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eRecording Portals White Paper

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Section 1. Introduction

The purpose of this White Paper is to:

- provide a definition for “portals” in the context of eRecording
- serve as a guide for both public and private organizations considering the creation or initiation of an eRecording portal
- increase the awareness of both the benefits and the responsibilities of using an eRecording portal
- identify the benefits and advantages of working with a portal when compared with the traditional paper-based recording methods
- help Recorders¹ and Submitters² become more informed consumers
- demonstrate how eRecording portals help assure Recorders and Submitters that eRecording is a valid, accepted and valuable process

This paper is intended to reach an audience that includes Recorders, Submitters, and those aspiring to create an eRecording portal. This paper will cover a variety of topics including desirable characteristics for not only the private eRecording portals, but the intergovernmental eRecording portals, as well as various structures for eRecording portals themselves. The intent is to provide all interested parties with the necessary information to make a decision which best fits the needs of each jurisdiction; the intent is not to describe or define which eRecording portal or structure is the best.

The legal framework for portals has been established in most of the states through the individual state’s adoption of the Uniform Electronic Transaction Act (UETA). Some states have also adopted the Uniform Real Property Electronic Recording Act (URPERA). Since each state’s enactment of these laws may vary slightly from the uniform act, state and local enabling requirements should be researched. Additionally, check to determine if a private or intergovernmental portal has already been established.

The required technical background for readers of this paper is nominal. A basic understanding of the Property Records Industry Association (PRIA) and Mortgage Industry Standards Maintenance Organization (MISMO) goals and standards would be beneficial, but eXtensible Markup Language (XML) coding expertise is not required. Both technical and non-technical readers will benefit from information in this paper.

Specific to eRecording, a basic understanding of the so-called “levels” or “models” of eRecording from the traditional models to the more recently discussed continuum model

¹ In the United States, land document recording may take place at the State, City, Town, County, Borough, or Parish level. Depending on the jurisdiction, the Office of the Recorder may also be known as Recorder of Deeds, Registrar-General, Register of Deeds, Registrar of Deeds, Registrar of Titles, Deeds Registry, Auditor, or Deeds Office. In some states, the recording function is part of the county clerk’s responsibilities. Throughout this paper, the term utilized for this role will simply be “Recorder.”

² The term utilized for the role of the person or entity sending and receiving documents to and from the Recorder will be “Submitter.”

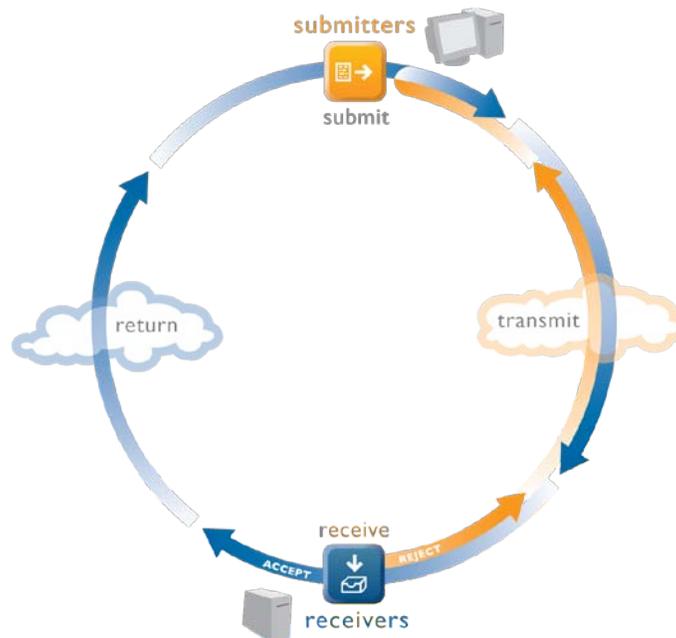
and an awareness of current and future business requirements for eRecording will benefit the reader.

There are a multitude of PRIA standards, White Papers and publications which can be used in addition to this paper as foundational material to assist with the reader's understanding of eRecording. See Appendix A: Resources and Reading for a list of these references.

Section 2. Preliminary Background Information and Definitions

Prior to 1990, the process of recording documents in a Recorder's land records was the same across the country. A Submitter would deliver the original paper document to the Recorder typically by way of the postal service or a courier service. The Recorder maintained index books that contained the names of the parties to all of the recorded documents and a copy of the document the combination of which comprised the official land records of the jurisdiction. As technologies advanced, the paper index books and document copies were replaced by electronic media. The latest advancement is eRecording.

eRecording is simply an alternative medium and method for the delivery and receipt of documents. Rather than delivering the paper document to the Recorder, the paper document can be converted to an electronic image and then transmitted to the Recorder. Alternatively, the document may be created, executed, acknowledged, transmitted and recorded electronically, without ever being converted to paper.



The participants in an eRecording transaction are the **Submitter**, the **agent or portal used to deliver the document**, the **Recorder** and, at times, an **intermediate receiver** such as a County Treasurer.

The **Submitter** is the party in possession of the document to be recorded. The Submitter may be a lender, title company, or other party wanting a document to be recorded.³

The **submitter agent** is the system used by the Submitter to transmit the document to the Recorder.

³ The term utilized for the role of the person or entity sending and receiving documents to and from the Recorder will be "Submitter."

The **Recorder** is the governmental office responsible for recording and maintaining the land records within its jurisdiction.⁴

An **intermediate receiver** may be involved if the document must pass through more than one government office or department prior to becoming part of the public record. Examples of this workflow are a Treasurer or Auditor for tax collection or an Engineer for legal description verification, etc.

eRecording Workflow

The workflows used for eRecording Model 1 and Model 2 documents are very similar. Both models begin with an original wet-signed paper document. The paper document is scanned to create an electronic file, often a TIFF or PDF file. The file is attached to a package and then transmitted to the Recorder. The two models differ in the contents of the package. A Model 1 package contains only the document image. A Model 2 package contains the document image along with XML data. The XML data contains all or part of the indexing information for the document.

The workflow for a Model 3 eRecording differs from Model 1 and Model 2 in that the Model 3 document never exists in paper form. An electronic signature and electronic acknowledgment are combined with the data elements of the document, such as borrower name, legal description, etc. A portal must take this data and convert it into a format viewable and archivable in the Recorder's indexing and imaging systems.

Basic Communication and Data Protocols

The packages are transmitted from Submitter to Recorder using a variety of communication and data protocols.

A **web browser** is a software program used to navigate through the World Wide Web and to display specific web pages.

A **web service** is a standardized method of integrating systems using standardized data formats also known as data protocols.

File Transfer Protocol (FTP) is a standard for exchanging information between two or more computer systems.

eXtensible Markup Language (XML) allows systems to share data and the format in which the data is to be exchanged.

Packages from Submitter to Recorder are generally transferred via the internet. These packages must have some level of security to ensure that the package received by the

⁴ In the United States, land document recording may take place at the State, City, Town, County, Borough, or Parish level. Depending on the jurisdiction, the Office of the Recorder may also be known as Recorder of Deeds, Registrar-General, Register of Deeds, Registrar of Deeds, Registrar of Titles, Deeds Registry, Auditor, or Deeds Office. In some states, the recording function is part of the county clerk's responsibilities. Throughout this paper, the term utilized for this role will simply be "Recorder."

Recorder is identical to the package sent by the Submitter. Please refer to the PRIA website for more comprehensive guidelines regarding eRecording security.

Payment Mechanisms and Integration

A document submitted for traditional paper recording would be accompanied by some form of payment to cover the fees associated with recording the document. The payment of recording fees and taxes in an eRecording transaction is normally made by an escrow/draw down account established with the Recorder or by way of an **Automated Clearing House (ACH)** payment. The ACH transactions may be made by **ACH Credit "Push"** or **ACH Debit "Pull"** methods.

ACH methods may be impacted by stipulations in agreements and/or time differences between the Recorder and Submitter(s). In an **ACH "Pull"** transaction, the party receiving the money initiates the transaction by taking the money owed from a pre-designated bank account. In an **ACH "Push"** transaction, the party owing the money initiates the transaction and sends the money to a pre-designated bank account.

A **system integration** is a direct connection between the two systems which allows the two systems to exchange required information with each other without constant human intervention. A Recorder may want to integrate the land records management system with the eRecording system, and a Submitter may want to integrate an internal document management system with that of its eRecording vendor.

Benefits of eRecording and eRecording Portals

In the eRecording process, the length of time from when a document is submitted for processing and sent for recording to the time it is received back from the Recorder can typically be measured in minutes or hours, not days or weeks. This improvement in the turnaround time allows Submitters to return recorded documents to their customers more quickly. A practical example of this is that loan files can be completed and closed faster.

Errors can be corrected more quickly with eRecording than with paper documents. Examples of errors might include an incorrect legal description, a missing notary seal, or a missing page. Should a recordation error occur, the document can be corrected and resent the same day rather than waiting for the original recorded paper document to be returned through traditional channels based on the local jurisdiction's business requirements.

Errors in the payment process of eRecording can be corrected by an additional charge or credit to the next day's ACH or an immediate adjustment to an escrow account.

eRecording typically provides better document control for the Submitter. With Model 1 and Model 2 eRecording, the original paper document used to create the image is retained in the Submitter's office. The Submitter's internal procedures for housing the documents until successfully recorded will influence the number of instances of lost or misplaced documents. The likelihood of documents being lost in transit to or from the Recorder is diminished.

In addition to the improvement in recordation speed, there are cost benefits that come along with eRecording. These savings can be realized in reduced overnight carrier costs for sending documents to the Recorders and fees associated with the self addressed stamped envelope (SASE) often included for the return of the recorded document. Similarly, for the Recorder there are savings in eliminating the need to mail the original documents back to the Submitter.

