records when creating and perfecting a security interest in personal property are largely self-contained.

Historically under Article 9, a person claiming a security or ownership interest in written chattel paper established the primacy of their claim, as against other potential claimants, by taking possession of the original physical chattel paper or physically adding a legend indicating assignment to the original document (“first priority security interest”). Revised Article 9, which has been adopted in all 50 states and the District of Columbia, has adopted an alternative to possession or physical legend as a method for perfecting the first priority security interest against, or claiming an ownership interest in, electronic records that evidence chattel paper. This alternative method, described in detail below, preserves the functionality of electronic chattel paper under Revised Article 9 as readily transferable to a buyer in the ordinary course of business, while permitting perfection without requiring physical possession or legending of written documents.³²

Electronic Chattel Paper

Revised Article 9 defines “chattel paper,” in pertinent part, as

a record or records that evidence both a monetary obligation and a security interest in specific goods, . . . [or] a lease of specific goods. . . . In this paragraph, “monetary obligation” means a monetary obligation secured by the goods or owed under a lease of the goods.³³

“Electronic chattel paper” or “ECP” is further defined as chattel paper evidenced by a record or records consisting of information stored in an electronic medium.³⁴ Traditional written chattel paper is defined as “tangible chattel paper.” Under Revised Article 9, tangible chattel paper may be perfected against by possession of the original. Possession of the original by a purchaser for value, without notice of prior defenses, vests the purchaser with a super-priority claim to ownership of the chattel paper.

Since the concept of “original” has no application in an electronic environment, Revised Article 9 supplants the notion of perfection by *possession* of the original of the tangible chattel paper with perfection through *control* of the authoritative copy of the electronic chattel paper,³⁵ and sets the stage for creating liquidity in the market for ECP by clarifying the rights of a purchaser *vis-à-vis* other ECP security holders. Specifically, Revised Article 9 provides that:

- (1) A purchaser of chattel paper has priority over a security interest in the chattel paper which is claimed merely as proceeds of inventory subject to a security interest if:
 - (a) in good faith and in the ordinary course of the purchaser’s business, the purchaser gives new value and takes possession of tangible chattel paper or obtains control of electronic chattel paper under Section 9-105; and
 - (b) the chattel paper does not indicate that it has been assigned to an identified assignee other than the purchaser.

(2) A purchaser of chattel paper has priority over a security interest in the chattel paper which is claimed other than merely as proceeds of inventory subject to a security interest if the purchaser gives new value and takes possession of the chattel paper or obtains control of the chattel paper under Section 9-105 in good faith, in the ordinary course of the purchaser's business, and without knowledge that the purchase violates the rights of the secured party.

Control of Electronic Chattel Paper

Under Section §9-105 of the UCC, a secured party has control of electronic chattel paper if the record or records comprising the chattel paper are created, stored and assigned in such a manner that:

- (1) A single authoritative copy of the record or records exists which is unique, identifiable and, except as otherwise provided in numbered clauses 4, 5, and 6 below, unalterable;
- (2) The authoritative copy identifies the secured party as the assignee of the record or records;
- (3) The authoritative copy is communicated to and maintained by the secured party or its designated custodian;
- (4) Copies or revisions that add or change an identified assignee of the authoritative copy can be made only with the participation of the secured party;
- (5) Each copy of the authoritative copy and any copy of a copy is readily identifiable as a copy that is not the authoritative copy; and
- (6) Any revision of the authoritative copy is readily identifiable as an authorized or unauthorized revision.³⁷

To have control of electronic chattel paper, it was originally necessary to satisfy all six of the above-listed requirements of § 9-105. Section 9-105 did not allow for systems that do not have all of the elements listed, but that otherwise reliably establish the identity of the secured party/assignee, as is the standard for attaining control in certain other contexts, such as required under UETA, for example.³⁸

Under the 2010 amendments to UCC 9-105 ("2010 Amendments"),³⁹ which have been adopted by forty-seven states as of the date of this Study, control is established "if a system employed for evidencing the transfer of interests in the chattel paper reliably establishes the secured party as the person to which the chattel paper was assigned." This general rule substantially liberalized the six criteria for control described above. In states that have enacted the 2010 Amendments those six criteria now serve as a safe harbor for meeting the general rule of control. In those states that have not enacted the 2010 Amendments to 9-105 (including Oklahoma, and also New York and Missouri, which adopted some of the 2010 amendments but not those pertaining to UCC 9-105) it is still arguably necessary to satisfy all six of UCC 9-105's criteria in order to establish control.

