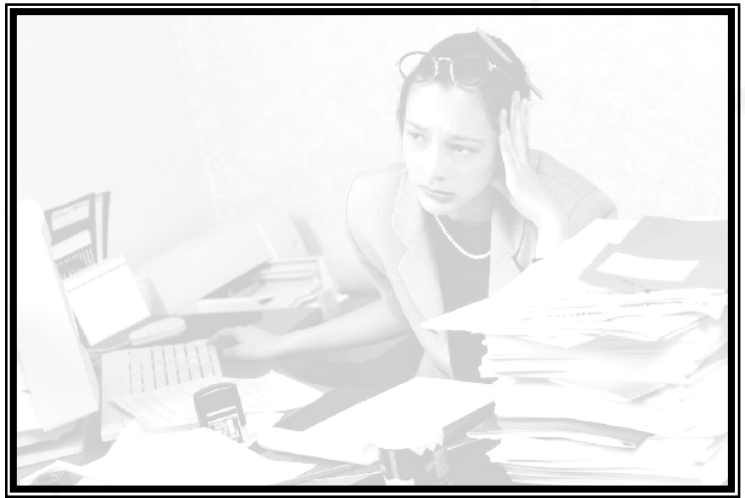


Bridging the Mortgage Industry From Paper to The 21st Century:



Substantially
Reducing the Cost
of Originating and
Filing
Satisfaction
Documents



US Recordings
St. Paul, MN
www.usrecordings.com



Today's State-of-the-Art – Circa 1900

When Tim and Carol Johnson refinanced the mortgage on their 5-year-old home in Minneapolis, Minnesota this year, they probably completed the transaction without ever hearing the term “Satisfaction Document” (SD) mentioned. And they certainly had no idea what degree of effort was required by their mortgage company to generate and file that critical piece of paper with their local county recorder’s office. In fact, accounting for existing home sales, mortgage refinancings, and home equity loans in 2002, mortgage lenders filed more than 20 million of these Satisfaction Documents¹, nearly all of them using antiquated, labor and cost-intensive processes. Indeed, some estimates place the cost of paper-based Satisfaction Document preparation at \$13 per SD, for a total industry expense of over a quarter billion dollars annually. To better understand this hefty administrative cost burden, let’s join Tim and Carol’s Satisfaction Document on its journey from birth to the Hennepin County Recorder’s Office (and back again).

After Tim and Carol spend an hour of their Friday evening signing what seems to be an endless stream of legal documents, their closing agent carries the paper bundle to his office where an administrator keys in the information to a PC-based template (or database if the mortgage lender is more sophisticated). After Tim and Carol’s new mortgage lender pays the original mortgage holder the balance of the home’s original mortgage, the new mortgage lender generates and files the Satisfaction Document with the Hennepin County Recorder’s Office. The details of that process depend on the level of automation the mortgage lender has developed, but the vast majority of the Satisfaction Documents generated, even today, are created using a process analogous to horse-and-buggy technology in a world of BMWs. Table I below summarizes that process and offers a conservative estimate of the cost associated with each step.

Table I – Manual Satisfaction Document Process and Cost Estimate

	Task	Time Estimate (Minutes)	Hard Cost Estimate (Cents)
1	Electronically Storing & Printing SD After Keying In and Editing Information	2	
2	Sort & Route For Required Signatures	2	
3	Obtaining Required Signatures & Notarization	5	
4	Generate Check For County Recorder Filing Fee (Generate Request, Obtain Signature, Print & Record Check, etc.)	5	
5	Place in Envelope, Label & Mail to County Recorder’s Office	3	90 (Postage; Includes Return, Self-Addressed Envelope for Returned Copy)