For Submitters, the biggest benefit of eRecording through a portal is the ability to submit documents to many jurisdictions using a single system. For a Recorder, it is the ability to receive documents from many Submitters using a single source. Utilizing a portal further simplifies the eRecording process by reducing the number of payment accounts to reconcile and the number of system integrations to complete, providing a single point of contact.

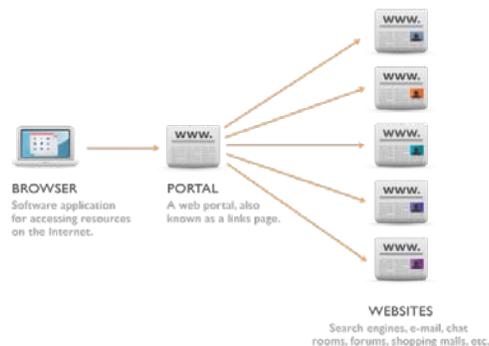
Recorders have a greater assurance of the identity of the parties submitting documents via a portal system. Before a Submitter is issued credentials to access an eRecording portal, the Submitter must execute agreements with the portal and sometimes directly with the Recorder. Once access to the portal is granted, the specific source of each submission can be identified based on the credentials used to access the system.

Section 3. Portals and eRecording – The Fundamentals

What is a portal anyway? Wikipedia defines a web portal as a web site that brings information together from diverse sources in a uniform way.⁵

Wikipedia further defines an Enterprise Portal as “a framework for integrating information, people and processes across organizational boundaries. It provides a secure unified access point, often in the form of a web-based user interface, and is designed to aggregate and personalize information through application-specific portlets. One hallmark of enterprise portals is the de-centralized content contribution and content management, which keeps the information always updated.”⁶

PORTAL - TRADITIONAL DEFINITION



An eRecording Portal is a system which facilitates a many-to-one and a one-to-many relationship between Recorders and Submitters of documents for recording. It has the potential to provide a substantially more efficient and cost effective means for managing the flow of electronic documents. The following is a description of the central components of any eRecording Portal. Every Recorder or Submitter of real estate documents for recording has the ability to choose which eRecording service to use. Knowledge about how portals work will help Recorders and Submitters make better, more informed decisions.

Submitter Interface

There are two primary methods a Submitter may use to submit documents through an eRecording Portal to a Recorder: Browser Interface or Integrated Interface.

Browser Interface: A web site which requires a Submitter to register with a user ID and password. An authorized user or “trusted” Submitter will be guided through a process of entering information about the document to be recorded and providing some form of

⁵ “Web Portal,” in *Wikipedia: The Free Encyclopedia*; (Wikimedia Foundation, Inc., updated 15 December 2012); available from http://en.wikipedia.org/wiki/Web_portal; Internet; retrieved 17 December 2012.

⁶ “Enterprise Portal,” in *Wikipedia: The Free Encyclopedia*; (Wikimedia Foundation, Inc., updated 29 August 2012); available from http://en.wikipedia.org/wiki/Enterprise_portal; Internet; retrieved 17 September 2012.

image representation of the document. Typically the document originated as a paper document executed through traditional means including ink signatures and notary stamps or seals. The paper document is scanned and converted to an image format such as TIFF or PDF and then “attached” to an electronic submission in a manner similar to attaching a document to an e-mail. After the image representation of the document is attached, the Submitter selects some form of “Submit” button and sends the information to or through the portal for action by the Recorder.

Integrated Interface: A direct integration of systems between a Portal and a Submitter. The Portal and the Submitter establish communication and information transfer protocols – usually through a web services integration – to transfer documents directly from one system to the other. Typically a Portal will provide a Submitter with appropriate access credentials and specifications on how information will be transferred by way of a Web Services Description Language (WSDL) and XML Schema. This type of interface permits Submitters to use their own internal user interface for managing documents as the means for sending documents for recording. By modifying an internal document management system, documents can be transferred from that system to an eRecording Portal. This can eliminate the need to learn how to use a new Browser Interface or other external submission method to process and manage documents.

Suggested Recorder and Submitter questions to determine which interface is the best fit.

- Do you process a few documents a week or hundreds?
- Do you or your technical service providers have the capability to work with XML and Web Services?

Recorder Interface

The selection of the Recorder interface is based on the assumption that the Recorder has the technological ability to electronically index and archive images of recorded documents. Recorders have choices similar to Submitters except the selected interface provides the means to receive and act on electronic documents. The interface is a document management system which manages large numbers of documents. There are at least two possible interface solutions: an Integrated Interface with an eRecording Portal through a WSDL and XML Schema or the installation of client software provided by an eRecording Portal which will manage and schedule communications between the Recorder and the Portal. Depending on the selection, the Portal team will work with either the private indexing/imaging system service providers or the internal information technology team in the jurisdiction to establish the interface.

It is important to make the distinction between reviewing a document for recording and the act of recording itself. The recording of a document is generally regarded as occurring at the moment a document recording/instrument number, book and page, or other reference number is assigned to it along with the date and time of recording. The review of a document presented for recording can occur in many ways. Portals typically handle the review of documents in one of two ways:

1. Authorized users from the Recorder's office are assigned user IDs and passwords which enable them to access a web page (Browser Interface) managed by the portal. The web page lists the documents ready for review and presents the submitted document information and image representation. Detailed information about the document including the parties, document type and date of the document can be examined along with the image of the executed document. If the document information and image are in an acceptable form, the user can approve the document for recording. This "approval" action triggers a message to the Portal client or web service (Integrated Interface) indicating a document reference and time of recording. When the recording reference and time are assigned by the Recorder, the process is complete.
2. The Portal transfers the document information and image representation to the Recorder's Land Records Management System (LRMS or integrated interface). The information is placed in a queue for review on the Recorder's local system. If the document information and image are in acceptable form, the Recorder can assign a document reference and time of recording. When the reference and time are assigned, the recording process is complete. This method allows the Recorder to combine electronically submitted documents with the paper document management workflow.

With either method the document information is transferred between systems electronically and provides a significant benefit to the Recorder. Benefits may include lower costs associated with entering data manually, postage and resources for returning paper documents, and the conversion of paper documents to an electronic format.

Other steps in the recording process such as payment, document information archiving, image stamping, and the return of recording information to the Portal and the Submitter are addressed elsewhere in this paper.

Recorders should consider technical requirements and business processes for eRecording when there is a separate service provider for electronic indexing and document imaging. In most situations, the eRecording process – including the initial handling of document images – is managed by the indexing service provider. When the eRecording process is completed, the image of the recorded document is transferred to the imaging provider for permanent archiving.

Suggested Recorder questions to determine which land records interface is the best fit.

- Is the local indexing or imaging service provider – or your local information technology staff - adept at working with XML and web services or client integration with external systems?
- Is the initial review of documents through a Portal web site acceptable?
- How much information must be provided in order for a recording decision to be made?
- Will a document be recorded if only the image representation is present?

eRecording Portal Platform

Many eRecording portals participate in the processes for establishing eRecording standards through PRIA and MISMO. These standards organizations have helped establish the basis for implementing eRecording across many different land records offices. Implementation of the standards is voluntary and there are various versions of the standards. There is no certification process or other means to verify that any particular eRecording system, including eRecording Portals, is following the standards. Consequently, eRecording portals are “based on” the standards with variations or modifications which are needed to meet the business requirements of both the Recorders and the Portals/Submitters.

Use of the standards by any eRecording Portal platform can be an indicator of two things:

1. The ability of the Portal to keep up with recent developments in technology and long term viability of their platform.
2. The readiness of the Portal to accept purely electronic documents. Today purely electronic documents are rare but, in the future, eRecording Portals will need to be able to accept and process such documents.

Suggested Recorder and Submitter questions on how to know what the standard is.

- Upon what PRIA/MISMO eRecording standard is the Portal based?
- Can electronic documents which may be electronically or digitally signed be processed? If not now, when?

Document Rejection and Error Correction

eRecording Portals provide the means to electronically transfer documents for recording. If everything about the document submission is correct including the document information and the image representation of the document, the document will be recorded with the reference number assigned, the image stamped, and the Submitter charged. But what happens if the information is incorrect, or the image is corrupt? What happens if the submission is presented to the wrong Recorder?

An eRecording Portal typically provides the means for a Recorder to reject a document and explain the error to the Submitter. Notice of a rejection is typically provided to a Submitter in one of three ways.

1. An e-mail message is returned to a specified user e-mail or e-mail alias associated with the Submitter.
2. A message is posted on the Submitter’s Portal web site page and accessed when the Submitter logs in to its account (if the Submitter is using a Browser Interface).
3. An XML message is returned to the Submitter’s document management system and presented in a manner specified by the Submitter. This could be manifested as an internal e-mail, pop-up note or other form of electronic notification.

A Portal may also provide the Recorder or Submitter with the means to make a correction. Some errors can be corrected directly by the Recorder. If a grantor or grantee name is misspelled in the indexing data submitted, the interface should provide the means to correct the spelling to conform to that on the document image. Most Recorders correct spelling or other indexing errors after the document has been recorded in the local system. eRecording Portals, or the LRMS used, may also provide Recorders with the means to correct recording fees by changing variables which may have been entered incorrectly by a Submitter. Variables may include: the number of parcels, the number of transactions represented in the document, the dollar value of the transaction and the requirement for related documents to accompany the primary document. Examples of related documents include various forms for reporting value and type of a real estate transaction, or the environmental condition of a property.

