Conclusion

It is evident that electronic signatures will continue to evolve and become an important element in the communication between and among colleges and universities, government agencies, private companies, and the public we serve. The role of the financial aid office is to stay abreast of the trends and innovations and become a knowledgeable partner in developing policies and procedures in the use of electronic signatures on our campuses. ●

Electronic Court Filing Technical Standards for *Smart*, but Non-Technical Court People

by **Roger Winters**

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The following is excerpted from a paper I prepared for the E-Court 2002 Conference in Las Vegas, Nevada, in December 2002. Its purpose was to help a broadly representative group of court officials and staff to understand the scope and significance of both technical and process standards for electronic filing in the courts that are now being developed. Without national standards, each court would develop its own e-filing technology; litigants would have to learn and master software, procedures, and formats for each court. The benefits of electronic court records, improving processes and information in the courts would be unrealized. This article describes the technical standards. In a future issue, the subject will be the functional and process standards for electronic court filing.

Concepts and Buzzwords

It helps to get the "lingo" down, to understand more than superficially what electronic filing technical standards are about. Terms of art have rather precise meanings in the *Legal XML Electronic Court Filing Technical Committee*'s[1] conceptual design and the technical standards they are writing. These same terms are also used to describe business functions in court electronic filing systems. The following descriptions for these terms are not meant to be a glossary. This is my effort to describe not just how the terms have been used, but what they mean, how they fit in the process of electronic filing under the proposed *Legal XML* standards, and why they matter to courts.

Electronic Filing Manager (EFM). Any court receiving electronic filings has to have an EFM system, which is a software application (whether off-the-shelf or custom-made). That is not to say the court must build and operate it on its own; some vendors provide the EFM for a court to buy, and some go further and receive the filings, acting as the court's EFM by getting them ready for the court's systems to process. An EFM has to be able to receive and interpret messages that contain electronic filings, so it must use standards that describe and define everything necessary to accomplish its tasks. The job performed by an EFM system includes receiving electronic filings sent to it, checking them for acceptability (e.g., being virus-free, directed to the right court, and in an accepted

format), rejecting unacceptable filing attempts, emitting messages acknowledging filings, recording data (such as date and time of receipt), and processing the received filings and related data so they will be suitable for the court's next steps for handling them.

Case Management System (CMS). Every court has a CMS, whether called that or not. The CMS could be a single system that is custom-made for one court, a system many courts share (e.g., a statewide application centrally administered), an "off-the-shelf" system, a custom system from a vendor, or a combination of several systems, each doing part of the work of a CMS. The work that is done inside a CMS includes review of filed documents, indexing (or docketing) them so they can be identified with their cases and retrieved, routing them for special processing (such as entering something in a court calendar or recording a payment in a civil judgment), and putting them into the court's official case files. Electronic filing standards do not deal with how to set up a court's CMS. They do have to define a standard so each system designer will know where the software will interact with any Application Program Interface (API) necessary to bring electronic filings and associated data (and meta-data) in, to hand it off to the CMS for processing. The court's DMS (Document Management System) is a component of its CMS.

Document Management System (DMS). Every court has a DMS, whether called that or not. Sometimes this is called "The Files," "Vault," or "the imaging system." Electronic filing technical standards do not cover how to build or operate an electronic document management system. The functional standards for electronic filing strongly recommend that the court develop an electronic DMS. However, it is conceivable that a court could receive electronic filings and, because it had no resources for an electronic DMS, would then print them out onto paper and put them in a traditional hard copy case folder filing system. The technical standards for electronic filing do not specify how electronic documents, once filed, are to be managed, maintained, distributed, secured, and retained. The functional standards include principles and practices that apply to operating an electronic DMS, but they do not specify technology a court must use to implement them.