Conversion of Electronic Chattel Paper to Tangible Chattel Paper

As an alternative to transferring control under Section 9-105, some Lessors wishing to pledge or sell leases documented using electronic records are exporting the records from the eVault in which they are held and converting them to tangible chattel paper. While there are no reported judicial decisions on the subject, it is widely believed by the legal community that conversion to tangible chattel paper should be possible under applicable law, so long as (i) the eVault has appropriate controls in place to permit export of the authoritative copy to paper form and de-commission the electronic authoritative copy, and (ii) the lessee has agreed, as part of the original execution of the electronic lease documents, to conversion of the lease documents and adoption of the reproduced signature on the converted tangible chattel paper as their own.

Assuming a proper export process and clear agreement with the lessee, at the time of conversion the signatures appearing or evidenced on the paper document should arguably be regarded as a symbol adopted by the signer with the intent to authenticate the writing – resulting in tangible chattel paper.⁴⁰ This view is further reinforced by the

Official Comments to the 2010 Amendments to Revised Article 9, which discuss the drafters' expectation that electronic records will be converted to tangible form, and vice versa, and still qualify for treatment as chattel paper under Revised Article 9:

A secured party may wish to convert tangible chattel paper to electronic chattel paper and vice versa. The priority of a security interest in chattel paper under subsection (a) or (b) may be preserved, even if the form of the chattel paper changes. The principle implied in the preceding paragraph, i.e., that not every copy of chattel paper is relevant, applies to "control" as well as to "possession." When there are multiple copies of chattel paper, a secured party may take "possession" or obtain "control" of the chattel paper if it acts with respect to the copy or copies that are reliably identified as the copy or copies that are relevant for purposes of possession or control. This principle applies as well to chattel paper that has been converted from one form to another, even if the relevant copies are not the "original" chattel paper.⁴¹

APPENDIX D – HOW AN EVAULT WORKS⁴²

Revised Article 9 uses the phrase “electronic chattel paper” for electronic equivalents to traditional chattel paper.⁴³ In general, Revised Article 9 grants the transferee of an interest in electronic chattel paper the same special rights as the purchaser in good faith of traditional chattel paper, if certain conditions are met. Those conditions are described in Appendix B to this Study Report, and include the requirement that the system for registering a transfer of ownership or security interests in electronic chattel paper “reliably established” the identity of the person entitled to control.

Therefore, a key question in designing a system for administering electronic chattel paper is whether the method for registering a transfer of interests “reliably establishes” the identity of the person entitled to control the Record. A failure to meet this requirement may be fatal to a claim for status as the equivalent of a purchaser of tangible chattel paper. Note that failure to maintain control does *not* mean that the underlying obligation cannot be enforced against the obligor – it just means that the transferee may not get the special rights that a holder or purchaser of the paper document would get with respect to defenses and/or third party claims.

As discussed in Appendix B, Revised Article 9 establishes a set of requirements which, if met, constitute a “safe harbor” for reliably establishing the identity of the person entitled to control (“Safe Harbor”).⁴⁴ In all but three states, satisfying the requirements of the Safe Harbor is not mandatory to meet the general standard for control, but is desirable. In New York, Oklahoma and Missouri, compliance with the Safe Harbor is mandatory. To qualify for control under the Safe Harbor, the electronic chattel paper must be created, stored, and assigned in such a manner that:

- Once the Record is signed, there is always a single authoritative copy of the Record that can be identified and distinguished from all other copies of the Record;
- After being signed, the authoritative copy must be unalterable without the alteration being detected and identified as either an authorized or unauthorized change;⁴⁵
- The authoritative copy in some way provides a way to identify the person in “control” of the Record;
- The authoritative copy is transmitted to and maintained by either the person in control or someone acting as a custodian for that person; and
- Control can only be transferred with the approval of the person already in control.⁴⁶

The first requirement of the Safe Harbor, for an “authoritative copy,” reflects a reality of the electronic environment – there is no such thing as an “original” document that can be transferred from person to person. The transmittal of an electronic document results in the creation of a new copy, not the physical transposition of the existing copy. A copy, to qualify as the authoritative copy, must meet three criteria – it must be unique, identifiable, and (except as otherwise provided) unalterable.