Some errors cannot be corrected by the Recorder and the document or group of associated documents must be rejected and returned to the Submitter. Examples include corrupted images or submissions to the wrong Recorder's office. eRecording Portals provide Submitters with the ability to correct and resubmit the document. The correction may be as simple as correcting a defect in the paper document, scanning the corrected version and reattaching it to the submission. Submitters using a Browser Interface will find the correction process similar to the original submission process. Submitters using an Integrated Interface may be dependent upon the document management capabilities of both the Submitter's system and the eRecording Portal for corrections.

It is not uncommon for Submitters using an Integrated Interface with an eRecording Portal to abandon the original (rejected) submission and create a new submission with the corrected document. In this case, the Submitter, Portal or Recorder may need to delete or filter any abandoned documents.

Policies on the handling of errors and corrections may vary among Recorders and Portals. The same error may be addressed differently depending on the practices of the Recorder's office. Some will gladly make the correction while others will reject the document and require the Submitter to make the correction.

Processing rules may also vary when a correction made by a Recorder results in a fee change. The correction and fee change may be implemented immediately and the Submitter charged the adjusted amount, or the Submitter may be required to acknowledge and agree to the fee adjustment before the document is recorded.

Suggested Recorder and Submitter questions to understand the error correction policies and procedures.

- If a document is rejected and an error correction is required, how will the Submitter be notified?
- How does the Portal enable error corrections by the Submitter or the Recorder?
- If a Portal enables corrections which result in a fee change, is the fee change applied automatically, or is a Submitter's acknowledgement and consent required?

Image Stamping and Archiving

The bulk of eRecording activity today is a representation of a document which originated in paper format. eRecording Portals are designed to receive and process a scanned image accompanied by data about the document including document type, date of execution, grantors/grantees, and information about a real estate sale if the document is a conveyance document. Recorders' eRecording systems may have the ability to process electronically signed documents or documents which originated as electronic documents if the information can be converted and represented or portrayed in a format comparable to the format of paper originated documents.

In either case, it is a generally accepted business requirement in eRecording that the image of the document contain an appropriate, verifiable stamp or indicia showing it has been properly recorded by the Recorder. The stamp typically includes the name of the Recorder, the jurisdiction's name, the date and time of recording, the recording reference number, and the recording fee. The stamp may include other information about the document as may be dictated by statute or regulation.

Whether represented as a PDF or TIFF, the stamp is applied to signify the completion of the recording process. The stamping process is typically handled in one of two ways.

1. After a Recorder assigns a reference number and the document is recorded, the LRMS returns a response message to the eRecording Portal. The response message includes the required recording information. That information is used to programmatically affix a stamp in the appropriate location, usually in the upper portion of the first page of the document. The stamped image is then messaged to the Recorder and placed in the permanent archive.
2. Some Recorder LRMSs are able to use the recording information and affix the stamp locally. In this case, the Portal is not involved in the creation of the stamp. However, it is necessary for the LRMS to return a message to the Portal which includes the final stamped image. This message allows the Portal to return a copy of the stamped image to the Submitter completing the full round trip of the recording process.

Currently, the industry standard for processing and archiving document images is either TIFF or PDF format. Some systems may convert the images from one format to another. For example, a Submitter may originate a document as a PDF image, and the eRecording portal may process the document as a PDF. After the document is recorded and stamped, it is converted to a TIFF format so it is compatible with the Recorder's image archival standards. eRecording Portals should have the ability to manage, process and archive document images in multiple formats.

Suggested Recorder and Submitter questions to understand how the recording stamp is applied.

- In what format must a document image be presented to the Portal by the Submitter?

- In what format must the document image be archived locally at the conclusion of the recording process? What platform? What compression?
- Who is responsible for affixing the recording stamp?
- How is the stamped image presented to the Submitter after recording?

Tracking Document Status

When using an overnight courier service (UPS, FedEx, etc.) to deliver paper documents, it is possible to track delivery status from the Submitter to the Recorder. Once the documents arrive, the Submitter usually is not aware of the document status until the Submitter receives either a rejection letter or the recorded documents. The opportunity to monitor the status of documents which have been submitted to a Recorder is another advantage of eRecording. In most eRecording Portals, each document or package is assigned a unique document identifier which can be used as a tracking number. Using the tracking number, a Submitter can check to see whether a document has a status of ready for review, rejected, in progress, or approved (recorded).

Submitters working with a Portal through a Browser Interface may be able to view the status of a document by logging onto their customer page. Some Portals provide search tools to find documents that have been submitted. Search criteria may include the name of the recording jurisdiction, date range, document type, and of course the document ID number. Submitters using an Integrated Interface in conjunction with their internal document management system may have the ability to check the status of a document using various status flags provided to them through their eRecording Portal web service.

As described earlier in this section, an eRecording Portal may generate e-mail notifications when the status of a document changes. For example, when a document is recorded and the payment account has been charged, an e-mail message will be generated to notify the Submitter of completion. A status page on the Portal web site may be available to Submitters to search for and retrieve information about a document and provide an opportunity to download a stamped image of the recorded document.

eRecording Portals may provide a list of contact information for each Recorder; sometimes there is no substitute for old fashioned communications. When in doubt a Submitter should send an e-mail or phone the Recorder's office to check on the status of a document.

As an added benefit, the Recorder can also monitor the status of documents returned to the Submitter. It is a two-way lens!

Suggested Recorder and Submitter questions about how to monitor the status of documents.

- How does the Portal uniquely identify a document which is electronically submitted?
- What method(s) is available to check on the status of a document?
- What notification methods are available when the status of a document changes?

Making and Receiving Payment for Recording Fees

In most cases a Submitter will need a computer, scanner, internet access, and a method to pay for recording documents. eRecording Portals typically provide a variety of payment options. Payment options may be outlined in the Memorandum of Understanding with the Recorder. The following is a brief summary of possible payment methods:

1. Automated Clearing House (ACH) Transfer.
 - (a) ACH Debit “Pull”: when a document is recorded, the eRecording Portal is authorized to “pull” funds from an account specified by the Submitter. A Submitter provides its bank account and routing numbers, and notifies its financial institution that the Portal is authorized to call an ACH transaction. The Portal provides the financial institution with an ACH identification number which is used to verify the authenticity of a requested ACH transaction. Some ACH transactions may take several days to fully clear.
 - (b) ACH Credit “Push”: when the document is recorded, the Submitter receives notification of the final amount and “pushes” the funds into the eRecording Portal’s designated bank account. The Portal provides the Submitter with the bank account and routing numbers and the Submitter authorizes the transfer of funds from its account each time it “pushes” money to the Portal. For example, government entities may not be comfortable allowing a Portal to “pull” funds from their accounts, but they might be more comfortable if they can control it with a “push” transaction.
2. Credit/Debit Cards: A Submitter provides a valid credit or debit card number. When a document is recorded, the eRecording Portal is authorized to charge the specified account through a merchant gateway service. This payment method provides the most immediate access to funds for the Portal, but the transaction cost may be higher due to the merchant fees charged by the credit/debit card companies. The Payment Card Industry Data Security Standard (PCI DSS) is a set of requirements designed to ensure that all companies that process, store, or transmit credit card information maintain a secure environment. Be aware of PCI compliance issues when using or accepting credit/debit cards.
3. Billing/Invoicing: An account is created for the Submitter and each time a document is recorded, the Portal tracks the charges and bills the Submitter. Portals may not be eager to offer this payment method because Recorders expect to receive their funds from eRecording more frequently than the traditional monthly billing cycle. If implemented, bills or invoices could be paid with a check or credit/debit card.
4. Escrow or “Draw Down” Accounts: A Submitter would be required to deposit funds with the Portal in advance. As the Submitter engages in recording activity, funds would be drawn from the account until it reaches a threshold which requires that funds be replenished. The Portal treats the account as a current liability and then recognizes the income when recording fees are charged. When funds are deposited

into the account by a Submitter, payment can be made by check, credit/debit card, or ACH transfer.

As an intermediate party between the Recorder and the Submitter, the eRecording Portal has a responsibility to both parties to properly report and account for the status of all transactions. The Portal should be able to tie the recording and service fees for each recorded document back to bank statements as both a deposit from the Submitter and a distribution to the Recorder. Auditors will look for the correlation among charges and deposited funds.

A Portal should provide reports to both Recorders and Submitters. These reports can be auto-generated or custom reports can be enabled to permit the parties to sort transactions by date range, recording jurisdiction, or other criteria. At a minimum, reports should be presented to the parties in parallel with bank statements for the purposes of reconciliation. Submitters want to verify that the recording services being charged for each recording are correct and Recorders want to verify the correct recording fees have been received.

eRecording Portals typically charge two classes of fees to Submitters:

1. The recording fee, including the associated real estate transfer taxes and other fees, transferred by the Portal to each participating Recorder. The transfer of recording fees to Recorders is typically administered with an ACH "Push" method.
2. A service or convenience fee may be retained by the Portal for operating expenses and, in the case of private or proprietary Portals, the fee is also intended to provide an appropriate return on investment to the Portal sponsors. Publicly sponsored Portals may receive financial support from Recorders' recording or technology fees.

As with any transaction, there is a risk for payment failure. Possible causes for payment failure range from insufficient funds to expired credit or debit cards to fraud. Portals are responsible for securing payment from the Submitter and then transferring funds to the Recorder. This responsibility extends to handling situations when payment fails. The Portal typically handles the task of collecting failed payments from Submitters. Recorders expect to receive the funds due whether the Submitter payment succeeds or fails. When payment fails, a Portal may temporarily stop service to and from a Submitter until the payment issues have been resolved.

Suggested Recorder and Submitter questions to understand fee structures and reporting methods.

