

2007

# Paperless Transactions: The Competitive Edge



## **About The Equipment Leasing and Finance Foundation**

*The Equipment Leasing and Finance Foundation is the only not for profit organization dedicated to providing future-focused, in-depth independent research about the equipment financing industry.*

*The Foundation accomplishes its mission through development of studies and reports identifying critical issues impacting the industry. All products developed by the Foundation are donor supported and donors receive products free of charge. Non donors may purchase these studies.*

*The Foundation works with various groups to further the industry's body of knowledge including enjoying fruitful relationships with universities and academics nationwide.*

To access the Foundation's comprehensive industry information,  
please visit <http://www.LeaseFoundation.org>

### **Contact Information:**

Lisa A. Levine, CAE  
Executive Director  
4301 N. Fairfax Drive, Suite 550  
Arlington, VA 22203  
703-527-8655  
[llevine@elfaonline.org](mailto:llevine@elfaonline.org)

***The Equipment Leasing and Finance Foundation***

***wishes to express appreciation to the***

***following company for providing the sponsorship***

***to support development of this report:***



**NetSol McCue Inc.**  
A NetSol Technologies Company



May 1, 2007

Dear Colleagues,

We are proud to be the corporate sponsor of the Equipment Leasing and Finance Foundation's study, "Paperless Transactions: The Competitive Edge". We believe that within these pages lie the keys to the future of our industry.

From the perspective of a technology provider, the idea of "paperless" equipment finance operations is not just a familiar concept, but a vital component of the technologically-enhanced equipment finance business. Ours has always been a document-intensive business, with lots of required paperwork about assets, relationships, financial obligations, and regulatory compliance passing through many hands and approval points. As workflow analysts, we see each one of these documents as opportunities for the introduction of errors, and each touch point as a source of added costs.

So it was easy for us to throw our support behind this study. We salute the Foundation for this clarion call for the establishment of industry standards, the reduction of processing costs, and the streamlining of the business from end-to-end.

If the leaders of our industry follow the Foundation's lead, the winners will be the leasing and finance organizations whose costs will be lowered and whose efficiencies will be enhanced. But even more importantly, the true beneficiaries will be our customers, the commercial users of the assets we finance, whose operations will gain from the greater efficiency, accuracy, and speed our industry will offer them in an increasingly paperless world.

We hope you will find the study to be a useful wake-up call and a guide to your own paperless future.

Cordially,

A handwritten signature in black ink that reads "John McCue". The signature is written in a cursive, slightly stylized font.

John McCue  
President, NetSol McCue Inc.  
A NetSol Technologies Company

2007

# Paperless Transactions: The Competitive Edge

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>STUDY OBJECTIVES AND METHODOLOGY .....</b>	<b>6</b>
<b>PART 1. BENEFITS, OPPORTUNITIES AND OBSTACLES .....</b>	<b>7</b>
BENEFITS OF AUTOMATION .....	7
OBSTACLES TO ADOPTION .....	8
<b>PART 2. CURRENT STATE MODEL .....</b>	<b>9</b>
EXISTING STATE OF AUTOMATION .....	9
CURRENT STATE MODEL .....	12
<i>“Pain Points”</i> .....	13
<i>Inherent Weaknesses</i> .....	14
<b>PART 3. FUTURE STATE MODEL.....</b>	<b>15</b>
OVERVIEW OF FUTURE STATE.....	15
<i>Resolution of “Pain Points”</i> .....	16
<i>Necessary Elements</i> .....	17
FUTURE STATE MODEL .....	17
<i>Application Processing</i> .....	17
<i>Credit and Underwriting</i> .....	18
<i>Contract Processing</i> .....	19
<i>Contract/Asset Management</i> .....	19
<b>PART 4. THE LEGAL INFRASTRUCTURE .....</b>	<b>21</b>
ESIGN AND UETA.....	21
REVISED ARTICLE 9 OF THE UCC .....	22
RATING AGENCY ACCEPTANCE .....	24
<b>PART 5. PAPERLESS TRANSACTIONS IN OTHER INDUSTRIES .....</b>	<b>25</b>
MORTGAGE INDUSTRY .....	26
<i>The Registry Model</i> .....	27
<i>MISMO and SPeRS</i> .....	28
AUTOMOBILE FINANCE INDUSTRY .....	29
<i>Single System Model</i> .....	29
<i>X9 Standards</i> .....	30
VARIABLE ANNUITIES INDUSTRY .....	30
<b>PART. 6 THE PATH FORWARD .....</b>	<b>32</b>
LEGAL AND OPERATIONAL CONSIDERATIONS.....	32
<i>Electronic Forms</i> .....	33
<i>Workflow</i> .....	35
<i>Authentication</i> .....	35
<i>Electronic Signatures</i> .....	35
<i>Record Retention</i> .....	36

*Control* ..... 37

CREATING INDUSTRY-WIDE STANDARDS ..... 37

**APPENDIX A: GLOSSARY**..... 42

**APPENDIX B: LEGAL ASPECTS OF ELECTRONIC TRANSACTIONS**..... 45

TABLE OF CONTENTS..... 45

**1. Overview of UETA and EFTA**..... 45

**2. Electronic Records** ..... 46

**3. Electronic Signatures**..... 48

**3.1 Selecting a Signature Process**..... 48

**3.2 Providing Information to the Customer Regarding the Signing Process** 49

**3.3 Establishing the Customer’s Intent to Sign**..... 50

**3.4 Associating a Signature with a Record**..... 51

    3.4.1 *Attributing a Signature to a Customer* ..... 51

**3.5 Authentication** ..... 52

    3.5.1 *Authentication Methods* ..... 52

    3.5.2 *Selecting a Credential Method*..... 53

    3.5.3 *Notifying Credential Holder of Rights and Responsibilities*..... 54

    3.5.4 *Representative’s Authority*..... 54

**4. Consent to Engage in Business Electronically**..... 55

**5. Record Retention and Management**..... 55

**5.1 UETA and EFTA Record Retention Requirements** ..... 55

**5.2 Admissibility into Evidence**..... 58

    5.2.1 *The Best Evidence Rule*..... 58

    5.2.2 *The “Duplicates” Rule* ..... 59

    5.2.3 *The Secondary Evidence Rule*..... 59

    5.2.4 *The Business Records Act* ..... 60

    5.2.5 *State Law*..... 61

    5.2.6 *Process Integrity*..... 61

**6. Legal Aspects of the Assignment of Electronic Records** ..... 62

**6.1 Creation of Security Interests Using Electronic Records and Signatures**.... 63

    6.1.1 *Perfection of Security Interests Using Electronic Records*..... 63

    6.1.2 *Perfection by Control of Security Interests in Electronic Chattel Paper* ... 65

    6.1.3 *Choosing a Method of Perfection*..... 66

**APPENDIX C: SUMMARY OF CASES**..... 69

**APPENDIX D: STANDARD & POOR’S – LEGAL ISSUES OF SECURITIZED AUTO LOANS IN AN E-CONTRACT WORLD** ..... 79

**APPENDIX E: CURRENT STATE MODEL** ..... 82

**APPENDIX F: FUTURE STATE MODEL** ..... 96

**APPENDIX G: RESOURCES** ..... 109

**APPENDIX H: SPERS STANDARDS** ..... 111

**APPENDIX I: ELFF ELECTRONIC CONTRACTING SURVEY RESULTS – MARCH 2007**  
..... 125

**APPENDIX J: NAVA STANDARDS ..... 132**  
**APPENDIX K: STUDY AUTHOR BIOGRAPHICAL INFORMATION.....147**



# A Readers Guide To This Study

**Paperless Transaction: The Competitive Edge** study is a comprehensive-- and we do mean comprehensive study of how paperless transactions can and will change the paper-based paradigm of the asset finance industry. Its 135 pages contain information useful for many different stakeholders within a typical equipment leasing and finance organization.

Given the depth and breadth of the content, we suggest breaking down the larger study into smaller components based on the functional groups affected. The following user-guide, in which each section of the study is highlighted by the sections topical interest for a particular stakeholder, should prove a helpful framework—and encourage knowledge transfer of the study findings with your own organization.

A “\*” designation represents a section of primary interest for the stakeholder and that should be read and understood in depth.

Section	Stakeholder					
	CEO / President	CFO / Credit / Securitization/ Syndication	COO / Operations	CIO / IT	Sales / Sales Admin	Legal / Contracts
Executive Summary	*	*	*	*	*	*
Study Objectives & Methodology	*	*	*	*	*	*
Part 1 – Benefits, Opportunities, & Obstacles	*	*	*	*	*	*
Part 2 – Current State		*	*	*	*	*
Part 3 – Future State		*	*	*	*	*
Part 4 – The Legal Infrastructure	*					*
Part 5 – Paperless Transactions In Other Industries	*	*	*	*	*	*
Part 6 – The Path Forward	*	*	*	*	*	*
Appendix A: Glossary	*	*	*	*	*	*
Appendix B: Legal Aspects Of Electronic Transactions	*	*	*	*	*	*
Appendix C: Summary Of Cases	*					*
Appendix D: Standard & Poor’s – Legal Issues	*	*		*		*
Appendix E: Current State Model	*	*	*	*	*	*
Appendix F: Future State Model	*	*	*	*	*	*
Appendix G: Resources	*		*			*
Appendix H: SPERS Standards	*	*	*	*	*	*
Appendix I: NAVA Standards	*					*

## EXECUTIVE SUMMARY<sup>1</sup>

Reduced margin spreads, decreased differentiation in financing products, too much capital chasing too few deals – everyone is looking for the next competitive advantage. For early adopters, going paperless will be that competitive advantage and eventually, it will become a way of doing business, just like cell phones and e-mail. Can you afford to be left behind?

Replacing existing paper-based systems with secure and efficient electronic systems to automate credit processes, speed financing communications and improve transaction efficiency is expected to result in marked gains for those industries willing to “go paperless.” As companies look for ways to continue to attract and retain customers, effectively compete, and improve margins, adopting and leveraging technology should be foremost on the minds of industry leaders.<sup>2</sup>

The legal infrastructure is in place and the technology is readily available. However, as in other business sectors reviewed for this study, there are a number of reasons for a slow adoption rate, including the lack of a significant industry participant applying pressure to transition to the paperless transaction; the lack of regulatory or judicial guidance; market participants not perceiving the benefits of the first mover advantage, and the lack of broadly accepted industry-wide standards.

Experience with other business sectors has shown<sup>3</sup> that the most efficient path to the paperless transaction is to have industry leaders commit to work together to develop electronic transaction standards on an industry-wide basis. Rather than companies taking a “wait and see” approach, resulting in each company investing substantial resources to automate within their own parochial environment and then having to invest the resources again once industry standards develop, a collaborative effort will reduce costs, flatten the learning curve, hasten the adoption rate and reduce legal and business risk.

---

<sup>1</sup> This Study does not constitute legal advice. You should consult with qualified counsel before initiating any electronic business processes. In addition, standards-setting activities should be planned or undertaken with consultation with qualified antitrust counsel.

<sup>2</sup> According to a recent report, a company’s ability to adopt and leverage technology is a consistent attribute of “OutPerformers.” See Equipment Leasing and Finance Foundation, *Business Differentiation, What Makes a Select Few Companies Consistently Outperform their Peers?* (Oct. 1, 2006).

<sup>3</sup> See SPeRS Standards in Appendix H; NAVA Standards in Appendix I. See also the discussion in Part 5 regarding other industry standard setting efforts (both technology driven and behavioral).

## STUDY OBJECTIVES AND METHODOLOGY

The Equipment Leasing and Finance Foundation (the Foundation) commissioned this Study to review where the equipment lease and finance industry stands today<sup>4</sup> with respect to automation (Current State), to provide a view of the future (Future State) and a road map for achieving the paperless transaction. To do this, we reviewed existing law and literature on the development of paperless transactions in multiple business sectors. We also engaged in discussions 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 Study addresses the following:

### **The Benefits, Opportunities and Obstacles to Going Paperless**

- Compelling business motivations to going paperless;
- Significant challenges to implementation.

### **The Current and Future State**

- Impact of paperless transactions on the equipment lease and financing industry;
- Comparison of the current and future states.

### **The Legal Infrastructure**

- Enforceability of paperless contracts under the Electronic Signatures in Global and National Commerce Act (ESIGN) and the Uniform Electronic Transaction Act (UETA);
- Electronic chattel paper (ECP) and the relevant Uniform Commercial Code (UCC) Article 9 provisions and related issues;
- Rating agency views on ECP and UCC Article 9 issues.

### **Paperless Transactions in Other Industries**

- Mortgage;
- Automobile Finance;
- Variable Annuities.

### **The Path Forward**

- The case for industry-wide standards;
- Legal and operational considerations for implementing the paperless transaction.

## PART 1. BENEFITS, OPPORTUNITIES AND OBSTACLES

### Benefits of Automation

According to The Gartner Group, a leading industry analyst, the application of fully electronic processing to automate currently manually-intensive business processes is growing at a compounded annual growth rate of 40-45%. While a large part of this growth has occurred in government, the most rapid growth is in financial services.

Most loan and lease transactions, regardless of size, involve numerous “wet ink” signatures, disclosures (some of which must be initialed and/or signed), multi-part forms with each copy having its own workflow and end-point destination, document shipping expenses, handling costs and filing, storage, and assignment expenses. In addition, these transactions, again regardless of size, involve multiple transaction parties – business partners, financing sources, state regulatory agencies, investors, auditors, etc. who will need to rely on and have access to the loan or lease documentation.

The industries surveyed for the study expect to achieve substantial benefits from pursuing paperless processing, including:

- Reduced processing costs and increased productivity with approximately the same resources;
- Procedures that are not dependent on individual human traits or activities, but are managed from control centers through predictable systems that apply the same action to the same circumstances in transaction after transaction, leading to more accuracy and integrity of the data and documentation;
- Transparency (the ability for all parties to the transaction to understand the actions being undertaken) in processes from any point to any other point, leading to reduced risk and increased quality control;
- Assured, predictable outcomes with fewer errors and faster error detection and resolution;
- Lower cost document servicing costs for retrieval for regulatory, litigation or customer service purposes;
- Improved customer satisfaction, greater confidentiality of customer information and fewer formal encounters between customers and sales personnel and
- Increased value of the asset, as secured parties also accrue the benefits described above when they purchase and/or protect the ownership of their assets electronically.

It should be noted that although the enormous potential of technology is generally understood, reliable data on the return on investment (ROI) have not been readily available to the various business sectors surveyed.<sup>5</sup> However, these benefits, opportunities and cost savings should be able to be attained incrementally as the industry evolves from paper to hybrid (*i.e.*, partially electronic) to a fully electronic and paperless environment. For these reasons, many industries in which paper-centric procedures are the primary generators of revenue are moving to the paperless transaction.

---

<sup>5</sup> See Mortgage Bankers Association MISMO eMortgage Workgroup, *eClosing Cost Benefits White Paper Version 1.0* (2006) for a hypothetical business case with an ROI analysis template which can be used to create customized individual evaluations of eMortgage ROI.

## Obstacles to Adoption

In the equipment leasing and finance industry, early adopters of automation generally have been companies involved in financing small-ticket transactions where transaction speed is a significant competitive advantage. Notwithstanding the benefits described above, and readily available technology, few companies regardless of the business sector have fully automated the entire transaction process. Slow adoption rates can be attributed to, among other things:

- Lack of a significant industry participant applying pressure to transition to the paperless transaction;
- Lack of industry consensus regarding the core component(s) of the paperless transaction;
- Questions concerning whether a business should “build” or “buy” the technology to facilitate the core component(s)
- Little or no regulatory or judicial guidance;
- Market participants not perceiving the benefits of the first mover advantage;
- Lack of defined standards or guidelines at the industry-level;
- Necessity of review and acceptance of standards or guidelines by the secondary market and the rating agencies; and
- Resources that will be required to migrate an industry to electronic transactions.<sup>6</sup>

In the mortgage industry, the Mortgage Bankers Association and large investors such as Fannie Mae and Freddie Mac are devoting significant time and resources toward driving the industry toward a paperless transaction.<sup>7</sup> NAVA, the American Financial Services Association and others are work with industry participants to put a framework for companies to follow. The equipment leasing and finance industry will need to identify its own stakeholders that understand that participating early in the development of a new way of doing business will allow such stakeholders to define the parameters of doing the business for years to come.

Companies that have moved toward electronic adoption are wrestling with whether they should “build” or “buy” the technology to facilitate the core component(s). While the legal infrastructure to support the paperless transaction is in place, these laws require that electronic systems and processes meet specific requirements. Failure to meet these requirements could impair the enforceability of electronic records and impact the perfection of a security interest. Thus, the design of a technology system for, among other things, (i) signing records, (ii) delivering notices or disclosures electronically or (iii) perfecting by “Control” (the electronic equivalent of possession), requires a detailed understanding of the interaction between electronic processes (technology) and legal requirements.

Finally, the “you go first” mentality combined with the lack of legal and judicial guidance or industry-wide standards to follow continue to hamper adoption of the paperless transaction.

---

<sup>6</sup> This Study does not include a discussion of the issues associated with converting a paper lease into an electronic lease.

<sup>7</sup> See *Fannie Mae Guide to Delivering eMortgages v.2.0* (2005); *Freddie Mac eMortgage Handbook v.1.0* (2005).

## PART 2. CURRENT STATE MODEL<sup>8</sup>

### Process Overview

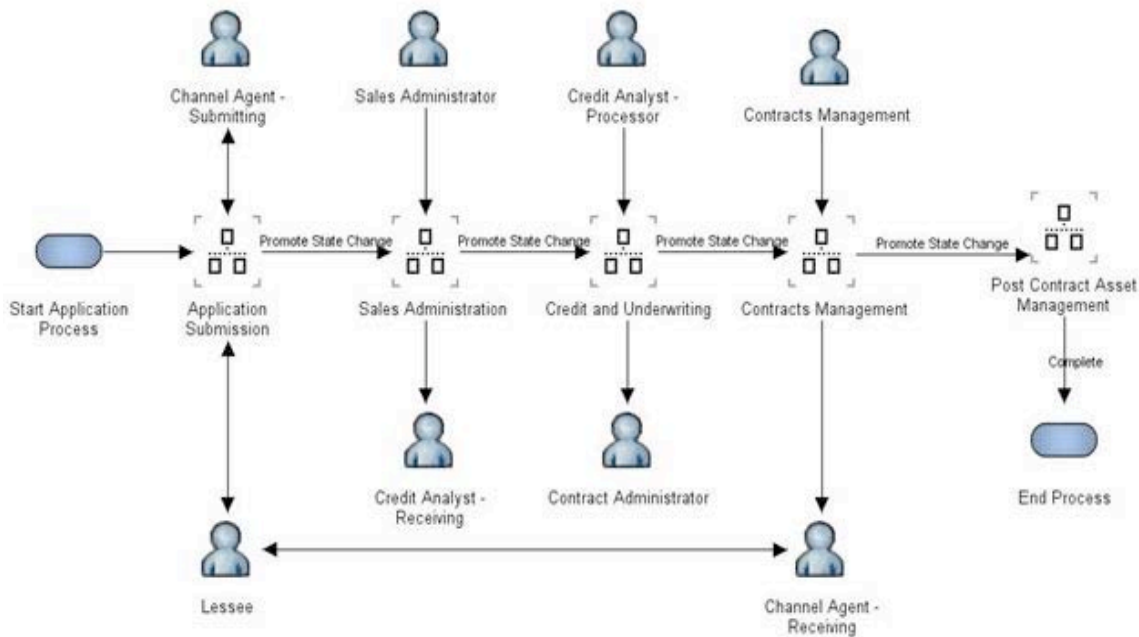


Figure 1: Current State Model

### Existing State of Automation

Although individual market participants have achieved varying levels of automation, ranging from fully manual to almost completely electronic processing, the description of the Current State model focuses on the manual (*i.e.*, non-electronic) performance of tasks associated with originating and processing a lease or loan application (Application).

The Current state allows for delays and risks in Application processing and post-closing file management, all of which can be alleviated through automated processes. The effort required for any particular entity to move from paper processing in the current state to electronic processing in the future state depends upon a multitude of factors, including the size and types of transactions being processed, the current level and type of electronic processing being performed, the state of segment willingness to embrace electronic transactions and the electronic business processes that the entity's business partners have in place.

In order to quantify the industry's current level of automation, the Foundation conducted an informal survey of electronic business practices in March 2007.<sup>9</sup> The survey results, which are repeated in their

<sup>8</sup> See full report of the Current State Model in Appendix E.

<sup>9</sup> The Foundation conducted the study during a one-week period by e-mailing notice of the survey to approximately 1,000 executive level senior managers of Foundation members. An invitation was only sent to one employee at each member company and is intended to provide the Foundation and its members with general information on the state of industry automation and industry trends.

entirety in Appendix I, show that the industry is moving towards electronic processes, but still must significantly develop before electronic commerce is commonplace.

For example, survey responses indicate that almost 58% of companies are not accepting credit applications online. In addition, while 45% of survey companies claim to be electronic presenting contracts to customers and obtaining their signature electronically, electronic record retention programs lag significantly. Only 19% of companies store electronic contracts without paper files. 74% of respondents store both paper contract files and scanned copies of contracts, while only approximately 16% scan paper documents and retain only the electronic copy.

The survey also shows a substantial recognized need for additional education before proceeding further into electronic commerce. When asked to identify issues that they perceive to be barriers to the use of electronic records and signatures, over 18% of the respondents indicated that the lack of a legal basis for such records is an impediment to their adoption. In addition, over 10% of respondents identified concerns with security and 15.7% cited the lack of industry standards or guidance as impediments to adoption.

The questions and survey responses are duplicated below, and are reprinted with the respondent's comments in Appendix I.

Do you accept credit applications online?

<b>Response Percent</b>	<b>Response</b>	<b>Total</b>
42.1%	YES	51
57.9%	NO	70

What percentage of your lease and loan contracts use a form of electronic contracting?

<b>Response</b>	<b>Percent</b>	<b>Response Total</b>
0%	48.8%	41
10-20%	13.1%	11
21-50%	8.3%	7
> 51%	29.8%	25

Describe what phases of electronic contracting are used?

<b>yes</b>	<b>no</b>	<b>unknown</b>	<b>Response Total</b>
<b>Contract presentment, review and signature</b>			
45% (37)	50% (41)	5% (4)	82
<b>Electronic Contract storage with no paper files</b>			
19% (16)	81% (67)	0% (0)	83
<b>Contract storage (scanning) with paper files also</b>			
74% (62)	26% (22)	0% (0)	84
<b>Contract storage (scanning) with no paper files</b>			
16% (12)	83% (63)	1% (1)	76
<b>Electronic contract storage for chattel paper "control" under UCC 9-105</b>			
20% (16)	55% (44)	25% (20)	80
<b>Perfecting by "Control"</b>			
16% (13)	49% (39)	35% (28)	80
<b>Electronic contract is printed out and used for collection and enforcement</b>			
42% (34)	51% (41)	6% (5)	80

Is your electronic contracting system proprietary or sourced from third party vendors?

<b>yes</b>	<b>no</b>	<b>unknown</b>	<b>Response Total</b>
<u>Proprietary</u>			
31% (22)	58% (41)	11% (8)	71
<u>Use third party</u>			
51% (38)	39% (29)	9% (7)	74



When do you anticipate expanding or adopting electronic contracting for one or more phases of your business?

<b>Response</b>	<b>Percent</b>	<b>Response Total</b>
Never	7.3%	6
1-2 years	50%	41
3 years	12.2%	10
>3 years	4.9%	4
Need more information/education before adopting	25.6%	21

What do you perceive as barriers to use of electronic records and signatures?

<b>Response</b>	<b>Percent</b>	<b>Response Total</b>
No legal basis	18.1%	15
None of my peers are using electronic contracts	3.6%	3
Not sure what the rating agencies will think	0%	0
Concerns with security	10.8%	9
Other initiatives have higher priority	27.7%	23
No industry standards or guidance	15.7%	13
Other ( <i>See specific responses in Appendix I</i> )	24.1%	20

### **Current State Model**

The Current State of the industry is characterized by a largely manual transaction origination process, which is highly dependent on paper documents and human activity to gather information to support an Application. Manual procedures are used extensively to collect information (which comes from several

sources, including the proposed customer, lender or lessor, the lender or lessor's channel agent and other sources and to process information once received.

When insufficient information is collected, an Application may be stalled in the process, while the parties wait for additional information to be gathered. If this occurs, the risk that the Application itself or the existing information will be lost is significant. In addition, the proposed customer may lose interest in the transaction or obtain equipment financing elsewhere during the delay. These "walk-aways" are costly, further exacerbating unproductive costs with lost opportunity.

Once the information is obtained, the customer's qualifications for the proposed lease or loan are evaluated, using information such as the customer's credit scores, credit history and other information.<sup>10</sup> If the credit application is accepted, the Application is prepared, creating paper documents individual pages of which can become detached or improperly sequenced and that are retained in physical repositories such as file cabinets and warehouses, where they are subject to additional costs and potential destruction or loss.

When notices are required under paper-based processes, these notices are also generally paper-based, and are typically delivered through the mail or special delivery is a slow process, and can be expensive. Each handling of paper notices results in a new opportunity for the notices to be misfiled or mislaid. Furthermore, the assignment of paper also has its time constraints and costs associated with delivery and storage.

### *"Pain Points"*

Analysis of the Current State suggests a number of points in the process where errors or time delays are imposed by manual processing and costs are increased by the need to store and transfer paper documents. For example:<sup>11</sup>

- The Application uses a paper form which is readily subject to loss, misdirection, or outright destruction anywhere during its processing;
- The Application is often duplicated, creating the risk of copies being interchanged with the original which, in addition to introducing processing problems, could present legal risks. The proliferation of duplicates, each having its own set of annotations and notes, also makes auditing difficult, which leads to extended regulatory examinations;
- Content from the Application is, in many instances, manually transcribed into order-entry or front-end business applications. Studies indicate that transcription errors account for a large percentage of errors in any business process where manual tasks supplement automated systems. These errors often go undetected and can prove costly;<sup>12</sup>

<sup>10</sup> For more information, see Current State Model, Appendix E at § 5.

<sup>11</sup> The Application processing function is implemented differently in many companies. Some equipment leasing or financing companies may have automated some steps, while other companies may be automating others. For example, some companies may have partial or full automation that renders transcription unnecessary during most processing, while other companies' processes may require manual transcription of data between origination systems.

<sup>12</sup> Manual data transcription processes are more likely to be employed when the front end and the financier are not operating on the same system; for example, when the financing company is not gathering the Application through a "captive" affiliate. Transactions that run through captive systems are more likely to be integrated in a manner that eliminates the need for manual transcriptions.

- Processing the Application is labor intensive. Where sufficient staff is not available, deadlines are missed, customers are frustrated and business is lost. To prevent this from occurring, companies may incur additional costs by overstaffing their Application processing department;
- Processing rules are difficult to enforce, subject to human interpretation and can be circumvented;
- The Application is manually signed at the inception of the process and subject to possible alterations, whether accidental or malicious, that may result in potential repudiation by the customer;
- Manual Applications require “one-on-one” contact between the parties, which leads to inefficient use of resources;
- Scrutiny of Applications can lack thoroughness when based entirely on human activity which may, among other things, result in the approval of risky applicants;
- Post-closing processes require significant manual intervention, leading to delays in funding the loan by financing sources;
- Rights in underlying notes are often perfected by physical possession by the note holder (or its designated custodian), resulting in the need for physical storage facilities;
- Transferring ownership in the underlying note can require the physical movement (and concomitant risk of loss) of the physical artifact of the note, which may complicate the task of enforcing an obligation;
- Risk of loss or destruction of the paper original requires significant investment in physical plant and facilities to protect the lease or loan documentation;
- Manual processes may increase the difficulty of tracking access to financing documents;
- Post-closing customer service, litigation support or response regulators or auditors can be impeded by the need to access paper documentation.

### *Inherent Weaknesses*

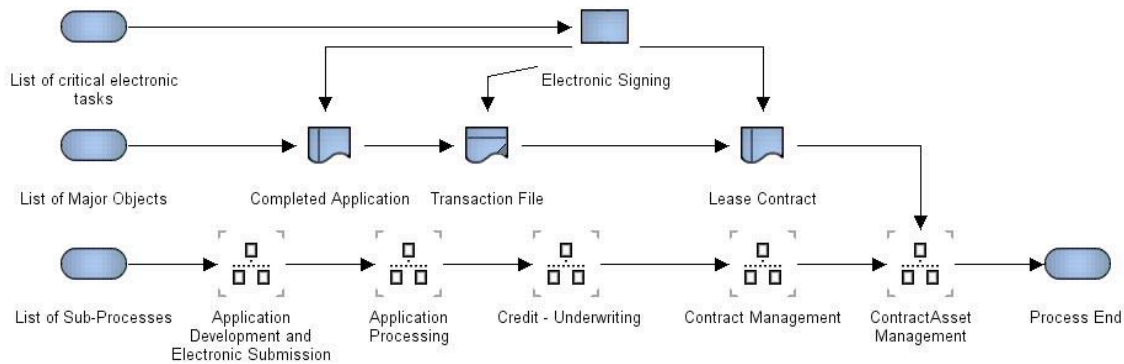
The Current State exhibits several inherent weaknesses:

- There are no consistent rules or industry standards for reviewing lease Applications or inputting Application data;
- There is no certification of participants to ensure conformance;
- The process is not extensible so as to meet market, business, and regulatory requirements not yet encountered;
- Reliance on paper documentation creates the risk that the original documentation is damaged, lost or inadvertently destroyed at several points in the transaction’s lifecycle.

As demonstrated below in the Future State, all of these pain points and inherent weaknesses can be addressed by automating the Application process and by using electronic records throughout the lifecycle of the lease/finance transaction.

### PART 3. FUTURE STATE MODEL<sup>13</sup>

Figure 2: Future State Model



#### Overview of Future State

The Future State contemplates a totally electronic process with no manual intervention

other than in connection with events requiring “exception” processing.<sup>14</sup> The Future State will depend on the utilization of electronic records, which include interactive<sup>15</sup> and intelligent<sup>16</sup> electronic forms (eForms), electronic signatures and electronic vaults (eVaults) and may lead to the combination of several steps that currently are performed separately into one consolidated part of the business process.

The Future State addresses most, if not all, of the more common issues associated with Current State manual processing and storage:

- There is one Application, it is electronic and, if conventional backup and disaster recovery practices are followed, cannot be destroyed outside the tolerances of the system;
- The Application and all attached documents and processing notes are held within the transaction database;
- It can be designed to encourage customers to enter their Application information rather than have the channel agent or a third party enter the information, further reducing the risk of repudiation by the customer;
- The Application is a record within a transaction file. It does not physically move, reducing the risk of loss or misfiling. Progress is reflected in “state changes” or process notes that are applied to the file as the process progresses;
- Staff required to support and operate the automated process is minimal compared with the Current State process. Spikes and slumps in demand for lease financing do not have the same proportional impact on staffing that exists with manual processing. Most of the deliberative functions

<sup>13</sup> See full report of the Future State Model in Appendix F.

<sup>14</sup> Exception processing occurs when a transaction is dropped out of the automated process with a means of returning it into the automated process once anomalies (*i.e.*, exceptions) are remedied.

<sup>15</sup> An “interactive” document refers to the relationship formed between the electronic document and its user where the document presents information requests to the user along with parameters as to how that information can be entered onto the electronic document.

<sup>16</sup> An “intelligent” document is one that operates the relationship between the document and, in addition to its user, external applications and databases. Information is pulled into or pushed from the document into these applications and databases based on the Interaction with the user.

associated with the Current State are replaced by business rules and automated workflow in the Future State model;

- Processing rules are easily enforced in the Future State model. Additionally, they are easy to change from a management perspective, and changes can be applied immediately to both new and “in-process” transactions;
- Electronic signing negates the requirement to produce paper for signature. This avoids delays, errors and cost. Also, the rigorous process for granting and applying electronic signatures coupled with the complete ability to audit the process at any point in time greatly reduces risk of repudiation;
- Transaction records are stored in one location and are easily accessible in the event of an assignment of interest, a customer service question arises, or the transaction file is necessary for litigation or regulatory support.

### *Resolution of “Pain Points”*

The Future State resolves a number of "pain points" experienced in the Current State. Electronic processing:

- Allows the channel agent to generate several new business Applications in the time it takes to generate a single Application under the Current State;
- Reduces lost business due to “walk-away” customers who lose patience with the process;
- Provides a greater depth and breadth of audit scrutiny, thus ensuring new Applicants are fully qualified;
- Speeds transaction funding by allowing financing sources to receive, review and approve transactions more quickly;
- Reduces operation costs while providing a scaleable solution to meet market requirements;
- Generates fewer errors by eliminating much human intervention (*e.g.*, transcription, etc.) and detects errors and anomalies quickly to prevent costly mistakes and risky leases;
- Appeals to regulators due to its transparency and ability to easily manage transaction records;
- Increases speed and effectiveness of post-closing customer service by providing appropriate authorized personnel with real-time access to customer and transaction data;
- Creates additional opportunities to restrict records access to appropriate personnel and to track access and activities performed on records through the use of sophisticated audit trails and management;
- Allows for improvements in post-closing workforce efficiency by allowing note owners and/or custodians to track the length of time different staff members need to perform various tasks and to adjust staffing accordingly;
- Speeds due diligence and secondary market transfers of electronic chattel paper by allowing prospective secondary market purchasers to review Customer loan files without the need for duplication and physical transmission of the files;
- Allows for perfection of security interest by “control” of electronic chattel paper, rather than possession of tangible chattel paper, which reduces the risk of loss by removing the need to move the chattel paper and costs associated with storing and accessing the paper;
- Reduces the risk of loss or inadvertent destruction of electronic chattel paper through the use of electronic backup and disaster recovery processes.

### *Necessary Elements*

The Future State requires the following elements to be successful:

- Consistent “rules” or operational standards that function at the industry level;
- Solid legal concepts underpinning the operational standards;
- Trading partner agreements for those participating in the electronic process and who have agreed to operate under the standards;
- Electronic delivery of all pertinent records;
- Business rules to govern process workflow and outcomes;
- Electronic signatures for customer, internal and third party signing;
- Electronic records stored in data repositories;
- Certification of participants to insure conformance.

### **Future State Model**

The Future State Model<sup>17</sup> illustrates a multi-party electronic process which shares certain information resources through the transaction process and electronically accesses external or third party information resources (such as credit reporting).

### *Application Processing*

This process is operated by the channel agent using systems and business Applications owned by or licensed to the lender/lessor. The electronic process as envisioned begins with the development of the Application and its submission. An electronic loan/lease transaction assumes the customer has indicated a willingness to apply for the loan/lease electronically; this willingness may require expression in the form of consents or disclosures, and pertinent agreements may be executed to evidence that willingness. When the Customer consents to an electronic transaction, the Customer typically enters “indicative” information into the Application such as tax and legal status (*e.g.*, corporation type, role of the individual completing the Application within the business, etc.). The lender’s/lessor’s customer database is searched to see if the Customer has a current or prior relationship with lender/lessor.

Once this information has been provided, the Customer is “authenticated” for completion of the electronic process. Next, the Customer is provided with a set of “credentials” which allow access to the system and the use of an electronic signature in the transaction.

This core set of indicative information is used to build the customer profile that is applied throughout the processing of the Application. That profile determines what forms are selected and provided to the customer for completion. It also establishes tax liabilities and determines legal requirements for contract terms and conditions depending on business type, state laws that will govern the transaction and the like.

At the early stage, the customer selects the product to be financed or leased. Once the correct forms have been selected based on the customer’s business profile and product selection, the transaction has started.

---

<sup>17</sup> The Future State Model is a sample approach, as there are many ways to achieve the attributes of an electronic transaction.

The system could rely upon an automated decision system to handle variations in transaction structure, particularly where the transaction is for a larger amount and customization is necessary. If the degree of customization is beyond the capacity of the electronic process' decision rules, the channel agent could be allowed to manually intervene as necessary to create unique transaction structures.

The customer enters information into the electronic forms as required. The customer has the ability to submit supporting documentation such as tax documents or corporate authority papers throughout the process by simply scanning and emailing them to a designated address or, if accommodated by the supporting technology, by attaching them directly to the electronic form.

As the customer enters information, credit verification can be conducted concurrently through use of "content-driven workflow" which takes the necessary information elements from the form and develops "queries" consisting of encrypted data messages transmitted to the various credit reporting agencies (*e.g.*, Fair Isaac, Dun & Bradstreet, Equifax, TransUnion, etc.). Information returned by these agencies is received by the lender's/lessor's system, where business rules will determine whether the customer's credit score is within acceptable parameters.

Once the Application is completed, the Customer electronically signs it and, if required, it is reviewed and signed by the facilitating channel agent.

With the future process model and unlike the current process, no sales administration function is required, due to the rules-based content validation that is normally applied to electronic forms completion. The content validation prevents errors typically found in this phase of the transaction. Additionally, all the "checking-in/logging" of the Application is performed systematically as is development of the transaction file. The transaction file is automatically stored in the lender's/lessor's customer database.

Thus, the Application, completed and signed (electronically) is automatically submitted to the credit and underwriting process.

### *Credit and Underwriting*

Credit and underwriting are automated tasks that require human intervention only if there are exceptions to the business rules established within the lender's/lessor's business applications. Here, a series of "determinations" are made based on the customer's credit profile (established during the Application phase) and the risk exposure indicated by the customer's selection of a loan/lease product. There typically are gradients of exceptions ranging from "soft" to "firm." Soft exceptions typically require only that additional information be collected either from the Customer or from external sources (*e.g.*, credit agencies, banks, etc.). This information is collected through the automatic generation of notices that are transmitted either electronically or printed and mailed, as appropriate. While soft exceptions await resolution, the transaction is held in a pending state. Where paper-based documents are used to request additional information, these are scanned and logged into the system.