“Unique” is not otherwise defined, and it therefore should be understood in its simple dictionary sense, that is, the authoritative copy must have a characteristic that distinguishes it from other copies. That characteristic may be provided by technology, or by process or Agreement. For example, an authoritative copy stored within a controlled-access system may be provided with a unique control number, or be held in a specified server or other location that makes it distinguishable from other copies.

As a practical matter, if a Record is unique, then almost by definition it is identifiable, so that the second criterion for an authoritative copy appears redundant. The most sensible interpretation of the “identifiability” rule is that the document management system being used, or the Agreement of the Transaction Participants, must explicitly define

the authoritative copy in terms of its unique characteristic. In other words, an Agreement or system rule presumably must specify or describe the unique feature that identifies the authoritative copy, and how that unique feature can be accessed or confirmed.

Finally, the third criterion for an authoritative copy is that the Record must be unalterable; but this general rule is subject to three significant exceptions. First, the Record may be altered to reflect a new, authorized assignee of the Record. Second, the Record may be altered to reflect whether or not it is the authoritative copy. And finally, the Record may be altered so long as the authoritative copy reflects whether the revision is authorized or unauthorized. Essentially, the authoritative copy must be unalterable *without detection*, but may be altered so long as the changes can be tracked and it can be determined whether or not the change was authorized.

The authoritative copy does not have to be static over time. The copy that qualifies as the “authoritative copy” at one time, during or after the Transaction, need not be the same copy that qualifies as the authoritative copy at another time. All that is required is that at any given moment there be a single authoritative copy. So, for example, the authoritative copy may be transmitted from one location to another, which technically requires the reproduction of the authoritative copy at the place of receipt and destruction or de-certification of the authoritative copy at the sending location. UETA and ESIGN expressly contemplate that the authoritative copy may be transferred by telecommunication.⁴⁷

The authoritative copy must, in some way, be tied to a method for identifying the current party in control. This may be done by having evidence of the transfer of control integrated into the authoritative copy itself, or by having the authoritative copy logically associated with a methodology for tracking control, so that a person viewing the authoritative copy also is alerted, and has access, to the evidence of control.

The other feature of the Safe Harbor that merits closer examination is the requirement that all non-authoritative copies of the electronic chattel paper be readily identifiable as such. Once again, the new eCommerce Laws do not specify a technological or process solution to this requirement. For example, the requirement could presumably be met by storing the authoritative copy in a closed system that automatically “brands” all non-authoritative copies as such. As an alternative, the Record itself could give notice of the location at which the authoritative copy is stored, so that by definition all copies stored at other locations are not the authoritative copy. As yet a third example, the Record itself could provide for reference to system rules or a registry for determination of the location of the authoritative copy, so that anyone having access to the Record is on notice that they must check the system rules or registry to identify the authoritative copy.

One of the most significant questions about the Safe Harbor is the appropriate practical method for:

- Evidencing a transfer of control, and
- Identifying the authoritative copy of the Transferable Record.

Two principal conceptual models have emerged for satisfying the Safe Harbor:

- A “single document management system” model in which all Transaction Participants, from the originator to the final investor, have access to the authoritative copy on a single system. Ownership and control are related to access rights, and change dynamically as ownership of the electronic chattel paper is transferred.⁴⁸ This is sometimes referred to as the “eVault” model.
- A registry model, in which the authoritative copy itself may be transmitted from system to system and from one physical location to another, but a central registry referenced in the electronic chattel paper itself keeps track of the current owner and the location of the authoritative copy.

To date, the equipment leasing industry has utilized the eVault model, which addresses these four functions:

- Identifying the authoritative copy of the electronic chattel paper;
- Establishing the location of the authoritative copy;
- Identifying the party in control of the electronic chattel paper; and
- Effecting a transfer of control of the electronic chattel paper.