- What form(s) of payment does the Portal offer to Submitters?
- What reports are available to Recorders and Submitters for account reconciliation?
- What fees are charged by the Portal, and how are those fees allocated?
- If a payment fails, who is responsible?

Methods for Returning Information about Recorded Documents

Once a paper document is recorded, the Recorder returns it to the Submitter or preparer via the postal service, courier or other delivery method. With eRecording, there is no paper document to return, and a stamped electronic document can be transmitted to a Submitter electronically. Options for returning electronic documents to Submitters include the following:

- E-mail as an attachment, possibly in conjunction with notice of recording and payment
- Posted and available for download through the eRecording browser interface
- Return of an embedded image and associated recording data in an XML file to a Submitter through an Integrated Interface
- Posted and available for download through a public web site

It should be noted that Recorders and Portals may be required to control access to recorded electronic documents for various reasons. There may be restrictions on the transfer or posting of recorded documents through regulation, policy or statute. For example, there may be restrictions or regulations relating to the protection of personally identifiable information.

Suggested Recorder and Submitter questions to understand how recorded documents are returned to the Submitter.

- Does the Portal return electronically recorded documents to Submitters? How?

Customer Service Options

When a Recorder offers eRecording services through internal technical staff or a local information technology service provider, both the Recorder and the Submitters are responsible for directing recording, business, or technical questions to the appropriate department or local provider. A Portal acts as an intermediate agent between Recorders and Submitters and may serve multiple Recorders and multiple Submitters. It should be expected to provide some form of centralized technical or customer support service.

eRecording services are subject to the same business and technical issues as other web sites.

- Systems can fail due to disruptions in communication, a bug in the code, and user errors (people forget their User IDs and passwords).
- Recorders and Submitters accessing information through a Browser Interface may not have the right browser installed or they may have failed to install a current version of Adobe Acrobat Reader.
- A payment failure may require customer support to help resolve an issue or to collect the payment.

An eRecording Portal can provide customer support access in a manner similar to other online services. Access points may include a support e-mail address, a web form, toll-free

telephone number or chat modules. Portals may also provide support through user guides or online help systems. Document tracking systems are an important tool for Recorders, Submitters, and Portal customer support personnel when identifying and diagnosing technical problems. Some customer support systems include trouble tickets or issue tracking systems to help document issues and ensure appropriate follow-up occurs.

One of the challenges for an eRecording Portal is the need to work with multiple parties to resolve technical issues. The Portal must successfully integrate with the Recorder's LRMS. These systems are often supported by a private third-party service provider. Whether the integration is managed through a web service or client software installed on the local system, the success of the eRecording process hinges on the successful exchange of information between the Portal and the local service provider. A similar relationship exists between a Portal and a Submitter who is using an Integrated Interface. Sometimes the diagnosis of technical issues requires the participants to determine who is responsible for resolving the issue. The customer support system for the eRecording Portal often facilitates the process of working with the various parties and coordinating issue resolution. This role is inherently associated with providing a bridge between a Recorder and a Submitter. Without this kind of customer support it would be difficult to successfully implement eRecording services.

Suggested Recorder and Submitter questions to understand how customer support is provided.

- How is customer service contacted?
- Who is responsible for requesting assistance?
- How does customer service respond to requests for assistance?
- Who is responsible for resolving technical issues?
- How is responsibility determined?

Methods for Ensuring Document Authenticity

In the paper world, there is a sense of security when a real estate document is presented over the counter with ink signatures and applied seals. The belief is that the document must be authentic and original. When an electronic document is submitted for recording and there is no paper, no colored ink, and no raised seal, how can the document be authentic?

eRecording Portals respond to this perception challenge in three ways.

1. **System Security.** Submitters are typically asked to transfer information and images over the internet to the eRecording Portal. The Portal has an obligation to ensure the document presented to a Recorder matches the document transferred by the Submitter. This obligation is completed through the exchange of information between systems with commercially acceptable encryption and security. Typically an eRecording Portal will set up the server using Transport Layer Security (TLS) or its predecessor, Secure Sockets Layer (SSL). This is represented in the web address as https:// in lieu of http:// (note the addition of the "s"). These security protocols

are the same methods used to protect online banking and other electronic commerce activities from eavesdropping and tampering.

In addition to the efforts to secure the transmission of messages and documents, eRecording Portals also set up firewalls and other security systems to restrict access to information stored and maintained in support of the eRecording process. While no system is fully protected from malicious hackers and malware, administrators of eRecording Portals seek to ensure the security of these systems.

- 2. Due Diligence.** Unlike other electronic commerce web sites, eRecording Portals do not typically allow individuals or organizations to self-register. Prospective Submitters are asked to provide information about themselves and their role in the real estate industry. Portals may conduct background checks, including credit checks, criminal history checks and in some jurisdictions finger printing. The Submitter's history of preparing and submitting documents for recording may be reviewed. Financial institutions may be contacted to ensure there are sufficient funds and to secure the appropriate identification numbers and permissions for electronic funds transfer if the Submitter wishes to set up a payment account for ACH transfers. If a Submitter wishes to make payment with a credit or debit card, a trial transaction may be executed to verify the validity of the account.

The result of this due diligence process is the establishment of a "Trusted Submitter" relationship. This will not prevent a person with ill intent from committing fraud. The process of gathering and evaluating the necessary background information helps reduce the risk of recording altered documents.

In some jurisdictions, the decision to recognize or authorize a "Trusted Submitter" may reside with the Recorder. In other areas, the governing authority for the Portal determines who will be able to electronically submit documents for recording.

- 3. Business Processes.** An eRecording Portal should organize business processes to facilitate the review of electronic documents by both the Recorder and the Submitter. After a Submitter initiates the transfer of an electronic document, a Portal will often present the image of the document to the Submitter in the form in which it was received. This allows the Submitter to verify that the document being processed by the Portal matches the document which was submitted. The Recorder's staff will view the document image through the same platform. After the recording process is complete, both the Recorder and the Submitter are able to view the final version of the recorded electronic document. This dual review helps ensure that the document is not altered (other than the addition of the recording stamp) through the eRecording process.

Portal Terms of Use and Privacy policies (or equivalent) often specify the responsibilities of the Submitter to ensure that a document submitted for eRecording is authentic and properly executed. Submitters who establish an Integrated Interface with a Portal may be required to approve a more detailed

Memorandum of Agreement which specifies their duties and responsibilities including making appropriate provision for security and document authenticity.

These three elements working together help ensure that electronic documents are not tampered with or altered, and that only appropriate organizations are granted permission to be Submitters.

Suggested Recorder and Submitter questions to understand eRecording security.

- What security systems does the Portal employ?
- How does the Portal establish its relationship with “Trusted Submitters”?
- Who decides whether an organization is a Trusted Submitter: the Portal or the Recorder?
- What do the Terms of Use or Submitter agreements say about their responsibilities to submit valid documents and prevent fraud?

Integration/Service Level Agreements

A Portal can provide the environment for the collaboration of many parties to make eRecording happen, serve as a substitute for the postal service or courier service, and facilitate the use of standards and improved business processes to make the recording process more cost effective and timely. A variety of technical issues and business processes must be agreed upon by the parties. This is usually manifested in the form of Integration and Service Level Agreements between the Portal and three primary groups: service providers which support local Recorders, originating Submitters, and intermediate Submitters.

Local LRMS Service Providers. Vital to the success of an eRecording Portal is the ability to exchange recording information with the LRMS provider for a Recorder. The elements of this integration are described in the Recorder Interface section. Local service providers are private, for-profit organizations and expect to be compensated. Integration or Service Level Agreements are established to codify the mutual duties and responsibilities of the parties and to specify how compensation is handled. There are three potential compensation models in this situation.

- Annual maintenance fee paid by Recorder
- Annual maintenance fee paid by Portal
- Revenue sharing of eRecording service or convenience fees between the Portal and the local service provider

The amount of compensation is typically calculated based on the level of support and technical assistance delivered by the service provider.

Originating Submitters. An originating Submitter typically uses a Browser Interface for eRecording and requires a basic level of support. Law firms, mortgage companies, banks and abstract and title companies are represented in this group and are best described as a customer, not as a service provider. There are certain minimum expectations for conforming to standards and technical requirements for these customers. The

requirements are usually represented in a Submitter application form and Terms of Use published by the eRecording Portal. The Submitter in this case may have only filled out the form and checked a few boxes online, but that documentation represents an agreement between the Submitter and the Portal and it should be reviewed carefully.

Intermediate Submitters. An intermediate Submitter typically uses an Integrated Interface with the Portal and may be classified as a Portal themselves. This level of integration and cooperation may be represented in a more detailed and complete agreement. Such agreements document the technical requirements and the mutual duties and responsibilities the parties have to each other.

Suggested Recorder and Submitter questions to understand the relationships between an eRecording Portal and other service providers.

- What are the business and technical arrangements between the Portal and the Recorder's local service provider?
- What is required of an originating Submitter as reflected in the Terms of Use, application form, or other required documentation?
- What are the business arrangements and mutual duties and responsibilities of the Portal and the intermediate Submitter?

Open Access

For Recorders and Submitters, choosing an eRecording system can be a daunting task. Proprietary choices may result in arrangements for exclusive access to Recorders or Submitters. Such arrangements can have unintended consequences including inhibiting the adoption of eRecording, or increasing costs. As private entities, Submitters can make whatever arrangements they wish. It is implicitly understood that private eRecording systems and private eRecording Portals have invested private capital with the goal of securing a return on their investment.

Recorders, as public entities, are expected to provide the service of recording and archiving in an efficient and cost effective manner, encourage and facilitate the adoption of eRecording, and encourage interoperability among eRecording systems.