Electronic Filing Service Provider (EFSP). Documents are submitted for filing by the court itself, by the clerk, by the prosecutor and defense, by agencies, by attorneys, law firm staff, and by individual litigants. Sometimes the one who has prepared a document for filing takes it to the Courthouse and drops it off at the clerk's office. Often, delivery is done by a messenger service, from the law firm, office, or a company specializing in delivering court documents. When electronic filing is in place, there must be electronic systems to prepare and send the electronic documents to the court's EFM. A court itself might choose to be an electronic filing service that anyone can use to file. A court could select a vendor to provide this service on its behalf, routing documents originating in the court system to the EFM. Private, for-profit EFSPs will provide e-filing services to lawyers and others who would not want to go through the filing steps alone. As with messengers handling paper documents, experienced EFSPs will be more attractive for e-filers to hire, because they will be able to get filing done quickly and correctly. Alone, a filer might find the filing tasks involve too much trouble and time. EFSPs will provide "value adds," increasing their customer appeal. Since technical standards will be used, courts would not have to be concerned about whether a filing arrives from a lawyer's linking directly to the EFM or from sending it in as part of a batch of filings from the lawyer's EFSP. Larger law firms will have in-house EFSP-type systems to perform the electronic filing in all of the courts where the firm has cases.

Electronic Court Filing Envelope. This is the principal subject of the Court Filing 1.0 and 1.1 specifications developed by the Legal XML Electronic Court Filing Workgroup/Technical Committee. The envelope is a standardized XML structure created just to submit electronic documents for filing. The documents themselves are not necessarily written in XML; they may be any electronic format the court accepts. Today, many courts with electronic filing systems are accepting documents that are in the Adobe Portable Definition Format (PDF). The envelope is strictly structured to contain needed data elements specified in the Court Filing 1.x standards, so filings can be conveyed to the court's EFM in a standard way. EFSPs would use the same envelopes for filing electronic documents with any court that uses the standards.

Interoperability. This concept describes a major result that technical standardization in electronic filing is to achieve. Using the standards, a litigant or vendor (EFSP) must be able to successfully file documents electronically in more than one court. The courts must be in different jurisdictions or even different states. Another measure of successful interoperability is when one court receives electronic filings successfully from more than one EFSP. Without technical standards, there would be no basis for interoperability.

Query and Response. This aspect of technical standards for electronic filing is to ensure there will be a regular, predictable mechanism for an EFSP to submit requests for information (queries) to a court's electronic filing system (EFM), expecting standard types of responses. An EFSP wanting to send a client's filing to a court it has never filed with before will need to get data about the case to do so. This technical standard defines the types of queries, seeking data about the calendar, case details (e.g., identification number), names of the parties, and so forth.

Court Policy and Case Data Configuration (CDC). This part of technical standards relates to an EFSP needing to obtain information from a court about what it does and doesn't accept as electronic filings, what differences from the standards it has in its systems, how data elements have to be formatted to be accepted, and other technical details. Policies, like the times when the court is "open" for electronic filing, whether documents that initiate a case or require a fee can be filed electronically, and other local details tell how the court complies with and varies from the standards. The policy and data configuration information variances reflect the given court's system design, court rules, and other local conditions affecting what can and cannot be done, and how, in their electronic filing transactions.

The Technical Standards at Work

What follows is my attempt to describe in words what is depicted in rather complex diagrams in the Standards for Electronic Filing Processes. I believe it has sometimes been difficult for the authors of these technical standards to explain them to non-technical audiences. Concepts and details that have required considerable discussion and debate while technical standards were developed have sometimes been over-explained before people for whom the issues involved are not so significant.