The eVault model uses a self-contained, secure environment and leverages the fact that with electronic chattel paper it is control over access, and not physical location, which is of chief importance to the owner of the Record. In this model, an authoritative copy is created and stored in a secure electronic environment (“eVault”). Every party requiring access, from the originator or broker creating the documentation and obtaining signatures, to the ultimate investor/owner, obtains access via the eVault. Access may be either direct, or through a portal. In this model, the authoritative copy of the electronic chattel paper is stored in the eVault.

The eVault employs a secure methodology to keep track of the identity of the control party for each electronic chattel paper document stored in the eVault. Each purchaser of the electronic chattel paper will take control by becoming the identified party in control within the secure eVault environment. The operator of the eVault will usually enter into an “Electronic Storage Agreement” with each owner/purchaser establishing certain system rules and defining operational reliability and security standards.

The eVault model should be in compliance with the Safe Harbor so long as:

- The system complies with properly designed system rules and appropriate functional and operational controls to insure system and Record integrity.
- The methodology used for establishing control is effective and requires the consent of the current control party, or its authorized agent, for a transfer of control to occur.
- The person operating the system is either the party in control of the electronic chattel paper or a designated custodian of that party.
- The fully executed authoritative copy is protected within the eVault from undetected alterations, and an audit log is maintained of the authority for each alteration that occurs.
- Each copy of the authoritative copy, whether in electronic or printed form, is in some way marked (e.g. with a watermark or legend) to indicate that it is not the authoritative copy.

The unique characteristic of the authoritative copy is established within the controlled system storing the Record. The system is designed so that the Record cannot be copied or printed without the copy or printout being branded as a non-authoritative copy. The authoritative copy is held by the controlling party or its authorized custodian, and is logically associated with a Record of the identity of the control party within the eVault system. Control may only be transferred with the consent of the current controlling party, and the authoritative copy may not be altered, once executed, without detection.

APPENDIX E

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BuckleySandler LLP is a law firm with more than 150 lawyers in Washington D.C., New York, Chicago, Los Angeles, and London focused on financial services law and litigation and enforcement matters. Currently, BuckleySandler represents the 10 largest banks in the United States, nine of the top 10 mortgage lending companies, nine of the top 10 mortgage servicing companies, the top 10 credit card issuers, as well as many community banks and non-bank financial services companies. In the past two decades, BuckleySandler attorneys have acted as lead defense counsel in class actions, represented clients in state and federal enforcement proceedings, and provided comments or drafting assistance on many of the most significant laws impacting the financial services industry.



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Margo Tank is a partner of BuckleySandler LLP. Ms. Tank advises financial services institutions and technology companies on structuring online and mobile financial services product offerings in compliance with the Electronic Signatures in Global and National Commerce Act (ESIGN) and the Uniform Electronic Transactions Act (UETA), and other state and federal laws governing electronic financial services transactions, electronic chattel paper, mobile payments and mobile wallets, prepaid access and virtual payment methods, and laws related to privacy and data security, money transmission, and unfair or deceptive acts and practices.

Ms. Tank's other activities include acting as the Co-Reporter for the Drafting Committee preparing the Standards and Procedures for Electronic Records and Signatures (SPeRS) (<http://www.spers.org/>), and advocacy before Congress and federal regulators with respect to electronic financial services issues as counsel to the Electronic Financial Services Council and the Electronic Signatures and Records Association. She was named a "2009 Mortgage Banking Technology All-Star" by *Mortgage Banking Magazine*. Ms. Tank is also a member of the American Bar Association's Business Law Section and the Committee on the Law of Commerce in Cyberspace, a member of the Electronic Transactions Association's Mobile Payments Committee, and is on the xDTM Standard Board of Governors.