An advantage of integrating with an eRecording Portal is that it provides an opportunity for Recorders to have many Submitters without having to integrate with and support numerous eRecording services.

Suggested Recorder and Submitter questions to evaluate the alternative eRecording access options.

- Does it make sense to have multiple eRecording applications installed in a single Recorder's office?
- How many eRecording services should a Submitter have to subscribe to in order to reach multiple Recorders within a state or among states?

Section 4. Additional Considerations for Submitters and Recording Agencies when Integrating with an eRecording Portal

Section 2 defined an eRecording Portal, and Section 3 explained the various functions and components of a Portal. Prospective consumers of these services know how the Portal addresses each of those topics. Recorders or Submitters are in the best position to judge whether a Portal's features and functions will meet their needs. There are other issues to consider when deciding whether an eRecording Portal is the right one for the situation. Some of these issues are explored in this section from both the Recorders' and Submitters' perspectives.

The Submitter View

Originating Submitters are already in the business of preparing documents for official recording and are likely candidates to start eRecording. In most cases, paper documents are still the media that Submitters receive for processing. Typically a bank, attorney, mortgage lender or land title professional has access to a computer, some form of broadband internet, and a scanner capable of saving document images. A larger enterprise with an internal electronic document management system has those same capabilities except on a larger scale, and may also have the people or resources to integrate with an external web service. Whether the organization has just a scanner or the ability to integrate with a web service, the tools are in place to enable participation in eRecording. Some research may need to be completed as the functions described in Section 2 are reviewed and before a decision about the eRecording Portal partner is made.

Recorder Reach

A single eRecording Portal may or may not be connected to all of the Recorders who are accepting documents electronically. If the Portal does not reach every Recorder with whom a Submitter wishes to electronically record, it may be necessary to establish a relationship with more than one Portal or eRecording service.

In some cases a Recorder may not be connected to a Portal, but instead offer a stand-alone eRecording service which is implemented by internal IT staff, their LRMS providers, or through eRecording software supported by a third-party service provider.

While eRecording provides inherent benefits in the form of time and value when compared with traditional methods of recording, a Submitter's willingness and ability to interface with multiple recording vendors or systems may impact the choice about which Portal(s) to use.

Suggested Recorder and Submitter question to determine which jurisdictions participate in an eRecording portal.

- Do the eRecording Portals being evaluated reach some or all of those jurisdictions?

Service Fees

eRecording is not free. There are real costs associated with establishing, operating and maintaining an eRecording Portal. These costs are above and beyond the costs associated with the operations of the individual Recorder's office (for which the Recorder receives recording fees), and may be covered with some form of service fee. The basis for the fees could be per document, per page, or some other factor specified by the Portal. Private, for-profit eRecording Portals should cover their operating costs and return on investment through the service fees they charge. Portals which are sponsored in various forms by Recorders may be able to underwrite or subsidize their costs through an allocation of base recording fees or other recording fees. Before signing up with an eRecording Portal, find out what the service fees are.

Suggested Recorder and Submitter questions.

- What is the service fee?
- What is the basis for the service fee, if any: per document, per page, other?
- Is there a setup fee?

Workflow Integration

If eRecording is being considered, then the costs of managing document workflow must be calculated and reduced whenever possible. Greater efficiency in operations should help recover some, if not all, of the service fee costs. Some of the issues to consider with respect to document workflow may depend on whether documents are submitted through a Browser Interface or a Web Service Interface. Here are a few examples for each interface type.

Browser Interface: Authorized Submitters will be given a user ID and password to access the eRecording Portal web site. The browser interface requires the user to be able to find and retrieve each document during the submission process. It is up to the Submitter to determine how the scanned images in the Submitter's computer system will be organized, e.g. by date, by customer, by service. In addition to attaching an image of the document to be recorded, users will be asked to enter some basic document information such as the document type, execution date of the document, the grantors' and grantees' names, and perhaps other information such as a legal description where applicable. This interface in some form requires users to move information from the local file system to the portal.

Web Service Interface: Under this option the Portal provides Submitters and their internal document management system with the credentials to submit documents directly without using a web browser. If a large number of documents are prepared,

this interface provides the advantage of using the Submitter's system interface to prepare and submit documents programmatically. A portal web service may require more technical resources, but can provide a significant boost to productivity in document workflow. This workflow allows Submitters to use their own system to prepare and review a document, then click a button on the local system to send it to an eRecording Portal. No switching screens, no logging out of one system and logging into another. It is possible to make the workflow seamless, with the transfer of information and document images occurring behind the scenes.

Before choosing an eRecording Portal, take the time to think through what the document management workflow could or should be. The benefit in terms of productivity and efficiency could significantly exceed the cost of service fees or the internal investment required to transfer documents through a browser or a web service.

Suggested Recorder and Submitter questions to determine how documents are prepared for recording.

- Are documents managed electronically or produced in a paper format?
- If paper documents are prepared, is there access to current generation scanning equipment?
- Which interface will best match your situation and needs: web browser or web service?
- Do the resources or internal talent exist to modify the document management system to integrate with an eRecording portal?

The Recorder View

Recorders are probably already processing and archiving index information and documents electronically. A LRMS provider should be keeping up with current technology and be able to process information in XML format. The data and images should then be mapped to the appropriate elements in the indexing database and image archive. If these capabilities exist, the tools are in place to enable participation in eRecording. An eRecording Portal will work with the LRMS provider(s) to set up the systems for exchanging information about submitted documents. There is some related research to complete as the functions described in Section 2 are learned and before a decision about the eRecording Portal partner is made.

Submitter Reach

If the Recorder is ready for eRecording and wants to capture the efficiencies and cost savings associated with it, then a key objective is to secure as much customer or Submitter participation as soon as possible. It is a fair question to ask a prospective eRecording Portal provider about its current and potential Submitter customer base.

Suggested Recorder and Submitter questions to determine which Recorders participate in the eRecording portal.

- Who are the most active or large volume “paper” submitters?
- Can they electronically submit documents through one of the eRecording portal options available?

Service Fees and Maintenance Costs

In the context of eRecording, service fees are usually paid by the Submitter. If an eRecording Portal representative approaches a Recorder and asks permission to integrate with the local indexing and imaging system, there are usually associated costs. These costs may be represented in several forms:

- **Portal service or maintenance fee.** Service fees are usually assessed through an annual subscription, and could require some set up fees. The service or maintenance fees charged by an eRecording Portal to Recorders may be influenced by whether the Portal is a private entity or sponsored by public institutions.
- **LRMS provider maintenance costs.** Integration between a local system and an eRecording Portal requires professional technical support by both parties. An eRecording Portal is useless unless it can successfully exchange information with the local indexing and imaging system. These local systems are often private, for-profit service organizations, and those companies are sustained by the sale and maintenance of software (and sometimes hardware). This compensation could be collected in the form of revenue sharing of service fees charged to Submitters, or through a periodic maintenance agreement paid for by either the Portal or by the participating Recorder.

Suggested Recorder and Submitter questions to determine the service and maintenance costs involved with eRecording.

- Does the Portal charge a service or maintenance fee to the Recorder to receive the benefit of enabling eRecording?
- If so, what is the basis and amount of the fee?
- How are local service providers who provide support for integrating services with a portal compensated for their work?
- Who pays local service providers: the Recorder or the eRecording Portal?

Workflow Integration

If eRecording is being considered by the Recorder, the goals should be similar to those that Submitters seek: to reduce the costs of managing document workflow and drive other costs down wherever possible. It has been demonstrated in practice that eRecording is quicker and more efficient than paper processing. Additionally, Recorders reduce postage costs associated with returning paper documents. Just like Submitters, there are issues for Recorders to consider with respect to document workflow. The issues may depend on whether documents are being reviewed and acted on through a

Browser Interface or a Web Service Interface or both. Here is a brief description of each interface type:

Browser Interface: Recorder's staff users will be provided with a user ID and password to access the eRecording Portal web site. The user will determine whether the document image, the document information, and the calculated recording fees are correct and satisfactory. This information is presented through a browser interface. If a document is approved, a message is transferred to the local indexing and imaging system to complete the recording process. A document reference number (e.g. book and page) and the date and time of recording is assigned. If additional indexing information, such as other grantors/grantees or legal descriptions, is needed, the Recorder typically has the option to add the information through the browser interface or directly into the local system interface after the initial recording is completed.

Web Service Interface: The Portal web service may permit the local indexing and imaging system to view the submitted information directly through the Recorder's system interface, bypassing the eRecording web site. If this option is used, the local system returns the recording information to the portal to complete the transaction, authorize the Submitter payment, and return the recording information to the Submitter.

This interface requires more technical resources from the Recorder, the local service provider or both. It can provide a significant boost to productivity and workflow. Recorders can use their own recording system to review a document, and then click a button on the local system to approve, record, index, and return the document to the eRecording Portal. No switching screens, no logging out of one system and logging into another. It is possible to make the workflow seamless, with the transfer of information and document images occurring behind the scenes.

Before choosing an eRecording Portal, take the time to think through what the document management workflow could or should be. The benefit in terms of productivity and efficiency could significantly exceed the cost of maintenance fees or the internal investment required to process documents through a browser or a web service.

Suggested Recorder and Submitter questions to understand the options for integrating with local LRMS systems.

- How are electronic documents reviewed for recording?
- Which interface will best match your situation and needs: web browser or web service?
- Does the local service provider or Recorder have the resources or internal talent to modify the document management system and integrate with an eRecording Portal?
- Who pays for the support of local service providers?
- What should the basis for the compensation of local service providers be: annual maintenance fee or share of eRecording service fees?