Communicating about technical standards is a tricky business. Often, everyone in the room seems to imply understanding by nodding their heads or not asking questions. Individuals who need to ask questions may not because they have the erroneous perception that they alone "don't get it." They may go away from such presentations feeling they can only defer to those who "seemed to know what they were talking about." They withhold not only their questions about the technicalities but also insights and information they might have shared about judicial process, operations, and other business experiences. Standards for the courts need to reflect both the technical expertise necessitated by the technology involved and the business expertise about the way courts work.
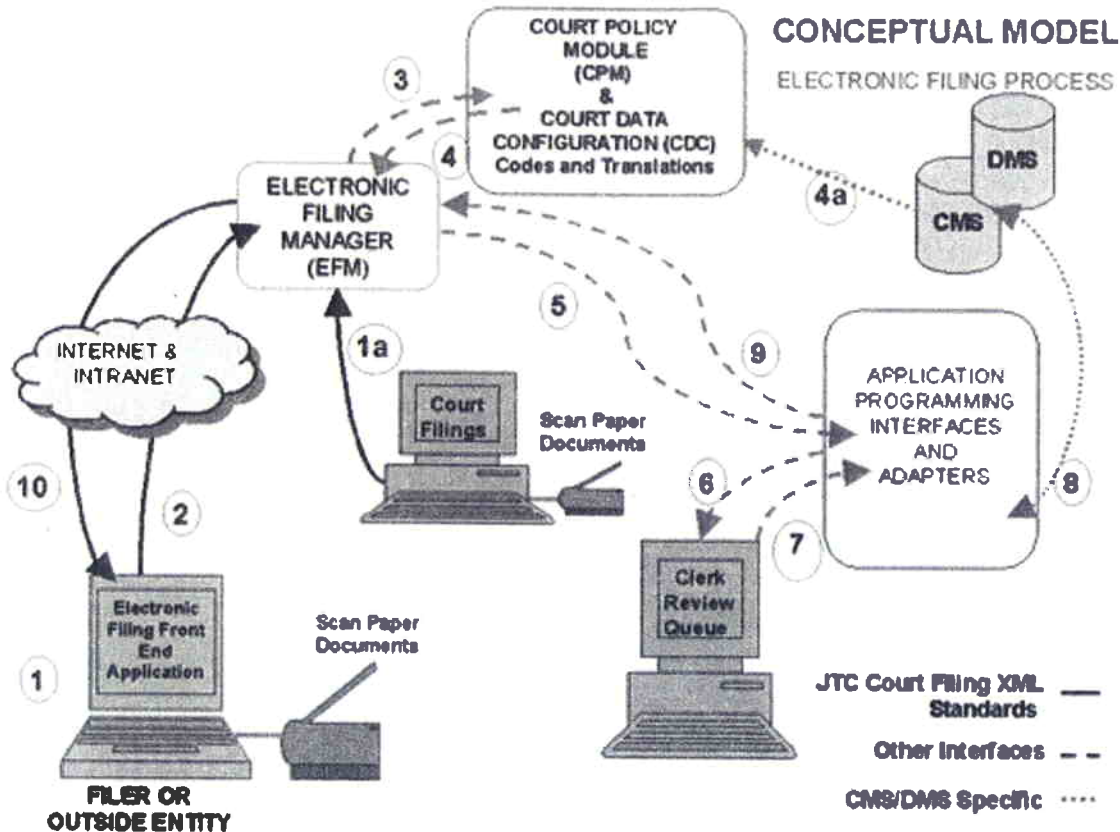
The following descriptions of the components of the "architecture" for electronic filing systems as developed by the OASIS Legal XML Electronic Court Filing Technical Committee are how I understand them. I am neither a computer scientist nor a programmer nor an expert in XML. My knowledge of court business reflects my position within the office of a clerk of court for the past fourteen years. My descriptions will be incomplete or inaccurate, technically, but I hope they nevertheless succeed in helping non-technical readers to understand what they are about.

Remember, in dealing with technical information, the first question to ask is: "How much—if anything—do I really need to know?" These descriptions are high level descriptions of the different specifications written or planned for the "Version 1.x" standards. Even though the functions and processes will be divided and organized differently in the "Version 2.X" schema-based specifications to come, the whole story will remain essentially the same.

Electronic Court Filing. The job of the "XML electronic envelope" that is the principal subject of the Court Filing specification is to describe how to build a standard container for sending electronic documents to a court for filing. Each envelope would have the same basic structure and carry similar "meta-data" needed to accomplish the filing transaction. In a way, each envelope constitutes a "cover sheet" for the filings it contains. The format for the electronic documents to be filed does not matter to the envelope—filings might be PDF,

The Electronic Filing Process

On December 5, 2002, the Joint Technology Committee of COSCA/NACM accepted the report of the National Consortium for State Court Automation Standards adopting the E-Filing Functional Requirements as a "recommended standards." As a result of the action of the Joint Technology Committee, the recommended standard will be submitted to the COSCA and NACM Boards of Directors for approval at their next meetings scheduled in the spring of 2003. The complete report can be found at http://www.ncsconline.org/D_Tech/Standards/Standards.htm#Electronic%20Court%20Filing%20XML%20Standards. The following diagram and is part of this report and visually explains the electronic filing process.