Ms. Tank is co-author of *The Law of Electronic Signatures and Records* (West, a Thomson Reuters business, 2012-2013 Edition) and a number of articles: "What Emerging Payment Providers Can Learn From Liberty Reserve and Mt. Gox," *Payments Journal*, August 1, 2013; "A Brief Guide to Using Electronic Signatures in Securities Transactions," *Practical Compliance & Risk Management for the Securities Industry*, July 1, 2013; "Planning for Accessibility when Developing Financial Services Websites and Mobile Apps," *American Bar Association Consumer Financial Services Newsletter*, June 20, 2013; "NACHA's Guidelines for Bill Payments Via QR Codes," *E-Finance & Payments Law & Policy*, April 16, 2013; "Federal Regulators Issue Guidance on Social Media and Mobile Privacy," *Internet Law & Strategy*, April 4, 2013; "Is Regulatory Uncertainty an Impediment to Mobile Payments?" *Payments Journal*, January 23, 2013; "E-Signatures: Zulkiewski v. American General Life Insurance Company," *E-Commerce Law Reports*, December 4, 2012; "Two Agencies and Various Industry Standards Offer Guideposts on Mobile Disclosure Requirements,"

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Prior to joining BuckleySandler, Mr. Whitaker was Senior Company Counsel in the Strategy & Operational Risk Group at Wells Fargo Bank, N.A., where he served as team leader for the group of attorneys supporting Wells' electronic financial services. In that role, he supported the bank's online and mobile banking services, and a wide variety of new product development initiatives. Among other products, he served as the primary legal architect at Wells for the development of the vSafe online document storage service and the clearXchange P2P electronic payments platform.

Before joining Wells, Mr. Whitaker was Of Counsel in Goodwin Procter's Corporate Department and a member of its Financial Services Practice, specializing in electronic commerce issues and financial services law. He has extensive experience with practical application of laws governing electronic banking, letters of credit, payment systems and commercial and consumer financing. Before joining Goodwin Procter, Mr. Whitaker was Assistant General Counsel at the Federal Home Loan Mortgage Corporation (Freddie Mac) in McLean, Virginia. He has also served as a Vice President at Star Bank, N.A. (now U.S. Bancorp), headquartered in Cincinnati, Ohio; Vice President and Assistant Director of Legal Services at Bank of Oklahoma, N.A.; and in private practice as a partner at Boesche, McDermott & Eskridge, in Tulsa, Oklahoma.

Mr. Whitaker is a member of the American Law Institute. He was named a “2009 Mortgage Banking Technology All-Star” by *Mortgage Banking Magazine*, in recognition of his pivotal role in “transform[ing] e-mortgages from an idea into a product.” Mr. Whitaker is also a member of the American Bar Association's Business Law Section, and the Business Law Section's Committee on the Uniform Commercial Code (“UCC”), Committee on the Law of Commerce in Cyberspace, and UCC Subcommittee on Letters of Credit. He has co-chaired the Cyberspace Committee's Task Force on Federated Identity Management.

Mr. Whitaker was the Reporter for the Standards and Procedures for electronic Records and Signatures (“SPeRS”). He also served as Reporter for the Mortgage Bankers Association white paper “Security Interests in Transferable Records.” He was an active participant in the drafting of Revised Articles 5 and 9 of the UCC. He participated in the drafting of the Uniform Electronic Transactions Act, where he chaired the Task Force on Scope and served as reporter for the Task Force. Mr. Whitaker also advised industry participants on the creation and drafting of the federal Electronic Signatures in Global and National Commerce Act. He is one of the co-authors of *The Law of Electronic Signatures* (West).

Mr. Whitaker holds a B.A. with High Honor in International Relations from James Madison College at Michigan State University, and a J.D. from the University of Illinois (*cum laude*). He has also studied international business law and British constitutional law at Queen's College, Oxford University, England.

APPENDIX F – ENDNOTES

¹While the survey responses indicate that there are investors and lenders willing to accept electronic equipment leasing documentation, the Study authors and members of the ELFA Task Force are aware of situations in which this has not been the case, and that many lenders and investors are not yet comfortable with electronic lease documents. This is borne out by Survey responses indicating that a majority of lenders are not willing to accept electronic lease documents as collateral, and have no plans to do so.

²See Appendix B, which includes a discussion of the basic legal considerations around converting electronic lease documents to paper for purposes of collateralization and transfer. Notwithstanding the responses received from Survey participants, the Study authors and members of the ELFA Task Force are aware that certain lenders and investors currently require electronic lease documents to be converted to paper before being pledged as collateral or purchased.