"Firm" deviations from acceptable parameters are detected in the credit and underwriting process, creating process exceptions. The transaction is placed into a pending state while the exception is electronically routed to the credit analyst and/or underwriter for review, as appropriate. The analyst or underwriter is able to generate electronic notifications to the customer and/or the channel agent who,

among other things, may request additional information. Where that occurs, the information is transmitted back to the analyst or underwriter via either email or another data messaging method. The analyst or underwriter determines whether the transaction process should be allowed to proceed or be terminated. In the latter case, notifications are generated back to the customer and, where appropriate, the channel agent. In addition, this is another step where customized documentation can be generated, particularly for larger transactions, where Transaction customization is appropriate.

If the transaction is determined to be in good order, it is moved to the contract production and presentment process.

### *Contract Processing*

The business rules engine responsible for composing and publishing the contract is engaged in this phase. This is an automated process where the lender's/lessor's business rules determine the content and format of the contract and including notices and disclosures required to be provided to customers by law, which is presented to the customer electronically for review and execution. The document presentment process does not allow the customer to make changes or otherwise alter the contract but should allow the customer to make a "terms change request" which is itself an electronic form with underlying business rules to determine its disposition.

If the customer does not require a change in the contract, the customer applies an electronic signature to the contract. Once applied, the contract is "locked" and the document's content is "bound" to the electronic signature. Generally this occurs through the use of a PKI technology and sometimes referred to as a "tamper-evident seal." Any attempts to compromise the content should cause the system to notify the appropriate party that a security breach has been attempted or has occurred. If the document is successfully altered, the electronic signature is annotated with a message informing the lender/lessor of the problem. A sample message might indicate that "...Contents of this document may have been damaged or compromised." Once the problem has been identified and remedied, the signature can be restored and the annotation removed.

If the customer requests changes to the contract, the transaction is placed into a pending state, and the request is routed to the underwriter for review and direction. If the underwriter accepts the customer's request, the changes are submitted to the contract production and presentment process where a new contract is published for the customer's review and acceptance. If the underwriter rejects the customer's request, a rejection notice is generated to the customer and/or the channel agent, giving the Customer the option of signing the contract as initially published. If the customer rejects that option, the transaction is terminated and the Application is rejected with notifications regarding this action generated to the customer and/or the channel agent. If the contract is signed by the customer, the transaction is moved to the Contract/Asset Management process.

### *Contract/Asset Management*

Contract/Asset Management is the final phase of the transaction process where the contract is stored electronically. Here, the contract and all related documents collected throughout the transaction, including documents pertinent to the asset being leased, are developed into the legal record of the transaction and



securely stored in the lender's/lessor's or third party records management system (presumably some form of secure database, commonly called an "eVault").

The legal transaction record is readily accessible for customer service, for litigation or regulatory needs and may be perfected by "Control." Of these functions, establishing and transferring control of the stored obligations is considered to be one of the key features of the Future State. As discussed in Appendix B, Control of the electronic record is the electronic equivalent of "possession" of the tangible chattel paper; accordingly, ensuring that the eVault allows the proper party to exercise Control over the stored electronic chattel paper is critical to ensuring that a secured party's interests are protected.

In addition, electronic storage systems, such as eVaults, track attempts to access, copy, print, transfer or otherwise use stored electronic records. In addition, some systems may periodically check the integrity of electronic records stored in the system, automatically on a predetermined schedule and/or upon the manual request of an authorized system user. These features can enhance the security of electronic records that are stored in the eVault and to help establish the foundation for their admissibility in court, should the records ever need to be used as evidence.

The systems also protect against the inadvertent loss or destruction of stored records through the use of backup and disaster recovery systems. These measures may include creating and storing copies of electronic records on backup tapes in secure facilities and/or creating "mirror" sites that are located in different geographic areas and which continually update each other, so that each site has an identical copy of the information stored in the transaction record. If one site is destroyed or knocked offline (for example, by a natural disaster or even a temporary power outage), then the electronic record owners can still operate their businesses with uninterrupted access to Customer data simply by accessing the mirror site.

## PART 4. THE LEGAL INFRASTRUCTURE

Below is a brief overview of the legal infrastructure for the achieving the paperless transaction. A more detailed review of the law can be found in Appendix B.

The adoption of electronic documentation in the equipment leasing and finance industry will result in the use of new nomenclature for various processing events. The terms below may come into common usage in the equipment leasing and finance industry as it moves to the Future State. Some are legal terms of art while others are the electronic expression of a paper world concept or thing. These terms may be helpful in understanding the legal discussion below.

CURRENT STATE TERMINOLOGY	FUTURE STATE TERMINOLOGY
Paper Document	Electronic Record
Loan or Lease Agreement	eContract
Wet Signature	Electronic Signature
Identity Verification	Authentication
ID	Credential
Possession	Control
Tangible Chattel Paper	Electronic Chattel Paper
<b>Document Management System</b>	Electronic Vault (eVault)

### ESIGN and UETA

While automation of the equipment lease and finance industry has been steadily developing over the last decade, the legal framework for engaging in electronic transactions, including the ability to replace paper and ink writing and signing requirements with electronic records and signatures, is still in its nascent stage. With the passage of ESIGN<sup>18</sup> and the adoption of some form of UETA<sup>19</sup> in most states (collectively referred to as the “eCommerce Laws”), the legal base now exists for the creation of the eContract.

Under the eCommerce Laws, loan and lease agreements can be, among other things:

<sup>18</sup> 15 U.S.C. § 7001 *et seq.*

<sup>19</sup> The final draft of UETA as approved and recommended by the National Conference of Commissioners on Uniform State Laws (“NCCUSL”) in July 1999 is available from NCCUSL in conjunction with the University of Pennsylvania at <http://www.law.upenn.edu/bll/ulc/fnact99/1990s/ueta99.htm> (visited Sept. 3, 2006). For a list of jurisdictions in which UETA has been enacted, see [http://www.nccusl.org/Update/uniformact\\_factsheets/uniformacts-fs-ueta.asp](http://www.nccusl.org/Update/uniformact_factsheets/uniformacts-fs-ueta.asp) (visited Oct. 4, 2006).

- Offered electronically (including most government-mandated disclosures );
- Signed electronically by both all parties to the transaction;
- Stored electronically and meet regulatory requirements for retention;
- Used to replace “original” requirements in the event of litigation.<sup>20</sup>

The main goal of ESIGN and UETA is enable electronic transactions. Neither law changes the substantive provisions of underlying laws. For example, if a law requires that a disclosure must be provided at a certain time in the transaction, although it is in electronic form, the disclosure must be provided or made available at time required in the underlying law. If a law requires that certain language be used in contract formation, then the same language must be used in the electronic contract. If a law requires the contract to be “signed,” then an electronic signature would satisfy the wet signature requirement. Thus, parties can look to ESIGN and UETA to create legally binding loan or lease agreements.<sup>21</sup>

It should be noted that with respect to creating legal parity for electronic transactions involving a negotiable debt obligation secured by real estate (which is discussed in more detail in Part 4 – Paperless Transaction in Other Industries), ESIGN and UETA provide the legal base to create the electronic equivalent of a paper promissory note. In order to do so, parties to a transaction would need to create a technological solution for meeting the ESIGN and UETA control requirements,<sup>22</sup> which are similar to the Control requirements for perfecting an interest in electronic chattel paper under Revised Article 9-105 and are discussed at length below.

### **Revised Article 9 of the UCC**

Article 9 of the UCC governs both outright sales of loans and leases (as when the loans or leases are securitized) and the use of loans and leases to secure loans (as when used as collateral for a loan). Article 9 specifies the ways in which the assignee of a loan or a lease may protect itself against the risk that the assignment will be set aside in the assignor’s bankruptcy or that the assignee will lose its interest in the loan or lease to a competing assignee. With respect to paper loans or leases, an assignee may achieve a limited amount of protection by “perfecting” its interest by filing a financing statement in the public record. Alternatively or in addition, an assignee may perfect its interest by taking possession of the loan or lease itself. Perfection by possession may afford an assignee greater protection against competing assignees than perfection by filing.

An assignee of an electronic loan or lease also may perfect and achieve some protection by filing a financing statement in the public record. However, in 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 movement of the existing copy. Revised

---

<sup>20</sup> See Appendix B below for a full discussion of the legal background.

<sup>21</sup> ESIGN and UETA apply to Article 2A transactions, general debt obligations and enable the creation of the electronic equivalent of a promissory note (what would otherwise be a promissory note under Article 3).

<sup>22</sup> See Appendix B, Section 6.

UCC Article 9 recognizes this reality and provides to assignees of electronic loans and leases a method of protection (perfection) analogous to taking possession of paper loans or leases: “Control.”<sup>23</sup>

UCC Section 9-105 explains in detail the meaning of “Control” as applied to an electronic loan or lease. As will be discussed in more detail in Appendix B below, for an assignee to have “Control,” the electronic loan or lease, in the form of ECP must be 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 paragraphs (4), (5), and (6) 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 the 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.

An assignee who has Control of the ECP under the circumstances specified in Section 9-330(a) or (b) acquires the same rights as an assignee of a tangible chattel paper who takes possession. These rights, which include protection in bankruptcy and protection against competing assignees, are described in Appendix B.

To satisfy the Control requirements,<sup>24</sup> an appropriate method (combining both technological and human processes) must be developed for:

- Identifying and maintaining the integrity of the Authoritative Copy of the ECP
- Identifying the initial assignee
- In the case of subsequent assignments, revising the Authoritative Copy to add or change the identified assignee

Although the concept of “Control” applies only to assignees and not to the original parties to the loan or lease, systems designed to facilitate Control also may assist in meeting record integrity requirements as they relate to issues of enforceability between transaction parties or admissibility in the event of a dispute. Thus, the principles discussed below are relevant regardless of the method (*i.e.*, filing or Control) by which an assignee of electronic loans or leases wishes to perfect its interest, even if the lender/lessor does not plan to assign an electronic loan or lease.

---

<sup>23</sup> Revised UCC Article 9 has been enacted by every state. [http://www.nccusl.org/Update/uniformact\\_factsheets/uniformacts-fs-ucca9.asp](http://www.nccusl.org/Update/uniformact_factsheets/uniformacts-fs-ucca9.asp) (visited Oct. 4, 2006).

<sup>24</sup> For a good discussion of how to create a “control” environment, see Working Group on Transferability of Electronic Records, a Joint Working Group of the Committee on Cyberspace Law and the Committee on the Uniform Commercial Code of the ABA Section of Business Law and The Open Group Security Forum, *Framework for Control Over Electronic Chattel Paper*, 61 *The Business Lawyer* 721 (2006).

## Rating Agency Acceptance

Those who invest in electronic chattel paper want to be able to perform the same transactions as those performed with their paper predecessors, including assignment and sale transactions. The underwriting and marketing process of such securities often includes obtaining a rating from one or more of the three Nationally Recognized Statistical Ratings Organizations (NRSROs): Fitches, Moody's, and Standard & Poor's (S&P).

S&P recently published a paper presenting its position on the use of electronic contracts in connection with the securitization of automobile loans.<sup>25</sup> S&P recognizes that ESIGN and UETA allow for the legal equivalence of electronic and paper agreements and has stated that it "is comfortable that, under these laws, as to the issues of legality, validity and enforceability, eContracts can be viewed as equivalent to paper contracts for ratings purposes. Therefore...[S&P] has adopted the same approach to eContracts as it has to manually executed paper contracts."<sup>26</sup>

With respect to perfection by control under Section 9-105 of the UCC, S&P treats electronic chattel paper in different ways, depending upon whether the electronic chattel paper is an indirect origination (*i.e.*, has been purchased by the originator from an auto dealership) or direct origination. If electronic chattel paper has been indirectly originated, then S&P would like to see that the party claiming the secured interest has perfected its security interest by establishing control over the electronic chattel paper, as opposed to perfecting by filing a financing statement with the appropriate state authorities. It does not, however, require that the party establish perfection by control if it is a direct origination. To review the article published by S&P on these issues, see Appendix D.

---

<sup>25</sup> See *Legal Issues of Securitized Auto Loans In An E-Contract World* (Jul. 10, 2006), available at [http://www2.standardandpoors.com/servlet/Satellite?pagename=sp/sp\\_article/ArticleTemplate&c=sp\\_article&cid=1145783845038&newsletter=Y](http://www2.standardandpoors.com/servlet/Satellite?pagename=sp/sp_article/ArticleTemplate&c=sp_article&cid=1145783845038&newsletter=Y) (visited Sept. 8, 2006).; a copy also is attached as Appendix D.

<sup>26</sup> *Id.*

## **PART 5. PAPERLESS TRANSACTIONS IN OTHER INDUSTRIES**

Other industries, such as the mortgage, automobile finance and the variable annuities industries, have also recognized the business value of electronic processing and have continue to aggressively move to develop the infrastructure necessary for the evolution to the paperless transaction.

The mortgage industry, through the Mortgage Industry Standards Maintenance Organization (MISMO) has created voluntary technical standards that can be used to create standardized electronic mortgage documentation (or SMART Documents). In addition, the mortgage industry has established a central industry utility (the MERS® eRegistry) that can be used to facilitate the transfer of rights in electronic equivalent of promissory notes (commonly called “eNotes” or “transferable records”)<sup>27</sup> from financing sources to secondary market investors (Registry Model), and has adopted legal standards in the form of Standards and Procedures for electronic Records and Signatures (SPeRS).

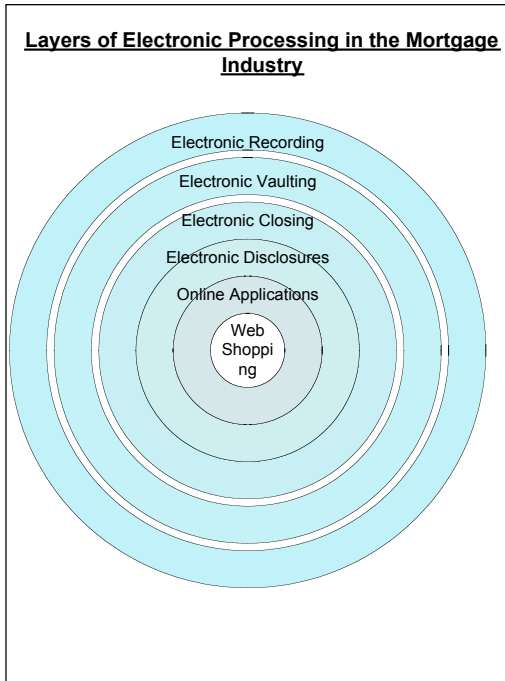
The retail automobile finance industry developed legal standards for the perfection of a security interest in electronic chattel paper through an ANSI process and through the adoption of relevant SPeRS principles. Similarly, the variable annuity industry has recently completed its first generation legal and operational standards for “Straight Through Processing (STP) of annuity applications and fulfillment relying on SPeRS for their underpinnings. These industries have recognized the benefits of a paperless transaction and continue to create their respective infrastructures to remain competitive.

---

<sup>27</sup> eNotes, which are officially classified as “transferable records,” are authorized by ESIGN and UETA in the mortgage context. See 15 U.S.C. § 7021; UETA § 16. UETA also allows transferable records to be created in other contexts.

## Mortgage Industry

The “paperless mortgage loan transaction” has developed gradually over the last 10 years and continues to do so in a somewhat layered fashion. The first electronic interaction with the consumer occurred at the shopping level. Web portals or consumer direct websites allowed borrowers to access descriptions of mortgage products, current interest rates and similar information, without necessarily requiring the customer to interact with the lender.



**Figure 3: Electronic Processing in the Mortgage Industry**

then a stored and maintained in eVaults.

The next generation of electronic mortgage solutions allowed lenders to provide an interactive Application process and to send loan disclosures and other information to potential borrowers over the Internet, via email or by providing the borrower with access to a secure website. These solutions allowed lenders to reduce the time and expense associated with sending disclosures to borrowers, which previously had been done by mail, overnight service or other delivery methods.

Increasingly, mortgage lenders are moving toward electronic closing applications (eClosings). These applications promise to speed the closing process and increase quality control by leveraging the lender’s loan origination system and automating final document production and quality checks. In addition, these systems can ensure that all documents are signed before

closing a session and can utilize a variety of electronic signature methods. eClosings also allow the lender to create eNotes which

Finally, complete end-to-end paperless mortgage transactions can occur with the adoption of electronic recording, the acceptance of electronic mortgage and other filings by county recording offices, rather than the acceptance of only paper documentation. Electronic recording is in its budding phase; however, the benefits to both industry and country recorders, combined with new legal developments, point towards significant adoption in the coming years.<sup>28</sup>

The mortgage industry’s adoption of eNotes has required it to consider how it should handle storage of eNotes and allow eNote owners to demonstrate control over the eNotes they have originated or purchased. In general, the financial services industry has developed two approaches to the storage issue:

<sup>28</sup> A detailed discussion of electronic recording is beyond the scope of this paper. However, for a brief overview of the opportunities presented by electronic recording, see Margo H.K. Tank, David E. Ewan and John A. Richards, *It’s the Message, Not the Medium! Electronic Record and Electronic Signature Rules See Preserve Existing Focus of the Law on Content, Not Medium of Recorded Land Title Instruments*, 60 *The Business Lawyer* 1487 (2005); see also UETA and the Uniform Real Property Electronic Recording Act, both of which are available through [www.nccusl.org](http://www.nccusl.org) and the Property Records Industry Association website, [www.pria.us](http://www.pria.us).

- Registry Model: A distributed system of storage that allows the eNote owner to securely store its eNotes in any number of distinct – and potentially independent – eVaults, while “registering” ownership of the eNote in a centralized database that does not store the eNotes themselves. In this model, the eNote usually contains a clause that refers a reader to the central registry to determine ownership;
- Single System Model: A closed system of few eVaults (or possibly only one eVault) that comprise a self-contained storage solution. These eVaults store both the eNote and the official record of ownership.

The mortgage industry adopted the registry model with the MERS<sup>®</sup> eRegistry and is discussed below. The single system model has been adopted in the automobile finance industry and is discussed in that section.

### *The Registry Model*

With respect to the treatment of an eNote, because the mortgage industry relies heavily on negotiable promissory notes and on the fungibility of mortgage loans as the mortgage debt is sold to multiple investors, and because the industry is highly fragmented, the industry decided upon the registry model embodied and implemented in the MERS<sup>®</sup> eRegistry.

The primary preconditions for the registry model are:<sup>29</sup>

- All transaction participants interested in creating and transferring control in the transferable record would agree to look to the centralized Registry to track control
- Each transferable record would:
  - Contain language placing anyone viewing it on notice that its true; Controller must be determined by reference to the central registry;
  - State that all copies that are not at the location referenced in the registry are not the official, or “authoritative,” copy;
- The registry would (a) identify the Controller, and (b) reference the location of the transferable record’s current authoritative copy;
- A transfer of control would be accomplished by receipt of a secure authorization to transfer from the transferor, and, in at least one model, a secure authorization of transfer from the transferee;
- The custodian of the authoritative copy would be either the current issuer of the transferable record or the controller’s designated custodian.
- The transferable record would be held in such a manner that the controller or the controller’s custodian is able to distinguish the authoritative copy from other copies;
- The unique characteristic of the authoritative copy of the transferable record is established within the controlled system storing the electronic record;
- The authoritative copy is held by the controlling party or its designated custodian and is logically associated with a registry entry of the identity of the control party and the location of the authoritative copy;
- The registry is referenced in the transferable record itself;

---

<sup>29</sup> Many of these elements are drawn from a presentation given by John A. Richards, Association General Counsel of Fannie Mae, at the American Bar Association 2002 Annual Meeting.



- 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.

The use of the Registry Model for identifying the custodian of a transferable record was expressly contemplated by the drafters of the UETA.<sup>30</sup> Because the transferable record itself points to the registry, a party looking at any copy of the transferable record would be on inquiry notice as to the identity of the controlling party. The registry can also be used to identify the location of the authoritative copy in much the same way – a party looking at any copy of the transferable record is on notice that the location of the authoritative copy is established in the Registry. If the copy they are viewing is not the copy identified in the registry, then it is not the authoritative copy. In this way, every copy of the authoritative copy should be regarded as “readily identifiable.”

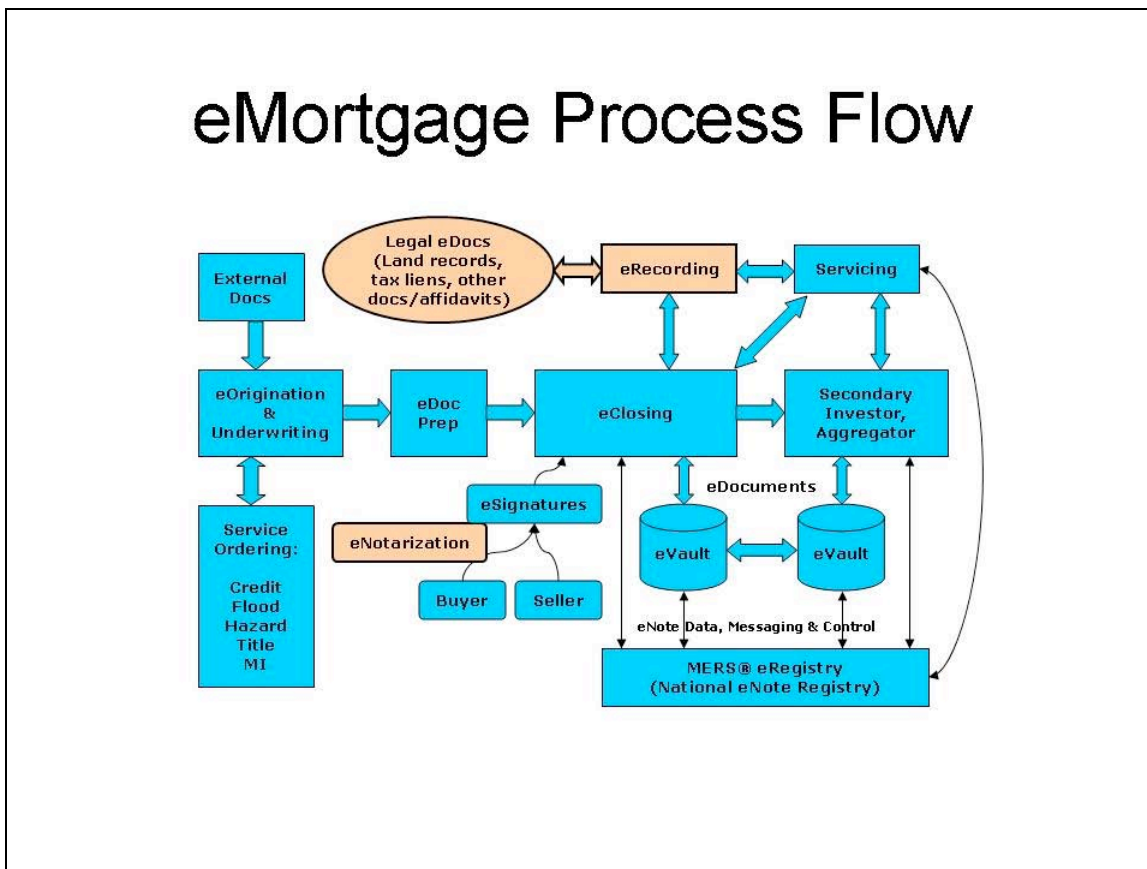


Figure 4: eMortgage Process Flow Examples (Reprinted with permission from the Mortgage Industry Standards Maintenance Organization)

*MISMO and SPeRS*

In 1999, the MBA formed MISMO “to develop, promote, and maintain voluntary electronic commerce standards for the mortgage industry.”<sup>31</sup> MISMO created standard XML-based wrappers and files for

<sup>30</sup> See Comment 3 to UETA §16.

<sup>31</sup> See [www.mismo.org](http://www.mismo.org) (visited Sept. 4, 2006).

mortgage loan-related documents, including eNotes, and standard data formats (DTDs). In addition, MISMO's network of contributors has authored a collection of "eMortgage" guidance documents, including implementation guides that are focused specifically on the eClosing and eVault processes. In addition, the MBA also formed the Secure Identity Services Accreditation Corporation (SISAC), which "is responsible for accrediting digital identity credential issuers for the mortgage industry."<sup>32</sup> More information on MISMO can be found at [www.mismo.org](http://www.mismo.org).

In addition, in response to the passage of ESIGN and UETA, an industry-wide effort was established to develop SPeRS, a set of guidelines, procedures, checklists and strategies for developing systems to create, deliver, sign, manage and transfer legally enforceable electronic records and signatures in commercial and consumer transactions. SPeRS is intended to help companies develop cross-discipline (*i.e.*, business, IT and legal) system design teams to implement electronic commerce. Rather than provide technical standards, however, SPeRS is focused on the behavioral and legal aspects of the interaction between transaction participants. More information on SPeRS can be found at [www.spers.org](http://www.spers.org), and the SPeRS standards are attached to this Survey as Appendix H.

### **Automobile Finance Industry**

Adoption in the retail auto financing industry is following a discernable sub-segment trend. The early adopters in the automotive chattel paper industry were prime lenders involved in selling new automobiles. Adoption then spread to sub-prime lenders in the new car market, followed by adoption by the prime and subprime lenders focused on used-car financing. Unlike the mortgage industry, however, the retail automobile financing segment has moved more quickly to adopt electronic contracting, as there are several suppliers providing complete electronic transaction systems that allow for electronic processing from loan application to assignment of the resulting transferable record.

#### *Single System Model*

The automobile finance industry has been drawn to the single system model to store transferable records. In this model, an authoritative copy is created, stored and assigned in a secure electronic environment (an eVault). Every party requiring access, from the lessee to the dealer creating the documentation and obtaining signatures, to a financing source/lender and subsequent assignee, obtains access via the eVault. Access may be direct, or through a portal. In this model, the Authoritative Copy of the electronic record is stored in the eVault. Unlike the mortgage industry's registry model, the auto finance industry does not rely on a central registry to provide interested parties with the identity of a transferable record's owner or the transferable record's location, rather each assignee of the electronic record takes control by becoming the identified party in Control within the secure eVault environment.

The eVault employs a secure methodology to track the identity of the controlling party (lender or assignee) for each electronic record. The operator of the eVault must enter into an agreement with each lender or assignee establishing certain system rules and defining operational reliability and security standards. The agreement would also establish that the eVault operator has no interest in the authoritative copies or the underlying data, and would extend certain protections to the owner of the electronic record in the event that the operator was experiencing financial or operational difficulties.

---

<sup>32</sup> See [www.sisac.org](http://www.sisac.org) (visited Sept. 4, 2006).

The unique characteristic of the Authoritative Copy is established within the controlled system storing the record. The system would be 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 controlling 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.

The Single System model addresses compliance with the ESIGN, UETA and the UCC so long as the system being utilized by transaction parties operates as follows:

- The system complies with properly designed system rules and appropriate functional and operational controls to ensure 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 record 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.

### *X9 Standards*

The retail automobile financing industry also has established standards for electronic transactions. The Accredited Standards Committee X9 established a task force to promulgate standards for electronic retail automobile financing and leasing transactions. The resulting standards, which were adopted by ANSI and published in 2004,<sup>33</sup> are primarily designed to help entities create electronic chattel paper that satisfies the requirements of Revised Article 9 of the UCC.

### **Variable Annuities Industry**

The variable annuities industry also has realized the benefits of electronic STP for retail origination of financial services products. After several years of study, NAVA recently created and approved standards and processes for STP processing of variable annuity transactions, which are now being readied for implementation.

The STP standards initiative was established to create a set of standards that would establish a common process for electronic variable annuity applications. The resulting processes are intended for industry-wide acceptance by both underwriters and regulators, and are intended to help adopting companies create nationwide implementations that comply with all state legal requirements. In addition, NAVA's STP

---

<sup>33</sup> See ANSI X9.103-2004, *Motor Vehicle Retail Sale and Lease Electronic Contracting* (2004). For more information regarding this standard, please go to [http://www.x9.org/catalog2.cfm?item\\_no=%24%23%20%2F%2940%20%20%0A&pub\\_item=%2334%2A%3B%0A](http://www.x9.org/catalog2.cfm?item_no=%24%23%20%2F%2940%20%20%0A&pub_item=%2334%2A%3B%0A) or <http://webstore.ansi.org/ansidocstore/product.asp?sku=ANSI+X9%2E103%2D2004>.

standards are not intended to link the process to any one technology vendor; instead, they are intended to be open, technology-neutral standards that are open for adoption by all vendors.

The new standards address both topics that are unique to eCommerce processing and issues that are generally applicable to the variable annuity purchase process. Topics covered by the standards include:

- Credentialing and authentication of parties using electronic signatures;
- Electronic delivery of electronic records;
- Records retention and management of electronic records;
- Obtaining Customer consent to the STP process and the use of electronic records and signatures;
- Compliance with privacy laws;
- Compliance with suitability standards;
- Use of encryption to protection information during transmission between parties.

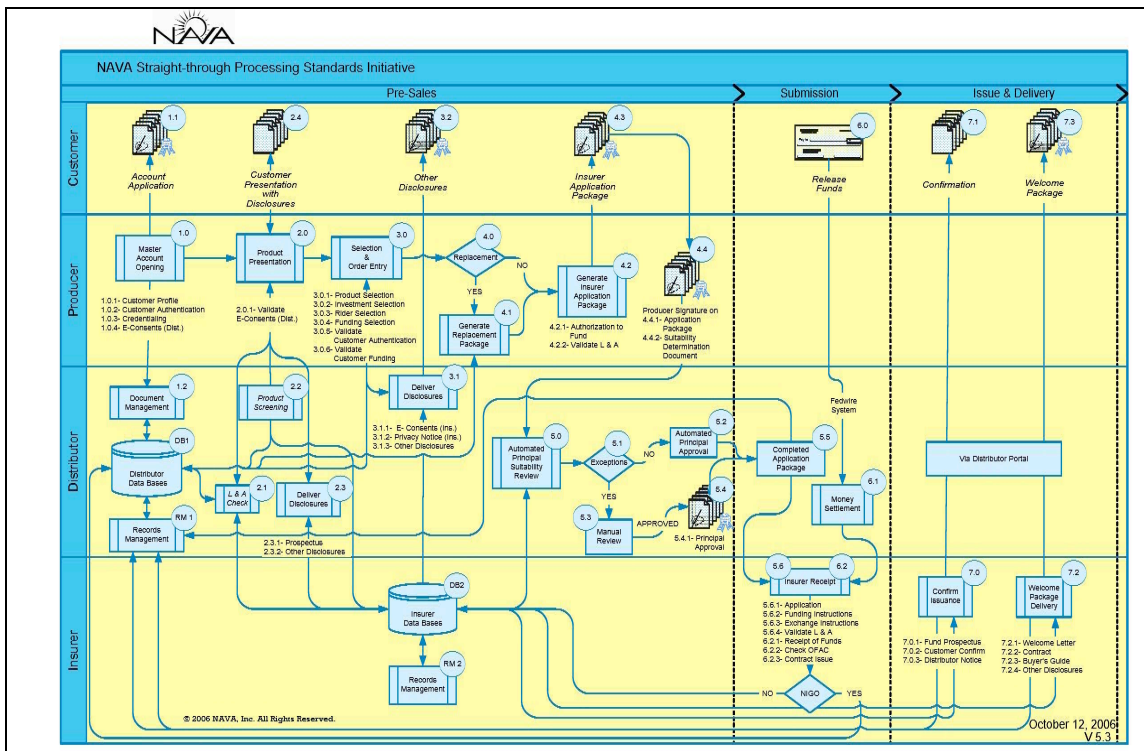


Figure 5: NAVA Straight Through Processing Flow (reprinted with permission from the National Association of Variable Annuities)

These standards affect almost every customer-facing step in the NAVA variable annuities underwriting process, which is outlined in the above chart. Once thoroughly implemented, NAVA predicts that the STP standards will significantly reduce errors and customer repudiation, while simultaneously reducing the amount of time that current underwriting processes require. Some estimates show that electronic processing time will be less than 10% of the time current paper-based processes consume. Additionally, it will open up opportunities for new products that were not possible under the current process.

The NAVA Executive Council approved the STP standards in late 2006. Currently, the standards are being prepared for formally presentation to state regulators, while NAVA pursues industry adoption through a public-awareness campaign. Sample Standards are attached to this Survey at Appendix I.

## PART. 6 THE PATH FORWARD

### Legal and Operational Considerations

The loan and lease business transaction lifecycle has been functionally compartmentalized for the purposes of this Study to clearly demonstrate the legal and operational changes that will need to be addressed when transitioning from the Current State to the Future State (See Figures 6 and 7 below). The high-level view of the process has the following major elements:

- Creation of the loan or lease Application;
- Execution of the critical legal documents;
- Placement of the lease or financing Agreement into custody in storage and archival facilities;
- Assignment stage, during which secondary market investors purchase and hold the chattel paper.

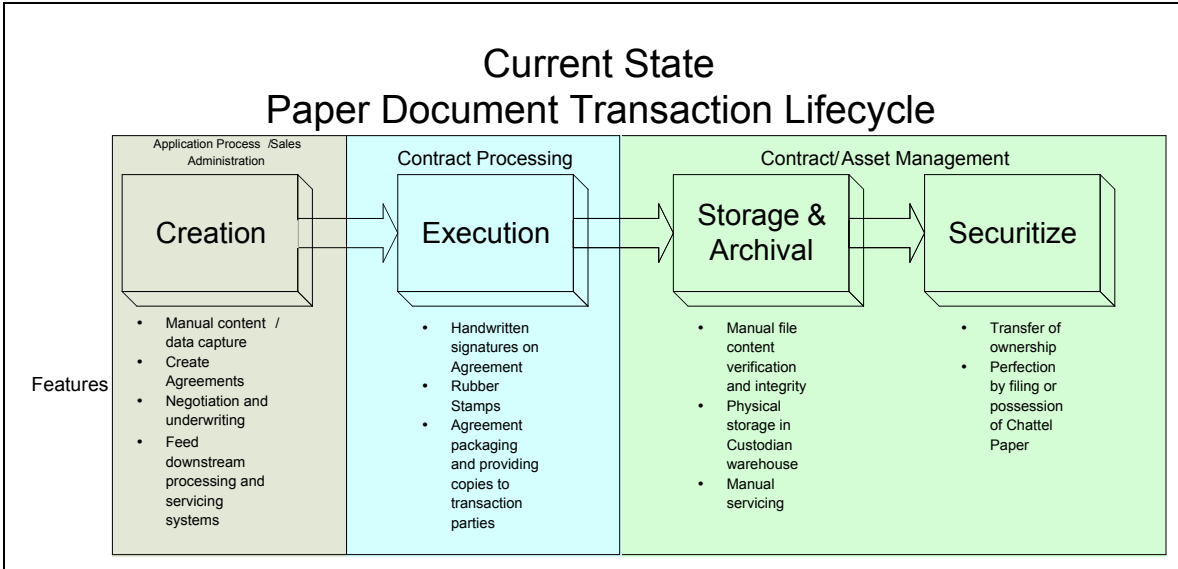
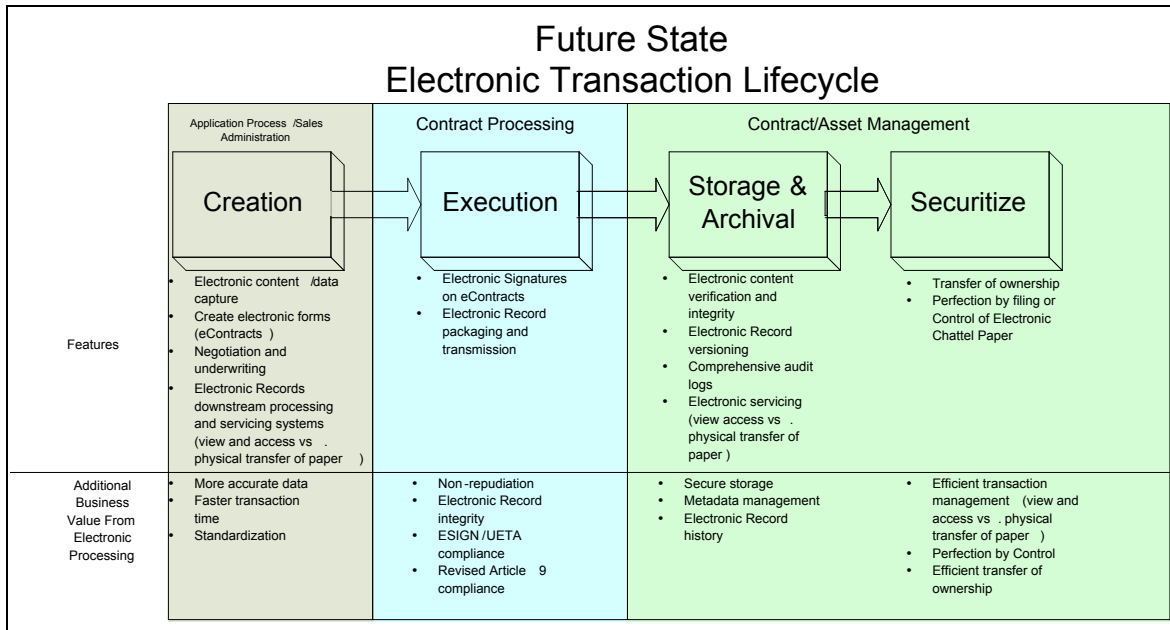


Figure 6: Paper Transaction Lifecycle



**Figure 7: Electronic Transaction Lifecycle**

The development of electronic loan and lease Applications will require significant attention in at least the following six (6) areas, which include both business process and legal issues:

- Electronic forms;
- Workflow;
- Authentication of transaction participants;
- Execution of eContracts with electronic signatures;
- Record retention and management of electronic records;
- Establishment, maintenance and transfer of control over ECP.

### *Electronic Forms*

Electronic forms (eForms) are the medium on which content is presented to the Applicant. eForms also may be used as the principal medium for collecting content from the Lessee, including the Lessee's signature. eForms consist of:

- A presentation layer which typically has the look and feel of a paper medium form;
- A business rules layer which contains the rules for operating and using the eForm;
- A layer of abstraction which serves to move content onto and off of the eForm.

Content can be retrieved from back-end databases and applications and transmitted to front-end databases and applications.