1 & 1a	The self-represented litigant, lawyer, or outside agency uses a browser application as its Front End Application, which may be a court supplied application. They enter "cover sheet" data and include the electronic document. If there are non-electronic documents, the documents are scanned and attached within the "legal envelope" as well. The court may use the same Front End Application.
2	The electronic filing package of data and documents is sent over the Internet or Intranet to the Electronic Filing Manager (EFM).
3, 4 & 4a	The EFM checks the Court Policy Module and the Court Data Configuration to ensure that the filing is of a type acceptable to the court, that it contains appropriate codes for the court, that it follows all court rules for filings, and that it knows where to find the court. These actions are planned to occur on a periodic basis rather than with each individual filing. The EFM will "inform" the Front End Application about these rules so that verification can occur prior to the document being sent to the EFM. The Court updates the Court Policy Module and Court Data Configuration from its systems on a periodic basis as policies and codes change.
5	Once the filing has been received by the EFM and the EFM has acknowledged or rejected the filing in compliance with the CPM and CDC, and performed its functions for validation, then the EFM passes the filing package to the Application Programming Interface (API)
6	Depending on the requirements of the court, the filing is passed to a Clerk Review Queue (6), or if the court allows automatic update of the CMS without clerk review, then the filing bypasses the Clerk Review. In some implementations, the Clerk Review Queue will be a part of the EFM rather than the CMS.
7	After the clerk reviews the filing, it is sent back to the standard API for processing. If the filing is not accepted by the clerk, a message is sent back to the filer (9) without any update to the CMS. If the filing is accepted by the clerk, a message is returned to the filer, and the information is sent to the CMS.
8	The court adapter "maps" data and passes data and documents to the court's Case Management System and/or Document Management System. Assignments of permanent file numbers and other acknowledgements and data from the CMS or DMS are returned back to the filer (9).
9	Communications back to the EFM go from the API and adapter back to the EFM.
10	The EFM returns acknowledgements and associated data to filers or outside entities.

XML, TIFF (images), word-processing, or other formats, depending on the court—but the envelope is always constructed in XML.

Each envelope was defined as being able to include any number of filings provided they are intended for a particular case in a particular court. To file in multiple cases in the particular court, multiple envelopes would be needed. Each envelope, then, would contain information about the court and about the case, so the systems through which the envelope would pass (from an EFSP to an EFM and, finally, to a CMS) could tell what they would find inside. Each envelope would contain one or more filings for the one case. Each filing inside the envelope would contain basic information about the court, the case, and the filer. The filing would also contain information about its document and any attachments to it. Sitting outside the document itself, all of this "meta-data" in the court filing envelope would be available for the court's programs to locate, interpret, and process. Once a document was received for filing and passed into the court's Case Management System for storage in the Document Management System, the work of the envelope would be complete. The envelope then could be saved or discarded, as the court wished.

Another essential job of the specification is to check the filings for basic acceptability, assign appropriate date and time information, and generate data that can be relayed back to the filer (or at least to the EFSP the filer used) acknowledging the receipt of the document(s) by the court. Accordingly, the specification explains the data elements that are to constitute that acknowledgement.

Query and Response. This component is to define "standard queries" that pertain to electronic filing transactions. In the paper world, before filing a document in a new court, one might call the clerk's office and ask what case numbers they have associated with a particular litigant name, what calendar dates relate to the case in which one is to file, what other litigants are in the case, and so forth. Since every court's case data system is likely to be different, to make it possible for an EFSP's filing system to discover information it would need by an automated query (rather than a human being getting someone on the phone), there would have to be standards. EFSPs will have to be able to find out how to structure the queries, what data elements they could ask for, the types of responses they might expect, and how they would need to format the data making up the query.