³Interestingly, a topic that was not a focus of comments by Survey participants or interviewees was the role of electronic processes in authentication of lessees or signers. The **Standards and Procedures for electronic Records and Signatures** (“SPeRS”) notes that:

Broadly speaking, there are five strategies available for authenticating a Transaction Participant when establishing a business Relationship. These strategies are:

- Self-Authentication – the Transaction Participant provides a declaration of identity,
- Logical Authentication – the information provided by the Transaction Participant is checked to make sure it is logically consistent (e.g., the phone number area code matches the address),
- Negative Authentication – the information provided by the Transaction Participant is checked to determine if it has previously been associated with fraudulent Transactions or identity theft,
- Positive Authentication – The information provided by the Transaction Participant is confirmed with a trusted external source of information (e.g., the Transaction Participant’s social security number and address matches information contained in a credit report), and
- Third-party Authentication – the identity of the Transaction Participant is confirmed by a Trusted Third Party (e.g., the Transaction Participant’s identity is confirmed by a notary public or Certificate Authority providing a Digital Certificate).

The five strategies are not mutually exclusive. The various strategies may be used in combinations appropriate to the type of Transactions and their level of risk. Each strategy may be implemented through a variety of methods.

SPeRS, Commentary to Standard 1-1. The five strategies are reviewed in more detail in Appendix 1 to Section 1-1 of SPeRS, which is available from www.spers.org. In particular, the use of automated knowledge tests, derived from information available from third-party sources, has proven a valuable method of authentication of individuals in an electronic environment, combining elements of positive and third-party authentication methods.

⁴See J. Buckley, J. Kromer, M. Tank, and D. Whitaker, **The Law of Electronic Signatures**, 2014-2015 Edition (Thomson Reuters 2014), Chapters 6 and 7, and pp. 179-189. Portions of the materials in this Section are drawn from **The Law of Electronic Signatures**. The information in this Section is provided for purposes of education and discussion. It is intended to be informational only and does not constitute legal advice regarding any specific situation, product or service.

⁵The following two statutes are the primary sources of law for using “electronic records” and “electronic signatures” in consumer financial services transactions (sometimes collectively referred to in this Chapter as the “eCommerce Laws”):

- The Electronic Signatures in Global and National Commerce Act (“ESIGN”), and
- The Official Text of the Uniform Electronic Transactions Act as approved and recommended by the Uniform Law Commission (formerly the National Conference of Commissioners on Uniform State Laws) in July 1999.

While ESIGN is a federal law, UETA is a uniform law recommended by the Uniform Law Commission that must be adopted by individual states. Note that the California UETA purports to exclude retail installment sales contracts from coverage, so that they are required to be presented and executed on paper. This exclusion may be preempted by ESIGN, but California regulators may not acquiesce to preemption without a court order or Attorney General’s opinion.

⁶ESIGN, 15 U.S.C. § 7001(e). The standard under UETA is articulated somewhat differently. See FN 3, *supra*.

⁷Under UETA, the standard is articulated differently than ESIGN (see FN 2, *supra*), but with a similar result: if parties to a transaction have “agreed to conduct a transaction by electronic means and a law requires a person to provide, send, or deliver information in writing to another person, the requirement is satisfied if the information is provided, sent, or delivered, as the case may be, in an electronic record capable of retention by the recipient at the time of receipt.” Similar to ESIGN, this requirement applies only where other law requires information to be delivered or otherwise provided “in writing.” UETA § 8.

⁸ESIGN does not expressly state that consent is required in so many words (except for certain purposes in consumer transactions), but failure to obtain explicit consent leaves open as a possible defense the claim that a party had not agreed to use electronic records or signatures. While UETA does not directly address the question, the fact that it is an “opt-in” statute means, as a practical matter, that no one is required to accept the use of electronic records and signatures under UETA, either. 15 USC 7001(b).

⁹15 USC 7001(c).

¹⁰*Id.*

¹¹A number of states that have adopted UETA have incorporated the ESIGN Consumer Consent Process into their version of UETA. Therefore, as a practical matter the ESIGN Consumer Consent Process will be required as a prelude to virtually any consumer transaction where federal or state law requires information to be provided to a consumer in writing.

¹²15 U.S.C. § 7006(5).