Creation and development of eForms typically are work-products produced by software. Current state-of-the-art eForms technology is of three distinct types:

- Intelligent Forms contain complex embedded business rules that interoperate with external workflow, databases and applications regardless of location. Intelligent forms can be detached from the process (*i.e.*, operated offline and re-attached later);
- Interactive Forms contain embedded rules that govern how the form is operated (*e.g.*, types of content that can be entered into a particular field, mandatory vs. discretionary content requirements, etc.) These are basic functions which serve to eliminate a number of common data entry errors such as incomplete fields;
- Static Forms used to collect content but contain no embedded rules or logic governing either the completion of the form or the disposition of content once completed. Typically these mitigate the need for maintaining inventories of paper forms more than servicing any substantive need for process automation. In the case of a loan or lease transaction, all of the content can be pre-populated onto the form having been captured using a variety of application front-end transcription editors. The only function left open is applying the electronic signature and executing the binding and locking functions which address issues of integrity.

The first two, Intelligent and Interactive forms, often are used in combination. “Turbo-Tax,” a common tax forms product from Intuit, provides an example of this type of integration. Credit applications, account openings and similar types of applications lend themselves to this mix of intelligent and interactive. The intelligent elements interoperate with internal (*e.g.*, name and address databases, account number assignment, suitability tests, etc.) and external (*e.g.*, Fair Isaac, Equifax, etc.) applications/databases. Data is drawn down from databases and pre-populated onto the e-Form. Moreover, the form can be re-configured dynamically to reflect the impact of how the customer completes certain information requirements.

The interactive functions control how the eForm responds to the customer, ensuring that required fields are completed and that mandatory information is clearly presented to the customer during their contact with the form. It is usually the logic underlying interactive functionality that governs the electronic signing of the document (*i.e.*, recognizing that a signature is required, ensuring that the electronic signature function performs as required and binding content to the Signature and locking the document on application of the final signature).

eForms have three states:

- Templates, which are used for development and control of derived active eForms;
- Active, which is the derived state from a template that is used in the transaction and is specific to a user and the transaction;
- Completed, which is the state of the eForm once all required content has been populated into the form and, where appropriate, signatures.

eForms often retain residual “logic” or functionality during their lifecycle in records management. This logic prevents compromise of content where electronic signatures are present and, on any occasion where content is threatened, launches a number of events including voiding the signature. Other functions that can be retained are the lifecycle parameters themselves (*e.g.*, when the document is to be purged).

## *Workflow*

Workflow at its simplest is the movement of documents and/or tasks through a work process. More specifically, workflow is the operational aspect of a work procedure: how tasks are structured, who performs them, what their relative order is, how they are synchronized, how information flows to support the tasks and how tasks are being tracked. As the dimension of time is considered in workflow, workflow considers “throughput” as a distinct measure. Throughput, in the case of the models used in this Study, demonstrates a vast difference between the current process and a general model of a proposed future automated process.

Workflow problems can be modeled and analyzed as they have been for the purpose of this Study. While the concept of workflow is not specific to information technology, support for workflow is an integral part of process management, particularly where it pertains to document-intensive business processes such as the loan or lease transaction.

Business workflows represent any structuring of tasks and are equally applicable to task scheduling within a software application server and organizing an electronic document trail within any given business process.

## *Authentication*

Authentication is the process of identifying an individual, either in connection with the creation of a relationship or in connection with the individual’s participation in a Transaction. Authentication is a key first step in any transaction, electronic or otherwise, because it is essential, for various legal and business reasons, to know the identity of the person with whom one is doing business. In non-electronic transactions, authentication often is accomplished by personal interaction and the presentation of credentials,<sup>34</sup> such as a driver’s license. Three key issues to consider at the outset include:<sup>35</sup>

- How electronic authentication methods will augment or replace current paper-based authentication techniques;
- What kind of credential (such as a PIN, password or other unique identifier) will appropriately be issued to the borrower/lessee, to identify the borrower/lessee when he/she accesses the lender’s/lessor’s system;
- How to inform the authenticated party of the authenticated party’s rights, obligations and liabilities pertaining to any credential issued to such authenticated party.

For a more detailed discussion of authentication, see Appendix B.

## *Electronic Signatures*

An electronic signature is the other main legal tool needed to complete automation of any paper-based process that requires a legally binding instrument. The implementation of an electronic signature for

<sup>34</sup> A “credential” is “[a] token, device or process provided to an individual to authenticate his/her identity in connection with a Transaction or series of Transactions. Examples include PINs, passwords, digital certificates, stored biometric measurements and random-number generators.” Standards and Procedures for Electronic Records and Signatures (2003) at xvii.

<sup>35</sup> For more information, see SPeRS § 1.



legally binding documents such as lease agreements offers potential benefits in terms of business process improvement, shortened transaction times, enhanced compliance and reduced paper usage, while also reducing the possibility of fraud.

The challenge for electronic signature technology is to implement a process that assures “durable” protection against repudiation and demonstrates the signer’s intent to create a legally binding signature. One of the principle challenges for the users of electronic signature technology is the ability to create the “signing ceremony” (*i.e.*, the vital characteristics of a specific signing event in a legal records management environment).

Several considerations pertaining to the use of electronic signatures include:

- What kind of electronic signature or electronic signature process will be used;
- How to effectively explain the use of electronic signatures to lenders/lessees so that they will understand the significance of their actions and adequately demonstrate their intent to create a legally binding signature;
- How to obtain multiple signatures when a transaction involves multiple transaction participants;
- Whether laws or regulations restrict the types of electronic signatures.

For a more detailed discussion of electronic signatures, see Appendix B.

### *Record Retention*

UETA and UETA generally provide that the participants in a transaction that sign, or are entitled to receive or rely upon, a record are entitled to have an opportunity to retain a copy of the record. The record is usually retained by printing or electronically storing a copy of the record. In addition, storage of electronic records can satisfy business needs for copies of important transaction records and evidentiary requirements if a transaction leads to a court dispute.

Record retention is closely related to establishing control over electronic chattel paper. However, record retention requirements are broader than the UCC’s control requirements, encompassing the entire transaction and affecting system upgrades, disaster recovery and regulatory compliance. Some of the most significant considerations for this topic include:<sup>36</sup>

- Compliance with regulatory agency guidance and requirements governing record retention;<sup>37</sup>
- Secondary market requirements, particularly if the electronic chattel paper is intended for resale;
- Data security requirements and procedures, both for the eVault’s physical plant and for its logical operations;<sup>38</sup>
- Data migration from one storage format to another, especially as these may change over time;

<sup>36</sup> For more information, *see* SPeRS § 5.

<sup>37</sup> *See, e.g.*, OCC Advisory Letter AL 2004-9, *Electronic Record Keeping* (June 21, 2004); Federal Financial Institutions Examination Council, *IT Examination Handbook*.

<sup>38</sup> This is a broad-ranging category, which can include document-level details such as verifying whether data stored in the eVault has been modified without authorization; system level functions, such as intrusion detection and data encryption; and corporate level initiatives, such as physical plant security and multi-site disaster recovery protocols.

- The structure of vendor contracts to ensure the integrity, security and confidentiality of data stored in the eVault.<sup>39</sup>

For a more detailed discussion of electronic record retention, see Appendix B.

### *Control*

As noted above, control of electronic chattel paper is the electronic equivalent to “possession” of paper chattel paper. Establishing, maintaining and transferring control over electronic chattel paper are critical tasks for the equipment leasing and finance industry. Some of the more significant considerations<sup>40</sup> include:

- Selecting a method of asserting control over electronic chattel paper, such as through a proprietary vault or via a registry system;
- Measures for authenticating eVault system users and for providing different levels of access to those system users depending upon their roles;<sup>41</sup>
- Determining how an eVault integrates with a registry system (if any) and supports its system of transactions and provides notice of transfers of control over electronic chattel paper;
- Ensuring that only one authoritative copy of the electronic chattel paper exists at any one time;
- Monitoring usage of the system that maintains Control over the electronic chattel paper;
- Creating and utilizing audit systems to ensure the integrity of the control system and the authoritative copies of the electronic chattel paper stored therein.

### **Creating Industry-Wide Standards**

Industry efforts via industry organizations to achieving the benefits of the paperless transaction usually form the best approach. These typically entail development of three key components.

- Operational Standards;
- Supporting or underlying legal concepts to the operational standards;
- Model Trading Partner Agreement.<sup>42</sup>

---

<sup>39</sup> These points collectively pertain to records management, for which there are a number of leverageable standards and regulations. The prescribed formats for records management are fairly consistent across all of these regulations and standards and are not expected to change once they have been invested into the records management environment

<sup>40</sup> For more information, see ANSI X9.103-2004, *Motor Vehicle Retail Sale and Lease Electronic Contracting* (2004); ABA Working Group on Transferability of Electronic Financial Assets, *Framework for Control over Electronic Chattel Paper: Compliance with UCC §9-105* (2006).

<sup>41</sup> For example, some system users may be authorized to enter ECP into the eVault, while others may have the authority to transfer them to other users. Still other system users might be limited to “read only” access, to handle auditing or other functions.

<sup>42</sup> A model trading partner agreement is a sample contract, possibly authored by the appropriate standards body, which provides sample terms and standard language that govern the relationship between the parties to a common industry agreement. In this case, the equipment leasing and financing industry may consider drafting model trading partner agreements to govern several relationships, including but not limited to the Channel Agent-lessor/lender and the lessor/lender and eVault provider relationships.

Based on the experience of other industry groups working to the same paperless goal, there is a recognized need to establish collaborative working protocols between the participants in the paperless transaction. These protocols enable the orderly transfer of information between trading partners (this is essentially an e-commerce transaction). These protocols establish the transmitting party – receiving party expectations and catalog reasonable requirements.

For example, the industry would benefit from the development of standards for the following steps in the lease and loan transaction lifecycle:

- Creation of the loan or lease Application;
- Execution of the critical legal documents;
- Placement of the loan or lease agreement into custody in storage and archival facilities;
- Assignment stage, during which secondary market investors control ECP.

The mechanism for doing this is the development of (vertical) industry standards. For the most part, operational standards at the functional level (*e.g.*; electronic signature, records management, etc.) can be adopted from existing bodies of work from standing organizations such as ISO, W3C, AIIM, and UETA. The requirement for new vertical standards is typically fairly narrow and consists of meeting specific data messaging, document management access and sharing, “trusted” functions like authentication, credentialing, and, in general, compliance at all levels.<sup>43</sup>

Operational standards should be supported by well formed legal concepts that demonstrate the supportability in law of the standards. These standards should take particular care to point out the risks and consequences of operating outside the established definitions and mandates established in the operational standards. Both the standards and the associated legal concepts should be closely coupled with the Model Trading Partner Agreement where roles and responsibilities for each participating party both individually and collectively are spelled-out.

Formulating standards with well developed legal understandings and bound through legal agreements tend to find greater favor among regulators and courts than any alternative where the parties act independently holding their own interests supreme. At least initially, these industry standards, because they are typically required to comply with a myriad of federal and state regulations, must center on the “highest authority” (most stringent requirement) in any instance where compliance is at issue.

Moreover, these standards must be periodically reviewed and, if necessary, updated. Standards that have been vetted by the entire industry and which are periodically revised to reflect changes in the industry’s workflows and technology are most likely to be adopted by the industry and provide the greatest value.

Based on current experience, there are instances where the larger participants in vertical industry transactions decide and impose on smaller participants protocols and standards that reflect the requirements of the larger participants. These form *de facto* standards and are dependent upon the tacit support of all parties. Since these tend to be unilateral in nature, they may not serve the interests or, at least, the best interests of all parties. These kinds of principal – agent arrangements impose a certain amount of risk to the Principal role in that, should any of the rules imposed on the agents prove non-

---

<sup>43</sup> “Trusted” functions are those performed by one party on behalf of the other party or in which the other party has a vested interest and / or critical dependency.

compliant, the principal may well be held accountable for the consequences. In addition, ad hoc development of private standards can hinder adoption of new business processes, raise business costs, and prevent companies from obtaining the benefits that a broad, interconnected network can provide.

All in all, it is better to formulate from consensus among all parties to establish industry-wide standards that represent the interests of the industry as a whole.

Arguably, the greatest task toward gaining broad acceptance of the paperless transaction is at the intellectual level, because the substantive indications from practical experience in other industries have generally shown that electronic processing allows companies to provide equivalent or better services at lower costs. Intellectually, management and perhaps the legal community (usually in-house counsel) have to be instilled with a sufficient comfort with both the technology and the changes to business practices it enables.

Other considerations include the availability of technology products is a consideration that needs to be developed based on the needs of a particular business or industry to achieve the paperless transaction. Some of the necessary technology may be available “off-the-shelf” (including electronic signature technology, records management technology and intelligent / interactive forms technology) while other technology may need to be built in order to achieve interoperability for transaction parties.

Practical experience must also be considered to orchestrate the technology into desired strategies, plans, and implementation tasks. Fortunately, a collaborative community has emerged in several industry groups who have embarked on the path to the paperless transaction, and within this community, there appears to be a willingness to share experiences and lessons learned. Moreover, a number of phased-implementation ‘on-ramps’ have been developed that can assist those looking for a more graduated progress into paperless transaction.

Industry-wide standards should focus on:

- Information conformity;
- Process interoperability;
- Legal compliance.

Compelling business motivations to develop industry-wide standards include:

- Significantly decreased system development costs;
- Reduced uncertainty associated with investment in new technologies, especially the concern that one might end up investing in a technology that is not supported by other industry players;
- A common understanding with internal team members and vendors concerning the methodology for designing electronic systems to create, store and transfer lease and loan transactions;
- Establishing commercially reasonable, enforceable structures and processes to reduce business and legal risk.

In developing industry-wide standards, other industries have taken the following steps:

- Established a network of committee(s) to study the industry’s needs and existing standards in other financial services industries, and recommend a standards strategy;

- Created standards committees, populated by a broad base of industry participants, to create standards for various aspects of paperless transaction processing. Standards should address business processes, legal requirements, and technological needs;
- Engaged in industry-wide educational efforts to provide guidance for implementing electronic business processes that will comply with the newly created standards.

The alternative to an industry-wide approach is that each business within the industry automates within its own environment, leading to a “thousand islands of disparate information” outcome which may present even more difficulty, increased costs and incur greater regulator scrutiny than the current manually intensive process.

It typically takes 12 to 18 months to formulate and gain approval for automation standards at the industry level. This time period can vary depending on the size and cohesiveness of the industry involved. Many industry groups provide central resources and experience to assist the individual members with their implementations. At times, technology relationships can be formed at the industry level that provide “economy of scale” savings to all participating members. At a minimum, this form of assistance tends to accelerate implementation for the members.

## APPENDICES

<b>APPENDIX A:</b>	<b>Glossary</b>
<b>APPENDIX B:</b>	<b>Legal Aspects of Electronic Transactions</b>
<b>APPENDIX C:</b>	<b>Summary of Cases</b>
<b>APPENDIX D:</b>	<b>Standard &amp; Poor's – Legal Issues of Securitized Auto Loans in an eContract World</b>
<b>APPENDIX E:</b>	<b>Current State Model</b>
<b>APPENDIX F:</b>	<b>Future State Model</b>
<b>APPENDIX G:</b>	<b>Resources</b>
<b>APPENDIX H:</b>	<b>SPeRS Standards</b>
<b>APPENDIX I:</b>	<b>ELFF Electronic Contracting Survey Results – March 2007</b>
<b>APPENDIX J:</b>	<b>NAVA Standards</b>

**APPENDIX A: GLOSSARY**

1. ACORD: Association for Cooperative Research and Development.
2. AIIM: Association for Information and Image Management.
3. ANSI: American National Standards Institute
4. AOE: Automated Order Entry System.
5. Applicant: A potential lessee or borrower that has completed and submitted an application for a lease or loan for equipment leasing or financing.
6. Application: A lease or loan application.
7. Authentication: The process of verifying a person's identity.
8. Authoritative Copy: A single copy of an Electronic Chattel Paper that is unique, identifiable and, except as legally permissible, unalterable.
9. CAGR: Compounded annual growth rate.
10. Channel Agent: The vendor/dealer, broker or partner through which an equipment financing Transaction occurs.
11. Control: With regard to electronic chattel paper, the legal equivalent of possession of tangible chattel paper.
12. Credential: A token, device or process provided to an individual to authenticate their identity in connection with a Transaction or series of Transactions.
13. Customer: A lessee or borrower, including Applicants.
14. Customer Database: A computerized database maintained by the lessor/lender containing information pertaining to Customers and Applicants.
15. DTD: Document Type Definition.
16. Electronic Chattel Paper: The electronic equivalent of tangible chattel paper.
17. eContract: An electronic lease or loan agreement.
18. eForms: electronic media through which content is presented to a lessee.
19. Electronic Record: A contract or other record created, generated, sent, communicated, received, or stored by electronic means.

20. Electronic Signature: 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.
21. UETA: An electronic promissory note (*see also* Transferable Record).
22. UETA: Electronic Signatures in Global and National Commerce Act.
23. eVault: A computer system designed to store eContracts and related Electronic Records and which can be used to maintain Control over Electronic Chattel Paper.
24. FFIEC: Federal Financial Institutions Examination Council.
25. Foundation: Equipment Leasing and Finance Foundation.
26. Intelligent Forms: Electronic forms that contain complex embedded business rules that interoperate with external workflow, databases, and applications regardless of location.
27. Interactive Forms: Electronic forms that contain embedded rules that govern how the form is operated.
28. LOS: Loan Origination System.
29. MBA: Mortgage Bankers Association.
30. UETA: Mortgage Information Standards Maintenance Organization.
31. NAVA: National Association of Variable Annuities.
32. NRSRO: Nationally Recognized Statistical Ratings Organization.
33. Purchaser: The party in a transaction involving electronic chattel paper that is acquiring the electronic chattel paper from the current owner.
34. Record: Information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.
35. Registry: A system, usually computerized, used to track ownership, Control and location of UETA.
36. Sales Administrator: An origination function consisting of receiving an Application and attachments, posting the Application and checking the Application to ensure that the Application is complete. May also include a limited review of the Customer's qualifications.
37. UETA: Standards and Procedures for Electronic Records and Signatures
38. Static Forms: Electronic forms that are used to collect content but contain no embedded rules or logic governing either the completion of the form or the disposition of content once completed.



39. STP: Straight Through Processing.
40. Transaction: A pending or completed lease or loan for equipment leasing or financing, as applicable.
41. Transaction Database: A computerized database of information pertinent to evaluating Applications, which may include a variety of information depending upon the type lease or loan of Transaction being underwritten and the entity processing the Application.
42. Transaction File: A working file of documents and references to order-entry processing that are pertinent to further consideration and Application processing.
43. Transferable Record: An electronic promissory note (*see also* UETA).
44. UCC: Uniform Commercial Code.
45. UETA: Uniform Electronic Transactions Act.
46. X9: Accredited Standards Committee X9, Inc.

## APPENDIX B: LEGAL ASPECTS OF ELECTRONIC TRANSACTIONS<sup>44</sup>

### Table of Contents

1. Overview of UETA and UETA
2. Electronic Records
3. Electronic Signatures
  - 3.1 Selecting a Signature Process
  - 3.2 Providing Information to the Customer Regarding the Signing Process
  - 3.3 Establishing the Customer's Intent to Sign
  - 3.4 Associating a Signature with a Record
    - 3.4.1 Attributing a Signature to a Customer
  - 3.5 Authentication
    - 3.5.1. Authentication Methods
    - 3.5.2. Selecting a Credential Method
    - 3.5.3 Notifying a Credential Holder of Rights and Responsibilities
    - 3.5.4 Representative's Authority
4. Consent to Engage in Business Electronically
5. Record Retention and Management
  - 5.1 UETA and UETA Record Retention Requirements
  - 5.2 Admissibility into Evidence
    - 5.2.1 The Best Evidence Rule
    - 5.2.2 The "Duplicates" Rule
    - 5.2.3 The Secondary Evidence Rule
    - 5.2.4 The Business Records Act
    - 5.2.5 State Law
    - 5.2.6 Process Integrity
6. Legal Aspects of the Assignment of Electronic Records
  - 6.1 Creation of Security Interests Using Electronic Records and Signatures
    - 6.1.1 Perfection of Security Interests Using Electronic Records
    - 6.1.2 Perfection by Control of Security Interests in Electronic Chattel Paper
    - 6.1.3 Choosing a Method of Perfection

### ***1. Overview of UETA and UETA***

Below is an overview of relevant legal concepts that enable electronic loan and lease transactions, including a discussion of UETA, UETA and Revised Article 9 of the UCC.

The use of Electronic Records and Electronic Signatures has increased since the widespread adoption of UETA and the passage of UETA. These two laws allow for Electronic Records and Signatures to be the legal equivalent of their non-electronic counterparts, particularly where laws or regulations previously required written documentation. Below we outline the bases for this legal equivalent, the importance of authenticating the identity of those with whom you do business, the importance of obtaining a customer's

---

<sup>44</sup> Some of the content in this Appendix is reprinted with permission from *The Law of Electronic Signatures and Records*, Buckley, Tank, Whitaker and Kromer (Glasser LegalWorks) and SPeRS Version 1.0 (2003).

consent to use Electronic Records and Signatures, common record retention requirements and evidentiary considerations that apply to Electronic Records, and the special rules that apply to electronic chattel paper.

## 2. *Electronic Records*

The legal framework established by UETA and UETA is built upon the principle that Electronic Records and Electronic Signatures can be the legal equivalent of written records (*i.e.*, documents) and “wet” signatures. Both laws create this legal equivalency by taking a procedural approach to meeting existing “writing” and “signing” requirements. They do so as follows:

- A record or signature may not be denied legal effect or enforceability solely because it is in electronic form;
- A contract may not be denied legal effect or enforceability solely because an Electronic Record was used in its formation;
- If a law requires a record to be in writing, an Electronic Record satisfies the law; and
- If a law requires a signature, an Electronic Signature satisfies the law.<sup>45</sup>

Under UETA, a “record” 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.”<sup>46</sup> 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. For example, if an individual uses the Internet to review information stored on a server two thousand miles away, that information is still a record.

The requirement that the record be “retrievable in perceivable form” is an objective, and not subjective, requirement. To qualify, it is not necessary that the specific recipient be able to comprehend the information contained in the record, just that *someone* could comprehend it. For example, a data file stored on a hard drive which displays information in Spanish is a record for purposes of UETA, even if the person reviewing the record does not speak Spanish.

UETA also defines “electronic” to mean “relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic or similar capabilities.”<sup>47</sup> This definition covers a broad range of

---

<sup>45</sup> UETA § 7. Similarly, ESIGN § 101 also sets forth the general rule of validity. It provides that:

notwithstanding any statute, regulation, or other rule of law with respect to any transaction in or affecting interstate or foreign commerce,

- (1) A signature, contract, or other record relating to such transaction may not be denied legal effect, validity, or enforceability solely because it is in electronic form, and
- (2) A contract relating to such transaction may not be denied legal effect, validity, or enforceability solely because an electronic signature or Electronic Record was used in its formation.

15 U.S.C. § 7001(a).

<sup>46</sup> 15 U.S.C. § 7006(9); *see* UETA § 2(13).

<sup>47</sup> 15 U.S.C. § 7006(2).

technologies, including telephones, magnetic tapes, USB drives, floppy disks, wireless networks and other hardware. Although “electronic” can refer to computer-based technologies, this definition indicates that other technologies also can be “electronic” within the meaning of the statute.

UETA combines these two definitions, defining an “Electronic Record” as “a record created, generated, sent, communicated, received, or stored by electronic means.”<sup>48</sup> 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, as well as documents that originally are created on paper and then scanned into a computer system.

UETA, like UETA, defines a “record” as “information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.”<sup>49</sup> As with UETA, this encompasses a variety of artifacts, ranging from traditional writings to information in perceivable form that is stored on magnetic or optical media. 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. For example, if an individual uses the Internet to review information stored on a server two thousand miles away, that information is still a record.

Moreover, UETA and UETA also define “electronic” identically.<sup>50</sup> Interestingly, UETA’s drafters took the opportunity to explain that the term “electronic” should not be narrowly construed to limit the act’s applicability.

While not all technologies listed are technically “electronic” in nature (*e.g.*, optical fiber technology), the term “electronic” is the most descriptive term available to describe the majority of current technologies. For example, the development of biological and chemical processes for communication and storage of data, while not specially mentioned in the definition, are included within the technical definition because such processes operate on electromagnetic impulses. However, whether a particular technology may be characterized as technically “electronic” (*i.e.*, operates on electromagnetic impulses) should not be determinative of whether records and signatures created, used and stored by means of a particular technology are covered by UETA. UETA is intended to apply to all records and signatures created, used and stored by any medium which permits the information to be retrieved in perceivable form.<sup>51</sup>

Therefore, UETA, as with UETA, defines “Electronic Record” as “a record created, generated, sent, communicated, received, or stored by electronic means.”<sup>52</sup> Accordingly, an Electronic Record is a subset of records, although it still embraces a wide variety of technological solutions. An Electronic Record “is any record, created, used or stored in a medium other than paper.”<sup>53</sup>

---

<sup>48</sup> 15 U.S.C. § 7006(4); UETA § 2(7).

<sup>49</sup> UETA § 2(13).

<sup>50</sup> UETA § 2(5).

<sup>51</sup> Cmt. 4 to UETA § 2 (emphasis added).

<sup>52</sup> UETA § 2(7).

<sup>53</sup> Cmt. 6 to UETA § 2.

### 3. *Electronic Signatures*

An Electronic Signature is a legal tool; it performs significant functions in connection with an Electronic Record or a Transaction. In many instances, if a record is not signed, then it may not be possible to use the record for its intended purpose. For example, many kinds of contracts cannot be enforced if they are not signed. Therefore, Electronic Signatures are critical to electronic commerce applications.<sup>54</sup>

UETA and UETA 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.”<sup>55</sup> UETA does not specify the form an Electronic Signature should take, but rather allows parties to determine the technology that is most effective for the transaction at hand. The choices could include a simple click-through process (*e.g.*, an “I Agree” button), a PIN number, a single string of encrypted numeric code, biometric scanners that read thumbprints or iris patterns or any combination thereof.

It is particularly important to note the use of the term “process” in the definition. This means that the creation of an Electronic Signature may involve multiple steps and consideration of surrounding circumstances. For example, as part of a contract execution, assume that a Customer appears at the seller’s offices, where the Customer’s identity is verified by reference to his/her driver’s license and other identification. The Customer is then placed in front of a computer, where he/she types his/her name at the end of an electronic form contract intending to signify acceptance of the contract terms, and the seller also notes on the form the steps taken to identify the Customer. The entire process, including the verification of identity and the affixing of the typed name to the contract, would constitute a “process” resulting in an Electronic Signature.

UETA retains the existing requirement that a signature is only valid if the signer intends to sign something. Currently, a number of conventions are used with written documents in order to provide evidence of the intent to sign—placement of the signature at the end of the document, statements above the signature that the parties are signing the document to demonstrate their agreement to the terms in the document, notarized acknowledgments of the signature, etc.

As with existing law, the purpose the signature serves is left to other law and the surrounding factual circumstances. The signature may serve any of several purposes:

- Confirming the accuracy of the document;
- Confirming receipt or review of the document;
- Confirming agreement with the document’s terms.

UETA and UETA make no attempt to distinguish among these different uses for a signature, or to set different standards of proof or attribution depending on the signature’s purpose.

#### 3.1 **Selecting a Signature Process**

---

<sup>54</sup> See SPeRS § 4 for a discussion of legal and operational principles relevant to Electronic Signature processes.

<sup>55</sup> 15 U.S.C. § 7006(5); UETA § 2(7).

At the outset, the party deploying an Electronic Signature solution must determine which kind of Electronic Signature to use. In order to select an Electronic Signature method, the party implementing the Electronic Signature solution should determine the function(s) that the Electronic Signature will fulfill. Broadly speaking, these functions fall into one of four categories:

- Affirming the accuracy of information in the Record (“this Record contains the correct information, because I signed it”);
- Affirming assent or agreement with the information in the Record (“I have agreed to the terms and conditions described in this Record, because I signed it”);
- Affirming the Signer’s opportunity to become familiar with information in the Record (“I must have had this Record in front of me, because I signed it”);
- Affirming the source of the information in the Record (“this Record must have come from me, because I signed it”).<sup>56</sup>

A single signature can perform one or more of these functions in any combination. The particular function(s) a signature fulfills will depend on the circumstances.

After determining the Electronic Signature’s function, the party obtaining the Electronic Signature can select the type of Electronic Signature to use. When selecting the type of Electronic Signature to be used in a transaction, there are many factors to consider.

These factors include:

- The need for security;
- The degree of certainty that the signer is who he/she claims to be;<sup>57</sup>
- The environmental factors surrounding the Transaction (*e.g.*, whether the Transaction is executed on the signer’s own computer or a computer owned by the broker-dealer or carrier), the cost and complexity of the Transaction, etc.<sup>58</sup>

### 3.2 Providing Information to the Customer Regarding the Signing Process

The party obtaining the Electronic Signature should provide general information regarding the signature process to the signer. Providing information about the Electronic Signature process lays an important foundation to ensure that a Signer creates an Electronic Signature with the requisite intent to do so.<sup>59</sup>

The party that is establishing the Electronic Signature process must address two general questions:

- What information about the Electronic Signature process should be made available to the signer?

---

<sup>56</sup> See SPeRS § 4-1.

<sup>57</sup> This can be determined, in part, by the Authentication processes used to establish the signer’s identity and the Credentials issued to the signer.

<sup>58</sup> See SPeRS § 4-1. Appendix 1 to SPeRS § 4-1 contains a comparative analysis of the characteristics of different types of Electronic Signatures. This resource can be useful in helping companies determine which type of electronic signature process is best suited to their business processes.

<sup>59</sup> See SPeRS § 4-2 and *infra* § 0.

- When should this information be provided to the Signer?

The description of the Electronic Signature process should include one or more of the following, as appropriate:

- The type of Electronic Signature being used;
- The procedure the signer will use to execute the Electronic Signature;
- Any opportunity the Signer will have to confirm or cancel the Electronic Signature after signing;
- When the Electronic Signature will be effective, and whether any additional steps will need to be taken, after the Signature is complete, before it becomes final and enforceable.

If multiple signers will be signing the same record, then the description of the Electronic Signature process might also provide information regarding:

- The procedure for obtaining the multiple Signatures;
- Whether each signer will be asked to represent and warrant either that:
  - The signer has not signed on behalf of any other person;
  - The signer has authority to sign on behalf of others;
- Any procedure, technology or credential being used to confirm that each signer actually signs the record, including any obligation the signer has to keep a Credential secure to prevent its use by others.

The timing of delivery of this information may depend upon the transaction. In some cases, delivery at the time of signing will be appropriate, while in other cases it may make more sense to make the information available early in the relationship. When this information is supplied early in the relationship, the party obtaining the Customer's Electronic Signature should consider using a hyperlink or other cross-reference back to the Signature information at the time of signing.

### **3.3 Establishing the Customer's Intent to Sign**

In order for an Electronic Signature to be effective, the signer must have intended to create an Electronic Signature. If disputed, the person attempting to enforce the Electronic Signature will usually have the burden of proving the intent to sign the record, based on what a signer reasonably would have believed under the circumstances and the signature's purpose. Electronic Record providers should create an Electronic Signature process that minimizes the risk that Customers could legitimately claim later that that they created an Electronic Signature without realizing what they did or its legal significance.

One method of establishing a signer's intent to create an Electronic Signature involves implementing an appropriate amount of "ceremony" surrounding the Electronic Signature process—for example, similar to providing a designated space for a "wet" signature at the end of a paper document, surrounded by explanatory text. The type of "ceremony" associated with an Electronic Signature may depend upon the type of Electronic Signature that is used. Common forms of online signatures—such as an "I agree" click— may require less elaborate procedures, especially if the signer is familiar with electronic commerce business practices. For more innovative signatures, such as those created using biometric thumbprint readers, a more detailed narrative description of the Electronic Signature process and its import may be desirable.

When designing a process to establish a person’s intent to create a signature, the following factors should be considered:

- What Electronic Signature process is being used?
- How similar is the Electronic Signature process to manual or other electronic processes to which customers are accustomed?
- What information should the signer be provided as part of establishing the intent to sign?
- When will the signature be effective?
- Does the Electronic Signature process need to protect against the unintended creation of an Electronic Signature—for example, by requiring the signer to create an Electronic Signature and then confirm that this is what the signer intends to do?
- Will the same signature be applied to multiple records? If so, how will intent be established for each record?
- Is the signer supposed to sign the same document multiple times? If so, how will intent be established for each signature?
- What purpose or purposes does each signature serve?<sup>60</sup> Is the purpose of each signature obvious from the context, or does it need to be explained?

It is possible to design a signature process that allows a single action by the signer to apply Electronic Signatures across multiple Electronic Records or multiple Electronic Signature blocks in the same Electronic Record. However, any such process should be designed to ensure that the signer knows which Electronic Records are being signed (or that a particular Electronic Record will be signed in all applicable locations) and to ensure that the signer forms the requisite intent to sign the Electronic Record(s).

### 3.4 Associating a Signature with a Record

To qualify as an Electronic Signature under UETA and UETA, a purported Electronic Signature must be attached to or logically associated with the record being signed. The Transaction system must either (i) keep an associated record reflecting the fact that an Electronic Signature was created or (ii) make a textual or graphic statement that is added to the signed record that reflects the fact that an Electronic Signature was executed.<sup>61</sup>

#### 3.4.1 *Attributing a Signature to a Customer*

Electronic Signatures also should provide some method of verifying that the purported signer did in fact create (or authorize the creation of) the Electronic Signature. This process is called Attribution.<sup>62</sup>

Like traditional “wet” signatures, Electronic Signatures can be created by the signer’s authorized agents (e.g., employees, attorneys in fact, etc.). In addition, UETA and UETA both allow Electronic Signatures to be created by an electronic agent—a computer program or other method of creating an Electronic Signature that does not require a person’s active intervention.

---

<sup>60</sup> See SPeRS § 4-2

<sup>61</sup> See SPeRS § 4-4.

<sup>62</sup> See SPeRS § 4-5.



In the electronic context, attributing an Electronic Signature to a signer is significantly related to the issues of confirming, or authenticating, the signer's identity and the use of a Credential. A signer can be authenticated before the creation of an Electronic Signature. If the signer is authenticated at a time significantly before the Electronic Signature is created, it may be more efficient to issue a Credential to the signer to avoid the need to complete a lengthy re-authentication process when the Electronic Signature is required.<sup>63</sup>

When designing a system to attribute Electronic Signatures to a signer, the system designer may consider, among other factors:

- Whether the signer has previously been authenticated;
- Whether the signer has appropriate Credentials that can be used to authenticate the signer and/or attribute his/her Electronic Signature to him/her;
- Whether agents (electronic or otherwise) will be used to attribute an Electronic Signature to a person, and if so, how;
- Whether notarization can be used to attribute an Electronic Signature to the appropriate party, and if so, how;
- The value of the transaction involved;
- The risk associated with the failure to properly attribute an Electronic Signature to a signer;
- If the Electronic Records will be signed by multiple parties, how to attribute each Electronic Signature to the appropriate person.<sup>64</sup>

### 3.5 Authentication

“Authentication” is defined as the process of identifying an individual as a party to a Transaction. Authentication generally occurs at the creation of a relationship between two parties or during the individual's participation in a Transaction. Authentication is important because the parties to a Transaction need to know with whom they are dealing, and whether the individual is acting on his/her own behalf or on behalf of another party. If Authentication is not performed correctly, then the Transaction may not be enforceable, especially if the improperly Authenticated party is an imposter or cannot be located (*e.g.*, the improperly Authenticated party provides a false address, etc.) In addition, some laws require businesses to take certain steps to Authenticate their customers' identity.<sup>65</sup>

#### 3.5.1 Authentication Methods

There are generally five methods of Authenticating a party to a Transaction when establishing a business relationship. These strategies are:

---

<sup>63</sup> Notaries can be used to attribute an Electronic Signature to a signer. Both ESIGN and UETA have provisions that address electronic notarizations. *See* 15 U.S.C § 101(g); UETA § 11. However, a notarization need not be conducted electronically, even where a record is signed with an Electronic Signature. The parties may choose to use a hybrid approach, executing some records electronically and others (including notarizations) on paper.

<sup>64</sup> *See* SPeRS § 4-6.

<sup>65</sup> *See, e.g.*, Section 326 of the USA PATRIOT Act, 31 U.S.C. § 5318 (1); 12 C.F.R. Parts 21, 208, 211, 326, 563, 748 and 31 C.F.R. Part 103.

- Self-Authentication: The party provides a declaration of identity;
- Logical Authentication: The information provided by the party 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 party is checked to determine if it has previously been associated with fraudulent transactions or identity theft;
- Positive Authentication: The information provided by the party is confirmed with a trusted external source of information (e.g., the party's social security number and address matches information contained in a credit report or other information source); and
- Third-party Authentication: The identity of the party is confirmed by a trusted third party (e.g., the Transaction Participant's identity is confirmed by a Certificate Authority providing a Digital Certificate or the Party provides appropriate documentation of identity to a notary public).<sup>66</sup>

These strategies have strengths and weaknesses, and also can be combined. When selecting an Authentication method, one must consider the risks involved in the Transactions, the number of Transactions that are anticipated, whether a Credential will be issued to the party, the burden imposed by the Authentication method, the sensitivity of any information provided to the Authenticated Party and any applicable legal requirements.

In addition, the banking agencies,<sup>67</sup> through the Federal Financial Institutions Examination Council ("FFIEC") have issued guidance on Authentication methods in an internet environment.<sup>68</sup> The interagency guidance breaks down Authentication methods into three factors: "1) something the user *knows* (e.g., password, PIN); 2) something the user *has* (e.g., ATM card, smart card); and 3) something the user *is* (e.g., biometric characteristic, such as a fingerprint)."<sup>69</sup> The banking agencies' guidance requires financial institutions to undertake a risk analysis and states that single factor Authentication would not be appropriate for use in high-risk applications, such as those "involving access to customer information or the movement of funds to other parties."<sup>70</sup> Covered financial institutions must comply with these requirements by the end of 2006.