¹ 6 million existing home sales (National Association of Realtors) + 9 million refinancings (Mortgage Bankers Association Mortgage Finance Forecast Using \$160,000 mean home cost) + 5.1 million home equity loans (American Housing Survey: 5.2 million home equity loans in 1999; 11.1 million in 2001 implies 46% annual growth rate; 46% annual growth rate applied to 2001 figure of 11.1 yields 16.2 for 2002, or a difference of 5.1 million new home equity loans granted in 2002)

	Task	Time Estimate (Minutes)	Hard Cost Estimate (Cents)
6	Filing/Archiving Hard Copy of SD	5 (Assumes Local Storage)	
7	Process Returned SD After County Recorder Copies and Returns SD (Includes Receiving and Opening Mail, Filing/Storing SD)	10 (Assumes Local Storage)	
-	Office Supplies Total Estimate For All Tasks (Paper, Envelopes, Copies, etc.)		50
	Totals	32	\$1.40

Salary.com reports that the median annual salary for a “Mortgage Loan Funding Clerk”² in the US is \$29,341, and that a salary of \$26,758 will put the typical person holding this position in the lowest 25% percentile of all persons in this job category in the US. Assuming the lowest 25th percentile figure (the most conservative assumption), and assuming the employer pays no benefits other than the required social security tax on the salary, a mortgage lender can assume an annual expense for a Satisfaction Document clerk to be \$28,885, minimally. That conservative figure translates to an hourly rate of \$14³, or \$7.47 in labor costs to process a single Satisfaction Document using the antiquated, yet common, process outline in Table I. Adding a conservative estimate of \$1.40 for additional materials and other hard costs brings the total cost to manually process and file a Satisfaction Document to \$8.87.

Significantly, not included in this analysis is the cost of SDs returned by the county recorder’s office after errors or omissions have been identified. For example, US Recordings of St. Paul, Minnesota – experts in SD filing – has measured an actual return rate of 4%; typical industry figures, however, are often in the 7% to 10% range. To maintain a conservative analysis approach, we’ll assume a 5% return rate in our subsequent calculations. Assuming the cost to re-process an SD would equal the cost to initially generate and file it (it very well may exceed that cost), an additional 5%, or 44 cents, would be added to the cost of processing a single SD, bringing the total cost of filing an SD manually to \$9.31.

² Mortgage Loan Funding Clerk (Administrative, Support, and Clerical) Performs routine administrative tasks in support of the mortgage loan funding group. Duties may include document preparation, packaging, and funding as well as finalizing and filing customer files. Requires a high school diploma or its equivalent and 0-2 years of related experience. Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Typically reports to a supervisor.

³ One actual data point obtained during the development of this paper indicated a \$15.72 hourly wage for a data input operator at a mortgage document processing facility in the Midwestern US. That figure included benefits and the employer’s portion of social security tax.

A Good First Step

Predictably, the mortgage industry has not been oblivious to the existence of this inefficiency and its associated impact on the bottom lines of mortgage lenders, and technology innovations have been emerging, albeit clumsily and very slowly. The most popular SD process modification to date has been what the industry has termed a “Level I” approach. In a Level I system, some costs are removed from this process by scanning a copy of the final Satisfaction Document, storing, in essence, a picture of the completed SD in electronic format, and enabling the electronic transmission of the SD to the county recorder’s office via email. This improvement obviates the need for some steps in the process, but unfortunately incurs others. Table II illustrates a typical SD filing process using a Level I methodology; shaded rows indicate process steps that can be eliminated from the manual approach when Level I is used.