¹³UETA § 9.

¹⁴ESIGN, 15 U.S.C. § 7001(d). Under UETA, as with ESIGN, if a law requires that a record be retained, the requirement is satisfied by retaining an electronic record of the information in the record which:

- Accurately reflects the information set forth in the record after it was first generated in its final form as an electronic record or otherwise; and
- Remains accessible for later reference.

UETA § 12.

¹⁵As the Reporter’s Comments to UETA state,

In an electronic medium, the concept of an original document is problematic. For example, as one drafts a document on a computer the “original” is either on a disc or the hard drive to which the document has been initially saved. If one periodically saves the draft, the fact is that at times a document may be first saved to disc then to hard drive, and at others vice versa. In such a case the “original” may change from the information on the disc to the information on the hard drive. Indeed, it may be argued that the “original” exists solely in RAM and, in a sense, the original is destroyed when a “copy” is saved to a disc or to the hard drive. In any event, in the context of record retention, the concern focuses on the integrity of the information, and not with its “originality.”

UETA § 12 cmt. 2 (emphasis added).

¹⁶At least one state, North Carolina, has established as part its UETA that a consumer who is entering into a transaction on seller-provided electronic equipment must be provided a paper copy of the transactions documents. This requirement may be preempted, however, by ESIGN.

¹⁷*Id.*

¹⁸Fed. R. Evid. 803(6).

¹⁹Fed. R. Evid. 1002.

²⁰Uniform Rules of Evidence, 1974 Official Text as amended in 1986 and 1988. As of this date, approximately 38 states, including Florida, have adopted the Uniform Rules of Evidence. A new version of the Uniform Rules of Evidence, which continues to closely track the FRE, was promulgated by NCCUSL in 1999.

²¹Fed. R. Evid. 801.

²²Using a contract to prove its terms may not be a hearsay issue. See *Mueller v. Abdnor*, 972 F.2d 931 (8th Cir. 1992) (contract is a verbal act and is not hearsay). However, to the extent it is hearsay it would be permitted under the business records exception.

²³Fed. R. Evid. 803(6).

²⁴See, e.g., *Air Land Forwarders, Inc. v. United States*, 172 F.3d 1338 (Fed. Cir. 1999).

²⁵In addition, it may also be permitted by the FRE Section 803(14) which applies to documents affecting an interest in property. Note, however, that if a record contains multiple layers of hearsay (e.g., is double hearsay), it may not be considered to be admissible evidence unless the record completely fits one or more exemptions to the hearsay rule.

²⁶Fed. R. Evid. 1002.

²⁷Fed. R. Evid. 1001(3) [emphasis added].

²⁸See *United States v. Nixon*, 694 F.3d 623, 635 (6th Cir. 2012) (“The simple act of printing out the electronically stored records does not change their status for admissibility.”); *Vining v. State Farm Life Ins. Co.*, 409 So. 2d 1306, 1311 (La. Ct. App. 1982) (“There is no question but that computer printouts are admissible in evidence in this state when the proper foundation is laid for their admission.”); *King v State ex rel. Murdock Acceptance Corp.* (Miss) 222 So 2d 393 (1969) (“Records stored on magnetic tape by data processing machines are unavailable and useless except by means of the print-out sheets such as those admitted to evidence in this case”). See also 14 Am. Jur. Proof of Facts 2d 173, § 17 (Originally published in 1977) (“The most common reason that courts have rejected computerized evidence is that an insufficient foundation was laid to show the accuracy and trustworthiness of the evidence.”)

²⁹This finding of the Survey is in line with the Study authors' understanding of current software solutions for electronic presentation and signing of records, most of which rely on dynamic PDF files to evidence electronically signed records and preserve information concerning the signatures. This should not be confused with the use of PDF as a format for electronically scanned images of paper documents.

³⁰However, the Study authors and members of the ELFA Task Force are aware of Lessors that are including such language in their leasing documents.

³¹See J. Buckley, J. Kromer, M. Tank, and D. Whitaker, **The Law of Electronic Signatures**, 2014-2015 Edition (Thomson Reuters 2014), pp. 63-66 and 238-240. Portions of the materials in this Appendix are drawn from **The Law of Electronic Signatures**. The information in this Appendix is provided for purposes of education and discussion. It is intended to be informational only and does not constitute legal advice regarding any specific situation, product or service.