### 3.5.2 *Selecting a Credential Method*

Credentials are often issued to re-Authenticate parties to a Transaction, particularly when the parties anticipate recurring Transactions or another form of ongoing relationship. Credentials can provide a quick method of reconfirming the identity of an individual and reduce or eliminate the need to fully Authenticate an individual every time two Parties interact.

Credentials can be: (i) something the user knows (such as a password), (ii) something the user has (such as an ATM card), (iii) something the user is (such as a thumbprint) or (iv) some combination of these

<sup>66</sup> See, e.g., SPeRS § 1-1.

<sup>67</sup> The banking agencies include the Board of Governors of the Federal Reserve System, the Office of Thrift Supervision, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency and the National Credit Union Administration.

<sup>68</sup> See *Authentication in an Internet Banking Environment* (2005) available at [www.ffiec.gov/pdf/authentication\\_guidance.pdf](http://www.ffiec.gov/pdf/authentication_guidance.pdf) and *Frequently Asked Questions on FFIEC Guidance on Authentication in an Internet Banking Environment* (2006) available at <http://www.federalreserve.gov/boarddocs/srletters/2006/SR0613a1.pdf>.

<sup>69</sup> *Authentication in an Internet Banking Environment* at 4 (2005).

<sup>70</sup> *Id.*

elements. A Credential's security can be increased by combining these elements. While many electronic Applications currently use only one factor, there is a current trend towards two-factor Authentication to combat online fraud and identity theft.

When considering which types of Credential to use, one should consider the risks involved in the contemplated underlying Transactions, including the risk of loss, forgery or unauthorized access to Customer data. In addition, the frequency and value of Transactions, and the parties' sophistication and role in the Transactions, will influence the choice of Credentials. Different types of Credentials may be appropriate for different parties to a Transaction.<sup>71</sup>

### 3.5.3 *Notifying Credential Holder of Rights and Responsibilities*

In addition, it is important that parties who receive Credentials understand the nature of the Credential and any attendant risks associated with using it. Credentials can be misused in many ways, such as: (i) the Credential holder voluntarily provides it to a third party, (ii) misappropriation without the Credential holder's consent and (iii) forgery of a Credential by a party that does not have Authorization to use the Credential. Informing the Credential holder of the risks of misuse and the extent of the holder's liability for any misuse<sup>72</sup> can help ensure that the Credential holder does not risk the Credential's security, and thereby risk the Credential's value.<sup>73</sup>

### 3.5.4 *Representative's Authority*

In many Transactions, the individuals actually participating in the Transaction are agents acting on behalf of another party, the principal. Some parties, such as corporations and partnerships, can only act through representatives. If the principal has not authorized the representative to participate in the Transaction, or if there are limits on the representative's authority, it may be difficult to enforce the Transaction against the principal.

A representative's authority may be constrained by its principal or by statutes, regulations, or other legal rules. In any Transaction where a party is acting through a representative, it may be important to consider establishing the extent of the representative's authority. This can be done in several ways, ranging from requesting documentation (such as a power of attorney or corporate documents) to establish the representative's authority, to verifying the representative's authority through the use of digital certificates or Credentials that are only issued to a Party's authorized representatives.

When determining what steps to take to verify a representative's authority, it may be useful to consider:

- The extent of the Transactions contemplated between the parties (e.g., high-value single transaction vs. medium- to low-value repetitive transactions);

---

<sup>71</sup> See SPeRS § 1-2.

<sup>72</sup> Some statutes, regulations and party system rules may limit a Credential holder's liability for misuse of Credentials. For example, MasterCard and Visa do not hold a credit card holder liable for fraudulent transactions made on the card member's credit card. Other Credentials may have substantial risks associated with misuse.

<sup>73</sup> See SPeRS § 1-3.

- The types of information that the representative will be able to access (e.g., confidential information about the principal or its Customers, etc.);
- The probability of fraud;
- If the Transaction will require gathering information that also establishes the representative's authority;
- Any applicable legal requirements that would impact the need or extent of representative Authentication.<sup>74</sup>

#### **4. Consent to Engage in Business Electronically**

UETA and UETA do not require the use of Electronic Records and Electronic Signatures. Instead, the parties to a Transaction must agree to use Electronic Records and Signatures. The consent process differs, based upon whether (i) the parties conducting a Transaction are businesses or consumers and (ii) if a consumer is involved, whether the consumer will be provided with information that a law or regulation requires to be provided in writing (“Required Information”).

UETA and UETA do not mandate how businesses consent to use Electronic Records and Signatures. The agreement to conduct business electronically may be explicit or implied from the nature of the parties' interactions. However, Consumers (*i.e.*, individuals who obtain, through a Transaction, products or services which are used for personal, family and household purposes),<sup>75</sup> receive special protection under UETA and some state UETA enactments. Electronic Records may be used to provide Required Information only if the Consumer (i) receives certain disclosures (“UETA Consumer Consent Disclosures”), (ii) has affirmatively consented to the use of the Electronic Records and (iii) has not withdrawn such consent. This three-step process is commonly referred to as the “UETA Consumer Consent Process.”<sup>76</sup>

#### **5. Record Retention and Management**

Creation of Electronic Records and Electronic Signatures is an important factor in creating binding electronic Transactions. However, it is also equally important to consider the methods of storing and managing the resulting Electronic Records. UETA and UETA impose some requirements regarding the retention of Electronic Records, while evidentiary rules impose additional considerations for the storage and management of Electronic Records.

##### **5.1 UETA and UETA Record Retention Requirements**

Failure to return records appropriately can have serious consequences. UETA provides that the legal effect, validity or enforceability of Required Information or other record that is required to be “in writing” may be denied if the Electronic Record is not in a form that is:

---

<sup>74</sup> See SPeRS § 1-4.

<sup>75</sup> 15 U.S.C. § 7006(1). UETA does not define “consumers” because consumers are not subject to different standards.

<sup>76</sup> 15 U.S.C. § 7001(c)(1). If the transaction: (i) does not involve the electronic provision of Required Information or (ii) the Required Information is mandated by a state or local law, and that state adopted UETA without modifying its consent provisions, then the E-SIGN Consumer Consent Process generally need not be followed.

- 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.<sup>77</sup>

In addition, if there is a rule of law that would otherwise require Electronic Records generated through the Online System to be retained for a specified period of time, the retention requirements in Section 101(d) must be met.

This requirement applies only where other law requires a “writing.” Thus, this requirement does not apply to a contract or other information unless it is subject to a legal requirement that the contract, or some provision of the contract, be in writing (*e.g.*, federally mandated consumer disclosures, contracts subject to the Statute of Fraud, etc.).

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 of the information in the contract or other record that:

- Accurately reflects the information set forth in the contract or other 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.<sup>78</sup>

According to the UETA drafters’ notes, the requirement of continuing accessibility addresses “the issue of technology obsolescence and the need to update and migrate information to developing systems. It is not unlikely that within the span of five to ten years (a period during which retention of much information is required) a corporation may evolve through one or more generations of technology. More to the point, this technology may be incompatible with each other, necessitating the conversion of information from one system to the other.”<sup>79</sup>

In order for Electronic Records to be enforceable, comply with legal “writing” requirements, satisfy record retention requirements and potentially constitute admissible evidence, the Electronic Record retention system must protect the stored records’ accuracy and accessibility in a commercially reasonable manner.

---

<sup>77</sup> 15 U.S.C. § 7001(e); *see also* UETA § 8 (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.”)

<sup>78</sup> 15 U.S.C. § 7001(d); UETA § 12; *see also* the guidance provided in SPeRS § 5-1.

<sup>79</sup> UETA at note 12. The UETA notes continue:

For example, certain operating systems from the early 1980’s, *e.g.*, memory typewriters, became obsolete with the development of personal computers. The information originally stored on the memory typewriter would need to be converted to the personal computer system in a way meeting the standards for accuracy contemplated by this section. It is also possible that the medium on which the information is stored is less stable. For example, information stored on floppy discs is generally less stable, and subject to a greater threat of disintegration, than information stored on a computer hard drive. In either case, the continuing accessibility issue must be satisfied to validate information stored by electronic means under this section. *Id.*

In order to do so, the Electronic Record storage system should provide appropriate controls for the physical (*e.g.*, data storage facility) and logical (*e.g.*, computer system) storage environment. Appropriate steps include training personnel, creating a data security plan (for segregation of employee duties, access controls, etc.) implementing physical controls (such as building and data center security, backup power supplies and the like), documenting and testing disaster recovery plans, planning for system upgrades, implementing network controls such as audit logs and anti-intrusion software and software integrity checking.<sup>80</sup>

In addition, the Electronic Record storage system should implement appropriate processing and data management controls to promote quality control and preserve the Electronic Records' integrity. These controls are designed to ensure that the Electronic Records are both internally consistent and (if applicable) consistent with other stored Electronic Records. Such controls can include data error and consistency checks to determine if a stored Electronic Record contains consistent information throughout the record (*e.g.*, the customer name field is consistent throughout the Electronic Record), signature checks (*i.e.*, to ensure that an Electronic Signature has been appropriately attached to or logically associated with a record that should be signed), data integrity checks to determine whether a stored record has been altered without authorization and authentication checks to ensure that only authorized personnel are able to access or perform certain operations on stored Electronic Records.<sup>81</sup>

Records created in equipment leasing and finance Transactions likely will be retained for a period of years. It is likely that some computer systems will be upgraded during the required storage period. To ensure that electronic equipment loan and lease documentation remains accessible throughout the requisite storage period, the storage system should be designed to address:

- Conversion of the Electronic Records to new storage systems or file formats, as the Electronic Record storage facility upgrades its computer systems;
- Quality control for record integrity, image creation, indexing and related matters;
- Electronic Record security to prevent the destruction or unauthorized; and undetected alteration of stored Electronic Records
- Admissibility of stored Electronic Records under applicable rules of evidence.<sup>82</sup>

In addition, some records may be stored on behalf of the record owner by third parties. These arrangements may provide many benefits, such as economies of scale and the ability to avoid capital investments in storage systems. Nevertheless, outsourcing record retention functions to third parties may require that the record owner conduct due diligence to identify and select an appropriate third party provider, create a clear contract that outlines the record management's responsibilities (which may include storing records in a manner that satisfies legal or regulatory requirements) and continual oversight

---

<sup>80</sup> See SPeRS § 5-2, which outlines the considerations that must be taken into account when designing safeguards for the physical and technical environment in which the records are maintained. In particular, the technical environment should provide network controls, hardware controls and software controls that provide sufficient protection for the records being stored. The type of controls that are required will vary, depending upon the types and value of transactions evidenced by the stored records, the value or importance of the information contained in the records, whether laws or records protect the confidentiality of the information stored in the records and the impact of the loss, destruction or theft of these records.

<sup>81</sup> See SPeRS §§ 5-3, 5-4 and 5-6.

<sup>82</sup> See SPeRS § 5-4.

to protect the integrity of records stored in the vendor's facilities.<sup>83</sup> These requirements are particularly important when storing electronic chattel paper or other forms of transferable records, because the method of storing transferable records can impact who is entitled to be a "holder" of the records.<sup>84</sup>

## 5.2 Admissibility into Evidence

The Federal Rules of Evidence and the Uniform Rules of Evidence<sup>85</sup> (which are based on the Federal rules), generally allow for Electronic Records (and their reproductions) to be admissible evidence. Under the Federal Rules of Evidence, a "writing" or "recording" includes computerized records.<sup>86</sup>

However, many Electronic Records are scanned versions of documents that originally existed on paper. These records may also be admissible evidence. The Federal Rules of Evidence and the Uniform Rules of Evidence contain three rules that impact the admissibility of Electronic Records, including those that have been converted from within into electronic form and then destroyed:

- The "Best Evidence" Rule;<sup>87</sup>
- The "Duplicates" Rule;<sup>88</sup> and
- The "Secondary Evidence" Rule.<sup>89</sup>

In addition, the introduction of converted records into evidence is covered by the Business Records Act.<sup>90</sup> Taken as a group, these provisions lay out the structure and requirements for admitting Electronic Records into evidence.

### 5.2.1. *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 required, except as otherwise provided in these rules or by Act of Congress."<sup>91</sup> An "original" is defined as:

... the 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 there from. If

---

<sup>83</sup> See SPeRS § 5-6.

<sup>84</sup> See SPeRS § 5-7; Revised Article 9, § 9-105 and *supra* [§ 6e)].

<sup>85</sup> Uniform Rules of Evidence, 1974 Official text as amended in 1986 and 1988. As of this date, approximately 38 states have adopted the Uniform Rules of Evidence. A new version of the Uniform Rules of Evidence, which continues to closely track the Federal rules of Evidence, was promulgated by NCCUSL in 1999.

<sup>86</sup> Fed. R. Evid. 1001(1).

<sup>87</sup> Fed. R. Evid. 1002.

<sup>88</sup> Fed. R. Evid. 1003.

<sup>89</sup> Fed. R. Evid. 1004.

<sup>90</sup> 28 U.S.C. 1732 (1994).

<sup>91</sup> Fed. R. Evid. 1002.

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”.<sup>92</sup>

It is unlikely that records that have been converted from paper into electronic form (for example, by scanning a paper document into an imaged format) will qualify as “originals” of the paper document which was scanned and stored. However, it should be noted that a printout or other accurate output of the scanned document will be regarded as an “original” of the scanned image, so that once admissibility of the electronic image is established through other rules, the Best Evidence Rule would permit introduction of a printed copy of that electronic image.

The Best Evidence Rule is subject to a whole series of exceptions that should permit the introduction of converted records, assuming a properly implemented conversion process. These exceptions are for duplicates, documents destroyed in good faith, and records converted in the ordinary course of business.

### 5.2.2 *The “Duplicates” Rule*

The Best Evidence Rule is immediately qualified by the proviso that “a duplicate is admissible to the same extent as an original unless (1) a genuine question is raised as to the authenticity of the original or (2) in the circumstances it would be unfair to admit the duplicate in lieu of the original.”<sup>93</sup> A “duplicate” includes “a counterpart produced...by mechanical or electronic re-Recording...or by other equivalent techniques which accurately reproduces the original.”<sup>94</sup>

The burden of challenging authenticity rests with the party against whom the duplicate is offered. However, once challenged, the party seeking to introduce the duplicate must establish its authenticity to the court’s satisfaction.<sup>95</sup> The question of “unfairness” is a little more nebulous – the best formulation of the rule with respect to scanned records seems to be that:

The critical test for unfairness [will be] whether anything can be gained by examining the original rather than the duplicate. Thus, if there is something peculiar about a particular organization’s documents, that organization must either (1) make sure that peculiarity will appear on the reproductions of scanned documents or (2) alter the original documents to rid them of this peculiarity.<sup>96</sup>

### 5.2.3 *The Secondary Evidence Rule*

Another, and broader, exception to the Best Evidence rule is that “the original is not required, and other evidence of the contents of a writing, Recording, or photograph is admissible if ...all originals are lost or

<sup>92</sup> Fed R. Evid. 1001(3).

<sup>93</sup> Fed. R. Evid. 1003.

<sup>94</sup> Fed. R. Evid. 1001(4).

<sup>95</sup> See, e.g., *United States v. Haddock*, 956 F.2d 1534, 1545 (10th Cir. 1992) (holding that the trial court did not abuse its discretion in excluding copies of photographs where the photographs bore physical markings and included statements that did not comport with the regular course of business); *In re Bobby Boggs, Inc.*, 819 F.2d 574, 580 (5th Cir. 1987) (upholding the trial court's admission of copies of bonds when the bank challenging admission made no claims that the bonds were not what they appeared to be, or that the bank did not have opportunity to determine that they were genuine).

<sup>96</sup> *Admitting Scanned Reproductions into Evidence*, Moreland & Nazarro, 18 Rev. Litig. 261 (1999).



have been destroyed, unless the proponent lost or destroyed them in bad faith.<sup>97</sup> Intentional destruction is not, in and of itself, bad faith so long as it is performed in the ordinary course of business.<sup>98</sup> It has been suggested that:

To avoid any appearance of bad faith, a company should clearly document in a procedures manual or statement why the company has decided to destroy originals and that it has created an alternative system for preserving the information. Furthermore, it should be clearly stated that, to a company's knowledge and belief, no litigation is pending or anticipated at the time the originals are destroyed. Likewise, the fact that a company is not destroying documents for fraudulent reasons should be explained, and the reasons and benefits for the electronic imaging should be clearly stated.

These non-fraudulent reasons for destroying originals might include (1) promoting longevity of the documents; (2) protection from peril, such as fire, wind, rain, earthquakes, and storms; (3) protection from destruction due to structural damage to a storage facility; (4) promotion of efficiency in storage, organization, and retention; (5) reduction of costs for a company in storage expenses, organizational expenses, and insurance coverage on storage facilities; (6) elimination of spatial problems created by storage of original documentation; and (7) ease in location of documents, and any other possible benefits.<sup>99</sup>

#### 5.2.4 *The Business Records Act*

In addition to the grounds for admitting converted records under the Rules of Evidence, federal law provides a separate basis for admissibility through the Business Records Act.<sup>100</sup> The act provides:

---

<sup>97</sup> Fed. R. Evid. 1004(1).

<sup>98</sup> Admitting Scanned Reproductions into Evidence, Moreland & Nazarro, 18 Rev. Litig. at 269, fn 36. Moreland and Nazarro provide a series of citations to commentators on this subject:

See 4 John Henry Wigmore, *Wigmore on Evidence* 1198 (Chadbourne rev. 1972). Wigmore explains that the view now generally accepted is that (1) a destruction in the ordinary course of business and, of course, a destruction by mistake, is sufficient to allow the contents to be shown as in other cases of loss and that (2) a destruction otherwise made will equally suffice, provided the proponent first removes, to the satisfaction of the judge, any reasonable suspicion of fraud.

Id. (citations omitted). Similarly, another commentator has noted that there are many reasons why a party might, in total good faith, intentionally destroy original documents. A company, for example, may have an established Records retention policy that calls for the destruction of originals after a given number of years. Even destruction by innocent mistake may be an intentional act. The proponent must prove absence of bad faith. The government should not have to keep a whole truckload of hijacked merchandise in a warehouse or large quantities of narcotics pending trial. Samples plus photographs should suffice. Similarly, private parties should not be forced to maintain documents or other instruments indefinitely.

Weinstein, *supra* note 11, at 1004.11[2][b] (citations omitted). Likewise, if the original document has been destroyed by the person who offers evidence of its contents, the evidence is not admissible unless, by showing that the destruction was accidental or was done in good faith, without intention to prevent its use as evidence, he rebuts to the satisfaction of the trial judge, an inference of fraud.

Edward W. Cleary, *McCormick on Evidence* 237 (1984) (citations omitted).

<sup>99</sup> *Admitting Scanned Reproductions into Evidence*, Moreland & Nazarro, 18 Rev. Litig. at 270.

<sup>100</sup> 28 U.S.C. §1732 (1994). It is worth noting that the act has been in place since 1948, and was last amended in 1975. Almost all the significant cases interpreting the Act were decided before 1972.

If any business, institution, member of a profession or calling, or any department or agency of government, in the regular course of business or activity has kept or Recorded any memorandum, writing, entry, print, representation or combination thereof, of any act, Transaction, occurrence, or event, and in the regular course of business has caused any or all of the same to be Recorded, copied, or reproduced by any photographic, photostatic, microfilm, micro-card, miniature photographic, or other process which accurately reproduces or forms a durable medium for so reproducing the original, the original may be destroyed in the regular course of business unless its preservation is required by law. Such reproduction, when satisfactorily identified, is as admissible in evidence as the original itself in any judicial or administrative proceeding whether the original is in existence or not and an enlargement or facsimile of such reproduction is likewise admissible in evidence if the original reproduction is in existence and available for inspection under direction of court. The introduction of a reproduced Record, enlargement, or facsimile does not preclude admission of the original. This subsection shall not be construed to exclude from evidence any document or copy thereof which is otherwise admissible under the rules of evidence.

The Business Records Act permits business records scanned into electronic form to serve as originals, so long as the Electronic Record can be satisfactorily identified, the image is accurate, and its storage durable. In such cases, the original may be destroyed unless another law requires its preservation.

#### 5.2.5 *State Law*

The majority of states have adopted the Uniform Rules of Evidence, which, as noted above, essentially mirror the Federal Rules of Evidence.<sup>101</sup> Some states have adopted special rules for conversion of records, or limitations on the types of media on which the converted records may be stored.<sup>102</sup> However, it appears that for the most part these rules may be satisfied by a system that stores the images of the converted records on a non-reusable optical disk, provided that the system for converting and managing the records is carefully designed and administered to preserve the integrity of the records.<sup>103</sup>

#### 5.2.6 *Process Integrity*

A common element that runs through all the exceptions to the Best Evidence Rule is the integrity and accuracy of the converted records. The key to admitting an Electronic Record, or a printout of the record, is evidence of data integrity. To date, the few court decisions focusing on the introduction of Electronic Records have emphasized the systemic protections – division of labor, complexity of backup systems,

---

<sup>101</sup> *Uniform Rules of Evidence*, 1974 Official Text as amended in 1986 and 1988. Currently, approximately 38 states have adopted the Uniform Rules of Evidence. A new version of the Uniform Rules of Evidence, which continues to closely track the Federal Rules of Evidence, was promulgated by NCCUSL in 1999.

<sup>102</sup> *See*, for example, Cal. [Evidence] Code 1550 (Deering 1995). Maine's statute also requires an optical disk that is nonerasable, but does not impose any additional requirements. Me. Rev. Stat. Ann. tit. 16, 456 (West Supp. 1997).

<sup>103</sup> *Admitting Scanned Reproductions into Evidence*, Moreland & Nazarro, 18 Rev. Litig. at 271-276.

activity logs, security of copies stored offsite to verify content – which make it difficult to counterfeit a record without leaving a discoverable trail.<sup>104</sup>

Creating and maintaining a reliable record storage maintenance and retrieval system requires careful planning and attention to detail. See UETA Sections 5-1, 5-2 and 5-3 for a discussion of the issues that should be reviewed and evaluated when designing or auditing an Electronic Record retention system.

## 6. *Legal Aspects of the Assignment of Electronic Records*

A lender/lessor may wish to assign an electronic lease to a financing entity (purchaser). Such an assignment may be for collateral purposes, e.g., to secure a loan from the Purchaser to the lender/lessor, or it may be an outright sale, e.g., to transfer ownership of the lease to a special purpose vehicle as part of a securitization. Article 9 of the UCC governs the significant aspects of collateral assignments and outright sales of leases, both written and electronic.<sup>105</sup>

In Article 9 terminology, the purchaser (assignee) of a lease acquires a “security interest,” regardless of whether the Assignee takes the lease for security or becomes its owner.<sup>106</sup> The lender/lessor (assignor) is a “debtor,”<sup>107</sup> and the Purchaser is a “secured party.”<sup>108</sup> Article 9 determines whether a security interest is enforceable against the lender/lessor/debtor/Assignor,<sup>109</sup> and, if so, whether the secured party/purchaser/assignee prevails against a creditor who later obtains a judicial lien on the lease<sup>110</sup> and (in the case of multiple assignments of the same loan/lease by the lender/lessor respectively) against a competing assignee.<sup>111</sup> Article 9 also governs assignments from one secured party to a subsequent secured party. However, except where otherwise indicated, the following discussion assumes that the lender/lessor is the assignor.

Prior to its recent revision, Article 9 contemplated that the documents relevant to an assignment of a lease would be “written” and “signed.” Revised Article 9 of the UCC, which has been adopted in all 50 states and the District of Columbia, eliminates legal barriers to the use of Electronic Records and Signatures in assignments and other secured Transactions. In particular, Revised UCC Article 9 enables a security interest to be created and perfected electronically.

The application of many Article 9 rules depends on how the collateral in question is classified. A lease of goods constitutes “chattel paper.”<sup>112</sup> Revised Article 9 splits chattel paper into two exclusive categories –

<sup>104</sup> See *United States v. Greenlee*, 380 F. Supp. 652 (E.D. Pa. 1974), *aff'd* 517 F.2d 899 (3d Cir. 1975), *cert. denied*, 423 U.S. 985 (1975); *Transport Indemnity Co. v. Seib*, 132 N.W.2d 871 (1965).

<sup>105</sup> See UCC Rev. §§ 9-109(a) (scope of Article 9). Article 9 does not govern certain assignments that are unlikely to be financing transactions. See UCC Rev. § 9-109(d)(4), (d)(5) and (d)(6).

<sup>106</sup> See UCC 1-201(37).

<sup>107</sup> See UCC Rev. § 9-102(a)(28).

<sup>108</sup> See UCC Rev. § 9-102(a)(72).

<sup>109</sup> See UCC Rev. § 9-203.

<sup>110</sup> See UCC Rev. § 9-317(a).

<sup>111</sup> See UCC Rev. §§ 9-322(a) and 9-330.

<sup>112</sup> The term also includes an installment sale contract or other record(s) evidencing both a monetary obligation and a security interest in specific goods. See UCC Rev. § 9-102(a)(11).

“tangible chattel paper” and “electronic chattel paper.” Electronic chattel paper is chattel paper evidenced by a record or records stored in an electronic medium.<sup>113</sup> Thus, in Article 9 terminology, an electronic lease is “electronic chattel paper.”

## 6.1 Creation of Security Interests Using Electronic Records and Signatures

A security interest in a lease becomes enforceable against the lender/lessor/debtor (i.e., it “attaches” to the assigned lease) when the three prerequisites are met:

- A security agreement between the secured party/purchaser and the lender/lessor/debtor granting a security interest in the collateral (assigned lease)
- Transfer of value from the secured party/purchaser to the lender/lessor/debtor and
- The lender/lessor/debtor has rights (a property interest, usually ownership) in the collateral<sup>114</sup>

Former Article 9 required that the security agreement be in writing and signed by the debtor, unless the secured party had physical possession of the collateral, in which case the agreement could be oral.<sup>115</sup> Revised Article 9 eliminates this barrier to the electronic creation of a security interest. The requirement of a signed writing is replaced with the requirement of an authenticated record.<sup>116</sup> “Record” is defined broadly as “information that is inscribed on a tangible medium or which is stored in an electronic or other medium and is retrievable in perceivable form.”<sup>117</sup> The definition of “authenticate” includes, as an alternative to the signing of a writing, the execution or adoption of a symbol, or encryption of a record in whole or in part, with the present intent to:

- Identify the person authenticating; and
- Adopt or accept the record.<sup>118</sup>

Thus, a lender/lessor can create an effective assignment of an electronic (or paper) lease through the use of an electronic security agreement that is authenticated electronically.

### 6.1.1. Perfection of Security Interests Using Electronic Records

A financing entity (purchaser) to which a lender/lessor/debtor assigns loans or leases (chattel paper) normally will make sure that its security interest in the chattel paper is perfected under Article 9 of the UCC. Perfected status serves the same function, and can be achieved in the same ways, regardless of whether the Purchaser buys the chattel paper outright or takes the chattel paper as collateral to secure a

<sup>113</sup> UCC Rev. § 9-102(a)(31).

<sup>114</sup> UCC Rev. § 9-203(a), (b). In the uncommon case where a lease is assigned to secure a debt owed by a person other than lessor, the “value” requirement is satisfied even though the credit was not extended to the Lessee.

<sup>115</sup> UCC § 9-203(1)(a).

<sup>116</sup> UCC Rev. §§ 9-203(a) and 9-102.

<sup>117</sup> UCC § 9-102(69).

<sup>118</sup> UCC Rev. § 9-102(a)(7).

loan to the lender/lessor/debtor. (In either case, Article 9 refers to the purchaser as a “secured party” and the purchaser’s interest in the chattel paper as a “security interest.”)

Perfection or lack of perfection does not affect the lessee’s obligations under the assigned lease. Rather, the principal purpose of perfecting a security interest in a lease is to achieve priority over other creditors of, and purchasers of the lease from, the lender/lessor/debtor. For example, unless the purchaser’s security interest in the lease is perfected, it will be subordinate (junior) to the rights of a creditor of the lender/lessor/debtor who obtains a judgment against the lender/lessor/debtor and obtains an execution lien to enforce the judgment, as well as the rights of an earlier or subsequent purchaser of the lease from the lender/lessor/debtor who perfects its security interest.<sup>119</sup> Moreover, the failure to perfect a security interest may have serious consequences if the lender/lessor/debtor enters bankruptcy. The holder of a security interest normally receives the value of its collateral (here, the lease) from the bankruptcy estate (or, in the case of a lease that has been sold, normally retains ownership of the lease). However, a purchaser’s security interest can be avoided (i.e., nullified) in bankruptcy if it is not perfected before the bankruptcy commences.<sup>120</sup> If the security interest is avoided, the purchaser will lose the benefits of its security interest and instead share with unsecured creditors.

Article 9 provides a choice of methods by which a security interest in chattel paper may be perfected. Absent unusual circumstances, a security interest perfected in a timely manner by any one of these methods will prevail over subsequent judicial lien creditors and be recognized in the debtor’s bankruptcy.

With respect to both tangible chattel paper and electronic chattel paper, the filing of a financing statement acts to perfect a security interest.<sup>121</sup> To perfect by filing, the financing statement must be filed in the office designated by the appropriate state,<sup>122</sup> which usually is the office of the Secretary of State. The financing statement is effective from the time it is communicated to the filing office with the required filing fee, even if the filing officer misfiles or fails to file the statement.<sup>123</sup> To facilitate electronic filing, Revised Article 9 provides that a financing statement is effective even without the debtor’s signature.<sup>124</sup> Although Article 9 provides for the filing of both paper and electronic financing statements, the filing offices in some States do not accept electronic filings.

As an alternative (or supplement) to filing, a security interest in tangible (written) chattel paper may be perfected by the secured party taking possession of the chattel paper. Article 9 affords special rights to a Purchaser who perfects a security interest in tangible chattel paper by taking possession of the paper. Because an Electronic Record can be copied repeatedly without any ability to distinguish the original from the copies, physically turning over a copy of the record provides no guarantee that an indistinguishable copy has not been retained by the transferor. For these reasons, the assumptions underlying rules for transfer of tangible chattel paper do not work well in an electronic environment. Mere possession of a copy of an Electronic Record, with an electronic statement of transfer, does not provide the same level of confidence associated with paper-based documents. As a result, Revised Article

<sup>119</sup> See UCC Rev. §§ 9-317(a) and 9-322(a).

<sup>120</sup> See 11 U.S.C. § 544(a)(1).

<sup>121</sup> See UCC Rev. § 9-312(a).

<sup>122</sup> UCC Rev. §§ 9-301 and 9-501(a).

<sup>123</sup> UCC Rev. § 9-516(a).

<sup>124</sup> UCC Rev. § 9-502. An unsigned financing statement was ineffective under Former Article 9. See UCC § 9-402(1).

9 creates a method by which a purchaser of electronic chattel paper can acquire the same bundle of rights as a purchaser who takes possession of tangible chattel paper. This method, called “control,” is set forth in Section 9-105 and is discussed below in the following section. After exploring the concept of “control,” we discuss, in Section 6.1.3. below, the various business considerations that help determine which method of perfection—filing or control—would be preferable for a given transaction.

### 6.1.2 *Perfection by Control of Security Interests in Electronic Chattel Paper*

Under Revised Article 9-105, a secured party/purchaser 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:

- A single “Authoritative Copy” of the record or records exists which is unique, identifiable and, except as otherwise provided in paragraphs 4, 5, and 6 below, unalterable;
- The Authoritative Copy identifies the secured party as the assignee of the record or records;
- The Authoritative Copy is communicated to and maintained by the secured party or its designated custodian;
- 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;
- 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
- Any revision of the Authoritative Copy is readily identifiable as an authorized or unauthorized revision.<sup>125</sup>

As noted above, Section 9-105 adopts a “flexible approach” to the concept of control.<sup>126</sup> It “leaves to the marketplace the development of systems and procedures, through a combination of suitable technologies and business practices, for dealing with Control of electronic chattel paper in a commercial context.”<sup>127</sup> In other words, each of several different document management systems may satisfy the “control” requirements, as long as each provides “the functional equivalent of possession of ‘tangible chattel paper’.”<sup>128</sup> With this overarching test in mind, we examine the specific requirements of Section 9-105.

“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.

It is possible for each of several copies of the same electronic lease to be “unique.” For this reason, in addition to being “unique,” the Authoritative Copy must be “identifiable” as the Authoritative Copy. This requirement would be satisfied if the document management system being used explicitly defines the Authoritative Copy in terms of its unique characteristic. In other words, an Authoritative Copy is “identifiable” if an agreement or system rule specifies or describes the unique feature that identifies the

<sup>125</sup> UCC Rev. § 9-105.

<sup>126</sup> UCC Rev. § 9-105, Comment 4.

<sup>127</sup> Id.

<sup>128</sup> UCC Rev. § 9-105, Comment 2.

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; however, the authoritative record must be such that any alteration of the new identified assignee can be made only with the participation of the earlier assignee. 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, “a single Authoritative Copy . . . exists.”<sup>129</sup> 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.<sup>130</sup>

The Authoritative Copy must identify, as the assignee of the chattel paper, the purchaser who has control at any given time. This may be done by having evidence of the assignment integrated into the Authoritative Copy itself, or by having the Authoritative Copy logically associated with a methodology for tracking assignments, so that a person viewing the Authoritative Copy also is alerted, and has access, to the evidence of the assignee having Control.

The other feature of the control requirements is the requirement that all non-authoritative copies of the Electronic Record be readily identifiable as such. Once again, Article 9 does 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.

### 6.1.3 *Choosing a Method of Perfection*

As indicated above in Section 6.1.1., in any given transaction, various business considerations will determine which method of perfection—filing or control—is preferable. Two considerations are of particular concern: cost and effectiveness.

Filing a financing statement is relatively inexpensive, and a single filing can serve to perfect a security interest in all chattel paper that is assigned by a lender/lessor/debtor to a Purchaser for five years. Having

<sup>129</sup> UCC Rev. § 9-105(1).

<sup>130</sup> Although UETA and E-SIGN do not constitute binding interpretations of Article 9, the analysis above is supported by the fact that both statutes expressly contemplate that the Authoritative Copy may be transferred by telecommunication. UETA §16(c)(3); E-SIGN §201(c)(3).

control may be more costly than filing; however, the perfection afforded by control affords greater protection to the purchaser. Specifically, under Article 9's general priority rule, the filing of a financing statement will enable the purchaser to prevail over most conflicting security interests that are unperfected at the time of the purchaser's filing—even if those security interests are created earlier than the purchaser's.<sup>131</sup> Conversely, the filing of a financing statement will not enable the purchaser to prevail over a security interest in chattel paper that is perfected—by filing or otherwise—before the purchaser files its financing statement. However, a special priority rule enables a secured party who perfects by having control of electronic chattel paper (or who perfects by taking possession of tangible chattel paper) to achieve priority over earlier-perfected security interests.<sup>132</sup> As with possession of tangible chattel paper, whether the protection afforded by this special rule is worth the cost of having control of electronic chattel paper is a business issue whose resolution will depend on the particular lender/lessor/debtor and transaction involved.

*Is there an earlier-filed security interest?* The security interest of a purchaser who perfects by filing will be junior to that of a competing secured party who has filed earlier against the chattel paper. To protect itself, the purchaser may wish to enter into a subordination agreement. Alternatively or in addition, the purchaser can achieve priority by having control of the electronic chattel paper. The purchaser also will be junior to an earlier filer who has financed the lender/lessor/debtor's inventory and claims the chattel paper as proceeds of its inventory-collateral unless it takes additional steps. These additional steps may include entering into a subordination agreement with respect to the chattel paper or arranging for the inventory lender to release its security interest in the chattel paper upon receipt of payment from the purchaser. They also may include the purchaser's having control of the electronic chattel paper.

*Is there a risk that the lender/lessor/debtor has assigned or will assign the chattel paper to a person who qualifies for priority under UCC Section 9-330?* In the transaction documents governing the assignment of chattel paper, the lender/lessor/debtor normally warrants to the purchaser that the lender/lessor/debtor has good title to the chattel paper and agrees not to assign the chattel paper to a subsequent assignee. However, if the lender/lessor/debtor nevertheless has previously assigned, or subsequently assigns, the chattel paper, the competing assignee may achieve priority over the purchaser's rights by having control.<sup>133</sup> A purchaser who itself takes possession of tangible chattel paper effectively disables any competing assignee from achieving this priority. The same is true for electronic chattel paper. By definition, where a purchaser has control of electronic chattel paper, the Authoritative Copy “identifies the secured party [here, the purchaser] as the assignee” of the chattel paper, and “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 [purchaser].”<sup>134</sup> Moreover, even if a subsequent purchaser were to have control, it could not qualify for priority under UCC Section 9-330(a) or (b) if the chattel paper “indicates that it has been assigned to an identified secured party other than the [subsequent] purchaser.”<sup>135</sup>

---

<sup>131</sup> See UCC Rev. § 9-322(a).

<sup>132</sup> See UCC Rev. § 9-330(a), (b). Note that, to qualify for priority under § 9-330, a secured party not only must take possession or have Control but also must satisfy additional statutory requirements.

<sup>133</sup> See UCC Rev. § 9-330.

<sup>134</sup> UCC Rev. § 9-105(2), (4).

<sup>135</sup> UCC Rev § 9-330(f).



Where the cost of perfecting by control is sufficiently high, the purchaser may choose to perfect by filing. The high cost may reduce the risk that a subsequent assignee will perfect by control, and the (reduced) potential benefits of perfecting by control may not be worth the cost to the purchaser. Conversely, if the cost of having control is relatively low, the risk that a subsequent assignee will perfect by control increases, and the net benefits to the purchaser of having control increase. Of course, the degree of the purchaser's confidence in the lender/lessor/debtor's integrity also will affect the purchaser's choice of perfection method.