Table II: Level I Satisfaction Document Process and Cost Estimate

	Task	Time Estimate (Minutes)	Hard Cost Estimate (Cents)
1	Electronically Storing & Printing SD After Keying In and Editing Information	2	
2	Sort & Route For Required Signatures	2	
3	Obtaining Required Signatures & Notarization	5	
NEW	Scan Final Copy of SD		50
NEW	Email Final Copy of SD to County Recorder’s Office	1	
NEW	Electronically Transfer Recorder Fee to County Recorder’s Office	10	
4	Generate Check For County Recorder Filing Fee (Generate Request, Obtain Signature, Print & Record Check, etc.)	5	
5	Place in Envelope, Label & Mail to County Recorder’s Office	3	90 (Postage; Includes Return, Self-Addressed Envelope for Returned Copy)
6	Filing/Archiving Hard Copy of SD	5 (Assumes Local Storage)	
7	Process Returned SD After County Recorder Copies and Returns SD (Includes Receiving and Opening Mail, Filing/Storing SD)	10 (Assumes Local Storage)	
-	Office Supplies Total Estimate For All Tasks (Paper, Envelopes, Copies, etc.)		50
NEW	Level I Office Supplies		10
	Totals	32	\$1.40
	Level I Totals	20	\$0.60

As indicated in this cursory analysis, Level I “technology” has the potential to reduce SD processing costs by about 35%, from \$8.87 per SD to roughly \$5.85. As the Level I approach incorporates no mechanism for reducing errors relative to the manual process, an additional 5% must be added to the cost estimate per SD to account for re-processing erroneous SDs, bringing the total Level I cost estimate to \$6.14 per SD. Although compelling, the Level I approach still represents only a half-measure, utilizing only a small portion of the basic technology available today. It’s usage is analogous to a first-time Model-T owner in 1910 that uses his new “horseless carriage” to drive him to the stall where his horse and buggy are kept, at which point he parks the new Model-T and uses the horse-and-buggy to transport him to his destination.

Over the past 18 months, an incremental improvement in the Level I process - it employs XML technology to store and transmit property indexing information outside the static, scanned image of the SD - has been emerging. Unsurprisingly named “Level II”, the technological improvement does not address the primary cost drivers in either the manual or Level I systems, and its deployment impacts total filing costs minimally, if at all. Although the thinking that led to the development of the Level I and even the Level II processes is commendable as a step in the right direction, advances in communications infrastructure and other technologies facilitate a vastly improved solution in the world of 2003 technology.

The Future is Here Today

Ultimately, the objective of any SD recording process should be to leverage the ubiquity of the Internet, instantaneous data communications, and electronic document storage and signature, all working in concert to remove paper from the process entirely. Indeed, there is such a process: Level III, and the technology necessary to deploy the new method is being introduced by innovative leaders like US Recordings. The first half of 2003 will herald the availability of a process quantum leap over both the Level I and Level II approaches, providing mortgage lenders the opportunity to extract nearly all possible costs from the SD filing process. Unlike previous methods, Level III is completely electronic in its purest form, obviating the need for photocopying, mailing, routing for paper signatures, and traditional filing, and at the end of the day, enabling Tim and Carol’s SD to be created without chopping down a single tree.

Utilizing Level III, when Tim and Carol finish signing their closing documents, the closing agent still returns to the office and information is still manually keyed into the database, but that’s where the similarity between Level III and all other methods ends. Once the information is in the system, two or three mouse clicks are all that’s required to generate the SD and route it to the appropriate people for electronic signature. This routing, however, is done via the mortgage lender’s data network, not via a manila folder and an administrative assistant. When the electronic SD reaches the personal computer (PC) of the signatory, that person clicks on the electronic signature button on their computer, and their signature is affixed electronically to the SD (their electronic signature was captured and stored previously – one time – much the way electronic signatures are captured routinely today at grocery stores or Home Depot outlets at

check out counters). After corporate officer and notary signatures are obtained electronically, the document is routed -again, electronically- back to the administrator who then, with another click or two of the mouse, sends the completed and signed SD over the Internet to the Hennepin County Recorder's Office; it arrives in seconds, not days, and with a postage cost of zero cents. The recording fee funds are also transferred to Hennepin County electronically by the mortgage lender's administrative assistant.