³²See generally Jane K. Winn. *Electronic Chattel Paper: Invitation Accepted* 46 Gonzaga L. Rev. 407 (2010/11) (hereinafter “Winn on ECP”).

³³UCC § 9-102(a)(11).

³⁴UCC § 9-102(a)(31).

³⁵See UCC § 9-105, Draft Rptr's Cmt. 2 (1998) ("Control is necessary to benefit for the special priority rule provided in Section 9-330. In descriptive terms, it provides that control of electronic chattel paper is the functional equivalent of "possession" of tangible chattel paper . . . [t]he draft leaves to the marketplace the development of systems and procedures for dealing with control of electronic chattel paper in a commercial context.").

³⁶See UCC §§ 9-330(a), (b).

³⁷UCC § 9-105.

³⁸See UETA § 16(b).

³⁹UCC Article 9 Revisions (2010), as promulgated by the ULC.

⁴⁰U.S. law recognizes the ability to create or adopt a signature to be effective at the time of signing and also at a later date when on a different record or document. See, for example, *Pontrich v. Neimann*, 208 Ky. 715, 271 S.W. 1049, 1050 (1925) "[A] signature, one purposely made by the party on a previous occasion, may be adopted for a new writing then made, with the same effect as if made anew. This is a sufficient compliance with the requirements of the statute of frauds."

⁴¹UCC 2010 Rev. § 9-330, cmt. 4.

⁴²See **Standards and Procedures for electronic Records and Signatures** ("SPeRS"), Version 3.0 (SPeRS, Inc. 2014), Commentary to Standard 5-7. SPeRS is available from www.spers.org. Portions of the materials in this Appendix are drawn from the Commentary to Standard 5-7. The information in this Appendix is provided for purposes of education and discussion. It is intended to be informational only and does not constitute legal advice regarding any specific situation, product or service.

⁴³For a helpful resource on electronic chattel paper, see *Framework for Control Over Electronic Chattel Paper*, 61 *The Business Lawyer* 721 (2006).

⁴⁴Official Comment 3 to UETA § 16; Revised Article 9 §9-105.

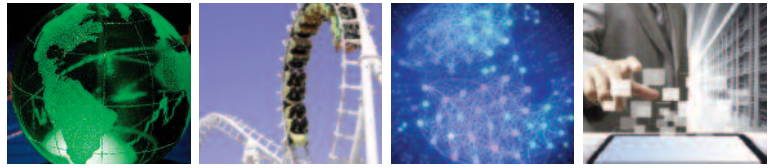
⁴⁵The term "unalterable" should not be taken too literally. Practically speaking, no Record is unalterable. Ordinary writings may be altered, and so may almost any type of electronic chattel paper. All Records are also subject over time to decay and deterioration. The requirement that a Transferable Record be unalterable is modified by UETA § 16(c)(6), which permits revisions that are readily identified as authorized or unauthorized. In other words, UETA does not require that a Transferable Record be unalterable in a metaphysical sense, but only that it be unalterable without detection.

⁴⁶UETA §16(c); ESIGN §201(c).

⁴⁷UETA §16(c)(3); ESIGN §201(c)(3).

⁴⁸It should be noted that some industries have adopted different solutions. For example, the mortgage industry has shown little interest in a "multiple document management system" model without the use of a central registry to handle control issues and to specify location of the authoritative copy. This is because the various document management software packages for Transferable Records currently available are not compatible, and the use of a hand-off from one system to another, even if they are able to talk to each other, is fraught with technical problems and the potential for legal challenges based on obscure issues. Instead, the mortgage industry has pursued a central registry system, provided by MERS®, with multiple custodians that may or may not have compatible storage systems.

Other industries, such as the automobile finance industry, have gravitated towards implementing fully-integrated document management systems that may store documentation pertaining to a transaction throughout its entire lifecycle. For more information regarding the retail auto finance solution, see Accredited Standards Committee X9, Inc., ANSI X9.103-2004, *Motor Vehicle Retail Sale and Lease Electronic Contracting* (2004) ("X9-103").



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