One or Multiple Integrations

The issue of “Submitter Reach” was discussed as a possible criterion for Recorders to consider when selecting an eRecording Portal option. It would be a good idea to choose an eRecording Portal with a large number of Submitters. In reality it is possible for a Recorder to integrate with multiple eRecording Portals. The principle of “Open Access” encourages multiple integrations. Reaching more Submitters and encouraging eRecording is a good thing. If a Recorder integrates with two or three eRecording Portals, the result should be an increase in the volume of electronically submitted documents.

In theory, all eRecording Portals are based on the PRIA/MISMO standards. These standards should facilitate interoperability and make multiple integrations less complicated. The practical reality is that each Portal has variations in data structure, messaging and information mapping. This could get complicated, particularly for a Recorder’s service provider and will likely translate into more time and higher costs for maintenance and support. These factors should be carefully weighed if multiple integrations are considered.

Suggested Recorder and Submitter question to determine the best integration strategy.

- How many eRecording Portals could be integrated with the local indexing/imaging systems?

Recorder Indexing

One of the efficiencies of eRecording from the perspective of a Recorder is a potential reduction of data entry. In a traditional recording process, paper documents are submitted to the Recorder and an employee is tasked with keying the information into the local LRMS. With eRecording, a portion of that data entry function is transferred to the Submitter or to the Portal. The more data entry performed before a document reaches the Recorder, the more efficient the process should be.

There is one axiom for recording that must be remembered. The recording index is the responsibility of the Recorder because that responsibility generally lies with the Recorder pursuant to law (and no one should know the recording index better than a Recorder).

In an eRecording transaction, time is lost and efficiency is reduced if indexing information is entered incorrectly by a Submitter, requiring corrections to be made by the Recorder. Conversely, rejecting a document for imperfect indexing is inefficient and can inhibit the growth of eRecording.

Some Recorders ask Submitters to enter only the basic information about a document such as a party name, date of document, and document type. The rest of the data entry is left to the indexing expertise of the Recorder’s office. When evaluating an eRecording Portal, Recorders need to decide what information will be required to process an electronic document. Some eRecording systems may incorporate an “auto-indexing” feature which pre-populates certain data fields after a document image is scanned and then processed with optical character recognition software.

Suggested Recorder and Submitter questions to understand indexing requirements.

- What are the minimum data elements required with a submitted document image to complete an eRecording?
- What data elements should a Submitter or Portal not enter?
- How will data error corrections be handled by the Recorder?

“Control” or “Ownership” of Systems/Data

A Recorder is responsible for receiving and processing information which will ultimately be archived as the public record. This should be considered when evaluating options for eRecording Portals. If an eRecording Portal integrates with the local LRMS, the business arrangements which affect the control and ownership of both the systems and the data should be considered.

It is not uncommon for a Portal or a local service provider to create custom software to facilitate the integration of their respective systems. Data and images are transferred from the Submitter through a portal to a Recorder. To ensure that the interests of the Recorder and public domain matters remain protected, it is important that the Recorder explore and fully understand the business arrangements of how both the software and data are controlled. Because of the dependency on third-party service providers, the answers to the questions below are important for the Recorder to consider.

Suggested Recorder and Submitter questions to understand the fine print.

- Who owns and controls the software?
- Who owns and controls the data? When?
- Can the Portal or service provider sell the public record data and/or images from their system?
- Can the service provider or Portal restrict competition from other vendors?

Basis for Association or Group Action

One final element for Recorders to consider is the opportunity to leverage the Portal(s) to create consistency and improve the quality of services across multiple jurisdictions in a state or region. Portals can serve as a catalyst for developing and adopting standards and common business practices. In the context of an eRecording Portal, having a similar document accepted in one jurisdiction and rejected in another is untenable. Associations of Recorders, PREP Chapters, and other forms of regional interaction may wish to explore ways to facilitate conversation or to organize planning processes in support of state or regional recording standards and practices. Portal managers and recording customers will be grateful for the effort.

Section 5. Setting Up A Portal? – Issues and Challenges

eRecording Portals have been established by both private and public organizations. Establishing, operating and sustaining an eRecording Portal requires organization, persistent effort, management, and governance. A Portal has to be built, have a legal foundation, and have a funding mechanism.

Functionally, a Portal must address the issues outlined in Section 3, and should address the considerations summarized in Section 4. There is much more to a Portal than the content or form of an electronic document, or how the electronic document is passed from Submitter to Portal to Recorder and back again. The following are some of the key issues and options associated with eRecording Portals.

Legal Basis

Before making the investment to build a Portal or integrate with Recorders' LRMS, make sure the state and local laws provide a legal foundation for eRecording. Explicit, enabling legislation may be needed to assure Submitters there is no additional risk associated with electronic documents and electronic signatures, and that electronic documents have the same legal validity as a paper document. All states except Washington, Illinois, and New York have adopted the Uniform Electronic Transactions Act, and 24 states have enacted the Uniform Real Property Electronic Recording Act (see <http://uniformlaws.org/>). Still others have state-specific legislation. It is best to be sure that eRecording is legislatively sanctioned in some way.

If a consortium of Recorders is considering the creation of an eRecording Portal, the enactment of some form of enabling or authorizing legislation should be considered. The extra legitimacy this can provide will further reassure Submitters that eRecording is accepted. It can also be helpful as issues and concerns from local LRMS service providers or other proprietary eRecording vendors are addressed.

Finally, Recorders may be more comfortable participating if there is a memorandum of understanding (MOU) in place that outlines the roles and responsibilities of all the participating parties. However, keep in mind the more organizations required to subscribe to the MOU, the more difficult participation becomes. Imagine large, national Submitters having to execute MOUs with every Portal and Recorder. The administrative and legal weight of such a requirement could discourage their participation.

Funding

The technical and administrative work which must be undertaken to create an eRecording Portal is not free. Even if the code for a turnkey eRecording Portal built on PRIA/MISMO standards was available at no cost in the public domain, it would still have to be modified and customized to meet the requirements of Recorders and Submitters. The eRecording Portals operating today use the following categories of source funding:

- **Targeted supplemental recording fees.** In some states, an extra fee is added to the base recording fee and dedicated to the creation and operation of a Portal. The monies are placed in a special fund to pay for project expenses. In some cases, eRecording service fees are charged to the Submitter to help supplement income for the Portal.
- **Recorder sponsorship.** In this funding category, one or more larger recording jurisdictions with access to an information technology budget contribute resources to create the Portal, underwrite development and operations, while enabling other Recorders to participate at a lower cost.
- **Private Investment.** Private, for-profit technology companies invest capital to enable eRecording as a feature in their product line. In some cases investors create an eRecording Portal focusing on serving real estate document clearing houses or retail customers such as individual banks, law firms, mortgage companies, etc. The service fees and other fees charged to their customers or the Recorders are used to recoup development costs and provide a return on investment.

Building the Portal

To build a Portal, technical expertise is needed to write the code, manage the equipment, install and operate the software, and provide a host of other technical functions. Business and workflow analysis is also recommended. Key decisions should be made on the following topics:

- PRIA/MISMO standards for electronic documents and XML messaging. The standards are open and flexible, so extension is permitted.
- Servers and storage equipment, hosting, internet service, backup and recovery. This topic also includes security measures to ensure that personally identifiable information is protected, and electronic documents are tamper-free.
- Website and internal system requirements such as DB2 v. SQL, web services and HTML, etc.
- Data mapping and integration with the variety of systems that Recorders use.
- Translation or conversion of “SMART” or eSigned documents.

System Integration

In Section 4, the topic of customer and service provider integration was discussed (see the Service Fees and Maintenance Costs section). These integration activities are vital to the success of an eRecording Portal and should be detailed in some form of Service Level Agreement.

The following integration activities should be included or named in the Service Level Agreement:

- Whether or not the use of the XML standards adopted by PRIA and MISMO will be used as a guide for all electronic document submissions.

- The expectations of all parties involved in the transaction.
- The ability to maintain documents and images, either through a browser interface or a web service, while maintaining compliance with image formatting standards and data submission formats.
- A background and credit check of a Submitter should be conducted as a measure of due diligence and fraud prevention.
- Verification with a Submitter's financial institution that its accounts are set up for ACH transactions.

The Portal concept may not be local service providers' first choice, but they will be contributing significant work toward the processing of eRecording documents submitted through the Portal. As a result, the local service providers could benefit from participation, either through compensation for their services or by retaining the Recorder as a customer.

Governance

Who is responsible for making the rules for eRecording in the jurisdictions served by the Portal? The rules can have a significant effect on portal operations. Security and identity verification for Submitters, and the form of XML messaging between the Portal and Recorders, are examples of governance issues. A policy-making body could be a board created by the passage of URPERA by the state or a consortium of elected officials representing Recorders.

A private eRecording Portal will need to be engaged with the governing organization. A collaborative effort can be achieved by all stakeholders participating in the development of policies and providing applicable input.

A consortium of Recorders may be responsible for managing the governing organization, developing and implementing policies, and communicating and enforcing those policies with Recorders and Submitters. Balancing the interests and desires of the individual members for the organization while establishing consistent standards and policies necessary to operate a multi-jurisdiction eRecording Portal may be a challenge. If a URPERA or other statutorily created governing organization is not in place, some form of inter-organizational agreement may be needed to provide the framework for adopting and implementing policies necessary to manage the Portal. In the absence of a governing organization or agreement, each Recorder would work with the Portal(s) to establish policies and procedures.

The matter of governance is not limited to the framework and rules for eRecording. Managing the actions of a myriad of service providers, stakeholder organizations, and other parties can require significant effort. These constituencies each have their own interests to serve ranging from maximizing the income they receive (service provider maintenance costs) to minimizing eRecording service fees (customers, like bankers and attorneys) to resisting the transition to electronic recording (potential Submitters with business models that do not include eRecording).