They would also need to know how their software making the query would be expected to interact with the court's own systems. Another specification, called Case Management System (CMS)-Application Program Interface (API), was combined with this one. The tasks performed under CMS-API relate to ensuring there will be standard interfaces at key points where an electronic filing query or application will meet the court's Case Management System. EFSPs and filers need to know what the standard software interfaces and routines (APIs) will be so they can transact the necessary information exchanges. This specification got a great deal of attention from application developers and vendors because the technicalities of the interface standards would greatly affect their ability to implement compliant products. (I do not pretend I have understood the technical details of this—I do not think I really need to; this may be true for you!)

Court Policy and Court Data Configuration. Originally planned as two specifications, when combined, these covered similar kinds of information. In general, a court's "policies" are the local rules, technical requirements (e.g., how data elements are configured), extensions to the standards, and statements explaining what the court does and doesn't support or allow to be filed electronically. A court may not be able or willing to accept electronic filing of documents that require a fee payment. That would need to be evident from checking the policy specification for that court, so EFSPs and other filers would be able to know that ahead of time and avoid having their effort to file rejected. Different courts will have different rules on when a person is allowed to file electronically and on how the date/time of a filing is officially assigned. Courts have certain ways of styling their case numbers, captions, and the other data elements they use, and those details need to be available in this specification, so new EFSPs and filers can know them in advance. Courts may use special codes, another example of the kind of "data configuration" information that needs to be published in this specification. While not every local court rule would be embodied in this technical specification, those that affect, expand, or constrain the filing process for the court vis-à-vis the standards must be discoverable electronically. It would be foolish to require

every would-be filer to call the clerk to find out such technical details as can be instantly discovered by referencing the XML policy document. An important additional part of this specification is information on how an EFSP or filer can discover when a change has been made in the court's policies.

Court Documents and Court Forms. These specifications are to describe how a filed document written in XML would be structured and how information in it would be tagged, so the court's systems could use standard methods to locate and act on that information. Some of the dimensions of a court document are common to almost every filing—information about the court, a case identifier like a case number, the caption (e.g., "Smith vs. Jones"), a place where signatures are affixed, the signatures, and so forth. Other dimensions of a court document are structural, including elements like paragraphs, subparagraphs, footnotes, tables of authorities, and so forth. These fundamentals were addressed in the Court Document 1.1 specification that the Electronic Court Filing Technical Committee approved recently as a "proposed standard." Further specifications that relate to the specialized terms and data elements used in the many kinds of case and document types found in a court system were not attempted in Court Document. The work on such detailed content was instead assigned to a Court Forms specification that is not yet in process.

Summary

The above specifications make up a sort of "family" of XML documents (Document Type Definitions, or DTDs, for the "Version 1.x" level; XML Schemas for the "Version 2.x" level). Those specifications are to provide the technical and business information necessary for an electronic filer, electronic filing service provider, and a given court accepting electronic filings to do business electronically. Using the Legal XML standards, an EFSP, law firm, or other filer would be able to perform those transactions successfully and through automated means. From the filer's point of view, every court would be "doing electronic filing" in a standard way. Each court would be requiring an XML envelope that contains the electronic document(s) being filed. There would be standard exchanges of information to ensure the proposed filing transaction is allowable with that court, to confirm the filing fits a particular case with particular litigants, to identify the local variances from the standards (limitations or extensions), and so forth.

As much of these standardized transactions as possible would be taken care of automatically through interaction of one system with another. The filer will achieve the goal of sending filings without going to the courthouse. The court will receive filings electronically, in a format and inside an envelope with data that suits the court's needs, policies, and system requirements. Filed documents would be acknowledged to the filer and admitted into the court's case and document management systems, finding their way into the case files and becoming accessible to the court's file users. One would not have to learn and comply with a different technology or architecture to file in another court, so long as that court also relies on the standards. This, at least, is the theory, and we hope soon to have ample opportunities to judge how well these standards work from practical experience. ●

Notes

1. This is the group principally responsible for the development of technical standards for XML in electronic filing in the United States. For information about this group, see http://www.oasis-open.org/committees/legalxml-court-filing/.

2. "Meta-data" is data about data. It is something that has information related to a data item or element. "Tags" are meta-data for the data elements to which they refer.