## APPENDIX C: SUMMARY OF CASES<sup>136</sup>

The courts have not extensively examined E-SIGN and UETA. However, they have examined questions regarding the ability to enter contracts using a variety of electronic means, such as “clickwrap” or “shrinkwrap” agreements, whether Internet-based activities will support personal jurisdiction over a defendant in a foreign jurisdiction, whether Electronic Records will be admissible evidence and the effect of online activities on court procedures, such as service of process and personal jurisdiction. Some of the recent cases examining these issues include:

- *Arizona Cartridge Remanufacturers Ass’n Inc. v. Lexmark Int’l Inc.*, No. 03-16987 (9<sup>th</sup> cir. Aug. 30, 2005). In this case, the Ninth Circuit Court of Appeals held that opening a printer cartridge packaging containing usage restrictions on the package creates a contract incorporating the restrictions. Lexmark sold patented cartridges on which a licensing agreement is printed notifying consumers that the cartridge was sold at a discount on condition that the empty cartridge is returned for remanufacturing and recycling. Lexmark has never taken action against a consumer for failing to return a cartridge, nor can the company ensure that retailers pass the discount on to customers. The court nevertheless held that opening the package creates a contract because consumers are given notice of use restrictions, opportunity to reject the terms and consideration in the form of a reduced price in exchange for the limits placed on reuse of the cartridge.
- *Bazak Int’l Corp. v. Tarrant Apparel Group*, S.D.N.Y., No. 04 Civ. 03653 (Jul. 18, 2005). In a motion for summary judgment, the U.S. District Court for the Southern District of New York determined that an email is sufficient to satisfy the Statute of Frauds’ writing requirement in the “merchant’s exception” to an oral agreement. In this case, the court found that an email, although intangible during transmission, is indistinguishable from faxes, telegraphs, telexes and other forms of communication which have been recognized as fulfilling the Uniform Commercial Code’s (“UCC”) “writing” requirement. Even though the UCC does not identify email in its definition of writing, the court held that the facts of this case are such that an email satisfies drafter intent.
- *PFT Roberson, Inc. v. Volvo Trucks North America, Inc.*, Nos. 04-3100, 04-3232, 04-3841 and 04-3877 (7<sup>th</sup> Cir. Sept. 19, 2005). The United States Court of Appeals for the Seventh Circuit analyzed whether an email that identified items that negotiating parties had “come to agreement on” was sufficient to create a binding contract. The court determined that, in this instance, it would be incorrect to interpret the email as an executed contract because its text and the surrounding circumstances indicated that it merely confirmed which points in an ongoing negotiation had been resolved. However, the Seventh Circuit did not hold that an email could never form a binding agreement.
- *Register.com, Inc. v. Verio, Inc.*, 356 F.3d 393 (2d Cir. 2004). Verio violated the terms of its contract with Register.com, but it claimed that no contract was ever formed. The contract in this

---

<sup>136</sup> Reprinted with permission from SPeRS Version 1.0 (2003).

case was the terms and conditions of use of Register.com's database. Each time a user downloaded information from the database, a restrictive legend would appear stating the terms of use. Verio contended that it never became contractually bound by the restrictive legend because the legend did not appear until after Verio had submitted the query and received the data. The court disagreed. If Verio had only used the data once or sporadically, its contention that it did not have notice of the terms would be plausible. However, in this case, Verio received the notice on a daily basis and knew the terms of Register.com making its data available. Verio also claimed that it was not bound by Register.com's terms because it rejected them.

- *Ticketmaster Corp. v. Tickets.com, Inc.*, No. CV99-7654, 2000 WL 1887522 (C.D.Cal. Aug. 10, 2000). In *Ticketmaster*, the court found that because the user of Ticketmaster's website was not required to check an "I agree" box before proceeding, there was insufficient proof of an agreement to support a preliminary injunction. The court in this case rejected the finding in *Ticketmaster* stating that a contract can be made without a statement of agreement (such as clicking on an "I agree" icon). The court stated: "It is standard contract doctrine that when a benefit is offered subject to stated conditions, and the offeree makes a decision to take the benefit with knowledge of the terms of the offer, the taking constitutes an acceptance of the terms, which accordingly become binding on the offeree. On this basis, the court found that Register.com showed likelihood of success on the merits of its contract claim.
- *In re Cafeteria Operators, L.P.*, 299 B.R. 411 (N.D. Tex. 2003). Court found that an email exchange between debtor and agent for supplier constituted a contract between the parties. The Court stated that the "issue was resolved by Congress with the passage, in June, 2000, of [ESIGN]." The Court further stated that "in Transactions involving interstate commerce, emails constitute "writings." Thus, the emails are evidence of an agreement between the parties.
- *DeJohn v. The .TV Corporation Int'l*, 245 F.Supp.2d (C.D.Ill. 2003). DeJohn challenged the online agreements entered into with Register.com (also a defendant) and .TV Corp. The court stated that in order to submit his/her applications for domain name registration, the "electronic format of the contract required DeJohn to click on a box indicating that he/she had read, understood, and agreed to the terms of the contract .... This type of online contract is known as a click-wrap." *Id.* at 915-916. DeJohn claimed that the Register.com Agreement was invalid because (1) its terms were ambiguous; (2) the text of the agreement was not displayed unless the applicant clicked on the hyperlink; (3) it was an unconscionable adhesion contract; (4) it was inconsistent with the .TV agreement; (5) DeJohn's claims were outside the scope of the contract; and (6) Register.com failed to attach a copy of the agreement to its application confirmation emails. The court dismissed these claims, applying standard contract law regarding written contracts, and found the Register.com Agreement valid and enforceable. Moreover, the Register.com Agreement expressly incorporated the .TV Agreement, and thus the latter was valid and enforceable as well.

- *Nomura Securities International, Inc. v. E\*Trade Securities, Inc.*, 280 F.Supp.2d 184 (S.D.N.Y. 2003). A written Master Securities Loan Agreement (“MSLA”) governed the terms and conditions of collateralized loans between Nomura and E\*Trade. However, under the MSLA, the parties could initiate Transactions orally and agree orally to the terms of each loan. The court noted that the prevailing practice in the industry has changed, and that “today stock loan Transactions are often initiated electronically, instead of through oral or written communications.” *Id.* at 194. The court also recognized that the Guidance Notes for the 2000 MSLA permit the parties to initiate and agree to the terms of a loan electronically, as well as orally or in writing, and thus the “Guidance Notes explicitly sanction this electronic initiation of Transactions.” *Id.* Although there was no electronic communication in this case, the implication is that an electronic Transaction would be enforceable.
- *Wells Fargo & Co. v. WhenU.com, Inc.*, 293 F.Supp.2d 734 (E.D.Mich. 2003). In this trademark infringement case brought by Wells Fargo, the court discussed the method by which users download WhenU.com’s software. The court noted that “the standard way in which license agreements are incorporated into software installations” is for the license agreement to be presented to the user in a text box with a scroll bar and for the user to affirmatively accept the license agreement in order to proceed with the installation.” *Id.* at 739. The validity of the software license agreement was not at issue, but the implication is that such agreements are enforceable when presented in the manner described.
- *Shattuck v. Klotzbach*, 14 Mass. L. Rep. 360, 2001 Mass. Super. LEXIS 642 (Dec. 11, 2001). The court held that an agreement to sell land made by email was valid. The decision is notable for its failure to mention E-SIGN or UETA as the basis for its decision.
- *Briceno v. Sprint Spectrum, d/b/a Sprint PCS*, Fla. Dist. Ct. App., 3d Dist., No. 3D05-144 (Aug. 30, 2005). In this case, a Florida court held that an amendment to an existing customer contract is enforceable when notification of change was provided by means of a statement in a bill directing customers to a website. Sprint amended the terms and conditions of its customer contract to include a mandatory arbitration clause. A notice on the first page of the monthly invoice notified customers of a change to their service contract and directed them to the company’s website in order to view the amended agreement. The court found this policy did not evidence deceitful intent and provided the customer with “fair and clear warning.”
- *SmartText Corp. v. Interland, Inc.*, 296 F.Supp.2d 1257 (D.Kan. 2003). Interland (a web hosting company) orally agreed to migrate the SmartText websites from a previous server to Interland’s servers. When the migration was complete, Interland emailed SmartText stating that if SmartText did not reply to the email within 5 days, SmartText would be deemed to have approved the new site and would be deemed to have accepted the new hosting plan and Interland’s Terms of Service, which included an agreement to arbitrate disputes. SmartText did not respond to the email, and Interland claimed that by failing to respond and thereafter accepting the benefits of the web hosting services, SmartText accepted its Terms of Service. However, the court found that there

were genuine issues of fact as to whether: (a) SmartText had a “reasonable opportunity to reject” Interland’s services because Interland unilaterally imposed a short period of time to act; (b) SmartText took the benefit of Interland’s services or whether those services were forced upon it after its failure to respond to the email; and (c) SmartText had even used any of Interland’s services or received any benefits from those services as of the date Interland asserts the contract was formed. The court also questioned whether SmartText’s silence indicated its assent to the contract, stating that an offeree’s failure to reply to an offer will operate as an acceptance only “[w]here the offeror has stated or given the offeree reason to understand that assent may be manifested by silence or inaction, and the offeree in remaining silent and inactive intends to accept the offer.” In other words, Interland cannot unilaterally state that SmartText’s silence would be deemed an acceptance; SmartText must also intend (by remaining silent) to accept the offer. The court determined that a jury must decide whether an agreement existed regarding arbitration.

- *Cloud Corp. v. Hasbro, Inc.*, 314 F.3d 289 (7<sup>th</sup> Cir. 2002). Email exchanges regarding delivery dates and quantities to deliver formed a binding contract that effectively modified the original terms of the contract. The court based its conclusions on the Illinois Uniform Commercial Code § 2-201(2) (confirmation of contracts between merchants) and the “course of dealing” between the parties. Significantly, the court said that had ESIGN been in effect at the time the emails were sent, the provision in ESIGN that “a contract or other record relating to the Transaction shall not be denied legal effect merely because it is in electronic form” would have been “conclusive in this case.”
- *International Casings Group, Inc. v. Premium Standard Farms, Inc.*, 358 F. Supp. 2d 863 (W.D. Mo. 2005). This case held that UETA applies to Missouri’s UCC provisions that govern the Statute of Frauds and that UETA defines an Electronic Signature as, “An electronic sound, symbol, or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record.” Mo. Rev. Stat. § 432.205(8). Moreover, UETA states, “If a law requires a signature, an electronic signature satisfies the law.” Mo. Rev. Stat. § 432.230(4). Hence, although Pummill’s and Sanecki’s signatures were electronic, they satisfy the signature requirement of the UCC’s Statute of Frauds, so long as each had the present intention to authenticate the document.
- *Haire v. Florida Dept. of Agriculture and Consumer Services*, 2004 WL 252015 (Fla. 2004). The Florida Supreme Court affirmed the lower court’s decision that the affixing of an electronic signature of a judge to a warrant is within the discretion of the judge because it is clear that by directing the use of an electronic signature, the judge is attesting to the act of issuing the warrant. In addition, the Florida Electronic Signature Act of 1996 specifically provides that an “electronic signature may be used to sign a writing and shall have the same force and effect as a written signature.” Florida Stat. § 668.004.
- *Piranha Inc. v. Newhouse*, 83 Fed. Appx. 19, 2003 WL 22922263 (5<sup>th</sup> Cir. 2003). The case involves a claim by Berger, a director of Piranha, that the bankruptcy filing adopted by the board

of directors was invalid because another director, Steele, had resigned prior to the date of the board meeting. Two weeks before the meeting, legal counsel to Piranha filed a Form 8-K with the Securities Exchange Commission indicating that Steele had resigned. Berger's contention was that the Form 8-K contained Steele's electronic signature, and Steele could not disavow his/her signature under § 107(a) of the Uniform Electronic Transaction Act ("UETA"). The circuit court upheld the district court's finding that under § 109 of UETA, a document bearing an electronic signature may be contested on the grounds that the signature was not the "act of the person" and the "context and surrounding circumstances" at the time of its creation, execution, or adoption indicate that the signature should not be attributed to the person.

- *Estate of Engelhardt*, 2004 WL 345941 (Ohio Prob. Ct. 2004). The Ohio Public Records Act requires that all public records be made available for inspection to the public, with some limited exceptions. The Hamilton County Probate Court keeps its records on the Internet. A party requested that certain records be removed from the Internet. The request was denied. The court ruled that once the Probate Court had chosen the Internet as its medium for making records available to the public, "the court has no discretion to remove from the Internet any public records that it continues to make available publicly at the court."
- *Medical Self Care, Inc. v. National Broadcasting Co.*, 2003 WL 1622181 (S.D.N.Y. 2003). Defendant claimed that email consent to assignment of advertising spots did not constitute a "written consent." The Court, in finding that the email did constitute written consent, stated that "a decision not to consider an email a writing is arguably foreclosed by [ESIGN], citing *Roger Edwards, LLC v. Fiddes & Son, Ltd.*, 2003 WL 342993 (D.Me. 2003).
- *Roger Edwards, LLC v. Fiddes & Son, Ltd.*, 2003 WL 342993 (D.Me. 2003). The Court found that emails constituted a "series of writings" and thus were sufficient under Maine law to satisfy the Maine Statute of Frauds. Maine recognizes that "a binding signature may take the form of any mark or designation thought proper by the party to be bound, 'provided ... he intends to bind himself.'" Thus in the absence of any suggestion that the author of the emails lacked authority to make the representations made in his/her emails or that he/she did not intend to bind the defendant, the Court concluded that the emails were sufficient to meet the requirements of the statute of frauds. The Court further stated that its conclusion was consistent with ESIGN.
- *Seagate US LLC v. Cigna Corp.*, C 05-4272 PVT (Apr. 21, 2006). In this case, Seagate brought an ERISA claim against Cigna arising from Seagate's group life insurance policies with Cigna. Seagate electronically transmitted "Change in Beneficiary" notices to Cigna, and Cigna claimed that the policies only allowed such notices to be provided in a non-electronic hard copy. On Cigna's motion for summary judgment, the court determined that the policy clause requiring "written" notice could encompass electronic communications; it therefore declined to dismiss the case, which indicates that contractual parties may need to re-examine their contracts and clarify clauses that set forth acceptable methods of communication.

- *Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309 (S.D.N.Y. 2003). In this case involving discovery of emails, the Court stated that discovery is required for Electronic Records that are accessible, and that a seven-factor cost-shifting analysis must be used for discovery of Electronic Records that are not accessible. The court also set forth a definition of accessibility of Electronic Records.
- *People v. McFarlan*, 191 Misc. 2d 531, 744 N.Y.S.2d 287 (N.Y. 2002). Defendant challenged the use of a computer printout of a photo array as opposed to the “original” photo array. However, the “original” photo array was the information stored in the computer memory. The Court stated that that “recorded array, as long as it has remained unaltered, (and there is no evidence of such alteration) remains the Electronic Record until such time it is retrieved by using appropriate commands to the computer.” Moreover, the “admission of such printout is now mandated by the New York Electronic Signatures and Records Act (“ESRA”). N.Y. State Tech. Law (McKinney’s Art. 57-A) § 101-109. ESIGN deals, inter alia, with the use and legal admissibility in New York courts of records which, as here, are stored by electronic means.” The Court explained that under ESIGN, an Electronic Record has the same force and effect as a record not produced or maintained by electronic means. The Court stated further that under the concept of ESIGN, “the record is electronic information which is retrievable in usable form.” In this case, while the original photo array was in electronic form in the computer memory, the printouts of the array conveyed the full recoverable information that was stored in the computer and thus were admissible. The Court then discussed whether ESRA was preempted by ESIGN and whether ESRA is constitutional, but ultimately it stated that the constitutional and preemption issues did not need to be reached “because the same result would obtain in this case whether ESIGN or ESRA applies.”
- *Vinhnee v. American Express*, CC-04-1284-KmoP (9<sup>th</sup> Cir. Bkr. Appellate Panel (Dec. 16, 2005). In an action to enforce an alleged debt against a cardholder, American Express was denied the ability to introduce the cardholder’s credit card statements because the court believed that American Express had not proffered sufficient evidence of the reliability of the records. The court set forth an 11-point process to lay the foundation for the admission of Electronic Records.
- *MPS IP Svcs. Corp. v. Modis Comm., Inc.*, No. 3:06-cv-270-J-20HTS, (M.D. Fla. May 30, 2006). In this case, the court held that a plaintiff could serve process on a foreign defendant via email and other methods. The court noted that the Federal Rules of Civil Procedure allow for alternative service on foreign defendants via methods that do not contravene the foreign jurisdiction’s laws or applicable treaties. Based upon the plaintiff’s assertions that: (i) defendants did not have a valid physical address, and (ii) the plaintiffs previously contacted defendants via email, the court determined that an email sent through the defendant’s website could constitute valid service of process in combination with service by regular mail and facsimile.

- *Nasaruk v. eBay, Inc.*, 2:06CV242 DAK (D. Ut. Sept. 14, 2006). In this case, the court upheld the forum selection clause in eBay, Inc.'s ("eBay") online user agreement. The Utah-based plaintiff alleged, among other things, that eBay and one of its users had violated her civil rights when another eBay user posted allegedly discriminatory feedback about her. eBay moved to dismiss the claim for improper venue, based upon the forum selection clause in its user agreement, which requires disputes to be filed against eBay in Santa Clara County, California. The magistrate determined, and the District Court agreed, that the forum selection clause was valid and binding and that the plaintiff had accepted the eBay user agreement. Accordingly, it determined that the plaintiff could not pursue her case against eBay in a court outside Santa Clara County, California.
- *Bar-Ayal v. Time Warner Cable Inc.*, 03 CV 9905 (KMW) (S.D.N.Y. Oct. 16, 2006). In this case, the Southern District of New York upheld an arbitration clause in an electronic contract. The plaintiff argued that it was not bound by the arbitration clause in Time Warner's customer agreement because the clause was buried in a lengthy electronic contract. The court held that the plaintiff was bound by the contract because he had the opportunity to review it and had expressed his agreement to it. The fact that the plaintiff may not have actually read the agreement was not relevant. The court noted that the plaintiff was required to review agreements that could be displayed on 38 screens (or 9 written pages), was required to press an "Accept" button 8 times before he could finally agree to the service and begin a software installation process, and that the software at issue could not be installed unless the plaintiff had agreed to the contracts. The court found that the defendant's software installation process provided persuasive evidence that the plaintiff had expressed agreement to the entire contract, including the arbitration clause, and was not swayed by plaintiff's allegations that the defendant's electronic presentation of the agreements did not provide the plaintiff with adequate notice of the agreement's contents. With regard to the arbitration clause, the court found that there was no obligation to place "important" contractual clauses at the beginning of the agreement. Moreover, the court rejected plaintiff's assertions that Time Warner should have made the arbitration clause more noticeable by providing it in a different font or color, and instead indicated that Time Warner had adequately displayed the arbitration clause in the same font as the remainder of the software agreement, and in capital letters.
- *C.B.C. Wood Products Inc. v. LMD Integrated Logistics Serv. Inc.*, No. 06-2673 (E.D.N.Y., Oct. 7, 2006). The fact that an interactive website is accessible only to existing customers with a password may not be sufficient to confer general personal jurisdiction over a party. In sustaining the defendant's motion to dismiss for lack of personal jurisdiction, the court held that the fact that a foreign corporation has a website accessible in New York is insufficient to establish personal jurisdiction over that corporation. The court also considered whether the defendant's various offline contacts with the state of New York, including telephone calls and the mailing of invoices to the plaintiff located in that forum, were sufficient to support specific jurisdiction; the court ultimately held that they were not.
- *Wachter Mgmt. Co. v. Dexter & Chaney, Inc.*, No. 95,102 (Kan. Oct. 27, 2006). In rendering this decision, the Kansas Supreme Court determined that "shrinkwrap" license terms may not be



enforceable if the parties had previously entered a valid contract for the sale of the software and that contract did not incorporate the shrinkwrap license terms. In this case, the parties conducted “detailed negotiations” before entering into a contract for Dexter’s accounting software and related support services. The court found that the contract did not reference or incorporate the terms of a shrinkwrap license that was bundled with the software media when the agreement was shipped. Although other courts have upheld shrinkwrap licenses in other contexts, the court determined that the shrinkwrap license was an unenforceable attempt by Dexter to unilaterally modify the terms of the previously-entered contract. Accordingly, the court refused to honor the shrinkwrap license’s terms—particularly the jurisdiction and venue clause that would have required Wachter to sue Dexter in Dexter’s home state. The dissent reached a different conclusion, based upon its belief that Dexter’s original offer included the shrinkwrap license’s terms and conditions by reference.

- *Treiber & Straub, Inc. v. United Parcel Svc., Inc.*, Nos. 05-3743 and 05-3896 (7<sup>th</sup> Cir. Jan. 7, 2007). In this case, the Seventh Circuit upheld a large shipping company’s online “click-through” contracting process. In this case, Treiber & Straub, Inc. (“T&S”), the plaintiff, attempted to ship a package worth \$105,000 via UPS and purchased excess value insurance of \$50,000 to cover the package. UPS lost the package. When T&S attempted to collect on the insurance policy, UPS denied the claim because its terms and conditions and insurance documents explicitly excluded insurance on items with a real value greater than \$50,000. Plaintiff argued that it did not have adequate notice of the exclusion because it was not clearly and conspicuously placed in UPS’ lengthy Terms and Conditions. The court determined that the common law of contract did not require that the exclusion be “clear and conspicuous,” and in any event determined that plaintiff was bound by UPS’s Terms and Conditions, which plaintiff acknowledged via a click-through process.
- *Shisler v. Sanfer Sports Cars, Inc.*, H029791 (Cal. Ct. App. Dec. 20, 2006). In *Shisler*, a California appellate court determined that a Florida defendant’s contacts with California, which resulted from a transaction with a California resident, did not provide sufficient basis for the California courts to exercise personal jurisdiction over the defendant. The California-based plaintiff learned of a sports car that the defendant was selling in Florida by reviewing the defendant’s website. The plaintiff contacted the defendant by phone, completed the sales contract via the mail, and title to the car passed to the plaintiff before the car was shipped from Florida to California. Nevertheless, the plaintiff contended that the website’s provision of a credit application (which he did not use) and the California resident’s ability to access the website should allow the California court to exercise jurisdiction over the defendant. The court disagreed, noting that the defendant’s Internet activities did not amount to purposefully availing itself of California law, and that plaintiff’s argument would essentially allow for personal jurisdiction to “almost always be found in any forum in the country, contrary to long-settled principles of personal jurisdiction.”
- *DWP Pain Free Med. P.C. v. Progressive Northeastern Ins. Co.*, 2006 N.Y. Slip Op 26531 (Dist. Ct. of Suffolk County, Third District, Dec. 7, 2006). A New York court determined that New York’s electronic signature law ESRA did not require an insurance company to accept electronic

signatures on forms submitted by a doctor's office that sought reimbursement for claims filed. In *DWP*, the medical provider's office submitted medical claims to the defendant, some of which were executed by electronic signatures. The defendant's policies indicated that it would only accept "original signatures" and explicitly stated that it would reject documents signed by electronic signatures. The plaintiff alleged that both state and federal electronic signature law required the defendant to accept electronic signatures because they are the legal equivalent of wet ink signatures. The court rejected this argument, citing a New York Attorney General Opinion that concluded that neither New York's electronic signature law, nor ESIGN, requires the acceptance of electronic records and signatures.

- *Beal v. Barnes Healthcare of Florida*, No. 3:05-cv-689 (M.D. Fla., Jan. 25, 2007). In this case, the United States District Court for the Middle District of Florida has ruled that the Employee Retirement Income Security Act ("ERISA") requirement that employees be "furnished" with certain information can be satisfied by providing a web address through which to obtain necessary documents. Under ERISA, 29 U.S.C. §§ 1001 *et seq.*, a health insurance administrator must "furnish" health plan participants a Summary Plan Description (SPD) of their benefits. *Id.* at §1021(a), 1022(a). In *Beal*, the court held that a plaintiff who knew that an SPD was available online and had in fact seen it online had been "furnished" with it, even though she had never been given it in hard copy. "Providing information as to where to obtain the document, i.e. website, ... and providing the ability to obtain the document, i.e., access to a computer and the Internet, meets the requirements of the statute."
- *FC Investment Group LC v. IFX Markets, Ltd.*, No. 04-1939, 2007 U.S. Dist. LEXIS 7919 (D.D.C. Feb. 6, 2007). In this case, the U.S. District Court for the District of Columbia held that maintaining a marginally interactive website does not create general personal jurisdiction. The plaintiff investors sued a U.K. corporation for fraud in connection with an alleged pyramid scheme. The investors argued that the website, which allowed prospective customers to download applications, view a demonstration of services, and view and manage online accounts, created personal jurisdiction over the defendant. The court, however, held that the website was not "active" enough to justify the exertion of personal jurisdiction. In a fact-specific analysis, the court found it significant that, although prospective customers could download an application, the website did not allow online registration and the majority of the application process was conducted offline. And despite the investors' assertions that the website allowed for "certain active online transactions," the court held that the use of an online account by only one resident of the District of Columbia for a very brief period of time – as alleged by the investors – did not justify the exertion of general personal jurisdiction. The online demonstration of the company's services likewise was not sufficient. The court contrasted this website to the site at issue in *Gorman v. Ameritrade Holding Corp.*, 293 F.3d 506 (D.C. Cir. 2002), where the wide range of services available on defendant's website, including online account opening and management and the online purchase and sale of securities, justified the exercise of personal jurisdiction over the defendant. The FC Investment opinion may be at odds with *Obabueki v. Company, Inc.*, Case No. 99-11262, 2001 WL 921172 (S.D.N.Y. Aug. 14, 2001), in which a federal court in New York held that the existence of a downloadable application, which was subsequently faxed in, may have been sufficient to form the basis of personal jurisdiction. The court in *Obabueki* also appears to have

found it significant that the website provided price estimates for specific requests, sample services, as well as information about turnaround time, allowed users to communicate with the defendant via e-mail, and provided approved applicants with a login and password that allowed them to request specific services.

## APPENDIX D: STANDARD & POOR’S – LEGAL ISSUES OF SECURITIZED AUTO LOANS IN AN eCONTRACT WORLD

### Legal Issues Of Securitized Auto Loans In An E-Contract World

Legal Contacts:

Dina Moskowitz, Esq., New York (1) 212-438-6611;

[dina\\_moskowitz@standardandpoors.com](mailto:dina_moskowitz@standardandpoors.com)

Natalie Abrams, Esq., New York (1) 212-438-6607;

[natalie\\_abrams@standardandpoors.com](mailto:natalie_abrams@standardandpoors.com)

Primary Credit Analyst:

Amy S Martin, New York (1) 212-438-2538;

[amy\\_martin@standardandpoors.com](mailto:amy_martin@standardandpoors.com)

Publication date: 10-Jul-06, 08:04:45 EST

Reprinted from [RatingsDirect](#)

Electronic contracts (eContracts) are contracts that are originated and “signed” electronically. Due to developments in technology and ever-rising costs for storing and retrieving paper contracts, eContracts are becoming increasingly popular. Specifically, companies in the auto loan business that seek to securitize their auto loan contracts are increasingly entering into eContracts with their customers. Accordingly, Standard & Poor’s Ratings Services has analyzed the ways in which eContracts differ from paper contracts in a securitized pool of auto loans. This article discusses the legal differences between eContracts and paper contracts for the purposes of Standard & Poor’s rating of securities backed by auto loan eContracts.

#### Legality, Validity, and Enforceability of Econtracts

There are state and federal laws that uniquely apply to eContracts. These laws have two main goals: ensuring that eContracts suffer no disadvantage in the commercial markets relative to paper contracts and that consumers benefit from all the legal protections they enjoy when entering into paper contracts. Standard & Poor’s is comfortable that, under these laws, as to the issues of legality, validity, and enforceability, eContracts can be viewed as equivalent to paper contracts for rating purposes. Therefore, regarding these issues, Standard & Poor’s has adopted the same approach to eContracts as it has to manually executed paper contracts. That is, we request no special opinions regarding the legality, validity, or enforceability of eContracts. On Sept. 17, 2002, Standard & Poor’s issued a release to this effect. (See “No Additional U.S. Legal Criteria Required for Electronic Contracts,” on RatingsDirect, Standard & Poor’s Web-based credit analysis system, at [www.ratingsdirect.com](http://www.ratingsdirect.com).)

#### Perfection and Priority under the UCC

Legality, validity, and enforceability issues are not, however, the only legal questions raised by the securitization of eContracts, particularly in auto loan Transactions. An additional central issue involves perfection and priority under the Uniform Commercial Code (UCC). For paper auto loan contracts (known under the UCC as tangible chattel paper), perfection of a transfer (whether it is a sale or a loan) may be achieved by transferring possession of the contracts (to the buyer/lender, or its agent) or by filing a UCC financing statement against the seller/borrower. However, as to priority (as opposed to mere perfection), a buyer/lender who takes possession generally will have priority over a buyer/lender who files

a UCC financing statement. In the event that perfection against the originator is achieved by filing so that the originator may retain possession of the paper contracts to facilitate servicing, Standard & Poor's relies on covenants by the originator not to transfer possession of the paper contracts to a third party (other than a securitization trustee or special-purpose entity {SPE}), which would enable the third party to have priority over the rated note holders.

If the paper contracts had been purchased by the originator from an auto dealer (indirect origination), then the originator takes possession of the contracts from the dealer. Among other things, this generally enables the originator (and any subsequent transferees, for example, the issuing SPE) to have priority over creditors of the dealer. It is not sufficient merely to file UCC financing statements against the dealer because auto dealers typically have existing creditors who have filed blanket liens against the dealers. As discussed above, such creditors would have priority over any buyers or lenders who subsequently file financing statements against the dealer.

If the loan contracts are in electronic form, they will likely constitute "electronic chattel paper" under the UCC. The UCC provides that perfection of a transfer (whether it is a sale or a loan) of electronic chattel paper may be accomplished by the filing of UCC financing statements against the transferor or by effecting "control" (as defined in the UCC) over the electronic chattel paper. Control of electronic chattel paper is analogous to possession of tangible chattel paper. A buyer or lender who has perfected by control of electronic chattel paper will have priority over a buyer or lender who has perfected solely by filing a UCC financing statement to the same extent as it would have priority if such buyer or lender took possession of any tangible chattel paper.

For direct originations of electronic auto loan contracts, Standard & Poor's does not look for perfection by control for transfers by the originator to subsequent transferees. As with possession of tangible chattel paper, Standard & Poor's relies on covenants by the originator not to transfer control to a third party (other than an SPE or securitization trustee), which would enable the third party to have priority over the rated note holders.

For indirect originations, an originator that purchases electronic auto loan contracts from a dealer must perfect against the dealer by control (analogous to taking possession of paper contracts) for the originator (and subsequent transferees) to have priority over creditors of the dealer. However, subsequent transfers by the originator of such eContracts to an SPE or securitization indenture trustee may be perfected solely by filing. If control of the contracts remains with the originator, and subsequent transfers are perfected solely by filing, Standard & Poor's relies on covenants by the originator not to transfer control to a third party (other than an SPE or securitization trustee), which would enable the third party to have priority over the rated note holders.

#### Has Perfection By Control Been Achieved?

If our criteria require perfection by control of the eContracts, we will look for an opinion of counsel to the issuer (originator) to the effect that control has been achieved pursuant to the UCC when the securitized pool contains 10% or more of eContracts, or a dealer or affiliated dealer group has originated more than 0.5% of the pool. Although the UCC control opinion will be based in part on certain factual assumptions, the opinion provider must analyze all the components of control under the UCC and conclude as a legal matter that the requirements are met. The factual assumptions underlying the opinion may be supported

by officer's certificates provided by the originator and any third party providing electronic "vault" services to the originator.

Issuers who intend to securitize eContracts should contact Standard & Poor's to discuss more specifically the form and content of such control opinion, including (among other matters) which are the relevant state UCCs for the opinion. The control opinion, if requested, is in addition to the applicable Article 9 representations and warranties (see "Revised Article 9 of the Uniform Commercial Code: New Standard & Poor's Criteria," published June 6, 2001, on RatingsDirect) and not in lieu of them.

[http://www2.standardandpoors.com/servlet/Satellite?pagename=sp/sp\\_article/ArticleTemplate&c=sp\\_article&cid=1145783845038&newsletter=Y](http://www2.standardandpoors.com/servlet/Satellite?pagename=sp/sp_article/ArticleTemplate&c=sp_article&cid=1145783845038&newsletter=Y)

**APPENDIX E: CURRENT STATE MODEL**

Process Flow Summary

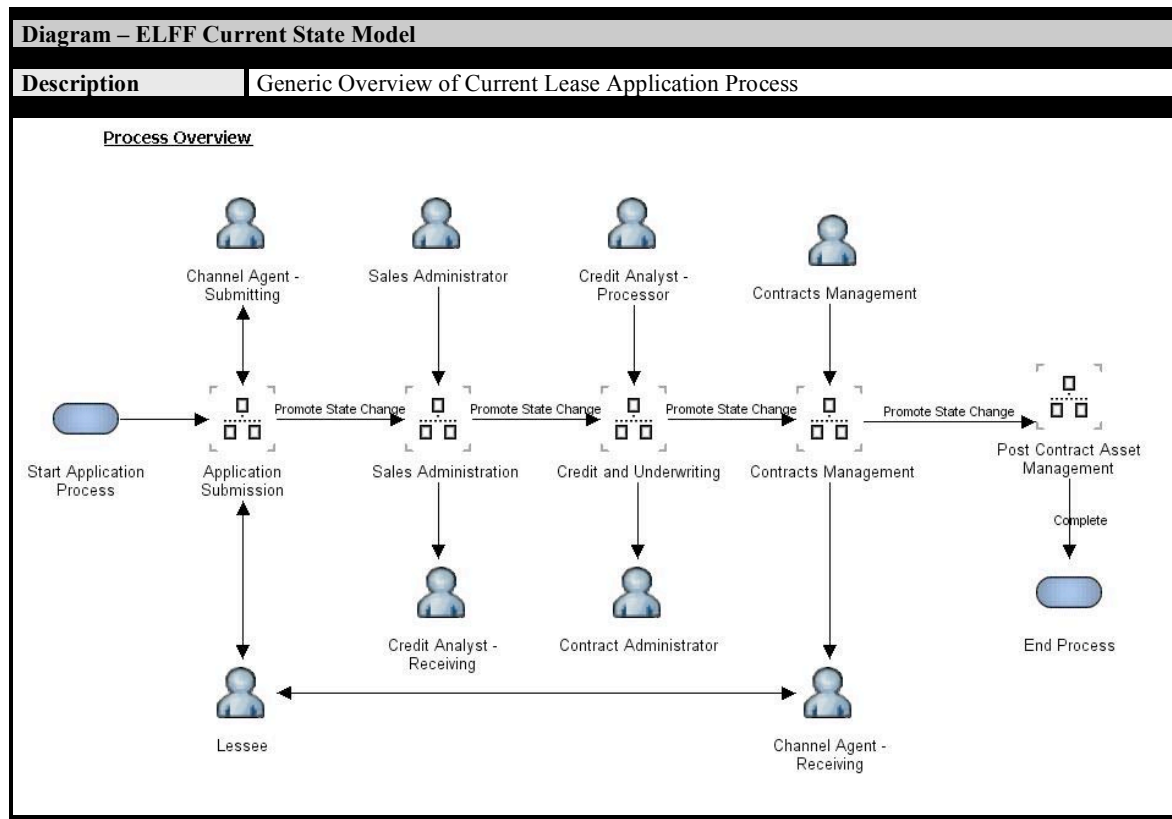
Abraham, McDonald and Associates, Inc.

**1.0 Table of Contents**

<b>2.0</b>	<b>ELFF Current State Model</b>
<b>3.0</b>	<b>Application Submission</b>
<b>4.0</b>	<b>Sales Administration</b>
<b>5.0</b>	<b>Credit and Underwriting</b>
<b>6.0</b>	<b>Contracts Management</b>
<b>7.0</b>	<b>Post Contract Asset Management</b>



## 2.0 ELFF Current State Model



### Introduction:

The process has been developed into five (5) sub-processes which include:

#### 1- Application Submission

- The development of the application and its submission to the Lessor's 'Sales Administration' process

#### 2- Sales Administration

- The review of the contract for accuracy and completeness

#### 3- Credit and Underwriting

- The process ...managed by the Credit Analyst... where Lessee's credit worthiness is ascertained and acted-on.

4- Contracts Management

- Where the Lease Application and its transaction envelope ...the ‘Transaction File’... are transformed into a final Agreement or Contract

5- Contract Asset Management

- The post-contract issuance process wherein the contract is now a marketable asset.