Marketing and Participation

eRecording Portals have two sets of customers: Recorders and Submitters. Persuading a Recorder to participate in eRecording, follow consistent business rules, and contribute financially to the creation and maintenance of the eRecording integration can be challenging. Recorders vary in many ways and so do their office practices. This variability can make it more difficult for a Portal to provide a consistent process for eRecording.

The challenge of securing Submitter participation in, and adoption of, eRecording is no less difficult. The migration to eRecording by organizations and individuals engaged in the preparation and submission of documents has been slow. The preparation of real estate documents is predominately a local function. Persuading all of the small banks, mortgage companies, law firms, abstract and title companies, etc., to adopt eRecording can be a tedious process.

Before starting an eRecording Portal, plan to invest significant resources in marketing, advertising, and promotion. Secure a booth at trade shows and conventions, advertise in the professional journals and web sites, or sponsor a hole at a Submitter's annual golf outing. Host training sessions or webinars. And yes, make cold calls. Unless there is a mechanism to mandate the adoption of eRecording, expect to work hard to be successful.

Recorders could also benefit by promoting eRecording in their jurisdiction. This could include e-mail campaigns with abstract and title companies, local attorneys and lenders, announcements at PREP meetings, press releases and inserting fliers with paper documents being mailed back.

Service and Support

Section 3 described the functions associated with service and support for Recorders and Submitters. The importance of these activities bears repeating. A Portal acts as the intermediary point between Recorders and Submitters. In the paper recording world, service and support for recording is the function of the Recorder's office. In an eRecording world, the Portal performs a significant portion of customer support activities. If a Portal is successful, with success measured by a high adoption rate among thousands of Submitters, it is important that resources be allocated to provide quality customer support. This support usually encompasses one or more of the following three categories of activities:

- **User operation** includes issues such as user IDs and passwords, the rules for submitting documents, and the basics of how to use the Portal for eRecording.
- **Document management** relates to the tracking and return of documents during and after the recording process. Recorders and Submitters want to know the status of the documents submitted, and they will need help if something does not work.
- **Payment reconciliation** requires a Portal to answer questions about what was charged for each document, or whether payment was received by the Recorder.

Do not underestimate the volume or importance of these support activities. Where possible, set up a knowledgebase of frequently asked questions to help customers find their

own answers. Consider some form of trouble ticket system to track and monitor support issues.

Platform for Other E-Government Services

An eRecording Portal governed by a consortium of Recorders or some other public or non-profit organization need not be limited to only recording services. The technology infrastructure and support systems created to facilitate eRecording may also provide a foundation for the electronic delivery of other services. If Recorders provide other services which could be delivered online or if the Portal accepts payment with credit and debit cards, it may be possible to leverage the Portal in ways not yet imagined. Before finalizing the eRecording Portal design, brainstorm new ideas that could benefit Recorders and their customers.

Section 6. Portal Models and Associated Characteristics

As eRecording has developed and matured, so have the Portals that provide eRecording services. Generally, eRecording Portals provide the functions and services described earlier in this paper. Each Portal model addresses governance, organization, and management issues differently based on their origin. The following is a brief description of the most common forms of eRecording Portals and their distinguishing features. For an illustrative listing of some of the portal models, please refer to Appendix B: Illustrations of Portal Models.

State Chartered Portal

Policy leaders in some states, including legislators or associations of elected Recorders, have encouraged the adoption of eRecording. Through the adoption of enabling legislation such as UETA or URPERA, resources and direction are provided for the creation of a statewide land record information system. The legislation may establish a public governing authority to develop and administer electronic recording services, establish a policy framework to guide the administration of the organization, and authorize resources for the operation of the Portal. As a public entity, the Portal operates like other government-sponsored programs or agencies, including compliance with open records and open meeting laws, and it is accountable to citizens and other policy-making organizations.

Multi-Jurisdiction Portal

As previously defined, an eRecording Portal is “a system which facilitates a many-to-one and a one-to-many relationship between Recorders and Submitters of documents for recording.” Therefore, two or more Recorders can collaborate to provide eRecording services through a single system. Counties or municipalities, as political subdivisions of each state, generally have the power and legal authority to determine how to best deliver their services. This power may include an intergovernmental initiative, agreement, or contract to create a shared structure for facilitating eRecording and administering the service. In this context, a joint effort to provide eRecording services is similar to cities sharing resources to provide public safety or sanitation services.

County Sponsored Portal

In many smaller jurisdictions, an investment in new technology may be considered a luxury. Jurisdictions with higher populations and greater financial resources may be able to afford ongoing technology initiatives. To make technology available to the smaller communities and counties, some progressive leaders in jurisdictions with greater resources may invest in the creation of an eRecording Portal. The services are then extended to the other jurisdictions at a more affordable level. From a functional perspective, the eRecording Portal may operate in the same manner as a Multi-Jurisdiction Portal. The governance structure may differ if the jurisdictions with the larger resource investments want to retain decision-making authority over operating policies and

procedures. The details of this form of sharing arrangement may also be reflected in some form of contract or intergovernmental agreement.

County “Non-Portal” Model

A final variation of a publicly-sponsored eRecording model is the “stand alone” county or recording jurisdiction model. In this example, the Recorder has the resources and internal technical capability to independently offer eRecording services to its customers. The service or system is used only by the individual county and not by other jurisdictions. The eRecording service or organization may not meet the definition of a “portal” as described in this paper. It is included here to acknowledge its possibility in the eRecording marketplace. Benefits of portal models, such as economies of scale, customer service, etc. may be more difficult to achieve with this model.

Private Portal Model

In this portal model, private investors and companies have identified a market opportunity. An electronic document management system is established and actively marketed to both Submitters and Recorders throughout the country. In contrast with the other public sector models, management and operational decisions are made through private structures and executive leadership. Issues relating to service delivery or service levels are defined in various forms of contracts and agreements among the parties. In exchange for a market-based service fee, Submitters electronically submit documents to multiple Recorders throughout the United States.

Section 7. Comparison Discussion of Portal Instances from Viewpoint of Various Stakeholders

There are different points of view when comparing the various government/county sponsored portals to the various privately-developed portals. However, trying to adequately and fairly compare them is like comparing apples and oranges: they are both good for you, but some people prefer an apple, and some prefer an orange.

This section will provide some comparative reference points to seven specific portal attributes. Readers should make their own evaluation of the relevance of these comparative attributes to their specific eRecording Portal need. Additional research may be needed before making any final decisions on the portal model that best suits your need.

Investment Competition – Public Resources and Private Capital

Generally speaking, the funding mechanism for public portals is different than the funding mechanism for private portals.

Public Portals may be funded by a single Recorder, or by a consortium of some or even all of the Recorders in a particular state. This may be accomplished through a one-time “buy in” by the Recorder(s), by a recording-fee-based revenue source, or some related variation. The ongoing maintenance of the public portal may be similarly funded or funded through submission fees charged to Submitters.

Private Portals may be funded through private funds, through investors or shareholders, or some variation or combination of these. Typically, the Submitter pays a per document submission fee to use a private portal. Even with the submission fee, there is usually a quantifiable savings to the Submitter when compared to the traditional costs of sending a paper document to the Recorder to be recorded.

Price Competition – Subsidized Fees and Full-Service Fees

Public portals and private portals structure their fees in different manners. Typically, public portals will structure their costs to accommodate the cost of the portal construction and the ongoing maintenance. It is possible that the fees charged by a public portal may be statutorily set, and may or may not include a return on investment for the entity(s) funding the original portal construction, but making a profit is not a major consideration.

In a private portal, which might be considered a more market-driven environment, the fees are fundamentally designed to cover the costs of doing business, as well as the expense of staying in business. The fees charged will include some factor for a return on investment to the company and/or its owners. The service fees charged by private portals are most likely driven by the laws of supply and demand.

Organizational Authority

For a Recorder to enable eRecording, there must be some legislative authority to do so. In most states, the authority is through UETA, other state enabling legislation, or, in many states, URPERA.

The existence of a public portal, whether built for profit or not for profit, may require statutory authorization. Traditionally, Recorders operated as individual “stand alone” offices carrying out their legislated duties. The collaboration amongst Recorders to build and operate a Portal may not be prohibited by law, but may not be explicitly authorized either.

A private portal generally does not need legislative authority to operate in each state in which it intends to submit eRecordings, other than the legislation allowing the Recorders to accept eRecording. A private portal will need to ensure that it is properly organized and licensed or permitted to operate as a business in its “home” state as well as complying with any business registration or other laws of states in which it does business.

Customer Outreach Practices

With both public and private portals, it is understood that more business is generally a good thing. In the recruitment of new customers, both public and private portals may find themselves competing for new accounts. This competition includes new Recorders as well as new Submitters. Features that may be introduced in the marketing effort to attract more customers include price point, customer service, volume, and system capabilities.

A public portal may have a price edge over a private portal within the “geographic” range of the public portal’s service area. On the other hand, a private portal that serves multiple states may have a servicing edge over the public portal.

Another outreach opportunity exists when public and private portals collaborate for mutual benefit. The public portal could focus its marketing efforts on enabling new Recorders, while the private portal focuses on attracting new Submitters.

Customer outreach by both public and private portals is an important part of eRecording. By marketing to Recorders, as well as to Submitters, a broader reach is being successfully achieved, promoting the benefits of eRecording.

Control of Data and Systems

Does one type of portal offer a greater amount of control of the data/images? Is there an opportunity for commercial activity with the data/images when using one type of portal over the other? Who owns and controls the system used for the submission and recording of electronically-submitted documents? These are questions that may need to be asked. A Memorandum of Understanding can be used by both public and private portals to clarify the requirements and expectations of any of the parties in an eRecording transaction.