Today, the process would be completed when the Hennepin County recorder's office sends an electronic confirmation (a simple email reply) that the SD and fee have been received, and the mortgage lender clerk then sends the completed SD to the electronic database for storage (with a final 2 or 3 mouse clicks). The county recorder would then print out a copy of Carol and Tim's completed and signed SD, and file it using their paper system. In the coming years, however, the software necessary to file the completed SDs will begin to be deployed at county recorders throughout the US, and even that final paper step will be eliminated. The financial benefits of the Level III approach for the mortgage lender, however, are not dependent on county recorders procuring the software necessary to accept and store completed SDs electronically. Indeed, Table III illustrates the cost savings achievable by mortgage lenders assuming that county recorders are simply capable of receiving an email with an electronic SD attached (a capability that everyone in the US owning a PC enjoys today). Using the same convention as the previous table, shaded rows indicate tasks that are no longer required.

Table III: Level III Satisfaction Document Process Outline and Estimated Costs

	Task	Time Estimate (Minutes)	Hard Cost Estimate (Cents)
1	Electronically Storing & Printing SD After Keying In and Editing Information	2	
NEW	Electronically Generate SD and Route For Signatures (A Few Mouse Clicks)	3	
NEW	Obtain Electronic Signatures (A Few Mouse Clicks)	3	
NEW	Send Completed Electronic SD and Funds Transfer to County Recorder's Office	3	
NEW	Electronically Send Completed SD to Database After Receipt Confirmation Received	2	
2	Sort & Route For Required Signatures	2	
3	Obtaining Required Signatures & Notarization	5	
4	Generate Check For County Recorder Filing Fee (Generate Request, Obtain Signature, Print & Record Check, etc.)	5	
5	Place in Envelope, Label & Mail to County Recorder's Office	3	90 (Postage; Includes Return, Self-Addressed Envelope)

	Task	Time Estimate (Minutes)	Hard Cost Estimate (Cents)
			for Returned Copy)
6	Filing/Archiving Hard Copy of SD	5 (Assumes Local Storage)	
7	Process Returned SD After County Recorder Copies and Returns SD (Includes Receiving and Opening Mail, Filing/Storing SD)	10 (Assumes Local Storage)	
-	Office Supplies Total Estimate For All Tasks (Paper, Envelopes, Copies, etc.)		50
	Totals	11	\$0.00

Unlike other methods, the Level III approach virtually eliminates returned SDs, as the underlying system will not allow a data operator to input erroneous information, or omit required data. Error messages are displayed when such spurious entries are made, allowing the operator to correct his/her mistake in real-time, before sending an incorrect SD on to the next process step, only to be returned at a late date for re-work.

Table IV wraps up the cost analysis, comparing the costs of processing and filing SDs using all 4 methods discussed here.

Table IV: Comparison of Satisfaction Document Filing Costs Using All 4 Methods

Process Method	Labor Time (Minutes)	Labor Cost	Hard Costs	Returned SD Costs	Total
Manual	32	\$7.47	\$1.40	\$0.44	\$9.31
Level I	20	\$5.25	\$0.60	\$0.29	\$6.14
Level II	20	\$5.25	\$0.60	\$0.29	\$6.14
Level III	11	\$2.57	\$0.00	\$0.00	\$2.57

In a compelling comparison, the Level III approach results in a \$6.74 savings (72%) per SD over the currently used method (manual), and a \$3.74 (61%) savings over today's "state-of-the-art" approach (Level I or II). Intriguing, indeed, but is it significant in actual dollars? Let's take a quick look.