**Key Points:**

Derived from Interviews with client and the illustration titled: “ ‘Generic’ Lease Origination Front-End Process”

Process scope begins with development and submission of Lease Application

Process scope ends with Contract filed and Contract is an asset of the Lessor



**Inputs**

The following elements are inputs to this process element:

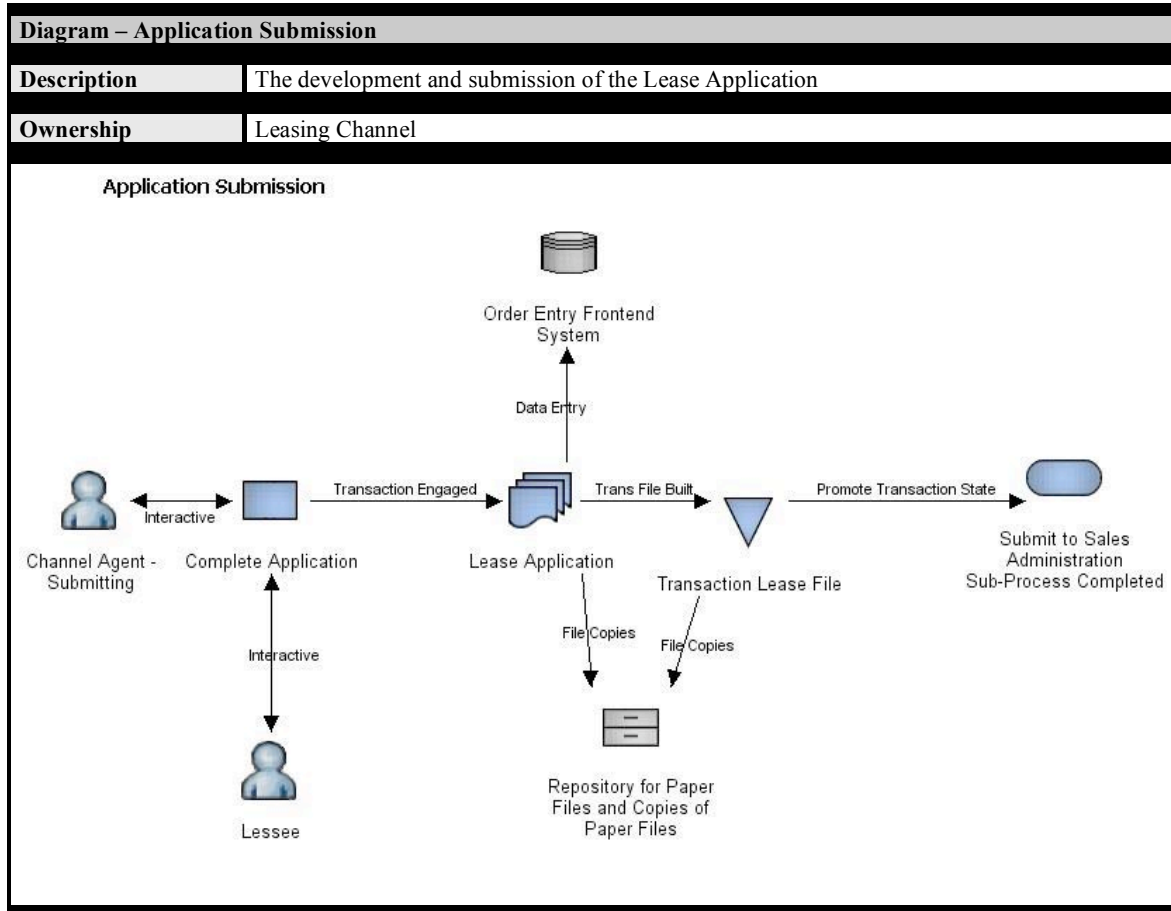
#	Name	Description	Type
1	Empty Lease Application	Blank Lease Application form whether electronic or paper	Document

**Outputs**

The following elements are outputs to this process element:

#	Name	Description	Type
1	Filed	Post Contract Issuance Asset Management Process	Document

### 3.0 Application Submission



#### Sub-Process Introduction

This process includes the business interaction between the prospective Lessee and the Channel Agent marketing the Lease product. The Application is taken and initially reviewed. The Application represents the Channel Agent’s perspective of the best match of Lease product and Lessee’s abilities and needs. Once the Application is completed ... whether electronically or on paper ... the Application is submitted to Sales Administration. It is presumed that Lessee receives a copy of the Application and any other document or materials required by law or regulation to take away for his or her records.

#### Channel Agent:

Determines Lease type

Selects appropriate application and associated attachments

**Lessee:**

Provides Lessee indicative information as required by the Application

Provides any documentation needed to support the Application

--

**Inputs**

The following elements are inputs to this process element:

#	Name	Description	Type
1	Empty Lease Application	Blank Lease Application form whether electronic or paper	Document

**Outputs**

The following elements are outputs to this process element:

#	Name	Description	Type
1	Completed Lease Application	Lease Application contains all required information	Document

**Requirements**

This process element references the following requirements:

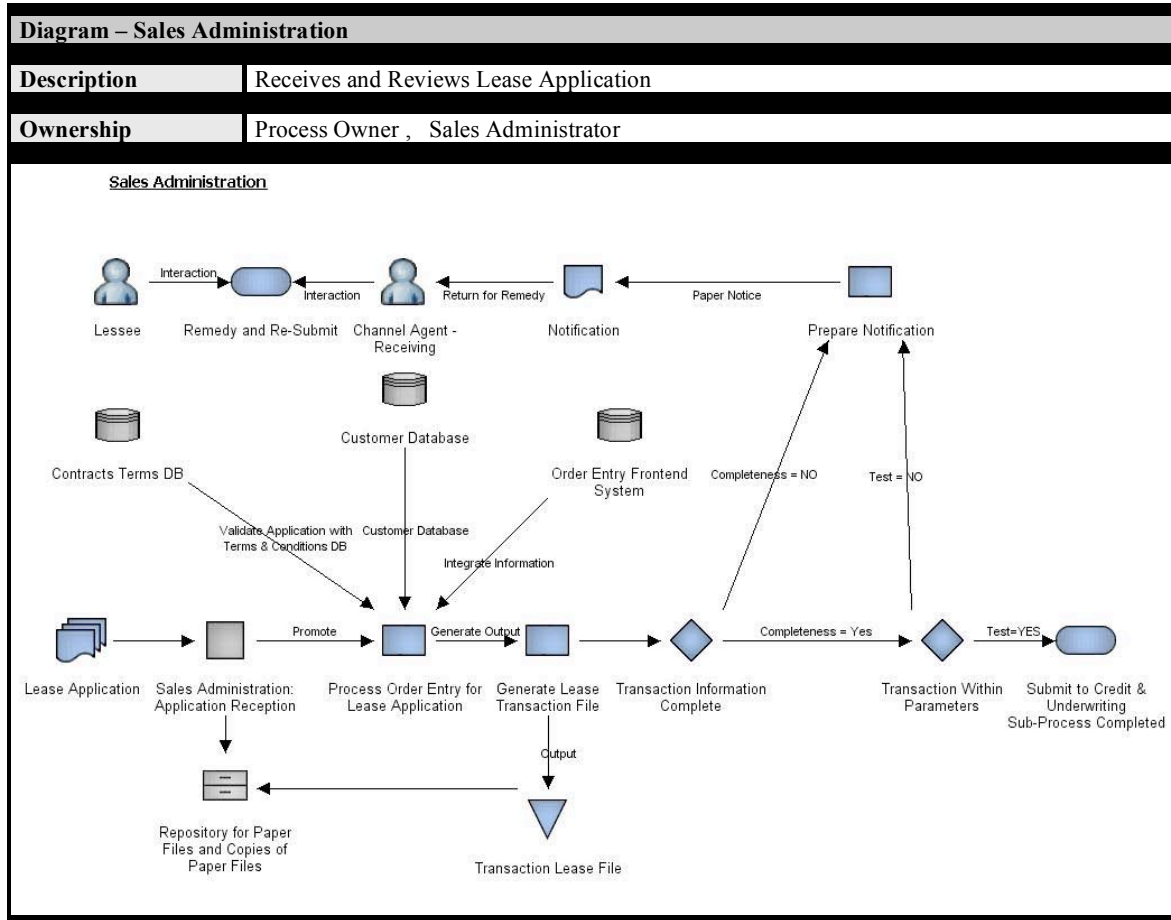
#	Name	Description	Type
1	Lease Application Development & Submission	Interaction of Channel Agent and Lessee with Application & Submission Process	Requirement

**Related Elements**

The following elements are associated with this element:

#	Name	Description	Type
1	Lease Application Development & Submission	Interaction of Channel Agent and Lessee with Application & Submission Process	Requirement

## 4.0 Sales Administration



### Sub-Process Introduction

The Sales Administration process receives the submitted Lease Application and performs a variety of quality control reviews (below; “*Key Points*”). Information is extracted from the application and, as appropriate and where they exist, transcribed into pertinent databases. If the Application is not complete, it is returned to the Channel for remedy and re-submission. If the Application is complete, it is encapsulated into a Transaction File and moved into the Credit and Underwriting process. (*The Transaction File contains the Application and any notes or attendant documents from the Sales Administration process.*)

### Key Points:

Lease Application submitted by Channel Agent – Submitting

Lease is review for completeness and accuracy

Lease notes are developed as appropriate (included in file)

Lease documents are filed

Lease Transaction file is created

--

**Inputs**

The following elements are inputs to this process element:

#	Name	Description	Type
1	Lease Application	Document set containing the information requirements regarding Lessee and the Lease Contract	Multi Document

**Outputs**

The following elements are outputs to this process element:

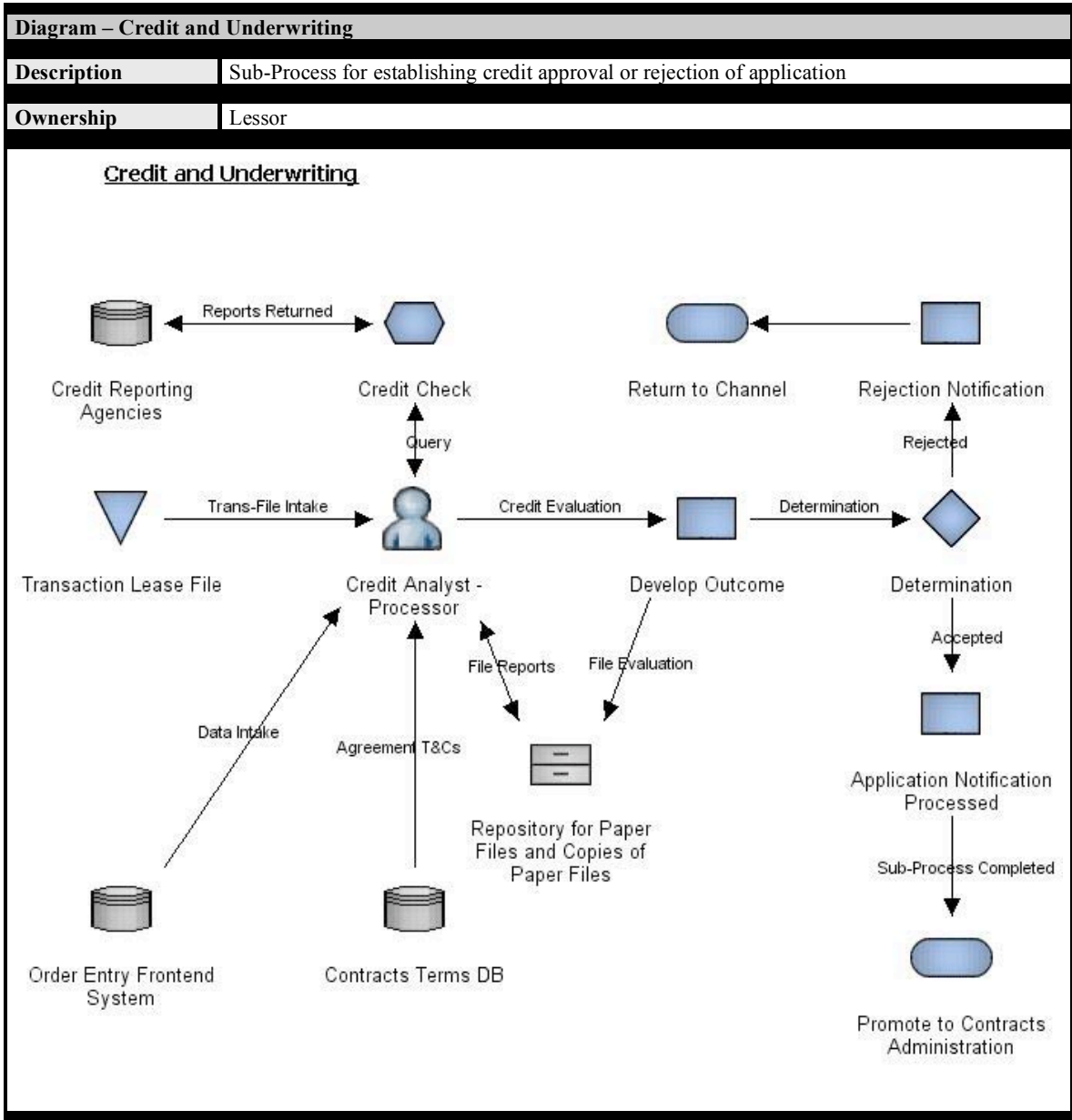
#	Name	Description	Type
1	Transaction Lease File	File consisting of Lease Application, Notes, and other Pertinent Information	Manual File

**Requirements**

This process element references the following requirements:

#	Name	Description	Type
1	Application Completeness Review	Lease document processing	Requirement
2	Receive Application	Introduce Lessee’s application into this sub-process	Requirement
3	Lease Application Development & Submission	Interaction of Channel Agent and Lessee with Application & Submission Process	Requirement

5.0 Credit and Underwriting



**Sub-Process Introduction**

Credit and Underwriting determines whether the risk-reward offering from the Lease Application and the Lessee’s credit worthiness are sufficiently favorable to the Lessor. Credit verification is processed using internal (customer database) and 3<sup>rd</sup> party resources (e.g., TransUnion, Equifax, etc). If credit is acceptable the process moves into Contracting. If the credit is found excessively risky, the Channel and Lessee are notified that the Application has been rejected. On occasion, remedies to the issues causing rejection may

be suggested ... or, not at the discretion of the Lessor. If causative issues are remedied, the Application is corrected and re-submitted to Sales Administration.

**Key Points:**

- Credit scores are evaluated
- Other history available to Credit and Underwriting may be considered
- Lease application is determined approved or rejected based on process rules

- Action is to accept or reject the Lessee's standing as described in the Application and other pertinent information

**Requirements**

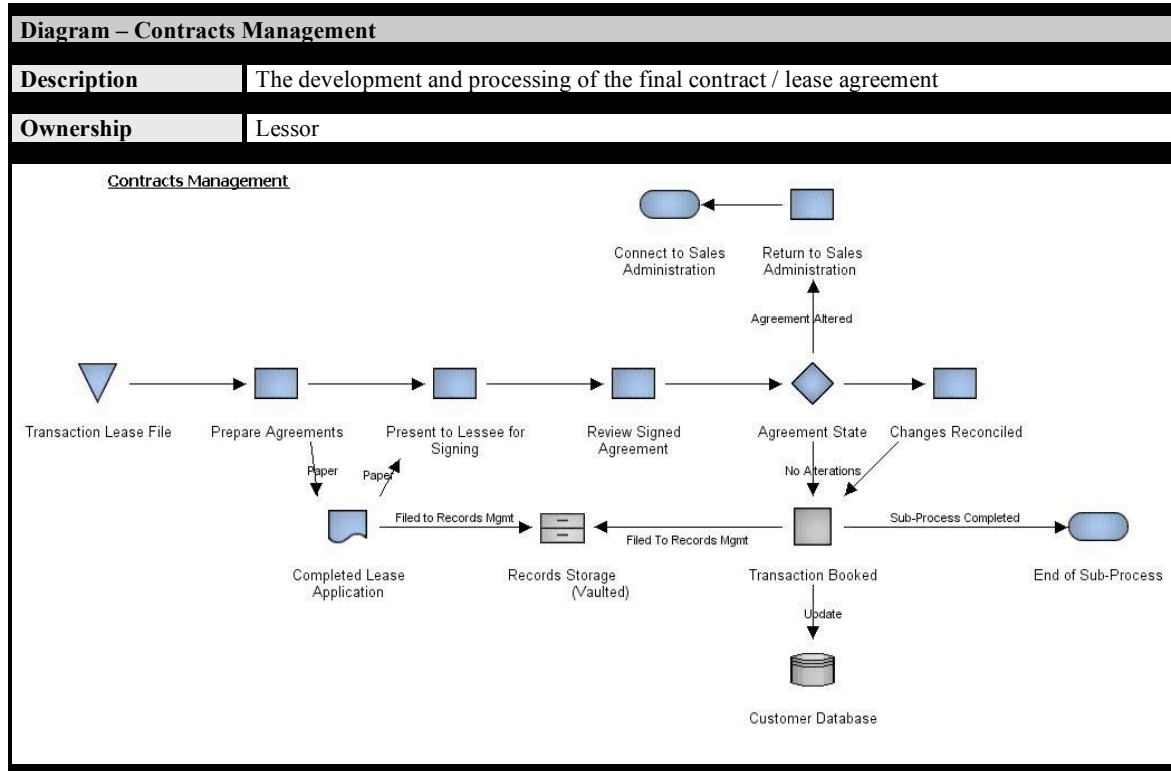
This process element references the following requirements:

\_\_\_\_\_



1	Credit Processing	Verifying credit status of Lessee relative to Lease Contract requirements	Requirement
---	-------------------	---	-------------

## 6.0 Contracts Management



### Sub-Process Introduction

Contracts Management receives the completed Transaction File from Credit and Underwriting. Contract documents ...i.e.; the “Agreement”... are prepared specific to the Transaction. These are reviewed and presented to the Lessee for signing. Assuming the Contract is returned signed by the Lessee and without any alterations marked onto the Contract, the Transaction is “booked” ... i.e., entered into the active accounts database / system and set-up for billing. Should the Contract be returned unsigned or with alterations marked on the document whether signed or not, the Contract is voided and appropriate Notifications of the termination of the Transaction are generated and sent to the Channel Agent and the Lessee. If the alterations are subsequently negotiated into the Terms and Conditions of the Contract or are otherwise resolved, the Application is re-submitted to Sales Administration for re-processing. Re-processing may or may not require review by Credit and Underwriting.

### Key Points:

- The Transaction Lease File is used to prepare the Legal Agreements / Contracts
- These are presented to the Lessee for review and signing
- If Lessee marks changes onto the Legal Agreements / Contracts, they are rejected for further negotiation
- Rejection consists of returning the matter to the Channel for resolution
- Once resolution has been achieved or if the Lessee has made no marked changes or otherwise altered the Agreement / Contract, the Contract is booked
- On booking, the Contract is filed and placed in a records management environment ...possibly vaulted...and the Lessor's customer database is updated.



**Inputs**

The following elements are inputs to this process element:

#	Name	Description	Type
1	Transaction Lease File	File consisting of Lease Application, Notes, and other Pertinent Information	Manual File

**Outputs**

The following elements are outputs to this process element:

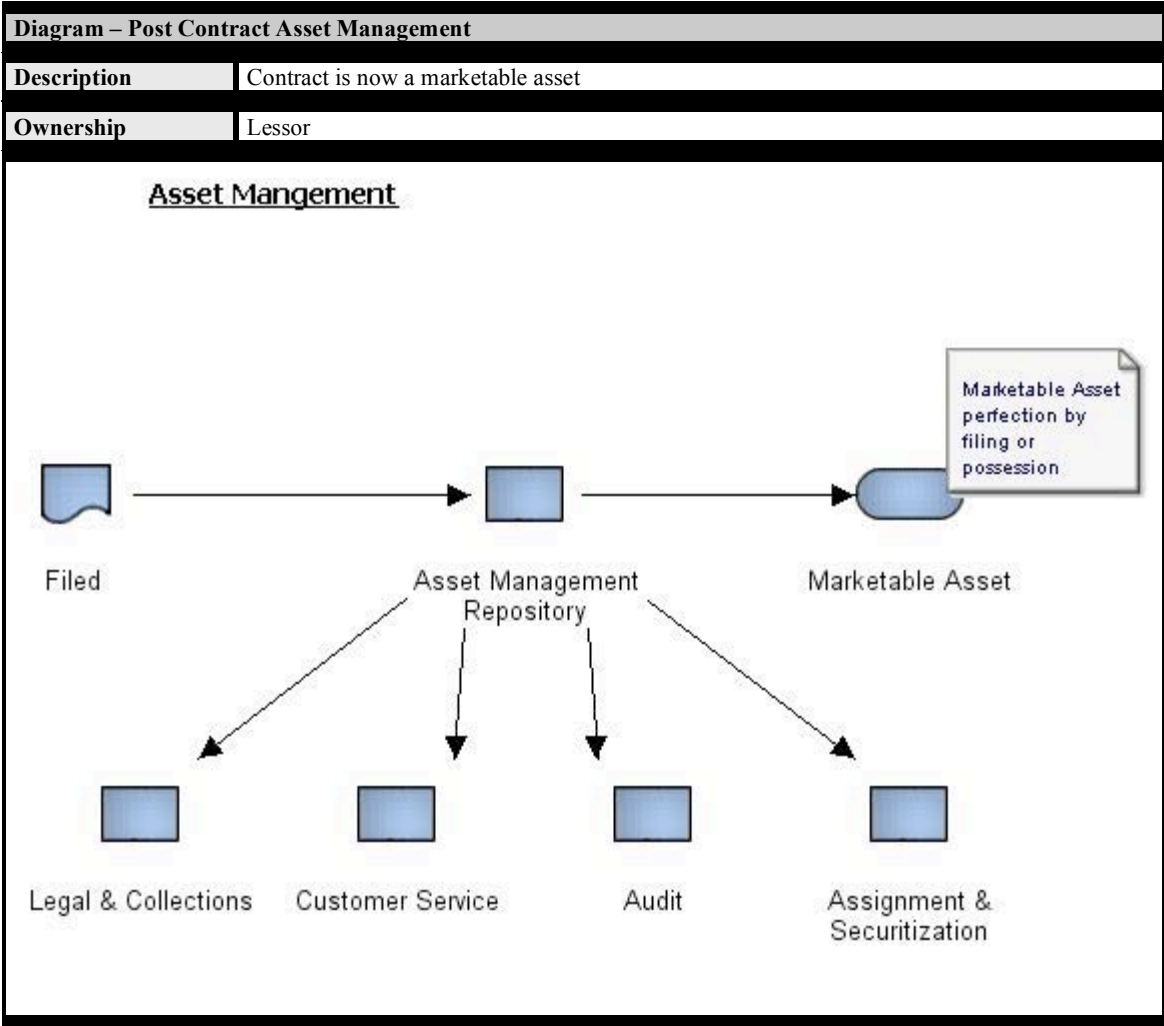
#	Name	Description	Type
1	Filed	Post Contract Issuance Asset Management Process	Document

**Requirements**

This process element references the following requirements:

#	Name	Description	Type
1	Contract Processing	Requirements for Contracts Management Sub-Process	Requirement

7.0 Post Contract Asset Management



**Sub-Process Introduction**

Post Contract issuance processing addresses the Lease Contract as a marketable asset which may be sold or re-assigned at the discretion of the Lessor (Contract owner) according to the terms and conditions of the Contract. This process assumes business ownership or responsibility for the Contract as an asset of the business insuring that the Contract document is physically held in a secure repository; e.g., ‘Vaulted.’ Contracts and associated documents are now available to Legal & Collections, Customer Service, Audit, and for Assignment and Securitization. The contract is fully perfected at this point.

**Key Points:**

Application has state-transitioned to a legal contract.

Contract has been filed

Contract is a marketable asset

**Note:**

*This sub-process needs further refinement in that it is not covered in the material provided by the process client.*



**Inputs**

The following elements are inputs to this process element:

#	Name	Description	Type
1	Transaction Lease File	File consisting of Lease Application, Notes, and other Pertinent Information	Manual File
2	Filed	Post Contract Issuance Asset Management Process	Document

**Outputs**

The following elements are outputs to this process element:

#	Name	Description	Type
1	Marketable Asset		Document

**Requirements**

This process element references the following requirements:

#	Name	Description	Type
1	Records Management	Secured storage of the Contract as a business asset.	Requirement

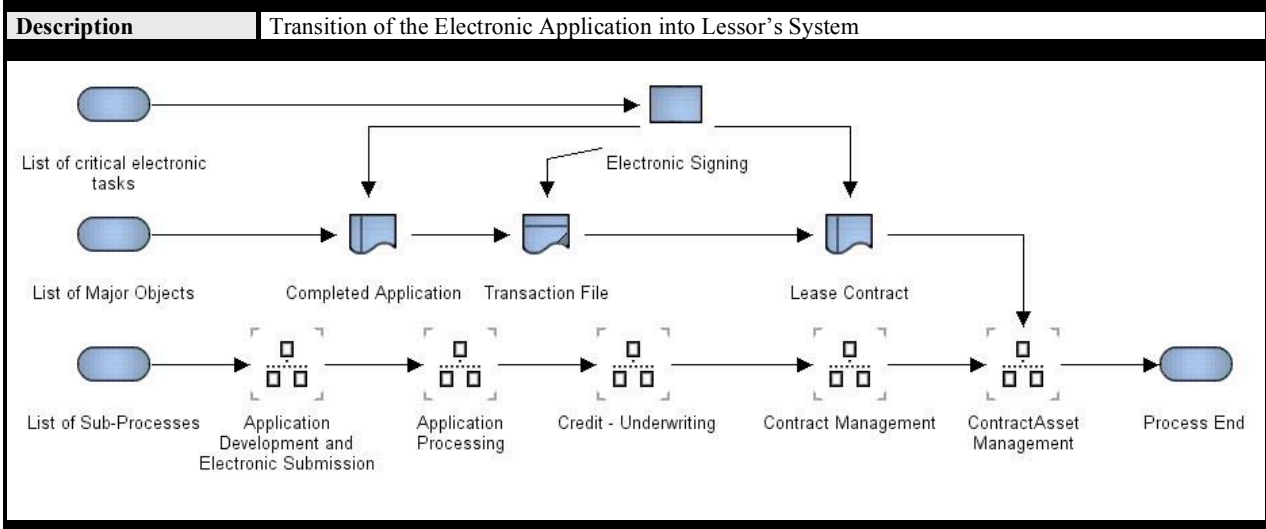
**Appendix F: FUTURE STATE MODEL**  
**Process Flow Summary**

Abraham, McDonald and Associates, Inc.

## Table of Contents

1. **PROCESS OVERVIEW**
2. **APPLICATION DEVELOPMENT AND ELECTRONIC SUBMISSION**
  - 2.1 **FORMS SELECTION, PRESENTATION, AND SIGNING**
  - 2.2 **CREDIT PROCESSING**
3. **CREDIT – UNDERWRITING**
4. **CONTRACT MANAGEMENT**
5. **CONTRACT ASSET MANAGEMENT**
6. **TABLE OF SYMBOLS**

1. Process Overview



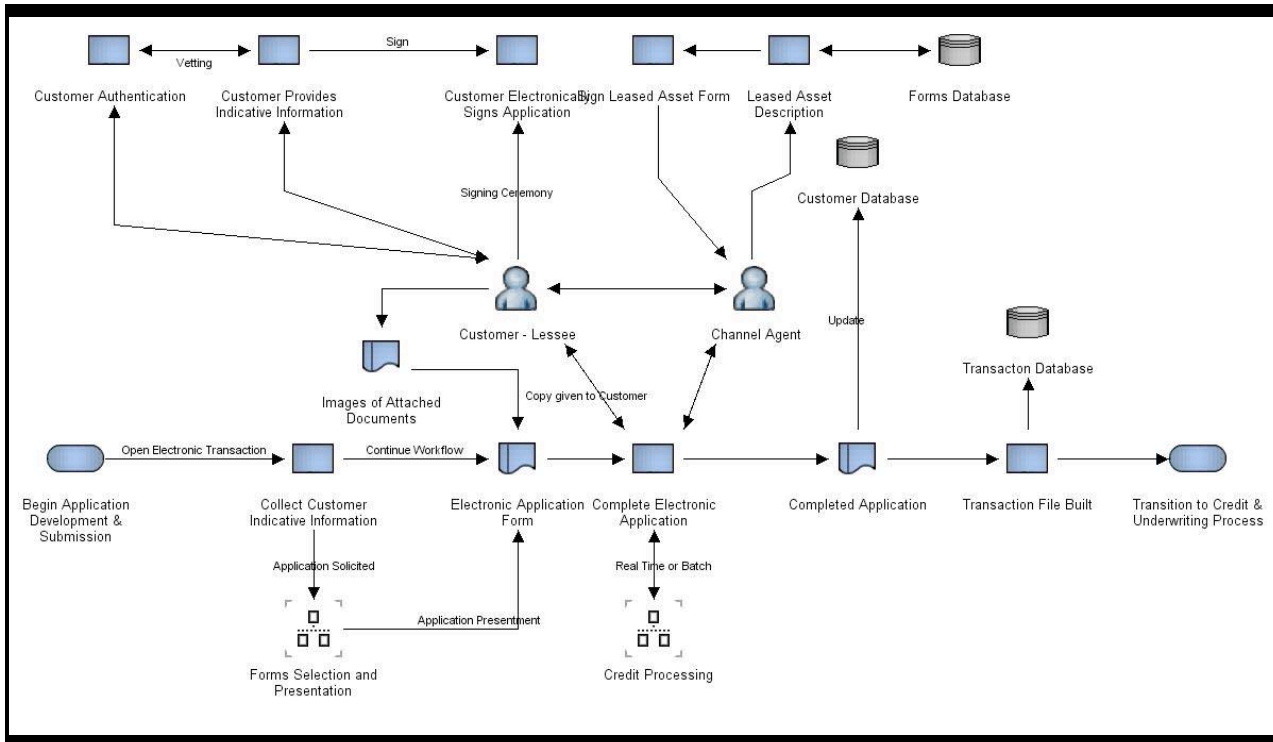
**Summary**

The illustration above depicts the high level view of the total Application Collection, Processing, and Disposition Process. This is a Future State Model and contains a greater level of detail than does the Current State Model. The difference in granularity is due to the fact that the Current State Model involves a great deal of human discretion which cannot be captured without a greater level of investigation than was within the scope of this undertaking. In reality, the absence of detail in the Current State Model to the extent provided by the Future State Model is of little consequence in that it is the Future State that is the primary subject of this undertaking.

Future State granularity is more attainable in that it is essentially a process design. The level of detail not contained in the Future State Model largely deals with actual Standards (reflected in the "Requirements" topics within the sections to follow). Establishing Standards is not within the scope of this undertaking but is critical to any implementation of the Future State Model.

The Future State Model illustrates five (5) major sub-processes: "Application Development and Electronic Submission," "Application Processing," "Credit - Underwriting," "Contract Management," and "Contract Asset Management." While many of these appear to be similar to the Current State Model, they, in fact, are different in virtually all respects.

## 2. Application Development and Electronic Submission



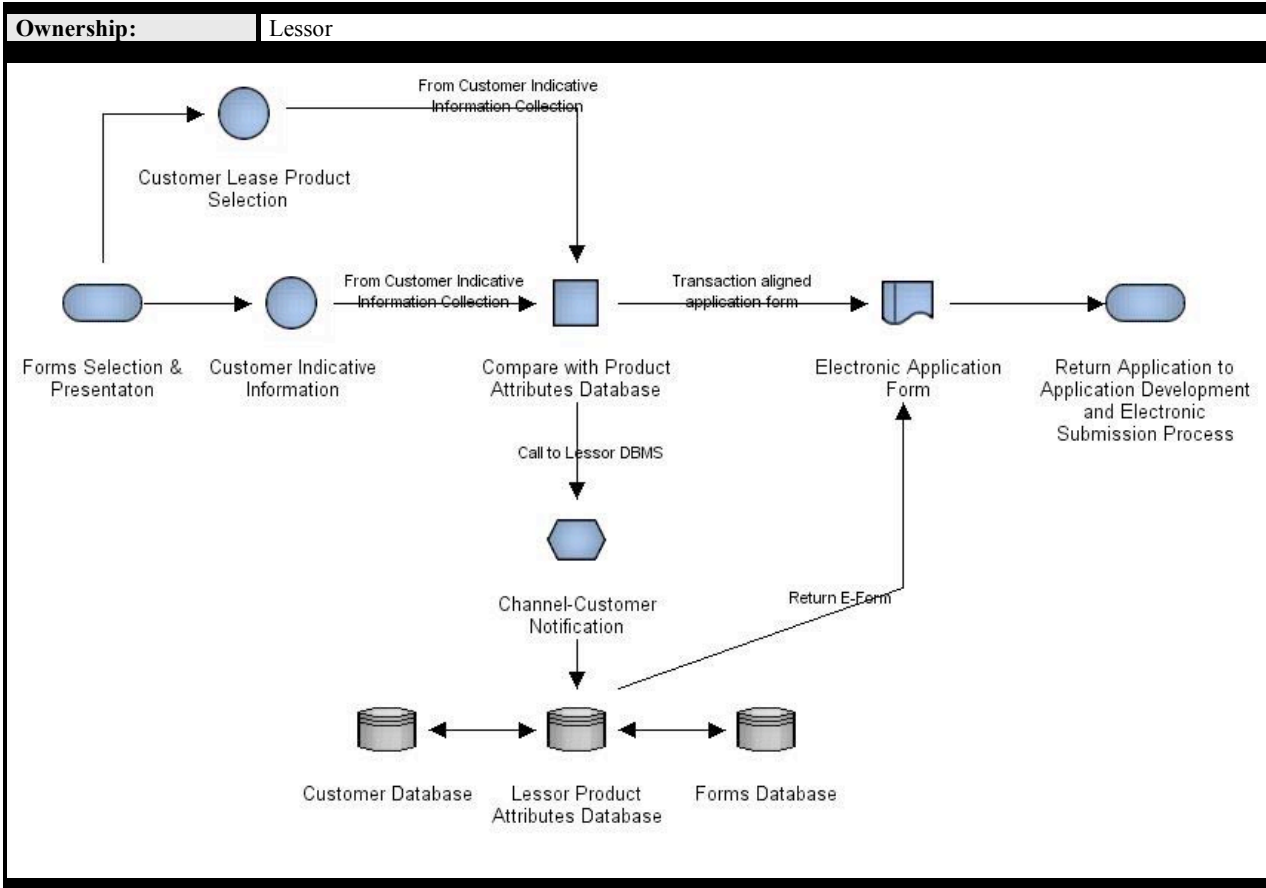
### Summary

Development of the Application begins with the selection of the appropriate form(s) (*see 2.1- Forms Selection and Presentation, following section*) and the Authentication of the applicant so as to enable them to participate in this ecommerce transaction. Credit processing ... a complex and distinct process within the Current State Model ... is integrated into the completion of the Application. (*see 2.2-Credit Processing*) The ability for individual content as it is entered into the form to drive workflow is well within the parameters of current state-of-the-art technology (e.g., Adobe and Cardiff). This allows for virtually instant response to the application in terms of meeting Lessor's credit requirements. The key steps, including the two sub-processes ... "Forms Selection and Presentation" and "Credit Processing" ... in this process are:

- There is an initial collection of Customer indicative information; e.g., Name, Company Name, EIN#, address, etc
- This is used to determine the correct Application form to be used (Forms Selection and Presentation Process)
- The Application is presented to the Customer and Completed
- The Channel Agent completes electronic forms describing the asset to be leased.
- Both Sign and submit the Application and Leased Asset form which are joined to form the Transaction File



2.1. Forms Selection, Presentation, and Signing



**Summary**

Forms Selection is a sub-process to the “Application Development and Submission” Process. Forms Selection works from a basic Customer profile of indicative information provided by the Customer. This information reveals pertinent tax information as well as positioning the Customer relative to governing state regulations, if any. The following key steps are performed during this process.

- Reviews Customer indicative information for properties such as; state, corporate status (‘C’, ‘S’, ‘LLC’, Sole Prop, etc)
- Looks at Customer DB for current / prior relationship(s)
- Looks at the Lessor Lease Product DB for attributes governing the Lease
- Selects correct Application Form from Forms DB
- Returns Application Form to *Application Development and Submission Process*

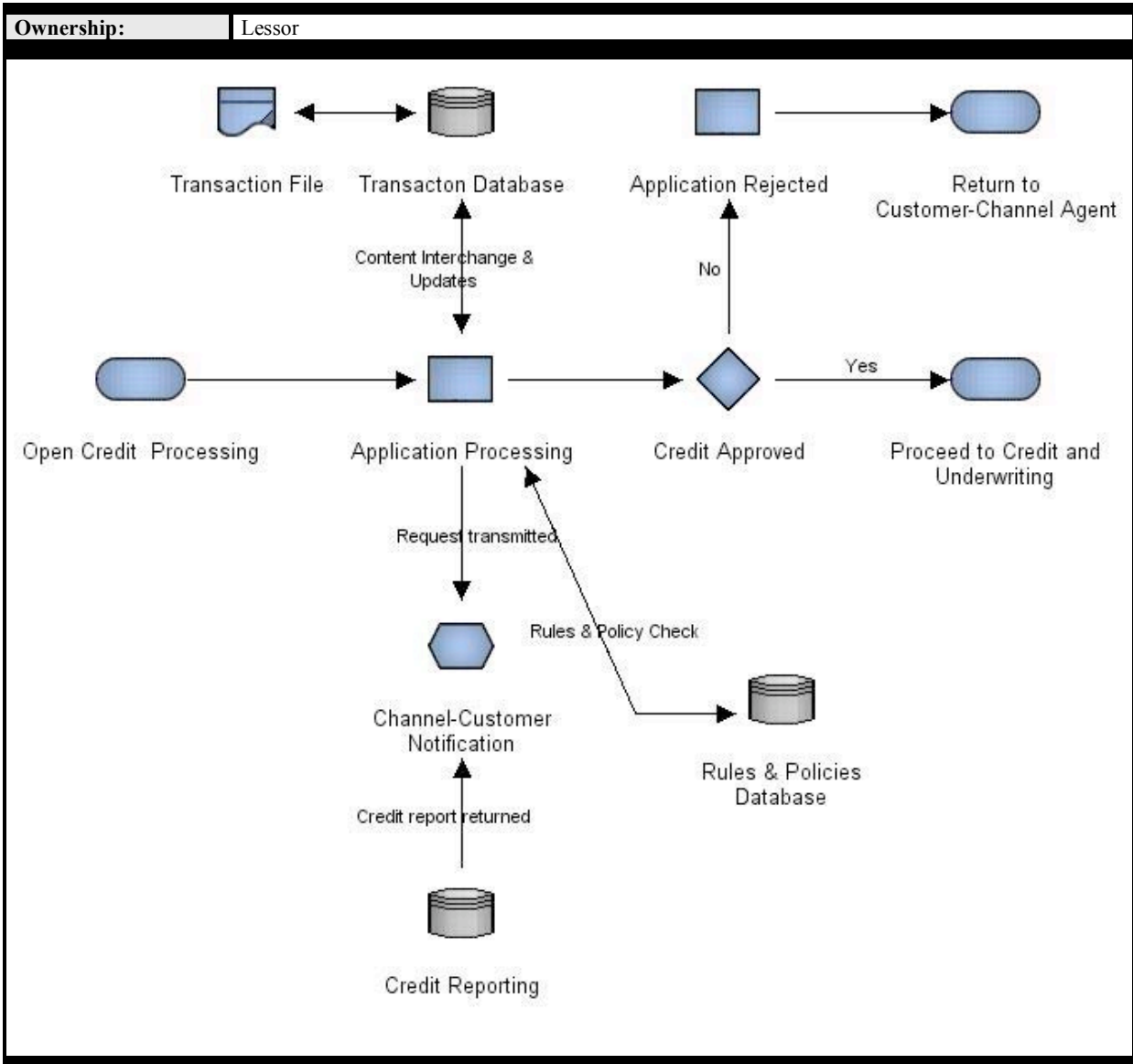
**Requirements**

This process element references the following requirements:

#	Name	Description	Type
1	Standards for	Standards and / or policies governing how e-Commerce	Requirement

	Authentication and Credentialing of E-Commerce Customers	Customers are Authenticated and Credentialed	
2	Standards for Electronic Documents	Standards to be determined	Requirement
3	Standards for Engaging in e-Commerce	Standards regarding the practice and use of e-Commerce related to processing Lease Applications	Requirement
4	Standards for Electronic Delivery of Documents	E-Delivery Standards to be determined	Requirement

2.2. Credit Processing



**Summary**

Credit Processing is a sub-process to "Application Development and Submission." The use of electronic Application development provides the opportunity to perform Credit assessments while the form is being completed; i.e., in 'real time.' This is the result of workflow interaction between the content entered into the form and 'calls' to external information sources such as; Fair Isaac, Dun & Bradstreet, Equifax, TransUnion, etc. "Real time" processing, however, does not preclude a more conventional 'batch' processing of Applications where the information contained on the Application is not processed until the

Application is fully completed and submitted (electronically). Performance and process productivity are more enhanced in the former approach but the performance improvement of either approach over Current State is so

substantial as to make either approach high ROI performers.