The security of the data and images as they move from the originating party, through the Submitter and the Portal, to the Recorder, and the return journey, are all important aspects to consider. Included in the security concern is personally identifiable information that may be included on some documents submitted for recording. State laws vary in how personally identifiable information is handled in public records.

Extension of Services to Under-Resourced Jurisdictions

While eRecording is becoming a relatively mature technology, there are still many Recorders throughout the country that have not taken advantage of the technology. This may be by the choice of decision makers in the jurisdiction, or it may be due to technological or financial limitations or availability.

An under-resourced jurisdiction that desires to participate in eRecording should not be discouraged by the technical or financial issues that it faces. There are portal operators that will participate in or help to facilitate eRecording opportunities for those jurisdictions. Appendix B: Illustrations of Portal Models of this document provides a list of contacts to be considered.

Is it a portal operator's responsibility to assist under-resourced jurisdictions within its geographic footprint, or is it simply in the portal operator's best interest to do so? Is there more responsibility for a public portal to assist these jurisdictions? Do private portal operators share in this responsibility? In either case, if a portal chooses or is mandated to assist, how much should the portal invest?

Technology Goals which Extend Beyond eRecording

eRecording Portals, both private and public, are in the business of transporting electronic documents from the Submitter to the Recorder and back. But are there business opportunities in the portals' relationships with their customers that extend beyond eRecording?

Some Recorders offer more services to the public than just recording land documents. Depending on the region, these additional services can include filing of court documents, issuing marriage licenses and fishing licenses, and handling notary applications to name a few. Recorders may ask the portal to offer some of these additional services.

A public portal, being generally controlled by Recorders themselves, may have an easier path to identify and implement new product offerings. One potential product is the sale of recorded document images. With Recorders being the "keeper" of the recorded images, a public portal may have an advantage in organizing this type of product.

A private portal may also look to its Recorder customers to add to its product offerings. The private portal's road may be more challenging, as Recorders may view the portal's interest in other offerings as potentially taking revenue away from the Recorders' offices.

Conclusion

In summary, both public and private portals are a critical and integral part of eRecording. As eRecording continues to grow with Recorders and Submitters being added frequently, the legal and technical barriers are fewer and farther between. The business of eRecording has had an enormously positive impact on the property records industry.

For the portal builder, be cognizant that there is much work to be done to set up a good portal. Carefully weigh the information provided in Sections 1 through 5 before embarking on the construction of a portal. For the Recorders and the Submitters, the information in Sections 1 through 5 should also be valuable in making the important decision of which portal(s) to use.

Excerpted and paraphrased from a description of the history of PRIA is the following: PRIA provides a forum for the identification, research, discussion, development, drafting and implementation of national standards, best practices and new technology solutions to promote the integrity of the public records system, the efficiency of industry operations and the effectiveness of interfaces between the two. Where consensus forms, recommendations for best practices and standards for the industry are published and distributed.

In the spirit of the PRIA partnership between business and government, the focus of this paper has been to help readers understand what eRecording Portals, both public and private, can and should do. As a customer or prospective customer of any eRecording Portal, whether a Recorder or a Submitter, we encourage readers to evaluate their options for eRecording Portals based on the contents of this paper, and how the Portal can best suit their business needs.

Appendices

Appendix A: Resources and Reading

PRIA/MISMO
eRecording Business Requirements – March 11, 2008

PRIA
How to Get Ready for Electronic Recording - Part 1 – The Recorder’s Guide – July 14, 2009

PRIA
How to Get Ready for Electronic Recording. – The Submitter’s Guide – July 14, 2009

PRIA
The Models of eRecording – A Continuum of Electronic Recording Updated – July 14, 2009

PRIA
eRecording XML Standards – Version 2

PRIA
eRecording XML Implementation Guide for Version 2.4.1 – March 5, 2007

PRIA
Electronic Recording Security Considerations

Appendix B: Illustrations of Portal Models

This listing of portal operators is not comprehensive, but includes those operators who responded to a call for information. All information below was furnished by the organizations.

CERTNA

Patrick Honny, executive director
222 W. Hospitality Ln., First Floor
San Bernardino, CA 92415
909.386.8852
patrick.honny@CERTNA.com

Model: Multi-County Portal (*CERTNA (California Electronic Recording Transaction Network Authority) is a stand-alone public entity created by a coalition of counties. It is governed by a Board of Directors representing each county that is a member of the Authority.*)

Years in Operation: 2

Website: www.CeRTNA.com

CERTNA is a public agency, Joint Powers Authority (JPA) enacted by a coalition of counties, established to develop, implement, and maintain a single, standardized California Department of Justice compliant Electronic Recording Delivery System (ERDS) available to all California counties. In addition, CERTNA has also developed a separate G2G (Government-to-Government) portal allowing counties and qualified submitting government agencies to standardize on a single interface.

CERTNA ERDS and G2G rely on an extremely hardened transport layer utilizing encrypted and signed XML with embedded TIFF images for data transfer. The system is entirely web-based providing submitters and Recorders with an easy to use and support platform. Federal Information Processing Standard Level 3 compliance is obtained through the use of USB token-based certificates and two-factor authentication.

Ingeo Systems, Inc.

Jim DeGaetano, director of national sales
1300 N. 200 E., Ste. 118
Logan, UT 84341
855.200.1150
sales@ingeo.com

Model: Private Portal (*Ingeo is connected to government recording offices across the nation.*)

Years in Operation: 15

Website: www.ingeo.com

Ingeo Systems is the nation's largest e-recording network. Through Ingeo's secure, web-based service, submitters process and transmit electronic real estate documents to government recording offices across the nation. E-recording saves time, reduces costs, and eliminates payment errors for both submitters and counties. A PC, internet connection, and a printer/scanner are all that's needed to e-record. It's easy to set up and simple to use. For more information e-mail sales@ingeo.com, call 855.200.1150, or visit our website at www.ingeo.com. Ingeo is owned by Corporation Service Company, www.cscglobal.com.

Iowa County Recorders Association

Phil Dunshee, project manager
8711 Windsor Parkway, Ste. 2
Johnston, IA 50131
515.491.8939
phil@clris.com

Model: State Chartered Portal
Years in Operation: 8
Website: www.iowalandrecords.org/esubmission

Iowa Land Records provides access to statewide real estate records through a searchable database. Access to document images is also provided to registered users.

The Iowa Land Records E-Submission service enables authorized users to electronically submit documents to Iowa counties for recording. Authorized submitters may send documents for electronic recording through a web browser interface. Qualified organizations are provided with access to a web services interface.

Iowa Land Recorders is governed and managed by the Iowa County Recorders Association through an intergovernmental agreement known as the Electronic Services System (ESS). An ESS Coordinating Committee comprised of County Recorders and stakeholder organizations oversee the operation of the system.

Simplifile

Mark Ladd, director of channel sales
4844 N. 300 W., Ste. 202
Provo, UT 84604
800.460.5657
mark.ladd@simplifile.com

Model: Private Portal

Years in Operation: 9

Website: www.simplifile.com

Simplifile is a private sector portal with a national footprint. We engage counties and submitters of all sizes. On the county recorder side of the industry, Simplifile is integrated with over 100 land records management vendors as well as all the public sector sponsored portals currently in operation.

We process all PRIA eRecording models and we process all document types, including those subject to taxes and workflow routing with other county offices.

We provide full training and continuing support for our customers. Our support staff is available 24/7, including holidays.

Simplifile is committed to expanding eRecording throughout the country by enabling counties of all sizes to accept electronic documents. We also support the largest network of document submitters. This combination of county and submitter networks provides the maximum opportunity for industry participants to maximize the benefits of eRecording.

Glossary/Definitions

Automated Clearing House (ACH): An electronic network for [financial transactions](#) in the United States. ACH processes large volumes of credit (“push”) and debit (“pull”) transactions in batches. ACH credit transfers include [direct deposit](#) payroll and vendor payments. ACH debit transfers include consumer payments on insurance premiums, [mortgage loans](#), and other kinds of bills.

Document submitter: The party in possession of the document(s) to be recorded – through this document known as Submitter.

File Transfer Protocol (FTP) is a standard [network protocol](#) used to transfer files from one [host](#) to another host over a [TCP](#)-based network, such as the internet.

Intermediate receiver: Additional government agencies within a jurisdiction potentially involved in the document process prior to recording and ultimately, becoming part of the public record.

Jurisdiction: The term “jurisdiction” is used rather than county/village/city, etc. if a reference to the area is needed.

Land Records Management System (LRMS): The integrated interface used by the Recorder to record and maintain land records in an electronic/digital environment. May also be referred to as the local index and imaging system.

Recorder: The governmental office responsible for recording and maintaining the land records within its jurisdiction. This includes Recorder of Deeds, Registrar, Register of Deeds, Auditor, and often Clerk.

Submitter agent: The system/technology used by the document submitter to transmit the document to the Recorder.

Web Browser: A software application for retrieving, presenting and traversing information resources on the World Wide Web. An information resource is identified by a Uniform Resource Identifier (URI) and may be a web page, image, video or other piece of content. A web browser can also be defined as an application software or program designed to enable users to access, retrieve and view documents and other resources on the internet.

Web Service: A method of communication between two electronic devices over the World Wide Web. A Web service is a software function provided at a network address over the web or the cloud, it is a service that is "always on" as in the concept of utility computing. A Web Service has also been defined as a software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically Web Services Description Language, or WSDL).

eXtensible Markup Language (XML): A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. It is defined in the XML 1.0 Specification and several other related specifications, and is an open standard.