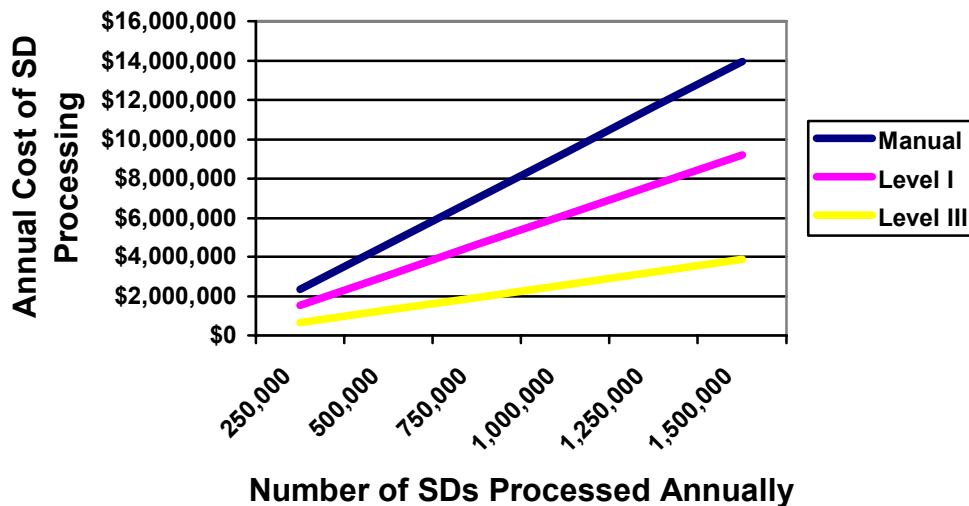
A Million Here, A Million There and Soon You're Talkin' Real Money

About half of all SDs generated in the US are done so by the 5 largest mortgage lenders.. If we assume that each of the 5 largest mortgage lenders holds an equal share of the market, it would follow that each processes roughly 2 million SDs annually⁴. As several of even the largest mortgage lenders still processes their SDs manually, a move to Level III technology would ultimately save their companies nearly \$14 million

⁴ 20 million SDs total divided by 2 (big 5 own half the market) divided by 5 (assumes big 5 own equal percentages).

annually (\$6.74 x 2 million). In 2001, an additional \$14 million dollars to the bottom line of one of these five companies would represent about 1% of their total annual net income; not a bad reward for utilizing technology that's been available in most US homes since the mid 1990s. As illustrated in Figure 1, considerable SD processing cost savings are not limited to the largest mortgage lenders.

Annual SD Processing Costs



The attractiveness of the Level III approach doesn't end with a compelling financial analysis. Indeed, one of the most appealing elements of the Level III method is that it literally requires no software installation by the mortgage lender; the system is entirely web-based. US Recordings, mentioned previously, is introducing its Level III system this year (named InteliDoc Plus), and utilizing it is as simple as typing in the URL of a favorite website. A data operator processing SDs at a mortgage lender would simply type in the US Recordings URL (www.usrecordings.com), click on the InteliDoc Plus icon, type in their username and password, and start processing SDs. The entire system is hosted by US Recordings, and will require little or no support from the mortgage lender's IT department.

Not surprisingly, the appeal and financial benefit of the Level III method is beginning to attract attention from some of the most influential forces in the mortgage industry. In fact, both Fannie Mae and Freddie Mac have publicly endorsed the adoption of the Level III process over both Level I and Level II methodologies, and Level III momentum is unlikely to stop there. Its positive financial impact, extraordinary ease-of-use, and ultimately its paperless result will be gaining fans throughout 2003 as the industry comes to understand and appreciate its benefits.

With the exception of the few companies utilizing the recently introduced Level I approach, the modern postal service represents about the only major innovation in the process by which home ownership documents are processed and recorded in the US since the nation's birth 200 years ago. Most in the industry would agree that it's

probably time that today's communications infrastructures, database products, and other technologies be put to work in an industry that directly touches the lives of most American families, but innovation for the sake of innovation should never be the motivation for the deployment of technology. As discussed in this short paper, leveraging widely available technology to simplify the Satisfaction Document generation and filing process not only makes sense from the perspective of innovation, but more importantly, makes sense from a financial and cost savings standpoint. Having the potential to save mortgage lenders millions annually is motivation enough to begin seriously considering the deployment of the Level III process.