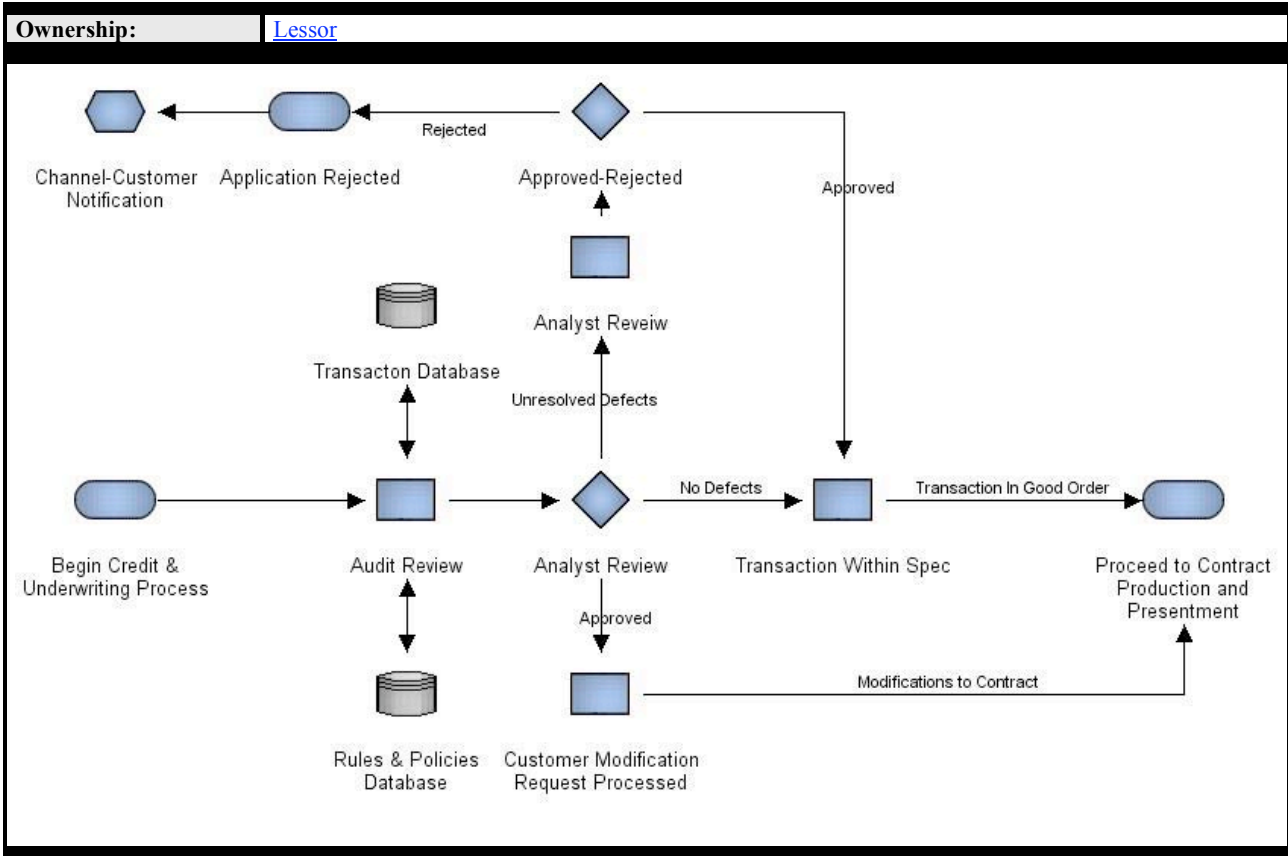
- Credit processing can occur concurrently with the Customer’s interaction with the e-Form Application
- Information from the Lease Application is automatically formed into data messages and transmitted as requests to various credit reporting agencies.
- Credit processing can occur once the e-Form Application has been completed by the Customer
- Same interchange of data messages as with concurrent processing
- In either case, if credit parameters meet

**Requirements**

This process element references the following requirements:

#	Name	Description	Type
1	Standards for Engaging in e-Commerce	Standards regarding the practice and use of e-Commerce related to processing Lease Applications	Requirement

**3. Credit – Underwriting**



## Summary

Either of the previous described approaches used for collecting credit information allow rules-based assessments of the Customer's credit standing based on those reports. As such, the "Credit and Underwriting" function becomes a process more focused on exception processing where the vast majority of Applications are processed through with no human intervention or process 'drop-outs' required. Where the rules-based Credit and Underwriting audits find Applications outside the parameters of Lessor 'Rules and Policies' (rules contained in a database frequently referenced by the process), these are 'dropped-out' of the automated process and placed in the Credit Analyst / Underwriter's electronic 'inbox' for action. The key points of this process are as follows:

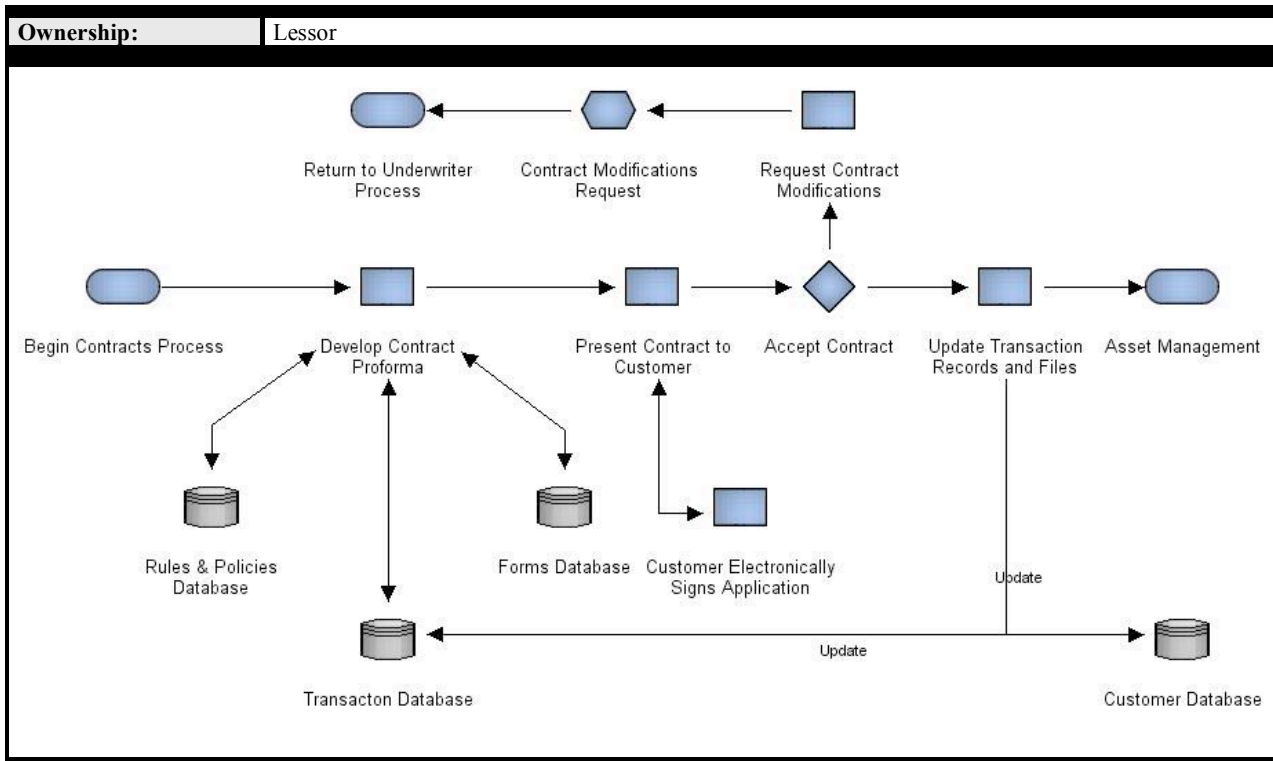
- Automated, rules-based audits of credit, application alignment with terms / conditions of Lease Product requirements.
- Exceptions are rated (e.g., 'firm,' 'indeterminable').
- 'Firm' exceptions move Application to be rejected and returned to Channel (and / or Customer).
- Causes are noted in returned report.
- 'Indeterminable' status is dropped out of the automated process for credit analyst review and action.
- If the Analyst cannot resolve issues, the Application is rejected and returned to the Customer and Channel Agent.

## Requirements

This process element references the following requirements:

<u>#</u>	<u>Name</u>	<u>Description</u>	<u>Type</u>
1	Standards for Engaging in e-Commerce	Standards regarding the practice and use of e-Commerce related to processing Lease Applications	Requirement

## 4. Contract Management



### Summary

The Contracts Management process ‘composes’ the Contract using the signed Agreements, Application, and collateral documents ... e.g., attachments and notes ... developed in the transaction. Once this is done, the Contract is presented (electronically) to the Customer for review and signing. Unlike the Current State Model where this is done on paper and, thus, is subject to being modified, the electronic document cannot be altered. The Customer can accept it by signing (electronic signature), reject by returning, or select an option, if offered by Lessor, to request modifications to the Contract or change information related to the Contract. This would be done using another electronic form that functions as a ‘Change Request.’ (Typically, this document carries a less generic title that is specific to how the Lessor wants to characterize customer-facing documents.) In the points that follow, key process steps are highlighted.

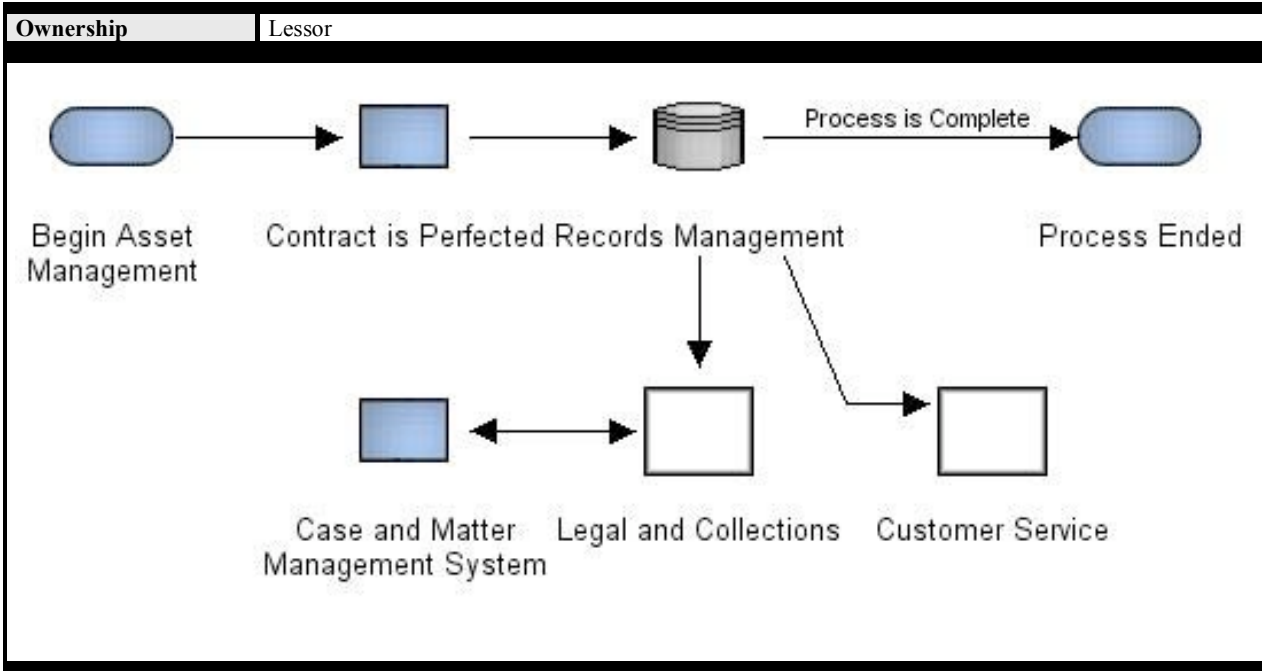
- Process develops ‘ProForma’ Contract which is a characterization describing the Contract status prior to presentation to Customer.
- The Process draws from 3 databases: Rules & Policies, Transaction, and Forms (for the Contract form)
- The Contract is ... or, can be ... built from rules governing content and structure
- The Contract is presented electronically to the Customer (e.g., “you have important documents requiring your attention, please sign-into your [Lessor] web site).
- The Customer cannot alter the Contract as presented but can, through use of an “edit” or “terms change request” or similar operation request changes to the Contract. If this option is selected, there is no option of e-signing. If the Option is not selected, the e-signing is requested of the Customer.
- The Customer e-signs the Contract and, on doing so, a message is returned to Contract Management that the Contract has been signed.
- Concurrent with that, the Contract state is transitioned to Asset Management

**Requirements**

This process element references the following requirements:

<b>#</b>	<b><u>Name</u></b>	<b><u>Description</u></b>	<b><u>Type</u></b>
1	Standards for Electronic Delivery of Documents	E-Delivery Standards to be determined	Requirement
2	Standards for Electronic Documents	Standards to be determined	Requirement
3	Standards for Engaging in e-Commerce	Standards regarding the practice and use of e-Commerce related to processing Lease Applications	Requirement
4	Standards for Authentication and Credentialing of E-Commerce Customers	Standards and / or policies governing how e-Commerce Customers are Authenticated and Credentialed	Requirement
5	Standards for Application of Electronic Signature	Standards to be determined	Requirement

5. Contract Asset Management



Summary

Contract Asset Management is a post-Contracts process where the signed Contract is placed into a secure Records Management system. Access to this repository while restricted is available for Customer Service as well as Legal and Collections requirements. (The latter interacting with inside counsel ‘Case and Matter Management’ systems.) At this point, the Contract becomes an asset of the business and is perfected. It often is filed with public records. Regardless, it can be sold or assigned at the Lessor’s discretion. Key points of this process are listed in the following key points.

- Contract is free of defects
- Contract is complete with regard to associated documents and records, attachments, illustrations, etc
- Contract is signed in every location by persons who have been Authenticated to participate in the Process
- Contract is installed into electronic Records Management
- Contract is Perfected and can be sold or assigned









Requirements

This process element references the following requirements:

#	Name	Description	Type
1	Standards for Records Management	Standards governing Records Management	Requirement



6. Table of Symbols

<u>Organizations</u>	<u>Roles</u>	<u>Resources</u>	<u>Activities &amp; Events</u>	<u>Generated Work Products</u>
 Distinct Business Entity	 Actors	 Transaction Database	 Activity	 Input - Output
 Functional Organizations		 Electronic Document	 Decision Point	

Major symbols used in the Future State Model

## APPENDIX G: RESOURCES

### ORGANIZATIONS

AFSA – American Financial Services Association

[www.afsaonline.org/sitepages/1.cfm](http://www.afsaonline.org/sitepages/1.cfm)

ANSI – American National Standards Institute

[www.ansi.org](http://www.ansi.org)

UETA – The Electronic Financial Services Council

[www.efscouncil.org](http://www.efscouncil.org)

ELFF – Equipment Leasing and Financing Foundation

[www.leasefoundation.org](http://www.leasefoundation.org)

Fannie Mae –

[www.fanniemae.com](http://www.fanniemae.com)

Freddie Mac –

<http://www.freddiemac.com/singlefamily/elm/index.html>

NAVA – National Association of Variable Annuities

[www.navanet.org](http://www.navanet.org)

MBA – Mortgage Bankers Association

[www.mortgagebankers.com](http://www.mortgagebankers.com)

UETA – Mortgage Industry Standards Maintenance Organization

[www.mismo.org/default.html](http://www.mismo.org/default.html)

NNA – National Notary Association

[www.nationalnotary.org](http://www.nationalnotary.org)

Revised Article 9 of the Uniform Commercial Code

<http://www.law.cornell.edu/ucc/9/>

SISAC – Secure Identity Services Accreditation Corporation

[www.sisac.org](http://www.sisac.org)

SPeRS – Standards and Procedures for Electronic Records and Signatures

[www.spers.org](http://www.spers.org)

Standard & Poor's

[www.standardandpoors.com](http://www.standardandpoors.com)

United States Department of Education, Standards for Electronic Signatures in Electronic Student Loan Transactions (rev. Jul. 21, 2001)

<http://www.ifap.ed.gov/dpceletters/attachments/gen0106Arevised.pdf#search=%22%22standards%20for%20electronic%20signatures%20in%20electronic%20student%20loan%20transactions%22%22>

USNA – United States Notary Association

[www.enotary.org](http://www.enotary.org)

X9 – Accredited Standards Committee X9 Incorporated

[www.x9.org](http://www.x9.org)

## LEGAL RESOURCES

ESIGN – Electronic Signatures in Global and National Commerce Act (15 U.S.C. 7001 et seq.)

[http://www.law.cornell.edu/uscode/html/uscode15/usc\\_sup\\_01\\_15\\_10\\_96.html](http://www.law.cornell.edu/uscode/html/uscode15/usc_sup_01_15_10_96.html)<sup>137</sup>

UETA – The Uniform Electronic Transactions Act

[www.nccusl.org](http://www.nccusl.org)

## CASE STUDIES

Dell Computer: Using E-Commerce to Support the Virtual Company

Mortgage Industry Standards Maintenance Organization, Cost Benefits of an eClosing Process 1.0 (Apr. 27, 2006), available at [www.mismo.org](http://www.mismo.org).

InfoTrends Cap Ventures, e-Contracting in Auto Finance: Technology Decisions Looming for Finance Sources (Oct. 26, 2005), available at [www.eoriginal.com](http://www.eoriginal.com).

DocuSign, Case Study: Worldspan v2 (Feb. 9, 2006), available at [www.docusign.com](http://www.docusign.com).

DocuSign, Case Study: Quadrant Homes v1 (Jan. 25, 2006), available at [www.docusign.com](http://www.docusign.com).

DocuSign, Case Study: Chela v1 (Jan. 25, 2006), available at [www.docusign.com](http://www.docusign.com).

---

<sup>137</sup> Please note that this is not the official text.

## Appendix H: SPeRS Standards

### Section 1 Summary Statement of Standards to Guide Systems Design Teams

#### STANDARD 1-1. IDENTIFYING AND EVALUATING THE APPROPRIATE AUTHENTICATION STRATEGY – CREATING THE RELATIONSHIP

##### SPERS STANDARD 1-1

The System Design Team should determine the appropriate Authentication Process for establishing a Relationship with each Transaction Participant. The assessment and selection Process should include:

- *Assessing the legal liability and Transaction risk associated with failing to correctly identify the Transaction Participant,*
- *Assessing the practical and system considerations that may affect the choice of an Authentication Process,*
- *Determining whether the Authentication Process for the Transaction must comply with specific legal or regulatory requirements,*
- *Selecting an Authentication strategy that provides an appropriate level of security and certainty, based on the preceding considerations, and*
- *Determining what information will be required in order to implement the selected Authentication strategy.*

#### STANDARD 1-2. IDENTIFYING AND EVALUATING THE APPROPRIATE AUTHENTICATION STRATEGY – CREDENTIALS

##### SPERS STANDARD 1-2

The System Design Team should determine the appropriate Credential for a Participant conducting a Transaction as part of an established Relationship. The process for selecting a Credential should include:

- *Assessing the risks associated with unauthorized access to conduct the Transaction,*
- *Determining whether there are specific legal or regulatory requirements for a Credential associated with the Transaction;*
- *Determining the types of Credentials appropriate to the Transaction based on the risk assessment and any applicable legal or regulatory requirements,*
- *Determining the cost of establishing and using a particular Credential,*
- *Assessing the relative speed with which the Credential may be established and used,*
- *Assessing any specific hardware or software requirements to use a particular Credential and whether such requirements are appropriate to the Transaction, and*
- *Evaluating the information that needs to be obtained from, and provided to, the Transaction Participant to implement and maintain a particular Credential.*

**STANDARD 1-3. PROVIDING CONSUMERS INFORMATION CONCERNING THE DISTRIBUTION OF RISK OF UNAUTHORIZED TRANSACTIONS**

**SPERS STANDARD 1-3**

Where appropriate, and particularly in Consumer Transactions, the System Design Team should consider providing a Transaction Participant with an opportunity to obtain information concerning the risks associated with unauthorized Transactions, including:

- *The Transaction Participant's responsibilities with respect to protecting Credentials,*
- *The potential consequences of unauthorized use of Credentials, and*
- *The procedure for giving notice that a Credential has been stolen or compromised.*

**STANDARD 1-4. ESTABLISHING THE AUTHORITY OF REPRESENTATIVES**

**SPERS STANDARD 1-4**

Where appropriate, the System Design Team should consult with legal counsel or compliance personnel to determine whether it is likely that individuals will be representing Transaction Participants (either individuals or legal entities such as corporations or trusts) other than themselves, and if so:

- *Determine whether it is advisable to obtain some representation or evidence of the individual's authority to act as a representative, and*
- *Establish appropriate methods for obtaining representations or evidence of the representative's authority.*

## ***Section 2 Summary of Statement of Standards***

### **STANDARD 2-1. GENERAL AGREEMENT TO USE ELECTRONIC RECORDS AND SIGNATURES**

#### **SPERS STANDARD 2-1**

Systems should be designed to obtain either:

- *The Transaction Participants' express Agreement to use Electronic Records and Signatures; or*
- *The Transaction Participants' implied Agreement in a fashion that allows a reasonable inference that Transaction Participants have assented to use Electronic Records and Signatures.*

### **STANDARD 2-2. APPLICABILITY OF THE ESIGN CONSUMER CONSENT PROCESS**

#### **SPERS STANDARD 2-2**

With respect to business to-Consumer Transactions, the System Design Team should consult with legal counsel or a compliance officer concerning application of the ESIGN Consumer Consent Process. The ESIGN Consumer Consent Process should be used if:

- *The Consent Process is required by any Rule of Law, or*
- *The System Design Team determines that its voluntary use would be beneficial and its use would not hamper, confuse or unduly complicate the Transaction.<sup>138</sup>*

### **STANDARD 2-3. THE ESIGN CONSUMER CONSENT DISCLOSURES**

#### **SPERS STANDARD 2-3**

When the System Design Team has determined that the ESIGN Consumer Consent Process should be employed, it should implement the Consent Process:

- *In compliance with the requirements of the ESIGN Consumer Consent Disclosures; and*
- *With the goal of providing the Consumer with information designed to assist the Consumer in making an informed choice with respect to the use of Electronic Records and Signatures.*

<sup>138</sup> "Voluntary use" refers to the use of all, or part of the ESIGN Consumer Consent Process.

STANDARD 2-4. THE ESIGN CONSUMER CONSENT DISCLOSURES – FORMAT AND TIMING

**SPERS STANDARD 2-4**

When presenting the E-SIGN Consumer Consent Disclosures to the Consumer they must be provided:

- *In a clear and conspicuous format;*
- *At a meaningful time in the Transaction; and*
- *Prior to the Consumer providing his or her affirmative consent to engage in business electronically.*<sup>139</sup>

STANDARD 2-5. OBTAINING THE CONSUMER’S AFFIRMATIVE CONSENT - METHODS AND TIMING

**SPERS STANDARD 2-5**

When employing the Consumer Consent Process systems will need to be designed to obtain the Consumer’s affirmative consent to access Required Consumer Information.

Providers should obtain the Consumer’s affirmative consent either::

- *Prior to, or at the time Required Consumer Information is presented, or*
- *After Required Consumer Information is presented but before the time when the Consumer becomes obligated on the Transaction.*

STANDARD 2-6. REASONABLE DEMONSTRATION OF ACCESS

**SPERS STANDARD 2-6**

If the E-SIGN Consumer Consent Process will be employed, the System Design Team should create a mechanism, method of process that enables a Consumer’s provision of consent to Reasonably Demonstrate that the Consumer can access the electronic method(s) and format(s) the system will use to provide or make available Electronic Records such as notices, disclosures, and agreements over the course of the Transaction.

<sup>139</sup> The methods for, and the timing of obtaining the Consumer’s affirmative consent are discussed in SPeRS Standard 2-5.

**Section 3 Summary Statement of Standards****STANDARD 3-1. GENERAL PRINCIPLES FOR DISPLAY AND PRESENTATION OF INFORMATION****SPERS STANDARD 3-1**

The System should be designed to display and present information efficiently and effectively. Absent special circumstances, the System Design Team should provide a reasonable opportunity to access information, whether it is part of an agreement, Notice or Disclosure, so that:

- *The information is displayed or made available in a manner and/or format that complies with any applicable Rule of Law.*
- *The opportunity to access the information occurs:*
  - At the point in the Transaction required by an applicable Rule of Law, or
  - If there is no applicable Rule of Law, at or before the point in the Transaction where having access to the information is appropriate for the recipient, but not later than the point at which the recipient is asked to indicate agreement with, or acknowledge access to, the information.

During the course of the Transaction, the information may be retained by the recipient, or accessed by the recipient at a later time, consistent with the purpose of the Transaction, the nature of the information and applicable Rule of Law (See SPeRS Section 5).



STANDARD 3-2. DELIVERING AND DISPLAYING RECORDS AND INFORMATION**SPERS STANDARD 3-2**

When developing a process that includes the electronic display and delivery of Agreements, Notices or Disclosures, the System Design Team should:

- *Identify the Records and information that will be delivered electronically to each Transaction Participant in the course of the Transaction;*
- *Consult with legal counsel or compliance personnel to determine whether any of the Records or information to be provided are subject to any specific delivery requirements under an applicable Rule of Law;*
- *Accomplish delivery by providing access or the opportunity to access the Record, as applicable;*
- *Determine the appropriate method(s) for providing access to the Records and information, taking into account:*
  - The nature of the Transaction and the intended audience,
  - Whether the Records and information will be provided or made available as part of an interactive session with the recipient, as part of a unilateral transmission to the recipient, some combination of the two, or through other means,
  - Whether the Records and information to be provided or made available include sensitive or confidential information,
  - The time period for which the Records and information should remain available for access by the recipient during the course of the Transaction, and
  - Whether the recipient should be required to access any of the Records and information in order to proceed with the Transaction.

STANDARD 3-3. DELIVERING AND DISPLAYING RECORDS AND INFORMATION – RETENTION OF RECORDS BY OTHER TRANSACTION PARTICIPANTS**SPERS STANDARD 3-3**

For Electronic Records that must be signed, or that contain Required Information, the System Design Team:

- *Should provide the Transaction Participant signing or accessing an Electronic Record with:*
  - An explanation of the options that the Transaction Participant will have during the Transaction to retain a copy of the Record, including any Disclosure or explanation required by the ESIGN Consumer Consent Process (*See SPeRS Standard 2-2*), and
  - A reasonable opportunity to retain a copy of the Record for later reference.
- *May wish to provide the Transaction Participant with an opportunity to agree to the methods being provided for retaining a copy of the Record.*

STANDARD 3-4. INDICATING AGREEMENT

**SPERS STANDARD 3-4**

When developing a process that includes the electronic delivery or display of agreements to Transaction Participants, the System Design Team should:

- *Consult with legal counsel or compliance personnel to determine:*
  - Which Records or information being delivered or displayed require some indication of agreement by a Transaction Participant
  - The level of formality or ceremony required for each indication of agreement
- *Implement a process design which, in the context of the Transaction and the particular information or Record in question:*
  - Offers the Transaction Participant:
    - A clear choice to either agree or decline to agree, and
    - A clear method to express agreement or decline to agree
  - Provides an explanation of the consequences are inherently obvious in the context of the Transaction, and
  - When appropriate, offers the Transaction Participant an opportunity to correct an election to assent or refuse assent made in error except when impractical or unnecessary.

**SECTION 3-5: ACKNOWLEDGING ACCESS OR DELIVERY****SPERS STANDARD 3-5**

When developing a process that includes the electronic display and of and opportunity to access Disclosures and Notices to Transaction Parties, the System Design Team should:

- *Consult with legal counsel or compliance personnel to determine:*
  - Which Records or information being displayed or provided require some acknowledgement of access or opportunity to access by a Transaction Participant, and
  - The level of formality or ceremony required for each acknowledgement of access or opportunity to access.
- *For Records that require acknowledgement of access or delivery, implement a process design which, in the context of the Transaction and the particular information or Record in question, offers the Transaction Participant a clear method to acknowledge access or opportunity to access.*

**STANDARD 3-6. CLEAR AND CONSPICUOUS DISCLOSURE**

**SPERS STANDARD 3-6**

When developing a process that includes the electronic display of or access to agreements, Notices or Disclosures to Transaction Parties, the System Design Team should:

- *Consult with legal counsel or compliance personnel to determine whether any of the Records or information to be provided are subject to “conspicuous disclosure” requirements under an applicable Rule of Law, and*
- *If “conspicuous disclosure” is required:*
  - Implement a process design which, in the context of the Transaction and the particular information or Record in question, delivers the required Record or information in a form which is:  
Reasonably understandable, and  
Designed to call attention to the information that must be disclosed.
  - Employ electronic tools and display techniques so as to effectively convey the information.

**STANDARD 3-7. USING HYPERLINKS AND OTHER NAVIGATIONAL CUES****SPERS STANDARD 3-7**

When displaying information electronically, the System Design Team should consider using navigational cues in order to better organize, enhance or protect the presentation of information.

When using a navigational cue, the System Design Team should label or title the navigational cue, or provide explanatory information for use of the navigational cue, reasonably sufficient to permit the Transaction Participant to understand the general nature of the Records or information associated with the navigational cue.

## Section 4 Summary Statement of Standards

### STANDARD 4-1. SELECTING A SIGNATURE PROCESS

#### **SPERS STANDARD 4-1**

The selection of an appropriate signature technology for a particular application should be based on a determination of the relevant factors and circumstances, including:

- *Applicable hardware and software requirements*
- *Any Rule of Law limiting the type of Electronic Signature that may be used*
- *Characteristics of the signer*
- *Susceptibility of the technology to repudiation*
- *Ability of the signature to protect the Record from undetected alteration after signing*
- *Portability of the signature process*
- *Suitability of the signature for:*
  - non-repetitive in-person Transactions
  - repetitive in-person Transactions
  - non-repetitive remote Transactions
  - repetitive remote Transactions
  - Ease of use for multiple signatures by same signer in one Record
  - Ease of use for multiple signers in one Record

### STANDARD 4-2. PROVIDING INFORMATION ON THE SIGNING PROCESS

#### **SPERS STANDARD 4-2**

The execution of an Electronic Signature should be preceded by an opportunity for the signer to review:

- *A description and explanation of the procedure used to create the Electronic Signature, and*
- *A description of the sequence of events that will result in the signature becoming final and effective.*

Provided, however, that the signature process may be sufficiently familiar or self-explanatory that a description is superfluous or would be repetitive.

STANDARD 4-3. ESTABLISHING THE INTENT TO SIGN

**SPERS STANDARD 4-3**

The process used to create an Electronic Signature should be designed so that:

- *It is clear that the signer intended to create a signature, and*
- *When not reasonably apparent under the circumstances, the signer is advised that the signature fulfills one or more purposes:*
  - Affirming the accuracy of information in the record
  - Affirming assent or agreement with the information in the Record
  - Affirming the signer's opportunity to become familiar with information in the Record,
  - Affirming the source of the information in the record, or
  - Other specified purposes.

STANDARD 4-4. ASSOCIATING A ELECTRONIC SIGNATURE WITH A RECORD

**SPERS STANDARD 4-4**

A process for signing records should be designed so that:

- *The Record is presented for signature before the signature becomes effective, and*
- *The signature is attached to, or logically associated with, the Record presented.*

STANDARD 4-5. ATTRIBUTING A SIGNATURE

**SPERS STANDARD 4-5**

A process for signing Records should be designed so that either:

- *The signature itself provides evidence of the signer's identity, or*
- *The process surrounding creation or affirmation of the signature:*
  - provides evidence of the signer's identity, and
  - is in some manner preserved, evidenced, or capable of recall or recreation during the life of the Transaction.

STANDARD 4-6. ELECTRONIC AGENTS

**SPERS STANDARD 4-6**

A system designed to implement an agreement and signature by an Electronic Agent:

- *Should require a clear and detailed definition of the parameters of the electronic agent's authority to form an agreement and sign on behalf of the represented Participant, and*
- *May either reflect the use of an electronic agent in the signature information provided as part of the signed Record, or present the signature as the act of the represented Participant without reference to the use of an electronic agent.*

## Section 5 Summary Statement of Standards

### STANDARD 5-1. MEETING ACCURACY, ACCESSIBILITY AND RETENTION REQUIREMENTS

#### **SPERS STANDARD 5-1**

Electronic Record retention systems should be designed to ensure the information contained in the Electronic Records remain:

- *Protected from undetected and unauthorized alteration, and*
- *Accessible to the Record Holder and others entitled by Rule of Law or Agreement to access, or obtain a copy of, the Record Holder's copy of the Record*

See also SPeRS Standard 3-3 for the Record Provider's obligation to provide access or copies of Records to other Transaction Participants (e.g., Consumers).

### STANDARD 5-2. VERIFYING THE INTEGRITY AND ACCURACY OF ELECTRONIC RECORDS/THE PHYSICAL AND LOGICAL ENVIRONMENT

#### **SPeRS STANDARD 5-2**

As part of the infrastructure necessary to protect the integrity of Electronic Records, the System Design Team should establish a commercially reasonable design for:

- *The physical environment in which the records are maintained that takes into account:*
  - The types of transactions evidenced by the Electronic Records,
  - The value of the transactions evidenced by the Electronic Records,
  - The value or confidentiality of the information contained in the Electronic Records, including whether the record is subject to state or federal privacy laws, and
  - The impact of loss, destruction or theft of the Electronic Records on the operations of the Record Holder.
- *The technical environment in which the records are maintained that takes into account:*
  - · Network controls,
  - · Hardware controls, and
  - · Software controls.

### STANDARD 5-3. VERIFYING THE CONSISTENCY AND INTEGRITY OF ELECTRONIC RECORDS

#### **SPERS STANDARD 5-3**

When appropriate, the System Design Team should consider including in the process for creating, delivering and submitting Electronic Records commercially reasonable checks to confirm that:

- *The Record:*
  - Contains information that is both internally consistent and consistent with other Transaction Records;
  - For signed Electronic Records, the Record appears to have been electronically signed by each of the targeted signers before being accepted as final and complete;
  - Has not been altered without authorization once it is effective; and
  - Is retrievable in a form perceivable by an individual.
- *Any set of Transaction documents intended to be reviewed, completed, and/or signed as a group is complete and that all necessary tasks have been performed before being submitted and/or accepted in final form.*

### STANDARD 5-4. DOCUMENT CONVERSION

#### **SPERS STANDARD 5-4**

System design teams should develop guidelines and procedures for the preservation and conversion of paper to electronic documents to meet the following objectives:

- *Promote cost and organizational efficiency;*
- *Ensure safekeeping of documents;*
- *Ensure compliance with state and federal requirements regarding Record retention, access to Records, and document destruction;*
- *Maintain secure, reliable, long-term access to Records; and*
- *Establish data integrity to satisfy the Rules of Evidence.*



STANDARD 5-5. VENDOR RELATIONSHIPS

**SPERS STANDARD 5-5**

When using third party vendors to perform Record retention functions, Providers should adopt a risk management process that includes:

- *Proper due diligence to identify and select a third-party provider;*
- *Contracts that outline duties, obligations, and responsibilities of the parties involved; and*
- *Ongoing oversight of the third parties and third-party activities.*

STANDARD 5-6. INTERACTION WITH GOVERNMENTAL AGENCIES

**SPERS STANDARD 5-6**

The System Design Team should consult with legal counsel or compliance personnel to determine whether there are any state or federal regulatory requirements that may affect the for or methods used to create, file or maintain the Records.

STANDARD 5-7. TRANSFERABLE RECORDS AND ELECTRONIC CHATTEL PAPER

**SPERS STANDARD 5-7**

If the system is intended to manage the creation, execution, transfer and/or storage of electronic equivalents of negotiable promissory notes, bills of lading, warehouse receipts, retail installments sales contracts, debt obligations secured by personal property, or leases of tangible personal property, the System Design Team should consult with legal counsel or compliance personnel to determine the special requirements for:

- *Controlling the transfer of ownership of the Electronic Record,*
- *Storing the Electronic Record, and*
- *Protecting the Electronic Record from unauthorized alteration.*

## Appendix I: ELFF Electronic Contracting Survey Results – March 2007

### A. Do you accept credit applications online?

<u>Response Percent</u>	<u>Response</u>	<u>Total</u>
42.1%	YES	51
57.9%	NO	70

### B. Please describe the customer credit application process, including the information request and credit decision communication.

1. Sales person qualifies lead and either takes application information over the phone or has the customer complete an application. Depending on nature and size of transaction, the customer may be asked to provide tax returns, bank statements, financial statements. The sales person then reviews the submitted information, and if acceptable, prepares a write-up and submits file to credit. Write-up and pertinent customer information is contained within our proprietary database, but we continue to use hard copy files for ease of viewing. Our deals are paper and information intensive and it's much easier to view hard copies than scroll through reams of paper electronically. Once a decision is made, the salesperson either emails or calls customer directly. We then proceed to documentation phase.
2. The online credit application process begins with collecting information on the company including legal name, address, phone, contact information, years in business and other information. The application is then submitted and processed by our credit department. An application is evaluated and a score is generated. A credit decision is then communicated to the applicant and the sales representative is also notified.
3. We process credit applications for a large global commercial finance company and several major banks. Small ticket applications are received: 1) Via fax, which is automatically scanned and data is entered into credit scoring system; or 2) Entered online and automatically scored. Credit decisions may be sent by email, fax or phone depending on our client.
4. The customer logs onto a proprietary website and enters all the pertinent data which in turn is submitted to an internal queue, worked and the credit decision is sent back electronically through the website.
5. The source enters the application online either into our system and submits the application to our processing center. In certain cases, the source can enter the application information into its own system and submit it via interface to our system. In some cases, the credit decision is rendered instantly through the system and an e-mail is generated communicating the basic approval. A more detailed communication follows.
6. We use a Web-based application to forward applicant information to an analyst for processing.
7. It's an abbreviated application that populates our Customer Relationship Management System. The information gathered is supplemented with additional information (financials, tax returns, etc.) needed in our full credit underwriting process.
8. The customer will be directed to our on-line credit applications via our bank web page, where the customer enters the requested information and submits it for processing. An e-mail is generated to the Credit department indicating a credit application has been entered. The data is housed in a secure data

base and retrieved by Credit to process. The decision is communicated back to the customer via phone, which may also include communicating with a dealer if a current relationship exists with that dealer

9. Applications can be submitted online; however, most currently come in via fax. They applications are processed through an autoscoring model; the next steps in application processing vary with the size of the transaction.

10. The entire application and credit decisioning process can be totally electronic with electronic notification.

11. An application can be entered electronically by vendor. Alternatively, the vendor can submit a fax copy of the application, in which case we will enter the application electronically. We require the lessee's name and address, name and title of person to sign lease, vendor name, equipment description and bank reference. We also request ownership information for privately held companies. Decisions are provided via e-mail.

12. Lessees can complete an application online, or print an application from the website and return it on paper. Larger clients don't file applications. Smaller leases are scored with data entered on a third party website by the Sales Officer. The credit decision is returned to Sales Officer via email, then communicated to client verbally.

13. We accept applications in a number of different ways, including e-mail, fax and the internet. Generally our sales representatives will communicate approvals via e-mail to vendors and/or end-users.

14. Customer can mail, email or fax a complete credit package for processing. Package information is input onto a front end credit processing/tracking system that pulls requisite bureau reports. Files are reviewed by a credit officer for a decision, which then is verbally communicated to the customer

15. We use an automatic decisioning system. An E-mail Web site lists deal status for vendors and sales contacts.

16. The customer completes an on-line application and e-mails it to us. Then we follow normal credit procedures. Once a decision is made, a representative contacts the applicant by telephone to arrange a meeting.

17. 1) Application information is submitted through our online service center and routed to system of record. 2) Application information is passed through our automated scorecard and a credit decision is reached. 3) Depending on automated decision, the process and communication varies.

18. We use an online application, followed by personal contact.

19. Company sales representatives, resellers, Company Global Financing sales representatives and others can use a Web tool to request credit and/or contracts. Data can include the end-user Client's Company Customer Number and/or company name and address.

20. Application received ---\* credit scored ----\* information communicated.

21. Authorized on-line user logs into Company secured website. The authorized user then enters an application to the appropriate finance program, entering the customer and related party information; high-level asset and structure request information. The users clicks a button to submit the application. At that point, our workflow picks it up and begins processing automatically. Throughout the workflow process, the on-line user has access to real-time status.

22. All transactions are done on-line. There is no human intervention for deals under \$7,500. The applicant enters an application and waits about 2 minutes for a response. We use the consumer information to decide on business credit - PG required.

23. We use an on-line application that requests basic information, such as the applicant's, name, address, time in business and the owner's social security number.

24. Either online or via fax the prospect completes the credit application and submits it either electronically or to a salesperson or vendor who then re-enters into the system. Applications go to credit and decision is returned to the salesperson, vendor or prospect.
25. 15% of our business is small ticket. We have an online system for applications. The customer prints the application, signs it and faxes or mails it to us. For middle and large ticket transactions, we require a standard credit package of audited financials, interims and bank reference.
26. Applications can be downloaded from our website; however, we do require a signature to authorize us to pull credit reports, call references, etc.
27. A credit application is received. We run both reports from credit bureaus and Dunn & Bradstreet. We also collect bank references. Based on the amount of the transaction, we also may request financial statements. If approved, the sales representative is notified and the lease documents are produced for signing.
28. The credit applications are completed on the web. This application includes same information as a “normal” credit application. The application will accept less than complete information. The size of the deal determines whether a credit check is required. We communicate with the prospect by email or phone, depending on the situation.
29. An application is entered/downloaded into our credit scoring application. If additional information is needed, our credit or sales representative obtains it. The credit decision is communicated by fax when the decision has been made. Our credit scoring system automatically communicates the decision by fax.
30. An application is completed and includes both business and personal information. The application is received electronically, and (it) populates a credit scoring model. After the decisioning has occurred within the model (and assuming a positive result), the data populates a leasing document and an automated approval letter. The letter is returned to either the client or a vendor, or a leasing sales representative. The document awaits further information regarding the transaction before it can be completed and sent on to the appropriate party for execution.
31. We provide our vendors with several options. The mode of communication depends on their preference: completely online, or a combination of phone, fax and mail.
32. We accept online, fax or oral applications. We do not perform automated credit decisioning at this time. The credit decision normally is communicated by phone.
33. We accept applications via email. In addition, we utilize Lease Sales Manager with automated credit bureau & Dunn & Bradstreet reports.

C. Please describe the differences, if any, when the credit application includes a personal guarantor.

1. 95% of our deals require personal guarantees. In those cases, we run credits on the principals and spouses if it's a closely held business. We often require spousal personal guarantees to avoid transfer of assets from owner of business. Otherwise, there is no difference in process between personal guarantee deals and corporate-only deals.
2. No significant changes.
3. None
4. None.
5. None.
6. No
7. We require a personal financial statement and tax returns from the personal guarantor.
8. No material differences, other than pulling a personal credit bureau on the personal guarantor.
9. Deals requiring a personal guarantee would be kicked out of the autoscore and dispatched to a credit analyst for follow-up.
10. No difference, as the process allows for a range of financial structures.
11. We require the name, address and social security number of guarantor.
12. Personal guaranty is required for all scored leases. Our one page application included a section for guaranty information.
13. None.
14. Individual bureau reports are pulled on deals with personal guarantors vs. none of these reports when a principal doesn't guarantee the debt.
15. I do not know.
16. None.
17. Same process, just a different automated scorecard.
18. No difference.
19. We don't currently use personal guarantees.
20. None.
21. All applications assume a personal guarantor.
22. Application process assumes there are guarantors, if the application is submitted as a Corp Only, then Revenue or Net Worth disclosure is required as part of the application.
23. We get the signed application, including the signature of the guarantor authorizing us to do a credit bureau search.
24. Same.
25. If appropriate, personal financial statements are requested.
26. No difference is personal guarantor, except that guarantor has to indicate consent to pulling credit information.
27. There is no difference.
28. We must receive the client's explicit permission to collect and utilize the data. We must also capture the name, social security number and address of the guarantor.
29. There is no difference.
30. None.
31. We require a secure credit authorization signature and social security number.

D. What percentage of your lease and loan contracts use a form of electronic contracting?

<b>Response</b>	<b>Percent</b>	<b>Response Total</b>
0%	48.8%	41
10-20%	13.1%	11
21-50%	8.3%	7
> 51%	29.8%	25

E. Describe what phases of electronic contracting are used?

<b>yes</b>	<b>no</b>	<b>unknown</b>	<b>Response Total</b>
Contract presentment, review and signature			
45% (37)	50% (41)	5% (4)	82
Electronic Contract storage with no paper files			
19% (16)	81% (67)	0% (0)	83
Contract storage (scanning) with paper files also			
74% (62)	26% (22)	0% (0)	84
Contract storage (scanning) with no paper files			
16% (12)	83% (63)	1% (1)	76
Electronic contract storage for chattel paper "control" under UCC 9-105			
20% (16)	55% (44)	25% (20)	80
Perfecting by "Control"			
16% (13)	49% (39)	35% (28)	80
Electronic contract is printed out and used for collection and enforcement			
42% (34)	51% (41)	6% (5)	80

F. Is your electronic contracting system proprietary or sourced from third party vendors?

<b>yes</b>	<b>no</b>	<b>unknown</b>	<b>Response Total</b>
Proprietary			
31% (22)	58% (41)	11% (8)	71

Use third party  
51% (38)    39% (29)    9% (7)    74

G. When do you anticipate expanding or adopting electronic contracting for one or more phases of your business?

<b><u>Response</u></b>	<b><u>Percent</u></b>	<b><u>Response Total</u></b>
Never	7.3%	6
1-2 years	50%	41
3 years	12.2%	10
>3 years	4.9%	4
Need more information/education before adopting	25.6%	21

H. What do you perceive as barriers to use of electronic records and signatures?

<b><u>Response</u></b>	<b><u>Percent</u></b>	<b><u>Response Total</u></b>
No legal basis	18.1%	15
None of my peers are using electronic contracts	3.6%	3
Not sure what the rating agencies will think	0%	0
Concerns with security	10.8%	9
Other initiatives have higher priority	27.7%	23
No industry standards or guidance	15.7%	13

Other (please specify)  
 Specific responses follow

24.1%            20

1. Acceptance by lessees.
2. Expense. Significant process change requiring strong controls. Client acceptance.
3. None....we already do it in 100% of transactions: Small, medium and large ticket.
4. Banks and other lender concerns.
5. Upfront investment cost.
6. We are in the middle market with deal sizes over \$1 million.
7. Systems expenses. Systems rollout and integration.
8. Cost of systems.
9. None.
10. All of the above.
11. Not yet tested for applicability in the legal framework.
12. Not sure our lenders will accept electronic chattel.
13. Many of the above apply.
14. General enforceability and for electronic signatures confirming the identity of the signer.
15. All of the above.
16. We are unsure whether third party funders will accept electronic transactions. We have found that they still have problems with fax signatures, let alone electronic ones.
17. My company does not provide lease or loan; we are a service provider.
18. None.
19. We are in the process of offering esignature capability with our lease origination systems.
20. Our concerns include: legal enforceability; that we would be the only one of our peers using electronic transactions; security; and a lack of industry standards. In addition, other things have higher priority at this time.



***Authentication of the party to the transaction is required in order to come under the provisions of federal and state e-signature laws. Authentication refers to the process used to confirm an individual's identity as a party in a transaction.***

***Authentication occurs in two contexts: (1) when the relationship between the parties is first created; and (2) when a transaction occurs in the course of an existing relationship. Authentication in the context of an existing relationship is demonstrated through the use of credentials provided at the time the relationship is first created.***

***Without sufficient authentication/validation of a party's identity, an electronic transaction may not comply with the requirements of E-SIGN or UETA. Thus, a critical component for the application of an electronic signature is authentication. In fact, it is a cornerstone of the entire process.***

***The following are operational NAVA Standards for Authentication of prospective users of e-signatures. Underlying legal concepts, relevant regulations, and/or references to standards adopted by these standards are contained in the NAVA Position Paper for Authentication & Credentialing Legal Support. These Standards define the obligations of Distributors and Insurers, and are subject to the applicable terms and conditions of the "Trading Partner Agreement."***

51.1	All consents legally mandated for participation in electronic transactions requiring the use of E-Signatures shall be presented to the prospective user. The consents obtained shall be in accordance with the policy set forth in NAVA Standards 2006-93 for Customer Consents.
51.2	Proof of identity of the party must be established at or prior to the time of the transaction. Even if a party's identity has been established at some point prior to a transaction, the identity of each party to the current transaction must be authenticated through the use of existing assigned credentials.
51.3	Individuals must be issued a set of credentials (e.g., User ID and password) that will enable them to authenticate and confirm their identity in connection with a defined transaction.
51.4	Authentication for the purposes of providing credentials permitting the receipt and use of E-Signature-authority must include a determination that the prospective user has the authority to participate in the transaction.

<b>51.5</b>	Representatives of and/or agents for the customer must have proof of authority and shall be authenticated specific to their identity and issued credentials specific for their exclusive use. The credentials obtained shall be in accordance with the policy set forth in NAVA Standards 2006-52 for E-Signature Credentialing.
<b>51.6</b>	Third party or positive proof of identity must be established in order to successfully complete the Authentication process.
<b>51.7</b>	Full compliance with the USA Patriot Act is required.
<b>51.8</b>	There must be conformance with the Authentication and Authority section in SPeRS and additional legal/compliance requirements stipulated in these Standards and supporting documents referenced below.
<b>51.9</b>	Documents supporting the Authentication process shall be retained in the Document Management repository(s) supporting the process and made available to the Insurer. The document management process shall be in accordance with the policy set forth in NAVA Standards 2006-71 for Document Management.
<b>51.10</b>	Documents supporting the Authentication process shall be retained in the Records Management system supporting this process. The records management system shall be in accordance with the policy set forth in NAVA Standards 2006-72 for Records Retention & Management.
<b>51.11</b>	Process conformance shall include emitting NAVA STP Standard messages to the Insurer and/or other pertinent participants in the process confirming Authentication. The confirmation of authentication shall be in accordance with the policy set forth in NAVA Standards 2006-81 for Data Messages.

<b>CROSS REFERENCES</b>	
<u>REFERENCE</u>	<u>SOURCE LOCATION</u>
<a href="#"><u>NAVA STP New Business Flowchart</u></a>	Locations: 1.0, 3.0
NAVA Position Papers and Related Documents	<a href="#"><u>NAVA Position Paper for Authentication &amp; Credentialing Legal Support</u></a>
SPeRS Manual	<a href="#"><u>SPeRS Table of Contents</u></a> Section 1: Authentication and Authority

Other NAVA Standards	<p><a href="#">NAVA Standards 2006-52 for E-Signature Credentialing</a></p> <p><a href="#">NAVA Standards 2006-71 for Document Management.</a></p> <p><a href="#">NAVA Standards 2006-72 for Records Retention &amp; Management.</a></p> <p><a href="#">NAVA Standards 2006-93 for Customer Consents</a></p>
----------------------	--

APPROVALS	
<u>APPROVING BODY</u>	<u>DATE APPROVED</u>
E-Signature Task Force	September 13, 2006
Combined STP Working Groups	October 25, 2006
STP Executive Council	December 4, 2006

***NAVA Standards regarding issuance and management of E-Signature credentials are derived from SPeRS which is a broader body of standards. E-Signature credentials allow the Credentialed Party to access electronic documents and account information and can be used as the means for applying the Credentialed Party's E-Signature. The credentials represent rights granted to the Credentialed Party by the Credential Provider in conjunction with an authentication process. The credentials issued in the establishment of a master account opening may be used as the credentials for the E-Signature process.***

52.1	Credentials shall be granted by the Credential Provider only to those parties who have been successfully authenticated in accordance with the policy set forth in NAVA Standards 2006-51 for E-Signature Authentication.
52.2	Each party involved in the transaction will have their own set of credentials. Once issued, these credentials cannot be modified by the Credential Provider except at the direction of the Credentialed Party.
52.3	Credential Providers are responsible for ensuring that no duplicate credentials are issued within their domain.
52.4	Prior to issuance of credentials, the Credential Providers shall inform Credentialed Parties of their roles and responsibilities and potential risks related to the use, management, security, and application of their credentials including known best practices regarding the protection of passwords and private identification components.
52.5	Prior to issuance of credentials, the Credentialed Parties shall agree to the Credential Provider's terms and conditions relating to the use, management, security, and application of their credentials.
52.6	Credentials must, at a minimum, include a 'user name' and 'password' combination for the access and use of their e-signature.
52.7	Credentials shall not be displayed as part of the viewable E-Signature on the retained record. Metadata associated with the use of valid credentials shall be in accordance with the policy set forth in NAVA Standards 2006-53 for E-Signature Application.
52.8	Credentials must be re-issued if they have not been used within the last 18 months.
52.9	Any party to whom credentials are being re-issued must be confirmed as to his or her authentication profile on all critical points of identity. Credential re-issuance must be in accordance with the authentication policy set forth in NAVA Standards 2006-51 for E-Signature Authentication.

<b>CROSS REFERENCES</b>	
<u>REFERENCE</u>	<u>SOURCE LOCATION</u>
<a href="#">NAVA STP New Business Flowchart</a>	Locations: 1.0, 2.0
Position Papers & Related Documents	<a href="#">NAVA Position Paper on Authentication &amp; Credentialing Legal Support</a>
SPeRS Citations	<a href="#">SPeRS Table of Contents</a> Sections 4.4 and 4.5
Other NAVA STP Standards	<a href="#">NAVA Standards 2006-51 for E-Signature Authentication</a> <a href="#">NAVA Standards 2006-53 for E-Signature Application</a>

<b>APPROVALS</b>	
<u>APPROVING BODY</u>	<u>DATE APPROVED</u>
E-Signature Task Force	September 13, 2006
Combined STP Working Groups	October 25, 2006
STP Executive Council	December 4, 2006

## APPENDIX K: STUDY AUTHOR BIOGRAPHICAL INFORMATION

### **Anthony D. Deakins** **Senior Principal**

Abraham, McDonald and Associates, Inc.  
4548 Golf Ridge Drive  
Elkton, FL 32033-4010  
(904) 808-8328  
(904) 910-1614 (Mobile)  
[tony.deakins@amcanet.com](mailto:tony.deakins@amcanet.com)

Tony Deakins is the Senior Principle, Applied Document Technologies Practice for Abraham, McDonald and Associates, Inc. Tony has led engagements with clients such as City of Jacksonville (FL), Frontier Title Corporation, JPMorgan, Liberty Mutual Insurance, Merrill Lynch, and the Xerox Corporation.

Tony is a recognized expert in the field of business process automation through the application of content driven workflow, advanced document management, and records management. Tony has presented at a number of major industry conferences and written articles for industry publications.

Tony's career to date has spanned the evolution of these technologies and he has been at the center of several milestones in the advance of document intensive process automation. He worked with the Xerox Corporation in California where much of the technology used today was first developed. In his ten year career with Xerox, Tony managed both product development and strategic marketing programs finishing his time with Xerox as the Program Manager for a 'stealth' development organization established in Orlando, FL that developed a number of technologies still in the market today.

Tony went on from Xerox to join Cincinnati Bell Information Systems, Inc which came to be better known simply as 'CBIS.' There, he founded and headed a software product and services division the major accomplishments for which include first to market with a high speed check imaging system for banks using centralized large systems, personalized billing for telephone companies offering commercial directory services. The federal systems component of this division developed and marketed the winning software solution for the U.S. NAVY's "EDMIC" program, a comprehensive global asset management and logistics system. Tony's division developed a number of other leading edge applications including the use of electronic signatures applied to digital forms.

Tony subsequently helped to found Abraham, McDonald & Associates, Inc (AMcA) in 1991. In that capacity, he provided his expertise to the Petro-Chemical industry in Kuwait just after the liberation from Iraq's occupation. Tony also provided strategic consulting to the government of Kuwait regarding preservation and protection of national records should another abrupt and urgent need arise.

Tony was then recruited into Merrill Lynch to form and manage the "Document Technologies Competency Center" which was and remains an internal consulting and solutions delivery practice for Merrill Lynch. During Tony's tenure, the Competency

Center developed an enterprise strategy and architecture manifested in the implementation of eight major process automation solutions for Merrill Lynch's various Private Client lines of business in the U.S. and abroad. These included; Insurance, Banking, Finance, Brokerage, Account Services, Funds, Canadian Operations, and Europe / East Asia Operations. Tony's team was instrumental in aligning Merrill's document-centric processes with the intensely dynamic regulatory environment that emerged following 9/11.

Tony retired from Merrill Lynch in 2003 to rejoin Abraham, McDonald and Associates, Inc and its subsidiary Paperless Office Solutions, Inc. Merrill Lynch remains a strategic services client as Tony continues to assist them in expanding the solutions platform that is part of his legacy at Merrill Lynch. Tony provides similar services and value to other major businesses in the Financial Services industry. AMcA is the Project Director for the standards committee of the National Association of Variable Annuities, NAVA, with the purpose of establishing standards for the sales and submission process' transformation from a paper intensive to a paperless 'straight-through' process. Tony personally manages this project.

Tony is a practicing member of HIMMS which addresses the application of process automation technology in the Health Care and Insurance Provider industries. Tony is a participant to AIIM's "interoperable Enterprise Content Management" standards committee. Tony recently presented the keynote presentation to the Gilbane Conference in Boston, MA.

# **Margo H. K. Tank**

## **Partner**

Buckley Kolar LLP  
1250 24th Street, N.W., Suite 700  
Washington, D.C. 20037  
(202) 349-8050  
(202) 349-8080 (fax)  
[mtank@buckleykolar.com](mailto:mtank@buckleykolar.com)

### ***Practice***

Margo Tank is a founding partner of Buckley Kolar LLP. Ms. Tank advises financial services providers on compliance with state and federal laws including laws governing lending and insurance practices, advertising, telemarketing, SPAM, privacy and information security.

In addition, she assists clients with structuring online business programs and with the implementation of the federal Electronic Signatures in Global and National Commerce Act and the Uniform Electronic Transactions Act. Other activities include acting as the Co-Reporter for the Drafting Committee preparing the Standards and Procedures for Electronic Records and Signatures (SPeRS), and advocacy before Congress and federal regulators with respect to electronic commerce and financial services issues as counsel to the Electronic Financial Services Council.

### ***Professional Activities***

Ms. Tank is a member of the District of Columbia and Maryland bars. Ms. Tank was elected to the Order of the Coif at Drake University Law School. She is also a member of the American Bar Association's Business Law Section and the Committee on the Law of Commerce in Cyberspace.

### ***Publications/Presentations***

Ms. Tank is co-author of *The Law of Electronic Signatures and Records* (GlasserLegalWorks, 2004) and a number of articles, including: "The Emerging Legal Landscape for Bank Insurance Activities," Boston University School of Law, Annual Review of Banking Law (1998); "Electronic Signatures - Changing the Financial Landscape," The Conference on Consumer

Finance Law, Quarterly Report (2000); "The Electronic Signatures in Global and National Commerce Act - An Overview," Boston University School of Law, Annual Review of Banking Law (2001); and *The Law of Electronic Signatures and Records* (GlasserLegalWorks, 2004). She also authored a white paper entitled "Electronic



Financial Services in Emerging Market Countries” at the request of the International Monetary Fund. In addition, Ms. Tank is a frequent speaker at financial services conferences on electronic commerce.

***Professional Experience***

Prior to joining Buckley Kolar, Ms. Tank was a partner with Goodwin Procter LLP. Before private practice, she was counsel to the U.S. House of Representatives, Committee on Banking and Financial Services.

***Education***

J.D., Drake University Law School, 1992 (with honors)

Projects Editor, Drake University Law Review

B.A., University of Vermont, 1985

Studied commercial law at Queens College, Oxford University, England, 1991

## **Jeremiah S. Buckley**

### **Partner**

Buckley Kolar LLP  
1250 24th Street, N.W., Suite 700  
Washington, D.C. 20037  
(202) 349-8010  
(202) 349-8080 (fax)  
[jbuckley@buckleykolar.com](mailto:jbuckley@buckleykolar.com)

### ***Practice***

Jerry Buckley is a founding partner of Buckley Kolar LLP. Mr. Buckley's practice focuses on consumer financial services and real estate law with a concentration on federal and state regulation of financial services transactions, including transactions in electronic commerce.

Mr. Buckley acts as adviser to financial services firms on compliance with state and federal regulations related to lending, licensing and chartering, mergers, conversions, investments, deposit taking, transactions with affiliates and holding company operations. He also advises mortgage companies and other settlement services providers on compliance with the Real Estate Settlement Procedures Act (RESPA), the Truth in Lending Act, the Fair Credit Reporting Act, the Equal Credit Opportunity Act, and related federal and state laws.

Mr. Buckley frequently represents and counsels companies and trade associations in connection with legislative and regulatory developments. He has acted as counsel for several national trade associations with respect to rulemakings to implement the Fair and Accurate Credit Transactions Act (FACTA). His practice also involves the defense of companies that are targets of inquiries or enforcement actions by bank regulatory agencies, the FTC, and HUD. He has acted as counsel for a number of national financial services trade associations in filing amicus curiae briefs related to the interpretation of banking and consumer finance laws in cases before the U.S. Supreme Court and appellate courts.

Mr. Buckley serves as general counsel of the Electronic Financial Services Council ([www.efscouncil.org](http://www.efscouncil.org)). In that capacity, he counsels the nation's leading financial and technology firms on emerging laws affecting the electronic delivery of financial services. Mr. Buckley is called to testify before Congressional committees and government agencies on legislative and regulatory developments affecting the delivery of financial services through electronic commerce.

He played a leading role in negotiations that led to enactment of the federal E-Sign Act authorizing the nationwide use of electronic signatures and records. He has acted as

counsel to the Drafting Committee for *Standards and Procedures for Electronic Records and Signatures* ([www.spers.org](http://www.spers.org)).

### ***Professional Activities***

Mr. Buckley has chaired the Subcommittee on RESPA of the American Bar Association Consumer Financial Services Committee. He is frequently a speaker at seminars on subjects related to the federal and state regulation of mortgage companies and electronic delivery of financial services. Mr. Buckley is also a member of the Exchequer Club.

### ***Publications/Presentations***

Mr. Buckley is co-author of *The Law of Electronic Signatures and Records* (GlasserLegalWorks, 2004) and a number of articles on electronic signatures and records including "Electronic Signatures - Changing the Financial Landscape," The Conference on Consumer Finance Law, Quarterly Report (2000, co-author); "The Electronic Signatures in Global and National Commerce Act - An Overview," Boston University School of Law, Annual Review of Banking Law (2001, co-author).

### ***Professional Experience***

Before joining Buckley Kolar, Mr. Buckley was a partner with Goodwin Procter LLP. Prior to entering private practice, Mr. Buckley served as Republican Staff Director of the U.S. Senate Banking Committee. During his service on the committee staff, he participated in drafting banking and bank holding company legislation, housing legislation, securities law amendments, RESPA, the Fair Credit Reporting Act, Foreign Corrupt Practices Act, Truth in Lending amendments and other finance-related legislation. As Republican Staff Director, he also assisted in drafting the Equal Credit Opportunity Act, the Community Reinvestment Act and the Home Mortgage Disclosure Act.

### ***Honors and Awards***

In January 2005, Mr. Buckley was one of only 114 attorneys nationwide named a member of the "2005 BTI Client Service All-Star's" team for law firms, and was identified by a client as "delivering truly outstanding and superior service."

### ***Education***

J.D., University of Virginia Law School, 1969  
A.B., Fairfield University, 1966 (cum laude)

**Frank J. Supik**  
**Associate**

Buckley Kolar LLP  
1250 24<sup>th</sup> Street, N.W., Suite 700  
Washington, D.C. 20037  
(202) 349-8039  
(202) 349-8080 (fax)  
fsupik@buckleykolar.com

**Practice**

Frank Supik is an associate at Buckley Kolar LLP. His practice focuses on electronic transaction and signature processes for the financial services industry utilizing ESIGN, UETA and the SPeRS standards. Mr. Supik has represented organizations developing and providing

- Electronic mortgage processing software
- Electronic auto finance processing software
- Electronic closing services
- Secure electronic vault services

He works with clients in a variety of financial services industries, including those involved in mortgages, auto finance, equipment leasing, insurance, annuities and electronic payment processing. Mr. Supik also advises clients on other regulatory issues associated with electronic financial services transactions, including compliance for:

- Electronic Fund Transfers (*e.g.*, NACAHA rules, Regulation E)
- Prepaid cards
- Privacy requirements
- Data security breach notification statutes
- Do-Not-Call/Do-Not-Fax regulations

**Professional Activities**

Mr. Supik is a member of the District of Columbia Bar, the American Bar Association and the Section of Business Law.

**Professional Experience**

Prior to joining Buckley Kolar, Mr. Supik was in-house counsel at the U.S. offices of a foreign-based high technology company that provided software and service solutions to the mortgage underwriting and healthcare industries. Mr. Supik also was General Counsel of a company that delivered benefit packages and financial services to consumers through electronic business processes. Prior to that, Mr. Supik spent several years at an Am Law 100 law firm representing a broad spectrum of companies in antitrust and trade regulation matters, advising clients in domestic and international transactions, FTC investigations and compliance matters.

### **Sample Speaking Engagements**

- eMortgage Technology and Legal Considerations, Fiserv Client Conference, October 2006
- Consent to Use Electronic Records and Signatures, CampusMBA, Fall 2005
- Overview of eRecording and eNotarization: National Considerations, California E-Recording Summit, February 2005
- Introduction to SPeRS, Property Records Industry Association Summer Conference, July 2004

### **Publications**

Co-author, *eMortgage Implementation Considerations*, 11 Electronic Banking Law and Commerce Report 1 (Jul./Aug. 2006).

### **Education**

J.D. *cum laude* 1994, Georgetown University Law Center

Member, The Tax Lawyer

John M. Olin Foundation Fellow

B.A. *summa cum laude* 1991, University of Maryland Honors Program



## **PAPERLESS TRANSACTIONS STUDY STEERING COMMITTEE**

Ms. Candice Columbres  
Associate  
TROUTMAN SANDERS LLP  
405 Lexington Avenue  
New York, NY 10174  
Ph: (212) 704-6000  
Email:  
[candice.columbres@troutmansanders.com](mailto:candice.columbres@troutmansanders.com)

Mr. Lawrence D. Cooper  
FIFTH THIRD LEASING COMPANY  
38 Fountain Square Plaza  
Md 10AT76  
Cincinnati, OH 45263-0001  
Ph: (513) 534-6770  
Email: [Lawrence.cooper@53.com](mailto:Lawrence.cooper@53.com)

Ms. Leianne Crittenden  
Chief Counsel  
ORACLE CREDIT CORPORATION  
500 Oracle Parkway  
MS LGN-1  
Redwood City, CA 94065-1677  
Ph: (650) 506-3933  
Email: [leianne.crittenden@oracle.com](mailto:leianne.crittenden@oracle.com)

Mr. Michael Karpen  
Partner  
TROUTMAN SANDERS LLP  
The Chrysler Building  
405 Lexington Avenue  
New York, NY 10174-0002  
Ph: (212) 704-6149  
Email:  
[michael.karpen@troutmansanders.com](mailto:michael.karpen@troutmansanders.com)

Mr. Anthony L. Lamm, Esq.  
Managing Partner  
LAMM, RUBENSTONE, TOTARO &  
DAVID, LLC  
3600 Horizon Boulevard  
Suite 200  
Trevose, PA 19053-4900  
Ph: (215) 638-9330  
Email: [alamm@lrtd.com](mailto:alamm@lrtd.com)

Ms. Madelyn C. Law  
VP & General Counsel  
DELL FINANCIAL SERVICES  
One Dell Way  
MS 7100  
Round Rock, TX 78682  
Ph: (512) 728-1417  
Email: [lyn\\_law@dell.com](mailto:lyn_law@dell.com)

Mr. Michael A. Leichtling, Esq.  
Partner  
TROUTMAN SANDERS LLP  
The Chrysler Building  
405 Lexington Avenue  
New York, NY 10174-0002  
Ph: (212) 704-6000  
Email:  
[michael.leichtling@troutmansanders.com](mailto:michael.leichtling@troutmansanders.com)

Mr. Barry S. Marks, Esq.  
Attorney  
BAKER, DONELSON, BEARMAN, &  
BERKOWITZ  
420 N. 20th Street  
1600 South Trust Tower  
Birmingham, AL 35203-5200  
Ph: (205) 250-8333  
Email: [bmarks@bakerdonelson.com](mailto:bmarks@bakerdonelson.com)

Mr. Robert J. Rinaldi  
Executive Vice President  
NATIONAL CITY COMMERCIAL  
CAPITAL CORP.  
995 Dalton Avenue  
Cincinnati, OH 45203-1101  
Ph: (513) 455-9615  
Email: [bob.rinaldi@nc-4.com](mailto:bob.rinaldi@nc-4.com)

Mr. Jerry L. Jordan  
EVP  
US BANCORP EQUIPMENT  
FINANCE, INC.  
13010 SW 68th Parkway  
Portland, OR 97223-8369  
Ph: (503) 797-0231  
Email: [jerry.jordan@usbank.com](mailto:jerry.jordan@usbank.com)

Mr. Steven R. LeBarron  
Vice President, Marketing North  
America  
CHP CONSULTING  
401 N. Michigan Avenue  
Suite 1200  
Chicago, IL 60611  
Ph: (312) 382-8700  
Email:  
[steve.lebarron@chpconsulting.com](mailto:steve.lebarron@chpconsulting.com)

Lisa A. Levine, CAE  
Executive Director  
EQUIPMENT LEASING & FINANCE  
FOUNDATION  
4301 N. Fairfax Drive  
Suite 550  
Arlington, VA 22203  
Ph: 703-516-8363  
Email: [llevine@elamail.com](mailto:llevine@elamail.com)

Mr. Richard J. Venturi  
Industry Principal  
SAP AMERICA, INC.  
204 Whetherburn Drive  
Wexford, PA 15090  
Ph: (724) 934-5582  
Email: [richard.venturi@sap.com](mailto:richard.venturi@sap.com)

Mr. David S. Wiener  
SVP  
GE CAPITAL MARKETS GROUP  
4 North Park Drive  
Suite 500  
Hunt Valley, MD 21030-1801  
Ph: (410) 527-9318  
Email: [david.wiener@ge.com](mailto:david.wiener@ge.com)

Ms. Margo Tank – **Researcher**  
Partner  
BUCKLEY KOLAR , LLP  
1250 24th Street NW  
Washington, DC 20037-1124  
Ph: (202) 349-8050  
Email: [mtank@buckleykolar.com](mailto:mtank@buckleykolar.com)



Equipment Leasing &  
Finance Foundation

Your Eye On The Future

## Products you trust Future-focused research Credible, independent voice of the industry

The Equipment Leasing & Finance Foundation provides future-oriented, in-depth, independent research to the equipment leasing industry. The Foundation partners with university institutions and industry experts to develop future focused research necessary to bringing the future into focus for industry members.

### Publications and Online Resources

All Foundation products are available electronically and free of charge to Foundation donors. Fees apply for non – donors. The Foundation website is updated weekly. Visit [www.Leasefoundation.org](http://www.Leasefoundation.org)

### Research Studies and White Papers

- Business Differentiation: What makes Select few Leasing Companies Outperform Their Peers?
- Annual State of the Industry Report
- Evolution of the Paperless Transaction and its impact on the Equipment Lease Finance Industry
- Indicators for Success Study
- Credit Risk: Contract Characteristics for Success Study
- Study on Leasing Decisions of Small Firms

### Identification of Emerging Issues

- Annual Industry Future Council Report
- Identifying Factors For Success In the Chinese Equipment Leasing Market Study
- Renewable Energy Trends and the Impact on the equipment finance market.
- Long-Term Trends in Health Care and Their Implications for the Leasing Industry
- Study on Why Diversity Ensures Success
- Forecasting Quality: An Executive Guide to Company Evaluation

### The Equipment Leasing & Finance Foundation

In 1989, the Equipment Leasing Association of America (ELA) established the Equipment Leasing and Finance Foundation as a separate section 501(c)(3) nonprofit organization to develop and disseminate industry knowledge.

### Journal of Equipment Lease Financing

The Journal is the signature publication of the Equipment Leasing & Finance Foundation and has been funded and published by the Foundation since 1983. The *Journal* contains Foundation-commissioned research and articles written by industry experts. Subscriptions are available at [www.Leasefoundation.org](http://www.Leasefoundation.org)

### Web Based Seminars

Many of the Foundation studies are presented as web seminars to allow for direct interaction, in-depth conversations, and questions and answers sessions with the researchers and industry experts.

### Donor Support and Awards Program

The Equipment Leasing & Finance Foundation is supported entirely by corporate and individual donations. Donations provide the funds necessary to develop key resources and trend analyses needed to meet the challenging needs of equipment lessors. Donors are acknowledged publicly and in print. Major giving levels participate in a distinguished awards presentation. Giving levels range from \$100 to \$50,000+. For information on becoming a donor, visit, [www.Leasefoundation.org/donors](http://www.Leasefoundation.org/donors)

### Academic Institutions and Allied Industry

Through key relationships with academic institutions and allied industries, the Foundation is able to provide top notch scholarly papers and studies for industry leaders, analysts and those monitoring the equipment lease finance industry.

4301 N. Fairfax Drive, Suite 550 • Arlington, VA 22203-1627

Phone: 703-527-8655 • Fax: 703-465-7488 • [www.Leasefoundation.org](http://www.Leasefoundation.org)

Equipment  
Leasing &  
Finance  
Foundation

Providing  
vision for the  
equipment  
lease financing  
industry through  
future-focused  
information  
and research.





4301 N. Fairfax Drive, Suite 550, Arlington, VA 22203  
Phone: 703-516-8363 • Fax: 703-465-7488  
[www.leasefoundation.org](http://www.leasefoundation.org)